

# S-430i™

## Basic Description

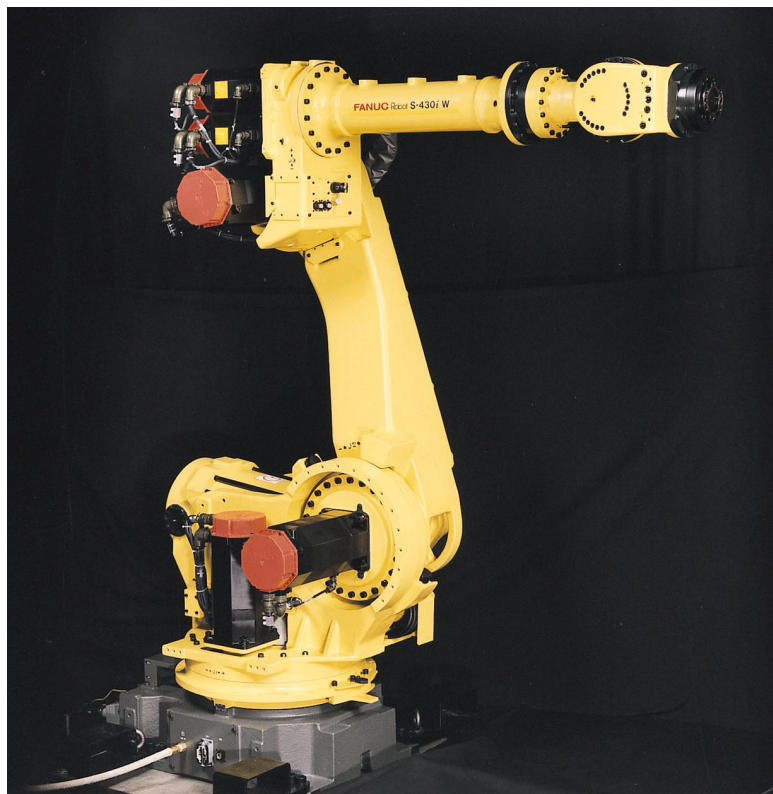
FANUC Robotics' S-430i line of robots is designed for maximum flexibility, performance and reliability in automotive, material handling and general industries applications and is supported by our extensive service and parts network. The S-430i's compact design features a large work envelope (including flip over) and capacity for high speeds and heavy payloads.

## S-430i, the Solution for:

- Automotive spot welding and general assembly
- General industrial applications
- Part transfer
- Material removal
- Dispensing
- Machine loading

## Benefits

- Slim arm and wrist assembly minimizes interference with system peripherals and allows operation in confined spaces
- Large allowable wrist moments and inertias meet a variety of heavy handling challenges up to 200 kg
- Many process attachment points make integration easier
- Stationary outer arm simplifies hose and cable dressout, prolongs service life
- Proven, reliable FANUC servo drives provide highest uptime and lowest operating costs
- Moves heavy loads with precision and 6-axis dexterity
- High performance motion yields fast cycle times and high throughput



## Features

### Flexibility:

- Multiple controller types and locations
- 11 models in the series to tailor the robot to a wide variety of applications

### Mechanical:

- Large work envelope with ability to reach overhead and behind
- 6 axes of motion
- Slim profile design
- Precision gear drives for axes J5 and J6
- Elimination of counterweight increases available workspace
- Process/application cables routed through the arm
- No motors at wrist

### Control:

- *i*-size (integrated or remote) cabinet
- Quick change amplifier (<5 min)
- Fast boot-up time (<30 sec)
- Easy connections to a variety of I/O, including a number of distributed I/O networks

