

**EDR** torches<sup>®</sup>  
Evolution Design Robotics

Catalog 2019



**ROBOTIC**  
WELDING TORCHES





**EDR** torches<sup>®</sup>  
Evolution Design Robotics



# ROBOTIC

## WELDING TORCHES

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# Company



“We understand that the development of a product starts at the design stage but just as important are quality and production”

Companies with technological or industrial character know the importance of innovating to continue in the current market. In EDR torches this becomes a work philosophy, we understand that without innovation it is not possible to advance in such a competitive world where companies and professionals need increasingly complex solutions.

EDR torches has a strong R & D department dedicated to the development of new welding applications, providing customized solutions both in the area of robotic welding and manual.

We understand that the development of a product begins at the design stage but just as important are the quality and production designed and tested.

The long experience of EDR torches in all sectors related to welding makes us capable of providing the best solutions to your manufacturing challenges, tell us what you need and we will make it possible.



# R&D



“EDRtorches is the result of a long engineering work developing products for robotic welding system”

When we gather in a company more than 20 years of experience in designing applications and solutions in welding, with a high level engineering team only something good can arise, EDRtorches is the result of a long engineering work developing products for welding systems robotic, automated and manual.

Our spirit of continuous innovation is evident in the entire product line we manufacture, we believe that we must see beyond what the industry needs and anticipate solutions to future challenges.

With the product ranges endorsed by companies worldwide, we ensure the most appropriate solution to your demand, in addition to a high level of advice.

EDRtorches we have the solution and the product you need.

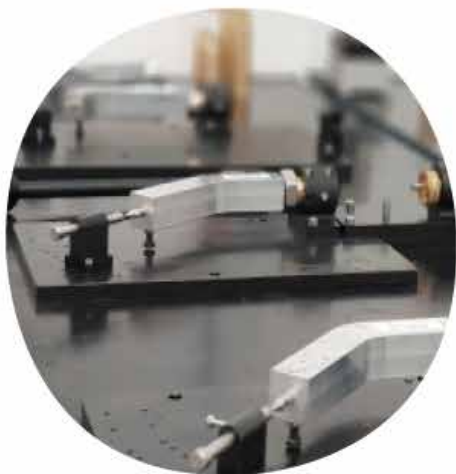


# Engineering





# Manufacturing





# ROBOTIC

WELDING TORCHES



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## Robotic welding torches

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# Torches for robots **BOT** MIG/MAG series

## MIG/MAG BOT



### iBOT

System for robots with hollow wrist shaft and internal wiring to axis 6.

### eBOT

System for standard robots with closed wrist and external wiring to axis 6.

### cBOT

High speed.  
System for robots that can be used on both standard robots and hollow shaft robots (with the replacement of the adaptation plate).

## TIG BOT



### itBOT

System for robots with wrist axis

### ctBOT

High speed.  
System for robots that can be used in both standard robots and hollow shaft robots (with the replacement of the adaptation plate).



Depending on the type of robot to use, we need to select a system that adapts to the robot, for this there are three systems available for the two types of robots that exist in the market.

Hollow shaft systems where we will adapt the iBOT, external wiring system where we will adapt eBOT or the cBOT if we want our system to work at high speed in its movements.

## iBOT



## eBOT



- 1- Torch necks.
- 2- Power cables.
- 3- Anti-collision systems
- 4- Discs adapters for robots.
- 5- Accessories torches.



1

# Torch neck

All the necks of the BOT range are INTERCHANGEABLE AND COMPATIBLE, it is only necessary to distinguish between gas or liquid refrigerated systems. A wide range of collars is available. Check if special execution is desired.

The BOT collar system of the modular package is interchangeable and compatible with all torch lines iBOT, eBOT and cBOT, besides all the powers of neck have the same TCP.



1°- Total compatibility and wide range of torch collars. Threaded neck change system, quick and easy with independent circuits and automatic liquid shutoff valves



2°- Swap system interchangeable in the neck, this system makes the tow remains stable on the contact point when the torch is in motion.



3°- Clamping nut with key-way slots prevents bad contacts where the neck can be loosened, this is optional because the neck is perfectly held by the force of the hand.



4°- Double circuit cooling system for nozzle and contact tip completely Independent. Gas driving totally separates from the rest of circuits like the thread of contribution, improving the stability of the gas outlet and the projection.

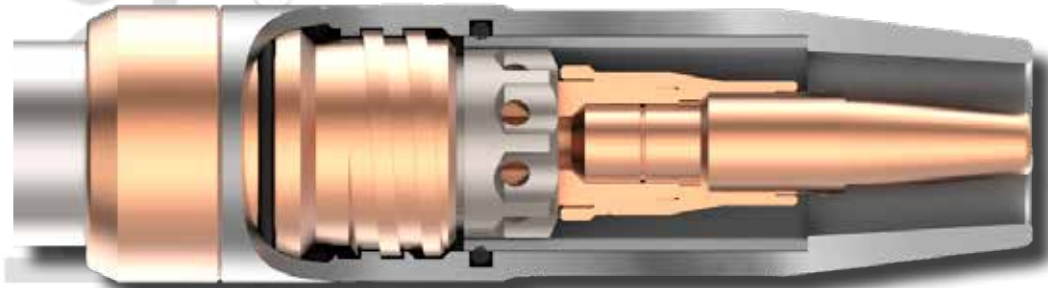
5°- Structure of the neck in stainless steel, gives a rigidity and stability of the TCP much higher than the termination in Brass more unstable with changes in temperature

6°- Extra-hard copper-cobalt alloy nozzle holder, this alloy provides high thermal cooling and a hardness far superior to brass and other copper, with less wear of the neck rock and ° longer duration before being replaced.

7°- O-ring retention, high temperature seal that prevents the nozzle from loosening and eliminates any loss of gas that occurs in the threads.

8°- Electrical insulation of the interchangeable nozzle, the new interchangeable insulator reduces the consumables expense by not having to re-





## COLDTip

9°-Long duration tip system COLDTip, exclusive of the BOT torch line, with this system the use of standard system contact tips is reduced from 3 to 5 times, in addition to the loss of time with the change. How is it achieved. The system maintains the tip of contact at low temperature which makes the hardness of copper is not affected and wear less with the passage of the thread, in addition to stay cold the projections do not stick. Half of the contact tip enters a cooling chamber, The cone of the tip gives electrical and thermal transmission efficiency.

## 41EC necks with integral cleaning

System that achieves the total elimination of projections, this is especially useful in welding galvanized steels used in the automotive industry where Zinc generates large projections that make cleaning difficult and produce multiple breakdowns.



## EASYCleaning

Its special diffuser makes the gas circulate externally facilitating and cleaning through the external channeling of holes. This improves the cooling of the nozzle, facilitates cleaning and prevents the accumulation of projections. This integral cleaning system allows the total elimination of the projections accumulated in the spare part. Your special cleaning cutter adapts to the shape of the spare by eliminating the gaps where the projections accumulate and increasing the duration of the spare part and the stops.

# Neck TIG system

The TIG welding system for BOT systems can be used with or without thread supply, it is liquid cooled and its cooling power allows high working cycles maintaining the stability of tungsten.



1°-High gas diffusion 9 gas outlet channels increase gas diffusion and improve cooling.

2°-Oversized tungsten holder, with built-in guide system, keeps the tungsten cooled and centered.

# 2

## Power cable

BOT torch systems are designed with special materials that withstand high mechanical stresses and strong dynamic movements, thus preventing the breakage of their components by fatigue. The torch cable assembly is quick and easy, without the need for any special tools. Each type of robot determines a length of torch cable, we have all the measures to cover all possibilities. Cables for collars cooled by gas and water are available.



1°-Valves of automatic closing of the cooling circuit, allows to make a quick change of neck without loss of liquid and without the need to stop the cooling group.



2°-Nozzle sensor (optional), allows contact detection with the nozzle for multiple applications.



3°-Four special power cables FOURPower (liquid cooling system), allow a duration and an extra cooling capacity, in addition the materials of the power cables are prepared to rotate 360 in both directions which gives a freedom of 720° turn of the largest for these systems.  
-Exterior of the PA housing supports high temperatures without wear with more than 1 million cycles of fatigue at break.  
- Copper conductors with tin coating to prevent wear by electrolysis, this increases the break time up to 5 times.



4°-Multi-connector adaptation system, the energy package allows to easily change the type of connector to adapt to any type of machine, from the most standard to special connectors under design.



Euro type



Miller type



Panasonic type

# 3

## Anti-collision system

The BOT anti-collision sensor is intended for the deactivation of the robot in case of accidental collision of the welding gun.

This sensor consists of a Rocker system that detects the collision in any direction of movement, returning to its initial position when the obstacle that caused the collision disappears.

The resistance of the sensor is prepared to protect the torch system at low speed, at high speeds total protection is not guaranteed.

- Turn in X or Y max 10° Compression in Z max 7mm
- Diámetro 96mm.
- Activation in X o Y approx. 1° en Z 0.7mm.
- Precision 0.1mm to 300mm of the robot wrist.



1°-Rubber protection for high temperature and IP63 sealing, protects the sensors and all the fixing screws.

2°-Internal system of 6 points of support avoids dead zones of low resistance to movement.

3°-Machining of interlocking systems CEROFit. Machined parts in the same sequence provide zero differences in their tolerance giving superior precision.

4°-Three independent sensors provide protection in all directions and high ury.

iBOT



eBOT



itBOT





## 3.1 Clamping flange torches eBOT

Only eBOT



- Flange of zero degrees, for necks 45°.

- Flange of 23 degrees, for necks 22°.

### RETROFIT

Customizable designs to adapt the new torches of the BOT series to the old TCP of your old torch, thus

Flanges of different sizes adaptable to different TCP systems.  
your old torch, thus

The systems of adaptation to industrial robots, the way to incorporate the torches BOT to any type of industrial robot, there are industrial robots specific for welding that are the standard collected in the references but it is also possible to make larger diameter adaptation discs for robots of other types of applications. The measurements correspond to the centers of the fixings of the dolls of the robot, to identify the code to check the robot model or to request information to the technical service



## iBOT

Adaptation discs for iBOT series hollow shaft robot systems

## eBOT

Adaptation discs for eBOT series external wiring robot systems

## Basic

Adapters for external shaft robots and collaborative robots for torches type BASIC

## cBOT

Adaptation discs for robot systems external wiring with movements in high speed series cBOT

## 5

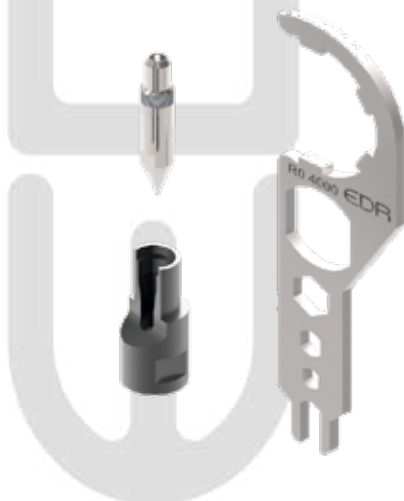
## Accessories for the BOT line



Plates of verification and rectification of the TCP for the welding necks, guarantee the correct repetitiveness of the welding necks. guarantee the correct repetitiveness of the welding necks.



Automatic cleaning station for robotic welding systems.



Accessories related to the maintenance and cleaning of spare parts of the robotic welding torch.

# Advantages of the BOT series

## COLD Tip

Exclusive system for cooling contact tips, reduces heating of the contact tip by 50%, extending the tip duration up to 4 times.

## EASY Cleaning

Comprehensive cleaning mechanism for welding projections, developed for the automotive industry where the projections are very high, this system eliminates the projections of the interior of the nozzle completely in each cleaning cycle. Recommended in applications where the level of projections is very high.

## FOUR Power

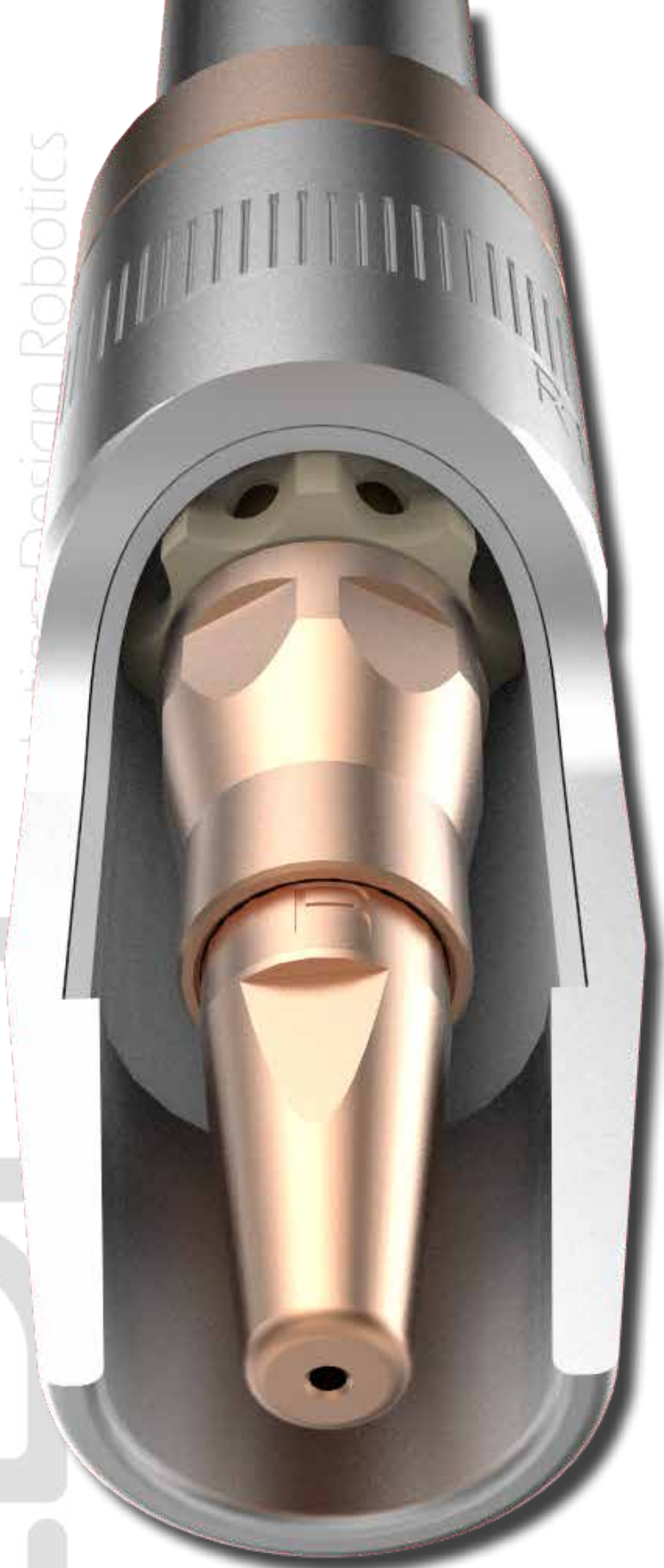
The 4 power conductors designed for high levels of torsion and high resistance to fatigue, provide that the torch system never stops working by the breakage of one or several cables, in addition to multiply by two the section of the cooling flow.

## CEROFit

The high precision machining performed in the same manufacturing phase, the anti-collision adjustment systems are manufactured in the same machining sequence with maximum precision.

# EDR<sup>®</sup> torches

Evolution Design Robotics



# MIG / MAG Welding necks

1

Robotic welding collars MIG / MAG gas cooling.

BOT-30G (300A)

24 Pag.

Robotic welding collars MIG / MAG liquid cooling.

BOT-31W (350A)

26 Pag.

BOT-41EC (400A)

28 Pag.

BOT-40W (500A)

30 Pag.

BOT-50W (550A)

32 Pag.

BOT-60W (600A)

34 Pag.

Robotic welding necks TIG liquid cooling.

BOT-T5W (400A)

36 Pag.

# EDR<sup>®</sup> torches

Evolution Design Robotics





**MIG / MAG neck model for applications with medium work intensity, adaptable to a multitude of robotic and automatic applications, powerful model without the need to use a cooling unit, simplifying maintenance.**

The welding systems for industrial robots BOTseries are designed for work cycles of 24 hours, developed for an intensive use, precise and specifically adapted to long work cycles.



**Welding process:**

MIG/MAG, GMAW, 131,135

Technical data according to IEC60974-7



Gas



300 A - CO2 100%



250 A - Mix M21 (ISO 14175) 100%



Ø1.0-1.2 mm



10-18 l/min

The capacity will be reduced by 35% with pulsed arc.

