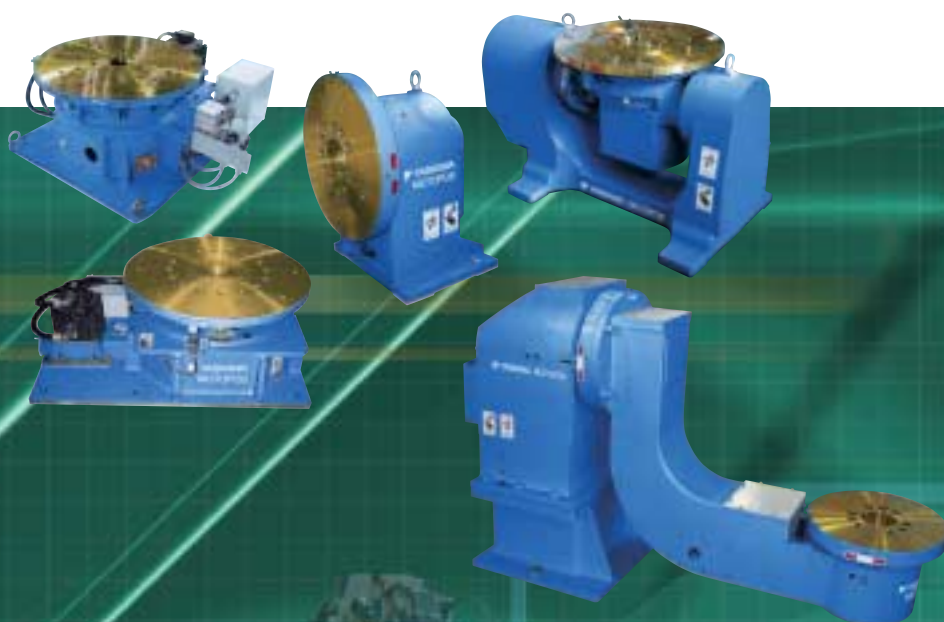




Turntable/Positioner MOTOPOS Series



MOTOPOS

Certified for
ISO9001 and
ISO14001



JAB
QMS Accreditation
R009



JQA-0813



JQA-EM0924

Keeping Up with the Robot

Do you get irritated with your turntable/positioner, whose speed and accuracy can't keep up with the robot?

YASKAWA has developed turntables/positioners to perfectly coordinate with the high performance of our robots.

Example

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

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 supply, and a torch.



Features

■ High Speed

Maximum rotational speed: 3.14 rad/s (180°/s) for MOTOPOS-D250B

The MOTOPOS-S1000B, a positioner with a 1000-kg payload, improves productivity with a maximum rotational speed of 1.92 rad/s (110°/s), the fastest of its class.

■ High Precision

A single controller that exclusively controls MOTOMAN enables highly accurate coordinated operation by applying a control system designed specially for MOTOMAN robots and MOTOPOS.

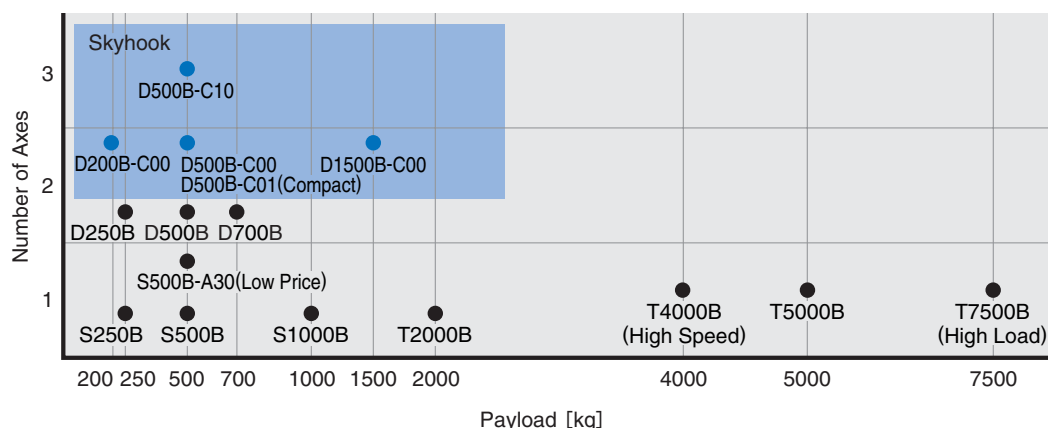
Wide Variety of Products

Fifteen models are available to help you find the optimum turntable or positioner to improve the quality and increase the efficiency of your production line.

