WE ARE WELDING

Catalogue 2021

Automation

The EN 1090 WPQR Package is now free of charge!

3 Years / 5 Years transformer and rectifier
ewm-warranty*
3 shifts / 24 hours / 7 days
*For details visit www.ewm-group.com

Valid from 2021-06-01

The new dimension in welding

MULTIMATRIX®

/// Perfection is the principle

MULTIMATRIX® is the devised solution for all your current and future welding tasks.
ewm further develops welding processes, material and power source characteristics, networking and individual operation on a continuous basis.
MULTIMATRIX® technology makes it possible to adapt to such new developments or welding tasks quickly using data exchange via a USB flash memory or LAN/WiFi network.

Simply...

… better welding
Continually optimised welding properties in all MIG/MAG processes

… greater sustainability
Less power consumed due to highly efficient welding procedures and inverter technology with standby function

… better quality
The ewm Xnet software is suitable for recording, analysing and optimising all welding data, with optionally either LAN or WiFi interface – ideal prerequisites for Industrie 4.0

… better overview
Convenient, intuitive operation – Expert 2.0 control with plain-text display on large screen

… greater process reliability
Precise wire feeding with the drive 4X wire feeder

… greater security of investment
Permanent further development of MULTIMATRIX technology to achieve best possible efficiency and quality

EWM AG – Simply more!

EWM has a fully coordinated system in which all components are systematically geared towards delivering consistently high welding quality, conserving resources and reducing the workload. The advantages for our customers are obvious – the complete product portfolio means that they only have one contact. EWM provides you with advice and service. We also guarantee the quickest availability and delivery times for all of our products. In doing so, we take technological responsibility for the entire welding process.
This price list contains the complete EWM product range from welding machines.

■ Advice + service

Have you got any questions which are not answered in this price list? Our global EWM branches and sales partners are happy to help and advise you at any time. You will find your local partner online at www.ewm-group.com. Alternatively, please contact the EWM works team at any time on +49 2680 181-0 or info@ewm-group.com.

■ Prices

See title page for validity. All price sheets with earlier dates are hereby void. The prices quoted are in euros before VAT.

■ Financing

Do you only require a machine temporarily or you would like to finance it? We will naturally be happy to provide you with an attractive leasing or rental quotation. Contact us or your dealer.

■ Up to five-year warranty

Our welding machines combine future-oriented, state-of-the-art technology of the highest quality in all their high-tech components. We take full responsibility for this! Each of our products is carefully checked. We have every faith in our products and therefore provide you with a five or three-year warranty on our welding machines, also for 3-shift operation, in accordance with the current version of the warranty conditions.

■ Returns

If you do need to return a product for some reason, please discuss this with the seller in advance. Your return can only be accepted and processed to your satisfaction as quickly as possible in accordance with our return conditions if previously agreed upon and if the goods are in their original packaging. Custom-made products cannot be exchanged.

■ T&Cs + technical data

All products are supplied in accordance with the Terms and Conditions of the applicable EWM sales company. The information in our documents is non-binding. We retain the right to make changes on the grounds of technical developments or errors.

Contact EWM

■ Internet www.ewm-group.com

■ E-Mail info@ewm-group.com

You can contact us by phone Monday to Friday from 7.30 am to 5 pm 02680-181-0

■ Sales sales@ewm-group.com

■ Service service@ewm-group.com

■ Training training@ewm-group.com

■ Products and process technology welding@ewm-group.com

■ Marketing marketing@ewm-group.com

■ Technical documentation documentation@ewm-group.com

■ Quality management qm@ewm-group.com

■ Automation automationsystems@ewm-group.com

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all in – All characteristics and welding processes are included in the machine price

EWM machines are always equipped with all device-specific welding processes for steel, CrNi and aluminium – that is EWM's "All-in" philosophy.

- **forceArc puls**
  Fast, spatter-free and cost-effective pulse welding for the entire performance range
- **forceArc**
  Powerful arc for the higher performance range
- **coldArc/coldArc puls**
  Heat-reduced short arc with significantly less distortion; suitable for thin metal sheeting and root welding; coldArc puls for the higher performance range
- **rootArc/rootArc puls**
  Short arc for effortless gap bridging; rootArc puls for the higher performance range
- **superPuls**
  Quick and easy welding of vertical-up welds without using the "Christmas tree technique"
- **MIG/MAG pulse arc**
- **MIG/MAG standard arc**
- **TIG and MMA welding, gouging, MIG brazing and much more**

EN 1090 WPQR Package

Now free download in PDF format!

Save time and money on qualification of welding processes: The ewm EN 1090 WPQR package provides you with WPQR certificates and welding procedure specifications for almost 90% of all standard welding positions and joints, usable with many ewm welding machines[1] and easily extended.

With welding consumables tested for suitability, the same WPQR certificates can even be used for welding machines by any manufacturer using the appropriate corresponding welding consumable.

You will now receive the EN 1090 WPQR package as a free PDF download whenever you purchase a new welding machine from the alpha Q, Phoenix, Taurus Synergic S or Picomig machine series!

This is how it works:

1. You acquire a new ewm welding machine from the alpha Q, Phoenix, Taurus Synergic S or Picomig machine series.
2. Register it with the machine serial number at www.ewm-group.com/en/registration

   Registration ensures that you are informed about all updates, add-ons and changes!
3. Once registration is successfully completed, you can then simply download the EN 1090 WPQR package. The download link is sent to you together with your certificate.

Alternatively, you can also purchase the EN 1090 WPQR package:

- **EN 1090 WPQR package folder**
  A folder in paper format at cost price.
  The package can also be downloaded in PDF format.

Type	Description	Item no.	PG	Price
EN 1090 WPQR package folder	EN 1090 WPQR package in a folder	090-008803-00000	D1	323,00 €
EN 1090 WPQR package download	EN 1090 WPQR-package German as a download	KOS-V00055-00000	N1	17400 €
EN 1090 WPQR package download	EN 1090 WPQR-package English as a download	KOS-V00067-00000	N1	174,00 €

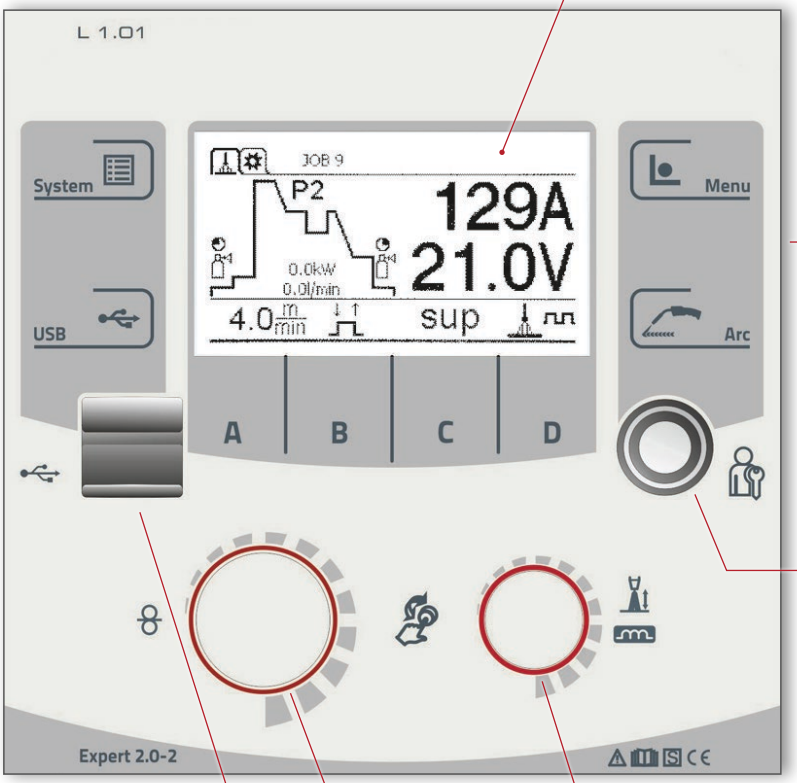
If no new welding machine is purchased, the EN 1090 WPQR package costs 305,00 € in a folder / 169,00 € as a download! If a new welding machine from the alpha Q, Phoenix, Taurus Synergic S or Picomig series is purchased downloading the package is free and the package folder costs 129.00 €.

Would you like to know what is included in the package?
If so, just ask for the free demo version at
www.ewm-en1090.com

[1]This qualification may also be used retrospectively for all previously purchased inverter machines mentioned above (manufactured in 2010 or later).

All information at a glance,
quickly accessed

Direct access to expert knowledge. Numerous welding tasks can now be set up and read more easily. This means that all information displays can be individually adapted to the requirements of the user; operating errors are thus drastically reduced. Thanks to the new full-text menu, you also have the entire welding process and all important parameters available at a glance.



Clearly arranged LCD screen

- Plain text display for welding parameters and functions
- You have a perfect overview of everything, even through a welding helmet
- Anti-glare surface, easily readable even with reflected light

Practice-based control

- Clearly arranged, self-explanatory key buttons and LCD screen
- Membrane keyboard – resistant against dust, dirt and moisture
- Matrix operation – quicker to change between levels

Xbutton

- Scaled access authorisation
- Individual menu adaptation

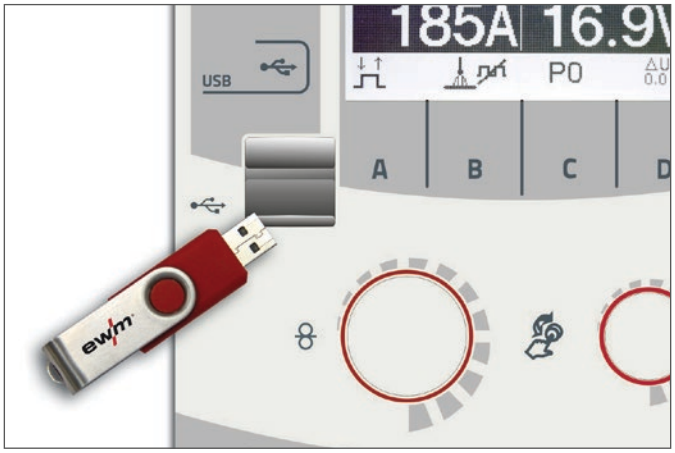
Click wheel

- Easy and intuitive to operate

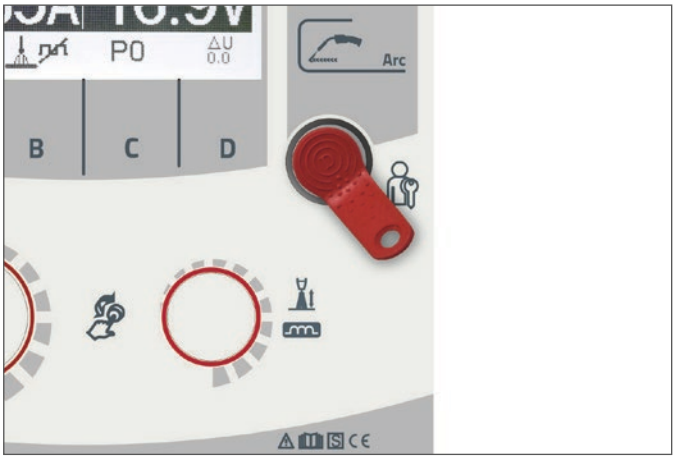
USB connection

- Offline data transfer

Easy data exchange using USB flash memory



Access authorisation using Xbutton



LAN/Wi-Fi networking of power sources

Your benefits

Invest in the future!

- ewm is further developing welding processes, material characteristics, networking and individual operation on a continuous basis.
- MULTIMATRIX technology makes it possible to adapt to these new developments or welding tasks quickly using data exchange via a USB flash memory or LAN/Wi-Fi networks.

Individual user rights

- Administration of access rights for different control operating levels
- Identification of the welder
- Provision of individual welding parameters for each welder
- The ewm Xnet quality management software provides precise final costing thanks to data recording on an individual basis for each machine and application
- Extremely robust and considerably more durable than RFID chip cards, for example
- Incredibly easy to use even when wearing gloves
- Practical as it can be carried on a key ring, for example

Networking of any number of power sources

- LAN/Wi-Fi networking via built-in Expert 2.0 control or an external LAN/Wi-Fi gateway

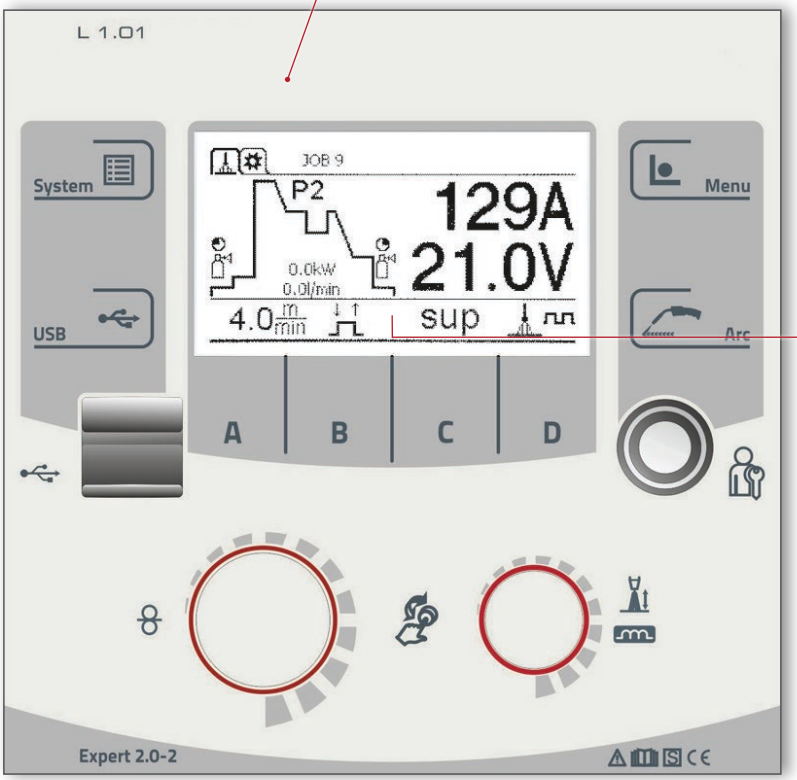
You will find detailed information on networking ewm welding machines on pages 46-53 or in the ewm Xnet quality management software brochure

Easier to operate

Control with Expert 2.0 LC display – functions

Everything at a glance, with quick access

Expert 2.0 features different practical user menus which ensure safe operation of the welding machine



Display of the effective arc power

- For easy calculation of the energy per unit length

Robust protective screen for the display

- Scratch-proof protective screen for the display made of acrylic glass with hard coating
- Always clearly legible – no signs of wear, unlike touchscreens, for example
- 3 mm thick acrylic glass protective screen protects the LC display against damage

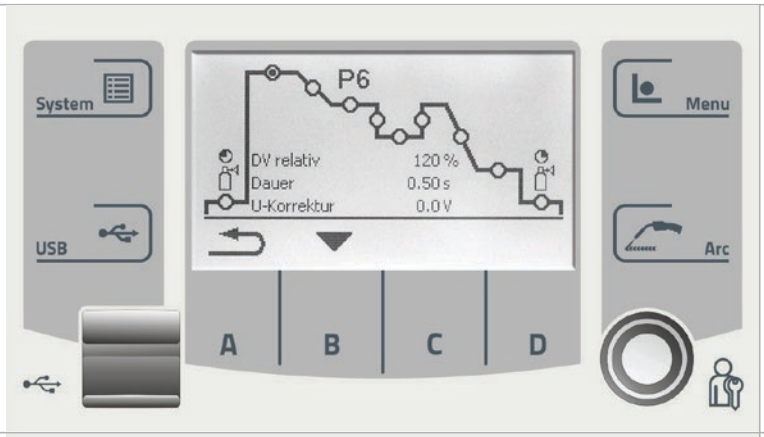
Reliable selection of welding parameters

- Selected using durable hardware keys
- No signs of mechanical wear on the LCD display, unlike touchscreens, thanks to hardware keys

Expert 2.0 remote control

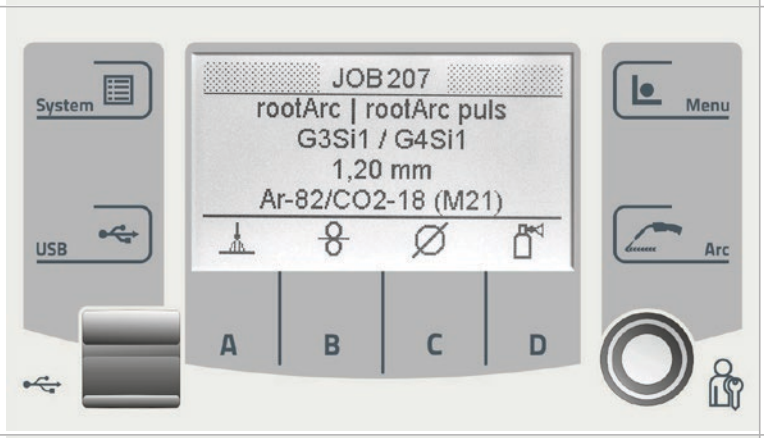
- All Taurus Synergic S, Phoenix and alpha Q machines can be equipped with the full functionality of the Expert 2.0 control panel.

Your benefits



Display and change of welding program sequence

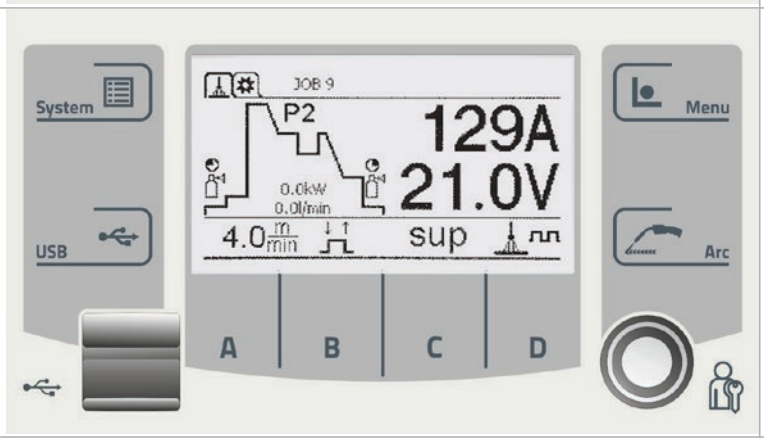
/ You can set all parameters in the program sequence



Start window for the JOB (welding task) selection

/ Practice-based control

/ JOB (welding task) easy to select using click wheel
- welding process
- material type
- gas type
- wire diameter



Screen showing welding parameters

/ Displays the effective arc power for a simple calculation of energy per unit length

/ Nominal, actual and hold values

/ Operating modes

/ Status messages

Language selection menu

/ The user interface is available in 13 languages

Phoenix puls alpha Q puls

forceArc puls

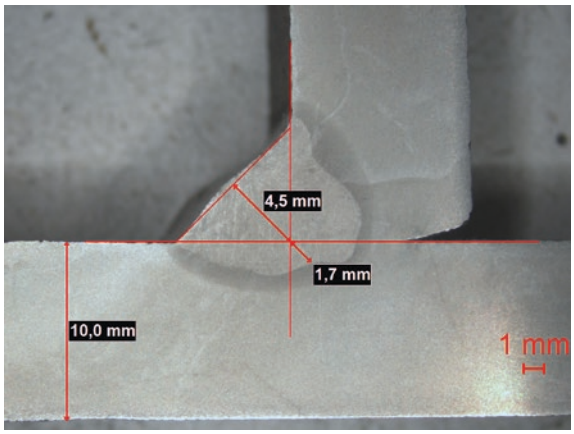
Fast, spatter-free, cost-saving pulse welding

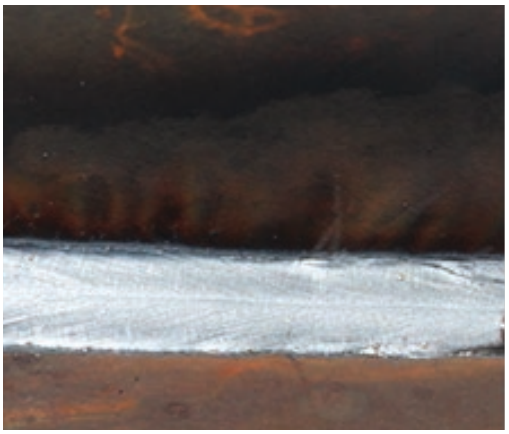
Heat-reduced, easily managed pulse arc for the entire power range

For welding non-, low- and high-alloy materials

- Handling easy to learn, no familiarisation periods
- Can be used for forehand and backhand welding
- Excellent gap bridging
- Highly suitable for multi-pass welds
- Suitable for root welding on backing bar with up to 4 mm air gap
- Less distortion thanks to heat-reduced arc
- Excellent side wall wetting
- Rapid welding without undercuts
- Safe welding of scaled or badly rusted sheets
- Quiet arc, low strain on the welder, reduced welding fumes
- Changes to stick-out lengths are very rapidly stabilised
- Manual and automated application

Simple, safe, easy-to-learn handling of forceArc puls



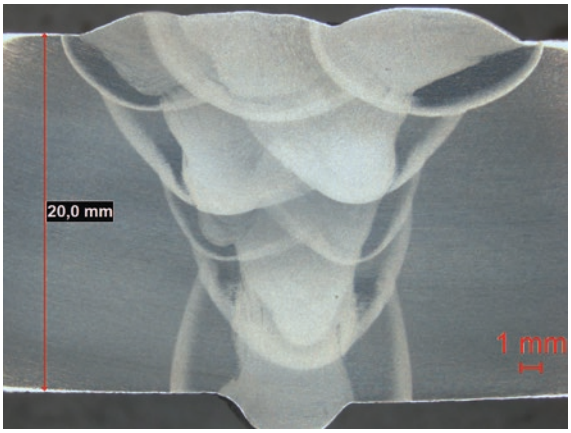


S355, t = 10 mm, T-joint, fillet weld without weld preparation
Welding current = 316 A, welding voltage = 28.8 V, WF = 10.5 m/min., Vs = 50 cm/min.

- Pulse welding – simple, safe, easy-to-learn handling for manual welding
- Fast, spatter-free welding without rework
- Symmetric fillet weld formation– maximum possible throat thickness can be achieved
- Controlled welding for changeable air gap up to 4 mm
- Good side wall wetting, no undercuts
- Eminently suitable for sheets with scaled or badly rusted surface
- For forehand and backhand torch operation

The EWM EN 1090 WPQR package saves time and money

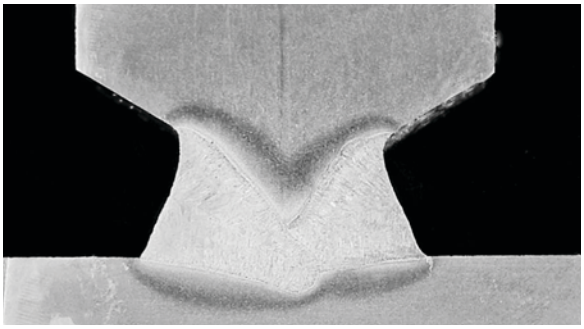
forceArc puls for multi-pass welds



S355, t = 20 mm, butt joint, single-V butt weld with 30° included angle, on ceramic backing bar

- Eminently suitable for multi-pass welds
- Heat-reduced compared with standard pulse welding
- Several weld beads can be welded before the maximum intermediate pass temperature is reached
- Less distortion of the component thanks to heat reduction

forceArc puls for full penetration



Soft martensitic steel, high-alloy steel (1.4317), t = 50 mm, single-J butt weld, welded without air gap on both sides, without gouging or grinding on the root concavity side

S355, t = 30 mm, double bevel seam with 35° included angle, welded without air gap on both sides, without gouging or grinding on the root concavity side

- Root passes with backing bar, filler and final passes with butt joint
- Welded full penetrations on both sides
- Without gouging or grinding on the root concavity side, with or without air gap, on butt and T-joints

Your benefits

/ Fast, spatter-free, cost-saving pulse welding

/ Handling easy to learn, no familiarisation periods

/ Quiet arc, low strain on the welder, reduced welding fumes

/ Less distortion thanks to heat-reduced arc

/ Excellent side wall wetting

/ Can be used for forehand and backhand welding

/ Suitable for root welding on backing bar with up to 4 mm air gap

/ Excellent gap bridging

/ Highly suitable for multi-pass welds

MULTIMATRIX®
/// Perfection is the principle

Phoenix puls alpha Q puls

forceArc

Efficient and cost-effective welding

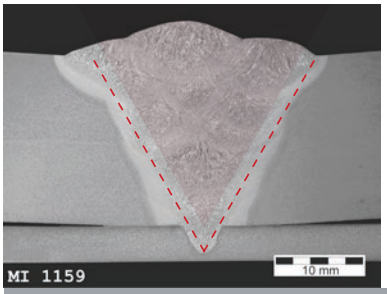
Heat-reduced, directionally stable and powerful arc with deep penetration for the upper power range.
Non-alloyed, low-alloy and high-alloy steels and high-tensile fine-grained steels

- Smaller included angle due to deep penetration and directionally stable arc
- Fewer passes
- Less distortion thanks to heat-reduced, concentrated arc
- Excellent root and sidewall fusion
- Perfect welding, even with very long stick-outs
- Reduced undercuts
- Virtually spatter-free
- Particularly beneficial for fillet welds, dynamically loaded components such as load-bearing parts for bridges, wagon and steel construction and other applications
- Non-alloyed, low-alloy and high-alloy steels, as well as high-tensile fine-grained steels
- Manual and automated applications

Process comparison of forceArc®/standard spray arc through TWI

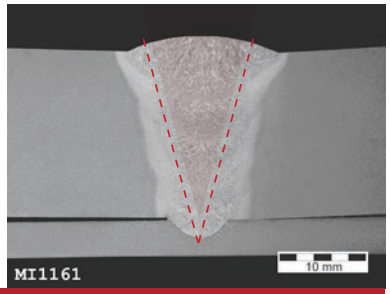
- Butt welds which are welded with the forceArc process and have tight opening angles of 30 ° and 40 ° comply with the requirements of EN ISO 15614-1:2004
- Due to the lower weld volume, the welding times are reduced compared to the standard spray arc process with an opening angle of 60° by up to 50%
- Fillet welds created with forceArc provide a mitred profile without undercut which also satisfies the requirements of EN ISO 15614-1:2004
- Fillet welds created with forceArc have a greater penetration depth

standard spray arc



11 passes

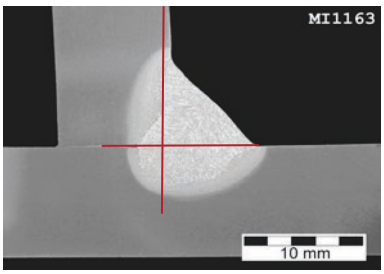
forceArc



5 passes

50% shorter welding time

Unchanged mechanical/technological properties!

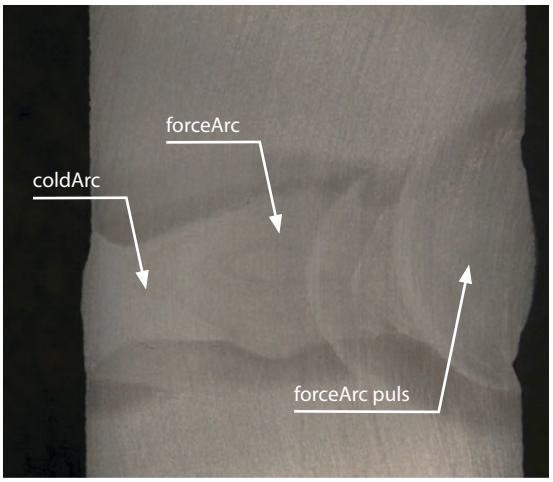


- Deeper penetration and therefore possible reduction of the effective throat thickness or seam cross-section
- Changes to stick-out lengths are rapidly stabilised
- Particularly advantageous for very narrow joints and fillet welds, for example

The ewm EN 1090 WPQR Package saves time and money

forceArc forceArc puls

- Combination of forceArc puls, forceArc and coldArc
- Root pass with coldArc, intermediate passes with forceArc and final pass with forceArc puls
- Saves a welding pass with a smaller included angle
- Perfect ignition and crater fill time with forceArc puls, welding with forceArc
- Less material distortion due to reduced heat input
- Lower intermediate pass temperature and minimised joint modification
- Particularly advantageous when, for example, welding fine-grained steels
- Angular shrinkage reduced in fillet welds

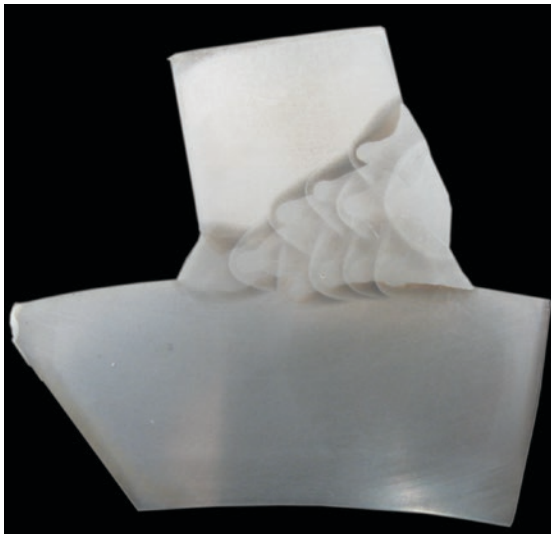


Sheet metal: S 235; 20 mm
Gas: M21-ArC-18
Wire: 1.2 mm G4Si1
Passes: 4
Position: PC
Included angle: 10°
Welded on one side, without weld pool backing

Combination of coldArc, forceArc and forceArc puls

Efficient and cost-effective welding

- Overall cost savings of up to 60%
- Minimal seam preparation
- Fewer passes
- Less welding consumables and shielding gas consumption
- Faster welding time
- Particularly advantageous with dynamically loaded components



Sheet metal: S 355; 30 mm
Gas: M21-ArC-18
Wire: 1.2 mm G4Si1
Passes: 11
Position: PB/PA
Included angle: 25°
Welded on one side, without weld pool backing with forceArc

Your benefits

forceArc

/ Up to 60% overall cost savings when comparing forceArc vs. standard spray arc welding.

/ Up to 35% electricity cost savings with the same deposition rate when compared to conventional spray arc welding

/ Up to 50% less harmful emissions through reduced welding fumes

/ Cost savings thanks to fewer passes

/ Less spatter means less finishing work

/ Less distortion thanks to heat-reduced, concentrated arc

/ Highly dynamic current control produces a directionally stable arc with great force and great penetration depth with fewer undercuts

MULTIMATRIX®
/// Perfection is the principle

alpha Q puls

coldArc
coldArc puls
Perfect welding and brazing

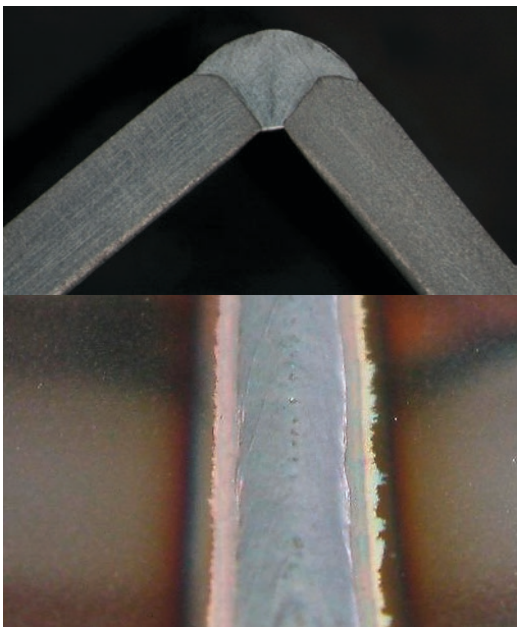
coldArc: Heat-reduced, low-spatter short arc for high dimensional stability welding and brazing, plus root welding with excellent gap bridging capabilities.

coldArc puls: The optimum enhancement for the higher performance range, with focused heat input – there where the heat is required.

- Less distortion and reduced discolouration thanks to minimised heat input
- Considerably reduced spatter thanks to virtually power-free material transfer
- Impressive process stability even with long hose packages without additional sensor leads
- Commercial torch systems, as the material is transferred without drive in the torch, causing no wear and tear
- Easy welding of the root passes in all sheet thicknesses and in all positions
- Perfect gap bridging even with inconsistent gap widths
- Excellent wetting of surfaces when brazing thin metal sheets
- Minimal finishing work, also optimum for visible seams
  thanks to low-spatter process
- Unalloyed, low-alloy and high-alloy steels and also dissimilar joints of even the thinnest metal sheets
- Brazing of CrNi sheets with CuAl8/AlBz8
- Brazing and welding of coated metal sheets, e.g. with CuSi, AlSi and Zn
- Root welding of non-alloyed and low-alloy steels and high-tensile fine-grained steels
- Visible CrNi seams within the thin metal sheet range

Minimised heat input -99% less spatter

- Outstanding for butt welds, lap welds and edge welds
- Perfect for visible seams – no post weld work necessary
- Ideally suited for high-alloy steels and coated metal sheets
- Less discolouration and scaling
- Reduced heat-affected zone
- Excellent control for positional welding

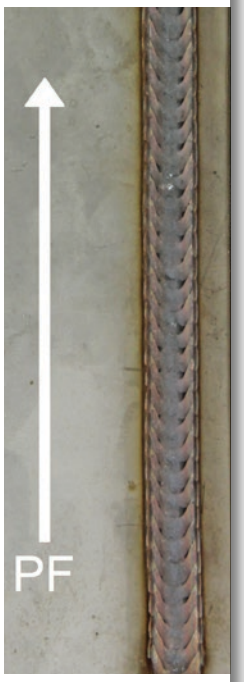


CrNi edge weld of 1 mm sheet metal, with coldArc

The ewm EN 1090 WPQR Package saves time and money

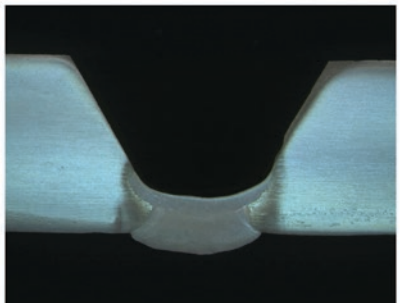
coldArc coldArc puls

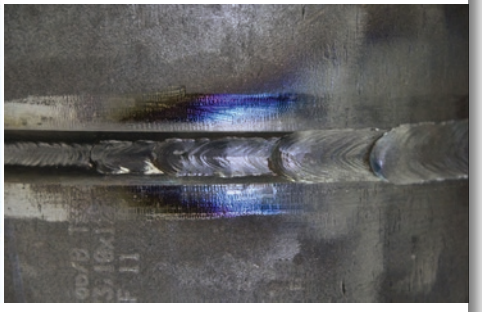
- Heat, where it is required with coldArc puls
- Root welding with coldArc: full control of the droplet transfer, minimised risk of bonding faults
- Pass build-up and final passes with coldArc puls
- Performance enhancement for thicker metal sheets with coldArc puls
- Perfect welding in transitional areas with coldArc puls
- Switching between coldArc and coldArc puls by pressing the torch trigger for secure overlaying of tack points.
- Simple modelling of the molten metal through automatic changing between coldArc and coldArc puls by switching on superPuls.
- Excellent and easy welding from a standing position through changing between coldArc and coldArc puls by switching on superPuls, without using the "Christmas tree technique".



Unique gap bridging for root passes

- Perfect gap bridging, even with alternating gap widths, thanks to coldArc
- No sagging of the molten metal
- Secure sidewall fusion, even with misaligned edges
- Complete elimination of "wire stab"
- Root passes for all panel thicknesses in all positions
- Pass build-up and final passes with coldArc puls





Your benefits

coldArc coldArc puls

- / Root welding with TIG quality and MAG speed – up to 400% quicker than manual TIG and MMA welding
- / Thin metal welding of plain steel and stainless steel, with much less distortion
- / Reduced-energy short arc with unique gap bridging
- / Digitally controlled, nearly power-free material transfer
- / Perfect for sheet metal from 0.5 mm onward
- / Up to 99% less spatter
- / Outstanding for butt welds, lap welds and edge welds
- / Ideal for CO_2 and mixed gas
- / Heat-reduced brazing with innovative, zinc-based solders with low melting point
- / Up to 75% less welding fume emissions when compared with coldArc/coldArc puls vs. standard short arc

MULTIMATRIX®
/// Perfection is the principle

Phoenix puls alpha Q puls

rootArc
rootArc puls

The arc with optimum control of the weld pool

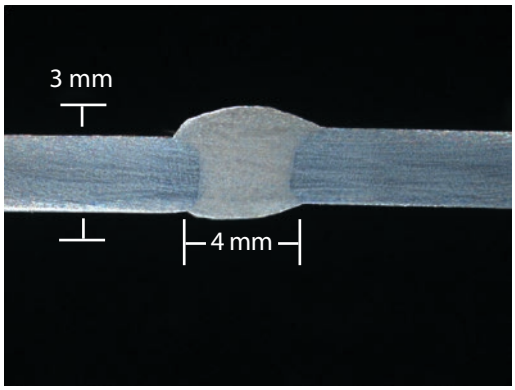
rootArc: Short arc with perfect weld modelling capabilities for effortless gap bridging and positional welding

rootArc puls: The perfect enhancement for focused heat input for the higher performance range

- Optimum reduction of spatter compared to standard short arc
- Perfect for sheet metal from 1 mm onward
- Optimal for positional and overhead welding
- Reduced-energy short arc
- rootArc puls for welding in transitional areas and for initial and final passes
- Excellent, heat-reduced welding in vertical-up positions (PF) through rootArc superPuls
- Superb root formation and secure sidewall fusion
- Vertical-up welds without weaving
- Un-alloyed and low-alloy steels
- Manual and automated applications

Effortless gap bridging in the vertical-down weld

- Stable, firm vertical-down weld
- Very good gap bridging
- Heat-reduced, low-spatter arc
- Superb root formation and secure sidewall fusion



Front

Back

Sheet metal:	3 mm
Gap:	4 mm
Gas:	M21-ArC-18
Wire:	1.0 mm SG3

The ewm EN 1090 WPQR Package saves time and money

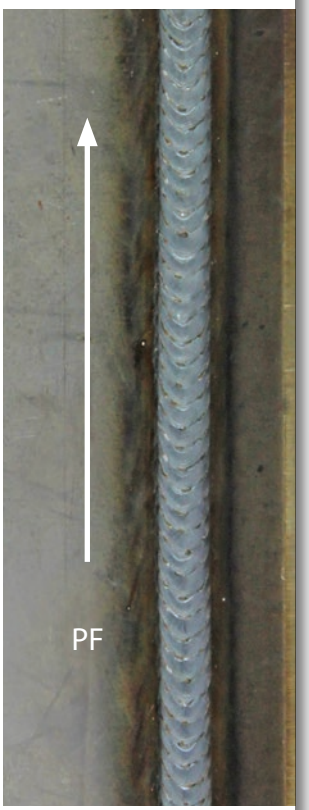
rootArc rootArc puls

- Heat input, if necessary, with rootArc puls
- Root welding with rootArc: Effortless controlling of the weld pool
- Pass build-up and final passes with rootArc puls
- Performance enhancement for thick metal sheets with rootArc puls
- Switching between rootArc and rootArc puls by pressing the torch trigger for secure overlaying of tack points
- Effortless mastery of the weld pool by changing between rootArc and rootArc puls through switching on superPuls
- Quick and easy welding of vertical-up welds by changing between rootArc and rootArc puls through switching on superPuls

Vertical-up welds in the PF position

- Excellent welding in vertical-up weld positions (PF) with rootArc-superPuls
- Secure formation of the root base
- No more weaving required
- Smooth "herring bone" effect results in aesthetically pleasing weld seams

The "Christmas tree technique", normally reserved for true experts, can be avoided, which is advantageous for less experienced welders.



Your benefits

rootArc
rootArc puls

- / Reliable short arc welding in all positions
- / Ideally suited for vertical-up welds (PF) without using the laborious "Christmas tree technique"
- / Quick and reliable root welding in TIG quality
- / Effortless welding of vertical-up/down welds and overhead welds
- / Ideal for CO_2 and mixed gas
- / Reduced-energy short arc for effortless mastery of gaps
- / Low-spatter, digitally-controlled material transfer
- / Perfect for sheet metal from 1 mm onward
- / Excellent for butt welds and lap welds

MULTIMATRIX®
/// Perfection is the principle

Phoenix puls alpha Q puls

Pulsed arc
Standard arc

The arc with optimum control of the weld pool

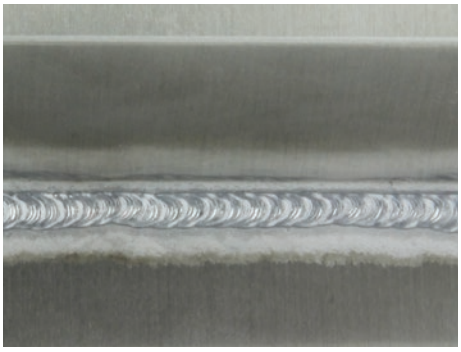
Pulsed arc: Controlled, short circuit-proof pulsed arc for all positions

Standard arc: Controlled short arc far into the transitional area

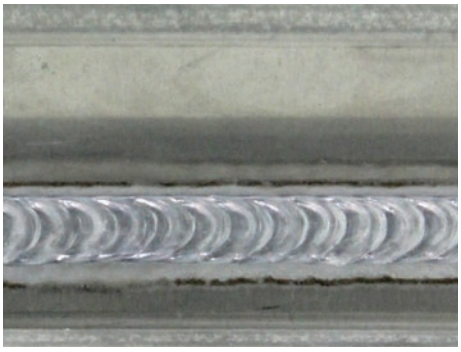
- Welding of aluminium and aluminium alloys
- Welding of high-alloy steels and nickel alloys
- Even droplet transfer also for materials with high nickel content
- Stable arc in the wide transitional area between short and spray arc
- Copper welding
- Positional welding
- Controlled heat input via 1-droplet-per-pulse-transfer
- Standard short arc range extended far into the transitional area
- Fine-droplet material transfer in the extended short arc range when welding low-alloy steels

Aluminium welding with pulsed arc

- Perfect pulse welding of aluminium and aluminium alloys, for sheet metal thicknesses from 1 mm onward
- Stable arc in all positions, even when welding the thinnest aluminium sheets
- Almost spatter-free welding
- Spatter-free ignition by reversing the wire feeding
- Simple modelling of the molten metal through superPuls



Fillet weld, 1 mm sheet metal, AlMg, argon
1.2 mm wire electrode



Fillet weld, 8 mm sheet metal, AlMg, argon
1.2 mm wire electrode
Perfect ripples, thanks to superPuls

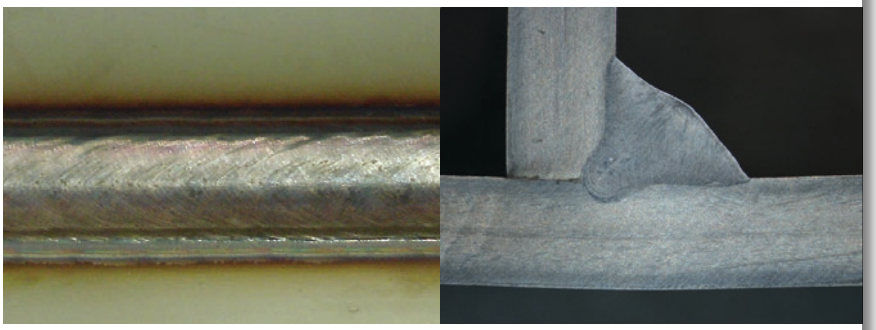
The ewm EN 1090 WPQR Package saves time and money

Pulsed arc Standard arc

- Extended standard short arc range of up to 11 m/min wire, with 1 mm wire diameter G4Si1 under mixed gas
- Less spatter and better arc stability through controlled short arc – to far beyond the transitional area
- High short-circuit frequency, steady weld pool, fine-droplet material transfer
- Higher welding speeds
- Simple modelling of the molten metal through automatic changing between pulse and standard arc by switching on superPuls
- Excellent welding in the vertical up position through automatic changing between pulse and standard arc by switching on superPuls

CrNi welding with pulsed arc

- Perfect pulse welding of high-alloy steels and nickel alloys, also for thin sheet metal from 1 mm onward
- Reliable arc welding in all positions
- Very low-spatter process (fewer corrosion attack points)
- Reduced pore susceptibility
- Flat, smooth and notch-free weld seams



Sheet metal:	3 mm
Materials:	CrNi 1.4301
Gas:	97.5% Ar/2.5% CO2
Wire:	1.2 mm 1.4316
Position:	PB

Your benefits

Pulsed arc Standard arc

/ Perfect welding of aluminium and aluminium alloys, high-alloy steels and nickel alloys, from 1 mm metal sheet thickness onward

/ Even droplet transfer also for materials with high nickel content

/ Copper welding

/ Extreme low-spatter pulsed arc, also in positional welding

/ Quick and reliable changes to stick-out lengths

/ Spatter-free ignition through reversible wire feeding

/ Extended standard short arc range, to far into the transitional area

/ Fine droplet material transfer in the extended short arc range when welding low-alloy steels

MULTIMATRIX®
/// Perfection is the principle

Your benefits

superPuls

- Quick and easy welding of vertical-up welds without using the "Christmas tree technique"
- Effortless mastery of the weld pool
- Performance increase by pressing on the torch trigger for secure overlaying of tack points
- Extreme low-spatter pulsed arc, also in positional welding

superPuls

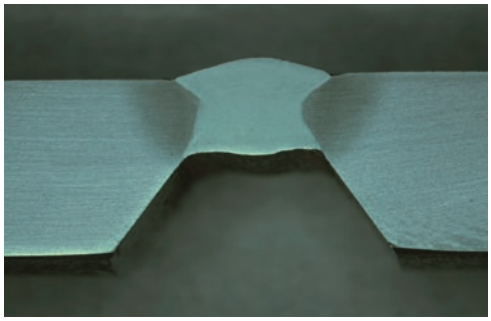
The superPuls combination of ewm welding processes offers a multitude of possibilities.

- Reliable fusion of the root base
- Effective filling with pulse
- No more weaving required
- Smooth bead ripples result in aesthetically pleasing weld seams
- Controlled reduced heat input
- Reduced spatter formation
- Easy modelling of the molten metal
- Quick and reliable welding of vertical-up welds without using the "Christmas tree technique"

The "Christmas tree technique", an application normally reserved for true experts, can be avoided, which is advantageous for less experienced welders.

Aluminium superPuls
PF position

CrNi superPuls
PF position



Steel superPuls
PF position

forceArc
forceArc puls

Heat-reduced, directionally stable and powerful arc with deep penetration for the upper power range.

Non-alloyed, low-alloy and high-alloy steels and high-tensile fine-grained steels

Pulsed arc
Standard arc

Pulsed arc: Controlled, short circuit-proof pulsed arc for all positions

Standard arc: Controlled short arc far into the transitional area

	forceArc	forceArc puls	Standard arc	Pulsed arc
Cost savings thanks to reduced weld volume	★★★★★	★★★★★	★★	★★★
Reduced energy costs	★★★★★	★★★★★	★★	★★★★
Penetration depth	★★★★★	★★★★★	★★	★★★★
Reduced heat input	★★★★★	★★★★	★★	★★★
Arc force	★★★★★	★★★★★	★★	★★★★
Directionally stable arc	★★★★★	★★★★★	★★	★★★★
Minimised spatter formation	★★★★★	★★★★★	★★★	★★★★★
Reduced undercuts	★★★★★	★★★★	★★★	★★★★
Highly dynamic current control	★★★★★	★★★★★	★★★	★★★★★
Reduced emissions/ less welding fumes	★★★★★	★★★★★	★★	★★★★

Applications				
Unalloyed and low-alloy steels	Yes	Yes	Yes	Yes
High-alloy steels	Yes	Yes	No	Yes
High-tensile fine-grained steels	Yes	Yes	No	Yes
Aluminium	Yes	Yes	No	Yes
Copper	No	Yes	No	Yes

★ Good ➡ ★★★★★ Excellent

coldArc
coldArc puls

coldArc: Heat-reduced, low-spatter short arc for high dimensional stability welding and brazing, plus root welding with excellent gap bridging capabilities.

coldArc puls: The optimum enhancement for the higher performance range, with focused heat input – there where the heat is required.

rootArc
rootArc puls

rootArc: Short arc with perfect weld modelling capabilities for effortless gap bridging and positional welding

rootArc puls: The perfect enhancement for focused heat input for the higher performance range

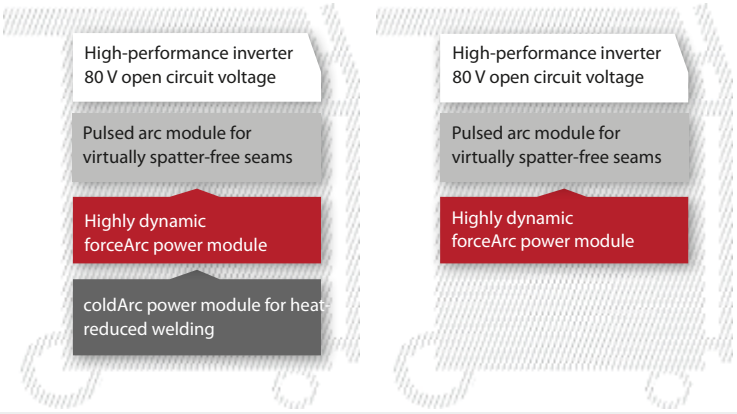
	coldArc	coldArc puls	rootArc	rootArc puls
Reduced heat input/ less distortion	★★★★★	★★★	★★★★	★★★
Reduced energy costs	★★★★★	★★★★	★★★★	★★★★
Minimised spatter formation/ less finishing work	★★★★★	★★★★★	★★★	★★★★★
Gap bridging	★★★★★	★★★	★★★★★	★★★
Reduced harmful emissions/ less welding fumes	★★★★★	★★★★★	★★★	★★★★★
Arc force	★★★	★★★★	★★★★	★★★★
Good root formation	★★★★★	★★	★★★★★	★★
Root welding in any position	★★★★★	★	★★★★★	★
Thin panel welding	★★★★★	★★★★	★★★★	★★★★

Applications				
Unalloyed and low-alloy steels	Yes	Yes	Yes	Yes
High-alloy steels	Yes	Yes	Yes	Yes
High-tensile fine-grained steels	Yes	Yes	Yes	Yes
Brazing (CuSi, CuAl)	Yes	Yes	No	Yes
Brazing (zinc wire ZnAl)	Yes	No	No	No
Dissimilar joint, aluminium with galvanised steel panel (braze welding)	Yes	Yes	No	Yes

★ Good → ★★★★★ Excellent

Inverter welding machines and welding procedures

alpha Q and Phoenix welding machines with the latest MULTIMATRIX® technology – for simple operation and reliability in use.



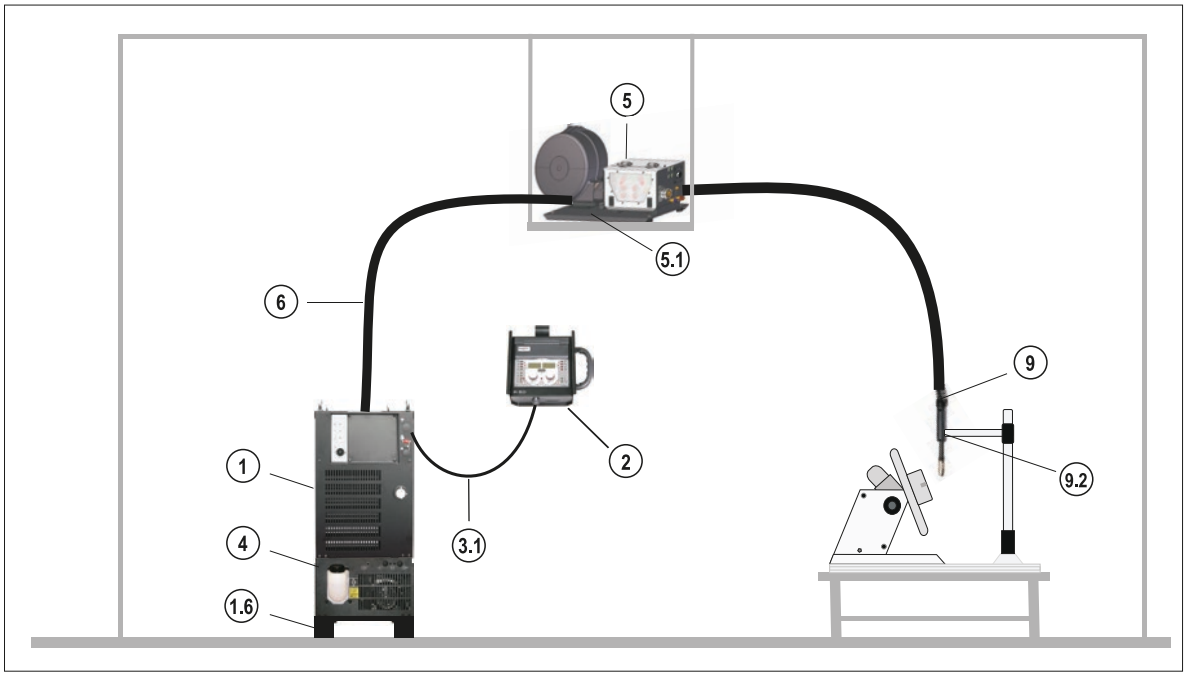
Your benefits

- Robust, highly dynamic inverter technology
- Energy savings thanks to efficient welding procedures, optimum efficiency and automatic standby mode
- High open circuit voltage for excellent ignition characteristics
- High voltage reserves for long hose packages up to 70 m
- High duty cycle
- Wide mains voltage tolerance (-25% to +20%)
- For all climate zones, from the desert to Antarctica
- Rugged, dust-protected electronics
- Certified in accordance with EN 1090

		alpha Q puls	Phoenix puls
MULTIMATRIX technology		✓	✓
Multiprocess	forceArc / forcArc puls	✓ / ✓	✓ / ✓
	coldArc / coldArc puls	✓ / ✓	- / -
	rootArc / rootArc puls	✓ / ✓	✓ / ✓
MIG/MAG	superPuls	✓	✓
	Pulsed arc	✓	✓
	Standard short arc	✓	✓
	Standard spray arc	✓	✓
MMA		✓	✓
TIG (Liftarc)		✓	✓
Gouging		✓	✓
Xnet-compatible		✓	✓

R50 ROB 7POL – mobile operating unit

- Remote control **R50 ROB 7POL** enables all Phoenix and alpha Q machines to be equipped with a mobile operation unit.
- **R50 ROB 7POL** can be connected to any 7-pole system bus interface on welding machines.
- The **R50 ROB 7POL** control can be connected to power sources without a front control which are also used without an interface, for example. For simple, low-priced mechanisation.



R50 ROB 7POL as a mobile operating unit directly at the workstation

Special torch design according to your specifications

Whether you're looking for MIG/MAG, TIG or plasma – we build the perfect welding torch for your application

In addition to our in-house series production of welding torches, we also manufacture welding torches tailored to your specific application. This way, we guarantee you the very best component for your welding task – for both manual and automated welding.

Highlights

- Wide product range: from gas-cooled or replaceable-neck torches through to fume extraction torches
- EWM's own consumables guarantee a long service life and best integration into the welding system

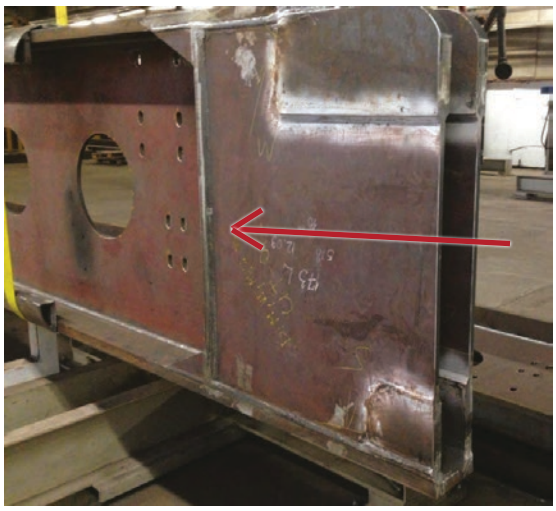
Automated welding inside pipes with an extra-long torch neck

MAG hot wire welding

- Cladding with a deposition rate of up to 13.8 kg

Welding inside pipes with extra long torch neck and small bend radius

Applications



Task scope:

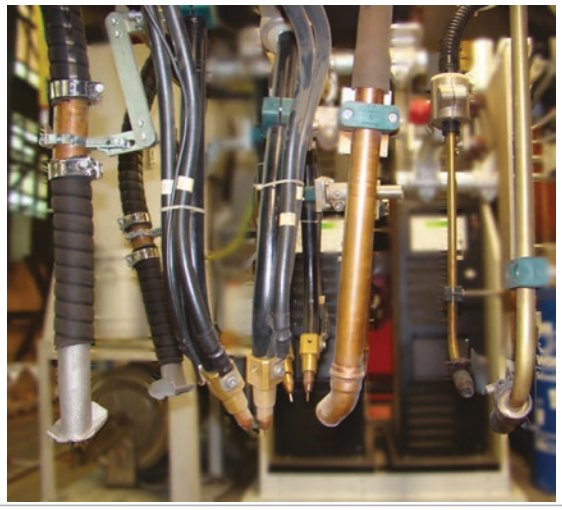
- Welding inside steel structures

EWM solution:

- Torch neck based on the MT551W with a length of 1,500 mm

Customer benefit

- Welding location easily accessible
- Improved visibility of the seam
- Reduced costs due to use of standard MT consumables



Task scope:

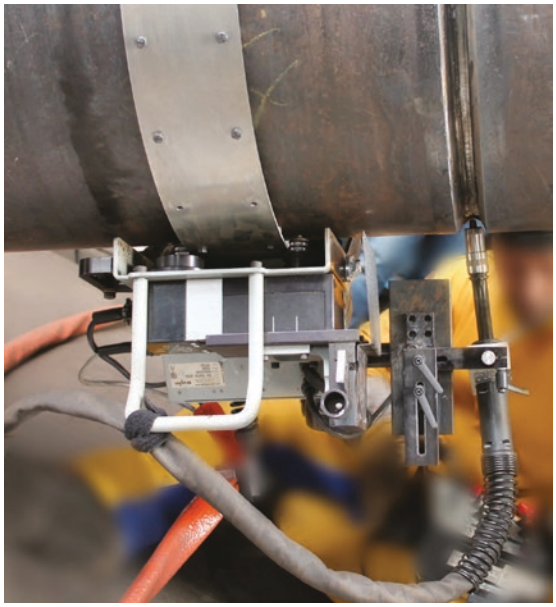
- Reduce downtimes during automated welding of steel structures

EWM solution:

- Welding torch with water-cooled gas nozzle and exchangeable gas nozzle tip

Customer benefit

- The targeted cooling of the gas nozzle enables a duty cycle of 650 A/100%
- High-cost savings thanks to separate exchange of the gas nozzle tip
- Other consumables are standard MT consumables.



Task scope:

- Space-saving welding torch for use on longitudinal carriages and orbital welding installations

EWM solution:

- Automated welding torch based on AMT551W with a total length of just 61 mm

Customer benefit

- More compact design of the longitudinal carriages
- Orbital welding installations require less space to go round the pipe
- Reduced costs due to use of standard MT consumables

Symbols

1-phase connection

2-phase connection

3-phase connection

3-phase connection „TNS net“

5-pole torch connection

7-pole remote control connection

8-pole torch connection

12-pole torch connection

14-pole remote control connection

19-pole torch connection

28-pole connection

Abbreviations

2DV	Two wire feed units
2T	Double push button
2U/D	2x Up/Down
4R	4 rollers
5P	5-pole connection socket
8P	8-pole connection socket
ADAP	Adapter
ASM	Connection capability
AW	Connection capability filler wire
cel	Cellulose electrodes
CW	Cold wire
D	Double wire feed unit
D2	Wire spool D200
D3	Wire spool D300
DG	Decompact, gas cooled
DW	Decompact, water cooled
EZA	Euro torch connection
FDG	Mobile, decompact, gas cooled
FDW	Mobile, decompact, water cooled
FWD	Mobile, water cooled, decentral
GD	Gas cooled, decentral
GD UD	Gas cooled, decentral, Up/Down
GDV	Rotary gas valve
HFL	Highly flexible hose package
HW	Hotwire
KGE	Compact, gas cooled, Euro torch connection
MM	Multimatrix
MV	Multivolt
PC1	Powercontrol 1
PC2	Powercontrol 2
pws	Polarity reversing switch
TDG	Portable, decompact, gas cooled
TDM	Portable, decompact, modular
TGD	Portable, gas cooled, decentral
TGE	Portable, gas cooled, euro torch connection
TKM	Portable, compact, modular
TMD	Portable, modular, decentral
U/D	Up/Down
WD	Water cooled, decentral
WD UD	Water cooled, decentral, Up/Down
WE	Water cooled, Euro torch connection

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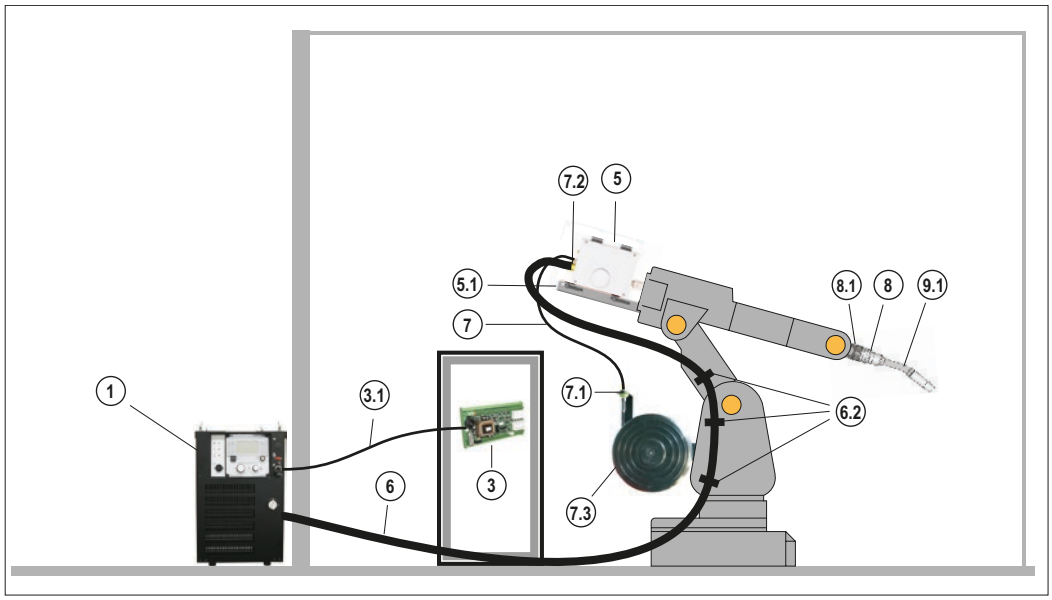
alpha Q, gas cooled ■ Pulse ● forceArc ● coldArc
■ Hollow wrist robot system



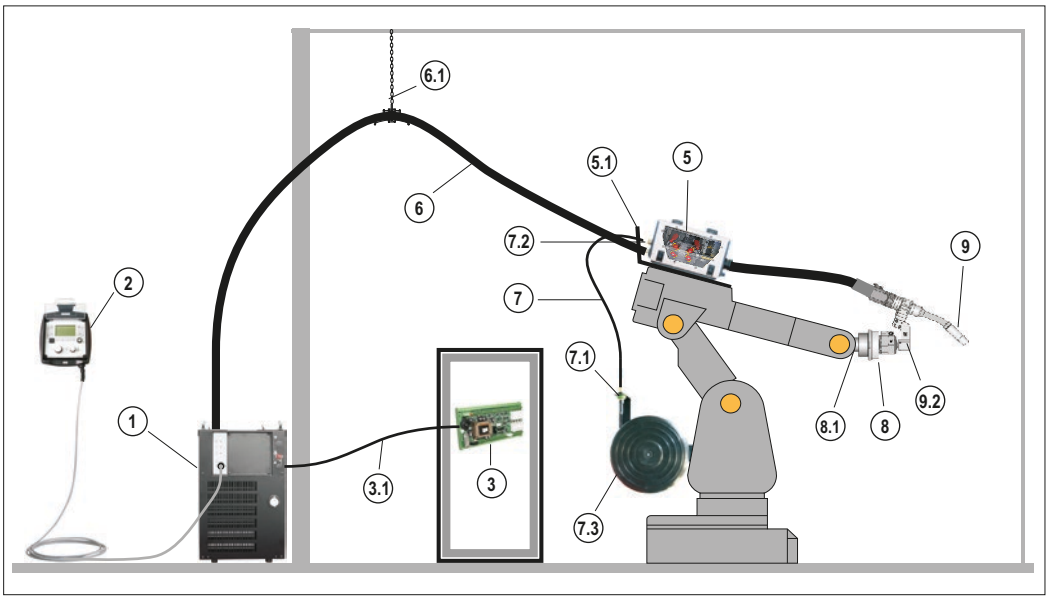
alpha Q 352

- with front control Expert 2.0
- gas-cooled
- M Drive 4 Rob 3X LI
- example shown: Motoman MA2010

Item	Type	Designation	Item no.
1	alpha Q 352 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005488-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
2	CT M8 CUCRZR AG 1.2/30mm	CuCrZr contact tip, silver plated	094-011272-00000
3	RINT X12 STANDARD	Standard robot interface	090-008291-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
3.2	KB MOTOMAN-RINT X12	Cable harness for RINT X12 connection to Motoman XRC/NX-100/ DX-100/DX-200	094-012212-00003
5	M drive 4 Rob 3X LI	Wire feeder for automated applications, opens on left, gas-cooled, Euro torch connector	090-005483-00502
5.1	MONTAGE CONSOLE ROB3 MO-TOMAN MA1440/2010/MH24	Mounting console for wire feed unit	092-002877-00000
6	70QMM GR 7/12 POL 5M	Robot intermediate hose package, gas cooled, ribbed hose, 7/12-pole	092-007855-00205
6.2	MONTAGE SET ZWIPA MOTOMAN MA2010	Fastening set for intermediate hose package on robot	092-002880-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB3 WIRE CONDUIT	Connection set for Rob 3 wire conduit	092-007916-00000
7.3	WSH MOTOMAN MA1440, MA2010, AR1440, AR2010	Wire spool holder, robots	092-003210-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	iCAT A	Collision sensor	094-012718-00000
8.1	ZF ICAT D=56.0MM D=62	Intermediate flange, MOTOMAN	094-021590-00000
9.1	TN MIG ROB A500TS 22°	Torch neck ABIROB A500TS	094-011260-00500
9.4	SP MOTOMAN ICAT A MA2010	Hose package, gas cooled	094-021723-00000
10.01	GN MP 500 A 16/28 0mm	Gas nozzle, conical	094-011263-00000
10.05	RCTH 500 M8 ROB TS W	Contact tip holder	094-011276-00500
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

alpha Q, gas cooled ■ Pulse ● forceArc ● coldArc
■ Handling/welding robot system



alpha Q 352RC

- no front control
- gas-cooled
- welding parameters can be set via external operating panel
- M Drive 4 Rob 2X
- example shown: Kuka KR16

Item	Type	Designation	Item no.
1	alpha Q 352 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005464-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
2	RCX Expert 2.0 Rob 2m	Control panel	090-008809-00002
3	BUSINT X11 DEVICE NET	DEVICE-NET industrial bus interface	090-008230-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
5	M drive 4 Rob 2X	Wire feeder for automated applications, water-cooled, Euro torch connector	090-005477-00502
5.1	MONTAGE CONSOLE ROB 2 UNIVERSAL	Mounting console for wire feed unit	092-001746-00000
6	70QMM GS 7/12 POL 5M	Robot intermediate hose package, gas cooled, standard protective hose, 7/12-pole	092-007855-00105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB2 WIRE CONDUIT	Connection set for Rob 2 wire conduit	092-008205-00000
7.3	WSH KUKA KR16	Wire spool holder, robots	092-003207-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	FL ISO 9409-1-A40	Intermediate flange, plastic	094-013347-00500
9	MTR360G 22 1.2mm 1.15m	MIG/MAG welding torch, gas-cooled	094-500033-00000
9.2	HS COMP A22	Holder, rigid, compl., EWM RT 22	094-011656-00500
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

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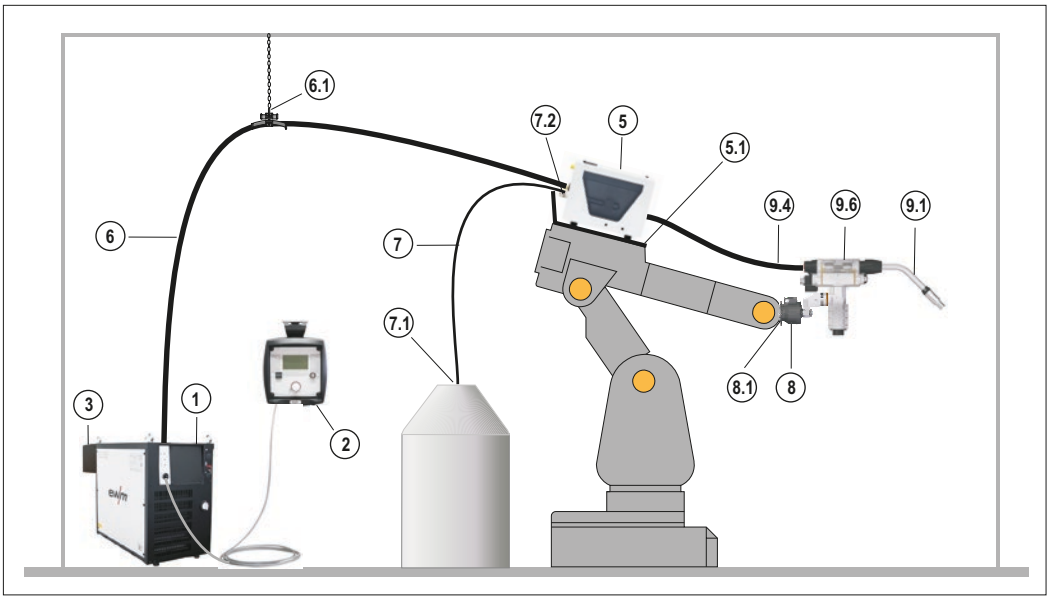
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

alpha Q, gas cooled ■ Pulse ● forceArc ● coldArc
■ Handling/welding robot system as frontDrive system



alpha Q 352 RC

- No front control
- EWM frontDrive
- Media separation box
- Gas-cooled
- As demonstrated on a Kuka KR 125-3

Item	Type	Designation	Item no.
1	alpha Q 352 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005464-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
2	RCX Expert 2.0 Rob 2m	Control panel	090-008809-00002
3	BUSINT X11 INTERBUS LWL ATCASE	Interbus LWL industrial bus interface, potential-free power supply, 24 V	090-908225-00008
5	F drive Rob 3 LI	Media separation box for frontDrive robot welding torch, opens on left	090-005391-00502
5.1	MONTAGE CONSOLE ROB 3 UNIVERSAL	Mounting console for wire feeder and media separation box	092-002440-00000
6	70QMM GS 7/12 POL 5M	Robot intermediate hose package, gas cooled, standard protective hose, 7/12-pole	092-007855-00105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	ROLLINER 5M	Wire guide with plastic rolls	092-002575-00000
7.1	ROLLINER CONNECTOR BARREL	Connection for large spool/drum	094-014623-00000
7.2	ROLLINER CONNECTOR DRIVE ROB3	Connection set for Rob 3 wire conduit	092-007918-00000
8	RSA STRONG	Collision sensor	094-020727-00000
8.1	ZF CAT ISO 9409-1-A160	Intermediate flange	094-020733-00000
9.1	RMT301G 45° L=252 mm	Torch neck	094-022074-00000
9.4	SP G FRONTDRIVE RSA L=1,5M	Torch hose package, gas cooled	094-020728-00000
9.6	frontDrive	Drive unit, 4 rolls	090-005393-00502
10.01	GD NW=13MM L=76,5MM TR18X4	Gas nozzle	094-022037-00001
10.02	CT M9 CuCrZr 1.0mm	Contact tip	094-013530-00001
10.04	DFSI 2,0/4,6MM L=2,5M ROT	Steel liner, red	094-022258-00000
10.05	DS M9X48MM TR18X4	Contact tip holder	094-022020-00000
10.07	DFSI 2,0/4,6 L=350MM	Steel liner	094-022268-00000
10.08	UNI 4AR 1.0mm	Drive roll set frontDrive, universal	092-008820-00010
10.10	DEN M10X1 DA11 L21 DI=5MM	Inlet guide	092-003298-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
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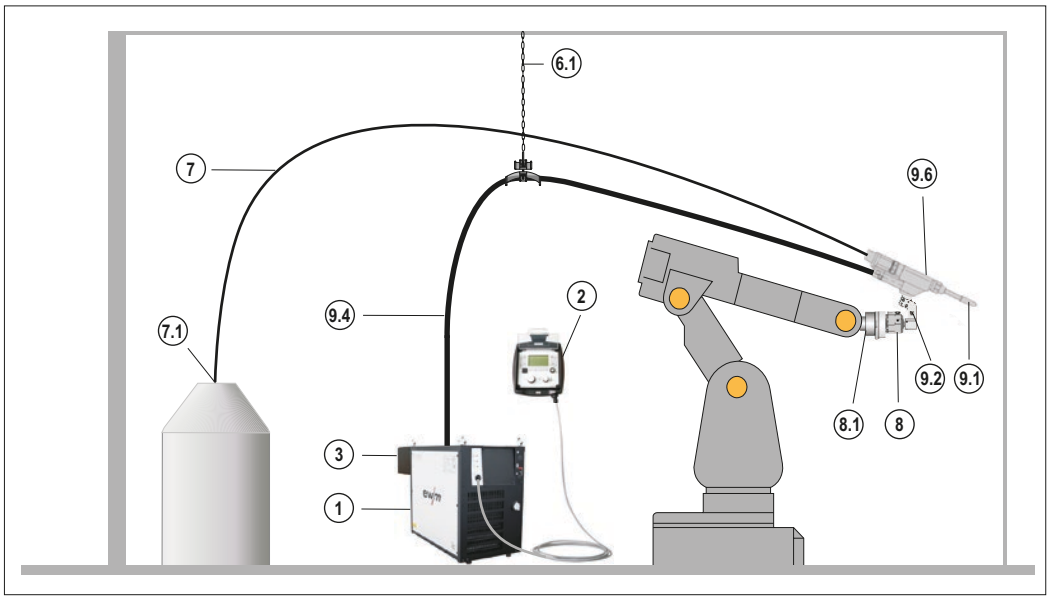
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

alpha Q, gas cooled ■ Pulse ● forceArc ● coldArc
Handling/welding robot system as MasterPull system



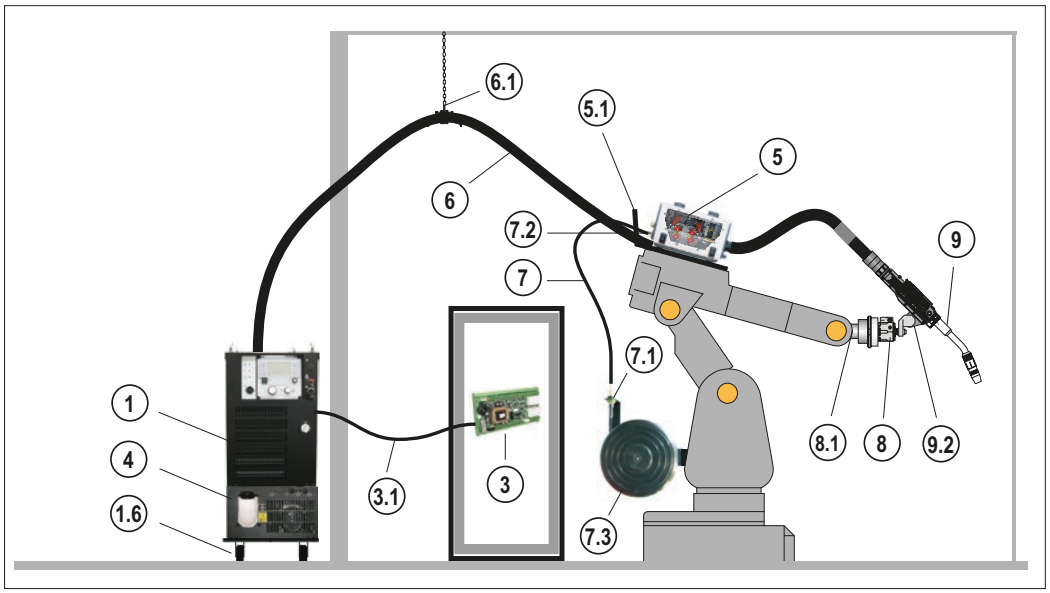
alpha Q 352 RC

- Without front control
- MasterPull version
- Gas cooled
- Example shown: Fanuc Arc Mate 120i R-30iB

Item	Type	Designation	Item no.
1	alpha Q 352 puls MM RC MasterPull	MIG/MAG multiprocess pulse welding machine, including connection capability for MasterPull welding torch	090-005466-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
2	RCX Expert 2.0 Rob 2m	Control panel	090-008809-00002
3	BUSINT X11 ETHERNET IP ON SV	ETHERNET IP industrial bus interface, including option for external voltage supply	090-908613-00008
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	Masterliner HD 8m	Wire guide	094-025510-00008
7.1	SET MASTERLINER	Masterliner HD connection set, including all Masterliner connections	094-019128-00000
8	CAT3 PRO TR XL	Collision sensor	394-008605-00000
8.1	FL ISO 9409-1-A40	Intermediate flange, plastic	094-013347-00500
9.1	RTN MasterPull 500A 22°	Torch neck, MasterPull 22°	094-018247-00000
9.2	HL CAT3 PRO TR STD	Standard holder	094-024721-00000
9.4	TBROB MasterPull 8m	Hose package, MasterPull 8 m	094-018250-00000
9.6	masterPull	Master drive with 0-20m/min wire feed speed	094-017455-00000
10.01	GN MP 500 A 16/28 0mm	Gas nozzle, conical	094-011263-00000
10.02	CT M8x30 CuCrZr Ø=1mm	Contact tip	094-005225-00000
10.03	BSL-Liner 2.0mm x 4.5mm, 3m	BSL liner for steel	094-010578-00000
10.05	RCTH 500 M8 ROB TS W	Contact tip holder	094-011276-00500
10.08	WFROLL 1.2mm	Wire feed roll, smooth	094-018246-00000
10.08			094-018246-00000
10.08	WFROLL FE 1.2	Drive roll for steel (V-groove)	094-010207-00000
10.08			094-010207-00000
10.09	TUBE 23mm	Inlet tube	094-011293-00000
10.10	2.0mm x 4.5mm, 3m	Inlet nipple, PVC, for BSL liner	094-013024-00000
10.11	SLEEVE M9x0.75	Sleeve	094-011295-00000
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

alpha Q, water cooled ■ Pulse ● forceArc ● coldArc
Handling/welding robot system alpha Q 352



alpha Q 352

- With Expert 2.0 front control
- Water cooled
- M Drive 4 Rob 2X
- As demonstrated on a KUKA KR5 arc

Item	Type	Designation	Item no.
1	alpha Q 352 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005488-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.6	TROLLY ROB XX2	Transport cart for a power source with an add-on module	090-008278-00000
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	RINT X12 STANDARD	Standard robot interface	090-008291-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
3.2	ON PLUG SET RINT X12	Retrofit option EWM plug set for RINT X12/DVINT X11	092-001822-00000
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	M drive 4 Rob 2X	Wire feeder for automated applications, water-cooled, Euro torch connector	090-005477-00502
5.1	MONTAGE CONSOLE ROB 2 UNIVERSAL	Mounting console for wire feed unit	092-001746-00000
6	70QMM WS 7/12POL 5M	Robot intermediate hose package, water cooled, standard protective hose, 7/12-pole	092-007855-01105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB2 WIRE CONDUIT	Connection set for Rob 2 wire conduit	092-008205-00000
7.3	WSH universal	Wire spool holder, robots	092-002558-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	FL ISO 9409-1-A40	Intermediate flange, plastic	094-013347-00500
9	MTR242W 22 1.2mm 1.25m	MIG/MAG welding torch, water-cooled	094-500034-00000
9.2	STANHOL	Standard holder	094-010162-00500
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
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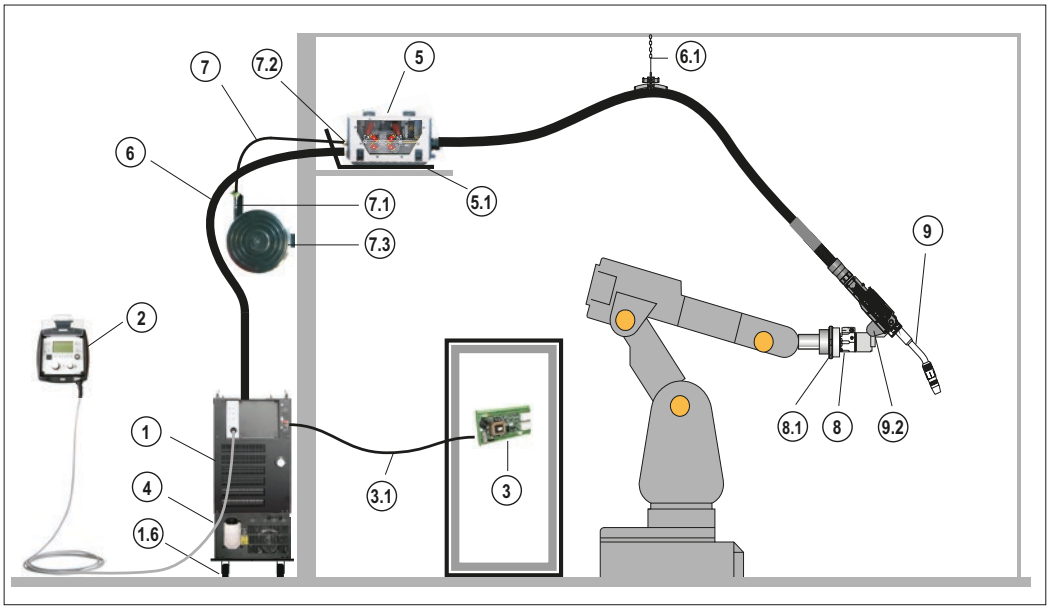
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

alpha Q, water cooled ■ Pulse ● forceArc ● coldArc
Handling/welding robot system as push/pull version



alpha Q 552RC

- no front control
- push/pull design
- water-cooled
- welding parameters can be set via external operating panel
- M Drive 4 Rob 2X
- example shown: ABB IRB1600

Item	Type	Designation	Item no.
1	alpha Q 552 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005465-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.6	TROLLY ROB XX2	Transport cart for a power source with an add-on module	090-008278-00000
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
2	RCX Expert 2.0 Rob 2m	Control panel	090-008809-00002
3	BUSINT X11 DEVICE NET	DEVICE-NET industrial bus interface	090-008230-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	M drive 4 Rob 2X	Wire feeder for automated applications, water-cooled, Euro torch connector	090-005477-00502
5.1	MONTAGE CONSOLE ROB 2 UNIVERSAL	Mounting console for wire feed unit	092-001746-00000
6	95QMM WS 7/12 POL 5M	Robot intermediate hose package, water cooled, standard protective hose, 7/12-pole	092-007855-11105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB2 WIRE CONDUIT	Connection set for Rob 2 wire conduit	092-008205-00000
7.3	DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	FL ISO 9409-1-A40	Intermediate flange, plastic	094-013347-00500
9	MTR500W PP 22°, 3.20m	MIG/MAG welding torch, push/pull, water-cooled	094-500073-00000
9.2	STANHOL	Standard holder	094-010162-00500
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
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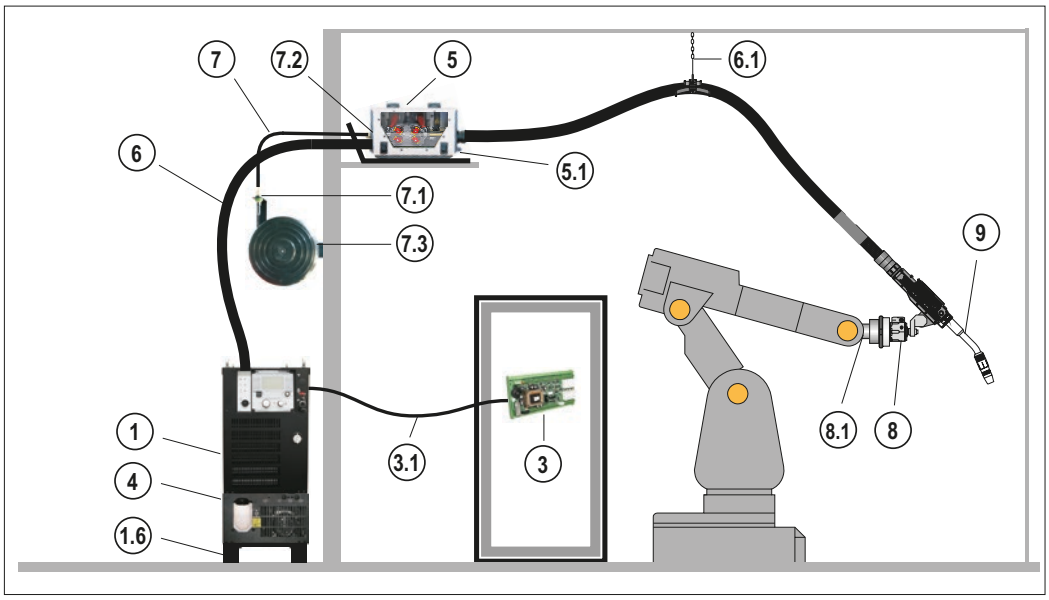
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

alpha Q, water cooled ■ Pulse ● forceArc ● coldArc
Handling/welding robot system alpha Q 352 as MasterFeeder system



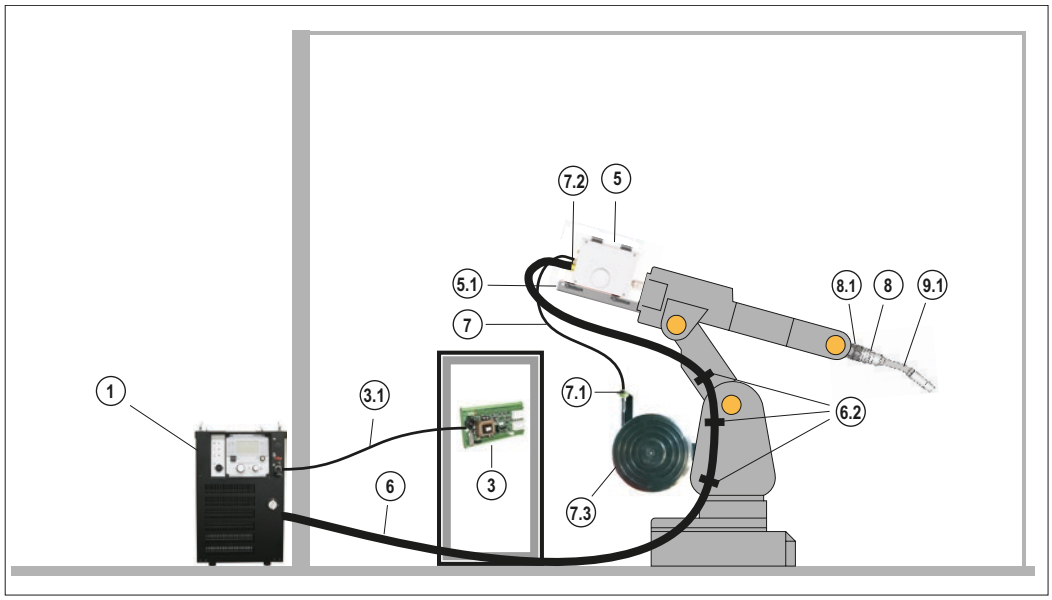
alpha Q 352

- With Expert 2.0 front control
- Master feeder design
- Water cooled
- M drive 4 Rob 2X MF
- As demonstrated on a Reis RV20-6

Item	Type	Designation	Item no.
1	alpha Q 352 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005488-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.6	PALETTE ROB XX2	Transport pallet for power source and add-on module	090-008275-00000
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	BUSINT X11 CAN-OPEN	CAN-OPEN industrial bus interface	090-008231-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	M drive 4 Rob 2X MF	Wire feeder for automated applications, water-cooled, master feeder	090-005481-00502
5.1	MONTAGE CONSOLE ROB 2 UNIVERSAL	Mounting console for wire feed unit	092-001746-00000
6	95QMM WS 7/12 POL 5M	Robot intermediate hose package, water cooled, standard protective hose, 7/12-pole	092-007855-11105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB2 WIRE CONDUIT	Connection set for Rob 2 wire conduit	092-008205-00000
7.3	DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	ZF ISO 9409-1-A50	Intermediate flange, plastic	094-016554-00000
9	MIG ROB ABK 500 MF	MIG/MAG welding torch 22°, master feeder, 1.2 mm steel, 6 m	094-010203-00000
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

Phoenix, gas-cooled ■ Pulse ● forceArc ● rootArc
Hollow wrist robot system Phoenix 352



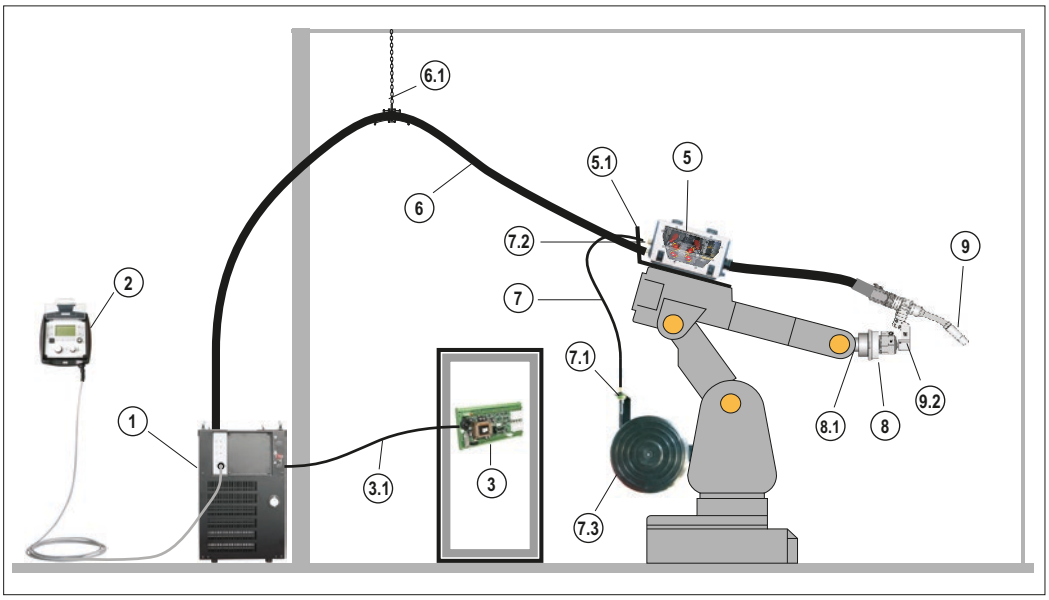
Phoenix 352

- with front control Expert 2.0
- gas-cooled
- M Drive 4 Rob 3X LI
- example shown: Kuka KR5 arc HW

Item	Type	Designation	Item no.
1	Phoenix 352 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005492-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
2	CT M8 CUCRZR AG 1.2/30mm	CuCrZr contact tip, silver plated	094-011272-00000
3	BUSINT X11 DEVICE NET	DEVICE-NET industrial bus interface	090-008230-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
5	M drive 4 Rob 3X LI	Wire feeder for automated applications, opens on left, gas-cooled, Euro torch connector	090-005483-00502
5.1	MONTAGE CONSOLE ROB3 KUKA KR5 HW	Mounting console for wire feed unit	092-002441-00000
6	70QMM GR 7/12 POL 5M	Robot intermediate hose package, gas cooled, ribbed hose, 7/12-pole	092-007855-00205
6.2	MONTAGE SET ZWIPA KUKA KR5 ARC HW	Fastening set for intermediate hose package on robot	092-002510-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB3 WIRE CONDUIT	Connection set for Rob 3 wire conduit	092-007916-00000
7.3	WSH universal	Wire spool holder, robots	092-002558-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	iCAT A	Collision sensor	094-012718-00000
8.1	FLANGE KUKA	KUKA KR5/KR6/KR8/KR16 L8 intermediate flange	094-013316-00000
9.1	TN MIG ROB A500TS 22°	Torch neck ABIROB A500TS	094-011260-00500
9.4	SP KR5 G HWEWM	Hose package, gas cooled	094-013323-00000
10.01	RGN 500G S6 K16/0 75mm	Gas nozzle, conical	094-016487-00500
10.05	RCTH 500 M8 ROB TS W	Contact tip holder	094-011276-00500
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

Phoenix, gas-cooled ■ Pulse ● forceArc ● rootArc
Handling/welding robot system Phoenix 352 RC



Phoenix Q 352 RC

- no front control
- gas-cooled
- welding parameters can be set via external operating panel
- M Drive 4 Rob 2X
- example shown: Kawasaki FS10

Item	Type	Designation	Item no.
1	Phoenix 352 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005468-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
2	RCX Expert 2.0 Rob 2m	Control panel	090-008809-00002
3	BUSINT X11 PROFIBUS	PROFIBUS industrial bus interface	090-008229-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
5	M drive 4 Rob 2X	Wire feeder for automated applications, water-cooled, Euro torch connector	090-005477-00502
5.1	MONTAGE CONSOLE ROB 2 UNIVERSAL	Mounting console for wire feed unit	092-001746-00000
6	70QMM GS 7/12 POL 5M	Robot intermediate hose package, gas cooled, standard protective hose, 7/12-pole	092-007855-00105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB2 WIRE CONDUIT	Connection set for Rob 2 wire conduit	092-008205-00000
7.3	DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	FL ISO 9409-1-A40	Intermediate flange, plastic	094-013347-00500
9	MTR360G 22 1.2mm 1.15m	MIG/MAG welding torch, gas-cooled	094-500033-00000
9.2	HS COMP A22	Holder, rigid, compl., EWM RT 22	094-011656-00500
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
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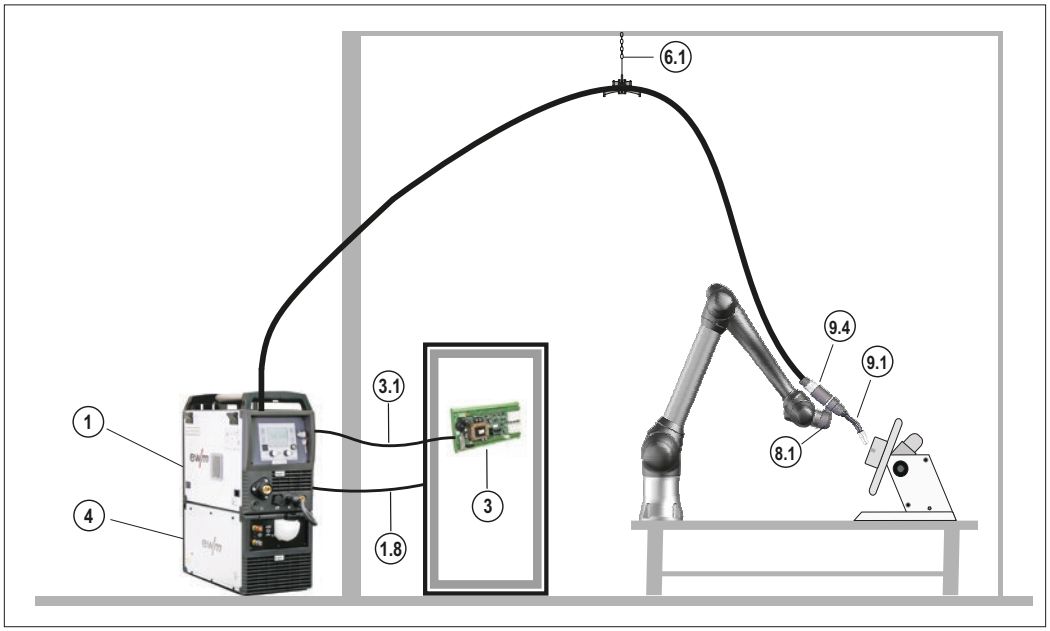
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

Phoenix, water-cooled ■ Pulse ● forceArc ● rootArc
Phoenix 355 co-bot welding robot system



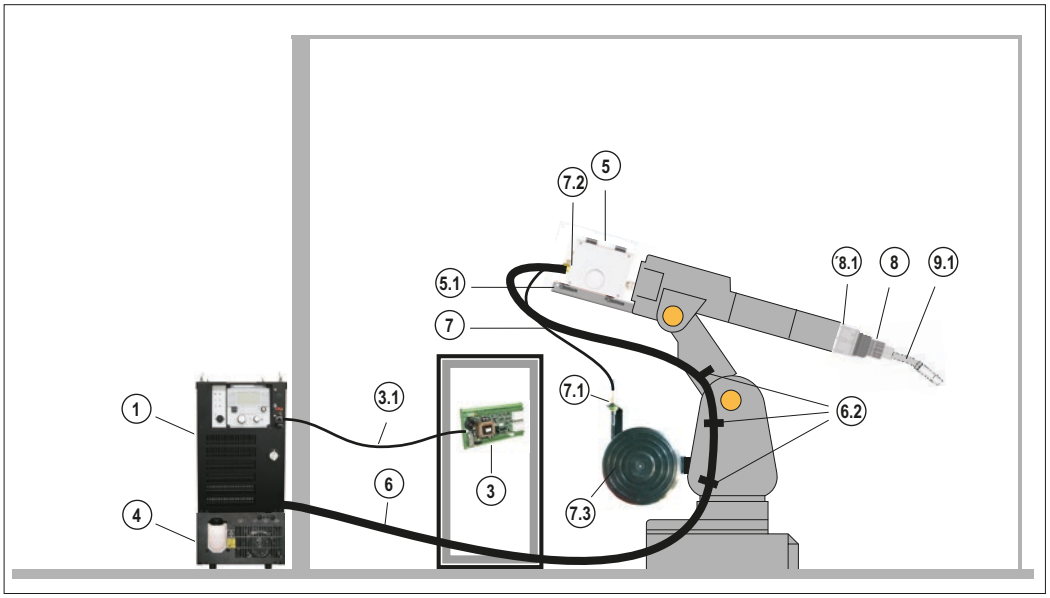
Phoenix 355 Expert 2.0 puls MM TKM Rob

- With Expert 2.0 front control
- With EWM eFeed wire feeder
- Water cooled
- With external BUSINTX11 Mod-bus interface
- As demonstrated on a co-bot welding robot application

Item	Type	Designation	Item no.
1	Phoenix 355 Expert 2.0 puls MM TKM Rob	Multiprocess MIG/MAG pulse welding machine with MULTIMATRIX technology, compact, portable, modular, Expert 2.0 control	090-S05445-04843
1.1	OW CEE 16A/400V	Mains plug, assembled	092-008214-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.5	GH 2x1/4" 5m	Gas hose	094-000010-00005
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	BUSINT X11 MODBUS TCP	MODBUS industrial bus interface	090-008695-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
4	cool50 U40	Cooling unit with centrifugal pump	090-008598-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8.1	AF 45° RMT COBOT	Adapter flange	094-026863-00000
9.1	RMT551W 22,5° X230,4 Y46,5	RMT 22.5° torch neck	094-025074-00001
9.4	SP RMT W C KON 400CM EZA	Co-bot hose package, water cooled	094-026998-01400
10.01	GN TR 23 66mm D=17mm	Gas nozzle	094-014180-00001
10.02	CT M9 CuCrZr 1.0mm	Contact tip	094-013530-00001
10.04	LSTC 2.0mm x 4.6mm 4.5m	Steel liner, insulated	094-014223-00501
10.05	CTH M9X32MM CUCRZR RMTW	Contact tip holder	094-025209-00000
10.06	GV RMT 20,2X14,5X22,5MM PTFE	Gas diffuser	094-025495-00000
-	Set PC300 XQ / ANALYZER	Set comprising PC300 XQ and Analyzer software	090-008779-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ You can find information about external interface variants in the Accessories chapter

Phoenix, water-cooled ■ Pulse ● forceArc ● rootArc
Hollow wrist robot system Phoenix 552



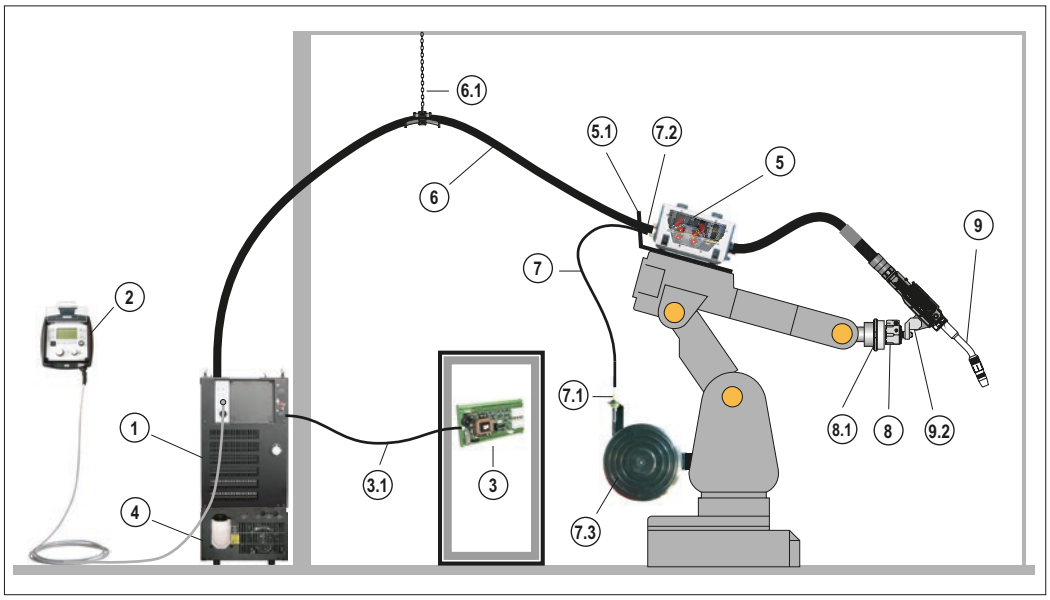
Phoenix 552

- With Expert 2.0 front control
- Water cooled
- M drive 4 Rob 3X LI
- As demonstrated on a Fanuc ArcMate 100iC

Item	Type	Designation	Item no.
1	Phoenix 552 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005494-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	RINT X12 STANDARD	Standard robot interface	090-008291-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
3.2	KB RINT X12 FANUC 34POL	Cable assembly	094-009441-00001
3.2	KB RINT X12 FANUC 50POL		094-009440-00001
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	M drive 4 Rob 3X LI	Wire feeder for automated applications, opens on left, gas-cooled, Euro torch connector	090-005483-00502
5.1	MONTAGE CONSOLE ROB3 FANUC ARC Mate 100iC/120iC	Mounting console for wire feed unit	092-002497-00000
5.2	ON COOL W ROB3	Retrofit option water cooling ROB 3	092-002384-00000
6	95QMM WR 7/12 POL 5M	Robot intermediate hose package, water cooled, ribbed hose, 7/12-pole	092-007855-11205
6.2	MONTAGE SET ZWIPA FANUC ArcMate 100iC	Fastening set for intermediate hose package on robot	092-002567-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB3 WIRE CONDUIT	Connection set for Rob 3 wire conduit	092-007916-00000
7.3	WSH FANUC ARC Mate 100iC	Wire spool holder, robots	092-002559-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	iSTM ABIROB W	Torch interface complete	094-012933-00000
8.1	FLANGE FANUC iSTM	Intermediate flange, FANUC 100iC/120iC	094-012934-00000
8.1	SWIVEL FANUC iSTM	Rotating joint, FANUC 100iC/120iC	094-012935-00000
9.1	BH ROB 500W 22° x242 y50	Torch neck with gas nozzle sensor, 22°	094-012936-00000
9.4	SP C100iC W EZA 0.85m	Hose package, water cooled	094-013714-00000
10.01	GASNOZZ CON NW15.5 L75.5	Gas nozzle, conical	094-010219-00000
10.02	CT M8 CuCrZr 30mm, 1.2mm	Contact tip	094-013113-00000
10.05	RCTH 500 W	Contact tip holder	094-010891-00000
10.06	SPLS 500W HD	Spatter protection, high-temperature-resistant	094-013862-00000
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

Phoenix, water-cooled ■ Pulse ● forceArc ● rootArc
Handling/welding robot system



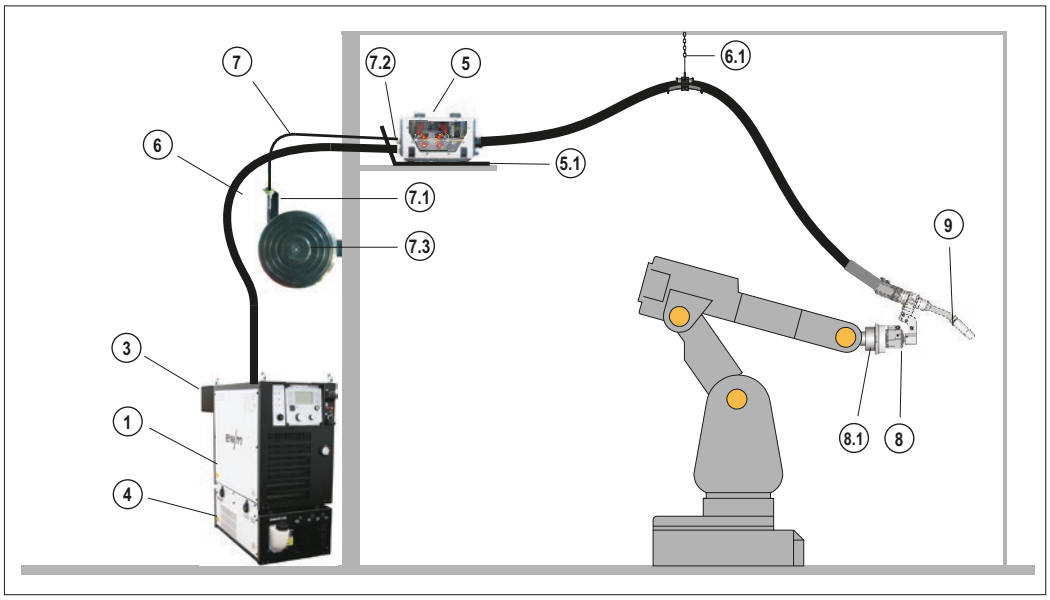
Phoenix 552 RC

- No front control
- Water cooled
- Welding parameters can be set via external operating panel
- M drive 4 Rob 2X
- Example shown: Kuka KR16/ KRC2

Item	Type	Designation	Item no.
1	Phoenix 552 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005470-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
2	RCX Expert 2.0 Rob 2m	Control panel	090-008809-00002
3	BUSINT X11 DEVICE NET	DEVICE-NET industrial bus interface	090-008230-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	M drive 4 Rob 2X	Wire feeder for automated applications, water-cooled, Euro torch connector	090-005477-00502
5.1	MONTAGE CONSOLE ROB 2 UNIVERSAL	Mounting console for wire feed unit	092-001746-00000
6	95QMM WS 7/12 POL 5M	Robot intermediate hose package, water cooled, standard protective hose, 7/12-pole	092-007855-11105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE LEAD 3M	Wire guide	094-018281-00000
7.1	CONNECTOR DV-CAB WIRE LEAD	DV-CAB connection	092-007931-00000
7.2	CONNECTOR DRIVE ROB2 WIRE LEAD	Connection set for Rob 2 wire conduit	092-007913-00000
7.3	DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	FL ISO 9409-1-A40	Intermediate flange, plastic	094-013347-00500
9	MTR500W 22 1.2mm 1.25m	MIG/MAG welding torch, water-cooled	094-500035-00000
9.2	STANHOL	Standard holder	094-010162-00500
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

Phoenix, water-cooled ■ Pulse ● forceArc ● rootArc
Handling/welding robot system Phoenix 552 with MasterFeeder system



Phoenix 552

- With Expert 2.0 front control
- Water cooled
- M drive 4 Rob 2X MF
- As demonstrated on a Reis RV20-6

Item	Type	Designation	Item no.
1	Phoenix 552 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005494-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
3	BUSINT X11 CAN-OPEN ATCASE	CAN-OPEN industrial bus interface in casing	090-008234-00000
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	M drive 4 Rob 2X MF	Wire feeder for automated applications, water-cooled, master feeder	090-005481-00502
5.1	MONTAGE CONSOLE ROB 2 UNIVERSAL	Mounting console for wire feed unit	092-001746-00000
6	95QMM WS 7/12 POL 5M	Robot intermediate hose package, water cooled, standard protective hose, 7/12-pole	092-007855-11105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB2 WIRE CONDUIT	Connection set for Rob 2 wire conduit	092-008205-00000
7.3	DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	RSA STRONG	Collision sensor	094-020727-00000
8.1	ZF ISO 9409-1-A50	Intermediate flange, plastic	094-016554-00000
9	MIG ROB ABK 500 MF	MIG/MAG welding torch 22°, master feeder, 1.2 mm steel, 6 m	094-010203-00000
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
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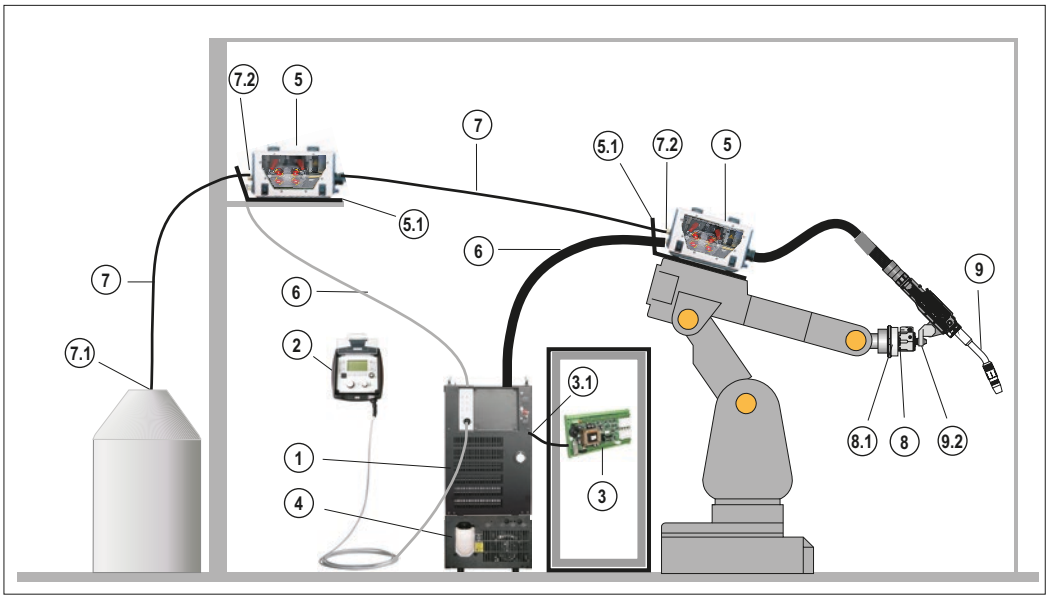
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

Phoenix, water-cooled ■ Pulse ● forceArc ● rootArc
■ Handling/welding robot system with intermediate wire feeder



Phoenix 552 RC

- No front control
- Water-cooled
- Welding parameters can be set via external operating panel
- M Drive 4 Rob 2X
- With intermediate wire feeder
- Example shown: Kuka KR16

Item	Type	Designation	Item no.
1	Phoenix 552 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005470-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
2	RCX Expert 2.0 Rob 2m	Control panel	090-008809-00002
3	BUSINT X11 DEVICE NET	DEVICE-NET industrial bus interface	090-008230-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	M drive 4 Rob 2X	Wire feeder for automated applications, water-cooled, Euro torch connector	090-005477-00502
5	M drive 4 Rob 2X ZT	Intermediate drive for automated applications	090-005480-00502
5.1	MONTAGE CONSOLE ROB 2 UNIVERSAL	Mounting console for wire feed unit	092-001746-00000
5.1			092-001746-00000
6	95QMM WS 7/12 POL 5M	Robot intermediate hose package, water cooled, standard protective hose, 7/12-pole	092-007855-11105
6	SLP S 7/12 POL 5M	Control cable, standard protective hose	092-007855-52105
7	WIRE CONDUIT 3M	Wire guide	094-011515-00000
7	WIRE CONDUIT 8M		094-011515-00002
7.1	CONNECTOR BARREL	Connection for large spool/drum	094-011517-00000
7.2	CONNECTOR DRIVE ROB2 WIRE CONDUIT	Connection set for Rob 2 wire conduit	092-008205-00000
7.2			092-008205-00000
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	ZF ISO 9409-1-A50	Intermediate flange, plastic	094-016554-00000
9	MTR500W 22 1.2mm 1.25m	MIG/MAG welding torch, water-cooled	094-500035-00000
9.2	STANHOL	Standard holder	094-010162-00500
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
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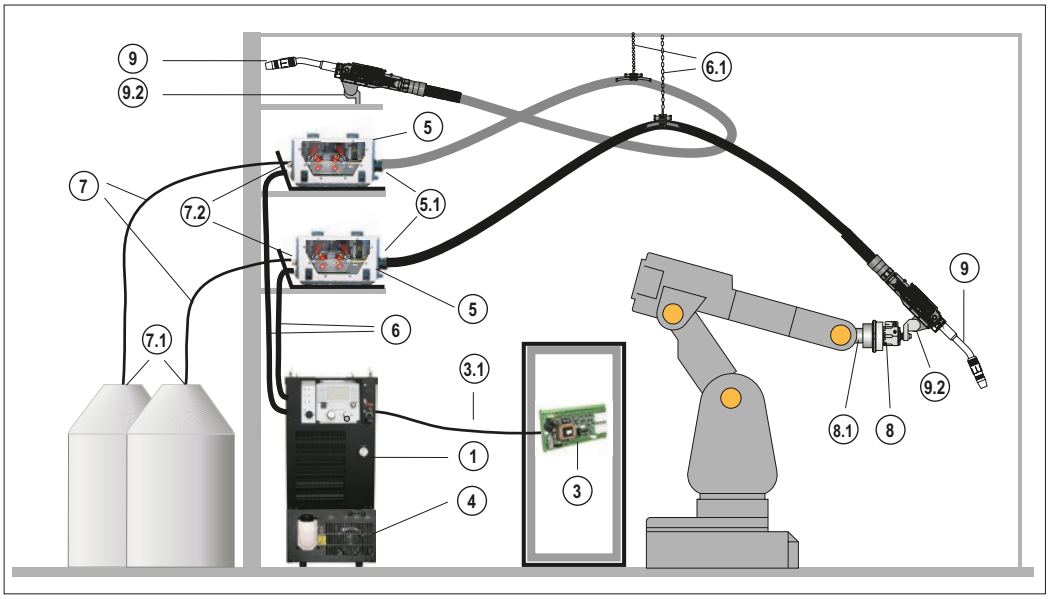
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

Phoenix, water-cooled ■ Pulse ● forceArc ● rootArc
Handling/welding robot system Phoenix 552 with two wire feed units



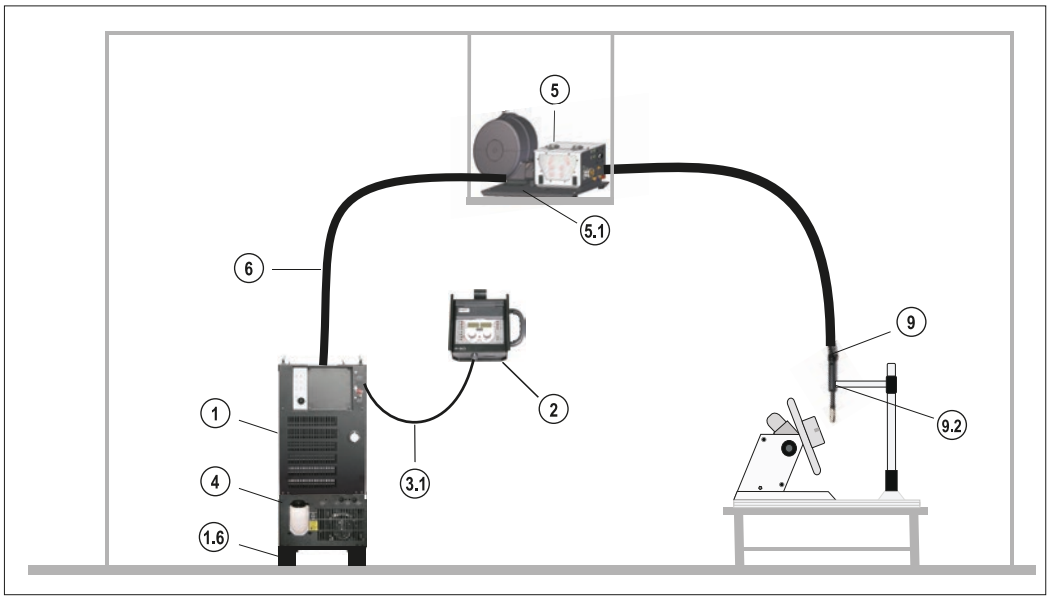
Phoenix 552

- With Expert 2.0 front control
- Water cooled
- Two wire feeders
- Two push/pull welding torches
- As demonstrated on a KUKA KR16

Item	Type	Designation	Item no.
1	Phoenix 552 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005494-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.7	OW ASM 2 ROB DV	Factory-fit option, connection capability 2nd WF to Phoenix / alpha Q	092-002570-00001
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	BUSINT X11 DEVICE NET ON DV SWITCH	Industrial bus interface DEVICE-NET, incl. WF Switch option	090-908230-00001
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
4	cool82 U45 2DV	Cooling unit for robot machines with flow monitor, reinforced version, two connections for 2 wire feeders, for example	090-008280-13502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	M drive 4 Rob 2X	Wire feeder for automated applications, water-cooled, Euro torch connector	090-005477-00502
5			090-005477-00502
5.1	MONTAGE CONSOLE ROB 2 UNIVERSAL	Mounting console for wire feed unit	092-001746-00000
5.1			092-001746-00000
6	95QMM WS 7/12 POL 3M	Robot intermediate hose package, water cooled, standard protective hose, 7/12-pole	092-007855-11103
6			092-007855-11103
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
6.1			094-007890-00000
7	WIRE CONDUIT 3M	Wire guide	094-011515-00000
7			094-011515-00000
7.1	CONNECTOR BARREL	Connection for large spool/drum	094-011517-00000
7.1			094-011517-00000
7.2	CONNECTOR DRIVE ROB2 WIRE CONDUIT	Connection set for Rob 2 wire conduit	092-008205-00000
7.2			092-008205-00000
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	ZF ISO 9409-1-A50	Intermediate flange, plastic	094-016554-00000
9	MTR500W PP 22°, 3.20m	MIG/MAG welding torch, push/pull, water-cooled	094-500073-00000
9			094-500073-00000
9.2	STANHOL	Standard holder	094-010162-00500
9.2			094-010162-00500
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

Phoenix, water-cooled ■ Pulse ● forceArc ● rootArc
Phoenix 552 RC mechanised welding system with M Drive 4 Rob 2X and R50 ROB



Phoenix 552 RC

- No front control
- Water cooled
- Welding parameters can be selected and set via remote control
- M drive 4 Rob 2X with ON DV CAP ROB LI wire spool support
- R50 ROB
- As demonstrated on a simple mechanical application

Item	Type	Designation	Item no.
1	Phoenix 552 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005470-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	DM 842 Ar/CO2 230bar 30l D	Pressure regulator with manometer	394-002910-00030
1.6	PALETTE ROB XX2	Transport pallet for power source and add-on module	090-008275-00000
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
2	R50 ROB 7POL	Remote control for mechanised applications	090-008782-00000
3.1	FRV 7POL 10m	Digital 7-pole cable	092-000201-00000
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	M drive 4 Rob 2X	Wire feeder for automated applications, water-cooled, Euro torch connector	090-005477-00502
5.1	ON DV CAP ROB LI	Rob wire spool support, left	092-003217-00000
6	95QMM WS 7/12 POL 5M	Robot intermediate hose package, water cooled, standard protective hose, 7/12-pole	092-007855-11105
7.4	AK300	Wire spool adapter B300	094-001803-00001
9	AMT551W 22° 1.5m M9	Automated MIG/MAG welding torch, water-cooled	094-500070-00015
9.2	TH AMT	Torch holder suitable for AMT torches	092-019400-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The application examples shown here are possible with both Phoenix and alpha Q machines

Overview

MIG/MAG automation			Page
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alpha Q 352, 552 and Phoenix 352, 452, 552

Signal lights for
- Ready for operation
- Interference
- Welding operation

Connection socket, 7-pole, for items such as
- R50 Rob remote control
- RCX Expert 2 Rob panel
- Xnet LAN/Wi-Fi gateway, external

Inverter technology
- High efficiency
- High duty cycle
- Standby function
- Dust-protected electronics

Easier to operate using Expert 2.0 control

Optionally with Xnet WiFi gateway

PC interface for PC300 software

Optionally with Xnet LAN gateway

Main switch accessible from front

Also available as RC power source without front control

Optionally with built-in LAN or LAN/ WiFi gateway

Rob Expert 2.0 control

- Optimised for automated applications
- Expert 2.0 control with intuitive user guidance on LCD panel and plain text display of all welding parameters and functions
- USB connection
- Easy switching of welding processes at the press of a button, e.g. from forceArc/forceArc puls to rootArc/rootArc puls or standard/pulse
- Setting of all parameters in program sequence
- Administration of access rights for different control operating levels using the Xbutton
- Wire feed speed specifications
- Arc length correction
- Adjusting the arc dynamics (choke effect) from soft to hard
- Standby function (save energy at the press of a button)
- Kilowatt display for calculating the energy per unit length
- Effective arc power for calculating the energy per unit length
- Electronic gas setting with control and monitoring of gas quantity (option)

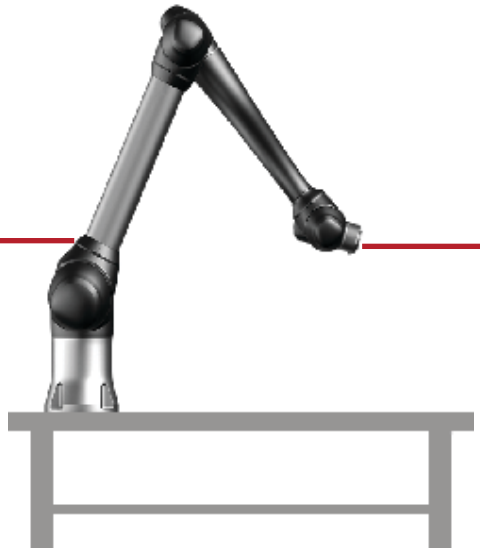
Operation mode	Synergic operation
Welding process	MIG/MAG
	MIG/MAG pulse
	TIG lift arc
	MMA
	forceArc®
	forceArc puls®
	rootArc®
	rootArc puls®
	Superpuls
	Gouging
Parameters in display	Welding current
	Welding voltage
	Wire feed speed
	JOB number
	Program number
	Error code
	Effective arc power
	Motor current
	Kilowatt indicator
Freely adjustable programs per JOB	15
Number of JOBs	335, depending on power source
MMA functions	Hotstart
	Arcforce
	Antistick

The Phoenix 355 puls Rob is the perfect solution for your co-bot MIG/MAG welding applications.

The compact, multiprocess pulse welding machine with integrated wire feeder is incredibly flexible and comes as a gas-cooled variant or water-cooled with an optional cooling unit. Whether it's the RC version without control with separate RCX operating panel, or with built-in Expert 2.0 control, thanks to our interface variants, deep integration into the co-bot control is easy. In addition to simple solutions with automated and robot welding torches, our robot welding torches can also be used with an additional drive. What's more, you also get our RMT hose packages especially developed for co-bots, which come equipped with three freely assignable function push-buttons. We also offer corresponding components, completely tailored to your automated welding tasks.

