














S-ROBO- MIG XT



Process table

MIG-MAG													
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standard for all models
 standard for certain models
 optionally available

Operation concepts



XT

- "3 steps to weld" operating concept
- Display-controlled user prompting,
- straightforward process and synergic line selection
- Dynamic control (for Synergic, SpeedArc XT, and, if included, for SpeedPulse XT)
- Tiptronic job memory for 100 welding tasks
- digital volt-ampere display

TECHNICAL DATA



S3 RoboMIG XT





S5 RoboMIG XT



S8 RoboMIG XT

	S3 RoboMIG XT	S5 RoboMIG XT	S8 RoboMIG XT
MIG-MAG			
- Welding range (in A)	25-320	25-400	25-500
- voltage setting	infinitely variable	infinitely variable	infinitely variable
Duty cycle			
- duty cycle 100% 40 °C (in Amps)	250	320	400
- duty cycle 60% 40 °C (in Amps)	280	350	500
- duty cycle at max. current 40 °C (in %)	40%	50%	60%
Feeder and wire			
- weldable wires steel (in mm)	0,8-1,2	0,8-1,6	0,8-1,6
- weldable wires aluminium (in mm)	1,0-1,2	1,0-1,6	1,0-1,6
Mains			
- mains voltage (in V)	400	400	400
- phases (50/60 Hz)	3~	3~	3~
- positive mains tolerance (in %)	15%	15%	15%
- negative mains tolerance (in %)	15%	15%	15%
- mains fuse (in Amps)	16	32	32
- mains plug	CEE 16	CEE 32	CEE 32
Dimensions and weights			
- power source dimensions (LxWxH) B version (in mm)	845x445x810	845x445x810	845x445x810
- weight, power source B-version gas-cooled (in kg)	82,8	87,3	96,8
- weight, water cooling (filled) (in kg)	14,7	14,7	14,7
Standards and approvals			
- standard	EN 60974-01	EN 60974-01	EN 60974-01
- protection class (EN 60529)	IP23S	IP23S	IP23S
- insulation class	F	F	F
- designation	CE, S	CE, S	CE, S

Versions

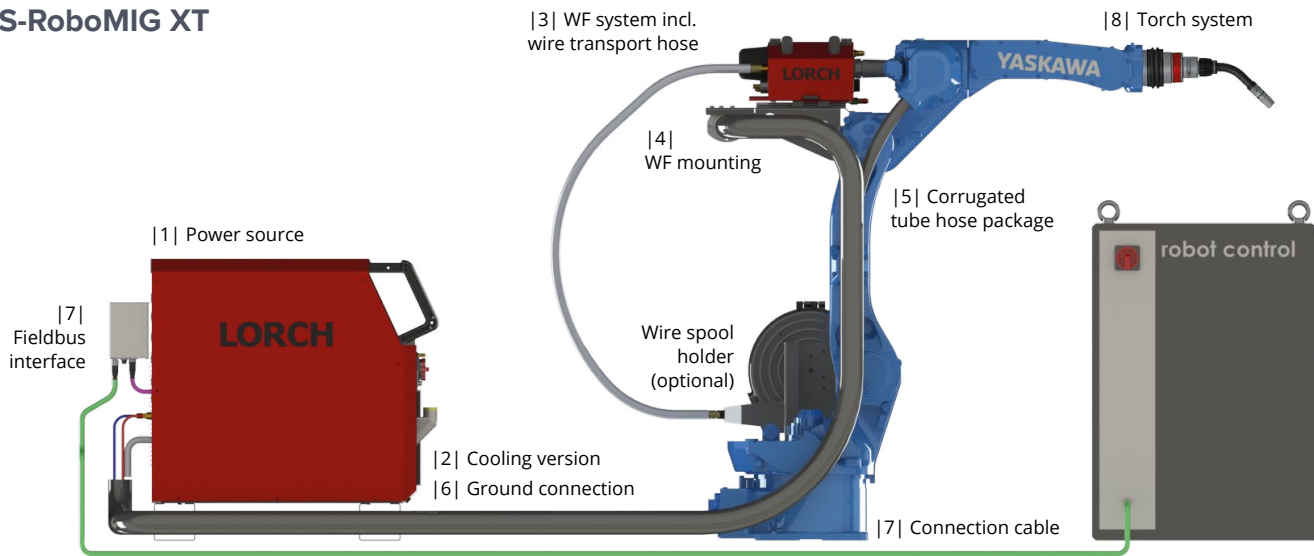
	
Power source	Remote power source
Robot power source with integrated operation panel (stationary or mobile)	Robot power source with separate operational panel (stationary or mobile)

