

Robotic Welding Gun packages





Robotic Welding Gun packages



Kemppi offers robotic gun packages both hollow wrist and non-hollow wrist robot arm designs. The perfect welding gun system for robotic arc welding consists of the gun neck with a tip holder, a gas nozzle and a cable assembly. A robotic gun can be mounted on a suitable Kemppi Gun Mount.

Accurate TCP location contributes to constant and reliable welding results. Robust design constructed from the centralized inner tube and stainless steel made outer tube guarantees the best possible usability during daily operations and minimizes the risk of damages to the system in a case collisions. Low maintenance need and easy to change components increase system availability and productivity.

The choice of the correct robotic gun package is based mainly on robot brand and model and required cooling.



KEY BENEFITS



MODULAR DESIGN

Allows you to build a setup that fits your specified needs.



COMPLETE PACKAGE

Everything you need in the same package: a gun neck with a tip holder, a gas nozzle, a gun mount, an adapter flange and a cable assembly.

BENEFITS

- Four standard swan neck designs are available for both gas-cooled and water-cooled variants
- Constant and reliable welding results
- Robust design guarantees the best possible usability
- Low maintenance need
- Easy-to-change components increase productivity and system availability
- Engineered designs available at request



PRODUCT OPTIONS



Gun mount T1

Kemppi T1 Gun Mount for robotic guns is meant to be used with hollow wrist type robot models where the cable assembly is run through the 6th axis of the robot. Separate versions available for water-cooled and gas-cooled applications. T1 Gun Mount is equipped with collision sensors and a signal is to be connected with the robot controller. Robot specific flange is required for final assembly.



Gun mount T2

Kemppi T2 Gun Mount for robotic guns is meant to be used with nonhollow wrist type robot models. A separate segment holder is used to attach the T2 gun mount to the robot. T2 Gun Mount is equipped with collision sensors and a signal is to be connected with the robot controller. Robot specific flange is required for final assembly.



Segment holder for gun mount T2

Adjustable gun neck mounting angle.



Gun mount T3

T3 Gun Mount for robotic guns is meant to be used with hollow wrist type robot models where the cable assembly is run through the 6th axis of the robot. T3 Gun Mount is not equipped with collision sensors and so the robot, which is used, should have software functionalities itself to handle collision detection. Robot specific flange is required for final assembly.



Gun mount T4

Kemppi T4 Gun Mount for robotic guns is meant to be used with nonhollow wrist type robot models. T4 Gun Mount is not equipped with collision sensors and so the robot model, which is used, should have software functionalities itself to handle collision detection. T4 Gun Mount consists of upper and lower bracket parts. Robot specific flange is required for final assembly.



Adapter flanges for T1 gun mounts

Adapter Flanges for T1 Gun Mounts. The choice of the adapter flange is based on the exact robot brand and model. Flanges for T1 gun mounts are meant for hollow wrist robot models and fit both T1 W and T1 G mount models.



Adapter flanges for T2 and T4 gun mounts

Adapter flanges for T2 and T4 gun mounts. The choice of the adapter flange is based on the exact robot brand and model. Flanges for T2/T4 gun mounts are meant for nonhollow robot models.



Adapter flanges for T3 gun mounts

Adapter flanges for T3 gun mounts. The choice of the adapter flange is based on the exact robot brand and model. Flanges for T3 gun mounts are for hollow wrist robot models and fit both T3 W and T3 G mount models.



Welding gun necks for gas-cooled systems

Welding gun neck for gas-cooled systems



Welding gun necks for water-cooled systems

Welding gun necks for water-cooled systems



ACCESSORIES



Cable assemblies for HW-robots, gas-cooled, T1 mount and Euro connector

Cable assemblies for HW-robots must be accurate in length. Cable lengths are designed for certain wire feeder and bracket combination. For additional combinations consult Kemppi sales.



Cable assemblies for HW-robots, water-cooled, T1 mount and Euro connector

Cable assemblies for HW-robots must be accurate in length. Cable lengths are designed for certain wire feeder and bracket combinations. For additional combinations consult Kemppi sales.



Cable assemblies for HW-robots, water-cooled, T3 mount and Euro connector

Cable assemblies for HW-robots must be accurate in length. Cable lengths are designed for certain wire feeder and bracket combinations. For additional combinations consult Kemppi sales.



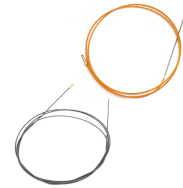
Cable assemblies for non-HW-robots, gas-cooled, T2/T4 mount and Euro connector

Cable assemblies for non-HW-robots are selected from standard lengths. A dimensional drawing showing distance from wire feeder front face to robot 6th axis is required for cable assembly length selection. For additional lengths consult Kemppi sales.



