

Aristo[®] RT Robotic Torches

Standard, Helix and Infiturn robot arms for single arc applications



The Aristo[®] RT robotic torches offers world class performance in single arc and tandem applications. **Standard arm torches are also very suitable for mechanized solutions.**

There are three different product set ups:

- Robotic standard arm (external cable)
- Robotic hollow wrist arm Helix (+/- 270°)
- Robotic hollow wrist arm Infiturn (endless rotation)

With multiple gas cooled models and multiple water cooled models available in different swan neck angles. Packages available for ABB, Fanuc, Kuka and Motorman/Yaskawa.

Practical advantages

- Collision resistant design meaning no readjustment of the torch neck. Giving TCP (Tool Centre Point) stability and reducing downtime, increasing productivity
- Integrated blow out capability can be used for cooling and cleaning of the robotic neck
- Long life of consumables, torch body and spares

Special features

- All torches support ESAB TrueArcVoltage™ systems and TouchSense* function from ESAB power sources
- Quick change system for torch neck
- Simple exchange of the cable assembly
- Constant TCP when changing the torch neck or cable assembly
- Extremely strong brass outer tubes provide highest TCP stability
- Large selection of torch necks to suit every weld application
- Customized torch necks can be ordered on request

All benefits mentioned above reduce the downtime of the robot and mechanized solutions and therefore bring more efficiency to our equipment compared with any other torch system available in the market.

* TouchSense function can be used via gas cup or wire. For TouchSense functionality standard robot arm torch is preferred. If using Helix and Infiturn weld wire can be used as a touch sensor instead of gas cup.



*Standard robot arm
(external cable assembly)*



*Helix / infiturn
for hollow wrist arm*

Torch design

- Large and strong brass outer tube that assures TCP stability due to its high wall thickness
- Low spatter adhesion to brass due to its physical character
- Brass torch flange
- Highest precision guarantees stability

Air and water cooled torches of the same torch model use the same spare parts giving a reduction of inventory.

Smallest gas nozzles and torch heads available in order to perform excellent in all kinds of different welding jobs. Threaded gas nozzles with additional clamping lead to a much better heat transfer and therefore long life consumables which again reduce the downtime of the robot for a constant change of consumables.

Optimized gas flow which brings us an extremely stable and reliable welding arc.

Ordering Information Standard robotic arm / mechanized solution (External Cable)

Torch model	Gas cooled				Water cooled				
	RT 42G	RT 52G	RT 62G	RT 72G	RT 42W	RT 52W	RT 62W	RT72W	RT 82W
Technical Data mix gas, A / DC	350 / 60%	350 / 60%	420 / 60%	400 / 60%	350 / 100%	400 / 100%	450 / 100%	430 / 100%	550 / 100%
Technical Data CO ₂ gas, A / DC	420 / 60%	420 / 60%	500 / 60%	480 / 60%	420 / 100%	470 / 100%	530 / 100%	4800 / 100%	600 / 100%
Neck 0°	0700300441	0700300447	0700300452	0700300849	0700300474	0700300480	0700300485	0459990224	0700300673
Neck 22°	0700300442	-	0700300453	0700300850	0700300475	-	0700300486	0459990225	0700300674
Neck 36°	0700300443	0700300448	0700300454	0700300851	0700300476	0700300481	0700300487	0459990226	0700300675
Neck 45°	0700300444	0700300449	0700300455	0700300852	0700300477	0700300482	0700300488	0459990227	0700300676
Neck 45°, Long version	0700300445	0700300450	0700300456	-	0700300478	0700300483	0700300489	0459990229	-
Cable, Euro connector, 1.0m	0700300458	0700300458	0700300458	0700300458	0700300491	0700300491	0700300491	0700300491	0700300491
Cable, Euro connector, 1.2m	0700300459	0700300459	0700300459	0700300459	0700300492	0700300492	0700300492	0700300492	0700300492
Cable, Euro connector, 1.3m	0459990188	0459990188	0459990188	0459990188	0700300493	0700300493	0700300493	0700300493	0700300493
Cable, Euro connector, 1.4m	0700300460	0700300460	0700300460	0700300460	0700300795	0700300795	0700300795	0700300795	0700300795
Cable, Euro connector, 1.5m	0700300461	0700300461	0700300461	0700300461	0700300494	0700300494	0700300494	0700300494	0700300494
Cable, Euro connector, 1.8m	0700300462	0700300462	0700300462	0700300462	0459990194	0459990194	0459990194	0459990194	0459990194
Torch neck mount 23° *	0700300422	-	0700300422	0700300422	0700300422	-	0700300422	0700300422	0700300422
Torch neck mount 9° *	0700300424	0700300425	0700300424	0700300424	0700300424	0700300425	0700300424	0700300424	0700300424
Torch neck mount 0° *	0700300423	0700300423	0700300423	0700300423	0700300423	0700300423	0700300423	0700300423	0700300423
Adapter flange for robot **	Depends on robot								
KS-2 MIG safety off mechanism	0700300790	0700300790	0700300790	0700300790	0700300790	0700300790	0700300790	0700300790	0700300790
Options									
FL-1 (rigid mount for collision detection performed by robot controller)	0700300435	0700300435	0700300435	0700300435	0700300435	0700300435	0700300435	0700300435	0700300435