Lorch S-RoboMIG XT

ROBOT WELDING PACKAGES

for Yaskawa

S-RoboMIG XT



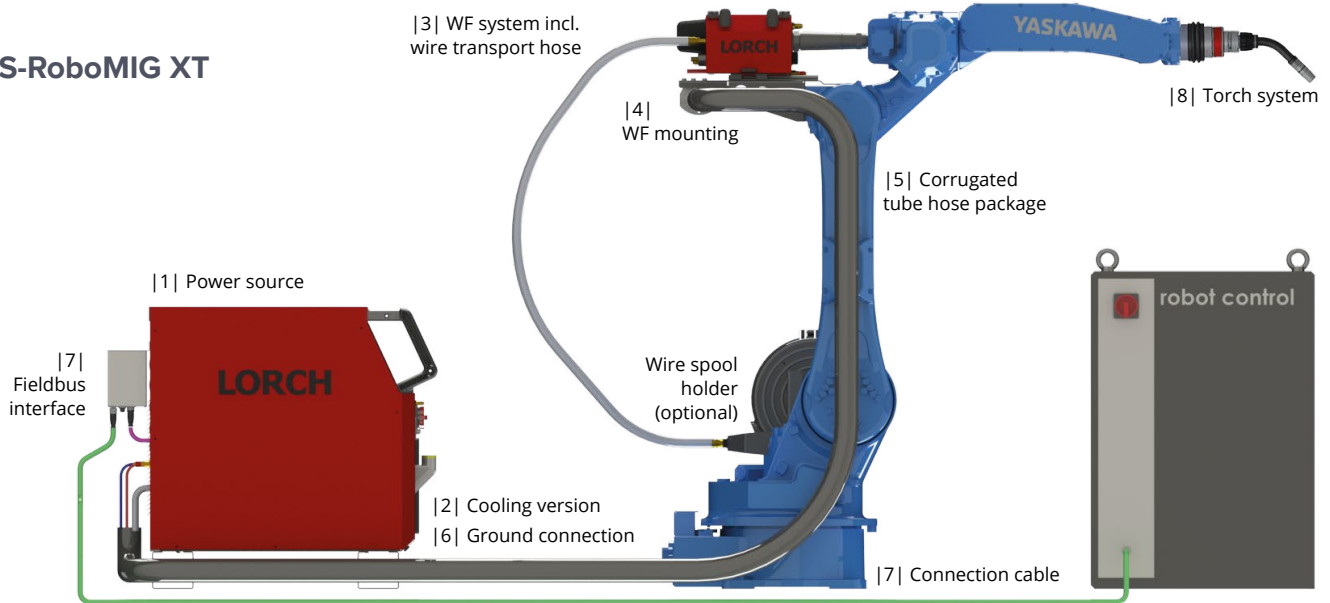
Welding packages for Yaskawa/Motoman AR1440

