MOTOMAN-AR Series

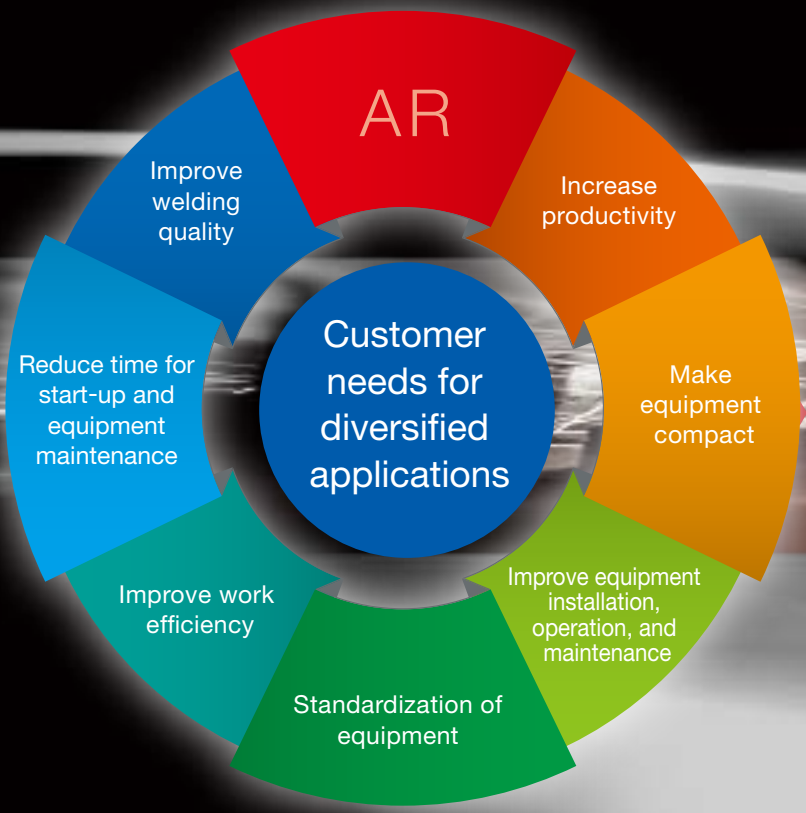
Arc Welding Application

Технические характеристики

Robot System Solutions

MOTOMAN-AR Series

Find smart solutions for your production site with YASKAWA's cutting-edge robot systems.







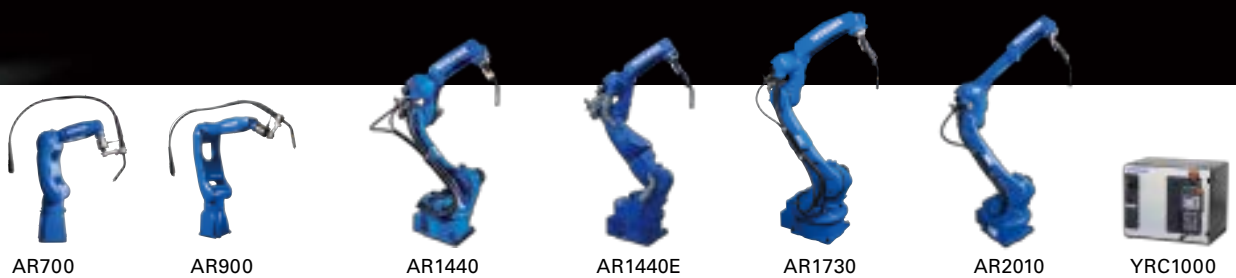

YASKAWA has the answer

We can meet our customers' diverse needs with a wide range of functions and components.

Application examples

Large and long workpieces, automobile suspensions, construction machines, agricultural equipment, shipbuilding, steel beams, etc.

See application examples on page 4 and 5.



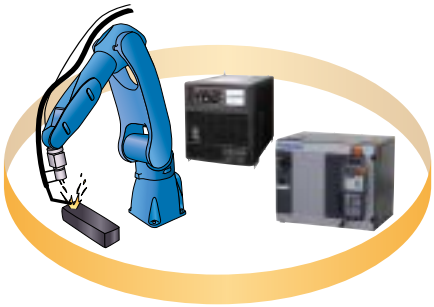
YASKAWA's extensive know-how in robotics technologies can meet the requirements of a wide range of systems.

Welding of small parts

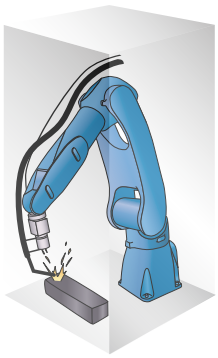
Executed in minimum installation space

Our MOTOMAN robots achieve high-quality welding of small parts in a compact cell. By using welding robots with a 700-mm reach, small parts can be welded in minimum installation space.

The layout of each cell can be changed easily by installing a robot controller and a welding power source inside the cell.



High-quality welding of small parts in a compact cell

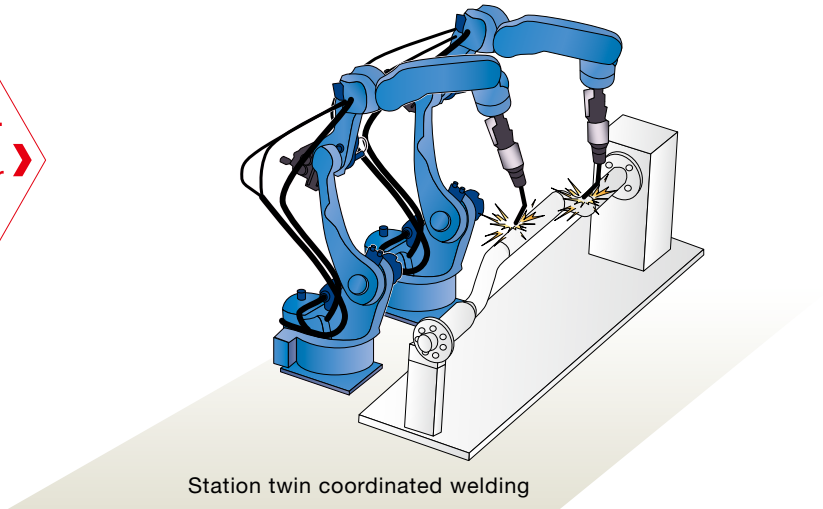


Welding of long parts (ex. exhaust system parts)

High productivity and high-quality welding

By combining two MOTOMAN robots with welding positioner MOTOPOS, it is possible to execute station twin coordinated welding. This enables high productivity and high-quality welding even for long exhaust system parts.

The positioner first adjusts the workpiece's angle and position. Next, the two robots weld the workpiece by coordinating their movements with the movements of the positioner.



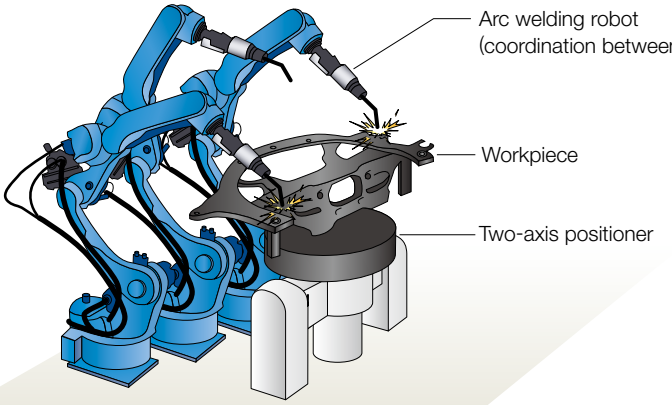
Station twin coordinated welding

High-density welding of automotive parts (underbody parts, etc.)

High productivity and high-quality welding

By combining three MOTOMAN robots with the welding positioner MOTOPOS for coordinated motion, it is possible to achieve high-density, high-quality welding of automotive parts. Moreover, it leads to shorter cycle time as three robots weld simultaneously.

The positioner holds the workpiece at an optimum position and angle, as it coordinates its movements with the movements of the robots to achieve high-speed and high-quality welding.



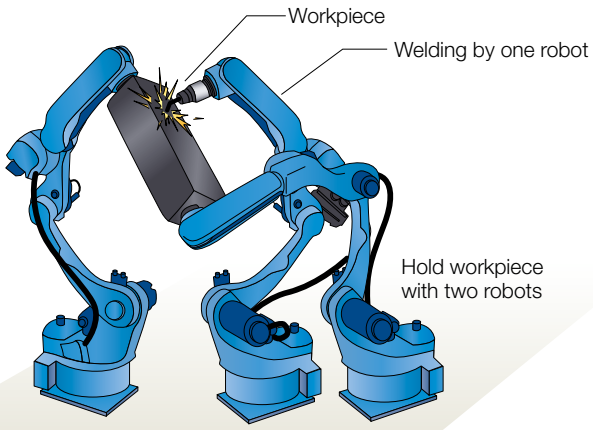
Coordination between three robots and welding positioner

Welding of construction machinery parts

Simplification of transfer equipment and high-quality welding

Construction machinery parts can be welded efficiently using three MOTOMAN robots that operate in coordination with one another. The two handling robots pick up the workpiece to transfer to optimum welding position. This enables to weld at optimum position, securing steady welding quality. The robots transfer the workpiece upon completion of welding, which simplifies transfer equipment.

To achieve high-quality welding, two robots are used to hold a workpiece and another robot is used to weld.



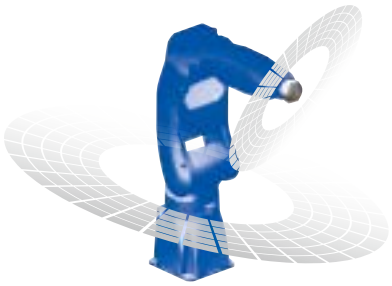
Coordinated welding without jig

MOTOMAN-AR Series Robot : AR700 and AR900, Compact and High Speed

Customer needs: Increase productivity

Achieve high productivity with number 1 payloads and speeds in their classes

- A wide range of sensors and torches can be mounted with 7 kg/8 kg payloads (class number 1) and 38% greater allowable moment.
- Speeds of all axes have been increased by 39% (max.).
- Acceleration/deceleration control has been improved to achieve maximum reduction of acceleration/deceleration times for all robot postures.



Customer needs: Make equipment compact

Slim and easy to use body and arm structure enabling efficient installation space

- Slim manipulator body requires minimum installation space (minimizes L and U axis offset).
- Power cable can be connected at the bottom section, which reduces interference with walls when compared with cable connections on the side of the manipulator.
- Increased maximum reach and horizontal reach enables manipulator to operate in wider work areas.
- Slim, straight, and symmetrical arm design minimize interference with peripheral devices, even in small spaces.

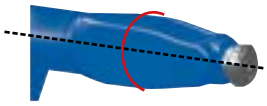
Power cable connection on the side and bottom (optional) of the manipulator

■ Reduced interference radius when S-axis is turning

Former model: MH5(L)SII
Interference radius 182 mm

New model: AR700 and AR900
Interference radius 140 mm

■ Reduced interference radius when the wrist is turning



Former model: MH5(L)SII Interference radius 73 mm
New model: AR700 and AR900 Interference radius 67 mm

Customer needs: Improve equipment installation, operation, and maintenance

Easy maintenance

- Zero position data can be saved without the need to connect to a battery when replacing wire harness.
- Number of cables and connectors have been reduced for better work efficiency.

Reduced wiring time

- Power cable is reduced to one cable, which reduces wiring time.