**STANDARD CONFIGURATION**

**A** BOT-30G 0° N



**B** BOT-30G 22° N



**C** BOT-30G 36° N



**D** BOT-30G 45° N



Pos.	TYPE	CODE	Min. Q.
A	Torch neck BOT-30G 0° (X=0 mm, Z=259 mm)-long type N	R12 0000	1
B	Torch neck BOT-30G 22° (X=64 mm, Z=247 mm)-long type N	R12 0220	1
C	Torch neck BOT-30G 36° (X=96 mm, Z=230 mm)-long type N	R12 0360	1
D	Torch neck BOT-30G 45° (X=111 mm, Z=217 mm)-long type N	R12 0450	1

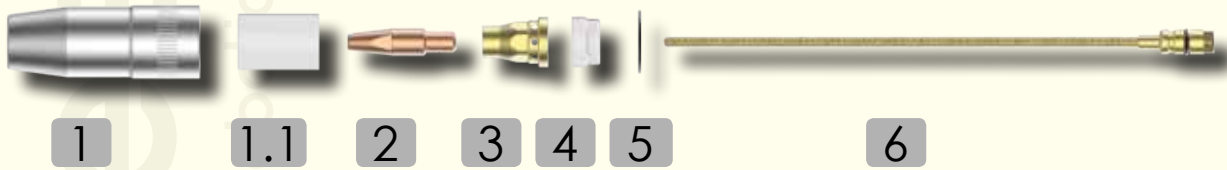
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enDSBOT30G-01





SPARE PARTS



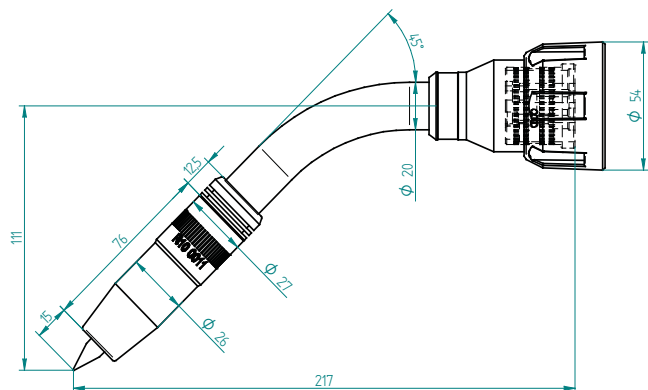
Pos.	TYPE	CODE	Min. Q.
1	Nozzle L76xØ15.5 mm	R10 0011	2
	Nozzle L76xØ13 mm	R10 0012	2
	Nozzle L79xØ15.5 mm	R10 00211	2
1.1	Insulator nozzle L35XØ19.5 mm	R10 0002	2
2	Contact tip M10 1.0 mm Cu-DISCUP	R10 0400 10	5
	Contact tip M10 1.2 mm Cu-DISCUP	R10 0400 12	5
	Contact tip M10 1.6 mm Cu-DISCUP	R10 0400 16	5
	Contact tip M10 1.0 mm CuCrZr	R10 0401 10	5
	Contact tip M10 1.2 mm CuCrZr	R10 0401 12	5
	Contact tip M10 1.6 mm CuCrZr	R10 0401 16	5
3	Diffuser L26xØ18.5 mm M10	R12 0013	2
4	Insulator neck L11XØ18.5 mm	R12 0308	2
5	Oring neck Ø23 mm	R10 0401	10
6	Liner for neck type N 217mm	R10 1112	1

ACCESSORIES

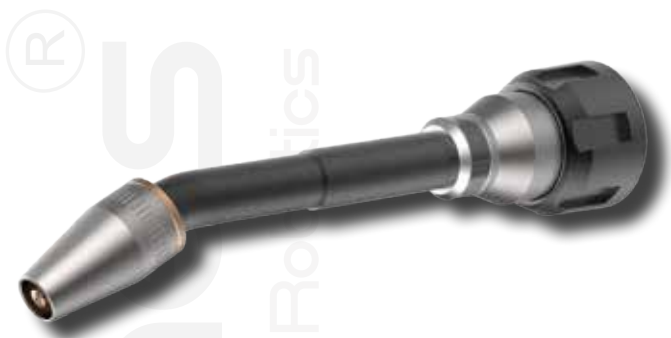


Pos.	TYPE	CODE	Min. Q.
9	Tip TCP M10-15mm programming	R10 0115	1
10	Neck tool BOT	R04 0000	1
11	Clining reamer TH L26xØ15x10.5mm	R03 2040	1

STANDARD MEASURES



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**Welding process:**

MIG/MAG, GMAW, 131,135

Technical data according to IEC60974-7



Liquid



350 A - CO2 100%



300 A - Mix M21 (ISO 14175) 100%



Ø 0.8-1.2 mm



10-16 l/min

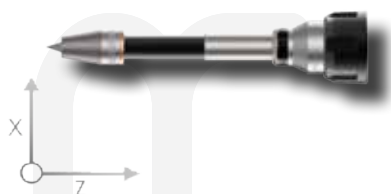
The capacity will be reduced by 35% with pulsed arc.

**MIG / MAG neck model for places of difficult access, medium work intensity and adaptable to many robotic applications, short spare model to facilitate welding in narrow places.**

The welding systems for industrial robots BOTseries are designed for work cycles of 24 hours, developed for an intensive use, precise and specifically adapted to long work cycles.

**STANDARD CONFIGURATION**

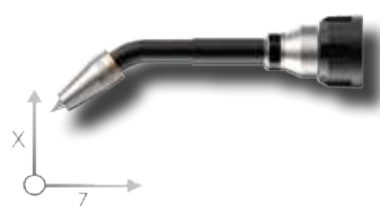
**A** BOT-31W 0° N



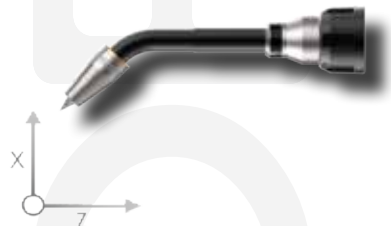
**B** BOT-31W 22° N



**C** BOT-31W 36° N



**D** BOT-31W 45° N



**E** BOT-31W 45° SL



Pos.	TYPE	CODE	Min. Q.
A	Torch neck BOT-31W 0° (X=0 mm, Z=243 mm)-long type N	R13 1000	1
B	Torch neck BOT-31W 22° (X=26 mm, Z=236 mm)-long type N	R13 1220	1
C	Torch neck BOT-31W 36° (X=44 mm, Z=227 mm)-long type N	R13 1360	1
D	Torch neck BOT-31W 45° (X=56 mm, Z=219 mm)-long type N	R13 1450	1
E	Torch neck BOT-31W 45°L (X=56 mm, Z=319 mm)-long type SL	R13 1451	1

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en-DSBOT31W-01



SPARE PARTS



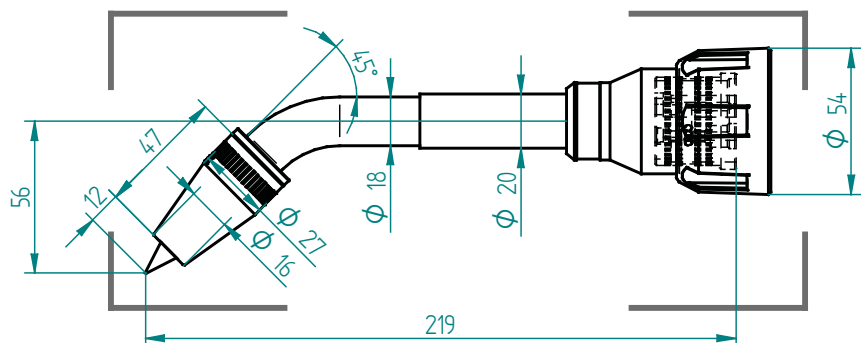
Pos.	TYPE	CODE	Min. Q.
1	Nozzle L47xØ13.5 mm	R10 0301	2
2	Contact tip M6 0.8 mm CuCrZr	R10 0200 08	10
	Contact tip M6 1.0 mm CuCrZr	R10 0200 10	10
	Contact tip M6 1.2 mm CuCrZr	R10 0200 12	10
3	Diffuser Insulator neck L19XØ18 mm	R12 0314	2
4	Tip holder L20xM12 mm M6	R10 2103	2
5	Oring neck Ø23 mm	R10 0401	10
6	Liner for neck type N 217mm	R10 1112	1
	Liner for neck type SL 317mm	R10 1114	1
7	Oring neck water Ø9 mm	R12 0008	10

ACCESSORIES



Pos.	TYPE	CODE	Min. Q.
9	Tip TCP M6-12 mm programming	R10 0312	1
10	Neck tool BOT	R04 0000	1
11	Clining reamer TH L23xØ13x8.5mm	R03 2030	1

STANDARD MEASURES



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**EASY** cleaning

**MIG / MAG neck model specially designed for applications with high number of projections, welding of galvanized steels or positions that facilitate the projections to cumulate, medium-high working capacity and adaptable to a multitude of robotic applications, recommended model in welding for the automation**

The welding systems for industrial robots BOTseries are designed for work cycles of 24 hours, developed for an intensive use, precise and specifically adapted to long work cycles.



**Welding process:**

MIG/MAG, GMAW, 131,135

Technical data according to IEC60974-7



Liquid



400 A - CO2 100%



350 A - Mix M21 (ISO 14175) 100%



Ø 1.0-1.2 mm

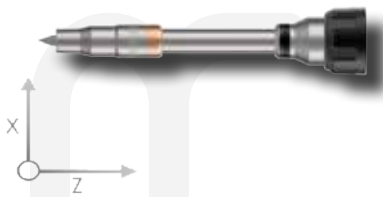


10-16 l/min

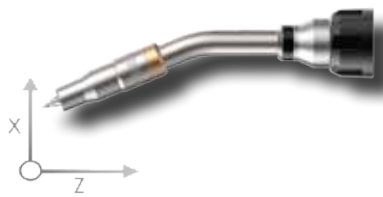
The capacity will be reduced by 35% whit pulsed arc.

**STANDARD CONFIGURATION**

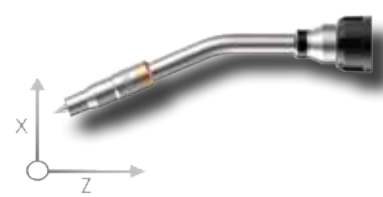
**A** BOT-41EC 0° N



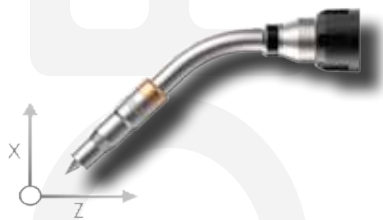
**B** BOT-41EC 22°F N



**C** BOT-41EC 22°L L



**D** BOT-41EC 45° N



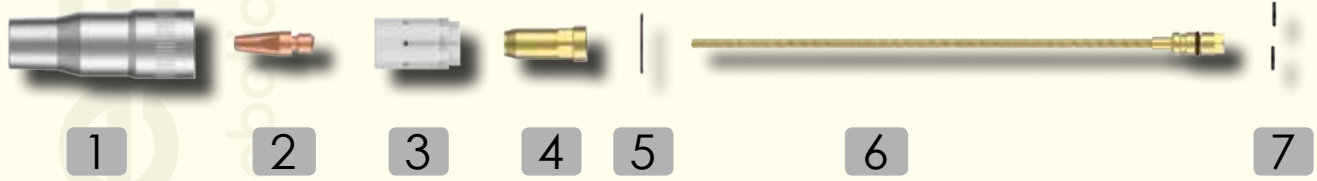
Pos.	TYPE	CODE	Min. Q.
A	Torch neck BOT-41EC 0° (X=0 mm, Z=259 mm)-long type N	R14 1000	1
B	Torch neck BOT-41EC 22°F (X=50 mm, Z=250 mm)-long type N	R14 1220	1
C	Torch neck BOT-41EC 22°L (X=65 mm, Z=297 mm)-long type L	R14 1221	1
D	Torch neck BOT-41EC 45° (X=111 mm, Z=217 mm)-long type N	R14 1450	1

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SPARE PARTS



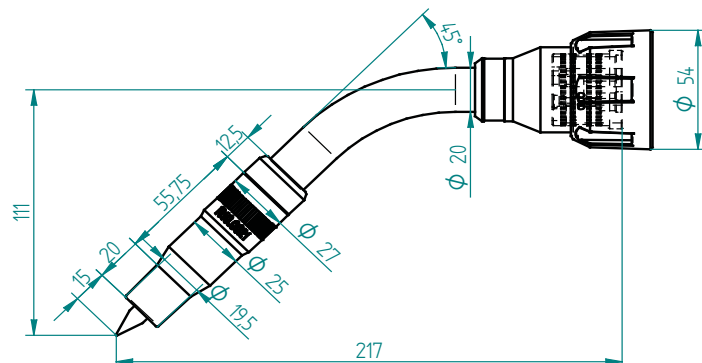
Pos.	TYPE	CODE	Min. Q.
1	Nozzle EC L76xØ15.5 mm	R10 0021	2
2	Contact tip M8 1.0 mm Cu-BICOMP	R10 0300 10	5
	Contact tip M8 1.2 mm Cu-BICOMP	R10 0301 12	5
3	Diffuser Insulator nozzle L35XØ19.5	R12 0414	2
4	Tip holder L34 mm M8xM14	R10 0014	2
5	Oring neck Ø23 mm	R10 0401	2
6	Liner for neck type N 217mm	R10 1112	1
	Liner for neck type L 267mm	R10 1113	1
7	Oring neck water Ø9 mm	R12 0008	10

ACCESSORIES



Pos.	TYPE	CODE	Min. Q.
9	Tip TCP EC M8-15mm programming	R10 0215	1
10	Neck tool BOT	R04 0000	1
11	Clining reamer EC-TH L38.5xØ15x10.5mm	R03 2010	1

STANDARD MEASURES



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**MIG / MAG neck model with high versatility, very versatile for medium-high work intensity and adaptable to a multitude of robotic and automatic applications, one of the most versatile models.**

The welding systems for industrial robots BOTseries are designed for work cycles of 24 hours, developed for an intensive use, precise and specifically adapted to long work cycles.



**Welding process:**

MIG/MAG, GMAW, 131,135

Technical data according to IEC60974-7



Liquid



500 A - CO2 100%



400 A - Mix M21 (ISO 14175) 100%



Ø 1.0-1.6 mm

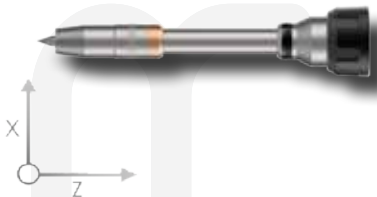


10-18 l/min

The capacity will be reduced by 35% with pulsed arc.

**STANDARD CONFIGURATION**

**A** BOT-40W 0° N



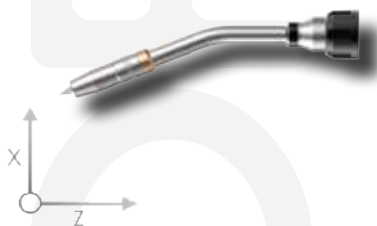
**B** BOT-40W 22° N



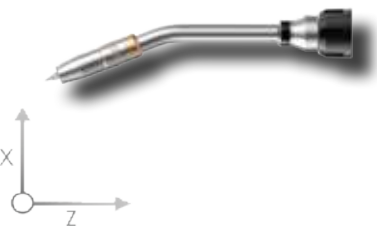
**C** BOT-40W 22°F N



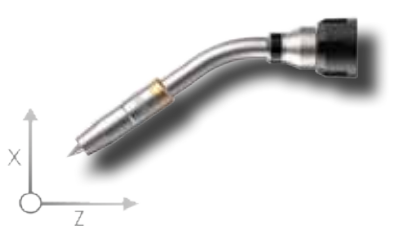
**D** BOT-40W 22°L L



**E** BOT-40W 22°LF L



**F** BOT-40W 36° N



**G** BOT-40W 45° N



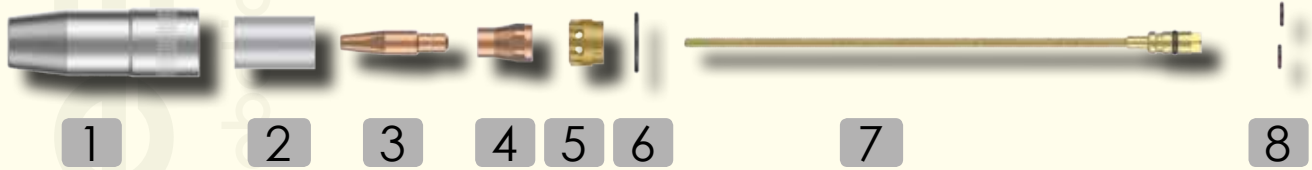
Pos.	TYPE	CODE	Min. Q.
A	Torch neck BOT-40W 0° (X=0 mm, Z=259 mm)-long type N	R14 0000	1
B	Torch neck BOT-40W 22° (X=64 mm, Z=247 mm)-long type N	R14 0220	1
C	Torch neck BOT-40W 22°F (X=50 mm, Z=250 mm)-long type N	R14 0222	1
D	Torch neck BOT-40W 22°L (X=64 mm, Z=297 mm)-long type L	R14 0221	1
E	Torch neck BOT-40W 22°LF (X=50 mm, Z=300 mm)-long type L	R14 0223	1
F	Torch neck BOT-40W 36° (X=96 mm, Z=230 mm)-long type N	R14 0360	1
G	Torch neck BOT-40W 45° (X=111 mm, Z=217 mm)-long type N	R14 0450	1

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enDS-BOT40W-01



SPARE PARTS



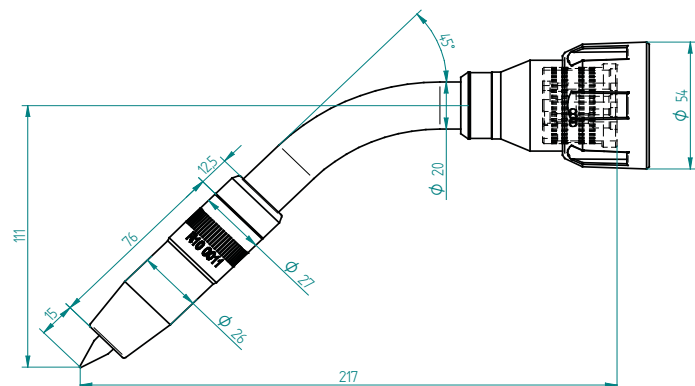
Pos.	TYPE	CODE	Min. Q.
1	Nozzle L76xØ15.5 mm	R10 0011	2
	Nozzle L76xØ13 mm	R10 0012	2
	Nozzle L79xØ15.5 mm	R10 0211	2
2	Insulator nozzle L35XØ19.5 mm	R10 0002	2
3	Contact tip M10 1.0 mm Cu-BICOMP	R10 0400 10	5
	Contact tip M10 1.2 mm Cu-BICOMP	R10 0400 12	5
	Contact tip M10 1.6 mm Cu-BICOMP	R10 0400 16	5
	Contact tip M10 1.2 mm Cu-BICOMP Alum	R10 0400 12A	5
	Contact tip M10 1.6 mm Cu-BICOMP Alum	R10 0400 16A	5
	Contact tip M10 1.0 mm CuCrZr	R10 0401 10	5
	Contact tip M10 1.2 mm CuCrZr	R10 0401 12	5
	Contact tip M10 1.6 mm CuCrZr	R10 0401 16	5
	4	Tip holder L22xØ15 mm M10	R10 0013
5	Diffuser Insulator neck L14XØ18.5 mm	R12 0404	2
6	Oring neck Ø23 mm	R10 0401	10
7	Liner for neck type N 217mm	R10 1112	1
	Liner for neck type L 267mm	R10 1113	1
8	Oring neck water Ø9 mm	R12 0008	10

ACCESSORIES



Pos.	TYPE	CODE	Min. Q.
9	Tip TCP M10-15mm programming	R10 0115	1
10	Neck tool BOT	R04 0000	1
11	Clining reamer TH L26xØ15x10.5mm	R03 2040	1

STANDARD MEASURES



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**Versatile MIG / MAG neck model as its lower power 40W model, but with an additional cooling in its open circuit nozzle to withstand more extreme conditions, high work capacity and adaptable to a multitude of robotic and automatic applications, versatile model and powerful.**

The welding systems for industrial robots BOTseries are designed for work cycles of 24 hours, developed for an intensive use, precise and specifically adapted to long work cycles.