AMT automated welding torch
gas/water cooled

Phoenix 355 puls Rob/Phoenix 355 Expert 2.0 puls
gas/water cooled



RMT robot welding torch
gas/water cooled

MTR PP robot welding torch
with push/pull drive,
water cooled

RCX Expert 2.0 Rob (optional)

The Phoenix 355 puls Rob automated welding system can also be used on industrial welding robots or as part of mechanised systems.

Co-bot hose package with push-buttons for
- Wire inching
- Wire return
- Gas test

RMT W C or RMT W CT hose package

RMT CRX torch holder
(depending on co-bot)
- UNIVERSAL ROBOTS
  UR 5e, 10e, 16e
- Fanuc CRX 10iA
- Yaskawa HC10
- Doosan M Serie
- Hanwha HCR 5, 10

RMT 551 W welding torch
0°, 22.5°, 35°, 45°

"Teach" co-bot hose package
with push-buttons for
- Wire inching
- Wire return
- Gas test

and three freely assignable function push-buttons
for direct connection to the co-bot, e.g. for
- Robot programming
- Teach mode
- Tack function/welding start

alpha Q puls ■ 352 ● 552 RC

MULTIMATRIX

/rootArc® /rootArc® puls
/coldArc® /coldArc® puls
/forceArc® /forceArc® puls
/Impuls
/superPuls

- No need to purchase additional characteristics – all characteristics for this machine type are included in the scope of delivery ex works
- Multiprocess MIG/MAG pulse welding machine without front control
- Set up on external operating panel or notebook with PC300.NET software
- Standard interface for automated welding (start/stop, control voltage, current flow)
- Very high power reserves enable use of long intermediate hose packages:
  70 mm² up to 30 m 95 mm² up to 40 m
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 510 JOBs each with 15 programs in program mode; wire feed speed, arc length correction and arc dynamics in control signal operation
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

alpha Q	352	552
Setting range for welding current	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	–	550 A / 60 %
	350 A / 100 %	420 A / 100 %
Open circuit voltage	93 V	
Mains voltage	400 V	
Tolerances	-25 % - +20 %	
Mains frequency	50 Hz / 60 Hz	
Recommended generator power	19.3 kVA	39.4 kVA
Protection classification	IP23	
Safety marking	S CE EAC	
EMC class	A	
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm	
Weight	78.5 kg	
Standards	IEC 60974-1 and -10 CL.A	

Type	Designation	Item no.
alpha Q 352 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005464-00502
alpha Q 552 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005465-00502

▶ For more information on the operating panel and wire feeds please refer to the following pages
For more information on interfaces and intermediate hose packages please refer to the „Accessories“ chapter

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000
ON Expert 2.0 ROB Expert 2.0 remote control retrofit	092-003082-00000

Factory-fit options	Item no.
OW 60 V SENSOR VOLTAGE XR Factory-fit option: increased sensor voltage for MIG/MAG XR robot power sources	092-008770-00001
OW ASM 2 ROB DV Factory-fit option, connection capability 2nd WF to Phoenix / alpha Q	092-002570-00001

alpha Q puls ■ 352 ● 552 RC MasterPull

MULTIMATRIX

/rootArc® /rootArc® puls
/coldArc® /coldArc® puls
/forceArc® /forceArc® puls
/Impuls
/superPuls

- No need to purchase additional characteristics – all characteristics for this machine type are included in the scope of delivery ex works
- Multiprocess MIG/MAG pulse welding machine without front control
- Set up on external operating panel or notebook with PC300.NET software
- Connection capability to MasterPull welding torch
- Standard interface for automated welding (start/stop, control voltage, current flow)
- Very high power reserves enable use of long intermediate hose packages:
  70 mm² up to 30 m 95 mm² up to 40 m
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 510 JOBs each with 15 programs in program mode; wire feed speed, arc length correction and arc dynamics in control signal operation
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

alpha Q	352	552
Setting range for welding current	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	–	550 A / 60 %
	350 A / 100 %	420 A / 100 %
Open circuit voltage	93 V	
Mains voltage	400 V	
Tolerances	-25 % - +20 %	
Mains frequency	50 Hz / 60 Hz	
Recommended generator power	19.3 kVA	39.4 kVA
Protection classification	IP23	
Safety marking	S CE EAC	
EMC class	A	
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm	
Weight	78.5 kg	
Standards	IEC 60974-1 and -10 CL.A	

Type	Designation	Item no.
alpha Q 352 puls MM RC MasterPull	MIG/MAG multiprocess pulse welding machine, including connection capability for MasterPull welding torch	090-005466-00502
alpha Q 552 puls MM RC MasterPull	MIG/MAG multiprocess pulse welding machine, including connection capability for MasterPull welding torch	090-005467-00502

▶ For more information on the operating panel and wire feeds please refer to the following pages
For more information on interfaces and intermediate hose packages please refer to the „Accessories“ chapter

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000
ON Expert 2.0 ROB Expert 2.0 remote control retrofit	092-003082-00000

Factory-fit options	Item no.
OW 60 V SENSOR VOLTAGE XR Factory-fit option: increased sensor voltage for MIG/MAG XR robot power sources	092-008770-00001

alpha Q puls ■ 352 ● 552 Expert 2.0

MULTIMATRIX

/rootArc® /rootArc® puls
/coldArc® /coldArc® puls
/forceArc® /forceArc® puls
/Impuls
/superPuls

- No need to purchase additional characteristics – all characteristics for this machine type are included in the scope of delivery ex works
- Multiprocess MIG/MAG pulse welding machine with front control
- Set up on front control or notebook with PC300. NET software
- Expert 2.0 control with intuitive user guidance via LCD panel and plain text display of all welding parameters and functions
- Standard interface for automated welding (start/stop, control voltage, current flow)
- Very high power reserves enable use of long intermediate hose packages:
  70 mm² up to 30 m 95 mm² up to 40 m
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 510 JOBs each with 15 programs in program mode; wire feed speed, arc length correction and arc dynamics in control signal operation
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

alpha Q	352	552
Setting range for welding current	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	–	550 A / 60 %
	350 A / 100 %	420 A / 100 %
Open circuit voltage	93 V	
Mains voltage	400 V	
Tolerances	-25 % - +20 %	
Mains frequency	50 Hz / 60 Hz	
Recommended generator power	19.3 kVA	39.4 kVA
Protection classification	IP23	
Safety marking	S CE EAC	
EMC class	A	
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm	
Weight	78.5 kg	
Standards	IEC 60974-1 and -10 CL.A	

Type	Designation	Item no.
alpha Q 352 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005488-00502
alpha Q 552 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005489-00502

▶ For more information on the operating panel and wire feeds please refer to the following pages
For more information on interfaces and intermediate hose packages please refer to the „Accessories“ chapter

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000

Factory-fit options	Item no.
OW 60 V SENSOR VOLTAGE XR Factory-fit option: increased sensor voltage for MIG/MAG XR robot power sources	092-008770-00001
OW ASM 2 ROB DV Factory-fit option, connection capability 2nd WF to Phoenix / alpha Q	092-002570-00001

alpha Q puls ■ 352 ● 552 Expert 2.0 MasterPull

MULTIMATRIX

/rootArc® /rootArc® puls
/coldArc® /coldArc® puls
/forceArc® /forceArc® puls
/Impuls
/superPuls

- No need to purchase additional characteristics – all characteristics for this machine type are included in the scope of delivery ex works
- Multiprocess MIG/MAG pulse welding machine with front control
- Set up on front control or notebook with PC300. NET software
- Expert 2.0 control with intuitive user guidance via LCD panel and plain text display of all welding parameters and functions
- Connection capability to MasterPull welding torch
- Standard interface for automated welding (start/stop, control voltage, current flow)
- Very high power reserves enable use of long intermediate hose packages:
  70 mm² up to 30 m 95 mm² up to 40 m
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 510 JOBs each with 15 programs in program mode; wire feed speed, arc length correction and arc dynamics in control signal operation
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

alpha Q	352	552
Setting range for welding current	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	–	550 A / 60 %
	350 A / 100 %	420 A / 100 %
Open circuit voltage	93 V	
Mains voltage	400 V	
Tolerances	-25 % - +20 %	
Mains frequency	50 Hz / 60 Hz	
Recommended generator power	19.3 kVA	39.4 kVA
Protection classification	IP23	
Safety marking	S CE EAC	
EMC class	A	
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm	
Weight	78.5 kg	
Standards	IEC 60974-1 and -10 CL.A	

Type	Designation	Item no.
alpha Q 352 Expert 2.0 puls MM MasterPull	MIG/MAG multiprocess pulse welding machine with front control, including connection capability for MasterPull welding torch	090-005490-00502
alpha Q 552 Expert 2.0 puls MM MasterPull	MIG/MAG multiprocess pulse welding machine with front control, including connection capability for MasterPull welding torch	090-005491-00502

▶ For more information on the operating panel and wire feeds please refer to the following pages
For more information on interfaces and intermediate hose packages please refer to the „Accessories“ chapter

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000

Factory-fit options	Item no.
OW 60 V SENSOR VOLTAGE XR Factory-fit option: increased sensor voltage for MIG/MAG XR robot power sources	092-008770-00001

Phoenix puls ■ Rob 355 RC compact

MULTIMATRIX

/rootArc® /rootArc® puls
/forceArc® /forceArc® puls
/Impuls
/superPuls

- Multiprocess MIG/MAG pulse welding machine without front control
- Compact inverter welding machine with integrated wire feed mechanism
- Set up on external operating panel or notebook with PC300.NET software
- Push/pull capability when used with EWM MTR242W PP and MTR500W PP welding torches
- Equipped at no extra charge with EWM Synergic characteristics for forceArc, forceArc puls, rootArc, rootArc puls and superPuls
- Equipped at no extra charge with Synergic characteristics for GMAW welding of steel/CrNi/aluminium
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 510 JOBs each with 15 programs in program mode; wire feed speed, arc length correction and arc dynamics in control signal operation
- RINT X12 and BUSINT X11 for installation in external electrical enclosure
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas cooled or optionally water cooled with cool 50 U40 cooling unit
- Shown in combination with Trolly 55-5 and cool50 U40
- High-precision, powerful EWM eFeed 4-roll wire feed mechanism for secure feeding of all solid and flux cored wires
- Equipped with 1.0–1.2 mm UNI rolls for low to high-alloy steel
- Wire spool diameter up to 300 mm/D300, 200 mm/D200 possible with adapter
- Energy-saving thanks to high efficiency and standby function
- Earth fault monitoring (PE protection)
- Can be optionally connected to LAN or WiFi, ewm Xnet compatible
- PC interface for PC300 XQ software
- 5 m mains supply lead
- 100 % tested and free-welded

Setting range for welding current	5 A - 350 A
Duty cycle 40 °C	350 A / 40 %
	300 A / 60 %
	270 A / 100 %
Open circuit voltage	79 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	18.8 kVA
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	636 mm x 298 mm x 482 mm
Weight	36.2 kg
Wire speed m/min	0.5 m/min - 25 m/min
Wire speed ipm	19.68 ipm - 944.88 ipm

Type	Designation	Item no.
Phoenix 355 puls MM RC TKM Rob	Multiprocess MIG/MAG pulse welding machine with MULTIMATRIX technology, compact, portable, modular, without front control	090-S05502-04752

Options/accessories

Cooling units	Item no.
cool50 U40 Cooling unit with centrifugal pump Water connections in the front, for compact machines (TKM). Modular design, tool-free assembly Excellent torch cooling and therefore cost savings on consumables thanks to the high-performance centrifugal pump External coolant water filling nozzle with filling level indicator ▶ **We recommend using a cooling unit with a reinforced pump for an overall hose package length of 30 m and above, or for machines with an additional miniDrive of 20 m and above**	090-008598-00502
cool50 U42 Cooling unit with boosted pump Cooling unit with a **reinforced pump** for water-cooled welding torches with hose package lengths of 20 m and longer Water connections in the front, for compact machines (TKM). Modular design, tool-free assembly Excellent torch cooling and therefore cost savings on consumables thanks to the high-performance centrifugal pump External coolant water filling nozzle with filling level indicator ▶ **Use of cooling unit with reinforced pump: up to 70 m overall hose package length for decompact machines with separate wire feeder plus additional miniDrive, up to 45 m for decompact machines without additional miniDrive and up to 30 m for compact machines with additional miniDrive**	090-008797-00502

Trolley	Item no.
ON WAK TG.0003/TG.0004/TG.0009/K.0002 Wheel assembly kit Wheel set – facilitates work at frequently changing welding sites	092-001356-00000
Trolly 55-5 Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder, mounted For transporting a power source, a cooling unit and a gas cylinder	090-008632-00000
Trolly 55-6 Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder For transporting a power source, a cooling unit and one or two shielding gas cylinders Can be lifted by crane as standard Supplied with roll brakes	090-008825-00000

Options for welding machines	Item no.
ON Filter TG.0003 Dirt filter for air inlet Comprised of two filter units	092-002662-00000
ON D Barrel TG.0003 Wire guide Rolliner for drum feed	092-007929-00000

Options for transport carts	Item no.
ON Case Tool box for mounting to transport cart Trolly 55-5/Trolly 55-6 All tools and replacement parts always to hand. ▶ **Only available in conjunction with Trolly 55-5 without an additional cooling unit** ▶ **In conjunction with Trolly 55-6, if using a cooling unit, the option "ON Extender" must also be ordered**	092-002899-00000

Phoenix puls ■ Rob 355 Expert 2.0 compact

MULTIMATRIX

/rootArc® /rootArc® puls
/forceArc® /forceArc® puls
/Impuls
/superPuls

- Multiprocess MIG/MAG pulse welding machine with front control
- Compact inverter welding machine with integrated wire feed mechanism
- Set up on front control or notebook with PC300. NET software
- Expert 2.0 control with intuitive user guidance via LCD panel and plain text display of all welding parameters and functions
- Push/pull capability when used with EWM MTR242W PP and MTR500W PP welding torches
- Equipped at no extra charge with EWM Synergic characteristics for forceArc, forceArc puls, rootArc, rootArc puls and superPuls
- Equipped at no extra charge with Synergic characteristics for GMAW welding of steel/CrNi/aluminium
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 510 JOBs each with 15 programs in program mode; wire feed speed, arc length correction and arc dynamics in control signal operation
- RINT X12 and BUSINT X11 for installation in external electrical enclosure
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas cooled or optionally water cooled with cool 50 U40 cooling unit
- Shown in combination with Trolly 55-5 and cool50 U40
- High-precision, powerful EWM eFeed 4-roll wire feed mechanism for secure feeding of all solid and flux cored wires
- Equipped with 1.0–1.2 mm UNI rolls for low to high-alloy steel
- Wire spool diameter up to 300 mm/D300, 200 mm/D200 possible with adapter
- Energy-saving thanks to high efficiency and standby function
- Earth fault monitoring (PE protection)
- Can be optionally connected to LAN or WiFi, ewm Xnet compatible
- PC interface for PC300 XQ software
- 5 m mains supply lead
- 100 % tested and free-welded

Setting range for welding current	5 A - 350 A
Duty cycle 40 °C	350 A / 40 %
	300 A / 60 %
	270 A / 100 %
Open circuit voltage	79 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	18.8 kVA
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	636 mm x 298 mm x 482 mm
Weight	36.2 kg
Wire speed m/min	0.5 m/min - 25 m/min
Wire speed ipm	19.68 ipm - 944.88 ipm

Type	Designation	Item no.
Phoenix 355 Expert 2.0 puls MM TKM Rob	Multiprocess MIG/MAG pulse welding machine with MULTIMATRIX technology, compact, portable, modular, Expert 2.0 control	090-S05445-04843

Options/accessories

Cooling units	Item no.
cool50 U40 Cooling unit with centrifugal pump Water connections in the front, for compact machines (TKM). Modular design, tool-free assembly Excellent torch cooling and therefore cost savings on consumables thanks to the high-performance centrifugal pump External coolant water filling nozzle with filling level indicator ▶ **We recommend using a cooling unit with a reinforced pump for an overall hose package length of 30 m and above, or for machines with an additional miniDrive of 20 m and above**	090-008598-00502
cool50 U42 Cooling unit with boosted pump Cooling unit with a **reinforced pump** for water-cooled welding torches with hose package lengths of 20 m and longer Water connections in the front, for compact machines (TKM). Modular design, tool-free assembly Excellent torch cooling and therefore cost savings on consumables thanks to the high-performance centrifugal pump External coolant water filling nozzle with filling level indicator ▶ **Use of cooling unit with reinforced pump: up to 70 m overall hose package length for decompact machines with separate wire feeder plus additional miniDrive, up to 45 m for decompact machines without additional miniDrive and up to 30 m for compact machines with additional miniDrive**	090-008797-00502

Trolley	Item no.
ON WAK TG.0003/TG.0004/TG.0009/K.0002 Wheel assembly kit Wheel set – facilitates work at frequently changing welding sites	092-001356-00000
Trolly 55-5 Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder, mounted For transporting a power source, a cooling unit and a gas cylinder	090-008632-00000
Trolly 55-6 Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder For transporting a power source, a cooling unit and one or two shielding gas cylinders Can be lifted by crane as standard Supplied with roll brakes	090-008825-00000

Options for welding machines	Item no.
ON Filter TG.0003 Dirt filter for air inlet Comprised of two filter units	092-002662-00000
ON D Barrel TG.0003 Wire guide Rolliner for drum feed	092-007929-00000

Options for transport carts	Item no.
ON Case Tool box for mounting to transport cart Trolly 55-5/Trolly 55-6 All tools and replacement parts always to hand. ▶ **Only available in conjunction with Trolly 55-5 without an additional cooling unit** ▶ **In conjunction with Trolly 55-6, if using a cooling unit, the option "ON Extender" must also be ordered**	092-002899-00000

Phoenix puls ■ 352 ● 452 ● 552 RC

MULTIMATRIX

/rootArc® /rootArc® puls
/forceArc® /forceArc® puls
/Impuls
/superPuls

- No need to purchase additional characteristics – all characteristics for this machine type are included in the scope of delivery ex works
- Multiprocess MIG/MAG pulse welding machine without front control
- Set up on external operating panel or notebook with PC300.NET software
- Standard interface for automated welding (start/stop, control voltage, current flow)
- Very high power reserves enable use of long intermediate hose packages:
  70 mm² up to 30 m 95 mm² up to 40 m
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 510 JOBs each with 15 programs in program mode; wire feed speed, arc length correction and arc dynamics in control signal operation
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Phoenix	352	452	552
Setting range for welding current	5 A - 350 A	5 A - 450 A	5 A - 550 A
Duty cycle 40 °C	–	450 A / 80 %	550 A / 60 %
	350 A / 100 %	420 A / 100 %	
Open circuit voltage	80 V		
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	19.3 kVA	29.1 kVA	39.4 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm		
Weight	78.5 kg		
Standards	IEC 60974-1 and -10 CL.A		

Type	Designation	Item no.
Phoenix 352 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005468-00502
Phoenix 452 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005469-00502
Phoenix 552 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005470-00502

▶ For more information on the operating panel and wire feeds please refer to the following pages
For more information on interfaces and intermediate hose packages please refer to the „Accessories“ chapter

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000
ON Expert 2.0 ROB Expert 2.0 remote control retrofit	092-003082-00000

Factory-fit options	Item no.
OW 60 V SENSOR VOLTAGE XR Factory-fit option: increased sensor voltage for MIG/MAG XR robot power sources	092-008770-00001
OW ASM 2 ROB DV Factory-fit option, connection capability 2nd WF to Phoenix / alpha Q	092-002570-00001

Phoenix puls ■ 352 ● 452 ● 552 RC MasterPull

MULTIMATRIX

/rootArc® /rootArc® puls
/forceArc® /forceArc® puls
/Impuls
/superPuls

- No need to purchase additional characteristics – all characteristics for this machine type are included in the scope of delivery ex works
- Multiprocess MIG/MAG pulse welding machine without front control
- Set up on external operating panel or notebook with PC300.NET software
- Connection capability to MasterPull welding torch
- Standard interface for automated welding (start/stop, control voltage, current flow)
- Very high power reserves enable use of long intermediate hose packages:
  70 mm² up to 30 m 95 mm² up to 40 m
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 510 JOBs each with 15 programs in program mode; wire feed speed, arc length correction and arc dynamics in control signal operation
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Phoenix	352	452	552
Setting range for welding current	5 A - 350 A	5 A - 450 A	5 A - 550 A
Duty cycle 40 °C	–	450 A / 80 %	550 A / 60 %
	350 A / 100 %	420 A / 100 %	
Open circuit voltage	80 V		
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	19.3 kVA	29.1 kVA	39.4 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm		
Weight	78.5 kg		
Standards	IEC 60974-1 and -10 CL.A		

Type	Designation	Item no.
Phoenix 352 puls MM RC MasterPull	MIG/MAG multiprocess pulse welding machine, including connection capability for MasterPull welding torch	090-005471-00502
Phoenix 452 puls MM RC MasterPull	MIG/MAG multiprocess pulse welding machine, including connection capability for MasterPull welding torch	090-005472-00502
Phoenix 552 puls MM RC MasterPull	MIG/MAG multiprocess pulse welding machine, including connection capability for MasterPull welding torch	090-005473-00502

▶ For more information on the operating panel and wire feeds please refer to the following pages
For more information on interfaces and intermediate hose packages please refer to the „Accessories“ chapter

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000
ON Expert 2.0 ROB Expert 2.0 remote control retrofit	092-003082-00000

Factory-fit options	Item no.
OW 60 V SENSOR VOLTAGE XR Factory-fit option: increased sensor voltage for MIG/MAG XR robot power sources	092-008770-00001

Phoenix puls ■ 352 ● 452 ● 552 Expert 2.0

MULTIMATRIX

/rootArc® /rootArc® puls
/forceArc® /forceArc® puls
/Impuls
/superPuls

- No need to purchase additional characteristics – all characteristics for this machine type are included in the scope of delivery ex works
- Multiprocess MIG/MAG pulse welding machine with front control
- Set up on front control or notebook with PC300. NET software
- Expert 2.0 control with intuitive user guidance via LCD panel and plain text display of all welding parameters and functions
- Standard interface for automated welding (start/stop, control voltage, current flow)
- Very high power reserves enable use of long intermediate hose packages:
  70 mm² up to 30 m 95 mm² up to 40 m
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 510 JOBs each with 15 programs in program mode; wire feed speed, arc length correction and arc dynamics in control signal operation
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Phoenix	352	452	552
Setting range for welding current	5 A - 350 A	5 A - 450 A	5 A - 550 A
Duty cycle 40 °C	–	450 A / 80 %	550 A / 60 %
	350 A / 100 %	420 A / 100 %	
Open circuit voltage	80 V		
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	19.3 kVA	29.1 kVA	39.4 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm		
Weight	78.5 kg		
Standards	IEC 60974-1 and -10 CL.A		

Type	Designation	Item no.
Phoenix 352 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005492-00502
Phoenix 452 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005493-00502
Phoenix 552 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005494-00502

▶ For more information on the operating panel and wire feeds please refer to the following pages
For more information on interfaces and intermediate hose packages please refer to the „Accessories“ chapter

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000

Factory-fit options	Item no.
OW 60 V SENSOR VOLTAGE XR Factory-fit option: increased sensor voltage for MIG/MAG XR robot power sources	092-008770-00001
OW ASM 2 ROB DV Factory-fit option, connection capability 2nd WF to Phoenix / alpha Q	092-002570-00001

Phoenix puls ■ 352 ● 452 ● 552 Expert 2.0 MasterPull

MULTIMATRIX

/rootArc® /rootArc® puls
/forceArc® /forceArc® puls
/Impuls
/superPuls

- No need to purchase additional characteristics – all characteristics for this machine type are included in the scope of delivery ex works
- Multiprocess MIG/MAG pulse welding machine with front control
- Set up on front control or notebook with PC300. NET software
- Expert 2.0 control with intuitive user guidance via LCD panel and plain text display of all welding parameters and functions
- Connection capability to MasterPull welding torch
- Standard interface for automated welding (start/stop, control voltage, current flow)
- Very high power reserves enable use of long intermediate hose packages:
  70 mm² up to 30 m 95 mm² up to 40 m
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 510 JOBs each with 15 programs in program mode; wire feed speed, arc length correction and arc dynamics in control signal operation
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Phoenix	352	452	552
Setting range for welding current	5 A - 350 A	5 A - 450 A	5 A - 550 A
Duty cycle 40 °C	–	450 A / 80 %	550 A / 60 %
	350 A / 100 %	420 A / 100 %	
Open circuit voltage	80 V		
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	19.3 kVA	29.1 kVA	39.4 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm		
Weight	78.5 kg		
Standards	IEC 60974-1 and -10 CL.A		

Type	Designation	Item no.
Phoenix 352 Expert 2.0 puls MM MasterPull	MIG/MAG multiprocess pulse welding machine with front control, including connection capability for MasterPull welding torch	090-005495-00502
Phoenix 452 Expert 2.0 puls MM MasterPull	MIG/MAG multiprocess pulse welding machine, including connection capability for MasterPull welding torch	090-005496-00502
Phoenix 552 Expert 2.0 puls MM MasterPull	MIG/MAG multiprocess pulse welding machine with front control, including connection capability for MasterPull welding torch	090-005497-00502

▶ For more information on the operating panel and wire feeds please refer to the following pages
For more information on interfaces and intermediate hose packages please refer to the „Accessories“ chapter

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000

Factory-fit options	Item no.
OW 60 V SENSOR VOLTAGE XR Factory-fit option: increased sensor voltage for MIG/MAG XR robot power sources	092-008770-00001

Phoenix puls 1002 RC

MULTIMATRIX

/rootArc® /rootArc® puls
/forceArc® /forceArc® puls
/Impuls
/superPuls

- No need to purchase additional characteristics – all characteristics for this machine type are included in the scope of delivery ex works
- Multiprocess MIG/MAG pulse welding machine for high-speed welding, without front control
- Set up on external operating panel or notebook with PC300.NET software
- Screw-in power connection
- Standard interface for automated welding (start/stop, control voltage, current flow)
- Very high power reserves enable use of long intermediate hose packages:
  70 mm² up to 30 m 95 mm² up to 40 m
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 510 JOBs each with 15 programs in program mode; wire feed speed, arc length correction and arc dynamics in control signal operation
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled, with recooling unit or cooling unit, water-cooled as option
- 5 m mains supply lead
- 100 % tested and free-welded

Setting range for welding current	10 A - 1000 A
Duty cycle 40 °C	1000 A / 80 %
	750 A / 100 %
Open circuit voltage	80 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	75 kVA
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	780 mm x 375 mm x 1250 mm
Weight	177 kg
Standards	IEC 60974-1 and -10 CL.A

Type	Designation	Item no.
Phoenix 1002 puls MM RC	Multiprocess MIG/MAG pulse welding machine without front control	090-005476-00502

▶ For more information on the operating panel and wire feeds please refer to the following pages
For more information on interfaces and intermediate hose packages please refer to the „Accessories“ chapter

Options/accessories

Options for retrofitting	Item no.
ON Expert 2.0 ROB Expert 2.0 remote control retrofit	092-003082-00000

Factory-fit options	Item no.
OW 60 V SENSOR VOLTAGE XR Factory-fit option: increased sensor voltage for MIG/MAG XR robot power sources	092-008770-00001
OW ASM 2 ROB DV Factory-fit option, connection capability 2nd WF to Phoenix / alpha Q	092-002570-00001

Phoenix puls 1002 Expert 2.0

MULTIMATRIX

/rootArc® /rootArc® puls
/forceArc® /forceArc® puls
/Impuls
/superPuls

- No need to purchase additional characteristics – all characteristics for this machine type are included in the scope of delivery ex works
- Multiprocess MIG/MAG pulse welding machine with front control
- Set up on front control or notebook with PC300. NET software
- Expert 2.0 control with intuitive user guidance via LCD panel and plain text display of all welding parameters and functions
- Screw-in power connection
- Standard interface for automated welding (start/stop, control voltage, current flow)
- Very high power reserves enable use of long intermediate hose packages:
  70 mm² up to 30 m 95 mm² up to 40 m
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 510 JOBs each with 15 programs in program mode; wire feed speed, arc length correction and arc dynamics in control signal operation
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled, with recooling unit or cooling unit, water-cooled as option
- 5 m mains supply lead
- 100 % tested and free-welded

Setting range for welding current	10 A - 1000 A
Duty cycle 40 °C	1000 A / 80 %
	750 A / 100 %
Open circuit voltage	80 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	75 kVA
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	780 mm x 375 mm x 1250 mm
Weight	177 kg
Standards	IEC 60974-1 and -10 CL.A

Type	Designation	Item no.
Phoenix 1002 Expert 2.0 puls MM	Multiprocess MIG/MAG pulse welding machine with front control	090-005500-00502

▶ For more information on the operating panel and wire feeds please refer to the following pages
For more information on interfaces and intermediate hose packages please refer to the „Accessories“ chapter

Options/accessories

Factory-fit options	Item no.
OW 60 V SENSOR VOLTAGE XR Factory-fit option: increased sensor voltage for MIG/MAG XR robot power sources	092-008770-00001
OW ASM 2 ROB DV Factory-fit option, connection capability 2nd WF to Phoenix / alpha Q	092-002570-00001

Options/accessories

Trolley		Item no.
TROLLY ROB XX2 Transport cart for a power source with an add-on module Steady and stable design thanks to the welded structure		090-008278-00000
PALETTE ROB XX2 Transport pallet for power source and add-on module Steady and stable design thanks to the welded structure Suitable for use with forklifts		090-008275-00000

Options for welding machines		Item no.
OW 440/460/480 Volt Equipment of the 355/405/505 and 351/401/451/501/551 machines for 3x 440/460/480 V mains connection (ex works only) Multi-voltage design for operation with mains voltages of 440 V, 460 V and 480 V ▶ **Not possible with the compact 355 series machines!**		092-002647-00001
Mains plug, assembled Mains plug, factory fitting (no retrofitting) ▶ **Suitable for all machines with a welding current of 350 A and above (except compact Phoenix 355, compact Taurus 355 and Picomig 355)**		
OW CEE 32A		092-008215-00000
OW CEE 63A		092-008216-00000

Mains plug		Item no.
Mains plug ▶ **Suitable for all machines with a welding current of 350 A and above (except compact Phoenix 355, compact Taurus 355 and Picomig 355)**		
32A 5POLE/CEE		094-000207-00000
63A 5POLE/CEE		094-003410-00000
125A 5POLE/CEE		094-025475-00000

Connection cables		Item no.
Connection cable, 19-pole, one-sided wire end ferrules		
RA5 19POL 1x 5M		092-001569-00005
RA10 19POL 1x 10M		092-001569-00010
RA15 19POL 1x 15M		092-001569-00015
RA20 19POL 1x 20M		092-001569-00020
RA25 19POL 1x 25M		092-001569-00025

Welding leads		Item no.
Workpiece lead with cable lug		
WK70/CL 5m		092-002078-00005
WK70/CL 10m		092-002078-00010
WK95/CL 5m		092-001990-00005
WK95/CL 10m		092-001990-00010
Workpiece lead with cable lug, angled ▶ **For use with 1,000 A power sources**		
WK95QMM 5m		092-003993-00005
WK95QMM 10m		092-003993-00010

Pressure regulators		Item no.
Pressure regulator with flow meter Two stage, high precision pressure regulator with float type meter for flow measurement Second stage guarantees a constant volume discharge over the whole pressure process		
Optimator AR/MIX 200bar 20l G1/4“		094-011839-00000
Optimator AR/MIX 200 bar, W21,8 G1/4“ 30l		096-000220-00000
Optimator AR/H2 200bar 20l G3/8“L		094-011841-00000

Pressure regulators		Item no.
DM 842 Ar/CO2 230bar 30l D Pressure regulator with manometer Manufactured in accordance with ISO 2503 Maximum primary pressure of 230 bar Single-stage Infinite and highly accurate adjustment Safety manometer with pressure meter or flow meter (bar/psi or litres per minute) With cut-off valve		394-002910-00030
DM 801 Ar/CO2 230bar 30l UK Pressure regulator with manometer Manufactured in accordance with ISO 2503 Maximum primary pressure of 230 bar Single-stage Infinite and highly accurate adjustment Safety manometer with pressure meter or flow meter (bar/psi or litres per minute)		394-002911-00030

General		Item no.
ON AL D13/27 Cap for load sockets		092-003282-00000

Options for retrofitting	Item no.
ON FILTER XX2 Dirt filter for air inlet for robot power sources	092-002714-00000

Gateway

- Networking via integrated Expert 2.0 control with LAN connection for alpha Q puls MM, Phoenix puls MM and Taurus MM machine series
- Option for machines with integrated Expert 2.0 control only

Type	Designation	Item no.
OW EXPERT 2.0 LG ROB	Expert 2.0 LAN gateway (ex works only)	092-003078-00001

- Networking through built-in Expert 2.0 control system with WiFi connection
- For alpha Q puls MM, Phoenix puls MM and Taurus MM machines
- Option for machines with integrated Expert 2.0 control only

Type	Designation	Item no.
OW EXPERT 2.0 WLG ROB	Expert 2.0 WiFi gateway (ex works only)	092-003079-00001

- Xnet LAN gateway
- **Range of functions:**
- Connecting welding machines without integrated Xnet components to an Xnet system (for all EWM machines with integrated 7-pole interface)
- Data transfer via network cable
- USB interface for data recording and data transfer
- Connection of a barcode scanner possible
- Registration option via Xbutton
- Digital display with click wheel operation
- **The following information is shown on the display:**
- network status, network configuration, nominal/actual welding parameters, JOB information, Xnet monitoring of the welding parameters in real time, WPQR welding data assistant, component information, errors and warnings in the system
- **For using it, an Xnet-machine licence is required**

Type	Designation	Item no.
Xnet LAN Gateway	LAN gateway in external housing	090-008833-00502

- Xnet WiFi gateway
- **Range of functions:**
- Connecting welding machines without integrated Xnet components to an Xnet system (for all EWM machines with integrated 7-pole interface)
- Data transfer via WiFi or network cable
- USB interface for data recording and data transfer
- Connection of a barcode scanner possible
- Registration option via Xbutton
- Digital display with click wheel operation
- **The following information is shown on the display:**
- network status, network configuration, nominal/actual welding parameters, JOB information, Xnet monitoring of the welding parameters in real time, WPQR welding data assistant, component information, errors and warnings in the system
- **For using it, an Xnet-machine licence is required**

Type	Designation	Item no.
Xnet WiFi Gateway	WiFi gateway in external casing	090-008834-00502

RCX Expert 2.0 Rob

- Operating panel for setting welding parameters for RC power sources without front control
- Can also be used as an additional control unit on power sources with front control
- Intuitive user guidance via LCD and plain text display of all welding parameters and functions
- Program mode using 15 programs per JOB
- Economical solution: Operating panel required for programming only, not for operation
- Wire feed speed (m/min.), arc correction (volt) and arc dynamics (soft/hard) directly adjustable using two rotary knobs
- Easy to set and change parameters using the click wheel
- Easy switching of welding procedure at the press of a button, e.g. from forceArc/forceArc puls to rootArc/rootArc puls or coldArc/coldArc puls or standard/pulse
- Setting of all parameters in program sequence
- Easy offline data transfer via USB port
- Xbutton for hierarchised access authorisation

Dimensions machine, LxWxH in mm	250 mm x 230 mm x 108 mm
Weight, machine	2 kg

Type	Designation	Item no.
RCX Expert 2.0 Rob 2m	Control panel	090-008809-00002
RCX Expert 2.0 Rob 5m	Control panel	090-008809-00005
RCX Expert 2.0 Rob 10m	Control panel	090-008809-00010
RCX Expert 2.0 Rob 15m	Control panel	090-008809-00015

R50 ROB

- Remote control for mechanised application and use with alpha Q puls MM, Phoenix puls MM and Taurus MM
- Standalone control, all of the welding machine's functions can be set directly at the working site
- Robust metal casing with rubber feet, retaining clip and holding magnet, 7-pole connection socket
- Cable not supplied in delivery, please order connection cable separately

Weight, machine	3.2 kg

Type	Designation	Item no.
R50 ROB 7POL	Remote control for mechanised applications	090-008782-00000

Options/accessories

Connection cables		Item no.
Connection cable, 7-pole 7-pole connection cable, suitable for installation in drag chains **▶ Connection and extension cable for external LAN and WiFi gateway, panel, remote control**		
FRV-25 7POL 10m		092-003417-00010
FRV-25 7POL 15m		092-003417-00015
FRV-25 7POL 20m		092-003417-00020
FRV-25 7POL 25m		092-003417-00025
FRV-25 7POL 30m		092-003417-00030

Connection cable extension		Item no.
Digital 7-pole cable Digital 7-pole cable Extension for 7-pole remote control with permanently installed cable Connection cable for remote control and gateway without permanently installed cable		
FRV 7POL 0.5m		092-000201-00004
FRV 7POL 1m		092-000201-00002
FRV 7POL 5m		092-000201-00003
FRV 7POL 10m		092-000201-00000
FRV 7POL 15m		092-000201-00005
FRV 7POL 20m		092-000201-00001
FRV 7POL 25m		092-000201-00007

Overview

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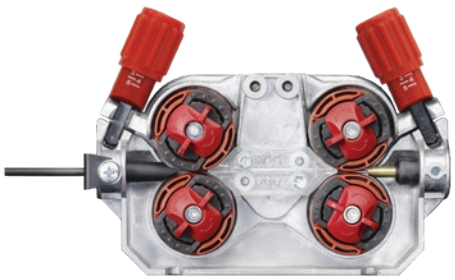
M drive 4 Rob 2X

All MIG/MAG robot wire feeders now feature eFeed wire feed mechanism. Dual ball-bearing drive axles and four individually driven wire feed rolls make the wire feeder highly precise, durable and robust.

ewm's own innovative wire feed mechanism eFeed

- 4-roll drive (quadruple meshing)
- Fully-automated wire inching until wire comes into contact with the workpiece
- Captive roll fastener
- Tool-free roll changes
- Drive roll sets each with four wire feed rolls, colour-coded for various wire diameters and groove shapes
- Conversion kits no longer needed
- Exchange rolls in just three steps – instantly, without tools and with captive parts
- Adjustable contact pressure



All prices excl. VAT and any price increase or alloy surcharges which may be incurred.

M drive 4 Rob 2X ZT

Can be universally used as an additional drive unit for robot power sources.
For wire feeding when there are large distances between spool/drum and welding torch.

Inspection window for checking the drive unit

4-roll eFeed drive for demanding requirements

Push-button for
- Wire inching
- Wire return
- Gas test
- Blow out

Stable, insulated mounting rails

Connection socket, 7-pole (digital), for control cable to power source

Optional connection sets for different wire guides

All prices excl. VAT and any price increase or alloy surcharges which may be incurred.

M drive 4 Rob 3X

Also available as a design with cover cap opening on the left or right.

M drive 4 Rob 3X LI

M drive 4 Rob 3X RE

All prices excl. VAT and any price increase or alloy surcharges which may be incurred.

F drive 4 Rob 3

MIG/MAG robot media box to connect to Phoenix and alpha Q robot power sources in conjunction with EWM front-Drive robot welding torches.

All prices excl. VAT and any price increase or alloy surcharges which may be incurred.

MIG/MAG ■ M drive 4 Rob 2X

- Standard MIG/MAG robot wire feed unit
- Processes all mediums: electricity, water, gas and compressed air (for blowing out)
- Push/pull capability when used with EWM MTR242W PP and MTR500W PP welding torches
- Standard 19-pole connection socket for signal exchange, e.g. collision protection
- Reproducible wire feed speed thanks to fully digital control with incremental transducer, adjustable in increments of 0.1 m/min
- Separate buttons on the front for wire return/inching and gas test
- Tool-free roller changing, captive screws
- With inspection window for checking the wire feeder
- Control using a digital incremental transducer
- Compact machine for simple mounting on the robot
- High level of process security thanks to the control, regulation and monitoring of all process data via a central, digital bus system
- Gas pressure monitoring (optional)
- eFeed: Innovative 4-roll drive (4x toothed)
- Mounting console with strain relief for mounting (optional)

Duty cycle 40 °C	550 A / 60 %
	430 A / 100 %
Wire feed speed	0.5 m/min - 24 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Wire-feed speed increments	0.1 m/min
Torch connection	Euro torch connector
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	407 mm x 201 mm x 229 mm
Weight	9.8 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
M drive 4 Rob 2X	Wire feeder for automated applications, water-cooled, Euro torch connector	090-005477-00502
M drive 4 Rob 2X D	Wire feeder for automated applications, water-cooled, Dinse connector	090-005479-00502
M drive 4 Rob 2X GDS	Wire feeder for automated applications, including gas pressure switch,water-cooled, Euro torch connector	090-005478-00502

▶ Please refer to Wire feeder accessories > eFeed drive rolls section for replacement rolls and drive rolls for various welding consumables
▶ Also available with ECS connection for applications using soft welding consumables.

■ Options/accessories

■ Wire feed units	Item no.
CAPTUB L168 D=2/AD=5MM Capillary tube	094-011951-00000
FR165/L=165MM/ID=4,4/AD=5,0MM Guide tube	094-006050-00001

■ Factory-fit options	Item no.
OW PRESSURE SWITCH Factory-fit option: Pressure controller/gas monitoring	092-000224-00001

MIG/MAG ■ M drive 4 Rob 2X intermediate wire feeder

- MIG/MAG robot wire feed unit, intermediate wire feeder
- Only in combination with M Drive 4 Rob 2
- For wire feeding when there are large distances between spool/drum and welding torch
- Reproducible wire feed speed thanks to fully digital control with incremental transducer, adjustable in increments of 0.1 m/min
- Separate buttons on the front for wire return/inching and gas test
- Tool-free roller changing, captive screws
- With inspection window for checking the wire feeder
- Control using a digital incremental transducer
- Compact machine for simple mounting on or near the robot
- High level of process security thanks to the control, regulation and monitoring of all process data via a central, digital bus system
- eFeed: Innovative 4-roll drive (4x toothed)
- Mounting console with strain relief for mounting (optional)

Wire feed speed	0.5 m/min - 24 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Wire-feed speed increments	0.1 m/min
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	407 mm x 201 mm x 229 mm
Weight	9.8 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
M drive 4 Rob 2X ZT	Intermediate drive for automated applications	090-005480-00502

▶ Please refer to Wire feeder accessories > eFeed drive rolls section for replacement rolls and drive rolls for various welding consumables

MIG/MAG ■ M drive 4 Rob 2X MF for Master feeder torch MIG ROB ABK 500 MF

- MIG/MAG robot wire feed unit, master feeder
- Master/slave wire feed system for demanding requirements of constant and reproducible wire speed and the associated welding seam quality
- System consists of the following coordinated components: MIG/MAG robot wire feed unit and master feeder torch
- Standard 19-pole connection socket for signal exchange, e.g. collision protection
- Reproducible wire feed speed thanks to fully digital control with incremental transducer, adjustable in increments of 0.1 m/min
- Separate buttons on the front for wire return/inching and gas test
- Tool-free roller changing, captive screws
- With inspection window for checking the wire feeder
- Control using a digital incremental transducer
- Compact machine for simple mounting on or near the robot
- High level of process security thanks to the control, regulation and monitoring of all process data via a central, digital bus system
- eFeed: Innovative 4-roll drive (4x toothed)
- Mounting console with strain relief for mounting (optional)

Wire feed speed	0.5 m/min - 24 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Wire-feed speed increments	0.1 m/min
Torch connection	Euro torch connector
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	407 mm x 281 mm x 229 mm
Weight	12 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
M drive 4 Rob 2X MF	Wire feeder for automated applications, water-cooled, master feeder	090-005481-00502

▶ Please refer to Wire feeder accessories > eFeed drive rolls section for replacement rolls and drive rolls for various welding consumables
▶ Can only be used with MIG ROB ABK 500 MF master feeder torch

■ Options/accessories

■ Wire feed units	Item no.
CAPTUB L168 D=2/AD=5MM Capillary tube	094-011951-00000
FR165/L=165MM/ID=4,4/AD=5,0MM Guide tube	094-006050-00001

MIG/MAG ■ M drive 4 Rob 3X light version

- MIG/MAG robot wire feeder, lightweight version
- Opening to right or left side
- Version opening to the left is suitable for use on most hollow wrist robots; please note robot-specific mounting consoles
- Standard 19-pole connection socket for signal exchange, e.g. collision protection
- Reproducible wire feed speed thanks to fully digital control with digital rotary transducer, adjustable in increments of 0.1 m/min.
- Separate buttons on the front for wire return/inching and gas test
- Tool-free roll exchange, captive screws
- Especially light, for gas cooled systems, optional retrofitting for water cooled systems
- With inspection window for checking the wire feed mechanism
- Optimum process reliability thanks to the control, regulation and monitoring of all process data via a central digital bus system
- LED process status display
- Water connection by means of quick connect coupling (optional)
- Mounting plate with strain relief for mounting on the robot (optional)
- With inspection window for checking the wire feeder
- Compact machine for simple mounting on or behind the 3rd robot axis
- High level of process security thanks to the control, regulation and monitoring of all process data via a central, digital bus system
- eFeed: Innovative 4-roll drive (4x toothed)

Duty cycle 40 °C	550 A / 60 %
	430 A / 100 %
Wire feed speed	0.5 m/min - 24 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Wire-feed speed increments	0.1 m/min
Torch connection	Euro torch connector
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	345 mm x 230 mm x 250 mm
Weight	6.5 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
M drive 4 Rob 3X LI	Wire feeder for automated applications, opens on left, gas-cooled, Euro torch connector	090-005483-00502
M drive 4 Rob 3X RE	Wire feeder for automated applications, opens on right, gas-cooled, Euro torch connector	090-005484-00502

▶ Please refer to Wire feeder accessories > eFeed drive rolls section for replacement rolls and drive rolls for various welding consumables

■ Options/accessories

■ Wire feed units	Item no.
CAPTUB L=118 mm; D≤1,6 mm Capillary tube	094-002559-00000
GuidTub L=115mm, D=4,4x5mm Guide tube	094-001064-00000

■ Options for retrofitting	Item no.
ON COOL W ROB3 Retrofit option water cooling ROB 3	092-002384-00000

■ Factory-fit options	Item no.
OW PRESSURE SWITCH ROB3 Factory-fit option: Pressure controller/gas monitoring	092-002784-00001

MIG/MAG ■ M Drive 4 Rob 3X intermediate wire feeder

- MIG/MAG robot wire feed unit, intermediate wire feeder
- For wire feeding when there are large distances between spool/drum and welding torch
- Reproducible wire feed speed thanks to fully digital control with incremental transducer, adjustable in increments of 0.1 m/min
- Separate buttons on the front for wire return/inching and gas test
- Tool-free roller changing, captive screws
- With inspection window for checking the wire feeder
- Control using a digital incremental transducer
- Compact machine for simple mounting on or near the robot
- High level of process security thanks to the control, regulation and monitoring of all process data via a central, digital bus system
- eFeed: Innovative 4-roll drive (4x toothed)
- Mounting console with strain relief for mounting (optional)

Wire feed speed	0.5 m/min - 24 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Wire-feed speed increments	0.1 m/min
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	345 mm x 230 mm x 250 mm
Weight	6.5 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
M drive 4 Rob 3X ZT	Intermediate drive for automated applications	090-005485-00502

▶ Please refer to Wire feeder accessories > eFeed drive rolls section for replacement rolls and drive rolls for various welding consumables

Options/accessories

Options for retrofitting	Item no.
ON COOL W ROB3 Retrofit option water cooling ROB 3	092-002384-00000

Media separation box ■ F drive Rob 3 LI

- MIG/MAG robot media separation box, lightweight version
- For use on Phoenix and alpha Q robot power sources in conjunction with EWM frontDrive welding torch system
- Opens on left
- Standard 19-pole connection socket for signal exchange, e.g. collision protection
- Especially light, for gas cooled systems, optional retrofitting for water cooled systems
- With inspection window for checking the wire guide
- Compact unit for simple mounting on the robot
- Optimum process reliability thanks to the control, regulation and monitoring of all process data via a digital bus system
- Operating status signal light
- EWM powerConnector hose package connection
- Mounting console with strain relief for mounting (optional)
- Water connection by means of quick connect coupling (optional)
- Gas pressure sensor (optional)
- Connection sets for Wire Lead, Wire Lead Soft, Wire Conduit, Masterliner, Rolliner wire guides (optional)

Duty cycle 40 °C	550 A / 60 %
	420 A / 100 %
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	360 mm x 190 mm x 225 mm
Weight	5.5 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
F drive Rob 3 LI	Media separation box for frontDrive robot welding torch, opens on left	090-005391-00502

Options/accessories

Options for retrofitting	Item no.
ON COOL W ROB3 Retrofit option water cooling ROB 3	092-002384-00000

Factory-fit options	Item no.
OW PRESSURE SWITCH ROB3 Factory-fit option: Pressure controller/gas monitoring	092-002784-00001
OW BLOW OUT ROB 3 Factory-fit option: Welding torch blow out Rob 3 frontDrive	092-003204-00001

Wire feed units ■ eFeed drive rolls

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Wire Ø	0.8 mm
Colour code	skin cleaning, special DE

Type	Designation	Colour code	Groove shape	Item no.	Per packing unit
FE 4R 0.8 MM/0.03 INCH WHITE	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	skin cleaning, special DE	V-groove	092-002770-00008	
AL 4R 0.8 MM/0.03 INCH WHITE/ YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	white/yellow	U-groove	092-002771-00008	
FUEL 4R 0.8 MM/0.03 INCH WHITE/ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	White/orange	V-groove/knurl	092-002848-00008	

▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Wire Ø	0.9 mm - 1 mm
Colour code	Blue

Type	Designation	Colour code	Groove shape	Item no.	Per packing unit
FE 4R 1,0 MM/0.04 INCH BLUE	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Blue	V-groove	092-002770-00010	
AL 4R 1.0 MM/0.04 INCH BLUE/ YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	blue/yellow	U-groove	092-002771-00010	
FUEL 4R 1.0 MM/0.04 INCH BLUE/ ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	Blue/orange	V-groove/knurl	092-002848-00010	

▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Wire Ø	0.8 mm - 1 mm
Colour code	white/blue
Groove shape	V-groove

Type	Designation	Item no.	Per packing unit
FE 4R 0.8-1.0MM / 0.03-0.04 INCH BLUE/WHITE	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	092-002770-00009	

▶ Four roll set

Drive roll set

- Universal rolls for wire diameter 1.0 mm–1.2 mm

Wire Ø	1 mm - 1.2 mm
Colour code	Blue/Red
Groove shape	V-groove

Type	Designation	Item no.	Per packing unit
FE 4R 1.0-1.2MM / 0.04-0.045 INCH BLUE/RED	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	092-002770-00011	

▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Wire Ø	1.2 mm
Colour code	Red

Type	Designation	Colour code	Groove shape	Item no.	Per packing unit
FE 4R 1.2 MM/0.045 INCH RED	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Red	V-groove	092-002770-00012	
AL 4R 1.2 MM/0.045 INCH RED/ YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	red/yellow	U-groove	092-002771-00012	
FUEL 4R 1.2 MM/0.045 INCH RED/ ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	Red/orange	V-groove/knurl	092-002848-00012	

▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Wire Ø	1.4 mm
Colour code	Green

Type	Designation	Colour code	Groove shape	Item no.	Per packing unit
FE 4R 1.4 MM/0.052 INCH GREEN	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Green	V-groove	092-002770-00014	
AL 4R 1,4MM/0.052 INCH GREEN/ YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	green/yellow	U-groove	092-002771-00014	
FUEL 4R 1.4 MM/0.052 INCH GREEN/ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	Green/orange	V-groove/ knurl	092-002848-00014	

▶ Four roll set

Wire feed units ■ eFeed drive rolls

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Wire Ø	1.6 mm
Colour code	Black

Type	Designation	Colour code	Groove shape	Item no.		Per packing unit
FE 4R 1.6 MM/0.06 INCH BLACK	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Black	V-groove	092-002770-00016		
AL 4R 1.6 MM/0.06 INCH BLACK/ YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	black/yellow	U-groove	092-002771-00016		
FUEL 4R 1.6 MM/0.06 INCH BLACK/ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	Black/orange	V-groove/knurl	092-002848-00016		

▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Colour code	Grey

Type	Designation	Colour code	Wire Ø	Groove shape	PE	Item no.		
			mm					
FE 4R 2.0 MM/0.08 INCH GREY	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Grey		V-groove		092-002770-00020		
AL 4R 2.0 MM/0.08 INCH GREY/ YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	Grey/yellow	2.0	U-groove	Per packing unit	092-002771-00020		
FUEL 4R 2.0 MM/0.08 INCH GREY/ ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	Grey/ orange		V-groove/ knurl		092-002848-00020		
SET WF 2,0-3,2mm eFeed	Wire feed set for rolls with diameters greater than 1.6 mm	–	–	–	Per unit	092-019404-00000		

▶ For using rolls with a diameter of more than 1.6 mm, the SET WF 2.0–3.2 mm eFeed (092-019404-00000) option is necessary!
▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Colour code	Brown

Type	Designation	Colour code	Wire Ø	Groove shape	PE	Item no.
			mm			
FE 4R 2.4 MM/0.095 INCH BROWN	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Brown	2.4	V-groove	Per packing unit	092-002770-00024
AL 4R 2.4 MM/0.095 INCH BROWN/YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	Brown/ yellow		U-groove		092-002771-00024
FUEL 4R 2.4 MM/0.095 INCH BROWN/ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	Brown/ orange		V-groove/ knurl		092-002848-00024
SET WF 2,0-3,2mm eFeed	Wire feed set for rolls with diameters greater than 1.6 mm	–	–	–	Per unit	092-019404-00000

▶ For using rolls with a diameter of more than 1.6 mm, the SET WF 2.0–3.2 mm eFeed (092-019404-00000) option is necessary!
▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Colour code	Light green

Type	Designation	Colour code	Wire Ø	Groove shape	PE	Item no.
			mm			
FE 4R 2.8 MM/0.11 INCH LIGHT GREEN	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Light green	2.8	V-groove	Per packing unit	092-002770-00028
FUEL 4R 2.8 MM/0.11 INCH LIGHT GREEN/ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	light green/ orange		V-groove/ knurl		092-002848-00028
SET WF 2,0-3,2mm eFeed	Wire feed set for rolls with diameters greater than 1.6 mm	–	–	–	Per unit	092-019404-00000

▶ For using rolls with a diameter of more than 1.6 mm, the SET WF 2.0–3.2 mm eFeed (092-019404-00000) option is necessary!
▶ Four roll set

Wire feed units ■ eFeed drive rolls

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Colour code	Violet

Type	Designation	Colour code	Wire Ø	Groove shape	PE	Item no.
			mm			
FE 4R 3.2 MM/0.12 INCH VIOLET	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Violet	3.2	V-groove	Per packing unit	092-002770-00032
SET WF 2,0-3,2mm eFeed	Wire feed set for rolls with diameters greater than 1.6 mm	–	–	–	Per unit	092-019404-00000

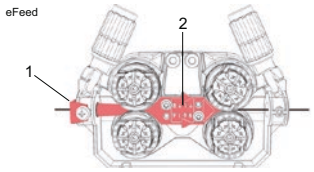
▶ For using rolls with a diameter of more than 1.6 mm, the SET WF 2.0–3.2 mm eFeed (092-019404-00000) option is necessary!
▶ Four roll set

DV X

- You will find further information in the operating instructions.
- Contact our EWM Service Hotline on +49 2680 181-290 or send an email to service@ewm-group.com if you have any questions.
- Wire feed roll support consumables set for eFeed
  - **Problem:**
  - The plastic adapter of the wire feed roll support of the eFeed drive may wear out after long, intensive loads. This wear may cause problems in the wire feeding.
  - **EWM recommends:**
  - An annual check of the wire feed roll support as part of the EN 60974-4 inspection
  - Replacement of the wire feed roll support after 2000 hours of operation
- Includes 4 clamping adapters and all necessary add-ons.

Type	Designation	Item no.
DV X	Wire feed roll mount set	092-002960-E0000

Wire guide set



Type	Designation	Item no.
SET IG 4x4 1.6mm BL	Inlet guide set	092-002780-00000
SET WF 1,6mm eFeed	Wire feed set for rolls up to 1.6 mm in diameter	092-002774-00000
SET WF 2,0-3,2mm eFeed	Wire feed set for rolls with diameters greater than 1.6 mm	092-019404-00000

Overview

MIG/MAG automation			Page
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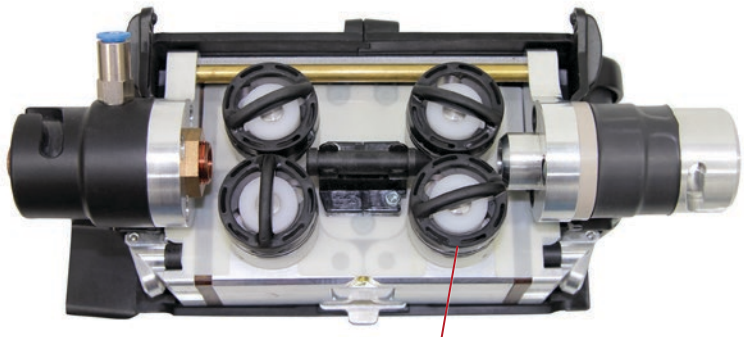
RMT 301G frontDrive

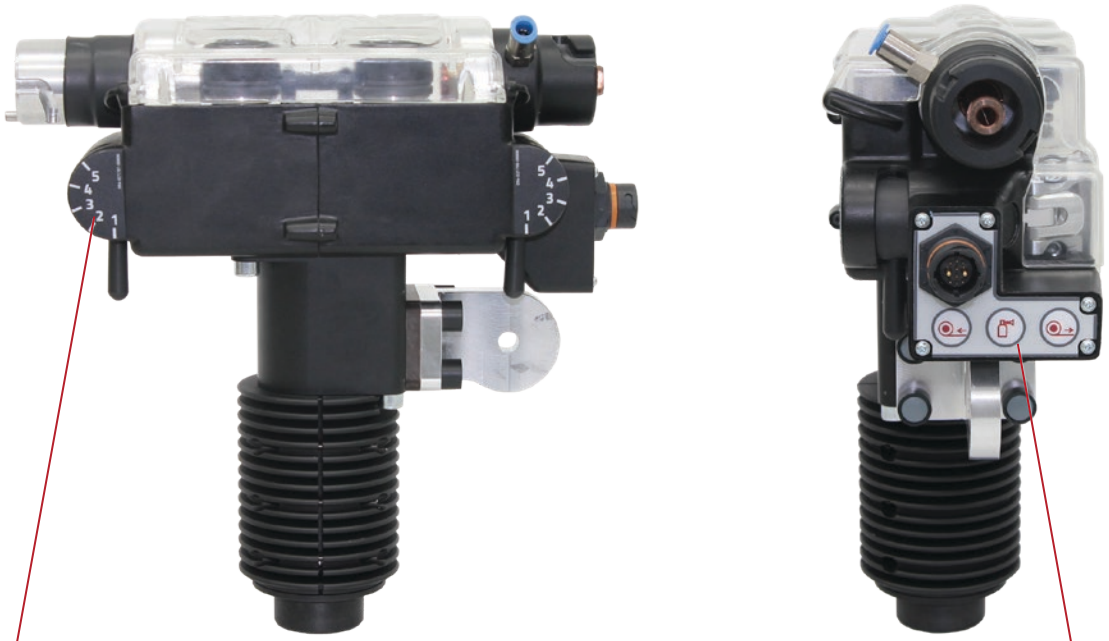
The new gas-cooled robot welding torch for your automated application.
The ewm frontDrive system can be used with conventional robots and is thus easily integrated into your production process. This system also offers greater availability in comparison to push/pull solutions since the wire is conveyed to the process by just one single drive. The frontDrive drive unit is connected to the power source via the F Drive Rob 3 media box and corresponding hose packages.

Drive unit



- Reliable wire feeding thanks to four driven rolls
- Colour-coded wire feed rolls; replaceable without tools

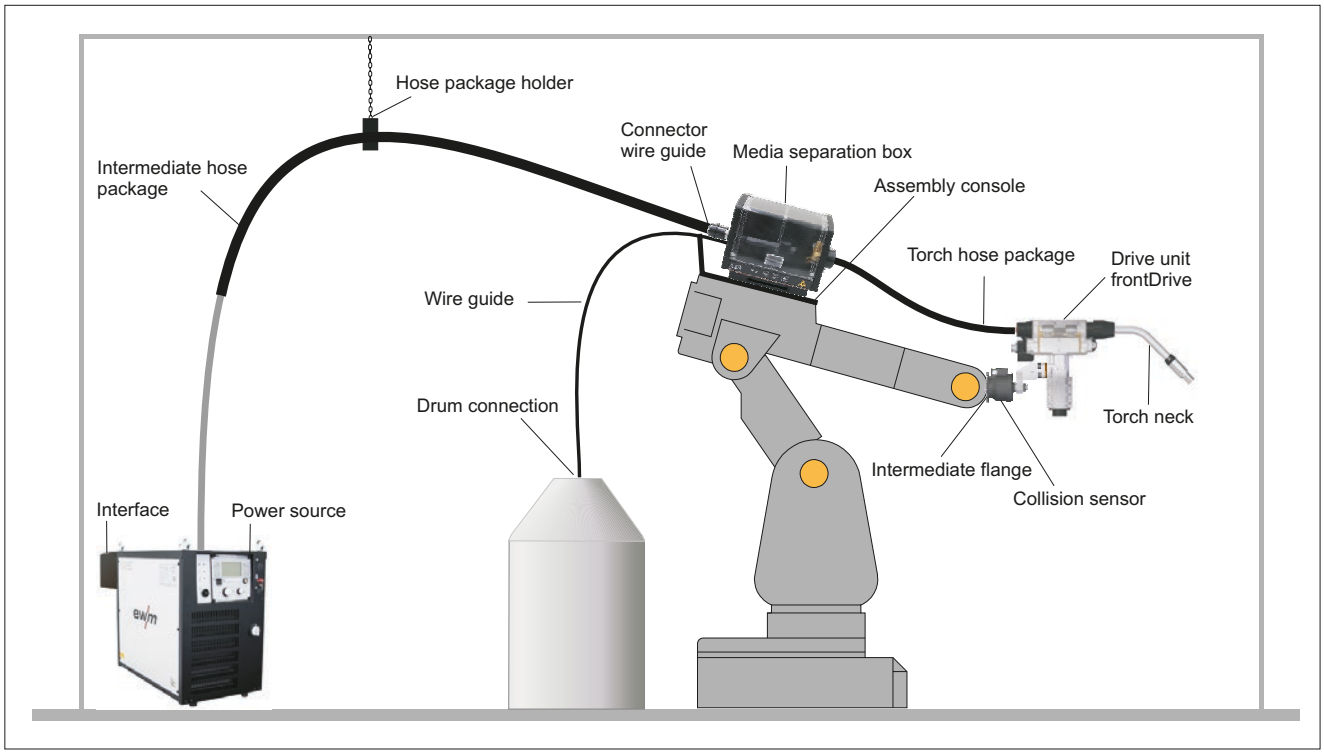
All prices excl. VAT and any price increase or alloy surcharges which may be incurred.



Roll pressure in 5 locking stages for reproducible contact pressure

Push-button for wire inching, wire return, gas test

System overview



All prices excl. VAT and any price increase or alloy surcharges which may be incurred.

RMT RSA robot torch hose packages

Item numbers and prices for torch hose packages from the water-cooled RMT series

An item code is needed to order torch hose packages. It forms the A, BB and CCC parts of the item number and corresponds to the configuration of the hose package. The basic price refers to a hose package length of 100 cm.

Codes for robot torch hose packages

Basic item number: 094-**A**25221-**BBCCC**

Basic price (length 100 cm): 094-525221-00100
Hose package +25cm: 092-004193-00000
Blow-out function: 092-004194-00000
Wire brake: 092-004195-00000

Position in item no.	Code	Designation
A (1–9)	0	Reserve
	1	Reserve
	2	Reserve
	3	Reserve
	4	Reserve
	5	ROB
B (00–99)	00	Standard
	01	Blow-out function
	02	Wire brake
	03	Reserve
	04	Blow-out function + wire brake
	05	Reserve
C (1–999)	1–999	Indication of length in cm (100 cm included in basic price)
		Surcharge per 25 cm from 100 cm length:

All torch hose packages include a 19-pole control cable.

Sample calculations:

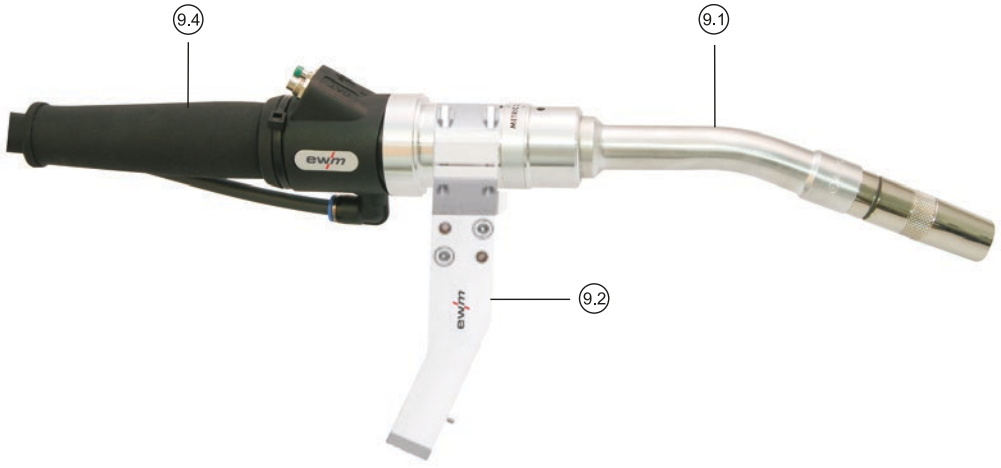
ROB torch hose package, blow-out function, 100 cm

Position in item no.	Code	Designation
A	5	ROB
B	01	Blow-out function
C	100	100 cm
		Additional charges, total surcharges
		Basic price
094- **5** 25221- **01** **100**		**Total price**

ROB torch hose package, blow-out function, wire brake, 150 cm

Position in item no.	Code	Designation
A	5	ROB
B	04	Blow-out function + wire brake
C	150	150 cm
		Total surcharges
		Basic price
094- **5** 25221- **04** **150**		**Total price**

Robot welding torches ■ MTR360G



MIG/MAG robot welding torch, gas cooled

- Maximum TCP security
- Modular construction
- Quick-change torch neck
- Standard equipment: 14 mm gas nozzle, 1.2 mm steel contact tip, 22° torch neck, 1.15 m hose package

Duty cycle CO2

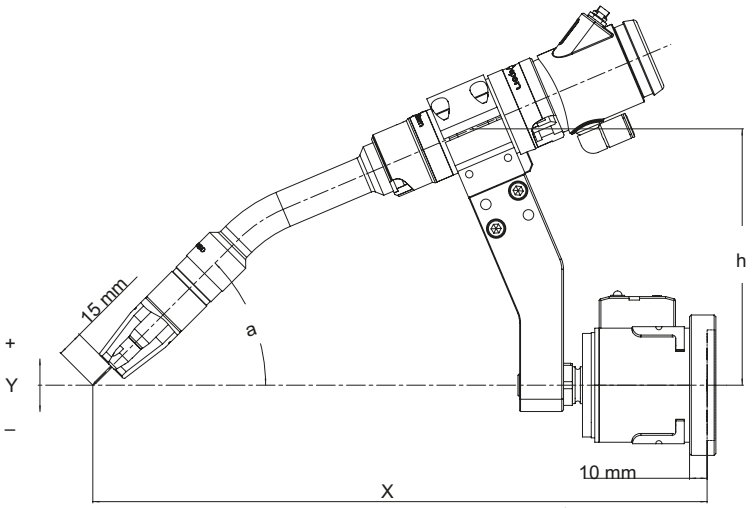
360 A / 100 %

Duty cycle M21

290 A / 100 %

Wire Ø

0.8 mm - 1.4 mm



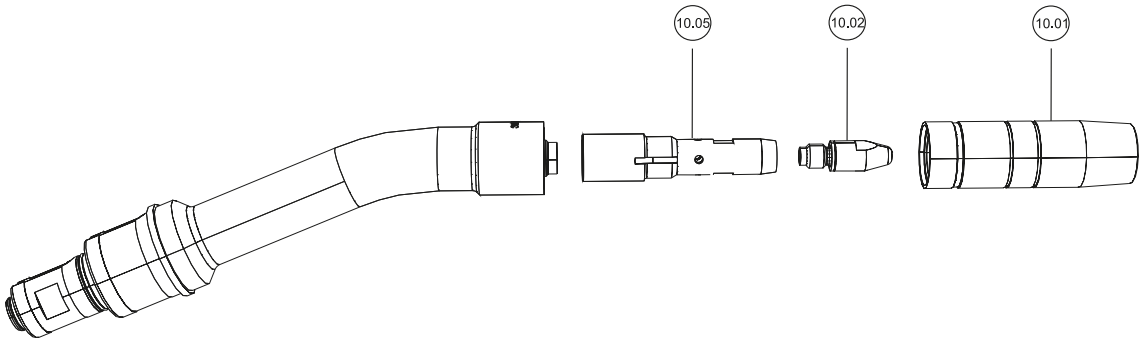
angle	X	Y	h	a
22°	**350**	0	146	45°
45°	**350**	0	107	45°

Item	Type	Designation	Length m	Item no.
9	MTR360G 22 1.2mm 1.15m	MIG/MAG welding torch, gas-cooled	-	094-500033-00000
9.1	RTN 360G 22DG	Torch neck EWM RT 22°		094-010139-00500
9.1	RTN 360G 45DG	Torch neck EWM RT 45°		094-010148-00500
9.2	HS COMP A22	Holder, rigid, compl., EWM RT 22		094-011656-00500
9.2	HS MIG ROB S45	Holder, rigid, compl., EWM RT 45		094-011658-00000
9.2	RTM interlock/SH compl. for VTS/ EWM RT	RTM interlock/SH compl. for VTS/EWM RT		094-016500-00500
9.4	TBROB ECO 0.9m	RT A ECO hose package	0.9	094-016492-00507
9.4	TBROB ECO 1.15m		1.2	094-016492-00500
9.4	TBROB ECO 1.20m			094-016492-00501
9.4	TBROB ECO 1.30m		1.3	094-016492-00502
9.4	TBROB ECO 1.45m		1.4	094-016492-00503
9.4	TBROB ECO 1.60m		1.6	094-016492-00504
9.4	TBROB ECO 2.15m		2.2	094-016492-00505
9.4	TBROB ECO 3.15m		3.2	094-016492-00506

▶ Order welding torch fully equipped. Replacement parts and equipment parts are not part of the scope of supply and must be ordered based on the specific application!

▶ More hose package lengths, torch neck angles and replacement parts on request!

Consumables/Accessories



Item	Designation	Stickout/Recess mm	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, conical	0	14	-	-	68	-	1	094-010142-00500
10.01	Gas nozzle, conical	0	16	-	-	68	-	1	094-010566-00500
10.02	CuCrZr contact tip, silver plated	-	-	0.8	M6	28	CuCrZr, silver-plated	10	094-010468-00000
10.02	CuCrZr contact tip, silver plated	-	-	0.9	M6	28	CuCrZr, silver-plated	10	094-010469-00000
10.02	CuCrZr contact tip, silver plated	-	-	1	M6	28	CuCrZr, silver-plated	10	094-010470-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.2	M6	28	CuCrZr, silver-plated	10	094-016488-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.4	M6	28	CuCrZr, silver-plated	10	094-010471-00000
10.05	Contact tip holder	-	-	-	M6	-	-	1	094-010143-00500

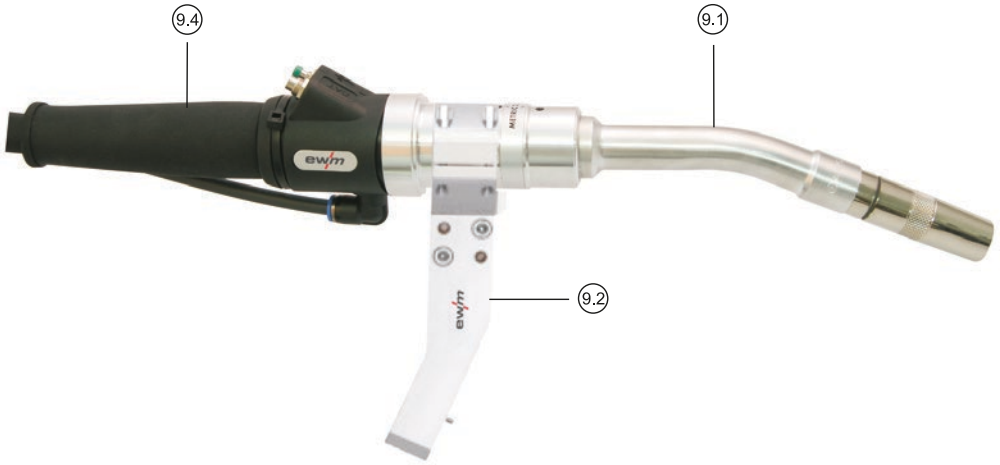
Liners

Designation	Wire Ø mm	Length m	PU Units	Item no.
Steel liner, steel, black	0.8 - 1.2	2	1	094-011667-00500
Steel liner, steel, black	0.8 - 1.2	3.15	1	094-016493-00500
Steel liner, steel, black	0.8 - 1.2	10	1	094-016495-00500

Options/accessories

Torch accessories	Item no.
RTN FIX 360G/500G 0/22/45DG Adjusting device for 0°, 22°, 45°	094-010152-00000

Robot welding torches ■ MTR500G



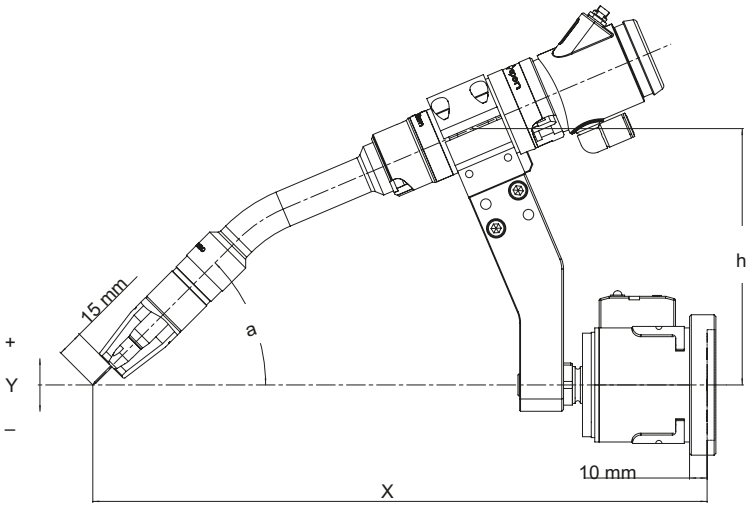
MIG/MAG robot welding torch, gas cooled

- Maximum TCP security
- Modular construction
- Quick-change torch neck

Duty cycle CO2
500 A / 100 %

Duty cycle M21
400 A / 100 %

Wire Ø
0.8 mm - 1.6 mm

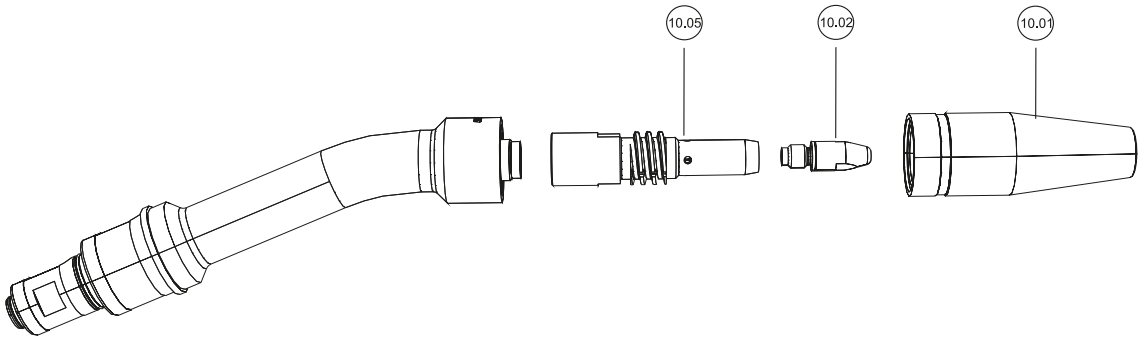


angle	X	Y	h	a
22°	**350**	0	146	45°
45°	**350**	0	107	45°

Item	Type	Designation	Length m	Item no.
9.1	RTN 500G 22DG	Torch neck EWM RT 22°	-	094-011260-00500
9.1	RTN 500G 45DG	Torch neck EWM RT 45°		094-011262-00500
9.2	HS COMP A22	Holder, rigid, compl., EWM RT 22		094-011656-00500
9.2	HS COMP A45	Holder, rigid, compl., EWM RT 45		094-016499-00500
9.2	RTM interlock/SH compl. for VTS/ EWM RT	RTM interlock/SH compl. for VTS/EWM RT		094-016500-00500
9.4	TBROB ECO 0.9m	RT A ECO hose package	0.9	094-016492-00507
9.4	TBROB ECO 1.15m		1.2	094-016492-00500
9.4	TBROB ECO 1.20m			094-016492-00501
9.4	TBROB ECO 1.30m		1.3	094-016492-00502
9.4	TBROB ECO 1.45m		1.4	094-016492-00503
9.4	TBROB ECO 1.60m		1.6	094-016492-00504
9.4	TBROB ECO 2.15m		2.2	094-016492-00505
9.4	TBROB ECO 3.15m		3.2	094-016492-00506

▶ Order welding torch fully equipped. Replacement parts and equipment parts are not part of the scope of supply and must be ordered based on the specific application!
▶ More hose package lengths, torch neck angles and replacement parts on request!

Consumables/Accessories



Item	Designation	Stickout/Recess mm	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, conical	0	16	-	-	75	-	1	094-016487-00500
10.02	CuCrZr contact tip, silver plated	-	-	0.8	M8	30	CuCrZr, silver-plated	10	094-011269-00000
10.02	CuCrZr contact tip, silver plated	-	-	0.9	M8	30	CuCrZr, silver-plated	10	094-011270-00000
10.02	CuCrZr contact tip, silver plated	-	-	1	M8	30	CuCrZr, silver-plated	10	094-011271-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.2	M8	30	CuCrZr, silver-plated	10	094-011272-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.4	M8	30	CuCrZr, silver-plated	10	094-011273-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.6	M8	30	CuCrZr, silver-plated	10	094-011274-00000
10.05	Contact tip holder	-	-	-	M8	70	-	1	094-011276-00500

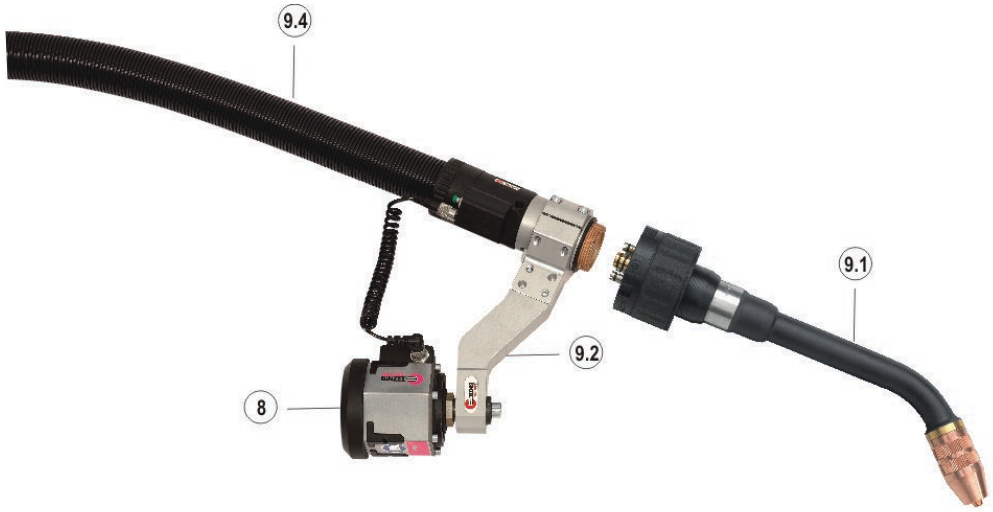
Liners

Designation	Wire Ø mm	Length m	PU Units	Item no.
Steel liner, steel, black	0.8 - 1.2	2	1	094-011667-00500
Steel liner, steel, black	0.8 - 1.2	3.15	1	094-016493-00500
Steel liner, steel, black	0.8 - 1.2	10	1	094-016495-00500

Options/accessories

Torch accessories	Item no.
RTN FIX 360G/500G 0/22/45DG Adjusting device for 0°, 22°, 45°	094-010152-00000

Robot welding torches ■ MTR300W



MIG/MAG robot welding torch, water cooled

- Maximum TCP security
- Modular construction
- Quick-change torch neck
- Non-return valves for coolant
- One-piece liner

Duty cycle CO2

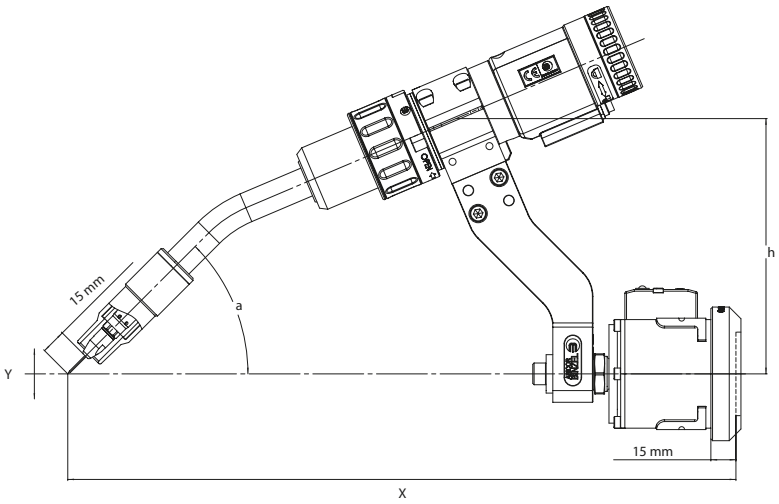
330 A / 100 %

Duty cycle M21

300 A / 100 %

Wire Ø

0.8 mm - 1.2 mm

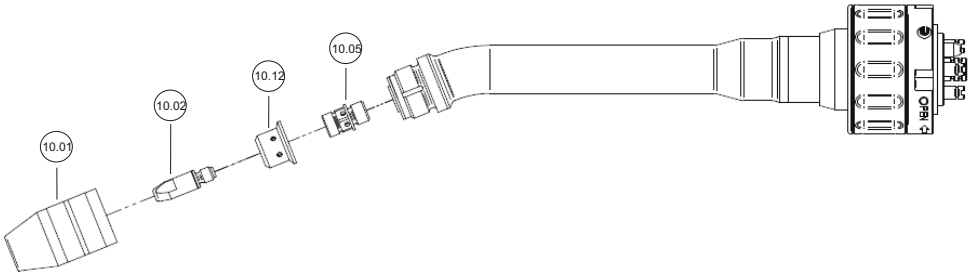


Winkel	X	Y	h	a
22°	400	0	149	45°
45°	400	0	90	50°

Item	Type	Designation	Length m	Item no.
8	CAT3 PRO TR XL	Collision sensor	–	394-008605-00000
9.1	BH ROB 300W 22° x279 y30	Torch neck with gas nozzle sensor, 22°	-	094-022442-00000
9.1		Torch neck, 22°		094-022441-00000
9.1	BH ROB 300W 45° x260 y65	Torch neck with gas nozzle sensor, 45°		094-022443-00000
9.1		Torch neck, 45°		094-022431-00000
9.2	H ROB 300W 22° CAT2-HL	Rigid holder for torch neck, 22°		094-022448-00000
9.2	H ROB 300W 45° CAT2-HL	Rigid holder for torch neck, 45°		094-022449-00000
9.2	HL CAT3 PRO TR STD	Standard holder	–	094-024721-00000
9.4	SP ROB W 1,10m	Hose package, water-cooled up to 400 A	1.1	094-022454-00000
9.4	SP ROB W 2,15m		2.2	094-022454-00505
9.4	SP ROB W 5m		5.0	094-022454-00005

▶ Order welding torch fully equipped. Replacement parts and equipment parts are not part of the scope of supply and must be ordered based on the specific application!
▶ More hose package lengths, torch neck angles and replacement parts on request!

Consumables/Accessories

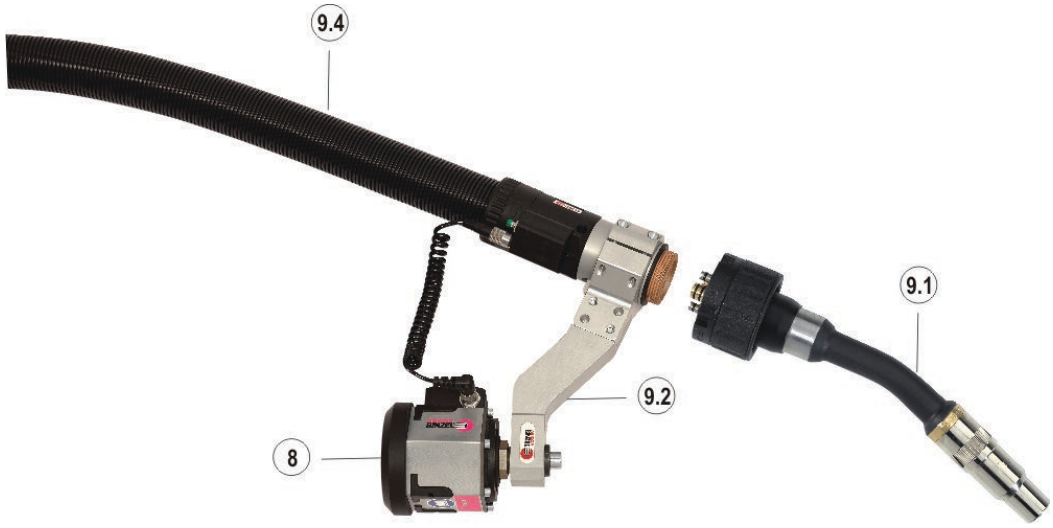


Item	Designation	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, conical	13	-	-	44.5	-	1	094-020913-00000
10.01	Gas nozzle, conical	13	-	-	48.5	-	1	094-022432-00000
10.01	Gas nozzle, conical	15.5	-	-	44.5	-	1	394-001924-00000
10.02	Contact tip	-	0.8	M6	28	CuCrZr	10	094-005407-00000
10.02	Contact tip	-	0.9	M6	28	CuCrZr	10	094-005408-00000
10.02	Contact tip	-	1	M6	28	CuCrZr	10	094-003339-00000
10.02	Contact tip	-	1.2	M6	28	CuCrZr	10	094-005224-00000
10.05	Contact tip holder M6	-	-	M6	19	Copper	1	094-020914-00000
10.12	Gas diffuser standard	-	-	M10	13	-	1	094-020915-00000
10.12	Gas diffuser ceramic	-	-	M10	13	-	1	094-022453-00000

Liners

Designation	Wire Ø mm	Length m	PU Units	Item no.
Steel liner, steel, black	0.8 - 1.2	2	1	094-011667-00500
Combined steel liner, aluminium	0.8 - 1.2	2.4	1	094-013325-00000

Robot welding torches ■ MTR505W



MIG/MAG robot welding torch, water cooled

- Maximum TCP security
- Modular construction
- Quick-change torch neck
- Non-return valves for coolant
- One-piece liner

Duty cycle CO2

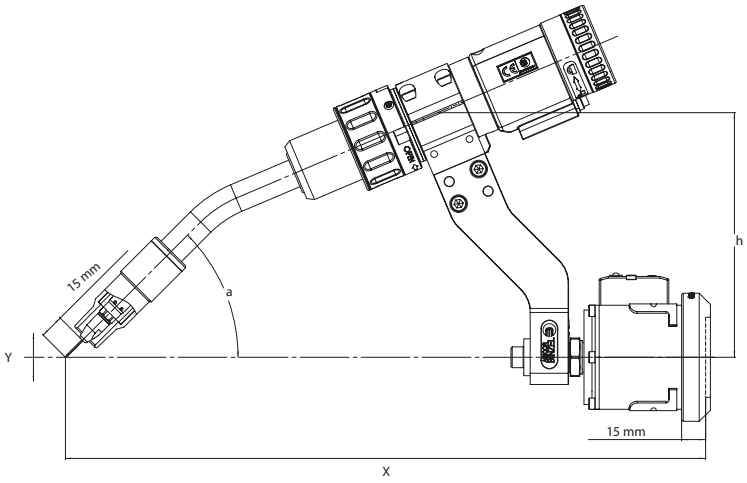
550 A / 100 %

Duty cycle M21

500 A / 100 %

Wire Ø

0.8 mm - 1.6 mm



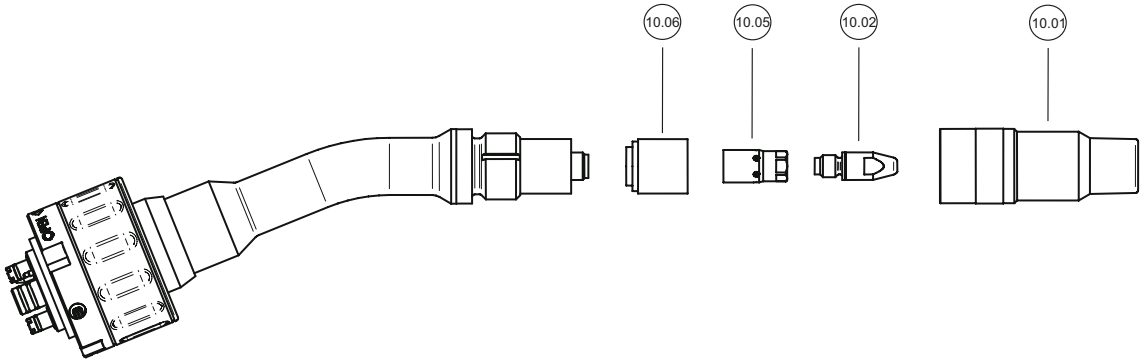
Winkel	X	Y	h	a
22°	400	0	153	45°
35°	400	0	125	45°
45°	400	0	126	50°

Item	Type	Designation	Length m	Item no.
8	CAT3 PRO TR XL	Collision sensor	–	394-008605-00000
9.1	BH ROB 500W 22° x242 y50	Torch neck with gas nozzle sensor, 22°	-	094-012936-00000
9.1		Torch neck, 22°		094-019839-00000
9.1	BH ROB 500W 35° x227 y81	Torch neck with gas nozzle sensor, 35°		094-012937-00000
9.1		Torch neck, 35°		394-000502-00000
9.1	BH ROB 500W 45° x211 y105	Torch neck with gas nozzle sensor, 45°		094-012716-00000
9.1		Torch neck, 45°		094-022444-00000
9.2	H ROB 500W 22° CAT2-HL	Rigid holder for torch neck, 22°		094-022450-00000
9.2	H ROB 500W 35° CAT2-HL	Rigid holder for torch neck, 35°		094-022451-00000
9.2	H ROB 500W 45° CAT2-HL	Rigid holder for torch neck, 45°		094-022452-00000
9.2	HL CAT3 PRO TR STD	Standard holder	–	094-024721-00000
9.4	SP ROB W 1,10m	Hose package, water-cooled over 400 A	1.1	094-022440-00000
9.4		Hose package, water-cooled up to 400 A		094-022454-00000
9.4	SP ROB W 2,15m		2.2	094-022454-00505
9.4	SP ROB W 5m		5.0	094-022454-00005

▶ Order welding torch fully equipped. Replacement parts and equipment parts are not part of the scope of supply and must be ordered based on the specific application!

▶ More hose package lengths, torch neck angles and replacement parts on request!

Consumables/Accessories



Item	Designation	Stickout/Recess mm	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, bottle shape	- 1.1	13	-	-	75.5	-	1	094-010221-00000
10.01	Gas nozzle, conical	+ 1.9	15.5	-	-	72.5	-	1	094-010220-00500
10.01	Gas nozzle, bottle shape	- 2.6	13	-	-	77	-	1	094-022446-00000
10.01	Gas nozzle, conical	- 1.1	15.5	-	-	75.5	-	1	094-010219-00000
10.01	Gas nozzle, bottle shape	+ 2.4	15.5	-	-	72	-	1	094-010222-00000
10.01	Gas nozzle, bottle shape	- 1.1	15.5	-	-	75.5	-	1	094-018003-00000
10.01	Gas nozzle, bottle shape	- 2.6	15.5	-	-	77	-	1	094-009895-00000
10.02	Contact tip	-	-	0.8	M6	28	CuCrZr	10	094-005407-00000
10.02	Contact tip	-	-	0.9	M6	28	CuCrZr	10	094-005408-00000
10.02	Contact tip	-	-	1	M6	28	CuCrZr	10	094-003339-00000
10.02	Contact tip	-	-	1.2	M6	28	CuCrZr	10	094-005224-00000
10.02	Contact tip	-	-	0.8	M8	30	CuCrZr	10	094-005409-00000
10.02	Contact tip	-	-	0.9	M8	30	CuCrZr	10	094-005410-00000
10.02	Contact tip	-	-	1	M8	30	CuCrZr	10	094-005225-00000
10.02	Contact tip	-	-	1.2	M8	30	CuCrZr	10	094-004207-00000
10.02	Contact tip	-	-	1.4	M8	30	CuCrZr	10	094-005411-00000
10.02	Contact tip	-	-	1.6	M8	30	CuCrZr	10	094-005412-00000
10.05	Contact tip holder	-	-	-	M6	23.2	Brass	1	094-022445-00000
10.05	Contact tip holder	-	-	-	M6	23.2	Copper	1	094-010892-00000
10.05	Contact tip holder	-	-	-	M8	23.2	Brass	1	094-009896-00000
10.05	Contact tip holder	-	-	-	M8	23.2	Copper	1	094-010891-00000
10.06	Spatter protection, standard	-	-	-	M18	21	-	1	094-009897-00000
10.06	Spatter protection, high-temperature-resistant	-	-	-	-	21	-	1	094-013862-00000
10.06	Splash protection, standard, short	-	-	-	-	11.4	-	1	094-020106-00000
10.12	Gas diffuser standard	-	-	-	-	17	-	1	094-019840-00000

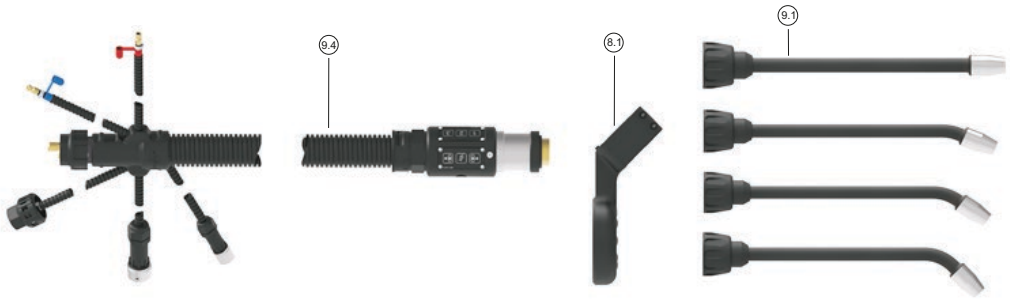
Liners

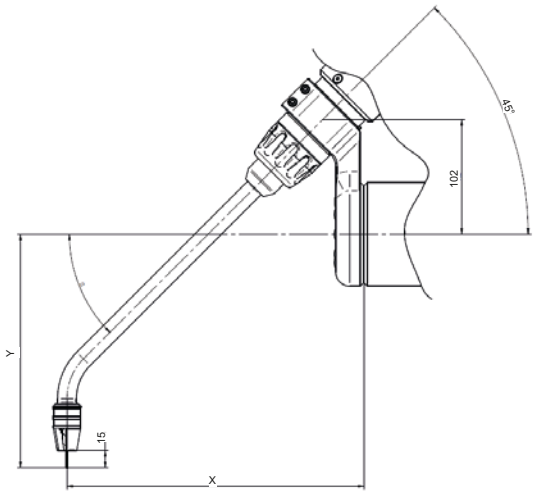
Designation	Wire Ø mm	Length m	PU Units	Item no.
Steel liner, steel, black	0.8 - 1.2	2	1	094-011667-00500
Liner, steel, white	1.4 - 1.6	2.15	1	094-011668-00000
Combined steel liner, aluminium	0.8 - 1.2	2.4	1	094-013325-00000
Combined steel liner, aluminium	1.4 - 1.6	2.4	1	094-022447-00000

Options/accessories

Torch accessories	Item no.
EV ROB W500 Adjusting device	394-008143-00000

Robot welding torches ■ RMT301W Cobot





Types	X in mm	Y in mm	a in °
0°	320,5	182	45
22,5°	297,5	197,5	67,5
35°	281	203,5	80
45°	264	207,5	90

MIG/MAG robot welding torch, water cooled

- Maximum TCP safety
- Modular construction
- Quick-change torch neck
- Water stop for coolant
- One-piece liner
- Push-button for wire inching, wire return, gas test
- RMT W CT + three freely assignable function buttons
- Suitable for compact Phoenix 355 puls Rob welding machine
- **Equipment as supplied (steel wire Ø 1.2 mm):**
- Gas nozzle Ø 24 mm; 38 mm
- Gas diffuser Ø 18 mm
- Contact tip M7 x 30 mm; Ø 1.2 mm
- Contact tip holder M7 x 18 mm
- Steel liner red; Ø 2 mm x 4.6 mm

Duty cycle CO2
330 A / 100 %

Duty cycle M21
290 A / 100 %

Duty cycle M21 pulse
250 A / 100 %

Wire Ø
0.8 mm - 1.2 mm

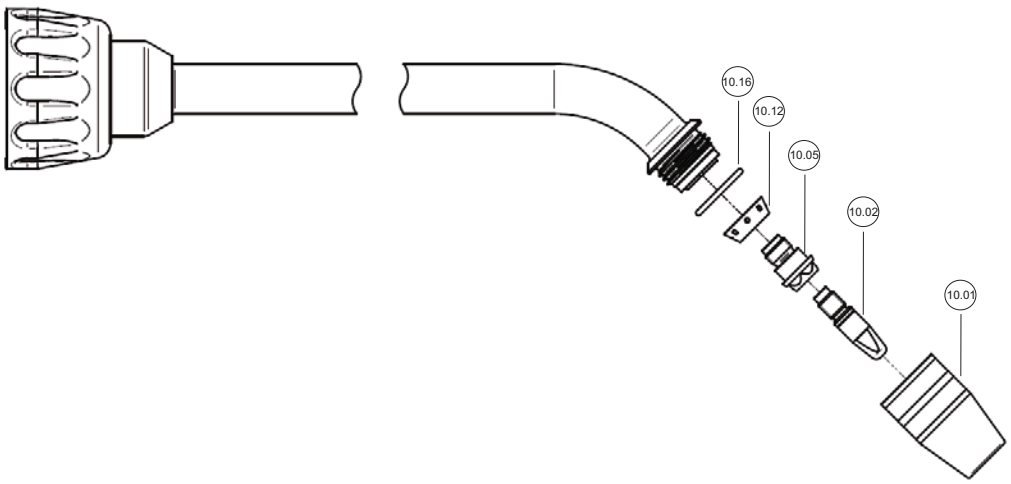
Connection
Euro torch connector

Approvals
CE sign

Item	Type	Designation	Length m	Item no.
8.1	AF 45° RMT COBOT	Adapter flange	–	094-026863-00000
8.1	AF HV SP RMT W K	Adapter flange, adjustable		094-026995-00000
8.1	ZFV RMT/COBOT	Intermediate flange extension		094-027183-00000
9.1	RMT301W 0° X318,5 Y0	RMT 0° torch neck	-	094-026764-00000
9.1	RMT301W 22,5°	RMT 22.5° torch neck		094-027114-00000
9.1	RMT301W 35°	RMT 35° torch neck		094-027115-00000
9.1	RMT301W 45° X337,5 Y58	RMT 45° torch neck		094-026981-00000
9.4	SP RMT W C KON 300CM EZA	Co-bot hose package, water cooled	3.0	094-026998-01300
9.4	SP RMT W C KON 400CM EZA		4.0	094-026998-01400
9.4	SP RMT W C KON 500CM EZA		5.0	094-026998-01500
9.4	SP RMT W CT KON 300CM EZA	Teach co-bot hose package, water cooled	3.0	094-026988-01300
9.4	SP RMT W CT KON 400CM EZA		4.0	094-026988-01400
9.4	SP RMT W CT KON 500CM EZA		5.0	094-026988-01500

▶ More hose package lengths, torch neck versions and co-bot-specific adapter flanges upon request!

Consumables/Accessories



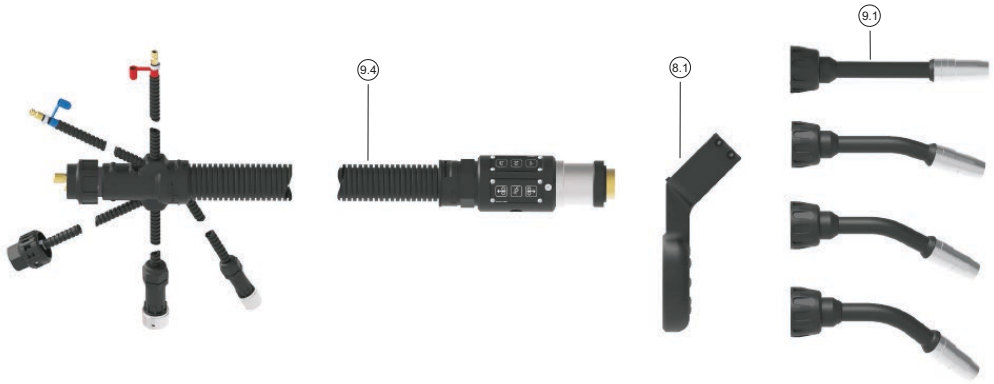
Item	Designation	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle	24	-	-	37.8	-	1	094-024876-00000
10.02	Contact tip	-	0.8	M7	30	CuCrZr	10	094-013535-00001
10.02	Contact tip	-	0.9	M7	30	CuCrZr	10	094-013536-00001
10.02	Contact tip	-	1	M7	30	CuCrZr	10	094-013537-00001
10.02	Contact tip	-	1.2	M7	30	CuCrZr	10	094-013538-00001
10.05	Contact tip holder	-	-	-	18	-	1	094-024877-00000
10.12	Gas diffuser	-	-	-	-	-	1	094-024875-00000
10.16	O-ring	-	-	-	-	-	1	094-024874-00000
-	O-ring for Euro torch connector	-	-	-	-	-	20	094-013967-00000
-	Centring piece	-	-	M7	15-	-	1	094-026853-00000
-	Torch key	-	-	-	-	-	1	094-016038-00001
-	Special hook spanner	-	-	-	-	-	1	094-027163-00001

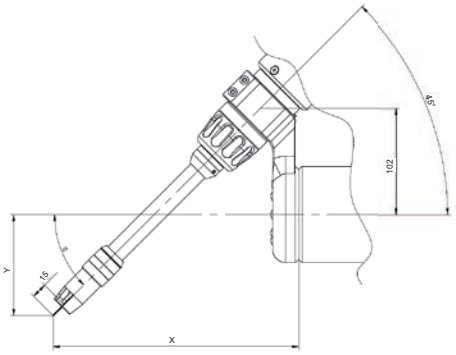
▶ More consumables and spare parts upon request!

Liners

Item	Designation	Wire Ø mm	Inside Ø mm	Outside Ø mm	Length m	PU Pack	Item no.
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	3.6	2	094-007239-00501
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	4.5	2	094-014223-00501
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	5.6	2	094-014224-00501
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	3.6	2	094-013074-00501
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	4.6	2	094-013075-00501
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	5.6	2	094-014221-00501

Robot welding torches ■ RMT551W Cobot





Types	X in mm	Y in mm	a in °
0° W	235,5	97	45
22,5° W	196	123,5	67,5
35° W	162	136,5	80
45° W	137,5	140,5	90
22,5° WL	265,5	192	67,5
35° WL	235	206	80
45° WL	208	211	90

MIG/MAG robot welding torch, water cooled

- Maximum TCP safety
- Modular construction
- Quick-change torch neck
- Water stop for coolant
- One-piece liner
- Push-button for wire inching, wire return, gas test
- RMT W CT + three freely assignable function buttons
- Suitable for compact Phoenix 355 puls Rob welding machine
- **Equipment as supplied (steel wire Ø 1.2 mm)**:
- Gas nozzle Ø 17 mm; 66 mm
- Gas diffuser Ø 20 mm
- Contact tip M9 x 35 mm; Ø 1.2 mm
- Contact tip holder M9 x 32 mm
- Steel liner red; Ø 2 mm x 4.6 mm

Duty cycle CO2
650 A / 100 %

Duty cycle M21
550 A / 100 %

Duty cycle M21 pulse
500 A / 100 %

Wire Ø
0.8 mm - 2 mm

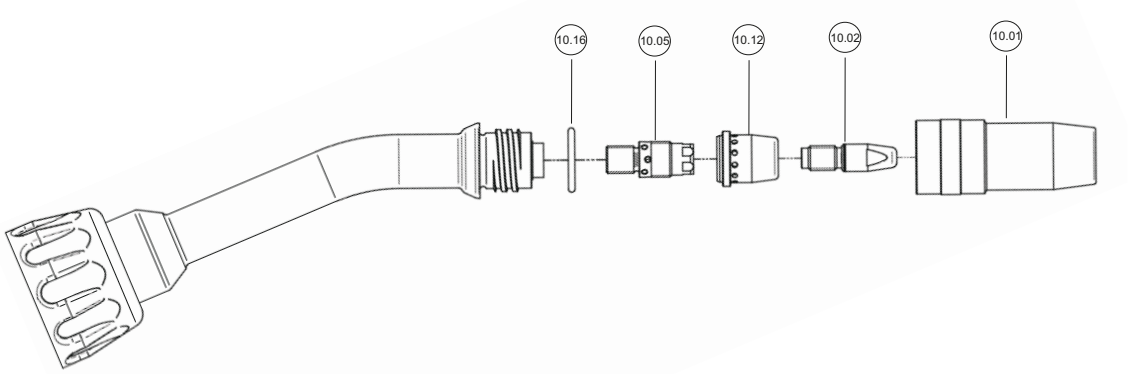
Connection
Euro torch connector

Approvals
CE sign

Item	Type	Designation	Length m	Item no.
8.1	AF 45° RMT COBOT	Adapter flange	–	094-026863-00000
8.1	AF HV SP RMT W K	Adapter flange, adjustable		094-026995-00000
8.1	ZFV RMT/COBOT	Intermediate flange extension		094-027183-00000
9.1	RMT551W 0° X239,3 Y0	RMT 0° torch neck	-	094-025531-00001
9.1	RMT551W 22,5° X230,4 Y46,5	RMT 22.5° torch neck		094-025074-00001
9.1	RMT551W 35° X215,4 Y80	RMT 35° torch neck		094-025075-00001
9.1	RMT551W 45° X196,7 Y110	RMT 45° torch neck		094-025076-00001
9.1	RMT551WL 22,5° X330,4 Y46,5	RMT 22.5° torch neck		094-026635-00000
9.1	RMT551WL 35° X315,4 Y80	RMT 35° torch neck		094-026636-00000
9.1	RMT551WL 45° X300,9 Y100	RMT 45° torch neck		094-026637-00000
9.4	SP RMT W C KON 300CM EZA	Co-bot hose package, water cooled	3.0	094-026998-01300
9.4	SP RMT W C KON 400CM EZA		4.0	094-026998-01400
9.4	SP RMT W C KON 500CM EZA		5.0	094-026998-01500
9.4	SP RMT W CT KON 300CM EZA	Teach co-bot hose package, water cooled	3.0	094-026988-01300
9.4	SP RMT W CT KON 400CM EZA		4.0	094-026988-01400
9.4	SP RMT W CT KON 500CM EZA		5.0	094-026988-01500

► More hose package lengths, torch neck versions and co-bot-specific adapter flanges upon request!

Consumables/Accessories



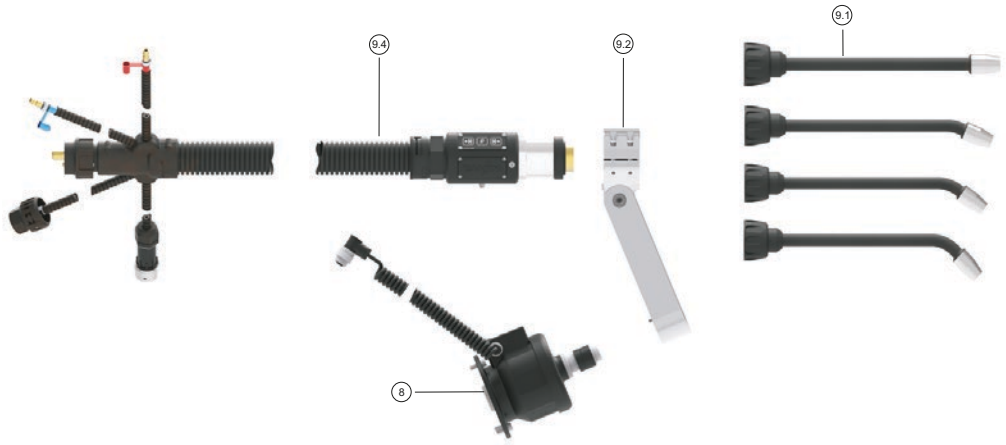
Item	Designation	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU	Item no.	PE
10.01	Gas nozzle	15	-	-	66	-	10 Units	094-014178-00001	Per unit
10.01	Gas nozzle	17	-	-	66	-	10 Units	094-014180-00001	Per unit
10.01	Gas nozzle	19	-	-	66	-	10 Units	094-014182-00001	Per unit
10.01	Gas nozzle	15	-	-	63	-	10 Units	094-014177-00001	Per unit
10.01	Gas nozzle	17	-	-	63	-	10 Units	094-014179-00001	Per unit
10.01	Gas nozzle	19	-	-	63	-	10 Units	094-014181-00001	Per unit
10.02	Contact tip	-	0.8	M9	35	CuCrZr	10 Units	094-013528-00001	Per unit
10.02	Contact tip	-	0.9	M9	35	CuCrZr	10 Units	094-013529-00001	Per unit
10.02	Contact tip	-	1	M9	35	CuCrZr	10 Units	094-013530-00001	Per unit
10.02	Contact tip	-	1.2	M9	35	CuCrZr	10 Units	094-013531-00001	Per unit
10.02	Contact tip	-	1.4	M9	35	CuCrZr	10 Units	094-013532-00001	Per unit
10.02	Contact tip	-	1.6	M9	35	CuCrZr	10 Units	094-013533-00001	Per unit
10.02	Contact tip	-	2	M9	35	CuCrZr	10 Units	094-013534-00001	Per unit
10.02	Contact tip, aluminium welding	-	0.8	M9	35	E-Cu	10 Units	094-013543-00001	Per unit
10.02	Contact tip, aluminium welding	-	0.9	M9	35	E-Cu	10 Units	094-013544-00001	Per unit
10.02	Contact tip, aluminium welding	-	1	M9	35	E-Cu	10 Units	094-013545-00001	Per unit
10.02	Contact tip, aluminium welding	-	1.2	M9	35	E-Cu	10 Units	094-013546-00001	Per unit
10.02	Contact tip, aluminium welding	-	1.4	M9	35	E-Cu	10 Units	094-013547-00001	Per unit
10.02	Contact tip, aluminium welding	-	1.6	M9	35	E-Cu	10 Units	094-013548-00001	Per unit
10.02	Contact tip, aluminium welding	-	2	M9	35	E-Cu	10 Units	094-013549-00001	Per unit
10.02	Forced contact contact tip	-	1	M9	35	CuCrZr	1 Units	094-017007-00001	Per unit
10.02	Forced contact contact tip	-	1.2	M9	35	CuCrZr	1 Units	094-016159-00001	Per unit
10.02	Forced contact contact tip	-	1.6	M9	35	CuCrZr	1 Units	094-025533-00000	Per unit
10.05	Contact tip holder	-	-	-	-	-	5 Pack	094-025209-00000	Per packing unit
10.05	Contact tip holder	-	-	-	-	-	1 Units	094-025338-00000	Per unit
10.12	Gas diffuser	-	-	-	-	-	5 Pack	094-025495-00000	Per packing unit
10.16	o-ring for gas nozzle holder	-	-	-	-	-	1 Units	094-022875-00000	Per unit
-	O-ring for Euro torch connector	-	-	-	-	-	20 Units	094-013967-00000	Per unit
-	Centring piece	-	-	M9	15	-	1 Units	094-026854-00000	Per unit
-	Torch key	-	-	-	-	-	1 Units	094-016038-00001	Per unit
-	Special hook spanner	-	-	-	-	-	1 Units	094-027163-00001	Per unit

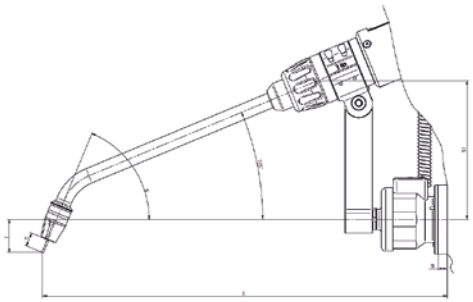
▶ More consumables and spare parts upon request!

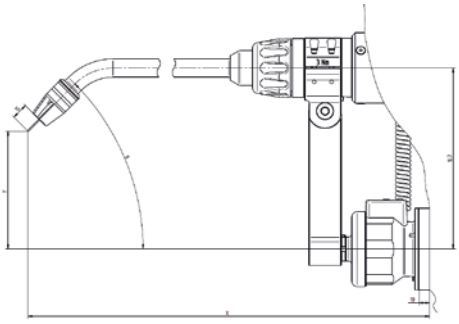
Liners

Item	Designation	Wire Ø	Inside Ø	Outside Ø	Length	PU	Item no.
		mm	mm	mm	m	Pack	
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	3.6	2	094-007239-00501
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	4.5	2	094-014223-00501
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	5.6	2	094-014224-00501
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	3.6	2	094-013074-00501
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	4.6	2	094-013075-00501
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	5.6	2	094-014221-00501
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	3.6	2	094-013662-00502
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	4.6	2	094-013663-00502
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	5.6	2	094-013664-00502

Robot welding torches ■ RMT301W RSA







Types	X in mm	Y in mm	a in °	Radius in mm
0° W	486	+8,5	22,5	50
22,5° W	469	-14	45	
35° W	456	-27	57,5	
45° W	442	-36	67,5	

Types	X in mm	Y in mm	a in °	Radius in mm
0° W	502	+167	0	50
22,5° W	495	+139	22,5	
35° W	487	+122,5	35	
45° W	478	+108,5	45	

MIG/MAG robot welding torch, water cooled

- Maximum TCP safety
- Modular construction
- Quick-change torch neck
- Water stop for coolant
- One-piece liner
- Push-buttons for wire inching, wire return, gas test (function dependent on wire feeder)
- Suitable for M drive 4 Rob 2, 3, 5
- **Equipment as supplied (steel wire Ø 1.2 mm):**
- Gas nozzle Ø 24 mm; 38 mm
- Gas diffuser Ø 18 mm
- Contact tip M7 x 30 mm; Ø 1.2 mm
- Contact tip holder M7 x 18 mm
- Steel liner red; Ø 2 mm x 4.6 mm

Duty cycle CO2
330 A / 100 %

Duty cycle M21
290 A / 100 %

Duty cycle M21 pulse
250 A / 100 %

Wire Ø
0.8 mm - 1.2 mm

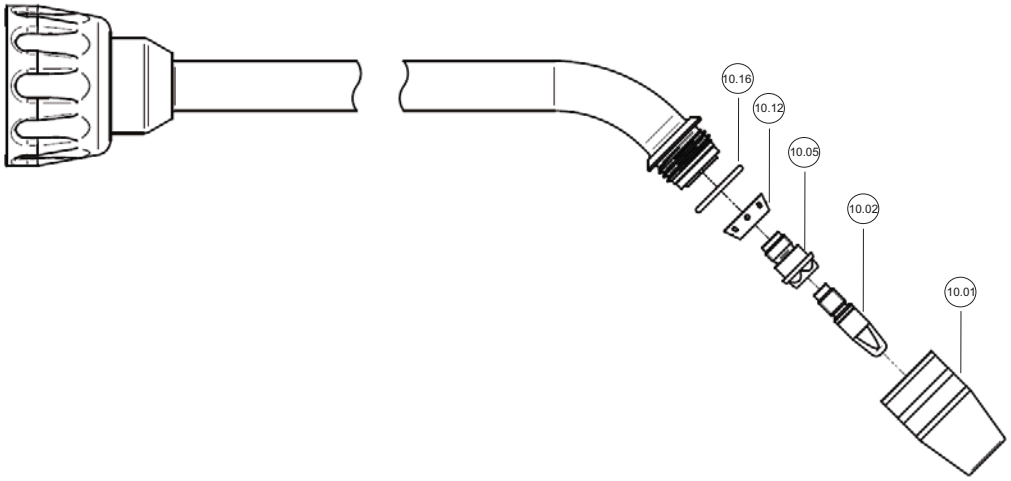
Connection
Euro torch connector

Approvals
CE sign

Item	Type	Designation	Length m	Item no.
8	RSA MEDIUM PLUS	Collision sensor	–	094-023605-00000
9.1	RMT301W 0° X318,5 Y0	RMT 0° torch neck	-	094-026764-00000
9.1	RMT301W 22,5°	RMT 22.5° torch neck		094-027114-00000
9.1	RMT301W 35°	RMT 35° torch neck		094-027115-00000
9.1	RMT301W 45° X337,5 Y58	RMT 45° torch neck		094-026981-00000
9.2	TH RMT 0°/22,5°	Torch holder		094-025140-00000
9.4	SP RMT W KON 100CM EZA	Hose package, water cooled	1.0	094-525221-01100
9.4	SP RMT W KON 150CM EZA		1.5	094-525221-01150
9.4	SP RMT W KON 200CM EZA		2.0	094-525221-01200
9.4	SP RMT W KON 300CM EZA		3.0	094-525221-01300
9.4	SP RMT W KON 400CM EZA		4.0	094-525221-01400
9.4	SP RMT W KON 125CM EZA		1.2	094-525221-04125
9.4	SP RMT W KON 150CM EZA		1.5	094-525221-04150

▶ More hose package lengths and torch neck versions upon request!

Consumables/Accessories



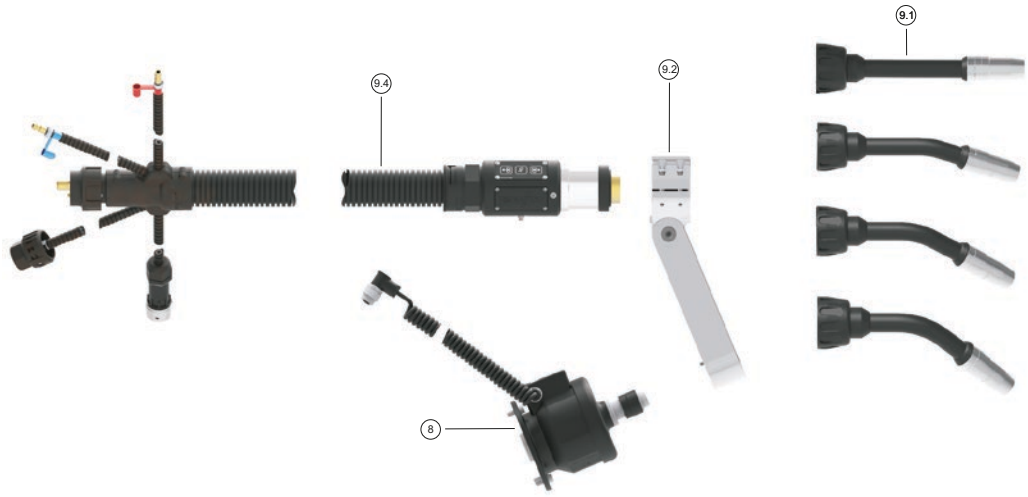
Item	Designation	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle	24	-	-	37.8	-	1	094-024876-00000
10.02	Contact tip	-	0.8	M7	30	CuCrZr	10	094-013535-00001
10.02	Contact tip	-	0.9	M7	30	CuCrZr	10	094-013536-00001
10.02	Contact tip	-	1	M7	30	CuCrZr	10	094-013537-00001
10.02	Contact tip	-	1.2	M7	30	CuCrZr	10	094-013538-00001
10.05	Contact tip holder	-	-	-	18	-	1	094-024877-00000
10.12	Gas diffuser	-	-	-	-	-	1	094-024875-00000
10.16	O-ring	-	-	-	-	-	1	094-024874-00000
99	O-ring for Euro torch connector	-	-	-	-	-	20	094-013967-00000
99	Torch key	-	-	-	-	-	1	094-016038-00001

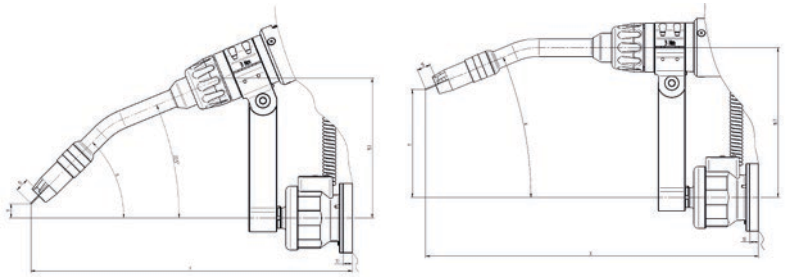
Liners

Item	Designation	Wire Ø mm	Inside Ø mm	Outside Ø mm	Length m	PU Pack	Item no.
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	3.6	2	094-007239-00501
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	4.5	2	094-014223-00501
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	5.6	2	094-014224-00501
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	3.6	2	094-013074-00501
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	4.6	2	094-013075-00501
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	5.6	2	094-014221-00501

▶ More consumables and spare parts upon request!

Robot welding torches ■ RMT551W RSA





Types	X in mm	Y in mm	a in °	Radius in mm
0° W	376,5	+54	22,5	70
22,5° W	347,5	+15,5	45	
35° W	327	-7,5	57,5	
45° W	304	-21	67,5	
22,5° WL	446	-26	45	
35° WL	424,5	-52,5	57,5	
45° WL	393	-63	67,5	

Types	X in mm	Y in mm	a in °	Radius in mm
0° W	383	167	0	70
22,5° W	371	120	22,5	
35° W	360,5	91	35	
45° W	345,5	61	45	
22,5° WL	468	86,5	22,5	
35° WL	479	116,5	35	
45° WL	443,5	65	45	

MIG/MAG robot welding torch, water cooled

- Maximum TCP safety
- Modular construction
- Quick-change torch neck
- Water stop for coolant
- One-piece liner
- Push-buttons for wire inching, wire return, gas test (function dependent on wire feeder)
- Suitable for M drive 4 Rob 2, 3, 5
- **Equipment as supplied (steel wire Ø 1.2 mm)**:
- Gas nozzle Ø 17 mm; 66 mm
- Gas diffuser Ø 20 mm
- Contact tip M9 x 35 mm; Ø 1.2 mm
- Contact tip holder M9 x 32 mm
- Steel liner red; Ø 2 mm x 4.6 mm

Duty cycle CO2
650 A / 100 %

Duty cycle M21
550 A / 100 %

Duty cycle M21 pulse
500 A / 100 %

Wire Ø
0.8 mm - 2 mm

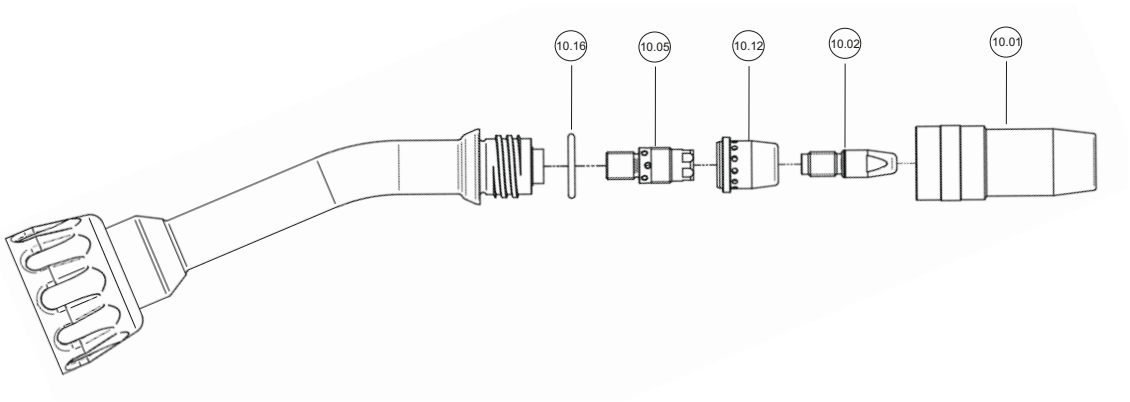
Connection
Euro torch connector

Approvals
CE sign

Item	Type	Designation	Length m	Item no.
8	RSA MEDIUM PLUS	Collision sensor	–	094-023605-00000
9.1	RMT551W 0° X239,3 Y0	RMT 0° torch neck	-	094-025531-00001
9.1	RMT551W 22,5° X230,4 Y46,5	RMT 22.5° torch neck		094-025074-00001
9.1	RMT551W 35° X215,4 Y80	RMT 35° torch neck		094-025075-00001
9.1	RMT551W 45° X196,7 Y110	RMT 45° torch neck		094-025076-00001
9.1	RMT551WL 22,5° X330,4 Y46,5	RMT 22.5° torch neck		094-026635-00000
9.1	RMT551WL 35° X315,4 Y80	RMT 35° torch neck		094-026636-00000
9.1	RMT551WL 45° X300,9 Y100	RMT 45° torch neck		094-026637-00000
9.2	TH RMT 0°/22,5°	Torch holder		094-025140-00000
9.4	SP RMT W KON 100CM EZA	Hose package, water cooled	1.0	094-525221-01100
9.4	SP RMT W KON 150CM EZA		1.5	094-525221-01150
9.4	SP RMT W KON 200CM EZA		2.0	094-525221-01200
9.4	SP RMT W KON 300CM EZA		3.0	094-525221-01300
9.4	SP RMT W KON 400CM EZA		4.0	094-525221-01400
9.4	SP RMT W KON 125CM EZA		1.2	094-525221-04125
9.4	SP RMT W KON 150CM EZA		1.5	094-525221-04150

▶ More hose package lengths and torch neck versions upon request!

