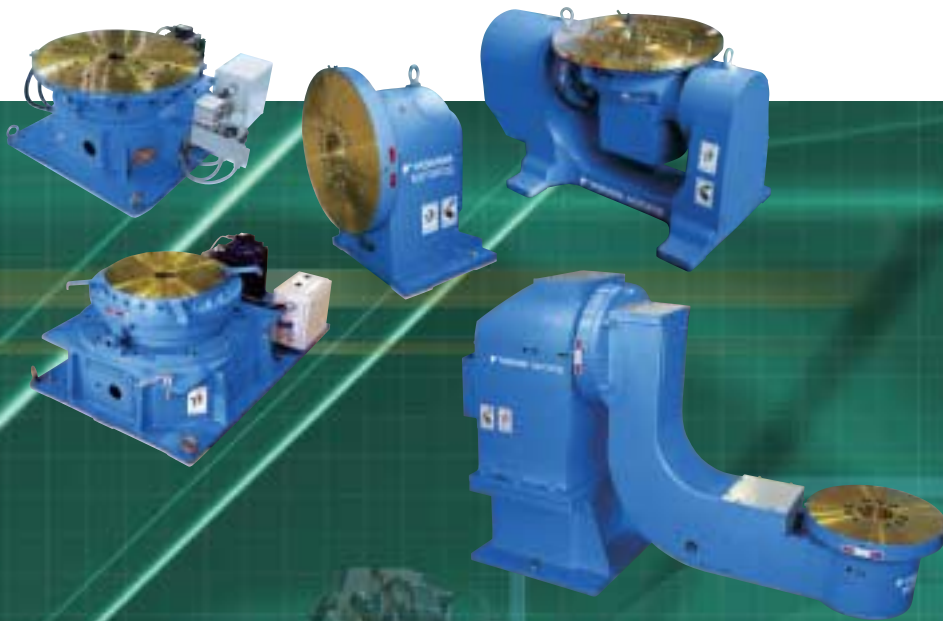


# Turntable/Positioner MOTOPOS Series



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: 4.71 rad/s (270°/s) for MOTOPOS-S500E

The MOTOPOS-T2000E, a positioner with a 2000-kg payload, improves productivity with a maximum rotational speed of 2.82 rad/s (162°/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.

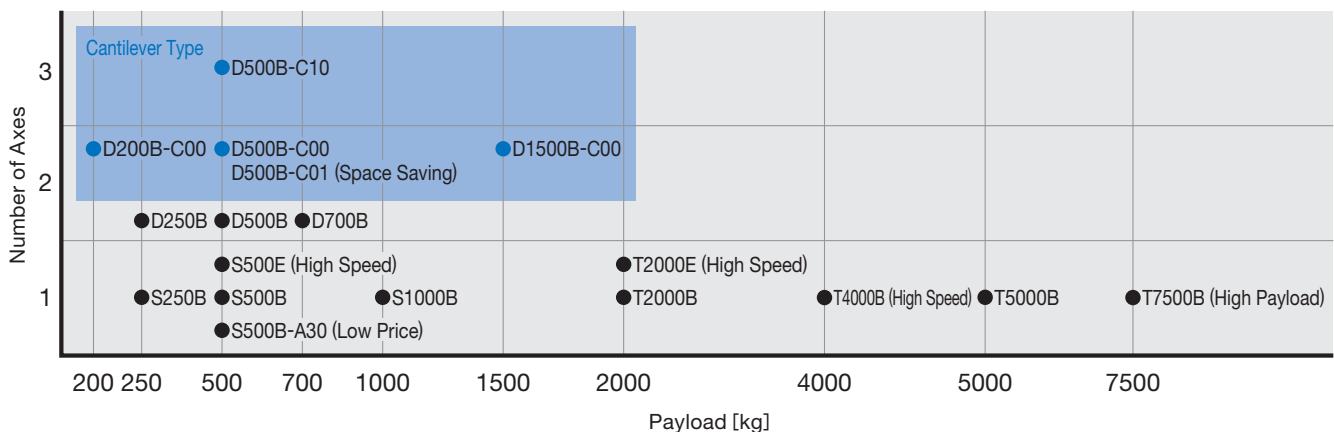
## Wide Variety of Products

Complete lineup 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

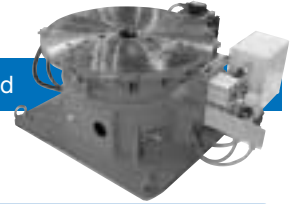
Application types: standard, high-speed, high-payload, and cantilever type