Easy-to-clean design

- Manipulator surface is designed to prevent adherence of dust.

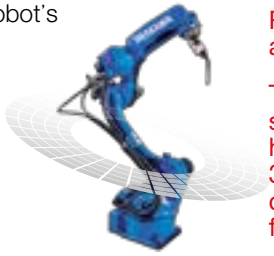
MOTOMAN-AR Series Robot : AR1440, AR1440E, AR1730, and AR2010, World's Highest Speed in their Classes

Customer needs

Increase productivity

Achieve high productivity with number 1 payload and speed in its class

- Productivity of customers' equipment can be improved significantly with the robot's high payload and high speed.
- Acceleration/deceleration control has been improved to achieve maximum reduction of acceleration/deceleration times for all robot postures.
- Various sensors and servo torches can be mounted with it's high payload.



Reduced air-cut time

The maximum speed of AR1730 has increased by 30% (max.) compared with the former model.

*: The maximum speed of AR1440 and AR2010 has increased by 15% (max.) and the maximum speed of AR1440E has increased by 18% (max.) compared with former models.

Customer needs

Make equipment compact

Hollow arm structure enabling internal/external cable storage

- Hollow arm structure to store cables reduces operation restriction due to cable interference, simplifies teaching, and eliminates cable disconnection caused by interference.
- Either a internally mounted or externally mounted torch cable can be selected. We provide the optimum cable installation for your workpieces and equipment.
- Welding power cables can be stored in the S-axis, which enables smart external cabling.

■ Hollow arm

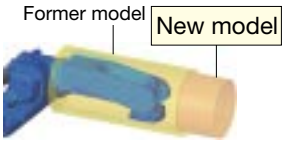
R-axis hollow arm: 50 mm dia.

T-axis hollow arm: 50 mm dia.

Best accessibility in its class

- Slim and hollow arm design minimizes interference with peripheral devices even in small spaces.
- Arm design minimizes interference with surrounding equipment.

■ Reduced interference area



Minimized interference radius of the wrist

Former model:		New model:	
MA1440	136 mm	AR1440	120 mm
VA1400Ⅱ	131 mm	AR1440E	120 mm
MA2010	136 mm	AR1730	138 mm
		AR2010	120 mm

AR1440E

Less interference and higher flexibility in robot position due to 7-axis configuration

- Achieves high-quality welding by securing an optimal welding position with less interference
- Allows jigs and dedicated devices to be combined with the AR1440E, closer installation layouts to be constructed, and saving space.
- Enables a high-density layout with less interference

■ Achieve high-quality welding by securing the optimal welding position

Payload doubled

Former model: VA1400Ⅱ payload 3 kg
New model : AR1440E payload 6 kg

* Images shown are for illustrative purposes only

Customer needs

Improve equipment installation, operation, and maintenance

Easy maintenance

- Zero position data can be saved without the need to connect to a battery when replacing wire harness.
- Number of cables and connectors have been reduced for better work efficiency.

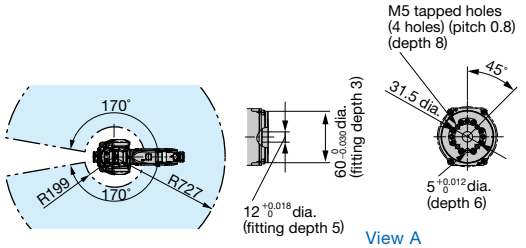
Reduced wiring time

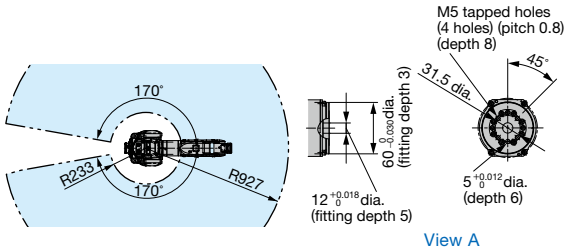
- Power cable is reduced to one cable, which reduces wiring time.

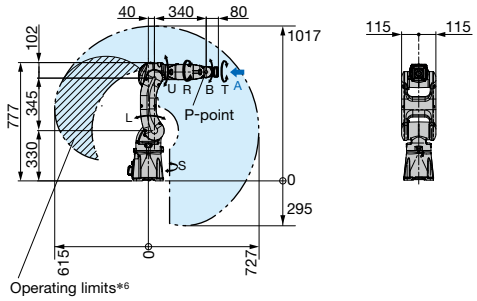
AR700

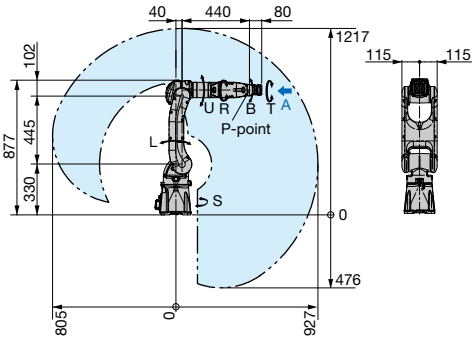
AR900

■Dimensions Units: mm ▭: P-point Maximum Envelope







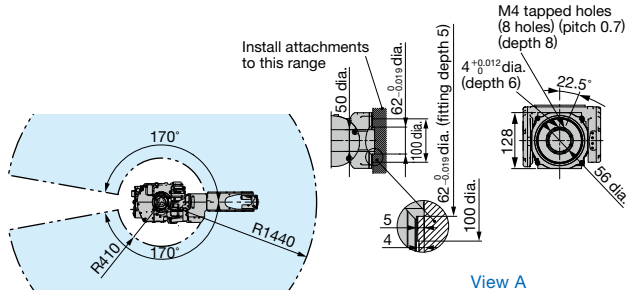


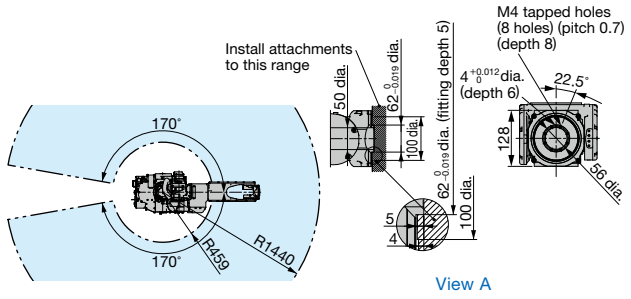
Specifications		AR700	AR900
Type		YR-1-06VX8-A00	YR-1-06VX7-A00
Controlled Axis		6 (vertically articulated)	6 (vertically articulated)
Payload*1		8 kg	7 kg
Repeatability*2		±0.02 mm	±0.03 mm
Range of Motion	S -axis (turning)	−170°−+170°	−170°−+170°
	L -axis (lower arm)	− 65°−+145°	− 65°−+145°
	U -axis (upper arm) *3	− 70°−+190°	− 70°−+190°
	R -axis (wrist roll)	−190°−+190°	−190°−+190°
	B -axis (wrist pitch/yaw)	−135°−+135°	−135°−+135°
	T -axis (wrist twist)	−360°−+360°	−360°−+360°
Maximum Speed	S -axis (turning)	7.94 rad/s, 455°/s	6.54 rad/s, 375°/s
	L -axis (lower arm)	6.72 rad/s, 385°/s	5.50 rad/s, 315°/s
	U -axis (upper arm)	9.07 rad/s, 520°/s	7.15 rad/s, 410°/s
	R -axis (wrist roll)	9.59 rad/s, 550°/s	9.59 rad/s, 550°/s
	B -axis (wrist pitch/yaw)	9.59 rad/s, 550°/s	9.59 rad/s, 550°/s
	T -axis (wrist twist)	17.45 rad/s, 1000°/s	17.45 rad/s, 1000°/s
Allowable Moment	R -axis (wrist roll)	17 N·m	17 N·m
	B -axis (wrist pitch/yaw)	17 N·m	17 N·m
	T -axis (wrist twist)	10 N·m	10 N·m
Allowable Inertia (GD²/4)	R -axis (wrist roll)	0.5 kg·m²	0.5 kg·m²
	B -axis (wrist pitch/yaw)	0.5 kg·m²	0.5 kg·m²
	T -axis (wrist twist)	0.2 kg·m²	0.2 kg·m²
Approx. Mass		32 kg	34 kg
IEC Protection Class		IP67	
Ambient Conditions	Temperature	0 ℃ to +45 ℃	
	Humidity	20% to 80%RH (non-condensing)	
	Vibration	4.9 m/s² (0.5 G) or less	
	Altitude	1000 m or less	
	Others	Free from corrosive gas or liquid, or explosive gas or liquid Free from excessive electrical noise (plasma) Free from strong magnetic fields	
Power Requirements*4		1.0 kVA	
Mounting*5		Floor, ceiling, wall, tilt	

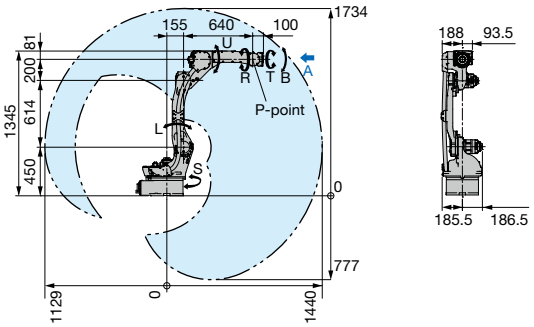
*1: U arm payload capacity will vary according to payload carried by wrist.
*2: Conforms to ISO 9283.
*3: The range of motion of the U-axis itself. Not with respect to the ground.
*4: Varies in accordance with applications and motion patterns.
*5: There are motion limitations on S-axis for wall, tilt mounting type.
*6: The range of motion for the shaded area will be limited when using air, optional solenoid valve, or a matching connector.
Note: SI units are used for the specifications.