**Welding process:**

MIG/MAG, GMAW, 131,135

Technical data according to IEC60974-7



Liquid



550 A - CO2 100%



450 A - Mix M21 (ISO 14175) 100%



Ø 1.0-1.6 mm

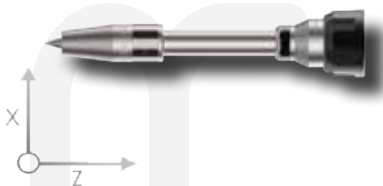


10-18 l/min

The capacity will be reduced by 35% with pulsed arc.

**STANDARD CONFIGURATION**

**A** BOT-50W 0° N



**B** BOT-50W 22° N



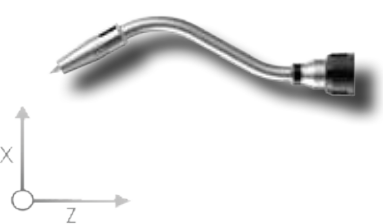
**C** BOT-50W 22°F N



**D** BOT-50W 22°LF L



**E** BOT-50W 30°S S



**F** BOT-50W 36° N



**G** BOT-50W 45° N



Pos.	TYPE	CODE	Min. Q.
A	Torch neck BOT-50W 0° (X=0 mm, Z=259 mm)-long type N	R15 0000	1
B	Torch neck BOT-50W 22° (X=64 mm, Z=247 mm)-long type N	R15 0220	1
C	Torch neck BOT-50W 22°F (X=50 mm, Z=250 mm)-long type N	R15 0221	1
D	Torch neck BOT-50W 22°LF (X=50 mm, Z=300 mm)-long type L	R15 0222	1
E	Torch neck BOT-50W 30°S (X=0 mm, Z=347 mm)-long type S	R15 0303	1
F	Torch neck BOT-50W 36° (X=96 mm, Z=230 mm)-long type N	R15 0360	1
G	Torch neck BOT-50W 45° (X=111 mm, Z=217 mm)-long type N	R15 0450	1

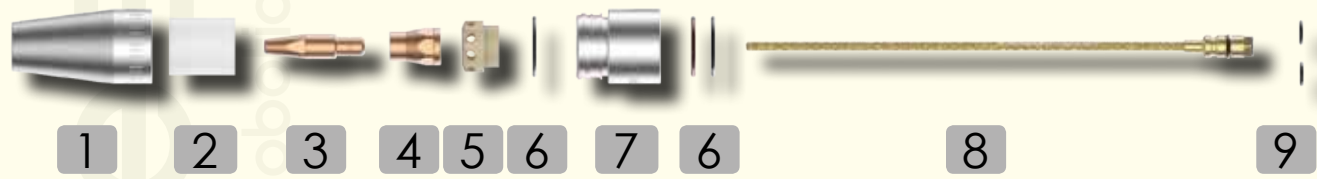
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enDS-BOT50W-01





SPARE PARTS



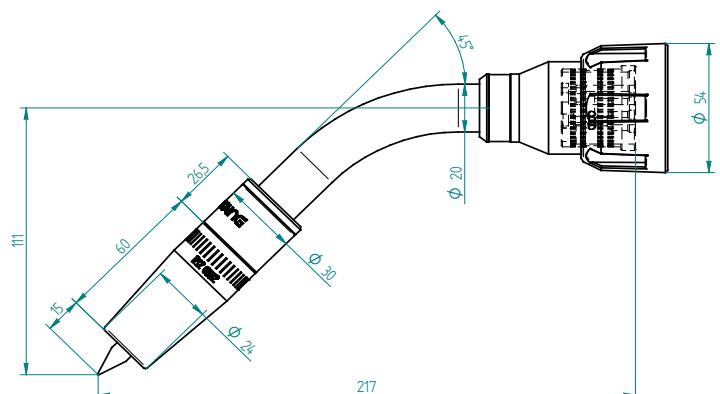
Pos.	TYPE	CODE	Min. Q.
1	Nozzle L60xØ15.5 mm	R12 0551	2
	Nozzle L60xØ18 mm	R12 0552	2
2	Insulator nozzle L28XØ23 mm	R10 0602	2
3	Contact tip M10 1.0 mm Cu-BICOMP	R10 0400 10	5
	Contact tip M10 1.2 mm Cu-BICOMP	R10 0400 12	5
	Contact tip M10 1.6 mm Cu-BICOMP	R10 0400 16	5
	Contact tip M10 1.2 mm Cu-BICOMP Alum	R10 0400 12A	5
	Contact tip M10 1.6 mm Cu-BICOMP Alum	R10 0400 16A	5
	Contact tip M10 1.0 mm CuCrZr	R10 0401 10	5
	Contact tip M10 1.2 mm CuCrZr	R10 0401 12	5
	Contact tip M10 1.6 mm CuCrZr	R10 0401 16	5
4	Tip holder L22xØ15 mm M10	R10 0013	2
5	Diffuser Insulator neck L16XØ20.5 mm	R12 0604	2
6	Oring neck Ø24 mm	R12 0607	10
7	Nozzle support L36XØ30 mm	R12 0550	1
8	Liner for neck type N 217mm	R10 1112	1
	Liner for neck type L 267mm	R10 1113	1
	Liner for neck type S 330mm	R10 1115	1
9	Oring neck water Ø9	R12 0008	10

ACCESSORIES



Pos.	TYPE	CODE	Min. Q.
10	Tip TCP M10-15mm programming	R10 0115	1
11	Neck tool BOT	R04 0000	1
12	Clining reamer TH L26xØ17.5x10.5mm	R03 2050	1

STANDARD MEASURES



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**High power MIG / MAG neck model, for applications where the work cycles are long and high power, recharge, beams, very high work intensity and adaptable to a multitude of robotic and automatic applications, the most powerful model with contribution of a single thread.**

The welding systems for industrial robots BOTseries are designed for work cycles of 24 hours, developed for an intensive use, precise and specifically adapted to long work cycles.



**Welding process:**

MIG/MAG, GMAW, 131,135

Technical data according to IEC60974-7



Liquid



600 A - CO2 100%



500 A - Mix M21 (ISO 14175) 100%



Ø 1.0-2.4 mm

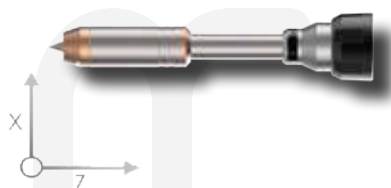


10-20 l/min

The capacity will be reduced by 35% with pulsed arc.

**STANDARD CONFIGURATION**

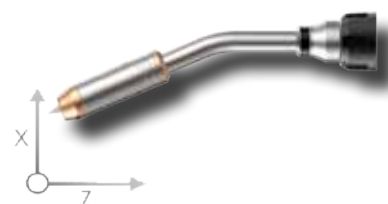
**A** BOT-60W 0° N



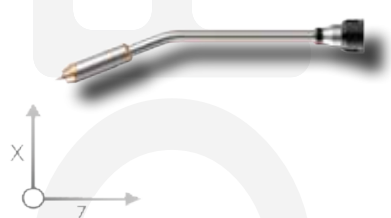
**B** BOT-60W 22° N



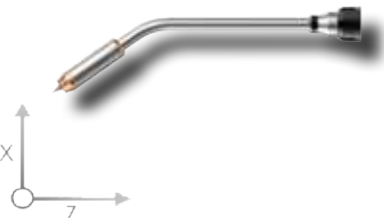
**C** BOT-60W 22°L L



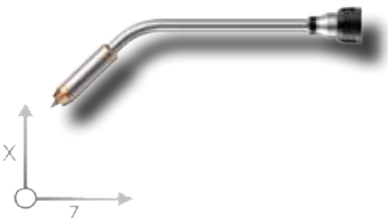
**D** BOT-60W 22°XXL XXL



**E** BOT-60W 36°XXL XXL



**F** BOT-60W 45°XXL XXL



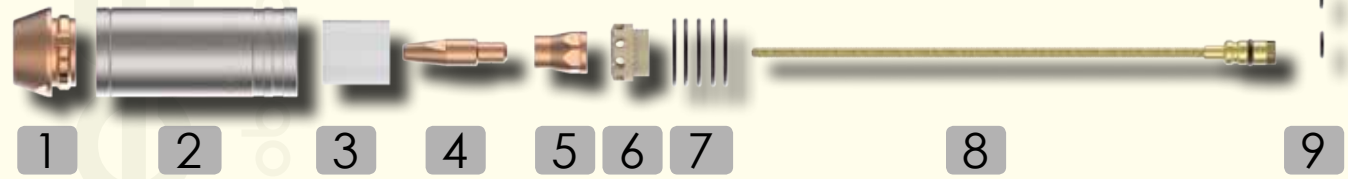
Pos.	TYPE	CODE	Min. Q.
A	Torch neck BOT-60W 0° (X=0 mm, Z=259 mm)-long type N	R16 0000	1
B	Torch neck BOT-60W 22° (X=64 mm, Z=247 mm)-long type N	R16 0220	1
C	Torch neck BOT-60W 22°L (X=64 mm, Z=297 mm)-long type L	R16 0221	1
D	Torch neck BOT-60W 22°XXL (X=69 mm, Z=453 mm)-long type XXL	R16 0224	1
E	Torch neck BOT-60W 36°XXL (X=103 mm, Z=435 mm)-long type XXL	R16 0364	1
F	Torch neck BOT-60W 45°XXL (X=121 mm, Z=419 mm)-long type XXL	R16 0454	1

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enDS-BOT50W-01



SPARE PARTS



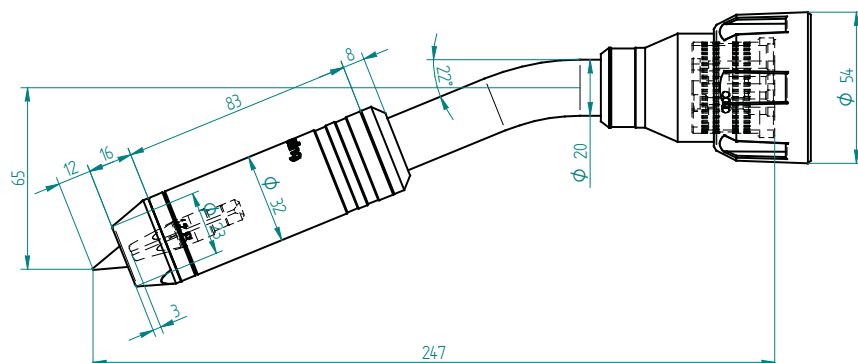
Pos.	TYPE	CODE	Min. Q.
1	Nozzle L16xØ15.5 mm	R12 0611	2
	Nozzle L16xØ18 mm	R12 0612	2
	Nozzle L16xØ21 mm	R12 0613	2
2	Nozzle support L83XØ32 mm	R12 0609	1
3	Insulator nozzle L28XØ23 mm	R10 0602	2
4	Contact tip M10 1.0 mm Cu-BICOMP	R10 0400 10	5
	Contact tip M10 1.2 mm Cu-BICOMP	R10 0400 12	5
	Contact tip M10 1.6 mm Cu-BICOMP	R10 0400 16	5
	Contact tip M10 1.2 mm Cu-BICOMP Alum	R10 0400 12A	5
	Contact tip M10 1.6 mm Cu-BICOMP Alum	R10 0400 16A	5
	Contact tip M10 1.0 mm CuCrZr	R10 0401 10	5
	Contact tip M10 1.2 mm CuCrZr	R10 0401 12	5
	Contact tip M10 1.6 mm CuCrZr	R10 0401 16	5
	Contact tip M10 2.4 mm CuCrZr	R10 0401 24	5
	5	Tip holder L22xØ15 mm M10	R10 0013
6	Diffuser insulator neck L16XØ20.5 mm	R12 0604	2
7	Oring neck Ø24 mm	R12 0607	10
8	Liner for neck type N 217mm	R10 1112	1
	Liner for neck type L 267mm	R10 1113	1
	Liner for neck type XXL 421mm	R10 1116	1
9	Oring neck water Ø9	R12 0008	10

ACCESSORIES



Pos.	TYPE	CODE	Min. Q.
10	Tip TCP M10-18mm programming	R10 0118	1
11	Neck tool BOT	R04 0000	1
12	Clining reamer TH L29xØ17.5x10.5mm	R03 2060	1

STANDARD MEASURES



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**Welding process:**

TIG, GTAW, 141

Technical data according to IEC60974-7



Liquid



400 A - CD 100%



300 A - AC 100%



Ø 1.6-4.8 mm



4-12 l/min

The capacity will be reduced by 35% with pulsed arc.

**TIG neck model designed for robotic systems, high power capacity for multiple applications with and without supply wire, its special spare part guarantees better TCP precision with the electrode change**

The welding systems for industrial robots BOTseries are designed for work cycles of 24 hours, developed for an intensive use, precise and specifically adapted to long work cycles.

**STANDARD CONFIGURATION**

**A**

**BOT-T5W 10°**



**B**

**BOT-T5W 10° COOL WIRE**



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enDS-BOT5W-01

Pos.	TYPE	CODE	Min. Q.
A	Torch neck BOT-T5W 10°	R15 5400	1
B	Torch neck BOT-T5W 10°	R15 5401	1



## SPARE PARTS



Pos.	TYPE	CODE	Min. Q.
1	Nozzle G6 - Dia.	R15 0100 06	10
	Nozzle G7 - Dia	R15 0100 07	10
	Nozzle G8 - Dia	R15 0100 08	10
2	Diffuser M14 Brass	R15 5304	2
3	Insulator Nozzle	R15 5303	5
4	Electrode holder 2.4	R15 5524	2
	Electrode holder 3.2	R15 5532	2
	Electrode holder 4.0	R15 5540	2
	Electrode holder 4.8	R15 5548	2
5	Clamping element	R15 5502	2
6	Wire guide	R15 0174	2
7	Tip Dia 1.0	R15 0110	5
	Tip Dia 1.2	R15 0112	5
8	Oring neck water Ø9	R12 0008	10

## ACCESSORIES



Pos.	TYPE	CODE	Min. Q.
10	Neck tool BOT	R04 0000	1

## STANDARD MEASURES

# MIG / MAG

## Power cable system

2

Robotic power cables MIG / MAG liquid / gas cooling.

iBOT power cable

40 Pag.

eBOT power cable

42 Pag.

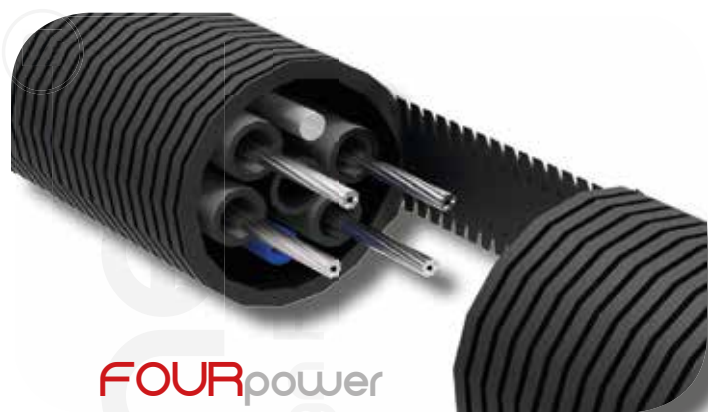
cBOT power cable

44 Pag.



# EDR torches

Evolution Design Robotics



**FOUR**power

**Todos los paquetes de potencia del BOT sobredimensionados para ciclos de trabajo de 24 horas, y con materiales altamente resistentes a la fatiga mecánica como el PU, PA12, su sistema de 4 conductos de potencia para refrigeración por líquido extremadamente flexible con capacidades de giro. Por encima de nuestros competidores hasta 720°.**

*Los sistemas de soldadura para robots industriales BOTseries están diseñados para ciclos de trabajo de 24 horas, desarrollados para un uso intensivo, precisos y específicamente adaptados a ciclos de trabajo largos.*



Proceso de soldadura:

MIG/MAG, GMAW, 131,135

Datos técnicos acorde a IEC60974-7



Líquido



600 A - 100%

Turn +-360°



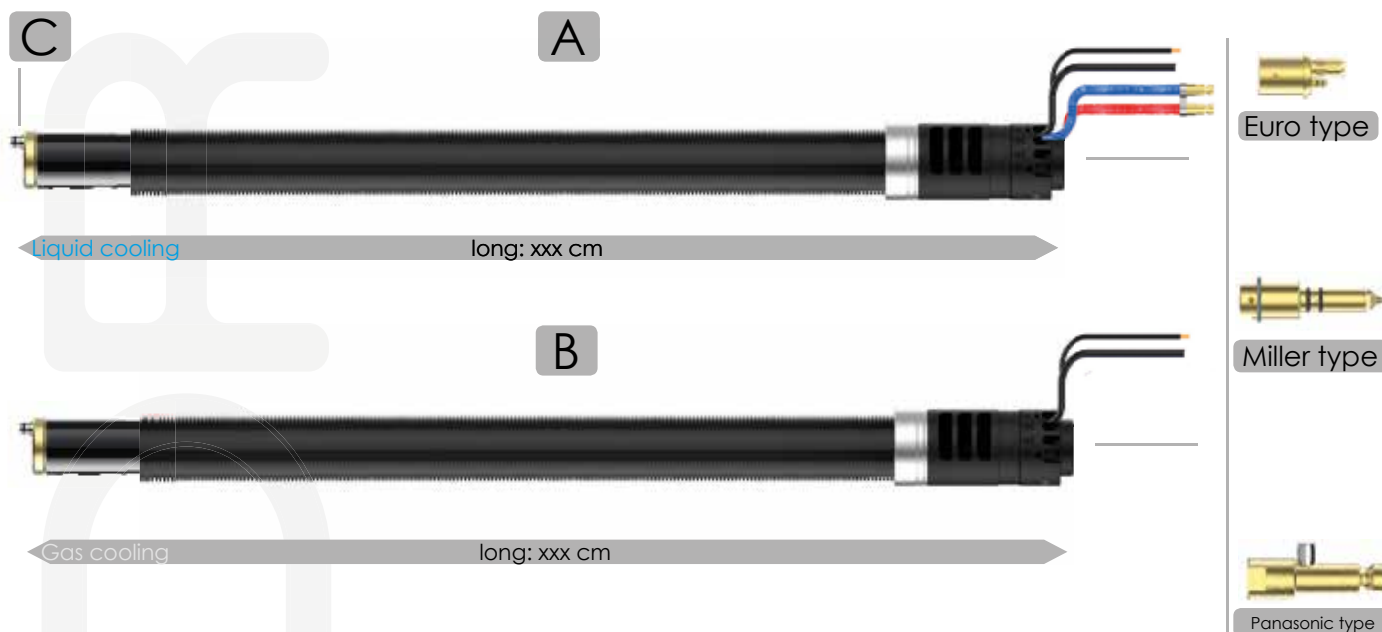
Gas



500 A - 100%

Turn +-240°

**CONFIGURACIONES ESTANDAR**



Pos.	TYPE	CODE	Min. Q.
A.1	Power cable liquid iBOT-Euro type	R95 1xxx	1
A.2	Power cable liquid iBOT-Miller type	R95 2xxx	1
A.3	Power cable liquid iBOT-Panasonic type	R95 3xxx	1
B.1	Power cable gas iBOT-Euro type	R94 1xxx	1
B.2	Power cable gas iBOT-Miller type	R94 2xxx	1
B.3	Power cable gas iBOT-Panasonic type	R94 3xxx	1

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esFT-iBOT PC-01



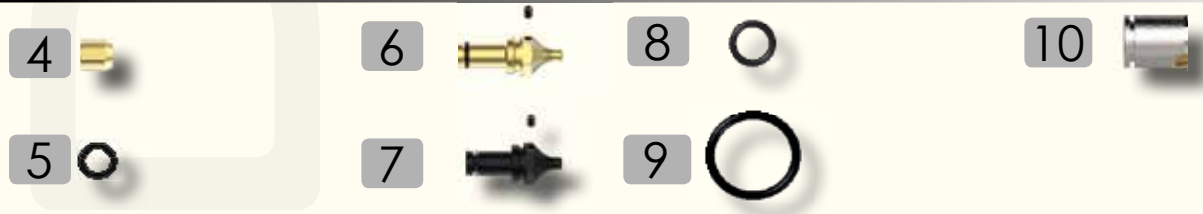


REPUESTO-GUIAS



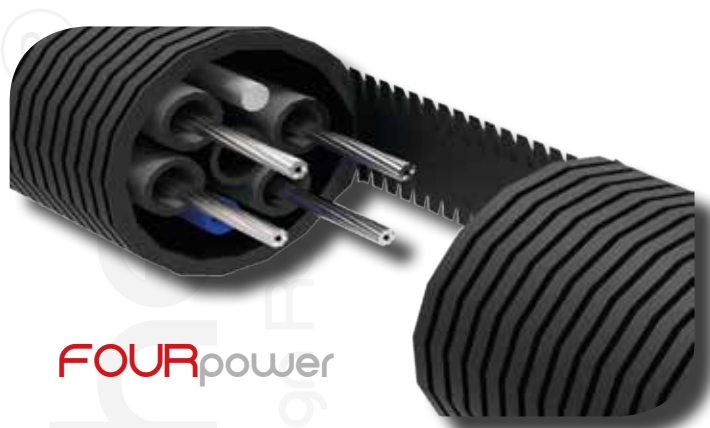
Pos.	TYPE	CODE	Min. Q.
1.1	Guide blue L1600xD4.6xD1.5mm(0.8-1.0)-Euro	M99SR01B	1
	Guide blue L2600xD4.6xD1.5mm(0.8-1.0)-Euro	M99SR02B	1
1.2	Guide black L1600xD5.3xD2.2mm(1.2-1.6)-Euro	M99 4001	1
	Guide black L2600xD5.3xD2.2mm(1.2-1.6)-Euro	M99 4002	1
1.3	Guide for Alum BOT L1700xD4.5xD2.5mm(1.2-1.6)-Euro	M99 7001	1
	Guide for Alum BOT L2700xD4.5xD2.5mm(1.2-1.6)-Euro	M99 7002	1
1.4	Guide TEFLON itBOT L1700xD4xD2mm(1.0-1.2)-Euro	M99 8001	1
	Guide TEFLON itBOT L2700xD4xD2mm(1.0-1.2)-Euro	M99 8002	1
2.1	Guide blue L1600xD4.6xD1.5mm(0.8-1.0)-Miller	M99 1001	1
	Guide blue L2600xD4.6xD1.5mm(0.8-1.0)-Miller	M99 1002	1
2.2	Guide black L1600xD5.3xD2.2mm(1.2-1.6)-Miller	M99 1101	1
	Guide black L2600xD5.3xD2.2mm(1.2-1.6)-Miller	M99 1102	1
2.3	Guide for Alum BOT L1700xD4.5xD2.5mm(1.2-1.6)-Miller	M99 1401	1
	Guide for Alum BOT L2700xD4.5xD2.5mm(1.2-1.6)-Miller	M99 1402	1
3.1	Guide blue L1600xD4.6xD1.5mm(0.8-1.0)-Panasonic	M99 1301	1
	Guide blue L2600xD4.6xD1.5mm(0.8-1.0)-Panasonic	M99 1302	1
3.2	Guide black L1600xD5.3xD2.2mm(1.2-1.6)-Panasonic	M99 1201	1
	Guide black L2600xD5.3xD2.2mm(1.2-1.6)-Panasonic	M99 1202	1

REPUESTOS



Pos.	TYPE	CODE	Min. Q.
4	Guide cap Euro-BOT	R6 0000 04	1
5	O-ring gas connection Euro	R2 2000 0206	10
6	Guide cap Miller-BOT	R60 0014	1
7	Guide cap Alum. Miller-BOT	R60 0114	1
8	O-ring gas connection Miller	R6 0001 02	4
9	O-ring protection Miller-BOT	R6 0203 02	2

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**FOUR**power

All the packages of power of the BOT oversized for cycles of work of 24 hours, and with materials highly resistant to the mechanical fatigue like the PU, PA12, his system of 4 conduits of power for refrigeration by liquid is extremely flexible.

The welding systems for industrial robots BOTseries are designed for work cycles of 24 hours, developed for an intensive use, precise and specifically adapted to long work cycles.



**Welding process:**  
MIG/MAG, GMAW, 131,135  
Technical data according to IEC60974-7



Liquid



600 A - 100%

Turn  $\pm 360^\circ$



Gas



500 A - 100%

Turn  $\pm 240^\circ$

**STANDARD CONFIGURATION-POWER CABLE**



Pos.	TYPE	CODE	Min. Q.
A.1	Power cable liquid eBOT-Euro type	R92 1xxx	1
A.2	Power cable liquid eBOT-Miller type	R92 2xxx	1
A.3	Power cable liquid eBOT-Panasonic type	R92 3xxx	1
B.1	Power cable gas eBOT-Euro type	R91 1xxx	1
B.2	Power cable gas eBOT-Miller type	R91 2xxx	1
B.3	Power cable gas eBOT-Panasonic type	R91 3xxx	1
C	Oring power cable gas Ø9	R20 0603	10
D	Connections Box	R30 0003	1

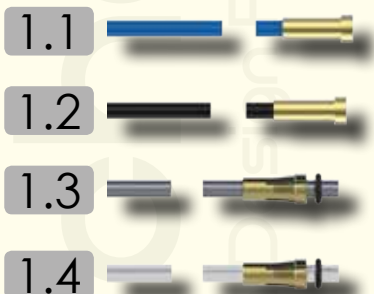
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enDS-CBOT PC-01

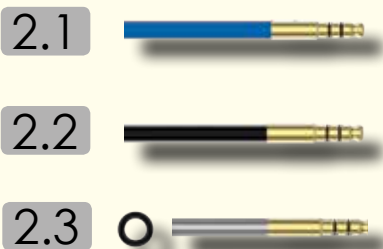


SPARE PARTS-GUIDES

Euro type



Miller type



Panasonic type



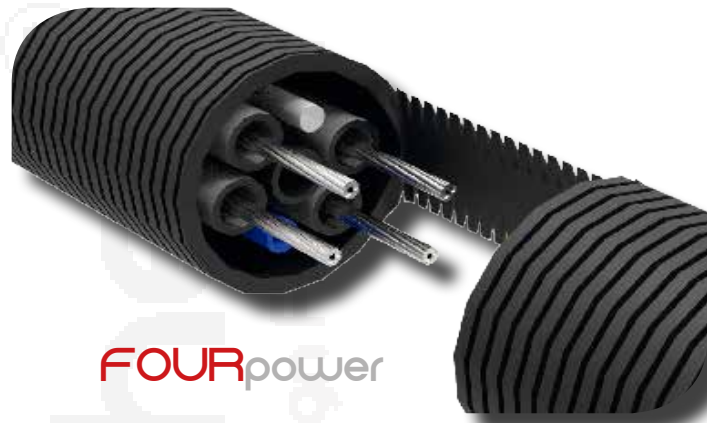
Pos.	TYPE	CODE	Min. Q.
1.1	Guide blue L1600xD4.6xD1.5mm(0.8-1.0)-Euro	M99SR01B	1
	Guide blue L2600xD4.6xD1.5mm(0.8-1.0)-Euro	M99SR02B	1
1.2	Guide black L1600xD5.3xD2.2mm(1.2-1.6)-Euro	M99 4001	1
	Guide black L2600xD5.3xD2.2mm(1.2-1.6)-Euro	M99 4002	1
1.3	Guide for Alum BOT L1700xD4.5xD2.5mm(1.2-1.6)-Euro	M99 7001	1
	Guide for Alum BOT L2700xD4.5xD2.5mm(1.2-1.6)-Euro	M99 7002	1
1.4	Guide TEFLON itBOT L1700xD4xD2mm(1.0-1.2)-Euro	M99 8001	1
	Guide TEFLON itBOT L2700xD4xD2mm(1.0-1.2)-Euro	M99 8002	1
2.1	Guide blue L1600xD4.6xD1.5mm(0.8-1.0)-Miller	M99 1001	1
	Guide blue L2600xD4.6xD1.5mm(0.8-1.0)-Miller	M99 1002	1
2.2	Guide black L1600xD5.3xD2.2mm(1.2-1.6)-Miller	M99 1101	1
	Guide black L2600xD5.3xD2.2mm(1.2-1.6)-Miller	M99 1102	1
2.3	Guide for Alum BOT L1700xD4.5xD2.5mm(1.2-1.6)-Miller	M99 1401	1
	Guide for Alum BOT L2700xD4.5xD2.5mm(1.2-1.6)-Miller	M99 1402	1
3.1	Guide blue L1600xD4.6xD1.5mm(0.8-1.0)-Panasonic	M99 1301	1
	Guide blue L2600xD4.6xD1.5mm(0.8-1.0)-Panasonic	M99 1302	1
3.2	Guide black L1600xD5.3xD2.2mm(1.2-1.6)-Panasonic	M99 1201	1
	Guide black L2600xD5.3xD2.2mm(1.2-1.6)-Panasonic	M99 1202	1

SPARE PARTS



Pos.	TYPE	CODE	Min. Q.
4	Guide cap Euro-BOT	R6 0000 04	1
5	O-ring gas connection Euro	R2 2000 0206	10
6	Guide cap Miller-BOT	R60 0014	1
7	Guide cap Alum. Miller-BOT	R60 0114	1
8	O-ring gas connection Miller	R6 0001 02	4
9	O-ring protection Miller-BOT	R6 0203 02	2
10	Tube gas connector D6	R6 0202 03	1

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**FOUR**power

All the packages of power of the BOT oversized for cycles of work of 24 hours, and with materials highly resistant to the mechanical fatigue like the PU, PA12, his system of 4 conduits of power for refrigeration by liquid is extremely flexible.

The welding systems for industrial robots BOTseries are designed for work cycles of 24 hours, developed for an intensive use, precise and specifically adapted to long work cycles.



**Welding process:**

MIG/MAG, GMAW, 131,135

Technical data according to IEC60974-7



Liquid



600 A - 100%

Turn +360°



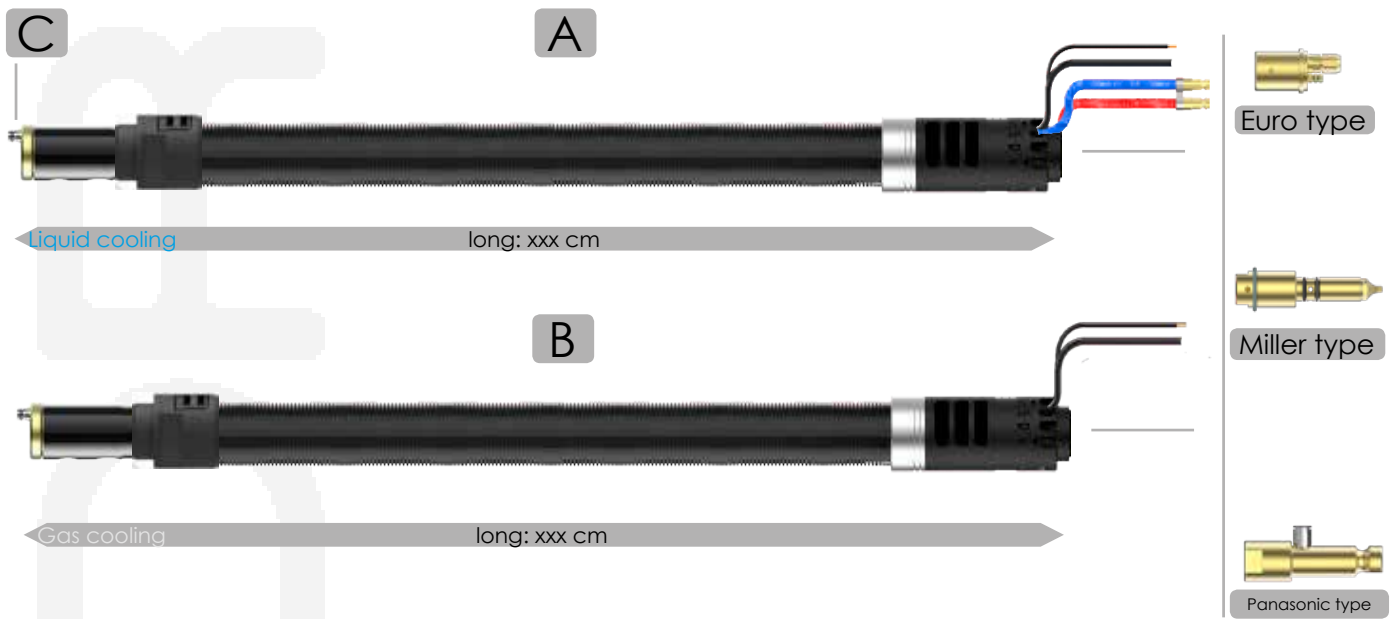
Gas



500 A - 100%

Turn +240°

**STANDARD CONFIGURATION-POWER CABLE**



Pos.	TYPE	CODE	Min. Q.
A.1	Power cable liquid cBOT-Euro type	R97 1xxx	1
A.2	Power cable liquid cBOT-Miller type	R97 2xxx	1
A.3	Power cable liquid cBOT-Panasonic type	R97 3xxx	1
B.1	Power cable gas cBOT-Euro type	R96 1xxx	1
B.2	Power cable gas cBOT-Miller type	R96 2xxx	1
B.3	Power cable gas cBOT-Panasonic type	R96 3xxx	1
c	Oring power cable gas Ø9	R20 0603	10