Payloads: 200 kg to 7500 kg

Number of axes: 1 to 3

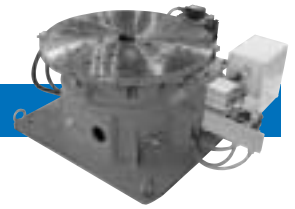
Application types: standard, high speed, high load, and skyhook



MOTOPOS-T2000B

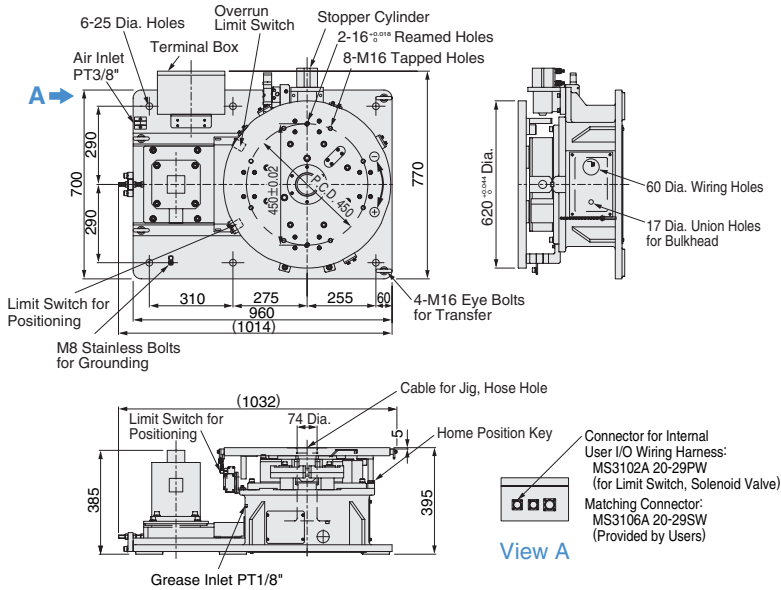
Standard

1-axis, 2000 kg Payload



With 2000-kg payload for use with large, medium-weight workpieces.

Dimensions in mm



Specifications

Payload	2000 kg
Model	YR-MPT2000B-A00
Allowable Moment	6125 N·m
Allowable Moment of Inertia (GD ² /4)	2250 kg·m ²
Rotational Angle	0 to 270°*
Max. Rotational Speed	1.40 rad/s (80°/s)
Repeatability	±0.3 mm (R=1000 mm)
Installation Method	Floor mounted
Applicable Controller	NX100, DX100
Approx. Mass	450 kg
Internal I/O Wire	—
Internal Air Hose	—

*: For safety, a lock mechanism is provided at 0°, 90°, 180°, and 270°.

Note: Secondary terminals for welding are provided as a standard feature.