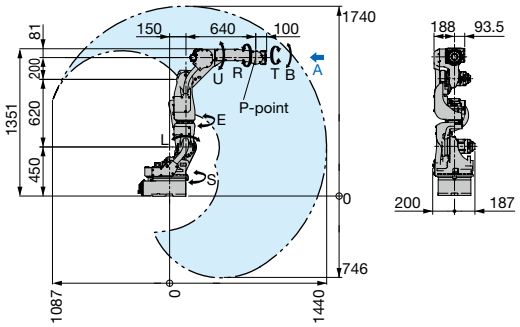
AR1440

AR1440E









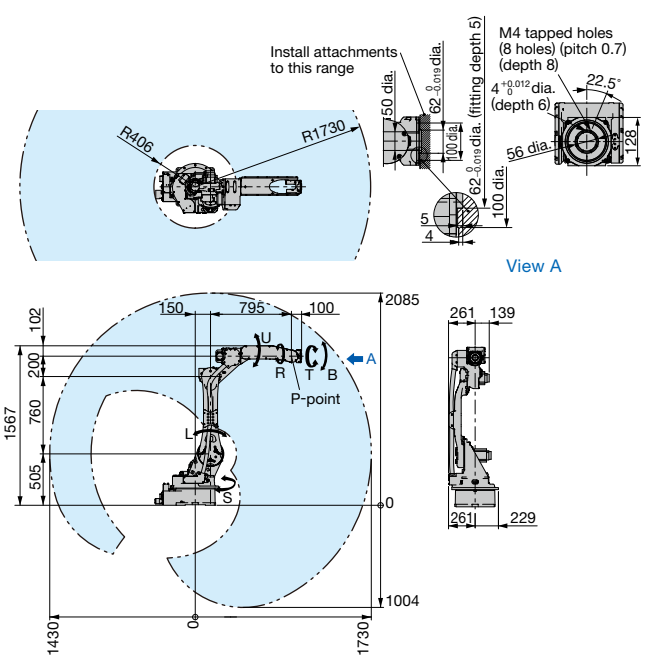
Specifications		AR1440	AR1440E
Type		YR-1-06VXH12-A01	YR-1-07VXHE6-A00
Controlled Axis		6 (vertically articulated)	7 (vertically articulated)
Payload*1		12 kg	6 kg
Repeatability*2		±0.06 mm	±0.08 mm
Range of Motion	S -axis (turning)	−170°−+170°	−170°−+170°
	L -axis (lower arm)	− 90°−+155°	− 70°−+148°
	E -axis (middle arm)		− 90°−+ 90°
	U -axis (upper arm) *3	− 85°−+150° (− 85°−+140°)*6	− 80°−+ 80°
	R -axis (wrist roll)	−200°−+200° (−150°−+150°)*6	−200°−+200° (−150°−+150°)*6
	B -axis (wrist pitch/yaw)	−150°−+150° (−135°−+ 90°)*6*7	−150°−+150° (−135°−+ 90°)*6
	T -axis (wrist twist)	−455°−+455° (−210°−+210°)*6	−455°−+455° (−210°−+210°)*6
Maximum Speed	S -axis (turning)	4.53 rad/s, 260°/s	4.53 rad/s, 260°/s
	L -axis (lower arm)	4.01 rad/s, 230°/s	4.01 rad/s, 230°/s
	E -axis (middle arm)		4.53 rad/s, 260°/s
	U -axis (upper arm)	4.53 rad/s, 260°/s	4.53 rad/s, 260°/s
	R -axis (wrist roll)	8.20 rad/s, 470°/s	8.20 rad/s, 470°/s
	B -axis (wrist pitch/yaw)	8.20 rad/s, 470°/s	8.20 rad/s, 470°/s
	T -axis (wrist twist)	12.2 rad/s, 700°/s	12.2 rad/s, 700°/s
Allowable Moment	R -axis (wrist roll)	22 N·m	12.5 N·m
	B -axis (wrist pitch/yaw)	22 N·m	12.5 N·m
	T -axis (wrist twist)	9.8 N·m	6.0 N·m
Allowable Inertia (GD²/4)	R -axis (wrist roll)	0.65 kg·m²	0.40 kg·m²
	B -axis (wrist pitch/yaw)	0.65 kg·m²	0.40 kg·m²
	T -axis (wrist twist)	0.17 kg·m²	0.08 kg·m²
Approx. Mass		150 kg	190 kg
IEC Protection Class		Body: IP54, Wrist: IP67	
Ambient Conditions	Temperature	0 ℃ to +45 ℃	
	Humidity	20% to 80%RH (non-condensing)	
	Vibration	4.9 m/s² (0.5 G) or less	
	Altitude	1000 m or less	
	Others	Free from corrosive gas or liquid, or explosive gas or liquid Free from exposure to water, oil, or dust Free from excessive electrical noise (plasma) Free from strong magnetic fields	
Power Requirements*4		1.5 kVA	
Mounting*5		Floor, ceiling, wall, tilt	Floor

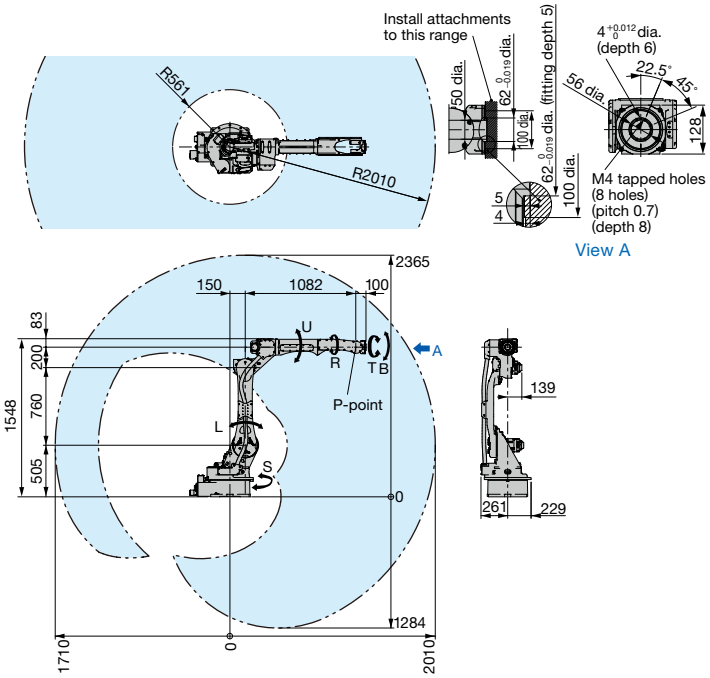
*1: U arm payload capacity will vary according to payload carried by wrist.
*2: Conforms to ISO 9283.
*3: The range of motion of the U-axis itself. Not with respect to the ground.
*4: Varies in accordance with applications and motion patterns.
*5: There are motion limitations on S-axis for wall, tilt mounting type.
*6: The value in the parenthesis is the motion range when the manipulator is used together with MOTOPAC.
*7: The plus and minus values will be switched when the manipulator is mounted on the ceiling and used together with MOTOPAC.
Note: SI units are used for the specifications.

AR1730

AR2010

■Dimensions Units: mm ▭: P-point Maximum Envelope





Specifications		AR1730	AR2010
Type		YR-1-06VXH25-A01	YR-1-06VXH25-A11
Controlled Axis		6 (vertically articulated)	6 (vertically articulated)
Payload*1		25 kg	12 kg
Repeatability*2		±0.06 mm	±0.08 mm
Range of Motion	S -axis (turning)	−180°−+180°	−180°−+180°
	L -axis (lower arm)	−105°−+155°	−105°−+155°
	U -axis (upper arm) *3	− 86°−+160°	− 86°−+160°
	R -axis (wrist roll)	−200°−+200° (−150°−+150°)*6	−200°−+200° (−150°−+150°)*6
	B -axis (wrist pitch/yaw)	−150°−+150° (−135°−+ 90°)*6*7	−150°−+150° (−135°−+ 90°)*6*7
	T -axis (wrist twist)	−455°−+455° (−210°−+210°)*6	−455°−+455° (−210°−+210°)*6
Maximum Speed	S -axis (turning)	3.67 rad/s, 210°/s	3.67 rad/s, 210°/s
	L -axis (lower arm)	3.67 rad/s, 210°/s	3.67 rad/s, 210°/s
	U -axis (upper arm)	4.63 rad/s, 265°/s	3.84 rad/s, 220°/s
	R -axis (wrist roll)	7.33 rad/s, 420°/s	7.59 rad/s, 435°/s
	B -axis (wrist pitch/yaw)	7.33 rad/s, 420°/s	7.59 rad/s, 435°/s
	T -axis (wrist twist)	15.44 rad/s, 885°/s	12.2 rad/s, 700°/s
Allowable Moment	R -axis (wrist roll)	52 N·m	22 N·m
	B -axis (wrist pitch/yaw)	52 N·m	22 N·m
	T -axis (wrist twist)	32 N·m	9.8 N·m
Allowable Inertia (GD²/4)	R -axis (wrist roll)	2.3 kg·m²	0.65 kg·m²
	B -axis (wrist pitch/yaw)	2.3 kg·m²	0.65 kg·m²
	T -axis (wrist twist)	1.2 kg·m²	0.17 kg·m²
Approx. Mass		250 kg	260 kg
IEC Protection Class		Body: IP54, Wrist: IP67	
Ambient Conditions	Temperature	0 ℃ to +45 ℃	
	Humidity	20% to 80%RH (non-condensing)	
	Vibration	4.9 m/s² (0.5 G) or less	
	Altitude	1000 m or less	
	Others	Free from corrosive gas or liquid, or explosive gas or liquid Free from exposure to water, oil, or dust Free from excessive electrical noise (plasma) Free from strong magnetic fields	
Power Requirements*4		2.0 kVA	
Mounting*5		Floor, ceiling, wall, tilt	

*1: U arm payload capacity will vary according to payload carried by wrist.
*2: Conforms to ISO 9283.
*3: The range of motion of the U-axis itself. Not with respect to the ground.
*4: Varies in accordance with applications and motion patterns.
*5: There are motion limitations on S-axis for wall, tilt mounting type.
*6: The value in the parenthesis is the motion range when the manipulator is used together with MOTOPAC.
*7: The plus and minus values will be switched when the manipulator is mounted on the ceiling and used together with MOTOPAC.
Note: SI units are used for the specifications.

GOOD DESIGN

YRC1000 Robot Controller

Four Features

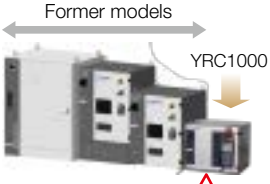
Programming Pendant

YRC1000 Robot Controller

Customer needs: Make equipment compact

Smallest size in the world reduces installation space

This 125 L compact size controller does not require a transformer and has built-in external axis amplifiers for three axes.*



Realized this size by building in three external axes* and eliminating the need for a transformer.

Customer needs: Standardization of equipment

Global standardization (Universal size)

- Common size for use in Japan and overseas.
- Applied standards: European harmonized standards and UL standards
- Overseas models do not require a transformer to adapt to the required power supply voltage.

Customer needs: Improve work efficiency

New motion control (high precision and high speed)

- Cycle time improved by max. 10% (compared with the former model) due to optimized acceleration/deceleration control (depends on conditions).
- Significantly reduces error in path accuracy caused by differences in motion speed (improved by 80% compared with the former model).

Customer needs: Improve work efficiency

Lighter programming pendant with better operability

- Weighs only 730 g, the lightest programming pendant in its class, with improved cable installation.
- Can confirm robot positions and postures on the 3D robot model display.
- Touch screen allows intuitive operation to easily move the cursor and scroll.

■ YRC1000 Robot Controller Specifications

Items	Specifications
Configuration	Dust proof IP54 structure (area of backside duct fan: IP2X)
Dimensions	598 (W)×427 (D)×490 (H) mm, 125 L
Approx. Mass	70 kg max. (External axis amplifiers for up to three axes can be built in.)*
Cooling System	Indirect cooling
Ambient Temperature	During operation: 0°C to +45°C, During storage: −10°C to +60°C
Relative Humidity	90% max. (non-condensing)
Altitude	2000 m (with temperature derating) Derating condition of over 1000 m: max. ambient temperature decreases 1% per 100 m.
Power Supply	Japan: three-phase 200 VAC to 240 VAC (+10% to −15%), 50/60 Hz (±2%) Asia and Europe: three-phase 380 VAC to 440 VAC (+10% to −15%), 50/60 Hz (±2%) (neutral grounding) North America: three-phase 380 VAC to 480 VAC (+10% to −15%), 50/60 Hz (±2%) (neutral grounding)
Grounding	Grounding resistance: 100 Ω or less for 200-V class, 10 Ω or less for 400-V class
Digital I/Os	Specialized signals: 19 inputs and 6 outputs General signals: 40 inputs and 40 outputs (32 transistor outputs, 8 relay outputs)
Positioning System	Serial communications (absolute encoder)
Programming Capacity	JOB: 200,000 steps, 10,000 instructions CIO ladder: 20,000 steps max.
Expansion Slots	PCI express: 2 slots
LAN (Connection to Host)	2 (10BASE-T/100BASE-TX)
Interface	RS-232C: 1ch
Control Method	Software servo control
Drive Units	SERVOPACK for AC servomotors

■ Programming Pendant Specifications

Items	Specifications
Dimensions	152 (W)×49.5 (D)×300 (H) mm
Approx. Mass	0.730 kg
Material	Reinforced plastics
Operation Device	Select keys, axis keys, numerical/application keys, mode selector switch with keys (mode: teach, play, and remote), emergency stop button, enable switch, compact flash card interface device (compact flash is optional.), USB port (USB 2.0, 1 port)
Display	5.7-inch TFT color LCD, touch panel VGA 640×480 pixels (alphanumeric characters, Chinese characters, Japanese letters, and others)
IEC Protection Class	IP54
Cable Length	Standard: 8 m, max.: 36 m (with optional extension cable)

*: External axis amplifiers for two axes can be built in for AR1440E.

