

# AX MIG Welder

TRACEABLE HIGH-PERFORMANCE ROBOTIC WELDING



17.05.2024



Designed for welders



## AX MIG Welder



### TRACEABLE HIGH-PERFORMANCE ROBOTIC WELDING

**The Kempki AX MIG Welder** brings powerful performance and maximum productivity potential to your robotic welding system. **Enjoy easy integration and ensure repeatable, high-quality welds** with high-performance arc welding applications.

With a 400 or 500 A power source and robotic wire feeder, the AX MIG Welder thrives in 24/7 high-intensity automated welding applications. Need more? Activate **MAX or Wise arc performance welding processes** to increase speed, lower heat input, and increase penetration for challenging robotic welding applications or demanding production targets. MAX and Wise processes are optimized for robotic welding applications.

**The AX MIG Welder is easy to integrate into your robotic welding system.** With a comprehensive set of connectivity options, it offers new ways to get the most out of your arc welding robot. The AX MIG Welder has an intuitive remote control user interface designed by the world's leading UX team. It's easy to use and can be accessed anywhere on your laptop or mobile device through a web browser.

**Weld Assist** helps anyone find the right welding parameters quickly, and Industry 4.0 monitoring can be added for improved traceability and transparent reporting on key robotic welding performance metrics. With a three-month trial, you can try the **WeldEye ArcVision** and the dWPS module free of charge.

Ensure repeatable, high-quality welds from your arc welding robot with fine-tuned ignition and a precise seam tracking signal. **Touch Sense** is used to determine the location of the weld seam in relation to the robot, and the **Through Arc Seam Tracking (TAST)** feature helps the robotic welding system correct the welding path if there are deviations in the joint. There is also a **Gas Flow Sensor** and **Collision Detection**.



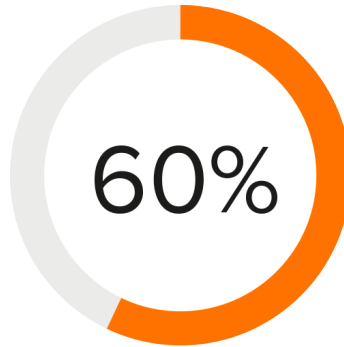
Adding an AX MIG Welder to your robotic welding system is easy. It's the best way to get high-quality automated welds and the latest welding connectivity features.

## KEY BENEFITS



### SIMPLE INTEGRATION, FAST SETUP

After just a few hours of setup work, AX MIG Welder is ready for welding.



### EASE OF USE

Clear and simple, web browser-based user interface with Weld Assist guidance tool for up to 60 % faster setup of optimal welding parameters.



### HIGH PERFORMANCE, LOW MAINTENANCE

430 A @ ED 100 % and MAX or Wise welding processes optimized for robotic welding elevate productivity.

## BENEFITS

- Compatible with most robotic welding systems
- Designed for easy and fast integration and setup regardless of robotic welding application
- Several power source options with 400 and 500 A for synergic and pulse MIG welding
- Intuitive and easy-to-use web browser-based user interface for adjusting welding machine remotely. Enables radical savings in setup time and quick and easy parameter configuration, system management, and monitoring throughout the equipment's life cycle.
- **Weld Assist** guidance tool for fast parameter setting allows the welding to start up to 60% faster than manual parameter setting.
- With 430 A @ 100% duty cycle, AX MIG Welder handles demanding industrial welding work with less cooling time.
- **Wise** and **MAX** arc performance welding processes are optimized for robotic welding, increasing welding speed, quality, and control. The same equipment can be used for various welding tasks and applications.
- Suitable for any industry using robotic welding for thin and thick mild steel, stainless steel, and aluminum components.
- Native connection to **WeldEye ArcVision** allows monitoring of key robotic welding applications anywhere. 3-month free trial of WeldEye ArcVision includes a dWPS module
- The **Touch Sense** function detects contact between the filler wire and the workpiece, allowing the robot to determine the starting point of the weld.