	Robotic packages S3 RoboMIG XT	Robotic packages S5 RoboMIG XT	Robotic packages S8 RoboMIG XT
Power source equipment	G	W	W
1 Welding current	25 – 320 A	25 – 400 A	25 – 500 A
1 Duty cycle	320 A 40% 250 A 100%	400 A 50% 320 A 100%	500 A 60% 400 A 100%
1 Power source version	SpeedPulse version, including gas-pressure monitoring (integrated in power source) (processes included: SpeedPulse XT, SpeedPulse, SpeedArc XT, TwinPuls XT, Pulse, MIG-MAG-Synergy)		
2 Cooling version	Gas-cooled	Water-cooled	Water-cooled
3 Wire feed system	RF-06 (4 rolls/2 driven, steel 1.0/1.2 mm, Euro connector) incl. 6 m wire transport hose (can be shortened)		
4 Wire feed mounting	Mounting plate – matching the robot type (with sliding system for easier torch maintenance)		
5 Interconnection hose package	Corrugated tube hose package with compressed air line 50 mm ² , 5 m or 10 m	Corrugated tube hose package with compressed air line 70 mm ² , 5 m or 10 m	Corrugated tube hose package with compressed air line 95 mm ² , 5 m or 10 m
6 Ground connection	Welding return cable 95 mm ² with cable shoe (for screw connection M12)		
7 Fieldbus interface	LorchNet connector Ethernet/IP** incl. 5 m connection cable to robot control, plus additional I/O socket		
Torch equipment			
8 Torch type	LMR 2 – TN 6 CTC G	LMR 2 – TN 6 CTC W	LMR 2 – TN 6 CTC W
Duty cycle	Mix 300 A 100% CO ₂ 350 A 100%	Mix 450 A 100% CO ₂ 500 A 100%	Mix 450 A 100% CO ₂ 500 A 100%
Torch hose package	LMR 2 – HP 30-G (HW,SO) with Euro connector – length matching robot type (+/- 270° turning range)	LMR 2 – HP 30-W (HW,SO) with Euro connector – length matching robot type (+/- 270° turning range)	LMR 2 – HP 30-W (HW,SO) with Euro connector – length matching robot type (+/- 270° turning range)
Torch neck/holder bend	45°		
Safety equipment	HW hose package – with integrated safety deactivation		
Starter kit wear parts	Incl. wear parts for steel 1.0/1.2 mm		
Order information welding packages			
Package name	Robotic package for YASKAWA AR1440 - S3 RoboMIG XT G	Robotic package for YASKAWA AR1440 - S5 RoboMIG XT W	Robotic package for YASKAWA AR1440 - S8 RoboMIG XT W
Package order number (5 m)*	231.9413.1	231.9415.5	231.9418.5
Package order number (10 m)*	231.9413.2	231.9415.6	231.9418.6

* Length of interconnection hose package

** Yaskawa interface requirement:
Functional package Lorch DX200 controller (Yaskawa mat. no.: FP191414)
Functional package Lorch VRC1000 controller (Yaskawa mat. no.: FP197847)

S-RoboMIG XT



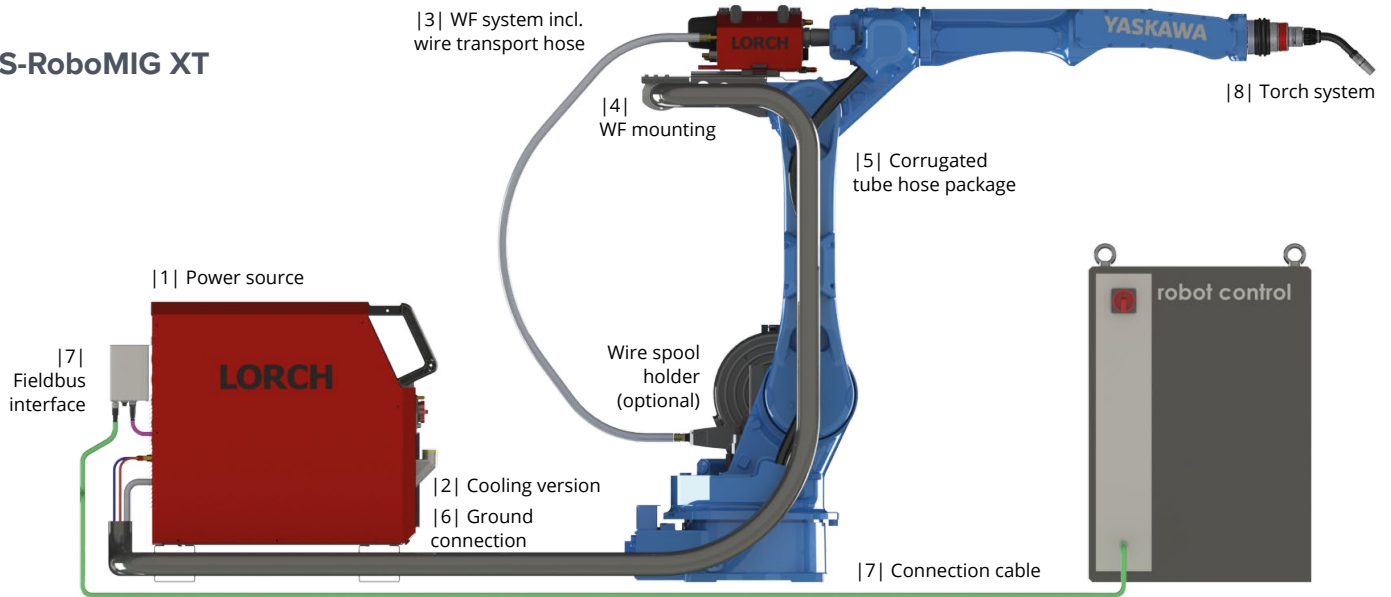
Welding packages for Yaskawa/Motoman AR1730

