



A7 MIG Welder 450
ENGINEERED FOR YOUR PROFIT

Kemppi K7 Welding equipment



THE NEW STANDARD IN ROBOTIC MIG WELDING

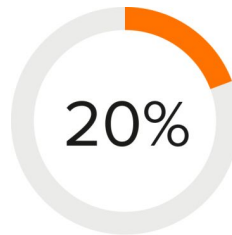
A7 MIG Welder 450 is the state-of-the-art solution for robotic arc welding, ideal for integration with any robot brand. It is a complete, perfectly balanced process package that includes a welding gun, wire feeder, power source, and cooling unit. The equipment is designed to meet the highest Kemppi standards, which guarantee reliable welding performance with no compromises. The Kemppi Wise software provides added value for customers by significantly improving welding speed, boosting production efficiency, and enabling the same equipment to be used for a variety of welding tasks. The system's modern, browser-based user interface allows easy access to the power source from a standard computer with a regular browser. This enables unprecedented savings in setup time and provides quality control benefits throughout the equipment's life cycle.

KEY BENEFITS



UNIVERSAL

Can be integrated with any robot brand



HIGHER WELDING SPEED

With the Kemppi WiseFusion process



EASY ACCESS TO POWER SOURCE

With a computer and any web browser

KEY APPLICATIONS



ROBOTICS

BENEFITS



- Quick and easy integration with any robot brand with modern fieldbus hardware modules.
- Access to the power source from an external computer via ethernet with a regular web browser. No extra programs needed. Enables radical savings in setup time, as well as quick and easy parameter configuration, system management, and monitoring throughout the equipment's life cycle.
- Increased productivity and a short payback period thanks to the Wise software and a wide range of available functions. Wise processes are fine-tuned and pre-set to optimize productivity with welding speeds typically used in automated welding. The same equipment can be used for a wide variety of welding tasks and applications.
- A comprehensive, completely balanced package from one supplier results in significant savings in time and effort when integrating the arc-welding package with the robot application.
- Suitable for any industry using robotic welding for thin and thick mild steel, stainless steel, and aluminum components.
- Enhanced arc ignition functionality (Touch Sense Ignition) delivers minimum spatter and stabilizes the arc immediately after ignition.
- The robust wire feeding casing with integrated wire feeder controller electronics enables faster and more accurate control with better resistance to external interference.
- An integrated gas-flow sensor in the wire feeder enables the shielding gas flow to be monitored closer to the arc by default – no need for additional sensors.
- Search voltage level for the system can be set up freely from web browser interface

WHAT'S IN THE SYSTEM EQUIPMENT



A7 MIG Power Source 450

Welding power source, including fieldbus module, based on best-in-class inverter technology. Integrated water cooling unit available. Reliable communication with the wire feeder. Wide range of welding processes optimized for automated welding. Touch Sense Ignition for controlled arc ignition. Provides TAST signal for the robot and instant-response touch sensor for seam finding. The unique web browser interface enables system setup, backup, and monitoring.



A7 Wire Feeder 25

Two strong motors and a four-wheel drive for stable wire feeding of up to 25 m/min. Integrated wire feeder controller electronics and reliable communication with the power source. Robust casing. Current cable attachment with a screw. Comes with a suitable adapter plate for the robot's third-joint attachment. Integrated gas flow sensor. Comes with handy gas test, compressed air blow, wire feed, and retract buttons. Backlight illuminates the feeding rollers for everyday servicing and maintenance tasks.



Cool X Cooling unit

Cool X cooling unit for liquid-cooled setups is the ultimate choice providing 1 kW of cooling power with 3 liters of cooling liquid.



A7 MIG Gun 500-w

Water-cooled robotic welding gun package offering exceptional precision. Choose a suitable type from hollow wrist or non-hollow wrist versions to match your needs. This gun can be used with all common robot brands and can be equipped with shock sensor modules.