- The **Through Arc Seam Tracking (TAST)** helps the robotic welding system correct the welding path if there are deviations in the joint.
- The **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.
- **Collision Detection** prevents the torch from hitting unwanted objects.
- **Touch Sense Ignition** delivers minimum spatter and stabilizes the arc immediately after ignition.



## PRODUCT OPTIONS



### X5 Power Source 400

Multi-process power source that provides 400 A with 60% duty cycle. Manual and synergic welding options available. Compatible with MAX Speed, MAX Cool, WiseFusion, WiseSteel, and WisePenetration+ welding processes. In robotic welding applications, TIG and MMA processes are not available.



### X5 Power Source 400 Pulse

Multi-process power source that provides 400 A with 60% duty cycle. Manual, synergic, pulse, and double pulse welding options available. Compatible with all MAX welding processes as well as WiseFusion, WisePenetration+, and WiseSteel welding processes. In robotic welding applications, TIG and MMA processes are not available.



### X5 Power Source 400 Pulse+

Multi-process power source that provides 400 A with 60% duty cycle. Manual, synergic, pulse, and double pulse welding options available. Compatible with all MAX welding processes as well as WiseFusion, WisePenetration+, WiseRoot+, WiseThin+, and WiseSteel welding processes. In robotic welding applications, TIG and MMA processes are not available.



### X5 Power Source 500

Multi-process power source that provides 500 A with 60% duty cycle. Manual and synergic welding options available. Compatible with MAX Speed, MAX Cool, WiseSteel, WiseFusion, and WisePenetration+ welding processes. In robotic welding applications, TIG and MMA processes are not available.



### X5 Power Source 500 Pulse

Multi-process power source that provides 500 A with 60% duty cycle. Manual, synergic, pulse, and double pulse welding options available. Compatible with all MAX welding processes as well as WiseFusion, WisePenetration+, and WiseSteel welding processes. In robotic welding applications, TIG and MMA processes are not available.



### X5 Power Source 500 Pulse+

Multi-process power source that provides 500 A with 60% duty cycle. Manual, synergic, pulse, and double pulse welding options available. Compatible with all MAX welding processes as well as WiseFusion, WisePenetration+, WiseRoot+, WiseThin+, and WiseSteel welding processes. In robotic welding applications, TIG and MMA processes are not available.



### R500 Wire Feeder

The R500 Wire Feeder is a durable and powerful 4-wheel wire feed system with two motors designed to work seamlessly with the AX MIG Welder. A separate attachment bracket is required to mount the wire feeder on a robot. Includes the following integrated features: gas test button, wire feed and wire retract buttons, and backlight behind drive wheels.



### R500+ Wire Feeder

The R500 Wire Feeder is a durable and powerful 4-wheel wire feed system with two motors designed to work seamlessly with the AX MIG Welder. A separate attachment bracket is required to mount the wire feeder on a robot. Includes the following integrated features: gas test button, wire feed and wire retract buttons, gas flow sensor, compressed air blow valve for gun cleaning, and backlight behind drive wheels.



### RCM (AX)

The robot connectivity module, RCM, is the heart of the robotic welding system. It is responsible for the automation's fieldbus connection, WeldEye connection, user interface (WebUI), touch sensing, and many features of robot welding, including LAN and WLAN (WiFi) connectivity (WiFi only in the RCM+ model). The web-based user interface (WebUI) can be used with any device with a web browser, including mobile, tablet, PC, laptop, or industrial PC.



## MAX COOL

### MAX Cool

A welding process that lowers heat input compared to traditional pulse or short arc process, improving weld pool stability and control. MAX Cool is ideal for thin sheet metal fabrication, root welding, gap bridging, and joining thin extruded sections.

## MAX POSITION

### MAX Position

A welding process that helps manage gravitational effects on a molten weld pool, leading to easier position welding. MAX Position is designed for steel, stainless steel, and aluminum welding applications.

## MAX SPEED

### MAX Speed

A welding process especially designed to increase welding travel speed compared to traditional pulse or spray arc process. MAX Speed reduces labour time and welding costs in steel and stainless steel welding applications.



### 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.



### 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.



### 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.



### AX Work Pack Pulse

AX Work Pack Pulse includes 14 pulse welding programs optimized for robotic welding. See the list of welding programs under the technical specifications sheet.



