

KEMPPPI K8 WELDING EQUIPMENT

# X8 MIG Welder

THE FUTURE OF WELDING IS HERE





## X8 MIG Welder



### THE MOST ADVANCED MULTI-PROCESS WELDING EQUIPMENT IN THE MARKET

The **X8 MIG Welder** covers it all, from synergic and pulsed MIG/MAG and stick (MMA) welding to MIG brazing, cladding, and gouging. The intelligent equipment provides you with extremely precise control of the arc, high-duty welding performance up to 600 A, and native connectivity with [WeldEye welding management software](#). Supreme usability based on actual user needs is engineered in every aspect of the power source, wire feeder, welding guns, user interface, and other components.

Developed, designed and manufactured in Finland, the X8 MIG Welder introduces the digital WPS (dWPS) function, which improves quality control and renders the printed WPS unnecessary. With an upgradeable power source, a multi-voltage power supply option, and the wide range of [Kempfi application software](#) available, the X8 MIG Welder adapts easily to any welding environment and meets even the most extreme expectations of industrial welding.

### KEY APPLICATIONS



OIL RIGS



PROCESS PIPELINES



PRESSURE VESSELS  
AND BOILERS

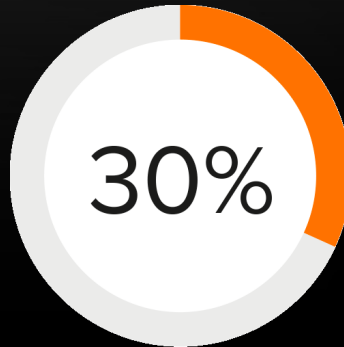


## KEY BENEFITS



### WISE PROCESSES

Optimized arc characteristics for any welding application



### FASTER SETUP CONFIGURATION

Compared to standard MIG welding equipment



### CORRECT WELDING PARAMETERS

Ensured by digital WPS (dWPS)

## BENEFITS

- Best arc characteristics for high speed and aluminum ([WiseFusion](#)), narrow gap ([RGT](#)), root pass ([WiseRoot+](#)), thin sheet ([WiseThin+](#)) and low spatter welding in globular transfer mode ([WiseSteel](#))
- Precisely controlled, upgradeable welding current up to 600 A
- Digital WPS feature allows the welder to quickly and easily access the WPSs
- Innovatively designed wire feeder ensures safe and ergonomic loading of filler wire spool
- Wire feeder's optional wire tensioning feature keeps wire feed steady in short repeated welds and with heavy wire spools
- Well-balanced welding guns with an ergonomic handle design make welding more comfortable and productive
- Improved arc ignition with [X8 MIG Guns](#)' Touch Sense Ignition feature
- Wire feeder and welding gun lighting enable working in dimly lit conditions
- Tool-free coolant filling with an integrated cooling unit
- Includes a fleet management service free of charge
- Native connectivity to WeldEye software modules [Welding Procedure and Qualification Management](#), [Welding Quality Management](#) and [Welding Production Analysis](#)



## BENEFITS



### EXTREME PERFORMANCE

Never underestimate the performance of the X8 MIG Welder. In addition to excellent standard welding performance, Kemppi's [Wise special processes and functions](#) ensure optimal arc characteristics for whatever you are welding. For example, WiseSteel reduces spatter by 30% and enables a 30% increase in travel speed in steel welding, while Reduced Gap Technology (RGT) allows the reduction of joint volume to bring 25% savings in filler materials and 38% savings in arc time with material thickness of 25 mm.



### SUPREME USABILITY

High-quality welding requires careful preparation. When comparing the X8 MIG Welder with standard MIG welding equipment, its usability aspects in terms of innovative and user-friendly wire feeder, wireless user interface for power source and digital WPS speed up the setup configuration easily by 30%. When you can speed up the setup configuration process, you will have more time to focus on the welding itself.



### ALWAYS THE RIGHT PARAMETERS

Printed WPSs give all the necessary guidance for welding, but it's up to the welder to set the right parameters and weld accordingly. By utilizing Control Pad – the X8 MIG Welder's wireless user interface – to select the digital WPS (dWPS) via WeldEye, the power source is automatically set up according to the limits presented in the WPS. Faster setup and 100% certainty over WPS-compliant welding – what could be better?



## WHAT'S IN THE SYSTEM - EQUIPMENT



### X8 Power Source 500

Provides 500 A with 60% duty cycle. Control Pad and X8 Cooler always included with the power source.



