

MAGNUM[®] PRO WATER-COOLED ROBOTIC TORCH

RUNS COOLER, LASTS LONGER



KEY FEATURES

Utilizing an innovative cooling design, the Magnum[®] PRO Water-Cooled Robotic Torch can run at higher amperages without sacrificing torch and expendable life.

- **Withstands High Duty Cycle Applications** – Compared to traditional air-cooled torches, the Magnum[®] PRO Water-Cooled Robotic Torch can run at 100% duty cycle at 525A with 90/10 mixed gas.
- **Extended Expendable Life** – Conduction and convection cooling near the end of the torch keeps expendables cool. This expands the life of the expendables, increases the amount of arc-on time, and lowers replacement parts costs.
- **TCP Repeatability** – The gun tubes are designed with a robust inner and outer sheath that minimize damage upon crashing and improve TCP repeatability.
- **Minimized Spatter Adhesion** – The unique design of the gun tubes cools both the inner and outer sheath of material. This allows the outside of the gun tubes to remain cool, which minimizes the amount of spatter that adheres to the gun tubes.

Processes »

MIG, Pulsed MIG, FCAW

Applications »

Heavy Fabrication, Agriculture, Automotive/Transportation

Output »



Input »



Product Number »

See product specifications table

Additional Features

- **Ease of Installation** – Floating fittings in the gun tubes allow for an easy installation that prevents water from leaking out of the torch. Additionally, visible hash marks simplify installation and make set up easy.
- **Nozzle Touch Sensing** – Allows the torch to locate the part easily, so that welds are placed in the appropriate spots.

What's Included

- Magnum PRO Water-Cooled Robotic Torch One-Pak® Pkgs. Include:
 - Cable (see product specification table)
 - Breakaway Disk (see product specification table)
 - Contact Tip – KP2745-045
 - Gas Diffuser – KP4380-1
 - Nozzle – KP4120-1-62R
 - Cable Liner – KP44-3545-15
 - Gun Tube (45°) – KP4403-45
 - Nose Cone Assembly – K4397-1
 - Torch Housing Assembly – (see product specification table)
 - Air Blast Kit (Air Blast Torches only) – K3352-1

All Magnum PRO Copper Plus® contact tips come equipped with Anti-Seize™ threads that prevent the contact tip from melting, fusing, and seizing in the diffuser. The Extended Life™ contact tips are designed with a chrome zirconium copper alloy, which minimizes annealing and wear. Due to their long life, they are the preferred tip for robotic welding.

EXPENDABLE PARTS

CABLES

Robot Arm	Product Number	Cable Length in. (mm)
Fanuc® 100iC/6L	KP4399-1	42.7 (1084)
Fanuc 120iC/10L	KP4399-2	49.9 (1268)
Fanuc 100iC	KP4399-3	34.1 (866)
Fanuc 100iC/8L	KP4399-4	50.9 (1293)
Fanuc 120iC	KP4399-5	42.0 (1066)
Fanuc M710iC/12L	KP4399-6	125.4 (3185)
Fanuc 100iD	KP4399-7	36.5 (927)
Fanuc 100iD/10L and Fanuc 120iD	KP4399-8	42.7 (1084)
ABB IRB 1520iD	KP4399-12	47.1 (1198)
ABB IRB 1660iD	KP4399-14	51.9 (1319)
ABB IRB 2600iD-15/1.85	KP4399-15	50.7 (1288)
ABB IRB 2600iD-8/2.0	KP4399-16	59.2 (1505)
KUKA KR6R1820HW	KP4399-20	48.1 (1221)
KUKA KR8R1420HW	KP4399-21	38.9 (988)
KUKA KR8R2100HW	KP4399-22	52.5 (1334)
Motoman MA1440 (with K2685-1 feeder)	KP4399-23	38.9 (988)
Motoman MA2010	KP4399-24	56.1 (1424)
Motoman MA1440 (with K3561-1 feeder)	KP4399-28	40.7 (1033)

BREAKAWAY DISKS

Robot Arm	Product Number
Fanuc 100iC/6L	KP2920-4
Fanuc 120iC/10L	
Fanuc 100iC	
Fanuc 100iC/8L	
Fanuc 120iC	
Fanuc M710iC/12L	
Fanuc 100iD	KP2920-9
Fanuc 100iD/10L	
KUKA KR6R1820HW	KP2920-5
KUKA KR8R1420HW	
KUKA KR8R2100HW	
ABB IRB 1660iD	KP2920-8
ABB IRB 2600iD-8/2.0	
ABB IRB 2600iD-15/1.85	
ABB IRB 1520iD	KP2920-11

Copper Plus™ Contact Tips

Wire Diameter in. (mm)	Standard qty. 10	Standard qty. 100	Extended Life qty. 10	Extended Life qty. 100
0.035 (0.9)	KP2745-035	KP2745-035-B100	KP2745-035R	KP2745-035R-B100
0.040 (1.0)	KP2745-040	KP2745-040-B100	KP2745-040R	KP2745-040R-B100
0.045 (1.2)	KP2745-045	KP2745-045-B100	KP2745-045R	KP2745-045R-B100
0.052 (1.3)	KP2745-052	KP2745-052-B100	KP2745-052R	KP2745-052R-B100
1/16 (1.6)	KP2745-116	KP2745-116-B100	KP2745-116R	KP2745-116R-B100
0.068-0.072 (1.7-1.8)	KP2745-072	KP2745-072-B100	KP2745-072R	KP2745-072R-B100
5/64 (2.0)	KP2745-564	KP2745-564-B100	KP2745-564R	KP2745-564R-B100