Consumables/Accessories



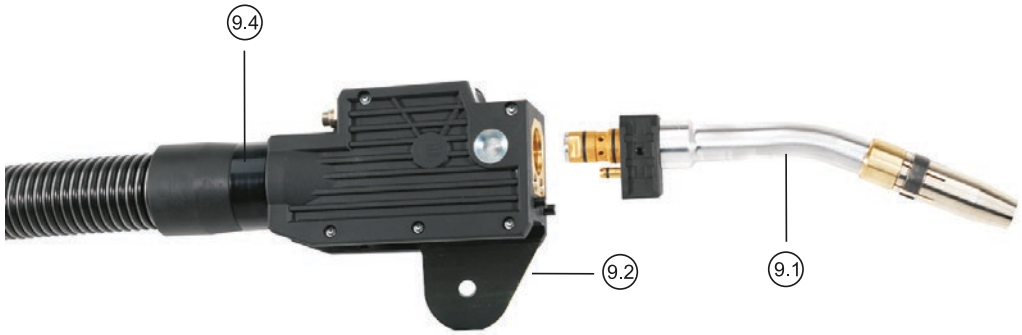
Item	Designation	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU	Item no.	PE
10.01	Gas nozzle	15	-	-	66	-	10 Units	094-014178-00001	Per unit
10.01	Gas nozzle	17	-	-	66	-	10 Units	094-014180-00001	Per unit
10.01	Gas nozzle	19	-	-	66	-	10 Units	094-014182-00001	Per unit
10.01	Gas nozzle	15	-	-	63	-	10 Units	094-014177-00001	Per unit
10.01	Gas nozzle	17	-	-	63	-	10 Units	094-014179-00001	Per unit
10.01	Gas nozzle	19	-	-	63	-	10 Units	094-014181-00001	Per unit
10.02	Contact tip	-	0.8	M9	35	CuCrZr	10 Units	094-013528-00001	Per unit
10.02	Contact tip	-	0.9	M9	35	CuCrZr	10 Units	094-013529-00001	Per unit
10.02	Contact tip	-	1	M9	35	CuCrZr	10 Units	094-013530-00001	Per unit
10.02	Contact tip	-	1.2	M9	35	CuCrZr	10 Units	094-013531-00001	Per unit
10.02	Contact tip	-	1.4	M9	35	CuCrZr	10 Units	094-013532-00001	Per unit
10.02	Contact tip	-	1.6	M9	35	CuCrZr	10 Units	094-013533-00001	Per unit
10.02	Contact tip	-	2	M9	35	CuCrZr	10 Units	094-013534-00001	Per unit
10.02	Contact tip, aluminium welding	-	0.8	M9	35	E-Cu	10 Units	094-013543-00001	Per unit
10.02	Contact tip, aluminium welding	-	0.9	M9	35	E-Cu	10 Units	094-013544-00001	Per unit
10.02	Contact tip, aluminium welding	-	1	M9	35	E-Cu	10 Units	094-013545-00001	Per unit
10.02	Contact tip, aluminium welding	-	1.2	M9	35	E-Cu	10 Units	094-013546-00001	Per unit
10.02	Contact tip, aluminium welding	-	1.4	M9	35	E-Cu	10 Units	094-013547-00001	Per unit
10.02	Contact tip, aluminium welding	-	1.6	M9	35	E-Cu	10 Units	094-013548-00001	Per unit
10.02	Contact tip, aluminium welding	-	2	M9	35	E-Cu	10 Units	094-013549-00001	Per unit
10.02	Forced contact contact tip	-	1	M9	35	CuCrZr	1 Units	094-017007-00001	Per unit
10.02	Forced contact contact tip	-	1.2	M9	35	CuCrZr	1 Units	094-016159-00001	Per unit
10.02	Forced contact contact tip	-	1.6	M9	35	CuCrZr	1 Units	094-025533-00000	Per unit
10.05	Contact tip holder	-	-	-	-	-	5 Pack	094-025209-00000	Per packing unit
10.05	Contact tip holder	-	-	-	-	-	1 Units	094-025338-00000	Per unit
10.12	Gas diffuser	-	-	-	-	-	5 Pack	094-025495-00000	Per packing unit
10.16	o-ring for gas nozzle holder	-	-	-	-	-	1 Units	094-022875-00000	Per unit
99	O-ring for Euro torch connector	-	-	-	-	-	20 Units	094-013967-00000	Per unit
99	Torch key	-	-	-	-	-	1 Units	094-016038-00001	Per unit

▶ More consumables and spare parts upon request!

Liners

Item	Designation	Wire Ø	Inside Ø	Outside Ø	Length	PU	Item no.
		mm	mm	mm	m	Pack	
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	3.6	2	094-007239-00501
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	4.5	2	094-014223-00501
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	5.6	2	094-014224-00501
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	3.6	2	094-013074-00501
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	4.6	2	094-013075-00501
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	5.6	2	094-014221-00501
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	3.6	2	094-013662-00502
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	4.6	2	094-013663-00502
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	5.6	2	094-013664-00502

Robot welding torches ■ MTR242W



MIG/MAG robot welding torch, water cooled

- Maximum TCP security
- Modular construction
- Quick-change torch neck
- Standard equipment: 1.2 mm steel contact tip, NW15.5/-1.0 mm conical gas nozzle, 22° torch neck, 1.25 m hose package

Duty cycle CO2

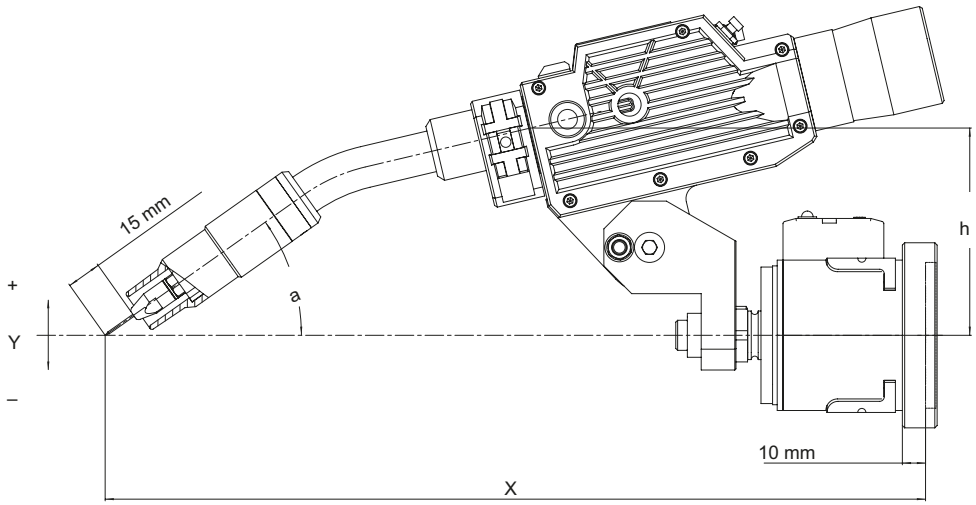
320 A / 100 %

Duty cycle M21

280 A / 100 %

Wire Ø

0.8 mm - 1.2 mm



Standard holder

angle	X	Y	h	a
22°	**354**	0	89	35°
45°	**349**	0	99	46°

Segment holder

angle	X	Y	h	a
22°	**356**	55	100	22°
45°	**350**	3	100	45°

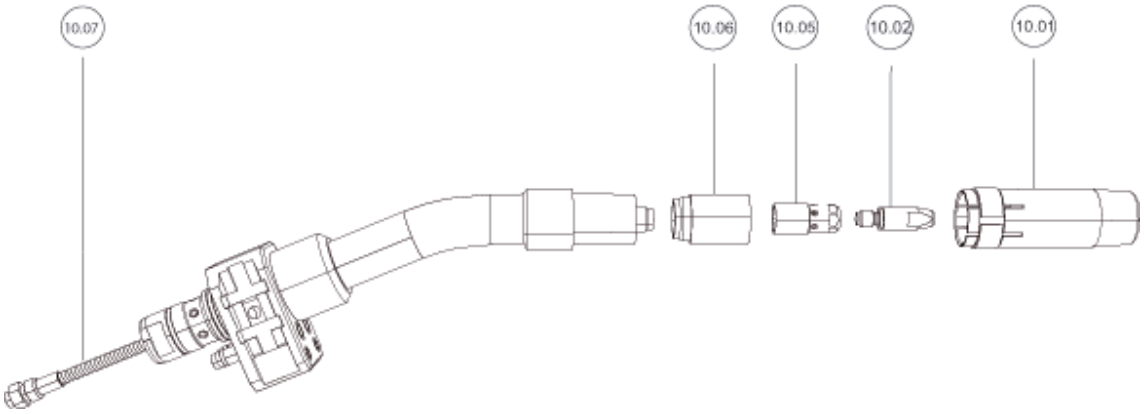
RTM-holder

angle	X	Y	h	a
22°	**327**	0	127	48°
45°	**288**	-44	127	71°

Item	Type	Designation	Length m	Item no.
9	MTR242W 22 1.2mm 1.25m	MIG/MAG welding torch, water-cooled	-	094-500034-00000
9.1	RTN 242 DW 22DG	Torch neck EWM RT 22°		094-015036-00500
9.1	RTN 242 DW 45DG	Torch neck EWM RT 45°		094-013470-00500
9.2	RTMHOL	RTM holder WH		094-016549-00500
9.2	SEGHOL	Segment holder WH		094-016548-00500
9.2	STANHOL	Standard holder		094-010162-00500
9.4	TBROB RT W 1.00	EWM RT W hose package	1.0	094-012720-00508
9.4	TBROB RT W 1.05			094-012720-00500
9.4	TBROB RT W 1.15		1.2	094-012720-00501
9.4	TBROB RT W 1.25			094-012720-00502
9.4	TBROB RT W 1.45		1.4	094-012720-00503
9.4	TBROB RT W 1.55		1.6	094-012720-00509
9.4	TBROB RT W 1.65			094-012720-00504
9.4	TBROB RT W 2.15		2.2	094-012720-00505
9.4	TBROB RT W 2.65		2.6	094-012720-00506
9.4	TBROB RT W 3.15		3.2	094-012720-00507

▶ More hose package lengths, torch neck angles and replacement parts on request!

Consumables/Accessories



Item	Designation	Stickout/Recess mm	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, conical	- 1	15.5	-	-	62	-	1	094-016508-00500
10.02	Contact tip	-	-	0.8	M6	28	CuCrZr	10	094-005407-00000
10.02	Contact tip	-	-	0.9	M6	28	CuCrZr	10	094-005408-00000
10.02	Contact tip	-	-	1	M6	28	CuCrZr	10	094-003339-00000
10.02	Contact tip	-	-	1.2	M6	28	CuCrZr	10	094-005224-00000
10.05	Contact tip holder	-	-	-	M6	23.5	-	1	094-015037-00500
10.06	Spatter protection, standard	-	-	-	-	27	-	1	094-013472-00500

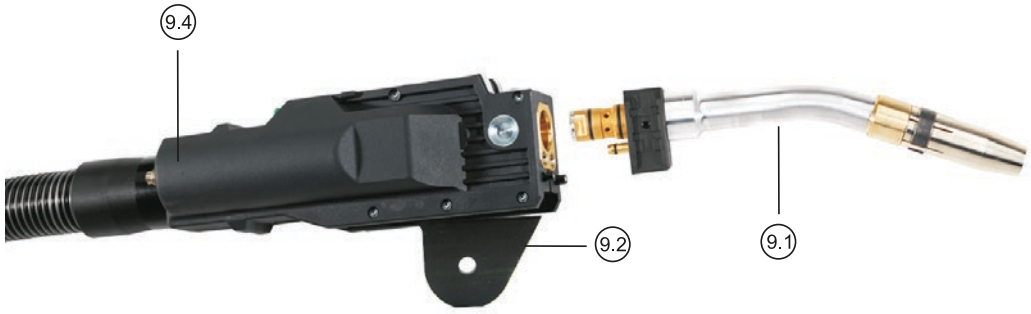
Liners

Item	Designation	Wire Ø mm	Length	PU Units	Item no.
10.07	Brass liner for steel, 0°/22°	1 - 1.2	197 mm	1	094-015038-00500
10.07	Brass liner for steel, 45°	1 - 1.2	197 mm	1	094-011812-00500
-	Liner, steel, red	0.8 - 1.2	3.2 m	1	094-011627-00500
-	Liner, steel, red	0.8 - 1.2	5 m	1	094-012655-00000

Options/accessories

Torch accessories	Item no.
Retrofit kit for gas nozzle sensor	394-004305-00000

Robot welding torches ■ MTR242W PP



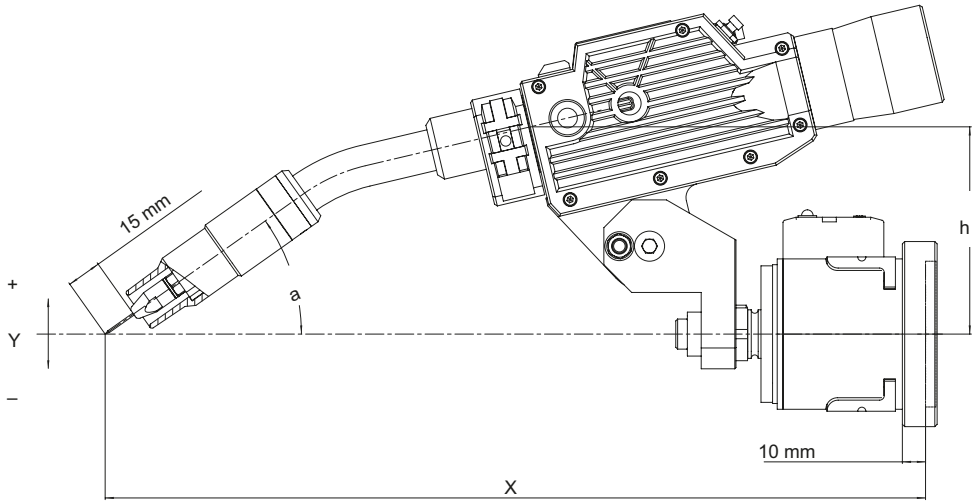
MIG/MAG robot welding torch, water cooled

- Push/pull version
- Maximum TCP security
- Modular construction
- Quick-change torch neck
- Standard equipment: 1.2 mm steel contact tip, 15.5 mm–1 mm gas nozzle, 22° torch neck, 3.2 m hose package

Duty cycle CO2
320 A / 100 %

Duty cycle M21
280 A / 100 %

Wire Ø
0.8 mm - 1.2 mm



Standard holder

angle	X	Y	h	a
22°	**354**	0	89	35°
45°	**349**	0	99	46°

Segment holder

angle	X	Y	h	a
22°	**356**	55	100	22°
45°	**350**	3	100	45°

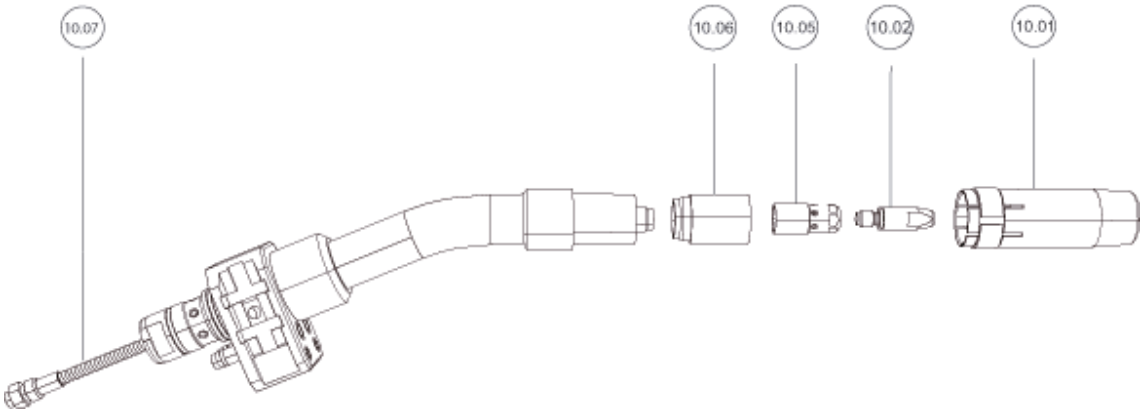
RTM-holder

angle	X	Y	h	a
22°	**327**	0	127	48°
45°	**288**	-44	127	71°

Item	Type	Designation	Length m	Item no.
9	MTR242W PP 22 1.2mm 3.20m	MIG/MAG welding torch, push/pull, water-cooled		094-500074-00000
9.1	RTN 242 DW 22DG	Torch neck EWM RT 22°		094-015036-00500
9.1	RTN 242 DW 45DG	Torch neck EWM RT 45°		094-013470-00500
9.2	RTMHOL	RTM holder WH	-	094-016549-00500
9.2	SEGHOL	Segment holder WH		094-016548-00500
9.2	STANHOL	Standard holder		094-010162-00500
9.4	TBROB RT-PP W I=13.7:1 0.90		0.9	094-016535-00511
9.4	TBROB RT-PP W I=13.7:1 1.10		1.1	094-016535-00500
9.4	TBROB RT-PP W I=13.7:1 1.25		1.2	094-016535-00510
9.4	TBROB RT-PP W I=13.7:1 1.50		1.5	094-016535-00501
9.4	TBROB RT-PP W I=13.7:1 1.70		1.7	094-016535-00502
9.4	TBROB RT-PP W I=13.7:1 2.20		2.2	094-016535-00503
9.4	TBROB RT-PP W I=13.7:1 2.50	EWM RT-PP W hose package	2.5	094-016535-00509
9.4	TBROB RT-PP W I=13.7:1 2.70		2.7	094-016535-00504
9.4	TBROB RT-PP W I=13.7:1 3.20		3.2	094-016535-00505
9.4	TBROB RT-PP W I=13.7:1 4.20		4.2	094-016535-00506
9.4	TBROB RT-PP W I=13.7:1 4.70		4.7	094-016535-00507
9.4	TBROB RT-PP W I=13.7:1 5.20		5.2	094-016535-00508
9.4	TBROB RT-PP W I=13.7:1 6.00		6.0	094-016535-00512

▶ More hose package lengths, torch neck angles and replacement parts on request!

Consumables/Accessories



Item	Designation	Stickout/Recess mm	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, conical	- 1	15.5	-	-	62	-	1	094-016508-00500
10.02	Contact tip	-	-	0.8	M6	28	CuCrZr	10	094-005407-00000
10.02	Contact tip	-	-	0.9	M6	28	CuCrZr	10	094-005408-00000
10.02	Contact tip	-	-	1	M6	28	CuCrZr	10	094-003339-00000
10.02	Contact tip	-	-	1.2	M6	28	CuCrZr	10	094-005224-00000
10.05	Contact tip holder	-	-	-	M6	23.5	-	1	094-015037-00500
10.06	Spatter protection, standard	-	-	-	-	27	-	1	094-013472-00500

Liners

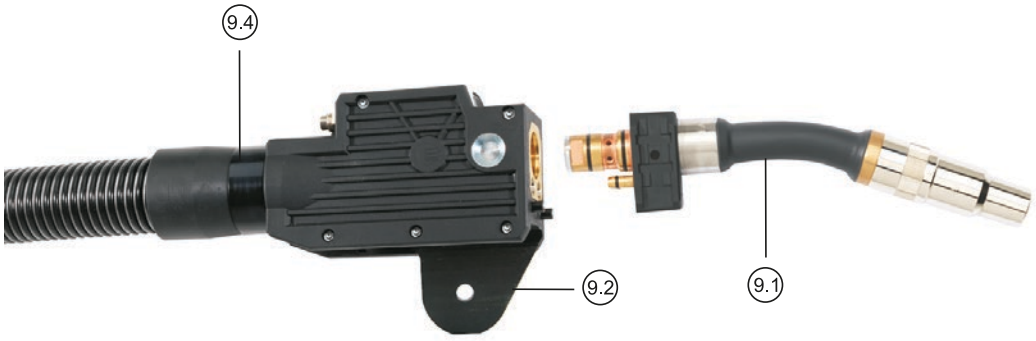
Item	Designation	Wire Ø mm	Length	PU Units	Item no.
10.07	Brass liner for steel, 0°/22°	1 - 1.2	197 mm	1	094-015038-00500
10.07	Brass liner for steel, 45°	1 - 1.2	197 mm	1	094-011812-00500
10.07	Brass liner for aluminium, 0°/22°	0.8 - 1	197 mm	1	094-016517-00000
10.07	Brass liner for aluminium, 0°/22°	1.2 - 1.6	197 mm	1	094-016518-00000
10.07	Brass liner for aluminium, 45°	0.8 - 1	219 mm	1	094-016519-00000
10.07	Brass liner for aluminium, 45°	1.2 - 1.6	197 mm	1	094-016520-00000
-	Liner, steel, red	0.8 - 1.2	3.2 m	1	094-011627-00500
-	Liner, steel, red	0.8 - 1.2	5 m	1	094-012655-00000

Options/accessories

Torch accessories	Item no.
Retrofit kit for gas nozzle sensor	394-004305-00000

Drive rolls	Item no.
WFR U-GROOVE 0.8 Drive roll for aluminium (U-groove)	094-010186-00000
WFR U-GROOVE 0.9 Drive roll for aluminium (U-groove)	094-019519-00000
WFR U-GROOVE 1.0 Drive roll for aluminium (U-groove)	094-010187-00500
WFR U-GROOVE 1.2 Drive roll for aluminium (U-groove)	094-010188-00500
WFR U-GROOVE 1.6 Drive roll for aluminium (U-groove)	094-016545-00500
WFROLL UNI V 0.8 Drive roll, universal (V-groove)	094-016546-00500
WFROLL UNI 0.9 Universal wire feed roll, 0.9 mm	094-010193-00000
WFROLL UNI V 1.0 Drive roll, universal (V-groove)	094-010194-00500
WFROLL UNI V 1.2 Drive roll, universal (V-groove)	094-010195-00500
WFROLL UNI V 1.4 Drive roll, universal (V-groove)	094-010196-00500
WFROLL UNI V 1.6 Drive roll, universal (V-groove)	094-010197-00500

Robot welding torches ■ MTR500W



MIG/MAG robot welding torch, water cooled

- Extremely durable and compact
- Maximum TCP security
- Modular construction
- Quick-change torch neck
- Standard equipment: 1.2 mm steel contact tip, NW15.5/-1.1 mm conical gas nozzle, 22° torch neck, 1.25 m hose package

Duty cycle CO2

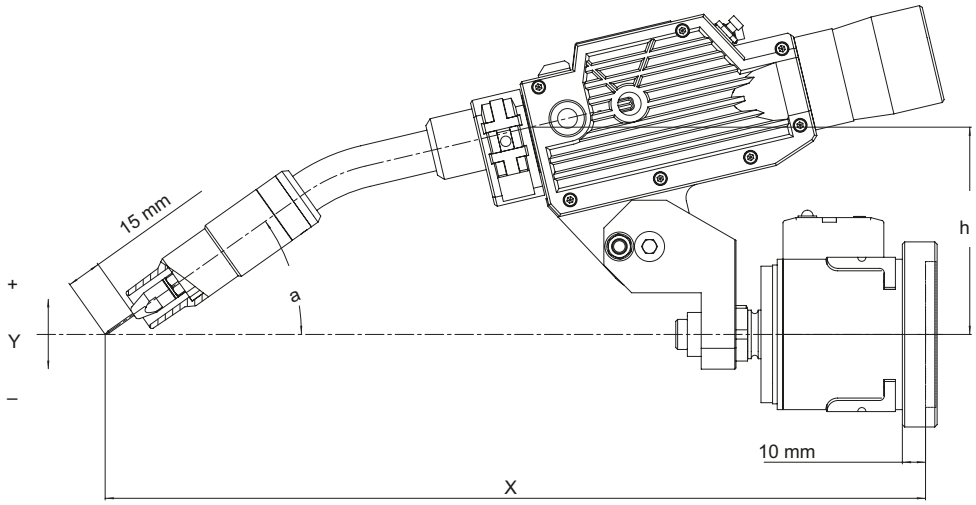
550 A / 100 %

Duty cycle M21

500 A / 100 %

Wire Ø

0.8 mm - 1.6 mm



Standard holder

angle	X	Y	h	a
22°	**354**	0	89	35°
45°	**349**	0	99	46°

Segment holder

angle	X	Y	h	a
22°	**356**	55	100	22°
45°	**350**	3	100	45°

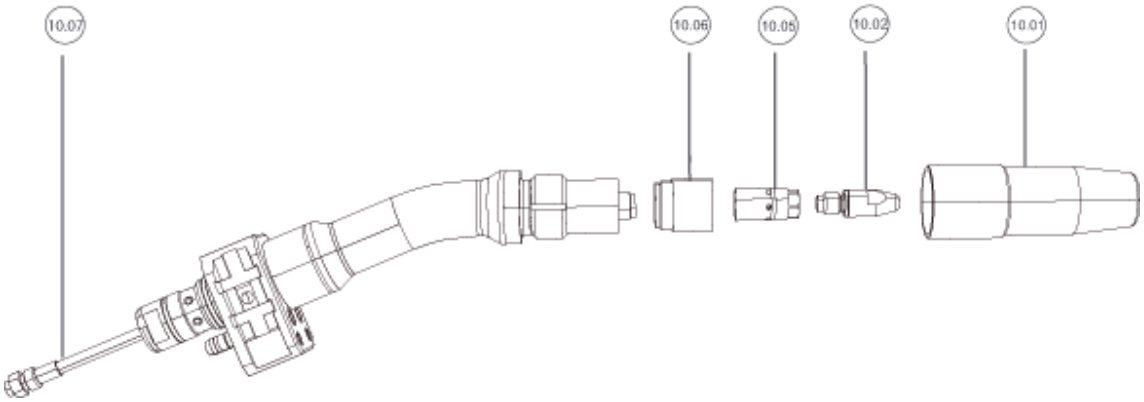
RTM holder

angle	X	Y	h	a
22°	**327**	0	127	48°
45°	**288**	-44	127	71°

Item	Type	Designation	Length m	Item no.
9	MTR500W 22 1.2mm 1.25m	MIG/MAG welding torch, water-cooled	-	094-500035-00000
9.1	BH ROB 500W 22° x242 y50	Torch neck EWM RT 22°		094-016505-00500
9.1	BH ROB 500W 45° x192 y97	Torch neck EWM RT 45°		094-016507-00500
9.2	RTMHOL	RTM holder WH		094-016549-00500
9.2	SEGHOL	Segment holder WH		094-016548-00500
9.2	STANHOL	Standard holder		094-010162-00500
9.4	TBROB RT W 1.00	EWM RT W hose package	1.0	094-012720-00508
9.4	TBROB RT W 1.05			094-012720-00500
9.4	TBROB RT W 1.15		1.2	094-012720-00501
9.4	TBROB RT W 1.25			094-012720-00502
9.4	TBROB RT W 1.45		1.4	094-012720-00503
9.4	TBROB RT W 1.55		1.6	094-012720-00509
9.4	TBROB RT W 1.65			094-012720-00504
9.4	TBROB RT W 2.15		2.2	094-012720-00505
9.4	TBROB RT W 2.65		2.6	094-012720-00506
9.4	TBROB RT W 3.15		3.2	094-012720-00507

▶ More hose package lengths, torch neck angles and replacement parts on request!

Consumables/Accessories



Item	Designation	Stickout/Recess mm	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, conical	- 1.1	15.5	-	-	75.5	-	1	094-016512-00500
10.01	Gas nozzle, conical	+ 1.9	15.5	-	-	72.5	-	1	094-010220-00500
10.02	Contact tip	-	-	0.8	M8	30	CuCrZr	10	094-005409-00000
10.02	Contact tip	-	-	0.9	M8	30	CuCrZr	10	094-005410-00000
10.02	Contact tip	-	-	1	M8	30	CuCrZr	10	094-005225-00000
10.02	Contact tip	-	-	1.2	M8	30	CuCrZr	10	094-004207-00000
10.02	Contact tip	-	-	1.4	M8	30	CuCrZr	10	094-005411-00000
10.02	Contact tip	-	-	1.6	M8	30	CuCrZr	10	094-005412-00000
10.05	Contact tip holder	-	-	-	M8	23.2	-	1	094-009896-00500
10.06	Spatter protection, high-temperature-resistant	-	-	-	-	21	-	1	094-013862-00000

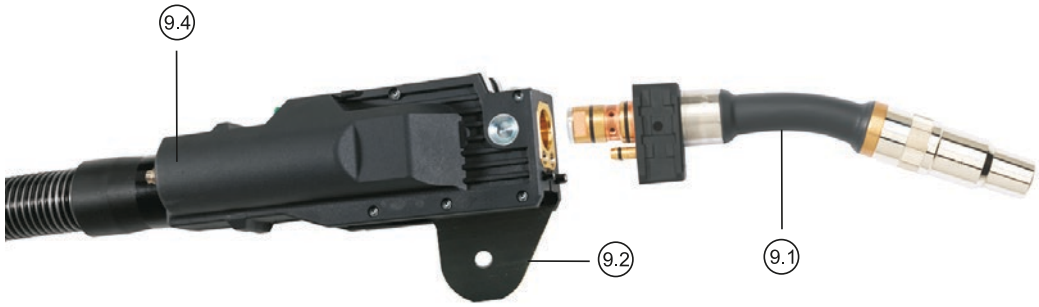
Liners

Item	Designation	Wire Ø mm	Length m	PU Units	Item no.
10.07	BSLred brass liner for steel, 0°/22°	0.8 - 1.2	-	1	094-016521-00500
10.07	BSLred brass liner for steel, 35°/45°	0.8 - 1.2	-	1	094-016523-00500
10.07	BSLblue brass liner for steel, 0°/22°	1.4 - 1.6	-	1	094-016522-00500
10.07	BSLblue brass liner for steel, 35°/45°	1.4 - 1.6	-	1	094-016524-00500
-	Liner, steel, red	0.8 - 1.2	3.2	1	094-011627-00500
-	Liner, steel, red	0.8 - 1.2	5	1	094-012655-00000
-	Steel liner, steel, blue	1.4 - 1.6	3.2	1	094-010579-00500
-	Steel liner, steel, blue	1.4 - 1.6	5	1	094-022407-00000

Options/accessories

Torch accessories	Item no.
Retrofit kit for gas nozzle sensor	394-004305-00000

Robot welding torches ■ MTR500W PP



MIG/MAG robot welding torch, water cooled

- Extremely durable and compact
- Push/pull version
- Maximum TCP security
- Modular construction
- Quick-change torch neck
- Standard equipment: 1.2 mm steel contact tip, NW15.5/-1.1 mm conical gas nozzle, 22° torch neck, 4.2 m hose package

Duty cycle CO2

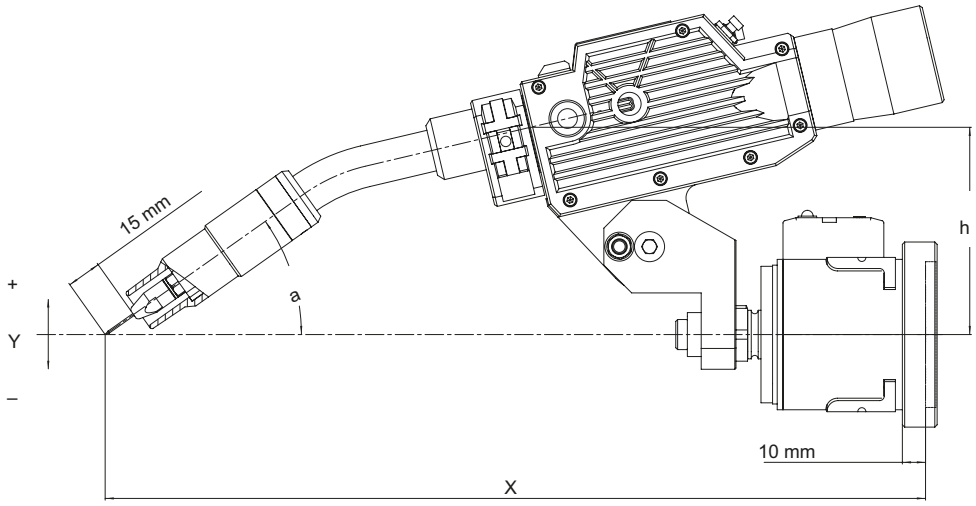
550 A / 100 %

Duty cycle M21

500 A / 100 %

Wire Ø

0.8 mm - 1.6 mm



Standard holder

angle	X	Y	h	a
22°	**354**	0	89	35°
45°	**349**	0	99	46°

Segment holder

angle	X	Y	h	a
22°	**356**	55	100	22°
45°	**350**	3	100	45°

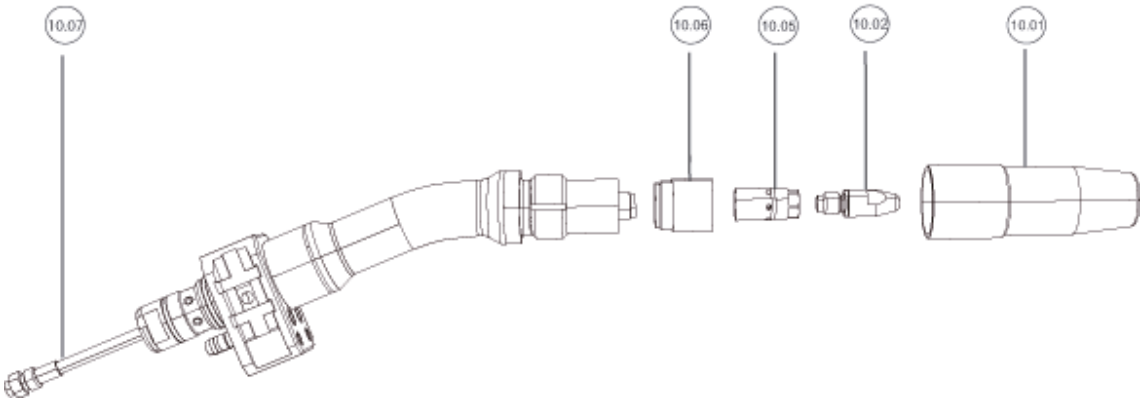
RTM holder

angle	X	Y	h	a
22°	**327**	0	127	48°
45°	**288**	-44	127	71°

Item	Type	Designation	Length m	Item no.
9	MTR500W PP 22°, 1.50m	MIG/MAG welding torch, push/pull, water-cooled	1.5	094-500073-00002
9	MTR500W PP 22°, 3.20m		3.2	094-500073-00000
9	MTR500W PP 22°, 4.20m		4.2	094-500073-00001
9	MTR500W PP 22°, 5.20m		5.2	094-500073-00003
9	MTR500W PP 22°, 6.0m		6.0	094-500073-00004
9.1	BH ROB 500W 22° x242 y50	Torch neck EWM RT 22°		094-016505-00500
9.1	BH ROB 500W 45° x192 y97	Torch neck EWM RT 45°		094-016507-00500
9.2	RTMHOL	RTM holder WH	-	094-016549-00500
9.2	SEGHOL	Segment holder WH		094-016548-00500
9.2	STANHOL	Standard holder		094-010162-00500
9.4	TBROB RT-PP W I=13.7:1 0.90	EWM RT-PP W hose package	0.9	094-016535-00511
9.4	TBROB RT-PP W I=13.7:1 1.10		1.1	094-016535-00500
9.4	TBROB RT-PP W I=13.7:1 1.25		1.2	094-016535-00510
9.4	TBROB RT-PP W I=13.7:1 1.50		1.5	094-016535-00501
9.4	TBROB RT-PP W I=13.7:1 1.70		1.7	094-016535-00502
9.4	TBROB RT-PP W I=13.7:1 2.20		2.2	094-016535-00503
9.4	TBROB RT-PP W I=13.7:1 2.50		2.5	094-016535-00509
9.4	TBROB RT-PP W I=13.7:1 2.70		2.7	094-016535-00504
9.4	TBROB RT-PP W I=13.7:1 3.20		3.2	094-016535-00505
9.4	TBROB RT-PP W I=13.7:1 4.20		4.2	094-016535-00506
9.4	TBROB RT-PP W I=13.7:1 4.70		4.7	094-016535-00507
9.4	TBROB RT-PP W I=13.7:1 5.20		5.2	094-016535-00508
9.4	TBROB RT-PP W I=13.7:1 6.00		6.0	094-016535-00512

▶ Also available with ECS connection for applications using soft welding consumables.
▶ More hose package lengths, torch neck angles and replacement parts on request!

Consumables/Accessories



Item	Designation	Stickout/Recess mm	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, conical	- 1.1	15.5	-	-	75.5	-	1	094-016512-00500
10.01	Gas nozzle, conical	+ 1.9	15.5	-	-	72.5	-	1	094-010220-00500
10.02	Contact tip	-	-	0.8	M8	30	CuCrZr	10	094-005409-00000
10.02	Contact tip	-	-	0.9	M8	30	CuCrZr	10	094-005410-00000
10.02	Contact tip	-	-	1	M8	30	CuCrZr	10	094-005225-00000
10.02	Contact tip	-	-	1.2	M8	30	CuCrZr	10	094-004207-00000
10.02	Contact tip	-	-	1.4	M8	30	CuCrZr	10	094-005411-00000
10.02	Contact tip	-	-	1.6	M8	30	CuCrZr	10	094-005412-00000
10.05	Contact tip holder	-	-	-	M8	23.2	-	1	094-009896-00500
10.06	Spatter protection, high-temperature-resistant	-	-	-	-	21	-	1	094-013862-00000

Liners

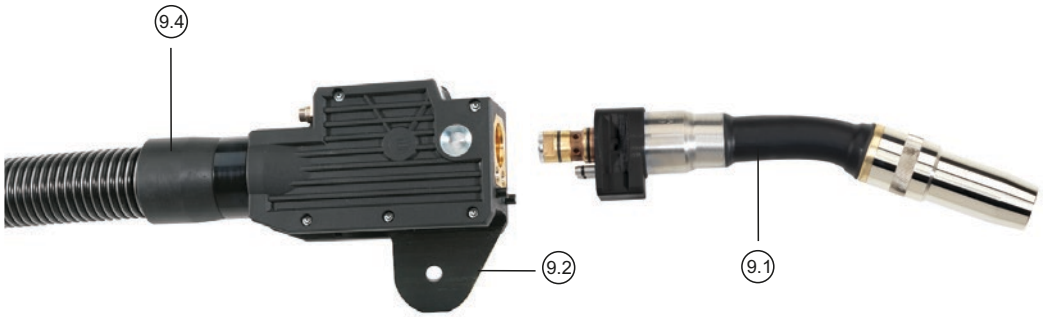
Item	Designation	Wire Ø mm	Length m	PU Units	Item no.
10.07	BSLred brass liner for steel, 0°/22°	0.8 - 1.2	-	1	094-016521-00500
10.07	BSLred brass liner for steel, 35°/45°	0.8 - 1.2	-	1	094-016523-00500
10.07	BSLblue brass liner for steel, 0°/22°	1.4 - 1.6	-	1	094-016522-00500
10.07	BSLblue brass liner for steel, 35°/45°	1.4 - 1.6	-	1	094-016524-00500
10.07	Brass liner for aluminium, 0°/22°	1 - 1.2	-	1	094-016525-00000
10.07	Brass liner for aluminium, 0°/22°	1.2 - 1.6	-	1	094-016526-00000
10.07	Brass liner for aluminium, 35°/45°	1 - 1.2	-	1	094-016527-00000
10.07	Brass liner for aluminium, 35°/45°	1.2 - 1.6	-	1	094-016528-00000
-	Liner, steel, red	0.8 - 1.2	3.2	1	094-011627-00500
-	Liner, steel, red	0.8 - 1.2	5	1	094-012655-00000
-	Steel liner, steel, blue	1.4 - 1.6	3.2	1	094-010579-00500
-	Steel liner, steel, blue	1.4 - 1.6	5	1	094-022407-00000

Options/accessories

Torch accessories	Item no.
Retrofit kit for gas nozzle sensor	394-004305-00000

Drive rolls	Item no.
WFR U-GROOVE 0.8 Drive roll for aluminium (U-groove)	094-010186-00000
WFR U-GROOVE 0.9 Drive roll for aluminium (U-groove)	094-019519-00000
WFR U-GROOVE 1.0 Drive roll for aluminium (U-groove)	094-010187-00500
WFR U-GROOVE 1.2 Drive roll for aluminium (U-groove)	094-010188-00500
WFR U-GROOVE 1.6 Drive roll for aluminium (U-groove)	094-016545-00500
WFROLL UNI V 0.8 Drive roll, universal (V-groove)	094-016546-00500
WFROLL UNI 0.9 Universal wire feed roll, 0.9 mm	094-010193-00000
WFROLL UNI V 1.0 Drive roll, universal (V-groove)	094-010194-00500
WFROLL UNI V 1.2 Drive roll, universal (V-groove)	094-010195-00500
WFROLL UNI V 1.4 Drive roll, universal (V-groove)	094-010196-00500
WFROLL UNI V 1.6 Drive roll, universal (V-groove)	094-010197-00500

Robot welding torches ■ MTR600W



MIG/MAG robot welding torch, water cooled

- Extremely durable and compact
- Maximum TCP security
- Modular construction
- Quick-change torch neck
- RPC connection: only in combination with M Drive 4 Rob 2X HS

Duty cycle CO2

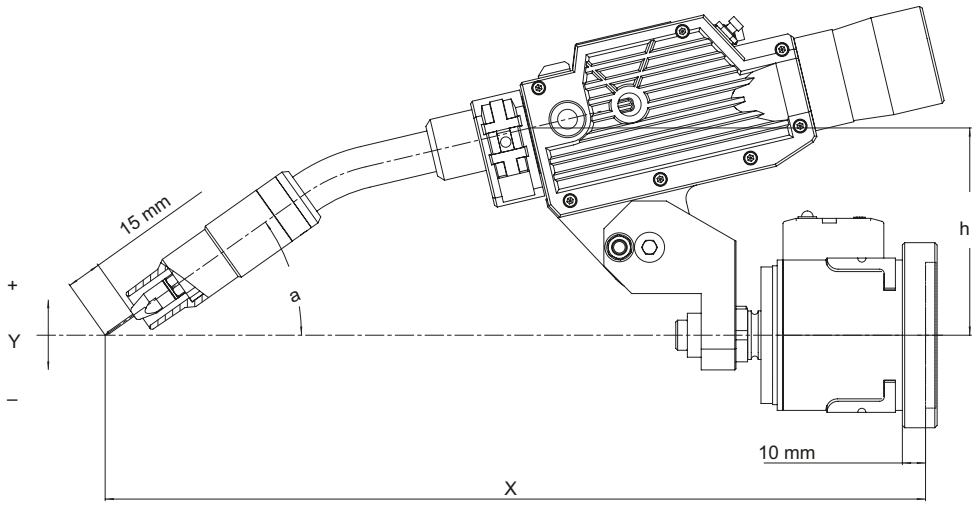
600 A / 100 %

Duty cycle M21

550 A / 100 %

Wire Ø

1.2 mm - 1.6 mm



Standard holder

angle	X	Y	h	a
22°	**354**	0	89	35°
45°	**349**	0	99	46°

Segment holder

angle	X	Y	h	a
22°	**356**	55	100	22°
45°	**350**	3	100	45°

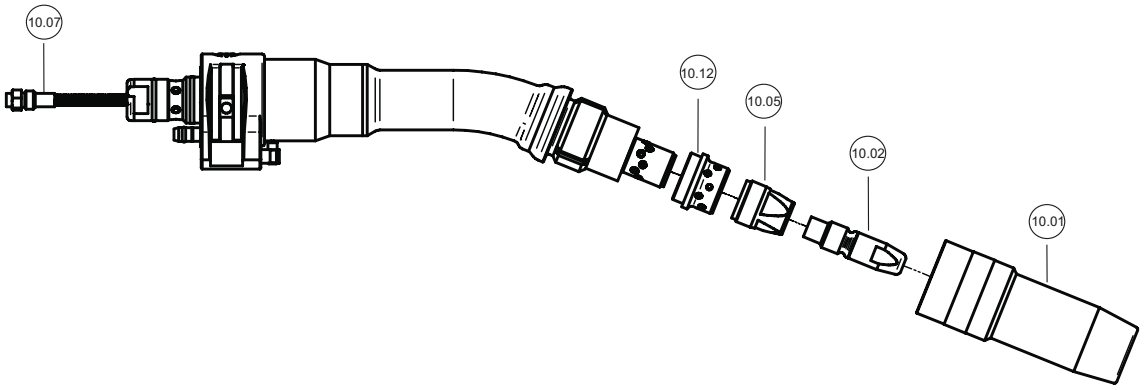
RTM holder

angle	X	Y	h	a
22°	**327**	0	127	48°
45°	**288**	-44	127	71°

Item	Type	Designation	Length m	Item no.
9.1	BH WH 600W 22DG	Torch neck		094-021803-00000
9.1	BH WH 600W 45DG			094-021804-00000
9.2	RTMHOL	RTM holder WH	-	094-016549-00500
9.2	SEGHOL	Segment holder WH		094-016548-00500
9.2	STANHOL	Standard holder		094-010162-00500
9.4	SP MIG WH W L=1,50M RPC	Hose package, water cooled	1.5	094-021802-00000
9.4	SP MIG WH W L=3,00M RPC		3.0	094-021802-00001

► More hose package lengths, torch neck angles and replacement parts on request!

Consumables/Accessories

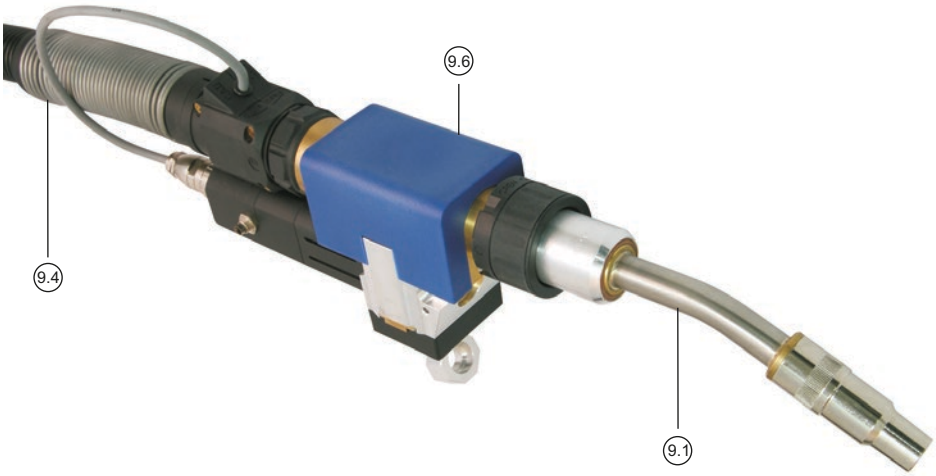


Item	Designation	Stickout/Recess mm	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, conical	0	21.5	-	-	92	-	1	094-021813-00000
10.01	Gas nozzle, conical	+ 6	21.5	-	-	86	-	1	094-021814-00000
10.01	Gas nozzle, conical	- 3	21.5	-	-	95	-	1	094-021815-00000
10.01	Gas nozzle, conical	0	18	-	-	92	-	1	094-021816-00000
10.02	Contact tip	-	-	1.2	M12	45	CuCrZr	10	094-021810-00000
10.02	Contact tip	-	-	1.4	M12	45	CuCrZr	10	094-021811-00000
10.02	Contact tip	-	-	1.6	M12	45	CuCrZr	10	094-021812-00000
10.05	Contact tip holder	-	-	-	M12	23	-	1	094-021808-00000
10.12	Gas diffuser	-	-	-	-	18.5	-	1	094-021809-00000

Liners

Item	Designation	Wire Ø mm	Length	PU Units	Item no.
10.07	Brass liner for steel	1 - 1.2	239 mm	1	094-021805-00000
10.07	Brass liner for steel	1.4 - 1.6	239 mm	1	094-021806-00000
-	Liner, steel, red	0.8 - 1.2	3.2 m	1	094-011627-00500
-	Liner, steel, red	0.8 - 1.2	5 m	1	094-012655-00000
-	Steel liner, steel, blue	1.4 - 1.6	3.2 m	1	094-010579-00500
-	Steel liner, steel, blue	1.4 - 1.6	5 m	1	094-022407-00000

Robot welding torches ■ MIG ROB ABK 500 MF for use on Rob 2 MF wire feeder



MIG/MAG robot welding torch, water cooled

- Drive unit with four driven rolls
- Maximum TCP security
- Modular construction
- Quick-change torch neck
- Equipment as supplied: 1.2 mm contact tip, 22° torch neck, 6 m hose package, NW15.5 mm/70 mm gas nozzle
- Includes standard holder

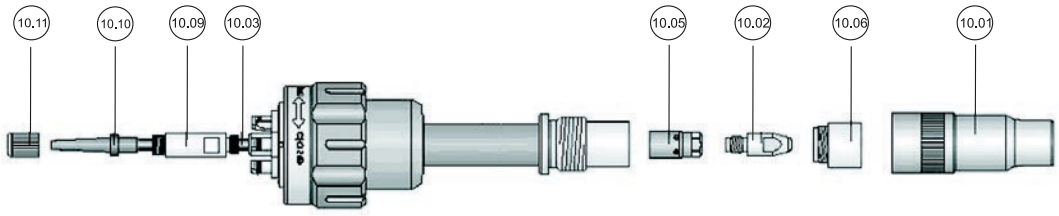
Duty cycle CO2
550 A / 100 %

Duty cycle M21
500 A / 100 %

Wire Ø
0.8 mm - 1.6 mm

Item	Type	Designation	Length m	Item no.
9	MIG ROB ABK 500 MF	MIG/MAG welding torch 22°, master feeder, 1.2 mm steel, 6 m		094-010203-00000
9.1	TN MIG ROB ABK 500 0°	Torch neck, straight	-	094-021951-00000
9.1	TN MIG ROB ABK 500 22°	Torch neck, 22°		094-021983-00000
9.1	TN MIG ROB ABK 500 35°	Torch neck, 35°		094-021984-00000
9.1	TN MIG ROB ABK 500 45°	Torch neck, 45°		094-021985-00000
9.4	SPA MIG MF 4M	ABK hose package	4.0	094-017905-00000
9.4	SPA MIG MF 6M		6.0	094-017905-00006
9.6	MF1 ABK	ABK master drive	-	094-017904-00000

Consumables/Accessories



Item	Designation	Stickout/Recess mm	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, cylindrical	-	20	-	-	69.5	-	1	094-010223-00000
10.01	Gas nozzle, bottle shape	- 1.1	13	-	-	75.5	-	1	094-010221-00000
10.01	Gas nozzle, conical	+ 1.9	15.5	-	-	72.5	-	1	094-010220-00500
10.01	Gas nozzle, bottle shape	+ 2.4	15.5	-	-	72	-	1	094-010222-00000
10.02	Contact tip	-	-	0.8	M8	30	CuCrZr	10	094-005409-00000
10.02	Contact tip	-	-	1	M8	30	CuCrZr	10	094-005225-00000
10.02	Contact tip	-	-	1.2	M8	30	CuCrZr	10	094-004207-00000
10.02	Contact tip	-	-	1.6	M8	30	CuCrZr	10	094-005412-00000
10.05	Contact tip holder	-	-	-	M8	23.2	-	1	094-009896-00500
10.06	Spatter protection, standard	-	-	-	M18	21	-	1	094-009897-00000
10.06	Spatter protection, high-temperature-resistant	-	-	-	M18	21	-	1	094-013862-00000

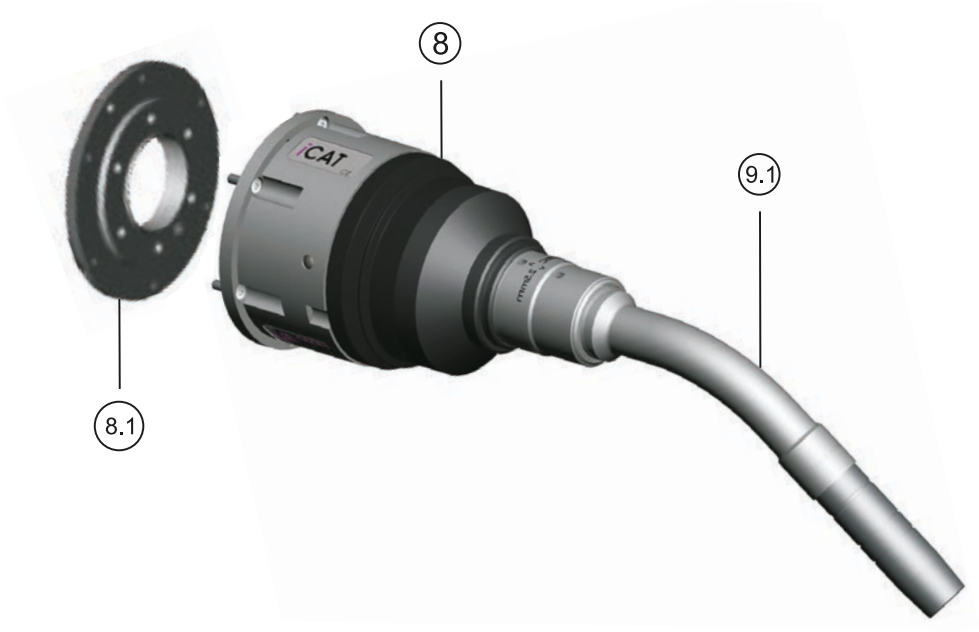
Liners

Item	Designation	Wire Ø mm	Inside Ø mm	Outside Ø mm	Length	PU Units	Item no.
10.03	PA liner for aluminium	1.4 - 1.6	2.3	4.7	3 m	1	094-001285-00000
10.03	PA liner for aluminium	0.8 - 1.2	2	4	3 m	1	094-001282-00000
10.09	Inlet tube	-	-	-	23 mm	1	094-011293-00000
10.10	Wire inlet guide, PA	-	4	-	-	1	094-011292-00000
10.10	Inlet nipple, PVC	-	4.5	-	-	1	094-010827-00000
10.10	BSL liner for steel	0.8 - 1.2	2	4.5	3 m	1	094-010578-00000
10.10	Inlet nipple, PVC, for BSL liner	-	-	-	-	1	094-013024-00000
10.10	BSL liner for steel	1.4 - 1.6	2.4	4.5	3 m	1	094-010579-00000
10.11	Sleeve	-	-	-	-	1	094-011295-00000
-	Wire feed nozzle	0.8	-	-	-	1	094-011281-00000
-	Wire feed nozzle	1	-	-	-	1	094-011282-00000
-	Wire feed nozzle	1.2	-	-	-	1	094-011283-00000
-	Wire feed nozzle	1.6	-	-	-	1	094-011289-00000
-	Liner sleeve	-	-	-	-	1	094-011284-00000

Options/accessories

Drive rolls	Item no.
WFROLL AL 0.8 Drive roll for aluminium (U-groove)	094-010214-00000
WFROLL AL 0.9 Drive roll for aluminium (U-groove)	094-010215-00000
WFROLL AL 1.0 Drive roll for aluminium (U-groove)	094-010216-00000
WFROLL AL 1.2 Drive roll for aluminium (U-groove)	094-010217-00000
WFROLL AL 1.6 Drive roll for aluminium (U-groove)	094-010218-00000
WFROLL FE 0.8 Drive roll for steel (V-groove)	094-010211-00000
WFROLL FE 0,9 Drive roll for steel (V-groove)	094-010883-00000
WFROLL FE 1.2 Drive roll for steel (V-groove)	094-010207-00000
WFROLL 1.2mm Wire feed roll, smooth	094-018246-00000
WFROLL FE 1.0 Drive roll for steel (V-groove)	094-010212-00000
WFROLL FE 1.6 Drive roll for steel (V-groove)	094-010213-00000

Robot welding torches ■ Systems for hollow wrist robots, gas-cooled



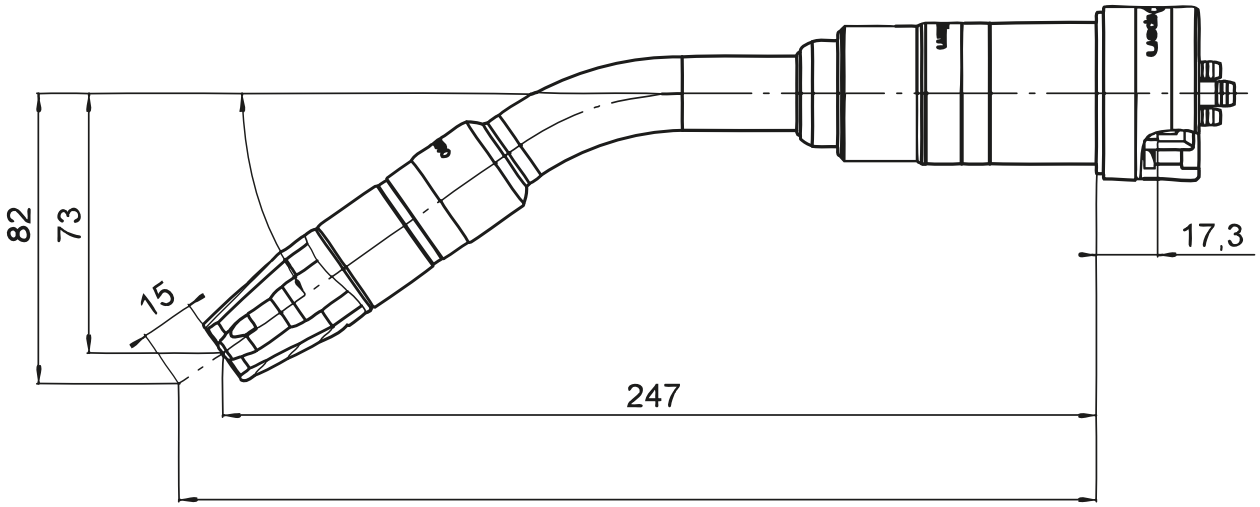
MIG/MAG welding torch for hollow shaft robots, gas-cooled

- Extremely durable and compact
- Maximum TCP security
- Modular construction
- Quick-change torch neck
- Excellent accessibility with optimum performance

Duty cycle CO2
500 A / 100 %

Duty cycle M21
400 A / 100 %

Wire Ø
0.8 mm - 1.6 mm



Fanuc Arc Mate 100iC/120iC

Item	Type	Designation	Length m	Item no.
8	iSTM ABIROB A	Torch interface complete	-	094-012932-00000
8.1	FLANGE FANUC iSTM	Intermediate flange, FANUC 100iC/120iC	–	094-012934-00000
8.1	SWIVEL FANUC iSTM	Rotating joint, FANUC 100iC/120iC		094-012935-00000
9.1	TN MIG ROB A500TS 0°	Torch neck ABIROB A500TS	-	094-011259-00000
9.1	TN MIG ROB A500TS 22°			094-011260-00500
9.1	TN MIG ROB A500TS 35°			094-011261-00000
9.1	TN MIG ROB A500TS 45°			094-011262-00500
9.4	SP C100iC G EZA	Hose package, gas cooled	0.8	094-013712-00000
9.4	SP C120iC G EZA		1.0	094-013713-00000
9.4	SP G 100iC 10L		1.2	094-013717-00000
9.4	SP G 100iC 6L		1.1	094-013716-00000

ABB IRB 1520 ID / ABB IRB 1600 ID

Item	Type	Designation	Length m	Item no.
8	iCAT A	Collision sensor	–	094-012718-00000
8.1	FLANGE ABB IRB 1600	Intermediate flange, ABB IRB 1600/1620		094-019884-00000
9.1	TN MIG ROB A500TS 0°	Torch neck ABIROB A500TS	-	094-011259-00000
9.1	TN MIG ROB A500TS 22°			094-011260-00500
9.1	TN MIG ROB A500TS 35°			094-011261-00000
9.1	TN MIG ROB A500TS 45°			094-011262-00500
9.4	SP ABB 1520 G 1,03M	Hose package, gas cooled	1.0	094-019866-00000
9.4	SP ABB 1600 G 1,03M			094-019867-00000

ABB IRB 2600 ID

Item	Type	Designation	Length m	Item no.
8	iCAT A	Collision sensor	–	094-012718-00000
8.1	FLANGE ABB IRB 2600	Intermediate flange, ABB IRB 1520/2600		094-019886-00000
9.1	TN MIG ROB A500TS 0°	Torch neck ABIROB A500TS	-	094-011259-00000
9.1	TN MIG ROB A500TS 22°			094-011260-00500
9.1	TN MIG ROB A500TS 35°			094-011261-00000
9.1	TN MIG ROB A500TS 45°			094-011262-00500
9.4	SP ABB 2600ID-8/2.00 W	Hose package, gas cooled	1.4	094-019869-00000
9.4	SP MIG ABB IRB 2600ID-15/1,85 W		1.2	094-019868-00000

Kuka KR5 arc HW

Item	Type	Designation	Length m	Item no.
8	iCAT A	Collision sensor	–	094-012718-00000
8.1	FLANGE KUKA	KUKA KR5/KR6/KR8/KR16 L8 intermediate flange		094-013316-00000
9.1	TN MIG ROB A500TS 0°	Torch neck ABIROB A500TS	-	094-011259-00000
9.1	TN MIG ROB A500TS 22°			094-011260-00500
9.1	TN MIG ROB A500TS 35°			094-011261-00000
9.1	TN MIG ROB A500TS 45°			094-011262-00500
9.4	SP KR5 G HWEWM	Hose package, gas cooled	0.9	094-013323-00000

Kuka KR16 arc HW / KR16 L8 arc HW

Item	Type	Designation	Length m	Item no.
8	iCAT A	Collision sensor	–	094-012718-00000
8.1	FLANGE KUKA KR16 arc HW	Intermediate flange, KUKA KR16		094-019885-00000
9.1	TN MIG ROB A500TS 0°	Torch neck ABIROB A500TS	-	094-011259-00000
9.1	TN MIG ROB A500TS 22°			094-011260-00500
9.1	TN MIG ROB A500TS 35°			094-011261-00000
9.1	TN MIG ROB A500TS 45°			094-011262-00500
9.4	SPA MIG KUKA KR 16 EWM	Hose package, gas cooled	1.0	094-019874-00000
9.4	SPA MIG KUKA KR 16 L8 W EWM		1.4	094-019875-00000

MOTOMAN MA 1400/1550/1800/1900 / VA1400

Item	Type	Designation	Length m	Item no.
8	iCAT A	Collision sensor	–	094-012718-00000
8.1	FLANGE MOTOMAN 56mm	Intermediate flange, MOTOMAN		094-012715-00000
9.1	TN MIG ROB A500TS 0°	Torch neck ABIROB A500TS	-	094-011259-00000
9.1	TN MIG ROB A500TS 22°			094-011260-00500
9.1	TN MIG ROB A500TS 35°			094-011261-00000
9.1	TN MIG ROB A500TS 45°			094-011262-00500
9.4	SP EA 1400G/SSA2000	Hose package, gas cooled	1.0	094-012857-00000
9.4	SP EA 1900G EZA		1.3	094-012900-00000
9.4	SP MOTOMAN MA1800 G		1.1	094-019880-00000
9.4	SPA MIG MOTOMAN MA1550 G			094-019879-00000
9.4	SPA MIG MOTOMAN VA1400 G		1.0	094-019878-00000

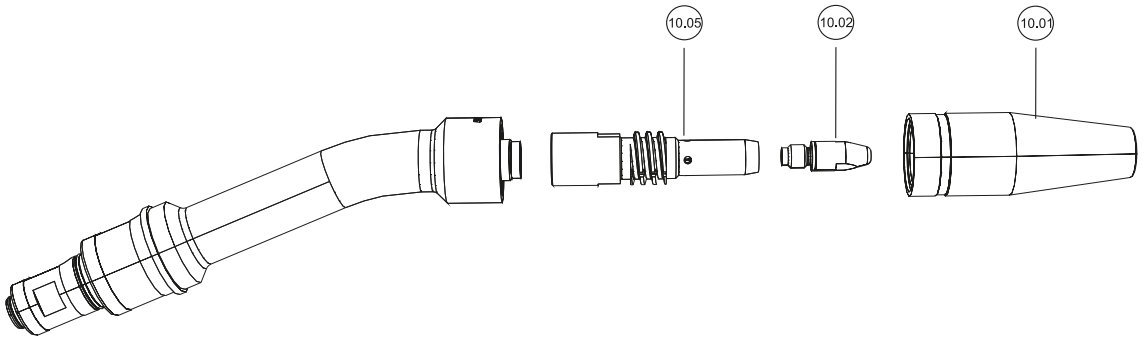
MOTOMAN MA 2010 / MA1440 /MH24

Item	Type	Designation	Length m	Item no.
8	iCAT A	Collision sensor	–	094-012718-00000
8.1	ZF ICAT D=56.0MM D=62	Intermediate flange, MOTOMAN		094-021590-00000
9.1	TN MIG ROB A500TS 0°	Torch neck ABIROB A500TS	-	094-011259-00000
9.1	TN MIG ROB A500TS 22°			094-011260-00500
9.1	TN MIG ROB A500TS 35°			094-011261-00000
9.1	TN MIG ROB A500TS 45°			094-011262-00500
9.4	SP MOTOMAN ICAT A MA1440	Hose package, gas cooled	0.9	094-020965-00000
9.4	SP MOTOMAN ICAT A MA2010		1.4	094-021723-00000
9.4	SP MOTOMAN ICAT A MH24		1.0	094-021696-00000

▶ Order welding torch fully equipped. Replacement parts and equipment parts are not part of the scope of supply and must be ordered based on the specific application!

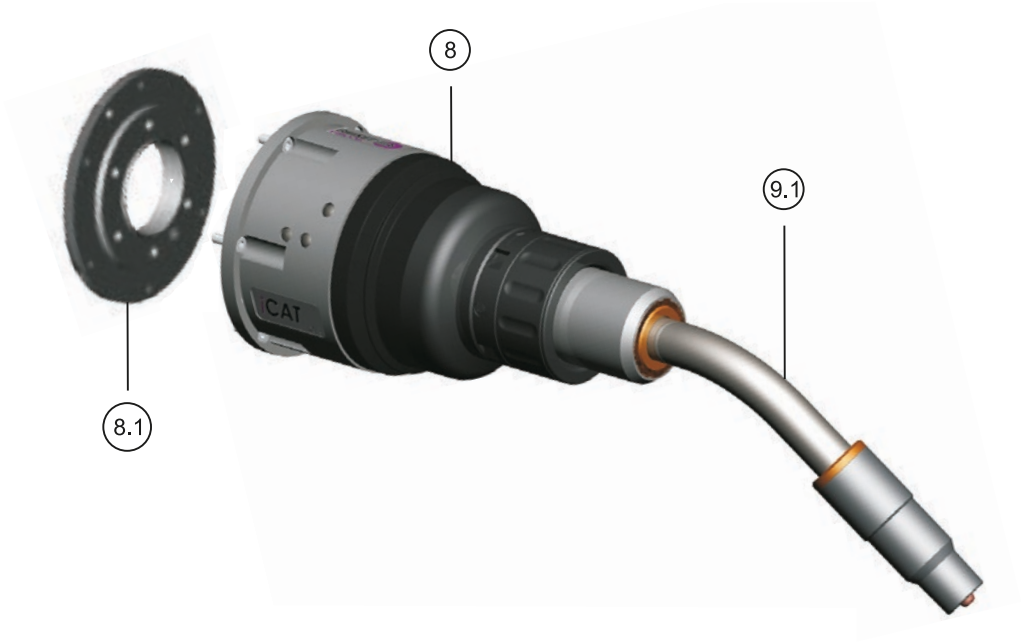
▶ Please note: Torch neck, collision sensor, intermediate flange and hose package are not included in the scope of supply and must be ordered separately!

Consumables/Accessories



Item	Designation	Stickout/Recess mm	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, conical	+ 3	16	-	-	72	-	1	094-011265-00000
10.01	Gas nozzle, conical	0	16	-	-	75	-	1	094-011263-00000
10.01	Gas nozzle, conical	- 2	16	-	-	77	-	1	094-011264-00000
10.02	CuCrZr contact tip, silver plated	-	-	0.8	M8	30	CuCrZr, silver-plated	10	094-011269-00000
10.02	CuCrZr contact tip, silver plated	-	-	0.9	M8	30	CuCrZr, silver-plated	10	094-011270-00000
10.02	CuCrZr contact tip, silver plated	-	-	1	M8	30	CuCrZr, silver-plated	10	094-011271-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.2	M8	30	CuCrZr, silver-plated	10	094-011272-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.4	M8	30	CuCrZr, silver-plated	10	094-011273-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.6	M8	30	CuCrZr, silver-plated	10	094-011274-00000
10.05	Contact tip holder	-	-	-	M8	70	-	1	094-011276-00500

Robot welding torches ■ Systems for hollow wrist robots, water-cooled



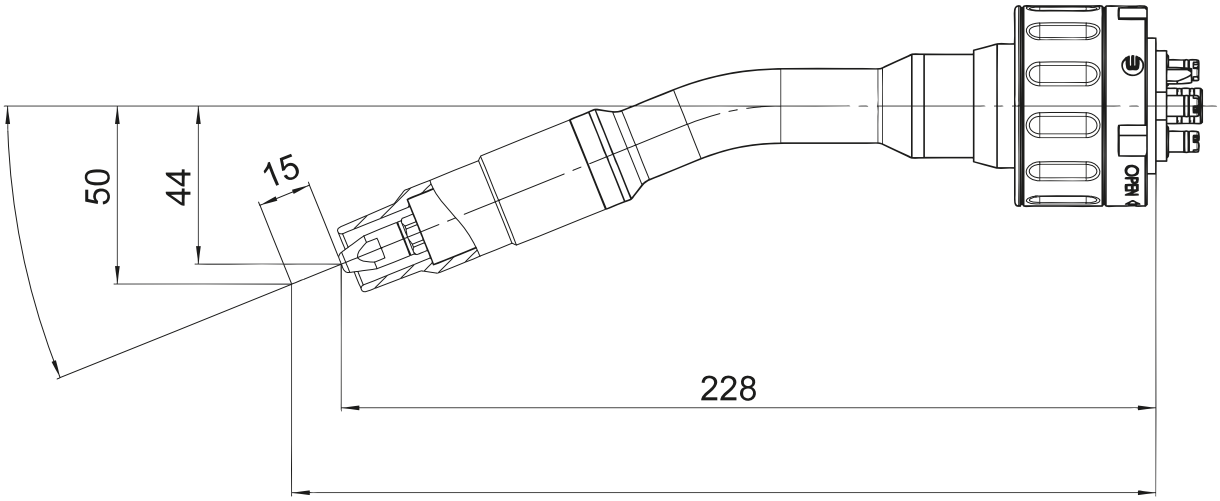
MIG/MAG welding torch for hollow wrist robots, water cooled

- Extremely durable and compact
- Maximum TCP security
- Modular construction
- Quick-change torch neck
- Excellent accessibility with optimum performance

Duty cycle CO2
500 A / 100 %

Duty cycle M21
500 A / 100 %

Wire Ø
0.8 mm - 1.6 mm



Fanuc Arc Mate 100iC/120iC

Item	Type	Designation	Length m	Item no.
8	iSTM ABIROB W	Torch interface complete	-	094-012933-00000
8.1	FLANGE FANUC iSTM	Intermediate flange, FANUC 100iC/120iC	–	094-012934-00000
8.1	SWIVEL FANUC iSTM	Rotating joint, FANUC 100iC/120iC		094-012935-00000
9.1	BH ROB 500W 22° x242 y50	Torch neck with gas nozzle sensor, 22°	-	094-012936-00000
9.1	BH ROB 500W 35° x227 y81	Torch neck with gas nozzle sensor, 35°		094-012937-00000
9.1	BH ROB 500W 45° x211 y105	Torch neck with gas nozzle sensor, 45°		094-012716-00000
9.4	SP C100iC W EZA 0.85m	Hose package, water cooled	0.8	094-013714-00000
9.4	SP C100iC W EZA 6L 1.07m		1.1	094-013718-00000
9.4	SP C120iC W EZA 1.05m		1.0	094-013715-00000
9.4	SP C120iC W EZA 10L 1.25m		1.2	094-018359-00000

Fanuc ArcMate 100iC 6L / 710iC 12L

Item	Type	Designation	Length m	Item no.
8	iCAT W	Collision sensor	–	094-012714-00000
8.1	FLANGE FANUC	Intermediate flange, FANUC 100iC/120iC/20iA		094-013711-00000
9.1	BH ROB 500W 22° x242 y50	Torch neck with gas nozzle sensor, 22°	-	094-012936-00000
9.1	BH ROB 500W 35° x227 y81	Torch neck with gas nozzle sensor, 35°		094-012937-00000
9.1	BH ROB 500W 45° x211 y105	Torch neck with gas nozzle sensor, 45°		094-012716-00000
9.4	MIG Fanuc 100iC/6L iCAT W	Hose package, water cooled	1.1	094-020192-00000
9.4	MIG Fanuc M-710iC/12L iCAT W		2.2	094-021865-00000

ABB IRB 1520 ID / ABB IRB 1600 ID

Item	Type	Designation	Length m	Item no.
8	iCAT W	Collision sensor	–	094-012714-00000
8.1	FLANGE ABB IRB 1600	Intermediate flange, ABB IRB 1600/1620		094-019884-00000
9.1	BH ROB 500W 22° x242 y50	Torch neck with gas nozzle sensor, 22°	-	094-012936-00000
9.1	BH ROB 500W 35° x227 y81	Torch neck with gas nozzle sensor, 35°		094-012937-00000
9.1	BH ROB 500W 45° x211 y105	Torch neck with gas nozzle sensor, 45°		094-012716-00000
9.4	SP ABB 1600 W 1,03M	Hose package, water cooled	1.0	094-019871-00000
9.4	SPA MIG ABB IRB 1520 W			094-019870-00000

ABB IRB 2600 ID

Item	Type	Designation	Length m	Item no.
8	iCAT W	Collision sensor	–	094-012714-00000
8.1	FLANGE ABB IRB 2600	Intermediate flange, ABB IRB 1520/2600		094-019886-00000
9.1	BH ROB 500W 22° x242 y50	Torch neck with gas nozzle sensor, 22°	-	094-012936-00000
9.1	BH ROB 500W 35° x227 y81	Torch neck with gas nozzle sensor, 35°		094-012937-00000
9.1	BH ROB 500W 45° x211 y105	Torch neck with gas nozzle sensor, 45°		094-012716-00000
9.4	SP ABB 2600ID-8/2.00 W	Hose package, water cooled	1.4	094-019873-00000
9.4	SP MIG ABB IRB 2600ID-15/1,85 W		1.2	094-019872-00000

Kuka KR5 arc HW

Item	Type	Designation	Length m	Item no.
8	iCAT W	Collision sensor	–	094-012714-00000
8.1	FLANGE KUKA	KUKA KR5/KR6/KR8/KR16 L8 intermediate flange		094-013316-00000
9.1	BH ROB 500W 22° x242 y50	Torch neck with gas nozzle sensor, 22°	-	094-012936-00000
9.1	BH ROB 500W 35° x227 y81	Torch neck with gas nozzle sensor, 35°		094-012937-00000
9.1	BH ROB 500W 45° x211 y105	Torch neck with gas nozzle sensor, 45°		094-012716-00000
9.4	SP KR5 W HWEWM	Hose package, water cooled	0.9	094-013317-00000

Kuka KR16 arc HW / KR16 L8 arc HW

Item	Type	Designation	Length m	Item no.
8	iCAT W	Collision sensor	–	094-012714-00000
8.1	FLANGE KUKA KR16 arc HW	Intermediate flange, KUKA KR16		094-019885-00000
9.1	BH ROB 500W 22° x242 y50	Torch neck with gas nozzle sensor, 22°	-	094-012936-00000
9.1	BH ROB 500W 35° x227 y81	Torch neck with gas nozzle sensor, 35°		094-012937-00000
9.1	BH ROB 500W 45° x211 y105	Torch neck with gas nozzle sensor, 45°		094-012716-00000
9.4	SPA MIG KUKA KR 16 L8 W EWM	Hose package, water cooled	1.4	094-019877-00000
9.4	SPA MIG KUKA KR 16 W EWM		1.0	094-019876-00000

MOTOMAN MA 1400/1550/1800/1900 / VA1400

Item	Type	Designation	Length m	Item no.
8	iCAT W	Collision sensor	–	094-012714-00000
8.1	FLANGE MOTOMAN 56mm	Intermediate flange, MOTOMAN		094-012715-00000
9.1	BH ROB 500W 22° x242 y50	Torch neck with gas nozzle sensor, 22°	-	094-012936-00000
9.1	BH ROB 500W 35° x227 y81	Torch neck with gas nozzle sensor, 35°		094-012937-00000
9.1	BH ROB 500W 45° x211 y105	Torch neck with gas nozzle sensor, 45°		094-012716-00000
9.4	SP EA 1400W EZA	Hose package, water cooled	1.0	094-012858-00000
9.4	SP EA 1900W EZA		1.3	094-012717-00000
9.4	SP MOTOMAN MA1550 W		1.1	094-019882-00000
9.4	SP MOTOMAN MA1800 W			094-019883-00000
9.4	SP MOTOMAN VA1400 W		1.0	094-019881-00000

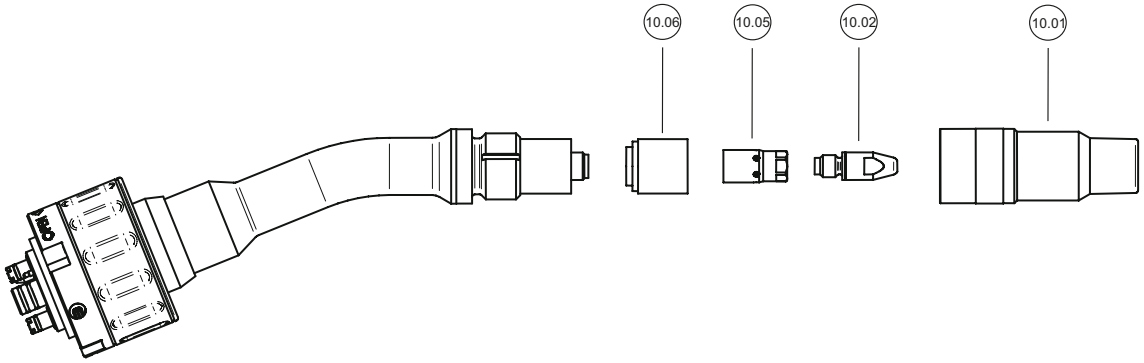
MOTOMAN MA 2010 / MA1440 / MH24

Item	Type	Designation	Length m	Item no.
8	iCAT W	Collision sensor	–	094-012714-00000
8.1	ZF ICAT D=56.0MM D=62	Intermediate flange, MOTOMAN		094-021590-00000
9.1	BH ROB 500W 22° x242 y50	Torch neck with gas nozzle sensor, 22°	-	094-012936-00000
9.1	BH ROB 500W 35° x227 y81	Torch neck with gas nozzle sensor, 35°		094-012937-00000
9.1	BH ROB 500W 45° x211 y105	Torch neck with gas nozzle sensor, 45°		094-012716-00000
9.4	SP MOTOMAN ICAT W MA1440	Hose package, water cooled	0.8	094-020964-00000
9.4	SP MOTOMAN ICAT W MA2010		-	094-022807-00000
9.4	SP MOTOMAN ICAT W MH24		1.0	094-021697-00000

▶ Order welding torch fully equipped. Replacement parts and equipment parts are not part of the scope of supply and must be ordered based on the specific application!

▶ Please note: Torch neck, collision sensor, intermediate flange and hose package are not included in the scope of supply and must be ordered separately!

Consumables/Accessories

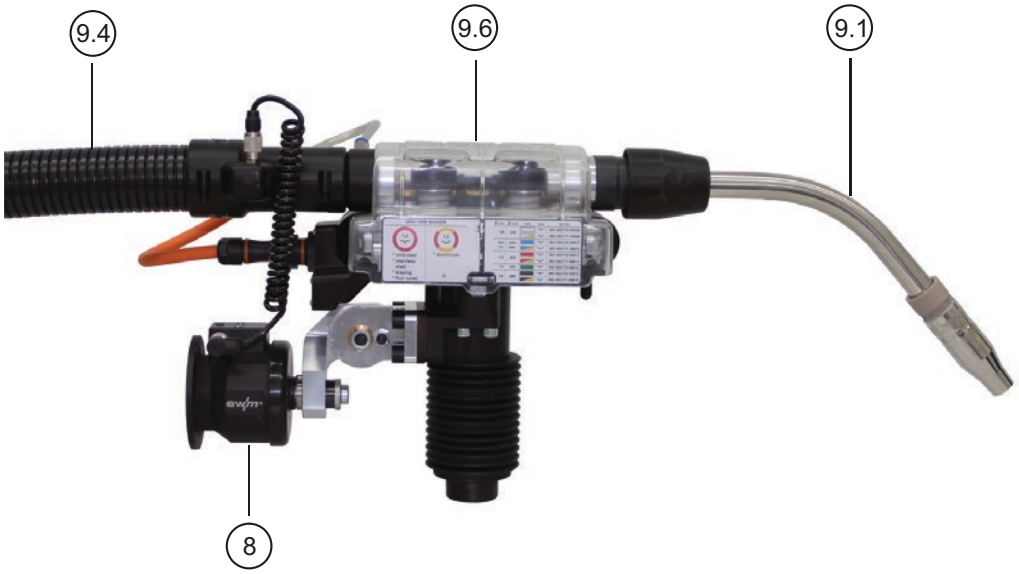


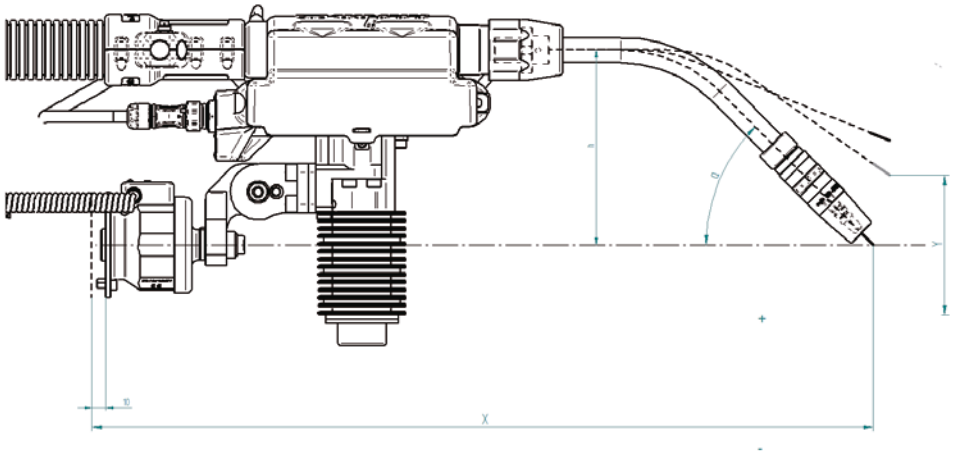
Item	Designation	Stickout/Recess mm	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, conical	+ 1.9	15.5	-	-	72.5	-	1	094-010220-00500
10.01	Gas nozzle, conical	- 1.1	15.5	-	-	75.5	-	1	094-010219-00000
10.02	Contact tip	-	-	0.8	M8	-	E-Cu	10	094-001252-00000
10.02	Contact tip	-	-	1	M8	-	E-Cu	10	094-000941-00000
10.02	Contact tip	-	-	1.2	M8	-	E-Cu	10	094-000942-00000
10.02	Contact tip	-	-	1.4	M8	-	E-Cu	10	094-001253-00000
10.02	Contact tip	-	-	1.6	M8	-	E-Cu	10	094-001254-00000
10.05	Contact tip holder	-	-	-	M8	23.2	Copper	1	094-010891-00000
10.06	Spatter protection, standard	-	-	-	M18	21	-	1	094-009897-00000
10.06	Spatter protection, high-temperature-resistant	-	-	-	M18	21	-	1	094-013862-00000

Options/accessories

Torch accessories	Item no.
EV ROB W500 Adjusting device	394-008143-00000

Robot welding torches ■ RMT301G frontDrive, gas cooled





Angle a	X	Y	h
22°	601,4	75	139,5
35°	587,2	50	139,5
45°	560	0	139,5

MIG/MAG robot welding torch, gas cooled

- Drive unit with four driven rolls
- Maximum TCP security
- Modular construction
- Quick-change torch neck
- To use on alpha Q, Phoenix or Taurus XR robot power source with F drive Rob 5

Duty cycle M21

300 A / 100 %

Wire Ø

0.8 mm - 1.6 mm

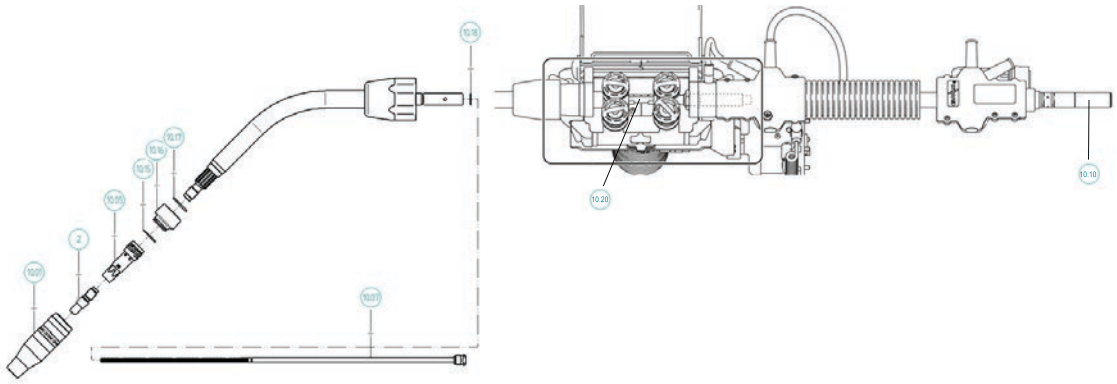
Item	Type	Designation	Length m	Item no.
8	RSA STRONG	Collision sensor	–	094-020727-00000
9.1	RMT301G 22° L=294 mm	Torch neck	-	094-022255-00000
9.1	RMT301G 35° L=280 mm			094-022256-00000
9.1	RMT301G 45° L=252 mm			094-022074-00000
9.4	SP G FRONTDRIVE RSA L=1,5M	Torch hose package, gas cooled	1.5	094-020728-00000
9.6	frontDrive	Drive unit, 4 rolls	-	090-005393-00502

▶ See description of frontDrive from page 96.

▶ Order welding torch fully equipped. Replacement parts and equipment parts are not part of the scope of supply and must be ordered based on the specific application!

▶ More hose package lengths, torch neck angles and replacement parts on request!

Consumables/Accessories



Item	Designation	Stickout/ Recess	Nozzle Ø	Wire Ø	Inside Ø	Thread	Length	Material	PU	Item no.
		mm	mm	mm	mm		mm		Units	
10.01	Gas nozzle	-	13	-	-	-	76.5	-	1	094-022037-00001
10.01	Gas nozzle	-	15	-	-	-	76.5	-	1	094-022038-00001
10.02	Contact tip	-	-	1	-	M9	35	CuCrZr	10	094-013530-00001
10.02	Contact tip	-	-	1.2	-	M9	35	CuCrZr	10	094-013531-00001
10.02	Contact tip	-	-	1.6	-	M9	35	CuCrZr	10	094-013533-00001
10.02	Contact tip, aluminium welding	-	-	1	-	M9	35	E-Cu	10	094-013545-00001
10.02	Contact tip, aluminium welding	-	-	1.2	-	M9	35	E-Cu	10	094-013546-00001
10.05	Contact tip holder	- 3	-	-	-	M9	48	-	1	094-022020-00000
10.05	Contact tip holder	0	-	-	-	M9	51	-	1	094-022263-00000
10.05	Contact tip holder	+ 3	-	-	-	M9	54	-	1	094-022264-00000
10.15	O-ring	-	-	-	16	-	-	-	1	094-022455-00000
10.16	Pf stop ring	-	-	-	14	-	-	-	1	094-023621-00000
10.17	O-ring	-	-	-	17	-	-	-	1	094-021611-00000
10.18	O-ring	-	-	-	10	-	-	-	1	094-017661-00000

Liners, hose package

Item	Designation	Wire Ø	Length	Material	PU	Item no.
		mm	mm		Units	
10.04	Steel liner, red	1 - 1.2	2500	Steel/CrNi	1	094-022258-00000
10.04	Steel liner, yellow	1.6	2500	Steel/CrNi	1	094-022259-00000
10.04	Liner	1 - 1.2	2500	Aluminium	1	094-022260-00000

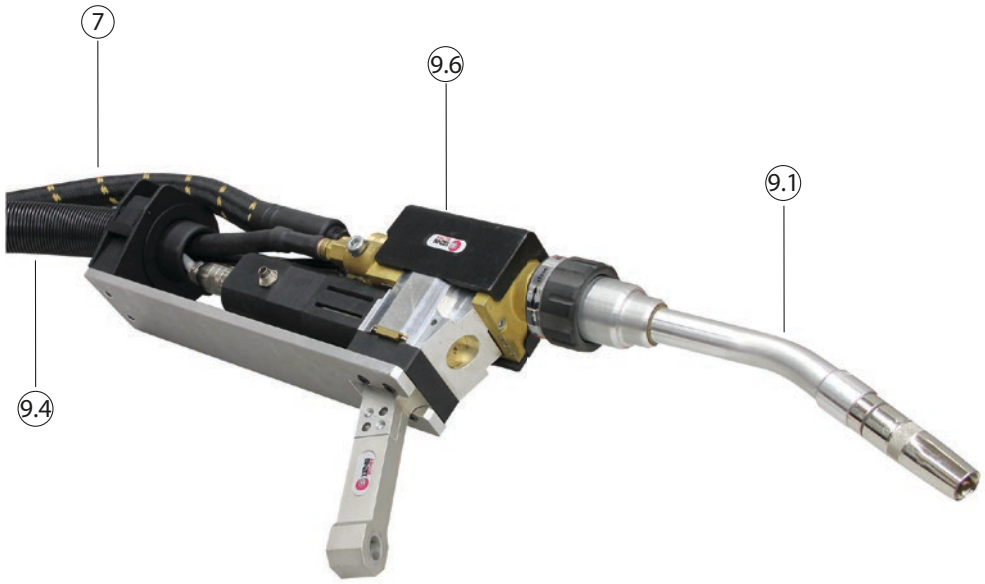
Liners, torch neck

Item	Designation	Wire Ø	Length	Material	PU	Item no.
		mm	mm		Units	
10.07	Steel liner	1 - 1.2	350	Steel/CrNi	1	094-022268-00000
10.07	Steel liner	1.6	350	Steel/CrNi	1	094-022271-00000
10.07	Steel liner	1 - 1.2	350	Aluminium	1	094-022269-00000
10.10	Inlet guide	-	21	-	1	092-003298-00000
10.10	Inlet guide	-	21	-	1	092-003297-00000

Options/accessories

Drive rolls	Item no.
AL 4AR 0.8mm Drive roll set frontDrive, for aluminium	092-008821-00008
AL 4AR 1.0mm Drive roll set frontDrive, for aluminium	092-008821-00010
AL 4AR 1.2mm Drive roll set frontDrive, for aluminium	092-008821-00012
AL 4AR 1.6mm Drive roll set frontDrive, for aluminium	092-008821-00016
UNI 4AR 0.8mm Drive roll set frontDrive, universal	092-008820-00008
UNI 4AR 1.0mm Drive roll set frontDrive, universal	092-008820-00010
UNI 4AR 1.2mm Drive roll set frontDrive, universal	092-008820-00012
UNI 4AR 1.6mm Drive roll set frontDrive, universal	092-008820-00016

Robot welding torches ■ MIG ROB ABK A 360 MasterPull



MIG/MAG robot welding torch, gas cooled

- 4-roll drive
- Maximum TCP safety
- Quick-change torch neck
- For operation on alpha Q or Phoenix MasterPull power source

Duty cycle CO2
360 A / 100 %

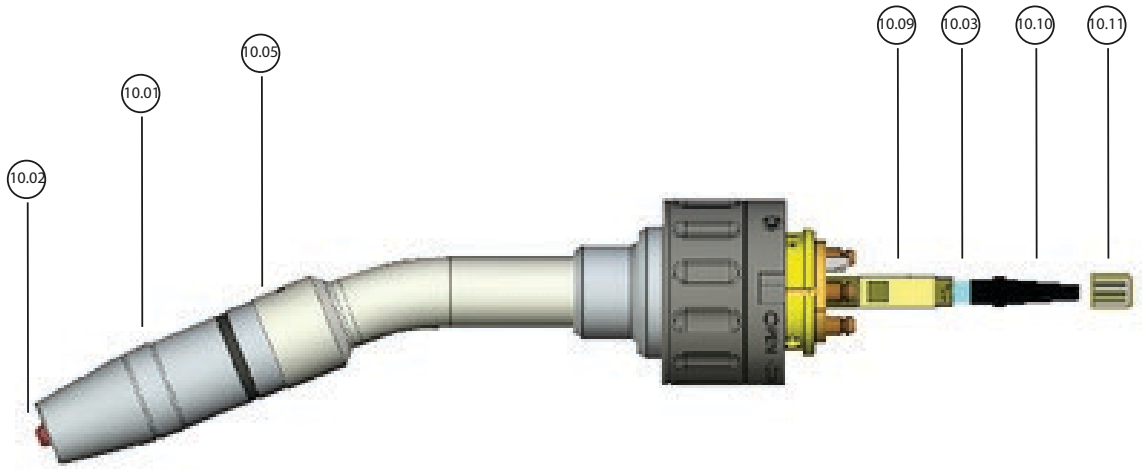
Duty cycle M21
290 A / 100 %

Wire Ø
0.8 mm - 1.4 mm

Item	Type	Designation	Length m	Item no.
7	Masterliner HD 5m	Wire guide		094-025510-00005
7	Masterliner HD 8m			094-025510-00008
7	Masterliner HD 10m			094-025510-00010
7	Masterliner HD 15m			094-025510-00015
7.1	SET MASTERLINER	Masterliner HD connection set, including all Masterliner connections	-	094-019128-00000
9.1	RTN MasterPull 360A 22°	Torch neck, MasterPull 22°		094-019123-00000
9.1	RTN MasterPull 360A 35°	Torch neck, MasterPull 35°		094-019124-00000
9.1	RTN MasterPull 360A 45°	Torch neck, MasterPull 45°		094-019125-00000
9.4	TBROB MasterPull 6m	Hose package, MasterPull 6 m	6.0	094-018250-00006
9.4	TBROB MasterPull 8m	Hose package, MasterPull 8 m	8.0	094-018250-00000
9.4	TBROB MasterPull 10m	Hose package, MasterPull 10 m	10.0	094-018250-00010
9.6	masterPull	Master drive with 0-20m/min wire feed speed	-	094-017455-00000

▶ Order welding torch fully equipped. Replacement parts and equipment parts are not part of the scope of supply and must be ordered based on the specific application!

Consumables/Accessories



Item	Designation	Stickout/Recess mm	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, conical	0	14	-	-	68	-	1	094-010142-00500
10.01	Gas nozzle, conical	0	16	-	-	68	-	1	094-010566-00500
10.01	Gas nozzle, bottle shape	+ 3	12	-	-	65	-	1	094-010563-00000
10.01	Gas nozzle, bottle shape	0	12	-	-	68	-	1	094-010561-00000
10.01	Gas nozzle, bottle shape	- 2	12	-	-	70	-	1	094-010562-00000
10.01	Gas nozzle, conical	+ 3	14	-	-	65	-	1	094-010565-00000
10.01	Gas nozzle, conical	- 2	14	-	-	70	-	1	094-010564-00000
10.01	Gas nozzle, conical	+ 3	16	-	-	65	-	1	094-010568-00000
10.01	Gas nozzle, conical	- 2	16	-	-	70	-	1	094-010567-00000
10.02	CuCrZr contact tip, silver plated	-	-	0.8	M6	28	CuCrZr, silver-plated	10	094-010468-00000
10.02	CuCrZr contact tip, silver plated	-	-	0.9	M6	28	CuCrZr, silver-plated	10	094-010469-00000
10.02	CuCrZr contact tip, silver plated	-	-	1	M6	28	CuCrZr, silver-plated	10	094-010470-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.2	M6	28	CuCrZr, silver-plated	10	094-016488-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.4	M6	28	CuCrZr, silver-plated	10	094-010471-00000
10.02	CuCrZr contact tip, silver plated	-	-	0.8	M8	30	CuCrZr, silver-plated	10	094-011269-00000
10.02	CuCrZr contact tip, silver plated	-	-	0.9	M8	30	CuCrZr, silver-plated	10	094-011270-00000
10.02	CuCrZr contact tip, silver plated	-	-	1	M8	30	CuCrZr, silver-plated	10	094-011271-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.2	M8	30	CuCrZr, silver-plated	10	094-011272-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.4	M8	30	CuCrZr, silver-plated	10	094-011273-00000
10.05	Contact tip holder	-	-	-	M6	-	-	1	094-010143-00500
10.05	Contact tip holder	-	-	-	M8	-	-	1	094-010575-00000

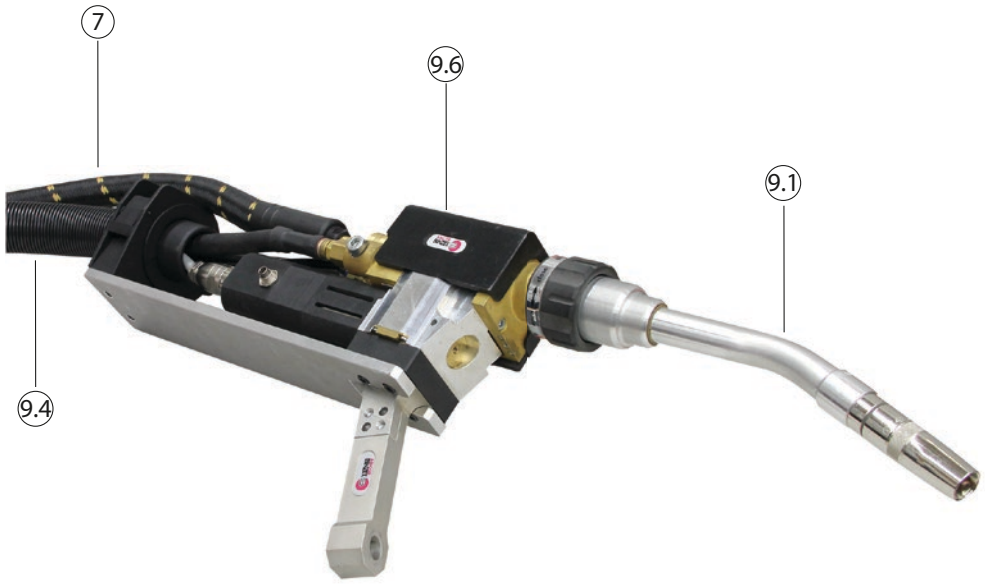
Liners

Item	Designation	Wire Ø	Inside Ø	Outside Ø	Length	PU	Item no.
		mm	mm	mm		Units	
10.03	PA liner for aluminium	1.4 - 1.6	2.3	4.7	3 m	1	094-001285-00000
10.03	PA liner for aluminium	0.8 - 1.2	2	4	3 m	1	094-001282-00000
10.09	Inlet tube	-	-	-	23 mm	1	094-011293-00000
10.10	Wire inlet guide, PA	-	4	-	-	1	094-011292-00000
10.10	Inlet nipple, PVC	-	4.5	-	-	1	094-010827-00000
10.10	BSL liner for steel	0.8 - 1.2	2	4.5	3 m	1	094-010578-00000
10.10	Inlet nipple, PVC, for BSL liner	-	-	-	-	1	094-013024-00000
10.10	BSL liner for steel	1.4 - 1.6	2.4	4.5	3 m	1	094-010579-00000
10.11	Sleeve	-	-	-	-	1	094-011295-00000

Options/accessories

Drive rolls	Item no.
WFROLL AL 0.8 Drive roll for aluminium (U-groove)	094-010214-00000
WFROLL AL 0.9 Drive roll for aluminium (U-groove)	094-010215-00000
WFROLL AL 1.0 Drive roll for aluminium (U-groove)	094-010216-00000
WFROLL AL 1.2 Drive roll for aluminium (U-groove)	094-010217-00000
WFROLL AL 1.6 Drive roll for aluminium (U-groove)	094-010218-00000
WFROLL FE 0.8 Drive roll for steel (V-groove)	094-010211-00000
WFROLL FE 0,9 Drive roll for steel (V-groove)	094-010883-00000
WFROLL FE 1.2 Drive roll for steel (V-groove)	094-010207-00000
WFROLL 1.2mm Wire feed roll, smooth	094-018246-00000
WFROLL FE 1.0 Drive roll for steel (V-groove)	094-010212-00000
WFROLL FE 1.6 Drive roll for steel (V-groove)	094-010213-00000

Robot welding torches ■ MIG ROB ABK A 500 MasterPull



MIG/MAG robot welding torch, gas cooled

- 4-roll drive
- Maximum TCP safety
- Quick-change torch neck
- For operation on alpha Q or Phoenix MasterPull power source

Duty cycle CO2
500 A / 100 %

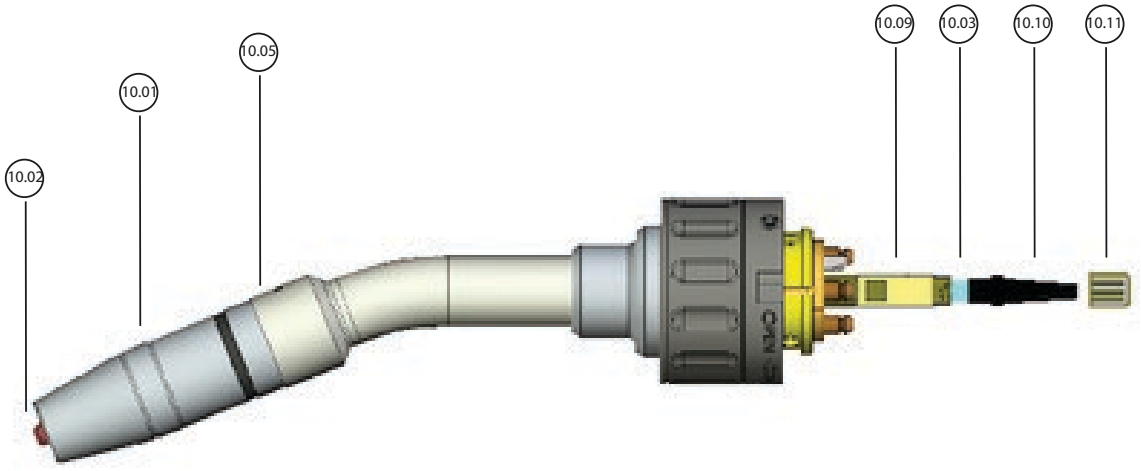
Duty cycle M21
400 A / 100 %

Wire Ø
0.8 mm - 1.6 mm

Item	Type	Designation	Length m	Item no.
7	Masterliner HD 5m	Wire guide	-	094-025510-00005
7	Masterliner HD 8m			094-025510-00008
7	Masterliner HD 10m			094-025510-00010
7	Masterliner HD 15m			094-025510-00015
7.1	SET MASTERLINER	Masterliner HD connection set, including all Masterliner connections		094-019128-00000
9.1	RTN MasterPull 500A 22°	Torch neck, MasterPull 22°		094-018247-00000
9.1	RTN MasterPull 500A 35°	Torch neck, MasterPull 35°		094-019126-00000
9.4	TBROB MasterPull 6m	Hose package, MasterPull 6 m	6.0	094-018250-00006
9.4	TBROB MasterPull 8m	Hose package, MasterPull 8 m	8.0	094-018250-00000
9.4	TBROB MasterPull 10m	Hose package, MasterPull 10 m	10.0	094-018250-00010
9.6	masterPull	Master drive with 0-20m/min wire feed speed	-	094-017455-00000

▶ Order welding torch fully equipped. Replacement parts and equipment parts are not part of the scope of supply and must be ordered based on the specific application!