	Robotic packages S3 RoboMIG XT	Robotic packages S5 RoboMIG XT	Robotic packages S8 RoboMIG XT
Power source equipment	G	W	W
1 Welding current	25 – 320 A	25 – 400 A	25 – 500 A
1 Duty cycle	320 A 40% 250 A 100%	400 A 50% 320 A 100%	500 A 60% 400 A 100%
1 Power source version	SpeedPulse version, including gas-pressure monitoring (integrated in power source) (processes included: SpeedPulse XT, SpeedPulse, SpeedArc XT, TwinPuls XT, Pulse, MIG-MAG-Synergy)		
2 Cooling version	Gas-cooled	Water-cooled	Water-cooled
3 Wire feed system	RF-06 (4 rolls/2 driven, steel 1.0/1.2 mm, Euro connector) incl. 6 m wire transport hose (can be shortened)		
4 Wire feed mounting	Mounting plate – matching the robot type (with sliding system for easier torch maintenance)		
5 Interconnection hose package	Corrugated tube hose package with compressed air line 50 mm ² , 5 m or 10 m	Corrugated tube hose package with compressed air line 70 mm ² , 5 m or 10 m	Corrugated tube hose package with compressed air line 95 mm ² , 5 m or 10 m
6 Ground connection	Welding return cable 95 mm ² with cable shoe (for screw connection M12)		
7 Fieldbus interface	LorchNet connector Ethernet/IP** incl. 5 m connection cable to robot control, plus additional I/O socket		
Torch equipment			
8 Torch type	LMR 2 – TN 6 CTC G	LMR 2 – TN 6 CTC W	LMR 2 – TN 6 CTC W
Duty cycle	Mix 300 A 100% CO ₂ 350 A 100%	Mix 450 A 100% CO ₂ 500 A 100%	Mix 450 A 100% CO ₂ 500 A 100%
Torch hose package	LMR 2 – HP 30-G (HW,SO) with Euro connector – length matching robot type (+/- 270° turning range)	LMR 2 – HP 30-W (HW,SO) with Euro connector – length matching robot type (+/- 270° turning range)	LMR 2 – HP 30-W (HW,SO) with Euro connector – length matching robot type (+/- 270° turning range)
Torch neck/holder bend	45°		
Safety equipment	HW hose package – with integrated safety deactivation		
Starter kit wear parts	Incl. wear parts for steel 1.0/1.2 mm		
Order information welding packages			
Package name	Robotic package for YASKAWA AR1730 – S3 RoboMIG XT G	Robotic package for YASKAWA AR1730 – S5 RoboMIG XT W	Robotic package for YASKAWA AR1730 – S8 RoboMIG XT W
Package order number (5 m)*	231.9433.1	231.9435.5	231.9438.5
Package order number (10 m)*	231.9433.2	231.9435.6	231.9438.6

* Length of interconnection hose package

** Yaskawa interface requirement:
Functional package Lorch DX200 controller (Yaskawa mat. no.: FP191414)
Functional package Lorch VRC1000 controller (Yaskawa mat. no.: FP197847)