### AX Work Pack 1-MIG

AX Work Pack 1-MIG includes seven 1-MIG welding programs optimized for robotic welding. See the list of welding programs under the technical specifications sheet.



## FEATURES



### Intuitive user interface (WebUI)

The intuitive and easy-to-use web browser-based user interface lets you adjust machines remotely, saving time on setup and letting you manage and monitor the system throughout the equipment lifecycle. The user interface can be used with any device with a web browser – mobile phone, tablet, laptop, or any other industrial PC.



### Easy integration

Integrating the AX MIG Welder is easy and fast, thanks to a set of connectivity options that offer new ways to get the most out of your arc welding robotics. Fast and simple setup and integration, plus lifetime support from Kemppi, makes getting down to business quick and easy from day one and well into the future.



### Up to 70% faster welding travel speed

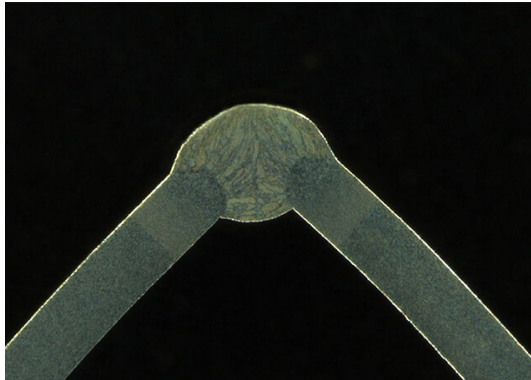
MAX Speed increases welding travel speed by up to 70% compared to traditional pulse or spray arc processes. MAX Speed produces clean, top-quality weld seams, effectively reducing labor time and welding costs. MAX Speed is designed for steel and stainless steel welding applications in the PA and PB positions. MAX Speed is optimized for robotic welding applications.



### More control on weld pool in position welding

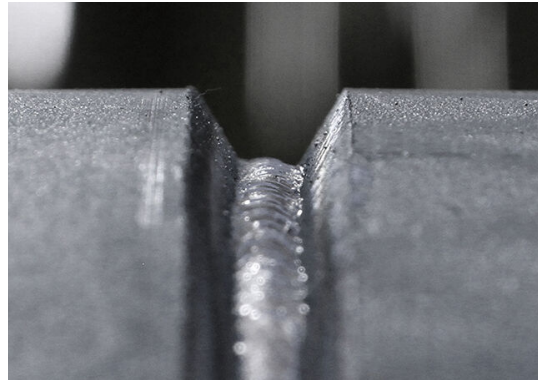
MAX Position helps manage gravitational effects on a molten weld pool. MAX Position improves control and confidence when working in the position, and is excellent when filling and capping in steel, stainless steel, and aluminum applications in the PF position.

MAX Cool is optimized for robotic welding applications.



### Over 30% lower heat input

MAX Cool lowers heat input by up to 32%, improving control where excessive temperatures negatively impact weld pool stability and increase joint distortion. MAX Cool is the ideal solution for a variety of applications, including thin sheet fabrication, root welding, gap bridging, and joining thin extruded sections in solid Fe, Ss, CuAl8, and CuSi3 filler materials. MAX Cool is optimized for robotic welding applications.



### Highly efficient root pass welding

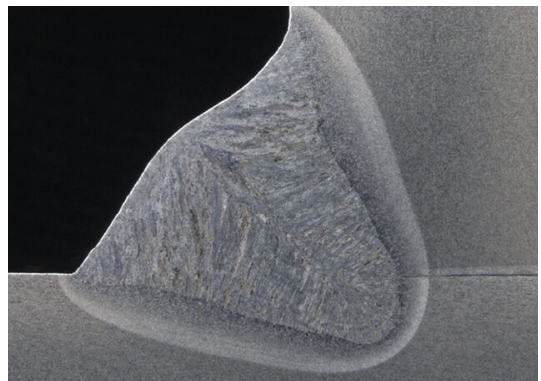
WiseRoot+ is an optimized short circuiting process for root pass welding without backing. The process is highly effective being significantly faster than stick (MMA), TIG and standard MIG/MAG short arc welding, yet producing high quality welds. The welding of fixed pipes in any position is possible and groove angle can be reduced by even 40%, depending on the application. WiseRoot+ is optimized for robotic welding applications.