### Control Pad

Wireless user interface for X8 Power Source. Always included with the power source. Designed for welders, the Control Pad allows easy adjustment of welding parameters and the use of digital WPS (dWPS). Water, dust and shockproof.



### X8 Cooler

Quick and easy to assemble cooling unit integrated with X8 Power Source. Always included in X8 Power Source 500 and 500 MV, optional for X8 Power Source 400. Tool-free coolant filling and easy filter replacement without any hassle. X8 Cooler can also be mounted to the power source afterwards.



### X8 Wire Feeder

Ergonomically designed wire feeder suitable for all applications. Fast gun connection and disconnection, cabinet lights and reliable wire feeding. Easy to use, maintain and assemble.



### Wire Feeder Rotating Plate

A rotating plate with  $\pm 90^\circ$  rotation angle. Seven locking positions, including locking into center position. Always included with X8 Power Source.



### X8 MIG Gun 520-w

Water-cooled welding gun that is easily connected to the X8 Wire Feeder. Perfect fit for the welder's hand. Includes a detachable pistol grip handle and a work light for dimly lit conditions. Available in 3.5 and 5 meters. Wire diameter 0.8–1.6 mm.



### X8 Wheel Set

Wheel set for the X8 Power Source. Always delivered with the power source.



### Interconnection Cable 2 m, water-cooled

95 mm<sup>2</sup> thick water-cooled interconnection cable. Especially suitable for setups where the wire feeder is on top of the power source.



### Earth return cable 5 m, 70 mm<sup>2</sup>



## WHAT'S IN THE SYSTEM - SOFTWARE



### WiseSteel

A welding function especially designed to tackle the challenges of globular transfer. WiseSteel alternates short arc transfer with spray transfer, which produces sound welds characterized by a regular fish-scale pattern.



### WiseRoot+

Optimized short arc process for productive root pass welding. Excellent weld quality through control of arc voltage and timing of filler metal droplet transfer. Gives higher speed than MMA, TIG or MIG/MAG short arc welding.



### WiseFusion

A welding function that ensures consistent weld quality in all positions by automatically regulating arc length. Creates and maintains an optimal short-circuit characteristic in pulsed MIG/MAG and spray-arc welding.



### WisePenetration+

A welding function for synergic and pulsed MIG/MAG welding that ensures weld penetration regardless of variation in the contact-tip-to-work distance. Keeps the welding power stabilized in all situations.



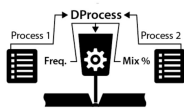
### WiseThin+

Optimized short arc process suitable for welding sheet metals and thicker plates in position welding, even in case of wider gaps and gap variations. Produces a spatterless arc with precise digital control.



### Welding Programs

A wide selection of welding programs for various welding applications. In order to find the right welding programs to match your needs, please contact a Kemppi representative.



### DProcess

DProcess is a double welding process that lets you combine two different welding parameter groups, or even two different welding processes, in precisely defined manner. This enables accurate optimization of the welding arc for various applications, such as vertical up welding. Comes as a standard feature with X8 MIG Welder.



### My Fleet

Free-of-charge cloud service for X8 MIG Welder owners. My Fleet provides information on the equipment usage and software, and includes the manufacturer's validation certificate for the first year.



### Welding Procedure and Qualification Management

Software for managing welding procedures and personnel qualifications. Support for AWS, ASME, EN and ISO standards. Includes fast and easy-to-use drawing tool for weld joint sketching. Enables the digital WPS (dWPS) function with Kemppi X8 MIG Welder.



## ALTERNATIVE - EQUIPMENT AND SOFTWARE



### X8 Power Source 400

Provides 400 A with 60% duty cycle. Can be ordered with or without X8 Cooler. Control Pad always included with the power source.



### X8 Power Source 400 MV

Provides 400 A with 60% duty cycle. The multi-voltage power source is suitable for the most common electrical network voltages. Control Pad always included with the power source. X8 Cooler not included.



### X8 Power Source 500 MV

Provides 500 A with 60% duty cycle. The multi-voltage power source is suitable for the most common electrical network voltages. Control Pad and X8 Cooler always included with the power source.



### X8 Power Source 600

Provides 600 A with 40% duty cycle. Control Pad and X8 Cooler always included with the power source.



### X8 Power Source 600 MV

Provides 600 A with 40% duty cycle. The multi-voltage power source is suitable for the most common electrical network voltages. Requires a 63 A plug. Control Pad and X8 Cooler always included with the power source.