# MOTOPOS-T2000B/T5000B

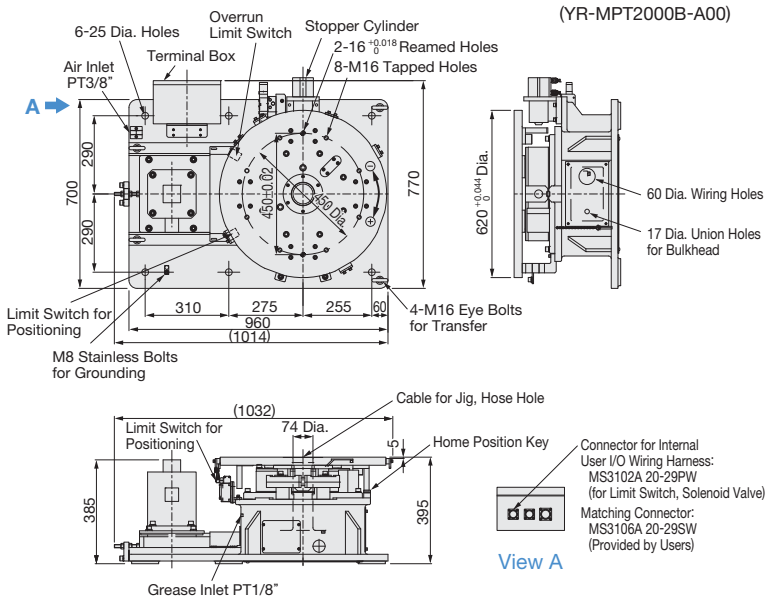
Standard

1-axis, 2000/5000 kg Payload



With 2000-kg/T5000-kg payload for use with large weight workpieces.

## Dimensions in mm



## Specifications

Payload	2000 kg	5000 kg
Model	YR-MPT2000B-A00	YR-MPT5000B-A00
Allowable Moment	6125 N·m	7350 N·m
Allowable Moment of Inertia (GD <sup>2</sup> /4)	2250 kg·m <sup>2</sup>	4500 kg·m <sup>2</sup>
Rotational Angle	0° - +270° *	0° - +270° *
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)
Applicable Controller	NX100, DX100	NX100, DX100
Approx. Mass	450 kg	950 kg
Internal I/O Wire	-	-
Internal Air Hose	-	-

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

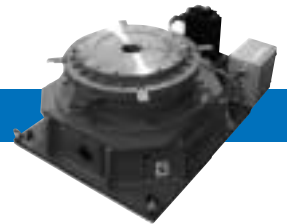
Note: Secondary terminals for welding are provided as a standard feature.

Note: The dimension above shows the model of YR-MPT 2000B-A00. Contact YASKAWA regarding the dimension of MOTOPOS-T5000B.

# MOTOPOS-T2000E

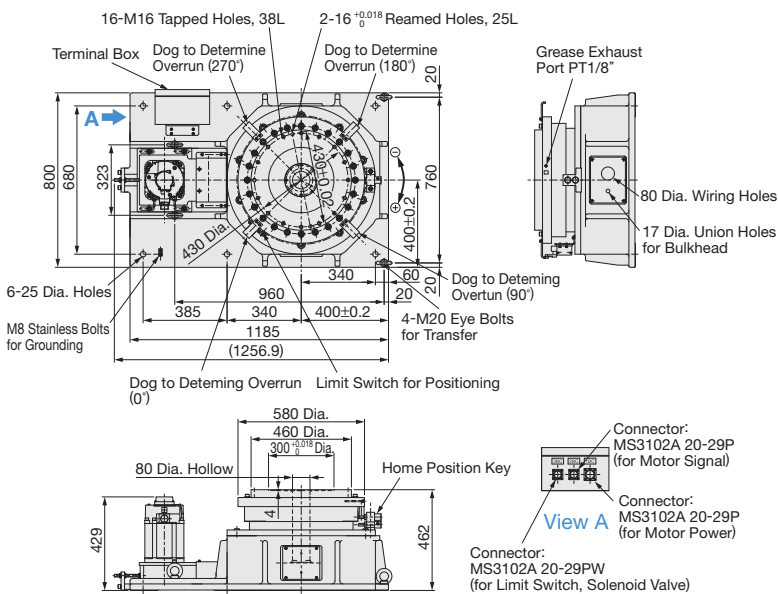
High Speed

1-axis, 2000 kg Payload



Fastest of its class! High-speed positioner with maximum rotational speed of 2.82rad/s (162°/s).