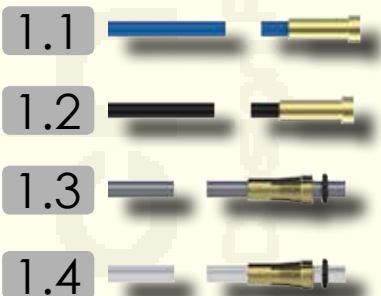
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enDS-CBOT PC-01

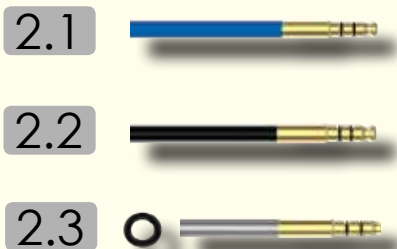


SPARE PARTS-GUIDES

Euro type



Miller type



Panasonic type



Pos.	TYPE	CODE	Min. Q.
1.1	Guide blue L1600xD4.6xD1.5mm(0.8-1.0)-Euro	M99SR01B	1
	Guide blue L2600xD4.6xD1.5mm(0.8-1.0)-Euro	M99SR02B	1
1.2	Guide black L1600xD5.3xD2.2mm(1.2-1.6)-Euro	M99 4001	1
	Guide black L2600xD5.3xD2.2mm(1.2-1.6)-Euro	M99 4002	1
1.3	Guide for Alum BOT L1700xD4.5xD2.5mm(1.2-1.6)-Euro	M99 7001	1
	Guide for Alum BOT L2700xD4.5xD2.5mm(1.2-1.6)-Euro	M99 7002	1
1.4	Guide TEFLON itBOT L1700xD4xD2mm(1.0-1.2)-Euro	M99 8001	1
	Guide TEFLON itBOT L2700xD4xD2mm(1.0-1.2)-Euro	M99 8002	1
2.1	Guide blue L1600xD4.6xD1.5mm(0.8-1.0)-Miller	M99 1001	1
	Guide blue L2600xD4.6xD1.5mm(0.8-1.0)-Miller	M99 1002	1
2.2	Guide black L1600xD5.3xD2.2mm(1.2-1.6)-Miller	M99 1101	1
	Guide black L2600xD5.3xD2.2mm(1.2-1.6)-Miller	M99 1102	1
2.3	Guide for Alum BOT L1700xD4.5xD2.5mm(1.2-1.6)-Miller	M99 1401	1
	Guide for Alum BOT L2700xD4.5xD2.5mm(1.2-1.6)-Miller	M99 1402	1
3.1	Guide blue L1600xD4.6xD1.5mm(0.8-1.0)-Panasonic	M99 1301	1
	Guide blue L2600xD4.6xD1.5mm(0.8-1.0)-Panasonic	M99 1302	1
3.2	Guide black L1600xD5.3xD2.2mm(1.2-1.6)-Panasonic	M99 1201	1
	Guide black L2600xD5.3xD2.2mm(1.2-1.6)-Panasonic	M99 1202	1

SPARE PARTS



Pos.	TYPE	CODE	Min. Q.
4	Guide cap Euro-BOT	R6 0000 04	1
5	O-ring gas connection Euro	R2 2000 0206	10
6	Guide cap Miller-BOT	R60 0014	1
7	Guide cap Alum. Miller-BOT	R60 0114	1
8	O-ring gas connection Miller	R6 0001 02	4
9	O-ring protection Miller-BOT	R6 0203 02	2
10	Tube gas connector D6	R6 0202 03	1

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# Anti-collision system

3

## Anti-collision systems BOT MIG / MAG

iBOT

48 Pag.

eBOT

50 Pag.

## Anti-collision systems BOT TIG

iTBOT

52 Pag.

# EDR<sup>®</sup> torches<sup>®</sup>

Evolution Design Robotics





**Anti-collision system for hollow shaft welding robots eBOT developed with the latest machining technology, the system gives maximum precision for the protection of your welding devices and can be adapted to any robot.**

Advantages of the iBOT anti-collision.

- They are compatible with all industrial hollow wrist robots.
- Total protection of internal screws and sensors with IP64, prevents the accumulation of projections.
- 6 internal support points avoids zones of lower flexural strength improving the failure alarms due to inertias, this allows to increase the speed of movement of the robot.
- Independent of the power cable system, facilitating the repair and replacement of the power cables.
- Manufactured in tempered steel and aeronautical aluminum 7075.
- Maintains its accuracy for different loads, thanks to its patented springs system.



**Welding process:**

MIG/MAG, GMAW, 131,135



930 gr



L100 x Ø96 mm



Max. X,Y:10° / Z:7mm



Sensor X,Y:1° / Z:0.7mm



Sensor 250V DC-100mA-NC



Max. 2.5 kg



0.1 to 300 mm

iBOT system for robots with hollow wrist shaft and internal wiring to axis 6.

## SPARE PARTS

C



B



A



Pos.	TYPE	CODE	Min. Q.
1	Anti-collision iBOT	R51 0001	1
1.1	Anti-collision sensor BOT	R50 0014	1
1.2	Protection cover iBOT/itBOT	R51 0011	1



ACCESSORIES-DISC

5



L:44mm

6

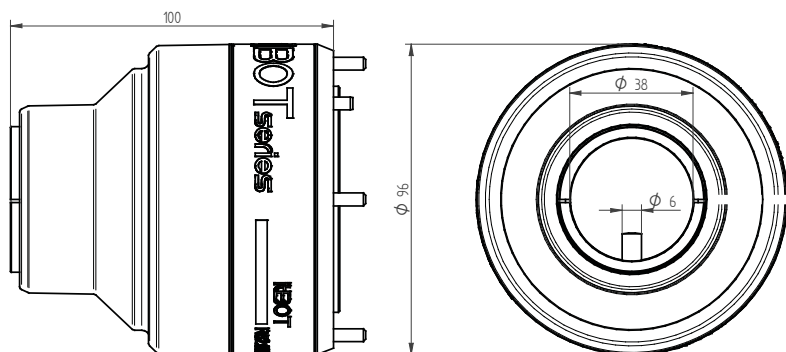


Pos.	TYPE	CODE	Min. Q.
5	KUKA KR6 R1820 arc HW*	R71 0040L	1
	KUKA KR8 R1420 / R1620 / R2100 arc HW*	R71 0040L	1
	YASKAWA MA1440 / MA2010	R71 0060L	1
	FANUC ARCIMATE 100iD* / 120iD	R71 0060L	1
6	YASKAWA MA1400 /MA1800 / MA1900	R71 0010	1
	ABB IRB 1600 ID	-	bp
	ABB IRB 2600 ID	R71 0070	bp
	Panasonic AW 1400 / AW2000	R71 0080	bp
	OTC FD-B4S	R71 0080	bp
	OTC FD-B6 / FD-B6L	-	bp
	BA006L	R71 0010	1

bp: product out of stock, manufacture on demand

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STANDARD MEASURES





**Anti-collision system for hollow shaft welding robots eBOT developed with the latest machining technology, the system gives maximum precision for the protection of your welding devices and can be adapted to any robot.**

Advantages of eBOT anti-collision.

- They are compatible with all standard industrial wrist robots.
- Total protection of internal screws and sensors with IP64, prevents the accumulation of projections.
- 6 internal support points avoids zones of lower flexural strength improving the failure alarms due to inertias, this allows to increase the speed of movement of the robot.
- Manufactured in tempered steel and aeronautical aluminum 7075.
- Different levels of hardness to adapt to all applications



**Welding process:**  
MIG/MAG, GMAW, 131,135



910 gr



L62 x Ø96 mm



Max. X,Y:10° / Z:7mm



Sensor X,Y:1° / Z:0.7mm



Sensor 250V DC-100mA-NC



Max. 5 kg



0.1 to 300 mm

eBOT system for standard robots with closed wrist and external wiring to axis 6.

SPARE PARTS

C



B



A



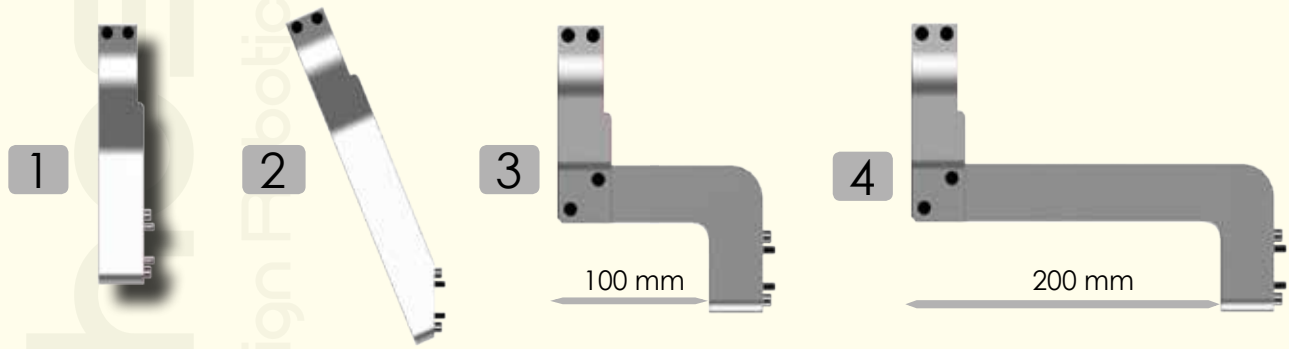
Pos.	TYPE	CODE	Min. Q.
A	Anti-collision eBOT medium	R53 0001	1
	Anti-collision eBOT high	R53 0002	1
B	Anti-collisión sensor BOT	R50 0014	1
C	Protection cover	R53 0011	1

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enDS-EBOTANTI-01



**SPARE PARTS**



Pos.	TYPE	CODE	Min. Q.
1	Torch bracket eBOT 90°	R41 1000	1
2	Torch bracket eBOT 67°	R41 1023	1
3	Torch bracket eBOT 90°x100mm	R41 2100	bp
4	Torch bracket eBOT 90°x200mm	R41 2200	bp

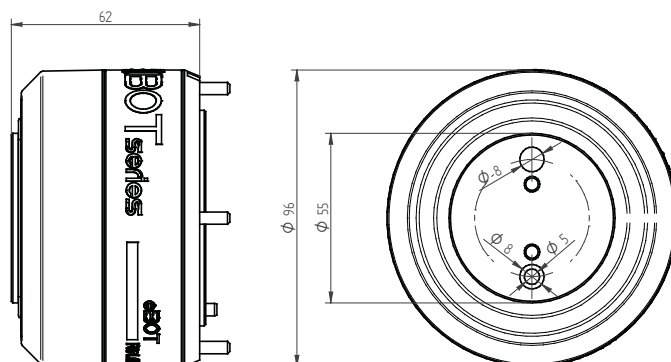
**ACCESSORIES-DISC**



Pos.	TYPE	CODE	Min. Q.
5	KUKA KR6	R73 0020	1
	Fanuc ARCMATE 100i/ ARC MATE 120iL	R73 0010	1
	ABB IRB 1600	R73 0010	1
	ABB IRB 2600	R73 0030	BP
	Panasonic AW 8010	R73 0020	1
	Universal robot UR3/UR5/UR10	R75 0020	1
	OTC FD-V6LS/FD-V8/FD-V8L	R73 0010	1

bp: product out of stock, manufacture on demand

**STANDARD MEASURES**



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**Welding process:**  
TIG, GTAW, 141



790 gr



L100 x Ø96 mm



Max. X,Y:10° / Z:7mm



Sensor X,Y:1° / Z:0.7mm



Sensor 250V DC-100mA-NC



Max. 2 kg



0.1 to 300 mm

**Anti-collision system for hollow shaft welding robots itBOT developed with the latest machining technology, anti-collision specially designed for systems that use HF (TIG), its reinforced insulation makes it more efficient and avoids shunts.**

Advantages of the iBOT anti-collision.

- They are compatible with all industrial hollow wrist robots.
- Total protection of internal screws and sensors with IP64, prevents the accumulation of projections.
- 6 internal support points avoids zones of lower flexural strength improving the failure alarms due to inertias, this allows to increase the speed of movement of the robot.
- Independent of the power cable system, facilitating the repair and replacement of the power cables.
- Maintains its accuracy for different loads, thanks to its patented springs system.

itBOT system for robots with hollow wrist shaft and internal wiring to axis 6.

**SPARE PARTS**

C



B



A



Pos.	TYPE	CODE	Min. Q.
A	Anti-collision itBOT	R52 0001	1
B	Anti-collisi3n sensor BOT	R50 0014	1
C	Protection cover iBOT/itBOT	R51 0011	1

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enDS-IBOTANTI-01



ACCESSORIES-DISC

5



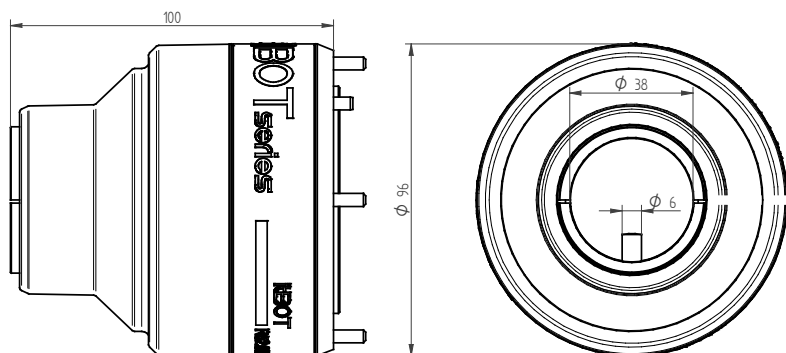
L:44mm

Pos.	TYPE	CODE	Min. Q.
5	KUKA KR6 R1820 arc HW*	R71 0040L	1
	KUKA KR8 R1420 / R1620 / R2100 arc HW*	R71 0040L	1
	YASKAWA MA1440 / MA2010	R71 0060L	1
	FANUC ARCMATE 100iD* / 120iD	R71 0060L	1

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STANDARD MEASURES



# Adapter disc



Discs adapters to robots

Discs iBOT, eBOT y cBOT

56 Pag.

# EDR<sup>®</sup> torches<sup>®</sup>

Evolution Design Robotics





**The entire range of adaptation discs for fastening BOT welding systems to industrial robots, from conventional systems with closed disc to hollow shaft systems with open discs.**

Welding systems for industrial robots BOTseries designed to last. Advantages BOT adapter discs.

- Precise adjustment for any industrial robot.
- Two manufacturing options in 7075 aeronautical aluminum or insulating materials for applications such as TIG or Plasma
- Possibility of manufacturing for robots of large non-specific welding dimensions, requesting prior study.
- Guide with pins that guarantee a correct position of the disc.



**Welding process:**

MIG/MAG, TIG  
INDUSTRIAL ROBOTS



Compatible with BOT systems.



Adaptation to all welding robots.

Type iBOT - Hollow shaft robots and internal wiring.

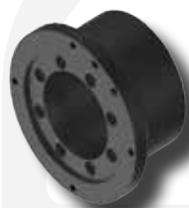
Type eBOT - Standard robots and external wiring.

Type eBASIC use without anti-collision system.

Type cBOT - Standard robots with hollow shaft wiring system

**DISC TYPE**

A



iBOT

B



iBOT

C



eBOT

D



eBASIC

E

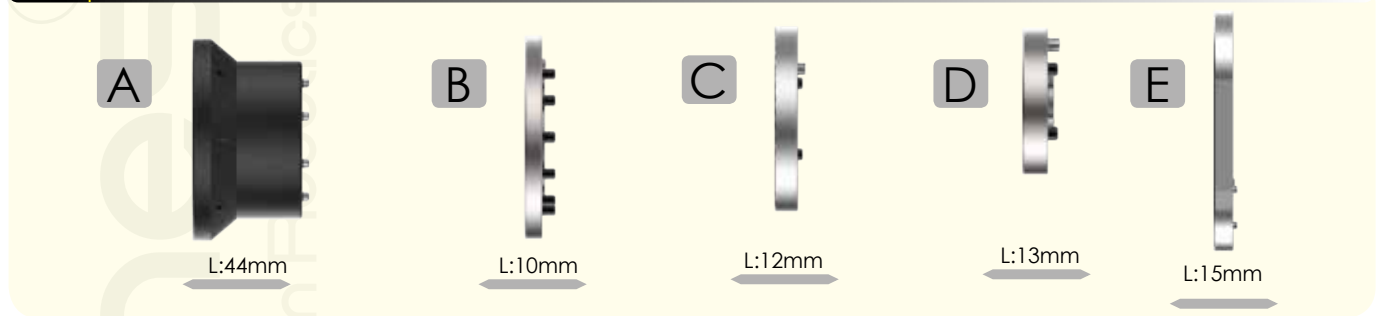


cBOT





## Adapter disc measurements



Pos.		ROBOT TYPE	CODE	Min. Q.
A	KUKA	KR6 R1820 arc HW*	R71 0040L	1
A	KUKA	KR8 R1420 arc HW*	R71 0040L	1
A	KUKA	KR8 R1620 arc HW*	R71 0040L	1
A	KUKA	KR8 R2100 arc HW*	R71 0040L	1
C	KUKA	KR6	R73 0020	1
B	KUKA	KR16HW	R71 0050	1
A	YASKAWA	MA1440	R71 0060L	1
A	YASKAWA	MA2010	R71 0060L	1
B	YASKAWA	MA1400	R71 0010	1
B	YASKAWA	MA1800	R71 0010	1
B	YASKAWA	MA1900	R71 0010	1
C	FANUC	ARCMATE 100i	R73 0010	1
C	FANUC	ARCMATE 120iL	R73 0010	1
A	FANUC	ARCMATE 100iD*	R71 0060L	1
A	FANUC	ARCMATE 120iD*	R71 0060L	1
C	ABB	IRB 1600	R73 0010	1
B	ABB	IRB 1600 ID	-	bp
C	ABB	IRB 2600	R73 0030	bp
B	ABB	IRB 2600 ID	R71 0070	bp
C	PANASONIC	AW 8010	R73 0020	1
B	PANASONIC	AW 1400	R71 0080	bp
B	PANASONIC	AW2000	R71 0080	bp
D	UNIVERSAL ROBOT	UR3	R75 0020	1
D	UNIVERSAL ROBOT	UR5	R75 0020	1
D	UNIVERSAL ROBOT	UR10	R75 0020	1
B	OTC	FD-B4S	R71 0080	bp
B	OTC	FD-B6	-	bp
B	OTC	FD-B6L	-	bp
C	OTC	FD-V6LS	R73 0010	bp
C	OTC	FD-V8	R73 0010	1
C	OTC	FD-V8L	R73 0010	1
B	KAWASAKI	BA006L	R71 0010	1

bp: product out of stock, manufacture on demand

# Peripherals

5

## Peripherals

TCP control BOT

60 Pag.

Clean station BOT

62 Pag.

Proteccion

64 Pag.

# EDR<sup>®</sup> torches<sup>®</sup>

Evolution Design Robotics

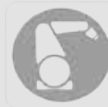




**Calibration chart for MIG / MAG welding necks of the BOT series, allows for precise adjustment and calibration of the robotic necks, can for readjusting the neck after a blow or to verify its status after intensive use**

Welding systems for industrial robots BOTseries designed to last. Advantages of the TCP control BOT.