APPLICATION SOFTWARE



WiseFusion-A

Kemppi Wise welding function for automated welding.



MatchCurve

For different production needs. Purchase either convenient programs packs or single programs, according to your need.

ALTERNATIVE EQUIPMENT AND SOFTWARE



A7 MIG Power Source 350

Welding power source, including fieldbus module, based on best-in-class inverter technology. Integrated water cooling unit available. Reliable communication with the wire feeder. Wide range of welding processes optimized for automated welding. Touch Sense Ignition for controlled arc ignition. Provides TAST signal for the robot and instant-response touch sensor for seam finding. The unique web browser interface enables system setup, backup, and monitoring.



A7 MIG Gun 500-g

Gas-cooled robotic welding gun package offering exceptional precision. Choose a suitable type from hollow wrist or non-hollow wrist versions to match your needs. This gun can be used with all common robot brands and can be equipped with shock sensor modules.

TECHNICAL SPECIFICATIONS

A7 MIG Power Source 450

Product code	6201450
Connection voltage 1~ 50/60 Hz	N/A
Connection voltage 3~ 50/60 Hz	400 V, -15 %...+20 %
Fuse (delayed)	35 A
Welding range	20 A / 12 V - 450 A / 46 V
Mains connection cable	4G6 (5 m)
Supply current (maximum)	32 A
Supply current (effective)	25 A
Minimum generator power	35 kVA
Operating temperature range	-20 ... +40 °C
Degree of protection	IP23S
External dimensions LxWxH	610 × 240 × 520 mm
Weight (no accessories)	40.2 kg
Weight (with connection cable)	42.6 kg
EMC class	A
Storage temperature range	-40 ... +60 °C
Idle power	25 W
Power factor at max. current	0.88
Output 60% ED	450 A
Output 100% ED	350 A
No-load voltage (peak)	U ₀ = 80 V - 98 V
Open circuit voltage (average)	85 V -103 V
Efficiency (100 % duty cycle)	87 %
Temperature class	155 (F)
Minimum short circuit power S _{sc} of supply network	5.5 MVA
Max apparent power	22 kVA
Power supply for cooling unit	24 V DC / 50 VA
Power supply for auxiliary unit	50 V DC / 100 W

A7 Wire Feeder 25

Product code	6203500
Operating temperature range	-20 ... +40 °C
Degree of protection	IP21S
Gun connection	Euro
Wire feed mechanism	4-roll, two motors
Filler wire sizes (Fe solid)	0.8 – 1.6 mm
Filler wire sizes (Fe cored)	1.0 – 1.6 mm
Filler wire sizes (Ss)	0.8 – 1.6 mm
Filler wire sizes (Al)	1.0 – 2.4 mm

A7 Wire Feeder 25

Filler wire sizes (CuSi)	0.8 – 1.2 mm
Wire feed speed adjustment	0.5 – 25 m/min
External dimensions LxWxH	380 × 250 × 170 mm
Weight (no accessories)	7.8 kg
EMC class	A
Storage temperature range	-40 ... +60 °C
Operating voltage (safety voltage)	50 V DC

Cool X Cooling unit

Product code	6068200
Degree of protection	IP23S
Tank volume	~3 L
External dimensions LxWxH	570 x 230 x 280 mm
Weight (no accessories)	11 kg
EMC class	A
Cooling power	1 kW
Storage temperature range	-40 ...+60 °C
Operating temperature	-20 ...+40 °C
Operating voltage (safety voltage)	400 V -15 ...+20 %
Maximum pressure	0.4 Mpa

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Kemppi is the pioneering company within the welding industry. It is our role to develop solutions that make you win business. Headquartered in Lahti, Finland, Kemppi employs over 600 welding experts in 17 countries and has a revenue of more than 110 MEUR. Our offering includes welding solutions - intelligent equipment, welding management software and expert services - for both demanding industrial applications and ready-to-weld needs. Local expertise is available via our global partner network covering over 60 countries.