Consumables/Accessories



Item	Designation	Stickout/ Recess	Nozzle Ø	Wire Ø	Thread	Length	Material	PU	Item no.
		mm	mm	mm		mm		Units	
10.01	Gas nozzle, conical	+ 3	13	-	-	72	-	1	094-011661-00000
10.01	Gas nozzle, conical	0	13	-	-	75	-	1	094-011659-00000
10.01	Gas nozzle, conical	- 2	13	-	-	77	-	1	094-011660-00000
10.01	Gas nozzle, bottle shape	+ 3	14	-	-	72	-	1	094-011666-00000
10.01	Gas nozzle, bottle shape	0	14	-	-	75	-	1	094-011663-00000
10.01	Gas nozzle, bottle shape	- 2	14	-	-	77	-	1	094-011664-00000
10.01	Gas nozzle, conical	+ 3	16	-	-	72	-	1	094-011265-00000
10.01	Gas nozzle, conical	0	16	-	-	75	-	1	094-011263-00000
10.01	Gas nozzle, conical	- 2	16	-	-	77	-	1	094-011264-00000
10.01	Gas nozzle, bottle shape	+ 3	16	-	-	72	-	1	094-011268-00000
10.01	Gas nozzle, bottle shape	0	16	-	-	75	-	1	094-011266-00000
10.01	Gas nozzle, bottle shape	- 2	16	-	-	77	-	1	094-011267-00000
10.02	CuCrZr contact tip, silver plated	-	-	0.8	M6	28	CuCrZr, silver-plated	10	094-010468-00000
10.02	CuCrZr contact tip, silver plated	-	-	0.9	M6	28	CuCrZr, silver-plated	10	094-010469-00000
10.02	CuCrZr contact tip, silver plated	-	-	1	M6	28	CuCrZr, silver-plated	10	094-010470-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.2	M6	28	CuCrZr, silver-plated	10	094-016488-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.4	M6	28	CuCrZr, silver-plated	10	094-010471-00000
10.02	CuCrZr contact tip, silver plated	-	-	0.8	M8	30	CuCrZr, silver-plated	10	094-011269-00000
10.02	CuCrZr contact tip, silver plated	-	-	0.9	M8	30	CuCrZr, silver-plated	10	094-011270-00000
10.02	CuCrZr contact tip, silver plated	-	-	1	M8	30	CuCrZr, silver-plated	10	094-011271-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.2	M8	30	CuCrZr, silver-plated	10	094-011272-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.4	M8	30	CuCrZr, silver-plated	10	094-011273-00000
10.02	CuCrZr contact tip, silver plated	-	-	1.6	M8	30	CuCrZr, silver-plated	10	094-011274-00000
10.05	Contact tip holder	-	-	-	M6	-	-	1	094-011275-00000
10.05	Contact tip holder, copper	-	-	-	M8	-	-	1	094-018248-00000

Liners

Item	Designation	Wire Ø	Inside Ø	Outside Ø	Length	PU	Item no.
		mm	mm	mm		Units	
10.03	PA liner for aluminium	1.4 - 1.6	2.3	4.7	3 m	1	094-001285-00000
10.03	PA liner for aluminium	0.8 - 1.2	2	4	3 m	1	094-001282-00000
10.09	Inlet tube	-	-	-	23 mm	1	094-011293-00000
10.10	Wire inlet guide, PA	-	4	-	-	1	094-011292-00000
10.10	Inlet nipple, PVC	-	4.5	-	-	1	094-010827-00000
10.10	BSL liner for steel	0.8 - 1.2	2	4.5	3 m	1	094-010578-00000
10.10	Inlet nipple, PVC, for BSL liner	-	-	-	-	1	094-013024-00000
10.10	BSL liner for steel	1.4 - 1.6	2.4	4.5	3 m	1	094-010579-00000
10.11	Sleeve	-	-	-	-	1	094-011295-00000

Options/accessories

Drive rolls	Item no.
WFROLL AL 0.8 Drive roll for aluminium (U-groove)	094-010214-00000
WFROLL AL 0.9 Drive roll for aluminium (U-groove)	094-010215-00000
WFROLL AL 1.0 Drive roll for aluminium (U-groove)	094-010216-00000
WFROLL AL 1.2 Drive roll for aluminium (U-groove)	094-010217-00000
WFROLL AL 1.6 Drive roll for aluminium (U-groove)	094-010218-00000
WFROLL FE 0.8 Drive roll for steel (V-groove)	094-010211-00000
WFROLL FE 0,9 Drive roll for steel (V-groove)	094-010883-00000
WFROLL FE 1.2 Drive roll for steel (V-groove)	094-010207-00000
WFROLL 1.2mm Wire feed roll, smooth	094-018246-00000
WFROLL FE 1.0 Drive roll for steel (V-groove)	094-010212-00000
WFROLL FE 1.6 Drive roll for steel (V-groove)	094-010213-00000

Automated welding torches ■ AMT301G

Gas-cooled MIG/MAG automated welding torch

- Optimal cooling through moulded inner pipes
- Clamping diameter range 38 mm
- Standardausstattung: Stromdüse 1,0 mm Stahl, Gasdüse NW15 77mm

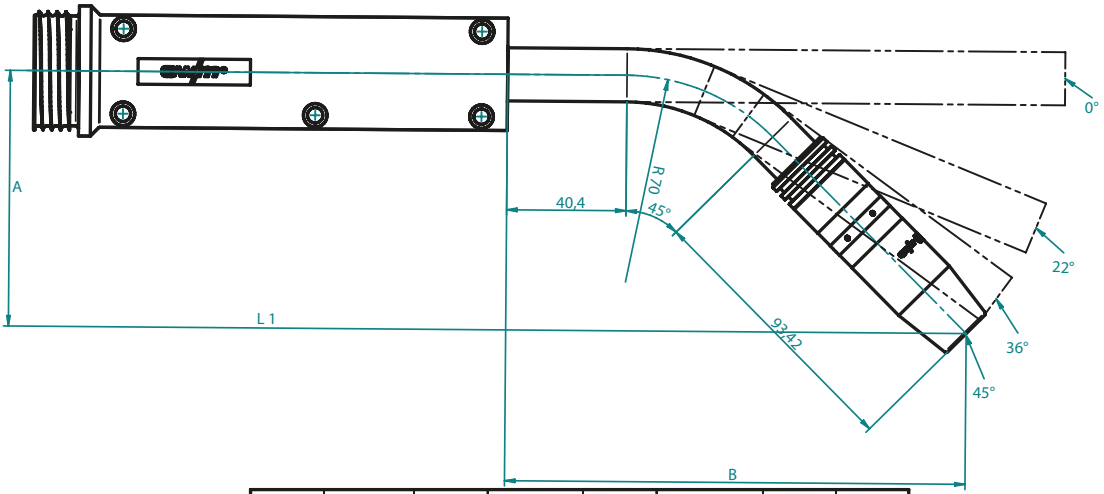
Duty cycle CO2
330 A / 60 %

Duty cycle M21
300 A / 60 %

Duty cycle M21 pulse
210 A / 60 %

Wire Ø
0.8 mm - 1.2 mm

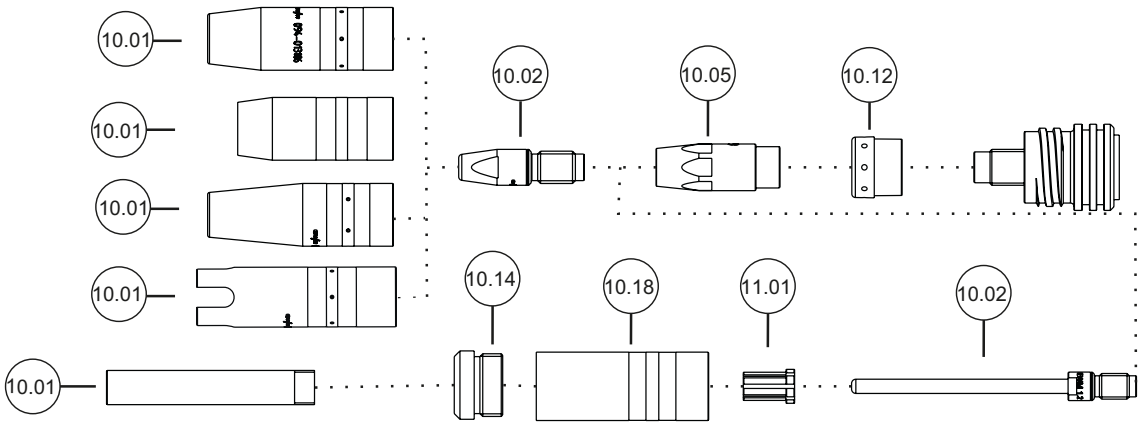
Thread, contact tip
M9



L1	Angle X°	R	L circle dis.	L2	Overall le	A	B
40,40	**45**	70	54,98	93,42	188,80	86,56	155,96
40,40	**36**	70	43,98	104,42	188,80	74,74	166,02
40,40	**22**	70	26,88	121,52	188,80	50,62	179,29
40,40	**0**	70	0,00	148,40	188,80	0,00	188,80

Item	Type	Designation	Length m	Item no.
9	AMT301G 1.5m 0° M9	Automated MIG/MAG welding torch, gas-cooled	1.5	094-500061-00015
9	AMT301G 1.5m 22° M9			094-500062-00015
9	AMT301G 1.5m 36° M9			094-500063-00015
9	AMT301G 1.5m 45° M9			094-500064-00015
9	AMT301G 3m 0° M9		3.0	094-500061-00000
9	AMT301G 3m 22° M9			094-500062-00000
9	AMT301G 3m 36° M9			094-500063-00000
9	AMT301G 3m 45° M9			094-500064-00000
9	AMT301G 4m 0° M9		4.0	094-500061-00004
9	AMT301G 4m 22° M9			094-500062-00004
9	AMT301G 4m 36° M9			094-500063-00004
9	AMT301G 4m 45° M9			094-500064-00004
9	AMT301G 5m 0° M9		5.0	094-500061-00005
9	AMT301G 5m 22° M9			094-500062-00005
9	AMT301G 5m 36° M9			094-500063-00005
9	AMT301G 5m 45° M9			094-500064-00005
9.2	TH AMT	Torch holder suitable for AMT torches	-	092-019400-00000

Consumables/Accessories



Item	Designation	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, short	15	-	-	65	-	10	094-019821-00001
10.01	Gas nozzle, short	18	-	-	65	-	10	094-019822-00001
10.01	Gas nozzle	13	-	-	71	-	10	094-013105-00001
10.01	Gas nozzle	15	-	-	71	-	10	094-013106-00001
10.01	Gas nozzle	18	-	-	71	-	10	094-013107-00001
10.01	Gas nozzle, narrow gap welding	-	-	-	73	-	10	094-019626-00000
10.01	Gas nozzle, narrow gap welding	-	-	-	76	-	10	094-022226-00000
10.01	Gas nozzle, very conical, narrow gap welding	13	-	-	71	-	10	094-019853-00001
10.01	Spot gas nozzle	20	-	-	80	-	10	094-020945-00000
10.01	Gas nozzle, Innershield	-	-	-	59.5	-	10	094-019554-00000
10.02	Contact tip	-	0.8	M9	35	CuCrZr	10	094-013528-00001
10.02	Contact tip	-	0.9	M9	35	CuCrZr	10	094-013529-00001
10.02	Contact tip	-	1	M9	35	CuCrZr	10	094-013530-00001
10.02	Contact tip	-	1.2	M9	35	CuCrZr	10	094-013531-00001
10.02	Contact tip	-	1.4	M9	35	CuCrZr	10	094-013532-00001
10.02	Contact tip	-	1.6	M9	35	CuCrZr	10	094-013533-00001
10.02	Contact tip, aluminium welding	-	0.8	M9	35	E-Cu	10	094-013543-00001
10.02	Contact tip, aluminium welding	-	0.9	M9	35	E-Cu	10	094-013544-00001
10.02	Contact tip, aluminium welding	-	1	M9	35	E-Cu	10	094-013545-00001
10.02	Contact tip, aluminium welding	-	1.2	M9	35	E-Cu	10	094-013546-00001
10.02	Contact tip, aluminium welding	-	1.4	M9	35	E-Cu	10	094-013547-00001
10.02	Contact tip, aluminium welding	-	1.6	M9	35	E-Cu	10	094-013548-00001
10.02	Contact tip, narrow gap welding	-	0.8	M9	100	CuCrZr	10	094-021189-00000
10.02	Contact tip, narrow gap welding	-	1	M9	100	CuCrZr	10	094-019616-00000
10.02	Contact tip, narrow gap welding	-	1.2	M9	100	CuCrZr	10	094-019617-00000
10.02	Contact tip, narrow gap welding	-	1.4	M9	100	CuCrZr	10	094-020019-00000
10.02	Contact tip, narrow gap welding	-	1.6	M9	100	CuCrZr	10	094-019618-00000
10.02	Contact tip, aluminium welding	-	0.8	M8	30	E-Cu	10	094-016115-00000
10.02	Contact tip, aluminium welding	-	0.9	M8	30	E-Cu	10	094-016116-00000
10.02	Contact tip, aluminium welding	-	1	M8	30	E-Cu	10	094-016117-00000
10.02	Contact tip, aluminium welding	-	1.2	M8	30	E-Cu	10	094-016118-00000
10.02	Contact tip, aluminium welding	-	1.4	M8	30	E-Cu	10	094-016119-00000
10.02	Contact tip, aluminium welding	-	1.6	M8	30	E-Cu	10	094-016120-00000
10.02	Contact tip	-	0.8	M8	30	CuCrZr	10	094-014024-00000
10.02	Contact tip	-	0.9	M8	30	CuCrZr	10	094-013129-00000
10.02	Contact tip	-	1	M8	30	CuCrZr	10	094-014222-00000
10.02	Contact tip	-	1.2	M8	30	CuCrZr	10	094-013113-00000
10.02	Contact tip	-	1.4	M8	30	CuCrZr	10	094-014191-00000
10.02	Contact tip	-	1.6	M8	30	CuCrZr	10	094-014192-00000

Item	Designation	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.02	Contact tip	-	0.8	M8	30	E-Cu	10	094-016109-00000
10.02	Contact tip	-	0.9	M8	30	E-Cu	10	094-016110-00000
10.02	Contact tip	-	1	M8	30	E-Cu	10	094-016111-00000
10.02	Contact tip	-	1.2	M8	30	E-Cu	10	094-007238-00000
10.02	Contact tip	-	1.4	M8	30	E-Cu	10	094-016112-00000
10.02	Contact tip	-	1.6	M8	30	E-Cu	10	094-016113-00000
10.05	Contact tip holder	-	-	M9	34.5	CuCrZr	10	094-013539-00002
10.05	Contact tip holder	-	-	M9	37.5	CuCrZr	10	094-013540-00002
10.05	Contact tip holder	-	-	M8	34.1	CuCrZr	10	094-013109-00003
10.05	Contact tip holder	-	-	M8	37.1	CuCrZr	10	094-013110-00002
10.12	Gas diffuser	-	-	-	11.9	Plastic	10	094-013096-00004
10.14	Capillary tube	-	-	-	-	-	1	094-019625-00000
10.18	Gas nozzle body	-	-	-	-	-	1	094-019623-00000
11.01	Centring sleeve	-	-	-	-	-	10	094-019627-00000
-	Torch key	-	-	-	-	-	1	094-016038-00001
-	Collet chuck	-	-	-	-	Brass	20	094-001082-00000
-	Collet chuck	-	-	-	-	Brass	20	094-001291-00000
-	Hexagonal nut	-	-	-	-	Brass	10	094-001080-00000

Liners

Item	Designation	Wire Ø mm	Inside Ø mm	Outside Ø mm	Length	Material	PU	Item no.	PE
10.03	Combined liner, PA	1.2 - 1.6	2	4	3.5 m	Polyamid	1 Units	092-018706-00003	Per unit
10.03	Combined liner, PA	1.2 - 1.6	2	4	4.5 m	Polyamid	1 Units	092-018706-00004	Per unit
10.03	Combined liner, PA	0.6 - 1	1.4	4	3 m	Polyamid	1 Units	094-013687-00000	Per unit
10.03	Combined liner, PA	0.6 - 1	1.4	4	4 m	Polyamid	1 Units	094-013687-00004	Per unit
10.03	Combined liner, PA	0.6 - 1	1.4	4	5 m	Polyamid	1 Units	094-013687-00005	Per unit
10.03	Combined liner, PA	1.6 - 2	2.3	4.7	3 m	Polyamid	1 Units	094-013665-00000	Per unit
10.03	Combined liner, PA	1.6 - 2	2.3	4.7	4 m	Polyamid	1 Units	094-013666-00000	Per unit
10.03	Combined liner, PA	1.6 - 2	2.3	4.7	5 m	Polyamid	1 Units	094-013667-00000	Per unit
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	3 m	Carbon teflon	1 Units	094-013871-00000	Per unit
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	4 m	Carbon teflon	1 Units	094-013871-00004	Per unit
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	5 m	Carbon teflon	1 Units	094-013871-00005	Per unit
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	3 m	Carbon teflon	1 Units	094-013828-00000	Per unit
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	4 m	Carbon teflon	1 Units	094-013828-00004	Per unit
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	5 m	Carbon teflon	1 Units	094-013828-00005	Per unit
10.03	Combined liner, carbon Teflon	1.6 - 2	2.7	4.7	3 m	Carbon teflon	1 Units	094-013829-00000	Per unit
10.03	Combined liner, carbon Teflon	1.6 - 2	2.7	4.7	4 m	Carbon teflon	1 Units	094-013829-00004	Per unit
10.03	Combined liner, carbon Teflon	1.6 - 2	2.7	4.7	5 m	Carbon teflon	1 Units	094-013829-00005	Per unit
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	3 m	Teflon	1 Units	094-013800-00000	Per unit
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	4 m	Teflon	1 Units	094-013800-00004	Per unit
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	5 m	Teflon	1 Units	094-013800-00005	Per unit
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	3 m	Teflon	1 Units	094-013801-00000	Per unit
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	4 m	Teflon	1 Units	094-013801-00004	Per unit
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	5 m	Teflon	1 Units	094-013801-00005	Per unit
10.03	Combined liner, Teflon	1.6 - 2	2.7	4.7	3 m	Teflon	1 Units	094-013802-00000	Per unit
10.03	Combined liner, Teflon	1.6 - 2	2.7	4.7	4 m	Teflon	1 Units	094-013802-00004	Per unit
10.03	Combined liner, Teflon	1.6 - 2	2.7	4.7	5 m	Teflon	1 Units	094-013802-00005	Per unit

Item	Designation	Wire Ø	Inside Ø	Outside Ø	Length	Material	PU	Item no.	PE
		mm	mm	mm					
10.03	PA liner, by the metre	0.6 - 1	1.4	4	-	PA	200 m	094-013781-00200	per m
10.03	PA liner, by the metre	1.2 - 1.6	2	4	-	PA	200 m	094-013782-00200	per m
10.03	PA liner, by the metre	1.6 - 2	2.3	4.7	-	PA	200 m	094-013783-00200	per m
10.03	Teflon liner, by the metre	0.6 - 1	1.5	4	-	Teflon	100 m	094-013487-00100	per m
10.03	Teflon liner, by the metre	1.2 - 1.6	2	4	-	Teflon	100 m	094-013490-00100	per m
10.03	Teflon liner, by the metre	1.6 - 2	2.7	4.7	-	Teflon	100 m	094-013523-00100	per m
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	-	Carbon teflon	100 m	094-013870-00100	per m
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	-	Carbon teflon	100 m	094-013524-00100	per m
10.03	Combined liner, carbon Teflon	1.6 - 2	2.7	4.7	-	Carbon teflon	100 m	094-013525-00100	per m
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	4.6 m	-	2 Pack	094-013075-00501	Per unit
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	3.6 m	-	2 Pack	094-007239-00501	Per unit
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	4.5 m	-	2 Pack	094-014223-00501	Per unit
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	5.6 m	-	2 Pack	094-014224-00501	Per unit
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	3.6 m	-	2 Pack	094-013074-00501	Per unit
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	5.6 m	-	2 Pack	094-014221-00501	Per unit
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	3.6 m	-	2 Pack	094-013662-00502	Per unit
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	4.6 m	-	2 Pack	094-013663-00502	Per unit
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	5.6 m	-	2 Pack	094-013664-00502	Per unit
10.17	O-ring	-	-	-	-	-	1 Units	094-001249-00000	Per unit
-	Brass liner	-	2	4	200 mm	-	5 Units	094-013078-00000	Per unit
-	Brass liner	-	2.2	4.4	200 mm	-	5 Units	094-012279-00000	Per unit
-	Brass liner	-	2.2	4.4	300 mm	-	5 Units	094-013872-00000	Per unit
-	Connecting sleeve	-	-	-	-	Brass	20 Units	094-013757-00000	Per unit
-	Connecting sleeve	-	-	-	-	Brass	20 Units	094-013758-00000	Per unit

Options/accessories

Consumables set, MT series	Item no.
SRP MT301G/MT451W ST/CR M8 Consumables set, steel/chromium nickel	092-013428-40000
SRP MT301G/MT451W AL M8 Consumables set, aluminium	092-013428-40001
SRP MT301G/MT451W AL M9 Consumables set, aluminium	092-013428-30001
SRP MT301G/MT451W ST/CR M9 Consumables set, steel/chromium nickel	092-013428-30000

Automated welding torches ■ AMT451W

Water cooled MIG/MAG welding torch

- Optimal cooling through moulded inner pipes
- Fabric-reinforced coolant hoses for even more robustness
- Clamping diameter range 38 mm
- Standard equipment: 1.2 mm steel contact tip, 71 mm NW15 gas nozzle

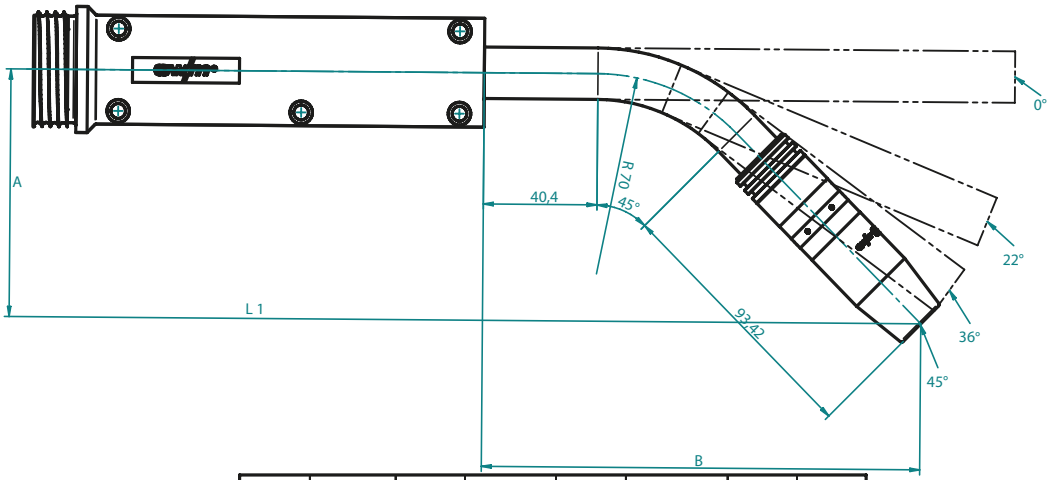
Duty cycle CO2
500 A / 100 %

Duty cycle M21
450 A / 100 %

Duty cycle M21 pulse
350 A / 100 %

Wire Ø
0.8 mm - 1.6 mm

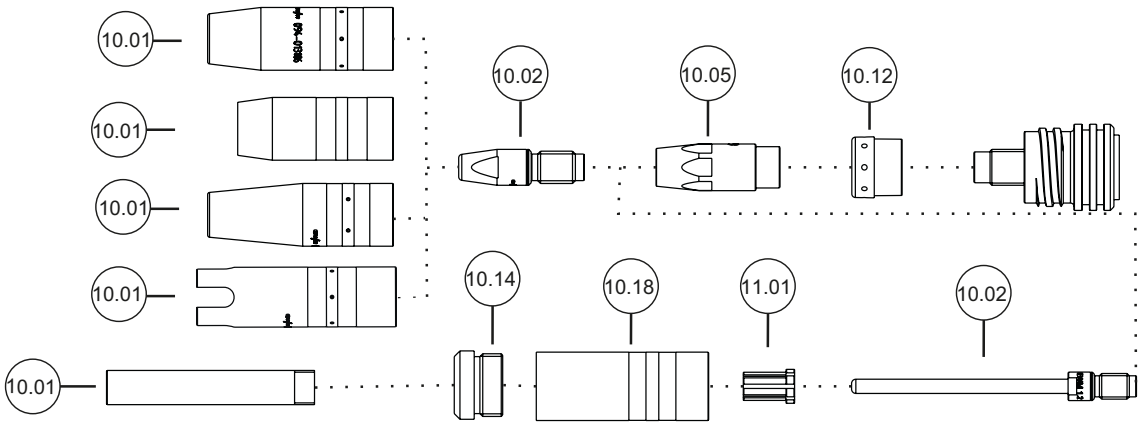
Thread, contact tip
M9



L1	Angle X°	R	L circle dis.	L2	Overall le	A	B
40,40	**45**	70	54,98	93,42	188,80	86,56	155,96
40,40	**36**	70	43,98	104,42	188,80	74,74	166,02
40,40	**22**	70	26,88	121,52	188,80	50,62	179,29
40,40	**0**	70	0,00	148,40	188,80	0,00	188,80

Item	Type	Designation	Length m	Item no.
9	AMT451W 0° 1.5m M9	Automated MIG/MAG welding torch, water-cooled	1.5	094-500065-00015
9	AMT451W 0° 3m M9		3.0	094-500065-00000
9	AMT451W 0° 4m M9		4.0	094-500065-00004
9	AMT451W 0° 5m M9		5.0	094-500065-00005
9	AMT451W 22° 1.5m M9		1.5	094-500066-00015
9	AMT451W 22° 3m M9		3.0	094-500066-00000
9	AMT451W 22° 4m M9		4.0	094-500066-00004
9	AMT451W 22° 5m M9		5.0	094-500066-00005
9	AMT451W 36° 1.5m M9		1.5	094-500067-00015
9	AMT451W 36° 3m M9		3.0	094-500067-00000
9	AMT451W 36° 4m M9		4.0	094-500067-00004
9	AMT451W 36° 5m M9		5.0	094-500067-00005
9	AMT451W 45° 1.5m M9		1.5	094-500068-00015
9	AMT451W 45° 3m M9		3.0	094-500068-00000
9	AMT451W 45° 4m M9		4.0	094-500068-00004
9	AMT451W 45° 5m M9		5.0	094-500068-00005
9.2	TH AMT	Torch holder suitable for AMT torches	-	092-019400-00000

Consumables/Accessories



Item	Designation	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.01	Gas nozzle, short	15	-	-	65	-	10	094-019821-00001
10.01	Gas nozzle, short	18	-	-	65	-	10	094-019822-00001
10.01	Gas nozzle	13	-	-	71	-	10	094-013105-00001
10.01	Gas nozzle	15	-	-	71	-	10	094-013106-00001
10.01	Gas nozzle	18	-	-	71	-	10	094-013107-00001
10.01	Gas nozzle, narrow gap welding	-	-	-	73	-	10	094-019626-00000
10.01	Gas nozzle, narrow gap welding	-	-	-	76	-	10	094-022226-00000
10.01	Gas nozzle, very conical, narrow gap welding	13	-	-	71	-	10	094-019853-00001
10.01	Spot gas nozzle	20	-	-	80	-	10	094-020945-00000
10.01	Gas nozzle, Innershield	-	-	-	59.5	-	10	094-019554-00000
10.02	Contact tip	-	0.8	M9	35	CuCrZr	10	094-013528-00001
10.02	Contact tip	-	0.9	M9	35	CuCrZr	10	094-013529-00001
10.02	Contact tip	-	1	M9	35	CuCrZr	10	094-013530-00001
10.02	Contact tip	-	1.2	M9	35	CuCrZr	10	094-013531-00001
10.02	Contact tip	-	1.4	M9	35	CuCrZr	10	094-013532-00001
10.02	Contact tip	-	1.6	M9	35	CuCrZr	10	094-013533-00001
10.02	Contact tip, aluminium welding	-	0.8	M9	35	E-Cu	10	094-013543-00001
10.02	Contact tip, aluminium welding	-	0.9	M9	35	E-Cu	10	094-013544-00001
10.02	Contact tip, aluminium welding	-	1	M9	35	E-Cu	10	094-013545-00001
10.02	Contact tip, aluminium welding	-	1.2	M9	35	E-Cu	10	094-013546-00001
10.02	Contact tip, aluminium welding	-	1.4	M9	35	E-Cu	10	094-013547-00001
10.02	Contact tip, aluminium welding	-	1.6	M9	35	E-Cu	10	094-013548-00001
10.02	Contact tip, narrow gap welding	-	0.8	M9	100	CuCrZr	10	094-021189-00000
10.02	Contact tip, narrow gap welding	-	1	M9	100	CuCrZr	10	094-019616-00000
10.02	Contact tip, narrow gap welding	-	1.2	M9	100	CuCrZr	10	094-019617-00000
10.02	Contact tip, narrow gap welding	-	1.4	M9	100	CuCrZr	10	094-020019-00000
10.02	Contact tip, narrow gap welding	-	1.6	M9	100	CuCrZr	10	094-019618-00000
10.02	Contact tip, aluminium welding	-	0.8	M8	30	E-Cu	10	094-016115-00000
10.02	Contact tip, aluminium welding	-	0.9	M8	30	E-Cu	10	094-016116-00000
10.02	Contact tip, aluminium welding	-	1	M8	30	E-Cu	10	094-016117-00000
10.02	Contact tip, aluminium welding	-	1.2	M8	30	E-Cu	10	094-016118-00000
10.02	Contact tip, aluminium welding	-	1.4	M8	30	E-Cu	10	094-016119-00000
10.02	Contact tip, aluminium welding	-	1.6	M8	30	E-Cu	10	094-016120-00000
10.02	Contact tip	-	0.8	M8	30	CuCrZr	10	094-014024-00000
10.02	Contact tip	-	0.9	M8	30	CuCrZr	10	094-013129-00000
10.02	Contact tip	-	1	M8	30	CuCrZr	10	094-014222-00000
10.02	Contact tip	-	1.2	M8	30	CuCrZr	10	094-013113-00000
10.02	Contact tip	-	1.4	M8	30	CuCrZr	10	094-014191-00000
10.02	Contact tip	-	1.6	M8	30	CuCrZr	10	094-014192-00000

Item	Designation	Nozzle Ø mm	Wire Ø mm	Thread	Length mm	Material	PU Units	Item no.
10.02	Contact tip	-	0.8	M8	30	E-Cu	10	094-016109-00000
10.02	Contact tip	-	0.9	M8	30	E-Cu	10	094-016110-00000
10.02	Contact tip	-	1	M8	30	E-Cu	10	094-016111-00000
10.02	Contact tip	-	1.2	M8	30	E-Cu	10	094-007238-00000
10.02	Contact tip	-	1.4	M8	30	E-Cu	10	094-016112-00000
10.02	Contact tip	-	1.6	M8	30	E-Cu	10	094-016113-00000
10.05	Contact tip holder	-	-	M9	34.5	CuCrZr	10	094-013539-00002
10.05	Contact tip holder	-	-	M9	37.5	CuCrZr	10	094-013540-00002
10.05	Contact tip holder	-	-	M8	34.1	CuCrZr	10	094-013109-00003
10.05	Contact tip holder	-	-	M8	37.1	CuCrZr	10	094-013110-00002
10.12	Gas diffuser	-	-	-	11.9	Plastic	10	094-013096-00004
10.14	Capillary tube	-	-	-	-	-	1	094-019625-00000
10.18	Gas nozzle body	-	-	-	-	-	1	094-019623-00000
11.01	Centring sleeve	-	-	-	-	-	10	094-019627-00000
-	Torch key	-	-	-	-	-	1	094-016038-00001
-	Collet chuck	-	-	-	-	Brass	20	094-001082-00000
-	Collet chuck	-	-	-	-	Brass	20	094-001291-00000
-	Hexagonal nut	-	-	-	-	Brass	10	094-001080-00000

Liners

Item	Designation	Wire Ø mm	Inside Ø mm	Outside Ø mm	Length	Material	PU	Item no.	PE
10.03	Combined liner, PA	1.2 - 1.6	2	4	3.5 m	Polyamid	1 Units	092-018706-00003	Per unit
10.03	Combined liner, PA	1.2 - 1.6	2	4	4.5 m	Polyamid	1 Units	092-018706-00004	Per unit
10.03	Combined liner, PA	0.6 - 1	1.4	4	3 m	Polyamid	1 Units	094-013687-00000	Per unit
10.03	Combined liner, PA	0.6 - 1	1.4	4	4 m	Polyamid	1 Units	094-013687-00004	Per unit
10.03	Combined liner, PA	0.6 - 1	1.4	4	5 m	Polyamid	1 Units	094-013687-00005	Per unit
10.03	Combined liner, PA	1.6 - 2	2.3	4.7	3 m	Polyamid	1 Units	094-013665-00000	Per unit
10.03	Combined liner, PA	1.6 - 2	2.3	4.7	4 m	Polyamid	1 Units	094-013666-00000	Per unit
10.03	Combined liner, PA	1.6 - 2	2.3	4.7	5 m	Polyamid	1 Units	094-013667-00000	Per unit
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	3 m	Carbon teflon	1 Units	094-013871-00000	Per unit
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	4 m	Carbon teflon	1 Units	094-013871-00004	Per unit
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	5 m	Carbon teflon	1 Units	094-013871-00005	Per unit
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	3 m	Carbon teflon	1 Units	094-013828-00000	Per unit
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	4 m	Carbon teflon	1 Units	094-013828-00004	Per unit
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	5 m	Carbon teflon	1 Units	094-013828-00005	Per unit
10.03	Combined liner, carbon Teflon	1.6 - 2	2.7	4.7	3 m	Carbon teflon	1 Units	094-013829-00000	Per unit
10.03	Combined liner, carbon Teflon	1.6 - 2	2.7	4.7	4 m	Carbon teflon	1 Units	094-013829-00004	Per unit
10.03	Combined liner, carbon Teflon	1.6 - 2	2.7	4.7	5 m	Carbon teflon	1 Units	094-013829-00005	Per unit
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	3 m	Teflon	1 Units	094-013800-00000	Per unit
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	4 m	Teflon	1 Units	094-013800-00004	Per unit
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	5 m	Teflon	1 Units	094-013800-00005	Per unit
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	3 m	Teflon	1 Units	094-013801-00000	Per unit
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	4 m	Teflon	1 Units	094-013801-00004	Per unit
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	5 m	Teflon	1 Units	094-013801-00005	Per unit
10.03	Combined liner, Teflon	1.6 - 2	2.7	4.7	3 m	Teflon	1 Units	094-013802-00000	Per unit
10.03	Combined liner, Teflon	1.6 - 2	2.7	4.7	4 m	Teflon	1 Units	094-013802-00004	Per unit
10.03	Combined liner, Teflon	1.6 - 2	2.7	4.7	5 m	Teflon	1 Units	094-013802-00005	Per unit

Item	Designation	Wire Ø	Inside Ø	Outside Ø	Length	Material	PU	Item no.	PE
		mm	mm	mm					
10.03	PA liner, by the metre	0.6 - 1	1.4	4	-	PA	200 m	094-013781-00200	per m
10.03	PA liner, by the metre	1.2 - 1.6	2	4	-	PA	200 m	094-013782-00200	per m
10.03	PA liner, by the metre	1.6 - 2	2.3	4.7	-	PA	200 m	094-013783-00200	per m
10.03	Teflon liner, by the metre	0.6 - 1	1.5	4	-	Teflon	100 m	094-013487-00100	per m
10.03	Teflon liner, by the metre	1.2 - 1.6	2	4	-	Teflon	100 m	094-013490-00100	per m
10.03	Teflon liner, by the metre	1.6 - 2	2.7	4.7	-	Teflon	100 m	094-013523-00100	per m
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	-	Carbon teflon	100 m	094-013870-00100	per m
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	-	Carbon teflon	100 m	094-013524-00100	per m
10.03	Combined liner, carbon Teflon	1.6 - 2	2.7	4.7	-	Carbon teflon	100 m	094-013525-00100	per m
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	4.6 m	-	2 Pack	094-013075-00501	Per unit
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	7 m	-	2 Pack	094-025460-00000	Per unit
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	3.6 m	-	2 Pack	094-007239-00501	Per unit
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	7 m	-	2 Pack	094-025461-00000	Per unit
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	7 m	-	2 Pack	094-025462-00000	Per unit
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	4.5 m	-	2 Pack	094-014223-00501	Per unit
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	5.6 m	-	2 Pack	094-014224-00501	Per unit
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	3.6 m	-	2 Pack	094-013074-00501	Per unit
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	4.6 m	-	2 Pack	094-013075-00501	Per unit
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	5.6 m	-	2 Pack	094-014221-00501	Per unit
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	3.6 m	-	2 Pack	094-013662-00502	Per unit
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	4.6 m	-	2 Pack	094-013663-00502	Per unit
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	5.6 m	-	2 Pack	094-013664-00502	Per unit
10.17	O-ring	-	-	-	-	-	1 Units	094-001249-00000	Per unit
-	Brass liner	-	2	4	200 mm	-	5 Units	094-013078-00000	Per unit
-	Brass liner	-	2.2	4.4	200 mm	-	5 Units	094-012279-00000	Per unit
-	Brass liner	-	2.2	4.4	300 mm	-	5 Units	094-013872-00000	Per unit
-	Connecting sleeve	-	-	-	-	Brass	20 Units	094-013757-00000	Per unit
-	Connecting sleeve	-	-	-	-	Brass	20 Units	094-013758-00000	Per unit

Options/accessories

Consumables set, MT series	Item no.
SRP MT301G/MT451W ST/CR M8 Consumables set, steel/chromium nickel	092-013428-40000
SRP MT301G/MT451W AL M8 Consumables set, aluminium	092-013428-40001
SRP MT301G/MT451W AL M9 Consumables set, aluminium	092-013428-30001
SRP MT301G/MT451W ST/CR M9 Consumables set, steel/chromium nickel	092-013428-30000

Automated welding torches ■ AMT551W

Water cooled MIG/MAG welding torch

- Optimal cooling through moulded inner pipes
- Fabric-reinforced coolant hoses for even more robustness
- Clamping diameter range 38 mm
- Standard equipment: 1.2 mm steel contact tip, 66 mm NW17 gas nozzle

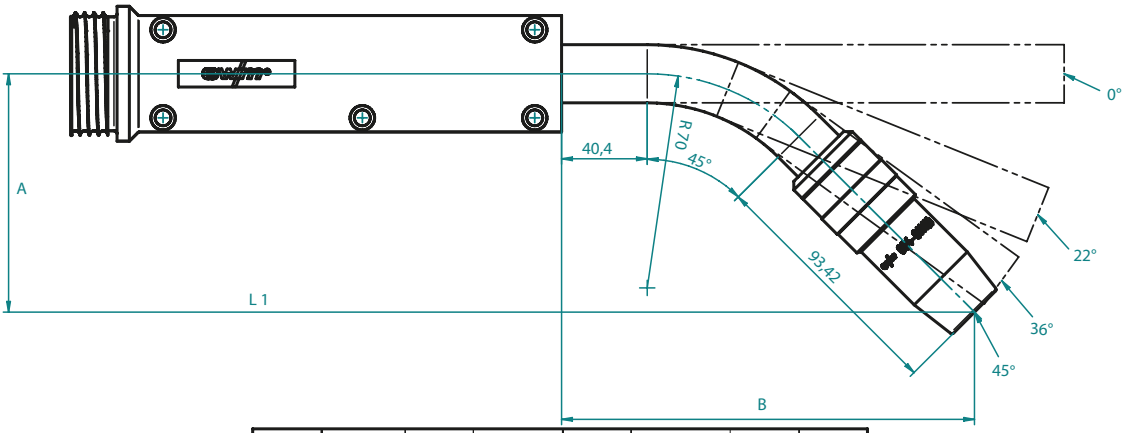
Duty cycle CO2
650 A / 100 %

Duty cycle M21
550 A / 100 %

Duty cycle M21 pulse
500 A / 100 %

Wire Ø
0.8 mm - 1.6 mm

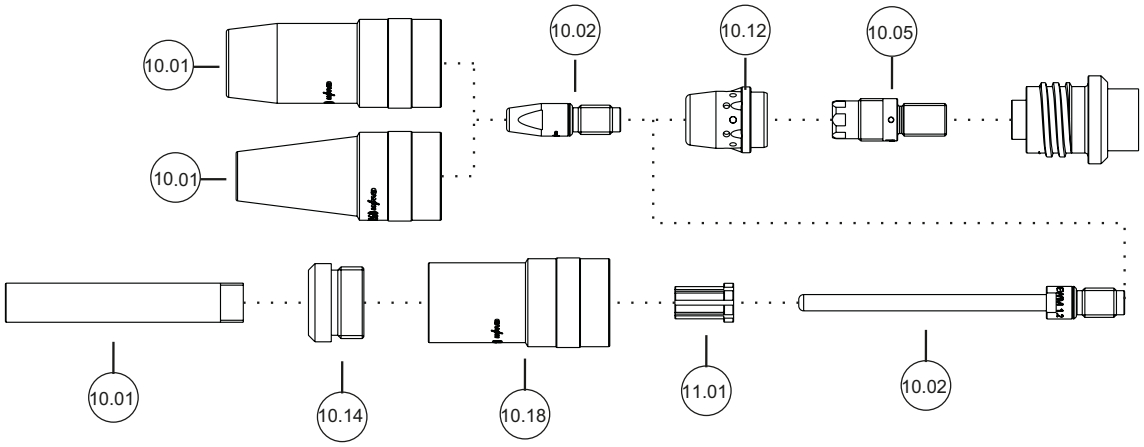
Thread, contact tip
M9



L1	Angle X°	R	L circle dis	L2	Overall le	A	B
27,98	**45**	70	54,98	81,19	164,15	77,91	134,89
27,98	**36**	70	43,98	92,19	164,15	67,55	143,70
27,98	**22**	70	26,88	109,29	164,15	46,04	155,53
27,98	**0**	70	0,00	136,17	164,15	0,00	164,15

Item	Type	Designation	Length m	Item no.
9	AMT551W 0° 1.5m M9	Automated MIG/MAG welding torch, water-cooled	1.5	094-500069-00015
9	AMT551W 0° 3m M9		3.0	094-500069-00000
9	AMT551W 0° 4m M9		4.0	094-500069-00004
9	AMT551W 0° 5m M9		5.0	094-500069-00005
9	AMT551W 22° 1.5m M9		1.5	094-500070-00015
9	AMT551W 22° 3m M9		3.0	094-500070-00000
9	AMT551W 22° 4m M9		4.0	094-500070-00004
9	AMT551W 22° 5m M9		5.0	094-500070-00005
9	AMT551W 36° 1.5m M9		1.5	094-500071-00015
9	AMT551W 36° 3m M9		3.0	094-500071-00000
9	AMT551W 36° 4m M9		4.0	094-500071-00004
9	AMT551W 36° 5m M9		5.0	094-500071-00005
9	AMT551W 45° 1.5m M9		1.5	094-500072-00015
9	AMT551W 45° 3m M9		3.0	094-500072-00000
9	AMT551W 45° 4m M9		4.0	094-500072-00004
9	AMT551W 45° 5m M9		5.0	094-500072-00005
9.2	TH AMT	Torch holder suitable for AMT torches	-	092-019400-00000

Consumables/Accessories



Item	Designation	Nozzle Ø	Wire Ø	Outside Ø	Thread	Length	Material	PU	Item no.
		mm	mm	mm		mm		Units	
10.01	Gas nozzle	15	-	-	-	66	-	10	094-014178-00001
10.01	Gas nozzle	17	-	-	-	66	-	10	094-014180-00001
10.01	Gas nozzle	19	-	-	-	66	-	10	094-014182-00001
10.01	Gas nozzle	15	-	-	-	63	-	10	094-014177-00001
10.01	Gas nozzle	17	-	-	-	63	-	10	094-014179-00001
10.01	Gas nozzle	19	-	-	-	63	-	10	094-014181-00001
10.01	Gas nozzle, very conical, narrow gap welding	13	-	-	-	63	-	10	094-019702-00000
10.01	Gas nozzle, very conical, narrow gap welding	13	-	-	-	66	-	10	094-022227-00000
10.01	Gas nozzle, narrow gap welding	-	-	-	-	73	-	10	094-019626-00000
10.01	Gas nozzle, narrow gap welding	-	-	-	-	76	-	10	094-022226-00000
10.02	Contact tip	-	0.8	-	M9	35	CuCrZr	10	094-013528-00001
10.02	Contact tip	-	0.9	-	M9	35	CuCrZr	10	094-013529-00001
10.02	Contact tip	-	1	-	M9	35	CuCrZr	10	094-013530-00001
10.02	Contact tip	-	1.2	-	M9	35	CuCrZr	10	094-013531-00001
10.02	Contact tip	-	1.4	-	M9	35	CuCrZr	10	094-013532-00001
10.02	Contact tip	-	1.6	-	M9	35	CuCrZr	10	094-013533-00001
10.02	Contact tip	-	2	-	M9	35	CuCrZr	10	094-013534-00001
10.02	Contact tip, aluminium welding	-	0.8	-	M9	35	E-Cu	10	094-013543-00001
10.02	Contact tip, aluminium welding	-	0.9	-	M9	35	E-Cu	10	094-013544-00001
10.02	Contact tip, aluminium welding	-	1	-	M9	35	E-Cu	10	094-013545-00001
10.02	Contact tip, aluminium welding	-	1.2	-	M9	35	E-Cu	10	094-013546-00001
10.02	Contact tip, aluminium welding	-	1.4	-	M9	35	E-Cu	10	094-013547-00001
10.02	Contact tip, aluminium welding	-	1.6	-	M9	35	E-Cu	10	094-013548-00001
10.02	Contact tip, aluminium welding	-	2	-	M9	35	E-Cu	10	094-013549-00001
10.02	Contact tip, narrow gap welding	-	0.8	-	M9	100	CuCrZr	10	094-021189-00000
10.02	Contact tip, narrow gap welding	-	1	-	M9	100	CuCrZr	10	094-019616-00000
10.02	Contact tip, narrow gap welding	-	1.2	-	M9	100	CuCrZr	10	094-019617-00000
10.02	Contact tip, narrow gap welding	-	1.4	-	M9	100	CuCrZr	10	094-020019-00000
10.02	Contact tip, narrow gap welding	-	1.6	-	M9	100	CuCrZr	10	094-019618-00000

Item	Designation	Nozzle Ø	Wire Ø	Outside Ø	Thread	Length	Material	PU	Item no.
		mm	mm	mm		mm		Units	
10.02	Contact tip, aluminium welding	-	0.8	-	M8	30	E-Cu	10	094-016115-00000
10.02	Contact tip, aluminium welding	-	0.9	-	M8	30	E-Cu	10	094-016116-00000
10.02	Contact tip, aluminium welding	-	1	-	M8	30	E-Cu	10	094-016117-00000
10.02	Contact tip, aluminium welding	-	1.2	-	M8	30	E-Cu	10	094-016118-00000
10.02	Contact tip, aluminium welding	-	1.4	-	M8	30	E-Cu	10	094-016119-00000
10.02	Contact tip, aluminium welding	-	1.6	-	M8	30	E-Cu	10	094-016120-00000
10.02	Contact tip, aluminium welding	-	2	-	M8	30	E-Cu	10	094-016920-00000
10.02	Contact tip	-	0.8	-	M8	30	CuCrZr	10	094-014024-00000
10.02	Contact tip	-	0.9	-	M8	30	CuCrZr	10	094-013129-00000
10.02	Contact tip	-	1	-	M8	30	CuCrZr	10	094-014222-00000
10.02	Contact tip	-	1.2	-	M8	30	CuCrZr	10	094-013113-00000
10.02	Contact tip	-	1.4	-	M8	30	CuCrZr	10	094-014191-00000
10.02	Contact tip	-	1.6	-	M8	30	CuCrZr	10	094-014192-00000
10.02	Contact tip	-	2	-	M8	30	CuCrZr	10	094-014193-00000
10.02	Contact tip	-	0.8	-	M8	30	E-Cu	10	094-016109-00000
10.02	Contact tip	-	0.9	-	M8	30	E-Cu	10	094-016110-00000
10.02	Contact tip	-	1	-	M8	30	E-Cu	10	094-016111-00000
10.02	Contact tip	-	1.2	-	M8	30	E-Cu	10	094-007238-00000
10.02	Contact tip	-	1.4	-	M8	30	E-Cu	10	094-016112-00000
10.02	Contact tip	-	1.6	-	M8	30	E-Cu	10	094-016113-00000
10.02	Contact tip	-	2	-	M8	30	E-Cu	10	094-016114-00000
10.05	Contact tip holder	-	-	-	M9	35	CuCrZr	10	094-013856-00003
10.05	Contact tip holder	-	-	-	M9	38	CuCrZr	10	094-016425-00003
10.12	Gas diffuser	-	-	20.2	-	25	Plastic	10	094-013111-00002
10.14	Capillary tube	-	-	-	-	-	-	1	094-019625-00000
10.18	Gas nozzle body	-	-	-	-	-	-	1	094-019624-00000
11.01	Centring sleeve	-	-	-	-	-	-	10	094-019627-00000
-	Torch key	-	-	-	-	-	-	1	094-016038-00001
-	Collet chuck	-	-	-	-	-	Brass	20	094-001082-00000
-	Collet chuck	-	-	-	-	-	Brass	20	094-001291-00000
-	Hexagonal nut	-	-	-	-	-	Brass	10	094-001080-00000

Liners

Item	Designation	Wire Ø	Inside Ø	Outside Ø	Length	Material	PU	Item no.	PE
		mm	mm	mm					
10.03	Combined liner, PA	0.6 - 1	1.4	4	3 m	Polyamid	1 Units	094-013687-00000	Per unit
10.03	Combined liner, PA	0.6 - 1	1.4	4	4 m	Polyamid	1 Units	094-013687-00004	Per unit
10.03	Combined liner, PA	0.6 - 1	1.4	4	5 m	Polyamid	1 Units	094-013687-00005	Per unit
10.03	Combined liner, PA	1.2 - 1.6	2	4	3.5 m	Polyamid	1 Units	092-018706-00003	Per unit
10.03	Combined liner, PA	1.2 - 1.6	2	4	4.5 m	Polyamid	1 Units	092-018706-00004	Per unit
10.03	Combined liner, PA	1.6 - 2	2.3	4.7	3 m	Polyamid	1 Units	094-013665-00000	Per unit
10.03	Combined liner, PA	1.6 - 2	2.3	4.7	4 m	Polyamid	1 Units	094-013666-00000	Per unit
10.03	Combined liner, PA	1.6 - 2	2.3	4.7	5 m	Polyamid	1 Units	094-013667-00000	Per unit
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	3 m	Carbon teflon	1 Units	094-013871-00000	Per unit
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	4 m	Carbon teflon	1 Units	094-013871-00004	Per unit
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	5 m	Carbon teflon	1 Units	094-013871-00005	Per unit

Item	Designation	Wire Ø	Inside Ø	Outside Ø	Length	Material	PU	Item no.	PE
		mm	mm	mm					
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	3 m	Carbon teflon	1 Units	094-013828-00000	Per unit
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	4 m	Carbon teflon	1 Units	094-013828-00004	Per unit
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	5 m	Carbon teflon	1 Units	094-013828-00005	Per unit
10.03	Combined liner, carbon Teflon	1.6 - 2	2.7	4.7	3 m	Carbon teflon	1 Units	094-013829-00000	Per unit
10.03	Combined liner, carbon Teflon	1.6 - 2	2.7	4.7	4 m	Carbon teflon	1 Units	094-013829-00004	Per unit
10.03	Combined liner, carbon Teflon	1.6 - 2	2.7	4.7	5 m	Carbon teflon	1 Units	094-013829-00005	Per unit
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	3 m	Teflon	1 Units	094-013800-00000	Per unit
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	4 m	Teflon	1 Units	094-013800-00004	Per unit
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	5 m	Teflon	1 Units	094-013800-00005	Per unit
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	3 m	Teflon	1 Units	094-013801-00000	Per unit
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	4 m	Teflon	1 Units	094-013801-00004	Per unit
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	5 m	Teflon	1 Units	094-013801-00005	Per unit
10.03	Combined liner, Teflon	1.6 - 2	2.7	4.7	3 m	Teflon	1 Units	094-013802-00000	Per unit
10.03	Combined liner, Teflon	1.6 - 2	2.7	4.7	4 m	Teflon	1 Units	094-013802-00004	Per unit
10.03	Combined liner, Teflon	1.6 - 2	2.7	4.7	5 m	Teflon	1 Units	094-013802-00005	Per unit
10.03	PA liner, by the metre	0.6 - 1	1.4	4	-	PA	200 m	094-013781-00200	per m
10.03	PA liner, by the metre	1.2 - 1.6	2	4	-	PA	200 m	094-013782-00200	per m
10.03	PA liner, by the metre	1.6 - 2	2.3	4.7	-	PA	200 m	094-013783-00200	per m
10.03	Teflon liner, by the metre	0.6 - 1	1.5	4	-	Teflon	100 m	094-013487-00100	per m
10.03	Teflon liner, by the metre	1.2 - 1.6	2	4	-	Teflon	100 m	094-013490-00100	per m
10.03	Teflon liner, by the metre	1.6 - 2	2.7	4.7	-	Teflon	100 m	094-013523-00100	per m
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	-	Carbon teflon	100 m	094-013870-00100	per m
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	-	Carbon teflon	100 m	094-013524-00100	per m
10.03	Combined liner, carbon Teflon	1.6 - 2	2.7	4.7	-	Carbon teflon	100 m	094-013525-00100	per m
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	4.6 m	-	2 Pack	094-013075-00501	Per unit
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	3.6 m	-	2 Pack	094-007239-00501	Per unit
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	4.5 m	-	2 Pack	094-014223-00501	Per unit
10.04	Steel liner, insulated	1.2 - 1.6	2	4.6	5.6 m	-	2 Pack	094-014224-00501	Per unit
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	3.6 m	-	2 Pack	094-013074-00501	Per unit
10.04	Steel liner, insulated	0.8 - 1	1.5	3.8	5.6 m	-	2 Pack	094-014221-00501	Per unit
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	3.6 m	-	2 Pack	094-013662-00502	Per unit
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	4.6 m	-	2 Pack	094-013663-00502	Per unit
10.04	Steel liner, insulated	1.6 - 2	2.4	4.6	5.6 m	-	2 Pack	094-013664-00502	Per unit
10.17	O-ring	-	-	-	-	-	1 Units	094-001249-00000	Per unit
-	Brass liner	-	2	4	200 mm	-	5 Units	094-013078-00000	Per unit
-	Brass liner	-	2.2	4.4	200 mm	-	5 Units	094-012279-00000	Per unit
-	Brass liner	-	2.2	4.4	300 mm	-	5 Units	094-013872-00000	Per unit
-	Connecting sleeve	-	-	-	-	Brass	20 Units	094-013757-00000	Per unit
-	Connecting sleeve	-	-	-	-	Brass	20 Units	094-013758-00000	Per unit

Options/accessories

Consumables set, MT series	Item no.
SRP MT401G/MT551W ST/CR M8 Consumables set, steel/chromium nickel	092-013429-40000
SRP MT401G/MT551W ST/CR M9 Consumables set, steel/chromium nickel	092-013429-30000
SRP MT401G/MT551W ALU M8 Consumables set, aluminium	092-013429-40001
SRP MT401G/MT551W AL M9 Consumables set, aluminium	092-013429-30001

Contact tips

CT M6 CuCrZr

- Contact tip made from copper/chrome/zirconium alloy
- For particularly long service life
- For universal use with all welding torches with M6 contact tip thread

Length	28 mm
Thread, contact tip	M6
Material	CuCrZr
Version	For extremely long service lives

Designation	Wire Ø mm	PU Units	PE	Item no.
Contact tip	0.8	10	Per unit	094-013071-00000
	0.9			094-013122-00000
	1.0			094-013072-00000
	1.2			094-014317-00000
	0.8	5	Per packing unit	094-013071-90005
	0.9			094-013122-90005
	1.0			094-013072-90005
	1.2			094-014317-90005

CT M6 E-Cu

- Contact tip made from E-Cu copper
- For universal use with all welding torches with M6 contact tip thread

Length	28 mm
Thread, contact tip	M6
Material	E-Cu

Designation	Wire Ø mm	PU Units	PE	Item no.
Contact tip	0.8	10	Per unit	094-016101-00000
	0.9			094-016102-00000
	1.0			094-016103-00000
	1.2			094-016104-00000
	0.8	5	Per packing unit	094-016101-90005
	0.9			094-016102-90005
	1.0			094-016103-90005
	1.2			094-016104-90005

CT M6 E-Cu (Alu)

- Contact tip made from E-Cu copper
- Developed specially for aluminium wires
- For universal use with all welding torches with M6 contact tip thread

Length	28 mm
Thread, contact tip	M6
Material	E-Cu
Version	Developed specially for aluminium wires

Designation	Wire Ø mm	PU Units	PE	Item no.
Contact tip, aluminium welding	0.8	10	Per unit	094-016105-00000
	0.9			094-016106-00000
	1.0			094-016107-00000
	1.2			094-016108-00000
	0.8	5	Per packing unit	094-016105-90005
	0.9			094-016106-90005
	1.0			094-016107-90005
	1.2			094-016108-90005

CT M6 E-Cu

Length	28 mm
Thread, contact tip	M6
Material	E-Cu

Designation	Wire Ø mm	PU Units	Item no.
Contact tip	0.8	10	094-001191-00000
	1.0		094-001228-00000
	1.2		094-001229-00000

CT M6 CuCrZr

Length	28 mm
Thread, contact tip	M6
Material	CuCrZr

Designation	Wire Ø mm	PU Units	Item no.
Contact tip	0.8	10	094-005407-00000
	0.9		094-005408-00000
	1.0		094-003339-00000
	1.2		094-005224-00000

CT M6 E-Cu (Alu)

Length	28 mm
Thread, contact tip	M6
Material	E-Cu

Designation	Wire Ø mm	PU Units	Item no.
Contact tip, aluminium welding	0.8	10	094-001230-00000
	1.0		094-001231-00000
	1.2		094-001232-00000

CT M7 CuCrZr

- Precision-manufactured contact tip made from a copper/chrome/zirconium alloy
- For particularly long service life
- Self-centring with bore to house the steel liner/liner
- For universal use with all PM/MT torches with M7 contact tip thread

Length	30 mm
Thread, contact tip	M7
Material	CuCrZr
Version	For extremely long service lives

Designation	Wire Ø mm	PU Units	PE	Item no.
Contact tip	0.8	10	Per unit	094-013535-00001
	0.9			094-013536-00001
	1.0			094-013537-00001
	1.2			094-013538-00001
	0.8	5	Per packing unit	094-013535-90005
	0.9			094-013536-90005
	1.0			094-013537-90005
	1.2			094-013538-90005

Contact tips

CT M7 E-Cu (Alu)

- Precision-manufactured contact tip made from E-Cu copper
- Developed specially for aluminium wires
- Self-centring with fastener to secure the steel liner/liner
- For universal use with all PM/MT torches with M7 contact tip thread

Length	30 mm
Thread, contact tip	M7
Material	E-Cu
Version	Developed specially for aluminium wires

Designation	Wire Ø mm	PU Units	PE	Item no.
Contact tip, aluminium welding	0.8	10	Per unit	094-013550-00001
	0.9			094-013551-00001
	1.0			094-013552-00001
	1.2			094-013553-00001
	0.8	5	Per packing unit	094-013550-90005
	0.9			094-013551-90005
	1.0			094-013552-90005
	1.2			094-013553-90005

CT M8 CuCrZr

- Contact tip made from copper/chrome/zirconium alloy
- For particularly long service life
- For universal use with all welding torches with M8 contact tip thread

Length	30 mm
Thread, contact tip	M8
Material	CuCrZr
Version	For extremely long service lives

Designation	Wire Ø mm	PU Units	PE	Item no.
Contact tip	0.8	10	Per unit	094-014024-00000
	0.9			094-013129-00000
	1.0			094-014222-00000
	1.2			094-013113-00000
	1.4			094-014191-00000
	1.6			094-014192-00000
	2.0			094-014193-00000
	0.8	5	Per packing unit	094-014024-90005
	0.9			094-013129-90005
	1.0			094-014222-90005
	1.2			094-013113-90005
	1.4			094-014191-90005
	1.6			094-014192-90005
	2.0			094-014193-90005

CT M8 E-Cu

- Contact tip made from E-Cu copper
- For universal use with all welding torches with M8 contact tip thread

Length	30 mm
Thread, contact tip	M8
Material	E-Cu

Designation	Wire Ø mm	PU Units	PE	Item no.
Contact tip	0.8	10	Per unit	094-016109-00000
	0.9			094-016110-00000
	1.0			094-016111-00000
	1.2			094-007238-00000
	1.4			094-016112-00000
	1.6			094-016113-00000
	2.0			094-016114-00000
	0.8	5	Per packing unit	094-016109-90005
	0.9			094-016110-90005
	1.0			094-016111-90005
	1.2			094-007238-90005
	1.4			094-016112-90005
	1.6			094-016113-90005
	2.0			094-016114-90005

CT M8 E-Cu (Alu)

- Contact tip made from E-Cu copper
- Developed specially for aluminium wires
- For universal use with all welding torches with M8 contact tip thread

Length	30 mm
Thread, contact tip	M8
Material	E-Cu
Version	Developed specially for aluminium wires

Designation	Wire Ø mm	PU Units	PE	Item no.
Contact tip, aluminium welding	0.8	10	Per unit	094-016115-00000
	0.9			094-016116-00000
	1.0			094-016117-00000
	1.2			094-016118-00000
	1.4			094-016119-00000
	1.6			094-016120-00000
	2.0			094-016920-00000
	0.8	5	Per packing unit	094-016115-90005
	0.9			094-016116-90005
	1.0			094-016117-90005
	1.2			094-016118-90005
	1.4			094-016119-90005
	1.6			094-016120-90005
	2.0			094-016920-90005

Contact tips

CT M8 E-Cu

Length	30 mm
Thread, contact tip	M8
Material	E-Cu

Designation	Wire Ø mm	PU Units	Item no.
Contact tip	0.8	10	094-001252-00000
	1.0		094-000941-00000
	1.2		094-000942-00000
	1.4		094-001253-00000
	1.6		094-001254-00000

CT M8 CuCrZr

Length	30 mm
Thread, contact tip	M8
Material	CuCrZr

Designation	Wire Ø mm	PU Units	Item no.
Contact tip	0.8	10	094-005409-00000
	0.9		094-005410-00000
	1.0		094-005225-00000
	1.2		094-004207-00000
	1.4		094-005411-00000
	1.6		094-005412-00000
	2.0		094-005413-00000

CT M8 E-Cu (Alu)

Length	30 mm
Thread, contact tip	M8
Material	E-Cu

Designation	Wire Ø mm	PU Units	Item no.
Contact tip, aluminium welding	0.8	10	094-001257-00000
	1.2		094-000944-00000
	1.4		094-010165-00000
	1.6		094-001258-00000
	1.0		094-000943-00000

CT M9 CuCrZr

- Precision-manufactured contact tip made from copper/chrome/zirconium alloy
- For particularly long service life
- Self-centring with bore to house the steel liner/liner
- For universal use with all PM/MT torches with M9 contact tip thread

Length	35 mm
Thread, contact tip	M9
Material	CuCrZr
Version	For extremely long service lives

Designation	Wire Ø mm	PU Units	PE	Item no.
Contact tip	0.8	10	Per unit	094-013528-00001
	0.9			094-013529-00001
	1.0			094-013530-00001
	1.2			094-013531-00001
	1.4			094-013532-00001
	1.6			094-013533-00001
	2.0			094-013534-00001
	2.4			094-013720-00001
	0.8	5	Per packing unit	094-013528-90005
	0.9			094-013529-90005
	1.0			094-013530-90005
	1.2			094-013531-90005
	1.4			094-013532-90005
	1.6			094-013533-90005
	2.0			094-013534-90005
	2.4			094-013720-90005

CT M9 E-Cu (Alu)

- Precision-manufactured contact tip made from E-Cu copper
- Developed specially for aluminium wires
- Self-centring with bore to house the steel liner/liner
- For universal use with all PM/MT torches with M9 contact tip thread

Length	35 mm
Thread, contact tip	M9
Material	E-Cu
Version	Developed specially for aluminium wires

Designation	Wire Ø mm	PU Units	PE	Item no.
Contact tip, aluminium welding	0.8	10	Per unit	094-013543-00001
	0.9			094-013544-00001
	1.0			094-013545-00001
	1.2			094-013546-00001
	1.4			094-013547-00001
	1.6			094-013548-00001
	2.0			094-013549-00001
	0.8	5	Per packing unit	094-013543-90005
	0.9			094-013544-90005
	1.0			094-013545-90005
	1.2			094-013546-90005
	1.4			094-013547-90005
	1.6			094-013548-90005
	2.0			094-013549-90005

Contact tips

CT M12 CUCRZR 45

Length	45 mm
Thread, contact tip	M12
Material	CuCrZr

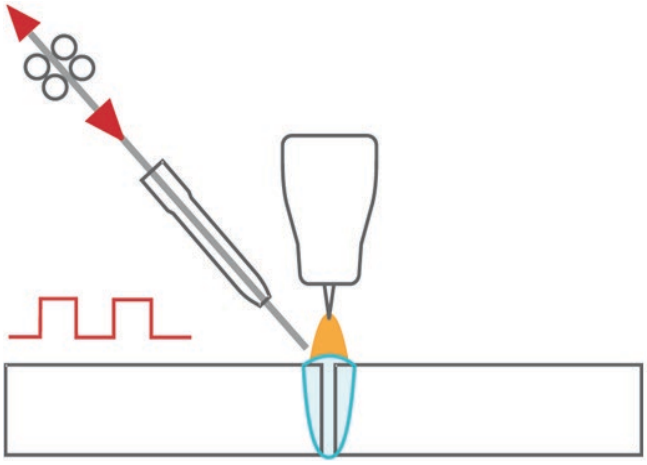
Designation	Wire Ø mm	PU Units	Item no.
Contact tip	1.2	10	094-021810-00000
	1.4		094-021811-00000
	1.6		094-021812-00000

tigSpeed Rob

Dynamic wire feed system

The continuous wire feeding is superimposed by forward/backward motion of the wire. The welding process is especially stable with a simultaneously high deposition rate.
tigSpeed Drive can be used for cold wire and hot wire applications.

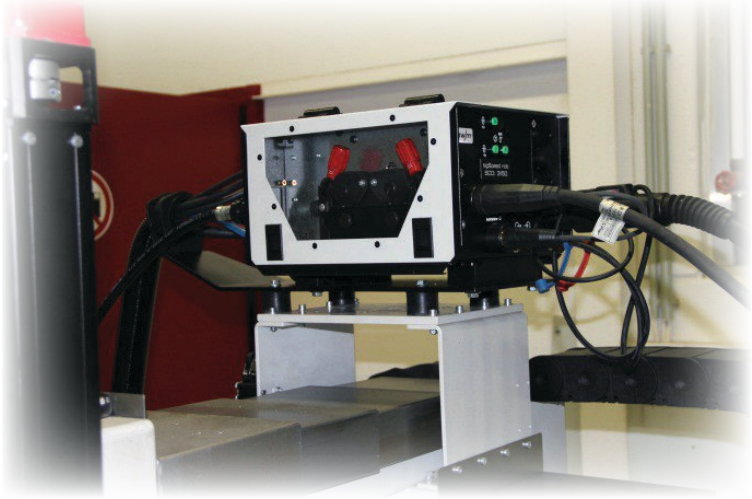
- Increases profitability, quicker than standard systems
- Perfect weld appearance



All prices excl. VAT and any price increase or alloy surcharges which may be incurred.

Mechanised use

- tigSpeed drive in combination with TIG MT automated welding torch
- For cold wire and hot wire applications with four-axis wire support
- For connection to tigSpeed 352 Synergic RC cold wire and tigSpeed 352 Synergic RC hot wire
- Adjustable heat input in the wire up to 180 A
- Parameter definition via BUSINTX 11



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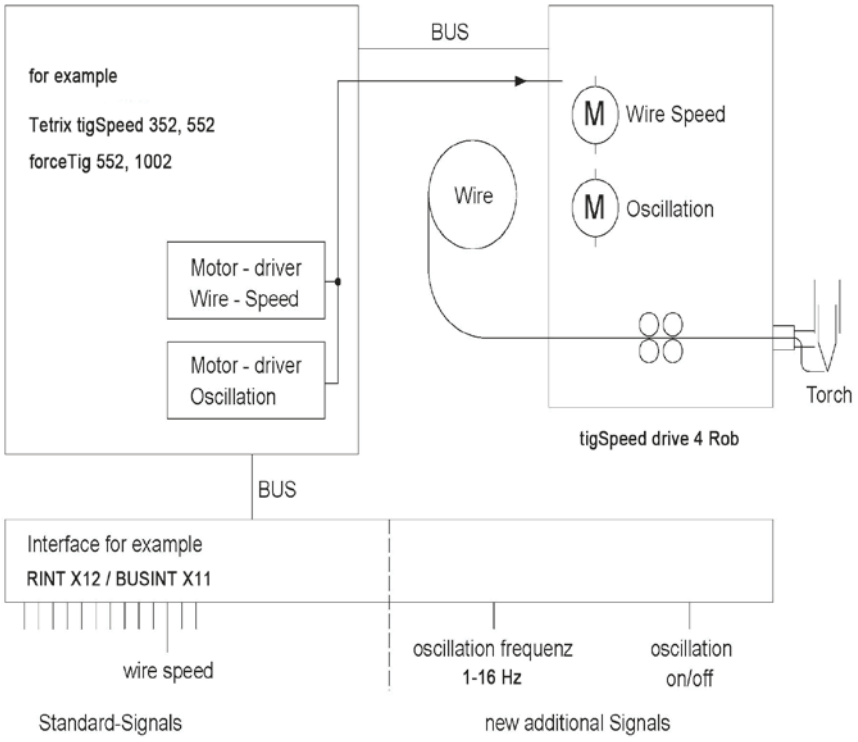
BUSINTX 11 control data for tigSpeed



Reproducible welding results thanks to digital control

- Set and view all parameters
- Forward/backward motion frequency (adjustable from 1 to 16 Hz, or disable)
- Wire feed speed (0.5 m/min to 10 m/min)
- Interface for all conventional bus systems

File View Data Zoom Help TETRIX 450 DC BUSINTX11 / Profil 0 / / Ver: 0.0.3.0 / Notation: Intel

Standard

x = Byte-Position; y = Bit in Byte-Position; z = Data-Size in Bit

Inputdata Welding Source

Value	x	y	z	Parameter name
●	0	0	1	operation mode bit0(2)
●	0	1	1	operation mode bit1(3)
●	0	2	1	weld mode bit0(4)
●	0	3	1	weld mode bit1(5)
●	0	4	1	start main process(0)
●	0	5	1	robot ready signal(14)
●	0	6	1	shield gas on(16)
●	0	7	1	plasma gas on(17)
●	1	0	1	wire inching on(18)
●	1	1	1	workpiece search on(12)
●	1	2	1	rev. inching on(19)
●	1	3	1	start aux. process(1)
●	1	4	1	quit error(10)
●	1	5	1	user output 1(7)
●	1	6	1	job control mode on(15)
●	1	7	1	weld simulation on(11)
0	2	0	4	program no(20)
	2	4	1	not used(0)
●	2	5	1	TigSpeed On(132)
●	2	6	1	process monitor on(13)
	2	7	1	not used(0)
0	3	0	8	job no(24)
0 A	4	0	15	main current(96)
	5	7	1	not used(0)
0.00 m/min	6	0	15	cold wire setting(48)
	7	7	1	not used(0)
0.0 Hz	8	0	15	Osc. TigSpeed(64)

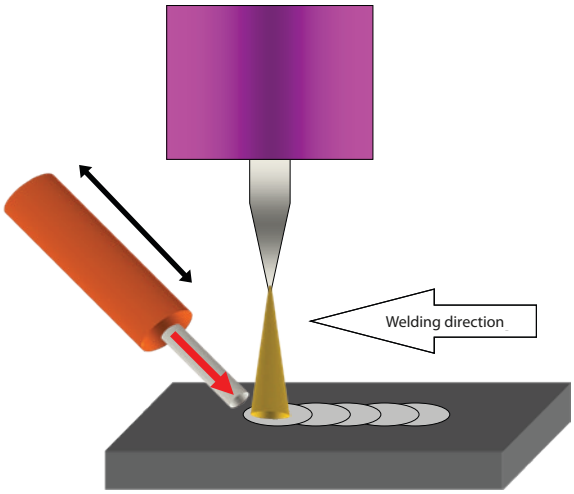
Outputdata Welding-Source

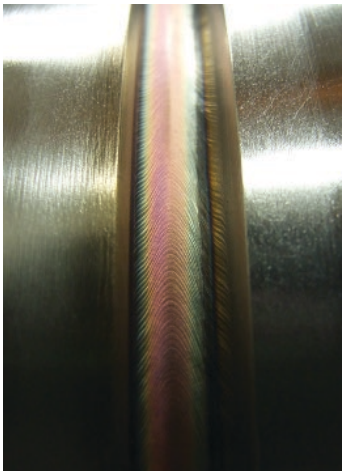
Value	x	y	z	Parameter name
●	0	0	1	arc on(220)
●	0	1	1	power source ready(216)
●	0	2	1	wire stick signal(217)
●	0	3	1	error active(218)
●	0	4	1	torch collision(223)
●	0	5	1	main current signal(222)
●	0	6	1	process active(219)
●	0	7	1	aux. arc on(221)
0	1	0	8	error type(248)
●	2	0	1	threashold voltage(224)
●	2	1	1	threashold current(225)
	2	2	1	not used(0)
●	2	3	1	threashold motor curr.(227)
	2	4	3	not used(0)
●	2	7	1	Electrode touch(238)
●	3	0	1	input X4/3(232)
●	3	1	1	input X4/5(233)
●	3	2	1	input X4/7(234)
●	3	3	1	input X4/8(245)
	3	4	36	not used(0)
27.0 V	8	0	15	arc voltage value(256)
	9	7	1	not used(0)
0 A	10	0	15	arc current value(272)
	11	7	1	not used(0)
0.0 m/min	12	0	15	wire speed value(288)
	13	7	1	not used(0)
0.0 A	14	0	15	motor curr. value(304)

All prices excl. VAT and any price increase or alloy surcharges which may be incurred.

Application examples

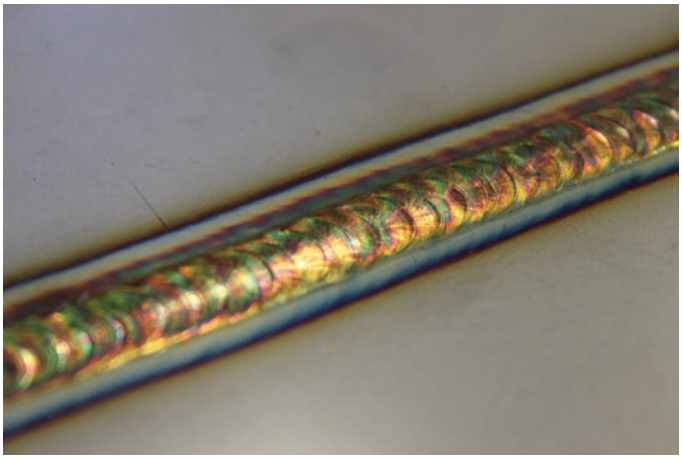
Partially mechanised on turning rolls using hot wire for a higher deposition rate





Advantage over conventional wire feeds:
Significantly improved and easier control of the weld pool in positional welding

Lower heat input reduces distortion



All prices excl. VAT and any price increase or alloy surcharges which may be incurred.

forceTig – high-performance TIG joining process

forceTig is a high-performance TIG welding process that can do more than traditional TIG solutions, combining the benefits of TIG welding (high quality weld seams) with increased efficiency. The forceTig process is perfect for automated and mechanised applications, with and without welding consumable, allowing users to take full advantage of high welding speeds. It can even be used to join extremely thick materials without the need for seam preparation, saving users time and money.

How does forceTig work?
Combining our high-performance power sources and effective welding torch and electrode cooling, users can use welding currents far beyond those available for standard TIG solutions. What's more, the effective electrode cooling means the arc is concentrated and more constricted, significantly increasing the arc's directional stability. The high-power range also allows high-alloy steels to be joined reliably with a single layer using keyhole technology.

Advantages:

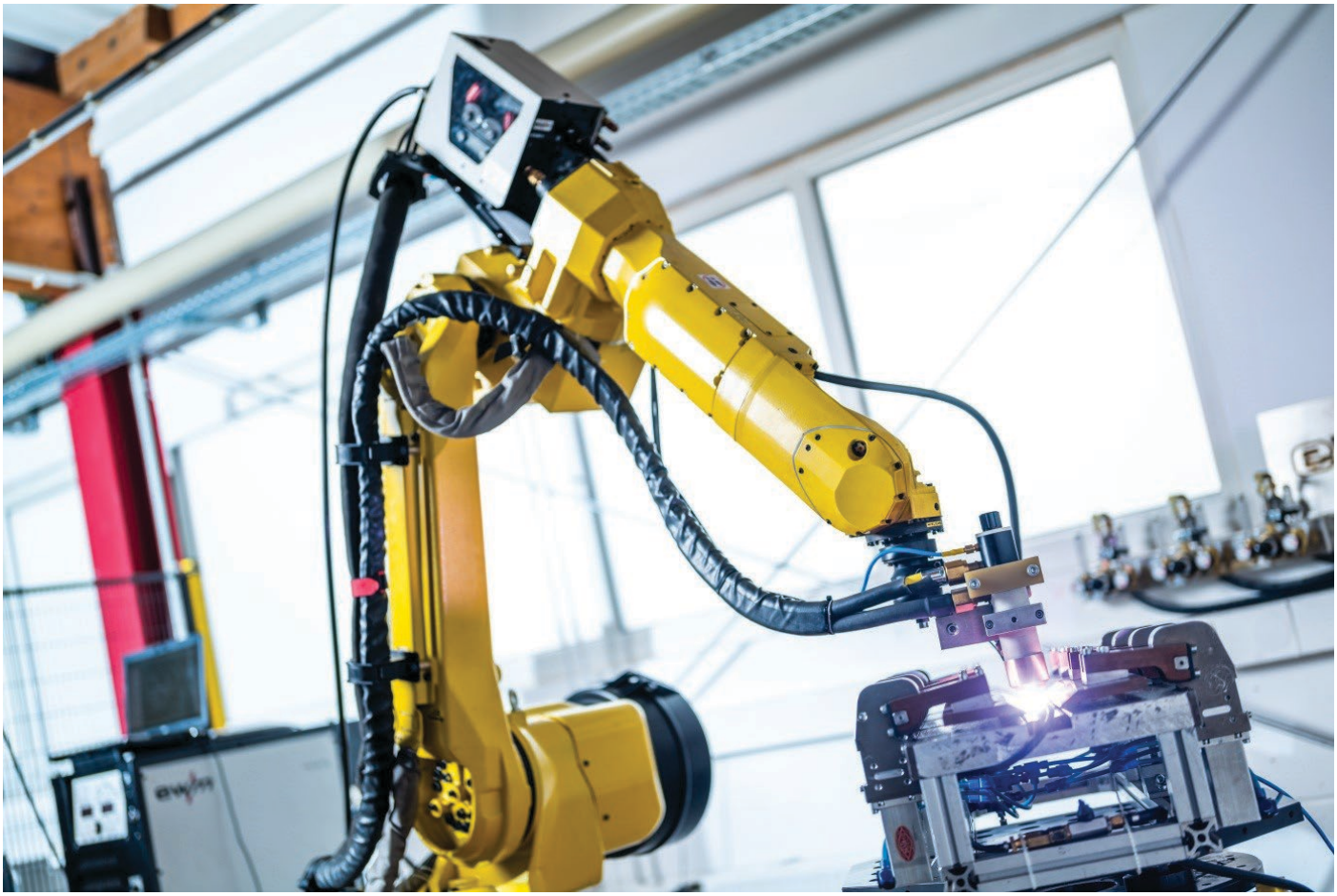
- High currents possible for continuous operation – up to 1,000 A at 100% duty cycle
- Different torch constructions – perfectly equipped for all areas of use
- Sturdy, tried-and-tested welding torches
- Can be used to weld on material thicknesses up to 10 mm of high-alloy steels without seam preparation and in a single layer, no backing required
- Also suitable for non-ferrous metals such as copper, aluminium and titanium
- Usual TIG quality spatter-free, high weld seam quality and more reliable
- Keyhole effect for high-alloy steel in the high-power range to ensure secure root fusion
- Perfect for PA, PC and PG positions
- Increased welding speed and fewer parameter settings than with plasma welding processes
- Increased deposition rate possible thanks to hot wire, allows for cost-effective surfacing
- Welding torches can also be used with our automated standard TIG power sources using a media separation box

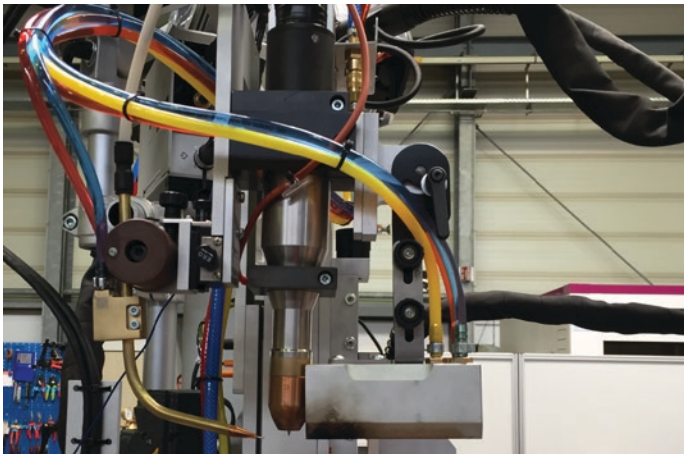
Fields of application:

- Perfect for high-alloy steel of various material thicknesses
- Container construction, e.g. in food industry
- High-alloy steel pipe construction, e.g. in chemical industry
- Endless production of pipes
- Heat exchangers
- Turbine construction

Sample applications

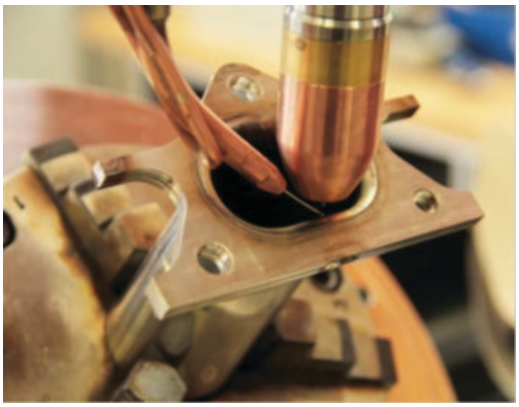
TIG joining processes can be used universally in the areas of thin and thick sheet metal processing, as part of automated or mechanised sequences, with and without filler wire.

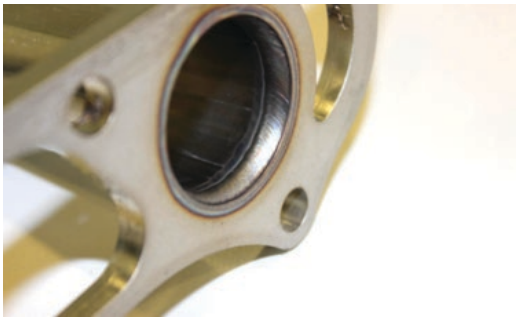


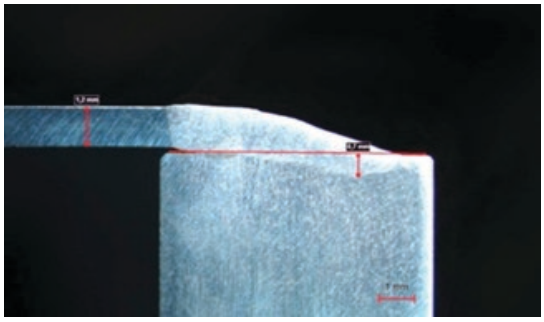


Sample applications

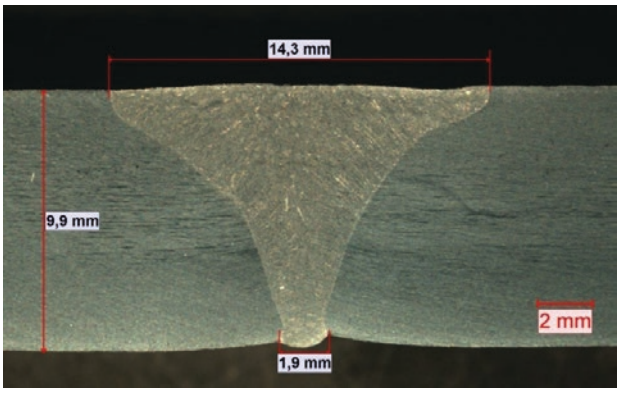
Automated robot applications for joining pipe-flange connections

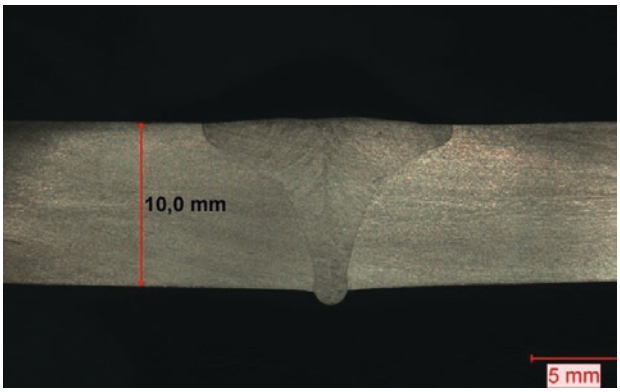


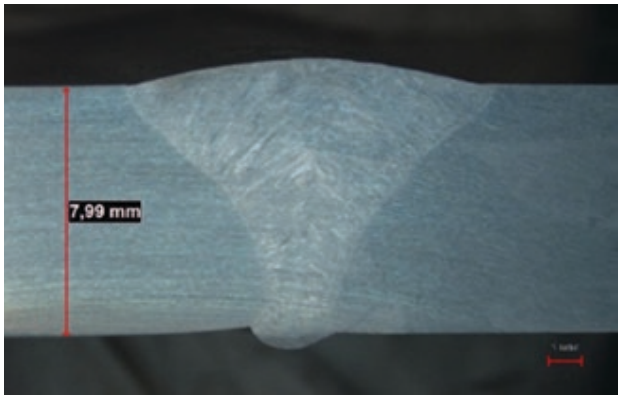




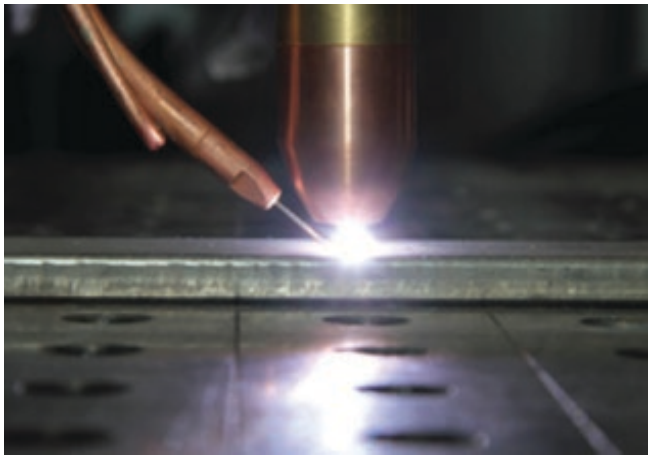
Welding thick panels



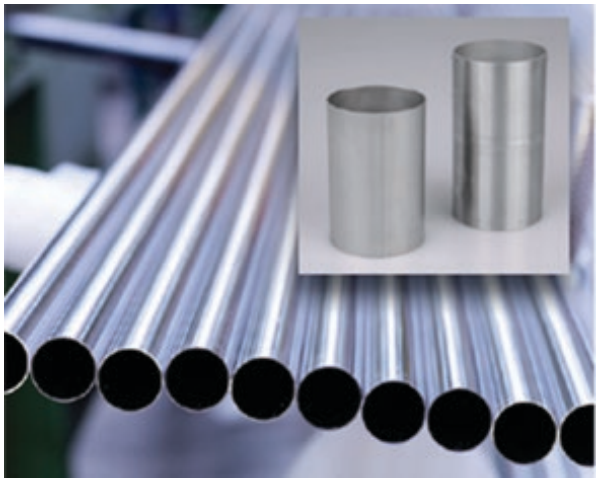




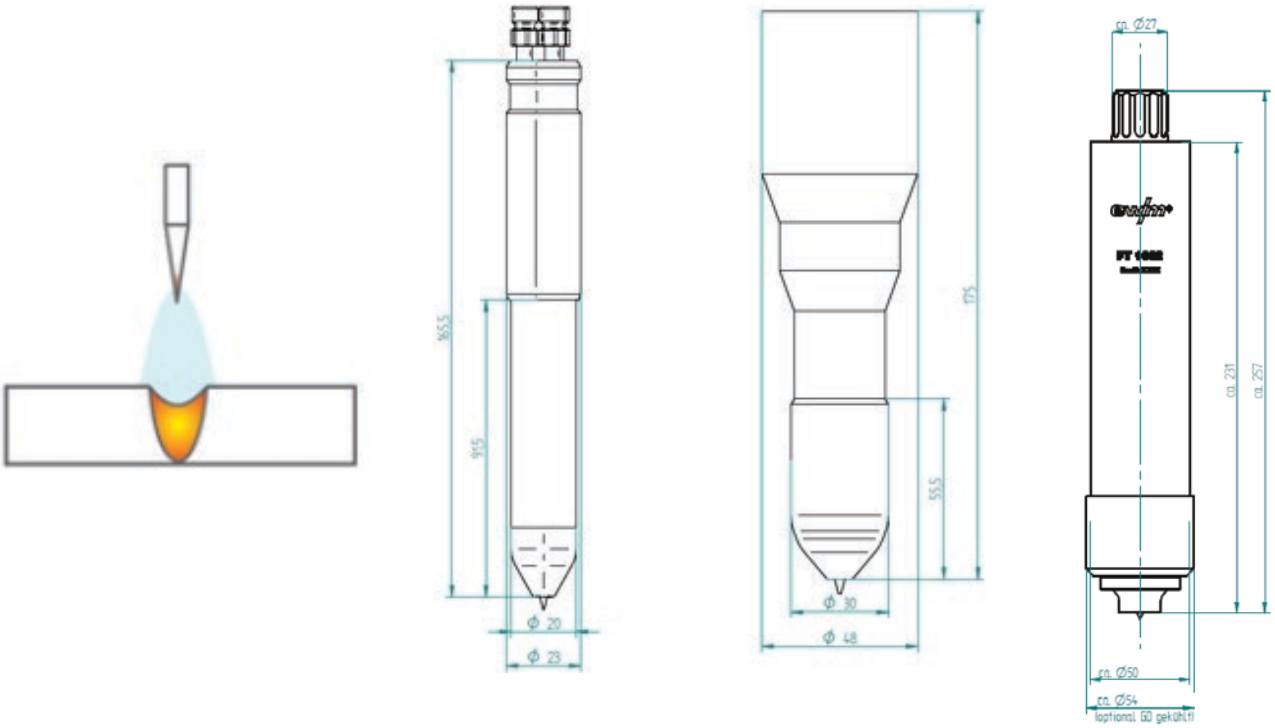
Hot wire surfacing



Welding thin panels and pipes without welding consumables



forceTig welding torches



FT500 and FT1000	FT1002
■ FT500 with 500 A 100% duty cycle ■ FT1000 with 800 A 100% duty cycle ■ Compact design ■ Screwable electrode for ensuring reproducible TCP ■ Torch design with fewer consumables ■ 180° or 90° hose package routing ■ Optional slim and rigid wire feed	■ FT1002 with 1,000 A 100% duty cycle ■ Freely adjustable electrode length with collet ■ Electrodes with Ø 4, 6, 4, 8, 10, 12 mm available and can be resharpened ■ Electrodes can be changed without tools ■ Water-cooled gas nozzle – perfect for high currents in PA position ■ Optional flexible wire feed with 4-axis support

forceTig media separation box for connection to automated TIG-XX2 power sources

The forceTig media separation box is available in various different versions, for connection to power sources with up to 550 A and for power sources of 1,000 A. Connection to the power source is made using a corresponding connecting hose package. The media separation box is also equipped with a gas valve, gas test push-button and gas pressure sensor. The forceTig media separation box can be mounted on the side of the power source using an adapter plate or "externally" on a mounting console.

Front view

Rear view

Recommended power sources

	Tetrix 552	Tetrix 552 HW	Tetrix 1002
Welding current	5 A–550 A	5 A–550 A	10 A–1,000 A
Hot wire current	-	5 A–180 A	-
Duty cycle 40°	550 A/60%	550 A/60%	1,000 A/80%
	420 A/100%	420 A/100%	750 A/100%
Open circuit voltage	80 V	80 V	80 V
Variants/options			
DC	✓	✓	✓
AC/DC	✓	-	-
Filler wire	✓	✓	✓
tigSpeed	On request	✓	On request

Overview of forceTig welding system – variant 1

Example configuration for easy integration into mechanised systems.

Control via 19-pole interface for automated welding.
Parameter setting via Synergic front control, RT50 remote control or PC300.

START/STOP and I>0 evaluation via 19-pole interface for automated welding

Flow monitoring via external flow sensor

RK3.1 recooling unit required

forceTig welding torch
FT500/FT1000/FT1000 AX/FT1002

Optional RT50 remote control

The forceTig media separation box can be mounted "externally" or on the power source using adapter plate.

A corresponding 95 mm²/water/19-pol. connecting hose package (for 1,000 series: 2 x 95 mm² screw fittings) connects the power source and the media separation box.
The maximum total length of the connecting hose package and the welding torch is 18 m.

Overview of forceTig welding system – variant 2

Example configuration for easy integration into mechanised systems for use of additional wire

Control via special RINT X12 ATCASE interface with 28-pole connection.
Parameter setting via Synergic front control, RT50, FR AW1remote control or PC300.

TIG wire feeders
T drive 4 Rob 2/T drive 4 Rob

Cold wire regulation and cold wire ON via FR AW1 remote control

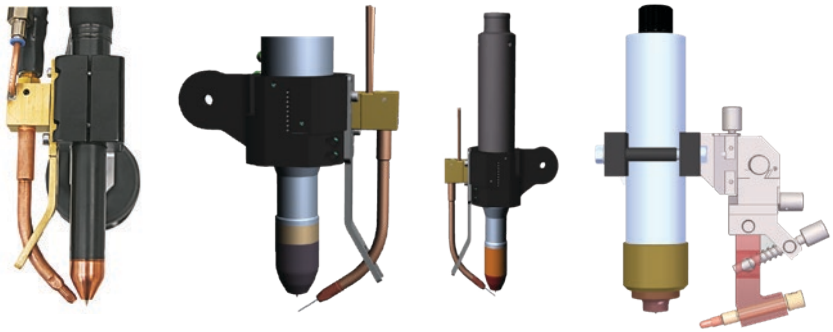
START/STOP and
I>0 evaluation via
28-pole connection socket

Flow monitoring via external flow sensor

RK3.1 recooling unit required

b 3/tigSpeed drive 4 Rob

forceTig welding torch
FT500/FT1000/FT1000 AX/FT1002



VSLP connecting hose package
for connecting wire feeders

Optional RT50 remote control

The forceTig media separation box
can be mounted "externally" or on the
power source using adapter plate.

A corresponding 95 mm²/water/19-pol. connecting hose package
(for 1,000 series: 2 x 95 mm² screw fittings) connects the power source and the media separation box.
The maximum total length of the connecting hose package and the welding torch is 18 m.

Overview of forceTig welding system – variant 3

Example configuration for integration into fully automated systems with maximum scope of functions.

Control via RINT X12/BUSINT X11 interface.
Parameter setting via PC300 software in program mode or via higher-level control in control signal mode.

TIG wire feeders
T drive 4 Rob 2/T drive 4 Rob

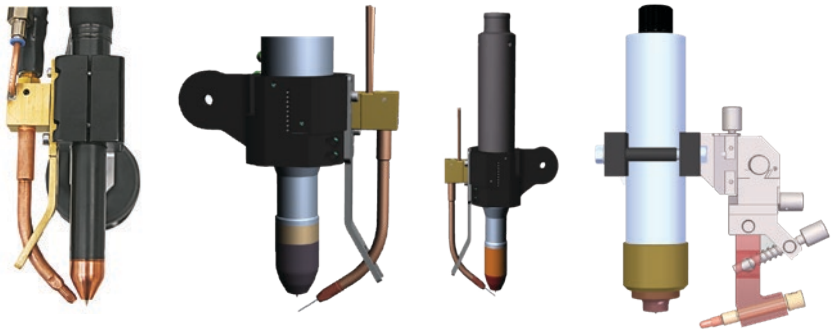
Control via interface
RINT X12/BUSINT X11 in
program for control signal mode

Flow monitoring via external flow sensor

RK3.1 recooling unit required

› 3/tigSpeed drive 4 Rob

forceTig welding torch
FT500/FT1000/FT1000 AX/FT1002



VSLP connecting hose package
for connecting wire feeders

The forceTig media separation box can be mounted “externally” or on the power source using adapter plate.

A corresponding 95 mm²/water/19-pol. connecting hose package (for 1,000 series: 2 x 95 mm² screw fittings) connects the power source and the media separation box.
The maximum total length of the connecting hose package and the welding torch is 18 m.

Overview

TIG automation			Page
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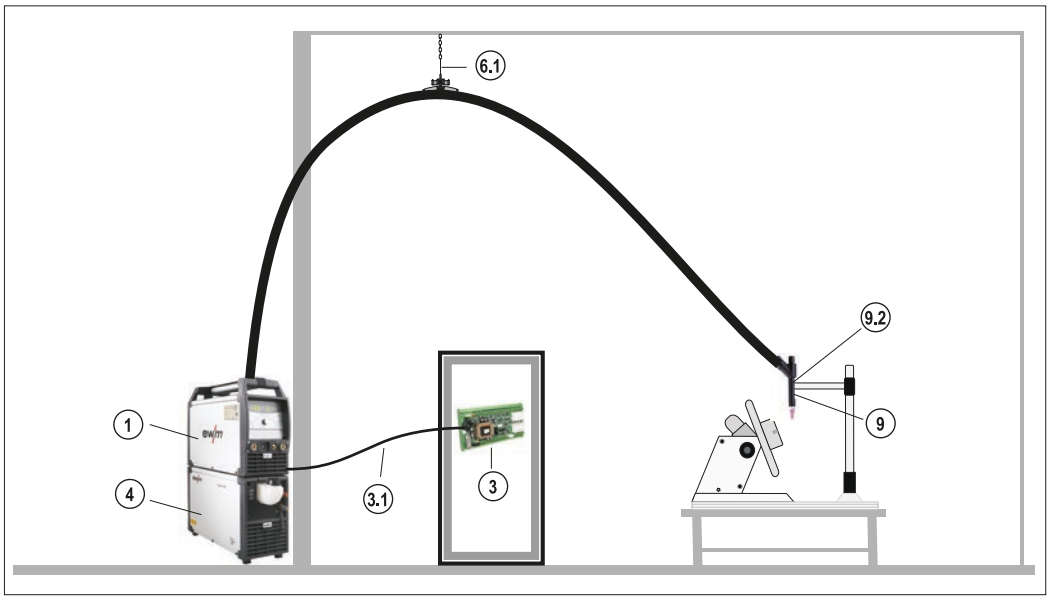
Tetrix, water-cooled ■ activArc®

Tetrix 300 Comfort 2.0 Rob mechanised welding system



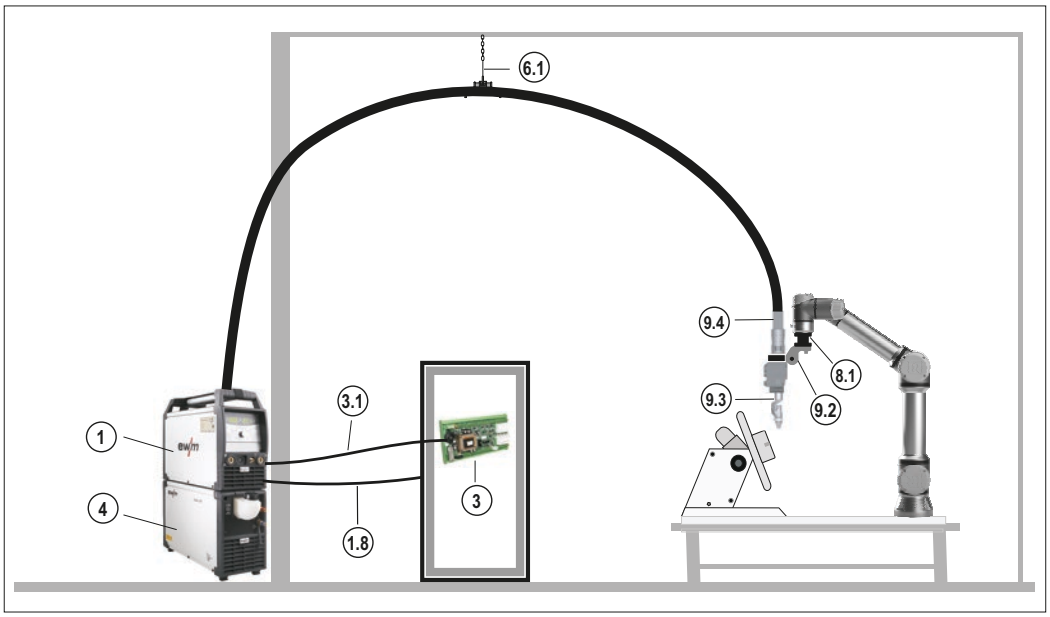
Tetrix 300 Comfort 2.0 puls Rob

- With Comfort 2.0 control
- Water cooled
- As demonstrated on a mechanical application

Item	Type	Designation	Item no.
1	Tetrix 300 Comfort 2.0 puls Rob	DC TIG welding machine with Comfort 2.0 control	090-000263-00502
1.1	OW CEE 16A/400V	Mains plug, assembled	092-008214-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4“ 5m	Gas hose	094-000010-00005
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	Tetrix BUSINT X11 PROFINET	Industrial bus interface, potential-free power supply, 24 V	090-908260-00008
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
4	cool41 U31	Cooling unit with centrifugal pump	090-008600-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
9	TIG-MT 300W 4M	Automated TIG welding torch, water-cooled	094-011709-00004
9.2	TH MT-30	Torch holder suitable for TIG-MT 200G/300W	094-013691-00000
-	Set PC300 XQ / ANALYZER	Set comprising PC300 XQ and Analyzer software	090-008779-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ You can find information about external interface variants in the Accessories chapter

Tetrix, water-cooled ■ activArc®
Tetrix 300 Comfort 2.0 Rob co-bot welding robot system



Tetrix 300 Comfort 2.0 puls Rob

- With Comfort 2.0 control
- Water cooled
- With external RINTX12 interface
- As demonstrated on a co-bot welding robot application

Item	Type	Designation	Item no.
1	Tetrix 300 Comfort 2.0 puls Rob	DC TIG welding machine with Comfort 2.0 control	090-000263-00502
1.1	OW CEE 16A/400V	Mains plug, assembled	092-008214-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4“ 5m	Gas hose	094-000010-00005
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	RINT X12 STANDARD	Standard robot interface	090-008291-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
3.2	ON PLUG SET RINT X12	Retrofit option EWM plug set for RINT X12/DVINT X11	092-001822-00000
4	cool41 U31	Cooling unit with centrifugal pump	090-008600-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
8.1	AF ROB	Adapter flange, plastic	398-010731-00000
9.2	BH ALU	Alu torch holder	398-010732-00000
9.2	STANHOL PIN	Bracket with retention pin, standard	094-012839-00500
9.2	CLAMMPING HOLDER TIG WH	Clamping holder TIG ROB 400 W	094-010122-00000
9.3	TIG ROB 400W	TIG-MT torch body, straight	094-010109-00000
9.4	SPA TIG WH 6M	TIG ROB 400 W hose package	094-016058-00006
-	SE CAT	Screw set	094-023190-00000
-			094-021505-00000
-	Set PC300 XQ / ANALYZER	Set comprising PC300 XQ and Analyzer software	090-008779-00000

▶ Image for conceptual purposes. Not all listed items are shown.
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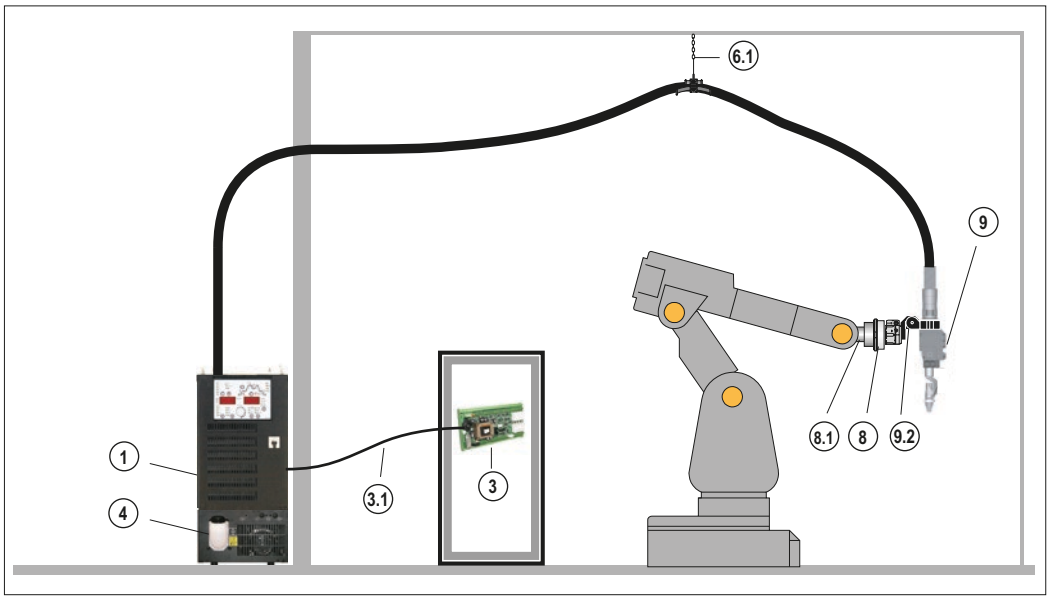
▶ You can find information about external interface variants in the Accessories chapter

Tetrix, water-cooled ■ activArc®
Handling/welding robot system Tetrix 352 Synergic



Tetrix 352 Synergic

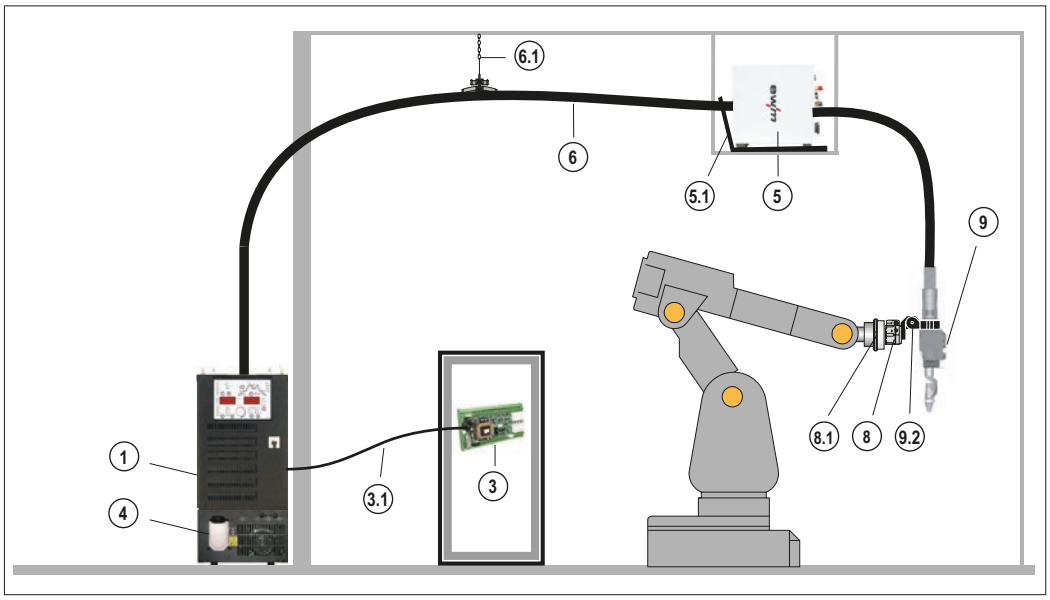
- With Synergic control
- Water cooled
- Example shown: Motoman UP20

Item	Type	Designation	Item no.
1	Tetrix 352 Synergic	DC TIG welding machine with Synergic control	090-000141-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4“ 2m	Gas hose	094-000010-00001
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	RINT X12 STANDARD	Standard robot interface	090-008291-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
3.2	KB MOTOMAN-RINT X12	Cable harness for RINT X12 connection to Motoman XRC/NX-100/ DX-100/DX-200	094-012212-00003
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	FL ISO 9409-1-A40	Intermediate flange, plastic	094-013347-00500
9	TIG ROB 400W 4m	TIG welding torch, straight, water cooled, complete	094-017197-00000
9.2	CLAMMPING HOLDER TIG WH	Clamping holder TIG ROB 400 W	094-010122-00000
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters

Tetrix, water-cooled ■ activArc®

Handling/welding robot system Tetrix 352 Synergic with TIG media separation box



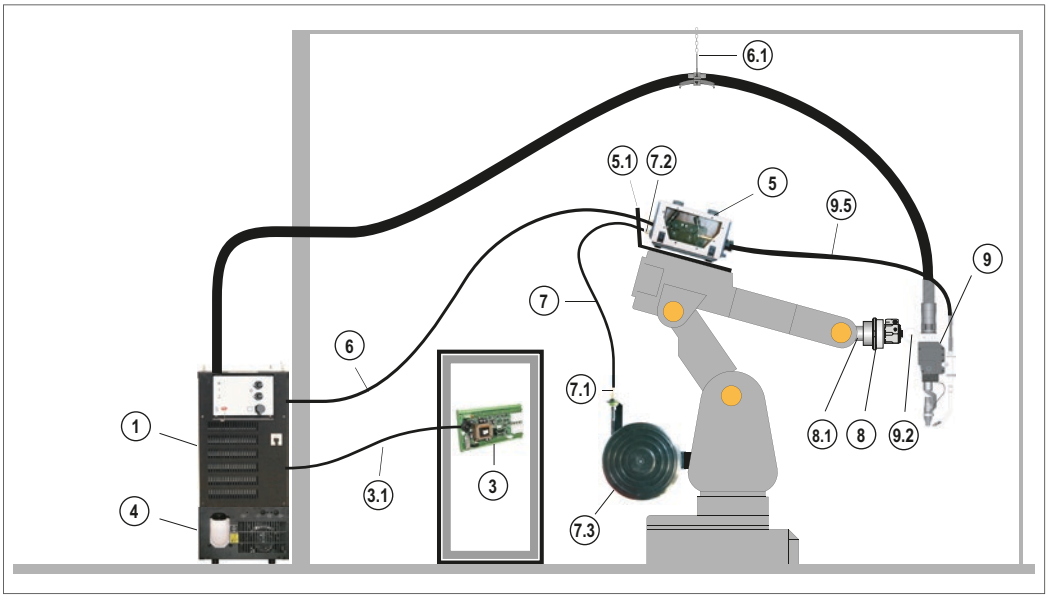
Tetrix 352 Synergic

- With Synergic control
- TIG media separation box
- Water cooled
- Example shown: Kawasaki D40

Item	Type	Designation	Item no.
1	Tetrix 352 Synergic	DC TIG welding machine with Synergic control	090-000141-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4“ 2m	Gas hose	094-000010-00001
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	Tetrix BUSINT X11 PROFIBUS	PROFIBUS industrial bus interface	090-008257-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	Tig Torch Box	TIG media separation box	090-008299-00502
5.1	MONTAGE CONSOLE ROB 3 UNIVERSAL	Mounting console for wire feeder and media separation box	092-002440-00000
6	VSLP TB 95QMM WS 19 POL 5m	Robot intermediate hose package, water cooled, standard protective hose, 19-pole	092-007855-31105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	FL ISO 9409-1-A40	Intermediate flange, plastic	094-013347-00500
9	TIG ROB 400W 4m	TIG welding torch, straight, water cooled, complete	094-017197-00000
9.2	CLAMMPING HOLDER TIG WH	Clamping holder TIG ROB 400 W	094-010122-00000
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters

Tetrix, water-cooled ■ activArc®
Handling/welding robot system Tetrix 352 RC with cold wire



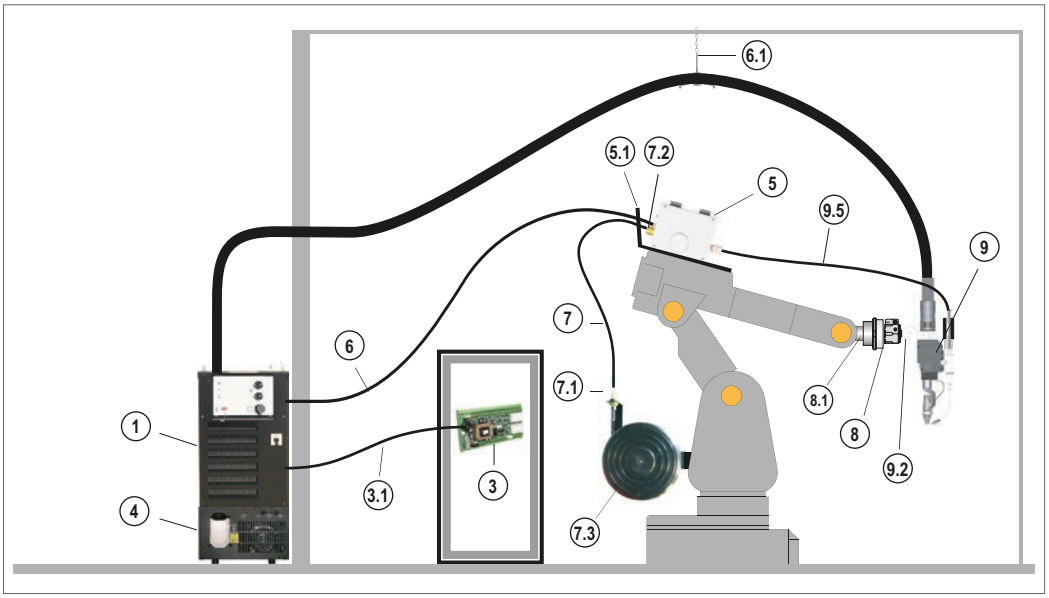
Tetrix 352 RC CW

- No front control
- Water cooled
- T drive 4 Rob 2
- With cold wire feed
- As demonstrated on a Fanuc ArcMate 100i

Item	Type	Designation	Item no.
1	Tetrix 352 RC CW	DC TIG welding machine incl. connection capability for additional wire, without front control	090-000166-00505
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4“ 2m	Gas hose	094-000010-00001
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	RINT X12 STANDARD	Standard robot interface	090-008291-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
3.2	KB RINT X12 FANUC 34POL	Cable assembly	094-009441-00001
3.2	KB RINT X12 FANUC 50POL		094-009440-00001
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	T drive 4 Rob 2 IG3	Wire feeder for automated applications, IG3 speedometer solution	090-008785-00502
5.1	MONTAGE CONSOLE ROB 2 UNIVERSAL	Mounting console for wire feed unit	092-001746-00000
6	SLP S 7/12 POL 5M	Control cable, standard protective hose	092-007855-52105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB2 WIRE CONDUIT	Connection set for Rob 2 wire conduit	092-008205-00000
7.3	DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	FL ISO 9409-1-A40	Intermediate flange, plastic	094-013347-00500
9	TIG ROB 400W CW ZF1.0 4m	TIG welding torch, cold wire, straight, water-cooled, complete	094-017204-00000
9.2	CLAMMPING HOLDER TIG WH	Clamping holder TIG ROB 400 W	094-010122-00000
9.5	AW CW 4 m Quick-Connect L	Cold wire feed, for T drive 4 Rob 2	094-020613-00000
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters

Tetrix, water-cooled ■ activArc®
Handling/welding robot system Tetrix 352 RC with cold wire as push/push system



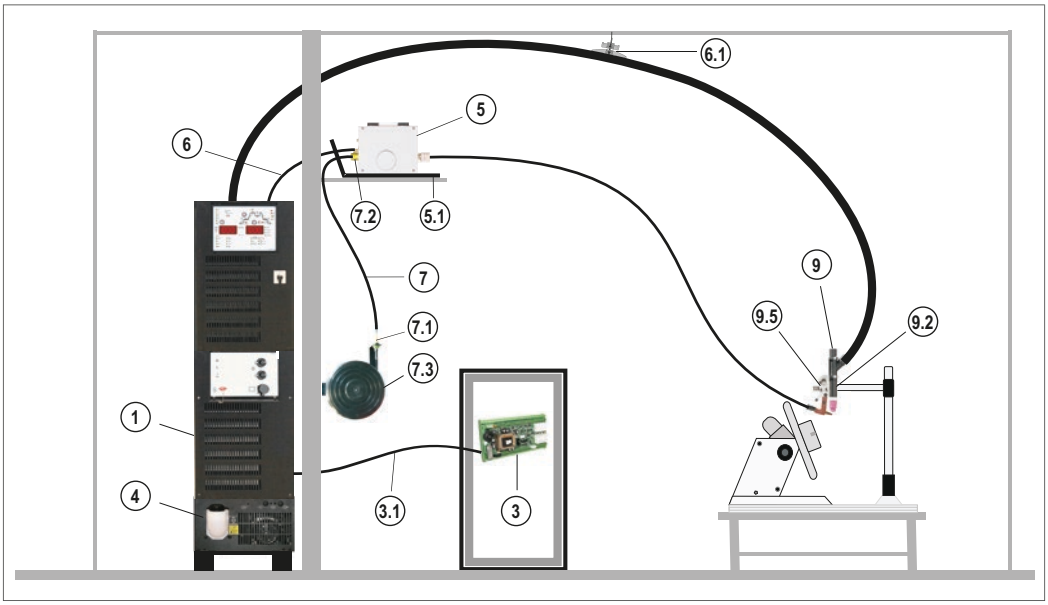
Tetrix 352 RC

- No front control
- Water cooled
- T drive 4 Rob 3
- With push/push system
- With cold wire feed
- Example shown: Fanuc arcMate 100i

Item	Type	Designation	Item no.
1	Tetrix 352 RC CW	DC TIG welding machine incl. connection capability for additional wire, without front control	090-000166-00505
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4“ 2m	Gas hose	094-000010-00001
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	RINT X12 STANDARD	Standard robot interface	090-008291-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
3.2	KB RINT X12 FANUC 34POL	Cable assembly	094-009441-00001
3.2	KB RINT X12 FANUC 50POL		094-009440-00001
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	T drive 4 Rob 3 RE IG3	Wire feeder for automated applications, opens on right, IG3 speedometer solution	090-008783-00502
5.1	MONTAGE CONSOLE ROB 3 UNIVERSAL	Mounting console for wire feeder and media separation box	092-002440-00000
6	SLP S 7/12 POL 5M	Control cable, standard protective hose	092-007855-52105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB3 WIRE CONDUIT	Connection set for Rob 3 wire conduit	092-007916-00000
7.3	DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	FL ISO 9409-1-A40	Intermediate flange, plastic	094-013347-00500
9	TIG ROB 400W CW PP IG3 4M	TIG welding torch, cold wire, water-cooled, push/push, complete	094-019639-00000
9.2	CLAMMPING HOLDER TIG WH	Clamping holder TIG ROB 400 W	094-010122-00000
9.5	AW CW 4 m Quick-Connect S	Cold wire feed, for T drive 4 Rob 3	094-020613-00001
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters

Tetrix, water-cooled ■ activArc®
Mechanised welding system Tetrix 552 Synergic RC with hot wire



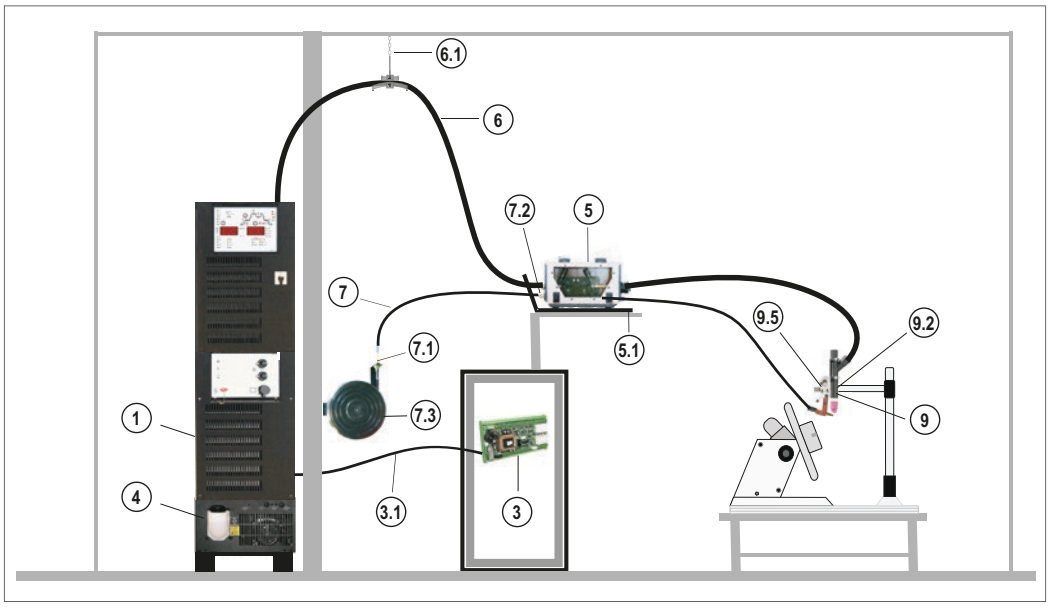
Tetrix 552 Synergic-RC

- With Synergic-RC display
- Water cooled
- T drive 4 Rob 3 for hot wire
- Hot wire power source Tetrix 552 Synergic-RC
- Example shows a mechanical application

Item	Type	Designation	Item no.
1	Tetrix 552 Synergic RC HW	DC TIG welding machine with connection capability for additional wire, with Synergic-RC display; including transport pallet	090-000214-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4“ 2m	Gas hose	094-000010-00001
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	Tetrix BUSINT X11 PROFINET	Industrial bus interface, potential-free power supply, 24 V	090-908260-00008
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	T drive 4 Rob 3 RE Hotwire	Wire feeder for automated applications, hot wire, opens on right, with integrated IG3 speedometer solution	090-008702-00502
5.1	MONTAGE CONSOLE ROB 3 UNIVERSAL	Mounting console for wire feeder and media separation box	092-002440-00000
6	SLP HW S 7/12 POL 5M	Control cable, standard protective hose	092-007855-62105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB3 WIRE CONDUIT	Connection set for Rob 3 wire conduit	092-007916-00000
7.3	DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
9	TIG-MT 500W 4M	Automated TIG welding torch, water-cooled	094-013706-00000
9.2	TH MT-35	Torch holder suitable for TIG-MT 500W	094-013868-00000
9.5	AWS HW 4,0 m Quick-Connect S	4 axes support, hot wire, insulated setup, for T drive 4 Rob.3	094-020614-11040
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters

tigSpeed, water cooled ■ activArc®
Mechanised welding system tigSpeed 352 Synergic RC with hot wire



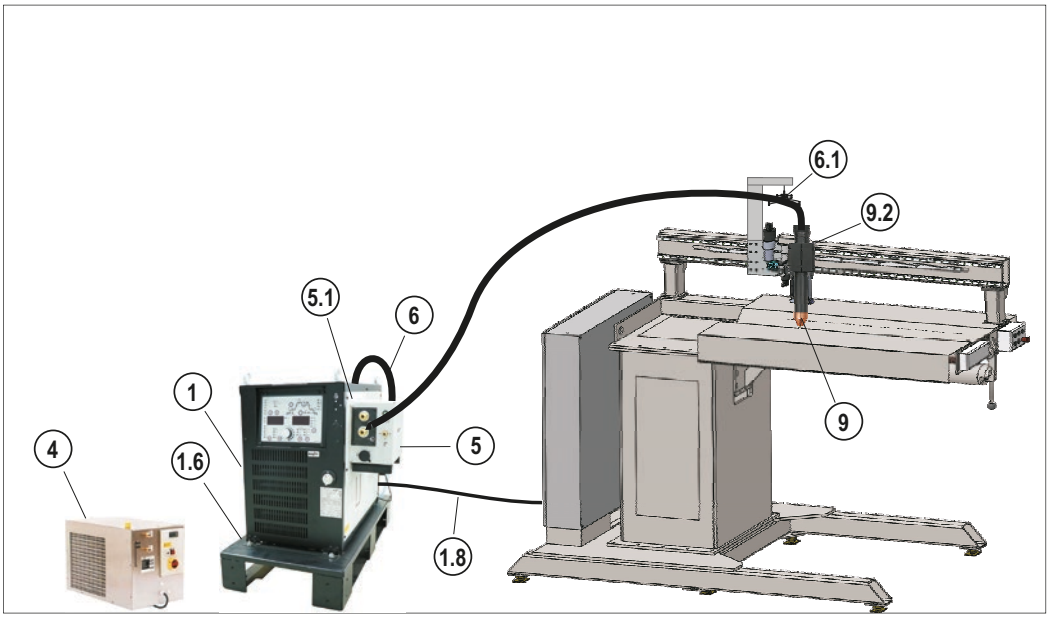
tigSpeed 352 Synergic RC HW

- With Synergic RC display
- Water cooled
- tigSpeed drive 4 Rob
- As demonstrated on a mechanical application

Item	Type	Designation	Item no.
1	tigSpeed 352 Synergic RC HW	DC TIG welding machine with Synergic-RC display, including connection capability for hot wire	090-000232-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4“ 2m	Gas hose	094-000010-00001
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	Tetrix BUSINT X11 PROFINET	Industrial bus interface, potential-free power supply, 24 V	090-908260-00008
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
4	cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
5	tigSpeed drive 4 Rob	Wire feed unit for automated applications	090-005395-00502
5.1	MONTAGE CONSOLE ROB 2 UNIVERSAL	Mounting console for wire feed unit	092-001746-00000
6	VSLP 95QMM HW WR 7/12/19POL 5M	Intermediate hose package, robot, water cooled, ribbed hose	092-007855-81205
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE LEAD 1,5M	Wire guide	094-018280-00000
7.1	CONNECTOR DV-CAB WIRE LEAD	DV-CAB connection	092-007931-00000
7.2	CONNECTOR DRIVE ROB2 WIRE LEAD	Connection set for Rob 2 wire conduit	092-007913-00000
7.3	DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
9	TIG-MT 500W 2M	Automated TIG welding torch, water-cooled	094-013706-00002
9.2	TH MT-35	Torch holder suitable for TIG-MT 500W	094-013868-00000
9.5	AWS HW 1,5 m DZA	4 axes support, hot wire, insulated setup, for Tetrix drive 4L/tigSpeed drive 45	094-020614-12015
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters

forceTig, water cooled ■ forceTig welding system on longitudinal welding machine



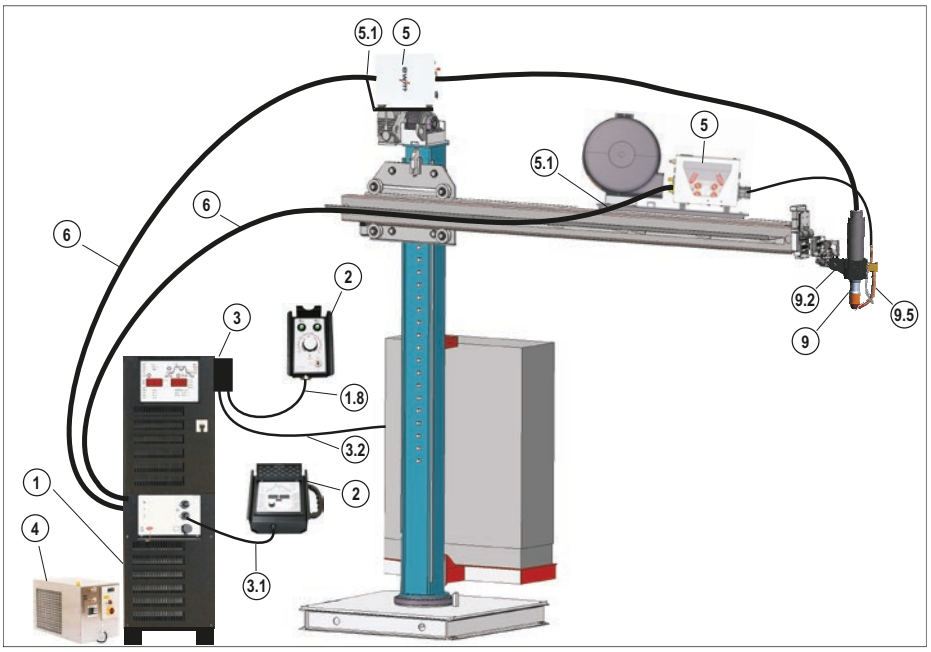
Tetrix 552 Synergic

- With Synergic control
- FT500 forceTig media separation box
- Water cooled
- Example for easy integration into mechanised systems
- Control via 19-pole interface for automated welding
- Parameter setting via Synergic front control, RT50 or PC300 remote control

Item	Type	Designation	Item no.
1	Tetrix 552 Synergic	DC TIG welding machine with Synergic control	090-000154-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4 XR 5m	G1/4 IG/AG gas hose, extension for XR robot intermediate hose package	092-003220-00001
1.6	PALETTE ROB XX2	Transport pallet for power source and add-on module	090-008275-00000
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
4	RK 3.1	Recooling unit with boosted pump 8 bar	094-002285-02000
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.2	HOSE BRIDGE	Hose bridge	092-007857-00000
4.2	WS 2x0,5M	Water hoses, two units	092-001953-00001
4.2	UKV4SET 4M	Hose connection set to connect a cooling unit	092-000587-00000
4.3	ON DFW RK FT	Flow monitor connection, retrofit option	092-S08266-04168
5	forceTig TorchBox 550	forceTig media separation box	092-S01178-04057
5.1	ON HOLDER EXT CASE	Assembly PCB panel for external casing on XX2 power sources	092-S01758-04058
6	VSLP TB 95QMM WS 19 POL 1m	Robot intermediate hose package, water cooled, standard protective hose, 19-pole	092-007855-31101
9	FT 500W 5m	forceTig welding torch with hose package	094-020100-10000
9.2	BF FT500	Fixing flange	094-020874-00001
10.04	INS/DIF FT500	Insulator / Diffusor	094-020620-00000
10.08	CAT FT52 R0.25	Cathode, round	094-020618-00000
-	STS FT500	Torch key	094-021232-00000
-	Toolcraft	Copper paste	094-017723-00001
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The example and system set-up are suitable for forceTig variant 1 description.

forceTig, water cooled ■ forceTig welding system on column and boom with cold wire manually



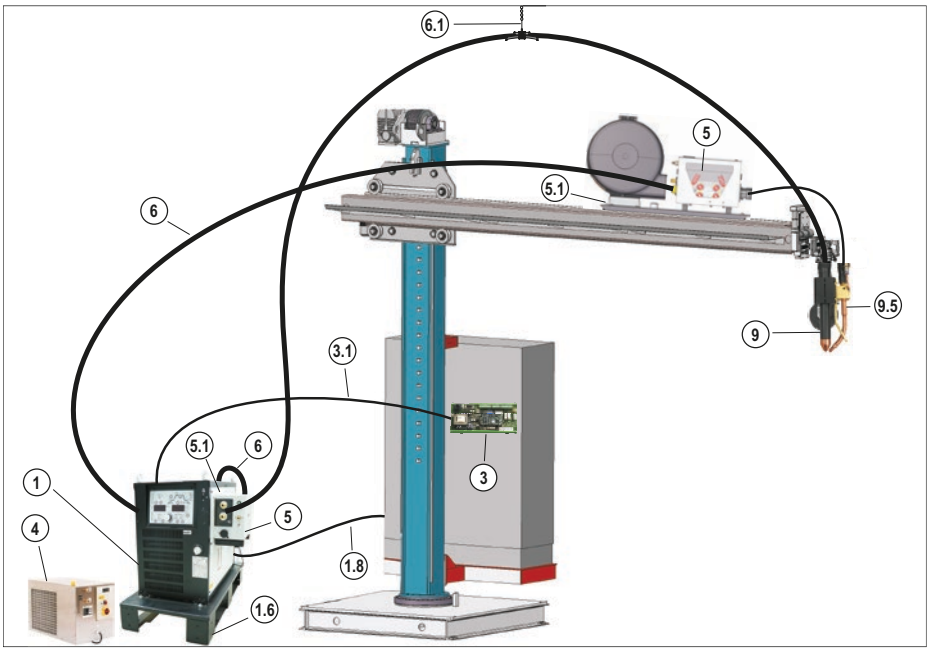
Tetrix 1002 Synergic CW

- With Synergic control
- FT1000 forceTig media separation box
- Water cooled
- T drive 4 Rob 3
- Example for easy integration into mechanised systems when using filler wire
- Only START/STOP and I>0 must be connected for minimal control
- Parameter setting via front control, RT 50 remote control or PC300 software
- Cold wire regulation and cold wire ON via FR AW1 remote control

Item	Type	Designation	Item no.
1	Tetrix 1002 Synergic CW	DC TIG welding machine with Synergic control, incl. connection capability for additional wire	090-000197-00502
1.1	OW CEE 63A	Mains plug, assembled	092-008216-00000
1.2	WK95QMM 5m	Workpiece lead with cable lug, angled	092-003993-00005
1.2			092-003993-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4 XR 5m	G1/4 IG/AG gas hose, extension for XR robot intermediate hose package	092-003220-00001
1.8	RA5 12/19POL 5m	Connection cable e.g for remote control	092-S01470-04056
2	FR AW1	Remote controls	090-S08765-03796
2	RT50 7POL	Remote control with complete range of functions	090-008793-00000
3	RINT X12 SCO ATCASE	SCO robot interface in casing	090-S08293-03795
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
3.2	RA5 28POL 5M	Connection cable, 28-pole, one-sided wire end ferrules	092-007728-00005
4	RK 3.1	Recooling unit with boosted pump 8 bar	094-002285-02000
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.2	HOSE BRIDGE	Hose bridge	092-007857-00000
4.2	SET 2 Y-PART	Water connection set, 2x Y-Part	092-S09218-04188
4.2	WS 2x0,5M	Water hoses, two units	092-001953-00001
4.2	UKV4SET 4M	Hose connection set to connect a cooling unit	092-000587-00000
4.3	ON DFW RK FT	Flow monitor connection, retrofit option	092-S08266-04168
5	T Drive 4 Rob 3 LI IG3	Wire feeder for automated applications, opens on left, IG3 speedometer solution	090-008784-00502
5	forceTig TorchBox 1000	forceTig media separation box	092-S01178-04189
5.1	MONTAGE CONSOLE ROB 3 UNIVERSAL	Mounting console for wire feeder and media separation box	092-002440-00000
5.1	ON DV CAP ROB LI	Rob wire spool support, left	092-003217-00000
5.1	ON HOLDER EXT CASE	Assembly PCB panel for external casing on XX2 power sources	092-S01758-04058
5.2	ON COOL W ROB3	Retrofit option water cooling ROB 3	092-002384-00000
6	SLP WOS 7/12 POL 16M	Control cable assembly	092-007855-51016
6	2x95QMM WOS 19POL 16M	Robot intermediate hose package, water cooled, without protective hose, 19-pole	092-S07855-04190
7.4	AK300	Wire spool adapter B300	094-001803-00001
9	FT1000W AX 1,5M	forceTig welding torch with hose package	094-020390-10000
9.2	BH FT RSA	Torch holder for forceTig welding torch on RSA collision sensor	094-022315-00000
9.5	AWS FT1000 1,5m QCS	Wire support	090-008829-00015
9.8	IA TIG 2K/1	Ignition aid	092-003836-00000
10.01	GD NW=12mm 37mm	Gas nozzle, ceramic	094-016127-00001
10.04	INS/DIF FT1000	Gas diffuser and insulator	094-015306-00001
10.08	CAT FT02 R0.25	Cathode, round	094-021229-00000
-	TTC FT1000	Torch key	094-021231-00000
-	Toolcraft	Copper paste	094-017723-00001
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The example and system set-up are suitable for forceTig variant 2 description.

forceTig, water cooled ■ forceTig welding system on column and boom with cold wire automated



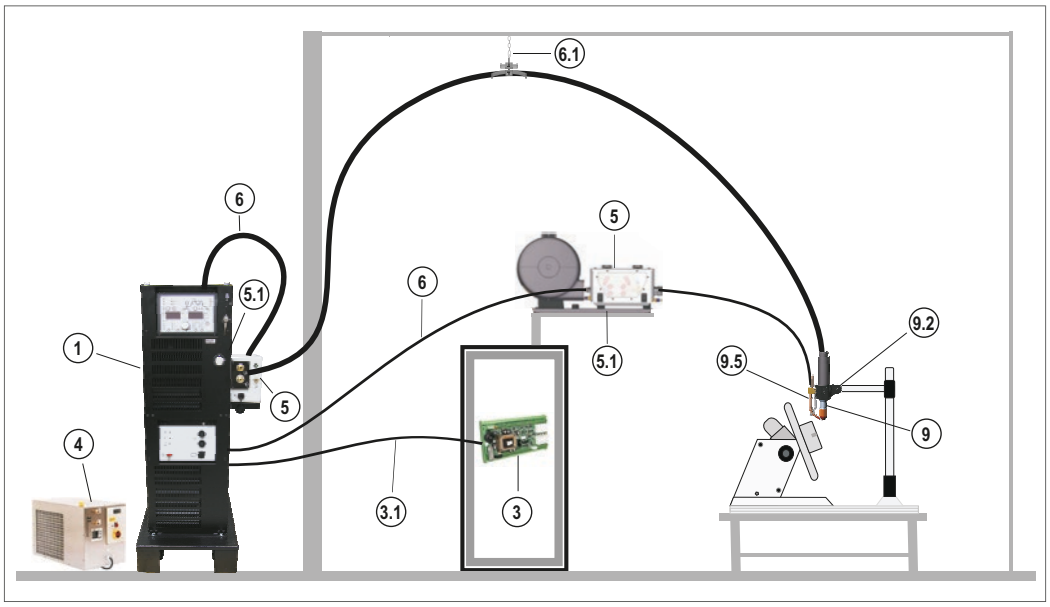
Tetrix 552 Synergic CW

- With Synergic control
- FT500 forceTig media separation box
- Water cooled
- T drive 4 Rob 3
- Example for fully automated integration into mechanised systems
- Control via BUSINTX11 interface in program or control signal mode
- Parameter setting via PC300 software in program mode or via SPS in control signal mode

Item	Type	Designation	Item no.
1	Tetrix 552 Synergic CW	DC TIG welding machine with Synergic control, incl. connection capability for additional wire	090-S00154-04055
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4 XR 5m	G1/4 IG/AG gas hose, extension for XR robot intermediate hose package	092-003220-00001
1.6	PALETTE ROB XX2	Transport pallet for power source and add-on module	090-008275-00000
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	Tetrix BUSINT X11 PROFINET	Industrial bus interface, potential-free power supply, 24 V	090-908260-00008
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
4	RK 3.1	Recooling unit with boosted pump 8 bar	094-002285-02000
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.2	HOSE BRIDGE	Hose bridge	092-007857-00000
4.2	WS 2x0,5M	Water hoses, two units	092-001953-00001
4.2	UKV4SET 4M	Hose connection set to connect a cooling unit	092-000587-00000
4.3	ON DFW RK FT	Flow monitor connection, retrofit option	092-S08266-04168
5	T Drive 4 Rob 3 LI IG3	Wire feeder for automated applications, opens on left, IG3 speedometer solution	090-008784-00502
5	forceTig TorchBox 550	forceTig media separation box	092-S01178-04057
5.1	ON DV CAP ROB LI	Rob wire spool support, left	092-003217-00000
5.1	ON HOLDER EXT CASE	Assembly PCB panel for external casing on XX2 power sources	092-S01758-04058
5.2	ON COOL W ROB3	Retrofit option water cooling ROB 3	092-002384-00000
6	SLP WS 7/12 POL 10M	Control cable, standard protective hose	092-007855-51110
6	VSLP TB 95QMM WS 19 POL 1m	Robot intermediate hose package, water cooled, standard protective hose, 19-pole	092-007855-31101
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
9	FT 500W 8m	forceTig welding torch with hose package	094-020100-10008
9.5	AWS FT500 1,5m	Wire support incl. BF FT500 torch holder	090-008799-00015
10.01	GN FT4505 Ø 5 mm	Gas nozzle, copper	094-020619-00000
10.04	INS/DIF FT500	Insulator / Diffusor	094-020620-00000
10.08	CAT FT52 R0.25	Cathode, round	094-020618-00000
-	STS FT500	Torch key	094-021232-00000
-	Toolcraft	Copper paste	094-017723-00001
-	Set PC300 XQ / ANALYZER	Set comprising PC300 XQ and Analyzer software	090-008779-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The example and system set-up are suitable for forceTig variant 3 description.

forceTig, water cooled ■ forceTig welding system, tigSpeed drive, mechanised use with hot wire



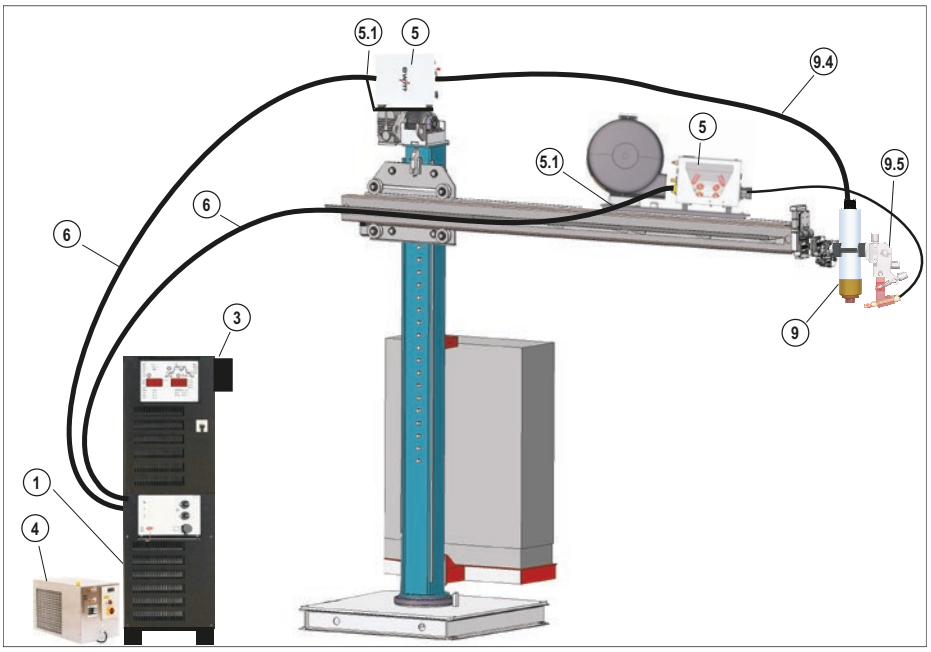
Tetrix 552 Synergic HW

- With Synergic control
- FT550 forceTig media separation box
- Water cooled
- tigSpeed drive 4 Rob
- Example for fully automated integration into mechanised systems
- Control via BUSINTX11 interface in program or control signal mode
- Parameter setting via PC300 software in program mode or via SPS in control signal mode

Item	Type	Designation	Item no.
1	Tetrix 552 Synergic HW	DC TIG welding machine with Synergic control, including connection capability for hot wire	090-000217-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4 XR 5m	G1/4 IG/AG gas hose, extension for XR robot intermediate hose package	092-003220-00001
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	Tetrix BUSINT X11 PROFINET	Industrial bus interface, potential-free power supply, 24 V	090-908260-00008
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
4	RK 3.1	Recooling unit with boosted pump 8 bar	094-002285-02000
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.2	HOSE BRIDGE	Hose bridge	092-007857-00000
4.2	WS 2x0,5M	Water hoses, two units	092-001953-00001
4.2	UKV4SET 4M	Hose connection set to connect a cooling unit	092-000587-00000
4.3	ON DFW RK FT	Flow monitor connection, retrofit option	092-S08266-04168
5	forceTig TorchBox 550	forceTig media separation box	092-S01178-04057
5	tigSpeed drive 4 Rob	Wire feed unit for automated applications	090-005395-00502
5.1	ON DV CAP ROB LI	Rob wire spool support, left	092-003217-00000
5.1	ON HOLDER EXT CASE	Assembly PCB panel for external casing on XX2 power sources	092-S01758-04058
6	VSLP 95QMM HW WR 7/12/19POL 5M	Intermediate hose package, robot, water cooled, ribbed hose	092-007855-81205
6	VSLP TB 95QMM WS 19 POL 1m	Robot intermediate hose package, water cooled, standard protective hose, 19-pole	092-007855-31101
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
9	FT1000W AX 5M	forceTig welding torch with hose package	094-020390-10005
9.2	BH FT RSA	Torch holder for forceTig welding torch on RSA collision sensor	094-022315-00000
9.5	AWS FT1000 1,5m DZA	Wire support	090-008831-00015
9.8	IA TIG 2K/1	Ignition aid	092-003836-00000
10.01	GD NW=12mm 37mm	Gas nozzle, ceramic	094-016127-00001
10.04	INS/DIF FT1000	Gas diffuser and insulator	094-015306-00001
10.08	CAT FT02 R0.25	Cathode, round	094-021229-00000
-	TTC FT1000	Torch key	094-021231-00000
-	Toolcraft	Copper paste	094-017723-00001
-	Set PC300 XQ / ANALYZER	Set comprising PC300 XQ and Analyzer software	090-008779-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The example and system set-up are suitable for forceTig variant 3 description.

forceTig, water cooled ■ forceTig welding system on column and boom with cold wire



Tetrix 1002 Synergic CW

- With Synergic control
- FT1000 forceTig media separation box
- Water cooled
- T drive 4 Rob 3
- Example for fully automated integration into mechanised systems
- Control via BUSINTX11 interface in program or control signal mode
- Parameter setting via PC300 software in program mode or via SPS in control signal mode

Item	Type	Designation	Item no.
1	Tetrix 1002 Synergic CW	DC TIG welding machine with Synergic control, incl. connection capability for additional wire	090-000197-00502
1.1	OW CEE 63A	Mains plug, assembled	092-008216-00000
1.2	WK95QMM 5m	Workpiece lead with cable lug, angled	092-003993-00005
1.2			092-003993-00005
1.3	Optimator AR/MIX 200bar 20l G1/4“	Pressure regulator with flow meter	094-011839-00000
1.5	GH 2x1/4 XR 5m	G1/4 IG/AG gas hose, extension for XR robot intermediate hose package	092-003220-00001
3	Tetrix BUSINT X11 PROFINET CU ATCASE	Industrial bus interface, potential-free power supply, 24 V	090-908590-00008
4	RK 3.1	Recooling unit with boosted pump 8 bar	094-002285-02000
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.2	HOSE BRIDGE	Hose bridge	092-007857-00000
4.2	SET 2 Y-PART	Water connection set, 2x Y-Part	092-S09218-04188
4.2	WS 2x0,5M	Water hoses, two units	092-001953-00001
4.2	UKV4SET 4M	Hose connection set to connect a cooling unit	092-000587-00000
4.3	ON DFW RK FT	Flow monitor connection, retrofit option	092-S08266-04168
5	T Drive 4 Rob 3 LI IG3	Wire feeder for automated applications, opens on left, IG3 speedometer solution	090-008784-00502
5	forceTig TorchBox 1000	forceTig media separation box	092-S01178-04162
5.1	MONTAGE CONSOLE ROB 3 UNIVERSAL	Mounting console for wire feeder and media separation box	092-002440-00000
5.1	ON DV CAP ROB LI	Rob wire spool support, left	092-003217-00000
5.1	ON HOLDER EXT CASE	Assembly PCB panel for external casing on XX2 power sources	092-S01758-04058
5.2	ON COOL W ROB3	Retrofit option water cooling ROB 3	092-002384-00000
6	SLP WOS 7/12 POL 10m	Control cable, without protective hose	092-007855-51010
6	VSLP TB 2X95QMM WOS 19 POL 10m	Robot intermediate hose package, water cooled, without protective hose, 19-pole	092-S07855-04371
7.4	AK300	Wire spool adapter B300	094-001803-00001
9	FT1002W	forceTig welding torch	094-026042-00000
9.4	SP W 3 M	Hose package	094-025118-00000
9.5	AWS HW 4-AXIS 3,0M QC-S CRNI	4 axes support, hot wire, insulated setup, for T drive 4 Rob.3	094-S20614-04222
9.8	IA TIG 2K/1	Ignition aid	092-003836-00000
10.01	SG D=24x31MM	Shielding gas nozzle	094-025117-00000
10.05	ZSZ D=6,4MM	Collet chuck	094-025105-00000
10.08	WE D=6,4x175MM	WP	094-025109-00000
10.13	GL D=6,4MM	Gas lens	094-025113-00000
11.02	SGDK	Shielding gas nozzle cooling	094-025122-00000
11.03	SGDE D=24MM	Shielding gas nozzle insert	094-025123-00000
11.04	SET WG GD 4M	Hose set for water-cooled gas nozzles, 4 m	094-025212-00000
-	ELEC-ADJUST	Electrode setting gauge	094-025119-00000
-	SIL 100G	Silicon paste for o-ring	094-013826-00000
-	SWA G1/2	Power-water adapter	094-025135-00000
-	SWA M18x1,5		094-025134-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.
▶ For more accessories, options and machine variants please refer to the individual chapters
▶ The example and system set-up are suitable for forceTig variant 3 description.