### Increased welding speed and better quality

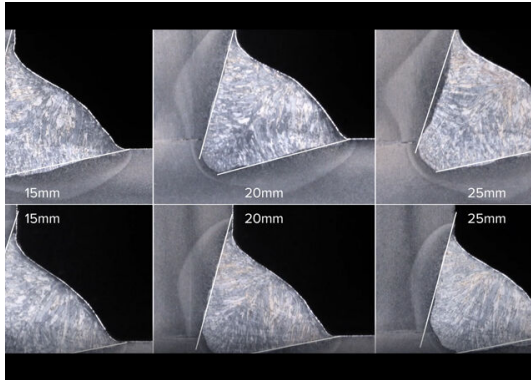
WiseThin+ is developed for faster and productive manual and automated thin sheet welding, for ferrous and non-ferrous materials. With the process you can weld in any position and also down hand, even with wide gap or varying gap tolerances. Weld pool control is excellent and the amount and size of spatters reduced. WiseThin+ provides even 25% lower heat input than normal MIG/MAG welding, reducing material distortion and post weld rework.

WiseThin+ is optimized for robotic welding applications.



### Quality, speed and ease-of-use

WiseFusion optimized welding function produces a very narrow and energy dense welding arc making welding faster and heat input lower. Focused penetration area allows the welding of narrow and deep grooves. WiseFusion results in excellent penetration without a risk of undercut. Narrower arc also facilitates weld pool control in position welding.



### Invariable penetration in demanding conditions

WisePenetration+ optimized welding function is designed to keep welding current and thus penetration invariable. Normally in MIG/MAG welding the power to the weld pool is changing as the welder or weld piece dictates the distance between the joint and welding gun nozzle. These deviations may result in quality issues such as lack of fusion, incomplete or inconsistent penetration, changes in weld profile and of course welding spatter. WisePenetration+ solves these issues and reduces the need for post-grinding and repair work. WisePenetration+ is optimized for robotic welding applications.



### Boost efficiency and reduce spatters in mild steels

Optimized arc characteristics for different transfer modes make MIG welding of carbon steels easy and efficient with WiseSteel. For example, thanks to the intelligent control system, challenges related to the globular transfer are now tackled. This is achieved by alternating short arc transfer with spray transfer, which reduces spatter by up to 30%, increases travel speed, and produces high-quality welds characterized by regular fish-scale pattern.



### AX MIG Welder for steel welding

Non-alloy steels are still widely used in industrial production. The production of details made of mild steel can be even faster thanks to robotic stations.

Moreover, it's also possible due to the use of special, highly efficient welding processes implemented into welding equipment and the possibility of continuous development of these units by uploading new welding curves allowing for even greater efficiency while maintaining high quality. Typical industry segments: shipbuilding, offshore, general industry, machine manufacturing, and container manufacturing. Click 'Read more' to see an example of AX MIG Welder configuration (as a reference only) for steel welding.

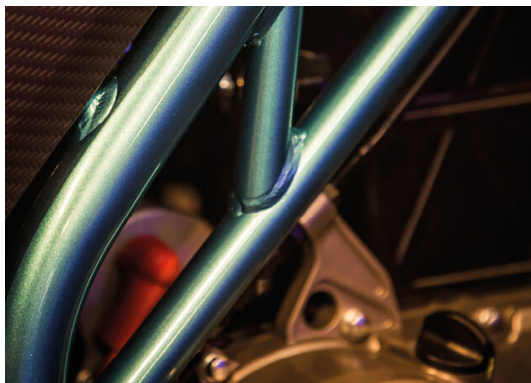


### AX MIG welder for stainless steel welding

The share of stainless steel in industrial production grows constantly. It is a more demanding material than mild steel, but thanks to keeping production regimes, which is much easier in robotic applications, welding of stainless steel is now extremely efficient. The use of advanced welding equipment in robotic stations enables quick and flexible adjustment of the station to constant changes in steel grade and higher quality requirements. Welding equipment with implemented monitoring of welding parameters is a key factor in the development of this industry. Typical industry segments: food industry, chemical industry, process industry, pharmaceutical industry, pipes, and