### X8 MIG Gun 420-w

Water-cooled welding gun that is easily connected to the X8 Wire Feeder. Perfect fit for the welder's hand. Includes a detachable pistol grip handle and a work light for dimly lit conditions. Available in 3.5 and 5 meters, and as a WeldSnake model in 8 meters. Wire diameter 0.8–1.6 mm (1.2–1.6 mm for WS model).



### X8 MIG Gun 420-w, 250 mm neck

Water-cooled welding gun with a 250 mm neck. Easy connection to the X8 Wire Feeder. Perfect fit for the welder's hand. Includes a detachable pistol grip handle and a work light for dimly lit conditions. Available in 3.5 and 5 meters. Wire diameter 0.8–1.6 mm.



### X8 MIG Gun 520-w, 250 mm neck

Water-cooled welding gun with a 250 mm neck. Easy connection to the X8 Wire Feeder. Perfect fit for the welder's hand. Includes a detachable pistol grip handle and a work light for dimly lit conditions. Available in 3.5 and 5 meters. Wire diameter 0.8–1.6 mm.



### X8 MIG Gun 600-w

Water-cooled welding gun with 250 mm neck length. Includes a detachable pistol grip handle and a work light for dimly lit conditions. X8 MIG Gun 600-w is a great choice for heavy duty manual and mechanized welding solutions. Available in 5 meters. Wire diameter 1.2–2.4 mm.



### X8 MIG Gun 200-g

Gas-cooled welding gun with threaded gas nozzle and fast-changeable rotating neck. Ergonomically designed to fit the welder's hand. Includes an easy-to-connect pistol grip handle and a work light. Available in 3.5 and 5 meters. Wire diameter 0.8–1.2 mm.



### X8 MIG Gun 300-g

Gas-cooled welding gun with threaded gas nozzle and fast-changeable rotating neck. Ergonomically designed to fit the welder's hand. Includes an easy-to-connect pistol grip handle and a work light. Available in 3.5 and 5 meters. Wire diameter 0.8–1.2 mm.



### X8 MIG Gun 400-g

Gas-cooled welding gun with threaded gas nozzle and fast-changeable rotating neck. Ergonomically designed to fit the welder's hand. Includes an easy-to-connect pistol grip handle and a work light. Available in 3.5 and 5 meters. Wire diameter 0.8–1.6 mm.



### Interconnection Cable, water-cooled

Water-cooled interconnection cable. Available 70 mm<sup>2</sup> and 95 mm<sup>2</sup> thick and 2 m (only 95 mm<sup>2</sup>) 5 m, 10 m, 20 m and 30 m long.



### Interconnection Cable, gas-cooled

Gas-cooled interconnection cable. Available 70 mm<sup>2</sup> and 95 mm<sup>2</sup> thick and 2 m (only 95 mm<sup>2</sup>), 5 m, 10 m, 20 m and 30 m long.



### Consumables

High quality consumables for the wire feeder and welding guns. In order to find the right consumables to match your needs, please use the Consumable Kit Selector via My Kempfi.



### X8 Gas Cylinder Cart

Additional transportation unit for a gas cylinder. Suitable for use with the X8 MIG Welder.



### Double Wire Feeder Rotating Plate

A rotating plate with  $\pm 90^\circ$  rotation angle for two wire feeders. Seven locking positions, including locking into center position.



### X8 Gun Remote Control

Remote control compatible with the Kempfi X8 MIG Gun range. The X8 Gun Remote Control enables easy and effortless adjustment of welding parameters during welding. Includes a function for selecting and storing memory channels.





### Wire Feeder Counterbalance Arm

Counterbalance arm with stepless counterbalance adjustment and large adjustable working area.



### Wire Feeder Hanger for Boom

A wire feeder hanger with gas spring assisted opening and closing to make the work space more versatile. Two different angles for the wire feeder. Easy and ergonomic wire spool replacement.



### Cable Rack

An elongated handle for storing interconnection cables and the X8 SuperSnake subfeeder.



### Accessory Tray

An accessory tray with cable hooks and long storage tray for parts and tools. Can be installed on either side of the power source.