Overview

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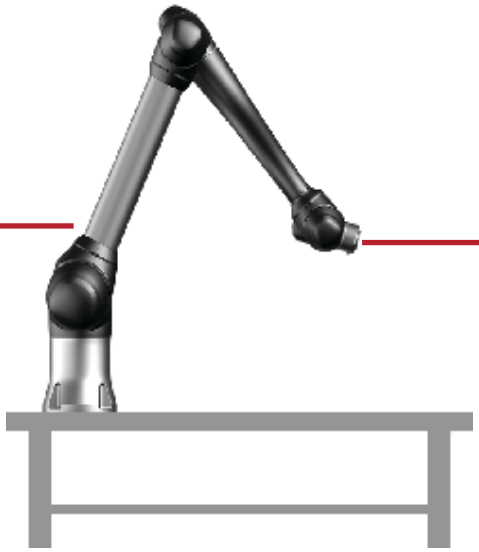
The Tetrix 300 puls Rob is the perfect solution for your co-bot TIG welding applications.

The compact inverter welding machine with Comfort 2.0 front control is incredibly flexible and comes as a gas-cooled variant or water-cooled with an optional cooling unit. Whether it's the DC or AC/DC version, with or without connection capability for filler wire, thanks to our interface variants, deep integration into the co-bot control is easy. In addition to simple solutions with automated and robot welding torches, our robot welding torches can also be used with additional drive unit. We also offer corresponding components, completely tailored to your automated welding tasks.

Tetrix 300 puls Rob
DC or AC/DC,
gas/water cooled

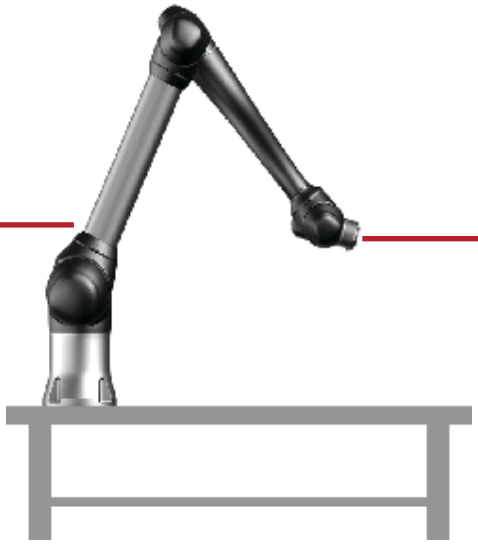


TIG-MT automated welding torch
gas/water cooled

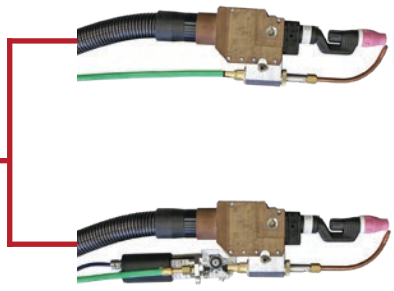
Robot welding torch TIG ROB,
water cooled

Tetrix 300 puls CW Rob
DC or AC/DC,
water cooled

T drive

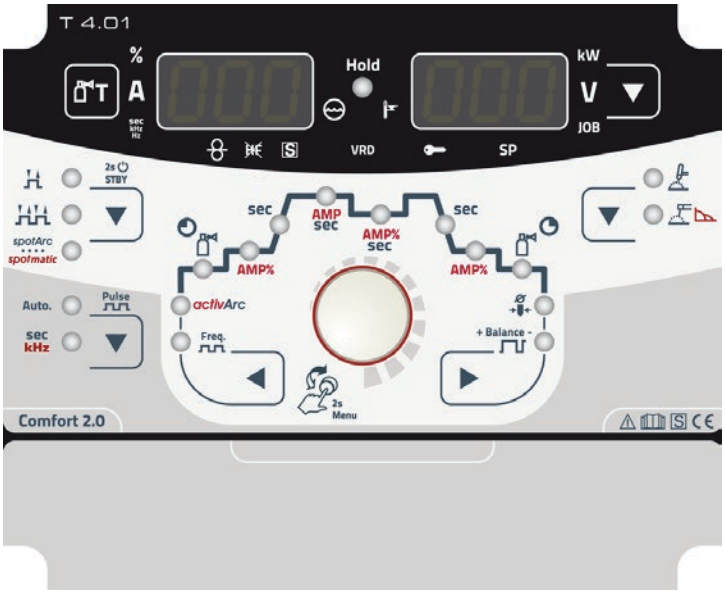


Robot welding torch
TIG ROB CW/CW PP,
water cooled



The Tetrix 300 puls Rob automated welding system can also be used on industrial welding robots or as part of mechanised systems.

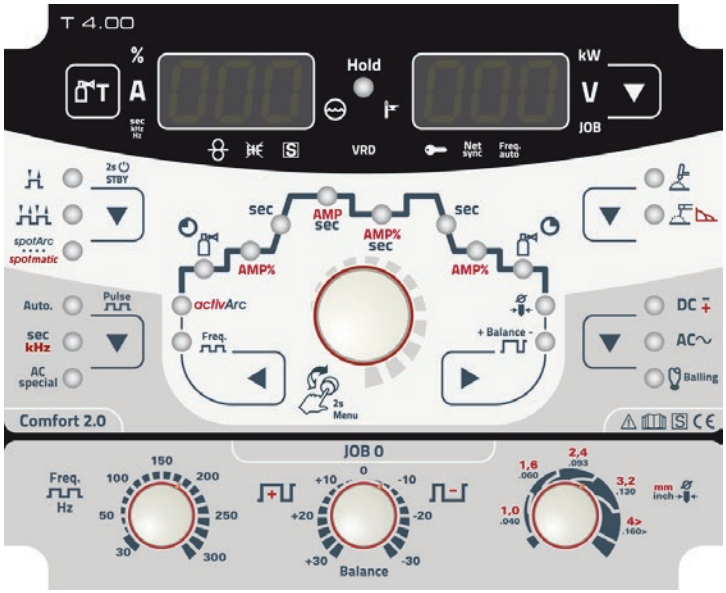
Comfort 2.0 DC



Welding process	**TIG**
	activArc
	spotArc
	spotmatic
	MMA
Operating modes	Non-latched
	Special non-latched
Ignition options	HF
	Liftarc
Pulse type	Average value pulse welding
	kHz pulsing
	Pulse frequency
Parameters in display	Welding current
	Welding voltage
	Welding parameters
	Welding power
	JOB number
Number of freely definable JOBs	depending on power source
MMA functions	Hotstart
	Arcforce
	Antistick
	Average value pulse welding
	Frequency pulse welding

- **One-knob operation**
- Welding sequence selection and parameter setting using click wheel or conventional operation with sequence buttons (back/forward)
- Expert menu for advanced welding parameter settings
- **Welding sequence parameter setting**
- Start, welding, secondary and end current
- Up-slope/down-slope time
- Gas pre- and post-flow time
- Electrode diameter

Comfort 2.0 AC/DC



- **One-knob operation**
- Welding sequence selection and parameter setting using click wheel or conventional operation with sequence buttons (back/forward)
- Expert menu for advanced welding parameter settings
- **Welding sequence parameter setting**
- Start, welding, secondary and end current
- Up-slope/down-slope time
- Gas pre- and post-flow time
- Electrode diameter

Welding process	**TIG**
	activArc
	spotArc
	spotmatic
	TIG AC
	MMA
Operating modes	Non-latched
	Special non-latched
AC functions	AC special
	AC tungsten balling
	AC sine
	AC trapezoidal
	AC rectangle
	AC balance
	AC frequency: 30 Hz to 300 Hz
	Automatic AC frequency
Ignition options	HF
	Liftarc
Pulse type	Average value pulse welding
	kHz pulsing
	Pulsing
	Seconds pulse
Parameters in display	Welding current
	Welding voltage
	Welding parameters
	Welding power
	JOB number
Number of freely definable JOBs	depending on power source
MMA functions	Hotstart
	Arcforce
	Antistick
	AC electrode welding
	Average value pulse welding
	Frequency pulse welding

Tetrix DC ■ Tetrix 300 Comfort 2.0 puls Rob

/activArc®

- TIG DC inverter welding machine with Comfort 2.0 front control
- Comfort 2.0 control, simple operation with click wheel
- Set up on front control or notebook with PC300. NET software
- Features characteristics for EWM activArc and EWM spotArc at no extra charge
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- RINT X12 and BUSINT X11 for installation in external electrical enclosure
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled or optionally water-cooled with cool 41 U31 cooling unit
- Can be optionally connected to LAN or WiFi, ewm Xnet compatible
- PC interface for PC300.Net software
- 5 m mains supply lead
- 100 % tested and free-welded

Setting range for welding current	5 A - 300 A
Duty cycle 40 °C	300 A / 35 %
	260 A / 60 %
	210 A / 100 %
Open circuit voltage	63 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	15 kVA
Torch connection	Decentral
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	539 mm x 210 mm x 415 mm
Weight	20 kg
Standards	IEC 60974-1, -3 and -10 CL.A

Type	Designation	Item no.		
Tetrix 300 Comfort 2.0 puls Rob	DC TIG welding machine with Comfort 2.0 control	090-000263-00502		

▶ You can find information about external interface variants in the Accessories chapter

Options/accessories

■ Cooling units		Item no.
cool41 U31 Cooling unit with centrifugal pump Modular design, tool-free assembly Excellent torch cooling and therefore cost savings on consumables thanks to the high-performance centrifugal pump External coolant water filling nozzle with filling level indicator		090-008600-00502

■ Trolley		Item no.
Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder, mounted For transporting a power source, a cooling unit and a gas cylinder		
Trolly 55-5		090-008632-00000
Trolly 55-5 DM Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder, dismounted		090-008632-00001

Trolley		Item no.
Trolly 55-6 Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder For transporting a power source, a cooling unit and one or two shielding gas cylinders Can be lifted by crane as standard Supplied with roll brakes		090-008825-00000

Options for welding machines		Item no.
ON Filter TG.0002 Dirt filter for air inlet Reliably protects the machine from impurities under tough working conditions.		092-002551-00000

Options for retrofitting		Item no.
ON PC Plug Protective cap for plug Protects against force exerted from left, right or above		092-003074-00000
ON Extender Extension for Trolly 55-6 to house a further module		092-003507-00000

Tetrix DC ■ 352 ● 452 ● 552 Synergic

/activArc®

- TIG inverter welding machine, DC, with Synergic front control
- Set up on front control or notebook with PC300. NET software
- Synergic: Maximum ease-of-use – one-knob operation with up to 256 pre-defined JOBs (welding tasks)
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Tetrix	352	452	552
Setting range for welding current	5 A - 350 A	5 A - 450 A	5 A - 550 A
Duty cycle 40 °C	–	450 A / 80 %	550 A / 60 %
	350 A / 100 %	420 A / 100 %	
Open circuit voltage	79 V	80 V	79 V
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	14.3 kVA	22 kVA	30.5 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm		
Weight	78.5 kg		
Standards	IEC 60974-1, -3 and -10 CL.A		

Type	Designation	Item no.
Tetrix 352 Synergic	DC TIG welding machine with Synergic control	090-000141-00502
Tetrix 452 Synergic	DC TIG welding machine with Synergic control	090-000142-00502
Tetrix 552 Synergic	DC TIG welding machine with Synergic control	090-000154-00502

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000

Tetrix DC ■ 352 ● 452 ● 552 Synergic RC

/activArc®

- TIG inverter welding machine, DC, with Synergic RC display
- Set up on front control with PC300 software. NET software
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Tetrix	352	452	552
Setting range for welding current	5 A - 350 A	5 A - 450 A	5 A - 550 A
Duty cycle 40 °C	–	450 A / 80 %	550 A / 60 %
	350 A / 100 %	420 A / 100 %	
Open circuit voltage	79 V	80 V	79 V
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	14.3 kVA	22 kVA	30.5 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm		
Weight	78.5 kg		
Standards	IEC 60974-1, -3 and -10 CL.A		

Type	Designation	Item no.
Tetrix 352 Synergic RC	DC TIG welding machine with Synergic-RC display	090-000189-00502
Tetrix 452 Synergic RC	DC TIG welding machine with Synergic-RC display	090-000190-00502
Tetrix 552 Synergic RC	DC TIG welding machine with Synergic-RC display	090-000191-00502

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000

Tetrix DC ■ 352 ● 452 ● 552 RC

/activArc®

- TIG inverter welding machine, DC, without front control
- Set up on front control with PC300 software. NET software
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Tetrix	352	452	552
Setting range for welding current	5 A - 350 A	5 A - 450 A	5 A - 550 A
Duty cycle 40 °C	–	450 A / 80 %	550 A / 60 %
	350 A / 100 %	420 A / 100 %	
Open circuit voltage	79 V	80 V	79 V
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	14.3 kVA	22 kVA	30.5 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm		
Weight	78.5 kg		
Standards	IEC 60974-1, -3 and -10 CL.A		

Type	Designation	Item no.
Tetrix 352 RC	DC TIG welding machine without front control	090-000166-00502
Tetrix 452 RC	DC TIG welding machine without front control	090-000167-00502
Tetrix 552 RC	DC TIG welding machine without front control	090-000168-00502

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000

Tetrix DC CW ■ Tetrix 300 Comfort 2.0 puls CW Rob

/activArc®

- TIG inverter welding machine, DC, with Comfort 2.0 front control, prepared for cold wire
- Comfort 2.0 control, simple operation with click wheel
- Set up on front control or notebook with PC300. NET software
- Cold wire in combination with T drive 4 Rob 2 or T drive 4 Rob 3
- Optional ex works, cold wire and as Push/Push with TIG ROB 400 W KD PP welding torch
- Optional ex works, cold wire with tigSpeed drive 4 Rob
- Features characteristics for EWM activArc and EWM spotArc at no extra charge
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- RINT X12 and BUSINT X11 for installation in external electrical enclosure
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled or optionally water-cooled with cool 41 U31 cooling unit
- Can be optionally connected to LAN or WiFi, ewm Xnet compatible
- PC interface for PC300.Net software
- 5 m mains supply lead
- 100 % tested and free-welded

Setting range for welding current	5 A - 300 A
Duty cycle 40 °C	300 A / 35 %
	260 A / 60 %
	210 A / 100 %
Open circuit voltage	63 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	16.3 kVA
Torch connection	Decentral
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	539 mm x 210 mm x 755 mm
Weight	30 kg
Standards	IEC 60974-1, -3 and -10 CL.A

Type	Designation	Item no.		
Tetrix 300 Comfort 2.0 puls CW Rob	WIG-DC-Schweißgerät mit Comfort 2.0-Steuerung, inkl. Anschlussmöglichkeit Zusatzdraht	090-S00263-04782		

▶ Information on wire feeder variants can be found in the corresponding chapter.
▶ You can find information about external interface variants in the Accessories chapter

Options/accessories

Cooling units		Item no.
cool41 U31 Cooling unit with centrifugal pump Modular design, tool-free assembly Excellent torch cooling and therefore cost savings on consumables thanks to the high-performance centrifugal pump External coolant water filling nozzle with filling level indicator		090-008600-00502

Trolley		Item no.
Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder, mounted For transporting a power source, a cooling unit and a gas cylinder		
Trolly 55-5		090-008632-00000
Trolly 55-5 DM Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder, dismounted		090-008632-00001
Trolly 55-6 Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder For transporting a power source, a cooling unit and one or two shielding gas cylinders Can be lifted by crane as standard Supplied with roll brakes		090-008825-00000

Options for welding machines		Item no.
ON Filter TG.0002 Dirt filter for air inlet Reliably protects the machine from impurities under tough working conditions.		092-002551-00000

Options for retrofitting		Item no.
ON PC Plug Protective cap for plug Protects against force exerted from left, right or above		092-003074-00000
ON Extender Extension for Trolly 55-6 to house a further module		092-003507-00000

Tetrix DC CW ■ 352–552 Synergic cold wire

/activArc®

- TIG inverter welding machine, DC, with Synergic front control, prepared for cold wire
- Set up on front control or notebook with PC300. NET software
- Synergic: Maximum ease-of-use – one-knob operation with up to 256 pre-defined JOBs (welding tasks)
- Cold wire in combination with T Drive 4 Rob 2 or T Drive 4 Rob 3, as push/push version with TIG ROB 400W KD PP
- Features characteristics for EWM activArc and EWM spotArc at no extra charge
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas cooled, with optional cool82 cooling unit also water cooled
- Can be optionally connected to LAN or WiFi, ewm Xnet compatible
- PC interface for PC300.Net software
- 5 m mains supply lead
- 100 % tested and free-welded

Tetrix	352	552
Setting range for welding current	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	–	550 A / 60 %
	350 A / 100 %	420 A / 100 %
Open circuit voltage	79 V	
Mains voltage	400 V	
Tolerances	-25 % - +20 %	
Mains frequency	50 Hz / 60 Hz	
Recommended generator power	14.3 kVA	30.5 kVA
Protection classification	IP23	
Safety marking	S CE EAC	
EMC class	A	
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm	
Weight	78.5 kg	
Standards	IEC 60974-1, -3 and -10 CL.A	

Type	Designation	Item no.		
Tetrix 352 Synergic CW	DC TIG welding machine with Synergic control, incl. connection capability for additional wire	090-S00141-04095		
Tetrix 552 Synergic CW	DC TIG welding machine with Synergic control, incl. connection capability for additional wire	090-S00154-04055		

Options/accessories

Options for retrofitting	Item no.		
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000		

Tetrix DC CW ■ 352 ● 452 ● 552 RC cold wire

/activArc®

- TIG inverter welding machine, DC, without front control, prepared for cold wire
- Set up on front control with PC300 software. NET software
- Cold wire in combination with T Drive 4 Rob 2 or T Drive 4 Rob 3, as push/push version with TIG ROB 400W KD PP
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Tetrix	352	452	552
Setting range for welding current	5 A - 350 A	5 A - 450 A	5 A - 550 A
Duty cycle 40 °C	–	450 A / 80 %	550 A / 60 %
	350 A / 100 %	420 A / 100 %	
Open circuit voltage	79 V	80 V	79 V
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	14.3 kVA	22 kVA	30.5 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm		
Weight	78.5 kg		

Type	Designation	Item no.
Tetrix 352 RC CW	DC TIG welding machine incl. connection capability for additional wire, without front control	090-000166-00505
Tetrix 452 RC CW	DC TIG welding machine incl. connection capability for additional wire, without front control	090-000167-00505
Tetrix 552 RC CW	DC TIG welding machine incl. connection capability for additional wire, without front control	090-000168-00505

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000

Tetrix DC CW ■ 1002 Synergic cold wire

/activArc®

- TIG inverter welding machine, DC, with Synergic front control, prepared for cold wire
- Set up on front control or notebook with PC300. NET software
- Synergic: Maximum ease-of-use – one-knob operation with up to 256 pre-defined JOBs (welding tasks)
- Cold wire in combination with T Drive 4 Rob 2 or T Drive 4 Rob 3, as push/push version with TIG ROB 400W KD PP
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Setting range for welding current	10 A - 1000 A
Duty cycle 40 °C	1000 A / 80 %
	750 A / 100 %
Open circuit voltage	80 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	75 kVA
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	780 mm x 375 mm x 1250 mm
Weight	177 kg

Type	Designation	Item no.		
Tetrix 1002 Synergic CW	DC TIG welding machine with Synergic control, incl. connection capability for additional wire	090-000197-00502		

Tetrix DC CW ■ 1002 Synergic RC cold wire

/activArc®

- TIG inverter welding machine, DC, with Synergic-RC display, prepared for cold wire
- Set up on front control with PC300 software. NET software
- Cold wire in combination with T Drive 4 Rob 2 or T Drive 4 Rob 3, as push/push version with TIG ROB 400W KD PP
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Setting range for welding current	10 A - 1000 A
Duty cycle 40 °C	1000 A / 80 %
	750 A / 100 %
Open circuit voltage	80 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	75 kVA
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	780 mm x 375 mm x 1250 mm
Weight	177 kg

Type	Designation	Item no.		
Tetrix 1002 Synergic RC CW	DC TIG welding machine with Synergic-RC display, including connection capability for additional wire	090-000198-00502		

Tetrix DC HW ■ 352 ● 452 ● 552 Synergic hot wire

/activArc®

- DC TIG welding machine with Synergic controller, prepared for hot wire
- Hot wire power 5–180 A 100% DC, can be set using PC 300 software
- Set up on front control or notebook with PC300. NET software
- Synergic: Maximum ease-of-use – one-knob operation with up to 256 pre-defined JOBs (welding tasks)
- Hot wire in combination with T drive 4 Rob 3 Hotwire, as push/push version with TIG ROB 400W KD PP
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Tetrix	352	452	552
Setting range for welding current	5 A - 350 A	5 A - 450 A	5 A - 550 A
Duty cycle 40 °C	–	450 A / 80 %	550 A / 60 %
	350 A / 100 %	420 A / 100 %	
Open circuit voltage	79 V	80 V	79 V
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	14.3 kVA	22 kVA	30.5 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	780 mm x 375 mm x 1250 mm		
Weight	177 kg		

Type	Designation	Item no.
Tetrix 352 Synergic HW	DC TIG welding machine with Synergic control, including connection capability for hot wire	090-000215-00502
Tetrix 452 Synergic HW	DC TIG welding machine with Synergic control, including connection capability for hot wire	090-000216-00502
Tetrix 552 Synergic HW	DC TIG welding machine with Synergic control, including connection capability for hot wire	090-000217-00502

Tetrix DC HW ■ 352 ● 452 ● 552 Synergic RC hot wire

/activArc®

- DC TIG welding machine with Synergic-RC display, prepared for hot wire
- Hot wire power 5–180 A 100% DC, can be set using PC 300 software
- Set up on front control with PC300 software. NET software
- Hot wire in combination with T drive 4 Rob 3 Hotwire, as push/push version with TIG ROB 400W KD PP
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Tetrix	352	452	552
Setting range for welding current	5 A - 350 A	5 A - 450 A	5 A - 550 A
Duty cycle 40 °C	–	450 A / 80 %	550 A / 60 %
	350 A / 100 %	420 A / 100 %	
Open circuit voltage	79 V	80 V	79 V
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	14.3 kVA	22 kVA	30.5 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	780 mm x 375 mm x 1250 mm		
Weight	177 kg		

Type	Designation	Item no.
Tetrix 352 Synergic RC HW	DC TIG welding machine with Synergic-RC display, including connection capability for hot wire	090-000195-00502
Tetrix 452 Synergic RC HW	DC TIG welding machine with Synergic-RC display, including connection capability for hot wire	090-000196-00502
Tetrix 552 Synergic RC HW	DC TIG welding machine with connection capability for additional wire, with Synergic-RC display; including transport pallet	090-000214-00502

Tetrix AC/DC ■ Tetrix 300 AC/DC Comfort 2.0 puls Rob

/activArc®

- TIG AC/DC inverter welding machine with Comfort 2.0 front control
- Comfort 2.0 control, simple operation with click wheel
- Set up on front control or notebook with PC300. NET software
- Features characteristics for EWM activArc and EWM spotArc at no extra charge
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- RINT X12 and BUSINT X11 for installation in external electrical enclosure
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled or optionally water-cooled with cool 41 U31 cooling unit
- Can be optionally connected to LAN or WiFi, ewm Xnet compatible
- PC interface for PC300.Net software
- 5 m mains supply lead
- 100 % tested and free-welded

Setting range for welding current	5 A - 300 A
Duty cycle 40 °C	300 A / 35 %
	260 A / 60 %
	210 A / 100 %
Open circuit voltage	63 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	16 kVA
Torch connection	Decentral
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	539 mm x 210 mm x 415 mm
Weight	22 kg
Standards	IEC 60974-1, -3 and -10 CL.A

Type	Designation	Item no.
Tetrix 300 AC/DC Comfort 2.0 puls Rob	TIG AC/DC welding machine with Comfort 2.0 control	090-S00235-04286

▶ You can find information about external interface variants in the Accessories chapter

■ Options/accessories

■ Cooling units	Item no.
cool41 U31 Cooling unit with centrifugal pump Modular design, tool-free assembly Excellent torch cooling and therefore cost savings on consumables thanks to the high-performance centrifugal pump External coolant water filling nozzle with filling level indicator	090-008600-00502

Trolley		Item no.
Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder, mounted For transporting a power source, a cooling unit and a gas cylinder		
Trolly 55-5		090-008632-00000
Trolly 55-5 DM Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder, dismounted		090-008632-00001
Trolly 55-6 Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder For transporting a power source, a cooling unit and one or two shielding gas cylinders Can be lifted by crane as standard Supplied with roll brakes		090-008825-00000

Options for welding machines		Item no.
ON Filter TG.0002 Dirt filter for air inlet Reliably protects the machine from impurities under tough working conditions.		092-002551-00000

Options for retrofitting		Item no.
ON PC Plug Protective cap for plug Protects against force exerted from left, right or above		092-003074-00000
ON Extender Extension for Trolly 55-6 to house a further module		092-003507-00000

Tetrix AC/DC ■ 352 ● 552 Synergic

/activArc®

- TIG inverter welding machine, AC/DC, with Synergic front control
- Set up on front control or notebook with PC300. NET software
- Synergic: Maximum ease-of-use – one-knob operation with up to 256 pre-defined JOBs (welding tasks)
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Tetrix	352 AC/DC	552 AC/DC
Setting range for welding current	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	350 A / 60 %	550 A / 60 %
	300 A / 100 %	420 A / 100 %
Open circuit voltage	80 V	79 V
Mains voltage	400 V	
Tolerances	-25 % - +20 %	
Mains frequency	50 Hz / 60 Hz	
Recommended generator power	20.3 kVA	30.5 kVA
Protection classification	IP23	
Safety marking	S CE EAC	
EMC class	A	
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm	780 mm x 375 mm x 1250 mm
Weight	87.5 kg	177 kg
Standards	IEC 60974-1, -3 and -10 CL.A	

Type	Designation	Item no.		
Tetrix 352 AC/DC Synergic	AC/DC TIG welding machine with Synergic control	090-000140-00502		
Tetrix 552 AC/DC Synergic	AC/DC TIG welding machine with Synergic control	090-000221-00502		

▶ Modular, craneable, stackable; connection set option for stacking of machines only in conjunction with Tetrix 352

Options/accessories

Options for retrofitting	Item no.		
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000		

Tetrix AC/DC ■ 352 ● 552 Synergic RC

/activArc®

- TIG inverter welding machine, AC/DC, with Synergic-RC display
- Set up on front control with PC300 software. NET software
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Tetrix	352 AC/DC	552 AC/DC
Setting range for welding current	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	350 A / 60 %	550 A / 60 %
	300 A / 100 %	420 A / 100 %
Open circuit voltage	80 V	79 V
Mains voltage	400 V	
Tolerances	-25 % - +20 %	
Mains frequency	50 Hz / 60 Hz	
Recommended generator power	20.3 kVA	30.5 kVA
Protection classification	IP23	
Safety marking	S CE EAC	
EMC class	A	
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm	780 mm x 375 mm x 1250 mm
Weight	87.5 kg	177 kg

Type	Designation	Item no.
Tetrix 352 AC/DC Synergic RC	AC/DC TIG welding machine with Synergic RC display	090-000192-00502
Tetrix 552 AC/DC Synergic RC	AC/DC TIG welding machine with Synergic RC display	090-000220-00502

▶ Modular, craneable, stackable; connection set option for stacking of machines only in conjunction with Tetrix 352

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000

Tetrix AC/DC 352 RC

/activArc®

- TIG inverter welding machine, AC/DC, without front control
- Set up on front control with PC300 software. NET software
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Modular, cranable, stackable
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Setting range for welding current	5 A - 350 A
Duty cycle 40 °C	350 A / 60 %
	300 A / 100 %
Open circuit voltage	80 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	20.3 kVA
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	780 mm x 375 mm x 625 mm
Weight	87.5 kg
Standards	IEC 60974-1, -3 and -10 CL.A

Type	Designation	Item no.
Tetrix 352 AC/DC RC	AC/DC TIG welding machine without front control	090-000139-00502

Options/accessories

Options for retrofitting	Item no.
ON STACK XX2 Connection set for stacking welding machines	092-007856-00000

Tetrix AC/DC CW ■ Tetrix 300 AC/DC Comfort 2.0 puls CW Rob

/activArc®

- TIG AC/DC inverter welding machine with Comfort 2.0 front control, prepared for cold wire
- Comfort 2.0 control, simple operation with click wheel
- Set up on front control or notebook with PC300. NET software
- Cold wire in combination with T drive 4 Rob 2 or T drive 4 Rob 3
- Optional ex works, cold wire and as Push/Push with TIG ROB 400 W KD PP welding torch
- Optional ex works, cold wire with tigSpeed drive 4 Rob
- Features characteristics for EWM activArc and EWM spotArc at no extra charge
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- RINT X12 and BUSINT X11 for installation in external electrical enclosure
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled or optionally water-cooled with cool 41 U31 cooling unit
- Can be optionally connected to LAN or WiFi, ewm Xnet compatible
- PC interface for PC300.Net software
- 5 m mains supply lead
- 100 % tested and free-welded

Setting range for welding current	5 A - 300 A
Duty cycle 40 °C	300 A / 35 %
	260 A / 60 %
	210 A / 100 %
Open circuit voltage	63 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	16 kVA
Torch connection	Decentral
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	539 mm x 210 mm x 755 mm
Weight	30 kg
Standards	IEC 60974-1, -3 and -10 CL.A

Type	Designation	Item no.		
Tetrix 300 AC/DC Comfort 2.0 puls CW Rob	AC/DC TIG welding machine with Comfort 2.0 control, incl. connection capability for filler wire	090-S00235-04848		

▶ You can find information about external interface variants in the Accessories chapter

Options/accessories

Cooling units	Item no.
cool41 U31 Cooling unit with centrifugal pump Modular design, tool-free assembly Excellent torch cooling and therefore cost savings on consumables thanks to the high-performance centrifugal pump External coolant water filling nozzle with filling level indicator	090-008600-00502

Trolley		Item no.
Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder, mounted For transporting a power source, a cooling unit and a gas cylinder		
Trolly 55-5		090-008632-00000
Trolly 55-5 DM Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder, dismounted		090-008632-00001
Trolly 55-6 Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder For transporting a power source, a cooling unit and one or two shielding gas cylinders Can be lifted by crane as standard Supplied with roll brakes		090-008825-00000

Options for welding machines		Item no.
ON Filter TG.0002 Dirt filter for air inlet Reliably protects the machine from impurities under tough working conditions.		092-002551-00000

Options for retrofitting		Item no.
ON PC Plug Protective cap for plug Protects against force exerted from left, right or above		092-003074-00000
ON Extender Extension for Trolly 55-6 to house a further module		092-003507-00000

Tetrix AC/DC CW ■ 352 ● 552 Synergic CW

/activArc®

- TIG inverter welding machine, AC/DC, with Synergic front control, prepared for cold wire
- Set up on front control or notebook with PC300. NET software
- Synergic: Maximum ease-of-use – one-knob operation with up to 256 pre-defined JOBs (welding tasks)
- Cold wire in combination with T Drive 4 Rob 2 or T Drive 4 Rob 3, as push/push version with TIG ROB 400W KD PP
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Tetrix	352 AC/DC	552 AC/DC
Setting range for welding current	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	350 A / 60 %	550 A / 60 %
	300 A / 100 %	420 A / 100 %
Open circuit voltage	80 V	79 V
Mains voltage	400 V	
Tolerances	-25 % - +20 %	
Mains frequency	50 Hz / 60 Hz	
Recommended generator power	20.3 kVA	30.5 kVA
Protection classification	IP23	
Safety marking	S CE EAC	
EMC class	A	
Dimensions (L x B x H)	780 mm x 375 mm x 1250 mm	
Weight	177 kg	

Type	Designation	Item no.		
Tetrix 352 AC/DC Synergic CW	AC/DC TIG welding machine with Synergic control, incl. connection capability for additional wire	090-000193-00502		
Tetrix 552 AC/DC Synergic CW	AC/DC TIG welding machine with Synergic control, incl. connection capability for additional wire	090-000223-00502		

Tetrix AC/DC CW ■ 352 ● 552 Synergic RC CW

/activArc®

- TIG inverter welding machine, DC, with Synergic-RC display, prepared for cold wire
- Set up on front control with PC300 software. NET software
- Cold wire in combination with T Drive 4 Rob 2 or T Drive 4 Rob 3, as push/push version with TIG ROB 400W KD PP
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Tetrix	352 AC/DC	552 AC/DC
Setting range for welding current	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	350 A / 60 %	550 A / 60 %
	300 A / 100 %	420 A / 100 %
Open circuit voltage	80 V	79 V
Mains voltage	400 V	
Tolerances	-25 % - +20 %	
Mains frequency	50 Hz / 60 Hz	
Recommended generator power	20.3 kVA	30.5 kVA
Protection classification	IP23	
Safety marking	S CE EAC	
EMC class	A	
Dimensions (L x B x H)	780 mm x 375 mm x 1250 mm	
Weight	177 kg	
Standards	IEC 60974-1, -3 and -10 CL.A	

Type	Designation	Item no.		
Tetrix 352 AC/DC Synergic RC CW	AC/DC TIG welding machine with Synergic RC display, incl. connection capability for additional wire	090-000194-00502		
Tetrix 552 AC/DC Synergic RC CW	AC/DC TIG welding machine with Synergic RC display, incl. connection capability for additional wire	090-000222-00502		

tigSpeed ■ 352 Synergic RC HW

/activArc®

- DC TIG welding machine with Synergic RC display, designed for tigSpeed hot wire
- Hot wire current 5–180 A 100% duty cycle, can be set using PC 300 software, optional via BUSINT X11
- Oscillation tigSpeed 1–16 Hz, setting via BUSINTX11
- Set up on front control with PC300 software. NET software
- Hot wire in combination with tigSpeed Drive 4 Rob
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Parameters adjustable via interfaces: 256 JOBs with 15 programs each, in program mode or RINTX12 welding current, wire setting, secondary current, pulse time, pause time; BUSINTX11: main current, wire setting, secondary current, pulse time, pulse pause time, down-slope time, up-slope time, oscillation, frequency via control voltage or control signal operation
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Gas-cooled, with optional water-cooling unit
- 5 m mains supply lead
- 100 % tested and free-welded

Setting range for welding current	5 A - 350 A
Duty cycle 40 °C	350 A / 100 %
Open circuit voltage	80 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	20.3 kVA
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	780 mm x 375 mm x 1250 mm
Weight	177 kg

Type	Designation	Item no.		
tigSpeed 352 Synergic RC HW	DC TIG welding machine with Synergic-RC display, including connection capability for hot wire	090-000232-00502		

Options/accessories

Options for welding machines		Item no.
OW 440/460/480 Volt Equipment of the 355/405/505 and 351/401/451/501/551 machines for 3x 440/460/480 V mains connection (ex works only) Multi-voltage design for operation with mains voltages of 440 V, 460 V and 480 V ▶ **Not possible with the compact 355 series machines!**		092-002647-00001
ON Key Switch Tetrix Key switch ▶ **Not possible for Tetrix 300 Comfort machines!**		092-001828-00000
Mains plug, assembled Mains plug, factory fitting (no retrofitting) ▶ **Suitable for all machines with a welding current of 350 A and above (except compact Phoenix 355, compact Taurus 355 and Picomig 355)**		
OW CEE 16A/400V		092-008214-00000
OW CEE 32A		092-008215-00000
OW CEE 63A		092-008216-00000

Mains plug		Item no.
Mains plug ▶ **Suitable for all machines with a welding current of 350 A and above (except compact Phoenix 355, compact Taurus 355 and Picomig 355)**		
32A 5POLE/CEE		094-000207-00000
63A 5POLE/CEE		094-003410-00000
125A 5POLE/CEE		094-025475-00000

Connection cables		Item no.
Connection cable, 19-pole, one-sided wire end ferrules		
RA5 19POL 1x 5M		092-001569-00005
RA10 19POL 1x 10M		092-001569-00010
RA15 19POL 1x 15M		092-001569-00015
RA20 19POL 1x 20M		092-001569-00020
RA25 19POL 1x 25M		092-001569-00025

Welding leads		Item no.
Workpiece lead with cable lug		
WK70/CL 5m		092-002078-00005
WK70/CL 10m		092-002078-00010
WK95/CL 5m		092-001990-00005
WK95/CL 10m		092-001990-00010
Workpiece lead with cable lug, angled ▶ **For use with 1,000 A power sources**		
WK95QMM 5m		092-003993-00005
WK95QMM 10m		092-003993-00010

Pressure regulators		Item no.
Pressure regulator with flow meter Two stage, high precision pressure regulator with float type meter for flow measurement Second stage guarantees a constant volume discharge over the whole pressure process		
Optimator AR/MIX 200bar 20l G1/4“		094-011839-00000
Optimator AR/MIX 200 bar, W21,8 G1/4“ 30l		096-000220-00000
Optimator AR/H2 200bar 20l G3/8“L		094-011841-00000

Options/accessories

Pressure regulators		Item no.
DM 842 Ar/CO2 230bar 30l D Pressure regulator with manometer Manufactured in accordance with ISO 2503 Maximum primary pressure of 230 bar Single-stage Infinite and highly accurate adjustment Safety manometer with pressure meter or flow meter (bar/psi or litres per minute) With cut-off valve		394-002910-00030
Single-stage pressure regulator for measuring pressure Controller in front of gas metering units, for example Cylinder pressure 200 bar Working pressure 0 - 10 bar		
Maxex AR/MIX 200bar 30m³ G1/4“		096-000000-00000
Maxex Hydrogen 200bar 30m³ G3/8“L Cylinder pressure regulator Single-stage pressure regulator for measuring pressure Controller in front of gas metering units, for example		096-000001-00000

General		Item no.
ON AL D13/27 Cap for load sockets		092-003282-00000
Gas hose Equipped with plastic nuts on both sides for tool-free assembly		
GH 2x1/4“ 2m		094-000010-00001
GH 2x1/4“ 3m		094-000010-00003
GH 2x1/4“ 4m		094-000010-00004
GH 2x1/4“ 5m		094-000010-00005
GH 2X1/4“ 10m		094-000010-00011
GH 2x1/4“ 15m		094-000010-00015
GH 2x1/4“ 20m		094-000010-00021

Options for retrofitting	Item no.
ON FILTER XX2 Dirt filter for air inlet for robot power sources	092-002714-00000

Gateway

- Xnet LAN gateway
- **Range of functions:**
- Connecting welding machines without integrated Xnet components to an Xnet system (for all EWM machines with integrated 7-pole interface)
- Data transfer via network cable
- USB interface for data recording and data transfer
- Connection of a barcode scanner possible
- Registration option via Xbutton
- Digital display with click wheel operation
- **The following information is shown on the display:**
- network status, network configuration, nominal/actual welding parameters, JOB information, Xnet monitoring of the welding parameters in real time, WPQR welding data assistant, component information, errors and warnings in the system
- **For using it, an Xnet-machine licence is required**

Type	Designation	Item no.		
Xnet LAN Gateway	LAN gateway in external housing	090-008833-00502		

- Xnet WiFi gateway
- **Range of functions:**
- Connecting welding machines without integrated Xnet components to an Xnet system (for all EWM machines with integrated 7-pole interface)
- Data transfer via WiFi or network cable
- USB interface for data recording and data transfer
- Connection of a barcode scanner possible
- Registration option via Xbutton
- Digital display with click wheel operation
- **The following information is shown on the display:**
- network status, network configuration, nominal/actual welding parameters, JOB information, Xnet monitoring of the welding parameters in real time, WPQR welding data assistant, component information, errors and warnings in the system
- **For using it, an Xnet-machine licence is required**

Type	Designation	Item no.		
Xnet WiFi Gateway	WiFi gateway in external casing	090-008834-00502		

TIG ■ RT50

- The RT50 7POL remote control allows machines with a 7-pole connection to be equipped with a second remote control
- Robust metal casing with rubber feet, retaining clip and holding magnet, 7-pole connection socket
- Cable not supplied in delivery, please order connection cable separately

Connection	7-pole
Dimensions (L x B x H)	115 mm x 235 mm x 300 mm
Weight	3.2 kg

Type	Designation	Item no.		
RT50 7POL	Remote control with complete range of functions	090-008793-00000		

TIG ■ FR AW1

- Setting of wire feed speed directly at the workstation
- Separate push-buttons for wire return/inching
- Separate switch for cold or hot wire On
- Robust metal casing with rubber feet, retaining clip and holding magnet
- For use with RINTX12 ATCASE interface (090-S08293-03795) only

Dimensions (L x B x H)	174 mm x 100 mm x 80 mm
Weight	ca.0.8 kg

Type	Designation	Item no.
FR AW1	Remote controls	090-S08765-03796

Options/accessories

Connection cables		Item no.
Connection cable e.g for remote control		
▶ **Other lengths available on request**		
RA5 12/19POL 5m		092-S01470-04056
RA10 12/19POL 10m		092-S01470-04372
RA15 12/19POL 15m		092-S01470-04538
RA20 12/19POL 20m		092-S01470-03797

Options/accessories

Connection cables		Item no.
Connection cable, 7-pole 7-pole connection cable, suitable for installation in drag chains **▶ Connection and extension cable for external LAN and WiFi gateway, panel, remote control**		
FRV-25 7POL 10m		092-003417-00010
FRV-25 7POL 15m		092-003417-00015
FRV-25 7POL 20m		092-003417-00020
FRV-25 7POL 25m		092-003417-00025
FRV-25 7POL 30m		092-003417-00030

Connection cable extension		Item no.
Digital 7-pole cable Digital 7-pole cable Extension for 7-pole remote control with permanently installed cable Connection cable for remote control and gateway without permanently installed cable		
FRV 7POL 0.5m		092-000201-00004
FRV 7POL 1m		092-000201-00002
FRV 7POL 5m		092-000201-00003
FRV 7POL 10m		092-000201-00000
FRV 7POL 15m		092-000201-00005
FRV 7POL 20m		092-000201-00001
FRV 7POL 25m		092-000201-00007

Overview

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TIG ■ T drive 4 Rob 2

- Wire feed unit for high cold wire deposition rates up to 10 m/min
- Reproducible wire feed speed thanks to fully digital control with incremental transducer, adjustable in increments of 0.1 m/min
- 4-roller drive in metal construction with large rollers (37 mm), factory fitted for 1.0-/1.2-mm steel wires
- With inspection window for checking the wire feeder
- Separate buttons on the front for wire return, gas test and wire inching
- Compact machine for simple mounting on or near the robot
- High level of process security thanks to the control, regulation and monitoring of all process data via a central, digital bus system
- Mounting console with strain relief for mounting (optional)

Wire feed speed	0.3 m/min - 10 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Wire-feed speed increments	0.1 m/min
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	407 mm x 201 mm x 229 mm
Weight	9.8 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.		
T drive 4 Rob 2 IG3	Wire feeder for automated applications, IG3 speedometer solution	090-008785-00502		

▶ For replacement rolls and drive rolls for various welding consumables, please refer to the "Wire feeder accessories" chapter.

Options/accessories

Drive rolls – conversion kits		Item no.	
Conversion kit for aluminium Includes 4 twin rollers, 2 gears and 2 spacer rings			
URUE AL 4ZR4R 0.8+1.0 SF		092-002268-00000	
URUE AL 4ZR4R 1.0+1.2 SF		092-002266-00000	
URUE AL 4ZR4R 1.2-1.6 SF		092-002269-00000	
URUE AL 4ZR4R 2.4-3.2 SF		092-002270-00000	

TIG ■ T drive 4 Rob 3

- Light, compact wire feed unit for high-precision cold wire feed
- Reproducible wire feed speed thanks to fully digital control with rotary transducer, adjustable in increments of 0.01 m/min
- LED display of process status
- 4-roller drive in metal construction with large rollers (37 mm), factory fitted for 1.0-/1.2-mm steel wires
- Tool-free roller changing, captive screws
- With inspection window for checking the wire feeder
- Separate buttons on the front for wire return, gas test and wire inching
- Compact machine for simple mounting on or behind the 3rd robot axis
- High level of process security thanks to the control, regulation and monitoring of all process data via a central, digital bus system
- Mounting console with strain relief for mounting (optional)

Wire feed speed	0.1 m/min - 5 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Wire-feed speed increments	0.01 m/min
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	345 mm x 230 mm x 250 mm
Weight	6.5 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
T Drive 4 Rob 3 LI IG3	Wire feeder for automated applications, opens on left, IG3 speedometer solution	090-008784-00502
T drive 4 Rob 3 RE IG3	Wire feeder for automated applications, opens on right, IG3 speedometer solution	090-008783-00502

▶ For replacement rolls and drive rolls for various welding consumables, please refer to the "Wire feeder accessories" chapter.

■ Options/accessories

■ Options for retrofitting	Item no.
ON COOL W ROB3 Retrofit option water cooling ROB 3	092-002384-00000

■ Drive rolls – conversion kits		Item no.
Conversion kit for aluminium Includes 4 twin rollers, 2 gears and 2 spacer rings		
URUE AL 4ZR4R 0.8+1.0 SF		092-002268-00000
URUE AL 4ZR4R 1.0+1.2 SF		092-002266-00000
URUE AL 4ZR4R 1.2-1.6 SF		092-002269-00000
URUE AL 4ZR4R 2.4-3.2 SF		092-002270-00000

TIG ■ T drive 4 Rob 3 Hotwire

- Light, compact wire feed unit for highly-precise hot wire feed
- Reproducible wire feed speed thanks to fully digital control with rotary transducer, adjustable in increments of 0.1 m/min
- LED display of process status
- 4-roller drive in metal construction with large rollers (37 mm), factory fitted for 1.0-/1.2-mm steel wires
- Tool-free roller changing, captive screws
- With inspection window for checking the wire feeder
- Separate buttons on the front for wire return, gas test and wire inching
- Compact machine for simple mounting on or behind the 3rd robot axis
- High level of process security thanks to the control, regulation and monitoring of all process data via a central, digital bus system
- Mounting console with strain relief for mounting (optional)

Wire feed speed	0.1 m/min - 5 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Wire-feed speed increments	0.01 m/min
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	345 mm x 230 mm x 250 mm
Weight	6.5 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.		
T drive 4 Rob 3 RE Hotwire	Wire feeder for automated applications, hot wire, opens on right, with integrated IG3 speedometer solution	090-008702-00502		
T drive 4 Rob 3 LI Hotwire	Wire feeder for automated applications, hot wire, opens on left, with integrated IG3 speedometer solution	090-008703-00502		

▶ For replacement rolls and drive rolls for various welding consumables, please refer to the "Wire feeder accessories" chapter.

■ Options/accessories

■ Options for retrofitting	Item no.		
ON COOL W ROB3 Retrofit option water cooling ROB 3	092-002384-00000		

■ Drive rolls – conversion kits		Item no.		
Conversion kit for aluminium Includes 4 twin rollers, 2 gears and 2 spacer rings				
URUE AL 4ZR4R 0.8+1.0 SF		092-002268-00000		
URUE AL 4ZR4R 1.0+1.2 SF		092-002266-00000		
URUE AL 4ZR4R 1.2-1.6 SF		092-002269-00000		
URUE AL 4ZR4R 2.4-3.2 SF		092-002270-00000		

TIG ■ T drive 4 Rob 3 Hotwire HS

- Compact, lightweight wire feeder for high cold or hot wire deposition rates of up to 24 m/min.
- Reproducible wire feed speed thanks to fully digital control with rotary transducer, adjustable in increments of 0.1 m/min.
- LED display of process status
- 4-roller drive in metal construction with large rollers (37 mm), factory fitted for 1.0-/1.2-mm steel wires
- Tool-free roller changing, captive screws
- With inspection window for checking the wire feeder
- Separate buttons on the front for wire return, gas test and wire inching
- Compact machine for simple mounting on or behind the 3rd robot axis
- High level of process security thanks to the control, regulation and monitoring of all process data via a central, digital bus system
- Mounting console with strain relief for mounting (optional)

Duty cycle 40 °C	270 A / 45 %
	180 A / 100 %
Wire feed speed	0.5 m/min - 24 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Wire-feed speed increments	0.1 m/min
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	345 mm x 230 mm x 250 mm
Weight	6.5 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.		
T drive 4 Rob 3 RE Hotwire HS	Wire feeder for automated applications, hot wire, opens on right, with integrated IG3 speedometer solution	090-005505-00502		
T drive 4 Rob 3 LI Hotwire HS	Wire feeder for automated applications, hot wire, opens on left, with integrated IG3 speedometer solution	090-005506-00502		

▶ For replacement rolls and drive rolls for various welding consumables, please refer to the "Wire feeder accessories" chapter.

■ Options/accessories

■ Options for retrofitting	Item no.		
ON COOL W ROB3 Retrofit option water cooling ROB 3	092-002384-00000		

■ Drive rolls – conversion kits		Item no.		
Conversion kit for aluminium Includes 4 twin rollers, 2 gears and 2 spacer rings				
URUE AL 4ZR4R 0.8+1.0 SF		092-002268-00000		
URUE AL 4ZR4R 1.0+1.2 SF		092-002266-00000		
URUE AL 4ZR4R 1.2-1.6 SF		092-002269-00000		
URUE AL 4ZR4R 2.4-3.2 SF		092-002270-00000		

TIG ■ tigSpeed drive 4 Rob

- Wire feeder for high cold or hot wire deposition rates up to 10 m/min
- Dynamic wire feed system through superimposed forward/backward wire motion
- Reproducible wire feed speed thanks to fully digital control with incremental transducer, adjustable in increments of 0.1 m/min
- 4-roller drive in metal construction with large rollers (37 mm), factory fitted for 1.0-/1.2-mm steel wires
- With inspection window for checking the wire feeder
- Separate buttons on the front for wire return, gas test and wire inching
- High level of process security thanks to the control, regulation and monitoring of all process data via a central, digital bus system
- Mounting console with strain relief for mounting (optional)
- Compact machine for mechanisation

Wire feed speed	0.5 m/min - 10 m/min
Oscillating frequency	1 Hz - 16 Hz
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Wire-feed speed increments	0.1 m/min
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	407 mm x 281 mm x 229 mm
Weight	12 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
tigSpeed drive 4 Rob	Wire feed unit for automated applications	090-005395-00502

▶ See description/tigSpeed advantages from page 170.

■ Options/accessories

■ Drive rolls – conversion kits		Item no.
Conversion kit for aluminium Includes 4 twin rollers, 2 gears and 2 spacer rings		
URUE AL 4ZR4R 0.8+1.0 SF		092-002268-00000
URUE AL 4ZR4R 1.0+1.2 SF		092-002266-00000
URUE AL 4ZR4R 1.2-1.6 SF		092-002269-00000
URUE AL 4ZR4R 2.4-3.2 SF		092-002270-00000

TIG ■ tigSpeed continuous drive 45 Rob coldwire

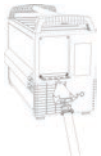
- TIG cold wire stand-alone wire feeder
- Setup via front control
- Analogue nominal value specification (0–10 V) for wire feed speed
- High process reliability, reproducible welding results and straightforward handling
- Perfect weld appearance, no weld spatters
- Up to 60% faster welding speeds compared to manual TIG welding
- Optimised for automated and mechanised applications, easy integration
- 4-roll drive. Equipped for 1.0 mm + 1.2 mm steel wires

Mains voltage (tolerances)	1 x 230 V
Wire feed speed	0.3 m/min - 15 m/min
Wire-feed speed increments	0.1 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Spool diameter	D200/D300
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	625 mm x 377 mm x 531 mm
Weight	24.5 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
tigSpeed continuous drive 45 Rob coldwire	TIG wire feeder with analogue nominal value specification	090-S00237-04388

■ Options/accessories

■ Accessories	Item no.
UTG614 12PN Cable connector	094-008107-10000
UTG14ST Strain relief	094-012882-10000
Pin (Male) Contact insert	094-003065-10000

■ Options for retrofitting		Item no.
ON WAK tigSpeed With wheel assembly kit with strain relief		092-007927-00000
ON AS SR tigSpeed Strain relief Strain relief for tigSpeed Recommended for installation of tigSpeed on external machine		092-003685-00000

■ Cold wire feed accessories		Item no.
AWS CW 3,0 m DZA CrNi 4 axes support, cold wire, insulated setup, for Tetrix drive 4L/tigSpeed drive 45 **▶ More variants can be found in the filler wire AW Support cold wire chapter!**		094-020614-02130

TIG ■ tigSpeed continuous drive 45 Rob hotwire

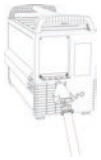
- TIG cold wire and hot wire stand-alone wire feeder
- Setup via front control
- Analogue nominal value specification (0–10 V) for wire feed speed and hot wire current
- High process reliability, reproducible welding results and straightforward handling
- Perfect weld appearance, no weld spatters
- Up to 60% increase in deposition rate
- Dilution reduced by up to 60%
- Adjustable heat supply to the wire for improved deposition rate and an even lower risk of seam errors
- Optimised for automated and mechanised applications, easy integration
- 4-roll drive. Equipped for 1.0 mm + 1.2 mm steel wires

Duty cycle 40 °C	180 A / 35 %
	150 A / 60 %
	130 A / 100 %
Mains voltage (tolerances)	1 x 230 V
Hot wire current	40 A - 180 A
Wire feed speed	0.3 m/min - 15 m/min
Wire-feed speed increments	0.1 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Spool diameter	D200/D300
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	625 mm x 377 mm x 531 mm
Weight	30.5 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
tigSpeed continuous drive 45 Rob hotwire	TIG wire feeder with wire preheating and analogue nominal value specification	090-S00236-0XXXX

■ Options/accessories

■ Accessories	Item no.
UTG614 12PN Cable connector	094-008107-10000
UTG14ST Strain relief	094-012882-10000
Pin (Male) Contact insert	094-003065-10000

■ Options for retrofitting		Item no.
ON WAK tigSpeed With wheel assembly kit with strain relief		092-007927-00000
ON AS SR tigSpeed Strain relief Strain relief for tigSpeed Recommended for installation of tigSpeed on external machine		092-003685-00000

■ Accessories hot wire feed		Item no.
AWS HW 3,0 m DZA CrNi 4 axes support, hot wire, insulated setup, for Tetrix drive 4L/tigSpeed drive 45 ▶ **More variants can be found in the filler wire AW Support hot wire chapter!** ▶ **Order the right wire feed for the wire feeder used!**		094-020614-12130

Media separation box ■ Tig Torch Box

- Lightweight, compact TIG media separation box
- For connection to TIG-MT 400W and TIG-MT 500 W
- Can be combined with T Drive 4 Rob 3 L/R (left/right)
- Integrated gas valve
- Separate button for gas test
- Gas pressure monitoring
- Mounting plate with strain relief for fastening to the robot (optional)
- Compact unit for simple mounting on the robot

Duty cycle 40 °C	550 A / 60 %
	420 A / 100 %
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	325 mm x 142 mm x 222 mm
Weight	3 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
Tig Torch Box	TIG media separation box	090-008299-00502

Media separation box ■ forceTig media separation box 550

- forceTig media separation box, lightweight version up to 550 A
- For using forceTig welding torches with automated Tetrix XX2 power sources
- Can be combined with T Drive 4 Rob 3 L/R (left/right)
- Integrated gas valve
- Separate push-button for gas test
- Gas pressure sensor
- Compact machine for easy installation
- Maximum overall length of welding torch and connecting hose package: 18 m
- Mounting console with strain relief for mounting on device (optional)
- Assembly PCB panel with strain relief for mounting on the power source (optional)

Duty cycle 40 °C	550 A / 60 %
	420 A / 100 %
Protection classification	IP23
EMC class	A
Dimensions (L x B x H)	325 mm x 142 mm x 222 mm
Weight	3 kg
Standards	IEC 60974-1 and -10 CL.A

Type	Designation	Item no.
forceTig TorchBox 550	forceTig media separation box	092-S01178-04342
▶ For forceTig FT1000W 1.5M and FT1000W AX 1.5M welding torches		
forceTig TorchBox 550	forceTig media separation box	092-S01178-04057
▶ For forceTig FT500W 5M, 8M welding torches ▶ For forceTig FT1000W, FT1000W AX 5M, 8M 12M and FT1002W welding torches		

Options/accessories

Connection hose package	Item no.
VSLP TB 95QMM WOS 19 POL 1m Robot intermediate hose package, water cooled, without protective hose, 19-pole	092-007855-31001
VSLP TB 95QMM WOS 19 POL 10m Robot intermediate hose package, water cooled, without protective hose, 19-pole	092-007855-31010
VSLP TB 95QMM WOS 19 POL 16m Robot intermediate hose package, water cooled, without protective hose, 19-pole	092-007855-31016
VSLP TB 95QMM WS 19 POL 1m Robot intermediate hose package, water cooled, standard protective hose, 19-pole	092-007855-31101
VSLP TB 95QMM WS 19 POL 5m Robot intermediate hose package, water cooled, standard protective hose, 19-pole	092-007855-31105
VSLP TB 95QMM WS 19 POL 8m Robot intermediate hose package, water cooled, standard protective hose, 19-pole	092-007855-31108
VSLP TB 95QMM WS 19 POL 9m Robot intermediate hose package, water cooled, standard protective hose, 19-pole	092-007855-31109
VSLP TB 95QMM WS 19 POL 10m Robot intermediate hose package, water cooled, standard protective hose, 19-pole	092-007855-31110
VSLP TB 95QMM WS 19 POL 12m Robot intermediate hose package, water cooled, standard protective hose, 19-pole	092-007855-31112
VSLP TB 95QMM WR 19 POL 1M Robot intermediate hose package, water cooled, ribbed hose, 19-pole	092-007855-31201
VSLP TB 95QMM WR 19 POL 10M Robot intermediate hose package, water cooled, ribbed hose, 19-pole	092-007855-31210
▶**Other lengths available on request**	

Options for retrofitting		Item no.
ON HOLDER EXT CASE Assembly PCB panel for external casing on XX2 power sources		092-S01758-04058

Assembly consoles	Item no.
MONTAGE CONSOLE ROB 3 UNIVERSAL Mounting console for wire feeder and media separation box Console for simple mounting on robot with strain relief for intermediate hose package Fastening holes (drill pattern) for different robot types already available Console for mounting drive 4 Rob 3, left or right versions Fits on the 3rd robot axis Insulated assembly	092-002440-00000

Media separation box ■ forceTig media separation box 1000

- forceTig media separation box, lightweight version up to 1,000 A
- For using forceTig welding torches with automated Tetrix XX2 power sources
- Can be combined with T Drive 4 Rob 3 L/R (left/right)
- Integrated gas valve
- Separate push-button for gas test
- Gas pressure sensor
- Compact machine for easy installation
- Maximum overall length of welding torch and connecting hose package: 18 m
- Secure power connection for intermediate hose package thanks to screw-in connection
- Mounting console with strain relief for mounting on device (optional)
- Assembly PCB panel with strain relief for mounting on the power source (optional)

Duty cycle 40 °C	1000 A / 60 %
	750 A / 100 %
Protection classification	IP23
EMC class	A
Dimensions (L x B x H)	325 mm x 142 mm x 222 mm
Weight	3 kg
Standards	IEC 60974-1 and -10 CL.A

Type	Designation	Item no.
forceTig TorchBox 1000	forceTig media separation box	092-S01178-04189
▶ For forceTig FT1000W 1.5M and FT1000W AX 1.5M welding torches		
forceTig TorchBox 1000	forceTig media separation box	092-S01178-04162
▶ For forceTig FT1000W, FT1000W AX 5M, 8M 12M and FT1002W welding torches		

Options/accessories

■ Connection hose package	Item no.
▶Other lengths available on request	
VSLP TB 2X95QMM WOS 19 POL 5m Robot intermediate hose package, water cooled, without protective hose, 19-pole	092-S07855-04471
VSLP TB 2X95QMM WOS 19 POL 10m Robot intermediate hose package, water cooled, without protective hose, 19-pole	092-S07855-04371
2x95QMM WOS 19POL 16M Robot intermediate hose package, water cooled, without protective hose, 19-pole	092-S07855-04190
VSLP TB 2X95QMM WR 19 POL 1,3m Robot intermediate hose package, water cooled, ribbed hose, 19-pole	092-S07855-04163
VSLP TB 2X95QMM WR 19 POL 10m Robot intermediate hose package, water cooled, ribbed hose, 19-pole	092-S07855-04387
VSLP TB 2X95QMM WR 19 POL 15m Robot intermediate hose package, water cooled, ribbed hose, 19-pole	092-S07855-04241

■ Options for retrofitting		Item no.
ON HOLDER EXT CASE Assembly PCB panel for external casing on XX2 power sources		092-S01758-04058

■ Assembly consoles		Item no.
MONTAGE CONSOLE ROB 3 UNIVERSAL Mounting console for wire feeder and media separation box Console for simple mounting on robot with strain relief for intermediate hose package Fastening holes (drill pattern) for different robot types already available Console for mounting drive 4 Rob 3, left or right versions Fits on the 3rd robot axis Insulated assembly		092-002440-00000

Overview

TIG automation			Page
Welding torches	Robot welding torches	TIG ROB 400W	254
		TIG ROB 400W CW	256
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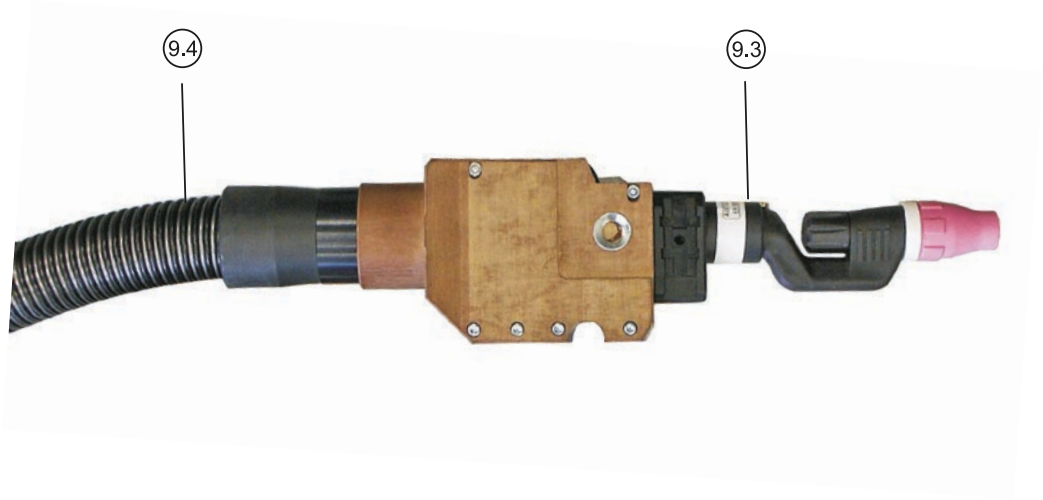
		forceTig FT1000W	262
		forceTig FT1000W AX	264
		FT1002W	266
	Automated welding torches	TIG-MT 200G	268
		TIG-MT 300W	270
		TIG-MT 400W	272
		TIG-MT 500W	274
	Tungsten electrode grinders	Porta & Handy	277

Robot welding torches ■ TIG ROB 400W



Basic features:

- 4 m hose package
- Straight torch neck
- Gas nozzle Ø = 10 mm L = 37 mm
- Gas diffuser Ø electrode = 2.4 mm
- TIG robot welding torch, water cooled
- Fast, safe, trouble-free
- Pre-set tungsten electrode
- Reproducible torch position

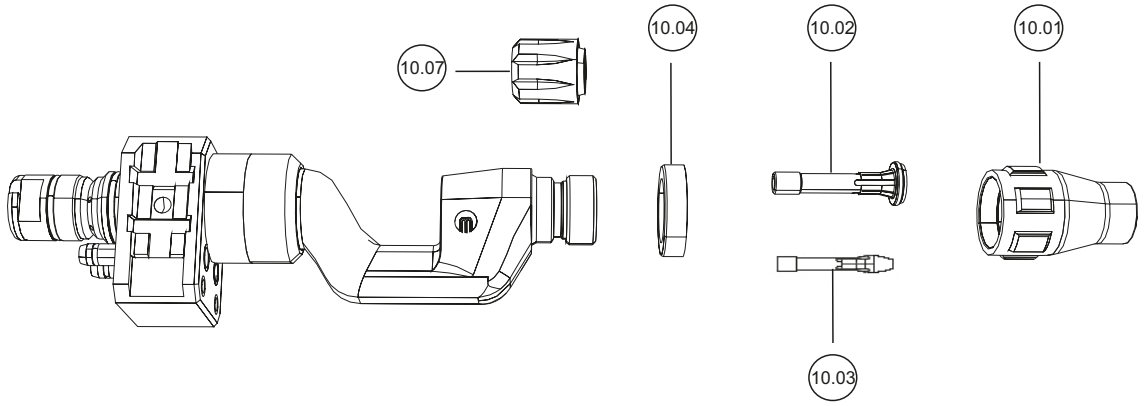
Duty cycle DC-
400 A / 100 %

Duty cycle AC
280 A / 100 %

Electrode Ø
1.6 mm - 4.8 mm

Item	Type	Designation	Length m	Item no.
9	TIG ROB 400W 4m	TIG welding torch, straight, water cooled, complete	4.0	094-017197-00000
9.2	CLAMMPING HOLDER TIG WH	Clamping holder TIG ROB 400 W		094-010122-00000
9.3	TIG ROB 400W	TIG-MT torch body, straight		094-010109-00000
9.3	TIG ROB 400W 45	Torch body TIG-MT 45°	-	094-010116-00000
9.3	TIG ROB 400W 70	Torch body TIG-MT 70°		094-010117-00000
9.3	TIG ROB 400W 90	TIG-MT torch body, 90°		094-010119-00000
9.4	SPA TIG WH 4M	TIG ROB 400 W hose package	4.0	094-016058-00000
9.4	SPA TIG WH 6M		6.0	094-016058-00006
9.4	SPA TIG WH 8M		8.0	094-016058-00008

Consumables/Accessories

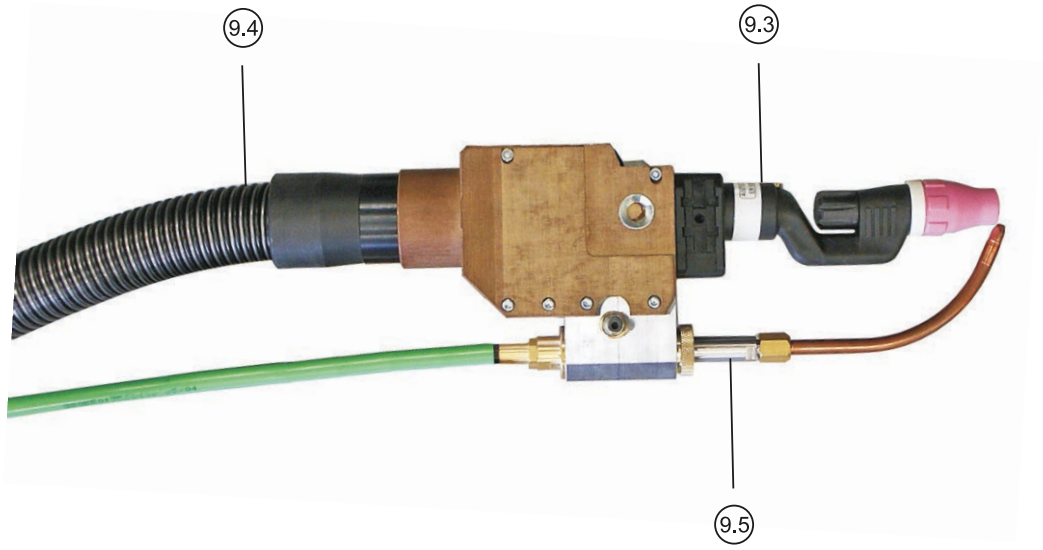


Item	Designation	Size in mm	Electro-de Ø	Nozzle Ø	Length	Material	PU	Item no.
			mm	mm	mm		Units	
10.01	Gas nozzle	-	-	7.5	37	Ceramic	10	094-009646-00000
10.01	Gas nozzle	-	-	10	37	Ceramic	10	094-009647-00000
10.01	Gas nozzle	-	-	13	37	Ceramic	10	094-009648-00000
10.01	Gas nozzle	-	-	15	37	Ceramic	10	094-009649-00000
10.01	Gas nozzle, reinforced	-	-	13	37	Ceramic	10	094-011997-00000
10.01	Gas nozzle, reinforced	-	-	15	37	Ceramic	10	094-011998-00000
10.01	Gas nozzle	-	-	7.5	52	Ceramic	10	094-009650-00000
10.01	Gas nozzle	-	-	10	52	Ceramic	10	094-009651-00000
10.01	Gas nozzle	-	-	13	52	Ceramic	10	094-009653-00000
10.01	Gas nozzle	-	-	15	52	Ceramic	10	094-009654-00000
10.02	Gas diffuser	-	1.6	-	48	Brass	2	094-009640-00000
10.02	Gas diffuser	-	2	-	48	Brass	2	094-009641-00000
10.02	Gas diffuser	-	2.4	-	48	Brass	2	094-009642-00000
10.02	Gas diffuser	-	3.2	-	48	Brass	2	094-009643-00000
10.02	Gas diffuser	-	4	-	48	Brass	2	094-009644-00000
10.02	Gas diffuser	-	4.8	-	48	Brass	2	094-009645-00000
10.03	Electrode holders	-	1.6	-	56	Brass	5	094-009634-00000
10.03	Electrode holders	-	2	-	56	Brass	5	094-009635-00000
10.03	Electrode holders	-	2.4	-	56	Brass	5	094-009636-00000
10.03	Electrode holders	-	3.2	-	56	Brass	5	094-009637-00000
10.03	Electrode holders	-	4	-	56	Brass	5	094-009638-00000
10.03	Electrode holders	-	4.8	-	56	Brass	5	094-009639-00000
10.04	Insulator	Standard	-	-	-	Teflon	10	094-011759-00000
10.07	117 mm	-	-	-	-	-	1	094-010112-00000

Options/accessories

Torch accessories	Item no.
ZH TIG400 Ignition aid	094-010360-00000
RTN TIG 400W 0°/70° Adjusting device	094-017717-00000
RTN TIG 400W 45°/90° Adjusting device	094-017718-00000

Robot welding torches ■ TIG ROB 400W CW



TIG robot welding torch, water cooled, with cold wire feed

- Fast, safe, trouble-free
- With cold wire feed
- Pre-set tungsten electrode
- Reproducible torch position
- **Basic features:**
- 4 m hose package
- Straight torch neck
- Cold wire nozzle Ø = 1 mm
- Gas nozzle Ø = 10 mm L = 37 mm
- Gas diffuser Ø electrode = 2.4 mm

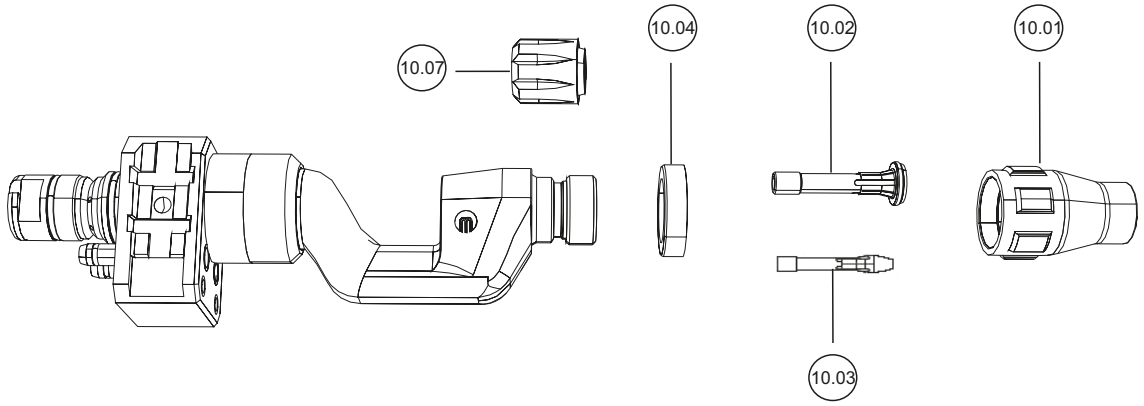
Duty cycle DC-
400 A / 100 %

Duty cycle AC
280 A / 100 %

Electrode Ø
1.6 mm - 4.8 mm

Item	Type	Designation	Length m	Item no.
9	TIG ROB 400W CW ZF1.0 4m	TIG welding torch, cold wire, straight, water-cooled, complete	4.0	094-017204-00000
9	TIG ROB 400W CW ZF1.0 1,3m		1.3	094-017204-00013
9.2	CLAMMPING HOLDER TIG WH	Clamping holder TIG ROB 400 W		094-010122-00000
9.3	TIG ROB 400W	TIG-MT torch body, straight		094-010109-00000
9.3	TIG ROB 400W 45	Torch body TIG-MT 45°	-	094-010116-00000
9.3	TIG ROB 400W 70	Torch body TIG-MT 70°		094-010117-00000
9.3	TIG ROB 400W 90	TIG-MT torch body, 90°		094-010119-00000
9.4	SPA TIG WH 4M	TIG ROB 400 W hose package	4.0	094-016058-00000
9.4	SPA TIG WH 6M		6.0	094-016058-00006
9.4	SPA TIG WH 8M		8.0	094-016058-00008
9.5	KD SUPPORT	Cold wire feed	-	094-016068-00000

Consumables/Accessories



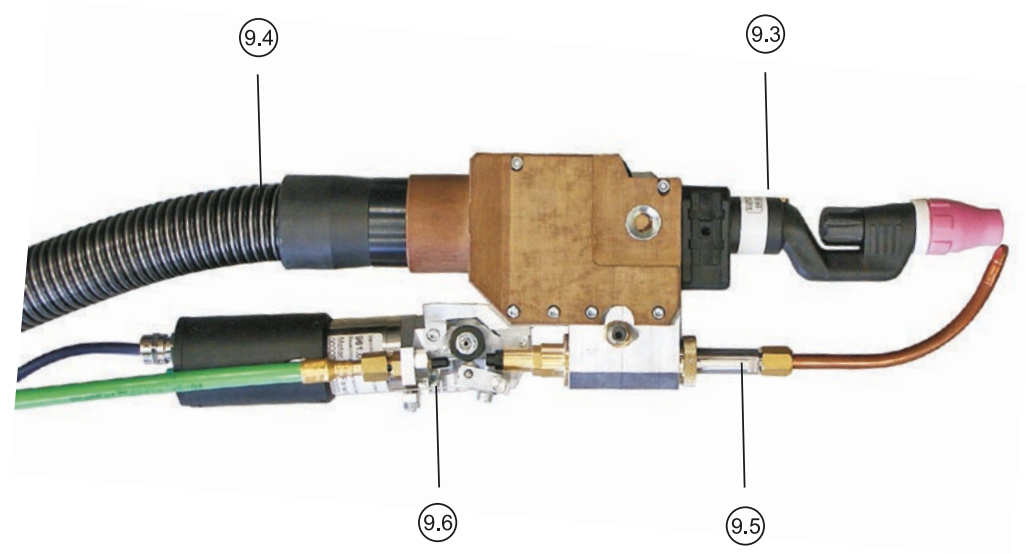
Item	Designation	Size in mm	Electro-de Ø	Nozzle Ø	Wire Ø	Length	Material	PU	Item no.
			mm	mm	mm	mm		Units	
10.01	Gas nozzle	-	-	7.5	-	37	Ceramic	10	094-009646-00000
10.01	Gas nozzle	-	-	10	-	37	Ceramic	10	094-009647-00000
10.01	Gas nozzle	-	-	13	-	37	Ceramic	10	094-009648-00000
10.01	Gas nozzle	-	-	15	-	37	Ceramic	10	094-009649-00000
10.01	Gas nozzle, reinforced	-	-	13	-	37	Ceramic	10	094-011997-00000
10.01	Gas nozzle, reinforced	-	-	15	-	37	Ceramic	10	094-011998-00000
10.01	Gas nozzle	-	-	7.5	-	52	Ceramic	10	094-009650-00000
10.01	Gas nozzle	-	-	10	-	52	Ceramic	10	094-009651-00000
10.01	Gas nozzle	-	-	13	-	52	Ceramic	10	094-009653-00000
10.01	Gas nozzle	-	-	15	-	52	Ceramic	10	094-009654-00000
10.02	Gas diffuser	-	1.6	-	-	48	Brass	2	094-009640-00000
10.02	Gas diffuser	-	2	-	-	48	Brass	2	094-009641-00000
10.02	Gas diffuser	-	2.4	-	-	48	Brass	2	094-009642-00000
10.02	Gas diffuser	-	3.2	-	-	48	Brass	2	094-009643-00000
10.02	Gas diffuser	-	4	-	-	48	Brass	2	094-009644-00000
10.02	Gas diffuser	-	4.8	-	-	48	Brass	2	094-009645-00000
10.03	Electrode holders	-	1.6	-	-	56	Brass	5	094-009634-00000
10.03	Electrode holders	-	2	-	-	56	Brass	5	094-009635-00000
10.03	Electrode holders	-	2.4	-	-	56	Brass	5	094-009636-00000
10.03	Electrode holders	-	3.2	-	-	56	Brass	5	094-009637-00000
10.03	Electrode holders	-	4	-	-	56	Brass	5	094-009638-00000
10.03	Electrode holders	-	4.8	-	-	56	Brass	5	094-009639-00000
10.04	Insulator	Standard	-	-	-	-	Teflon	10	094-011759-00000
10.07	Torch cap	-	-	-	-	-	-	1	094-010112-00000
20.01	Wire feed nozzle	-	-	-	0.6	-	-	1	094-010126-00000
20.01	Wire feed nozzle	-	-	-	0.8	-	-	1	094-010127-00000
20.01	Wire feed nozzle	-	-	-	1	-	-	1	094-010128-00000
20.01	Wire feed nozzle	-	-	-	1.2	-	-	1	094-010129-00000
20.01	Wire feed nozzle	-	-	-	1.6	-	-	1	094-010130-00000
-	Wire feed tube 0°	-	-	-	-	-	-	1	094-010123-00000
-	Wire feed tube 45°	-	-	-	-	-	-	1	094-010124-00000
-	Wire feed tube 70°/90°	-	-	-	-	-	-	1	094-010125-00000

Options/accessories

Accessories hot wire feed	Item no.
SP AWS TIG WH 1,0m Hot wire feed, complete	090-008794-00000
SP AWS TIG WH 1,2m Hot wire feed, complete	090-008794-00001

Torch accessories	Item no.
ZH TIG400 Ignition aid	094-010360-00000
RTN TIG 400W 0°/70° Adjusting device	094-017717-00000
RTN TIG 400W 45°/90° Adjusting device	094-017718-00000

Robot welding torches ■ TIG ROB 400W CW PP



TIG robot welding torch, water cooled, push/push

- Fast, safe, trouble-free
- With cold wire feed
- Pre-set tungsten electrode
- Reproducible torch position
- **Basic features:**
- 4 m hose package
- Straight torch neck
- Gas nozzle dia. = 10 mm L = 37 mm
- Gas lens dia. electrode = 2.4 mm
- Cold wire nozzle dia. = 1.0 mm
- Universal drive roll dia. = 1.0 mm

Duty cycle DC-
400 A / 100 %

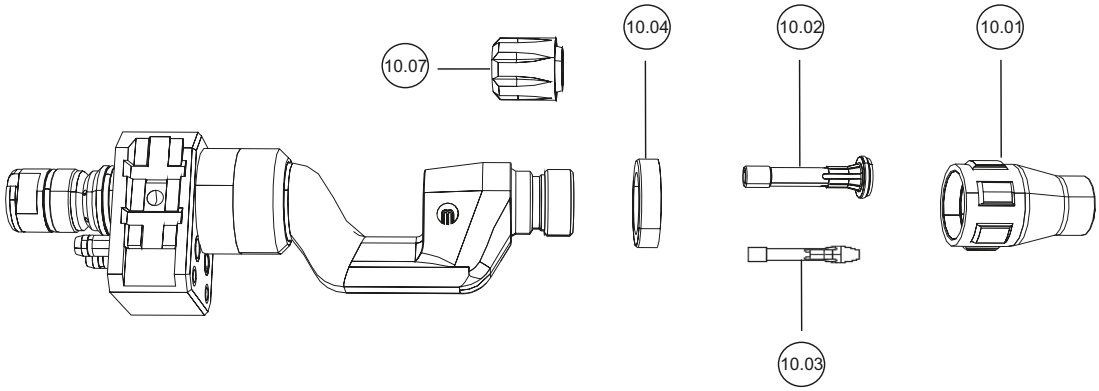
Duty cycle AC
280 A / 100 %

Electrode Ø
1.6 mm - 4.8 mm

Item	Type	Designation	Length m	Item no.
9	TIG ROB 400W CW PP IG3 4M	TIG welding torch, cold wire, water-cooled, push/push, complete	4.0	094-019639-00000
9.2	CLAMMPING HOLDER TIG WH	Clamping holder TIG ROB 400 W	-	094-010122-00000
9.3	TIG ROB 400W	TIG-MT torch body, straight		094-010109-00000
9.3	TIG ROB 400W 45	Torch body TIG-MT 45°		094-010116-00000
9.3	TIG ROB 400W 70	Torch body TIG-MT 70°		094-010117-00000
9.3	TIG ROB 400W 90	TIG-MT torch body, 90°		094-010119-00000
9.4	SPA TIG WH 4M	TIG ROB 400 W hose package	4.0	094-016058-00000
9.4	SPA TIG WH 6M		6.0	094-016058-00006
9.4	SPA TIG WH 8M		8.0	094-016058-00008
9.5	KD SUPPORT	Cold wire feed	-	094-016068-00000
9.6	PUSHPUSH DRIVE TIG WH IG3	Drive unit TIG ROB 400 W		094-019638-00000
-	Y-PART SLP	Y-piece, control cable assembly	–	094-016167-00000

▶ Only in combination with T Drive Rob 3

Consumables/Accessories



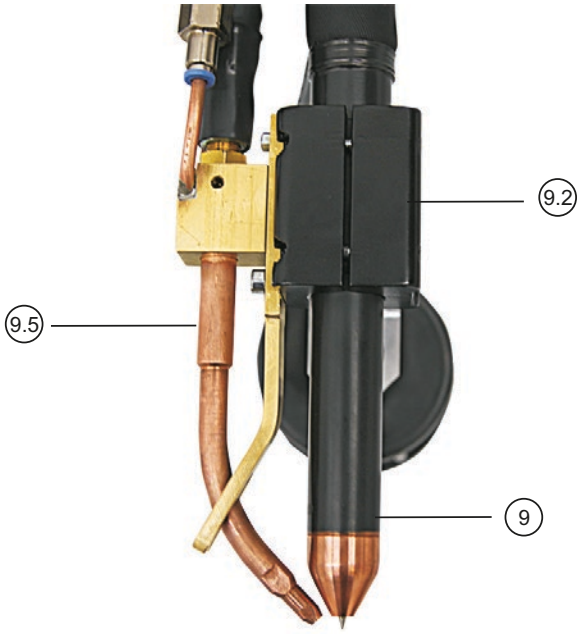
Item	Designation	Size	Electrode Ø	Nozzle Ø	Wire Ø	Length	Material	PU	Item no.
		mm	mm	mm	mm	mm		Units	
10.01	Gas nozzle	-	-	7.5	-	37	Ceramic	10	094-009646-00000
10.01	Gas nozzle	-	-	10	-	37	Ceramic	10	094-009647-00000
10.01	Gas nozzle	-	-	13	-	37	Ceramic	10	094-009648-00000
10.01	Gas nozzle	-	-	15	-	37	Ceramic	10	094-009649-00000
10.01	Gas nozzle, reinforced	-	-	13	-	37	Ceramic	10	094-011997-00000
10.01	Gas nozzle	-	-	7.5	-	52	Ceramic	10	094-009650-00000
10.01	Gas nozzle	-	-	10	-	52	Ceramic	10	094-009651-00000
10.01	Gas nozzle	-	-	13	-	52	Ceramic	10	094-009653-00000
10.01	Gas nozzle	-	-	15	-	52	Ceramic	10	094-009654-00000
10.02	Gas diffuser	-	1.6	-	-	48	Brass	2	094-009640-00000
10.02	Gas diffuser	-	2	-	-	48	Brass	2	094-009641-00000
10.02	Gas diffuser	-	2.4	-	-	48	Brass	2	094-009642-00000
10.02	Gas diffuser	-	3.2	-	-	48	Brass	2	094-009643-00000
10.02	Gas diffuser	-	4	-	-	48	Brass	2	094-009644-00000
10.02	Gas diffuser	-	4.8	-	-	48	Brass	2	094-009645-00000
10.03	Electrode holders	-	1.6	-	-	56	Brass	5	094-009634-00000
10.03	Electrode holders	-	2	-	-	56	Brass	5	094-009635-00000
10.03	Electrode holders	-	2.4	-	-	56	Brass	5	094-009636-00000
10.03	Electrode holders	-	3.2	-	-	56	Brass	5	094-009637-00000
10.03	Electrode holders	-	4	-	-	56	Brass	5	094-009638-00000
10.03	Electrode holders	-	4.8	-	-	56	Brass	5	094-009639-00000
10.04	Insulator	Standard	-	-	-	-	Teflon	10	094-011759-00000
10.07	Torch cap	-	-	-	-	-	-	1	094-010112-00000
20.01	Wire feed nozzle	-	-	-	0.6	-	-	1	094-010126-00000
20.01	Wire feed nozzle	-	-	-	0.8	-	-	1	094-010127-00000
20.01	Wire feed nozzle	-	-	-	1	-	-	1	094-010128-00000
20.01	Wire feed nozzle	-	-	-	1.2	-	-	1	094-010129-00000
20.01	Wire feed nozzle	-	-	-	1.6	-	-	1	094-010130-00000
-	Wire feed tube 0°	-	-	-	-	-	-	1	094-010123-00000
-	Wire feed tube 45°	-	-	-	-	-	-	1	094-010124-00000
-	Wire feed tube 70°/90°	-	-	-	-	-	-	1	094-010125-00000

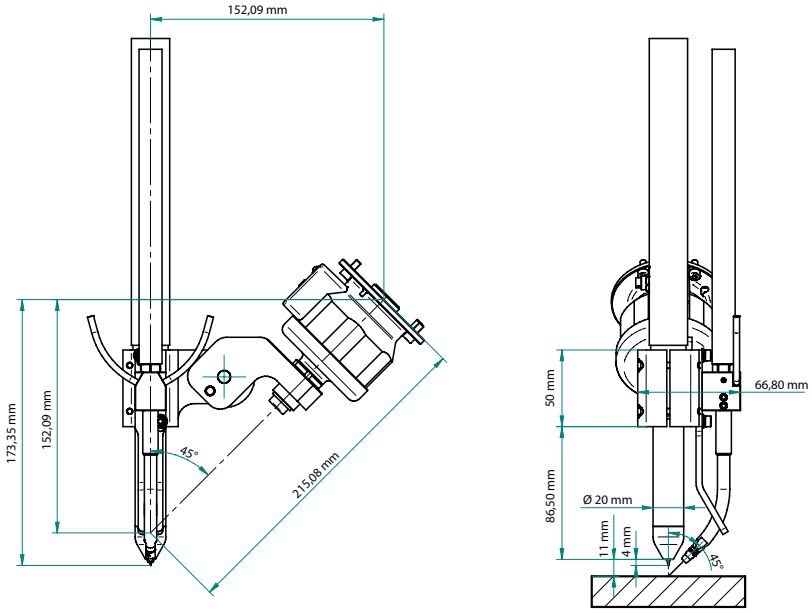
Options/accessories

Torch accessories	Item no.
ZH TIG400 Ignition aid	094-010360-00000
RTN TIG 400W 0°/70° Adjusting device	094-017717-00000
RTN TIG 400W 45°/90° Adjusting device	094-017718-00000

Drive rolls	Item no.
WFROLL UNI 0.6 Drive roll, universal (V-groove)	094-010191-00000
WFROLL UNI 0.8 Drive roll, universal (V-groove)	094-010192-00000
WFROLL UNI 0.9 Drive roll, universal (V-groove)	094-010193-00000
WFROLL UNI V 1.0 Drive roll, universal (V-groove)	094-010194-00500
WFROLL UNI V 1.2 Drive roll, universal (V-groove)	094-010195-00500
WFROLL UNI V 1.4 Drive roll, universal (V-groove)	094-010196-00500
WFROLL UNI V 1.6 Drive roll, universal (V-groove)	094-010197-00500

Robot welding torches ■ forceTig FT500W





High welding torch power

- Stable design for increased crash safety
- Closed cooling circuit
- Screw-in electrode, defined calibrated geometry when changing electrodes, i.e. no need to adjust with setting gauges at replacement time
- Available with or without additional wire feed
- Basic features: Gas diffuser, round cathode, 13 mm copper gas nozzle
- Hose package outlet upwards

Duty cycle DC-

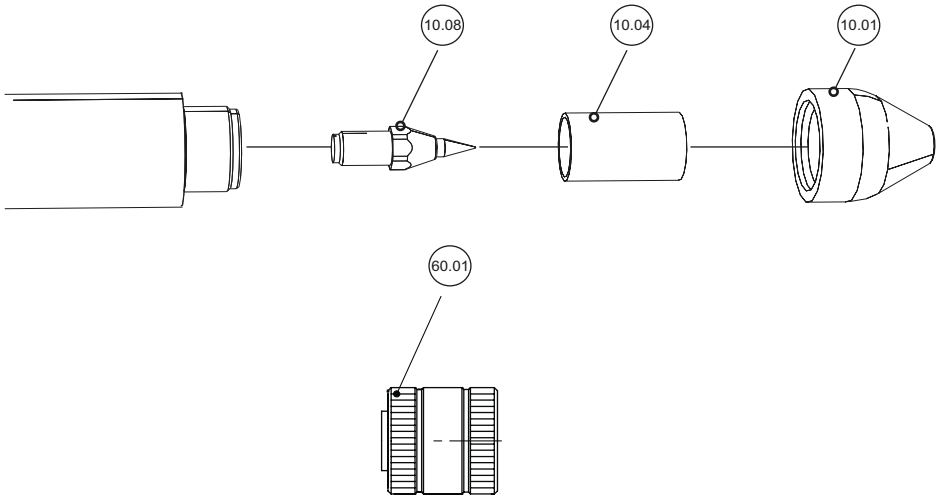
500 A / 100 %

Item	Type	Designation	Length m	Item no.		
9	FT 500W 5m	forceTig welding torch with hose package	5.0	094-020100-10000		
9€	FT 500W 8m		8.0	094-020100-10008		
9.2	BF FT500	Fixing flange	–	094-020874-00001	B2	
9.5	AWS FT500 1,5m	Wire support incl. BF FT500 torch holder	1.5	090-008799-00015		
9.5	AWS FT500 3m		3.0	090-008799-00000		
9.8	IA TIG 2K/1	Ignition aid	-	092-003836-00000	M1	

▶ Delivery of wire support 090-008799-xxxxx includes torch holder 094-020874-00001.

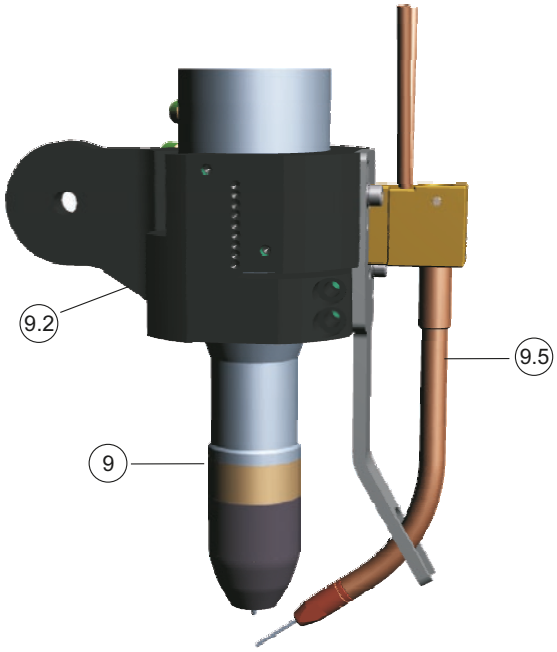
▶ See description/forceTig advantages from page 172.

Consumables/Accessories



Item	Designation	Nozzle Ø mm	Length mm	PU Units	Item no.		
10.01	Gas nozzle, copper	5	21.5	1	094-020619-00000		
10.01	Gas nozzle, copper	8	21.5	1	094-023968-00000		
10.01	Gas nozzle, copper	10	21.5	1	094-023969-00000		
10.04	Insulator / Diffusor	-	-	1	094-020620-00000		
10.08	Cathode, round	-	-	1	094-020618-00000		
60.01	Torch key	-	-	1	094-021232-00000		
-	Copper paste	-	-	1	094-017723-00001		

Robot welding torches ■ forceTig FT1000W



High welding torch power

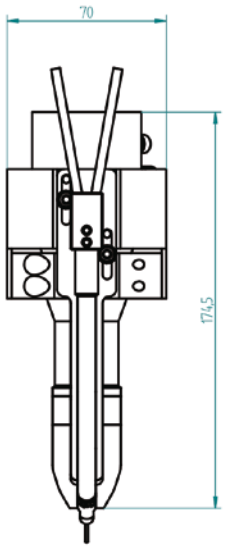
- Stable design for increased crash safety
- Closed cooling circuit
- Screw-in electrode, defined calibrated geometry when changing electrodes, i.e. no need to adjust with setting gauges at replacement time
- Available with or without additional wire feed
- Basic features: Gas diffuser, round cathode, 13 mm copper gas nozzle
- Hose package outlet on side

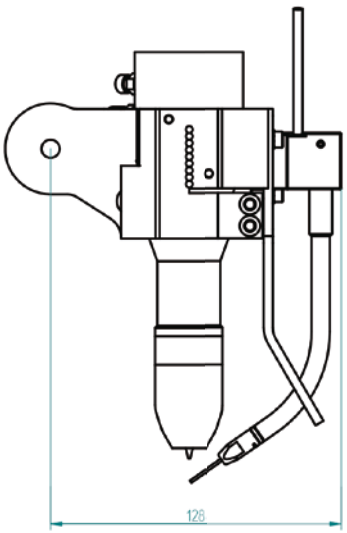
Duty cycle

800 A / 100 %

Load capacity

1000 A

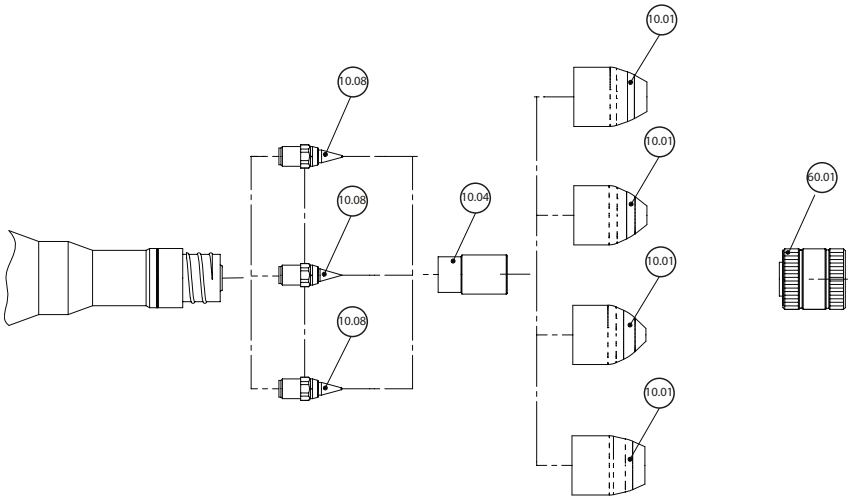




Item	Type	Designation	Length m	Item no.		
9	FT 1000W 1,5m	forceTig welding torch with hose package	1.5	094-019480-10001		
9	FT 1000W 5m		5.0	094-019480-10000		
9	FT 1000W 8m		8.0	094-019480-10008		
9	FT 1000W 12m		12.0	094-019480-10012		
9.2	BH FT RSA	Torch holder for forceTig welding torch on RSA collision sensor	-	094-022315-00000		
9.5	AWS FT1000 1,5m QCS	Wire support	1.5	090-008829-00015		
9.5	AWS FT1000 1,5m QCL			090-008830-00015		
9.5	AWS FT1000 1,5m DZA			090-008831-00015		
9.8	IA TIG 2K/1	Ignition aid	-	092-003836-00000	M1	

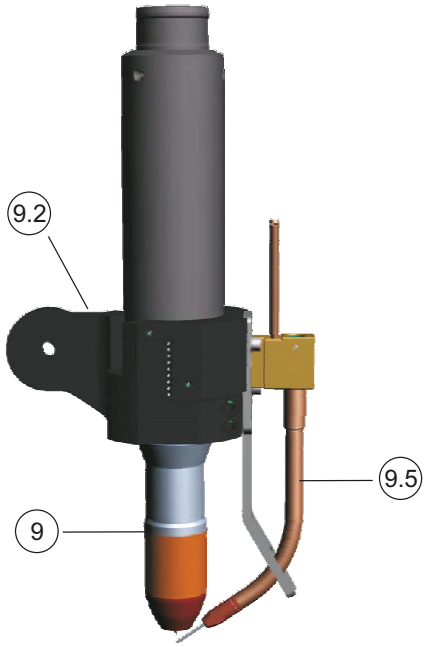
▶ Welding torch connections with a length of 1.5 m differ from those in 5 m, 8 m and 12 m lengths.
The appropriate media separation box must be ordered according to the welding torch, see forceTig media separation box chapter.
▶ See description/forceTig advantages from page 172.
▶ Wire support for mounting on BH FT RSA torch holder
▶ Other lengths available on request

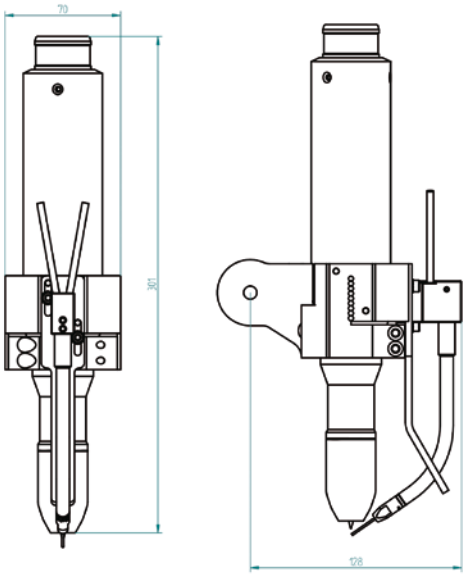
Consumables/Accessories



Item	Designation	Nozzle Ø mm	Length mm	PU Units	Item no.		
10.01	Gas nozzle, ceramic	12	37	1	094-016127-00001		
10.01	Gas nozzle, ceramic	16	37	1	094-021638-00000		
10.01	Gas nozzle, copper	5.5	37	1	094-019364-00000		
10.01	Gas nozzle, copper	8	37	1	094-015308-00000		
10.01	Gas nozzle, copper	13	37	1	094-015307-00000		
10.01	Gas nozzle, copper	16	37	1	094-019365-00000		
10.04	Gas diffuser and insulator	-	-	1	094-015306-00001		
10.08	Cathode, obtuse	6.4	-	1	094-015305-00002		
10.08	Cathode, pointed	6.4	-	1	094-015321-00001		
10.08	Cathode, round	6.4	-	1	094-021229-00000		
10.08	Cathode, round	6.4	-	1	094-021230-00000		
60.01	Torch key	-	-	1	094-021231-00000		
-	Copper paste	-	-	1	094-017723-00001		

Robot welding torches ■ forceTig FT1000W AX





High welding torch power

- Stable design for increased crash safety
- Closed cooling circuit
- Screw-in electrode, defined calibrated geometry when changing electrodes, i.e. no need to adjust with setting gauges at replacement time
- Available with or without additional wire feed
- Basic features: Gas diffuser, round cathode, 13 mm copper gas nozzle
- Hose package outlet upwards

Duty cycle

800 A / 100 %

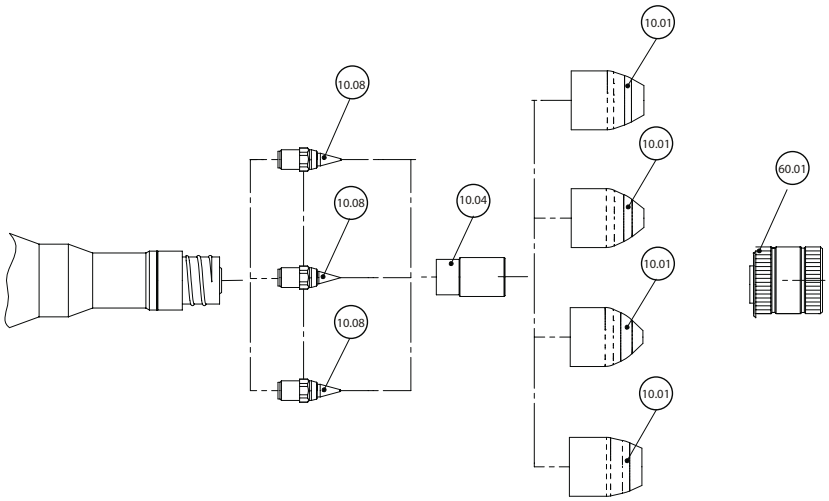
Load capacity

1000 A

Item	Type	Designation	Length m	Item no.		
9	FT1000W AX 1,5M	forceTig welding torch with hose package	1.5	094-020390-10000		
9	FT1000W AX 5M		5.0	094-020390-10005		
9	FT1000W AX 8M		8.0	094-020390-10008		
9	FT1000W AX 12M		12.0	094-020390-10012		
9.2	BH FT RSA	Torch holder for forceTig welding torch on RSA collision sensor	-	094-022315-00000		
9.5	AWS FT1000 1,5m QCS	Wire support	1.5	090-008829-00015		
9.5	AWS FT1000 1,5m QCL			090-008830-00015		
9.5	AWS FT1000 1,5m DZA			090-008831-00015		
9.8	IA TIG 2K/1	Ignition aid	-	092-003836-00000	M1	

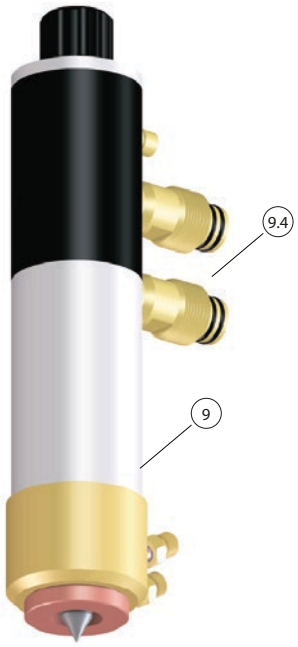
▶ See description/forceTig advantages from page XXX
▶ Welding torch connections with a length of 1.5 m differ from those in 5 m, 8 m and 12 m lengths.
The appropriate media separation box must be ordered according to the welding torch, see forceTig media separation box chapter.
▶ Wire support for mounting on BH FT RSA torch holder
▶ Other lengths available on request

Consumables/Accessories



Item	Designation	Nozzle Ø mm	Length mm	PU Units	Item no.
10.01	Gas nozzle, ceramic	12	37	1	094-016127-00001
10.01	Gas nozzle, ceramic	16	37	1	094-021638-00000
10.01	Gas nozzle, copper	5.5	37	1	094-019364-00000
10.01	Gas nozzle, copper	8	37	1	094-015308-00000
10.01	Gas nozzle, copper	13	37	1	094-015307-00000
10.01	Gas nozzle, copper	16	37	1	094-019365-00000
10.04	Gas diffuser and insulator	-	-	1	094-015306-00001
10.08	Cathode, obtuse	6.4	-	1	094-015305-00002
10.08	Cathode, pointed	6.4	-	1	094-015321-00001
10.08	Cathode, round	6.4	-	1	094-021229-00000
10.08	Cathode, round	6.4	-	1	094-021230-00000
60.01	Torch key	-	-	1	094-021231-00000
-	Copper paste	-	-	1	094-017723-00001

Robot welding torches ■ FT1002W



High-performance TIG automated welding torches

- Mechanised high-current welding
- Designed for continuous operation at highest loads
- Laminar shielding gas for optimal protection of weld seam
- Different electrode diameters make adapting to different welding tasks a breeze
- Hose package outlet on side, available in different lengths

Duty cycle

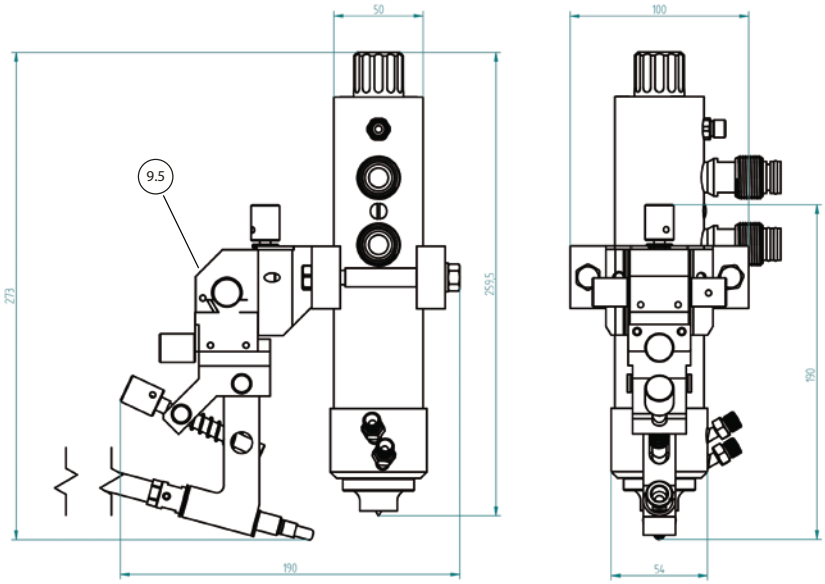
1000 A / 100 %

Electrode Ø

4 mm - 12 mm

Load capacity

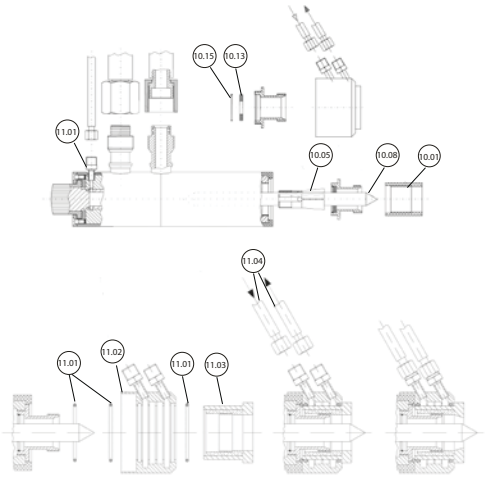
1000 A



Item	Type	Designation	Length m	Item no.
9	FT1002W	forceTig welding torch	-	094-026042-00000
9.4	SP W 1,5M	Hose package	1.5	094-025118-00015
9.4	SP W 3 M		3.0	094-025118-00000
9.4	SP W 5 M		5.0	094-025118-00005
9.4	SP W 8 M		8.0	094-025118-00008
9.5	AWS HW 4-AXIS 1,5M QC-L CRNI	4 axes support, hot wire, insulated setup, for T drive 4 Rob.2	1.5	094-S20614-04386
9.5	AWS HW 4-AXIS 3,0M QC-L CRNI		3.0	094-S20614-04373
9.5	AWS HW 4-AXIS 3,0M QC-S CRNI	4 axes support, hot wire, insulated setup, for T drive 4 Rob.3		094-S20614-04222
9.8	IA TIG 2K/1	Ignition aid	-	092-003836-00000
-	SWA G1/2	Power-water adapter		094-025135-00000
-	SWA M18x1,5			094-025134-00000

▶ Order welding torch fully equipped.
Hose package and power/water adapters are not included in the supply package and must be ordered separately!
Consumables and equipment parts are not included in the supply package and must be ordered based on the specific application!