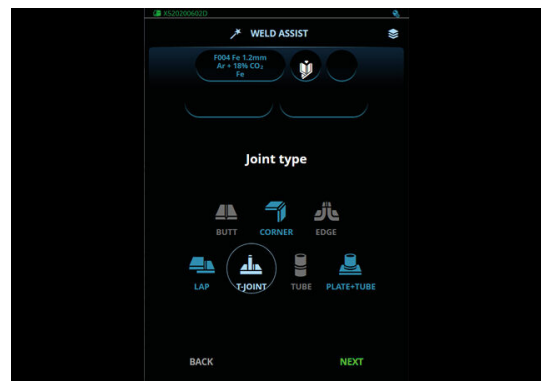


pipelines. Click 'Read more' to see an example of AX MIG Welder configuration (as a reference only) for stainless steel welding.



### AX MIG Welder for aluminum welding

Aluminum is more and more common material used in production. It acts as a lightweight alternative to steel as it provides a better strength-to-weight ratio and corrosion resistance. However, this material does not behave like steel in welding applications, especially because of its high thermal conductivity and low melting point. Efficient and quality of aluminum welding largely depend on the right equipment and the right welding curves. Typical industry segments: boat- and shipbuilding, (e-)transportation, trailers, automotive, wheel frames, and battery cell cooling. Click 'Read more' to see an example of AX MIG Welder configuration (as a reference only) for aluminum welding.



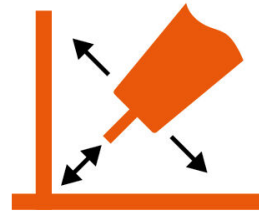
### Weld Assist tool for faster parameter setting

AX MIG Welder includes a Weld Assist guidance tool for fast setup. Just select the joint type, welding position, and material thickness, and the robot is ready to weld. Weld Assist supports Al, Fe, and Ss materials and 1-MIG and pulse welding processes.



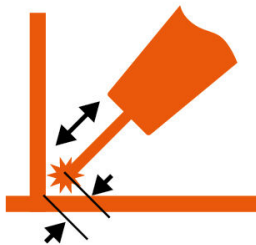
### Track arc on time and welding parameters

WeldEye ArcVision is an integrated Industry 4.0 solution that tracks and records arc-on time and welding parameters for better insight into welding production. Activate your free three-month trial license of WeldEye ArcVision with no obligation. The trial license also includes WeldEye's Welding Procedures module, allowing the user to test the digital WPS (dWPS) feature.



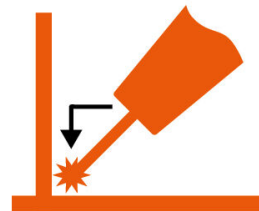
### Through Arc Seam Tracking (TAST)

The power source sends arc and stick-out lengths to the robot as one value. The robot uses this value to keep the stick-out length stable and welding on the right path. Robot weaving is needed for seam positioning. This function is used when taught welding path is not accurate with respect to the actual seam. For example, when welding big workpieces in shipyards, the machinery industry, the power plant industry, etc.



### Touch Sense Ignition (TSI)

Touch Sense Ignition (TSI) enables a reliable, non-short-circuit ignition, which minimizes the amount of weld spatter and reduces the need for post-weld cleaning.



### Touch Sensing

With the Touch Sensing function, a robot can find the start and/or end point of the seam. The principle is that the power source directs the search voltage to the welding wire or gas nozzle (50-200V). When the wire or nozzle touches a grounded workpiece, the robot receives a message about the touch and saves the position.



### Collision Detection

The Collision Detection function of the power source transmits the message from the collision detector via the connector of the wire feeder to the robot's fieldbus or I/O card if an optional I/O card is used. This function requires a collision sensor mounted on the robot's flange.