- Rapid calibration of all necks of the BOT series.
- Multiple tools for each type of collar, avoiding damage with the calibration.
- Long lasting with steel construction with antioxidant treatment.



**Welding process:**

MIG/MAG,  
Calibrated neck BOT series



Max capacity of calibration + -2°



Necks refrigerated liquid and gas

#### **TYPE 1**

Cod: R01 1000

Necks 30G, 40W, 41EC, 50W, 60W

#### **TYPE 2**

Cod: R01 2000

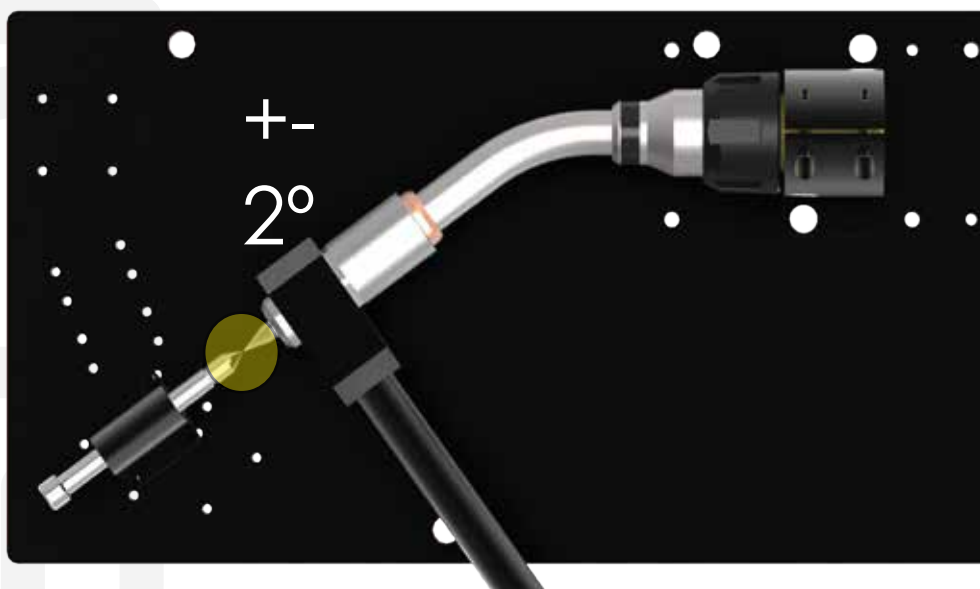
Necks 31W, 50WS

#### **TYPE 3**

Cod: R01 3000

Necks XXL

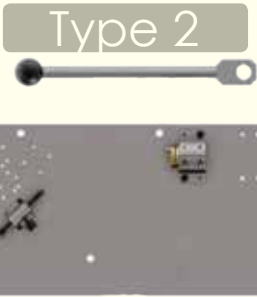
#### Maximum correction



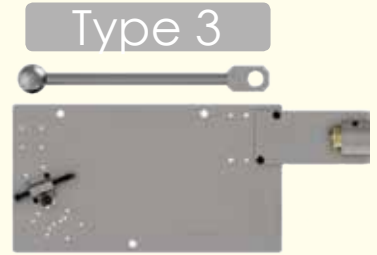
Types



1.1



1.2



1.3



2



3.1



3.2



3.3



3.4



4.1



4.2



4.3

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Pos.	ROBOT TYPE	CODE	Min. Q.
1.1	TCP control type 1	R01 1000	1
1.2	TCP control type 2	R01 2000	bp
1.3	TCP control type 3	R01 3000	bp
2	Correction lever	R01 0008	1
3.1	Check tool 31W	R02 0004	1
3.2	Check tool 30G/40W/41EC	R02 0001	1
3.3	Check tool 50W	R02 0005	1
3.4	Check tool 60W	R02 0006	1
4.1	Tip TCP M6-12mm-31W	R10 0312	1
4.2	Tip TCP EC M8-15mm-41EC	R10 0215	1
4.3	Tip TCP M10-15mm-30G-40W-50W-60W	R10 0115	1

bp: product out of stock, manufacture on demand



**Nozzle cleaning station for automated and robotized welding torches. It incorporates welding wire cutting unit. Guarantees continuity of the welding process, keeping the nozzle of the welding torch free of slag and projections**

Main advantages:

- Elimination of cycle interruptions due to accumulation of projections.
- Notable improvement of the initial priming efficiency while maintaining an optimum wire length
- Cleaning efficiency, short cycle time.
- Total elimination of embedded projections
- Includes TCP programming verification point



**Welding process:**  
MIG/MAG,

- 6-8 bar \*
- +5 - +50C°
- Min flow 10 l/s
- 6.3 Nm - 425 rpm
- 0.5 l spatter
- Max. 1.6 mm (solid wire)
- Max. 3.2 mm (tubular wire)
- Time cut 0.5 seg

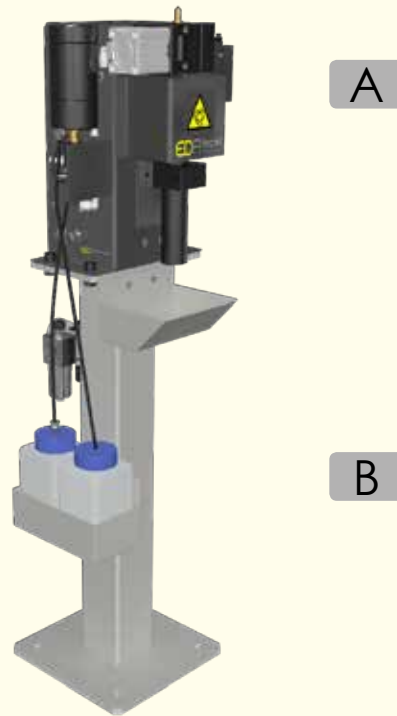
**(\*) Oil-free compressed air**

### Choose your reamer BOT series

<b>BOT 30G</b>	Nozzle L76xD13mm <b>R03 2041</b>	Nozzle L76xD15.5mm <b>R03 2040</b>	Nozzle L79xD15.5mm <b>R03 2061</b>
<b>BOT 31W</b>	Nozzle L47xD13.5mm <b>R03 2030</b>		
<b>BOT 40W</b> <b>BASIC 42G-52W</b>	Nozzle L76xD13mm <b>R03 2041</b>	Nozzle L76xD15.5mm <b>R03 2040</b>	Nozzle L79xD15.5mm <b>R03 2042</b>
<b>BOT 41EC</b>	Nozzle L76xD15.5mm <b>R03 2010</b>		
<b>BOT 50W</b>	Nozzle L60xD15.5mm <b>R03 2040</b>	Nozzle L60xD18mm <b>R03 2050</b>	
<b>BOT 60W</b>	Nozzle L16xD15.5mm <b>R03 2061</b>	Nozzle L16xD18mm <b>R03 2060</b>	Nozzle L16xD21mm <b>R03 2062</b>



PARTS



Pos.	TYPE	CODE	Min. Q.
A	Clean station with wire cut (complete)	R02 2001	1
B	Support for cleaning station	R02 2003	1

Reamer types for BOT series



Pos.	TYPE	CODE	Min. Q.
C	Cleaning reamer TH L23xD13xD8.5 mm	R03 2030	1
	Cleaning reamer EC TH L38.5xD15xD10.5 mm	R03 2010	1
	Cleaning reamer TH L26xD15xD10.5 mm	R03 2040	1
	Cleaning reamer TH L22xD12.5xD10.5 mm	R03 2041	1
	Cleaning reamer TH L26xD17.5xD10.5 mm	R03 2050	1
	Cleaning reamer TH L29xD17.5xD10.5 mm	R03 2060	bp
	Cleaning reamer TH L29xD15xD10.5 mm	R03 2061	bp
	Cleaning reamer TH L29xD20.5xD10.5 mm	R03 2062	bp

bp: product out of stock, manufacture on demand

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# Protective liquids



## Protecion

Coolant CLEAR PROTECT 10

65 Pag.

Anti-projection liquid SPATTER FREE 5

65 Pag.



®

torches

Evolution Design Robotics

Coolant CLEAR PROTECT 10 (10l)

Code: R07 0005



Anti-projection liquid SPATTER FREE 5 (5l)

Code: R07 1005



# Annexes



## Installations

Installation codes BOT-30G

68 Pag.

Installation codes BOT-31W

70 Pag.

Installation codes BOT-41EC

72 Pag.

Installation codes BOT-40W

74 Pag.

Installation codes BOT-50W

76 Pag.

Installation codes BOT-60W

78 Pag.

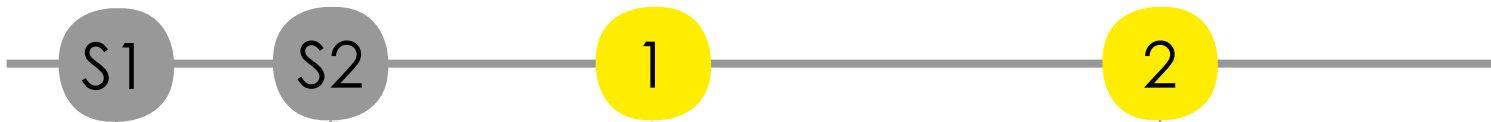
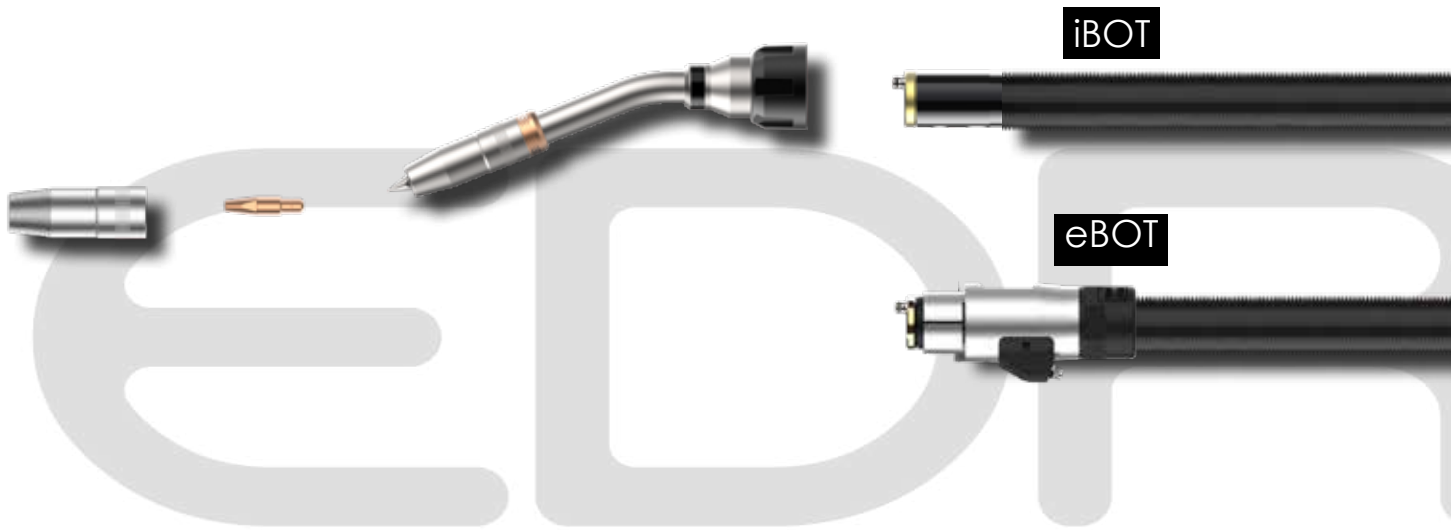
®

torches

Evolution Design Robotics



# BOT-30G series MIG/MAG



<b>T1</b>	R10.0011	Nozzle L76xD15.5
<b>T2</b>	R10.0012	Nozzle L76xD13
<b>T3</b>	R10.0211	Nozzle L79xD15.5

<b>P10</b>	R10.0400.10	Tip M10 1.0
<b>P12</b>	R10.0400.12	Tip M10 1.2

<b>3000</b>	R12.0000	BOT-30G-180°
<b>3022</b>	R12.0220	BOT-30G-22°
<b>3045</b>	R12.0450	BOT-30G-45°

iBOT		
<b>IEXXXG</b>	R94.1XXX	iBOT power cable gas Euro
<b>IMXXXG</b>	R94.2XXX	iBOT power cable gas Miller
<b>IPXXXG</b>	R94.3XXX	iBOT power cable gas Panasonic
eBOT		
<b>EEXXXG</b>	R91.1XXX	eBOT power cable gas Euro
<b>EMXXXG</b>	R91.2XXX	eBOT power cable gas Miller
<b>EPXXXG</b>	R91.3XXX	eBOT power cable gas Panasonic
cBOT		
<b>CEXXXG</b>	R96.1XXX	cBOT power cable gas Euro
<b>CMXXXG</b>	R96.2XXX	cBOT power cable gas Miller
<b>CPXXXG</b>	R96.3XXX	cBOT power cable gas Panasonic

Sample installation code: T1-P12-3022-IE137G-XX-IB-5860-K1





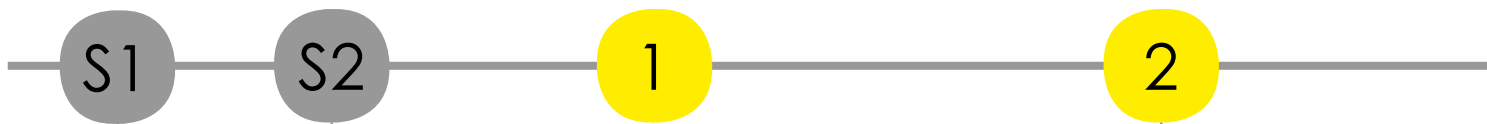
<b>90</b>	R41.1000	Bracket eBOT 90°
<b>67</b>	R41.1023	Bracket eBOT 67°

<b>IB</b>	R51.0001	iBOT anticollision
<b>EB</b>	R53.0001	eBOT anticollision

iBOT		
<b>5660</b>	R71.0010	Disco D56x6xM4
<b>5860</b>	R71.0040L	Disco D58x6xM4
<b>6611</b>	R71.0050	Disco D66x11xM4
<b>5680</b>	R71.0060L	Disco D56x8xM4
<b>8060</b>	R71.0070	Disco D80x6xM8
<b>6740</b>	R71.0080	Disco D67x4xM5
eBOT		
<b>4040</b>	R73.0010	Disco D40x4xM6
<b>5040</b>	R73.0020	Disco D50x4xM6
cBOT		
<b>4041</b>	R74.0010	Disco D40x4xM6
<b>5041</b>	R74.0030	Disco D50x4xM6

<b>K1</b>	R04.0000 R10.0115	Neck tool BOT TCP M10-15mm
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# BOT-31W series MIG/MAG