Cable assemblies for non-HW-robots, water-cooled, T2/T4 mount and Euro connector

Cable assemblies for non-HW-robots are selected from standard lengths. A dimensional drawing showing distance from wire feeder front face to robot 6th axis is required for cable assembly length selection. For additional lengths consult Kemppi sales.



Wire liners for euro connectors

Kemppi gun liners are strong, durable and efficient. Designed to suit specific filler wire materials and applications, Kemppi liners support the filler wire and ensure reliable delivery to the welding arc.



Wire liners for power pin connectors

Kemppi gun liners are strong, durable and efficient. Designed to suit specific filler wire materials and applications, Kemppi liners support the filler wire and ensure reliable delivery to the welding arc.



Contact tip holder for gas-cooled guns

Contact tip adapter M8 500-G.



Contact tip holder for water-cooled guns

Contact tip adapter M8 500-W.



Conical gas nozzles for water-cooled gun necks

Conical gas nozzle for water-cooled gun necks with screw-on type connection to the neck. Designed for long life and heat transfer purposes.



Bottle shaped gas nozzles for water-cooled gun necks

Bottle shaped gas nozzles for water-cooled gun necks with screw-on type connection to the neck. Designed for long life and heat transfer purposes.



Gas nozzle sensor clip 500-G

Needed if seam searching uses gas nozzle as the sensing tool



Wrench - tool for 500-W neck

Pin wrench to unscrew the gun connection easily.



Alignment tool for gun neck inner tube

Alignment tool to align Contact tip with Gas nozzle.



Thread cutter tool for gun neck 500-W

Thread cleaning/cutter tool for gun neck 500-W inner tube.



Teaching tip

Teaching tip M8 stickout 17 mm.
Also available SP600566 Teaching tip M8 stickout 15 mm



Robotic gun cleaning station

Robot gun cleaning station equipped with wire cutter, gas nozzle inside reamer and anti-spatter spray unit. Delivered with reamer tool and centering V-block (prism) for both gas and water-cooled Kemppi Guns. No liquids included, must be ordered separately.



Contact tips

Original Kemppi contact tips ensure optimized welding current transfer to filler wire. Kemppi LiFE+ contact tips last up to 5 times longer than standard copper tips, due to innovative alloying and hardening techniques. The LiFE+ core element retains its hardness and refined microstructure, even after elevated welding temperatures of 1000 °C.



TECHNICAL SPECIFICATIONS

GUN MOUNTS

Gun mount T1

Product code	SP600588 - Robot gun mount/Collision sensor T1 W for water-cooled systems SP600589 - Robot gun mount/Collision sensor T1 G for gas-cooled systems
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Gun mount T2

Product code	SP600605 - Robot gun mount/Collision sensor T2 L - Default version fo normal guns SP600606 - Robot gun mount/Collision sensor T2 XL - For tandem welding guns
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Segment holder for gun mount T2

Product code	SP600608
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Shock sensor signal cable T2

Product code	SP600607
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Gun mount T3

Product code	SP600574 - Robot gun mount T3 W for water-cooled systems SP600575 - Robot gun mount T3 G for gas-cooled systems
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Gun mount T4

Product code	SP600604 - Robot gun mount T4 - Adjustable gun neck mounting angle
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ADAPTER FLANGES

Adapter flanges for T1 gun mounts

Product code	
	ABB - 1660ID 6/155 - SP600724
	ABB - IRB 1520ID - SP600570
	ABB - IRB 1600ID - SP600570
	ABB - IRB 2600ID-15/1,85 - SP600724
	ABB - IRB 2600ID-8/2,00 - SP600724
	Fanuc - 100iC-12 - SP600583 + SP600573
	Fanuc - 100iC-12S - SP600583 + SP600573
	Fanuc - 100iC-7L - SP600583 + SP600573
	Fanuc - 100iC-8L - SP600583 + SP600573
	Fanuc - 100iD - SP600800
	Fanuc - 100iD-10L 100iD-10L - SP600800
	Fanuc - 120iC - SP600583 + SP600573
	Fanuc - 120iC-12L - SP600583 + SP600573
	Kawasaki - BA006L - SP600695
	Kawasaki - BA006N - SP600695
	KUKA - KR 5 ARC HW - SP600582
	KUKA - KR 5-2 ARC HW - SP600582
	KUKA - KR6 R1820 ARC HW - SP600582
	KUKA - KR8 R1420 ARC HW - SP600582
	KUKA - KR8 R1620 ARC HW - SP600582
	KUKA - KR8 R2100 ARC HW - SP600582
	MOTOMAN - EA1400N - SP600580
	MOTOMAN - EA1900 - SP600580
	MOTOMAN - EA1900N - SP600580
	MOTOMAN - GP12 - SP600648
	MOTOMAN - GP25 - SP600648
	MOTOMAN - GP25-12 - SP600648
	MOTOMAN - MA1440 - SP600648
	MOTOMAN - MA1550 - SP600580
	MOTOMAN - MA1800 - SP600580
	MOTOMAN - MA1900 - SP600580
	MOTOMAN - MA2010 - SP600648
	MOTOMAN - VA1400 - SP600580