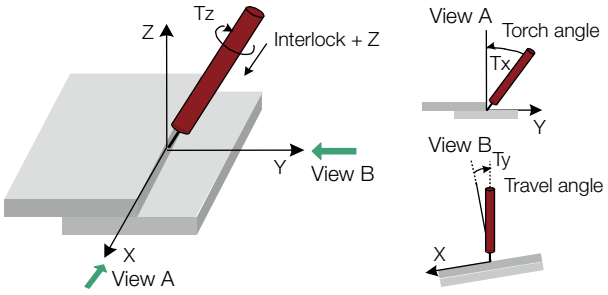
Ideal Arc Welding Functions of the YRC1000

Customer needs

Simple settings to achieve accurate welding angles

Welding Line Coordinate System Jog Operation Function: Torch Angle Display

The YRC1000 allows jog operation in a direction based on the welding line (welding line coordinate system) during teaching. Also, the torch angle, which is important for welding quality, is displayed on the programming pendant. The manipulator can be moved by inputting the torch angle and travel angle in the ARC INFORMATION.



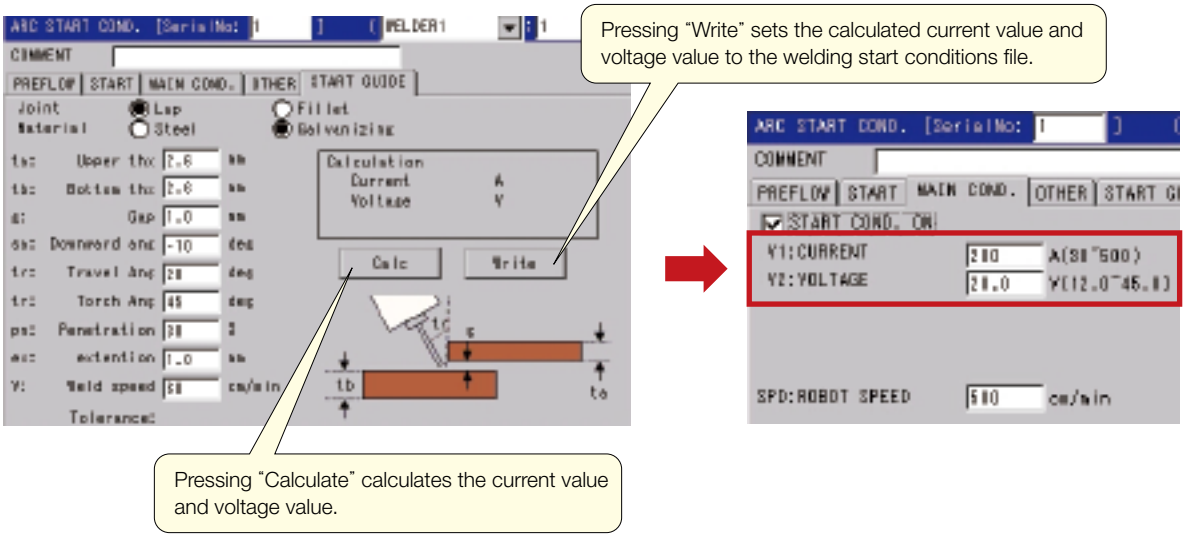
■ Angle display

Customer needs

Simple settings to adjust welding conditions

Welding Conditions Guide Function (Optional)

The YRC1000 allows the automatic calculation of welding conditions without having to actually weld. Firstly, this simplifies the setting of welding power source conditions. Secondly, you can set the calculation result to the welding start conditions file with one click of a button. Finally, the time taken to set welding conditions can be reduced.



Customer needs **Improve welding quality**

Graphical arc monitor function (Optional)

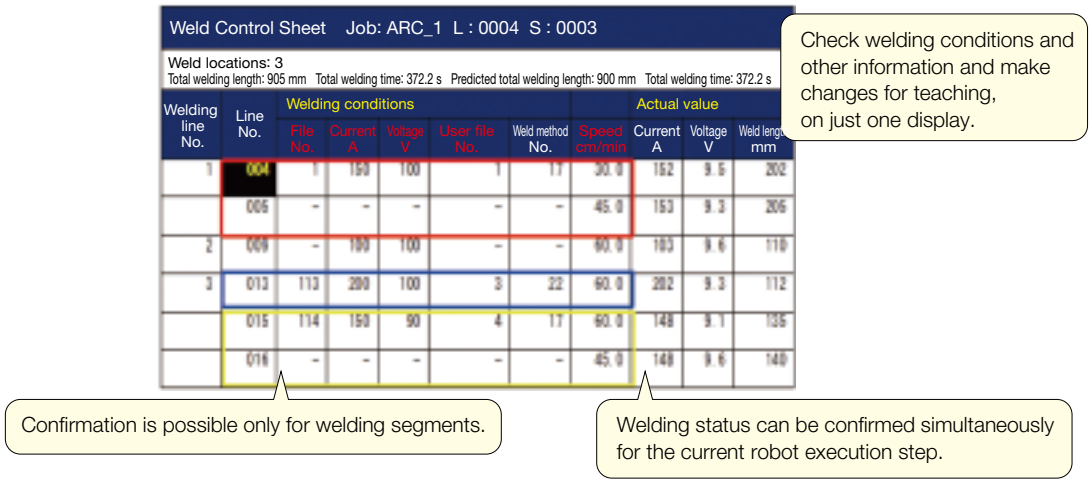
You can check the welding conditions, job information, and robot motion information of the YRC1000, displayed on the programming pendant. You can also automatically back up welding-related data to an external memory device. This allows to check welding conditions, manage data, and investigate the cause of welding defects.

· You can monitor welding conditions and job information in wave or number form, and check the welding status.
· Measurement can be triggered by a signal or an arc interruption, and the cause of welding defects can be analyzed.
· You can manage data by automatically backing up welding conditions, job, signal, and register information to an external memory device.

Customer needs **Check welding conditions quickly**

Check welding conditions and other information, and make changes for teaching, all on the same display.

With the YRC1000, you can check and correct welding conditions, as well as other information on just one display. Moreover, you can easily make changes to welding commands and robot motion information for multiple welding segments, using table format as shown below. You can also improve welding quality by checking in real-time, actual welding condition values while welding is in progress.



Welding Power Source and Welding Package

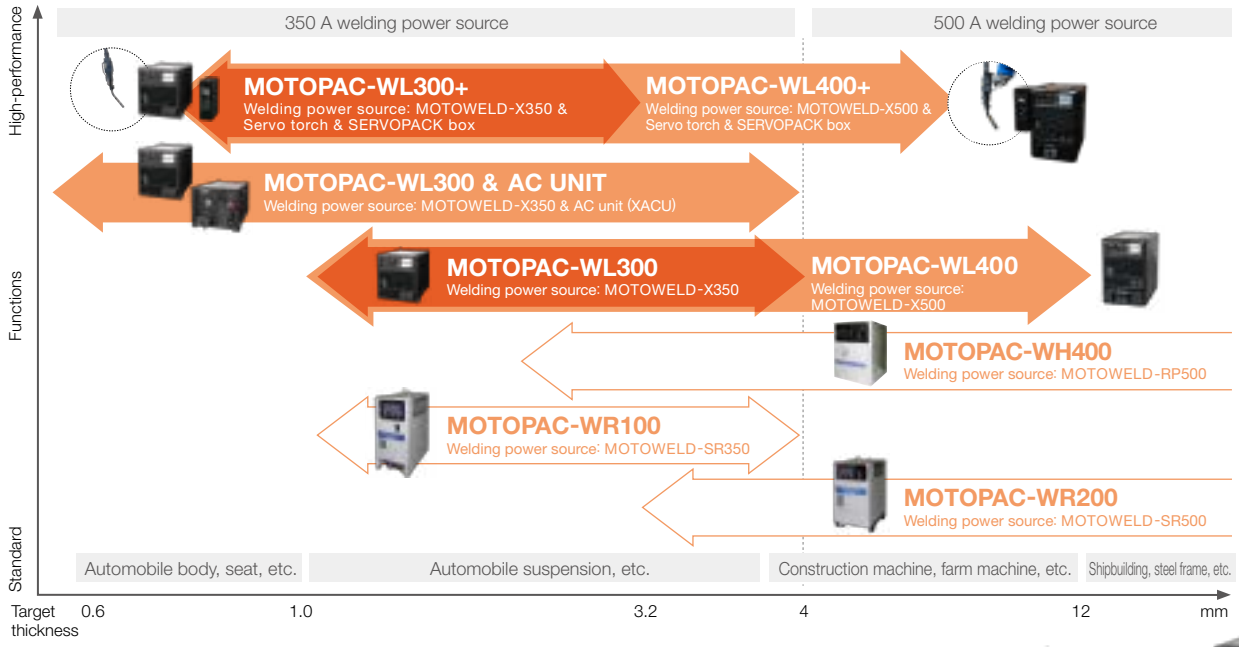
Easy Setup

A robotic system can be easily installed using the MOTOPAC, a welding package with an optimal combination of devices that are tailored to specific workpieces and welding methods. Yaskawa offers a full range of services to support your production site.

Achieve High-quality Welding

High-quality welding can be achieved by combining MOTOMAN robots with the latest digitally controlled welding power source (MOTOWELD). This enables optimum welding control for a wide variety of welding methods.

Lineup of Arc Welding Packages



Welding power source **MOTOWELD-X350, -X500**

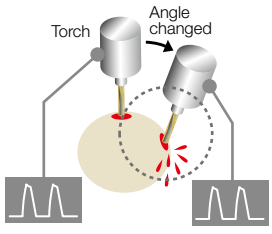
Synchronized Welding Function

Automatically limits the increase in spatter caused by changing the torch angle

The new synchronized welding function allows the welding power source to automatically adjust the welding waveform according to the torch angle. Improves welding quality and reduces time required to change welding conditions as spatter caused by changing the torch angle can be controlled.