## Dimensions in mm

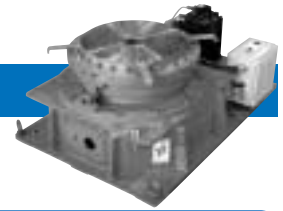


## Specifications

Payload	2000 kg
Model	YR-MPT2000E-A00
Allowable Moment	29106 N·m
Allowable Moment of Inertia (GD <sup>2</sup> /4)	650 kg·m <sup>2</sup>
Rotational Angle	0° - +360°
Max. Rotational Speed	2.82 rad/s (162°/s)
Repeatability	±0.3 mm (R=1000 mm)
Applicable Controller	DX100
Approx. Mass	850 kg
Internal I/O Wire	-
Internal Air Hose	-

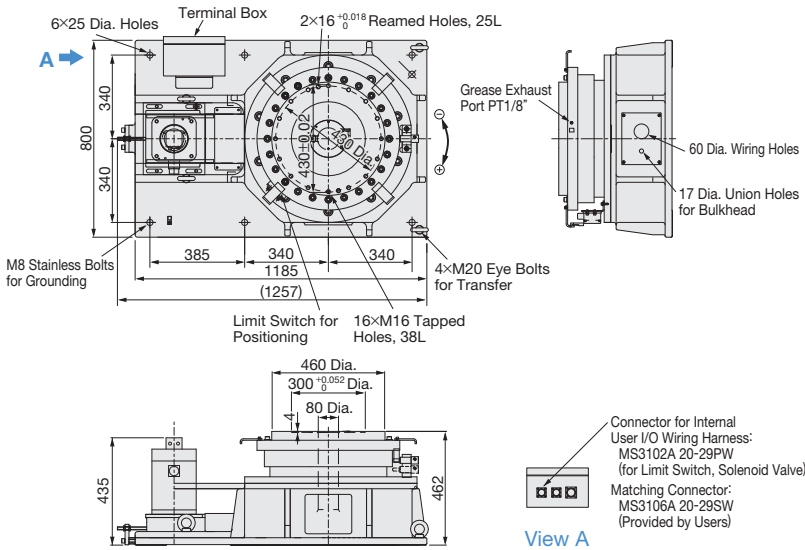
# MOTOPOS-T4000B

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



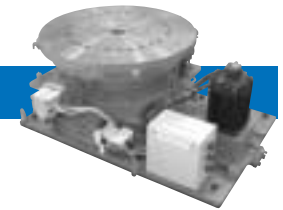
## Specifications

Payload	4000 kg
Model	YR-MPT4000B-A00
Allowable Moment	29106 N·m
Allowable Moment of Inertia (GD <sup>2</sup> /4)	2025 kg·m <sup>2</sup>
Rotational Angle	0° - +360° *
Max. Rotational Speed	2.1 rad/s (120°/s)
Repeatability	±0.3 mm (R=1000 mm)
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.

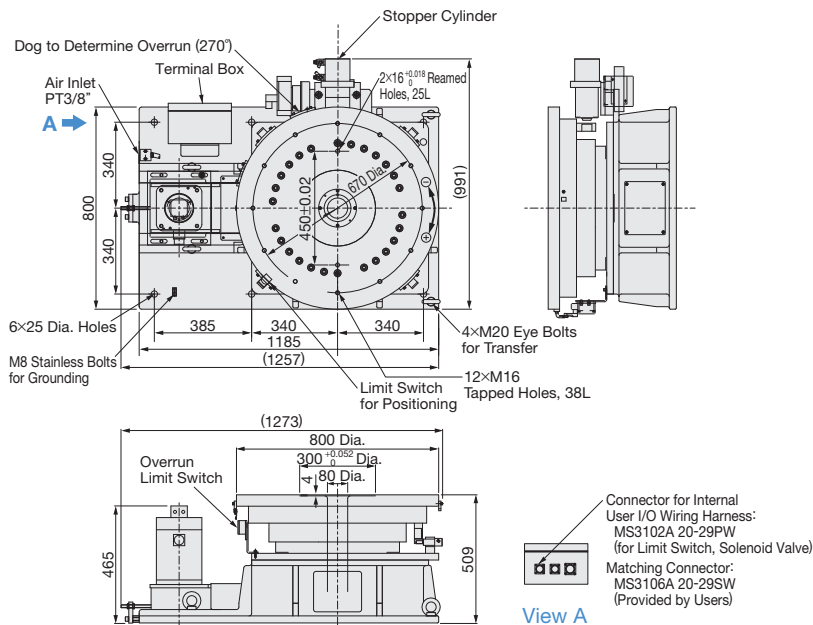
# MOTOPOS-T7500B

High Payload 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 <sup>2</sup> /4)	11250 kg·m <sup>2</sup>
Rotational Angle	0° - +270° *
Max. Rotational Speed	1.05 rad/s (60°/s)
Repeatability	±0.3 mm (R=1000 mm)
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°.