### Gas Flow measurement

The gas flow meter monitors the gas flow during the welding and notifies the robot immediately if the gas flow falls below the limit value.



## ACCESSORIES



### X5 Cooler 1400

Quick to assemble X5 Cooler 1400 with Auto/ON/OFF operation. Easy to fill up and check the coolant level. Dynamic cooling reduces electrical power consumption and localized noise levels. The cooling unit has an adjustable flow sensor and filter to ensure continuous cooling.



### Robot interface module for AX

Fieldbus communication between the power source and robot controller is enabled with different types of modules. The protocol can be chosen based on the customer preference. The most commonly used is Ethernet IP. KUKA and Beckhoff use Ethercat. Profinet?ofibus is typical for Siemens, and Modbus is being used in Universal Robot. DeviceNet is a typical network protocol in older systems.



### R500 Wire Feeder Mounting Brackets

Brackets for mounting the R500 wire feeder on the robot's 3rd axis. The set consists of two parts: top and bottom.

The top bracket is designed for the wire feeder. The bottom bracket is designed for specific robot models. Order code includes metal plates, insulation rings, and screws. Screws for the robot's 3rd axis are not included.



### Stand for power source

Stand for easy transport and keeping the floor free under a power source.



### Interconnection cables for AX

The interconnection cable set contains several cables and hoses. The cable set is used for delivering the welding power, shielding gas, cooling liquid, and control signals from the welding power source to the wire feeder. The interconnection cable set includes a voltage sense cable, which is needed with the "+ models" of X5 power sources.



### Interconnection cable brackets for AX

Metal attachment piece, two cable ties, for zipper bag.



### Earth return cable 70

Earth return cable, available 70 mm<sup>2</sup> thick and 5, 10, and 15 m long.



### Wire conduit for wire spools

High-quality wire conduit delivers the filler wire smoothly from the spool to the feeder. Male connectors on both ends fit into the Kemppi feeder and Kemppi wire spool support. Note! Product codes don't include a female snap connector for a wire spool holder or wire drum (order separately). Note! In the applications of stainless steel or aluminum, a separate chili liner is required.



### Wire conduit for wire drums

Alternative solution for wire conduit when the distance between wire feeder and wire drum is greater than 5 meters. Note! When ordering wire conduit cable SP6007xx with the desired length, you also need snap connectors: two male (W005197) and one female (W005189) – they must be ordered separately.



### Snap connector for drum or spool holder (female)

Female connector for the wire drum or spool holder.



### Snap connector for wire conduit (male)

Male connector for wire conduit. Note! Two pieces needed per conduit



### Wire feed roll kits for AX

Wire feeder roll kits for R500 wire feeders.



### Protective cover for wire spool

Plastic cover for wire spool holder.



### Wire spool holder

Suitable for standard 15 kg wire coil. NOTE: Female connector for wire conduit not included. Must be ordered separately.



### Floor stand for wire spool holder

Floor stand for wire spool holder.



## TECHNICAL SPECIFICATIONS

### POWER SOURCES

#### X5 Power Source 400

Product code	X5110400000
Connection voltage 3~ 50/60 Hz	380...460 V $\pm 10$ %
Fuse	25 A
Output 60% ED	400 A
Output 100% ED	350 A
Rated power at max. current	20 kVA
Recommended generator power (min)	25 kVA
Welding current and voltage range, MIG	15 A/12 V ... 400 A/42 V
Welding current and voltage range, TIG	15 A/1 V ... 400 A/42 V
Welding current and voltage range, MMA	15 A/10 V ... 400 A/42 V
External dimensions LxWxH	750 x 263 x 456 mm
Weight (no accessories)	39.0 kg
Degree of protection	IP23S
EMC class	A
Operating temperature range	-20...+40 °C
Storage temperature range	-40...+60 °C