Former models

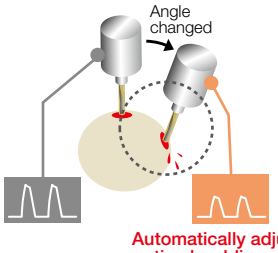
Spatter increases when torch angle is changed



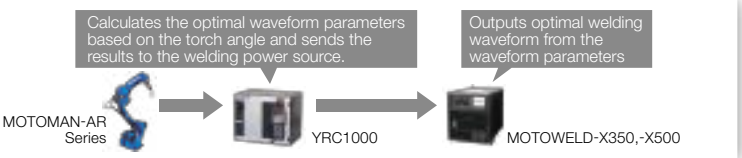
Welding conditions has to be adjusted

With synchronized welding function

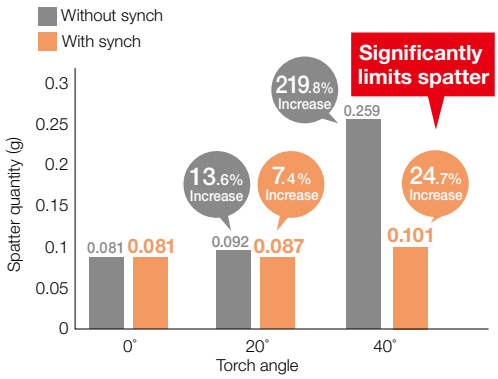
Limits the increase in spatter caused by changing the torch angle



Automatically adjusts to optimal welding waveform



■ Comparison of spatter amount



Welding conditions

Gas: MAG
Welding speed: 80 cm/min
Torch position: drag angle 0°,20°,40°
Welding current: 180 A
Wire diameter: 1.2 mm
Welding method number: 10 Short-circuit welding

Achieve lower spatter amount

Welding package for ultra-low spatter **MOTOPAC-WL300+, -WL400+**

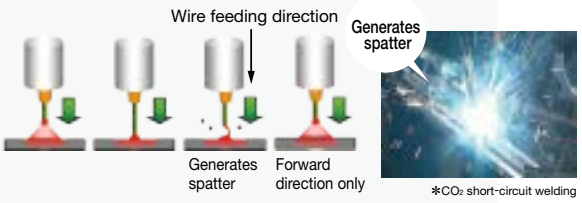
EAGL Method*

Significantly reduces spatter with forward and reverse control of welding wire

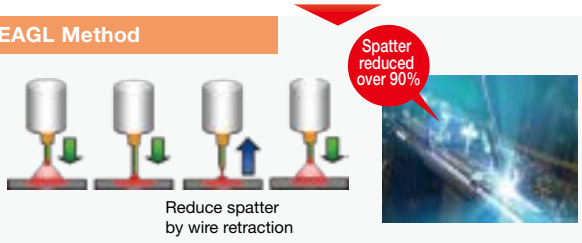
Spatter is usually caused at the time of short-circuit opening for conventional short-circuit welding. The EAGL Method* can limit spatter significantly by forcing a short circuiting transfer where the wire is fed forward and backward in sync with the welding waveform.

*EAGL Method: Enhanced Arc weldinG for Low spatter. This is a technology to reduce spatter greatly.

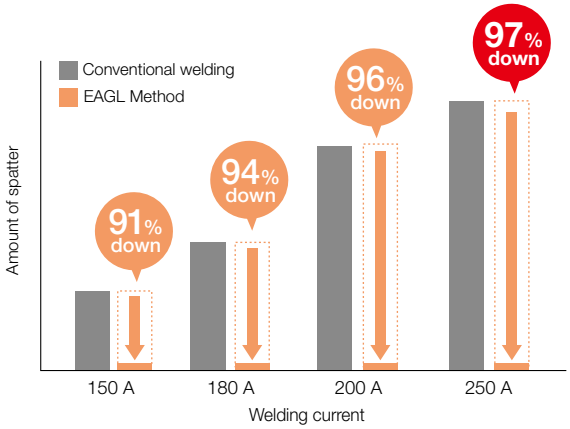
Conventional MIG, MAG, and CO_2 short-circuit welding



EAGL Method



■ Comparison of spatter amount (when using WL300+)

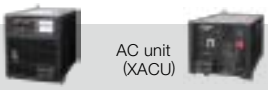


Welding conditions

Gas: CO_2
Welding speed: 80 cm/min
Torch position: perpendicular to panel
Welding current: 150 A, 180 A, 200 A, 250 A
Wire diameter: 1.2 mm

Achieve high-quality welding of thin sheets

AC welding package **MOTOPAC-WL300 & AC UNIT**

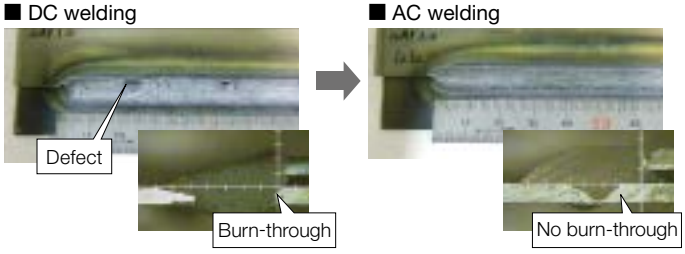


High-quality welding of thin sheets can be achieved by using the MOTOPAC-WL300 welding package (used with MOTOWELD-X350) in combination with the AC unit (XACU).

Feature 1 Faster welding and lower weld defect rates

AC welding increases welding volume and suppresses heat input, which improves welding quantity, increases welding speed, and reduces defect rates.

■ DC welding ■ AC welding



Stainless steel Sheet thickness: 1 mm Gap: 1 mm Speed: 100 cm/min

Feature 2 Better aluminum bead appearance

Smut reduced by 50% for aluminum welding to create smooth beads and ripples.

Suppressing smut

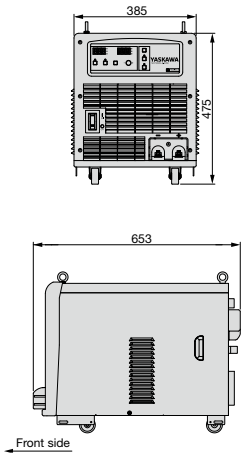
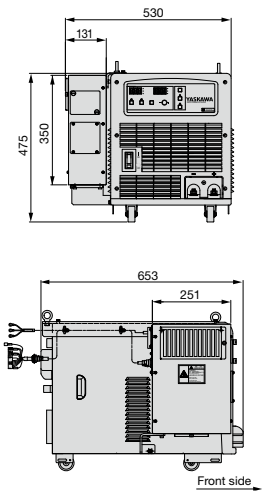
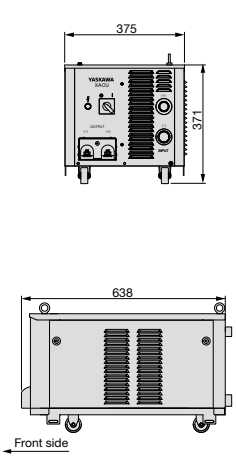
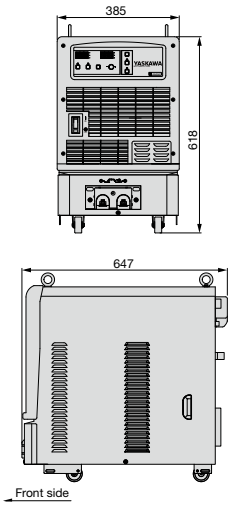
Creates smooth beads and ripples

Feature 3 Select the ideal device for your needs

When the workpiece you want to weld changes, or the adjustment of welding conditions becomes too difficult, you can attach the AC unit (XACU) to the MOTOWELD-X350. This removes the need to buy a new welding power source.

A Complete Lineup of Welding Packages

	MOTOPAC-WL300	MOTOPAC-WL300+	MOTOPAC-WL300& AC UNIT	MOTOPAC-WL400
				

Welding Power Source	MOTOWELD-X350	MOTOWELD-X350	MOTOWELD-X350	MOTOWELD-X500
Package Components	–	Servo torch SERVOPACK box	AC unit (XACU)	–
Feature	This package uses the MOTOWELD-X350 welding power source. The secondary switching circuit installed in the welding power source reduces spatter caused by short circuiting and enables high-quality welding.	This package uses the MOTOWELD-X350 welding power source that supports EAGL Method. The EAGL Method reduces spatter and enables high-quality welding. ✻: Cannot be used in combination with the AC unit (XACU).	This package uses the MOTOWELD-X350 welding power source and the AC unit (XACU). This combination of the existing welding method and AC welding can enhance the performance of the complicated welding process of thin sheets.	This package uses the MOTOWELD-X500 welding power source. The secondary switching circuit installed in the welding power source reduces spatter caused by short circuiting and enables high-quality welding. Operation rate of 100 % for continuous welding operation is available when 380 A.
Dimension Diagram		● X350 (with SERVOPACK box) 	● AC unit (XACU) 	
Specifications	For Japan and other Asian countries	← Refer to the specifications of MOTOPAC-WL300	← Refer to the specifications of MOTOPAC-WL300	For Japan and other Asian countries
Model	YWE-X350-CC0 (compliant with China Compulsory Certification)	←	←	YWE-X500-CC0 (compliant with China Compulsory Certification)
Rated Input Voltage	Three-phase 200 - 220 VAC ±10% Three-phase 380 - 400 VAC ±10% (Voltage selectable at the back terminal)	←	←	Three-phase 200 - 220 VAC ±10% Three-phase 380 - 400 VAC ±10% (Voltage selectable at the back terminal)
Rated Frequency	50/60 Hz	←	←	50/60 Hz
Rated Input	18 kVA / 15 kW	←	←	31 kVA / 26 kW
Rated Output Current	30 A to 350 A	←	←	30 A to 500 A
Rated Output Voltage	12 V to 36 V	←	←	12 V to 45 V
Rated Operation Rate	60% (for 10 minutes)	←	←	When 500 A: 60% (for 10 minutes) When 380 A: 100% (for 10 minutes)
Applicable Welding Method	Pulsed MAG welding Pulsed MIG welding Low spatter CO_2 short-circuit welding Low spatter MAG short-circuit welding Low spatter MIG short-circuit welding	Pulsed MAG welding Pulsed MIG welding Ultra-low spatter CO_2 short-circuit welding Ultra-low spatter MAG short-circuit welding Ultra-low spatter MIG short-circuit welding	AC Pulsed MAG welding AC Pulsed MIG welding AC CO_2 short-circuit welding AC MAG short-circuit welding AC MIG short-circuit welding	Pulsed MAG welding Pulsed MIG welding Low spatter CO_2 short-circuit welding Low spatter MAG short-circuit welding Low spatter MIG short-circuit welding
Applicable Wire Diameter	0.8 mm/0.9 mm/1.0 mm/1.2 mm	0.8 mm/0.9 mm/1.0 mm/1.2 mm	0.8 mm/0.9 mm/1.0 mm/1.2 mm	0.8 mm/0.9 mm/1.0 mm/1.2 mm
Applicable Welding Material*1	Iron, stainless steel, aluminum	Iron, stainless steel, aluminum	Iron, stainless steel, aluminum	Iron, stainless steel, aluminum
Dimensions*2	385 (W) × 653 (D) × 475 (H) mm	←	←	385 (W) × 647 (D) × 618 (H) mm
Approx. Mass	50 kg	←	←	68 kg

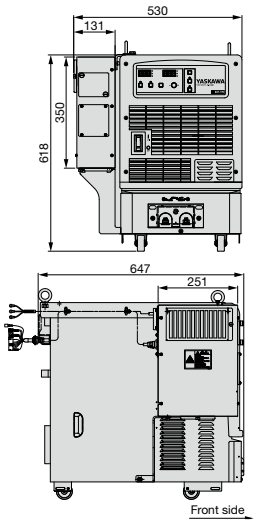
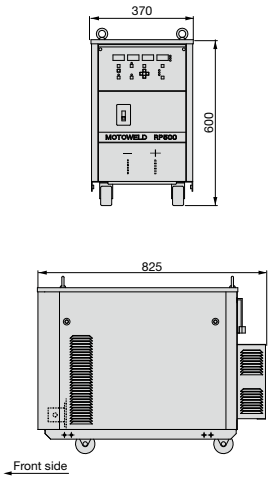
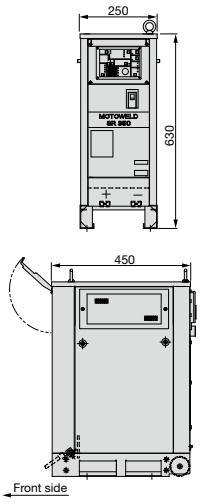
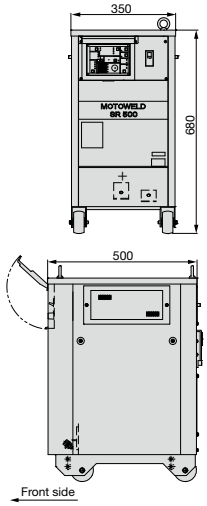
✻1: When welding aluminum, the torch and torch cable set and conduit cables for aluminum welding must be used.
✻2: Does not include projecting parts such as eyebolts or screws.