# MOTOPOS-S250B/S500B

Standard

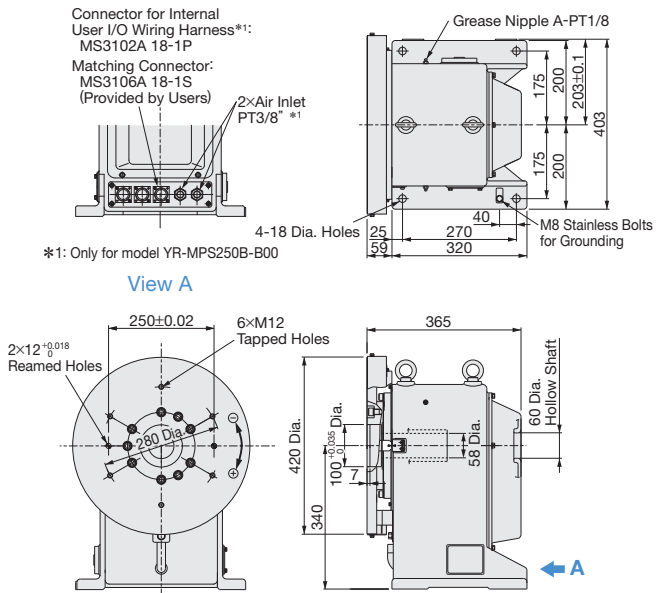
1-axis, 250/500 kg Payload



High-speed positioner with hollow-shaft speed reducer for easy cable installation.

## Dimensions in mm

(YR-MPS250B-A00)



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

## Specifications

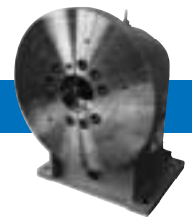
Payload	250 kg		500 kg	
	Standard	With Rotary Joint	Standard	With Rotary Joint
Type	YR-MPS250B-A00	YR-MPS250B-B00	YR-MPS500B-A00	YR-MPS500B-B00
Model	YR-MPS250B-A00	YR-MPS250B-B00	YR-MPS500B-A00	YR-MPS500B-B00
Allowable Overhang	550 mm (from the rotating plate with a 250 kg load)		340 mm (from the rotating plate with a 500 kg load)	
Rotational Angle	-370° - +370° *2		-370° - +370° *2	
Max. Rotational Speed	2.62 rad/s (150°/s)		2.18 rad/s (125°/s)	
Allowable Moment	196 N·m		510 N·m	
Allowable Moment of Inertia (GD <sup>2</sup> /4)	7.7 kg·m <sup>2</sup>		35 kg·m <sup>2</sup>	
Repeatability	±0.1 mm (R=250 mm)		±0.1 mm (R=250 mm)	
Applicable Controller	NX100, DX100		NX100, DX100	
Approx. Mass	110 kg		150 kg	
Internal I/O Wire	-	6 cables	-	6 cables
Internal Air Hose	-	2 hoses	-	2 hoses

\*2: Endless rotation is available as an option.  
Note: Secondary terminals for welding are provided as a standard feature.