## X5 Power Source 400 Pulse

Product code	X5130400000
Connection voltage 3~ 50/60 Hz	380 - 460 ±10 %
Fuse	25 A
Output 60% ED	400 A
Output 100% ED	350 A
Rated power at max. current	20 kVA
Recommended generator power (min)	25 kVA
Welding current and voltage range, MIG	15 A/10 V ... 400 A/50V
Welding current and voltage range, TIG	15 A/1 V ... 400 A/50V
Welding current and voltage range, MMA	15 A/10 V ... 400 A/50V
External dimensions LxWxH	750 x 263 x 456 mm
Weight (no accessories)	39.5 kg
Degree of protection	IP23S
EMC class	A
Operating temperature range	-20...+40 °C
Storage temperature range	-40...+60 °C

## X5 Power Source 400 Pulse+

Product code	X5100400000
Connection voltage 3~ 50/60 Hz	380 - 460 ±10 %
Fuse	25 A
Output 60% ED	400 A
Output 100% ED	350 A
Rated power at max. current	20 kVA
Recommended generator power (min)	25 kVA
Welding current and voltage range, MIG	15 A/10 V ... 400 A/50V
Welding current and voltage range, TIG	15 A/1 V ... 400 A/50V
Welding current and voltage range, MMA	15 A/10 V ... 400 A/50V
External dimensions LxWxH	750 x 263 x 456 mm
Weight (no accessories)	39.5 kg
Degree of protection	IP23S
EMC class	A
Operating temperature range	-20...+40 °C
Storage temperature range	-40...+60 °C



## X5 Power Source 500

Product code	X5110500000
Connection voltage 3~ 50/60 Hz	380...460 V $\pm 10$ %
Fuse	32 A
Output 60% ED	500 A
Output 100% ED	430 A
Rated power at max. current	27 kVA
Recommended generator power (min)	35 kVA
Welding current and voltage range, MIG	15 A/10 V ... 500 A/47 V
Welding current and voltage range, TIG	15 A/1 V ... 500 A/47 V
Welding current and voltage range, MMA	15 A/10 V ... 500 A/47 V
External dimensions LxWxH	750 x 263 x 456 mm
Weight (no accessories)	39.5 kg
Degree of protection	IP23S
EMC class	A
Operating temperature range	-20...+40 °C
Storage temperature range	-40...+60 °C

## X5 Power Source 500 Pulse

Product code	X5130500000
Connection voltage 3~ 50/60 Hz	380...460 V $\pm 10$ %
Fuse	32 A
Output 60% ED	500 A
Output 100% ED	400 A
Rated power at max. current	27 kVA
Recommended generator power (min)	35 kVA
Welding current and voltage range, MIG	15 A/10 V ... 500 A/50 V
Welding current and voltage range, TIG	15 A/1 V ... 500 A/50 V
Welding current and voltage range, MMA	15 A/10 V ... 500 A/50 V
External dimensions LxWxH	750 x 263 x 456 mm
Weight (no accessories)	39.5 kg
Degree of protection	P23S
EMC class	A
Operating temperature range	-20...+40 °C
Storage temperature range	-40...+60 °C



## X5 Power Source 500 Pulse+

Product code	X5100500000
Connection voltage 3~ 50/60 Hz	380...460 V $\pm 10$ %
Fuse	32 A
Output 60% ED	500 A
Output 100% ED	400 A
Rated power at max. current	27 kVA
Recommended generator power (min)	35 kVA
Welding current and voltage range, MIG	15 A/10 V ... 500 A/50 V
Welding current and voltage range, TIG	15 A/1 V ... 500 A/50 V
Welding current and voltage range, MMA	15 A/10 V ... 500 A/50 V
External dimensions LxWxH	750 x 263 x 456 mm
Weight (no accessories)	39.5 kg
Degree of protection	P23S
EMC class	A
Operating temperature range	-20...+40 °C
Storage temperature range	-40...+60 °C

## WIRE FEEDERS

### R500 Wire Feeder

Product code	RX20150025L
Wire feed mechanism	4-roll, two motors
Wire feed speed adjustment	0.5–25 m/min
Gun connection	Euro
Filler wire sizes (Fe solid)	0.8–1.6 mm 1.0–1.6 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
Filler wire sizes (CuSi)	0.8–1.2 mm
Operating voltage (safety voltage)	48 V DC
External dimensions LxWxH	374 x 234 x 183 mm
Weight (no accessories)	6.15 kg
Degree of protection	IP215
EMC class	A
Operating temperature range	-20...+40 °C
Storage temperature range	-40...+60 °C