### Software:

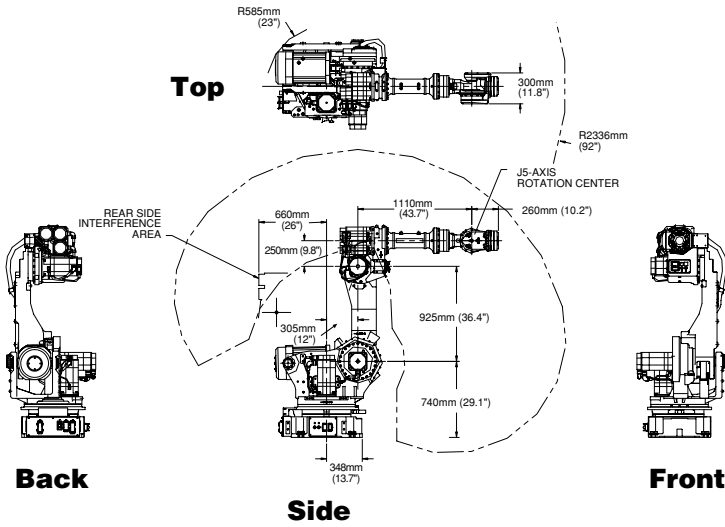
- Specific tool packages for various applications

### Options

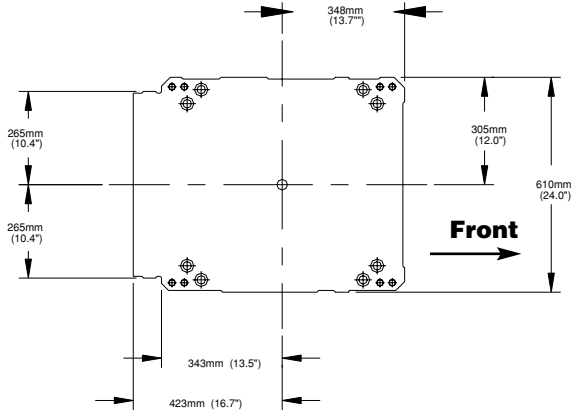
- Dual internal air lines
- Three faceplate types
- Electrically insulated faceplate
- Internal I/O cables
- Harsh environment protection
- Adjustable hard stops for J1-J3
- Precision baseplate for mounting
- B-size controller cabinet

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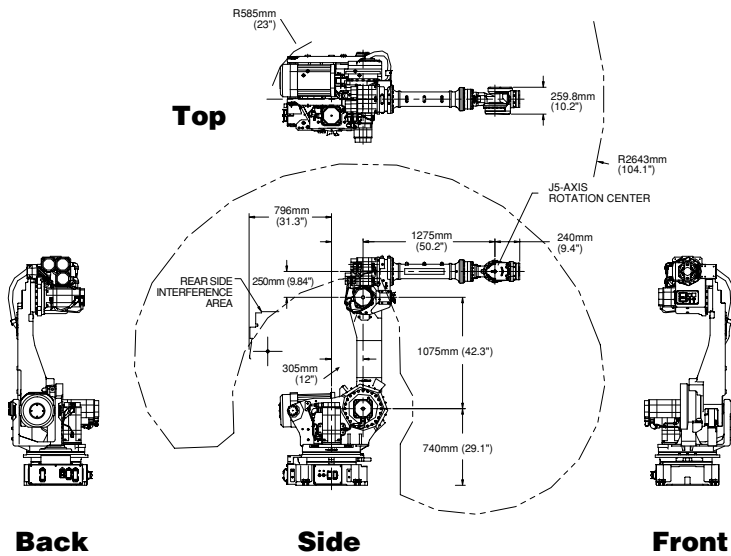
## S-430iW/200kg