# MOTOPOS-S500E

High Speed

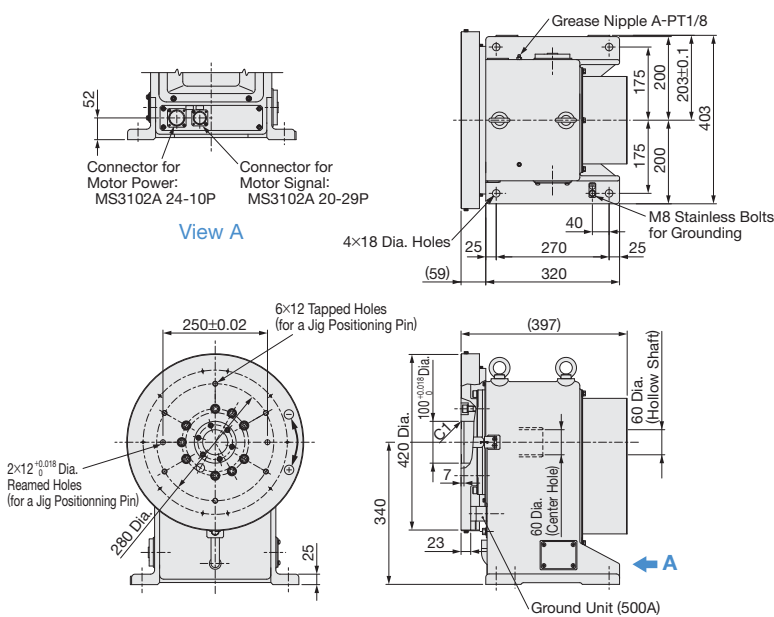
1-axis, 500 kg Payload



Fastest of its class! High-speed positioner with maximum rotational speed of 2.82rad/s (162°/s).

## Dimensions in mm

(YR-MPS500E-A00)



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

## Specifications

Payload	500 kg	
	Standard	With Rotary Joint
Type	YR-MPS500E-A00	YR-MPS500E-B00
Model	YR-MPS500E-A00	YR-MPS500E-B00
Allowable Overhang	340 mm (from the rotating plate with a 500 kg load)	
Rotational Angle	-370° - +370° *	
Max. Rotational Speed	4.71 rad/s (270°/s)	
Allowable Moment	509.6 N·m	
Allowable Moment of Inertia (GD <sup>2</sup> /4)	35 kg·m <sup>2</sup>	
Repeatability	±0.1 mm (R=250 mm)	
Applicable Controller	DX100	
Approx. Mass	150 kg	
Internal I/O Wire	-	6 cables
Internal Air Hose	-	2 hoses

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





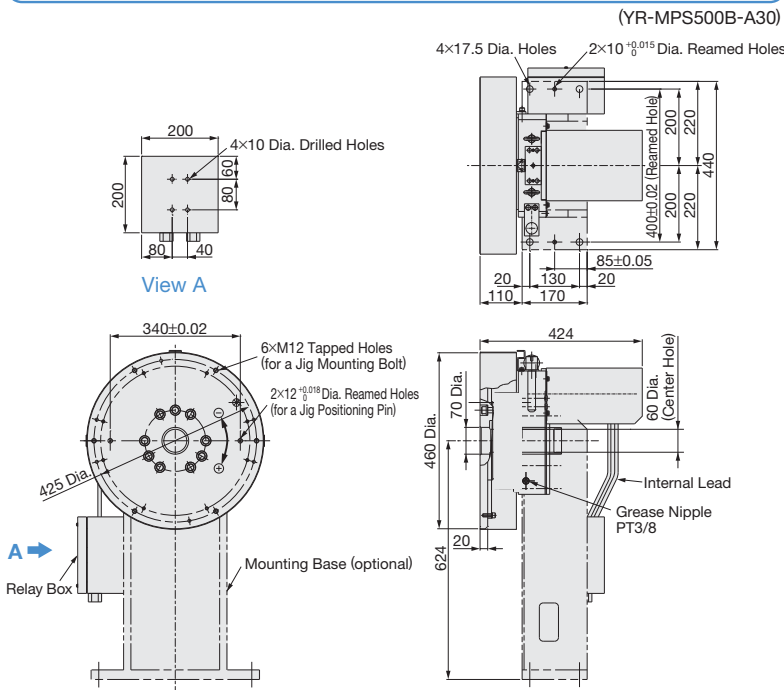
# MOTOPOS-S500B-A30

Standard

1-axis, 500 kg Payload

Low price achieved by more compact main unit and optional mounting base.

## Dimensions in mm



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

## Specifications

Payload	500 kg	
Type	Standard	With Rotary Joint
Model	YR-MPS500B-A30	YR-MPS500B-B30
Allowable Overhang	340 mm (from the rotating plate with a 500 kg load)	
Rotational Angle	-360° - +360° *	
Max. Rotational Speed	2.18 rad/s (125°/s)	
Allowable Moment	510 N·m	
Allowable Moment of Inertia (GD <sup>2</sup> /4)	35 kg·m <sup>2</sup>	
Repeatability	±0.1 mm (R=250 mm)	
Applicable Controller	NX100, DX100	
Approx. Mass	175 kg (with the standard mounting of 624 mm)	
Internal I/O Wire	-	6 cables
Internal Air Hose	-	2 hoses

\*: Endless rotation is available as an option.  
 Notes: 1 Secondary terminals for welding are provided as a standard feature.  
 2 A mounting base is optional. Contact your Yaskawa representative for mounting base of different height.