Consumables/Accessories



Item	Designation	Electro-de Ø	Nozzle Ø	Inside Ø	Length	PU	Item no.		
		mm	mm	mm		Units			
10.01	Shielding gas nozzle	-	24	-	31 mm	1	094-025117-00000		
10.01	Shielding gas nozzle	-	19	-	48 mm	1	094-025120-00000		
10.01	Shielding gas nozzle	-	16	-	48 mm	1	094-025121-00000		
10.05	Collet chuck	-	-	4	-	1	394-007359-00000		
10.05	Collet chuck	-	-	6.4	-	1	094-025105-00000		
10.05	Collet chuck	-	-	8	-	1	094-025106-00000		
10.05	Collet chuck	-	-	10	-	1	094-025107-00000		
10.05	Collet chuck	-	-	12	-	1	094-025108-00000		
10.08	WP	4	-	-	175 mm	1	394-007360-00000		
10.08	WP	6.4	-	-	175 mm	1	094-025109-00000		
10.08	WP	8	-	-	175 mm	1	094-025110-00000		
10.08	WP	10	-	-	175 mm	1	094-025111-00000		
10.08	WP	12	-	-	175 mm	1	094-025112-00000		
10.13	Gas lens	-	-	4	-	1	394-007361-00000		
10.13	Gas lens	-	-	6.4	-	1	094-025113-00000		
10.13	Gas lens	-	-	8	-	1	094-025114-00000		
10.13	Gas lens	-	-	10	-	1	094-025115-00000		
10.13	Gas lens	-	-	12	-	1	094-025116-00000		
10.15	Circlip	-	-	-	-	1	394-009092-00000		
11.01	O-ring for water connection	-	-	-	-	1	394-009093-00000		
11.01	O-ring for collet chuck	-	-	-	-	1	394-009091-00000		
11.02	Shielding gas nozzle cooling	-	-	-	-	1	094-025122-00000		
11.03	Shielding gas nozzle insert	-	-	20	-	1	094-025124-00000		
11.03	Shielding gas nozzle insert	-	-	24	-	1	094-025123-00000		
11.04	Hose set for water-cooled gas nozzles, 4 m	-	-	-	4 m	1	094-025212-00000		
-	Electrode setting gauge	-	-	-	-	1	094-025119-00000		
-	Silicon paste for o-ring	-	-	-	-	1	094-013826-00000		
-	Gas nozzle holder	-	-	-	-	1	394-008415-00000		
-	Insulating disk	-	-	-	-	1	394-008416-00000		

Automated welding torches ■ TIG-MT 200G

Automated TIG welding torch, gas-cooled

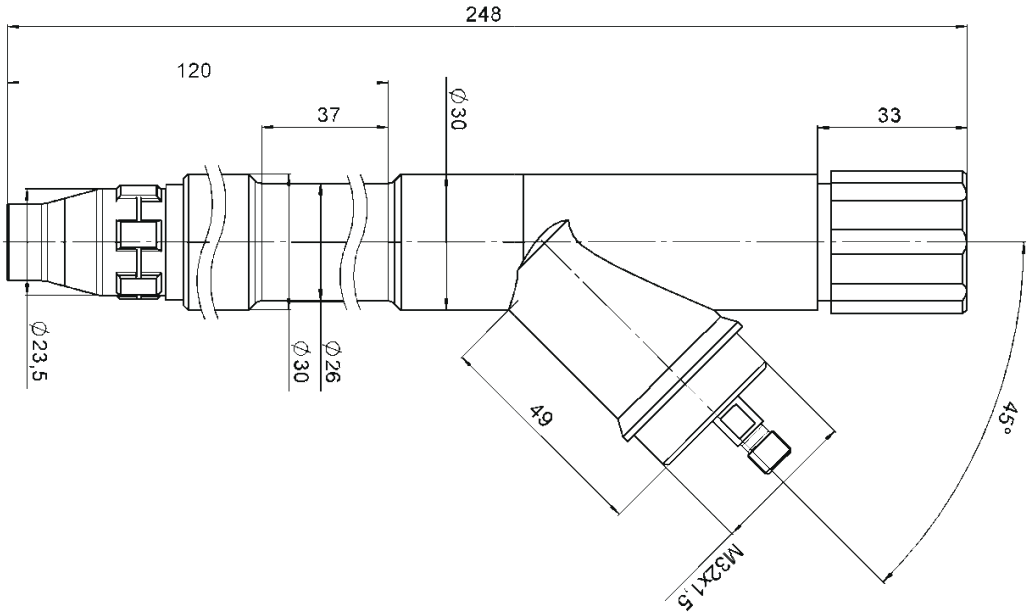
- Long service life thanks to best heat dissipation combined with smallest possible size
- Hose package outlet on side without risk of kinking
- Tungsten electrode can be adjusted from the rear

Duty cycle DC-
200 A / 60 %

Duty cycle AC
140 A / 60 %

Electrode Ø
1 mm - 4 mm

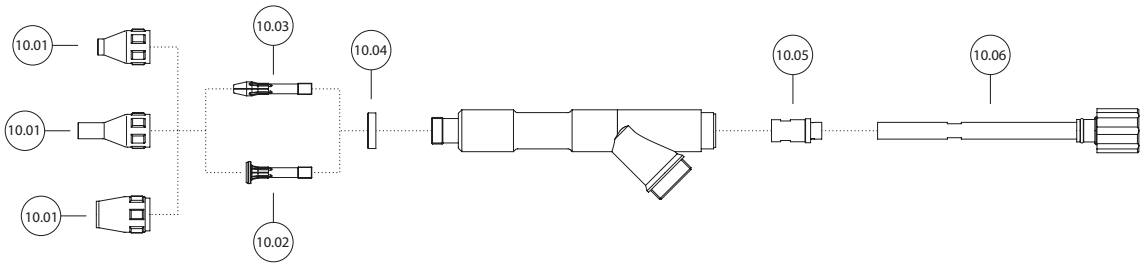
Connection
Decentral



Item	Type	Designation	Length m	Item no.		
9	TIG-MT 200G 3M	Automated TIG welding torch, gas-cooled	3.0	094-011708-00003		
9	TIG-MT 200G 4M		4.0	094-011708-00000		

▶ Please note: Consumables (gas nozzle, collet etc.) are not included in the scope of supply and must be ordered separately.
▶ Other lengths available on request

Consumables/Accessories



Item	Designation	Size in mm	Electro-de Ø	Nozzle Ø	Length	Material	PU	Item no.
			mm	mm	mm		Units	
10.01	Gas nozzle	-	-	7.5	37	Ceramic	10	094-009646-00000
10.01	Gas nozzle	-	-	10	37	Ceramic	10	094-009647-00000
10.01	Gas nozzle	-	-	13	37	Ceramic	10	094-009648-00000
10.01	Gas nozzle	-	-	15	37	Ceramic	10	094-009649-00000
10.01	Gas nozzle, reinforced	-	-	13	37	Ceramic	10	094-011997-00000
10.01	Gas nozzle, reinforced	-	-	15	37	Ceramic	10	094-011998-00000
10.01	Gas nozzle	-	-	7.5	52	Ceramic	10	094-009650-00000
10.01	Gas nozzle	-	-	10	52	Ceramic	10	094-009651-00000
10.01	Gas nozzle	-	-	13	52	Ceramic	10	094-009653-00000
10.01	Gas nozzle	-	-	15	52	Ceramic	10	094-009654-00000
10.02	Gas diffuser	-	1.6	-	48	Brass	2	094-009640-00000
10.02	Gas diffuser	-	2	-	48	Brass	2	094-009641-00000
10.02	Gas diffuser	-	2.4	-	48	Brass	2	094-009642-00000
10.02	Gas diffuser	-	3.2	-	48	Brass	2	094-009643-00000
10.02	Gas diffuser	-	4	-	48	Brass	2	094-009644-00000
10.02	Gas diffuser	-	4.8	-	48	Brass	2	094-009645-00000
10.02	Gas diffuser, multi-layer	-	1.6	-	51	Brass	2	094-023018-00000
10.02	Gas diffuser, multi-layer	-	2.4	-	51	Brass	2	094-004969-00000
10.02	Gas diffuser, multi-layer	-	3.2	-	51	Brass	2	094-006255-00000
10.03	Electrode holders	-	1.6	-	56	Brass	5	094-009634-00000
10.03	Electrode holders	-	2	-	56	Brass	5	094-009635-00000
10.03	Electrode holders	-	2.4	-	56	Brass	5	094-009636-00000
10.03	Electrode holders	-	3.2	-	56	Brass	5	094-009637-00000
10.03	Electrode holders	-	4	-	56	Brass	5	094-009638-00000
10.03	Electrode holders	-	4.8	-	56	Brass	5	094-009639-00000
10.04	Insulator	Standard	-	-	-	Teflon	10	094-011759-00000
10.05	Mount for guide tube	-	-	-	-	-	1	094-020286-00000
10.06	Guide tube	-	-	-	-	-	1	094-020285-00000

Options/accessories

Torch accessories		Item no.
Torch holder suitable for TIG-MT 200G/300W		
TH MT-26		094-013690-00000
TH MT-30		094-013691-00000

Automated welding torches ■ TIG-MT 300W

Automated TIG welding torch, water-cooled

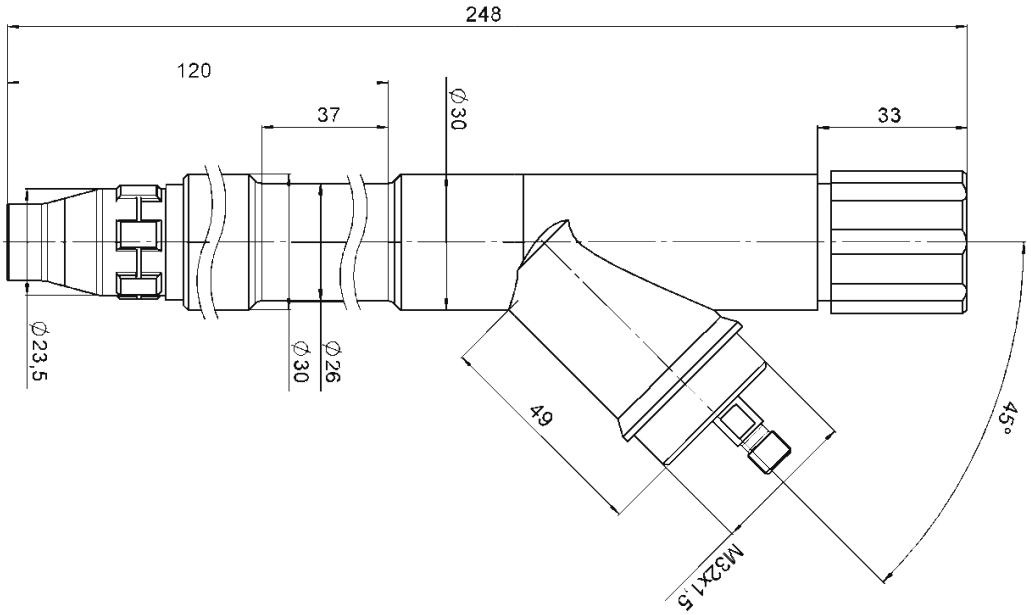
- Long service life thanks to best heat dissipation combined with smallest possible size
- Hose package outlet on side without risk of kinking
- Tungsten electrode can be adjusted from the rear

Duty cycle DC-
300 A / 100 %

Duty cycle AC
210 A / 100 %

Electrode Ø
1.6 mm - 4.8 mm

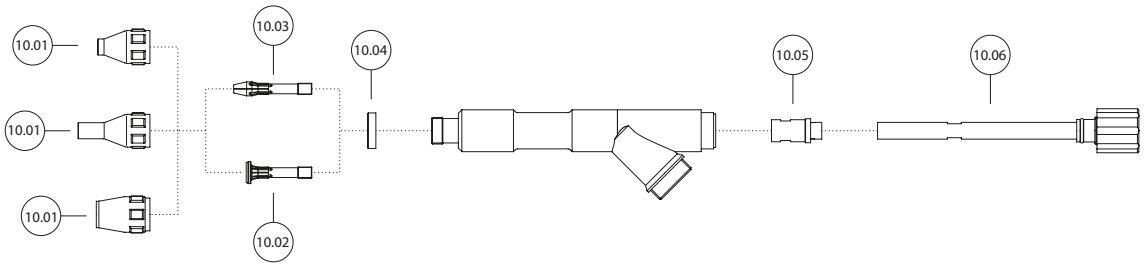
Connection
Decentral



Item	Type	Designation	Length m	Item no.
9	TIG-MT 300W 3M	Automated TIG welding torch, water-cooled	3.0	094-011709-00000
9	TIG-MT 300W 4M		4.0	094-011709-00004
9	TIG-MT 300W 8M		8.0	094-011709-00008

▶ Please note: Consumables (gas nozzle, collet etc.) are not included in the scope of supply and must be ordered separately.
▶ Other lengths available on request

Consumables/Accessories



Item	Designation	Size in mm	Electro-de Ø	Nozzle Ø	Length	Material	PU	Item no.
			mm	mm	mm		Units	
10.01	Gas nozzle	-	-	7.5	37	Ceramic	10	094-009646-00000
10.01	Gas nozzle	-	-	10	37	Ceramic	10	094-009647-00000
10.01	Gas nozzle	-	-	13	37	Ceramic	10	094-009648-00000
10.01	Gas nozzle	-	-	15	37	Ceramic	10	094-009649-00000
10.01	Gas nozzle, reinforced	-	-	13	37	Ceramic	10	094-011997-00000
10.01	Gas nozzle, reinforced	-	-	15	37	Ceramic	10	094-011998-00000
10.01	Gas nozzle	-	-	7.5	52	Ceramic	10	094-009650-00000
10.01	Gas nozzle	-	-	10	52	Ceramic	10	094-009651-00000
10.01	Gas nozzle	-	-	13	52	Ceramic	10	094-009653-00000
10.01	Gas nozzle	-	-	15	52	Ceramic	10	094-009654-00000
10.02	Gas diffuser	-	1.6	-	48	Brass	2	094-009640-00000
10.02	Gas diffuser	-	2.4	-	48	Brass	2	094-009642-00000
10.02	Gas diffuser	-	3.2	-	48	Brass	2	094-009643-00000
10.02	Gas diffuser	-	4	-	48	Brass	2	094-009644-00000
10.02	Gas diffuser	-	4.8	-	48	Brass	2	094-009645-00000
10.02	Gas diffuser, multi-layer	-	1.6	-	51	Brass	2	094-023018-00000
10.02	Gas diffuser, multi-layer	-	2.4	-	51	Brass	2	094-004969-00000
10.02	Gas diffuser, multi-layer	-	3.2	-	51	Brass	2	094-006255-00000
10.03	Electrode holders	-	1.6	-	56	Brass	5	094-009634-00000
10.03	Electrode holders	-	2	-	56	Brass	5	094-009635-00000
10.03	Electrode holders	-	2.4	-	56	Brass	5	094-009636-00000
10.03	Electrode holders	-	3.2	-	56	Brass	5	094-009637-00000
10.03	Electrode holders	-	4	-	56	Brass	5	094-009638-00000
10.03	Electrode holders	-	4.8	-	56	Brass	5	094-009639-00000
10.04	Insulator	Standard	-	-	-	Teflon	10	094-011759-00000
10.05	Mount for guide tube	-	-	-	-	-	1	094-020286-00000
10.06	Guide tube	-	-	-	-	-	1	094-020285-00000

Options/accessories

Torch accessories		Item no.
Torch holder suitable for TIG-MT 200G/300W		
TH MT-26		094-013690-00000
TH MT-30		094-013691-00000

Automated welding torches ■ TIG-MT 400W

Automated TIG welding torch, water-cooled

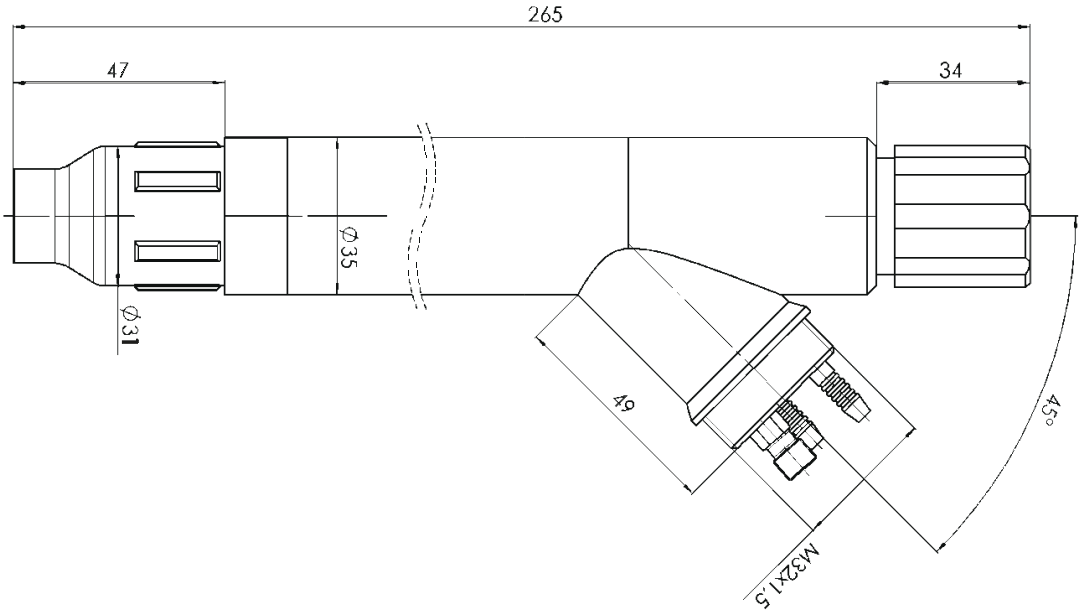
- Long service life thanks to best heat dissipation combined with smallest possible size
- Hose package outlet on side without risk of kinking
- Tungsten electrode can be adjusted from the rear
- Excellent accessibility with optimum performance

Duty cycle DC-
400 A / 100 %

Duty cycle AC
280 A / 100 %

Electrode Ø
1.6 mm - 4.8 mm

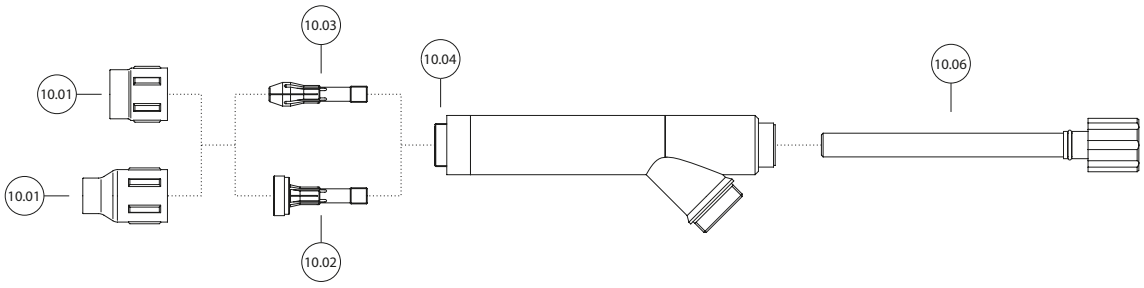
Connection
Decentral



Item	Type	Designation	Length m	Item no.		
9	TIG-MT 400W 3M	Automated TIG welding torch, water-cooled	3.0	094-022417-00003		
9	TIG-MT 400W 4M		4.0	094-022417-00004		

▶ Please note: Consumables (gas nozzle, collet etc.) are not included in the scope of supply and must be ordered separately.
▶ Other lengths available on request

Consumables/Accessories



Item	Designation	Electro-de Ø	Nozzle Ø	Length	Material	PU	Item no.
		mm	mm	mm		Units	
-	Guide tube	-	-	-	-	1	094-022418-00000
10.01	Gas nozzle	-	7.5	37	Ceramic	10	094-009646-00000
10.01	Gas nozzle	-	10	37	Ceramic	10	094-009647-00000
10.01	Gas nozzle	-	13	37	Ceramic	10	094-009648-00000
10.01	Gas nozzle	-	15	37	Ceramic	10	094-009649-00000
10.01	Gas nozzle, reinforced	-	13	37	Ceramic	10	094-011997-00000
10.01	Gas nozzle, reinforced	-	15	37	Ceramic	10	094-011998-00000
10.01	Gas nozzle	-	7.5	52	Ceramic	10	094-009650-00000
10.01	Gas nozzle	-	10	52	Ceramic	10	094-009651-00000
10.01	Gas nozzle	-	13	52	Ceramic	10	094-009653-00000
10.01	Gas nozzle	-	15	52	Ceramic	10	094-009654-00000
10.02	Gas diffuser	1.6	-	48	Brass	2	094-009640-00000
10.02	Gas diffuser	2	-	48	Brass	2	094-009641-00000
10.02	Gas diffuser	2.4	-	48	Brass	2	094-009642-00000
10.02	Gas diffuser	3.2	-	48	Brass	2	094-009643-00000
10.02	Gas diffuser	4	-	48	Brass	2	094-009644-00000
10.02	Gas diffuser	4.8	-	48	Brass	2	094-009645-00000
10.03	Electrode holders	1.6	-	56	Brass	5	094-009634-00000
10.03	Electrode holders	2	-	56	Brass	5	094-009635-00000
10.03	Electrode holders	2.4	-	56	Brass	5	094-009636-00000
10.03	Electrode holders	3.2	-	56	Brass	5	094-009637-00000
10.03	Electrode holders	4	-	56	Brass	5	094-009638-00000
10.03	Electrode holders	4.8	-	56	Brass	5	094-009639-00000
10.04	Insulator	-	-	-	-	1	094-022419-00000

Options/accessories

Torch accessories		Item no.
TH MT-25 Torch holder suitable for TIG-MT 400 W		094-013869-00000

Automated welding torches ■ TIG-MT 500W

Automated TIG welding torch, water-cooled

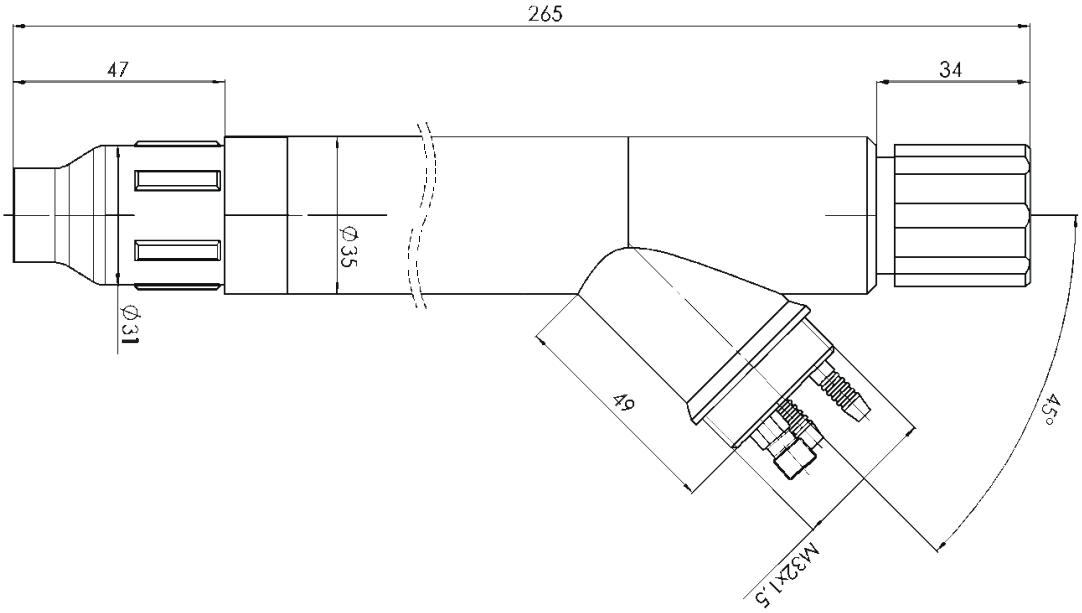
- Long service life thanks to best heat dissipation combined with smallest possible size
- Hose package outlet on side without risk of kinking
- Tungsten electrode can be adjusted from the rear

Duty cycle DC-
500 A / 100 %

Duty cycle AC
350 A / 100 %

Electrode Ø
1.6 mm - 6.4 mm

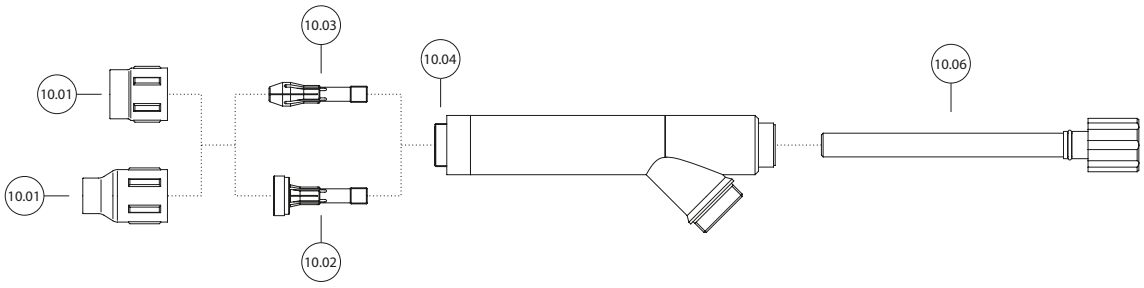
Connection
Decentral



Item	Type	Designation	Length m	Item no.		
9	TIG-MT 500W 1M	Automated TIG welding torch, water-cooled	1.0	094-013706-00001		
9	TIG-MT 500W 2M		2.0	094-013706-00002		
9	TIG-MT 500W 3M		3.0	094-013706-00003		
9	TIG-MT 500W 4M		4.0	094-013706-00000		
9	TIG-MT 500W 8M		8.0	094-013706-00008		

▶ Please note: Consumables (gas nozzle, collet etc.) are not included in the scope of supply and must be ordered separately.
▶ Other lengths available on request

Consumables/Accessories



Item	Designation	Electro-de Ø	Nozzle Ø	Wire Ø	Length	Material	PU	Item no.		PE	
		mm	mm	mm	mm						
-	Collet with gas lens	-	-	-	-	-		094-017224-00000		-	
10.01	Gas nozzle for gas diffuser, JUMBO	-	24	-	34	Ceramic	10 Units	094-011999-00000		Per unit	
10.01	Gas nozzle for gas diffuser, JUMBO	-	12.5	-	50	Ceramic	10 Units	094-009663-00000		Per unit	
10.01	Gas nozzle for gas diffuser, JUMBO	-	16	-	50	Ceramic	10 Units	094-009664-00000		Per unit	
10.01	Gas nozzle for gas diffuser, JUMBO	-	19.5	-	50	Ceramic	10 Units	094-009665-00000		Per unit	
10.02	Gas diffuser	1.6	-	-	-	-	1 Units	094-017223-00000		per rl	
10.02	Gas diffuser	2.4	-	-	-	-	1 Units	094-017225-00000		per rl	
10.02	Gas diffuser	3.2	-	-	-	-	1 Units	094-017226-00000		per rl	
10.02	Gas diffuser	4	-	-	-	-	1 Units	094-017227-00000		per rl	
10.02	Gas diffuser	4.8	-	-	-	-	1 Units	094-013753-00000		per rl	
10.02	Gas diffuser	6.4	-	-	-	-	1 Units	094-017228-00000		per rl	
10.03	Electrode holders	1.6	-	-	-	-	1 Units	094-017218-00000		Per unit	
10.03	Electrode holders	2.4	-	-	-	-	1 Units	094-017220-00000		Per unit	
10.03	Electrode holders	3.2	-	-	-	-	1 Units	094-017221-00000		Per unit	
10.03	Electrode holders	4	-	-	-	-	1 Units	094-017222-00000		Per unit	
10.03	Electrode holders	4.8	-	-	-	-	1 Units	094-013752-00000		Per unit	
10.03	Electrode holders	6.4	-	-	-	-	1 Units	094-013754-00000		Per unit	
10.04	Insulator	-	-	-	-	-	1 Units	094-017229-00000		Per unit	
10.06	Guide tube	-	-	-	-	-	1 Units	094-017217-00000		Per unit	
20.01	Wire feed nozzle	-	-	0.8	-	-	1 Units	094-010127-00000		Per unit	
20.01	Wire feed nozzle	-	-	1	-	-	1 Units	094-010128-00000		Per unit	
20.01	Wire feed nozzle	-	-	1.2	-	-	1 Units	094-010129-00000		Per unit	
20.01	Wire feed nozzle	-	-	1.6	-	-	1 Units	094-010130-00000		Per unit	

Options/accessories

Cold wire feed accessories		Item no.
KDZ KPL TIG-MT 500 Cold wire feed, complete		094-021754-00000
ZFR WH400 0° Wire feed tube 0°		094-010123-00000
ZFR MT500W Wire feed tube		094-021755-00000
LCT 2.0mm x 4.0mm 4m Combined liner, carbon Teflon		094-001247-00000
PAL 2,0/4,0 D1,0-1,3 4M Polyamide liner		094-001283-00000

Torch accessories		Item no.
TH MT-35 Torch holder suitable for TIG-MT 500W		094-013868-00000

Electrodes

Item	Designation	Electro-de Ø	Length	Material	PU	Item no.		PE	
		mm	mm						
10.08	Tungsten electrode, green	1	175	Pure tungsten 99.9%	10 Units	094-001593-00000		Per unit	
10.08	Tungsten electrode, green	1.6	175	Pure tungsten 99.9%	10 Units	094-001008-00000		Per unit	
10.08	Tungsten electrode, green	2	175	Pure tungsten 99.9%	10 Units	094-001594-00000		Per unit	
10.08	Tungsten electrode, green	2.4	175	Pure tungsten 99.9%	10 Units	094-001009-00000		Per unit	
10.08	Tungsten electrode, green	3.2	175	Pure tungsten 99.9%	10 Units	094-001010-00000		Per unit	
10.08	Tungsten electrode, green	4	175	Pure tungsten 99.9%	10 Units	094-001011-00000		Per unit	
10.08	Tungsten electrode, green	4.8	175	Pure tungsten 99.9%	10 Units	094-001595-00000		Per unit	
10.08	Tungsten electrode, red	1	175	< 2% ThO2	10 Units	094-001377-00000		Per unit	
10.08	Tungsten electrode, red	1.6	175	< 2% ThO2	10 Units	094-001000-00000		Per unit	
10.08	Tungsten electrode, red	2	175	< 2% ThO2	10 Units	094-001378-00000		Per unit	
10.08	Tungsten electrode, red	2.4	175	< 2% ThO2	10 Units	094-001001-00000		Per unit	
10.08	Tungsten electrode, red	3.2	175	< 2% ThO2	10 Units	094-001002-00000		Per unit	
10.08	Tungsten electrode, red	4	175	< 2% ThO2	10 Units	094-001003-00000		Per unit	
10.08	Tungsten electrode, red	4.8	175	< 2% ThO2	10 Units	094-001379-00000		Per unit	
10.08	Tungsten electrode, grey	1	175	< 2% CeO2	10 Units	094-001380-00000		Per unit	
10.08	Tungsten electrode, grey	1.6	175	< 2% CeO2	10 Units	094-001004-00000		Per unit	
10.08	Tungsten electrode, grey	2	175	< 2% CeO2	10 Units	094-001381-00000		Per unit	
10.08	Tungsten electrode, grey	2.4	175	< 2% CeO2	10 Units	094-001005-00000		Per unit	
10.08	Tungsten electrode, grey	3.2	175	< 2% CeO2	10 Units	094-001006-00000		Per unit	
10.08	Tungsten electrode, grey	4	175	< 2% CeO2	10 Units	094-001007-00000		Per unit	
10.08	Tungsten electrode, grey	4.8	175	< 2% CeO2	10 Units	094-001382-00000		Per unit	
10.08	Tungsten electrode, blue	1	175	< 2% La2O3	10 Units	094-012958-00000		Per unit	
10.08	Tungsten electrode, blue	1.6	175	< 2% La2O3	10 Units	094-001915-00000		Per unit	
10.08	Tungsten electrode, blue	2	175	< 2% La2O3	10 Units	094-012960-00000		Per unit	
10.08	Tungsten electrode, blue	2.4	175	< 2% La2O3	10 Units	094-001916-00000		Per unit	
10.08	Tungsten electrode, blue	3.2	175	< 2% La2O3	10 Units	094-001917-00000		Per unit	
10.08	Tungsten electrode, blue	4	175	< 2% La2O3	10 Units	094-012961-00000		Per unit	
10.08	Tungsten electrode, blue	4.8	175	< 2% La2O3	10 Units	094-001918-00000		Per unit	
10.08	Tungsten electrode, gold	1	175	< 1,5% La2O3	10 Units	094-009446-00000		Per unit	
10.08	Tungsten electrode, gold	1.6	175	< 1,5% La2O3	10 Units	094-009447-00000		Per unit	
10.08	Tungsten electrode, gold	2	175	< 1,5% La2O3	10 Units	094-012962-00000		Per unit	
10.08	Tungsten electrode, gold	2.4	175	< 1,5% La2O3	10 Units	094-009276-00000		Per unit	
10.08	Tungsten electrode, gold	3.2	175	< 1,5% La2O3	10 Units	094-009527-00000		Per unit	
10.08	Tungsten electrode, gold	4	175	< 1,5% La2O3	10 Units	094-009528-00000		Per unit	
10.08	Tungsten electrode, gold	4.8	175	< 1,5% La2O3	10 Units	094-009529-00000		Per unit	
10.08	Tungsten electrode, purple	1	175	< 2% rare earths	10 Units	094-019691-00000		Per unit	
10.08	Tungsten electrode, purple	1.6	175	< 2% rare earths	10 Units	094-019692-00000		Per unit	
10.08	Tungsten electrode, purple	2	175	< 2% rare earths	10 Units	094-019693-00000		Per unit	
10.08	Tungsten electrode, purple	2.4	175	< 2% rare earths	10 Units	094-019694-00000		Per unit	
10.08	Tungsten electrode, purple	3.2	175	< 2% rare earths	10 Units	094-019695-00000		Per unit	
10.08	Tungsten electrode, purple	4	175	< 2% rare earths	10 Units	094-019696-00000		Per unit	

Tungsten electrode grinders ■ Porta & Handy

- Portable tungsten electrode grinder
- For use at the welding site
- Simple operation, high efficiency and quality
- Diamond disk grinding surface can be used at three positions
- 99.9% of grinding dust is captured
- **Scope of supply:** Transport case; electrode holder; collet chucks for 1.6 mm, 2.4 mm and 3.2 mm electrodes; Allen keys (4 mm and 8 mm); open-ended spanners (13/17 and 13/14); disposal bag for disposable filters; operating instructions

Rotational speed	8000 U/min - 22000 U/min
Grinding angle	15 ° - 180 °
Diamond disc diameter	40 mm
Electrode Ø	0.8 mm - 4 mm
Weight	2.5 kg
Protection classification	IP 21
Standards	DIN 8575
Version	1 x 230 V / 50 Hz
Approvals	CE

Type	Designation	Item no.		
TGM 40230 Handy	Portable tungsten electrode grinder	098-003412-00500		

Tungsten electrode grinders ■ Porta & Handy

- Stationary tungsten electrode grinder
- Simple operation, high efficiency and quality
- Wet grinding for optimum grinding quality and long service life of the diamond disk
- 100% of grinding dust is captured
- **Scope of supply:** 2 m mains cable; 250 ml grinding liquid; diamond disc; collet chucks (1.6 mm–3.2 mm); electrode holder

Rotational speed	8500 U/min
Grinding angle	7.5 ° - 90 °
Weight	9.3 kg
Protection classification	IP 21
Standards	EN 61029
Approvals	CE

Type	Designation	Item no.
TGM 40230 Porta 230V 50Hz	Stationary tungsten electrode grinder	098-003694-00000

Options/accessories

Accessories	Item no.
DG Porta Diamond grinding disk for EWM tungsten electrode grinder Porta	098-003695-00000

Overview

TIG automation			Page
Additional wire	TIG/plasma	AW Support cold wire	282
		AW support hot wire	284

TIG/plasma filler wire support

Determining item numbers for cold and hot wire feeds

An item code is required for ordering cold and hot wire supports, which forms the last five positions in the item number. This is formulated according to the configuration of the support.

Filler wire support code Basic item number: 094-0020614-**ABCDD**

Position in item number	Code	Description	Matching connection
A	**0**	Cold wire	
	1	Hot wire	
B	**0**	T drive 4 Rob.2	Quick Connect L
	1	T drive 4 Rob.3	Quick Connect S
	2	Tetrix drive 4L/tigSpeed drive 45/tigSpeed drive 4 Rob	Dinse connector
C	**0**	Steel design	
	1	Stainless steel design	
	2	Aluminium design	
DD	**10–40**	Indication of the length	

Configuration examples:

Cold wire support, T drive 4 Rob.2, steel, 3 metres/092-020614-00030

Position in item number	Code	Description
A	**0**	Cold wire
B	**0**	T drive 4 Rob.2
C	**0**	Steel design
DD	**30**	3 metres
094-0020614- **00030**		**End number**

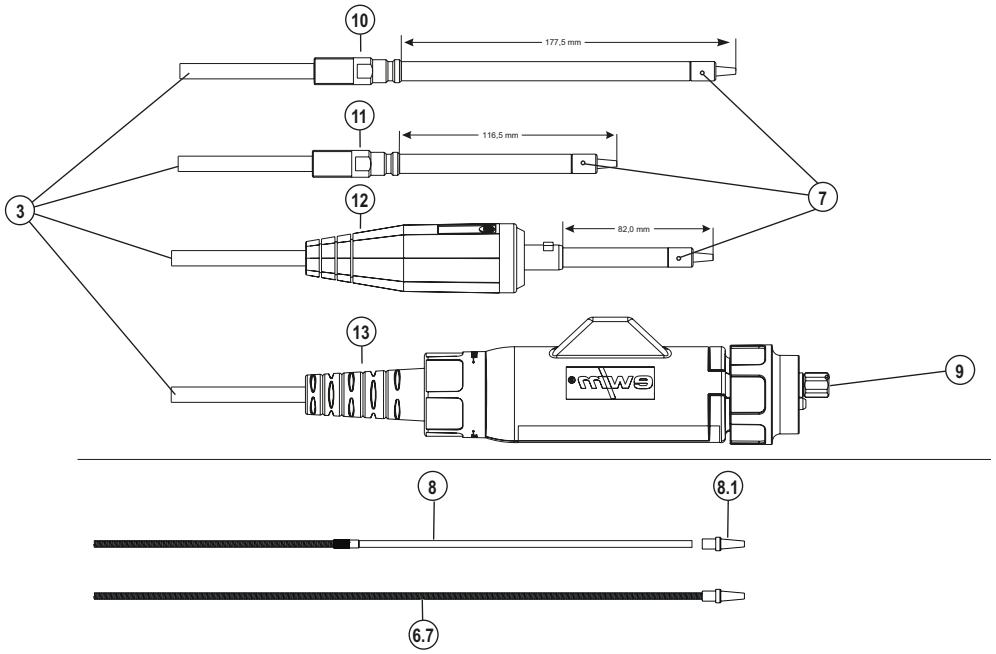
Hot wire support, T drive 4 Rob.3, stainless steel, 1.5 metres/092-020614-11115

Position in item number	Code	Description
A	**1**	Hot wire
B	**1**	T drive 4 Rob.3
C	**1**	Stainless steel design
DD	**15**	1.5 metres
094-020614 **- 11115**		**End number**

Wire feed lengths currently available: 1.5 m, 3 m, 4 m = DD 15, 30, 40

- Other lengths available on request
- Can be used in virtually all standard TIG automated welding torches

Cold wire feeds



Wire feed for automated cold wire applications (TIG/plasma)

- Wire feed individually adjustable for each process
- Compatible with EMW cold wire support
- The wire feed can be reduced to the required length

▶ Equipment parts, such as liners and inlet guides, are not part of the scope of supply and must be ordered based on the specific application!

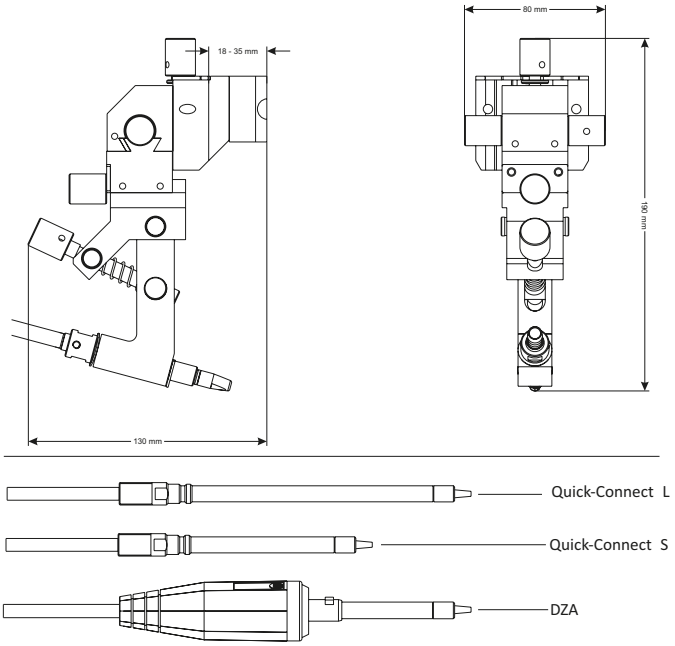
▶ Order the right wire feed for the wire feeder used!

Item	Connection	Description	Length	Item no.
10	Quick Connect L	Cold wire feed, for T drive 4 Rob 2	4 m	094-020613-00000
11	Quick Connect S	Cold wire feed, for T drive 4 Rob 3		094-020613-00001
12	Dinse connector	Cold wire feed, for tigSpeed		094-020613-00002
13	Euro torch connector	Cold wire feed, Euro torch connector		094-020613-00003

Replacement parts

Item	Description	Wire Ø	Inside Ø	Outside Ø	Length	Material	Pr. U	VE	Item no.
		mm	mm	mm	m			Pc.	
3	Wire transport hose	-	-	-	1	-	per m.	1	094-017104-00000
6.7	Steel liner	-	1.5	3.3	3.5	Steel	per pc.	1	092-018695-00003
6.7	Steel liner	-	1.5	3.3	4.5	Steel		1	092-018695-00004
6.7	Steel liner	-	2	4	3.5	Steel		1	092-018693-00003
6.7	Steel liner	-	2	4	4.5	Steel		1	092-018693-00004
6.7	Steel liner, stainless steel	-	1.5	3.3	3.5	CrNi		1	092-018696-00003
6.7	Steel liner, stainless steel	-	1.5	3.3	4.5	CrNi		1	092-018696-00004
6.7	Steel liner, stainless steel	-	2	4	3.5	CrNi		1	092-018694-00003
6.7	Steel liner, stainless steel	-	2	4	4.5	CrNi		1	092-018694-00004
6.7	Steel liner, brass	-	2	4	3.5	Brass		1	092-018697-00003
6.7	Steel liner, brass	-	2	4	4.5	Brass		1	092-018697-00004
7	Crown nut	-	-	-	-	-		10	094-015563-00001
8	Combined liner, PA	1.2–1.6	2	4	3	PA		1	094-013076-00000
8	Combined liner, PA	1.2–1.6	2	4	4	PA		1	094-013077-00000
8	Combined liner, PA	1.2–1.6	2	4	5	PA		1	094-013565-00000
8	Combined liner, Teflon	0.8–1.2	1.5	4	3	Teflon		1	094-013800-00000
8	Combined liner, Teflon	0.8–1.2	1.5	4	4	Teflon		1	094-013800-00004
8	Combined liner, Teflon	0.8–1.2	1.5	4	5	Teflon		1	094-013800-00005
8	Combined liner, Teflon	1–1.2	2	4	3	Teflon		1	094-013801-00000
8	Combined liner, Teflon	1–1.2	2	4	4	Teflon		1	094-013801-00004
8	Combined liner, Teflon	1.2 - 1.6	2	4	5	Teflon		1	094-013801-00005
8	Combined liner, carbon Teflon	0.8–1.2	1.5	4	3	Carbon Teflon		1	094-013871-00000
8	Combined liner, carbon Teflon	0.8–1.2	1.5	4	4	Carbon Teflon		1	094-013871-00004
8	Combined liner, carbon Teflon	1.2–1.6	2	4	3	Carbon Teflon		1	094-013828-00000
8	Combined liner, carbon Teflon	1.2–1.6	2	4	4	Carbon Teflon		1	094-013828-00004
8.1	Inlet guide, liner	-	-	-	-	-		2	094-014032-00001
9	Hexagonal nut	-	-	-	-	-		10	094-001080-00000

TIG/plasma ■ AW Support cold wire



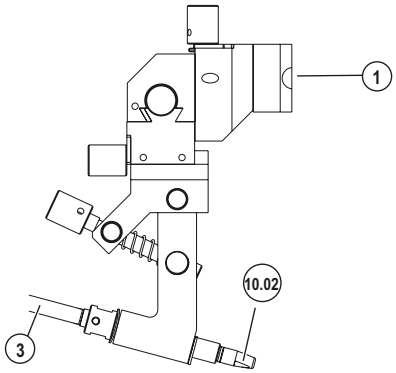
Wire feed for automated TIG cold wire applications

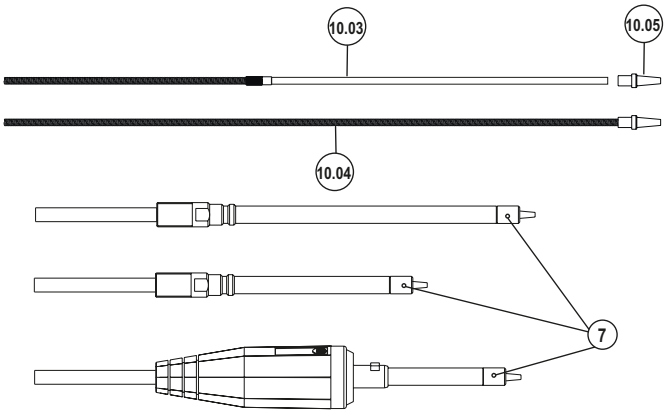
- XYZ axes and setting angle infinitely lockable and adjustable
- Insulated design (HF safe)
- Suitable for TIG-MT automated welding torches
- Clamping range from 18 mm to 35 mm
- Rapid, straightforward assembly
- Adjustable on four axes:
- Up/down
- Forwards/backwards
- Left/right
- Angle
- Equipment as supplied: Wire Ø 1 mm
- **Please note:** Maximum wire Ø = 1.2 mm (1.6 mm on request)

Type	Designation	Item no.
AWS CW 1,5 m DZA	4 axes support, cold wire, insulated setup, for Tetrix drive 4L/tigSpeed drive 45	094-020614-02015
AWS CW 3,0 m DZA		094-020614-02030
AWS CW 4,0 m DZA		094-020614-02040
AWS CW 1,5 m DZA Alu		094-020614-02215
AWS CW 3,0 m DZA Alu		094-020614-02230
AWS CW 4,0 m DZA Alu		094-020614-02240
AWS CW 1,5 m DZA CrNi		094-020614-02115
AWS CW 3,0 m DZA CrNi		094-020614-02130
AWS CW 4,0 m DZA CrNi		094-020614-02140
AWS CW 1,5 m Quick-Connect L	4 axes support, cold wire, insulated setup, for T drive 4 Rob.2	094-020614-00015
AWS CW 3,0 m Quick-Connect L		094-020614-00030
AWS CW 4,0 m Quick-Connect L		094-020614-00040
AWS CW 1,5 m Quick-Connect L Alu		094-020614-00215
AWS CW 3,0 m Quick-Connect L Alu		094-020614-00230
AWS CW 4,0 m Quick-Connect L Alu		094-020614-00240
AWS CW 1,5 m Quick-Connect L CrNi		094-020614-00115
AWS CW 3,0 m Quick-Connect L CrNi		094-020614-00130
AWS CW 4,0 m Quick-Connect L CrNi		094-020614-00140
AWS CW 1,5 m Quick-Connect S	4 axes support, cold wire, insulated setup, for T drive 4 Rob.3	094-020614-01015
AWS CW 3,0 m Quick-Connect S		094-020614-01030
AWS CW 4,0 m Quick-Connect S		094-020614-01040
AWS CW 1,5 m Quick-Connect S Alu		094-020614-01215
AWS CW 3,0 m Quick-Connect S Alu		094-020614-01230
AWS CW 4,0 m Quick-Connect S Alu		094-020614-01240
AWS CW 1,5 m Quick-Connect S CrNi		094-020614-01115
AWS CW 3,0 m Quick-Connect S CrNi		094-020614-01130
AWS CW 4,0 m Quick-Connect S CrNi		094-020614-01140

▶ Order the right wire feed for the wire feeder used!

Consumables





Item	Designation	Wire Ø mm	Thread	Length	Material	PU	Item no.	PE
1	4 axes support, insulated setup	-	-	-	-	1 Units	092-007868-00000	Per unit
3	Wire hose	-	-	1 m	-	50 m	094-017104-00000	per m
7	Crown nut	-	-	-	-	10 Units	094-015563-00002	Per unit
10.02	Contact tip	0.8	M7	30 mm	CuCrZr	10 Units	094-013535-00001	Per unit
10.02	Contact tip	0.9	M7	30 mm	CuCrZr	10 Units	094-013536-00001	Per unit
10.02	Contact tip	1	M7	30 mm	CuCrZr	10 Units	094-013537-00001	Per unit
10.02	Contact tip	1.2	M7	30 mm	CuCrZr	10 Units	094-013538-00001	Per unit
10.02	Contact tip, aluminium welding	0.8	M7	30 mm	E-Cu	10 Units	094-013550-00001	Per unit
10.02	Contact tip, aluminium welding	0.9	M7	30 mm	E-Cu	10 Units	094-013551-00001	Per unit
10.02	Contact tip, aluminium welding	1	M7	30 mm	E-Cu	10 Units	094-013552-00001	Per unit
10.02	Contact tip, aluminium welding	1.2	M7	30 mm	E-Cu	10 Units	094-013553-00001	Per unit

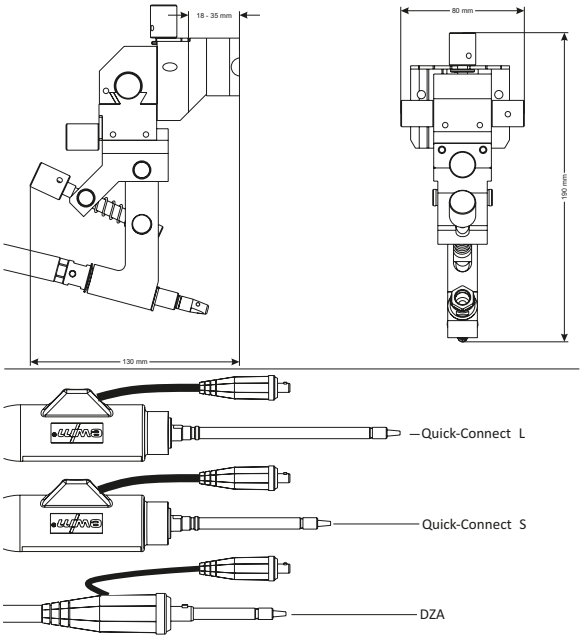
Liners

Item	Designation	Wire Ø mm	Inside Ø mm	Outside Ø mm	Length m	Material	PU Units	Item no.
10.03	Combined liner, PA	1.2 - 1.6	2	4	3.5	Polyamid	1	092-018706-00003
10.03	Combined liner, PA	1.2 - 1.6	2	4	4.5	Polyamid	1	092-018706-00004
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	3	Carbon teflon	1	094-013871-00000
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	4	Carbon teflon	1	094-013871-00004
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	3	Carbon teflon	1	094-013828-00000
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	4	Carbon teflon	1	094-013828-00004
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	3	Teflon	1	094-013800-00000
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	4	Teflon	1	094-013800-00004
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	5	Teflon	1	094-013800-00005
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	3	Teflon	1	094-013801-00000
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	4	Teflon	1	094-013801-00004
10.04	Steel liner	0.6 - 1	1.5	3.3	3.5	Steel	1	092-018695-00003
10.04	Steel liner	0.6 - 1	1.5	3.3	4.5	Steel	1	092-018695-00004
10.04	Steel liner	1.2 - 1.6	2	4	3.5	Steel	1	092-018693-00003
10.04	Steel liner	1.2 - 1.6	2	4	4.5	Steel	1	092-018693-00004
10.04	Steel liner, stainless steel	0.6 - 1	1.5	3.3	3.5	CrNi	1	092-018696-00003
10.04	Steel liner, stainless steel	0.6 - 1	1.5	3.3	4.5	CrNi	1	092-018696-00004
10.04	Steel liner, stainless steel	1.2 - 1.6	2	4	3.5	CrNi	1	092-018694-00003
10.04	Steel liner, stainless steel	1.2 - 1.6	2	4	4.5	CrNi	1	092-018694-00004
10.04	Steel liner, brass	1.2 - 1.6	2	4	3.5	Brass	1	092-018697-00003
10.04	Steel liner, brass	1.2 - 1.6	2	4	4.5	Brass	1	092-018697-00004
10.05	Inlet guide for plastic liners	-	-	4	-	-	2	094-014032-00001

Options/accessories

Torch accessories	Item no.
HA AWS SP▶ For mounting support on FT1002W automated welding torch AWS support holder	092-022515-00000

TIG/plasma ■ AW support hot wire



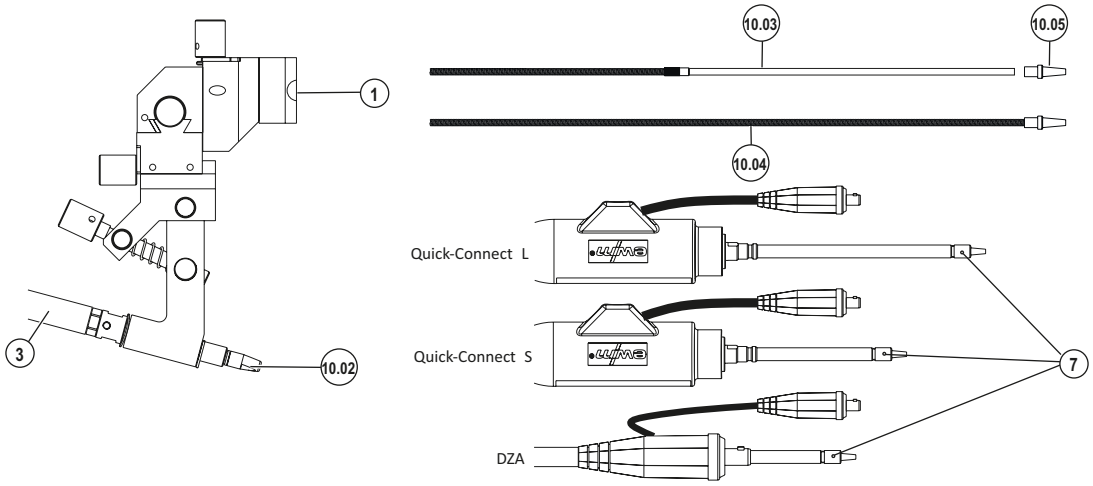
Maximum hot wire current 150 A / 35 %

- Wire feed for automated TIG hot wire applications
- XYZ axes and setting angle infinitely lockable and adjustable
- Insulated design (HF safe)
- Suitable for TIG-MT automated welding torches
- Clamping range from 18 mm to 35 mm
- Rapid, straightforward assembly
- Adjustable on four axes:
- Up/down
- Forwards/backwards
- Left/right
- Angle
- Equipment as supplied: Wire Ø 1 mm
- **Please note:** Maximum wire Ø = 1.2 mm (1.6 mm on request)

Type	Designation	Item no.
AWS HW 1,5 m DZA	4 axes support, hot wire, insulated setup, for Tetrix drive 4L/tigSpeed drive 45	094-020614-12015
AWS HW 3,0 m DZA		094-020614-12030
AWS HW 4,0 m DZA		094-020614-12040
AWS HW 1,5 m DZA Alu		094-020614-12215
AWS HW 3,0 m DZA Alu		094-020614-12230
AWS HW 4,0 m DZA Alu		094-020614-12240
AWS HW 1,5 m DZA CrNi		094-020614-12115
AWS HW 3,0 m DZA CrNi		094-020614-12130
AWS HW 4,0 m DZA CrNi		094-020614-12140
AWS HW 1,5 m Quick-Connect L	4 axes support, hot wire, insulated setup, for T drive 4 Rob.2	094-020614-10015
AWS HW 3,0 m Quick-Connect L		094-020614-10030
AWS HW 4,0 m Quick-Connect L		094-020614-10040
AWS HW 1,5 m Quick-Connect L Alu		094-020614-10215
AWS HW 3,0 m Quick-Connect L Alu		094-020614-10230
AWS HW 4,0 m Quick-Connect L Alu		094-020614-10240
AWS HW 1,5 m Quick-Connect L CrNi		094-020614-10115
AWS HW 3,0 m Quick-Connect L CrNi		094-020614-10130
AWS HW 4,0 m Quick-Connect L CrNi		094-020614-10140
AWS HW 1,5 m Quick-Connect S	4 axes support, hot wire, insulated setup, for T drive 4 Rob.3	094-020614-11015
AWS HW 3,0 m Quick-Connect S		094-020614-11030
AWS HW 4,0 m Quick-Connect S		094-020614-11040
AWS HW 1,5 m Quick-Connect S Alu		094-020614-11215
AWS HW 3,0 m Quick-Connect S Alu		094-020614-11230
AWS HW 4,0 m Quick-Connect S Alu		094-020614-11240
AWS HW 1,5 m Quick-Connect S CrNi		094-020614-11115
AWS HW 3,0 m Quick-Connect S CrNi		094-020614-11130
AWS HW 4,0 m Quick-Connect S CrNi		094-020614-11140

▶ Order the right wire feed for the wire feeder used!

Consumables



▶ Order the right wire feed for the wire feeder used!

Item	Designation	Wire Ø mm	Thread	Length	Material	PU Units	Item no.
1	4 axes support, insulated setup	-	-	-	-	1	092-007868-00000
3	Coaxial cable	-	-	1.5 m	-	1	094-016625-00015
3	Coaxial cable	-	-	3 m	-	1	094-016625-00000
3	Coaxial cable	-	-	4 m	-	1	094-016625-00004
7	Crown nut	-	-	-	-	10	094-015563-00002
10.02	Contact tip	0.8	M7	30 mm	CuCrZr	10	094-013535-00001
10.02	Contact tip	0.9	M7	30 mm	CuCrZr	10	094-013536-00001
10.02	Contact tip	1	M7	30 mm	CuCrZr	10	094-013537-00001
10.02	Contact tip	1.2	M7	30 mm	CuCrZr	10	094-013538-00001
10.02	Contact tip, aluminium welding	0.8	M7	30 mm	E-Cu	10	094-013550-00001
10.02	Contact tip, aluminium welding	0.9	M7	30 mm	E-Cu	10	094-013551-00001
10.02	Contact tip, aluminium welding	1	M7	30 mm	E-Cu	10	094-013552-00001
10.02	Contact tip, aluminium welding	1.2	M7	30 mm	E-Cu	10	094-013553-00001
-	Heat protection hose	-	-	-	-	1	094-021163-00000

Liners

Item	Designation	Wire Ø mm	Inside Ø mm	Outside Ø mm	Length m	Material	PU Units	Item no.
10.03	Combined liner, PA	1.2 - 1.6	2	4	3.5	Polyamid	1	092-018706-00003
10.03	Combined liner, PA	1.2 - 1.6	2	4	4.5	Polyamid	1	092-018706-00004
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	3	Carbon teflon	1	094-013871-00000
10.03	Combined liner, carbon Teflon	0.6 - 1	1.5	4	4	Carbon teflon	1	094-013871-00004
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	3	Carbon teflon	1	094-013828-00000
10.03	Combined liner, carbon Teflon	1.2 - 1.6	2	4	4	Carbon teflon	1	094-013828-00004
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	3	Teflon	1	094-013800-00000
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	4	Teflon	1	094-013800-00004
10.03	Combined liner, Teflon	0.6 - 1	1.5	4	5	Teflon	1	094-013800-00005
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	3	Teflon	1	094-013801-00000
10.03	Combined liner, Teflon	1.2 - 1.6	2	4	4	Teflon	1	094-013801-00004
10.04	Steel liner	0.6 - 1	1.5	3.3	3.5	Steel	1	092-018695-00003
10.04	Steel liner	0.6 - 1	1.5	3.3	4.5	Steel	1	092-018695-00004
10.04	Steel liner	1.2 - 1.6	2	4	3.5	Steel	1	092-018693-00003
10.04	Steel liner	1.2 - 1.6	2	4	4.5	Steel	1	092-018693-00004
10.04	Steel liner, stainless steel	0.6 - 1	1.5	3.3	3.5	CrNi	1	092-018696-00003
10.04	Steel liner, stainless steel	0.6 - 1	1.5	3.3	4.5	CrNi	1	092-018696-00004
10.04	Steel liner, stainless steel	1.2 - 1.6	2	4	3.5	CrNi	1	092-018694-00003
10.04	Steel liner, stainless steel	1.2 - 1.6	2	4	4.5	CrNi	1	092-018694-00004
10.04	Steel liner, brass	1.2 - 1.6	2	4	3.5	Brass	1	092-018697-00003
10.04	Steel liner, brass	1.2 - 1.6	2	4	4.5	Brass	1	092-018697-00004
10.05	Inlet guide for plastic liners	-	-	4	-	-	2	094-014032-00001

Options/accessories

Torch accessories	Item no.
HA AWS SP▶ For mounting support on FT1002W automated welding torch AWS support holder	092-022515-00000

Overview

Plasma automation			Page
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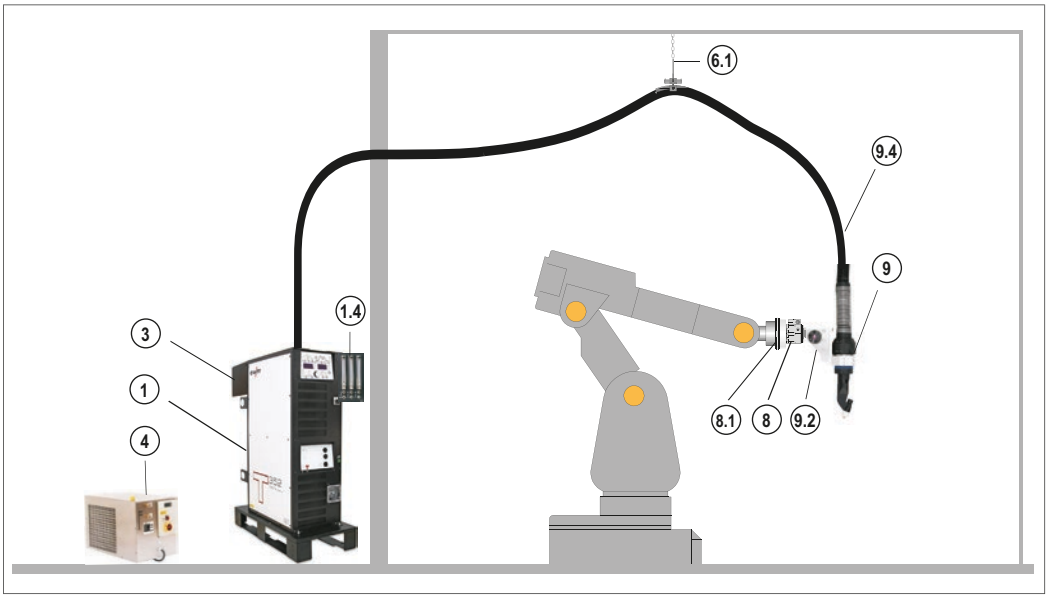
Tetrix Plasma, water cooled ■ activArc®
Handling/welding robot system Tetrix 152 Synergic



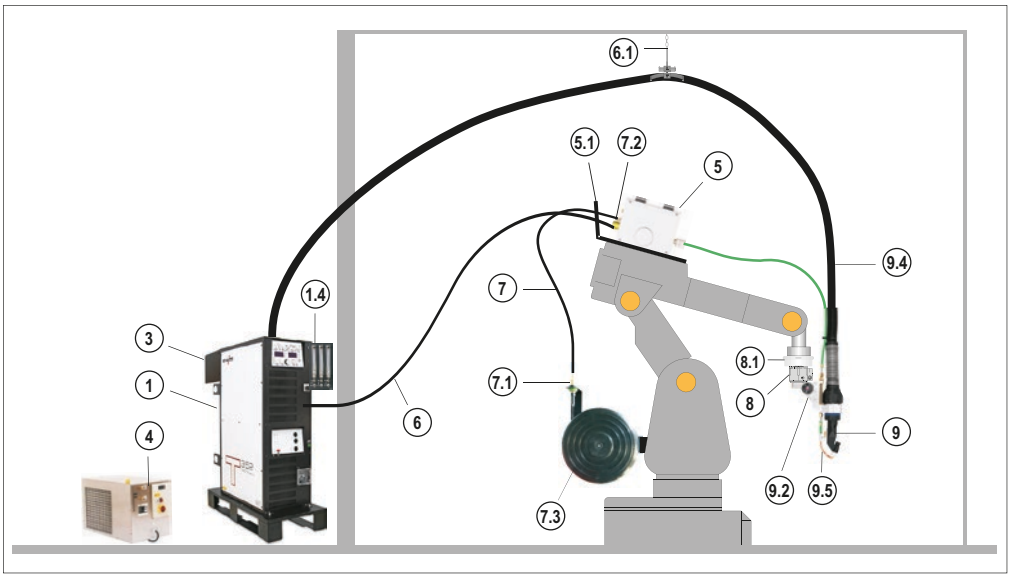
Tetrix 152 Synergic Plasma

- With Synergic front control
- Water cooled
- Without cold wire
- Example shown: Kuka KR16

Item	Type	Designation	Item no.
1	Tetrix 152 Synergic Plasma	DC plasma welding machine with Synergic control, incl. ‚PALETTE ROB XX2' transport pallet	090-008722-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	Maxex AR/MIX 200bar 30m³ G1/4“	Pressure regulator „Maxex“	096-000000-00000
1.3	Maxex Hydrogen 200bar 30m³ G3/8“L		096-000001-00000
1.4	GDE 5	Gas metering unit with 3 gas quantity meters	090-008850-00000
1.5	GH 2x1/4“ 2m	Gas hose	094-000010-00001
1.5	G1/4“+G3/8“ 2 m		092-000525-00001
3	Tetrix BUSINT X11 PLASMA DEVICE NET ATCASE	DEVICE NET industrial bus interface in casing, including potential-free voltage supply	090-008690-00000
4	RK 2	Recooling unit	094-002284-00000
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.2	HOSE BRIDGE	Hose bridge	092-007857-00000
4.2	WS 2x0,5M	Water hoses, two units	092-001953-00001
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	FL ISO 9409-1-A40	Intermediate flange, plastic	094-013347-00500
9	PT150 TE2.4/PN1.8	Plasma robot welding torch	094-016988-00000
9.2	SH PLASMA CT	Segment holder for plasma torch	094-016314-00000
9.4	SP CT20 W 4m	Hose package plasma torch	094-016315-00000
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.

Tetrix Plasma, water cooled ■ activArc®
Handling/welding robot system Tetrix 352 Synergic with cold wire



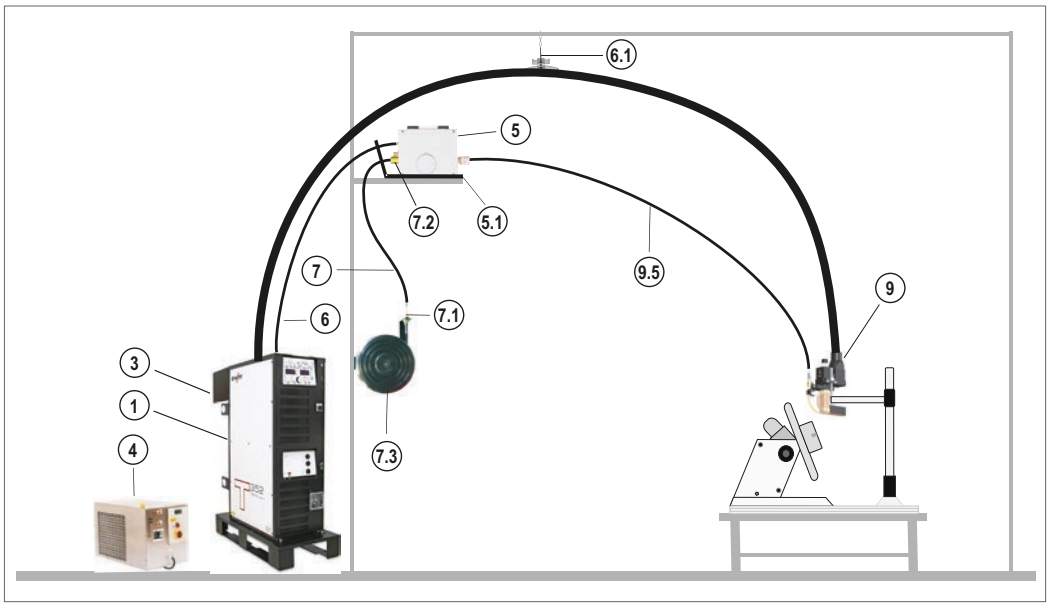
Tetrix 352 Synergic Plasma CW

- With Synergic front control
- T drive 4 Rob 3 RE IG3
- Water cooled
- With cold wire
- Example shown: Kuka KR 16 R2010-2

Item	Type	Designation	Item no.
1	Tetrix 352 Synergic Plasma CW	DC plasma welding machine with Synergic control and connection capability for cold wire, incl. transport pallet ‚PALETTE ROB XX2'	090-000212-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	Maxex AR/MIX 200bar 30m³ G1/4"	Pressure regulator „Maxex"	096-000000-00000
1.3	Maxex Hydrogen 200bar 30m³ G3/8"L		096-000001-00000
1.4	GDE 5	Gas metering unit with 3 gas quantity meters	090-008850-00000
1.5	GH 2x1/4" 2m	Gas hose	094-000010-00001
1.5	G1/4"+G3/8" 2 m		092-000525-00001
3	Tetrix BUSINT X11 PLASMA ETHERCAT	ETHERCAT industrial bus interface in casing, including external potential-free voltage supply	090-008680-00000
4	RK 2.1	Recooling unit with boosted pump 8 bar	094-002284-02000
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.2	HOSE BRIDGE	Hose bridge	092-007857-00000
4.2	WS 2x0,5M	Water hoses, two units	092-001953-00001
5	T drive 4 Rob 3 RE IG3	Wire feeder for automated applications, opens on right, IG3 speedometer solution	090-008783-00502
5.1	MONTAGE CONSOLE ROB 3 UNIVERSAL	Mounting console for wire feeder and media separation box	092-002440-00000
6	SLP S 7/12 POL 5M	Control cable, standard protective hose	092-007855-52105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB3 WIRE CONDUIT	Connection set for Rob 3 wire conduit	092-007916-00000
7.3	DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
8	RSA MEDIUM PLUS	Collision sensor	094-023605-00000
8.1	ZF ISO 9409-1-A50	Intermediate flange, plastic	094-016554-00000
9	PT250CW ZF1.0/TE5.0/PN4.0	Plasma robot welding torch, cold wire, water-cooled	094-016989-00000
9.2	SH PLASMA CT	Segment holder for plasma torch	094-016314-00000
9.4	SP CT20 W 4m	Hose package plasma torch	094-016315-00000
9.5	AW CW 4 m Quick-Connect S	Cold wire feed, for T drive 4 Rob 3	094-020613-00001
9.5	CWF SET 150/250 CT20	Plasma cold wire feed, set	094-016319-00000
-	ANALYZER	Software for control and status signal analysis	090-008778-00000
-	PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000

▶ Image for conceptual purposes. Not all listed items are shown.

Tetrix Plasma, water cooled ■ activArc®
Mechanised welding system Tetrix 552 Synergic with cold wire, gas control and GN gas



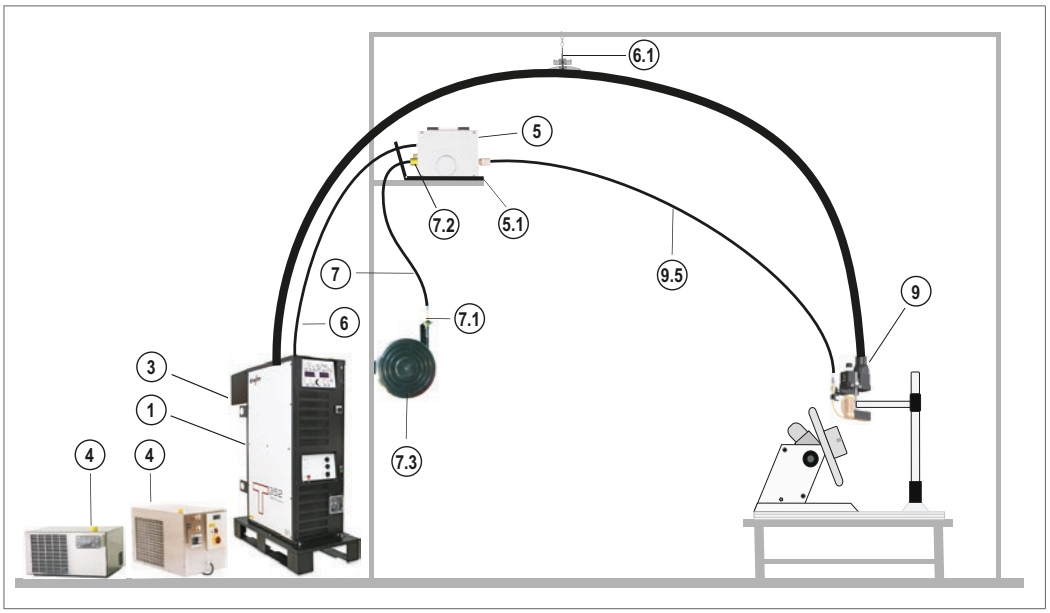
Tetrix 552 Synergic Plasma CW GR

- Digital gas control
- With Synergic front control
- T drive 4 Rob 3 RE IG3
- Water cooled
- With cold wire
- Welding torch equipped with a gas-cooled gas nozzle
- As demonstrated on a mechanical application

Item	Type	Designation	Item no.
1	Tetrix 552 Synergic Plasma CW GR	Plasma DC welding machine with digital gas control, Synergic control and connection capability for cold wire, including transport pallet ‚PALETTE ROB XX2'	090-000210-00502
1.1	OW CEE 63A	Mains plug, assembled	092-008216-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	Maxex AR/MIX 200bar 30m³ G1/4"	Pressure regulator „Maxex"	096-000000-00000
1.3	Maxex Hydrogen 200bar 30m³ G3/8"L		096-000001-00000
1.5	GH 2x1/4" 2m	Gas hose	094-000010-00001
1.5	G1/4"+G3/8" 2 m		092-000525-00001
3	Tetrix BUSINT X11 PLASMA PROFI-BUS ATCASE	PROFIBUS industrial bus interface in casing, including potential-free voltage supply	090-008624-00000
4	RK 3.1	Recooling unit with boosted pump 8 bar	094-002285-02000
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.2	HOSE BRIDGE	Hose bridge	092-007857-00000
4.2	WS 2x0,5M	Water hoses, two units	092-001953-00001
5	T drive 4 Rob 3 RE IG3	Wire feeder for automated applications, opens on right, IG3 speedometer solution	090-008783-00502
5.1	MONTAGE CONSOLE ROB 3 UNIVERSAL	Mounting console for wire feeder and media separation box	092-002440-00000
6	SLP S 7/12 POL 5M	Control cable, standard protective hose	092-007855-52105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB3 WIRE CONDUIT	Connection set for Rob 3 wire conduit	092-007916-00000
7.3	DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
9	PWM 350-S180 8m	Plasma machine welding torch	094-016544-00008
9.5	AW CW 4 m Quick-Connect S	Cold wire feed, for T drive 4 Rob 3	094-020613-00001
9.5	CWSS CPL PMW 350-S90/S180	Cold wire feed, short, for gas-cooled gas nozzles, complete	094-016613-00000
9.7	MP PMW 350	Mounting plate, for water-cooled gas nozzles, complete	094-016129-00000
9.9	CPLUG	Coupling plug	094-013467-00000
9.9	CSLEEVE	Coupling socket	094-013466-00000
10.01	GD GR.24G PMW/PWM 350	Gas nozzle, plug fitting	094-013817-00000
-	Set PC300 XQ / ANALYZER	Set comprising PC300 XQ and Analyzer software	090-008779-00000

▶ Image for conceptual purposes. Not all listed items are shown.

Tetrix Plasma, water cooled ■ activArc®
etrix 552 Synergic mechanised welding system with cold wire, gas control and GN water-cooled



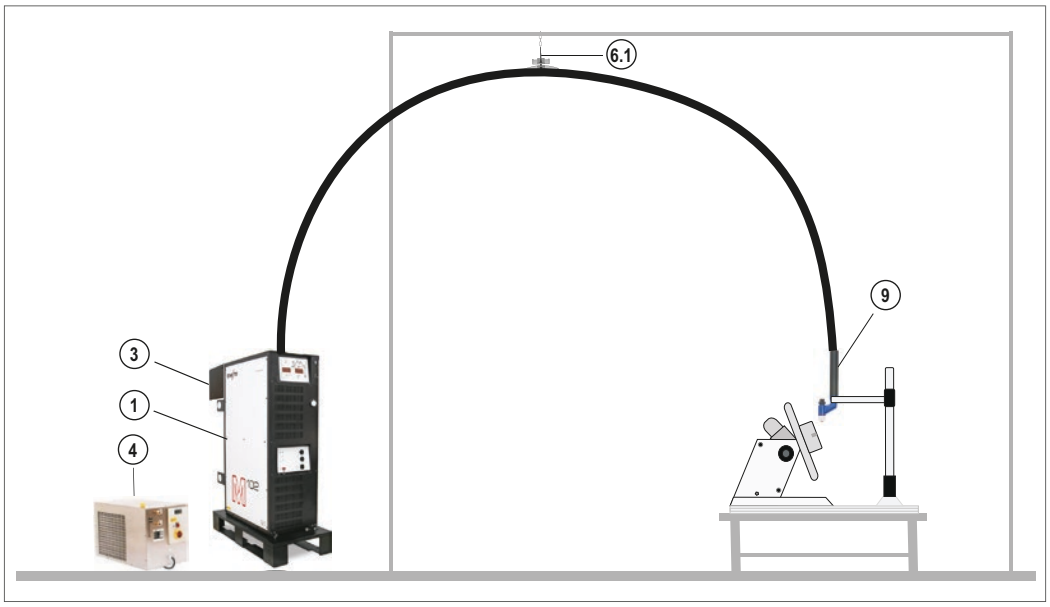
Tetrix 552 Synergic Plasma CW GR

- Digital gas control
- With Synergic front control
- T drive 4 Rob 3 RE IG3
- Water cooled
- With cold wire
- Welding torch equipped with a water-cooled gas nozzle
- As demonstrated on a mechanical application

Item	Type	Designation	Item no.
1	Tetrix 552 Synergic Plasma CW GR	Plasma DC welding machine with digital gas control, Synergic control and connection capability for cold wire, including transport pallet ‚PALETTE ROB XX2'	090-000210-00502
1.1	OW CEE 63A	Mains plug, assembled	092-008216-00000
1.2	WK95/CL 5m	Workpiece lead with cable lug	092-001990-00005
1.3	Maxex AR/MIX 200bar 30m³ G1/4"	–	096-000000-00000
1.3	Maxex Hydrogen 200bar 30m³ G3/8"L	Cylinder pressure regulator	096-000001-00000
1.5	GH 2x1/4" 2m	Gas hose	094-000010-00001
1.5	G1/4"+G3/8" 2 m		092-000525-00001
3	Tetrix BUSINT X11 PLASMA PROFIBUS ATCASE	PROFIBUS industrial bus interface in casing, including potential-free voltage supply	090-008624-00000
4	RK 1	Recooling unit	094-002283-00000
4	RK 3.1	Recooling unit with boosted pump 8 bar	094-002285-02000
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.2	HOSE BRIDGE	Hose bridge	092-007857-00000
4.2			092-007857-00000
4.2	WS 2x0,5M	Water hoses, two units	092-001953-00001
4.3	ON DFW RK	Flow monitor connection, retrofit option	092-008266-00000
5	T drive 4 Rob 3 RE IG3	Wire feeder for automated applications, opens on right, IG3 speedometer solution	090-008783-00502
5.1	MONTAGE CONSOLE ROB 3 UNIVERSAL	Mounting console for wire feeder and media separation box	092-002440-00000
5.2	ON COOL W ROB3	Retrofit option water cooling ROB 3	092-002384-00000
6	SLP WS 7/12 POL 5M	Control cable, standard protective hose	092-007855-51105
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
7	WIRE CONDUIT 1,8M	Wire guide	094-011515-00004
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection	092-007741-00000
7.2	CONNECTOR DRIVE ROB3 WIRE CONDUIT	Connection set for Rob 3 wire conduit	092-007916-00000
7.3	DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000
7.4	AK300	Wire spool adapter B300	094-001803-00001
9	PWM 350-S180 8m	Plasma machine welding torch	094-016544-00008
9.5	AW CW 4 m Quick-Connect S	Cold wire feed, for T drive 4 Rob 3	094-020613-00001
9.5	CWS CPL PMW 350-S90/S180	Cold wire feed, standard, for water-cooled gas nozzles, complete	094-013464-00000
9.7	MP PMW 350	Mounting plate, for water-cooled gas nozzles, complete	094-016129-00000
9.9	CPLUG	Coupling plug	094-013467-00000
9.9	CSLEEVE	Coupling socket	094-013466-00000
10.01	GNOZZ GR.29-W-CU PMW 350	Gas nozzle, screw fitting	094-016157-00000
-	WGD PWM350	Hose set, 4 m, for water-cooled gas nozzles. Can be cut to the required length	094-022661-00000
-	Set PC300 XQ / ANALYZER	Set comprising PC300 XQ and Analyzer software	090-008779-00000

▶ Image for conceptual purposes. Not all listed items are shown.

Tetrix Microplasma, water cooled ■ activArc®
Mechanised welding system Microplasma 102 Synergic RC with cold wire and gas control



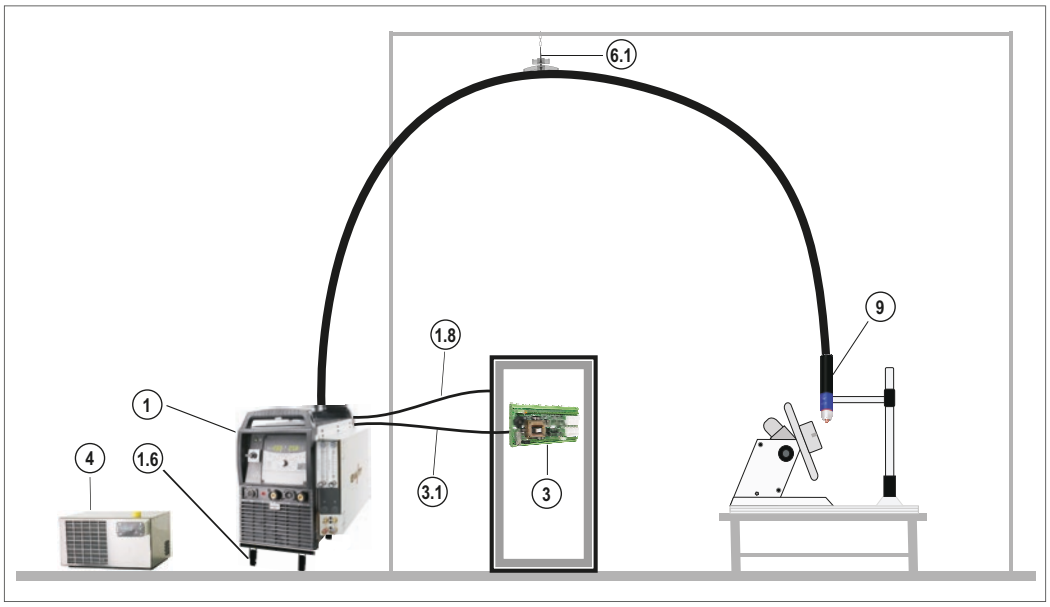
Microplasma 102 Synergic RC CW GR

- Digital gas control
- With Synergic-RC display
- Water cooled
- Prepared for cold wire
- Example shows a mechanical application

Item	Type	Designation	Item no.
1	Microplasma 102 Synergic RC CW GR	Plasma DC welding machine with digital gas control, Synergic RC display and connection capability for cold wire, including transport pallet ‚PALETTE ROB XX2'	090-007026-00502
1.1	OW CEE 32A	Mains plug, assembled (CEE 32 A)	092-008215-00000
1.2	WK70/CL 5m	Workpiece lead with cable lug	092-002078-00005
1.3	Maxex AR/MIX 200bar 30m³ G1/4"	–	096-000000-00000
1.3	Maxex Hydrogen 200bar 30m³ G3/8"L	Cylinder pressure regulator	096-000001-00000
1.5	GH 2x1/4" 2m	Gas hose	094-000010-00001
1.5	G1/4"+G3/8" 2 m		092-000525-00001
3	Tetrix BUSINT X11 PLASMA PROFIBUS ATCASE	PROFIBUS industrial bus interface in casing, including potential-free voltage supply	090-008624-00000
4	RK 2	Recooling unit	094-002284-00000
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.1			094-000530-00005
4.2	HOSE BRIDGE	Hose bridge	092-007857-00000
4.2	WS 2x0,5M	Water hoses, two units	092-001953-00001
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
9	PWM 100 3M	Plasma machine welding torch	094-013799-00000
-	ADAP HILIBO	Banana jack adapter	092-001382-00000
-	PWH/PWM 100	Consumables box, PWH/PWM 100	094-008270-00000
-	Set PC300 XQ / ANALYZER	Set comprising PC300 XQ and Analyzer software	090-008779-00000

▶ Image for conceptual purposes. Not all listed items are shown.

Tetrix Microplasma, water cooled activArc®
Microplasma 25 Comfort 2.0 P RC mechanised welding system



Microplasma 25 Comfort 2.0 P RC

- Gas metering unit with two manometers for gas quantity
- With Comfort 2.0 P control
- Water cooled
- With external RINTX12 interface
- As demonstrated on a mechanical application

Item	Type	Designation	Item no.
1	Microplasma 25 Comfort 2.0 P RC	DC plasma welding machine with Comfort 2.0 P control	090-007033-00502
1.2	WK25mm² Ø 9 mm 230A/60% 4m FIX	Workpiece lead with original FIX clamp	398-000593-00000
1.3	Maxex AR/MIX 200bar 30m³ G1/4“	–	096-000000-00000
1.3	Maxex Hydrogen 200bar 30m³ G3/8“L	Cylinder pressure regulator	096-000001-00000
1.5	GH 2x1/4“ 2m	Gas hose	094-000010-00001
1.5	G1/4“+G3/8“ 2 m		092-000525-00001
1.6	ON WAK TG.0003/TG.0004/ TG.0009/K.0002	Wheel assembly kit	092-001356-00000
1.8	RA5 19POL 1x 5M	Connection cable, 19-pole, one-sided wire end ferrules	092-001569-00005
3	RINT X12 STANDARD	Standard robot interface	090-008291-00000
3.1	FRV 7POL 5m	Digital 7-pole cable	092-000201-00003
3.2	ON PLUG SET RINT X12	Retrofit option EWM plug set for RINT X12/DVINT X11	092-001822-00000
4	RK 1	Recooling unit	094-002283-00000
4.1	KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005
4.1			094-000530-00005
4.2	UKV4SET 4M	Hose connection set to connect a cooling unit	092-000587-00000
6.1	ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000
9	PWM 25 3m	Plasma machine welding torch	394-006510-00000
-	ADAP3 G1/4-G1/4 LKS	Threaded adapter for connecting 1/4“ left-hand thread gas hoses to welding machines with 1/4“ right-hand connecting nipples	094-001652-00000
-	Set PC300 XQ / ANALYZER	Set comprising PC300 XQ and Analyzer software	090-008779-00000

▶ Image for conceptual purposes. Not all listed items are shown.

Overview

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Tetrix DC Plasma ■ 152 ● 352 ● 552 Synergic

/activArc®

- No need to purchase additional characteristics – all characteristics for this machine type are included in the scope of delivery ex works
- DC plasma welding machine with Synergic front control
- Set up on front control or notebook with PC300. NET software
- Standard 19-pole connection socket for signal exchange, e.g. collision protection
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Current control 5 A to 150 A, 5 A to 350 A or 5 A to 550 A
- Operation requires a GDE4, GDE4.1 or GDE5 gas metering unit
- Pilot arc current can be set from 5 A to 80 A (if torch and torch hose package are designed for this).
- Plasma spotArc possible
- Phase failure monitoring (in combination with BUSINTX11 ATCASE)
- Emergency stop circuit in hardware for safety shut-down
- Medium monitoring for shielding gas/pilot gas pressure
- Non-interchangeable connections for all mediums
- Water flow monitoring
- 5 m mains supply lead
- 3 x 400 V mains connection with neutral conductor (TN-S system)
- 100 % tested and free-welded

Tetrix	152	352	552
Setting range for welding current	5 A - 150 A	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	–		550 A / 60 %
	150 A / 100 %	350 A / 100 %	420 A / 100 %
Open circuit voltage	79 V		
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	20.3 kVA		39.5 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	660 mm x 380 mm x 1250 mm		
Weight	116 kg		
Standards	IEC 60974-1, -3 and -10 CL.A		

Type	Designation	Item no.
Tetrix 152 Synergic Plasma	DC plasma welding machine with Synergic control, incl. ‚PALETTE ROB XX2' transport pallet	090-008722-00502
Tetrix 352 Synergic Plasma	DC plasma welding machine with Synergic control, incl. ‚PALETTE ROB XX2' transport pallet	090-008725-00502
Tetrix 552 Synergic Plasma	DC plasma welding machine with Synergic control, incl. ‚PALETTE ROB XX2' transport pallet	090-008728-00502

Tetrix DC Plasma ■ 152 ● 352 ● 552 Synergic RC

/activArc®

- DC plasma welding machine with Synergic-RC display
- Set up on front control with PC300 software. NET software
- Standard 19-pole connection socket for signal exchange, e.g. collision protection
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, secondary current, pulse time, pause time; BUSINT: main current, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Current control 5 A to 150 A, 5 A to 350 A or 5 A to 550 A
- Operation requires a GDE4, GDE4.1 or GDE5 gas metering unit
- Pilot arc current can be set from 5 A to 80 A (if torch and torch hose package are designed for this).
- Plasma spotArc possible
- Phase failure monitoring (in combination with BUSINTX11 ATCASE)
- Emergency stop circuit in hardware for safety shut-down
- Medium monitoring for shielding gas/pilot gas pressure
- Non-interchangeable connections for all mediums
- Water flow monitoring
- 5 m mains supply lead
- 3 x 400 V mains connection with neutral conductor (TN-S system)
- 100 % tested and free-welded

Tetrix	152	352	552
Setting range for welding current	5 A - 150 A	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	–		550 A / 60 %
	150 A / 100 %	350 A / 100 %	420 A / 100 %
Open circuit voltage	79 V		
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	20.3 kVA		39.5 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	660 mm x 380 mm x 1250 mm		
Weight	116 kg		
Standards	IEC 60974-1, -3 and -10 CL.A		

Type	Designation	Item no.
Tetrix 152 Synergic RC Plasma	DC plasma welding machine with Synergic RC display, incl. transport pallet ‚PALETTE ROB XX2'	090-000199-00502
Tetrix 352 Synergic RC Plasma	DC plasma welding machine with Synergic RC display, incl. transport pallet ‚PALETTE ROB XX2'	090-000200-00502
Tetrix 552 Synergic RC Plasma	DC plasma welding machine with Synergic RC display, incl. transport pallet ‚PALETTE ROB XX2'	090-000201-00502

Tetrix DC Plasma, cold wire ■ 152 ● 352 ● 552 Synergic CW

/activArc®

- DC plasma welding machine with Synergic control and cold wire connection capability
- Set up on front control or notebook with PC300. NET software
- Standard 19-pole connection socket for signal exchange, e.g. collision protection
- Prepared for connection of cold wire push/push
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, cold wire speed, secondary current, pulse time, pause time; BUSINT: main current, cold wire speed, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Current control 5 A to 150 A, 5 A to 350 A or 5 A to 550 A
- Operation requires a GDE4, GDE4.1 or GDE5 gas metering unit
- Pilot arc current can be set from 5 A to 80 A (if torch and torch hose package are designed for this).
- Plasma spotArc possible
- Phase failure monitoring (in conjunction with BUSINT ATCASE), wire stick detection (dependent on torch)
- Emergency stop circuit in hardware for safety shut-down
- Medium monitoring for shielding gas/pilot gas pressure
- Non-interchangeable connections for all mediums
- Water flow monitoring
- 5 m mains supply lead
- 3 x 400 V mains connection with neutral conductor (TN-S system)
- 100 % tested and free-welded

Tetrix	152	352	552
Setting range for welding current	5 A - 150 A	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	–		550 A / 60 %
	150 A / 100 %	350 A / 100 %	420 A / 100 %
Open circuit voltage	79 V		
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	20.3 kVA		39.5 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	660 mm x 380 mm x 1250 mm		
Weight	116 kg		
Standards	IEC 60974-1, -3 and -10 CL.A		

Type	Designation	Item no.
Tetrix 152 Synergic Plasma CW	DC plasma welding machine with Synergic control and connection capability for cold wire, incl. transport pallet‚PALETTE ROB XX2'	090-000211-00502
Tetrix 352 Synergic Plasma CW	DC plasma welding machine with Synergic control and connection capability for cold wire, incl. transport pallet‚PALETTE ROB XX2'	090-000212-00502
Tetrix 552 Synergic Plasma CW	DC plasma welding machine with Synergic control and connection capability for cold wire, incl. transport pallet‚PALETTE ROB XX2'	090-000213-00502

Options/accessories

Options for retrofitting		Item no.
ON SENSOR UNIT WIRE END Wire end sensor		092-001190-00000

Tetrix DC Plasma, cold wire ■ 152 ● 352 ● 552 Synergic RC CW

/activArc®

- DC plasma welding machine with Synergic-RC display and cold wire connection capability
- Set up on front control with PC300 software. NET software
- Standard 19-pole connection socket for signal exchange, e.g. collision protection
- Prepared for connection of cold wire push/push
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, cold wire speed, secondary current, pulse time, pause time; BUSINT: main current, cold wire speed, secondary current, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Current control 5 A to 150 A, 5 A to 350 A or 5 A to 550 A
- Operation requires a GDE4, GDE4.1 or GDE5 gas metering unit
- Pilot arc current can be set from 5 A to 80 A (if torch and torch hose package are designed for this).
- Plasma spotArc possible
- Phase failure monitoring (in conjunction with BUSINT ATCASE), wire stick detection (dependent on torch)
- Emergency stop circuit in hardware for safety shut-down
- Medium monitoring for shielding gas/pilot gas pressure
- Non-interchangeable connections for all mediums
- Water flow monitoring
- 5 m mains supply lead
- 3 x 400 V mains connection with neutral conductor (TN-S system)
- 100 % tested and free-welded

Tetrix	152	352	552
Setting range for welding current	5 A - 150 A	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	–		550 A / 60 %
	150 A / 100 %	350 A / 100 %	420 A / 100 %
Open circuit voltage	79 V		
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	20.3 kVA		39.5 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	660 mm x 380 mm x 1250 mm		
Weight	116 kg		
Standards	IEC 60974-1, -3 and -10 CL.A		

Type	Designation	Item no.
Tetrix 152 Synergic RC Plasma CW	Plasma DC welding machine with Synergic RC display and connection capability for cold wire, including transport pallet,PALETTE ROB XX2'	090-000205-00502
Tetrix 352 Synergic RC Plasma CW	Plasma DC welding machine with Synergic RC display and connection capability for cold wire, including transport pallet,PALETTE ROB XX2'	090-000206-00502
Tetrix 552 Synergic RC Plasma CW	Plasma DC welding machine with Synergic RC display and connection capability for cold wire, including transport pallet,PALETTE ROB XX2'	090-000207-00502

Options/accessories

Options for retrofitting		Item no.
ON SENSOR UNIT WIRE END Wire end sensor		092-001190-00000

Tetrix DC Plasma, cold wire, digital gas control ■ 152 ● 352 ● 552 Synergic CW GR

/activArc®

- DC plasma welding machine with Synergic control, cold wire connection capability and digital gas control
- Set up on front control or notebook with PC300. NET software
- Standard 19-pole connection socket for signal exchange, e.g. collision protection
- Prepared for connection of cold wire push/push
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, cold wire speed, secondary current, pulse time, pause time; BUSINT: main current, cold wire speed, secondary current, plasma gas, shielding gas, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Current control 5 A to 150 A, 5 A to 350 A or 5 A to 550 A
- Pilot arc current can be set from 5 A to 80 A (if torch and torch hose package are designed for this).
- Plasma spotArc possible
- Phase failure monitoring (in conjunction with BUSINT ATCASE), wire stick detection (dependent on torch)
- Emergency stop circuit in hardware for safety shut-down
- Non-interchangeable connections for all mediums
- Water flow monitoring
- Digital gas control for shielding gas and plasma gas
- Medium monitoring for shielding gas/pilot gas pressure and flow
- 5 m mains supply lead
- 3 x 400 V mains connection with neutral conductor (TN-S system)
- 100 % tested and free-welded

Tetrix	152	352	552
Setting range for welding current	5 A - 150 A	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	–		550 A / 60 %
	150 A / 100 %	350 A / 100 %	420 A / 100 %
Open circuit voltage	79 V		
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	20.3 kVA		39.5 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	660 mm x 380 mm x 1250 mm		
Weight	116 kg		
Standards	IEC 60974-1, -3 and -10 CL.A		

Type	Designation	Item no.
Tetrix 152 Synergic Plasma CW GR	Plasma DC welding machine with digital gas control, Synergic control and connection capability for cold wire, including transport pallet ‚PALETTE ROB XX2'	090-000208-00502
Tetrix 352 Synergic Plasma CW GR	Plasma DC welding machine with digital gas control, Synergic control and connection capability for cold wire, including transport pallet ‚PALETTE ROB XX2'	090-000209-00502
Tetrix 552 Synergic Plasma CW GR	Plasma DC welding machine with digital gas control, Synergic control and connection capability for cold wire, including transport pallet ‚PALETTE ROB XX2'	090-000210-00502

Options/accessories

Options for retrofitting		Item no.
ON SENSOR UNIT WIRE END Wire end sensor		092-001190-00000

Tetrix DC Plasma, cold wire, digital gas control ■ 152 ● 352 ● 552 Synergic RC CW GR

/activArc®

- DC plasma welding machine with Synergic-RC display, cold wire connection capability and digital gas control
- Set up on front control with PC300 software. NET software
- Standard 19-pole connection socket for signal exchange, e.g. collision protection
- Prepared for connection of cold wire push/push
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, cold wire speed, secondary current, pulse time, pause time; BUSINT: main current, cold wire speed, secondary current, plasma gas, shielding gas, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Current control 5 A to 150 A, 5 A to 350 A or 5 A to 550 A
- Pilot arc current can be set from 5 A to 80 A (if torch and torch hose package are designed for this).
- Plasma spotArc possible
- Phase failure monitoring (in conjunction with BUSINT ATCASE), wire stick detection (dependent on torch)
- Emergency stop circuit in hardware for safety shut-down
- Non-interchangeable connections for all mediums
- Water flow monitoring
- Digital gas control for shielding gas and plasma gas
- Medium monitoring for shielding gas/pilot gas pressure and flow
- 5 m mains supply lead
- 3 x 400 V mains connection with neutral conductor (TN-S system)
- 100 % tested and free-welded

Tetrix	152	352	552
Setting range for welding current	5 A - 150 A	5 A - 350 A	5 A - 550 A
Duty cycle 40 °C	–		550 A / 60 %
	150 A / 100 %	350 A / 100 %	420 A / 100 %
Open circuit voltage	79 V		
Mains voltage	400 V		
Tolerances	-25 % - +20 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	20.3 kVA		39.5 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	660 mm x 380 mm x 1250 mm		
Weight	116 kg		
Standards	IEC 60974-1, -3 and -10 CL.A		

Type	Designation	Item no.
Tetrix 152 Synergic RC Plasma CW GR	Plasma DC welding machine with digital gas control, Synergic RC display and connection capability for cold wire, including transport pallet ‚PALETTE ROB XX2'	090-000202-00502
Tetrix 352 Synergic RC Plasma CW GR	Plasma DC welding machine with digital gas control, Synergic RC display and connection capability for cold wire, including transport pallet ‚PALETTE ROB XX2'	090-000203-00502
Tetrix 552 Synergic RC Plasma CW GR	Plasma DC welding machine with digital gas control, Synergic RC display and connection capability for cold wire, including transport pallet ‚PALETTE ROB XX2'	090-000204-00502

Options/accessories

Options for retrofitting		Item no.
ON SENSOR UNIT WIRE END Wire end sensor		092-001190-00000

DC Microplasma, cold wire, digital gas control ■ 102 Synergic RC CW GR

- DC Microplasma welding machine with Synergic-RC display, cold wire connection capability and digital gas control
- Set up on front control with PC300 software. NET software
- Standard 19-pole connection socket for signal exchange, e.g. collision protection
- Prepared for connection of cold wire push/push
- Optional RINT X12 interface, BUSINT X11 industrial bus interface, PCINT X10 documentation interface (+ QDOC 9000 V2.0 software) and ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs, each with 15 programs, in program mode or RINT X12 welding current, cold wire speed, secondary current, pulse time, pause time; BUSINT: main current, cold wire speed, secondary current, plasma gas, shielding gas, pulse time, pulse pause time, rise time, fall time, frequency via control voltage or control signal mode
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised applications in the production of machinery, cars, vehicles, containers, equipment and ships
- Current control 0,5 A to 100 A
- Pilot arc current can be set from 5 A to 80 A (if torch and torch hose package are designed for this).
- Plasma spotArc possible
- Phase failure monitoring (in conjunction with BUSINT ATCASE), wire stick detection (dependent on torch)
- Emergency stop circuit in hardware for safety shut-down
- Non-interchangeable connections for all mediums
- Water flow monitoring
- Welding current adjustable in 0.1 A increments
- Digital gas control for shielding gas and plasma gas
- Medium monitoring for shielding gas/pilot gas pressure and flow
- 5 m mains supply lead
- 3 x 400 V mains connection with neutral conductor (TN-S system)
- 100 % tested and free-welded

Setting range for welding current	0.5 A - 100 A
Duty cycle 40 °C	100 A / 100 %
Open circuit voltage	79 V
Mains voltage	400 V
Tolerances	-25 % - +20 %
Mains frequency	50 Hz / 60 Hz
Recommended generator power	6.8 kVA
Protection classification	IP23
Safety marking	S CE EAC
EMC class	A
Dimensions (L x B x H)	660 mm x 380 mm x 1250 mm
Weight	116 kg
Standards	IEC 60974-1, -3 and -10 CL.A

Type	Designation	Item no.
Microplasma 102 Synergic RC CW GR	Plasma DC welding machine with digital gas control, Synergic RC display and connection capability for cold wire, including transport pallet,PALETTE ROB XX2'	090-007026-00502

Options/accessories

Options for retrofitting		Item no.
ON SENSOR UNIT WIRE END Wire end sensor		092-001190-00000

Microplasma DC ■ 25 ● 55 ● 105 Comfort 2.0 P RC

- Comfort 2.0 P control, simple operation with click wheel
- DC Microplasma welding machine with Comfort 2.0 P control
- Plasma and TIG welding
- Set up on front control or notebook with PC300. NET software
- Standard-series 19-pole interface for automated welding, for e.g. (Start/stop, current flows, emergency stop)
- Optional RINT X12 interfaces, BUSINT X11 industrial bus interface, ewm Xnet quality management software
- Parameters adjustable via interfaces: 256 JOBs each with 15 programs in program mode or control voltage/control signal mode using RINT X12: welding current, secondary current, pulse time, pause time; BUSINTX11: main current, secondary current, pulse time, pulse pause time, fall time, rise time, frequency
- RINT X12 and BUSINT X11 for installation in external electrical enclosure
- Optimised for automated applications: Unique second generation digital system for reproducible welding results of the highest possible quality, easy to integrate into automated systems
- Automated and mechanised use in machine, car, vehicle, container, equipment, ship, measuring device and fitting construction, electrical industry, air and space travel, nuclear technology
- Current range from 0.3–20 A, 0.3–50 A or 0.3–100 A
- Plasma and TIG welding current adjustable in 0.1 A increments
- Pilot arc current adjustable in six stages (2, 4, 6, 8, 10, 12 A)
- The pilot arc current can be adjusted at four operating points during the welding process (beforehand, during, and following welding, as well as during pauses in welding)
- High ignition reliability thanks to open circuit voltage of 95 V
- Temperature, flow and pressure monitoring for the coolant circuit
- Gas metering unit with two gas manometers for shielding gas 3.5–20 l/min and pilot gas 0.1–1.1 l/min
- Medium monitoring for shielding gas/pilot gas pressure before process start
- Optional function module with digital gas control valves
- Optional function module for use with filler wire, for connecting T drive 4 Rob 2 or T drive 4 Rob 3
- Non-interchangeable connections for all mediums
- Water cooled with cool 50 MPW50 cooling unit or RK-series recooling unit
- Can be optionally connected to LAN or WiFi, ewm Xnet compatible
- PC interface for PC300.Net software
- 3.5 m mains supply lead with 16 A shock-proof plug
- 100 % tested and free-welded

Microplasma	25	55	105
Setting range for welding current	0.3 A - 20 A	0.3 A - 50 A	0.3 A - 100 A
Duty cycle 40 °C	–		100 A / 60 %
	20 A / 100 %	50 A / 100 %	70 A / 100 %
Open circuit voltage	95 V		
Mains voltage	230 V		
Tolerances	-40 % - +15 %		
Mains frequency	50 Hz / 60 Hz		
Recommended generator power	1 kVA	2 kVA	8 kVA
Protection classification	IP23		
Safety marking	S CE EAC		
EMC class	A		
Dimensions (L x B x H)	625 mm x 377 mm x 531 mm		
Weight	33.6 kg		
Standards	IEC 60974-1, -3 and -10 CL.A		

Type	Designation	Item no.
Microplasma 25 Comfort 2.0 P RC	DC plasma welding machine with Comfort 2.0 P control	090-007033-00502
Microplasma 55 Comfort 2.0 P RC	DC plasma welding machine with Comfort 2.0 P control	090-007034-00502
Microplasma 105 Comfort 2.0 P RC	DC plasma welding machine with Comfort 2.0 P control	090-007035-00502

▶ You can find information about external interface variants in the Accessories chapter

Options/accessories

Options/accessories

Cooling units		Item no.
Cool 50 MPW50 Cooling unit with centrifugal pump Recommended for manual and partially-mechanised welding tasks When using Microplasma for automated tasks we recommend the use of a recooling unit Modular design, tool-free assembly Excellent torch cooling and therefore cost savings on consumables thanks to the high-performance centrifugal pump External coolant water filling nozzle with filling level indicator		090-008818-00502

Trolley		Item no.
ON WAK TG.0003/TG.0004/TG.0009/K.0002 Wheel assembly kit Wheel set – facilitates work at frequently changing welding sites		092-001356-00000
Transport cart for a power source, cooling unit and two shielding gas cylinders For transporting a power source, a cooling unit and one or two shielding gas cylinders Can be lifted by crane as standard Supplied with roll brakes		
Trolly 55-6 DF		090-008826-00000
Trolly 55-6 Trolley for power source, 1 module, 10 l–50 l shielding gas cylinder		090-008825-00000

Options for welding machines		Item no.
ON Filter TG.0004/K.0002 Dirt filter for air inlet Reliably protects the machine from impurities in difficult working conditions.		092-002698-00000

Options/accessories

Options for welding machines		Item no.
OW 440/460/480 Volt Equipment of the 355/405/505 and 351/401/451/501/551 machines for 3x 440/460/480 V mains connection (ex works only) Multi-voltage design for operation with mains voltages of 440 V, 460 V and 480 V ▶ **Not possible with the compact 355 series machines!**		092-002647-00001
ON Key Switch Tetrix Key switch ▶ **Not possible for Tetrix 300 Comfort machines!**		092-001828-00000
Mains plug, assembled		
Mains plug, factory fitting (no retrofitting)		
OW CEE 32A		092-008215-00000
OW CEE 63A		092-008216-00000

Mains plug		Item no.
Mains plug ▶ **Suitable for all machines with a welding current of 350 A and above (except compact Phoenix 355, compact Taurus 355 and Picomig 355)**		
32A 5POLE/CEE		094-000207-00000
63A 5POLE/CEE		094-003410-00000
125A 5POLE/CEE		094-025475-00000
ADAP CEE16/SCHUKO Earth contact coupling/CEE16A plug		092-000812-00000

Connection cables		Item no.
Connection cable, 19-pole, one-sided wire end ferrules		
RA5 19POL 1x 5M		092-001569-00005
RA10 19POL 1x 10M		092-001569-00010
RA15 19POL 1x 15M		092-001569-00015
RA20 19POL 1x 20M		092-001569-00020
RA25 19POL 1x 25M		092-001569-00025

Welding leads		Item no.
WK25mm² Ø 9 mm 230A/60% 4m FIX Workpiece lead with original FIX clamp		398-000593-00000
Workpiece lead with cable lug		
WK70/CL 5m		092-002078-00005
WK70/CL 10m		092-002078-00010
WK95/CL 5m		092-001990-00005
WK95/CL 10m		092-001990-00010
Workpiece lead with cable lug, angled ▶ **For use with 1,000 A power sources**		
WK95QMM 5m		092-003993-00005
WK95QMM 10m		092-003993-00010

Options/accessories

Pressure regulators		Item no.
Single-stage pressure regulator for measuring pressure Controller in front of gas metering units, for example Cylinder pressure 200 bar Working pressure 0 - 10 bar		
Maxex AR/MIX 200bar 30m³ G1/4“		096-000000-00000
Maxex Hydrogen 200bar 30m³ G3/8“L Cylinder pressure regulator Single-stage pressure regulator for measuring pressure Controller in front of gas metering units, for example		096-000001-00000

General		Item no.
ADAP HILIBO Banana jack adapter		092-001382-00000
ON AL D13/27 Cap for load sockets		092-003282-00000
ADAP 16/25-35 QMM Welding current socket adapter, 9/13 mm (16 mm²/35 mm²)		094-001780-00000
Gas hose Equipped with plastic nuts on both sides for tool-free assembly		
GH 2x1/4“ 2m		094-000010-00001
GH 2x1/4“ 3m		094-000010-00003
GH 2x1/4“ 4m		094-000010-00004
GH 2x1/4“ 5m		094-000010-00005
GH 2X1/4“ 10m		094-000010-00011
GH 2x1/4“ 15m		094-000010-00015
GH 2x1/4“ 20m		094-000010-00021
G1/4“+G3/8“ 2 m Gas hose		092-000525-00001
ADAP3 G1/4-G1/4 LKS Threaded adapter for connecting 1/4“ left-hand thread gas hoses to welding machines with 1/4“ right-hand connecting nipples		094-001652-00000

Options for retrofitting	Item no.
ON FILTER XX2 Dirt filter for air inlet for robot power sources	092-002714-00000

Overview

Plasma automation			Page
Accessories	Gas metering units for Tetrix plasma machines without digital gas control	GDE4, GDE4.1, GDE5	310

Gas metering units for Tetrix plasma machines without digital gas control ■ GDE4, GDE4.1, GDE5

- Gas metering unit with 2 gas quantity meters
- Operation of the gas metering units requires upstream fitting of an appropriate CONSTANT pressure regulator
- **Fields of application:**
- Plasma welding ‚+' pole: aluminium-based alloys
- Plasma welding ‚-' pole: high-alloy steels, nickel, copper, titanium and special alloys

Shielding gas	3.5 l/min - 20 l/min
Pilot arc gas	0.3 l/min - 5.5 l/min
Dimensions (L x B x H)	386 mm x 182 mm x 170 A
Weight	3.76 kg

Type	Designation	Item no.
GDE 4	Gas metering unit with 2 gas quantity meters	090-008848-00000

Gas metering units for Tetrix plasma machines without digital gas control ■ GDE4, GDE4.1, GDE5

- Gas metering unit with 2 gas quantity meters
- Operation of the gas metering units requires upstream fitting of an appropriate CONSTANT pressure regulator
- **Fields of application:**
- Plasma welding ‚+' pole: aluminium-based alloys
- Plasma welding ‚-' pole: high-alloy steels, nickel, copper, titanium and special alloys

Shielding gas	3.5 l/min - 20 l/min
Pilot arc gas	0.1 l/min - 1.1 l/min
Dimensions (L x B x H)	386 mm x 182 mm x 170 mm
Weight	3.76 kg

Type	Designation	Item no.
GDE 4.1	Gas metering unit with 2 gas quantity meters	090-008849-00000

Gas metering units for Tetrix plasma machines without digital gas control ■ GDE4, GDE4.1, GDE5

- Gas metering unit with 3 gas quantity meters
- Operation of the gas metering units requires upstream fitting of an appropriate CONSTANT pressure regulator
- **Fields of application:**
- Plasma welding ‚+' pole: aluminium-based alloys
- Plasma welding ‚-' pole: high-alloy steels, nickel, copper, titanium and special alloys

Shielding gas	3.5 l/min - 20 l/min
Pilot arc gas	0.3 l/min - 5.5 l/min
Pilot arc gas 2	0.1 l/min - 1.1 l/min
Dimensions (L x B x H)	386 mm x 234 mm x 170 mm
Weight	5.56 kg

Type	Designation	Item no.
GDE 5	Gas metering unit with 3 gas quantity meters	090-008850-00000

Overview

Plasma automation	Page
Gateway	314

Gateway

- Xnet LAN gateway
- **Range of functions:**
- Connecting welding machines without integrated Xnet components to an Xnet system (for all EWM machines with integrated 7-pole interface)
- Data transfer via network cable
- USB interface for data recording and data transfer
- Connection of a barcode scanner possible
- Registration option via Xbutton
- Digital display with click wheel operation
- **The following information is shown on the display:**
- network status, network configuration, nominal/actual welding parameters, JOB information, Xnet monitoring of the welding parameters in real time, WPQR welding data assistant, component information, errors and warnings in the system
- **For using it, an Xnet-machine licence is required**

Type	Designation	Item no.
Xnet LAN Gateway	LAN gateway in external housing	090-008833-00502

- Xnet WiFi gateway
- **Range of functions:**
- Connecting welding machines without integrated Xnet components to an Xnet system (for all EWM machines with integrated 7-pole interface)
- Data transfer via WiFi or network cable
- USB interface for data recording and data transfer
- Connection of a barcode scanner possible
- Registration option via Xbutton
- Digital display with click wheel operation
- **The following information is shown on the display:**
- network status, network configuration, nominal/actual welding parameters, JOB information, Xnet monitoring of the welding parameters in real time, WPQR welding data assistant, component information, errors and warnings in the system
- **For using it, an Xnet-machine licence is required**

Type	Designation	Item no.
Xnet WiFi Gateway	WiFi gateway in external casing	090-008834-00502

Options/accessories

Connection cables		Item no.
Connection cable, 7-pole 7-pole connection cable, suitable for installation in drag chains **▶ Connection and extension cable for external LAN and WiFi gateway, panel, remote control**		
FRV-25 7POL 10m		092-003417-00010
FRV-25 7POL 15m		092-003417-00015
FRV-25 7POL 20m		092-003417-00020
FRV-25 7POL 25m		092-003417-00025
FRV-25 7POL 30m		092-003417-00030

Connection cable extension		Item no.
Digital 7-pole cable Digital 7-pole cable Extension for 7-pole remote control with permanently installed cable Connection cable for remote control and gateway without permanently installed cable		
FRV 7POL 0.5m		092-000201-00004
FRV 7POL 1m		092-000201-00002
FRV 7POL 5m		092-000201-00003
FRV 7POL 10m		092-000201-00000
FRV 7POL 15m		092-000201-00005
FRV 7POL 20m		092-000201-00001
FRV 7POL 25m		092-000201-00007

Overview

Plasma automation			Page
Wire feed units	TIG/plasma	T drive 4 Rob 2	318
		T drive 4 Rob 3	319

TIG/plasma ■ T drive 4 Rob 2

- Wire feed unit for high cold wire deposition rates up to 10 m/min
- Reproducible wire feed speed thanks to fully digital control with incremental transducer, adjustable in increments of 0.1 m/min
- 4-roller drive in metal construction with large rollers (37 mm), factory fitted for 1.0-/1.2-mm steel wires
- With inspection window for checking the wire feeder
- Separate buttons on the front for wire return, gas test and wire inching
- Compact machine for simple mounting on or near the robot
- High level of process security thanks to the control, regulation and monitoring of all process data via a central, digital bus system
- Mounting console with strain relief for mounting (optional)

Wire feed speed	0.3 m/min - 10 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Wire-feed speed increments	0.1 m/min
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	407 mm x 201 mm x 229 mm
Weight	9.8 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
T drive 4 Rob 2 IG3	Wire feeder for automated applications, IG3 speedometer solution	090-008785-00502

▶ For replacement rolls and drive rolls for various welding consumables, please refer to the "Wire feeder accessories" chapter.

Options/accessories

Drive rolls – conversion kits		Item no.
Conversion kit for aluminium Includes 4 twin rollers, 2 gears and 2 spacer rings		
URUE AL 4ZR4R 0.8+1.0 SF		092-002268-00000
URUE AL 4ZR4R 1.0+1.2 SF		092-002266-00000
URUE AL 4ZR4R 1.2-1.6 SF		092-002269-00000
URUE AL 4ZR4R 2.4-3.2 SF		092-002270-00000
Conversion kit for flux cored wire Includes 2 twin rolls, 2 gears, 2 pressure rolls and 2 spacer rings		
URUE ROE 2DR4R 0.8/0.9+0.8/0.9 SF		092-000410-00000
URUE ROE 2DR4R 1.0/1.2+1.4/1.6 SF		092-000411-00000
URUE ROE 2DR4R 1.4/1.6+2.0/2.4 SF		092-000412-00000
URUE ROE 2DR4R 2.8+3.2 SF		092-000413-00000

TIG/plasma ■ T drive 4 Rob 3

- Light, compact wire feed unit for high-precision cold wire feed
- Reproducible wire feed speed thanks to fully digital control with rotary transducer, adjustable in increments of 0.1 m/min
- LED display of process status
- 4-roller drive in metal construction with large rollers (37 mm), factory fitted for 1.0-/1.2-mm steel wires
- Tool-free roller changing, captive screws
- With inspection window for checking the wire feeder
- Separate buttons on the front for wire return, gas test and wire inching
- Compact machine for simple mounting on or behind the 3rd robot axis
- High level of process security thanks to the control, regulation and monitoring of all process data via a central, digital bus system
- Mounting console with strain relief for mounting (optional)
- Assembly PCB panel with strain relief

Wire feed speed	0.1 m/min - 5 m/min
Factory-installed roll equipment	1,0 + 1,2 mm , Steel
Wire-feed speed increments	0.01 m/min
Protection classification	IP23
Safety marking	CE EAC
EMC class	A
Dimensions (L x B x H)	345 mm x 230 mm x 250 mm
Weight	6.5 kg
Standards	IEC 60974-1, -5 and -10 CL.A

Type	Designation	Item no.
T Drive 4 Rob 3 LI IG3	Wire feeder for automated applications, opens on left, IG3 speedometer solution	090-008784-00502
T drive 4 Rob 3 RE IG3	Wire feeder for automated applications, opens on right, IG3 speedometer solution	090-008783-00502

▶ For replacement rolls and drive rolls for various welding consumables, please refer to the "Wire feeder accessories" chapter.