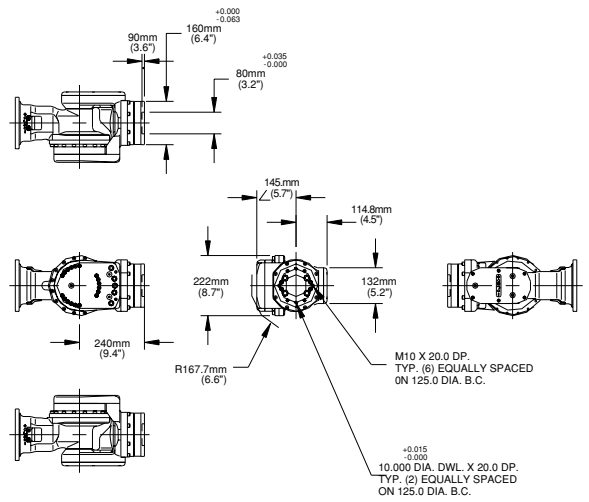
## Footprint (All models)



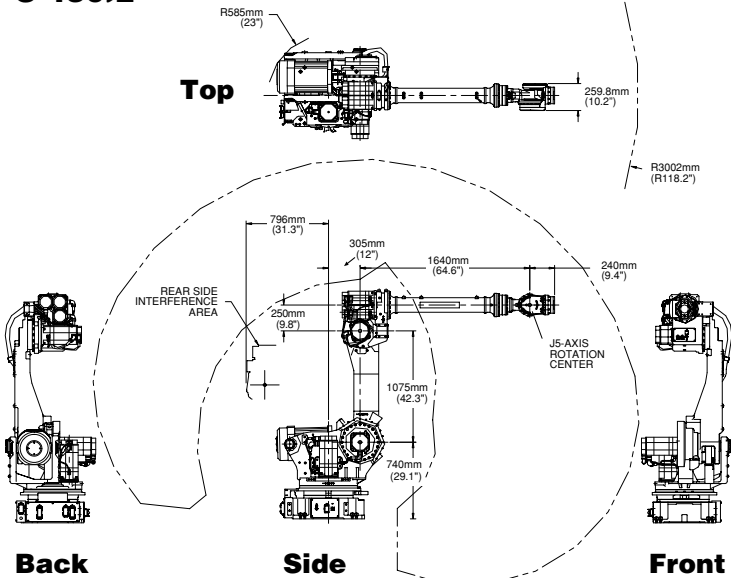
## S-430iF, S-430iW



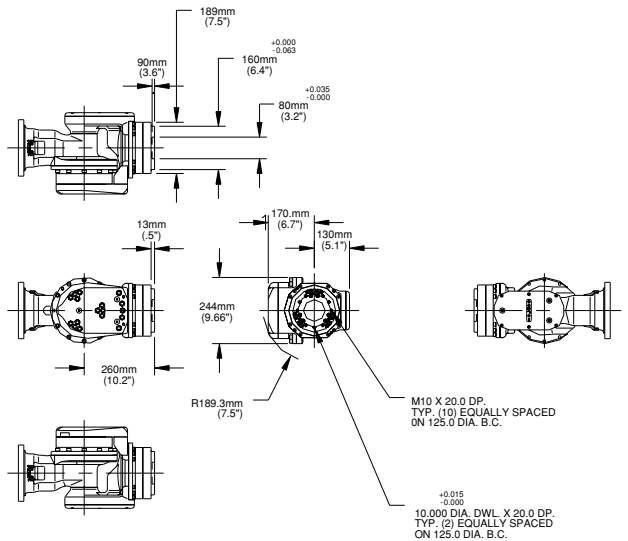
## Standard Wrist (S-430iF, W, L, R, U, CI, CF)