## TECHNICAL SPECIFICATIONS

### X8 Power Source 500

Product code	X8100501000 (X8100501010 - including WorkPack und WiseFusion)
Connection voltage 3~ 50/60 Hz	380 - 460 V ±10 %
Fuse	32 A
Open circuit power (MMA) (without cooler and wire feeder, fans OFF)	44 - 53 W
Open circuit power (MMA) (without cooler and wire feeder, fans ON)	107 - 111 W
Open circuit power (MMA) (with cooler, without wire feeder, fans ON)	132 - 137 W
Output 60% ED	500 A
Output 100% ED	400 A
Welding current and voltage range, MIG @ 380 V	20A/14V - 500A/55V
Welding current and voltage range, MMA @ 380 V	15A/20V - 500A/57V
Recommended generator power (min)	35 kVA
Open circuit voltage MMA	50 V
Operating temperature range	-20...+40 °C
External dimensions LxWxH	921 x 348 x 795 mm
Weight (no accessories)	95 kg

### Control Pad

Product code	X8400110001 (Spare part)
Battery type	Li-ion
Wireless communication type	2.4 GHz Bluetooth
Typical battery operation time	15-24 h
Typical battery charging time	5 h
Typical wireless communication range	15 m
Wired communication type	USB
Display type	TFT LCD
Display size	5.7"
Operating temperature range	-20...+40 °C
External dimensions LxWxH	200 x 130 x 33 mm
Weight (no accessories)	0.89 kg
Degree of protection	IP54





## X8 Cooler

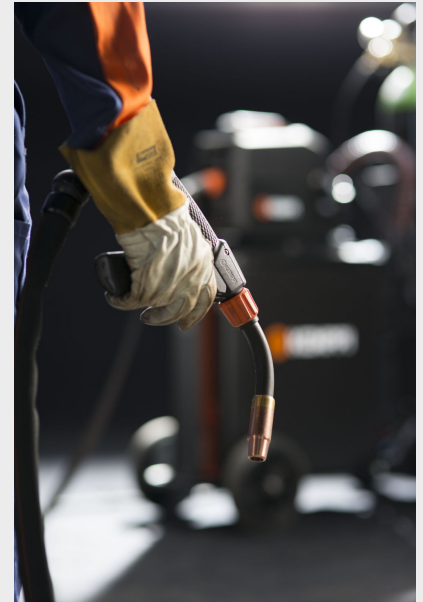
Product code	X8600000000
Rated cooling power at 1 l/min	1.4 kW
Rated cooling power at 1.6 l/min	1.9 kW
Recommended coolant	MPG 4456 (Kempfi mixture)
Operating temperature range	-10...+40 °C
Weight (no accessories)	15.5 kg
Degree of protection	IP23S
Tank volume	4 l
EMC class	A

## X8 Wire Feeder

Product code	X8200000002 (X8200000001 with cabinet heater)
Wire feed mechanism	4-roll, twin-motor
Welding current 40 % ED, I2	600 A
Welding current 60 % ED, I2	530 A
Welding current 100 % ED, I2	440 A
Gun connection	Kempfi
Filler wires, Ss	0.6 - 2.4 mm
Filler wires, Al	0.8 - 2.4 mm
Filler wires, Fe	0.6 - 2.4 mm
Filler wires, MC/FC	0.8 - 2.4 mm
Wire feed speed	0.5 - 25 m/min
Wireless communication type	2.4 GHz Bluetooth
Operating temperature range	-20...+40 °C
External dimensions LxWxH	640 x 220 x 400 mm
Weight (no accessories)	11.2 kg
Degree of protection	IP23S
Wire spool weight, max.	20 kg
Wire spool diameter, max.	300 mm
EMC class	A

## Wire Feeder Rotating Plate

Product code	X8702010000
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## X8 MIG Gun 520-w

Product code	X8 MIG Gun 520-w 3,5 m - X8300523500 X8 MIG Gun 520-w 5,0 m - X8300525000
Gun connection	Kemppi
Cooling	Liquid
Filler wires, Ss	0.8/0.9/1.0/1.2/1.4/1.6
Filler wires, Al	0.8/0.9/1.0/1.2/1.4/1.6
Filler wires, Fe	0.8/0.9/1.0/1.2/1.4/1.6
Filler wires, Fe-MC/FC	0.9/1.0/1.2/1.4/1.6
Filler wires, Ss-MC/FC	0.9/1.0/1.2/1.4/1.6
Load capacity @ 100 % (Mixed gas)	520
Neck angles	50
Changeable neck	No
Rotating neck	No
Pistol grip handle	Yes
Operating temperature range	-20...+40 °C
Standards	IEC 60974-7

## X8 Wheel Set

Product code	X8701010000
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## Interconnection Cable 2 m, water-cooled

Product code	X8800950200
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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 13 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.