MOTOPOS-T5000B

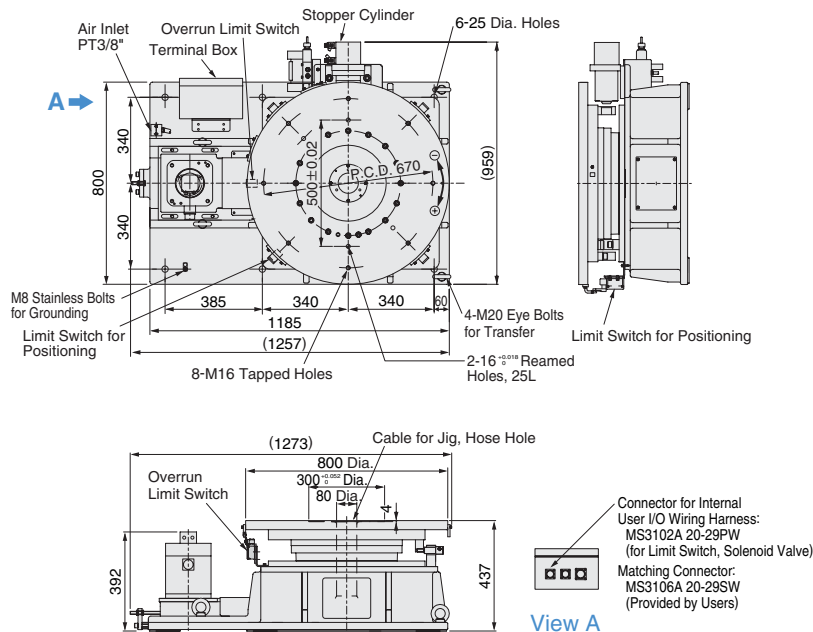
Standard

1-axis, 5000 kg Payload



With 5000-kg payload for use with large, heavy workpieces.

Dimensions in mm



Specifications

Payload	5000 kg
Model	YR-MPT5000B-A00
Allowable Moment	7350 N·m
Allowable Moment of Inertia (GD ² /4)	4500 kg·m ²
Rotational Angle	0 to 270°*
Max. Rotational Speed	1.05 rad/s (60°/s)
Repeatability	±0.3 mm (R=2000 mm)
Installation Method	Floor mounted
Applicable Controller	NX100, DX100
Approx. Mass	950 kg
Internal I/O Wire	—
Internal Air Hose	—

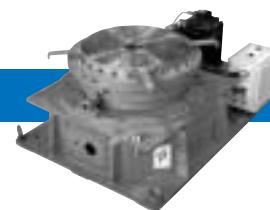
*: For safety, a lock mechanism is provided at 0°, 90°, 180°, and 270°.

Note: Secondary terminals for welding are provided as a standard feature.

MOTOPOS-T4000B

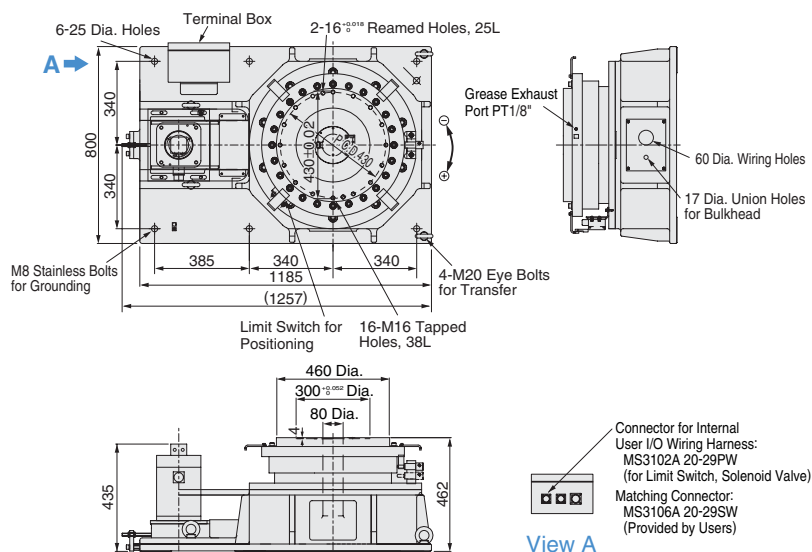
High Speed

1-axis, 4000 kg Payload



Fastest of its class! High-speed positioner with maximum rotational speed of 2.1 rad/s (120°/s).

Dimensions in mm



Specifications

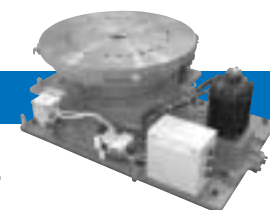
Payload	4000 kg
Model	YR-MPT4000B-A00
Allowable Moment	29106 N·m
Allowable Moment of Inertia (GD ² /4)	2025 kg·m ²
Rotational Angle	0 to 360°*
Max. Rotational Speed	2.1 rad/s (120°/s)
Repeatability	± 0.3 mm (R=1000 mm)
Installation Method	Floor mounted
Applicable Controller	NX100, DX100
Approx. Mass	850 kg
Internal I/O Wire	—
Internal Air Hose	—

*: Rotary joint is also available as an option.
Endless rotation is also available as an option.