EXPENDABLE PARTS

DIFFUSERS

Quantity	Product Number
1	KP4380-1
2	KP4380-1-B25

GUN TUBES

Degree	Product Number
22	KP4403-22
	KP4403-22-6L
45	KP4403-45
	KP4403-45-6L
60	KP4403-60-6L
180	KP4403-180
	KP4403-180-6L

NOZZLES

Nozzle Type	Quantity	5/8 in. ID	1/2 in. ID	3/4 in. ID
1/8 in. Recess	1	KP4120-1-62R	KP4120-1-50R	KP4120-1-75R
	25	KP4120-1-62R-B25	KP4120-1-50R-B25	KP4120-1-75R-B25
Flush	1	KP4120-1-62F	KP4120-1-50F	KP4120-1-75F
	25	KP4120-1-62F-B25	KP4120-1-50F-B25	KP4120-1-75F-B25
1/8 in. Stickout	1	KP4120-1-62S	KP4120-1-50S	KP4120-1-75S
	25	KP4120-1-62S-B25	KP4120-1-50S-B25	KP4120-1-75S-B25
1/8 in. Recess Bottleneck	1	KP4121-1-62R	KP4121-1-50R	---
	25	KP4121-1-62R-B25	KP4121-1-50R-B25	---
Flush Bottleneck	1	KP4121-1-62F	KP4121-1-50F	---
	25	KP4121-1-62F-B25	KP4121-1-50F-B25	---
1/8 in. Stickout Bottleneck	1	KP4121-1-62S	KP4121-1-50S	---
	25	KP4121-1-62S-B25	KP4121-1-50S-B25	---

LINERS

Wire Diameter, in. (mm)	Product Number	Length ft (m)
0.035-0.045 (0.9-1.2)	KP44-3545-15	15 (4.5)
	KP44-3545-25	25 (7.6)
0.052-1/16 (1.3-1.6)	KP44-116-15	15 (4.5)
	KP44-116-25	25 (7.6)
1/16-5/64 (1.6-2.0)	KP44-564-15	15 (4.5)
	KP44-564-25	25 (7.6)
3/32 (2.4)	KP44-332-6	6 (1.8)
	KP44-332-15	15 (4.5)
	KP44-332-25	25 (7.6)

RECOMMENDED ACCESSORIES



GENERAL OPTIONS

Air Blast Kit

Blows spatter from the nozzle orifice. Includes 20 ft hose and fitting. This kit is included with every Air Blast Torch (see product specification table).
Order K3352-1



One Gallon of Low Conductivity Coolant

Low conductivity coolant recommended for the new Cool Arc® 47 Water Cooling System.

Order KP4159-1



WC Robotic Gun Tube Straightener

Water Cooled Robotic Gun Tube Straightener used in the event of a robot crash to check and correct robotic gun tube alignment.

Order K4768-1

SPECIFICATIONS

Product Name	Product Number	Robot Arm	Torch Type	Cable	Breakaway Disk	Torch Housing	Amperage Rating [with 90/10 Ar/CO2]	Wire Diameter Range, in. (mm)		
Magnum® PRO Water-Cooled Robotic Torch One-Pak®	K3593-1	Fanuc 100iC/6L	Standard	KP4399-1	KP2920-4	K4398-1	100% @ 525A	0.035-5/64 in. (0.9-2.0 mm)		
	K3593-1A		Air Blast							
	K3593-2	Fanuc 120iC/10L	Standard	KP4399-2						
	K3593-2A		Air Blast							
	K3593-3	Fanuc 100iC	Standard	KP4399-3						
	K3593-3A		Air Blast							
	K3593-4	Fanuc 100iC/8L	Standard	KP4399-4						
	K3593-4A		Air Blast							
	K3593-5	Fanuc 120iC	Standard	KP4399-5						
	K3593-5A		Air Blast							
	K3593-6	Fanuc M710iC/12L	Standard	KP4399-6						
	K3593-6A		Air Blast							
	K3593-7	Fanuc 100iD	Standard	KP4399-7					KP2920-9	
	K3593-7A		Air Blast							
	K3593-8	Fanuc 100iD/10L and Fanuc 120iD	Standard	KP4399-8						
	K3593-8A		Air Blast							
	K3593-9	Fanuc 100iD/8L	Standard	KP4399-22	KP2920-9	K4398-1				
	K3593-9A		Air Blast							
	K3593-12	ABB IRB 1520iD	Standard	KP4399-12	KP2920-11	K4398-3				
	K3593-12A		Air Blast							
	K3593-14	ABB IRB 1660iD	Standard	KP4399-14	KP2920-8	K4398-1				
	K3593-14A		Air Blast							
	K3593-15	ABB IRB 2600iD-15/1.85	Standard	KP4399-15						
	K3593-15A		Air Blast							
	K3593-16	ABB IRB 2600iD-8/2.0	Standard	KP4399-16						
	K3593-16A		Air Blast							
	K3593-20	KUKA KR6R1820HW	Standard	KP4399-20	KP2920-5	K4398-2				
	K3593-20A		Air Blast							
	K3593-21	KUKA KR8R1420HW	Standard	KP4399-21						
K3593-21A	Air Blast									
K3593-22	KUKA KR8R2100HW	Standard	KP4399-22							
K3593-22A		Air Blast								
K3593-23	Motoman MA1440 (with K2685-1 feeder)	Standard	KP4399-23	KP2920-4	K4398-1					
K3593-23A		Air Blast								
K3593-24	Motoman MA2010	Standard	KP4399-24							
K3593-24A		Air Blast								
K3593-28	Motoman MA1440 (with K3561-1 feeder)	Standard	KP4399-28							
K3593-28A		Air Blast								
K3593-29	Fanuc 120iD/12L	Standard	KP4399-29	KP2920-9	K4398-1					
K3593-29A		Air Blast								

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