Adapter flanges for T2 and T4 gun mounts

Product code	ABB - 2600-12/185 - SP600640
	ABB - 2600-20/165 - SP600640
	ABB - IRB 1600-X/120 - SP600639
	ABB - IRB 1600-X/145 - SP600639
	ABB - IRB 2400/10 - SP600634
	ABB - IRB 2400/16 - SP600634
	ABB - IRB 2400L - SP600639
	ABB - IRB 2600-12/165 - SP600640
	ABB - IRB 4400-60/195 - SP600637
	ABB - IRB 4600-20/205 - SP600640
	ABB - IRB 4600-40/255 - SP600637
	ABB - IRB 4600-45/205 - SP600637
	ABB - IRB 4600-60/255 - SP600637
	FLANGE - ISO 9409-1-A40 - SP600639
	FLANGE - ISO 9409-1A100 - SP600637
	FLANGE - ISO 9409-1A125 - SP600603
	FLANGE - ISO 9409-1A31 - SP600633
	FLANGE - ISO 9409-1A50 - SP600634
	FLANGE - ISO 9409-1A63 - SP600635
	FLANGE - ISO 9409-1A80 - SP600636
	Hyundai - HA006 - SP600639
	Kawasaki - RA005L - SP600633
	Kawasaki - RA006L - SP600639
	Kawasaki - RA010L - SP600635
	Kawasaki - RA010N - SP600639
	Kawasaki - RA020N - SP600635
	KUKA - KR10 R1420 - SP600633
	KUKA - KR5 Arc - SP600639
	KUKA - KR6 R1820 - SP600633
	KUKA - KR6-2 - SP600639
	KUKA - KR8 R1620 - SP600633
	KUKA - KR8 R2020 - SP600634
	MOTOMAN - HP20D - SP600639
	MOTOMAN - HP20D-6 - SP600639
	MOTOMAN - MH50 - SP600636
	MOTOMAN - MH50-20II - SP600639
	MOTOMAN - MH50-35II - SP600636
	MOTOMAN - MH50II - SP600636
	MOTOMAN - MH6 - SP600639
	MOTOMAN - MH6S - SP600639
	MOTOMAN - UP6 - SP600639
	Universal robots - UR10 - SP600634
	Universal robots - UR5 - SP600634



Adapter flanges for T3 gun mounts

Product code	ABB - IRB 1520ID - SP600570 ABB - IRB 1600ID - SP600570 ABB - IRB 2600ID-15/1,85 - SP600571 ABB - IRB 2600ID-8/2,00 - SP600571 FANUC - 100iC-12 - SP600572 + SP600573 FANUC - 100iC-12S - SP600572 + SP600573 FANUC - 100iC-7L - SP600572 + SP600573 FANUC - 100iC-8L - SP600572 + SP600573 FANUC - 100iD - SP600801 FANUC - 100iD-10L - SP600801 FANUC - 120iC - SP600572 + SP600573 FANUC - 120iC-12L - SP600572 + SP600573
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WELDING GUN NECKS

Welding gun necks for gas-cooled systems

Product code	SP600621B - GUN NECK 500-G 0° SP600622B - GUN NECK 500-G 22° (Recommended default) SP600623B - GUN NECK 500-G 35° SP600624B - GUN NECK 500-G 45°
Filler wires	0.8-1.6 mm
Weight	0.9 kg
Loadability	100%ED 500 A / CO?, 100%ED 400 A / M ² 1
Gas flow	10-30 liters

Welding gun necks for water-cooled systems

Product code	SP600550B - GUN NECK 500-W 0° SP600551B - GUN NECK 500-W 22° (Recommended as default) SP600552B - GUN NECK 500-W 35° SP600553B - GUN NECK 500-W 45°
Filler wires	0.8-1.6 mm
Weight	0.9 kg
Loadability	100%ED 500 A / CO?, 100%ED 500 A / M ² 1
Consumables	SP600561 - Insulating ring 500-W SP600562 - Insulating ring, high temperature 500-W SP600563 - Gas diffuser 500-W
Gas flow	min. 25 l / min
Water flow	min 1.25 l / min