MOTOPOS-T7500B

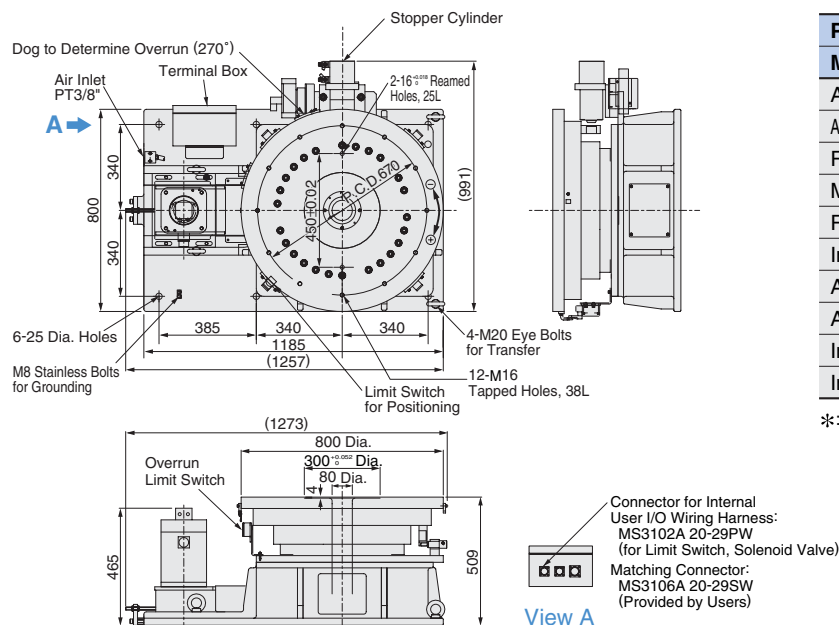
High Load

1-axis, 7500 kg Payload



High-load positioner with 7500-kg payload for use with large, heavy workpieces.

Dimensions in mm



Specifications

Payload	7500 kg
Model	YR-MPT7500B-A00
Allowable Moment	9800 N·m
Allowable Moment of Inertia (GD ² /4)	11250 kg·m ²
Rotational Angle	0 to 270°*
Max. Rotational Speed	1.05 rad/s (60°/s)
Repeatability	± 0.3 mm (R=1000 mm)
Installation Method	Floor mounted
Applicable Controller	NX100, DX100
Approx. Mass	950 kg
Internal I/O Wire	—
Internal Air Hose	—

*: For safety, a lock mechanism is provided at 0°, 90°, 180°, and 270°.

1-axis, 250/500 kg Payload



Specifications

Note: Secondary terminals for welding are provided as a standard feature.

1-axis, 500 kg Payload



Specifications

2 A mounting base is optional. Contact your Yaskawa representative for mounting base of different height.



MOTOPOS-S1000B

Standard

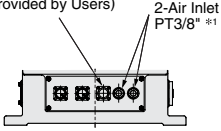
1-axis, 1000 kg Payload

High-speed, high-torque positioner with hollow-shaft speed reducer for easy cable installation for use with large, medium-weight workpieces.

Dimensions in mm

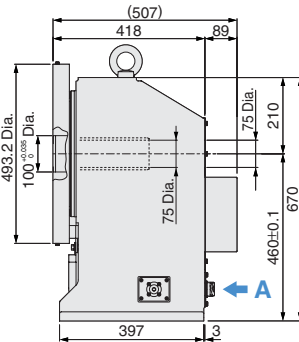
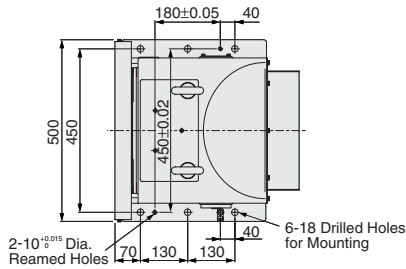
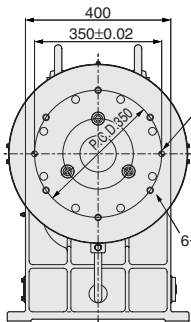
(YR-MPS1000B-A00)