MOTOPAC-WL400+

MOTOPAC-WH400

MOTOPAC-WR100

MOTOPAC-WR200

Welding Power Source	MOTOWELD-X500	MOTOWELD-RP500	MOTOWELD-SR350	MOTOWELD-SR500
Package Components	Servo torch SERVOPACK box	–	–	–
Feature	This package uses the MOTOWELD-X500 welding power source that supports EAGL Method. The EAGL Method reduces spatter and enables high-quality welding.	This package uses the MOTOWELD-RP500 welding power source. The operation rate of 100% enables prolonged continuous welding operation. ✻: A water-cooled torch is required for continuous welding operations with a high operation rate.	This package uses the MOTOWELD-SR350 welding power source.	This package uses the MOTOWELD-SR500 welding power source. Use this package when the required current and operation rate cannot be obtained with a 350 A welding power source.
Dimension Diagram				
Specifications	← Refer to the specifications of MOTOPAC-WL400	For Japan and other Asian countries	For Japan and other Asian countries	For Japan and other Asian countries
Model	←	YWE-RP500-AJ0 (not compliant with China Compulsory Certification) YWE-RP500-CC0 (compliant with China Compulsory Certification)	YWE-SR350-AJ0 (not compliant with China Compulsory Certification) YWE-SR350-AJ0-CCC (compliant with China Compulsory Certification)	YWE-SR500-AJ0 (not compliant with China Compulsory Certification) YWE-SR500-CC0 (compliant with China Compulsory Certification)
Rated Input Voltage	←	Three-phase 200 - 220 VAC ±10% Three-phase 380 - 415 VAC ±10%	Three-phase 200 - 220 VAC ±10% Three-phase 380 - 415 VAC ±10%	Three-phase 200 - 220 VAC ±10% Three-phase 380 - 415 VAC ±10%
Rated Frequency	←	50/60 Hz	50/60 Hz	50/60 Hz
Rated Input	←	27 kVA / 24.3 kW	20 kVA / 15 kW	29 kVA / 26 kW
Rated Output Current	←	30 A to 500 A	30 A to 350 A	30 A to 500 A
Rated Output Voltage	←	12 V to 45 V	12 V to 36 V	12 V to 45 V
Rated Operation Rate	←	100% (for 10 minutes)	60% (for 10 minutes)	80% (for 10 minutes)
Applicable Welding Method	Pulsed MAG welding Pulsed MIG welding Ultra-low spatter CO_2 short-circuit welding Ultra-low spatter MAG short-circuit welding Ultra-low spatter MIG short-circuit welding	Pulsed MAG welding Pulsed MIG welding CO_2 short-circuit welding MAG short-circuit welding MIG short-circuit welding	Pulsed MAG welding Pulsed MIG welding CO_2 short-circuit welding MAG short-circuit welding MIG short-circuit welding	Pulsed MAG welding Pulsed MIG welding CO_2 short-circuit welding MAG short-circuit welding MIG short-circuit welding
Applicable Wire Diameter	0.8 mm/0.9 mm/1.0 mm/1.2 mm	0.8 mm/0.9 mm/1.0 mm 1.2 mm/1.4 mm/1.6 mm	0.8 mm/0.9 mm/1.0 mm/1.2 mm	1.0 mm/1.2 mm/1.4 mm/1.6 mm
Applicable Welding Material*1	Iron, stainless steel, aluminum	Iron, stainless steel, aluminum	Iron only	Iron only
Dimensions*2	←	370 (W) × 825 (D) × 600 (H) mm	250 (W) × 450 (D) × 630 (H) mm	350 (W) × 500 (D) × 680 (H) mm
Approx. Mass	←	75 kg	45 kg	60 kg

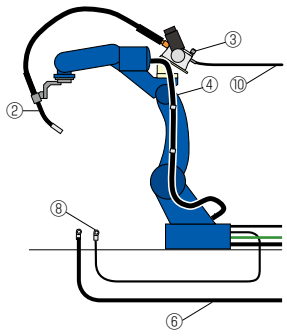
✻1: When welding aluminum, the torch and torch cable set and conduit cables for aluminum welding must be used.
✻2: Does not include projecting parts such as eyebolts or screws.

MOTOPAC Package Components

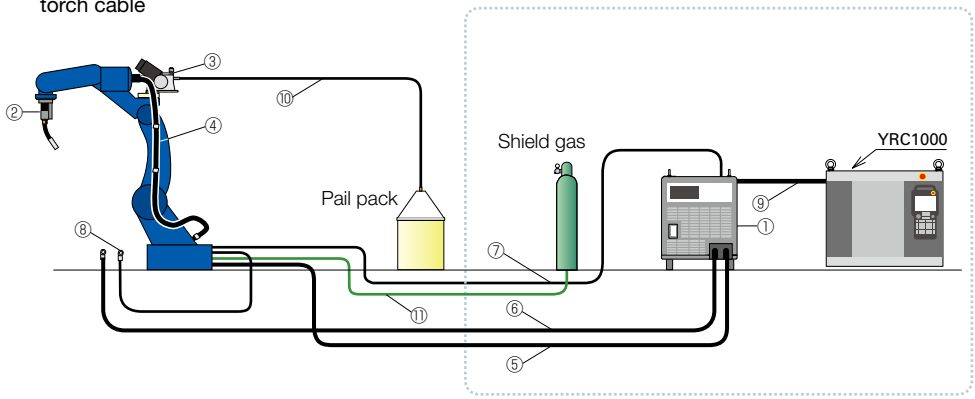
Standard Package Components

Note: Contact your Yaskawa representative for details on the package components for AR1440E.

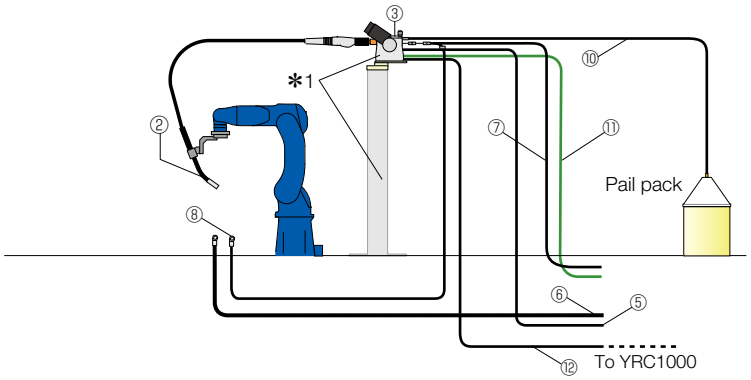
■ MOTOMAN-AR1440, -AR1730, -AR2010 with externally mounted torch cable



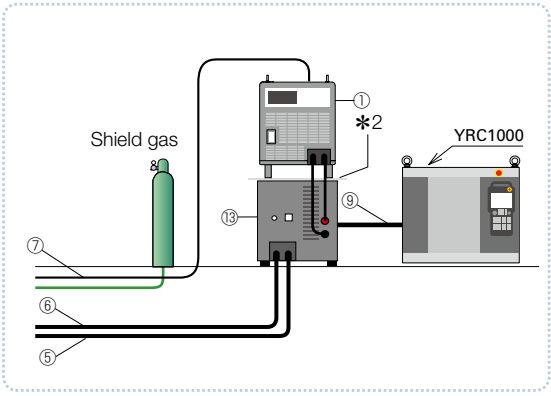
■ MOTOMAN-AR1440, -AR1730, -AR2010 with internally mounted torch cable



■ For MOTOMAN-AR700, -AR900



■ When using AC unit (XACU)



■ List of MOTOPAC Package Components

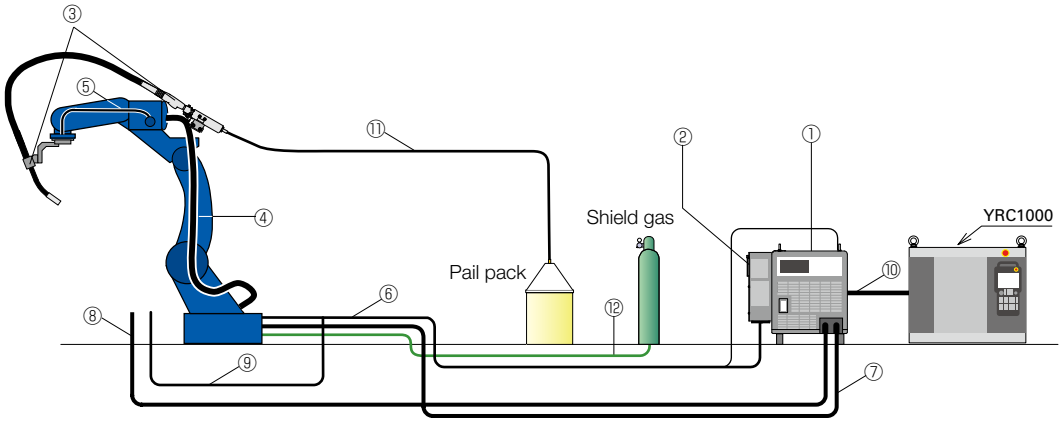
No.	Device			Default specifications
①	Welding power source			Select from MOTOWELD-X350, -SR350, -X500, -RP500, -SR500
②	Torch and torch cable set	When using a 350 A welding power source	MOTOMAN-AR1440, -AR1730, -AR2010	With internally mounted torch cables : YMSA-300R [from TOKIN CORPORATION (air-cooled, with shock sensor)] With externally mounted torch cables : TK308R-SS [from TOKIN CORPORATION (air-cooled, with shock sensor)]
			MOTOMAN-AR700, -AR900	TK309R-SS [from TOKIN CORPORATION (air-cooled, with shock sensor)]
		When using a 500 A welding power source	MOTOMAN-AR1440, -AR1730, -AR2010	With internally mounted torch cables : YMSA-500R [from TOKIN CORPORATION (air-cooled, with shock sensor)] With externally mounted torch cables : TK508R-SS [from TOKIN CORPORATION (air-cooled, with shock sensor)]
③	Wire feeder∗1			YWE-WFR42DX2
④	Installation parts for S-axis	When using a 350 A welding power source		60 sq power cable
		When using a 500 A welding power source		80 sq power cable
⑤	Positive (+) power cable	When using a 350 A welding power source		60 sq 5 m
		When using a 500 A welding power source		80 sq 5 m
⑥	Negative (−) power cable	When using a 350 A welding power source		60 sq 5 m
		When using a 500 A welding power source		80 sq 5 m
⑦	Cable for wire feeder control (between manipulator and welding power source)			5 m
⑧	Negative (−) cable for voltage detection (between manipulator and jig)			5 m (This cable is not included when using MOTOWELD-SR350, -SR500 with a 10 m or shorter power cable.)
⑨	Welding I/F cable (between robot controller and welding power source)	When using MOTOWELD-X350, -X500, -RP500		LAN cable 5 m
		When using MOTOWELD-SR350, -SR500		Welding I/F cable 4 m
⑩	Conduit cable			N35 × 3 m [from TOKIN CORPORATION]
⑪	Gas hose			SLD hose (nominal dia. 6 mm) × 10 m [from Bridgestone Corp.]
⑫	Shock sensor cable (used only when AR700 or AR900 is selected)			10 m
⑬	AC unit (XACU) (used only when MOTOPAC-WL300 & AC UNIT is selected)			−

∗1: The wire feeder cannot be placed on the manipulator when using the AR700 or AR900. Users must prepare a stand for the wire feeder.
∗2: An optional joint component should be used when placing the AC unit (XACU) on top of the X350.