* Standard

** If required

For heavy duty applications ESAB recommends RT72G (gas cooled) and RT82W (water cooled).

Ordering Information Helix / Infiniturn robotic hollow wrist arm

Robot model	ABB IRB 1520ID/1600ID	ABB IRB 2600ID	Fanuc ArcMate 100iC	Fanuc ArcMate 120iC	Motoman MA 1400	Motoman MA 1900
Torch neck	Same as for standard cables					
RT KSC-2W water cooled	0700300431	0700300431	0700300431	0700300431	0700300431	0700300431
Torch mount, rigid version						
RT FLC-2W water cooled	0700300433	0700300433	0700300433	0700300433	0700300433	0700300433
Adapter flange for robot	0700300509	0700300521	0700300497	0700300497	0700300429	0700300429
Infiniturn cable, air cooled	0700300437	0700300511	0700300436	0700300437	0700300510	0700300512
Infiniturn cable, water cooled	0700300465	0700300514	0700300464	0700300465	0700300513	0700300515
Helix cable, air/water cooled	0700300467	0700300517	0700300466	0700300467	0700300516	0700300518

For further information please contact your ESAB robotic specialist.

Ordering Information – Consumable Kits

RT62G/W Consumable Kit	0459990186	Quantity
Contact tip M8x30 0.9mm CuCrZr	0700300342	1 pack/50pcs
Contact tip M8x30 1.0mm CuCrZr	0700300343	1 pack/50pcs
Contact tip M8x30 1.2mm CuCrZr	0700300344	1 pack/50pcs
Liner red, 1.70m, wire 1.0-1.2	0700300502	1 pcs
Liner blue, 1.70m, wire 0.8-1.0	0700300499	1 pcs
Neck liner steel 0.8-1.2mm	0700300469	1 pack/2pcs
Fitting with stop size 4.0-4.7	0700300473	1 pack/2pcs
Tip holder CuCrZr M8 RT 82	0700300366	1 pack/10pcs
Insulator ceramic RT 62 M8	0700300394	1 pack/10pcs
Nozzle con. NW 16mm RT62	0700300389	1 pack/5pcs
RT62G/W Aluminium (Alu) Consumable Kit	0459990187	Quantity
Contact tip M8x30 AL 1.0mm Ecu	0700300359	1 pack/50pcs
Contact tip M8x30 AL 1.2mm Ecu	0700300360	1 pack/50pcs
Neck liner PA/Bronze 0.8-1.2mm	0459990073	1 pack/10pcs
Neck liner PA/Bronze 1.2-1.6mm	0459990074	1 pack/10pcs
PA-Liner for wire 1.0-1.2mm, 3.4m	0459990076	1 pcs
Fitting with stop size 4.0-4.7	0700300473	1 pack/2pcs
Tip holder CuCrZr M8 RT 82	0700300366	1 pack/10pcs
Gas diffusor ceramic RT 62 M8	0700300438	1 pack/10pcs
Nozzle con. NW 16mm RT62	0700300389	1 pack/5pcs
RT72G/W Consumable Kit	0459990187	Quantity
Contact tip M8x30 0.9mm CuCrZr	0700300342	1 pack/50pcs
Contact tip M8x30 1.0mm CuCrZr	0700300343	1 pack/50pcs
Contact tip M8x30 1.2mm CuCrZr	0700300344	1 pack/50pcs
Liner red, 1.70m, wire 1.0-1.2	0700300502	1 pcs
Liner blue, 1.70m, wire 0.8-1.0	0700300499	1 pcs
Neck liner steel 0.8-1.2mm	0700300469	1 pack/2pcs
Fitting with stop size 4.0-4.7	0700300473	1 pack/2 pcs
Tip holder HD, brass, M8, RT 72	0459990221	1 pack/2 pcs
Nozzle insulator RT 72	0459990223	1 pack/10 pcs
Neck insulator black RT 72	0459990038	1 pack/10 pcs
Nozzle seat RT72	0459990039	1 pack/10pcs
RT72 Nozle seat insul ceramic	0459990040	1 pack/2pcs
Locking nut RT72	0459990041	1 pack/10pcs
Nozzle con. NW 16mm RT 62	0700300389	1 pack/2pcs