ACCESSORIES

Cable assemblies for HW-robots, gas-cooled, T1 mount and Euro connector

Product code	See the technical specifications list.
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Cable assemblies for HW-robots, water-cooled, T1 mount and Euro connector

Product code	See the technical specifications list.
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Cable assemblies for HW-robots, water-cooled, T3 mount and Euro connector

Product code	See the technical specifications list.
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Cable assemblies for non-HW-robots, gas-cooled, T2/T4 mount and Euro connector

Product code	See the technical specifications list.
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Cable assemblies for non-HW-robots, water-cooled, T2/T4 mount and Euro connector

Product code	See the technical specifications list.
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Wire liners for euro connectors

Product code	SP600666 Liner Chili HP 2.0/4.7, 2.5 M Robot EU SP600725 Liner Steel 1.6/4.6, 2.0 M Robot EU SP600738 Liner Chili HP 2.0/4.7, 4.0 M Robot EU SP600740 Liner Steel 1.6/4.6, 4.0 M Robot EU
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Wire liners for power pin connectors

Product code	SP600668 Liner Chili HP 2.0/4.7, 2.5 M Robot PP SP600726 Liner Steel 1.6/4.6, 2.0 M Robot PP SP600739 Liner Chili 2.0/4.6, 4.0 M Robot PP SP600741 Liner Steel 1.6/4.6, 4.0 M Robot PP
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Contact tip holder for gas-cooled guns

Product code	SP600629B
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Contact tip holder for water-cooled guns

Product code	SP600560B
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Conical gas nozzles for water-cooled gun necks

Product code	SP600557B, 500-W 15,5 / +2,4 SP600558B, 500-W 15,5 / -1,1 (recommended as default)
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Bottle shaped gas nozzles for water-cooled gun necks

Product code	SP600554B, 500-W 15,5 / +2,4 SP600555B, 500-W 15,5 / +2,4 SP600556B, 500-W 15,5 / -2,6
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Gas nozzle sensor clip 500-G

Product code	SP600663
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Wrench - tool for 500-W neck

Product code	SP600569
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Alignment tool for gun neck inner tube

Product code	SP600568
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Thread cutter tool for gun neck 500-W

Product code	SP600707
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Teaching tip

Product code	SP600567B
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Robotic gun cleaning station

Product code	SP600674
Operating voltage	10 to 30 V DC
Weight	22 kg
Nominal pressure	6 bar 88 psi
Nominal flow	Approx. 500 l/min
Operating pressure	6-8 bar / 88-116 psi
Nominal rotational speed	800 rpm
Max. Wire size	1.6 mm (by 6 bar 7 88 psi air pressure)
Ambient temperature	+5° to +50°C
Protection	IP 21
Rated voltage	24 V DC
Power consumption	4.5 W (EACU)
Permitted residual ripple	V _{pp} < 10%
Continuous current	Max. 200 mA
Current consumption	Approx. 4 mA (24V)
Voltage drop	Approx. 1.2 V (200 mA)
Consumables	SP600681 - Reamer tool for water-cooled gun SP600682 - Reamer tool for gas-cooled gun SP600683 - Prism for outer Ø 25mm nozzles water-cooled gun SP600684 - Prism for outer Ø 28mm nozzles gas-cooled gun



Contact tips - Robotic welding guns

Description	Robotic welding guns
Product code	CuCrZr: W022083 , CONTACT TIP M8x30 0,8 CuCrZr W022084 , CONTACT TIP M8x30 0,9 CuCrZr W022085 , CONTACT TIP M8x30 1,0 CuCrZr W022086, CONTACT TIP M8x30 1,2 CuCrZr W022087 , CONTACT TIP M8x30 1,4 CuCrZr W022088, CONTACT TIP M8x30 1,6 CuCrZr E-Cu, Al: W022089, CONTACT TIP M8x30 1,0 mm Al W022090, CONTACT TIP M8x30 1,2 mm Al W022091, CONTACT TIP M8x30 1,4 mm Al W022092, CONTACT TIP M8x30 1,6 mm Al

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Kemppi is the design leader in the arc welding industry. We are committed to boosting the quality and productivity of welding by continuous development of the welding arc and by working for a greener and more equal world. Kemppi supplies sustainable products, digital solutions, and services for professionals from industrial welding companies to single contractors. The usability and reliability of our products is our guiding principle. We operate with a highly skilled partner network covering over 70 countries to make its expertise locally available. Headquartered in Lahti, Finland, Kemppi employs close to 800 professionals in 16 countries and has a revenue of 195 MEUR in 2022.