# MOTOPOS-S1000B

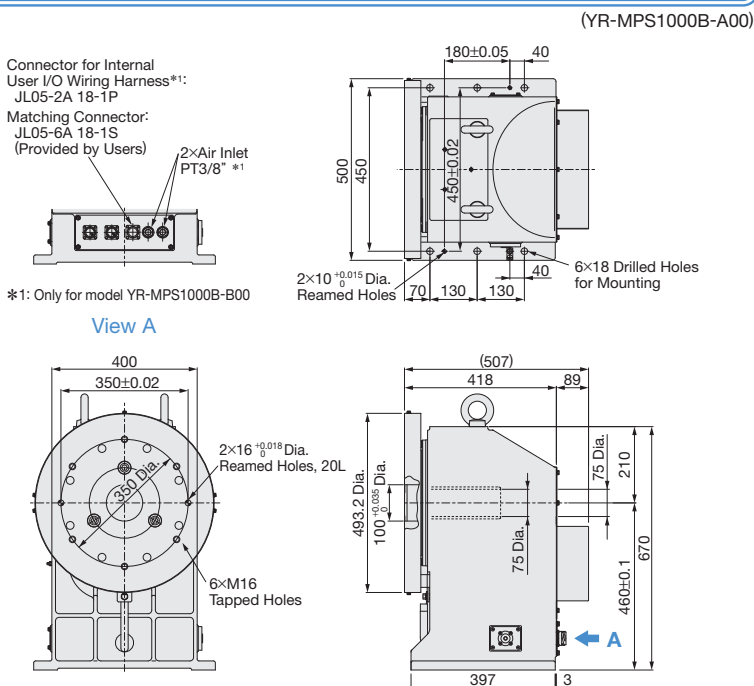
Standard

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



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

## Specifications

Payload	1000 kg	
Type	Standard	With Rotary Joint
Model	YR-MPS1000B-A00	YR-MPS1000B-B00
Allowable Overhang	600 mm (from the rotating plate with a 1000 kg load)	
Rotational Angle	-180° - +180° *2	
Max. Rotational Speed	1.92 rad/s (110°/s)	
Allowable Moment	2450 N·m	
Allowable Moment of Inertia (GD <sup>2</sup> /4)	200 kg·m <sup>2</sup>	
Repeatability	±0.2 mm (R=250 mm)	
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.



# MOTOPOS-D200B-C00

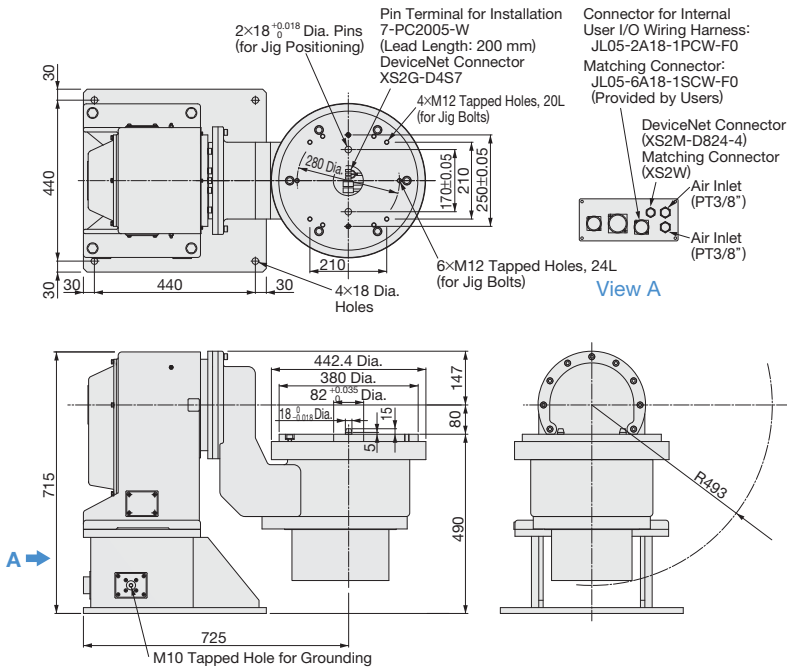
Cantilever Type

2-axis, 200 kg Payload



Cantilever type makes it easy to weld difficult pieces such as mufflers.