Connector for Internal User I/O Wiring Harness*1:
JL05-2A 18-1P
Matching Connector:
JL05-6A 18-1S
(Provided by Users)



*1: Only for model YR-MPS1000B-B00

View A



Specifications

Payload	1000 kg	
Type	Standard	With Rotary Joint
Model	YR-MPS1000B-A00	YR-MPS1000B-B00
Allowable Overhang	1800 mm (from the rotating plate with a 500 kg load)	
Rotational Angle	± 180°*2	
Max. Rotational Speed	1.92 rad/s(110°/s)	
Allowable Moment	2450 N·m	
Allowable Moment of Inertia (GD ² /4)	200 kg·m ²	
Repeatability	± 0.2 mm (R=250 mm)	
Mounting Direction	Free	
Applicable Controller	NX100, DX100	
Approx. Mass	350 kg	
Internal I/O Wire	—	6 cables
Internal Air Hose	—	2 hoses

*2: Endless rotation is available as an option.

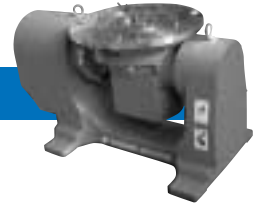
Note: Secondary terminals for welding are provided as a standard feature.

Note: For more information on models with different dimensions, contact your Yaskawa representative.

MOTOPOS-D250B/D500B

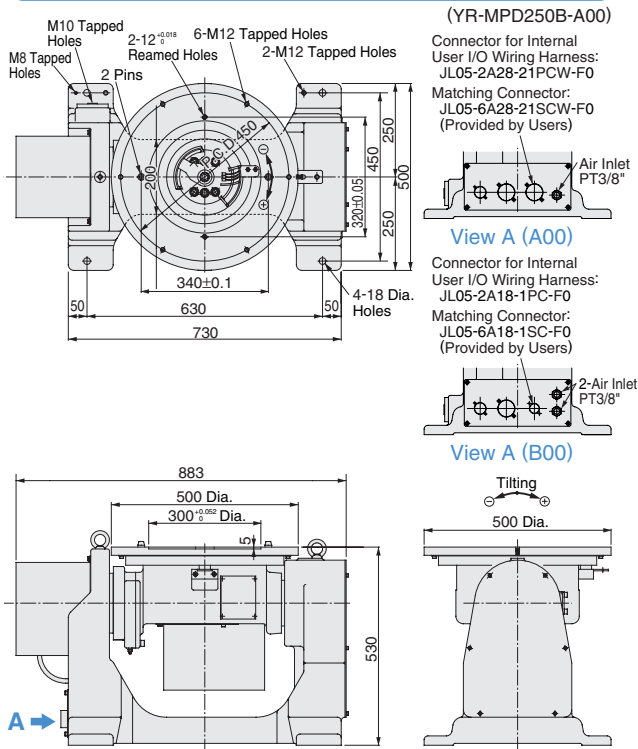
Standard

2-axis, 250/500 kg Payload



With 34 cables (includes multi-signal cable) for advanced motion control.

Dimensions in mm



Note: For more information on models with different dimensions, contact your Yaskawa representative.

Specifications

Payload		250 kg		500 kg	
Type		Standard	With Rotary Joint	Standard	With Rotary Joint
Model		YR-MPD250B-A00	YR-MPD250B-B00	YR-MPD500B-A00	YR-MPD500B-B00
Rotation Axis	Rotational Angle	± 200°	± 370°*	± 200°	± 370°*
	Max. Rotational Speed	3.14 rad/s (180°/s)		2.80 rad/s (160°/s)	
	Allowable Moment	196 N·m		392 N·m	
	Allowable Moment of Inertia (GD ² /4)	17 kg·m ²		44 kg·m ²	
Tilted Axis	Tilted Angle	± 135°		± 135°	
	Max. Tilted Speed	2.09 rad/s (120°/s)		1.40 rad/s (80°/s)	
	Allowable Moment	539 N·m		1274 N·m	
	Allowable Moment of Inertia (GD ² /4)	50 kg·m ²		200 kg·m ²	
Repeatability		± 0.1 mm (R=250 mm)		± 0.1 mm (R=250 mm)	
Mounting Direction		Free		Free	
Applicable Controller		NX100, DX100		NX100, DX100	
Approx. Mass		220 kg		240 kg	
Internal I/O Wire		34 cables	6 cables	34 cables	6 cables
Internal Air Hose		1 hose	2 hoses	1 hose	2 hoses

*: Endless rotation is available as an option.