## R500+ Wire Feeder

Product code	RX21150025L
Wire feed mechanism	4-roll, two motors
Wire feed speed adjustment	0.5–25 m/min
Gun connection	Euro
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
Filler wire sizes (CuSi)	0.8–1.2 mm
Operating voltage (safety voltage)	48 V DC
External dimensions LxWxH	374 x 234 x 183 mm
Weight (no accessories)	6.75 kg
Degree of protection	IP215
EMC class	A
Operating temperature range	-20...+40 °C
Storage temperature range	-40...+60 °C

## ROBOT CONNECTIVITY MODULE

### RCM (AX)

Product code	RX311000000 – RCM+ with WLAN RX301000000 – RCM without WLAN
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## SOFTWARE

### MAX Cool

Product code	MSM70000 (Product code for Master M) X570000 (Product code for X5 FastMig) AX80000 (Product code for AX MIG Welder)
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### MAX Position

Product code	MSM90000 (Product code for Master M) X590000 (Product code for X5 FastMig) AX60000 (Product code for AX MIG Welder)
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### MAX Speed

Product code	MSM80000 (Product code for Master M) X580000 (Product code for X5 FastMig) AX70000 (Product code for AX MIG Welder)
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## WiseFusion

Product code	X5500001 (Product code for X5 FastMig) X8500000 (Product code for X8 MIG Welder) MSM40000 (Product code for Master M) AX30000 (Product code for AX MIG Welder)
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## WisePenetration+

Product code	X5500002 (Product code for X5 FastMig) X8500002 (Product code for X8 MIG Welder) MSM50000 (Product code for Master M) AX20000 (Product code for AX MIG Welder)
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## WiseThin+

Product code	X8500004 (Product code for X8 MIG Welder) X5500004 (Product code for X5 FastMig) AX50000 (Product code for AX MIG Welder) 9990419 (Product code for FastMig X)
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## WiseRoot+

Product code	X8500003 (Product code for X8 MIG Welder) X5500003 (Product code for X5 FastMig) AX40000 (Product code for AX MIG Welder)
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## WiseSteel

Product code	X5500000 (Product code for X5 FastMig) X8500001 (Product code for X8 MIG Welder) MSM60000 (Product code for Master M) AX10000 (Product code for AX MIG Welder)
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## AX Work Pack Pulse

Product code	AX92070200
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## AX Work Pack 1-MIG

Product code	AX92070200
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## ACCESSORIES

### X5 Cooler 1400

Product code	X5620000000
Rated cooling power at 1 l/min	1.4 kW
Recommended coolant	MGP 4456 (Kemppi mixture)
Weight (no accessories)	15 kg
Tank volume	3 l
EMC class	A
Storage temperature range	-40...+60 °C
Operating temperature range (with recommended coolant)	-10...+40 °C
Degree of protection (when mounted)	P23S

### Robot interface module for AX

Product code	See technical specifications.
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### R500 Wire Feeder Mounting Brackets

Product code	See technical specifications.
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### Stand for power source

Product code	X5701050000
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### Interconnection cables for AX

Product code	See technical specifications.
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### Interconnection cable brackets for AX

Product code	SP008072
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### Earth return cable 70

Product code	6184711 (5 m, 70 mm <sup>2</sup> ), 6184712 (10 m, 70 mm <sup>2</sup> ), 6184713 (15 m, 70 mm <sup>2</sup> )
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### Wire conduit for wire spools

Product code	See technical specifications.
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### Wire conduit for wire drums

Product code	See technical specifications
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### Snap connector for drum or spool holder (female)

Product code	W005189
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### Snap connector for wire conduit (male)

Product code	W005197
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### Wire feed roll kits for AX

Product code	See technical specifications.
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### Protective cover for wire spool

Product code	SP007940
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### Wire spool holder

Product code	W007628 (right), W007629 (left)
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### Floor stand for wire spool holder

Product code	W007356
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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.