Ordering Information – Consumable Kits

RT72G/W Aluminium (Alu) Consumable Kit	0459990187	Quantity
Contact tip M8x30 AL 1.2mm Ecu	0700300360	1 pack/50pcs
Contact tip M8x30 AL 1.6mm Ecu	0700300362	1 pack/50pcs
Neck liner Bronze 1.2-1.6mm	0700300468	1 pack/10pcs
1.2 - 1.6mm PTFE Liner 3.50M	0700300690	1 pcs
Fitting with stop size 4.0-4.7	0700300473	1 pack/2 pcs
Tip holder brass M8, RT 72	0459990036	1 pack/10pcs
Nozzle insulator black RT62/72	0459990037	1 pack/10pcs
Neck insulator black RT 72	0459990038	1 pack/10pcs
Nozzle seat RT72	0459990039	1 pack/2pcs
RT72 Nozle seat insul ceramic	0459990040	1 pack/10pcs
Locking nut RT72	0459990041	1 pack/2pcs
Nozzle con. NW 16mm RT 62	0700300389	1 pack/5pcs
RT82W Consumable Kit	0459990187	Quantity
Contact tip M8x30 0.9mm CuCrZr	0700300342	1 pack/50pcs
Contact tip M8x30 1.0mm CuCrZr	0700300343	1 pack/50pcs
Contact tip M8x30 1.2mm CuCrZr	0700300344	1 pack/50pcs
Contact tip holder M8 RT 82W	0700300677	1 pack of 5
Liner red, 1.70m, wire 1.0-1.2	0700300502	1 pcs
Liner blue, 1.70m, wire 0.8-1.0	0700300499	1 pcs
Neck liner steel 0.8-1.2mm	0700300469	1 pack/2pcs
Nozzle insul. black RT82W	0700300842	10
Nozzle cyl. Ø 17.0mm, RT 82W	0700300679	1 pack/5pcs
Fitting with stop size 4.0-4.7	0700300473	1 pack/2 pcs
RT82 Neck Insulator	0459990047	1 pack/2 pcs
RT82W Aluminium (Alu) Consumable Kit	0459990187	Quantity
Contact tip M8x30 AL 1.2mm Ecu	0700300360	1 pack/50pcs
Contact tip M8x30 AL 1.6mm Ecu	0700300362	1 pack/50pcs
Neck liner Bronze 1.2-1.6mm	0700300468	1 pack/10pcs
1.2 - 1.6mm PTFE Liner 3.50M	0700300690	1 pcs
Nozzle insul. black RT82W	0700300842	10
Nozzle cyl. Ø 17.0mm, RT 82W	0700300679	1 pack /5pcs
Fitting with stop size 4.0-4.7	0700300473	1 pack/2 pcs
RT82 Neck Insulator	0459990047	1 pack/2 pcs
Neck liner Bronze 1.2-1.6mm	0700300468	1 pcs
Fitting with stop size 4.0-4.7	0700300473	1 pack/2 pcs

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