Note: Secondary terminals for welding are provided as a standard feature.

MOTOPOS-D700B

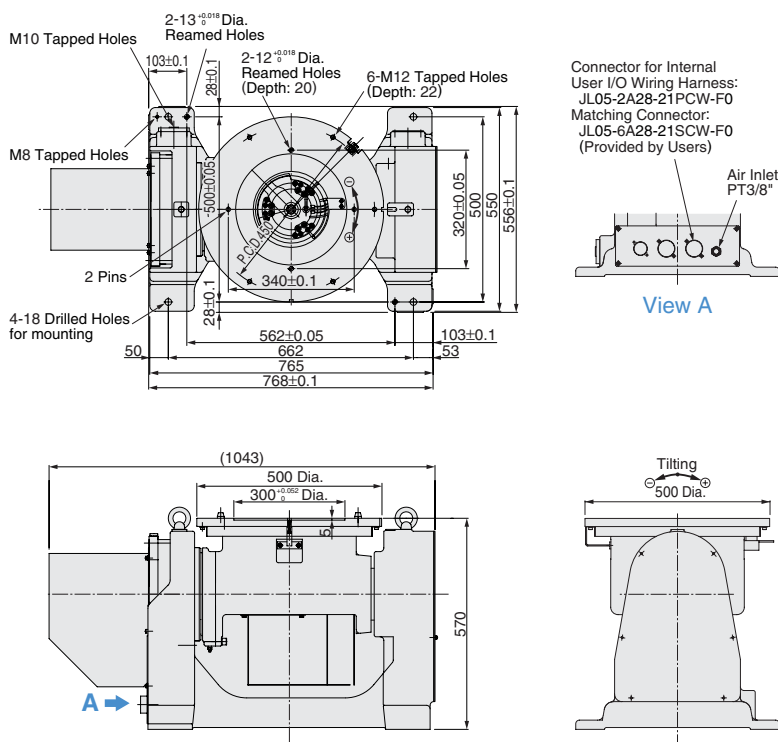
Standard

2-axis, 700 kg Payload



High-speed, compact positioner with 700-kg payload.

Dimensions in mm



Note: For more information on models with different dimensions, contact your Yaskawa representative.

Specifications

Payload		700 kg
Type		Standard
Model		YR-MPD700B-A00
Rotation Axis	Rotational Angle	± 200°*
	Max. Rotational Speed	2.80 rad/s (160°/s)
	Allowable Moment	686 N·m
	Allowable Moment of Inertia (GD ² /4)	70 kg·m ²
Tilted Axis	Tilted Angle	± 90°
	Max. Tilted Speed	1.40 rad/s (80°/s)
	Allowable Moment	2842 N·m
	Allowable Moment of Inertia (GD ² /4)	250 kg·m ²
Repeatability		± 0.1 mm (R=250 mm)
Mounting Direction		Free
Applicable Controller		NX100, DX100
Approx. Mass		370 kg
Internal I/O Wire		34 cables
Internal Air Hose		1 hose

*: Endless rotation is available as an option.