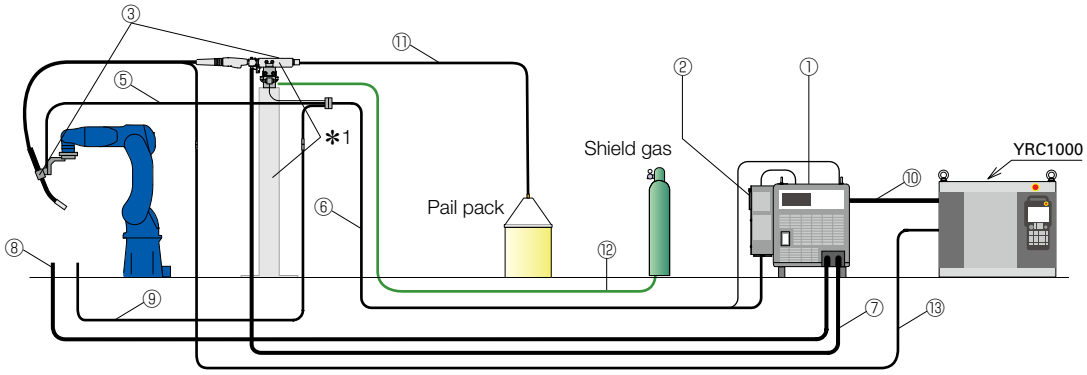
Package Components for MOTOPAC-WL300+, -WL400+

Note: Contact your Yaskawa representative for details on the package components for AR1440E.

■ For MOTOMAN-AR1440, -AR1730, -AR2010



■ For MOTOMAN-AR700, -AR900 (Can be used only with WL300+)



■ List of MOTOPAC Package Components

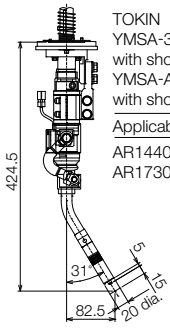
No.	Device		Default specifications
①	Welding power source		Select from MOTOWELD-X350, -X500
②	SERVOPACK box		Select from 200 V or 400 V
③	Servo torch set + shoulder unit/ joint unit*1	When using MOTOWELD-X350	WFE2WD-TSS300R [from TOKIN CORPORATION (air-cooled, with shock sensor)]
		When using MOTOWELD-X500	WFE2WD-TSS500R [from TOKIN CORPORATION (air-cooled, with shock sensor)]
④	Installation parts for S-axis	When using MOTOWELD-X350	60 sq power cable
		When using MOTOWELD-X500	80 sq power cable
⑤	Cable for servo torch		–
⑥	Cable for base side		5 m
⑦	Positive (+) power cable	When using MOTOWELD-X350	60 sq 5 m
		When using MOTOWELD-X500	80 sq 5 m
⑧	Negative (−) power cable	When using MOTOWELD-X350	60 sq 5 m
		When using MOTOWELD-X500	80 sq 5 m
⑨	Negative (−) cable for voltage detection (between manipulator and jig)		5 m
⑩	Welding I/F cable (between robot controller and welding power source)		LAN cable 5 m
⑪	Conduit cable		Easy Glide × 3 m [from TOKIN CORPORATION]
⑫	Gas hose		SLD hose (nominal dia. 6 mm) × 10 m [from Bridgestone Corp.]
⑬	Shock sensor cable (used only when AR700 or AR900 is selected)		10 m

✻1: The joint unit cannot be placed on the manipulator when using AR700 or AR900. Users must prepare a stand for the joint unit.

Components and Devices

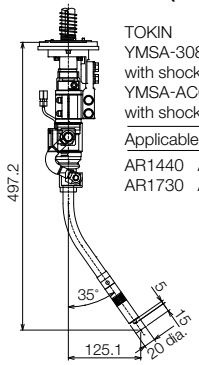
Standard Package

Internally Mounted Torch Cable for 350 A (Standard)



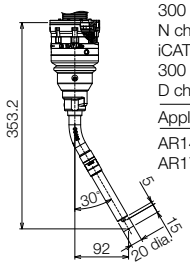
TOKIN
YMSA-300R
with shock sensor
YMSA-ACC300R
with shock sensor

Applicable models
AR1440 AR1440E
AR1730 AR2010



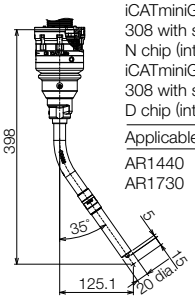
TOKIN
YMSA-308R
with shock sensor
YMSA-ACC308R
with shock sensor

Applicable models
AR1440 AR1440E
AR1730 AR2010



BINZEL
iCATminiG350-30SN
300 with shock sensor
N chip (internally mounted)
iCATminiG350-30SD
300 with shock sensor
D chip (internally mounted)

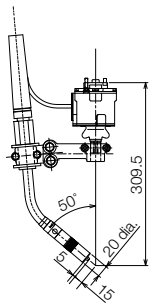
Applicable models
AR1440 AR1440E
AR1730 AR2010



BINZEL
iCATminiG350-308N
308 with shock sensor
N chip (internally mounted)
iCATminiG350-308D
308 with shock sensor
D chip (internally mounted)

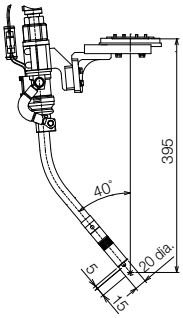
Applicable models
AR1440 AR1440E
AR1730 AR2010

Externally Mounted Torch Cable for 350 A (Standard)



TOKIN
TK309R-SS
with shock sensor

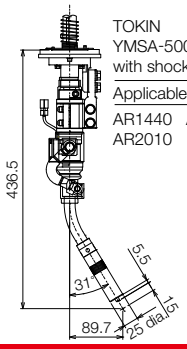
Applicable models
AR700 AR900



TOKIN
TK308R-SS
with shock sensor
ACC308R-SS
with shock sensor

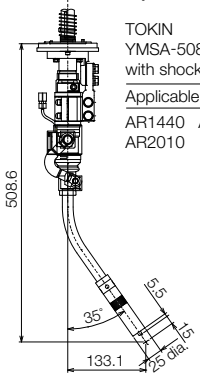
Applicable models
AR1440 AR1440E
AR1730 AR2010

Internally Mounted Torch Cable for 500 A (Standard)



TOKIN
YMSA-500R
with shock sensor

Applicable models
AR1440 AR1730
AR2010

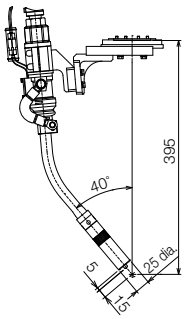


TOKIN
YMSA-508R
with shock sensor

Applicable models
AR1440 AR1730
AR2010

WL300+ Package

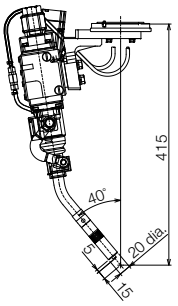
Externally Mounted Torch Cable for 500 A (Standard)



TOKIN
TK508R-SS
with shock sensor

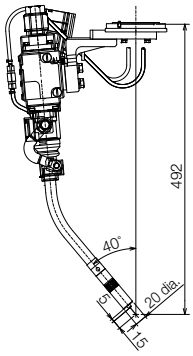
Applicable models
AR1440 AR1730
AR2010

Externally Mounted Torch Cable for 350 A (Standard)



TOKIN
WFE2WD-
TSS300R
with shock sensor

Applicable models
AR700 AR900
AR1440 AR1440E
AR1730 AR2010

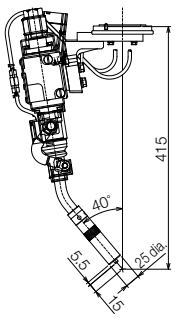


TOKIN
WFE2WD-
TSS308R
with shock sensor

Applicable models
AR700 AR900
AR1440 AR1440E
AR1730 AR2010

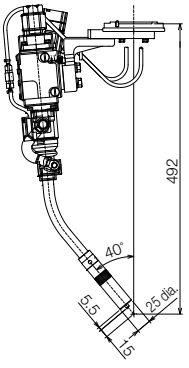
WL400+ Package

Externally Mounted Torch Cable for 500 A (Standard)



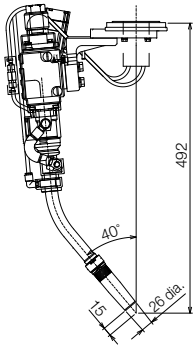
TOKIN
WFE2WD-
TSS500R
with shock sensor

Applicable models
AR1440 AR1730
AR2010



TOKIN
WFE2WD-
TSS508R
with shock sensor

Applicable models
AR1440 AR1730
AR2010



TOKIN
WFE2WD-
TSS508W
water-cooled torch
with shock sensor

Applicable models
AR1440 AR1730
AR2010

Note: Contact your Yaskawa representative for details on other torches.

Power Cable

This cable can be used as a positive (+) power cable (between a manipulator and a welding power source) as well as a negative (−) power cable (between a welding power source and a welding jig). Different lengths of cable can be ordered as needed, depending on the installation layout of the devices. This positive (+) power cable must be the same length as the feeder control cable.

【Selectable materials, thicknesses, and lengths】
Material: WCT or E-WCT
Thickness: 60 sq, 80 sq, or 100 sq
Length: 5 m (standard), 10 m, 15 m, or 20 m
Note: Cables are also available in 1-m increments.

Cable for Wire Feeder Control

This signal cable connects a manipulator with a welding power source and controls the wire feeder. Different lengths of cable can be ordered as needed, depending on the installation layout of the devices.
If you change the length of this cable, the length of the positive (+) power cable must also be changed. If you use the MOTOWELD-SR350 or -SR500 welding power source, obtain a voltage detection cable separately.

【Selectable lengths】
Without an encoder signal conversion unit: 5 m (standard), 7 m, or 10 m
With an encoder signal conversion unit: 10 m, 15 m, or 20 m

Negative (−) Cable for Voltage Detection

This cable connects a manipulator with a welding jig and detects welding voltage. Different lengths of cable can be ordered as needed, depending on the installation layout of the devices. If you change the length of this cable, the length of the negative (−) power cable must also be changed. When using the MOTOWELD-SR350 or -SR500 welding power source, this cable connects a welding power source with a welding jig.