S-RoboMIG XT




Welding packages for Yaskawa/Motoman AR2010


	Robotic packages S3 RoboMIG XT	Robotic packages S5 RoboMIG XT	Robotic packages S8 RoboMIG XT
Power source equipment	G	W	W
1 Welding current	25 – 320 A	25 – 400 A	25 – 500 A
1 Duty cycle	320 A 40% 250 A 100%	400 A 50% 320 A 100%	500 A 60% 400 A 100%
1 Power source version	SpeedPulse version, including gas-pressure monitoring (integrated in power source) (processes included: SpeedPulse XT, SpeedPulse, SpeedArc XT, TwinPuls XT, Pulse, MIG-MAG-Synergy)		
2 Cooling version	Gas-cooled	Water-cooled	Water-cooled
3 Wire feed system	RF-06 (4 rolls/2 driven, steel 1.0/1.2 mm, Euro connector) incl. 6 m wire transport hose (can be shortened)		
4 Wire feed mounting	Mounting plate – matching the robot type (with sliding system for easier torch maintenance)		
5 Interconnection hose package	Corrugated tube hose package with compressed air line 50 mm ² , 5 m or 10 m	Corrugated tube hose package with compressed air line 70 mm ² , 5 m or 10 m	Corrugated tube hose package with compressed air line 95 mm ² , 5 m or 10 m
6 Ground connection	Welding return cable 95 mm ² with cable shoe (for screw connection M12)		
7 Fieldbus interface	LorchNet connector Ethernet/IP** incl. 5 m connection cable to robot control, plus additional I/O socket		
Torch equipment			
8 Torch type	LMR 2 – TN 6 CTC G	LMR 2 – TN 6 CTC W	LMR 2 – TN 6 CTC W
Duty cycle	Mix 300 A 100% CO ₂ 350 A 100%	Mix 450 A 100% CO ₂ 500 A 100%	Mix 450 A 100% CO ₂ 500 A 100%
Torch hose package	LMR 2 – HP 30-G (HW,SO) with Euro connector – length matching robot type (+/- 270° turning range)	LMR 2 – HP 30-W (HW,SO) with Euro connector – length matching robot type (+/- 270° turning range)	LMR 2 – HP 30-W (HW,SO) with Euro connector – length matching robot type (+/- 270° turning range)
Torch neck/holder bend	45°		
Safety equipment	HW hose package – with integrated safety deactivation		
Starter kit wear parts	Incl. wear parts for steel 1.0/1.2 mm		
Order information welding packages			
Package name	Robotic package for YASKAWA AR2010 – S3 RoboMIG XT G	Robotic package for YASKAWA AR2010 – S5 RoboMIG XT W	Robotic package for YASKAWA AR2010 – S8 RoboMIG XT W
Package order number (5 m)*	231.9423.1	231.9425.5	231.9428.5
Package order number (10 m)*	231.9423.2	231.9425.6	231.9428.6


* Length of interconnection hose package

** Yaskawa interface requirement:
Functional package Lorch DX200 controller (Yaskawa mat. no.: FP191414)
Functional package Lorch VRC1000 controller (Yaskawa mat. no.: FP197847)

Optional accessories for robot welding packages

Remote control	
Version	Order no.
 <p>Manual remote control HR 918 including 5 m connection cable to the power source</p>	570.2211.0

Bulk pack accessories	
Version	Order no.
 <p>Drum adapter with quick-action coupling</p>	612.6027.0

Wire spool holder	
Version	Order No.
 <p>Wire spool holder external (for wall anchoring)</p>	450.0028.0
<p>Wire spool holder Yaskawa 1</p>	570.8652.0

Sample photo
Delivery always inclusive plastic wire spool cover

Inter-connection hose package mounting	
Version	Order No.


Welding process and functional upgrades							
SpeedUp		SpeedRoot		SpeedCold		Seam tracking	
 <p>360° operation. Weld vertical seams and other fixed positions quickly and with perfect ease and process reliability.</p>		 <p>Top-tier gap bridging. Challenging root welding made easy.</p>		 <p>Reduced heat input. Ideal for thin metal sheets.</p>		 <p>Special software signal suitable both for vertical and horizontal adjustment of the torch guidance.</p>	
Order no.	575.1002.0	Order no.	575.1011.0	Order no.	575.1013.0	Order no.	575.1021.0

All upgrades require Windows-PC/laptop plus Lorch CAN-dongle set 570.2224.9 for installation.