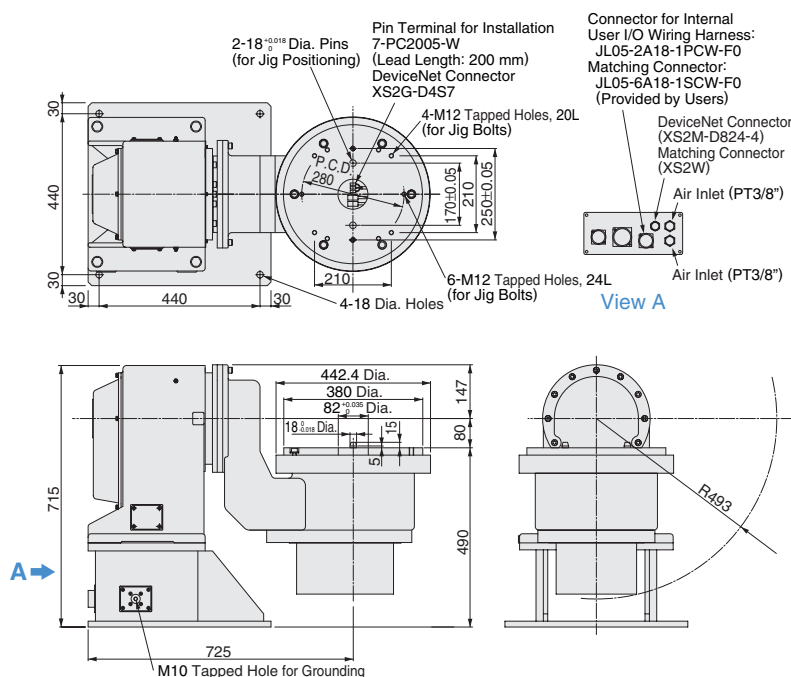
Note: Secondary terminals for welding are provided as a standard feature.

2-axis, 200 kg Payload



Skyhook makes it easy to weld difficult pieces such as mufflers.

Dimensions in mm



Specifications

Payload		200 kg	
Model		YR-MPD200B-C00	
Rotation Axis	Rotational Angle	±200°	
	Max. Rotational Speed	3.14 rad/s (180°/s)	
	Allowable Moment	196 N·m	
Tilt Axis	Allowable Moment of Inertia (GD²/4)	17 kg·m²	
	Tilted Angle	± 135°	
	Max. Tilted Speed	1.75 rad/s (100°/s)	
	Allowable Moment	686 N·m	
Tilt Axis	Allowable Moment of Inertia (GD²/4)	35 kg·m²	
	Repeatability	± 0.1 mm (R=250 mm)	
	Mounting Direction	Floor mounted	
	Applicable Controller	NX100, DX100	
Approx. Mass		330 kg	
Internal I/O Wire		0.5 mm² × 6 cables (shielded)	AWG24 × 2 cables AWG22 × 2 cables (Only one cable is shielded.)
Internal Air Hose		2 hoses	

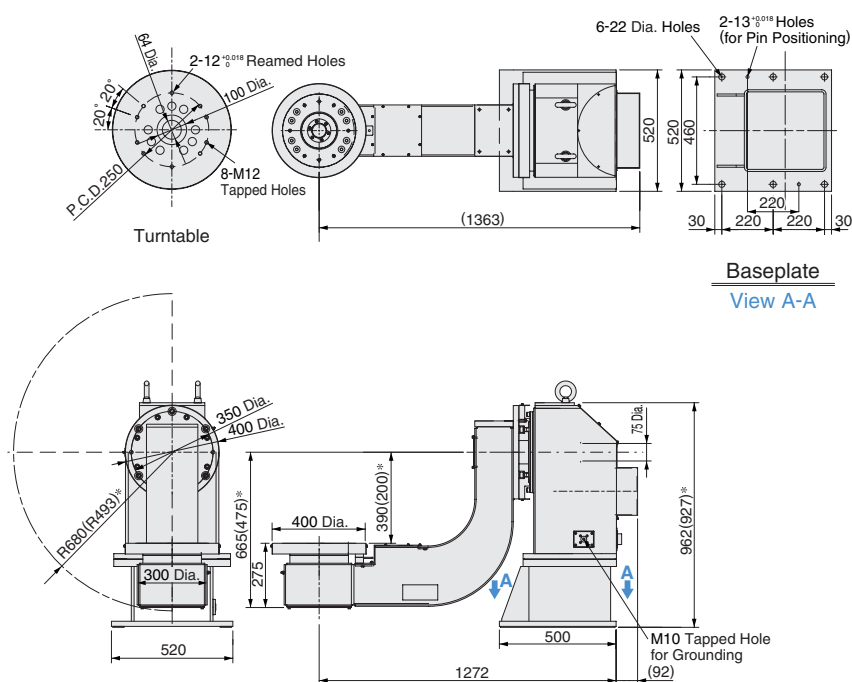
Note: Secondary terminals for welding are provided as a standard feature.