【Selectable lengths】
Length: For X350, X500 5 m (standard), 10 m
For SR350, SR500, RP500 5 m (standard), 10 m, 15 m, 20 m

Welding I/F Cable: LAN Cable

This signal cable connects a robot controller with a welding power source and controls the welding power source. Different lengths of cable can be ordered as needed, depending on the installation layout of the devices. This cable is used with the MOTOWELD-X350 or -X500, or MOTOWELD-RP500 with digital controls.

【Selectable lengths】
Length: 5 m (standard), 10 m,15 m, 20 m

Welding I/F Cable

This signal cable connects a robot controller with a welding power source and controls the welding power source. Different lengths of cable can be ordered as needed, depending on the installation layout of the devices. This cable is used with the MOTOWELD-SR350 or -SR500, or MOTOWELD-RP500 with analog controls.

【Selectable lengths】
Length: 4 m (standard), 5 m, 10 m,15 m, 20 m
Note: The YWE-AIF-001 must be purchased separately when using the RP500 with analog controls.

Conduit Cable

This cable connects a manipulator with a spool container for welding wire. Different lengths of cable can be ordered as needed, depending on the installation layout of the devices.

【Selectable cable types and lengths】
Length: N35 (1 m to 10 m max. in 1-m increments, standard 3 m), N55 (1 m to 15 m max. in 1-m increments),
Simplified type (1 m to 20 m max. in 1-m increments) [from TOKIN CORPORATION]

Gas Hose

This hose connects the manipulator and gas cylinder.

【Selectable lengths】
Length: 10 m (standard), 20 m, 30 m

Optional Devices

Air Valve Unit

This valve unit is used to supply air to a welding torch with a wire clamp.

【Selectable lengths】
Length: Signal cable 10 m, 20 m

Feeder Roller

This is a set of optional rollers for the wire feeder. Be sure to order the correct size rollers for your wires. (A set of rollers for diameter 1.0 mm and 1.2 mm wires is installed in the wire feeders when shipped.)

【Selectable wire diameter】
Wire diameter : 0.8 mm dia., 0.9 mm dia., 1.4 mm dia., 1.6 mm dia. (0.8 mm and 0.9 mm dia., 1.4 mm and 1.6 mm dia.)
[from TOKIN CORPORATION]
Note: Available in a set of two rollers (one set/wire feeder)

Gas Regulator

This gas regulator controls the pressure of shield gas contained in the gas cylinder that can be used for both CO_2 and MAG welding. When using it for CO_2, an antifreeze heater can be used by connecting the heater to a 100 VAC power source.

Cable Stands and Reel Units

This option includes a cable stand that secures the conduit cable, and a reel unit that holds the wire reel.

【Selectable reel units】

· Mounted on cable stand [from YASKAWA]

· Mounted on floor [from TOKIN CORPORATION]

Water Circulator

This is a water circulation device for water-cooled torches. A single-phase 200 VAC must be used for this device.

【Selectable types】
WR100 [from TOKIN CORPORATION]
Water hose length: 10 m, 15 m, 20 m

Welding Positioner

MOTOPOS is a welding positioner that is exclusive for MOTOMAN robots. It supports high-quality welding by securing optimal welding postures.

Wide Variety of Products

Our product lineup features one-axis positioners and two-axis positioners with a wide range of payloads, as well as turntables. We can recommend optimal positioners for each customer's system, depending on the type of application.

High Precision

A Robot controller can conduct highly accurate and coordinated operations with the use of a control system that has been specially designed for MOTOMAN robots and MOTOPOS.

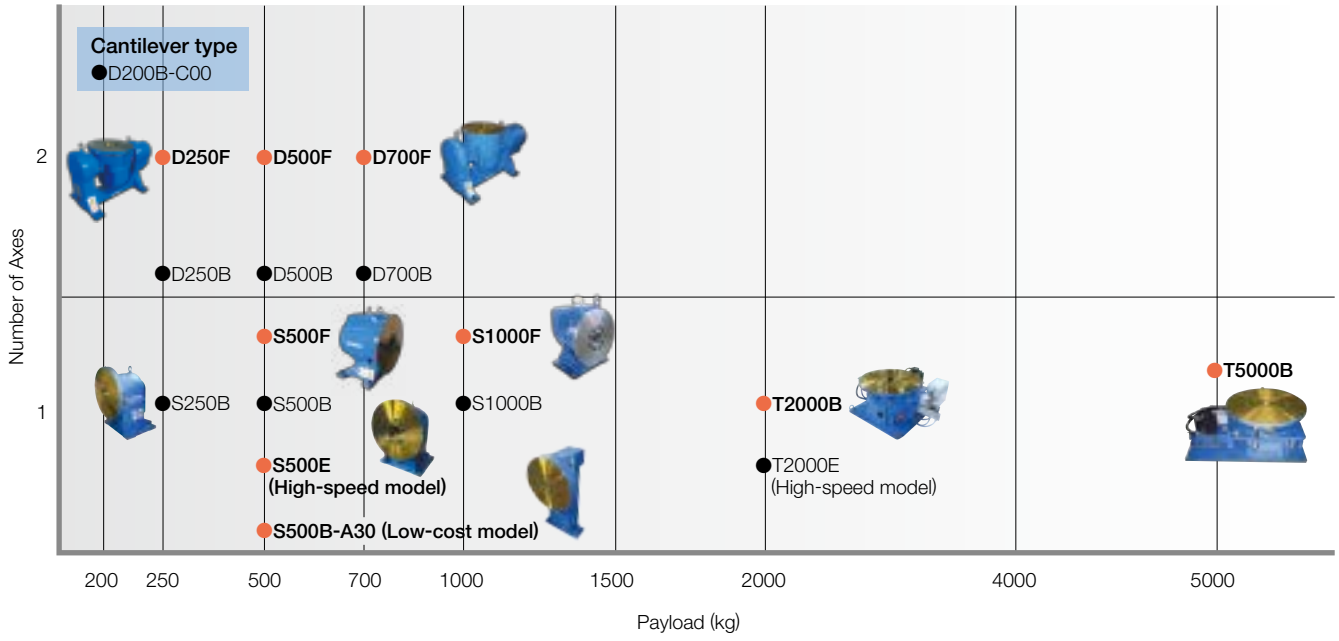
Coordinated welding with MOTOPAC-W series* arc welding package and MOTOPOS

The robot and MOTOPOS weld in coordination at a constant speed, allowing the workpiece and the torch to keep the best posture at all times. This reduces partial penetration and distortion, and greatly improves welding quality.

*: The MOTOPAC-W series is a welding package that includes a robot, a welding power source, and a torch.

MOTOPOS Lineup

We have an extensive model lineup, including models with a payload of 200 kg to 5000 kg, models with one to two axes, and cantilever models that can weld the back of workpieces. Choose an optimum turntable and positioner for your production line to improve welding quality and efficiency.



One-axis Positioners ■Payload 500/1000 kg

Specifications	MOTOPOS-S500F	MOTOPOS-S500B-A30	MOTOPOS-S500E		MOTOPOS-S1000F
Payload	500 kg	500 kg	500 kg		1000 kg
Type	Standard	Low cost (optional mounting base)*2	Standard	With rotary joint	Standard
Model	YR-MPS500F-A00	YR-MPS500B-A30	YR-MPS500E-A00	YR-MPS500E-B00	YR-MPS1000F-A00
Allowable Overhang	340 mm (from the rotating plate with a 500 kg load)	340 mm (from the rotating plate with a 500 kg load)	340 mm (from the rotating plate with a 500 kg load)		600 mm (from the rotating plate with a 1000 kg load)
Rotational Angle	−200˚ − +200˚*1	−360˚ − +360˚*1	−370˚ − +370˚*1		−200˚ − +200˚*1
Max. Rotational Speed	3.32 rad/s (190˚/s)	2.18 rad/s (125˚/s)	4.71 rad/s (270˚/s)		2.62 rad/s (150˚/s)
Allowable Moment	509.6 N·m	509.6 N·m	509.6 N·m		2450 N·m
Allowable Inertia (GD²/4)	35 kg·m²	35 kg·m²	35 kg·m²		200 kg·m²
Repeatability	±0.05 mm (R=250 mm)	±0.1 mm (R=250 mm)	±0.1 mm (R=250 mm)		±0.05 mm (R=250 mm)
Approx. Mass	150 kg	115 kg	150 kg		255 kg
Internal I/O Wire	−	−	−	0.5 mm²×6 cables	−
Internal Air Hose	−	−	−	3/8 inch x 2 hoses	−
Power Requirements	0.3 kVA	0.3 kVA	0.5 kVA		0.8 kVA

Two-axis Positioners ■Payload 250/500/700 kg

Specifications		MOTOPOS-D250F	MOTOPOS-D500F	MOTOPOS-D700F
Payload		250 kg	500 kg	700 kg
Type		Standard	Standard	Standard
Model		YR-MPD250F-A00	YR-MPD500F-A00	YR-MPD700F-A00
Rotation Axis	Rotational Angle	−200˚ − +200˚*1	−200˚ − +200˚*1	−200˚ − +200˚*1
	Max. Rotational Speed	3.32 rad/s (190˚/s)	3.32 rad/s (190˚/s)	2.97 rad/s (170˚/s)
	Allowable Moment	196 N·m	509.6 N·m	784 N·m
	Allowable Inertia (GD²/4)	17 kg·m²	35 kg·m²	70 kg·m²
Tilted Axis	Rotational Angle	−135˚ − +135˚	−135˚ − +135˚	−90˚ − +90˚
	Max. Rotational Speed	3.14 rad/s (180˚/s)	2.62 rad/s (130˚/s)	2.09 rad/s (120˚/s)
	Allowable Moment	539 N·m	1274 N·m	2842 N·m
	Allowable Inertia (GD²/4)	50 kg·m²	200 kg·m²	250 kg·m²
Repeatability		±0.1 mm (R=250 mm)	±0.08 mm (R=250 mm)	±0.08 mm (R=250 mm)
Approx. Mass		265 kg	275 kg	345 kg
Internal I/O Wire		Optional	Optional	Optional
Internal Air Hose		Optional	Optional	Optional
Power Requirements		0.4 kVA	0.6 kVA	1.1 kVA

One-axis Turntable ■Payload 2000/5000 kg

Specifications	MOTOPOS-T2000B	MOTOPOS-T5000B
Payload	2000 kg	5000 kg
Model (Standard)	YR-MPT2000B-A00	YR-MPT5000B-A00
Allowable Moment	6125 N·m	7350 N·m
Allowable Inertia (GD²/4)	2250 kg·m²	4500 kg·m²
Rotational Angle	0˚ − +270˚*3	0˚ − +270˚*3
Max. Rotational Speed	1.40 rad/s (80˚/s)	1.05 rad/s (60˚/s)
Repeatability	±0.3 mm (R=1000 mm)	±0.3 mm (R=1000 mm)
Approx. Mass	450 kg	950 kg
Internal I/O Wire	−	−
Internal Air Hose	−	−
Mounting	Floor-mount only	Floor-mount only
Power Requirements	0.8 kVA	0.8 kVA

*1: Endless rotation is available as an option.
*2: Optional Mounting base: Standard height 624 mm
Approx. mass 60 kg
*3: An air-driven lock mechanism using a stopper cylinder is provided at 0˚, 90˚, 180˚, and 270˚ for safety.
Note: ·Secondary terminals for welding are provided as a standard feature.
·Refer to the MOTOPOS Series catalog (KAE-C945-431) for details on models that are not in this catalog.

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Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Тверь (4822)63-31-35
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Эл. почта ykw@nt-rt.ru || Сайт: https://yaskawa.nt-rt.ru/