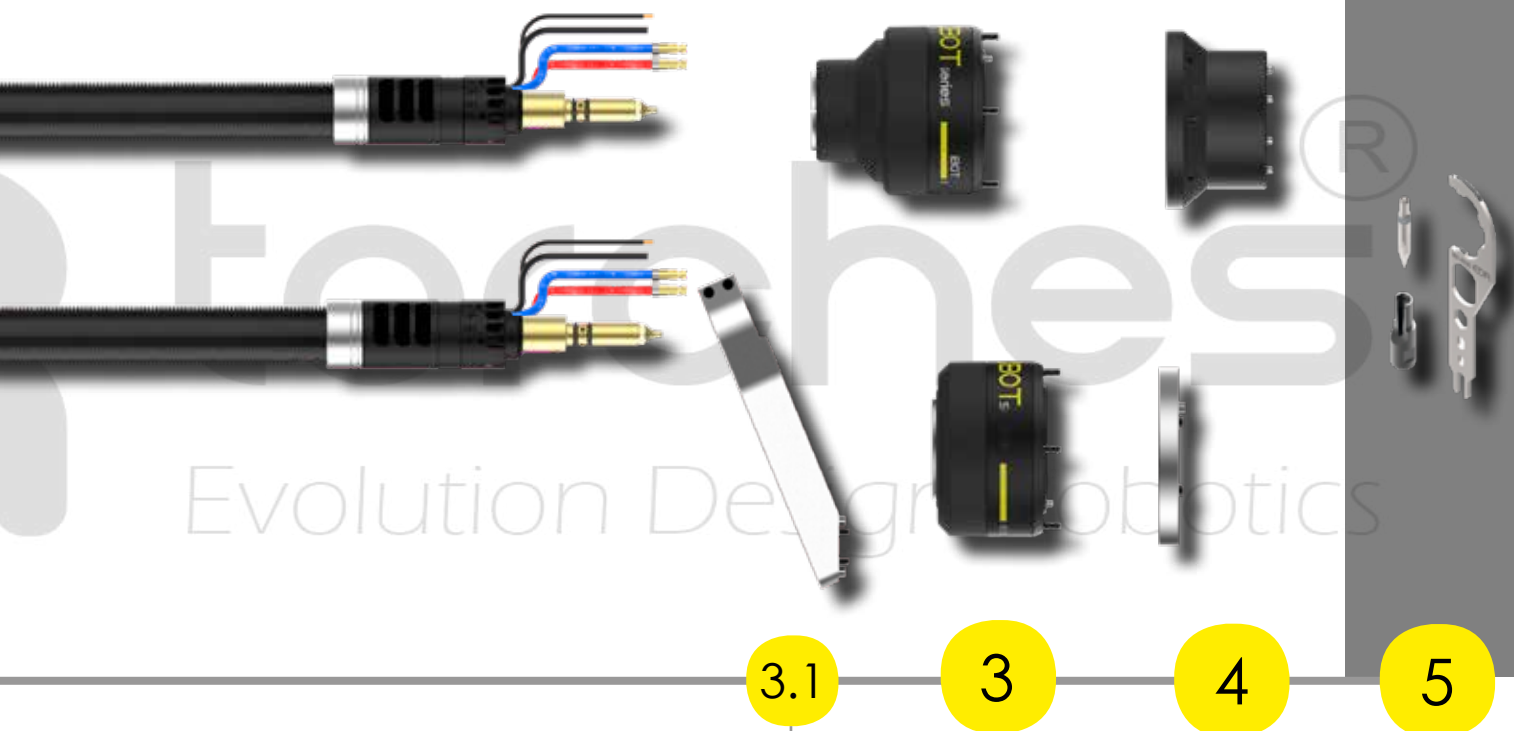
**T1** R10.0301 Nozzle L47xD13.5

<b>P10</b>	R10.0200.08	Tip M6 0.8
<b>P12</b>	R10.0200.10	Tip M6 1.0
<b>P16</b>	R10.0200.12	Tip M6 1.2

<b>3100</b>	R13.1000	BOT-31W-180°
<b>3122</b>	R13.1220	BOT-31W-22°
<b>3136</b>	R13.1360	BOT-31W-36°
<b>3145</b>	R13.1450	BOT-31W-45°
<b>314L</b>	R13.0451	BOT-31W-45°L

<b>iBOT</b>		
<b>IEXXX</b>	R95.1XXX	iBOT power cable liquid Euro
<b>IMXXX</b>	R95.2XXX	iBOT power cable liquid Miller
<b>IPXXX</b>	R95.3XXX	iBOT power cable liquid Panasonic
<b>cBOT</b>		
<b>EEXXX</b>	R92.1XXX	eBOT power cable liquid Euro
<b>EMXXX</b>	R92.2XXX	eBOT power cable liquid Miller
<b>EPXXX</b>	R92.3XXX	eBOT power cable liquid Panasonic
<b>eBOT</b>		
<b>CEXXX</b>	R97.1XXX	cBOT power cable liquid Euro
<b>CMXXX</b>	R97.2XXX	cBOT power cable liquid Miller
<b>CPXXX</b>	R97.3XXX	cBOT power cable liquid Panasonic

Sample installation code: T1-P12-3122-IE137-XX-IB-5860-K1



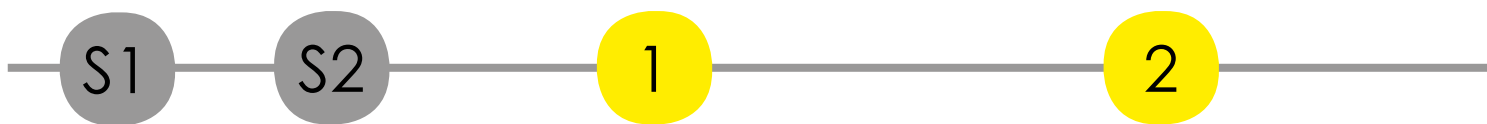
<b>90</b>	R41.1000	Bracket eBOT 90°
<b>67</b>	R41.1023	Bracket eBOT 67°

<b>IB</b>	R51.0001	iBOT anticollision
<b>EB</b>	R53.0001	eBOT anticollision

iBOT		
<b>5660</b>	R71.0010	Disco D56x6xM4
<b>5860</b>	R71.0040L	Disco D58x6xM4
<b>6611</b>	R71.0050	Disco D66x11xM4
<b>5680</b>	R71.0060L	Disco D56x8xM4
<b>8060</b>	R71.0070	Disco D80x6xM8
<b>6740</b>	R71.0080	Disco D67x4xM5
eBOT		
<b>4040</b>	R73.0010	Disco D40x4xM6
<b>5040</b>	R73.0020	Disco D50x4xM6
cBOT		
<b>4041</b>	R74.0010	Disco D40x4xM6
<b>5041</b>	R74.0030	Disco D50x4xM6

<b>K1</b>	R04.0000	Neck tool BOT
	R10.0115	TCP M10-15mm

# BOT-41EC series MIG/MAG



**T1** R10.0021 Nozzle EC L76xD15.5

**P10** R10.0300.10 Tip M8 1.0

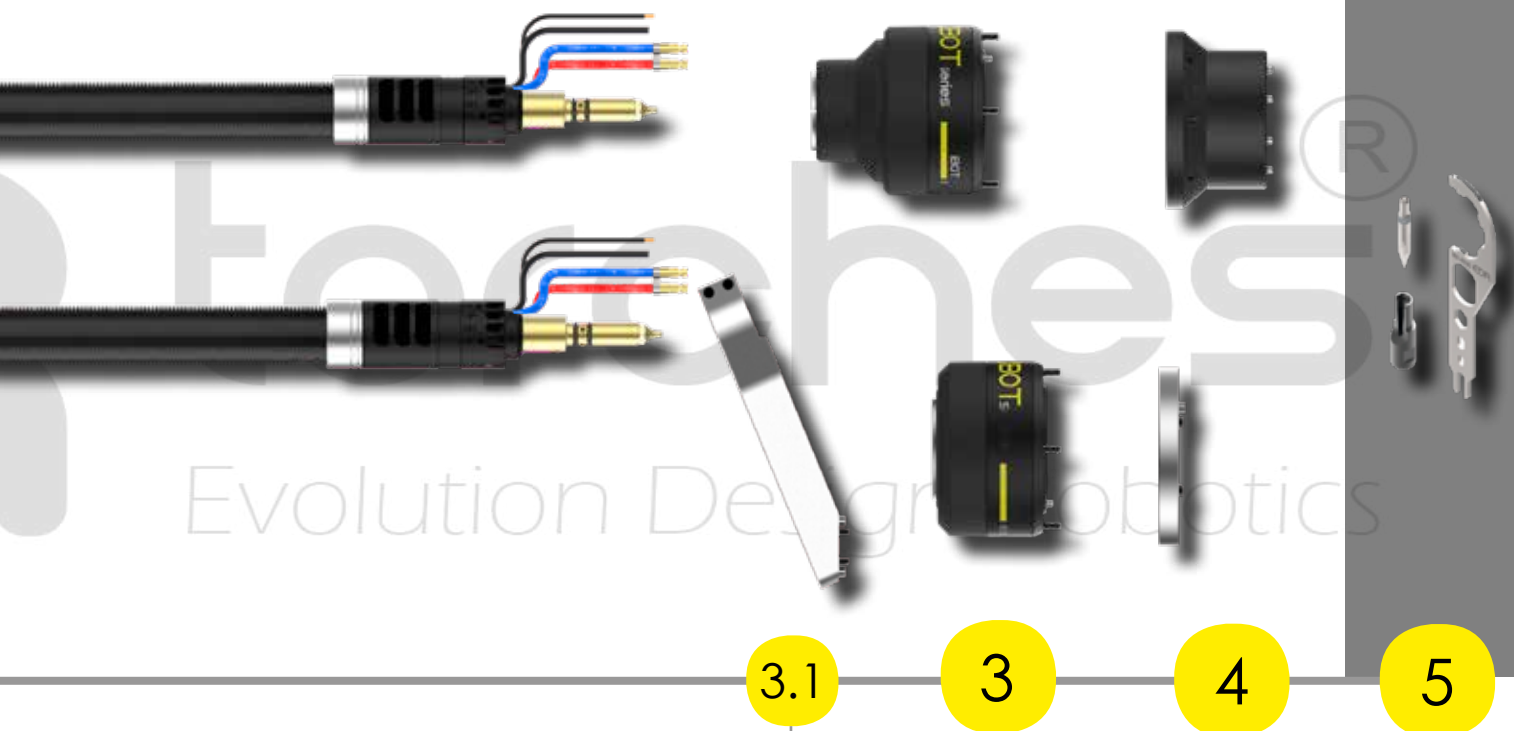
**P12** R10.0300.12 Tip M8 1.2

<b>4100</b>	R14.1000	BOT-41EC-180°
<b>412F</b>	R14.1220	BOT-41EC-22°F
<b>412L</b>	R14.1221	BOT-41EC-22°L
<b>4036</b>	R14.1360	BOT-41EC-36°
<b>4045</b>	R14.1450	BOT-41EC-45°

<b>iBOT</b>		
<b>IEXXX</b>	R95.1XXX	iBOT power cable liquid Euro
<b>IMXXX</b>	R95.2XXX	iBOT power cable liquid Miller
<b>IPXXX</b>	R95.3XXX	iBOT power cable liquid Panasonic
<b>cBOT</b>		
<b>EEXXX</b>	R92.1XXX	eBOT power cable liquid Euro
<b>EMXXX</b>	R92.2XXX	eBOT power cable liquid Miller
<b>EPXXX</b>	R92.3XXX	eBOT power cable liquid Panasonic
<b>eBOT</b>		
<b>CEXXX</b>	R97.1XXX	cBOT power cable liquid Euro
<b>CMXXX</b>	R97.2XXX	cBOT power cable liquid Miller
<b>CPXXX</b>	R97.3XXX	cBOT power cable liquid Panasonic

Sample installation code: T1-P12-3022-IE137-XX-IB-5860-K1





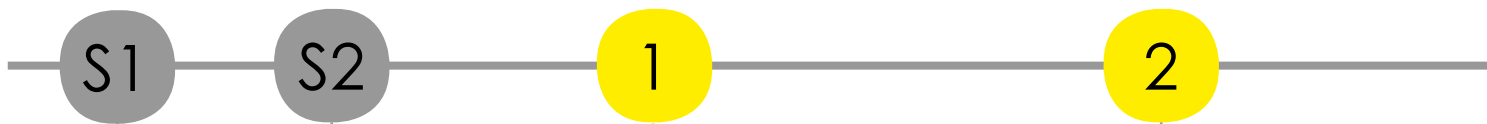
<b>90</b>	R41.1000	Bracket eBOT 90°
<b>67</b>	R41.1023	Bracket eBOT 67°

<b>IB</b>	R51.0001	iBOT anticollision
<b>EB</b>	R53.0001	eBOT anticollision

iBOT		
<b>5660</b>	R71.0010	Disco D56x6xM4
<b>5860</b>	R71.0040L	Disco D58x6xM4
<b>6611</b>	R71.0050	Disco D66x11xM4
<b>5680</b>	R71.0060L	Disco D56x8xM4
<b>8060</b>	R71.0070	Disco D80x6xM8
<b>6740</b>	R71.0080	Disco D67x4xM5
eBOT		
<b>4040</b>	R73.0010	Disco D40x4xM6
<b>5040</b>	R73.0020	Disco D50x4xM6
cBOT		
<b>4041</b>	R74.0010	Disco D40x4xM6
<b>5041</b>	R74.0030	Disco D50x4xM6

<b>K1</b>	R04.0000	Neck tool BOT
	R10.0115	TCP M10-15mm

# BOT-40W series MIG/MAG



<b>T1</b>	R10.0011	Nozzle L76xD15.5
<b>T2</b>	R10.0012	Nozzle L76xD13
<b>T3</b>	R10.0211	Nozzle L79xD15.5

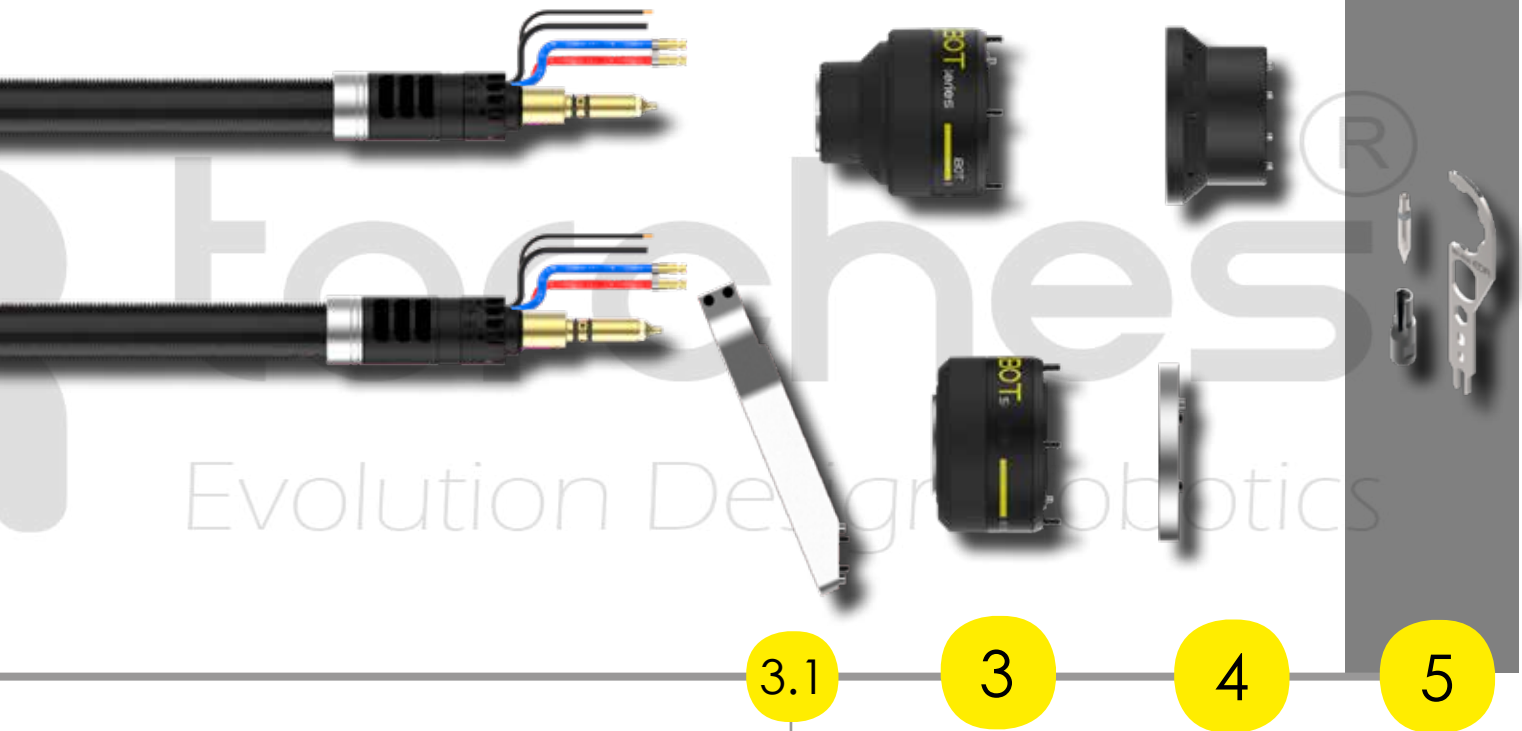
<b>P10</b>	R10.0400.10	Tip M10 1.0
<b>P12</b>	R10.0400.12	Tip M10 1.2
<b>P16</b>	R10.0400.16	Tip M10 1.6

<b>4000</b>	R14.0000	BOT-40W-180°
<b>4022</b>	R14.0220	BOT-40W-22°
<b>402F</b>	R14.0222	BOT-40W-22°F
<b>402L</b>	R14.0221	BOT-40W-22°L
<b>40LF</b>	R14.0223	BOT-40W-22°LF
<b>4036</b>	R14.0360	BOT-40W-36°
<b>4045</b>	R14.0450	BOT-40W-45°

<b>iBOT</b>		
<b>IEXXX</b>	R95.1XXX	iBOT power cable liquid Euro
<b>IMXXX</b>	R95.2XXX	iBOT power cable liquid Miller
<b>IPXXX</b>	R95.3XXX	iBOT power cable liquid Panasonic
<b>cBOT</b>		
<b>EEXXX</b>	R92.1XXX	eBOT power cable liquid Euro
<b>EMXXX</b>	R92.2XXX	eBOT power cable liquid Miller
<b>EPXXX</b>	R92.3XXX	eBOT power cable liquid Panasonic
<b>eBOT</b>		
<b>CEXXX</b>	R97.1XXX	cBOT power cable liquid Euro
<b>CMXXX</b>	R97.2XXX	cBOT power cable liquid Miller
<b>CPXXX</b>	R97.3XXX	cBOT power cable liquid Panasonic