## Dimensions in mm



## Specifications

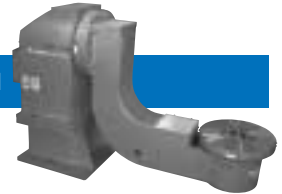
Payload		200 kg
Model		YR-MPD200B-C00
Rotation Axis	Rotational Angle	-200° - +200°
	Max. Rotational Speed	3.14 rad/s (180°/s)
	Allowable Moment	196 N·m
Tilted Axis	Allowable Moment of Inertia (GD <sup>2</sup> /4)	17 kg·m <sup>2</sup>
	Tilted Angle	-135° - +135°
	Max. Tilted Speed	1.75 rad/s (100°/s)
Tilted Axis	Allowable Moment	686 N·m
	Allowable Moment of Inertia (GD <sup>2</sup> /4)	35 kg·m <sup>2</sup>
Repeatability	±0.1 mm (R=250 mm)	
Applicable Controller	NX100, DX100	
Approx. Mass	330 kg	
Internal I/O Wire	0.5 mm <sup>2</sup> × 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.

# MOTOPOS-D500B-C00

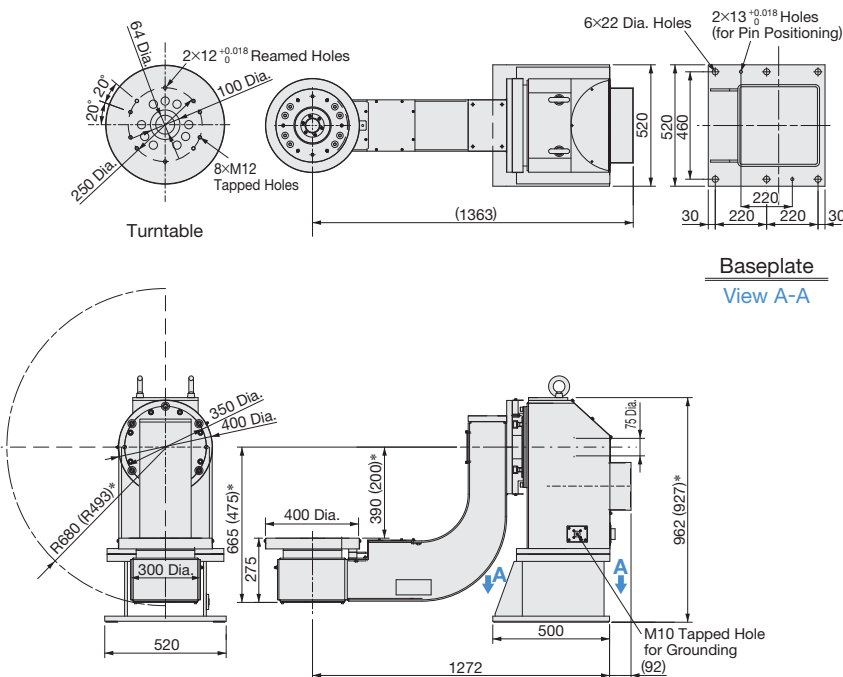
Cantilever Type

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° - +360° (Endless)	
	Max. Rotational Speed	2.18 rad/s (125°/s)	
	Allowable Moment	421.4 N·m	
Tilted Axis	Allowable Moment of Inertia (GD <sup>2</sup> /4)	50 kg·m <sup>2</sup>	
	Tilted Angle	-180° - +180°	
	Max. Tilted Speed	1.92 rad/s (110°/s)	
Tilted Axis	Allowable Moment	490 N·m	
	Allowable Moment of Inertia (GD <sup>2</sup> /4)	200 kg·m <sup>2</sup>	
Repeatability	±0.2 mm (R=250 mm)		
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.

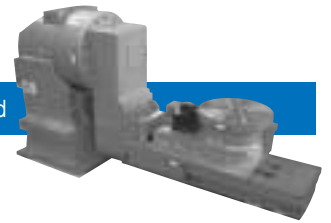
\*: Values in parenthesis are for the YR-MPD500B-C01.