Options/accessories

Drive rolls – conversion kits		Item no.
Conversion kit for aluminium Includes 4 twin rollers, 2 gears and 2 spacer rings		
URUE AL 4ZR4R 0.8+1.0 SF		092-002268-00000
URUE AL 4ZR4R 1.0+1.2 SF		092-002266-00000
URUE AL 4ZR4R 1.2-1.6 SF		092-002269-00000
URUE AL 4ZR4R 2.4-3.2 SF		092-002270-00000
Conversion kit for flux cored wire Includes 2 twin rolls, 2 gears, 2 pressure rolls and 2 spacer rings		
URUE ROE 2DR4R 0.8/0.9+0.8/0.9 SF		092-000410-00000
URUE ROE 2DR4R 1.0/1.2+1.4/1.6 SF		092-000411-00000
URUE ROE 2DR4R 1.4/1.6+2.0/2.4 SF		092-000412-00000

Overview

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		PT 150	332
		PT 250	334
		AMW 250	336
		AMW 250-1	338
		PWM 350-S90	340
		PWM 350-S180	343

Plasma welding torches ■ PWM 25

Mechanised plasma welding torch

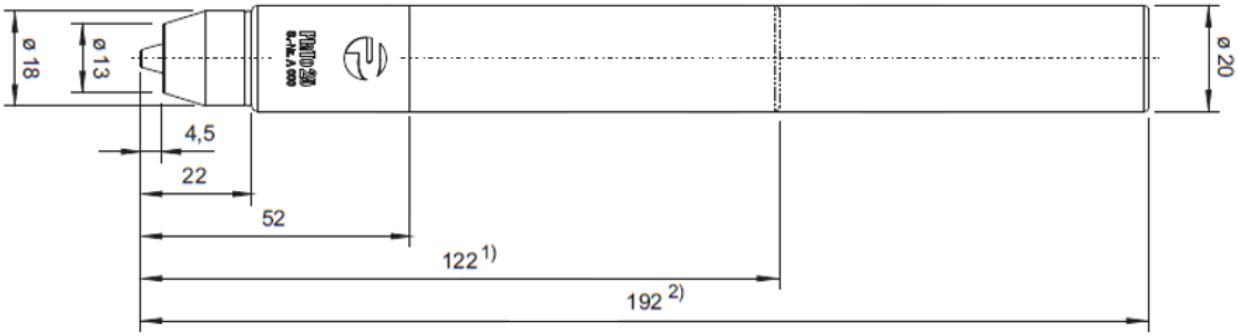
- Straight version (pen welding torch)
- Clamping shaft D=20 mm, L=192 mm
- Basic features: 1.0 mm electrode; long 1.0 mm plasma nozzle; long 11 mm gas nozzle
- For thin material thicknesses of 0.05 mm to 1 mm

Duty cycle DC-

25 A / 100 %

Pilot arc current

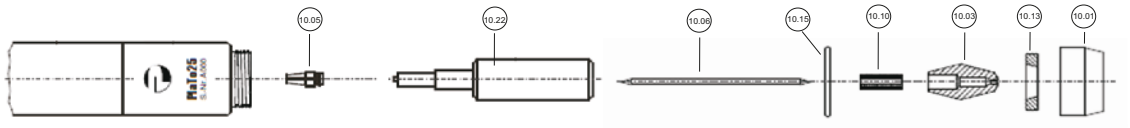
4 A - 10 A



Item	Type	Designation	Length m	Item no.
9	PWM 25 3m	Plasma machine welding torch	3.0	394-006510-00000

▶ Use only with RK1 recooling unit
▶ Other lengths available on request

Consumables/Accessories



Item	Designation	Electro-de Ø	Nozzle Ø	Length	Max. welding current	PU	Item no.
		mm	mm	mm	A	Units	
10.01	Gas nozzle, long	-	9.5	-	-	1	094-008240-00000
10.01	Gas nozzle, long	-	11	-	-	1	094-008239-00000
10.01	Gas nozzle, short	-	11	-	-	1	094-008237-00000
10.01	Gas nozzle, short	-	12	-	-	1	094-008238-00000
10.03	Plasma nozzle	-	0.5	-	10	1	094-009256-00000
10.03	Plasma nozzle	-	0.6	-	15	1	094-008282-00000
10.03	Plasma nozzle	-	0.8	-	20	1	094-008243-00000
10.03	Plasma nozzle	-	1	-	25	1	094-008244-00000
10.03	Plasma nozzle	-	1.2	-	30	1	094-008245-00000
10.03	Plasma nozzle	-	1.4	-	40	1	094-008246-00000
10.03	Plasma nozzle	-	1.6	-	50	1	094-008247-00000
10.03	Plasma nozzle	-	1.8	-	60	1	094-008248-00000
10.03	Plasma nozzle	-	2	-	70	1	094-008249-00000
10.03	Plasma nozzle, long	-	0.5	-	10	1	094-009396-00000
10.03	Plasma nozzle, long	-	0.6	-	15	1	094-009397-00000
10.03	Plasma nozzle, long	-	0.8	-	20	1	094-008252-00000
10.03	Plasma nozzle, long	-	1	-	25	1	094-008253-00000
10.03	Plasma nozzle, long	-	1.2	-	30	1	094-008254-00000
10.03	Plasma nozzle, long	-	1.4	-	40	1	094-008255-00000
10.03	Plasma nozzle, long	-	1.6	-	45	1	094-008256-00000
10.03	Plasma nozzle, long	-	1.8	-	50	1	094-008257-00000
10.03	Plasma nozzle, long	-	2	-	60	1	094-008258-00000
10.05	Collet chuck	1	-	-	-	1	394-007387-00000
10.05	Collet chuck	1.5	-	-	-	1	394-007388-00000
10.06	Tungsten electrode, special	1	-	51	-	1	094-019629-00000
10.06	Tungsten electrode, special	1.5	-	51	-	1	094-008261-00000
10.10	Gas guide insert	1	-	-	-	1	094-019628-00000
10.10	Gas guide insert	1.5	-	-	-	1	094-008241-00000
10.13	Gas lens, coarse-pore	-	-	-	-	1	094-008281-00000
10.13	Gas lens, fine-pore	-	-	-	-	1	094-008242-00000
10.15	O-ring for gas nozzle	-	-	-	-	10	094-008236-00000
10.22	Electrode key	1	-	-	-	1	394-007268-00000
10.22	Electrode key	1.5	-	-	-	1	394-007269-00000
-	Electrode setting gauge	-	-	-	-	1	094-008262-00000

Plasma welding torches ■ PWM 100

Mechanised plasma welding torch

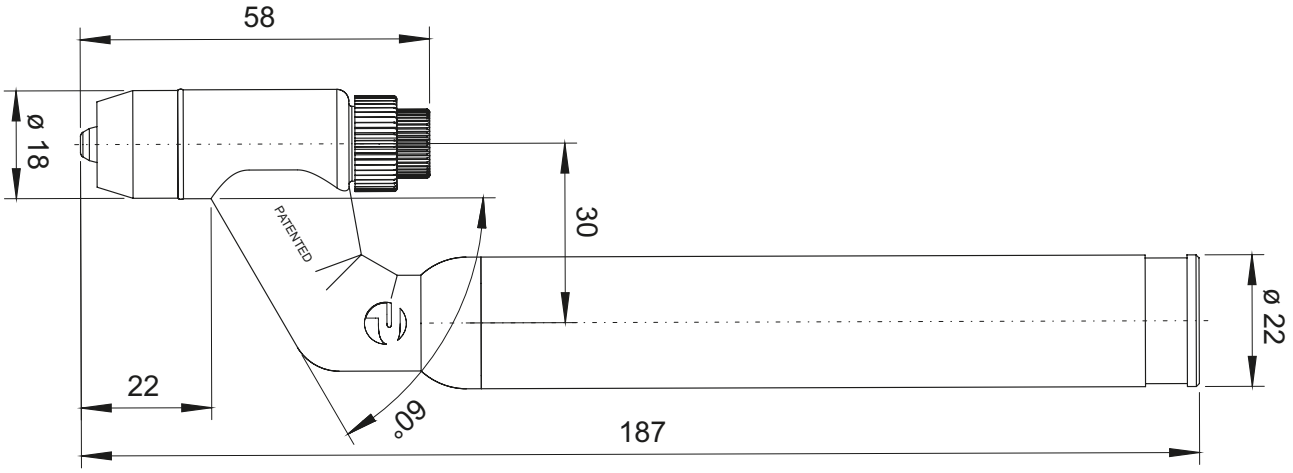
- 30-mm recessed mounting shank
- Basic features: 1.5 mm tungsten electrode, long 1.8 mm plasma nozzle, long 11 mm gas nozzle

Duty cycle DC-
100 A / 100 %

Duty cycle AC
80 A / 100 %

Duty cycle DC+
35 A / 100 %

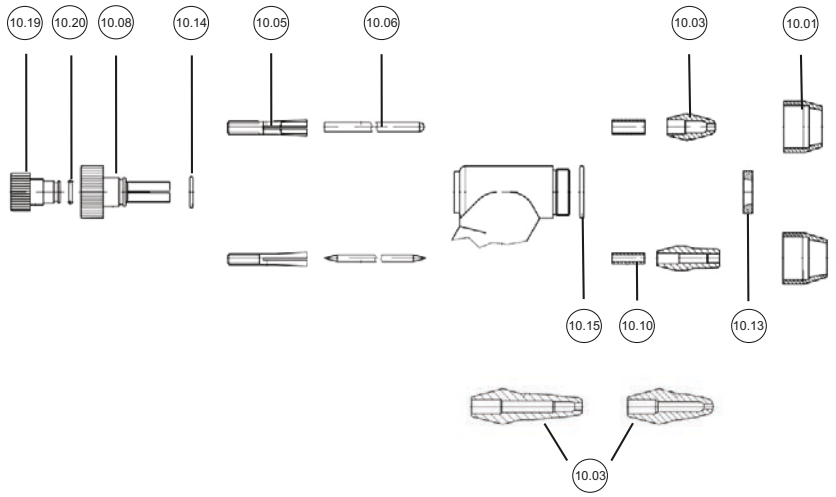
Pilot arc current
2 A - 12 A



Item	Type	Designation	Length m	Item no.
9	PWM 100 3M	Plasma machine welding torch	3.0	094-013799-00000

► Use only with RK2/RK3 recooling unit
► Other lengths available on request

Consumables/Accessories

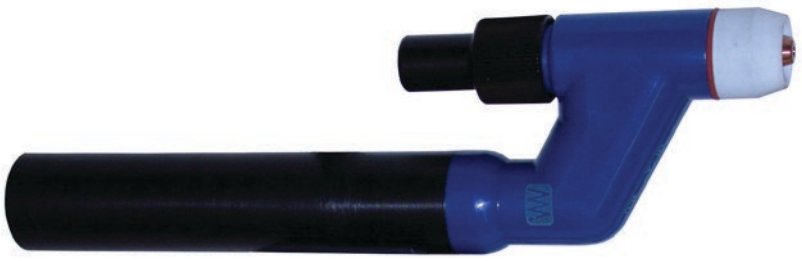


Item	Designation	Electrode Ø	Nozzle Ø	Length	Max. welding current	PU	Item no.
		mm	mm	mm	A	Units	
10.01	Gas nozzle, long	-	9.5	-	-	1	094-008240-00000
10.01	Gas nozzle, long	-	11	-	-	1	094-008239-00000
10.01	Gas nozzle, short	-	11	-	-	1	094-008237-00000
10.01	Gas nozzle, short	-	12	-	-	1	094-008238-00000
10.03	Plasma nozzle	-	0.8	-	20	1	094-008243-00000
10.03	Plasma nozzle	-	1	-	25	1	094-008244-00000
10.03	Plasma nozzle	-	1.2	-	30	1	094-008245-00000
10.03	Plasma nozzle	-	1.4	-	40	1	094-008246-00000
10.03	Plasma nozzle	-	1.6	-	50	1	094-008247-00000
10.03	Plasma nozzle	-	1.8	-	60	1	094-008248-00000
10.03	Plasma nozzle	-	2	-	70	1	094-008249-00000
10.03	Plasma nozzle	-	2.4	-	90	1	094-008250-00000
10.03	Plasma nozzle	-	3	-	100	1	094-008251-00000
10.03	Plasma nozzle, long	-	0.8	-	20	1	094-008252-00000
10.03	Plasma nozzle, long	-	1	-	25	1	094-008253-00000
10.03	Plasma nozzle, long	-	1.2	-	30	1	094-008254-00000
10.03	Plasma nozzle, long	-	1.4	-	40	1	094-008255-00000
10.03	Plasma nozzle, long	-	1.6	-	45	1	094-008256-00000
10.03	Plasma nozzle, long	-	1.8	-	50	1	094-008257-00000
10.03	Plasma nozzle, long	-	2	-	60	1	094-008258-00000
10.03	Plasma nozzle, long	-	3	-	90	1	094-008260-00000
10.05	Collet chuck	1.5	-	-	-	1	094-008235-00000
10.05	Collet chuck	2.4	-	-	-	1	094-008277-00000
10.06	Tungsten electrode, special	1.5	-	72	-	1	094-008951-00000
10.06	Tungsten electrode, DC-	2.4	-	75	-	1	094-008789-00000
10.07	117 mm	-	-	-	-	1	094-008263-00000
10.08	Collet casing	-	-	-	-	1	094-008276-00000
10.10	Gas guide insert	1.5	-	-	-	1	094-008241-00000
10.10	Gas guide insert	2.4	-	-	-	1	094-008787-00000
10.13	Gas lens, coarse-pore	-	-	-	-	1	094-008281-00000
10.13	Gas lens, fine-pore	-	-	-	-	1	094-008242-00000
10.14	O-ring for collet casing	-	-	-	-	10	094-008234-00000
10.15	O-ring for gas nozzle	-	-	-	-	10	094-008236-00000
10.19	Back cap, complete	-	-	-	-	1	094-008274-00000
10.20	O-ring for back cap	-	-	-	-	10	094-008233-00000
-	Electrode setting gauge	-	-	-	-	1	094-008262-00000

Options/accessories

Replacement parts sets	Item no.
PWH/PWM 100 Consumables box, PWH/PWM 100	094-008270-00000

Plasma welding torches ■ PWM 150



Mechanised plasma welding torch

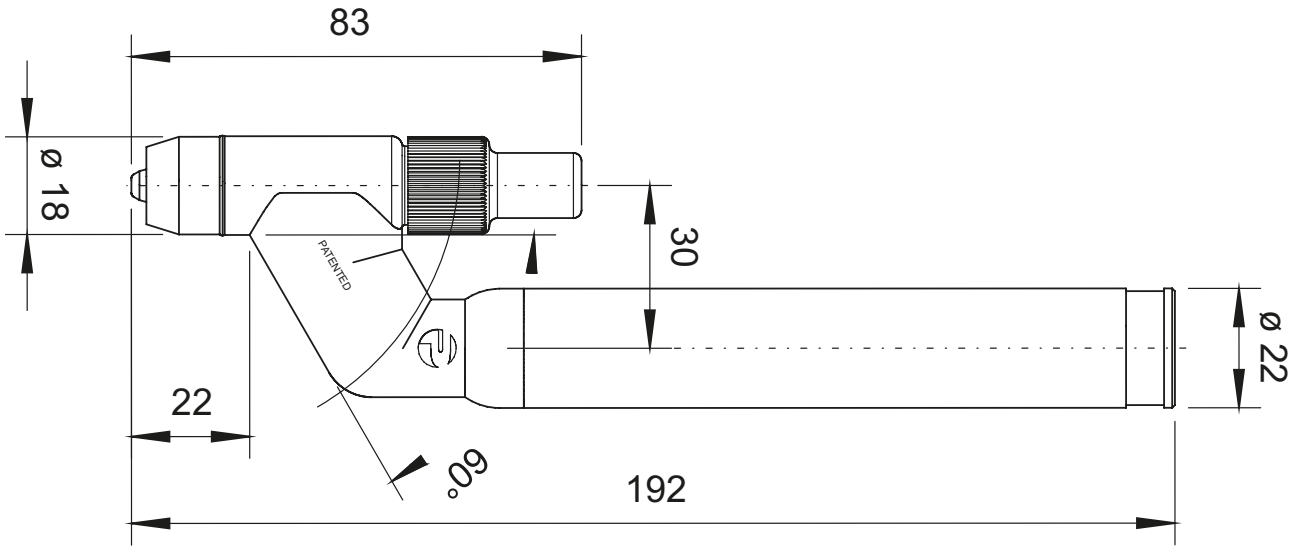
- 30-mm recessed mounting shank
- Basic features: 2.4-mm electrode, 2.4-mm plasma nozzle, short 12-mm gas nozzle

Duty cycle DC-
150 A / 100 %

Duty cycle AC
120 A / 100 %

Duty cycle DC+
50 A / 100 %

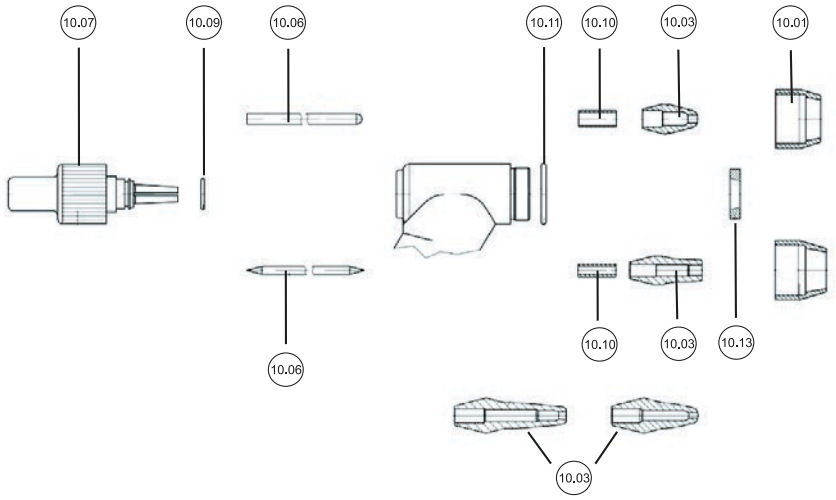
Pilot arc current
2 A - 12 A



Item	Type	Designation	Length m	Item no.
9	PWM 150 4 m, 2,4 mm	Plasma machine welding torch	4.0	094-008784-00000
9	PWM 150 6m, 2,4 mm		6.0	094-008784-00006

▶ Use only with RK2/RK3 recooling unit
▶ Other lengths available on request

Consumables/Accessories



Item	Designation	Electro-de Ø	Nozzle Ø	Length	Max. welding current	PU	Item no.
		mm	mm	mm	A	Units	
10.01	Gas nozzle, long	-	9.5	-	-	1	094-008240-00000
10.01	Gas nozzle, long	-	11	-	-	1	094-008239-00000
10.01	Gas nozzle, short	-	11	-	-	1	094-008237-00000
10.01	Gas nozzle, short	-	12	-	-	1	094-008238-00000
10.03	Plasma nozzle	-	0.8	-	20	1	094-008243-00000
10.03	Plasma nozzle	-	1.4	-	40	1	094-008246-00000
10.03	Plasma nozzle	-	1.6	-	50	1	094-008247-00000
10.03	Plasma nozzle	-	1.8	-	60	1	094-008248-00000
10.03	Plasma nozzle	-	2	-	70	1	094-008249-00000
10.03	Plasma nozzle	-	2.4	-	90	1	094-008250-00000
10.03	Plasma nozzle	-	3	-	100	1	094-008251-00000
10.03	Plasma nozzle	-	3.2	-	100	1	094-009126-00000
10.03	Plasma nozzle	-	3.6	-	-	1	094-009395-00000
10.03	Plasma nozzle, positive terminal	-	1.2	-	-	1	094-008264-00000
10.03	Plasma nozzle, positive terminal	-	1.6	-	-	1	094-008265-00000
10.03	Plasma nozzle, positive terminal	-	2	-	-	1	094-008266-00000
10.03	Plasma nozzle, positive terminal	-	2.4	-	-	1	094-008267-00000
10.03	Plasma nozzle, long	-	2.2	-	70	1	094-008550-00000
10.03	Plasma nozzle, long	-	2.6	-	85	1	094-008551-00000
10.06	Tungsten electrode, special	1.5	-	72	-	1	094-008951-00000
10.06	Tungsten electrode, DC-	2.4	-	75	-	1	094-008789-00000
10.06	Tungsten electrode, DC-	3.2	-	75	-	1	094-008952-00000
10.07	Clamping module	1.5	-	-	-	1	094-008557-00000
10.07	Clamping module	2.4	-	-	-	1	094-009398-00000
10.07	Clamping module	3.2	-	-	-	1	094-009399-00000
10.10	Gas guide insert	1.5	-	-	-	1	094-008241-00000
10.10	Gas guide insert	2.4	-	-	-	1	094-008787-00000
10.13	Gas lens, fine-pore	-	-	-	-	1	094-008242-00000
10.14	O-ring for collet casing	-	-	-	-	10	094-008234-00000
-	Adjusting and test probe	-	-	27.5	-	1	094-008556-00000
-	Electrode setting gauge	-	-	-	-	1	094-008262-00000
-	Nozzle key	-	-	-	-	1	094-008554-00000

Options/accessories

Replacement parts sets	Item no.
PWH/PWM 150 Consumables box, PWH/PWM 150	094-009674-00000

Plasma welding torches ■ PWM 250

Mechanised plasma welding torch

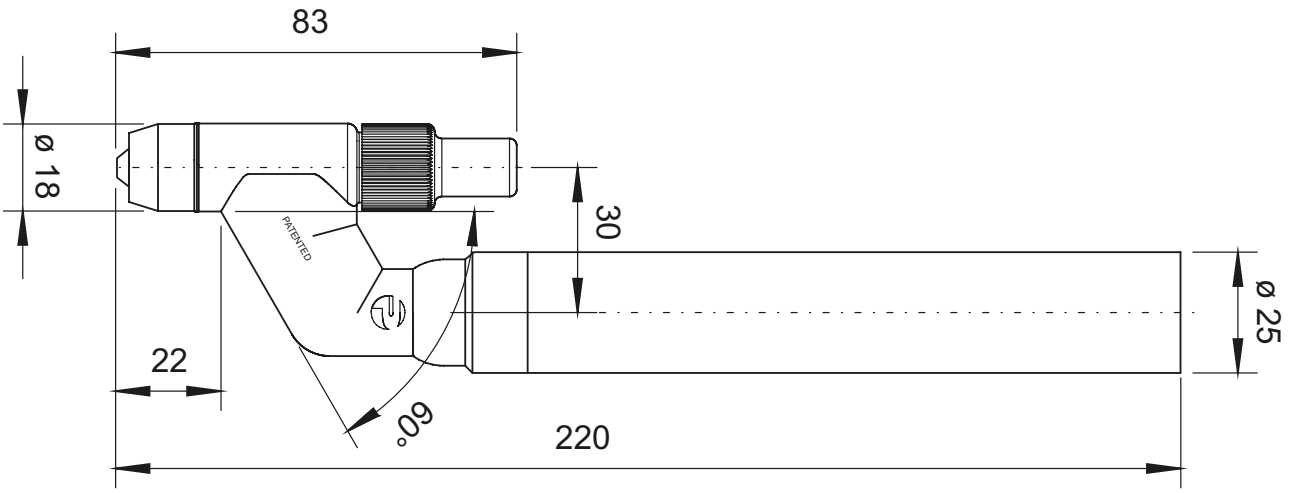
- Water-cooled
- 30-mm recessed mounting shank
- Basic features: Short gas nozzle: 12 mm, gas guide insert: Ø 2.4 mm; gas lens, plasma nozzle: Ø 2.4 mm; clamping module: Ø 2.4 mm; tungsten electrode: Ø 2.4 mm

Duty cycle DC-
250 A / 100 %

Plasma gas
0.2 l/min - 1.5 l/min

Pilot arc current
5 A - 12 A

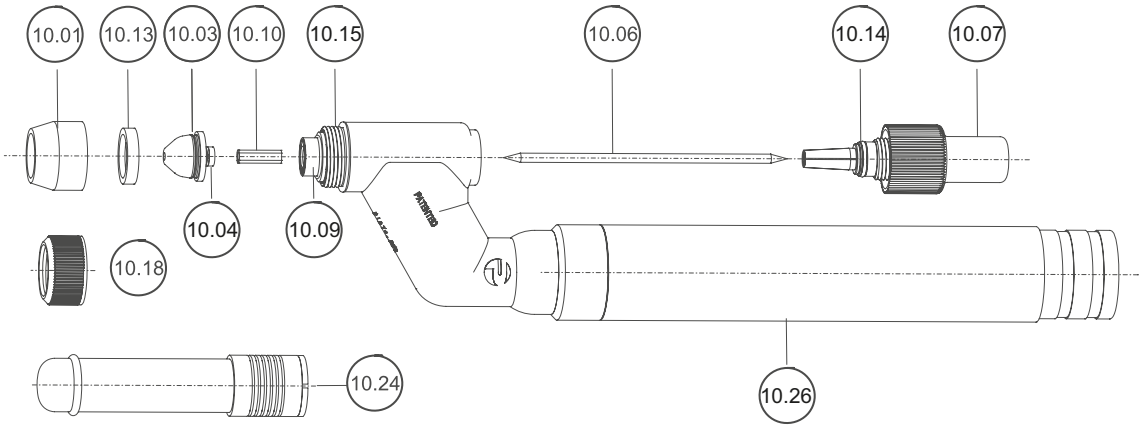
Nozzle Ø
1 mm - 4.2 mm



Item	Type	Designation	Length m	Item no.
9			4.0	094-019224-00000
9	PWM 250	Plasma machine welding torch	6.0	094-019224-00006
9			8.0	094-019224-00008

▶ Use with RK2.1/RK3.1 recooling unit only
▶ Other lengths available on request

Consumables/Accessories

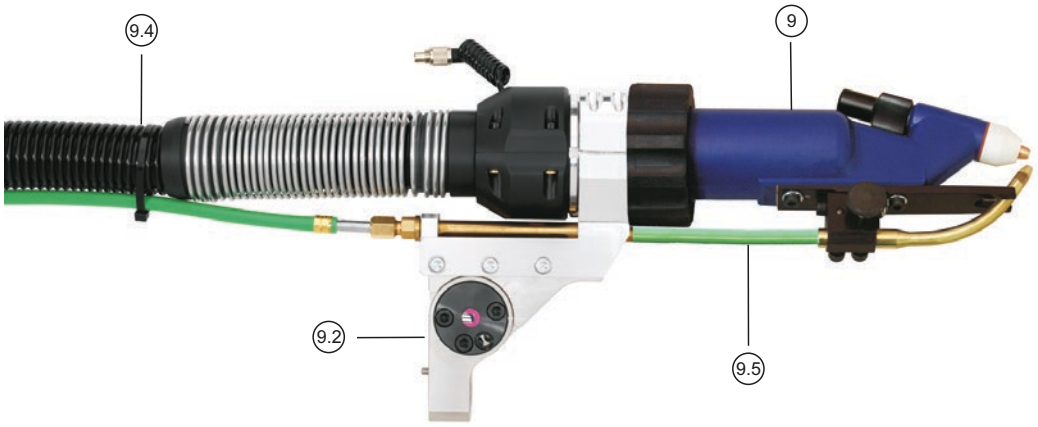


Item	Designation	Electro-de Ø	Nozzle Ø	Length	PU	Item no.
		mm	mm	mm	Units	
10.01	Gas nozzle, short	-	11	-	1	094-008237-00000
10.01	Gas nozzle, short	-	12	-	1	094-008238-00000
10.03	Plasma nozzle	-	1	-	1	094-019228-00000
10.03	Plasma nozzle	-	1.2	-	1	094-019229-00000
10.03	Plasma nozzle	-	1.4	-	1	094-019230-00000
10.03	Plasma nozzle	-	1.6	-	1	094-019231-00000
10.03	Plasma nozzle	-	1.8	-	1	094-019232-00000
10.03	Plasma nozzle	-	2	-	1	094-019233-00000
10.03	Plasma nozzle	-	2.2	-	1	094-019234-00000
10.03	Plasma nozzle	-	2.4	-	1	094-019235-00000
10.03	Plasma nozzle	-	2.6	-	1	094-019236-00000
10.03	Plasma nozzle	-	2.8	-	1	094-019237-00000
10.03	Plasma nozzle	-	3	-	1	094-019238-00000
10.03	Plasma nozzle	-	3.2	-	1	094-019239-00000
10.03	Plasma nozzle	-	3.4	-	1	094-019240-00000
10.03	Plasma nozzle	-	3.6	-	1	094-019241-00000
10.03	Plasma nozzle	-	3.8	-	1	094-019242-00000
10.03	Plasma nozzle	-	4	-	1	094-019243-00000
10.03	Plasma nozzle	-	4.2	-	1	094-019244-00000
10.06	Tungsten electrode, special	1.5	-	72	1	094-008951-00000
10.06	Tungsten electrode, DC-	2.4	-	75	1	094-008789-00000
10.06	Tungsten electrode, DC-	3.2	-	75	1	094-008952-00000
10.06	Tungsten electrode, DC+/AC	3.2	-	40	1	094-008268-00000
10.07	Clamping module	1.5	-	-	1	094-008557-00000
10.07	Clamping module	2.4	-	-	1	094-009398-00000
10.07	Clamping module	3.2	-	-	1	094-009399-00000
10.09	O-Ring for plasma nozzle	-	-	-	10	094-019245-00000
10.09	O-ring	-	-	-	10	094-019227-00000
10.10	Gas guide insert	1.5	-	-	1	094-008241-00000
10.10	Gas guide insert	2.4	-	-	1	094-008787-00000
10.13	Gas lens	-	-	-	1	094-019246-00000
10.14	O-ring for collet casing	-	-	-	10	094-008234-00000
10.15	O-ring for gas nozzle	-	-	-	10	094-008236-00000
10.18	Nozzle cap	-	-	-	1	094-019247-00000
10.26	Handle	-	-	-	1	094-019250-00000

Options/accessories

Accessories	Item no.
PWH 250 Nozzle wrench	094-019248-00000
ADAP PWH 250 Connecting piece	094-019249-00000

Plasma welding torches ■ PWM 150 ROB



Mechanised plasma welding torch

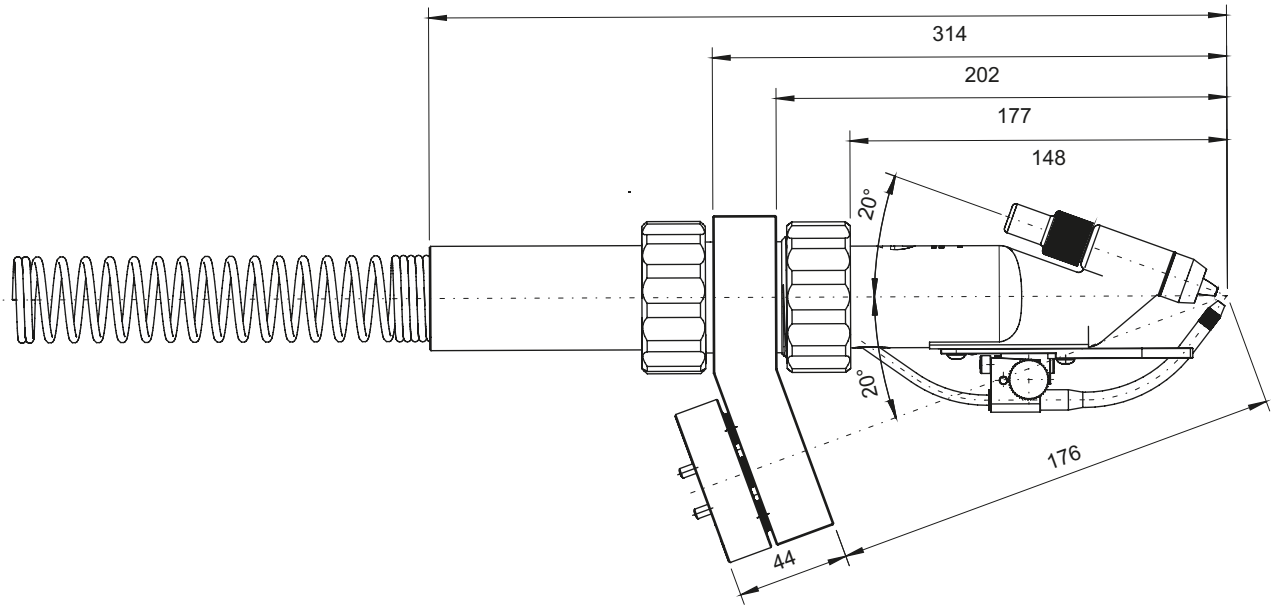
- Maximum power density
- Cold wire feed as option
- Medium interface with quick-change unit
- Basic features: 1.5 mm special electrode, 2.8 mm plasma nozzle, 11 mm long gas nozzle, 1.1 mm wire feed nozzle

Duty cycle DC-
150 A / 100 %

Duty cycle AC
120 A / 100 %

Duty cycle DC+
50 A / 100 %

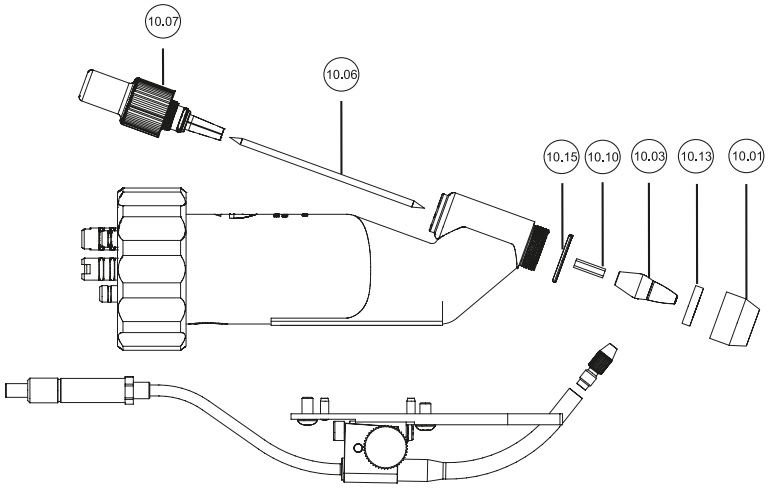
Pilot arc current
2 A - 12 A



Item	Type	Designation	Length m	Item no.
9	PWM 150 ROB 20°	Plasma machine welding torch	-	094-021870-00000
9	PWM 150-ROB-20° KD			094-008495-00000
9.2	SH PLASMA CT	Segment holder for plasma torch		094-016314-00000
9.4	SP CT20 W 4m	Hose package plasma torch	4.0	094-016315-00000
9.4	SP CT20 W 6m		6.0	094-016315-00006
9.4	SP CT20 W 8m		8.0	094-016315-00008
9.5	KDZ PMW 150 ROB TYP III	Cold wire feed	-	094-008496-00000
20.03		Guide for wire feed hose		094-016321-00000
20.04	–	Guide tube		094-016323-00000
20.06		Plasma torch crown nut		094-016325-00000

▶ Use only with RK2/RK3 recooling unit

Consumables/Accessories

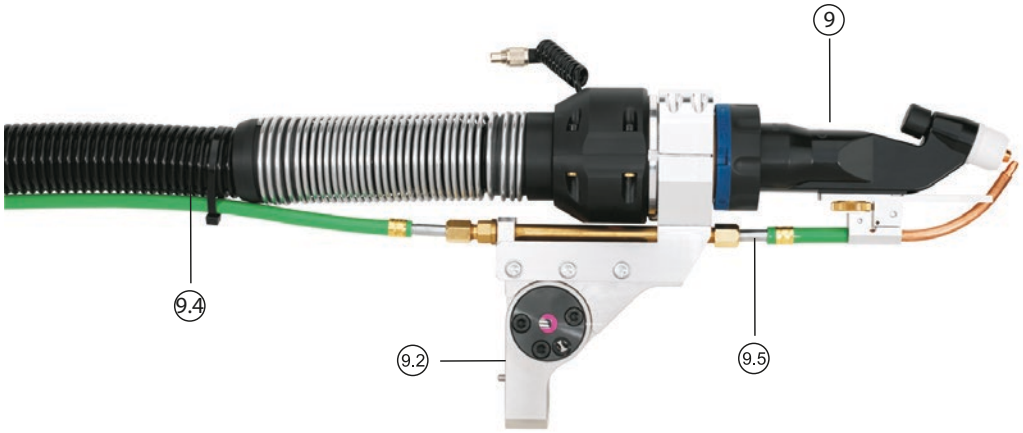


Item	Designation	Electrode Ø	Nozzle Ø	Length	Max. welding current	PU	Item no.
		mm	mm	mm	A	Units	
10.01	Gas nozzle, long	-	9.5	-	-	1	094-008240-00000
10.01	Gas nozzle, long	-	11	-	-	1	094-008239-00000
10.01	Gas nozzle, short	-	11	-	-	1	094-008237-00000
10.01	Gas nozzle, short	-	12	-	-	1	094-008238-00000
10.03	Plasma nozzle, long	-	2.8	-	-	1	094-015592-00000
10.03	Plasma nozzle	-	0.8	-	20	1	094-008243-00000
10.03	Plasma nozzle	-	1.4	-	40	1	094-008246-00000
10.03	Plasma nozzle	-	1.6	-	50	1	094-008247-00000
10.03	Plasma nozzle	-	1.8	-	60	1	094-008248-00000
10.03	Plasma nozzle	-	2	-	70	1	094-008249-00000
10.03	Plasma nozzle	-	2.4	-	90	1	094-008250-00000
10.03	Plasma nozzle	-	3	-	100	1	094-008251-00000
10.03	Plasma nozzle	-	3.2	-	100	1	094-009126-00000
10.03	Plasma nozzle	-	3.6	-	-	1	094-009395-00000
10.03	Plasma nozzle, positive terminal	-	1.2	-	-	1	094-008264-00000
10.03	Plasma nozzle, positive terminal	-	1.6	-	-	1	094-008265-00000
10.03	Plasma nozzle, positive terminal	-	2	-	-	1	094-008266-00000
10.03	Plasma nozzle, positive terminal	-	2.4	-	-	1	094-008267-00000
10.03	Plasma nozzle, long	-	0.8	-	20	1	094-008252-00000
10.03	Plasma nozzle, long	-	1	-	25	1	094-008253-00000
10.03	Plasma nozzle, long	-	1.2	-	30	1	094-008254-00000
10.03	Plasma nozzle, long	-	1.4	-	40	1	094-008255-00000
10.03	Plasma nozzle, long	-	1.6	-	45	1	094-008256-00000
10.03	Plasma nozzle, long	-	1.8	-	50	1	094-008257-00000
10.03	Plasma nozzle, long	-	2	-	60	1	094-008258-00000
10.03	Plasma nozzle, long	-	2.2	-	70	1	094-008550-00000
10.03	Plasma nozzle, long	-	2.6	-	85	1	094-008551-00000
10.03	Plasma nozzle, long	-	3	-	90	1	094-008260-00000
10.06	Tungsten electrode, special	1.5	-	72	-	1	094-008951-00000
10.07	Clamping module	1.5	-	-	-	1	094-008557-00000
10.07	Clamping module	2.4	-	-	-	1	094-009398-00000
10.07	Clamping module	3.2	-	-	-	1	094-009399-00000
10.10	Gas guide insert	1.5	-	-	-	1	094-008241-00000
10.13	Gas lens, fine-pore	-	-	-	-	1	094-008242-00000
10.15	O-ring for gas nozzle	-	-	-	-	10	094-008236-00000
-	Adjusting and test probe	-	-	27.5	-	1	094-008556-00000
-	Electrode setting gauge	-	-	-	-	1	094-008262-00000
-	Nozzle key	-	-	-	-	1	094-008554-00000

Options/accessories

Torch accessories	Item no.
WFNOZZ PMW 1.1 Wire feed nozzle	094-008552-00000
WFNOZZ PMW 1.3 Wire feed nozzle	094-008553-00000

Plasma welding torches ■ PT 150



Mechanised plasma welding torch

- Excellent gas shielding due to special gas lens enables processing of sensitive materials
- Stable, soft arc ensures spatter-free joining and coating without any need for post-weld work
- Optimum cooling
- Compact design for excellent accessibility
- Basic features: Torch body, 2.4-mm sealing cap, 2.4-mm tungsten electrode, 2.4-mm centring ceramic, insulation ring, 1.8-mm plasma nozzle, gas distributor, shielding gas nozzle, setting gauge

Pilot arc current
2 A - 10 A

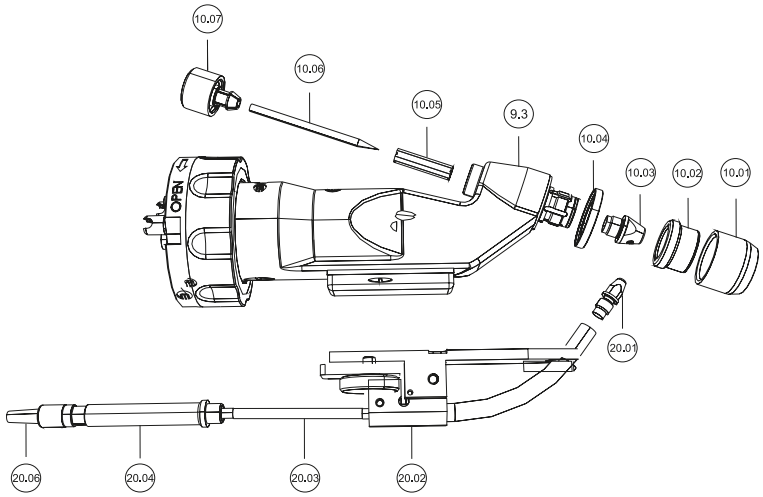
Plasma
15 A - 150 A

Nozzle Ø
1.2 mm - 3.6 mm

Item	Type	Designation	Length m	Item no.
9	PT150 TE2.4/PN1.8	Plasma robot welding torch	-	094-016988-00000
9.2	SH PLASMA CT	Segment holder for plasma torch		094-016314-00000
9.4	SP CT20 W 4m	Hose package plasma torch	4.0	094-016315-00000
9.4	SP CT20 W 6m		6.0	094-016315-00006
9.4	SP CT20 W 8m		8.0	094-016315-00008
9.5	CWF 150 CT20	Plasma cold wire feed, set	-	094-016318-00000

▶ Use only with RK2/RK3 recooling unit

Consumables/Accessories

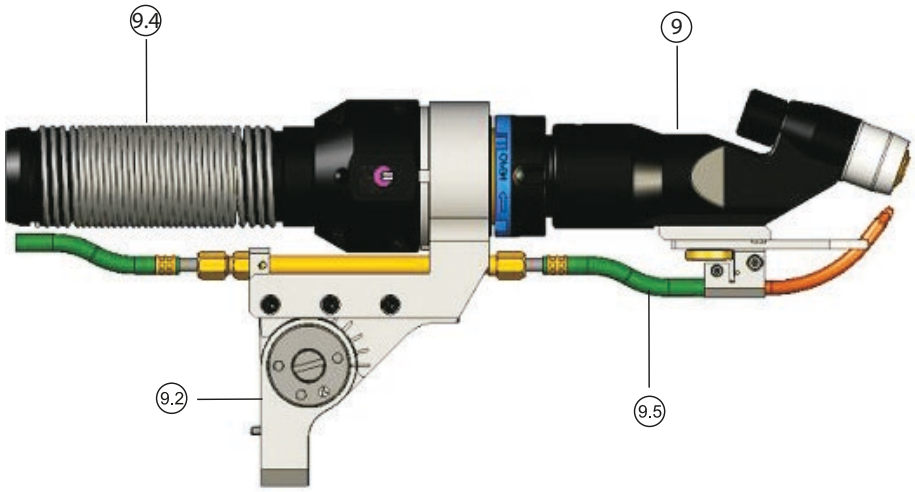


Item	Designation	Electrode Ø mm	Nozzle Ø mm	Wire Ø mm	Length mm	PU Units	Item no.
10.01	Plasma torch shielding gas nozzle	-	-	-	-	1	094-016350-00000
10.01	Plasma torch shielding gas nozzle, long	-	-	-	-	1	094-016351-00000
10.02	Gas lens	-	-	-	-	1	094-016349-00000
10.03	Plasma nozzle	-	1.4	-	-	1	094-016340-00000
10.03	Plasma nozzle	-	1.6	-	-	1	094-016341-00000
10.03	Plasma nozzle	-	1.8	-	-	1	094-016342-00000
10.03	Plasma nozzle	-	2	-	-	1	094-016343-00000
10.03	Plasma nozzle	-	2.3	-	-	1	094-016344-00000
10.03	Plasma nozzle	-	2.6	-	-	1	094-016345-00000
10.03	Plasma nozzle	-	3.6	-	-	1	094-016346-00000
10.03	Plasma nozzle, long	-	1.6	-	-	1	094-016347-00000
10.03	Plasma nozzle, long	-	2	-	-	1	094-015515-00000
10.03	Plasma nozzle, long	-	2.6	-	-	1	094-016348-00000
10.04	Insulation ring 150CT	-	-	-	-	1	094-016339-00000
10.05	Centring ceramic	-	1.6	-	-	1	094-016336-00000
10.05	Centring ceramic	-	2.4	-	-	1	094-016337-00000
10.05	Centring ceramic	-	3.2	-	-	1	094-016338-00000
10.06	WP	1.6	-	-	57	1	094-016332-00000
10.06	WP	2.4	-	-	57	1	094-016333-00000
10.06	WP	3.2	-	-	57	1	094-016334-00000
10.07	Back cap	1.6	-	-	-	1	094-016327-00000
10.07	Back cap	2.4	-	-	-	1	094-016328-00000
10.07	Back cap	3.2	-	-	-	1	094-016329-00000
10.07	Torch locking cap, long	-	-	-	75	1	094-016330-00000
10.07	Torch locking cap, long	-	-	-	100	1	094-016331-00000
20.01	Wire feed nozzle	-	-	0.6	-	1	094-010126-00000
20.01	Wire feed nozzle	-	-	0.8	-	1	094-010127-00000
20.01	Wire feed nozzle	-	-	1	-	1	094-010128-00000
20.01	Wire feed nozzle	-	-	1.2	-	1	094-010129-00000
20.01	Wire feed nozzle	-	-	1.6	-	1	094-010130-00000
20.02	Cold wire feed	-	-	-	-	1	094-016320-00000
20.03	Guide for wire feed hose	-	-	-	-	1	094-016321-00000
20.04	Guide tube	-	-	-	-	1	094-016323-00000
20.06	Plasma torch crown nut	-	-	-	-	1	094-016325-00000
-	Plasma torch threaded pin	-	-	-	-	1	094-016324-00000
-	Setting gauge for plasma torch	-	-	-	-	1	094-016352-00000
-	Setting gauge for plasma torch, long	-	-	-	-	1	094-016353-00000

Options/accessories

Torch accessories	Item no.
TB 150CT20 Torch body	094-016312-00000

Plasma welding torches ■ PT 250



Mechanised plasma welding torch

- Excellent gas shielding due to special gas lens enables processing of sensitive materials
- Stable, soft arc ensures spatter-free joining and coating without any need for post-weld work
- Optimum cooling
- Compact design for excellent accessibility
- Basic features: Torch body, 5.0-mm sealing cap, 5.0-mm tungsten electrode, 5.0-mm centring ceramic, insulation ring, distribution ring, gas diffuser, 4.0-mm plasma nozzle, mounting nut, shielding gas nozzle, setting gauge

Pilot arc current
4 A - 15 A

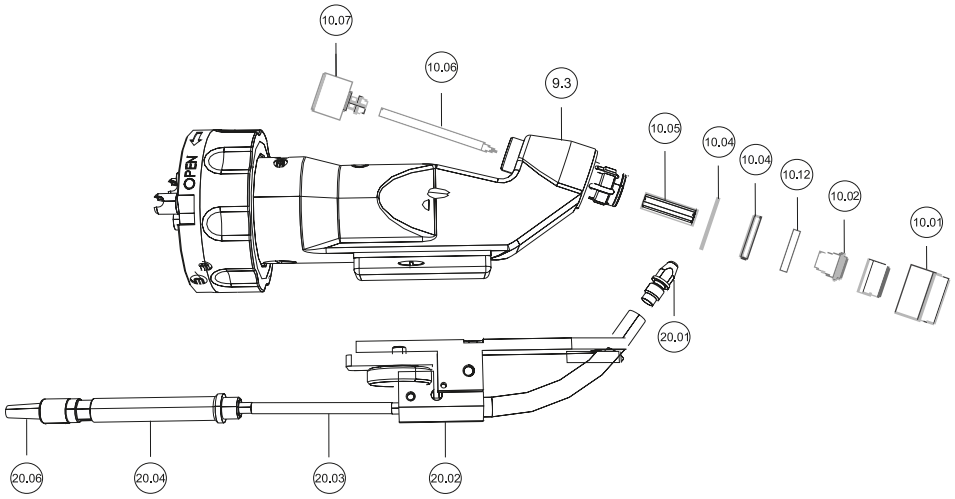
Plasma
80 A - 250 A

Nozzle Ø
3 mm - 4.5 mm

Item	Type	Designation	Length m	Item no.
9	PT250CW ZF1.0/TE5.0/PN4.0	Plasma robot welding torch, cold wire, water-cooled	-	094-016989-00000
9.2	SH PLASMA CT	Segment holder for plasma torch		094-016314-00000
9.4	SP CT20 W 4m	Hose package plasma torch	4.0	094-016315-00000
9.4	SP CT20 W 6m		6.0	094-016315-00006
9.4	SP CT20 W 8m		8.0	094-016315-00008
9.5	CWF SET 150/250 CT20	Plasma cold wire feed, set	-	094-016319-00000

▶ Use with RK2.1/RK3.1 recooling unit only

Consumables/Accessories



Item	Designation	Electro-de Ø	Nozzle Ø	Wire Ø	Length	PU	Item no.
		mm	mm	mm	mm	Units	
10.01	Plasma torch shielding gas nozzle	-	-	-	-	1	094-016365-00000
10.02	Gas lens	-	-	-	-	1	094-016359-00000
10.03	Plasma nozzle	-	3	-	-	1	094-016360-00000
10.03	Plasma nozzle	-	3.5	-	-	1	094-016361-00000
10.03	Plasma nozzle	-	4	-	-	1	094-016362-00000
10.03	Plasma nozzle	-	4.5	-	-	1	094-016363-00000
10.04	Insulation ring 250CT	-	-	-	-	1	094-016357-00000
10.05	Centring ceramic	-	-	-	-	1	094-016356-00000
10.06	WP	1.6	-	-	57	1	094-016332-00000
10.06	WP	2.4	-	-	57	1	094-016333-00000
10.06	WP	3.2	-	-	57	1	094-016334-00000
10.07	Back cap	5	-	-	-	1	094-016354-00000
10.12	Plasma torch distributor ring	-	-	-	-	1	094-016358-00000
20.01	Wire feed nozzle	-	-	0.6	-	1	094-010126-00000
20.01	Wire feed nozzle	-	-	0.8	-	1	094-010127-00000
20.01	Wire feed nozzle	-	-	1	-	1	094-010128-00000
20.01	Wire feed nozzle	-	-	1.2	-	1	094-010129-00000
20.01	Wire feed nozzle	-	-	1.6	-	1	094-010130-00000
20.02	Cold wire feed	-	-	-	-	1	094-016320-00000
20.03	Guide for wire feed hose	-	-	-	-	1	094-016322-00000
20.04	Guide tube	-	-	-	-	1	094-016323-00000
20.06	Plasma torch crown nut	-	-	-	-	1	094-016325-00000
-	Plasma torch threaded pin	-	-	-	-	1	094-016324-00000
-	Torch holder TB250, complete	-	-	-	-	1	094-016326-00000
-	Mounting nut	-	-	-	-	1	094-016364-00000
-	Setting gauge for plasma torch	-	-	-	-	1	094-016366-00000

Options/accessories

Torch accessories	Item no.
Torch body	094-016313-00000

Plasma welding torches ■ AMW 250

TIG pilot arc/AMW 250 plasma welding torch

- Water cooled
- Clamping shaft 32 mm
- Basic features: Electrode 3.2 mm, short welding nozzle

Duty cycle DC-

250 A / 100 %

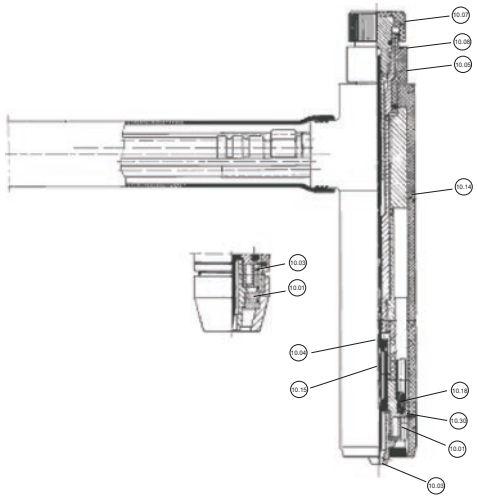
Duty cycle AC

220 A / 100 %

Item	Type	Designation	Length m	Item no.
9	AMW 250 4M	TIG pilot arc/plasma machine welding torch	4.0	094-001752-00004
9	AMW 250 6M		6.0	094-001752-00000
9	AMW 250 8M		8.0	094-001752-00008
9	AMW 250 10M		10.0	094-001752-00010

▶ Standard equipment for TIG pilot arc operation.
▶ Please order corresponding plasma welding nozzle with gas nozzle 094-001968-00000 for plasma operation!
▶ Use only with RK2/RK3 or RK2.1/RK3.1 recooling units

Consumables/Accessories



Item	Designation	Size in mm	Electrode Ø mm	Nozzle Ø mm	Inside Ø mm	PU Units	Item no.
10.01	Gas nozzle, ceramic, complete	-	-	-	-	1	094-001968-00000
10.01	Gas nozzle, metal, complete	-	-	-	-	1	094-001970-00000
10.01	Gas nozzle, metal, complete, narrow	-	-	-	-	1	094-002533-00000
10.01	Gas nozzle	-	-	-	-	1	394-006131-00000
10.03	Welding nozzle, short	-	-	-	-	1	094-001967-00000
10.03	Welding nozzle, long	-	-	-	-	1	094-021011-00000
10.03	Welding nozzle	-	-	4	-	1	094-001969-00000
10.03	Welding nozzle	-	-	5	-	1	094-001971-00000
10.03	Welding nozzle	-	-	4	-	1	094-002534-00000
10.04	Insulator	-	-	-	-	1	094-012326-00000
10.05	Collet	-	-	-	3.2	1	094-001963-00000
10.06	Tungsten electrode	-	3.2	-	-	1	094-001956-00000
10.07	Torch cap	-	-	-	-	1	094-001965-00000
10.08	Collet body, long thread	-	-	-	3.2	1	094-001960-00000
10.09	O-ring	9,5 x 1,6	-	-	-	1	094-016584-00000
10.09	O-ring	14,0 x 2,0	-	-	-	1	094-016588-00000
10.14	Insulation tube	-	-	-	-	1	094-013668-00000
10.15	Centring piece	-	-	-	-	1	094-001958-00000
10.18	Spot welding nozzle holder	-	-	-	-	1	094-012229-00000
10.27	Connector plug	-	-	-	-	1	094-021771-00000
10.28	Screw for plasma torch	-	-	-	-	1	394-006133-00000
10.30	Plasma torch seal	-	-	-	-	1	394-006132-00000
10.31	Flat seal	-	-	-	-	1	094-012581-00000
10.31	Flat seal	-	-	-	-	1	094-012913-00000
Equipment for 4mm electrode							
10.06	Tungsten electrode, special	-	4	-	-	1	094-017010-00000
10.05	Collet	-	-	-	4	1	094-016587-00000
10.08	Clamping sleeve housings	-	-	-	4	1	094-001961-00000
10.15	Centring piece	4	-	-	-	1	094-001959-00000
Welding nozzles for plasma operation							
10.03	Welding nozzle	-	-	2	-	1	094-001972-00000
10.03	Welding nozzle	-	-	2.8	-	1	094-001973-00000
10.03	Welding nozzle	-	-	3.2	-	1	094-001974-00000
10.03	Welding nozzle	-	-	3.5	-	1	094-001975-00000
10.03	Welding nozzle	-	-	4	-	1	394-009267-00000

Plasma welding torches ■ AMW 250-1

TIG pilot arc/AMW 250-1 plasma welding torch

- Water cooled
- Clamping shaft 35 mm
- Basic features: Electrode 3.2 mm, long welding nozzle

Duty cycle DC-

250 A / 100 %

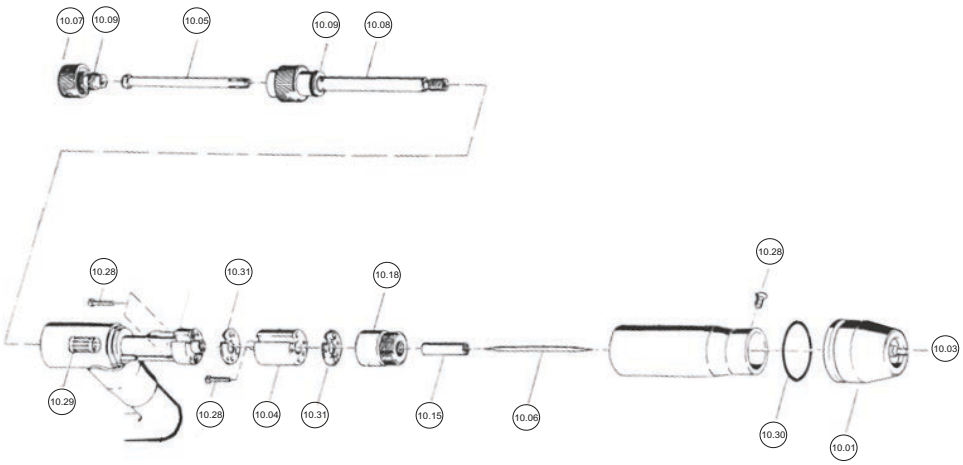
Duty cycle AC

220 A / 100 %

Item	Type	Designation	Length m	Item no.		
9	AMW 250-1 4M	TIG pilot arc/plasma machine welding torch	4.0	094-023252-00004		
9	AMW 250-1 6M		6.0	094-023252-00006	E1	

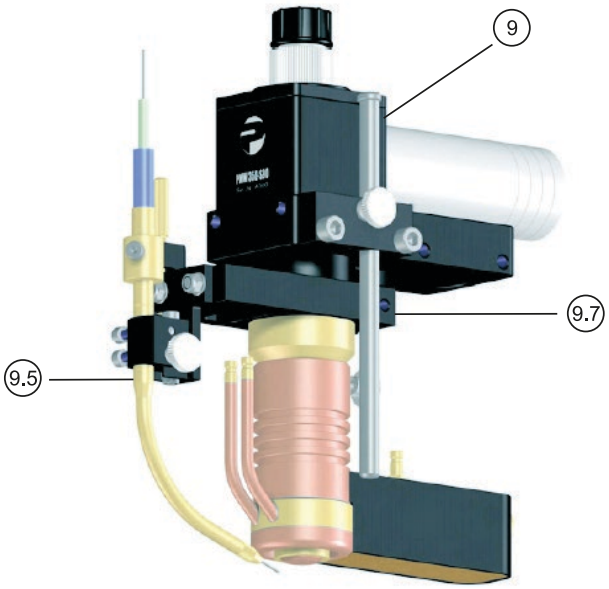
▶ Standard equipment for TIG pilot arc operation.
▶ Please order corresponding plasma welding nozzle with gas nozzle 094-001968-00000 for plasma operation!
▶ Use only with RK2/RK3 or RK2.1/RK3.1 recooling units

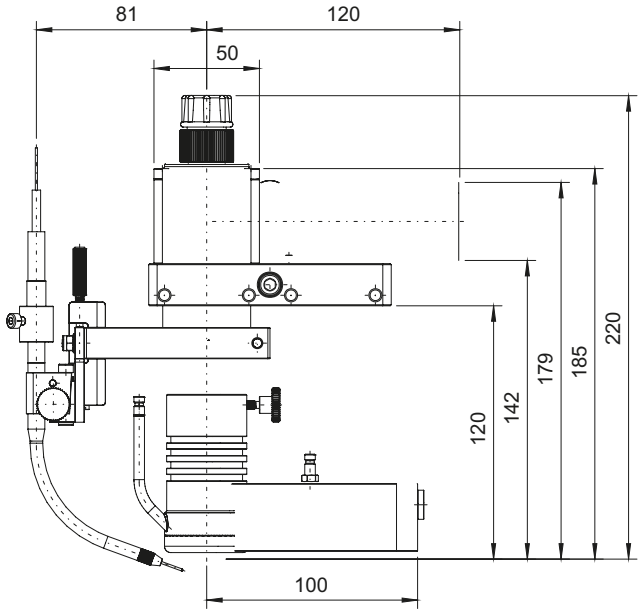
Consumables/Accessories



Item	Designation	Size in mm	Electro-de Ø mm	Nozzle Ø mm	Inside Ø mm	PU Units	Item no.		PE	
10.01	Gas nozzle, ceramic, complete	-	-	-	-	1	094-001968-00000		Per unit	
10.01	Gas nozzle, metal, complete	-	-	-	-	1	094-001970-00000		Per unit	
10.03	Welding nozzle	-	-	4	-	1	094-001969-00000		Per unit	
10.03	Welding nozzle	-	-	5	-	1	094-001971-00000		Per unit	
10.04	Insulator	-	-	-	-	1	094-012326-00000		Per unit	
10.05	Collet	-	-	-	3.2	1	094-001963-00000		Per unit	
10.05	Collet body, long thread	-	-	-	3.2	1	094-016648-00000		Per unit	
10.06	Tungsten electrode	-	3.2	-	-	1	094-001956-00000		Per unit	
10.07	Torch cap	-	-	-	-	1	094-001965-00000		Per unit	
10.09	O-ring	9,5 x 1,6	-	-	-	1	094-016584-00000		Per unit	
10.09	O-ring	14,0 x 2,0	-	-	-	1	094-016588-00000		Per unit	
10.15	Centring piece	-	-	-	-	1	094-001958-00000		Per unit	
10.18	Spot welding nozzle holder	-	-	-	-	1	094-012229-00000		Per unit	
10.28	Screw for plasma torch	-	-	-	-	1	394-006133-00000		Per unit	
10.28	Cylinder head bolt	-	-	-	-	4	044-001277-00000		Per pack. unit	
10.29	Contact strip	-	-	-	-	1	394-006130-00000		Per unit	
10.30	Plasma torch seal	-	-	-	-	1	394-006132-00000		Per unit	
10.31	Flat seal	-	-	-	-	1	094-012581-00000		Per unit	
10.31	Flat seal	-	-	-	-	1	094-012913-00000		Per unit	
-	Sintered disc	-	-	-	-	1	094-002294-00000		Per unit	
Equipment for 4mm electrode										
10.06	Tungsten electrode, special	-	4	-	-	1	094-017010-00000		Per unit	
10.05	Collet	-	-	-	4	1	094-016587-00000		Per unit	
10.08	Clamping sleeve housings	-	-	-	4	1	094-001961-00000		Per unit	
10.15	Centring piece	4	-	-	-	1	094-001959-00000		Per unit	
Welding nozzles for plasma operation										
10.03	Welding nozzle	-	-	2	-	1	094-001972-00000		Per unit	
10.03	Welding nozzle	-	-	2.8	-	1	094-001973-00000		Per unit	
10.03	Welding nozzle	-	-	3.2	-	1	094-001974-00000		Per unit	
10.03	Welding nozzle	-	-	3.5	-	1	094-001975-00000		Per unit	
10.03	Welding nozzle	-	-	4	-	1	394-009267-00000		Per unit	

Plasma welding torches ■ PWM 350-S90





Mechanised plasma welding torch

- Laminar flow of shielding gas via special trailing gas nozzle or water cooled gas nozzle
- Longer service life of the welding nozzle thanks to intensive cooling
- The position of the electrode relative to the nozzle can be adjusted slightly during welding
- Basic features: 4.0 x 175-mm special electrode, 2.8-mm welding nozzle

Duty cycle

350 A / 100 %

Workpiece diameter

2 mm - 10 mm

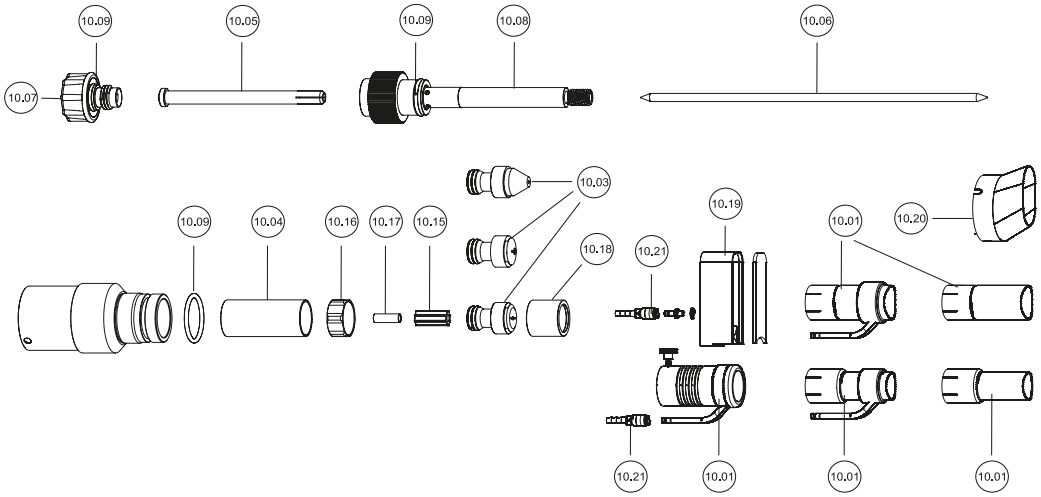
Pilot arc current

10 A - 20 A

Item	Type	Designation	Length m	Item no.
9	PWM 350-S90 2m	Plasma machine welding torch	2.0	094-016543-00002
9	PWM 350-S90 4m		4.0	094-016543-00000
9	PWM 350-S90 6m		6.0	094-016543-00006
9	PWM 350-S90 8m		8.0	094-016543-00008
9.5	CWS CPL PMW 350-S90/S180	Cold wire feed, standard, for water-cooled gas nozzles, complete	-	094-013464-00000
9.5	CWSS CPL PMW 350-S90/S180	Cold wire feed, short, for gas-cooled gas nozzles, complete		094-016613-00000
9.7	MP PMW 350	Mounting plate, for water-cooled gas nozzles, complete		094-016129-00000
9.7	MPS PMW 350	Mounting plate, short, for gas-cooled gas nozzles, complete		094-016592-00000
9.9	CPLUG	Coupling plug		094-013467-00000
9.9	CSLEEVE	Coupling socket		094-013466-00000
-	CWADJ	Transversal wire adjustment		094-013468-00000

▶ Use only with RK3.1 recooling unit
▶ The torch is supplied without gas nozzle. Order this part as required.

Consumables/Accessories



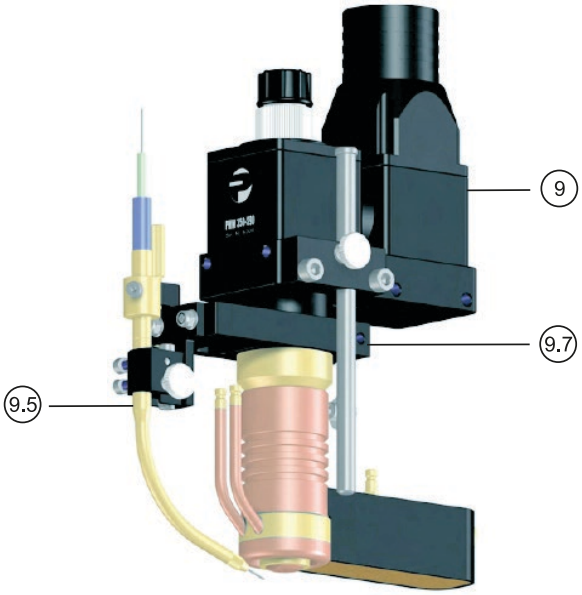
Item	Designation	Size in mm	Electrode Ø	Nozzle Ø	Inside Ø	Max. welding current	PU	Item no.
			mm	mm	mm	A	Units	
10.01	Gas nozzle, plug fitting	24	-	-	-	-	1	094-013817-00000
10.01	Gas nozzle, plug fitting, gas-cooled	30	-	-	-	-	1	094-013819-00000
10.01	Gas nozzle, plug fitting, austenitic, stainless steel	24	-	-	-	-	1	094-013818-00000
10.01	Gas nozzle, plug fitting, austenitic, stainless steel	30	-	-	-	-	1	094-013820-00000
10.01	Gas nozzle, screw fitting	29	-	-	-	-	1	094-016157-00000
10.03	Plasma nozzle	-	-	2	-	100	1	094-013805-00000
10.03	Plasma nozzle	-	-	2.8	-	180	1	094-013806-00000
10.03	Plasma nozzle	-	-	3.2	-	240	1	094-013807-00000
10.03	Plasma nozzle	-	-	3.5	-	280	1	094-013808-00000
10.03	Plasma nozzle	-	-	4	-	350	1	094-013809-00000
10.03	Plasma nozzle, pointed	-	-	1.6	-	80	1	094-016593-00000
10.03	Plasma nozzle, pointed	-	-	1.8	-	90	1	094-016594-00000
10.03	Plasma nozzle, pointed	-	-	2	-	100	1	094-016595-00000
10.03	Plasma nozzle, pointed	-	-	2.8	-	180	1	094-016596-00000
10.03	Plasma nozzle, pointed	-	-	3.2	-	240	1	094-016597-00000
10.03	Plasma nozzle, pointed	-	-	3.5	-	280	1	094-016598-00000
10.03	Plasma nozzle, long	-	-	1.4	-	-	1	094-016599-00000
10.03	Plasma nozzle, long	-	-	1.6	-	-	1	094-016600-00000
10.03	Plasma nozzle, long	-	-	1.8	-	-	1	094-016601-00000
10.03	Plasma nozzle, long	-	-	2	-	-	1	094-016602-00000
10.03	Plasma nozzle, long	-	-	2.8	-	-	1	094-016603-00000
10.03	Plasma nozzle, long	-	-	3.2	-	-	1	094-016604-00000
10.03	Plasma nozzle, long	-	-	3.5	-	-	1	094-016605-00000
10.03	Plasma nozzle, long	-	-	4	-	-	1	094-016606-00000
10.03	Plasma nozzle, long	-	-	4.5	-	-	1	094-016607-00000
10.04	Insulator	-	-	-	-	-	1	094-013814-00000
10.05	Collet	-	-	-	4	-	1	094-016587-00000
10.06	Tungsten electrode, special	-	4	-	-	-	1	094-017010-00000
10.07	117 mm	-	-	-	-	-	1	094-001965-00000
10.08	Clamping sleeve housings	-	-	-	-	-	1	094-016589-00000
10.09	O-ring	9,5 x 1,6	-	-	-	-	1	094-016584-00000
10.09	O-ring	14,0 x 2,0	-	-	-	-	1	094-016588-00000
10.15	Centring piece	-	-	-	-	-	1	094-013812-00000
10.16	Spacing sleeve	-	-	-	-	-	1	094-013815-00000
10.17	Sleeve	-	-	-	-	-	1	094-013813-00000
10.18	Nozzle cap	-	-	-	-	-	1	094-013816-00000
10.19	Shielding gas trailing shield	-	-	-	-	-	1	094-016465-00000
10.20	Shielding gas trailing shield	-	-	-	-	-	1	094-013822-00000
10.21	Quick connect coupling	-	-	-	-	-	1	094-013821-00000
-	Setting gauge for plasma torch	-	-	-	-	-	1	094-013825-00000

Options/accessories

Cold wire feed accessories	Item no.
WFT 70° PMW Wire feed tube	094-012465-00000
WFNOZZ PMW 0.7 Wire feed nozzle	094-016591-00000
WFNOZZ PMW 0.9 Wire feed nozzle	094-009400-00000
WFNOZZ PMW 1.1 Wire feed nozzle	094-008552-00000
WFNOZZ PMW 1.3 Wire feed nozzle	094-008553-00000
WFNOZZ PMW 1.7 Wire feed nozzle	094-009401-00000

Torch accessories	Item no.
PP PWM350 420A Power package increases duty cycle for PWM 350 plasma machine welding torch to 420A/100%	094-021854-00000
WGD PWM350 Hose set, 4 m, for water-cooled gas nozzles. Can be cut to the required length	094-022661-00000
ZS 300X300X120 TETRIX/MP120 Plasma torch relay	094-021967-00000
VSP PMW350 TETRIX/MP120 10m Connection hose package	094-021966-00010
VSP PMW350 TETRIX/MP120 16m Connection hose package	094-021966-00000

Plasma welding torches ■ PWM 350-S180



Mechanised plasma welding torch

- Laminar flow of shielding gas via special trailing gas nozzle or water cooled gas nozzle
- Longer service life of the welding nozzle thanks to intensive cooling
- The position of the electrode relative to the nozzle can be adjusted slightly during welding
- Basic features: 4.0 x 175-mm special electrode, 2.8-mm welding nozzle

Duty cycle

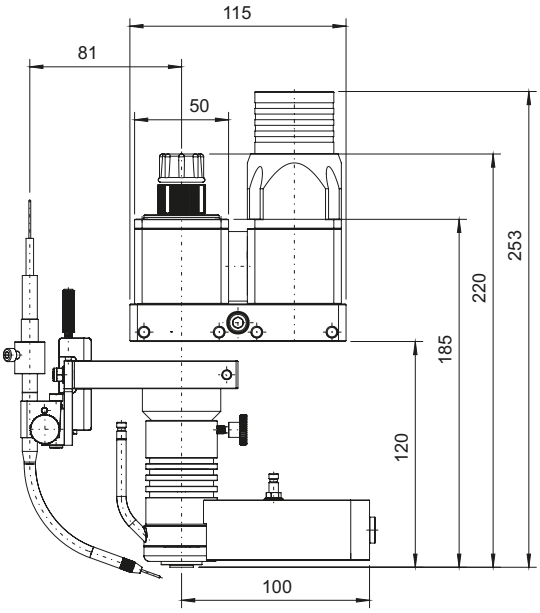
350 A / 100 %

Workpiece diameter

2 mm - 10 mm

Pilot arc current

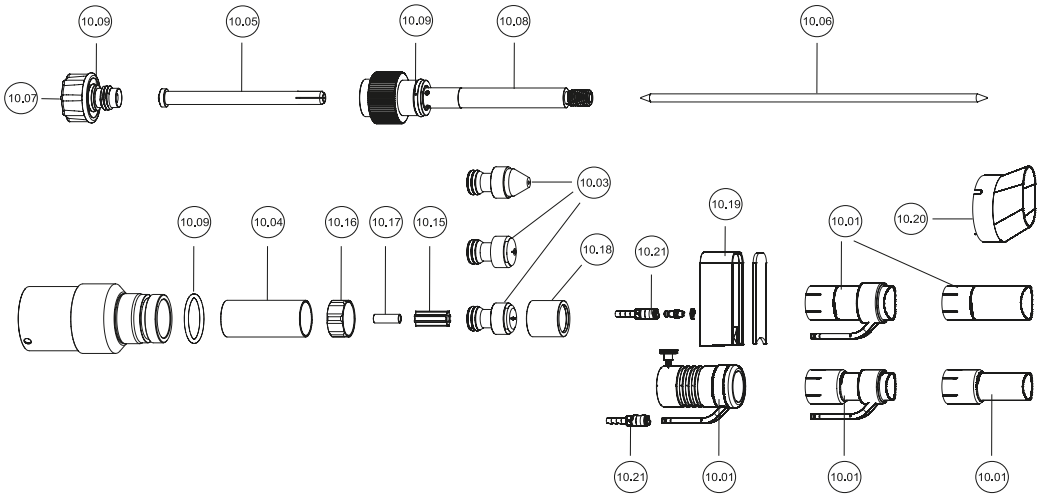
10 A - 20 A



Item	Type	Designation	Length m	Item no.
9	PWM 350-S180 0,6m	Plasma machine welding torch	0.6	094-016544-00060
9	PWM 350-S180 1,5m		1.5	094-016544-00015
9	PWM 350-S180 2m		2.0	094-016544-00002
9	PWM 350-S180 4m		4.0	094-016544-00000
9	PWM 350-S180 6m		6.0	094-016544-00006
9	PWM 350-S180 8m		8.0	094-016544-00008
9	PWM 350-S180 10m		10.0	094-016544-00010
9.5	CWS CPL PMW 350-S90/S180	Cold wire feed, standard, for water-cooled gas nozzles, complete	-	094-013464-00000
9.5	CWSS CPL PMW 350-S90/S180	Cold wire feed, short, for gas-cooled gas nozzles, complete		094-016613-00000
9.7	MP PMW 350	Mounting plate, for water-cooled gas nozzles, complete		094-016129-00000
9.7	MPS PMW 350	Mounting plate, short, for gas-cooled gas nozzles, complete		094-016592-00000
9.9	CPLUG	Coupling plug		094-013467-00000
9.9	CSLEEVE	Coupling socket		094-013466-00000
-	CWADJ	Transversal wire adjustment		094-013468-00000

▶ Use only with RK3.1 recooling unit
▶ The torch is supplied without gas nozzle. Order this part as required.

Consumables/Accessories



Item	Designation	Size in mm	Electrode Ø mm	Nozzle Ø mm	Inside Ø mm	Max. welding current A	PU Units	Item no.
10.01	Gas nozzle, plug fitting	24	-	-	-	-	1	094-013817-00000
10.01	Gas nozzle, plug fitting, gas-cooled	30	-	-	-	-	1	094-013819-00000
10.01	Gas nozzle, plug fitting, austenitic, stainless steel	24	-	-	-	-	1	094-013818-00000
10.01	Gas nozzle, plug fitting, austenitic, stainless steel	30	-	-	-	-	1	094-013820-00000
10.01	Gas nozzle, screw fitting	29	-	-	-	-	1	094-016157-00000
10.03	Plasma nozzle	-	-	2	-	100	1	094-013805-00000
10.03	Plasma nozzle	-	-	2.8	-	180	1	094-013806-00000
10.03	Plasma nozzle	-	-	3.2	-	240	1	094-013807-00000
10.03	Plasma nozzle	-	-	3.5	-	280	1	094-013808-00000
10.03	Plasma nozzle	-	-	4	-	350	1	094-013809-00000
10.03	Plasma nozzle, pointed	-	-	1.6	-	80	1	094-016593-00000
10.03	Plasma nozzle, pointed	-	-	1.8	-	90	1	094-016594-00000
10.03	Plasma nozzle, pointed	-	-	2	-	100	1	094-016595-00000
10.03	Plasma nozzle, pointed	-	-	2.8	-	180	1	094-016596-00000
10.03	Plasma nozzle, pointed	-	-	3.2	-	240	1	094-016597-00000
10.03	Plasma nozzle, pointed	-	-	3.5	-	280	1	094-016598-00000
10.03	Plasma nozzle, long	-	-	1.4	-	-	1	094-016599-00000
10.03	Plasma nozzle, long	-	-	1.6	-	-	1	094-016600-00000
10.03	Plasma nozzle, long	-	-	1.8	-	-	1	094-016601-00000
10.03	Plasma nozzle, long	-	-	2	-	-	1	094-016602-00000
10.03	Plasma nozzle, long	-	-	2.8	-	-	1	094-016603-00000
10.03	Plasma nozzle, long	-	-	3.2	-	-	1	094-016604-00000
10.03	Plasma nozzle, long	-	-	3.5	-	-	1	094-016605-00000
10.03	Plasma nozzle, long	-	-	4	-	-	1	094-016606-00000
10.03	Plasma nozzle, long	-	-	4.5	-	-	1	094-016607-00000
10.04	Insulator	-	-	-	-	-	1	094-013814-00000
10.05	Collet	-	-	-	4	-	1	094-016587-00000
10.06	Tungsten electrode, special	-	4	-	-	-	1	094-017010-00000
10.07	117 mm	-	-	-	-	-	1	094-001965-00000
10.08	Clamping sleeve housings	-	-	-	-	-	1	094-016589-00000
10.09	O-ring	9,5 x 1,6	-	-	-	-	1	094-016584-00000
10.09	O-ring	14,0 x 2,0	-	-	-	-	1	094-016588-00000
10.15	Centring piece	-	-	-	-	-	1	094-013812-00000
10.16	Spacing sleeve	-	-	-	-	-	1	094-013815-00000
10.17	Sleeve	-	-	-	-	-	1	094-013813-00000
10.18	Nozzle cap	-	-	-	-	-	1	094-013816-00000
10.19	Shielding gas trailing shield	-	-	-	-	-	1	094-016465-00000
10.20	Shielding gas trailing shield	-	-	-	-	-	1	094-013822-00000
10.21	Quick connect coupling	-	-	-	-	-	1	094-013821-00000
-	Setting gauge for plasma torch	-	-	-	-	-	1	094-013825-00000

Options/accessories

Cold wire feed accessories	Item no.
WFT 70° PMW Wire feed tube	094-012465-00000
WFNOZZ PMW 0.7 Wire feed nozzle	094-016591-00000
WFNOZZ PMW 0.9 Wire feed nozzle	094-009400-00000
WFNOZZ PMW 1.1 Wire feed nozzle	094-008552-00000
WFNOZZ PMW 1.3 Wire feed nozzle	094-008553-00000
WFNOZZ PMW 1.7 Wire feed nozzle	094-009401-00000

Torch accessories	Item no.
PP PWM350 420A Power package increases duty cycle for PWM 350 plasma machine welding torch to 420A/100%	094-021854-00000
WGD PWM350 Hose set, 4 m, for water-cooled gas nozzles. Can be cut to the required length	094-022661-00000
ZS 300X300X120 TETRIX/MP120 Plasma torch relay	094-021967-00000
VSP PMW350 TETRIX/MP120 10m Connection hose package	094-021966-00010
VSP PMW350 TETRIX/MP120 16m Connection hose package	094-021966-00000

Overview

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Function overview

Outputs

As standard:
- Emergency stop for collision switch
- Current flow signal
- Power relay contact
- Uactual
- Welding voltage measurement
- Power supply +15 V
- Power supply -15 V
- Iactual

Input:
- Welding machine emergency stop
- Start/stop

RINT X12 option

Available for selection:
- Inching via constant or ramp function
- Positive/negative input logic
- Non-latched/Special non-latched
- Standard/pulse welding

Signals:
- Welding process active/finished
- Standard/pulse welding activated
- Error reset
- Shielding gas valve
- Compressed air valve
- Pilot gas valve (plasma)
- Inching active/finished
- Reverse inching active/finished
- JOB selection active/finished
- Program selection
- I>0 arc detection
- Ready to weld/not ready
- Wire stick/no wire stick
- Error
- Workpiece detection

Signal monitoring:
- Welding voltage OK/not OK
- Welding current OK/not OK
- Wire feed speed OK/not OK
- Motor current OK/not OK

Control voltage:
- 0 V–10 V wire feed speed
- 0 V–10 V arc correction
- 0 V–10 V dynamic correction

BUSINT X11 option

Available for selection:
- JOB mode for automatic selection of welding type and operating mode
- Process control via 15 programs or control signals for wire feeder, voltage correction and arc dynamics
- Simulation with similar parameters of all process signals for determining cycle times
- Fast actual process values for seam tracking available as an option
- Workpiece search function (optional integration of fast actual process values required)

Signals:
- Manual signals for shielding gas, blow out, wire inching and reverse inching, welding type, operating mode
- Safety-related emergency shut-down of processes via software or optional hardware
- Safety switch-off in case of interruption in fieldbus connection
- Transfer of actual process values for welding voltage, welding and motor current, wire feed speed

Signal monitoring:
- Process signals for displaying the arc, process and system state
- Error indication
- Intelligent arc interruption, wire stick and ignition error detection
- Welding voltage
- Welding and motor current
- Wire feed speed
- Single channel message
- Collective relay output

Outputs:
- Up to four user-defined outputs

Inputs:
- Fast, external input for torch collision detection
- Three user-defined inputs

MIG/MAG / TIG / Plasma

Matching EWM interfaces to robot controls from a variety of manufacturers

Manufacturer	Control ype / Interface type	Interface for automated welding	RINT X12	BUSINT X11 PROFIBUS	BUSINT X11 INTERBUS	BUSINT X11 DEVICE NET	BUSINT X11 CAN-OPEN	BUSINT X11 RUGGED LINE	BUSINT X11 ETHERNET IP	BUSINT X11 PROFINET	BUSINT X11 ETHERCAT
ABB	S3	o	●								
	S4	o	●								
	S4C	o	●								
	S4C+		■	■		●					
	IRC5		□			●			●		
COMAU	C4G		□								
	C3G+		□		□						
FANUC	R-J2	o	●	□							
	R-J3	o	●	□							
	R-J3iB	o	●	□		□					
	R-J3iC	o	●	□		□			■		
	R-J30iB		■						●		
	R-30iB Plus								●		
IGM	RT K3, K4		●								
	RTI K5		■			●					
	RTI K6										●
	RCE K6										●
KAWASAKI	C 40	o	●	□	□	□	□				
	D 40	o	●	□	□	□	□				
	E01								●		
KUKA	KF 30/51	o	●								
	KRC1	o	o	□	□	●	□	□			
	VKRC1	o	o	□	□	□	□	●			
	KRC2	o	o	□	□	●	□	□			
	VKRC2	o	o	□	□	□	□	●			
	KRC4									■	●
MOTOMAN	ERC	o	●								
	MRC	o	●								
	XRC	o	●			●					
	NX 100	o	●			■					
	DX 100		●						□	□	
	DX200		●								
	YRC1000									●	
OTC	EN 5624	o	●								
PANASONIC	G1/G2	o	●								
REIS	RS4	o	●								
	RS5	o	□				●			●	

●	recommended version
■	possible version
□	possible, contact EWM
o	additional option

▶ **Please note that the table is for guidance purposes on possible configurations only. You must consult your system integrator or robot manufacturer to determine whether the suggested interface version can be used in your application.**

RINT X12 ■ RINT X12 STANDARD

- Robot interface
- For installation in external switching cabinet
- Interface for controlling automated Titan, alpha Q, Phoenix, Taurus and Tetrix machine series in one machine (conversion via jumpers)
- Control signals, analogue: MIG/MAG control voltage for wire feed speed (welding power), arc voltage correction and dynamics – TIG/plasma control voltage: welding current, secondary current, pulse time, pause time
- Control signals, digital: Operating modes, e.g. non-latched, special non-latched, start/stop, gas test 1, 2, inching 1, 2, direction of rotation, inching speed (constant/ramp), welding type (standard MIG/pulse arc MIG welding)
- Status signals, analogue: Current, voltage
- Status signals, digital: Current flowing I > 0; ready for welding, stick, error
- JOB selection, up to 510 JOBs available, switching of internal/external JOB selection
- Program selection, 15 programs available
- JOB operation with welding and operating mode per program
- Expanded control signal to parameterise the pulse modes
- Simplified control (signal default setting via jumpers)
- Workpiece search function
- Software-based emergency shut-down signal
- Diagnostic interface for set up, problem analysis and operation of the Analyzer software
- Fast and easy integration into robot systems

Dimensions machine, LxWxH in mm	235 mm x 130 mm x 100 mm
Weight, machine	ca.1 kg

Type	Designation	Item no.
RINT X12 STANDARD	Standard robot interface	090-008291-00000
RINT X12 DV SWITCH	Robot interface including WF switching option	090-008291-00001
RINT X12 TANDEM	Robot interface including tandem option	090-008291-00002

Options/accessories

Options for retrofitting	Item no.
ON PLUG SET RINT X12 Retrofit option EWM plug set for RINT X12/DVINT X11	092-001822-00000

Cable sets	Item no.
KB MOTOMAN-RINT X12 Cable harness for RINT X12 connection to Motoman XRC/NX-100/DX-100/DX-200	094-012212-00003
KB RINT X12 FANUC 34POL Cable assembly	094-009441-00001
KB RINT X12 FANUC 50POL Cable assembly	094-009440-00001
KB RINT X12 ARC-MATE 100 IBE Cable harness for RINT X12 connection to Fanuc robot	094-010388-00000

RINT X12 ■ RINT X12 STANDARD ATCASE

- Interface for controlling automated alpha Q, Phoenix, Taurus and Tetrix machine series in one machine (conversion via jumpers)
- Robot interface in separate casing for fitting to all xx2 casings
- Control signals, analogue: MIG/MAG control voltage for wire feed speed (welding power), arc voltage correction and dynamics – TIG/plasma control voltage: welding current, secondary current, pulse time, pause time
- Control signals, digital: Operating modes, e.g. non-latched, special non-latched, start/stop, gas test 1, 2, inching 1, 2, direction of rotation, inching speed (constant/ramp), welding type (standard MIG/ pulse arc MIG welding)
- Status signals, analogue: Current, voltage
- Status signals, digital: Current flowing I > 0; ready for welding, stick, error
- JOB selection, up to 510 JOBs available, switching of internal/external JOB selection
- Program selection, 15 programs available
- JOB operation with welding and operating mode per program
- Expanded control signal to parameterise the pulse modes
- Simplified control (signal default setting via jumpers)
- Workpiece search function
- Software-based emergency shut-down signal
- Diagnostic interface for set up, problem analysis and operation of the Analyzer software
- Fast and easy integration into robot systems

Dimensions machine, LxWxH in mm	271 mm x 134 mm x 187 mm
Weight, machine	ca.3.7 kg

Type	Designation	Item no.
RINT X12 STANDARD ATCASE	Standard robot interface in casing	090-008293-00000
RINT X12 DV SWITCH ATCASE	Robot interface in casing incl. WF switching option	090-008293-00001
RINT X12 TANDEM ATCASE	Robot interface in casing incl. tandem option	090-008293-00002

Options/accessories

ATCASE connection cable		Item no.
RA5 23POL 5M Connection cable, 23-pole, one-sided wire end ferrules	23	092-007727-00005
RA5 23POL 10M Connection cable, 23-pole, one-sided wire end ferrules	23	092-007727-00010
RA5 28POL 5M Connection cable, 28-pole, one-sided wire end ferrules	28	092-007728-00005
RA5 28POL 10M Connection cable, 28-pole, one-sided wire end ferrules	28	092-007728-00010
RA5 23/28POL 5M FANUC Connection cable, 23-pole, for Fanuc RJ-3iB/RJ-3iC	23	092-007729-00005
RA5 23/28POL 10M FANUC Connection cable, 23-pole, for Fanuc RJ-3iB/RJ-3iC	23	092-007729-00010
RA5 23POL 5M MOTOMAN Connection cable, 23-pole, for Motoman XRC/ NX-100/DX-100/DX-200	23	092-007731-00005
RA5 23POL 10M MOTOMAN Connection cable, 23-pole, for Motoman XRC/ NX-100/DX-100/DX-200	23	092-007731-00010

RINT X12 ■ RINT X12 SCO ATCASE

- Robot interface in a separate casing for special applications, for attachment to XX2 casing
- Interface for control of the Tetrix, forceTig and Tetrix Plasma automated machine series with an additional wire
- Extremely easy integration into mechanised systems when using additional wire: Start/stop and I > 0 evaluation are sufficient (parameters set via power source and remote control)
- Connection capability for remote control FR AW1 (090-S08765-03796), for manual control of the additional wire: wire on/off, wire inching, wire return, wire feed speed
- See also description for forceTig welding system – variant 2
- Additional control and status signals are also available, e.g.:
- Status signals, analogue: current, voltage
- Status signals, digital: current flowing I > 0; ready for welding, wire stick, error
- JOB and program selection
- Simplified control (signal default setting via jumpers)
- Software-based emergency shut-down signal
- Diagnostic interface for set-up, problem analysis and operation of the Analyzer software
- For fast and easy integration into mechanised systems

Dimensions machine, LxWxH in mm	271 mm x 134 mm x 187 mm
Weight, machine	ca.3.7 kg

Type	Designation	Item no.
RINT X12 SCO ATCASE	SCO robot interface in casing	090-S08293-03795

Options/accessories

ATCASE connection cable	Item no.
RA5 23POL 5M Connection cable, 23-pole, one-sided wire end ferrules	092-007727-00005
RA5 23POL 10M Connection cable, 23-pole, one-sided wire end ferrules	092-007727-00010
RA5 28POL 5M Connection cable, 28-pole, one-sided wire end ferrules	092-007728-00005
RA5 28POL 10M Connection cable, 28-pole, one-sided wire end ferrules	092-007728-00010

BUSINT X11 ■ MIG/MAG

Options and item numbers, BUSINT X11

■ Overview of options

Interface	Basic item number, without options	Option code number 00001 WF switching	00002 Seam tracking	00004 Tandem	00008 External power supply
PHOENIX BUSINT ATCASE					
BUSINT X11 PHOENIX CANOPEN ATCASE	090-008234-00000	○	○	○	○
BUSINT X11 PHOENIX DEVICE NET ATCASE	090-008233-00000	○	○	○	○
BUSINT X11 PHOENIX INTERBUS ATCASE	090-008225-00000	○	○	○	○
BUSINT X11 PHOENIX PROFIBUS ATCASE	090-008261-00000	○	○	○	○
BUSINT X11 PHOENIX RUGGED LINE ATCASE	090-008226-00000	○	○	○	●
BUSINT X11 PHOENIX PROFINET ATCASE	090-008610-00000	○	○	○	○
BUSINT X11 PHOENIX PROFINET LWL ATCASE	090-008611-00000	○	○	○	●
BUSINT X11 PHOENIX ETHERCAT ATCASE	090-008612-00000	○	○	○	○
BUSINT X11 PHOENIX ETHERNET/IP ATCASE	090-008613-00000	○	○	○	○
BUSINT X11 PHOENIX MODBUS TCP ATCASE	090-008694-00000	–	–	–	○
PHOENIX BUSINT					
BUSINT X11 PHOENIX CANOPEN	090-008231-00000	○	–	○	○
BUSINT X11 PHOENIX DEVICE NET	090-008230-00000	○	–	○	○
BUSINT X11 PHOENIX INTERBUS	090-008228-00000	○	–	○	○
BUSINT X11 PHOENIX PROFIBUS	090-008229-00000	○	–	○	○
BUSINT X11 PHOENIX PROFINET	090-008232-00000	○	–	○	○
BUSINT X11 PHOENIX ETHERCAT	090-008626-00000	○	–	○	○
BUSINT X11 PHOENIX MODBUS TCP	090-008695-00000	–	–	–	○
BUSINT X11 PHOENIX ETHERNET/IP	090-008614-00000	○	–	○	○

● already included ○ possible – not possible

The item number for orders for a BUSINT X11 interface with options is made up as follows:

In position **A** in the basic item number, the code number **9** is inserted (interface with option), and the code numbers corresponding to the option go in position **B**. If there are several options, their code numbers can also be added.

■ Example:

Basic item number 090-**A**08234-**BBBBB**

Item number with WF switching option (00001) 090-**9**08234-0000**1**
Item number with WF switching option (00001) plus seam tracking (00002) 090-**9**08234-0000**3**

BUSINT X11 ■ MIG/MAG

- Industrial bus interface
- For installation in external switching cabinet
- Integration in manufacturing processes/robot applications e.g. with DEVICE-NET, CAN-OPEN, ETHERCAT, ETHERNET IP, INTERBUS, PROFIBUS, PROFINET CU and PROFINET LWL systems
- Start/Stop; gas test 1, 2; inching 1, 2; rotation direction; welding type, JOB mode
- Digital inputs for JOB selection
- Up to 510 JOBs and 15 programs available
- Welding data monitoring: Current, voltage, wire feed speed, armature current
- Control voltage for wire feed speed (welding performance), arc voltage correction, dynamics/ choke effect
- Diagnostic interface for set up, problem analysis and operation of the Analyzer software
- Optional switching between several wire drive units
- Optional for tandem process (master-slave mode)

Dimensions machine, LxWxH in mm	235 mm x 130 mm x 100 mm
Weight, machine	ca.1 kg

Type	Designation	Item no.
BUSINT X11 DEVICE NET	DEVICE-NET industrial bus interface	090-008230-00000
BUSINT X11 CAN-OPEN	CAN-OPEN industrial bus interface	090-008231-00000
BUSINT X11 ETHERCAT	ETHERCAT industrial bus interface	090-008626-00000
BUSINT X11 ETHERNET IP	ETHERNET IP industrial bus interface	090-008614-00000
BUSINT X11 INTERBUS	INTERBUS industrial bus interface	090-008228-00000
BUSINT X11 PROFIBUS	PROFIBUS industrial bus interface	090-008229-00000
BUSINT X11 PROFINET CU	PROFINET industrial bus interface, copper	090-008232-00000
BUSINT X11 MODBUS TCP	MODBUS industrial bus interface	090-008695-00000

Options/accessories

Options for retrofitting	Item no.
ON VOLTAGE SUPPLY IBUS3 Retrofit option: external potential-free voltage supply, 24 V	092-008197-00000

Factory-fit options	Item no.
OW DV SWITCH P Operation of two wire feeders in automated systems	00001
OW TANDEM Factory-fit option for the tandem process	00004
OW VOLTAGE SUPPLY IBUS3 Factory-fit option: external potential-free voltage supply, 24 V	00008

BUSINT X11 ■ MIG/MAG Atcase

- Industrial bus interface in separate casing for fitting to all xx2 casings
- Integration in manufacturing processes/robot applications e.g. with DEVICE-NET, CAN-OPEN, ETHERCAT, ETHERNET IP, INTERBUS, PROFIBUS, PROFINET CU and PROFINET LWL systems
- Start/Stop; gas test 1, 2; inching 1, 2; rotation direction; welding type, JOB mode
- Digital inputs for JOB selection
- Up to 510 JOBs and 15 programs available
- Welding data monitoring: Current, voltage, wire feed speed, armature current
- Control voltage for wire feed speed (welding performance), arc voltage correction, dynamics/ choke effect
- Diagnostic interface for set up, problem analysis and operation of the Analyzer software
- Optionally available with signal conditioning for seam tracking using fast actual process values (V, I)
- Optional switching between several wire drive units
- Optional for tandem process (master-slave mode)

Dimensions machine, LxWxH in mm	271 mm x 134 mm x 187 mm
Weight, machine	ca.3.7 kg

Type	Designation	Item no.
BUSINT X11 DEVICE NET ATCASE	DEVICE NET industrial bus interface in casing	090-008233-00000
BUSINT X11 CAN-OPEN ATCASE	CAN-OPEN industrial bus interface in casing	090-008234-00000
BUSINT X11 ETHERCAT ATCASE	ETHERCAT industrial bus interface in casing	090-008612-00000
BUSINT X11 ETHERNET IP ATCASE	ETHERNET IP industrial bus interface in casing	090-008613-00000
BUSINT X11 INTERBUS ATCASE	INTERBUS industrial bus interface in casing	090-008225-00000
BUSINT X11 PROFIBUS ATCASE	PROFIBUS industrial bus interface in casing	090-008261-00000
BUSINT X11 PROFINET CU ATCASE	PROFINET industrial bus interface in casing, copper	090-008610-00000
BUSINT X11 PROFINET LWL ATCASE	PROFINET LWL industrial bus interface in casing	090-008611-00000
BUSINT X11 RUGGED LINE ATCASE	RUGGED LINE industrial bus interface in casing	090-008226-00000
BUSINT X11 MODBUS TCP ATCASE	MODBUS industrial bus interface in casing	090-008694-00000

Options/accessories

Options for retrofitting	Item no.
ON VOLTAGE SUPPLY SV+/-15 Retrofit option: external potential-free voltage supply, 24 V	092-008198-00000

Factory-fit options	Item no.
OW WS BUSINTX11 ATCASE XR Wire end sensor connection capability for BUS-INTX11 ATCASE	092-003214-00001
OW DV SWITCH P Operation of two wire feeders in automated systems	00001
OW SEAM TRACKING Factory-fit option, support for seam tracking	00002
OW TANDEM Factory-fit option for the tandem process	00004
OW VOLTAGE SUPPLY SV+/-15 Retrofit option: external potential-free voltage supply, 24 V	00008

Options and item numbers, BUSINT X11

■ Overview of options

	Option code number	00001	00002	00004	00008
Interface	**Basic item number, without options**	**WF switching**	**AVC support**	**Tandem**	**External power supply**
TETRIX BUSINT ATCASE					
BUSINT X11 TETRIX CANOPEN	090-008589-00000	O	O	–	O
BUSINT X11 TETRIX DEVICENET	090-008588-00000	O	O	–	O
BUSINT X11 TETRIX INTERBUS	090-008586-00000	O	O	–	O
BUSINT X11 TETRIX PROFIBUS	090-008587-00000	O	O	–	O
BUSINT X11 TETRIX PROFINET	090-008590-00000	O	O	–	O
BUSINT X11 TETRIX INTERBUS RUGGED LINE	090-008597-00000	O	O	–	●
BUSINT X11 TETRIX PROFINET LWL	090-008609-00000	O	O	–	O
BUSINT X11 TETRIX ETHERCAD	090-008619-00000	O	O	–	O
BUSINT X11 TETRIX ETHERNET/IP	090-008627-00000	O	O	–	O
TETRIX BUSINT					
BUSINT X11 TETRIX CANOPEN	090-008259-00000	O	–	–	O
BUSINT X11 TETRIX DEVICENET	090-008258-00000	O	–	–	O
BUSINT X11 TETRIX INTERBUS	090-008256-00000	O	–	–	O
BUSINT X11 TETRIX PROFIBUS	090-008257-00000	O	–	–	O
BUSINT X11 TETRIX PROFINET	090-008260-00000	O	–	–	O
BUSINT X11 TETRIX ETHERCAD	090-008621-00000	O	–	–	O
BUSINT X11 TETRIX ETHERNET/IP	090-008622-00000	O	–	–	O

● already included O possible – not possible

The item number for orders for a BUSINT X11 interface with options is made up as follows:

In position **A** in the basic item number, the code number **9** is inserted (interface with option), and the code numbers corresponding to the option go in position **B**. If there are several options, their code numbers can also be added.

■ Example:

Basic item number 090-**A**08588-**BBBBB**

Item number with WF switching option (00001) 090-**9**08588-00001
Item number with WF switching option (00001) plus AVC support (00002) 090-**9**08588-00003

BUSINT X11 ■ TIG

- Industrial bus interface
- For installation in external switching cabinet
- Integration in manufacturing processes/robot applications e.g. with DEVICE-NET, CAN-OPEN, ETHERCAT, ETHERNET IP, INTERBUS, PROFIBUS, PROFINET CU and PROFINET LWL systems
- Start/Stop; gas test 1, 2; inching 1, 2; rotation direction; welding type (standard welding, pulsing, AC special pulsing – AC mode only – thermal DC pulsing), JOB mode
- Digital inputs for JOB selection
- Up to 256 JOBs and 15 programs available
- Welding data monitoring: Current, voltage, wire feed speed, armature current
- Control voltage for main current, wire feeder, secondary current, pulse time and pause time
- Diagnostic interface for set up, problem analysis and operation of the Analyzer software
- Optional switching between several cold wire drive units

Dimensions machine, LxWxH in mm	235 mm x 130 mm x 100 mm
Weight, machine	ca.1 kg

Type	Designation	Item no.
Tetrix BUSINT X11 PROFINET LWL	PROFINET LWL industrial bus interface	090-008763-00000
Tetrix BUSINT X11 CAN-OPEN	CAN-OPEN industrial bus interface	090-008259-00000
Tetrix BUSINT X11 DEVICE-NET	DEVICE-NET industrial bus interface	090-008258-00000
Tetrix BUSINT X11 INTERBUS	INTERBUS industrial bus interface	090-008256-00000
Tetrix BUSINT X11 PROFIBUS	PROFIBUS industrial bus interface	090-008257-00000
Tetrix BUSINT X11 PROFINET	PROFINET industrial bus interface	090-008260-00000
Tetrix BUSINT X11 ETHERCAT	ETHERCAT industrial bus interface	090-008621-00000
Tetrix BUSINT X11 ETHERNET IP	ETHERNET IP industrial bus interface	090-008622-00000

Options/accessories

Options for retrofitting	Item no.
ON VOLTAGE SUPPLY IBUS3 Retrofit option: external potential-free voltage supply, 24 V	092-008197-00000

Factory-fit options	Item no.
OW DV SWITCH T Operation of two wire feeders in automated systems	00001
OW VOLTAGE SUPPLY IBUS3 Factory-fit option: external potential-free voltage supply, 24 V	00008

BUSINT X11 ■ TIG Atcase

- Industrial bus interface in separate casing for fitting to all xx2 casings
- Integration in manufacturing processes/robot applications e.g. with DEVICE-NET, CAN-OPEN, ETHERCAT, ETHERNET IP, INTERBUS, PROFIBUS, PROFINET CU and PROFINET LWL systems
- Start/Stop; gas test 1, 2; inching 1, 2; rotation direction; welding type (standard welding, pulsing, AC special pulsing – AC mode only – thermal DC pulsing), JOB mode
- Digital inputs for JOB selection
- Up to 256 JOBs and 15 programs available
- Welding data monitoring: Current, voltage, wire feed speed, armature current
- Control voltage for main current, wire feeder, secondary current, pulse time and pause time
- Diagnostic interface for set up, problem analysis and operation of the Analyzer software
- Optionally available with signal conditioning for AVC using fast actual process values (V, I)
- Optional switching between several cold wire drive units

Dimensions machine, LxWxH in mm	271 mm x 134 mm x 187 mm
Weight, machine	ca.3.7 kg

Type	Designation	Item no.
Tetrix BUSINT X11 INTERBUS RUGGED LINE ATCASE	INTERBUS RUGGED LINE industrial bus interface in casing	090-008597-00000
Tetrix BUSINT X11 PROFINET LWL ATCASE	PROFINET LWL industrial bus interface in casing	090-008609-00000
Tetrix BUSINT X11 PROFINET CU ATCASE	PROFINET industrial bus interface in casing, copper	090-008590-00000
Tetrix BUSINT X11 INTERBUS ATCASE	INTERBUS industrial bus interface in casing	090-008586-00000
Tetrix BUSINT X11 PROFIBUS ATCASE	PROFIBUS industrial bus interface in casing	090-008587-00000
Tetrix BUSINT X11 DEVICE NET ATCASE	DEVICE NET industrial bus interface in casing	090-008588-00000
Tetrix BUSINT X11 CAN-OPEN ATCASE	CAN-OPEN industrial bus interface in casing	090-008589-00000
Tetrix BUSINT X11 ETHERCAT ATCASE	ETHERCAT industrial bus interface in casing	090-008619-00000
Tetrix BUSINT X11 ETHERNET IP ATCASE	ETHERNET IP industrial bus interface in casing	090-008627-00000

Options/accessories

Options for retrofitting	Item no.
ON VOLTAGE SUPPLY SV+/-15 Retrofit option: external potential-free voltage supply, 24 V	092-008198-00000

Factory-fit options	Item no.
OW DV SWITCH T Operation of two wire feeders in automated systems	00001
OW AVC Factory-fit option, AVC support	00002
OW VOLTAGE SUPPLY SV+/-15 Retrofit option: external potential-free voltage supply, 24 V	00008

BUSINT X11 ■ Plasma

Options and item numbers, BUSINT X11

■ Overview of options

	Option code number	00001	00002	00004	00008
Interface	Basic item number, without options	WF switching	AVC support	Tandem	External power supply
PLASMA BUSINT ATCASE					
BUSINT X11 PLASMA TETRIX CANOPEN	090-008689-00000	○	○	–	●
BUSINT X11 PLASMA TETRIX DEVICENET	090-008690-00000	○	○	–	●
BUSINT X11 PLASMA TETRIX INTERBUS RUGGED LINE	090-008623-00000	○	○	–	●
BUSINT X11 PLASMA TETRIX PROFIBUS	090-008624-00000	○	○	–	●
BUSINT X11 PLASMA TETRIX PROFINET LWL	090-008625-00000	○	○	–	●
BUSINT X11 PLASMA TETRIX PROFINET KUPFER	090-008693-00000	○	○	–	●
BUSINT X11 PLASMA TETRIX ETHERNET IP	090-008692-00000	○	○	–	●
BUSINT X11 PLASMA TETRIX INTERBUS LWL	090-008691-00000	○	○	–	●
BUSINT X11 PLASMA TETRIX ETHERCAT	090-008680-00000	○	○	–	●

● already included ○ possible – not possible

The item number for orders for a BUSINT X11 interface with options is made up as follows:

In position **A** in the basic item number, the code number **9** is inserted (interface with option), and the code numbers corresponding to the option go in position **B**. If there are several options, their code numbers can also be added.

■ Example:

Basic item number 090-**A**08623-**BBBBB**

Item number with WF switching option (0000**1**) 090-**9**08623-0000**1**
Item number with WF switching option (0000**1**) plus AVC support (0000**2**) 090-**9**08623-0000**3**

BUSINT X11 ■ Plasma Atcase

- Industrial bus interface in separate casing for fitting to all xx2 casings
- Integration in manufacturing processes/robot applications e.g. with DEVICE-NET, CAN-OPEN, ETHERCAT, ETHERNET IP, INTERBUS, PROFIBUS, PROFINET CU and PROFINET LWL systems
- Interface for plasma already contains external potential-free voltage supply
- Start/Stop; gas test 1, 2; inching 1, 2; rotation direction; welding type (standard welding, pulsing, AC special pulsing – AC mode only – thermal DC pulsing), JOB mode
- Digital inputs for JOB selection
- Up to 256 JOBs and 15 programs available
- Welding data monitoring: Current, voltage, wire feed speed, armature current
- Control voltage for main current, wire feeder, secondary current, pulse time and pause time
- Diagnostic interface for set up, problem analysis and operation of the Analyzer software
- Optionally available with signal conditioning for AVC using fast actual process values (V, I)
- Optional switching between several cold wire drive units

Dimensions machine, LxWxH in mm	271 mm x 134 mm x 187 mm
Weight, machine	ca.3.7 kg

Type	Designation	Item no.
Tetrix BUSINT X11 PLASMA PROFINET KUPFER ATCASE	PROFINET Copper industrial bus interface in casing, including potential-free voltage supply	090-008693-00000
Tetrix BUSINT X11 PLASMA ETHERNET IP	ETHERNET IP industrial bus interface in casing, including potential-free voltage supply	090-008692-00000
Tetrix BUSINT X11 Plasma INTERBUS LWL ATCASE	Interbus LWL industrial bus interface in casing, including potential-free voltage supply	090-008691-00000
Tetrix BUSINT X11 PLASMA RUGGED LINE ATCASE	RUGGED LINE industrial bus interface in casing, including potential-free voltage supply	090-008623-00000
Tetrix BUSINT X11 PLASMA PROFIBUS ATCASE	PROFIBUS industrial bus interface in casing, including potential-free voltage supply	090-008624-00000
Tetrix BUSINT X11 PLASMA PROFINET LWL ATCASE	PROFINET LWL industrial bus interface in casing, including potential-free voltage supply	090-008625-00000
Tetrix BUSINT X11 PLASMA CANOPEN ATCASE	CAN-OPEN industrial bus interface in casing, including potential-free voltage supply	090-008689-00000
Tetrix BUSINT X11 PLASMA DEVICE NET ATCASE	DEVICE NET industrial bus interface in casing, including potential-free voltage supply	090-008690-00000
Tetrix BUSINT X11 PLASMA ETHERCAT	ETHERCAT industrial bus interface in casing, including external potential-free voltage supply	090-008680-00000

Options/accessories

Factory-fit options	Item no.
OW DV SWITCH T Operation of two wire feeders in automated systems	00001
OW AVC Factory-fit option, AVC support	00002

Options/accessories

Network cable		Item no.
Plug for network cable		094-020407-00000
KM GL Cable knife		094-020409-00000
LAN Cable Network cable, sold by the metre For industrial use		094-020408-00500

Connection cables		Item no.
Connection cable, 7-pole 7-pole connection cable, suitable for installation in drag chains **▶ Connection and extension cable for external LAN and WiFi gateway, panel, remote control**		
FRV-25 7POL 10m		092-003417-00010
FRV-25 7POL 15m		092-003417-00015
FRV-25 7POL 20m		092-003417-00020
FRV-25 7POL 25m		092-003417-00025
FRV-25 7POL 30m		092-003417-00030

Connection cable extension		Item no.
Digital 7-pole cable Digital 7-pole cable Extension for 7-pole remote control with permanently installed cable Connection cable for remote control and gateway without permanently installed cable		
FRV 7POL 0.5m		092-000201-00004
FRV 7POL 1m		092-000201-00002
FRV 7POL 5m		092-000201-00003
FRV 7POL 10m		092-000201-00000
FRV 7POL 15m		092-000201-00005
FRV 7POL 20m		092-000201-00001
FRV 7POL 25m		092-000201-00007

Overview

Accessories			Page
Wire guide	Wire feed	WIRE LEAD	364
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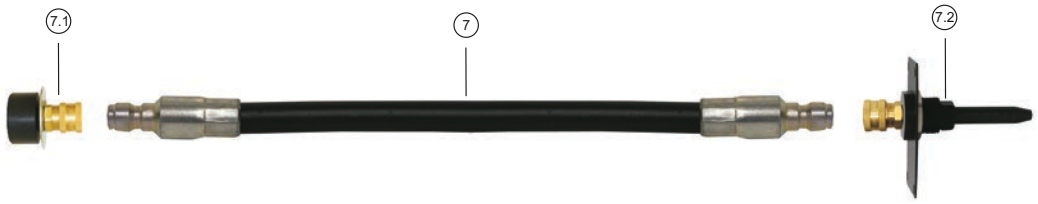
		WIRE CONDUIT	366
		MASTERLINER	367
		ROLLINER	368

Wire feed ■ WIRE LEAD



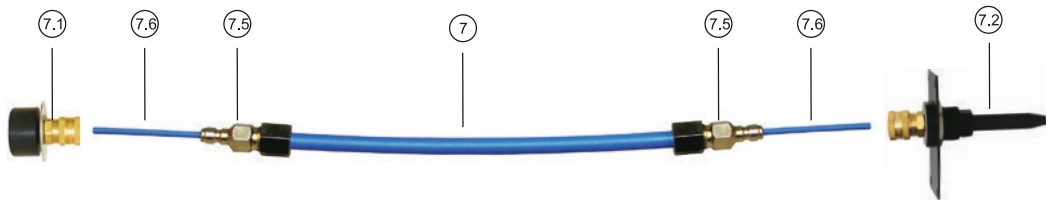
Wire lead

- For steel wire, round wires
- Outside dia.: 13 mm
- Wire dia. up to 1.6 mm

Item	Type	Designation	Length	Item no.
7	WIRE LEAD 1,5M	Wire guide	-	094-018280-00000
7	WIRE LEAD 3M			094-018281-00000
7	WIRE LEAD 5M			094-018282-00000
7	WIRE LEAD 6,5M			094-018283-00000
7	WIRE LEAD 8M			094-018284-00000
7	WIRE LEAD 10M			094-018285-00000
7	WIRE LEAD PRO	Wire guide, material sold by the metre		094-018279-00001
7.1	CONNECTOR BARREL WIRE LEAD	Connection for large spool/drum		094-018277-00000
7.1	CONNECTOR DV-CAB WIRE LEAD	DV-CAB connection		092-007931-00000
7.2	CONNECTOR DRIVE ROB2 WIRE LEAD	Connection set for Rob 2 wire conduit		092-007913-00000
7.2	CONNECTOR DRIVE ROB3 WIRE LEAD	Connection set for Rob 3 wire conduit		092-007912-00000
-	CONNECTOR WIRE LEAD PRO	End piece wire guide for material sold by the metre		094-018278-00000

▶ Two Connector Wire Lead Pro units are needed!

Wire feed ■ WIRE LEAD SOFT



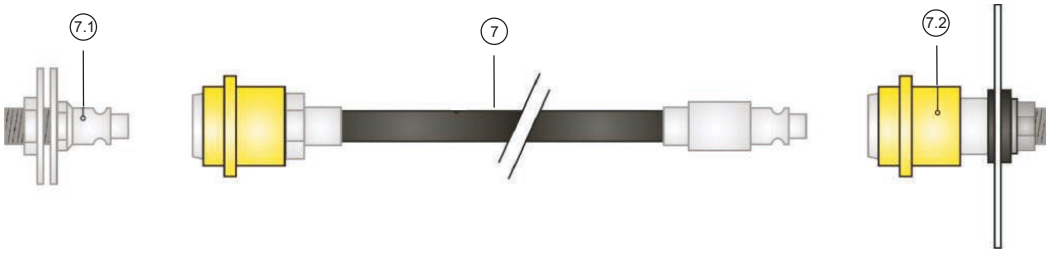
Soft wire lead

- For aluminium and stainless steel wire, round wires
- Outside dia.: 12 mm
- Wire dia. up to 1.6 mm

Item	Type	Designation	Length	Item no.
7	WIRE LEAD SOFT 1,5M	Wire guide	-	094-020383-00000
7	WIRE LEAD SOFT 3M			094-020383-00001
7	WIRE LEAD SOFT 5M			094-020383-00002
7	WIRE LEAD SOFT 6,5M			094-020383-00003
7	WIRE LEAD SOFT 8M			094-020383-00004
7	WIRE LEAD SOFT 10M			094-020383-00005
7	WIRE LEAD SOFT 12M			094-020383-00006
7	WIRE LEAD SOFT	Wire guide, material sold by the metre		094-020382-00000
7.1	CONNECTOR BARREL WIRE LEAD	Connection for large spool/drum		094-018277-00000
7.1	CONNECTOR DV-CAB WIRE LEAD	DV-CAB connection		092-007931-00000
7.2	CONNECTOR DRIVE ROB2 WIRE LEAD	Connection set for Rob 2 wire conduit		092-007913-00000
7.2	CONNECTOR DRIVE ROB3 WIRE LEAD	Connection set for Rob 3 wire conduit		092-007912-00000
7.5	CONNECTOR WIRE LEAD SOFT	End piece wire guide for material sold by the metre		094-020381-00000
7.6	UEDFS WLS 2,5x4,5mm 150mm	Transition liner for soft wire lead		094-020380-00000

▶ Two units are required from position 7.5 and 7.6!

Wire feed ■ WIRE CONDUIT

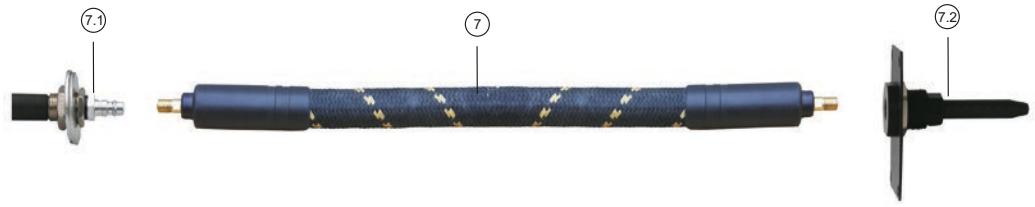


Wire conduit

- Rugged design
- For steel wire, round wires
- Outside dia.: 16 mm
- Wire dia. up to 1.6 mm

Item	Type	Designation	Length	Item no.	PG
7	WIRE CONDUIT 1,8M	Wire guide	-	094-011515-00004	
7	WIRE CONDUIT 2M			094-011515-00006	
7	WIRE CONDUIT 3M			094-011515-00000	
7	WIRE CONDUIT 3,5M			094-011515-00005	
7	WIRE CONDUIT 4,5M			094-011515-00001	
7	WIRE CONDUIT 8M			094-011515-00002	
7	WIRE CONDUIT 10M			094-011515-00007	
7	WIRE CONDUIT 12M			094-011515-00003	
7.1	CONNECTOR BARREL	Connection for large spool/drum		094-011517-00000	
7.1	CONNECTOR DV-CAB WIRE CONDUIT	DV-CAB connection		092-007741-00000	
7.2	CONNECTOR DRIVE ROB2 WIRE CONDUIT	Connection set for Rob 2 wire conduit		092-008205-00000	
7.2	CONNECTOR DRIVE ROB3 WIRE CONDUIT	Connection set for Rob 3 wire conduit		092-007916-00000	

Wire feed ■ MASTERLINER



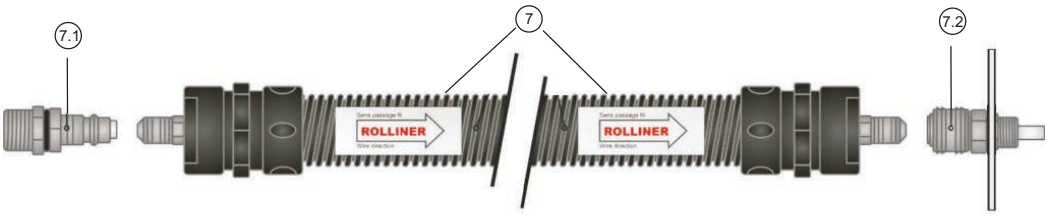
Masterliner HW

- For all material types, round wires
- Outside dia.: 30 mm
- Wire dia. up to 1.2 mm
- Weight: Approx. 400 g/m

Item	Type	Designation	Length	Item no.
7	Masterliner HD 5m	Wire guide	-	094-025510-00005
7	Masterliner HD 6m			094-025510-00006
7	Masterliner HD 8m			094-025510-00008
7	Masterliner HD 10m			094-025510-00010
7	Masterliner HD 15m			094-025510-00015
7.1	Masterliner Connector Barrel	Connection for large spool/drum		092-003643-00000
7.1	Masterliner Connector DV-CAP	DV-CAB connection		092-003638-00000
7.2	Masterliner Connector Drive Rob2	Connection set for Rob 2 wire conduit		092-003639-00000
7.2	Masterliner Connector Drive Rob3	Connection set for Rob 3 wire conduit		092-003640-00000

▶ Other lengths available on request

Wire feed ■ ROLLINER



Rolliner

- For all material types, round wires
- Outside Ø: 43 mm
- Wire Ø up to 4.0 mm
- Weight: approx. 500 g/m

Item	Type	Designation	Length	Item no.
7	ROLLINER 3,5M	Wire guide with plastic rolls	-	092-002575-00005
7	ROLLINER 5M			092-002575-00000
7	ROLLINER 8M			092-002575-00006
7	ROLLINER 10M			092-002575-00001
7	ROLLINER 15M			092-002575-00002
7	ROLLINER 20M			092-002575-00003
7	ROLLINER 25M			092-002575-00004
7.1	ROLLINER CONNECTOR BARREL	Connection for large spool/drum		094-014623-00000
7.1	ROLLINER CONNECTOR DV-CAB	DV-CAB connection		092-007930-00000
7.2	ROLLINER CONNECTOR DRIVE ROB2	Connection set for Rob 2 wire conduit		092-007917-00000
7.2	ROLLINER CONNECTOR DRIVE ROB3	Connection set for Rob 3 wire conduit		092-007918-00000

▶ Other lengths available on request

Overview

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eFeed drive rolls

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Wire Ø	0.8 mm
Colour code	skin cleaning, special DE

Type	Designation	Colour code	Groove shape	Item no.	Per packing unit
FE 4R 0.8 MM/0.03 INCH WHITE	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	skin cleaning, special DE	V-groove	092-002770-00008	
AL 4R 0.8 MM/0.03 INCH WHITE/ YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	white/yellow	U-groove	092-002771-00008	
FUEL 4R 0.8 MM/0.03 INCH WHITE/ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	White/orange	V-groove/knurl	092-002848-00008	

▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Wire Ø	0.9 mm - 1 mm
Colour code	Blue

Type	Designation	Colour code	Groove shape	Item no.	Per packing unit
FE 4R 1,0 MM/0.04 INCH BLUE	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Blue	V-groove	092-002770-00010	
AL 4R 1.0 MM/0.04 INCH BLUE/ YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	blue/yellow	U-groove	092-002771-00010	
FUEL 4R 1.0 MM/0.04 INCH BLUE/ ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	Blue/orange	V-groove/knurl	092-002848-00010	

▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Wire Ø	0.8 mm - 1 mm
Colour code	white/blue
Groove shape	V-groove

Type	Designation	Item no.	Per packing unit
FE 4R 0.8-1.0MM / 0.03-0.04 INCH BLUE/WHITE	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	092-002770-00009	

▶ Four roll set

Drive roll set

- Universal rolls for wire diameter 1.0 mm–1.2 mm

Wire Ø	1 mm - 1.2 mm
Colour code	Blue/Red
Groove shape	V-groove

Type	Designation	Item no.		Per packing unit
FE 4R 1.0-1.2MM / 0.04-0.045 INCH BLUE/RED	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	092-002770-00011		

▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Wire Ø	1.2 mm
Colour code	Red

Type	Designation	Colour code	Groove shape	Item no.		Per packing unit
FE 4R 1.2 MM/0.045 INCH RED	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Red	V-groove	092-002770-00012		
AL 4R 1.2 MM/0.045 INCH RED/ YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	red/yellow	U-groove	092-002771-00012		
FUEL 4R 1.2 MM/0.045 INCH RED/ ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	Red/orange	V-groove/knurl	092-002848-00012		

▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Wire Ø	1.4 mm
Colour code	Green

Type	Designation	Colour code	Groove shape	Item no.		Per packing unit
FE 4R 1.4 MM/0.052 INCH GREEN	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Green	V-groove	092-002770-00014		
FUEL 4R 1.4 MM/0.052 INCH GREEN/ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	Green/orange	V-groove/knurl	092-002848-00014		

▶ Four roll set

eFeed drive rolls

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Wire Ø	1.6 mm
Colour code	Black

Type	Designation	Colour code	Groove shape	Item no.	Per packing unit
FE 4R 1.6 MM/0.06 INCH BLACK	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Black	V-groove	092-002770-00016	
AL 4R 1.6 MM/0.06 INCH BLACK/YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	black/yellow	U-groove	092-002771-00016	
FUEL 4R 1.6 MM/0.06 INCH BLACK/ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	Black/orange	V-groove/knurl	092-002848-00016	

▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Colour code	Grey

Type	Designation	Colour code	Wire Ø	Groove shape	PE	Item no.
			mm			
FE 4R 2.0 MM/0.08 INCH GREY	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Grey	2.0	V-groove	Per packing unit	092-002770-00020
AL 4R 2.0 MM/0.08 INCH GREY/YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	Grey/yellow		U-groove		092-002771-00020
FUEL 4R 2.0 MM/0.08 INCH GREY/ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	Grey/orange		V-groove/knurl		092-002848-00020
SET WF 2,0-3,2mm eFeed	Wire feed set for rolls with diameters greater than 1.6 mm	–	–	–	Per unit	092-019404-00000

▶ For using rolls with a diameter of more than 1.6 mm, the SET WF 2.0–3.2 mm eFeed (092-019404-00000) option is necessary!
▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Colour code	Brown

Type	Designation	Colour code	Wire Ø	Groove shape	PE	Item no.
			mm			
FE 4R 2.4 MM/0.095 INCH BROWN	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Brown	2.4	V-groove	Per packing unit	092-002770-00024
AL 4R 2.4 MM/0.095 INCH BROWN/YELLOW	Drive roll set, 37 mm, 4 rollers, U-groove for aluminium	Brown/ yellow		U-groove		092-002771-00024
FUEL 4R 2.4 MM/0.095 INCH BROWN/ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	Brown/ orange		V-groove/ knurl		092-002848-00024
SET WF 2,0-3,2mm eFeed	Wire feed set for rolls with diameters greater than 1.6 mm	–	–	–	Per unit	092-019404-00000

▶ For using rolls with a diameter of more than 1.6 mm, the SET WF 2.0–3.2 mm eFeed (092-019404-00000) option is necessary!
▶ Four roll set

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Colour code	Light green

Type	Designation	Colour code	Wire Ø	Groove shape	PE	Item no.
			mm			
FE 4R 2.8 MM/0.11 INCH LIGHT GREEN	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Light green	2.8	V-groove	Per packing unit	092-002770-00028
FUEL 4R 2.8 MM/0.11 INCH LIGHT GREEN/ORANGE	Drive roll set, 37 mm, 4 rolls, V-groove/knurled for flux cored wire	light green/ orange		V-groove/ knurl		092-002848-00028
SET WF 2,0-3,2mm eFeed	Wire feed set for rolls with diameters greater than 1.6 mm	–	–	–	Per unit	092-019404-00000

▶ For using rolls with a diameter of more than 1.6 mm, the SET WF 2.0–3.2 mm eFeed (092-019404-00000) option is necessary!
▶ Four roll set

eFeed drive rolls

Drive roll set

- Drive roll set, V-groove for steel, stainless steel and brazing

Colour code	Violet

Type	Designation	Colour code	Wire Ø	Groove shape	PE	Item no.
			mm			
FE 4R 3.2 MM/0.12 INCH VIOLET	Drive roll set, 37 mm, 4 rolls, V-groove for steel, stainless steel, nickel and copper alloys	Violet	3.2	V-groove	Per packing unit	092-002770-00032
SET WF 2,0-3,2mm eFeed	Wire feed set for rolls with diameters greater than 1.6 mm	–	–	–	Per unit	092-019404-00000

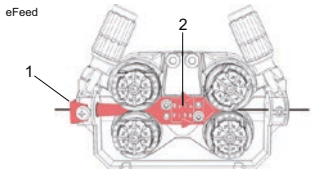
▶ For using rolls with a diameter of more than 1.6 mm, the SET WF 2.0–3.2 mm eFeed (092-019404-00000) option is necessary!
▶ Four roll set

DV X

- You will find further information in the operating instructions.
- Contact our EWM Service Hotline on +49 2680 181-290 or send an email to service@ewm-group.com if you have any questions.
- Wire feed roll support consumables set for eFeed
- Includes 4 clamping adapters and all necessary add-ons.

Type	Designation	Item no.
DV X	Wire feed roll mount set	092-002960-E0000

Wire guide set



Type	Designation	Item no.
SET IG 4x4 1.6mm BL	Inlet guide set	092-002780-00000
SET WF 1,6mm eFeed	Wire feed set for rolls up to 1.6 mm in diameter	092-002774-00000
SET WF 2,0-3,2mm eFeed	Wire feed set for rolls with diameters greater than 1.6 mm	092-019404-00000

Wire feed rolls

Drive roll set for steel

- Spare rolls for steel wire (standard steel model)
- Includes two drive rolls

Type	Designation	Wire Ø mm	Roller diameter mm	Item no.	Per packing unit
FE 2DR4R 0.6+0.8	Replacement roll set for steel wire	0.6 - 0.8	37	092-000839-00000	
FE 2DR4R 0.8+1.0		0.8 - 1		092-000840-00000	
FE 2DR4R 0.9+1.2		0.9 - 1.2		092-000841-00000	
FE 2DR4R 1.0+1.2		1 - 1.2		092-000842-00000	
FE 2DR4R 1.2+1.6		1.2 - 1.6		092-000843-00000	

Replacement roll for steel wire

- Spare rolls for steel wire (standard steel model)
- Includes one drive roll

Type	Designation	Wire Ø mm	Roller diameter mm	Item no.	Per packing unit
FE 1DR2R 0.6+0.8	Drive roll, 37 mm, for steel	0.6 - 0.8	37	094-003217-00000	
FE 1DR2R 0.8+1.0		0.8 - 1		094-003218-00000	
FE 1DR2R 1.0+1.2		1 - 1.2		094-003219-00000	

Pressure rolls, steel wire

- Spare pressure rolls, steel, standard

Roller diameter	37 mm

Type	Designation	Item no.	Per packing unit
FE/AL 2GR4R	2 pressure rolls, smooth, 37 mm	092-000844-00000	

Drive roll set for aluminium

- Replacement rolls for aluminium wire
- Includes two drive rolls

Type	Designation	Wire Ø mm	Roller diameter mm	Item no.	Per packing unit
AL 2ZR4R 0.8+1.0	Drive roll set for aluminium	0.8 - 1	37	092-000873-00000	
AL 2ZR4R 1.0+1.2		1 - 1.2		092-000828-00000	

Wire feed rolls

Drive roll set for aluminium

- Replacement rolls for aluminium wire
- Includes four drive rolls

Type	Designation	Wire Ø mm	Roller diameter mm	Item no.	Per packing unit
AL 4ZR4R 0.8+1.0	Drive roll set for aluminium	0.8 - 1	37	092-000869-00000	
AL 4ZR4R 1.0+1.2		1 - 1.2		092-000848-00000	
AL 4ZR4R 1.2+1.6		1.2 - 1.6		092-000849-00000	
AL 4ZR4R 2.4+3.2		2.4 - 3.2		092-000870-00000	

Replacement roll for aluminium wire

- Replacement rolls for aluminium wire

Wire Ø	0.8 mm - 1 mm
Roller diameter	37 mm

Type	Designation	Item no.	
0.8+1.0/U/AL-Z-RO/37mm	Drive roll, 37 mm, for aluminium	094-005428-00000	

Drive roll set for flux cored wire

- Spare rollers flux cored wire
- Includes two drive rolls

Type	Designation	Wire Ø mm	Wire Ø 2 mm	Roller diameter mm	Item no.	Per packing unit
ROE 2DR4R 0.8/0.9+0.8/0.9	Drive roll set for flux cored wire	0.8 - 0.9	0.8 - 0.9	37	092-000834-00000	
ROE 2DR4R 1.0/1.2+1.4/1.6		1 - 1.2	1.4 - 1.6		092-000835-00000	
ROE 2DR4R 1.4/1.6+2.0/2.4		1.4 - 1.6	2 - 2.4		092-000836-00000	
ROE 2DR4R 2.8+3.2		2.8	3.2		092-000837-00000	

Pressure rolls for flux cored wire

- Replacement pressure rolls, flux cored wire

Roller diameter	37 mm

Type	Designation	Item no.	
ROE 2GR4R	Pressure rolls for flux cored wire	092-000838-00000	

Wire feed roll, smooth

Wire Ø	1.2 mm
Roller diameter	20 mm

Type	Designation	Item no.	
WFROLL 1.2mm	Wire feed roll, smooth	094-018246-00000	

Wire spool holder

DV-CAP WALL

- Wall holder for D300 wire spools
- Consists of casing, pin, wire guide connection and mounting accessories

Type	Designation	Item no.
DV-CAP WALL	Wall holder for wire spools, including pin and accessories	092-001985-00000

▶ The wire feed connection sets are not included in the supply package and must be ordered separately.