Additional wire feeder rolls for steel/stainless steel			
Version		Order no.	Ordering note
	Feed roll 0.8/1.0	620.8709.0	Always order wire feed rolls in pairs
	Feed roll 0.9/1.2	620.8939.0	
	Feed roll 1.0/1.2*	620.8941.0	
	Feed roll 1.2/1.6	620.8942.0	

*including as standard in the robot welding packages

Additional torch equipment for stainless steel and aluminium	
Version	Order no.
LMR 2 – HP A-set AL/CrNi (1.0/1.2)	546.0000.2

Pressure reducer	
Version	Order no.
 <p>Pressure reducer Pro Ar/Co2 C 200 bar 32/24</p>	570.9265.0

Aluminium applications
Lorch robotic welding machines are also available as push-pull systems for aluminium applications upon request.

THE S-ROBOMIG AND THE SPEEDCOLD WELDING PROCESS COMBINE INTO AN EFFICIENT DUO

WELDING MILLIMETRE-FINE STEEL FAST & WITHOUT DISTORTION

Stivent Industrie near the French city of Poitiers has made a name for itself across Europe with special filter and extraction technology devices. The medium-sized company's products include a special system that can efficiently transport large quantities of glass or rock wool to all levels of a building via a hose and blower. The apparatus chassis is made up of very thin galvanised steel plates no more than 1.0 to 1.6 millimetres thick, depending on the model. The construction is made up of stainless steel tubes with significantly larger wall thicknesses for reinforcement. These keep the entire device sufficiently stable. Stivent decided to use a combination of the high-performance S-RoboMIG welding system and the SpeedCold welding process from Lorch in order to permit the most efficient chassis production. As a result, the new robot solution sped up welding by up to

40 percent. Additionally, significant savings in the welding cycle and power consumption were made possible. SpeedCold also extremely reduced the amount of rework required.

OVERVIEW

STIVENT INDUSTRIE

- Mirebeau, France
- 85 employees
- Apparatus construction
- www.stivent.com



The Lorch robot solution offers high flexibility and an easy start into welding automation.



Thin steel plates with thicknesses between 1.0 and 1.6 millimetres are welded to the base frame. The Lorch SpeedCold welding process only applies the energy currently required.

Stable welding at low heat application thanks to Speed Cold technology

S-ROBOMIG ENSURES MAXIMUM FLEXIBILITY AND FIRST-CLASS, REPRODUCIBLE WELD SEAMS

The SpeedCold procedure, as a special thin-sheet process, controls the process sequence so precisely that it reacts to changes in the arc in milliseconds and ensures excellent weld pool control at all times, even at low energy input. SpeedCold contributes energy precisely matching the requirements in the respective process section, i.e. up to 25 percent less than with conventional MIG-MAG-welding. As a result, SpeedCold has outstanding properties for weld seam modelling and gap bridging. Barely any spatter or material distortion

require less rework, thereby adding further advantages. The small amount of spatter remains cold and will not adhere to the chassis, allowing its easy removal with a glove. The S-RoboMIG robot solution offers the advantage of allowing flexible combination with any robot system from well-known manufacturers. The integrated solution of welding source and robot ensures fast, weld seams of outstanding quality every single time.



„We have increased our welding speed by up to 40 percent with the S-RoboMIG and achieved great savings in the welding cycle and power consumption.“

– Philippe Becel, managing director

FACTS

- Sheets up to 0.5 mm can be welded reliably and with almost optimal spattering behavior
- Heat input up to 25 percent lower than with conventional MIG-MAG welding
- Optimum control of the arc: SpeedCold regulation controls the process sequence so precisely that it reacts to changes in the arc in milliseconds
- Outstanding seam modeling and gap bridging properties
- Welding speed advantage of up to 40 percent
- Distortion-free welding even with the smallest sheet thicknesses