# MOTOPOS-D500B-C10

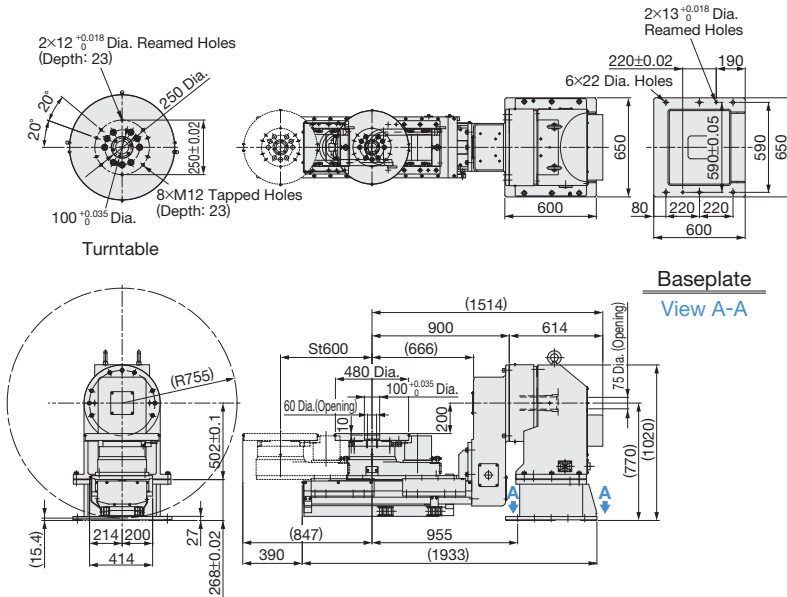
Cantilever Type

3-axis, 500 kg Payload



Turntable slides with ease on servo track.

## Dimensions in mm



## Specifications

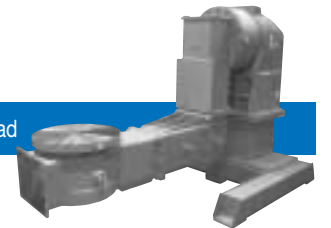
Payload		500 kg
Model		YR-MPD500B-C10
Rotation Axis	Rotational Angle	-360° - +360° *
	Max. Rotational Speed	2.18 rad/s (125°/s)
	Allowable Moment	421.4 N·m
	Allowable Moment of Inertia (GD <sup>2</sup> /4)	50 kg·m <sup>2</sup>
Tilted Axis	Tilted Angle	-180° - +180°
	Max. Tilted Speed	1.92 rad/s (110°/s)
	Allowable Moment	490 N·m
	Allowable Moment of Inertia (GD <sup>2</sup> /4)	200 kg·m <sup>2</sup>
Max. Speed of Traverse Axis		30 m/min
Repeatability		±0.2 mm (R=250 mm)
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.

# MOTOPOS-D1500B-C00

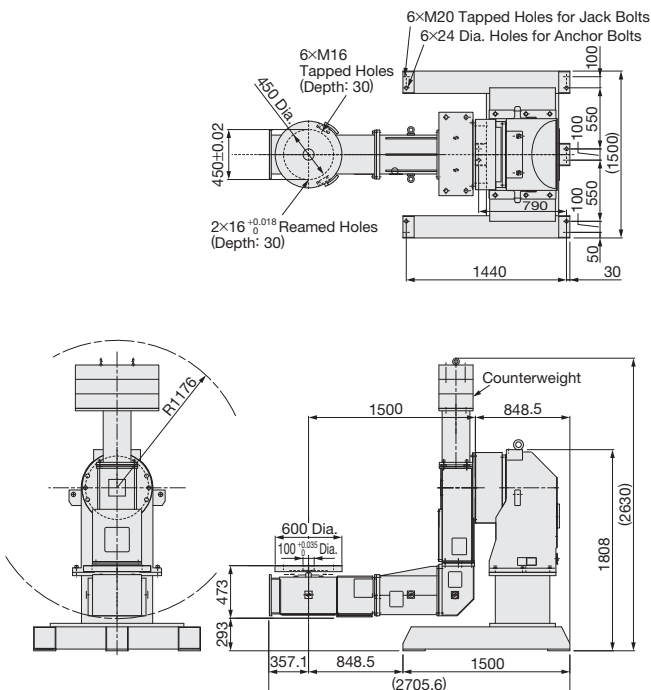
Cantilever Type

2-axis, 1500 kg Payload



Positioner with two axes to change workpiece height.

## Dimensions in mm



## Specifications

Payload		1500 kg
Model		YR-MPD1500B-C00
Rotation Axis	Rotational Angle	-200° - +200°
	Max. Rotational Speed	2.18 rad/s (125°/s)
	Allowable Moment	1960 N·m
	Allowable Moment of Inertia (GD <sup>2</sup> /4)	305 kg·m <sup>2</sup>
Tilted Axis	Tilted Angle	-180° - +180°
	Max. Tilted Speed	1.57 rad/s (90°/s)
	Allowable Moment	2940 N·m
	Allowable Moment of Inertia (GD <sup>2</sup> /4)	365 kg·m <sup>2</sup>
Repeatability		±0.2 mm (R=250 mm)
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.

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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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