Sample installation code: T1-P12-4022-IE137-XX-IB-5860-K1





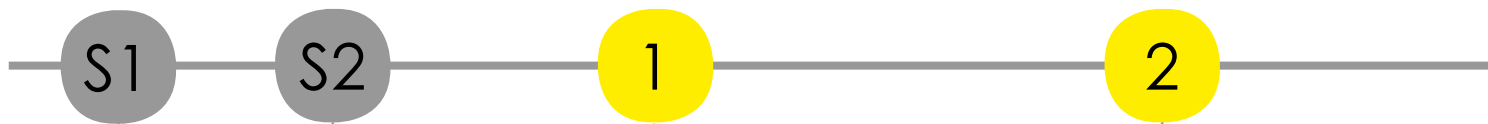
<b>90</b>	R41.1000	Bracket eBOT 90°
<b>67</b>	R41.1023	Bracket eBOT 67°

<b>IB</b>	R51.0001	iBOT anticollision
<b>EB</b>	R53.0001	eBOT anticollision

iBOT		
<b>5660</b>	R71.0010	Disco D56x6xM4
<b>5860</b>	R71.0040L	Disco D58x6xM4
<b>6611</b>	R71.0050	Disco D66x11xM4
<b>5680</b>	R71.0060L	Disco D56x8xM4
<b>8060</b>	R71.0070	Disco D80x6xM8
<b>6740</b>	R71.0080	Disco D67x4xM5
eBOT		
<b>4040</b>	R73.0010	Disco D40x4xM6
<b>5040</b>	R73.0020	Disco D50x4xM6
cBOT		
<b>4041</b>	R74.0010	Disco D40x4xM6
<b>5041</b>	R74.0030	Disco D50x4xM6

<b>K1</b>	R04.0000	Neck tool BOT
	R10.0115	TCP M10-15mm

# BOT-50W series MIG/MAG



<b>T1</b>	R12.0551	Nozzle L60xD15.5
<b>T2</b>	R12.0552	Nozzle L60xD18

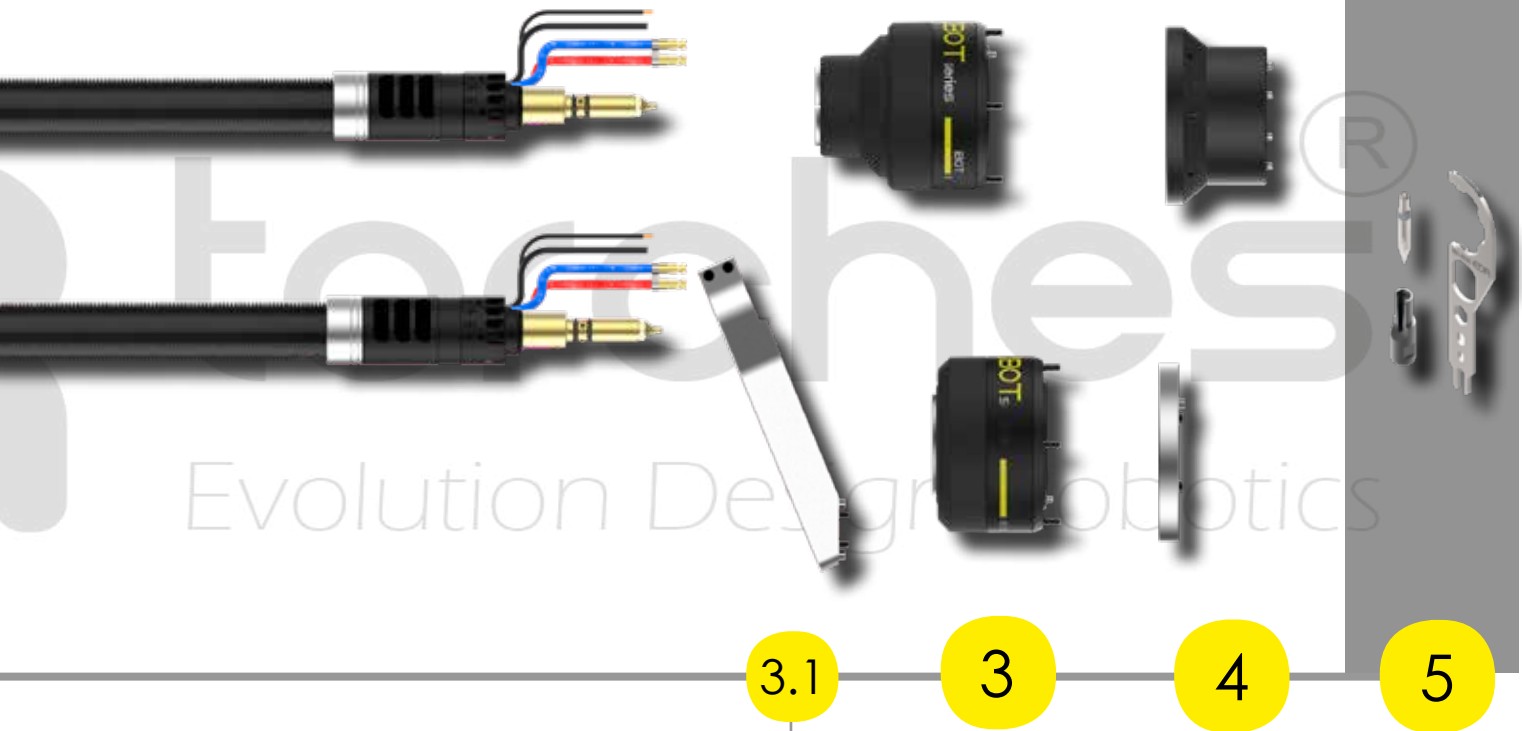
<b>P10</b>	R10.0400.10	Tip M10 1.0
<b>P12</b>	R10.0400.12	Tip M10 1.2
<b>P16</b>	R10.0400.16	Tip M10 1.6

<b>5000</b>	R15.0000	BOT-50W-180°
<b>5022</b>	R15.0220	BOT-50W-22°
<b>502F</b>	R15.0221	BOT-50W-22°F
<b>502L</b>	R15.0222	BOT-50W-22°L
<b>503S</b>	R15.0303	BOT-50W-30°S
<b>5036</b>	R15.0360	BOT-50W-36°
<b>5045</b>	R15.0450	BOT-50W-45°

<b>iBOT</b>		
<b>IEXXX</b>	R95.1XXX	iBOT power cable liquid Euro
<b>IMXXX</b>	R95.2XXX	iBOT power cable liquid Miller
<b>IPXXX</b>	R95.3XXX	iBOT power cable liquid Panasonic
<b>cBOT</b>		
<b>EEXXX</b>	R92.1XXX	eBOT power cable liquid Euro
<b>EMXXX</b>	R92.2XXX	eBOT power cable liquid Miller
<b>EPXXX</b>	R92.3XXX	eBOT power cable liquid Panasonic
<b>eBOT</b>		
<b>CEXXX</b>	R97.1XXX	cBOT power cable liquid Euro
<b>CMXXX</b>	R97.2XXX	cBOT power cable liquid Miller
<b>CPXXX</b>	R97.3XXX	cBOT power cable liquid Panasonic

Sample installation code: T1-P12-5022-IE137-XX-IB-5860-K1





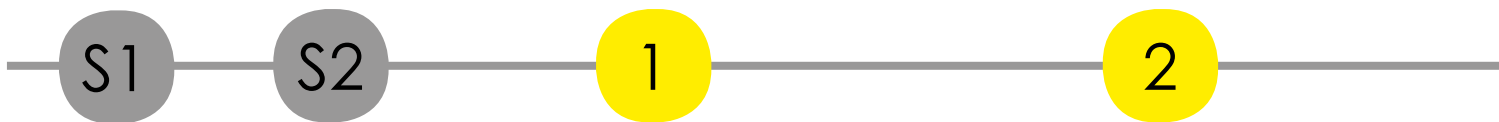
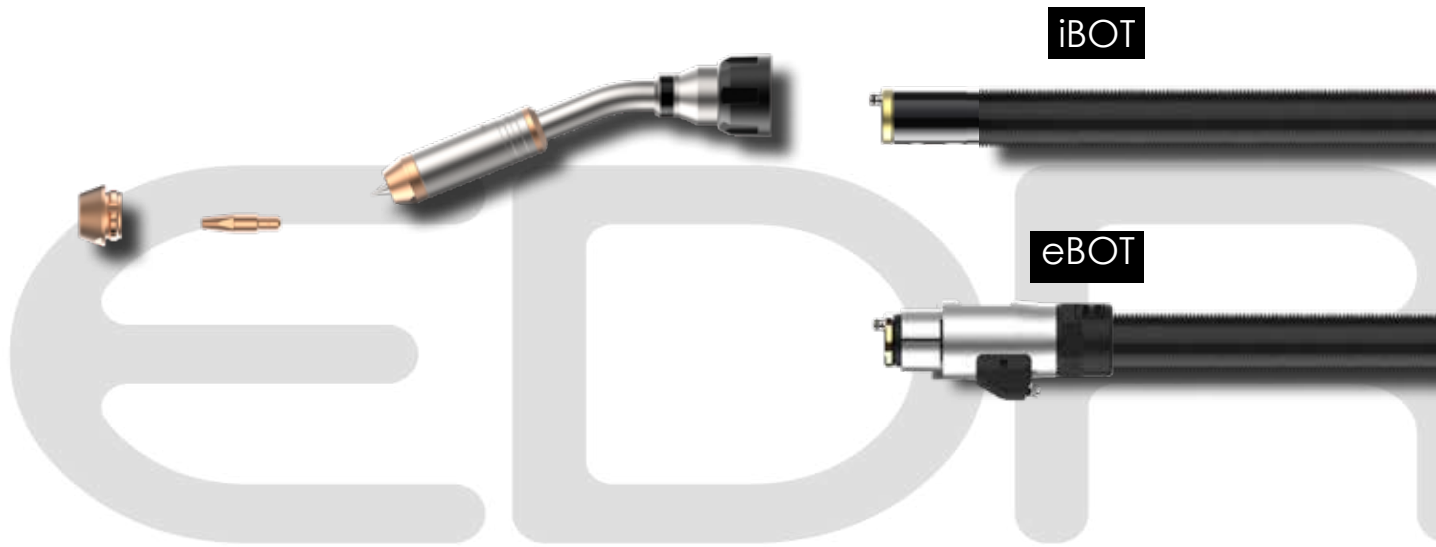
<b>90</b>	R41.1000	Bracket eBOT 90°
<b>67</b>	R41.1023	Bracket eBOT 67°

<b>IB</b>	R51.0001	iBOT anticollision
<b>EB</b>	R53.0001	eBOT anticollision

iBOT		
<b>5660</b>	R71.0010	Disco D56x6xM4
<b>5860</b>	R71.0040L	Disco D58x6xM4
<b>6611</b>	R71.0050	Disco D66x11xM4
<b>5680</b>	R71.0060L	Disco D56x8xM4
<b>8060</b>	R71.0070	Disco D80x6xM8
<b>6740</b>	R71.0080	Disco D67x4xM5
eBOT		
<b>4040</b>	R73.0010	Disco D40x4xM6
<b>5040</b>	R73.0020	Disco D50x4xM6
cBOT		
<b>4041</b>	R74.0010	Disco D40x4xM6
<b>5041</b>	R74.0030	Disco D50x4xM6

<b>K1</b>	R04.0000	Neck tool BOT
	R10.0115	TCP M10-15mm

# BOT-60W series MIG/MAG



<b>T1</b>	R12.0611	Nozzle L16xD15.5
<b>T2</b>	R12.0612	Nozzle L16xD18
<b>T3</b>	R12.0613	Nozzle L16xD21

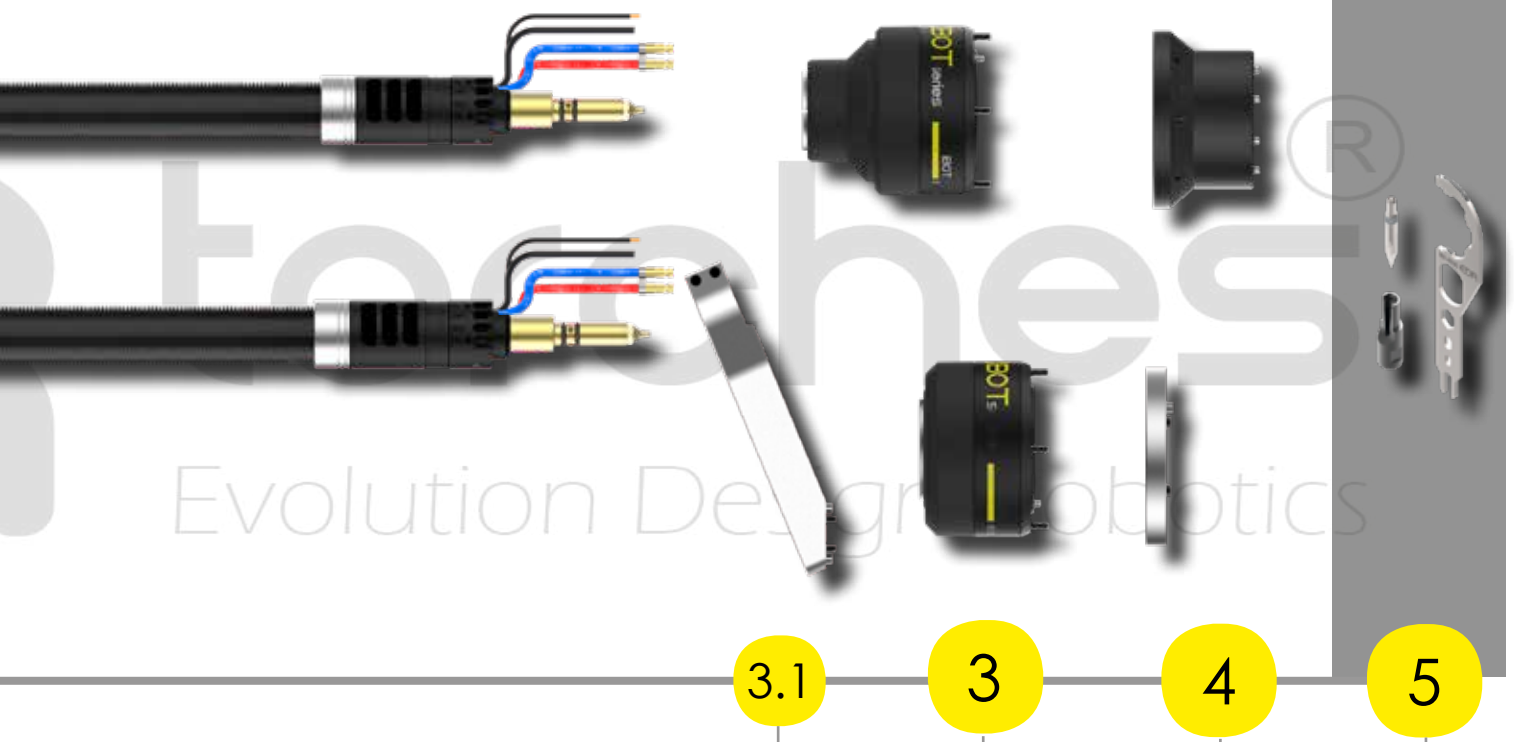
<b>P10</b>	R10.0400.10	Tip M10 1.0
<b>P12</b>	R10.0400.12	Tip M10 1.2
<b>P16</b>	R10.0400.16	Tip M10 1.6
<b>P24</b>	R10.0401.24	Tip M10 2.4

<b>6000</b>	R16.0000	BOT-60W-180°
<b>6022</b>	R16.0220	BOT-60W-22°
<b>602L</b>	R16.0221	BOT-60W-22°L
<b>602X</b>	R16.0224	BOT-60W-22°XXL
<b>603X</b>	R16.0364	BOT-60W-36°XXL
<b>604X</b>	R16.0454	BOT-60W-45°XXL

<b>iBOT</b>		
<b>IEXXX</b>	R95.1XXX	iBOT power cable liquid Euro
<b>IMXXX</b>	R95.2XXX	iBOT power cable liquid Miller
<b>IPXXX</b>	R95.3XXX	iBOT power cable liquid Panasonic
<b>cBOT</b>		
<b>EEXXX</b>	R92.1XXX	eBOT power cable liquid Euro
<b>EMXXX</b>	R92.2XXX	eBOT power cable liquid Miller
<b>EPXXX</b>	R92.3XXX	eBOT power cable liquid Panasonic
<b>eBOT</b>		
<b>CEXXX</b>	R97.1XXX	cBOT power cable liquid Euro
<b>CMXXX</b>	R97.2XXX	cBOT power cable liquid Miller
<b>CPXXX</b>	R97.3XXX	cBOT power cable liquid Panasonic

Sample installation code: T1-P12-6022-IE137-XX-IB-5860-K1





<b>90</b>	R41.1000	Bracket eBOT 90°
<b>67</b>	R41.1023	Bracket eBOT 67°

<b>IB</b>	R51.0001	iBOT anticollision
<b>EB</b>	R53.0001	eBOT anticollision

iBOT		
<b>5660</b>	R71.0010	Disco D56x6xM4
<b>5860</b>	R71.0040L	Disco D58x6xM4
<b>6611</b>	R71.0050	Disco D66x11xM4
<b>5680</b>	R71.0060L	Disco D56x8xM4
<b>8060</b>	R71.0070	Disco D80x6xM8
<b>6740</b>	R71.0080	Disco D67x4xM5
eBOT		
<b>4040</b>	R73.0010	Disco D40x4xM6
<b>5040</b>	R73.0020	Disco D50x4xM6
cBOT		
<b>4041</b>	R74.0010	Disco D40x4xM6
<b>5041</b>	R74.0030	Disco D50x4xM6

<b>K1</b>	R04.0000	Neck tool BOT
	R10.0115	TCP M10-15mm

# NOTES





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Evolution Design Robotics



## Catalog 2019



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