2-axis, 500 kg Payload



Two models are available: Standard and Compact with short arm.

Dimensions in mm



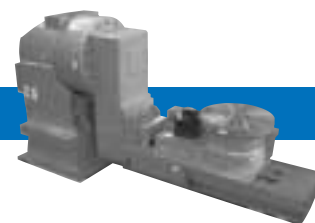
Specifications

Payload		500 kg	
Type		Standard	Compact
Model		YR-MPD500B-C00	YR-MPD500B-C01
Rotation Axis	Rotational Angle	± 360° (Endless)	
	Max. Rotational Speed	2.18 rad/s (125°/s)	
	Allowable Moment	421.4 N·m	
	Allowable Moment of Inertia (GD ² /4)	50 kg·m ²	
Tilted Axis	Tilted Angle	± 180°	
	Max. Tilted Speed	1.92 rad/s (110°/s)	
	Allowable Moment	490 N·m	
	Allowable Moment of Inertia (GD ² /4)	200 kg·m ²	
Repeatability		± 0.2 mm (R=250 mm)	
Mounting Direction		Floor mounted	
Applicable Controller		NX100, DX100	
Approx. Mass		700 kg	
Internal I/O Wire		—	
Internal Air Hose		—	

Note: Secondary terminals for welding are provided as a standard feature.

* : Values in parenthesis are for the YR-MPD500B-C01.

3-axis, 500 kg Payload



Dimensions in mm



Specifications

Payload		500 kg
Model		YR-MPD500B-C10
Rotation Axis	Rotational Angle	$\pm 360^\circ$ *
	Max. Rotational Speed	2.18 rad/s (125°/s)
	Allowable Moment	421.4 N·m
	Allowable Moment of Inertia ($GD^2/4$)	50 kg·m ²
Tilted Axis	Tilted Angle	$\pm 180^\circ$
	Max. Tilted Speed	1.92 rad/s (110°/s)
	Allowable Moment	490 N·m
	Allowable Moment of Inertia ($GD^2/4$)	200 kg·m ²
	Max. Speed of Traverse Axis	30 m/min
Repeatability		± 0.2 mm (R=250 mm)
Mounting Direction		Floor mounted
Applicable Controller		NX100, DX100
Approx. Mass		1400 kg
Internal I/O Wire		—
Internal Air Hose		—

*: Endless rotation is available as an option.
Note: Secondary terminals for welding are provided as a standard feature.

2-axis, 1500 kg Payload



Dimensions in mm



Payload		1500 kg
Model		YR-MPD1500B-C00
Rotation Axis	Rotational Angle	± 200°
	Max. Rotational Speed	2.18 rad/s (125°/s)
	Allowable Moment	1960 N·m
	Allowable Moment of Inertia (GD²/4)	305 kg·m²
Tilted Axis	Tilted Angle	± 180°
	Max. Tilted Speed	1.57 rad/s (90°/s)
	Allowable Moment	2940 N·m
	Allowable Moment of Inertia (GD²/4)	365 kg·m²
Repeatability		± 0.2 mm (R=250 mm)
Mounting Direction		Floor mounted
Applicable Controller		NX100, DX100
Approx. Mass		3500 kg
Internal I/O Wire		—
Internal Air Hose		—

Note: Secondary terminals for welding are provided as a standard feature.

MOTOPOS Series

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YASKAWA ELECTRIC CORPORATION

In the event that the end user of this product is to be the military and said product is to be employed in any weapons systems or the manufacture thereof, the export will fall under the relevant regulations as stipulated in the Foreign Exchange and Foreign Trade Regulations. Therefore, be sure to follow all procedures and submit all relevant documentation according to any and all rules, regulations and laws that may apply.

Specifications are subject to change without notice for ongoing product modifications and improvements.

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