ON DV CAP ROB

- Wire spool support for wire feeder
- Left version suitable for M drive 4 Rob 3X LI, M drive 4 Rob 5 XR LI, M drive 4 Rob 2X, M drive 4 Rob 2X MF, tigSpeed drive 4 Rob
- Right version suitable for M drive 4 Rob 3X RE, M drive 4 Rob 5 XR RE

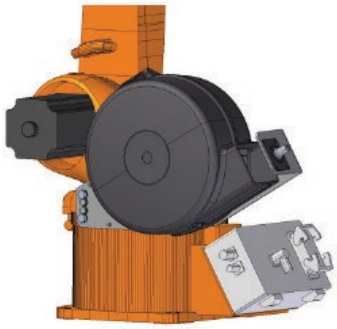
Type	Designation	Item no.
ON DV CAP ROB LI	Rob wire spool support, left	092-003217-00000
ON DV CAP ROB RE	Rob wire spool support, right	092-003484-00000

AK300

- Wire spool adapter for use with a wire basket spool (B 300)

Type	Designation	Item no.
AK300	Wire spool adapter B300	094-001803-00001

Overview for wire spool holder – robot-specific



- Wire spool holder for fixing to robot
- For D300 wire spools
- Consists of bracket, cover, pin and assembly material

▶ Versions for other robot types available on request

▶ The wire feed connection sets are not included in the supply package and must be ordered separately

Robot brand	Robot type	Item no.	
ABB	IRB 1600-6/1.2	092-002558-00000	K
ABB	IRB 1600-10/1.2	092-002558-00000	K
ABB	IRB 1600-6/1.45	092-002558-00000	K
ABB	IRB 1600-10/1.45	092-002558-00000	K
ABB	IRB 2600-10/1.85	092-003253-00000	K
ABB	IRB 2600-12/1.65	092-003253-00000	K
ABB	IRB 2600-12/1.85	092-003253-00000	K
ABB	IRB 2600-20/1.65	092-003253-00000	K
ABB	IRB 4600-20/2.5	092-003254-00000	K
ABB	IRB 4600-40/2.55	092-003254-00000	K
ABB	IRB 4600-45/2.05	092-003254-00000	K
ABB	IRB 4600-60/2.05	092-003254-00000	K
ABB	IRB 1410	092-003251-00000	K
ABB	IRB 2400L	on demand	K
ABB	IRB 2400/10	092-003252-00000	K
ABB	IRB 2400/16	092-003252-00000	K
ABB	IRB 1600ID	092-002558-00000	HS
ABB	IRB 1620ID	092-003255-00000	HS
ABB	IRB 1660ID-4/1.55	092-002558-00000	HS
ABB	IRB 1660ID-6/1.55	092-002558-00000	HS
ABB	IRB 2600ID-8/2.0	092-003253-00000	HS
ABB	IRB 2600ID-15/1.85	092-003253-00000	HS
ABB	IRB 1520ID-4/1.5	092-003255-00000	HS
COMAU	NS-12-1.85	on demand	K
COMAU	NS-16-1.65	on demand	K
COMAU	NJ-16-3.1	on demand	K
COMAU	NJ-40-2.5	on demand	K
COMAU	NJ-60-2.2	on demand	K
COMAU	RACER 999	092-003256-00000	K
COMAU	Arc4-5-1.95	on demand	HS
COMAU	SMART5 ARC4	092-003257-00000	HS

Robot brand	Robot type	Item no.	
FANUC	ARC Mate 50iD	*	K
FANUC	ARC Mate 50iD/7L	*	K
FANUC	ARC Mate 0iB	*	K
FANUC	ARC Mate 100iB		K
FANUC	M-710iC/20L	092-003259-00000	K
FANUC	R-2000iA	092-003258-00000	K
FANUC	ARC Mate 100iC/6L	on demand	HS
FANUC	ARC Mate 100iC/7L	on demand	HS
FANUC	ARC Mate 100iC/8L	092-002559-00000	HS
FANUC	ARC Mate 100iC/10L	on demand	HS
FANUC	ARC Mate 100iC/10S	092-002559-00000	HS
FANUC	ARC Mate 100iC/12	092-002559-00000	HS
FANUC	ARC Mate 100iC/12S	on demand	HS
FANUC	ARC Mate 100iD	*	HS
FANUC	ARC Mate 100iD/8L	on demand	HS
FANUC	ARC Mate 100iD/10L	on demand	HS
FANUC	ARC Mate 120iC	092-002580-00000	HS
FANUC	ARC Mate 120iC/10L	092-002580-00000	HS
FANUC	ARC Mate 120iC/12L	092-002580-00000	HS
FANUC	ARC Mate 120iD	on demand	HS
FANUC	ARC Mate 120iD/12L	on demand	HS
FANUC	ARC Mate 100iC	092-002559-00000	HS
FANUC	M-10iA/7L	092-002559-00000	HS
FANUC	M-20iA/12L	on demand	HS
FANUC	M-710iC/12L	092-003259-00000	HS
Kawasaki	RA005L	on demand	K
Kawasaki	RA006L	on demand	K
Kawasaki	RA010L	092-003261-00000	K
Kawasaki	RA010N	on demand	K
Kawasaki	RA020N	on demand	K
Kawasaki	RS020N	on demand	K
Kawasaki	BA006L	092-003992-00000	HS
Kawasaki	BA006N	092-003992-00000	HS
KUKA	KR 6 R1820	on demand	K
KUKA	KR 6 R1820 HP	092-003263-00000	K
KUKA	KR 8 R1620	on demand	K
KUKA	KR 8 R1620 HP	092-003263-00000	K
KUKA	KR 8 R2010-2	on demand	K
KUKA	KR 10 R1420	on demand	K
KUKA	KR 10 R1420 HP	092-003263-00000	K
KUKA	KR 12 R1810-2	on demand	K
KUKA	KR 16 R1610-2	on demand	K
KUKA	KR 16 R2010-2	on demand	K
KUKA	KR 20 R1810-2	on demand	K
KUKA	KR 22 R1610-2	on demand	K

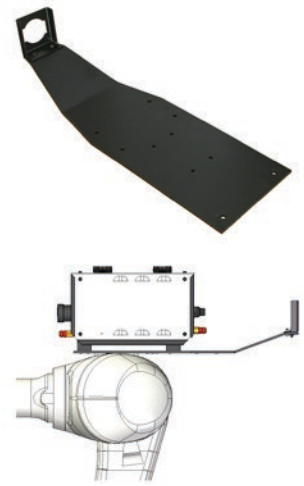
Robot brand	Robot type	Item no.	
KUKA	KR 5	on demand	K
KUKA	KR 16	on demand	K
KUKA	KR 16-2	on demand	K
KUKA	KR 30 L16	092-003262-00000	K
KUKA	KR 50 R2500	092-004047-00000	K
KUKA	KR 90 R3100 extra	on demand	K
KUKA	KR 120 R3100-2	092-004047-00000	K
KUKA	KR 6 R1820 arc HS	092-003263-00000	HS
KUKA	KR 6 R1840-2 arc HS	092-004200-00000	HS
KUKA	KR 8 R1420 arc HS	092-003263-00000	HS
KUKA	KR 8 R1620 arc HS	092-003263-00000	HS
KUKA	KR 8 R2100 arc HS	092-003263-00000	HS
KUKA	KR 5 arc HS	092-002558-00000	HS
KUKA	KR 8 R2100-2 arc HS	on demand	HS
KUKA	KR 16 arc HS	on demand	HS
KUKA	KR 16 L8 arc HS	092-003207-00000	HS
Motoman	AR700	on demand	K
Motoman	AR900	on demand	K
Motoman	MC2000II	on demand	K
Motoman	K6-C	on demand	K
Motoman	HP20	092-001250-00000	K
Motoman	HP20D-6	092-001250-00000	K
Motoman	HP20D	092-001250-00000	K
Motoman	HP20RD	092-001250-00000	K
Motoman	HP20F	092-001250-00000	K
Motoman	HP20D-CR7	092-001250-00000	K
Motoman	UP20	on demand	K
Motoman	MH5	*	K
Motoman	MH5L	*	K
Motoman	MH6	*	K
Motoman	MH6-10	*	K
Motoman	MH6S	*	K
Motoman	MH6S-10	*	K
Motoman	MH50	092-001250-00000	K
Motoman	MH50-20	092-001250-00000	K
Motoman	MH50-35	092-001250-00000	K
Motoman	AR1440	092-003210-00000	HS
Motoman	AR1730	092-003210-00000	HS
Motoman	AR2010	092-003210-00000	HS
Motoman	AR3120	092-004027-00000	HS
Motoman	MA1440	092-003210-00000	HS
Motoman	EA1400	092-002558-00000	HS
Motoman	EA1800N	on demand	HS
Motoman	EA1900	092-001250-00000	HS
Motoman	MA1400	092-002558-00000	HS
Motoman	MA1550	092-002558-00000	HS

Robot brand	Robot type	Item no.	
Motoman	MA1800	092-001250-00000	HS
Motoman	MA1900	092-001250-00000	HS
Motoman	MA2010	092-003210-00000	HS
Motoman	VA1400	on demand	HS
Motoman	SSA2000	092-002558-00000	HS
Motoman	MH24	092-003265-00000	HS
REIS	RV10-6	092-003266-00000	K
REIS	RV20-6	092-003266-00000	K
REIS	RV20-16	on demand	K
REIS	RV20-6HW	092-003266-00000	HS
UNIVERSAL ROBOTS	UR5e	*	K
UNIVERSAL ROBOTS	UR10e	*	K
UNIVERSAL ROBOTS	UR16e	*	K

* Robot too small or poor fastening capability for the wire spool holder. Use external wall holder DV CAP Wall or wire spool support ON DV CAP ROB.

Assembly consoles

MONTAGE CONSOLE ROB2

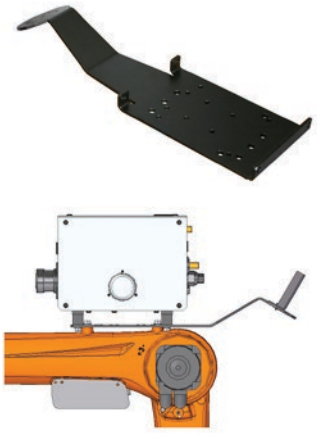


- Console for simple mounting on robot with strain relief for intermediate hose package
- Fastening holes (drill pattern) for different robot types already available
- Console for mounting of drive 4 Rob 2, drive 4 Rob 2 MF, M drive 4 Rob 2 HS and tigSpeed drive 4 Rob
- Fits on the 3rd robot axis
- Insulated assembly

Type	Designation	Item no.
MONTAGE CONSOLE ROB 2 UNIVERSAL	Mounting console for wire feed unit	092-001746-00000

▶ Other robot-specific mounting consoles available on request!

MONTAGE CONSOLE ROB3

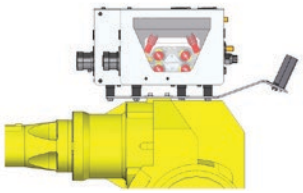


- Console for simple mounting on robot with strain relief for intermediate hose package
- Fastening holes (drill pattern) for different robot types already available
- Console for mounting drive 4 Rob 3, left or right versions
- Fits on the 3rd robot axis
- Insulated assembly

Type	Designation	Item no.
MONTAGE CONSOLE ROB 3 UNIVERSAL	Mounting console for wire feeder and media separation box	092-002440-00000

▶ Other robot-specific mounting consoles available on request!

MONTAGE CONSOLE ROB3/ROB5 2 DV



- Console for simple mounting on robot with strain relief for intermediate hose package
- Fastening holes (drill pattern) for different robot types already available
- Console for mounting two drive 4 Rob 3 units, one left version and one right version
- Fits on the 3rd robot axis
- Insulated assembly

Type	Designation	Item no.
MONTAGE CONSOLE ROB3/ROB5 2 DV	Assembly console for two wire feed units on robot	092-002406-00000

▶ Other robot-specific mounting consoles available on request!

Overview of mounting consoles and wire feeders for standard robots

Robot brand	Robot type	Load	Wire feeder mounting console				
			Rob 2	Version	Rob 3	Version	
ABB	IRB 1600-6/1.2	6 kg	092-002562-00000	left	092-002562-00000	left, right	
ABB	IRB 1600-10/1.2	10 kg	092-002562-00000	left	092-002562-00000	left, right	
ABB	IRB 1600-6/1.45	6 kg	092-002562-00000	left	092-002562-00000	left, right	
ABB	IRB 1600-10/1.45	10 kg	092-002562-00000	left	092-002562-00000	left, right	
ABB	IRB 2600-10/1.85	10 kg	092-002793-00000	left	092-002793-00000	left, right	
ABB	IRB 2600-12/1.65	12 kg	092-002793-00000	left	092-002793-00000	left, right	
ABB	IRB 2600-12/1.85	12 kg	092-002793-00000	left	092-002793-00000	left, right	
ABB	IRB 2600-20/1.65	20 kg	092-002793-00000	left	092-002793-00000	left, right	
ABB	IRB 4600-20/2.5	20 kg	092-019403-00000	left	092-019403-00000	left, right	
ABB	IRB 4600-40/2.55	40 kg	092-019403-00000	left	092-019403-00000	left, right	
ABB	IRB 4600-45/2.05	45 kg	092-019403-00000	left	092-019403-00000	left, right	
ABB	IRB 4600-60/2.05	60 kg	092-019403-00000	left	092-019403-00000	left, right	
ABB	IRB 1410	5 kg	on demand	left	on demand	left, right	
ABB	IRB 2400L	7 kg	on demand	left	on demand	left, right	
ABB	IRB 2400/10	10 kg	on demand	left	on demand	left, right	
ABB	IRB 2400/16	16 kg	on demand	left	on demand	left, right	
COMAU	NS-12-1.85	12 kg	092-001746-00000	left	092-002440-00000	left	
COMAU	NS-16-1.65	16 kg	092-001746-00000	left	092-002440-00000	left	
COMAU	NJ-16-3.1	16 kg	092-001746-00000	left	092-002440-00000	left	
COMAU	NJ-40-2.5	40 kg	on demand	left	on demand	left	
COMAU	NJ-60-2.2	60 kg	on demand	left	on demand	left	
COMAU	RACER 999	7 kg	092-001746-00000	left	092-002440-00000	left	
FANUC	ARC Mate 50iD	7 kg	*		*		
FANUC	ARC Mate 50iD/7L	7 kg	*		*		
FANUC	ARC Mate 0iB	3 kg	092-001746-00000	left	092-002440-00000	left, right	
FANUC	ARC Mate 100iB	6 kg	092-001746-00000	left	092-002440-00000	left, right	
FANUC	M-710iC/20L	20 kg	092-001746-00000	left	092-002440-00000	left, right	
FANUC	R-2000iA		on demand	left	on demand	left, right	
KAWASAKI	RA005L	5 kg	092-001746-00000	left	092-002440-00000	left, right	
KAWASAKI	RA006L	6 kg	092-001746-00000	left	092-002440-00000	left, right	
KAWASAKI	RA010L	10 kg	092-001746-00000	left	092-002440-00000	left, right	
KAWASAKI	RA010N	10 kg	092-001746-00000	left	092-002440-00000	left, right	
KAWASAKI	RA020N	20 kg	092-001746-00000	left	092-002440-00000	left, right	
KAWASAKI	RS020N	20 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 6 R1820	6 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 6 R1820 HP	6 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 8 R1620	8 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 8 R1620 HP	8 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 8 R2010-2	8 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 10 R1420	10 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 10 R1420 HP	10 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 12 R1810-2	12 kg	092-001746-00000	left	092-002440-00000	left, right	

Robot brand	Robot type	Load	Wire feeder mounting console				
			Rob 2	Version	Rob 3	Version	
KUKA	KR 16 R1610-2	16 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 16 R2010-2	16 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 20 R1810-2	20 kg	on demand	left	on demand	left, right	
KUKA	KR 22 R1610-2	22 kg	on demand	left	on demand	left, right	
KUKA	KR 5	5 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 16	16 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 16-2	16 kg	092-001746-00000	left	092-002440-00000	left, right	
KUKA	KR 30 L16	16 kg	on demand	left	on demand	left, right	
KUKA	KR 90 R3100 extra	90 kg	on demand	left	on demand	left, right	
MOTOMAN	AR700	8 kg	**	left	**	left, right	
MOTOMAN	AR900	7 kg	**	left	**	left, right	
MOTOMAN	MC2000II	50 kg	on demand	left	on demand	left, right	
MOTOMAN	K6-C	6 kg	on demand	left	on demand	left, right	
MOTOMAN	HP20	20 kg	092-001746-00000	left	092-002440-00000	left, right	
MOTOMAN	HP20D-6	6 kg	092-001746-00000	left	092-002440-00000	left, right	
MOTOMAN	HP20D	20 kg	092-001746-00000	left	092-002440-00000	left, right	
MOTOMAN	HP 20RD	20 kg	092-001746-00000	left	092-002440-00000	left, right	
MOTOMAN	HP20F	20 kg	092-001746-00000	left	092-002440-00000	left, right	
MOTOMAN	HP20D-CR7	20 kg	092-001746-00000	left	092-002440-00000	left, right	
MOTOMAN	UP20	20 kg	092-001746-00000	left	092-002440-00000	left, right	
MOTOMAN	MH5	5 kg	*		*		
MOTOMAN	MH5L	5 kg	*		*		
MOTOMAN	MH6	6 kg	**	left	**	left, right	
MOTOMAN	MH6-10	10 kg	**	left	**	left, right	
MOTOMAN	MH6S	6 kg	**	left	**	left, right	
MOTOMAN	MH6S-10	10 kg	**	left	**	left, right	
MOTOMAN	MH50	50 kg	on demand	left	on demand	left, right	
MOTOMAN	MH50-20	20 kg	on demand	left	on demand	left, right	
MOTOMAN	MH50-35	35 kg	on demand	left	on demand	left, right	
REIS	RV10-6	6 kg	092-001746-00000	left	092-002440-00000	left, right	
REIS	RV20-6	6 kg	092-001746-00000	left	092-002440-00000	left, right	
REIS	RV20-16	16 kg	092-001746-00000	left	092-002440-00000	left, right	
UNIVERSAL ROBOTS	UR5e	5 kg	*		*		
UNIVERSAL ROBOTS	UR10e	10 kg	*		*		
UNIVERSAL ROBOTS	UR16e	16 kg	*		*		

* Robot too small or poor mounting options for mounting a wire feeder!

▶ Consoles and wire feeders should be placed near the robot. Alternatively, the ON DV CAP ROB external wire spool support should be used.

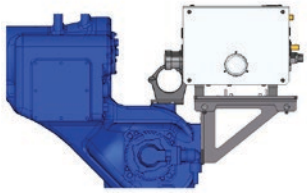
** Robot potentially too small or poor mounting options for mounting a wire feeder!

▶ Testing required depending on wire feeder, or use ON DV CAP ROB external wire spool support.

▶ For consoles for standard robots, the drill pattern must be amended, expanded or used with additional adapter plates on-site.

Assembly consoles

MONTAGE CONSOLE ROB3 HW



- Mounting console for hollow shaft robot
- Console for easy mounting behind 3rd robot axis with strain relief for the intermediate hose package
- Slot welds to enable easy, optimal wire feeder positioning
- Wire feeder can be easily pushed back to allow for welding torch or liner exchange
- Insulated assembly

Type	Designation	Item no.
MONTAGE CONSOLE ROB3 MOTOMAN MA1440/2010/MH24	Mounting console for wire feed unit	092-002877-00000

▶ An overview of consoles for hollow wrist robots can be found on the next pages.
▶ Other robot-specific mounting consoles available on request!

Overview of mounting consoles and wire feeders for hollow wrist robots

Robot brand	Robot type	Load	Wire feeder mounting console	
			Rob 3	Version
ABB	IRB 1600ID	4 kg	092-002563-00000	left
ABB	IRB 1620ID		on demand	left
ABB	IRB 1660ID-4/1.55	4 kg	092-002563-00000	left
ABB	IRB 1660ID-6/1.55	6 kg	092-002563-00000	left
ABB	IRB 2600ID-8/2.0	8 kg	092-001893-00000	left
ABB	IRB 2600ID-15/1.85	15 kg	092-001893-00000	left
ABB	IRB 1520ID-4/1.5	4 kg	092-007909-00000	left
COMAU	Arc4-5-1.95	5 kg	on demand	
COMAU	SMART5 ARC4	5 kg	092-003073-00000	left
FANUC	ARC Mate 100iC/6L	7 kg	on demand	
FANUC	ARC Mate 100iC/7L	7 kg	092-002497-00000	left
FANUC	ARC Mate 100iC/8L	8 kg	092-002497-00000	left
FANUC	ARC Mate 100iC/10L	10 kg	on demand	
FANUC	ARC Mate 100iC/10S	10 kg	on demand	
FANUC	ARC Mate 100iC/12	12 kg	092-002497-00000	left
FANUC	ARC Mate 100iC/12S	12 kg	on demand	
FANUC	ARC Mate 100iD	12 kg	092-002497-00000	left
FANUC	ARC Mate 100iD/8L	8 kg	092-002497-00000	left
FANUC	ARC Mate 100iD/10L	10 kg	092-002497-00000	left
FANUC	ARC Mate 120iC	20 kg	092-002497-00000	left
FANUC	ARC Mate 120iC/10L	12 kg	on demand	
FANUC	ARC Mate 120iC/12L	12 kg	092-002497-00000	left
FANUC	ARC Mate 120iD	25 kg	on demand	
FANUC	ARC Mate 120iD/12L	12 kg	on demand	
FANUC	ARC Mate 100iC	10 kg	092-002497-00000	left
FANUC	M-10iA/7L	7 kg	092-002497-00000	left
FANUC	M-20iA/12L	12 kg	092-002497-00000	left
FANUC	M-710iC/12L	20 kg	092-003075-00000	right
KAWASAKI	BA006L	6 kg	092-008773-00000	left
KAWASAKI	BA006N	6 kg	092-008773-00000	left
KUKA	KR 6 R1820 arc HW	6 kg	on demand	left
KUKA	KR 8 R1420 arc HW	8 kg	on demand	left
KUKA	KR 8 R1620 arc HW	8 kg	on demand	left
KUKA	KR 8 R2100 arc HW	8 kg	on demand	left
KUKA	KR 5 arc HW	5 kg	092-002441-00000	left
KUKA	KR 8 R2100-2 arc HW	8 kg	on demand	left
KUKA	KR 16 arc HW	16 kg	092-003641-00000	left
KUKA	KR 16 L8 arc HW	8 kg	092-003641-00000	left

Robot brand	Robot type	Load	Wire feeder mounting console	
			Rob 3	Version
MOTOMAN	AR1440	12 kg	on demand	
MOTOMAN	AR1730	25 kg	on demand	
MOTOMAN	AR2010	12 kg	on demand	
MOTOMAN	AR3120	20 kg	092-004030-00000	left
MOTOMAN	MA1440	6 kg	092-002877-00000	left
MOTOMAN	EA1400	3 kg	092-002506-00000	left
MOTOMAN	EA1800N	15 kg	092-002507-00000	left
MOTOMAN	EA1900	3 kg	092-002507-00000	left
MOTOMAN	MA1400	3 kg	on demand	
MOTOMAN	MA1550	3 kg	on demand	
MOTOMAN	MA1800	15 kg	on demand	
MOTOMAN	MA1900	3 kg	on demand	
MOTOMAN	MA2010	10 kg	092-002877-00000	left
MOTOMAN	VA1400	3 kg	on demand	
MOTOMAN	SSA2000	3 kg	092-002506-00000	left
MOTOMAN	MH24	24 kg	092-002877-00000	left
REIS	RV20-6HW	6 kg	on demand	

Wire feed unit and intermediate hose package accessories

Item numbers and price calculation for robot intermediate hose packages and control lead packages (SLP)

An item code is needed to order robot intermediate hose packages /control cable assembly. It forms the final five digits of the item number. These correspond to the configuration of the hose package. The basic price refers to a hose package length of 1 m.

Codes for robot intermediate hose packages Basic item number: 092-007855-**ABCDD**

Basic price (length 1m)

Basic price of hose assembly (length 1m)

Position in item no.	Code	Name
A	0	70 mm²
	1	95 mm²
	2	2*95 mm², Screw-in power connection
	3	VSLP TORCHBOX
	4	VSLP TORCHBOX + WF
	5	SLP 7/12 pol
	6	SLP 7/12 pol hotwire
	7	VSLP PIPETRUCK
	8	VSLP TORCHBOX + WF + HW / TIGSPEED ▶ only with or without ribbed protective hose, no standard protective hose
B	0	Gas-cooled (not at SLP)
	1	Water-cooled (always at VSLP)
	2	without gas or water (when using hose assembly)
C	0	No protective hose
	1	Standard protective hose (not at 2* 95QMM)
	2	Ribbed protective hose
DD	01-30; at VSLP 1-15	Indication of length (1 m included in basic price)
		Intermediate hose package
		Control cable assembly

▶ **All intermediate hose packages are equipped with the 7-pole and 12-pole control cable.**

Sample calculations:

95 mm² intermediate hose package, water-cooled, no protective hose, 10 m

Position in item no.	Code	Name
A	1	95 mm²
B	1	Water-cooled
C	0	No protective hose
DD	10	Length 10 m
		Total surcharges
		Basic price
092-007855-	**1 1 0 10**	**Total price**

Control lead package, ribbed protective hose, 12 m

Position in item no.	Code	Name
A	5	SLP 7/12 pol
B	2	without gas or water
C	2	Ribbed protective hose
DD	12	Length 12 m
		Total surcharges
		Basic price
092-007855-	**5 2 2 12**	**Total price**

▶ If a control lead package is used, the coding for Position B will always be 2.

Intermediate hose packages

70QMM G 7/12POL

- The gas hoses are diffusion-proof according to EN 559
- Highly flexible and durable
- Intermediate hose package, 7-/12-pole
- Resistant to even high lateral and torsion forces

Type	Designation	Hose package length	Cross-section	Item no.
		m	mm²	
70QMM GS 7/12 POL 3M	Robot intermediate hose package, gas cooled, standard protective hose, 7/12-pole	3.0	70	092-007855-00103
70QMM GS 7/12 POL 5M		5.0		092-007855-00105
70QMM WS 7/12POL 3M	Robot intermediate hose package, water cooled, standard protective hose, 7/12-pole	3.0		092-007855-01103
70QMM WS 7/12POL 5M		5.0		092-007855-01105
95QMM WS 7/12 POL 3M		3.0	95	092-007855-11103
95QMM WS 7/12 POL 5M		5.0		092-007855-11105

95QMM x 2

- The gas hoses are diffusion-proof according to EN 559
- Highly flexible and durable
- Used on Phoenix 1002 and M drive 4 HS
- Intermediate hose package with ribbed hose
- Screw-in power connection
- Resistant to even high lateral and torsion forces

Hose package length	5 m
Cross-section	95 mm²
Version	Ribbed hose

Type	Designation	Item no.
2x95QMM WR 7/12POL 5M	Robot intermediate hose package, 2 x 95 sq mm, water cooled, ribbed hose, 7/12-pole	092-007855-21205

95QMM WR 7/12POL

- The gas hoses are diffusion-proof according to EN 559
- Highly flexible and durable
- Intermediate hose package with ribbed hose
- Resistant to even high lateral and torsion forces

Hose package length	5 m
Version	Ribbed hose

Type	Designation	Cross-section	Item no.
		mm²	
70QMM GR 7/12 POL 5M	Robot intermediate hose package, gas cooled, ribbed hose, 7/12-pole	70	092-007855-00205
95QMM WR 7/12 POL 5M	Robot intermediate hose package, water cooled, ribbed hose, 7/12-pole	95	092-007855-11205

SLP 7+12 2,5M

Type	Designation	Hose package length m	Version	Item no.
SLP HW S 7/12 POL 5M	Control cable, standard protective hose	5.0	Rob Hotwire with protective hose	092-007855-62105
SLP S 7/12 POL 5M			Standard with protective hose	092-007855-52105
SLP S 7+12 12M		12.0		092-007855-52112
SLP 7+12 5M	Control cable assembly	5.0	Standard without protective hose	092-007855-52005

ON ZWIPA-CONNECTION

Type	Designation	Item no.
ON ZWIPA-CONNECTION	Retrofit option, third-party intermediate hose package, strain relief	094-007890-00000

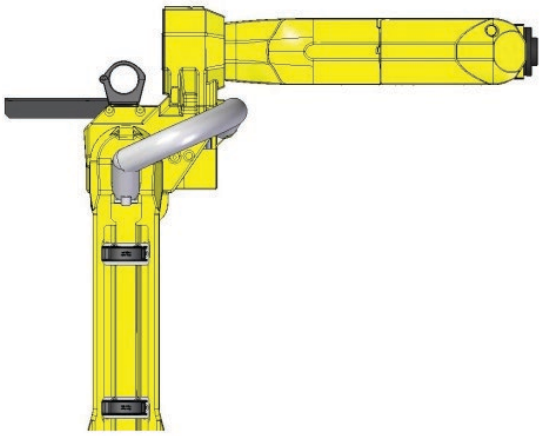
LS KV D=60MM

Type	Designation	Item no.
LSH, 60 mm	Leather protective hose	094-020777-00000

▶ Minimum order quantity: 5 m

Overview mounting kits for intermediate hose packages

MONTAGE SET ZWIPA
Kits to mount intermediate hose packages to hollow wrist robots.
Versions for other robot types available on request.



Manufacturer	Robot typ	Version	Load	Info	Item no.
ABB	IRB 1600-6/1.2	Standard	6 kg		on demand
ABB	IRB 1600-10/1.2	Standard	10 kg		on demand
ABB	IRB 1600-6/1.45	Standard	6 kg		on demand
ABB	IRB 1600-10/1.45	Standard	10 kg		on demand
ABB	IRB 2600-10/1.85	Standard	10 kg		on demand
ABB	IRB 2600-12/1.65	Standard	12 kg		on demand
ABB	IRB 2600-12/1.85	Standard	12 kg		on demand
ABB	IRB 2600-20/1.65	Standard	20 kg		on demand
ABB	IRB 4600-20/2.5	Standard	20 kg		on demand
ABB	IRB 4600-40/2.55	Standard	40 kg		on demand
ABB	IRB 4600-45/2.05	Standard	45 kg		on demand
ABB	IRB 4600-60/2.05	Standard	60 kg		on demand
ABB	IRB 1410	Standard	5 kg		on demand
ABB	IRB 2400L	Standard	7 kg		on demand
ABB	IRB 2400/10	Standard	10 kg		on demand
ABB	IRB 2400/16	Standard	16 kg		on demand
ABB	IRB 1600ID	Hollow shaft	4 kg		092-002569-00000
ABB	IRB 1620ID	Hollow shaft			on demand
ABB	IRB 1660ID-4/1.55	Hollow shaft	4 kg		092-004115-00000
ABB	IRB 1660ID-6/1.55	Hollow shaft	6 kg		092-004115-00000
ABB	IRB 2600ID-8/2.0	Hollow shaft	8 kg		092-003056-00000
ABB	IRB 2600ID-15/1.85	Hollow shaft	15 kg		092-003056-00000
ABB	IRB 1520ID-4/1.5	Hollow shaft	4 kg		092-007910-00000
COMAU	NS-12-1.85	Standard	12 kg		on demand
COMAU	NS-16-1.65	Standard	16 kg		on demand
COMAU	NJ-16-3.1	Standard	16 kg		on demand
COMAU	NJ-40-2.5	Standard	40 kg		on demand

Manufacturer	Robot typ	Version	Load	Info	Item no.
COMAU	NJ-60-2.2	Standard	60 kg		on demand
COMAU	RACER 999	Standard	7 kg		on demand
COMAU	Arc4-5-1.95	Hollow shaft	5 kg		on demand
COMAU	SMART5 ARC4	Hollow shaft	5 kg		092-003072-00000
FANUC	ARC Mate 50iD	Standard	7 kg		on demand
FANUC	ARC Mate 50iD/7L	Standard	7 kg		on demand
FANUC	ARC Mate 0iB	Standard	3 kg		on demand
FANUC	ARC Mate 100iB	Standard	6 kg		on demand
FANUC	M-710iC/20L	Standard	20 kg		092-003246-00000
FANUC	R-2000iA	Standard			on demand
FANUC	ARC Mate 100iC/6L	Hollow shaft	7 kg		on demand
FANUC	ARC Mate 100iC/7L	Hollow shaft	7 kg		on demand
FANUC	ARC Mate 100iC/8L	Hollow shaft	8 kg		092-008775-00000
FANUC	ARC Mate 100iC/10L	Hollow shaft	10 kg		on demand
FANUC	ARC Mate 100iC/10S	Hollow shaft	10 kg		092-003439-00000
FANUC	ARC Mate 100iC/12	Hollow shaft	12 kg		092-002567-00000
FANUC	ARC Mate 100iC/12S	Hollow shaft	12 kg		092-003247-00000
FANUC	ARC Mate 100iD	Hollow shaft	12 kg		092-003841-00000
FANUC	ARC Mate 100iD/8L	Hollow shaft	8 kg		092-003841-00000
FANUC	ARC Mate 100iD/10L	Hollow shaft	10 kg		092-003841-00000
FANUC	ARC Mate 120iC	Hollow shaft	20 kg		092-002581-00000
FANUC	ARC Mate 120iC/10L	Hollow shaft	12 kg		on demand
FANUC	ARC Mate 120iC/12L	Hollow shaft	12 kg		092-002581-00000
FANUC	ARC Mate 120iD	Hollow shaft	25 kg		on demand
FANUC	ARC Mate 120iD/12L	Hollow shaft	12 kg		on demand
FANUC	ARC Mate 100iC	Hollow shaft	10 kg		092-002567-00000
FANUC	M-10iA/7L	Hollow shaft	7 kg		092-002567-00000
FANUC	M-20iA/12L	Hollow shaft	12 kg		092-002581-00000
FANUC	M-710iC/12L	Hollow shaft	20 kg		092-003246-00000
HYUNDAI	HH010L	Standard	10 kg		092-S00000-04866
KAWASAKI	RA005L	Standard	5 kg		on demand
KAWASAKI	RA006L	Standard	6 kg		on demand
KAWASAKI	RA010L	Standard	10 kg		on demand
KAWASAKI	RA010N	Standard	10 kg		on demand
KAWASAKI	RA020N	Standard	20 kg		on demand
KAWASAKI	RS020N	Standard	20 kg		on demand
KAWASAKI	BA006L	Hollow shaft	6 kg	mit Rob 5	092-008787-00000
KAWASAKI	BA006N	Hollow shaft	6 kg	mit Rob 5	092-008787-00000
KAWASAKI	BA006L	Hollow shaft	6 kg	mit Rob 3	092-008774-00000
KAWASAKI	BA006N	Hollow shaft	6 kg	mit Rob 3	092-008774-00000
KUKA	KR 6 R1820	Standard	6 kg		on demand
KUKA	KR 6 R1820 HP	Standard	6 kg		on demand
KUKA	KR 8 R1620	Standard	8 kg		on demand

Manufacturer	Robot typ	Version	Load	Info	Item no.
KUKA	KR 8 R1620 HP	Standard	8 kg		on demand
KUKA	KR 8 R2010-2	Standard	8 kg		on demand
KUKA	KR 10 R1420	Standard	10 kg		on demand
KUKA	KR 10 R1420 HP	Standard	10 kg		on demand
KUKA	KR 12 R1810-2	Standard	12 kg		on demand
KUKA	KR 16 R1610-2	Standard	16 kg		on demand
KUKA	KR 16 R2010-2	Standard	16 kg		on demand
KUKA	KR 20 R1810-2	Standard	20 kg		on demand
KUKA	KR 22 R1610-2	Standard	22 kg		on demand
KUKA	KR 5	Standard	5 kg		on demand
KUKA	KR 16	Standard	16 kg		on demand
KUKA	KR 16-2	Standard	16 kg		on demand
KUKA	KR 30 L16	Standard	16 kg		on demand
KUKA	KR 50 R2500	Standard	50 kg		on demand
KUKA	KR 90 R3100 extra	Standard	90 kg		092-004022-00000
KUKA	KR 120 R3100-2	Standard	120 kg		on demand
KUKA	KR 6 R1820 arc HW	Hollow shaft	6 kg		092-003248-00000
KUKA	KR 6 R1840-2 arc HW	Hollow shaft	6 kg		092-004199-00000
KUKA	KR 8 R1420 arc HW	Hollow shaft	8 kg		092-003248-00000
KUKA	KR 8 R1620 arc HW	Hollow shaft	8 kg		092-003248-00000
KUKA	KR 8 R2100 arc HW	Hollow shaft	8 kg		092-003910-00000
KUKA	KR 5 arc HW	Hollow shaft	5 kg		092-002510-00000
KUKA	KR 8 R2100-2 arc HW	Hollow shaft	8 kg		on demand
KUKA	KR 16 arc HW	Hollow shaft	16 kg		092-003070-00000
KUKA	KR 16 L8 arc HW	Hollow shaft	8 kg		092-003070-00000
MOTOMAN	AR700	Standard	8 kg		on demand
MOTOMAN	AR900	Standard	7 kg		on demand
MOTOMAN	MC2000II	Standard	50 kg		on demand
MOTOMAN	K6-C	Standard	6 kg		on demand
MOTOMAN	HP20	Standard	20 kg		on demand
MOTOMAN	HP20D-6	Standard	6 kg		on demand
MOTOMAN	HP20D	Standard	20 kg		on demand
MOTOMAN	HP 20RD	Standard	20 kg		on demand
MOTOMAN	HP20F	Standard	20 kg		on demand
MOTOMAN	HP20D-CR7	Standard	20 kg		on demand
MOTOMAN	UP20	Standard	20 kg		092-003452-00000
MOTOMAN	MH5	Standard	5 kg		on demand
MOTOMAN	MH5L	Standard	5 kg		on demand
MOTOMAN	MH6	Standard	6 kg		on demand
MOTOMAN	MH6-10	Standard	10 kg		on demand
MOTOMAN	MH6S	Standard	6 kg		on demand
MOTOMAN	MH6S-10	Standard	10 kg		on demand
MOTOMAN	MH50	Standard	50 kg		092-003378-00000
MOTOMAN	MH50-20	Standard	20 kg		092-003378-00000
MOTOMAN	MH50-35	Standard	35 kg		092-003378-00000
MOTOMAN	AR1440	Hollow shaft	12 kg		092-003858-00000

Manufacturer	Robot typ	Version	Load	Info	Item no.
MOTOMAN	AR1730	Hollow shaft	25 kg		on demand
MOTOMAN	AR2010	Hollow shaft	12 kg		092-004135-00000
MOTOMAN	AR3120	Hollow shaft	20 kg		092-004028-00000
MOTOMAN	MA1440	Hollow shaft	6 kg		092-002879-00000
MOTOMAN	EA1400	Hollow shaft	3 kg		092-002566-00000
MOTOMAN	EA1800N	Hollow shaft	15 kg		092-002564-00000
MOTOMAN	EA1900	Hollow shaft	3 kg		092-002564-00000
MOTOMAN	MA1400	Hollow shaft	3 kg		092-002566-00000
MOTOMAN	MA1550	Hollow shaft	3 kg		092-002566-00000
MOTOMAN	MA1800	Hollow shaft	15 kg		092-002564-00000
MOTOMAN	MA1900	Hollow shaft	3 kg		092-002564-00000
MOTOMAN	MA2010	Hollow shaft	10 kg		092-002880-00000
MOTOMAN	VA1400	Hollow shaft	3 kg		092-003250-00000
MOTOMAN	SSA2000	Hollow shaft	3 kg		092-002566-00000
MOTOMAN	MH24	Hollow shaft	24 kg		092-003249-00000
REIS	RV10-6	Standard	6 kg		on demand
REIS	RV20-6	Standard	6 kg		on demand
REIS	RV20-16	Standard	16 kg		on demand
REIS	RV20-6HW	Hollow shaft	6 kg		092-S00000-03851
UNIVERSAL ROBOTS	UR5e	Standard	5 kg		*
UNIVERSAL ROBOTS	UR10e	Standard	10 kg		*
UNIVERSAL ROBOTS	UR16e	Standard	16 kg		*

* Robot too small or poor fastening capability for a mounting kit!

Overview

Machine and welding torch accessories			Page
Machine and welding torch accessories	Cooling units	Cool-Serie	385
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Cool-Serie

cool82 U44

- Powerful cooling unit with centrifugal pump
- Especially sturdy metal casing
- Coolant connections at rear
- High-performance pump, pressure switch, temperature-controlled pump and fan
- Recommended up to 10 m intermediate hose package

Cooling capacity at 1 l/min.	1600 W (1l/min)
Tank capacity	7 l
Flow rate	5 l/min
Coolant outlet pressure	3.5 bar
Protection classification	IP23
Safety marking	CE EAC
Dimensions (L x B x H)	650 mm x 370 mm x 250 mm
Weight	ca.24 kg
Standards	IEC 60974-1, -2 and -10 CL.A

Type	Designation	Item no.
cool82 U44	Cooling unit for robot machines with pressure controller	090-008268-00502

cool82 U44

- Powerful cooling unit with centrifugal pump
- Especially sturdy metal casing
- Coolant connections at rear
- High-performance pump, flow monitor, temperature-controlled pump and fan
- Recommended up to 10 m intermediate hose package

Cooling capacity at 1 l/min.	1600 W (1l/min)
Tank capacity	7 l
Flow rate	5 l/min
Coolant outlet pressure	3.5 bar
Protection classification	IP23
Safety marking	CE
Dimensions (L x B x H)	650 mm x 370 mm x 250 mm
Weight	ca.24 kg
Standards	IEC 60974-1, -2 and -10 CL.A

Type	Designation	Item no.
cool82 U44	Cooling unit for robot machines with flow monitor	090-008791-00502

COOL82 U45

- Powerful cooling unit with centrifugal pump
- Reinforced model
- Especially sturdy metal casing
- Coolant connections at rear
- High-performance pump, pressure switch, temperature-controlled pump and fan
- Reinforced centrifugal pump and excellent cooling capacity
- Recommended e.g. for long intermediate hose packages over 15 m

Cooling capacity at 1 l/min.	1800 W (2l/min)
	1600 W (1l/min)
Tank capacity	7 l
Flow rate	20 l/min
Coolant outlet pressure	4.5 bar
Protection classification	IP23
Safety marking	CE EAC
Dimensions (L x B x H)	650 mm x 370 mm x 250 mm
Weight	27.5 kg
Standards	IEC 60974-1, -2 and -10 CL.A

Type	Designation	Item no.
cool82 U45	Cooling unit for robot machines with pressure controller, reinforced version	090-008280-00502

cool82 U45 / U45 2DV

- Powerful cooling unit with centrifugal pump
- Reinforced model
- Especially sturdy metal casing
- Coolant connections at rear
- High-performance pump, flow monitor, temperature-controlled pump and fan
- Reinforced centrifugal pump and excellent cooling capacity
- Recommended e.g. for long intermediate hose packages over 15 m

Cooling capacity at 1 l/min.	1800 W (2l/min)
	1600 W (1l/min)
Tank capacity	7 l
Flow rate	20 l/min
Coolant outlet pressure	4.5 bar
Protection classification	IP23
Safety marking	CE EAC
Dimensions (L x B x H)	650 mm x 370 mm x 250 mm
Weight	27.5 kg
Standards	IEC 60974-1, -2 and -10 CL.A

Type	Designation	Item no.
cool82 U45	Cooling unit for robot machines with flow meter, reinforced version	090-008792-00502
cool82 U45 2DV	Cooling unit for robot machines with flow monitor, reinforced version, two connections for 2 wire feeders, for example	090-008280-13502

ON FILTER COOL

Type	Designation	Item no.
ON FILTER COOL	Dirt filter for air inlet for cool 82	092-008771-00000

Cool-Serie

KF 23E 10°C, 5 l

- Coolant for water-cooled welding machines and cooling units

Freezing point	-10 °C
Contents	5 l

Type	Designation	Item no.
KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005

KF 23E-200, -10°

- Coolant for water-cooled welding machines and cooling units

Freezing point	-10 °C
Contents	200 l

Type	Designation	Item no.
KF 23E-200	Coolant up to -10 °C (14 °F), 200 l	094-000530-00001

RK-Serie

RK 1

- High-performance recooling unit with fully thermal motor compressor
- Rear connections
- Coolant drain valve and coolant level indicator
- Temperature control and LED display
- Powerful pump, temperature-controlled fan

Cooling output	900 W
Tank capacity	6 l
Mains voltage	1 x 230 V
Version	Standard
Dimensions (L x B x H)	565 mm x 440 mm x 345 mm
Weight	42 kg

Type	Designation	Item no.
RK 1	Recooling unit	094-002283-00000

RK 2/3

- High-performance recooling unit with fully thermal motor compressor
- Connection on the front side
- Coolant drain valve and coolant level indicator
- Temperature control and LED display
- Powerful pump, temperature-controlled fan

Tank capacity	15 l
Version	Standard
Dimensions (L x B x H)	750 mm x 450 mm x 500 mm
Weight	85 kg

Type	Designation	Cooling output W	Mains voltage V	Item no.
RK 2	Recooling unit	2000	1 x 230	094-002284-00000
RK 3		2700	3 x 400	094-002285-00000

RK 2.1/3.1

- High-performance recooling unit with fully thermal motor compressor
- Connection on the front side
- Coolant drain valve and coolant level indicator
- Temperature control and LED display
- Heavy-duty 8 bar pump, temperature-controlled fan

Tank capacity	15 l
Version	Heavy-duty pump
Dimensions (L x B x H)	750 mm x 450 mm x 500 mm
Weight	85 kg

Type	Designation	Cooling output W	Mains voltage V	Item no.
RK 2.1	Recooling unit with boosted pump 8 bar	2000	1 x 230	094-002284-02000
RK 3.1		2700	3 x 400	094-002285-02000

RK-Serie

KF 23E 10°C, 5 l

- Coolant for water-cooled welding machines and cooling units

Freezing point	-10 °C
Contents	5.0 l

Type	Designation	Item no.
KF 23E-5	Coolant up to -10 °C (14 °F), 5 l	094-000530-00005

KF 23E-200, -10°

- Coolant for water-cooled welding machines and cooling units

Freezing point	-10 °C
Contents	200 l

Type	Designation	Item no.
KF 23E-200	Coolant up to -10 °C (14 °F), 200 l	094-000530-00001

ON DFW RK

- Connection for flow monitor FL200 at RK 1-3

Type	Designation	Item no.
ON DFW RK	Flow monitor connection, retrofit option	092-008266-00000
ON DFW RK FT		092-S08266-04168

▶ For mounting on OW HOLDER EXT CASE, for forceTig media separation box applications

HOSE BRIDGE

- Hose bridge
- For operating gas-cooled torches on water-cooled welding machines

Type	Designation	Item no.
HOSE BRIDGE	Hose bridge	092-007857-00000

WS 2x0,5M

Type	Designation	Item no.		
WS 2x0,5M	Water hoses, two units	092-001953-00001		

UKV4SET 4M

Type	Designation	Item no.		
UKV4SET 4M	Hose connection set to connect a cooling unit	092-000587-00000		

SET 2 Y-PART

Type	Designation	Item no.		
SET 2 Y-PART	Water connection set, 2x Y-Part	092-S09218-04188		

Pallet, trolley

PALETTE ROB

- Steady and stable design thanks to the welded structure
- Suitable for use with forklifts

Trolley dimensions L x W x H in mm	785 mm x 495 mm x 200 mm
Trolley weight	28.5 kg

Type	Designation	Item no.
PALETTE ROB XX2	Transport pallet for power source and add-on module	090-008275-00000

TROLLY ROB

- Steady and stable design thanks to the welded structure

Trolley dimensions L x W x H in mm	785 mm x 495 mm x 200 mm
Trolley weight	28.5 kg

Type	Designation	Item no.
TROLLY ROB XX2	Transport cart for a power source with an add-on module	090-008278-00000

▶ For power sources without pre-installed pallet

Torch cleaning

BRS COMP

- System comprising torch cleaning station, spraying unit and wire cutter
- Precise and effective cleaning for nearly all robot welding torches
- Tried-and-tested cutting principle works even on tough spatters
- Precise fixing of the gas nozzle via 3-point clamp
- Targeted, economical spraying of anti-spatter spray
- Rugged and compact design

Type	Designation	Diameter mm	Item no.
BRS COMP	Torch cleaning station	–	094-016560-00000
CUT MTR242W NW=15,5MM	Cutter		094-016577-00500
CUT MTR360G NW=16MM			094-016566-00500
CUT MTR360G NW=14MM			094-016570-00500
CUT MTR500G NW=16MM			094-016573-00500
CUT MTR500W NW=15,5MM			094-010274-00500
CUT 500W GD NW=15,5 L=72MM			094-021222-00000
CUT 500G GD NW=16 L=72MM			094-022396-00000
CUT F GD NW13,0MM			094-010272-00000
CUT NW=13,0 ET=15,5MM			094-023657-00000
CUT NW=13,0MM			094-010271-00000
CUT NW=15,5 ET=15,5MM			094-023658-00000
PRIS 21	Clamping prism	21	094-010292-00500
PRIS 22		22	394-002551-00000
PRIS 25		25	094-010294-00500
PRIS 28		28	094-010296-00500

Assignment of cutter and prism to welding torches

Torch type	with gas nozzle	with contact tip	EWM clamping prism	EWM cutter
MTR360G	094-010142-00500	M6	394-002551-00000	094-016570-00500
	094-010566-00500	M6	394-002551-00000	094-016566-00500
MTR500G	094-016487-00500	M8	094-010296-00500	094-016573-00500
gas cooled welding torch for hollow wrist system	094-011265-00000	M8	094-010296-00000	094-022396-00000
	094-011263-00000	M8	094-010296-00000	094-016573-00000
	094-011264-00000	M8	094-010296-00000	094-016573-00000
MTR242W	094-016508-00500	M6	094-010292-00500	094-016577-00500
MTR500W	094-016512-00500	M8	094-010294-00500	094-010274-00500
water cooled welding torch for hollow wrist system	094-010220-00500	M8	094-010294-00500	094-021222-00000
	094-010219-00000	M8	094-010294-00000	094-010274-00000
MIG ROB ABK 500 MF	094-010221-00000	M8	094-010294-00500	094-010272-00500
MTR600W	094-021813-00000	M12	094-022272-00000	094-022273-00000
	094-021814-00000	M12	094-022272-00000	094-022274-00000
	094-021815-00000	M12	094-022272-00000	094-022275-00000
	094-021816-00000	M12	094-022272-00000	094-022277-00000
MTR300W	094-020913-00000	M6	094-010294-00500	094-023657-00000
	094-022432-00000	M6	094-010294-00500	094-010271-00000
	394-001924-00000	M6	094-010294-00500	094-023658-00000
MTR505W	094-010221-00000	M8	094-010294-00500	094-010272-00000
	094-022446-00000	M8	094-010294-00500	094-010272-00000
	094-010222-00000	M8	094-010294-00500	094-021222-00000
	094-010220-00500	M8	094-010294-00500	094-021222-00000
	094-018003-00000	M8	094-010294-00500	094-010274-00500
	094-009895-00000	M8	094-010294-00500	094-010274-00500
	094-010219-00000	M8	094-010294-00500	094-010274-00500

Torch cleaning

CAT3 PRO TR

- Collision sensor
- Collision sensor for the robot, welding torch or the rig in teach or automatic mode
- Orientation in all directions
- High reset precision after orientation
- Compatible with all standard robot types (via aluminium or plastic intermediate flange) with external torch hose package
- Delivery includes: Collision sensor, helix cable

Diameter	77 mm
Height	106 mm
Weight	960 g

Type	Designation	Item no.
CAT3 PRO TR L	Collision sensor	394-008604-00000
CAT3 PRO TR XL		394-008605-00000

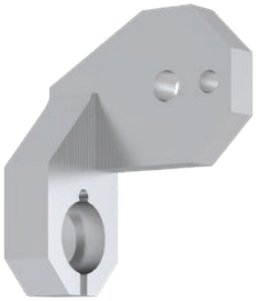
CAT3 PRO CR

- Collision sensor
- Collision sensor for the robot, welding torch or the rig in teach or automatic mode
- Orientation in all directions
- High reset precision after orientation
- Compatible with all standard robot types (via aluminium or plastic intermediate flange) with external torch hose package
- Delivery includes: Collision sensor, helix cable, holder

Diameter	77 mm
Height	106 mm
Weight	960 g

Type	Designation	Item no.
CAT3 PRO CR L	Collision sensor	394-008602-00000
CAT3 PRO CR XL		394-008603-00000

HL CAT3 PRO CR



- CAT3 PRO CR torch holder

Type	Designation	Item no.
HL CAT3 PRO CR STD	Standard holder	094-012839-00000
HL CAT3 PRO CR RS	Holder for grid positioning	094-008899-00000

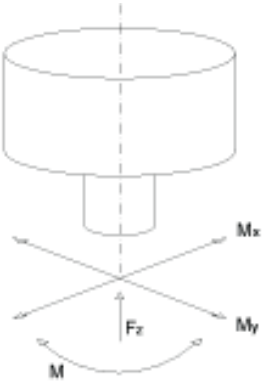
HL CAT3 PRO TR

- CAT3 PRO TR torch holder

Type	Designation	Item no.
HL CAT3 PRO TR STD	Standard holder	094-024721-00000
HL CAT3 PRO TR RS	Holder for grid positioning	394-008606-00000

Collision sensor

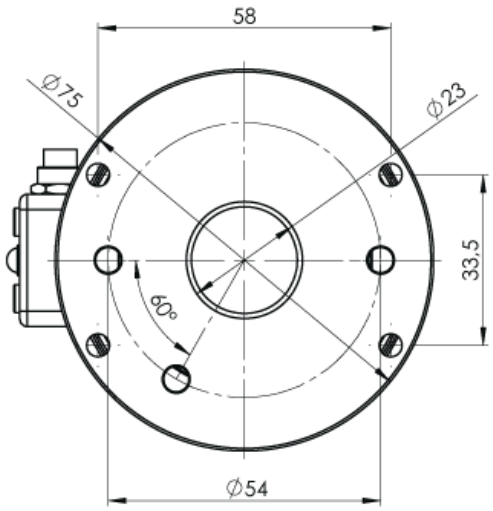
RSA

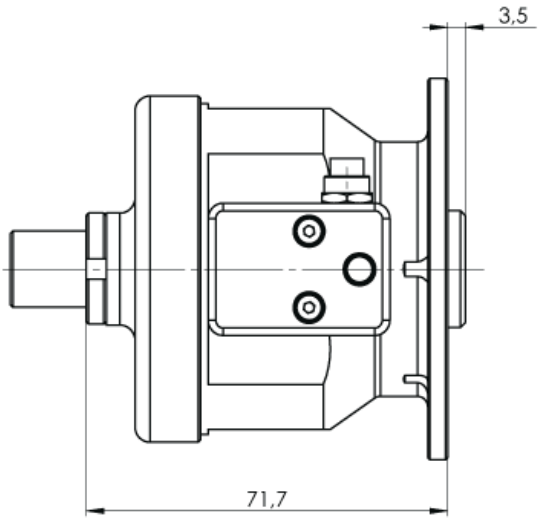


- Collision sensor for the robot, welding torch or the rig in teach or automatic mode
- Orientation in all directions
- High reset precision after orientation
- Precise switch points
- Visual function display (LED)
- Three triggering characteristics
- Low weight
- Compatible with all standard robot types (via aluminium or plastic intermediate flange) with external torch hose package
- Flange dimensions are identical to CAT2 and CAT3 versions
- Delivery includes: Collision sensor, bracket, helix cable, assembly material

Principle	mechanical
Switching contact	Opening contact max. 24V / 20 mA
Reset (automatic)	+/- 0,2mm at 400 mm distance to the flange
Orientation	+/- 14°
Rotatable	360°
Weight	560 g

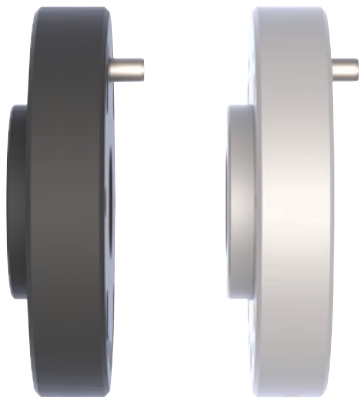
Type	Designation	Release torque (Mx, My)	Torsion (M)	Item no.
		Nm	Nm	
RSA SOFT	Collision sensor	7.5	8.0	094-020725-00000
RSA MEDIUM		14.0	11.0	094-020726-00000
RSA MEDIUM PLUS		25		094-023605-00000
RSA STRONG		33	22	094-020727-00000





Robot intermediate flange

Robot flange for RSA/CAT2/CAT3



- Intermediate flange for fastening RSA, CAT2 and CAT3 robo collision sensors
- Intermediate flange made of plastic or aluminium

▶ Please specify the robot type with each order.
▶ Please use plastic flanges only for the MTR360G and MTR500G torch series.

Intermediate flange aluminium RSA/CAT2/CAT3

Robot brand	Robot typ	Version	Load	Item number
ABB	IRB 1600-6/1.2	Standard	6 kg	094-010198-00000
ABB	IRB 1600-10/1.2	Standard	10 kg	094-010198-00000
ABB	IRB 1600-6/1.45	Standard	6 kg	094-010198-00000
ABB	IRB 1600-10/1.45	Standard	10 kg	094-010198-00000
ABB	IRB 2600-10/1.85	Standard	10 kg	094-020593-00000
ABB	IRB 2600-12/1.65	Standard	12 kg	094-020593-00000
ABB	IRB 2600-12/1.85	Standard	12 kg	094-020593-00000
ABB	IRB 2600-20/1.65	Standard	20 kg	094-020593-00000
ABB	IRB 4600-20/2.5	Standard	20 kg	094-020593-00000
ABB	IRB 4600-40/2.55	Standard	40 kg	094-020593-00000
ABB	IRB 4600-45/2.05	Standard	45 kg	094-013724-00000
ABB	IRB 4600-60/2.05	Standard	60 kg	094-013724-00000
ABB	IRB 1400	Standard	5 kg	094-010198-00000
ABB	IRB 1410	Standard	5 kg	094-010198-00000
ABB	IRB 2400L	Standard	7 kg	094-020593-00000
ABB	IRB 2400/10	Standard	10 kg	094-020593-00000
ABB	IRB 2400/16	Standard	16 kg	094-020593-00000
ABB	IRB 1600ID	Hollow shaft	4 kg	-
ABB	IRB 1620ID	Hollow shaft		-
ABB	IRB 1660ID-4/1.55	Hollow shaft	4 kg	094-022612-00000
ABB	IRB 1660ID-6/1.55	Hollow shaft	6 kg	094-022612-00000
ABB	IRB 2600ID-8/2.0	Hollow shaft	8 kg	094-022612-00000
ABB	IRB 2600ID-15/1.85	Hollow shaft	15 kg	094-022612-00000
ABB	IRB 1520ID-4/1.5	Hollow shaft	4 kg	094-022612-00000
COMAU	NS-12-1.85	Standard	12 kg	-
COMAU	NS-16-1.65	Standard	16 kg	-
COMAU	NJ-16-3.1	Standard	16 kg	094-020594-00000
COMAU	NJ-40-2.5	Standard	40 kg	-
COMAU	NJ-60-2.2	Standard	60 kg	-
COMAU	RACER 999	Standard	7 kg	094-013011-00000

Robot brand	Robot typ	Version	Load	Item number
COMAU	Arc4-5-1.95	Hollow shaft	5 kg	-
COMAU	SMART5 ARC4	Hollow shaft	5 kg	-
FANUC	ARC Mate 50iD	Standard	7 kg	094-016556-00000
FANUC	ARC Mate 50iD/6L	Standard	6 kg	094-016556-00000
FANUC	ARC Mate 50iD/7L	Standard	7 kg	094-016556-00000
FANUC	ARC Mate 0iA	Standard	3 kg	094-016556-00000
FANUC	ARC Mate 0iB	Standard	3 kg	094-016556-00000
FANUC	ARC Mate 100iB	Standard	6 kg	-
FANUC	M-710iC/20L	Standard	20 kg	-
FANUC	R-1000iA/80F	Standard	80 kg	094-022613-00000
FANUC	R-2000iA/165F	Standard	165 kg	094-022613-00000
FANUC	ARC Mate 100iC/6L	Hollow shaft	7 kg	094-020737-00000
FANUC	ARC Mate 100iC/7L	Hollow shaft	7 kg	094-020737-00000
FANUC	ARC Mate 100iC/8L	Hollow shaft	8 kg	094-020737-00000
FANUC	ARC Mate 100iC/10L	Hollow shaft		094-020737-00000
FANUC	ARC Mate 100iC/10S	Hollow shaft	10 kg	094-020737-00000
FANUC	ARC Mate 100iC/12	Hollow shaft	12 kg	094-020737-00000
FANUC	ARC Mate 100iC/12S	Hollow shaft	12 kg	094-020737-00000
FANUC	ARC Mate 100iD	Hollow shaft	12 kg	-
FANUC	ARC Mate 100iD/8L	Hollow shaft	8 kg	-
FANUC	ARC Mate 100iD/10L	Hollow shaft	10 kg	-
FANUC	ARC Mate 120iC	Hollow shaft	20 kg	094-020737-00000
FANUC	ARC Mate 120iC/10L	Hollow shaft	12 kg	094-020737-00000
FANUC	ARC Mate 120iC/12L	Hollow shaft	12 kg	094-020737-00000
FANUC	ARC Mate 120iD	Hollow shaft	25 kg	-
FANUC	ARC Mate 120iD/12L	Hollow shaft	12 kg	-
FANUC	ARC Mate 100iC	Hollow shaft	10 kg	094-020737-00000
FANUC	M-10iA/7L	Hollow shaft	7 kg	094-013011-00000
FANUC	M-20iA	Hollow shaft	20 kg	094-020737-00000
FANUC	M-20iA/12L	Hollow shaft	12 kg	094-020737-00000
FANUC	M-710iC/12L	Hollow shaft	20 kg	094-022614-00000
HYUNDAI	HR006	Standard		094-017174-00000
HYUNDAI	HA006L	Standard	6 kg	094-017174-00000
KAWASAKI	RA005L	Standard	5 kg	-
KAWASAKI	RA006L	Standard	6 kg	-
KAWASAKI	RA010L	Standard	10 kg	094-020594-00000
KAWASAKI	RA010N	Standard	10 kg	094-013011-00000
KAWASAKI	RA020N	Standard	20 kg	-
KAWASAKI	RS020N	Standard	20 kg	-
KAWASAKI	BA006L	Hollow shaft	6 kg	-
KAWASAKI	BA006N	Hollow shaft	6 kg	-

Robot brand	Robot typ	Version	Load	Item number
KUKA	KR 6 R1820	Standard	6 kg	094-016556-00000
KUKA	KR 6 R1820 HP	Standard	6 kg	094-016556-00000
KUKA	KR 8 R1620	Standard	8 kg	094-016556-00000
KUKA	KR 8 R1620 HP	Standard	8 kg	094-016556-00000
KUKA	KR 8 R2010-2	Standard	8 kg	-
KUKA	KR 10 R1420	Standard	10 kg	094-016556-00000
KUKA	KR 10 R1420 HP	Standard	10 kg	094-016556-00000
KUKA	KR 12 R1810-2	Standard	12 kg	-
KUKA	KR 16 R1610-2	Standard	16 kg	094-010150-00000
KUKA	KR 16 R2010-2	Standard	16 kg	094-010150-00000
KUKA	KR 20 R1810-2	Standard	20 kg	-
KUKA	KR 22 R1610-2	Standard	22 kg	-
KUKA	KR 5	Standard	5 kg	094-022420-00000
KUKA	KR 16	Standard	16 kg	094-010150-00000
KUKA	KR 16-2	Standard	16 kg	094-010150-00000
KUKA	KR 30 L16	Standard	16 kg	094-010150-00000
KUKA	KR 50 R2500	Standard	50 kg	094-022614-00000
KUKA	KR 60 L30	Standard	30 kg	094-022618-00000
KUKA	KR 60 L45	Standard	45 kg	094-013724-00000
KUKA	KR 90 R3100 extra	Standard	90 kg	-
KUKA	KR 120 R3100-2	Standard	120 kg	-
KUKA	KR 125	Standard	125 kg	094-020733-00000
KUKA	KR 150	Standard	150 kg	094-020733-00000
KUKA	KR 240	Standard	240 kg	094-020733-00000
KUKA	KR 200-2 comp	Standard	200 kg	094-020733-00000
KUKA	KR 210 R3100 ultra	Standard	210 kg	094-020733-00000
KUKA	KR 6 R1820 arc HW	Hollow shaft	6 kg	-
KUKA	KR 6 R1840-2 arc HW	Hollow shaft	6 kg	-
KUKA	KR 8 R1420 arc HW	Hollow shaft	8 kg	-
KUKA	KR 8 R1620 arc HW	Hollow shaft	8 kg	-
KUKA	KR 8 R2100 arc HW	Hollow shaft	8 kg	-
KUKA	KR 5 arc HW	Hollow shaft	5 kg	-
KUKA	KR 8 R2100-2 arc HW	Hollow shaft	8 kg	-
KUKA	KR 16 arc HW	Hollow shaft	16 kg	094-022832-00000
KUKA	KR 16 L8 arc HW	Hollow shaft	8 kg	-
MOTOMAN	AR700	Standard	8 kg	-
MOTOMAN	AR900	Standard	7 kg	094-022622-00000
MOTOMAN	MC2000II	Standard	50 kg	-
MOTOMAN	K6-C	Standard	6 kg	-
MOTOMAN	HC10	Standard	10 kg	-
MOTOMAN	HP20	Standard	20 kg	094-010198-00000
MOTOMAN	HP20D-6	Standard	6 kg	094-013011-00000
MOTOMAN	HP20D	Standard	20 kg	094-013011-00000
MOTOMAN	HP 20RD	Standard	20 kg	094-013011-00000

Robot brand	Robot typ	Version	Load	Item number
MOTOMAN	HP20F	Standard	20 kg	094-013011-00000
MOTOMAN	HP20D-CR7	Standard	20 kg	094-013011-00000
MOTOMAN	UP20	Standard	20 kg	094-010198-00000
MOTOMAN	MH5	Standard	5 kg	094-022622-00000
MOTOMAN	MH5L	Standard	5 kg	094-022420-00000
MOTOMAN	MH6	Standard	6 kg	094-010198-00000
MOTOMAN	MH6-10	Standard	10 kg	094-010198-00000
MOTOMAN	MH6S	Standard	6 kg	094-010198-00000
MOTOMAN	MH6S-10	Standard	10 kg	094-010198-00000
MOTOMAN	MH50	Standard	50 kg	094-022612-00000
MOTOMAN	MH50-20	Standard	20 kg	094-010198-00000
MOTOMAN	MH50-35	Standard	35 kg	094-022612-00000
MOTOMAN	AR1440	Hollow shaft	12 kg	-
MOTOMAN	AR1730	Hollow shaft	25 kg	-
MOTOMAN	AR2010	Hollow shaft	12 kg	-
MOTOMAN	AR3120	Hollow shaft	20 kg	-
MOTOMAN	MA1440	Hollow shaft	6 kg	094-020737-00000
MOTOMAN	EA1400	Hollow shaft	3 kg	094-020737-00000
MOTOMAN	EA1800N	Hollow shaft	15 kg	094-020737-00000
MOTOMAN	EA1900	Hollow shaft	3 kg	094-020737-00000
MOTOMAN	MA1400	Hollow shaft	3 kg	094-020737-00000
MOTOMAN	MA1550	Hollow shaft	3 kg	094-020737-00000
MOTOMAN	MA1800	Hollow shaft	15 kg	094-020737-00000
MOTOMAN	MA1900	Hollow shaft	3 kg	094-020737-00000
MOTOMAN	MA2010	Hollow shaft	10 kg	094-020737-00000
MOTOMAN	VA1400	Hollow shaft	3 kg	094-020737-00000
MOTOMAN	SSA2000	Hollow shaft	3 kg	-
MOTOMAN	MH24	Hollow shaft	24 kg	094-020737-00000
NACHI	MZ12	Standard	12 kg	094-010150-00000
OTC	FD-V6	Standard	8 kg	094-010198-00000
OTC	FD-V8	Standard	8 kg	094-010198-00000
REIS	RV10-6	Standard	6 kg	094-010150-00000
REIS	RV20-6	Standard	6 kg	094-010150-00000
REIS	RV20-16	Standard	16 kg	094-020594-00000
REIS	RV20-6HW	Hollow shaft	6 kg	-
STÄUBLI	TX2-40	Standard	2 kg	094-022420-00000
UNIVERSAL ROBOTS	UR5e	Standard	5 kg	394-009129-00000
UNIVERSAL ROBOTS	UR10e	Standard	10 kg	394-009129-00000
UNIVERSAL ROBOTS	UR16e	Standard	16 kg	394-009129-00000

*Other intermediate flanges available on request.

Intermediate flange plastic RSA/CAT2/CAT3

Robot brand	Robot typ	Version	Load	Item number
ABB	IRB 1600-6/1.2	Standard	6 kg	094-013347-00000
ABB	IRB 1600-10/1.2	Standard	10 kg	094-013347-00000
ABB	IRB 1600-6/1.45	Standard	6 kg	094-013347-00000
ABB	IRB 1600-10/1.45	Standard	10 kg	094-013347-00000
ABB	IRB 2600-10/1.85	Standard	10 kg	094-020981-00000
ABB	IRB 2600-12/1.65	Standard	12 kg	094-020981-00000
ABB	IRB 2600-12/1.85	Standard	12 kg	094-020981-00000
ABB	IRB 2600-20/1.65	Standard	20 kg	094-020981-00000
ABB	IRB 4600-20/2.5	Standard	20 kg	094-020981-00000
ABB	IRB 4600-40/2.55	Standard	40 kg	094-020981-00000
ABB	IRB 4600-45/2.05	Standard	45 kg	094-016372-00000
ABB	IRB 4600-60/2.05	Standard	60 kg	094-016372-00000
ABB	IRB 1400	Standard	5 kg	094-013347-00000
ABB	IRB 1410	Standard	5 kg	094-013347-00000
ABB	IRB 2400L	Standard	7 kg	094-020981-00000
ABB	IRB 2400/10	Standard	10 kg	094-020981-00000
ABB	IRB 2400/16	Standard	16 kg	094-020981-00000
ABB	IRB 1600ID	Hollow shaft	4 kg	094-022615-00000
ABB	IRB 1620ID	Hollow shaft		094-022615-00000
ABB	IRB 1660ID-4/1.55	Hollow shaft	4 kg	094-016371-00000
ABB	IRB 1660ID-6/1.55	Hollow shaft	6 kg	094-016371-00000
ABB	IRB 2600ID-8/2.0	Hollow shaft	8 kg	094-016371-00000
ABB	IRB 2600ID-15/1.85	Hollow shaft	15 kg	094-016371-00000
ABB	IRB 1520ID-4/1.5	Hollow shaft	4 kg	094-016371-00000
COMAU	NS-12-1.85	Standard	12 kg	-
COMAU	NS-16-1.65	Standard	16 kg	-
COMAU	NJ-16-3.1	Standard	16 kg	094-016370-00000
COMAU	NJ-40-2.5	Standard	40 kg	-
COMAU	NJ-60-2.2	Standard	60 kg	-
COMAU	RACER 999	Standard	7 kg	094-022616-00000
COMAU	Arc4-5-1.95	Hollow shaft	5 kg	-
COMAU	SMART5 ARC4	Hollow shaft	5 kg	-
FANUC	ARC Mate 50iD	Standard	7 kg	094-016367-00000
FANUC	ARC Mate 50iD/6L	Standard	6 kg	094-016367-00000
FANUC	ARC Mate 50iD/7L	Standard	7 kg	094-016367-00000
FANUC	ARC Mate 0iA	Standard	3 kg	094-016367-00000
FANUC	ARC Mate 0iB	Standard	3 kg	094-016367-00000
FANUC	ARC Mate 100iB	Standard	6 kg	-
FANUC	M-710iC/20L	Standard	20 kg	-
FANUC	R-1000iA/80F	Standard	80 kg	094-016373-00000
FANUC	R-2000iA/165F	Standard	165 kg	094-016373-00000
FANUC	ARC Mate 100iC/6L	Hollow shaft	7 kg	094-013478-00000
FANUC	ARC Mate 100iC/7L	Hollow shaft	7 kg	094-013478-00000

Robot brand	Robot typ	Version	Load	Item number
FANUC	ARC Mate 100iC/8L	Hollow shaft	8 kg	094-013478-00000
FANUC	ARC Mate 100iC/10L	Hollow shaft		094-013478-00000
FANUC	ARC Mate 100iC/10S	Hollow shaft	10 kg	094-013478-00000
FANUC	ARC Mate 100iC/12	Hollow shaft	12 kg	094-013478-00000
FANUC	ARC Mate 100iC/12S	Hollow shaft	12 kg	094-013478-00000
FANUC	ARC Mate 100iD	Hollow shaft	12 kg	394-006458-00000
FANUC	ARC Mate 100iD/8L	Hollow shaft	8 kg	394-006458-00000
FANUC	ARC Mate 100iD/10L	Hollow shaft	10 kg	394-006458-00000
FANUC	ARC Mate 120iC	Hollow shaft	20 kg	094-013478-00000
FANUC	ARC Mate 120iC/10L	Hollow shaft	12 kg	094-013478-00000
FANUC	ARC Mate 120iC/12L	Hollow shaft	12 kg	094-013478-00000
FANUC	ARC Mate 120iD	Hollow shaft	25 kg	394-006458-00000
FANUC	ARC Mate 120iD/12L	Hollow shaft	12 kg	394-006458-00000
FANUC	ARC Mate 100iC	Hollow shaft	10 kg	094-013478-00000
FANUC	M-10iA/7L	Hollow shaft	7 kg	094-022616-00000
FANUC	M-20iA	Hollow shaft	20 kg	094-013478-00000
FANUC	M-20iA/12L	Hollow shaft	12 kg	094-013478-00000
FANUC	M-710iC/12L	Hollow shaft	20 kg	094-022618-00000
HYUNDAI	HR006	Standard		394-006124-00000
HYUNDAI	HA006L	Standard	6 kg	394-006124-00000
KAWASAKI	RA005L	Standard	5 kg	-
KAWASAKI	RA006L	Standard	6 kg	-
KAWASAKI	RA010L	Standard	10 kg	094-016370-00000
KAWASAKI	RA010N	Standard	10 kg	094-022616-00000
KAWASAKI	RA020N	Standard	20 kg	-
KAWASAKI	RS020N	Standard	20 kg	-
KAWASAKI	BA006L	Hollow shaft	6 kg	-
KAWASAKI	BA006N	Hollow shaft	6 kg	-
KUKA	KR 6 R1820	Standard	6 kg	094-016367-00000
KUKA	KR 6 R1820 HP	Standard	6 kg	094-016367-00000
KUKA	KR 8 R1620	Standard	8 kg	094-016367-00000
KUKA	KR 8 R1620 HP	Standard	8 kg	094-016367-00000
KUKA	KR 8 R2010-2	Standard	8 kg	-
KUKA	KR 10 R1420	Standard	10 kg	094-016367-00000
KUKA	KR 10 R1420 HP	Standard	10 kg	094-016367-00000
KUKA	KR 12 R1810-2	Standard	12 kg	-
KUKA	KR 16 R1610-2	Standard	16 kg	094-016554-00000
KUKA	KR 16 R2010-2	Standard	16 kg	094-016554-00000
KUKA	KR 20 R1810-2	Standard	20 kg	-
KUKA	KR 22 R1610-2	Standard	22 kg	-
KUKA	KR 5	Standard	5 kg	094-022421-00000
KUKA	KR 16	Standard	16 kg	094-016554-00000
KUKA	KR 16-2	Standard	16 kg	094-016554-00000

Robot brand	Robot typ	Version	Load	Item number
KUKA	KR 30 L16	Standard	16 kg	094-016554-00000
KUKA	KR 50 R2500	Standard	50 kg	094-022618-00000
KUKA	KR 60 L30	Standard	30 kg	094-022618-00000
KUKA	KR 60 L45	Standard	45 kg	094-016372-00000
KUKA	KR 90 R3100 extra	Standard	90 kg	-
KUKA	KR 120 R3100-2	Standard	120 kg	-
KUKA	KR 125	Standard	125 kg	094-021015-00000
KUKA	KR 150	Standard	150 kg	094-021015-00000
KUKA	KR 240	Standard	240 kg	094-021015-00000
KUKA	KR 200-2 comp	Standard	200 kg	094-021015-00000
KUKA	KR 210 R3100 ultra	Standard	210 kg	094-021015-00000
KUKA	KR 6 R1820 arc HW	Hollow shaft	6 kg	094-022621-00000
KUKA	KR 6 R1840-2 arc HW	Hollow shaft	6 kg	094-022621-00000
KUKA	KR 8 R1420 arc HW	Hollow shaft	8 kg	094-022621-00000
KUKA	KR 8 R1620 arc HW	Hollow shaft	8 kg	-
KUKA	KR 8 R2100 arc HW	Hollow shaft	8 kg	-
KUKA	KR 5 arc HW	Hollow shaft	5 kg	094-022621-00000
KUKA	KR 8 R2100-2 arc HW	Hollow shaft	8 kg	-
KUKA	KR 16 arc HW	Hollow shaft	16 kg	094-022833-00000
KUKA	KR 16 L8 arc HW	Hollow shaft	8 kg	094-022621-00000
MOTOMAN	AR700	Standard	8 kg	-
MOTOMAN	AR900	Standard	7 kg	094-022623-00000
MOTOMAN	MC2000II	Standard	50 kg	-
MOTOMAN	K6-C	Standard	6 kg	-
MOTOMAN	HC10	Standard	10 kg	394-008436-00000
MOTOMAN	HP20	Standard	20 kg	094-013347-00000
MOTOMAN	HP20D-6	Standard	6 kg	094-022616-00000
MOTOMAN	HP20D	Standard	20 kg	094-022616-00000
MOTOMAN	HP 20RD	Standard	20 kg	094-022616-00000
MOTOMAN	HP20F	Standard	20 kg	094-022616-00000
MOTOMAN	HP20D-CR7	Standard	20 kg	094-022616-00000
MOTOMAN	UP20	Standard	20 kg	094-013347-00000
MOTOMAN	MH5	Standard	5 kg	094-022623-00000
MOTOMAN	MH5L	Standard	5 kg	094-022421-00000
MOTOMAN	MH6	Standard	6 kg	094-013347-00000
MOTOMAN	MH6-10	Standard	10 kg	094-013347-00000
MOTOMAN	MH6S	Standard	6 kg	094-013347-00000
MOTOMAN	MH6S-10	Standard	10 kg	094-013347-00000
MOTOMAN	MH50	Standard	50 kg	094-016371-00000
MOTOMAN	MH50-20	Standard	20 kg	094-013347-00000
MOTOMAN	MH50-35	Standard	35 kg	094-016371-00000
MOTOMAN	AR1440	Hollow shaft	12 kg	-
MOTOMAN	AR1730	Hollow shaft	25 kg	-
MOTOMAN	AR2010	Hollow shaft	12 kg	-

Robot brand	Robot typ	Version	Load	Item number
MOTOMAN	AR3120	Hollow shaft	20 kg	-
MOTOMAN	MA1440	Hollow shaft	6 kg	094-013478-00000
MOTOMAN	EA1400	Hollow shaft	3 kg	094-013478-00000
MOTOMAN	EA1800N	Hollow shaft	15 kg	094-013478-00000
MOTOMAN	EA1900	Hollow shaft	3 kg	094-013478-00000
MOTOMAN	MA1400	Hollow shaft	3 kg	094-013478-00000
MOTOMAN	MA1550	Hollow shaft	3 kg	094-013478-00000
MOTOMAN	MA1800	Hollow shaft	15 kg	094-013478-00000
MOTOMAN	MA1900	Hollow shaft	3 kg	094-013478-00000
MOTOMAN	MA2010	Hollow shaft	10 kg	094-013478-00000
MOTOMAN	VA1400	Hollow shaft	3 kg	094-013478-00000
MOTOMAN	SSA2000	Hollow shaft	3 kg	-
MOTOMAN	MH24	Hollow shaft	24 kg	094-013478-00000
NACHI	MZ12	Standard	12 kg	094-016554-00000
OTC	FD-V6	Standard	8 kg	094-013347-00000
OTC	FD-V8	Standard	8 kg	094-013347-00000
REIS	RV10-6	Standard	6 kg	094-016554-00000
REIS	RV20-6	Standard	6 kg	094-016554-00000
REIS	RV20-16	Standard	16 kg	094-016370-00000
REIS	RV20-6HW	Hollow shaft	6 kg	-
STÄUBLI	TX2-40	Standard	2 kg	094-022421-00000
UNIVERSAL ROBOTS	UR5e	Standard	5 kg	-
UNIVERSAL ROBOTS	UR10e	Standard	10 kg	-
UNIVERSAL ROBOTS	UR16e	Standard	16 kg	-

*Other intermediate flanges available on request.

Co-bot flanges

Adapter and intermediate flange assignment for RMT co-bot robot welding torch

	Item number for flange	**45° adapter flange** 094-026863-00000	**45° adapter flange** 094-026863-00000 + **Intermediate flange extension** 094-027183-00000	**Adapter flange, adjustable** 094-026995-00000
Co-bots	Doosan M-Series M0609, M0617, M1013, M1509		●	
	Fanuc CRX-10iA	●		
	Hanwha HCR-5A		●	
	Hanwha HCR-12A	●		
	Universal Robots 5e		●	
	Universal Robots 10e		●	
	Yaskawa HC 10DT			●

▶ More intermediate flange extensions and co-bot-specific adapter flanges available upon request. Information on our AMT automated and robot welding torches MTR with push/pull drive, and other accessories can be found in our automation price list 2021.

Co-bot flanges

As demonstrated on a Doosan M
- Intermediate flange extension
- 45° adapter flange
- Teach co-bot hose package
- RMT 22.5 torch neck

As demonstrated on a Fanuc CRX-10iA
- 45° adapter flange
- Teach co-bot hose package
- RMT 22.5° torch neck

As demonstrated on a Hanwha HCR-5A
- Intermediate flange extension
- 45° adapter flange
- Teach co-bot hose package
- RMT 22.5 torch neck

As demonstrated on a Hanwha HCR-12A
- 45° adapter flange
- Teach co-bot hose package
- RMT 22.5 torch neck

As demonstrated on a Universal Robot
- Intermediate flange extension
- 45° adapter flange
- Teach co-bot hose package
- RMT 22.5 torch neck

As demonstrated on a Yaskawa HC10DT
- Adapter flange, adjustable
- Teach co-bot hose package
- RMT 22.5° torch neck

Service accessories

SERVICE SYSTEM SS01

- Spare parts starter kit for service technicians for maintenance and repairs to EWM machines and EWM torches
- Covers machine, torch and automation
- **Machine spare parts:** Casing screws, spacers, gas valves, ring screws, rotary knobs, tank caps, filter sieves, connecting pieces, couplings, safety fuses, push-buttons, switches, connection sockets, contact pins, protective dust caps, caps for openings in casings, jumpers, plug connectors, protective caps, strain reliefs
- **Torch spare parts:** Microswitches, push-button springs, cable lugs, single-ear clamps, control cable plugs and contacts, connecting nipples, screws, cylindrical pins
- Approx. 2000 items total
- The assortment boxes can be ordered separately and the contents may be ordered in packing units (see spare parts catalogue)

Type	Designation	Item no.
SERVICE SYSTEM SS02	Spare parts starter set, two boxes	092-002469-00001

BOX 1-2

- Spare parts starter kit, separate boxes
- Box 1 contains assortment boxes 1–4
- Box 2 contains assortment boxes 5–8

Type	Designation	Item no.
BOX 1	Spare parts starter kit, box 1	092-007781-00001
SBOX 2	Spare parts starter kit, box 2	092-007786-00001

Service Case 1-8

- Separate assortment boxes
- The contents can be ordered separately or in packing units (see replacement parts catalogue)

Type	Designation	Item no.
SERVICE CASE SC01	Assortment box 1: Screws, hexagon spacers	092-007782-00001
SERVICE CASE SC02	Assortment box 2: Rotary dials and covers, gas valves, spacers, lifting eyes	092-007783-00001
SERVICE CASE SC03	Assortment box 3: Hose clamps, couplings, filters, pressure controllers, quick connect coupling, tank covers	092-007784-00001
SERVICE CASE SC04	Assortment box 4: Safety fuses	092-007785-00001
SERVICE CASE SC05	Assortment box 5: Burndy pin/socket contact, connection sockets	092-007787-00001
SERVICE CASE SC06	Assortment box 6: Minifit/old Burndy pin/socket contacts	092-007788-00001
SERVICE CASE SC07	Assortment box 7: Blind caps/caps	092-007789-00001
SERVICE CASE SC08	Assortment box 8: Switches, triggers, jumpers, drive pinions, strain relief, automatic cutouts	092-007790-00001

Service accessories

Calibration device

- Calibration device for validation of arc welding systems as per IEC EN 60974-14 (replacement for BS EN 50504/VDE 0544-50), portable
- Analogue display of measurement data from mains input current and mains input voltage
- Digital display of measurement data from welding current, welding voltage, open circuit voltage (as per BS EN IEC 60974-1) and ambient temperature
- Delivery includes: Calibration device, 2 x measuring leads for external voltage measurement (2 m), 4 x load cables (4 m/95 mm^2)
- A power source load is additionally required for standard-compliant validation, see LS 600A 090-008059-00101.
- You will receive authorisation to use the EWM validation protocols after completing the optional EWM service training, "Validation as per IEC EN 60974-14"! **Participation is highly recommended.**

Mains voltage (tolerances)	3 x 400 V
Mains fuses (slow-blow)	3
Dimensions in mm	625 mm x 300 mm x 535 mm
Weight	25 kg

Type	Designation	Item no.
KLE 2	Calibration device	090-008297-00502

Calibration costs

Type	Designation	Item no.
KOS60	Calibration costs per welding machine	KOS-S00018-00000
–	Calibration certificate	KOS-V00038-00000

Miete KLE

Type	Designation	Item no.
KLE+LS600A WEEKLY RENTAL	Weekly rental LS600A, incl. calibration unit and TESTO 470	KOS-S00019-00000
KLE+LS600A MONTHLY RENTAL	Monthly rental LS600A, incl. calibration unit and TESTO 470	KOS-S00020-00000

LS 600A

- Power source load for arc simulation
- For standard-compliant loading of arc welding systems during validation as per EN 50504 (VDE 0544-50) or for loading power sources for service purposes
- Allows static loading of arc welding systems without igniting an arc
- **Very straightforward handling:**
- no tedious setting of the operating point.
- Simple toggling of the standard characteristics (MMA, TIG, MIG/MAG)
- **Delivery includes:**
- load simulation device, load cable bridge

Mains voltage (tolerances)	3 x 400 V
Mains fuses (slow-blow)	3
Maximum connection voltage	DC , 120 V
	AC , 50 V
Dimensions in mm	1110 mm x 550 mm x 890 mm
Weight	139.5 kg

Type	Designation	Item no.
LS 600A	Load simulation device	090-008059-00101

TESTO 470

- Measuring device for measuring rotation speeds, speeds and lengths
- For validation of wire feeders compliant with EN 50504 (VDE 0544-50)
- Saving of average, max. and min. values and the last measurement value
- Measurement spacing up to 600 mm (optical measurement)
- Easy one-hand operation

Type	Designation	Item no.
TESTO 470	Measuring instrument for rotational speeds, velocities and lengths	098-005120-00000

Service accessories

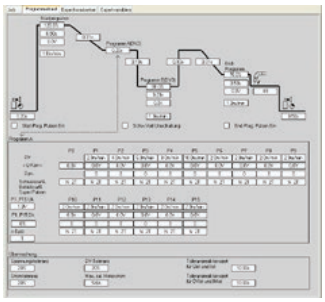
A3-SH SET

- Test machine for repetition tests of arc welding machines as per IEC EN 60974-4 (VDE 0544-4), as well as electrical operating material as per VDE 0701-0702.
- For single-phase machines with 230 V connection voltage and three-phase machines from 230 V to 400 V/32 A.
- Pre-installed automatic testing routines for EWM machines
- Universal test routines also for testing other manufacturers' machines
- Extensive database functions
- Free software updates for changes or modifications to testing procedures
- Test logs with your company logo
- **Delivery includes:**
- Test Machine A3-SH
- Measuring leads
- 230 V connecting cable/AC
- USB cable
- EWM-specific test log/A3-S Remote database software
- Factory calibration certificate

Type	Designation	Item no.		
A3-SH SET	Test machine for repetition test	090-008210-00000		

PC300 XQ, Analyzer, QDOC, Xnet, WPQ Manager

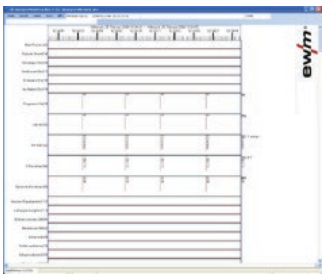
PC300 XQ Set



- Welding parameter software
- Windows interface makes operation straightforward
- Structured operating menus and levels for changing, setting and programming all welding parameters
- Management of up to 510 JOBs in a database with easy-to-use search options
- Exchange of JOBs to and from the welding machine
- Online data exchange, i.e. data is visualised in PC300 and mapped directly to the welding process (ideal for training and test welding purposes)
- Integrated password protection to protect against unauthorised changes
- Display of the actual values for the welding voltage and current, wire feed speed, wire feeder motor armature current and welding power using digital screen displays with bar graph and hold function
- Connection to a standard serial COM interface on the welding machine
- Default settings for welding data monitoring
- Always up to date due to standard update function for new welding parameters
- Ideal for data backup via easy exchange between power source and PC
- EWM Backup Tool – simple backup function of JOB and system configuration.
- EWM PC300 Light Version – simple operation, compressed to the most important functions.
- EWM Config Tool – configuration of system components.
- System requirements: Windows 7 (32/64-bit), Windows Vista, Windows XP SP3, .NET Framework 2.0 installed (will be installed at the same time where applicable), Intel Pentium (or comparable) CPU with at least 1.7 GHz, 512 MB RAM, min. 300 MB free hard disk space, USB 1.1 or USB 2.0 for installation the software, USB 1.1 or USB 2.0 port for connection to welding machine

Type	Designation	Item no.		
PC300 XQ Set	PC300 XQ welding parameter software set, including CMSTICK, cable and SECINT X10 USB interface	090-008777-00000		

ANALYZER



- Analysis software for control data
- Can be used with BUSINT X11 fieldbus interfaces for the alpha Q, Phoenix and Tetrix welding systems
- Can be used with RINT X12 analogue/digital interfaces for the alpha Q, Phoenix and Tetrix welding systems
- Non-time based display and representation of the currently used data profile (BUSINT X11 only)
- Display and representation of all activation and status signals in a compressed form and as a time-based logic diagram
- Storage and re-display of recorded signal sequences
- Signal editor
- Display of additional information about the state of the fieldbus and the welding machine (BUSINT X11 only)
- Display of machine type, performance class and software version of the process control
- EWM Config Tool - configuration of system components
- System requirements: Windows 7 (32-/64-bit), Windows Vista, Windows XP SP3, .NET Framework 2.0 installed (will be installed at the same time where applicable), Intel Pentium (or comparable) CPU with at least 2.4 GHz, min. 2 GB RAM, min. 4 GB free hard disk space, USB 1.1 or USB 2.0 for installation of software, USB 1.1 or USB 2.0 port for connection to welding machine; SECINT X10-USB PC connection cable, ADAPT X10 adaptor cable for use with BUSINT X11 and RINT X12 interfaces for installation in electrical enclosure

Type	Designation	Item no.		
ANALYZER	Software for control and status signal analysis	090-008778-00000		

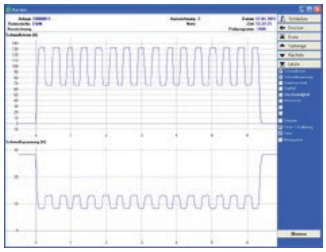
Set PC300 XQ / ANALYZER

- Welding parameter software PC300 + Analyzer software to analyse control data
- Only one USB dongle required to operate both programs

Type	Designation	Item no.		
Set PC300 XQ / ANALYZER	Set comprising PC300 XQ and Analyzer software	090-008779-00000		

PC300 XQ, Analyzer, QDOC, Xnet, WPQ Manager

Set QDOC9000-2



- Welding data documentation software
- Windows interface makes operation straightforward
- Quality control for welding production
- Suitable for creating welding instructions
- Also ideal for welding tasks requiring documentation
- Important tool in welding training
- Recording, monitoring and documentation of:
- Welding voltage
- Welding current
- Wire feed motor armature current
- Wire feed speed
- Adaptable, printable forms
- Easy export of data
- High-performance database-driven data functions
- System requirements: Windows 7 (32/64-bit), Windows Vista, Windows XP SP3, .NET Framework 2.0 installed (will be installed at the same time where applicable), Intel Pentium (or comparable) CPU with at least 2.4 GHz, 2 GB RAM, min. 4 GB free hard disk space, CD-ROM drive for installing software, USB 1.1 or USB 2.0 port for connection to welding machine

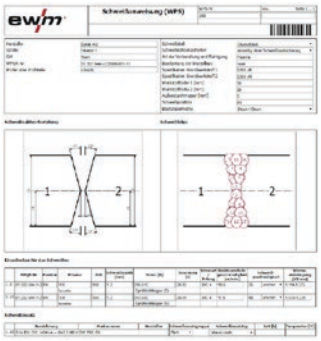
Type	Designation	Item no.
QDOC9000 V2.0	Set consisting of interface, documentation software, connection lead	090-008713-00000

xNet 1.0

- Software product for quality assurance in welding production
- Xnet Basis Set consisting of USB dongle with serial number, installation file and software usage licence

Type	Designation	Item no.
Xnet Basis-Set	Xnet Basis Set consisting of USB dongle with serial number, installation file and software usage licence	091-008836-00000

WPQ Manager single-station solution



- Easy, quick creation and management of a database by WPQR and pWPS/WPS **on a local PC**
- Direct creation of a pWPS/WPS
- Creation and management of a database for welder and welder qualification **on a local PC**
- Reminder in case of due confirmation/extension of welder qualification
- **The WPQ Manager cannot be readily used incombination with Xnet products**

Type	Designation	Item no.
WPQ-Manager Server	WPQ Manager: Software for creation and management of welding documentation and welder qualification	091-008837-00000
WPQ-X Manager (Upgrade 1)	Xnet software module for WPS creation and management	090-008814-00000

Structure of an Xnet system

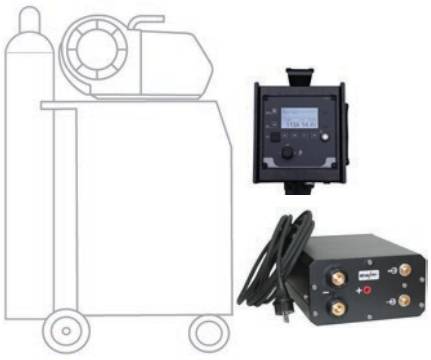
Step 1 Configuring the software according to customer requirements

More information can be found in the Xnet price list and in the online shop:
www.ewm-sales.com/Xnet

Step 2 Configuring the hardware according to customer requirements

From page 428

EWM machines	Machines from other manufacturers
Xnet retrofitting for all EWM welding machines with 7-pole, digital interface	



Step 3 Defining the number of machine usage licences

Not required

Step 4 Commissioning and training by EWM

From page 429

■ For detailed questions about Xnet: xnet@ewm-group.com

Xnet

Xnet Extended-Set LAN

- Xnet retrofitting set for LAN consisting of:
- One Xnet LAN gateway in a robust industry-compatible casing
- One machine usage licence
- One network cable (10 m)
- One 7-pole connection cable (5 m)
- **Range of functions:**
- Connecting welding machines without integrated Xnet components to an Xnet system (for all EWM machines with integrated 7-pole interface)
- Data transfer via network cable
- USB interface for data recording and data transfer
- Connection of a barcode scanner possible
- Registration option via Xbutton
- Digital display with operation using click wheel
- Showing the following information on the display: network status, network configuration, nominal/actual welding parameters, JOB information, Xnet monitoring of the welding parameters in real time, WPQR welding data assistant, component information, errors and warnings in the system
- **We offer bulk prices, use the price advantage**

Designation	Item no.
Xnet retrofitting set LAN: One machine licence, one LAN gateway, one network cable (10 m), one 7-pole connection cable (5 m), including connection for barcode scanner	091-008833-00001

Xnet Extended-Set WiFi

- Xnet retrofitting set for WiFi consisting of:
- One Xnet WiFi gateway in a robust industry-compatible casing
- One machine usage licence
- One 7-pole connection cable (5 m)
- **Range of functions:**
- Connecting welding machines without integrated Xnet components to an Xnet system (for all EWM machines with integrated 7-pole interface)
- Data transfer via WiFi or network cable
- USB interface for data recording and data transfer
- Connection of a barcode scanner possible
- Registration option via Xbutton
- Digital display with operation using click wheel
- Showing the following information on the display: network status, network configuration, nominal/actual welding parameters, JOB information, Xnet monitoring of the welding parameters in real time, WPQR welding data assistant, component information, errors and warnings in the system
- **We offer bulk prices, use the price advantage**

Designation	Item no.
Set: One machine licence, one Wi-Fi gateway, one 7-pole connection cable (5 m)	091-008834-00001

Universal logger Base

- Complete set for connecting Xnet to all manufacturers' welding machines
- Parameter recording of: Welding current and voltage, wire feed speed and welding time
- **Set contents:** External measuring unit, voltage measurement adapter, ammeter cable
- With the Xnet Universal logger, welding machines from all manufacturers can be connected to an Xnet gateway and the Xnet software.
- Almost all Xnet functions can be used, such as e.g.:
  - Real-time display, recording and documentation of the welding parameters
  - Consumption calculation
  - Welding machine maintenance
  - Bar code scanning
  - WPQ Manager
  - Welder management
- Two different options are available for recording the wire feed speed of the connected welding machine:
- 1) Mathematical calculation of the wire feed speed based on the measured welding current without an additional EMU WF 1 sensor wire sensor
- 2) Metrological recording of the wire feed speed using the wire sensor EMU WF 1 sensor

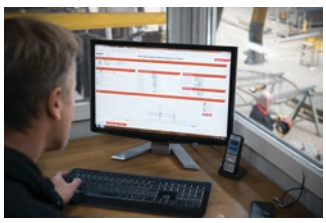
Designation	Item no.
Complete set for connecting Xnet to all manufacturers' welding machines	091-008842-00000

Universal logger DGC

- Complete set including gas measurement for connecting Xnet to all manufacturers' welding machines
- Parameter recording of: Welding current and voltage, wire feed speed, welding time and shielding gas quantity
- Set contents: External measuring unit including gas quantity measurement, voltage measurement adapter, ammeter cable, gas hose
- With the Xnet Universal logger, welding machines from all manufacturers can be connected to an Xnet gateway and the Xnet software.
- Almost all Xnet functions can be used, such as e.g.:
  - Real-time display, recording and documentation of the welding parameters
  - Consumption calculation
  - Welding machine maintenance
  - Bar code scanning
  - WPQ Manager
  - Welder management
- Two different options are available for recording the wire feed speed of the connected welding machine:
- 1) Mathematical calculation of the wire feed speed based on the measured welding current without an additional EMU WF 1 sensor wire sensor
- 2) Metrological recording of the wire feed speed using the wire sensor EMU WF 1 sensor

Designation	Item no.
Complete set including gas measurement for connecting Xnet to all manufacturers' welding machines	091-008843-00000

Xnet Workshop



- The main goal of the workshop is to be able to use the full extent of Xnet and for participants to be able to determine the potential for their own companies. Participants must recognise the advantages of using the system in their daily work. At the same time, customer suggestions for future updates are noted and identified. The workshop forms the basis of implementation of the Xnet system in the ongoing welding production process. To sum up, the workshop, along with the EWM experts, helps to recognise daily benefits, reduce costs and increase the day-to-day efficiency. The result of the decision will prove the correctness of your decision and open up new possibilities for cooperation with EWM.

Designation	PE	Item no.
Xnet workshop „Working efficiently with Xnet"	per day	KOS-V00076-00000
Hourly rate for installation and commissioning of the Xnet system	Per unit	KOS-V00028-00000

▶ More Xnet components such as scanners and Xbutton sets can be found in the Xnet price list and in the online shop!

Overview

Degaussing		Page
Degauss	Set Degauss 600	418

Degaussing prior to welding

Degauss 600

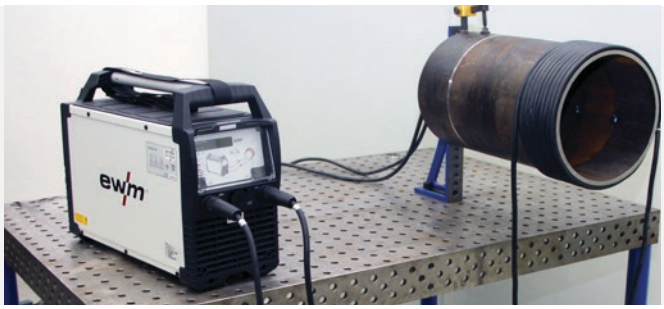
Magnetism is not desired where steel is welded. Undesired residual magnetism in steel parts results in an unstable and deflected arc. The effect may be so great that welding is impossible.

When using the Degauss 600, you can degauss your materials and workpieces. Following the easy installation of the components at the workpiece, the continuous degaussing process will automatically be completed within the shortest possible time.

The effect of the degaussing will show immediately in the subsequent welding process. Your welding results speak for themselves: The arc is stable and no longer deflected, there are no unnecessary arc striking spots, sidewalls are fused without lack of fusion, perfect results without rework or scrap are achieved.

Your benefits

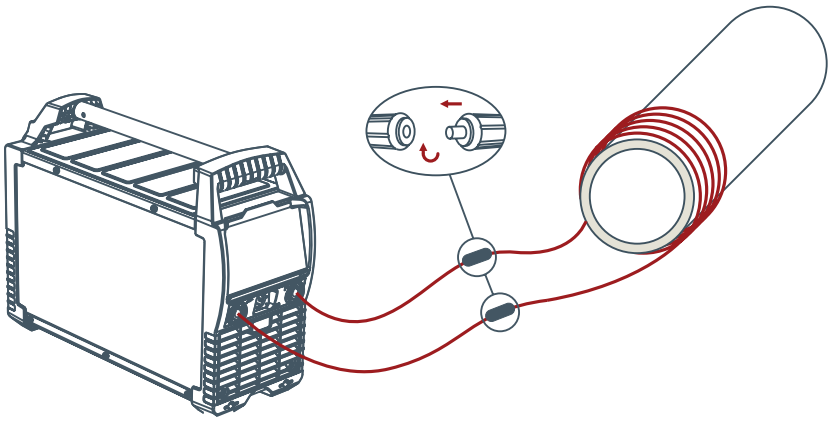
- Degaussing of magnetic materials and workpieces
- Single button operation – automatic degaussing
- Stable welding process without magnetic deflection – perfect welding result without finishing work



Your benefits

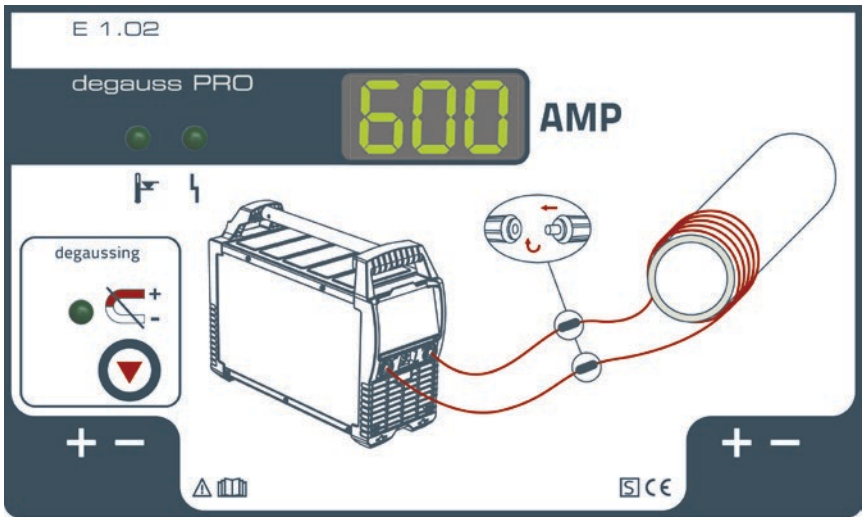
User's advantages

- / No deflection of the arc by residual magnetism in the workpiece
- / Avoidance of lack of fusion due to insufficient side-wall fusion
- / Minimisation of finishing work
- / Cost-efficient and high-quality results
- / Degaussing of pipes and metal sheets



Very straightforward handling

- / The set includes all components required for degaussing
- / Quick connection at the pipe by means of three load cables
- / Single button operation
- / Automatic degaussing process
- / Use at -25 °C to +40 °C with mains voltage tolerances of +/-20%
- / Portable and robust



Degauss 600

- / Compact degaussing power source suitable for use at the construction site
- / Single button operation
- / Automatic degaussing process

Set Degauss 600

- Set: Degauss 600 degaussing machine, two 5 m load cables (35 mm²) and one 20 m load cable (35 mm²), RT DGS1 remote control including 5 m connection cable
- **Degauss – automatic degaussing process before welding:**
- dependable degaussing for better welding results through stable welding process without magnetic deflection, minimisation of finishing work
- **activgauss (10–250 A) – degaussing during welding:**
- avoids moving up of magnetic field during the welding process in case of very long and strongly magnetised components
- Quick connection to the component thanks to the practical load cable set
- Unlimited generator operation and connection to long mains leads thanks to high mains voltage tolerances
- Robust design suitable for construction site use
- Impact-resistant casing
- Inspected protection against splash water (IP-34s)
- Portable, shoulder strap
- **RT DGS1 remote control – controls degaussing during welding (activgauss):**
- activates the activgauss function
- Infinitely adjustable current for generation of the required opposing magnetic field
- Pole reversing switch, start/stop function
- Operation directly at the welding site
- **Recommended accessories:** FIM1-4 magnetic field meter for measuring magnetic direct and alternating fields
- **Advantages of degaussing:**
- No deflection of the arc by residual magnetism in the workpiece
- Prevention of lack of fusion due to insufficient sidewall fusion
- Minimisation of finishing work
- Cost-efficient and high-quality results

Type	Designation	Item no.		
Set Degauss 600	Set: Degauss 600 degaussing machine, two 5 m load cables (35 mm²) and one 20 m load cable (35 mm²), RT DGS1 remote control including 5 m connection cable	091-002065-00502		

RT DGS1

- Remote control with a polarity reversing switch and start/stop function for Degauss 600
- Remote control activates additional function – generation of an opposing magnetic field during the welding process
- Infinitely adjustable current (0% to 100%) to produce the required opposing magnetic field directly at the welding site
- Cable not supplied in delivery, please order connection cable separately

Type	Designation	Item no.		
RT DGS1	Degauss remote control	090-008806-00000		

FIM1-4 Set

- Magnetic field meter for measuring magnetic direct and alternating fields
- Three possible measuring ranges: 20 mT, 200 mT and 2000 mT
- Hand-held unit for operation with mains, battery or power-pack
- LCD digital display
- Measuring accuracy: ±2% of measured value ±1 digit using internal calibration voltage, better than ±1% of measured value ±1 digit using calibrated comparison magnet
- Resolution: 0.01 mT
- Output: ±199.9 mV analogue output corresponding to 1,999 digits, connection for analogue display, X-Y plotter and A-D converter
- Operating time: about 100 hours with dry-cell battery, about 50 hours with power-pack charge (power pack not included)

Type	Designation	Item no.		
FIM1-4 Set	Set: magnetic field meter, including Hall effect sensor	092-002937-00000		

General information

The global economy is changing continuously. Markets evolve, requirements change, opportunities arise and fade away. Companies that are committed to supporting their customers in this kind of environment must be one thing above all, flexible.

For this reason, the EWM Group is continually expanding its worldwide presence. Our advanced manufacturing, service and training sites in key industrial and growth regions reinforce our dedication to be as close to our customers as absolutely possible. Continuous expansion of our network with EWM sales offices as well as committed sales and service partners ensures global availability and optimum customer service for the customers who use our products.

We believe that acting in our customers' interests means accepting their challenges as our own. That is why we continuously optimise our product and service offerings. Innovative power electronics, the latest information technology and comprehensive expertise in application issues flow into each of our four service areas and combine to create complete solutions for arc welding that offer real added value.

This price list gives you an overview of the wide range of services from EWM so that you can get the best possible results from our products.

Conditions

- All prices in this price list are net prices excluding any applicable sales or value-added tax and are not subject to any additional discounts.
- The prices remain valid until a new price list is released.
- Subject to technical modification.
- We deliver products and services on the basis of our "General Terms and Conditions of Sale" which can be found at www.ewm-group.com.

Sales and service partners

Please visit our website at www.ewm-group.com to find the sales and service partner closest to you.

Customised machine configuration

Included in delivery

Order one or more weld-ready systems and configure them precisely to your requirements by adding relevant accessories and options. Of course, we are also happy to advise you beforehand about the optimum configuration for your welding task. We will assemble the system at our factory according to your specifications and test the system before delivery. The following services are included (varies according to machine type and composition):

- Mounting and assembly of trolley, cooling unit, multi-voltage module, pivot support and other accessories.
- Connection of the intermediate hose package to power source and wire feeder.
- Changing of the wire feed rollers and optimisation of the wire feed roller for your preferred wire.
- Configuration of welding torch: Gas and contact tip plus liner on MIG/MAG torches, tungsten electrode, gas nozzle and collet body on TIG torches.
- Filling of coolant container, connection of mains plug (European standard), gas supply, workpiece lead, etc.
- A trained employee will use pre-programmed JOBs (welding tasks) to perform a test weld using the wire/gas combination that you specify.

Costs

Type	Designation	Item no.		
KOS25	Customised configuration with assembly for portable and compact systems	092-002686-00001		
KOS26	Customised configuration with assembly for decompact systems	092-002685-00001		

Commissioning

Included in delivery

- On-site assembly of individual components
- Connection of the hose packages and welding cables
- Connection of the supply lines (e.g. gas, mains, compressed air connection, etc.)
- Insert and inch in the welding filler (MIG/MAG)
- Adjust the wire feed system and the gas quantity
- Explanation of basic functions and test welding
- Tips on servicing and maintaining the machine
- If requested (and following written or verbal agreement), we will be happy to provide additional training after commissioning (see Chapter Instruction/Basic Training).

Costs

▶The hourly rates given exclude any travel and accommodation costs incurred, as well as expenses!

Type	Designation	Item no.		
KOS3	Manual welding: hourly rate for welding experts, electrical engineers	KOS-A00000-00002		
KOS4-I	Automated welding: Hourly rate for welding experts, electrical engineers, test welding	KOS-A00000-I0003		
KOS49-01	Automated welding: Hourly rate for welding experts, electrical engineers, process supervision	KOS-V00013-00001		
KOS24	Mileage allowance	KOS-S00010-00000		
KOS57	Hourly rate for travel expenses for technicians and engineers	KOS-V00057-00000		

Instruction/basic training

Duration: 1 hour

Included in delivery

In combination with the "customised machine configuration", we offer you on-site commissioning. On the agreed date we commission your system at the place of installation, adjust the parameters to your current application and instruct you on the functions of the system.

Costs

▶The hourly rates given exclude any travel and accommodation costs incurred, as well as expenses!

Type	Designation	Item no.		
KOS27	Commissioning: 1 hour	KOS-V00027-00000		
KOS24	Mileage allowance	KOS-S00010-00000		
KOS57	Hourly rate for travel expenses for technicians and engineers	KOS-V00057-00000		

Duration: 2 hours

Included in delivery

This detailed two-hour instruction/basic training is designed to give you a more in-depth overview of the functionality and performance of our machines. Building upon the one-hour instruction, all functions on the welding machine are explained in detail. We closely examine your configuration and applications in order to jointly optimise the welding process with you.

Costs

▶The hourly rates given exclude any travel and accommodation costs incurred, as well as expenses!

Type	Designation	Item no.		
KOS29	Instruction/basic training: 2 hours	KOS-V00029-00000		
KOS24	Mileage allowance	KOS-S00010-00000		
KOS57	Hourly rate for travel expenses for technicians and engineers	KOS-V00057-00000		

Machine updates

Included in delivery

- Delivery of the machine to EWM Service in Mündersbach or on-site update
- Check of the existing software/machine version
- Machine updated to the latest software version

Costs

You will be charged for replacement circuit boards and time spent. Freight costs for delivery and return will be charged according to the volume of the goods being sent.

►The hourly rates given exclude any travel and accommodation costs incurred, as well as expenses!

Notes

Replacement circuit boards and any other necessary parts and software are invoiced according to the currently valid price list or, if available, the valid price quotation.

Type	Designation	Item no.		
KOS29	Machine update, hourly rate for welding experts, electrical engineers	KOS-S00015-00000		
KOS29-I	Machine update, hourly rate for development staff, technicians/engineers	KOS-S00015-I0000		
KOS24	Mileage allowance	KOS-S00010-00000		
KOS57	Hourly rate for travel expenses for technicians and engineers	KOS-V00057-00000		

Parameter determination/characteristics/process optimisation

Parameter determination

General remarks

- The welding machine required for the following services plus common gases and welding consumables are provided by EWM.
- If special gases, parent metals and consumables are needed for parameter determination/finding of characteristics, these must be provided in adequate quantities.
- You are required to deliver to your site at no charge your supplied samples, as well as the gases, parent metals and welding consumables. The freight costs for the return delivery are calculated based on the volume of goods dispatched.
- Any parts and software required will also be charged as per the quotation or the current price list.

Included in delivery

- Parameters adjusted to your requirements

Costs

Type	Designation	Item no.		
KOS3	Manual welding: hourly rate for welding experts, electrical engineers	KOS-A00000-00002		
KOS4-I	Automated welding: Hourly rate for welding experts, electrical engineers, test welding	KOS-A00000-I0003		
KOS3-I	Hourly rate for development staff, technicians/engineers	KOS-A00000-I0002		

Preparing a characteristic

Costs

Type	Designation	Item no.		
KOS51	Fixed price per characteristic	KOS-A00007-00001		

Creating a new characteristic at our site

Included in delivery

- We create for you a new, customised characteristic in accordance with your requirements (welding task, parent metal, welding consumable, gas, etc.)

Costs

Type	Designation	Item no.		
KOS3	Manual welding: hourly rate for welding experts, electrical engineers	KOS-A00000-00002		
KOS4-I	Automated welding: Hourly rate for welding experts, electrical engineers, test welding	KOS-A00000-I0003		

Process optimisation

Included in delivery

- Process optimisation or new determination according to your requirements.
- Because any process optimisation requires a customised solution, we are unable to give a more precise description here.

Costs

▶The hourly rates given exclude any travel and accommodation costs incurred, as well as expenses!

Type	Designation	Item no.
KOS49	Manual welding: hourly rate for welding experts, electrical engineers	KOS-V00013-00000
KOS49-01	Automated welding: Hourly rate for welding experts, electrical engineers, process supervision	KOS-V00013-00001
KOS4-I	Automated welding: Hourly rate for welding experts, electrical engineers, test welding	KOS-A00000-I0003
KOS49-I	Hourly rate for development staff, technicians/engineers	KOS-V00013-I0000
KOS24	Mileage allowance	KOS-S00010-00000
KOS57	Hourly rate for travel expenses for technicians and engineers	KOS-V00057-00000

Calibration

Our calibration service is designed for those with the highest quality expectations.

One of our service technicians uses a calibration device to adjust your welding machine. We are also happy to provide this service on-site.

Included in delivery

- Determining welding parameters under load
- Correction of deviations
- Documentation of measurement values
- Quality assurance for reproducible welding results

Costs

Freight costs for delivery and return will be charged according to the volume of the goods being sent.

▶The hourly rates given exclude any travel and accommodation costs incurred, as well as expenses!

Type	Designation	Item no.		
KOS60	Calibration costs per welding machine	KOS-S00018-00000		
KOS24	Mileage allowance	KOS-S00010-00000		
KOS57	Hourly rate for travel expenses for technicians and engineers	KOS-V00057-00000		

Demonstrations/training

Demonstrations/demonstration machines

Included in delivery

- We demonstrate for you the main features and functions as well as the performance capabilities of the machines.
- Welding on sample panels to demonstrate the various functions is included, highlighting the advantages to the user.
- Please bear in mind that a demonstration does not represent any form of training and cannot replace a training course.
- We can provide you with a machine for a long-term test. To do this, we conclude a contract with you for limited-time use of the machine in return for a fee.

Costs

▶The hourly rates given exclude any travel and accommodation costs incurred, as well as expenses!

Type	Designation	Item no.		
KOS3	Manual welding: hourly rate for welding experts, electrical engineers	KOS-A00000-00002		
KOS4-I	Automated welding: Hourly rate for welding experts, electrical engineers, test welding	KOS-A00000-I0003		
KOS3-I	Hourly rate for development staff, technicians/engineers	KOS-A00000-I0002		
KOS24	Mileage allowance	KOS-S00010-00000		
KOS57	Hourly rate for travel expenses for technicians and engineers	KOS-V00057-00000		

Training courses/advanced training courses/presentations

Included in delivery

We offer our customers and sales partners training courses on our products, we present all new developments in our training news, we conduct welding training with different materials and help you develop excellence when it comes to service.

An updated training calendar with detailed information about individual training events is available at www.ewm-group.com in the Download area under the Service heading.

Costs

Free of charge in Mündersbach for sales partners

On-site: Free of charge for sales partners, plus any travel costs, accommodation and expenses incurred, purchase of workpieces, welding consumables, gases, etc.

On-site: Plus any costs for travel and accommodation as well as expenses incurred, purchase of workpieces, welding consumables, gases, etc.

▶Please note that for cancellations received less than 7 days before the start of the training course, the full course fee is payable, and for complimentary courses, €50.00 is payable for each participant.

Type	Designation	Item no.		
TRAINING 1	Standard training courses (according to training calendar)	KOS-V00017-00000		
TRAINING 2	Special training courses (topics at customer's request not already covered in training calendar)	KOS-V00017-00001		
TRAINING 3	Expert training courses (highly specialised, by development staff)	KOS-V00017-00002		
KOS24	Mileage allowance	KOS-S00010-00000		
KOS57	Hourly rate for travel expenses for technicians and engineers	KOS-V00057-00000		

Service: Servicing and repair (incl. repetition test)

Included in delivery

- Repair or servicing, including repetition test, on-site or at EWM.

Costs

Freight costs for delivery and return will be charged according to the volume of the goods being sent.

The cost for this service is calculated from the work expense plus any applicable material costs. Spare parts required for repairs will be calculated upon the basis of the currently valid price list or a valid price quotation, to the extent not covered by our warranty terms (see Chapter Warranty Declaration).

▶The hourly rates given exclude any travel and accommodation costs incurred, as well as expenses!

Notes

- If requested, we will be happy to provide a cost estimate for the service. Cost estimates are invoiced at a flat rate of €50.00 (KOS-S00011-00000).
- These costs are not applied if the repair work is carried out.

Type	Designation	Item no.
KOS15	Hourly rate for electrical engineers	KOS-S00001-00000
KOS2	Hourly rate for test	KOS-S00002-00000
KOS24	Mileage allowance	KOS-S00010-00000
KOS57	Hourly rate for travel expenses for technicians and engineers	KOS-V00057-00000

Metallurgic testing

At the EWM site

Included in delivery

- Non-destructive and destructive test of your welding samples
- Metallurgic testing of your welded sample
- Extensive report with results of the test

Costs

Freight costs for delivery and return will be charged according to the volume of the goods being sent.

▶The hourly rates given exclude any travel and accommodation costs incurred, as well as expenses!

Type	Designation	Item no.
KOS54	Hourly rate for metallurgic testing	KOS-A00009-00000
KOS3	Manual welding: hourly rate for welding experts, electrical engineers	KOS-A00000-00002
KOS4-I	Automated welding: Hourly rate for welding experts, electrical engineers, test welding	KOS-A00000-I0003
KOS3-I	Hourly rate for development staff, technicians/engineers	KOS-A00000-I0002

Welding tests/sample welds

At EWM's site

Included in delivery

- Welding of samples with our machines
- Welding report with results
- The welding machine required and the standard gases and welding consumables are provided by EWM.
- If we will need special gases, parent metals and consumables for your sample welds, these must be provided in adequate quantities.

Costs

Freight costs for delivery and return will be charged according to the volume of the goods being sent.

Type	Designation	Item no.		
KOS3	Manual welding: hourly rate for welding experts, electrical engineers	KOS-A00000-00002		
KOS4-I	Automated welding: Hourly rate for welding experts, electrical engineers, test welding	KOS-A00000-I0003		

On-site

Included in delivery

- Welding of samples with our machines
- Welding report with results

Costs

Freight costs for delivery and return will be charged according to the volume of the goods being sent.

▶The hourly rates given exclude any travel and accommodation costs incurred, as well as expenses!

Type	Designation	Item no.		
KOS3	Manual welding: hourly rate for welding experts, electrical engineers	KOS-A00000-00002		
KOS4-I	Automated welding: Hourly rate for welding experts, electrical engineers, test welding	KOS-A00000-I0003		
KOS24	Mileage allowance	KOS-S00010-00000		
KOS57	Hourly rate for travel expenses for technicians and engineers	KOS-V00057-00000		

Rent/leasing/financing

Welding machines are capital investments. For this reason, the decision to purchase such a product is influenced not only by good welding characteristics, but also to a large extent by a good return on investment. However, at first glance returns often appear insufficient.

For example, short-term, seasonal peaks in orders, special orders or other special occasions (training, welder tests, etc.) may cause capacity bottlenecks in your production, but the temporary nature of these events does not justify the procurement costs of a new machine, causing the investment to appear not worthwhile.

In other cases, you may have an urgent need to expand long-term capacity, but find it impossible to finance the purchase at the current time. Or perhaps you simply want to experience the quality of our machines over a longer period of time before making a purchase decision.

In order to react flexibly to all of these scenarios, we offer you the option of renting or leasing one or several welding machines as an alternative to a direct purchase.

- **Renting EWM welding machines**
- Cover short-term production bottlenecks with the latest EWM technology.
- Durations and rent are agreed individually.
- At the end of the contract duration, return the machine without surcharges or choose to purchase the machine with full accounting of previous rental payments.
- Tax advantages: Rental payments may be deducted as operational expenses.
- **Leasing EWM welding machines**
- Transparent, uniform rates facilitate reliable planning
- Individualised determination of leasing rates, durations and closing charges
- Pay-as-you-earn: The leasing rates are incurred parallel to the use of the machine and can therefore be financed from the profits.
- This allows you to make a large investment without committing a large amount of capital.
- Tax advantages: Leasing charges may be deducted as operational expenses.

Are you interested in a welding machine and would like to receive a price quotation? We are available to help at any time and will be happy to work with you to create a rental or leasing contract adapted to your requirements.

General assembly and service conditions

The setup, commissioning or repair of systems supplied, and the instruction of operating staff on those systems, are undertaken on acceptance of the following conditions. The Assembly and Service Terms and Conditions are based on our General Terms and Conditions of business. These terms supplement and specify the general terms for the areas of assembly and service.

1. The ordering party shall ensure that all preparations required for on-site completion of assembly work are carried out to ensure that the work can be started immediately on arrival. The connections for operating power and water must be provided up to the supply point, among other things. If the setup and commissioning of systems is delayed or prevented due to circumstances not under our control, the ordering party shall bear the costs for sending the personnel (travel costs, hourly rates, daily allowance, etc.) Not included in our services are electrical cabling at the installation site from the switching cabinet to the individual power consumers including installation material, prop supports, building, plastering and painting work, pneumatic and water installations, roofing and other building and additional work required. Any crane and scaffolding work required shall be carried out by the customer.
2. The assembly and service rates, unless otherwise agreed, are calculated on the basis of time (incl. travel and waiting time) and costs. The following are also subject to charges: Allowances, accommodation, travel expenses and preparation costs required for assembly. For assembly work abroad, the additional costs, e.g. for obtaining visas, for any medical examination costs and immunisations, will be billed at cost. If additional safety tests are required for the work, e.g. radiation passport, these formalities must be completed in advance by the ordering party. The use of materials will be charged at cost + sales tax at the relevant prices valid at the time. The calculation will be carried out based on the work documentation from our engineers. The engineers are required to present their work documentation on completion of work (for extended assignments on a weekly basis) to our customers for signature. This shall also apply for flat-rate assembly work. For extended assemblies, monthly partial invoices will be generated. Time and materials required for assembly and service are acknowledged by signature, making them binding for both sides. If the ordering party refuses to sign, it shall submit a written declaration immediately to that respect. If our staff are not able to obtain the signature for any other reason, the details given on the customer service invoice shall be assumed to be agreed upon. Our engineers are not authorised to submit legally binding declarations on our behalf. All agreements not covered by the assembly and service conditions shall require written confirmation.
3. Cost proposals are produced to the best of our knowledge, but are not binding. Should the price given in advance increase significantly during the maintenance work, consultation will be sought. Generation of a cost estimate is subject to a flat charge (€50.00 per estimate) but will be reimbursed when the associated contract is signed. The prices given in the cost estimates are valid for one month. Maintenance jobs with a low value are also carried out without providing a cost estimate in advance.
4. Wage costs: Per working hour (worktime, waiting time, travel time and preparation time for staff on-site and office staff), based on 40 hours per week of 5 working days. Overtime and surcharges are not charged by EWM!
5. Expenses are charged in accordance with the relevant regional regulations on travel costs.
6. Travel and freight costs: We calculate the actual outlay incurred for transporting staff, their tools and their luggage, if incurred via public transport. When using motor vehicles (cars and service vehicles) we calculate €0.60/km. When using the train, we calculate 2nd class for travel in both directions. Flight costs will be charged at Business Class. Freight costs, for travel in both directions, for machines sent in for maintenance will be billed to the customer.
7. Overnight stays will be charged at cost. Daily allowances and overnight stays are also charged for Sundays and holidays when the engineer is not working and does not travel home for cost reasons.
8. The payment conditions in our general terms and conditions of business and delivery shall apply over and above any other agreements made where applicable. Unless written authorisation is provided, our engineers are not authorised to receive payments on our behalf. The payment due date for all services shall be 14 days net.
9. Our services are provided in the German or English language. Should other languages be required, an interpreter should be procured by the customer!
10. These general assembly and service terms and conditions shall apply from January 1, 2012. All previous assembly and service conditions are hereby invalidated.

Disposal of old equipment

Germany's Used Electrical Equipment Law (Elektro-Altgeräte-Gesetz) stipulates that this machine does not belong in domestic waste.

The machine contains valuable raw materials, which should be recycled, and electronic components, which must be disposed of. Do not dispose of the machine in household waste! Observe local regulations on disposal!

EWM participates in an approved waste disposal and recycling scheme and is registered in the National Register for Waste Electric Equipment (EAR) with reference number WEEE DE 57686922.

Please contact EWM regarding the options for returning your used electrical equipment: info@ewm-group.com

Machines can also be returned to EWM sales partners across Europe.

Packaging return

- German packaging legislation states that EWM is obliged to take back product packaging and guarantee its recycling or disposal. We work with an approved disposal system to meet these requirements.
- Packaging can be returned to any EWM sales partner after purchase. Please contact EWM directly in the case of machines purchased online.
- We, EWM AG in Mündersbach, Germany, hereby confirm that all products which we supply to you that are subject to the RoHS Directive comply with RoHS requirements (Directive 2011/65/EU).

Compliance with RoHS requirements

- German packaging legislation states that EWM is obliged to take back product packaging and guarantee its recycling or disposal. We work with an approved disposal system to meet these requirements.
- Packaging can be returned to any EWM sales partner after purchase. Please contact EWM directly in the case of machines purchased online.
- We, EWM AG in Mündersbach, Germany, hereby confirm that all products which we supply to you that are subject to the RoHS Directive comply with RoHS requirements (Directive 2011/65/EU).

Manufacturer's declaration to end user

- According to European provisions (Directive 2012/19/EU of the European Parliament and the Council of 13 August 2012), used electric and electronic equipment may no longer be placed in unsorted municipal waste. It must be collected separately. The symbol depicting a waste container on wheels indicates that the equipment must be collected separately. Please help to protect the environment and ensure that this machine is placed in the appropriate collection category when you no longer wish to use it.
- German law (reform of the law governing the distribution, taking back and environmentally correct disposal of electric and electronic equipment [ElektroG] dated 20 October 2015) states that you are required to place used machines in a collection system separate from unsorted municipal waste. It is possible that legally authorised disposal authorities will also collect used equipment from private households.
- Please refer to your local waste collection calendar or ask your state or municipal government about options available in your area for returning or collecting used equipment.

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