## S-430iL

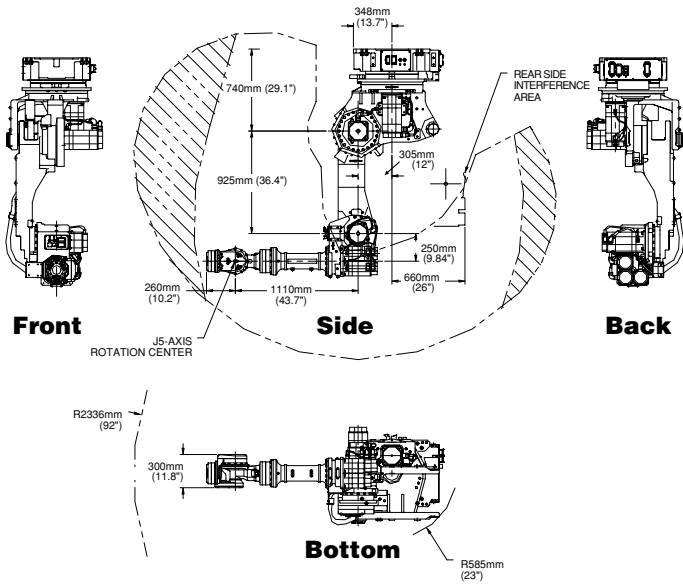


## Heavy-Duty Wrist (S-430iR/ PHT, R/ PHS, W/200, iU)

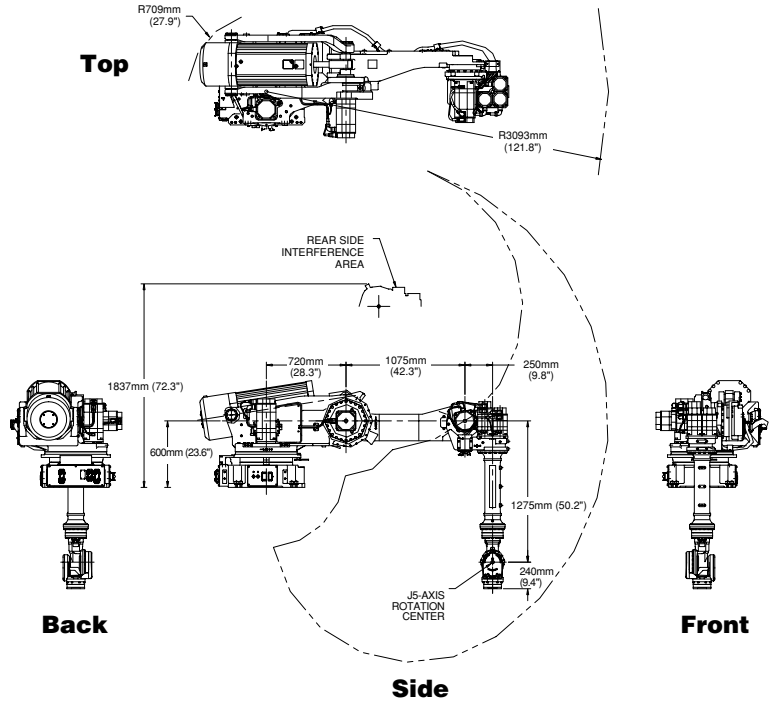


### S-430iU

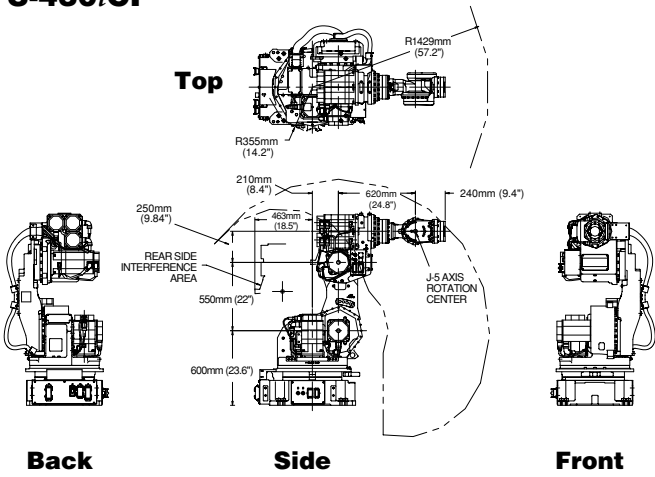
NOTE:  
ROBOT CAN PASS IN THE HATCHED AREA,  
BUT CAN NOT REST IN THIS AREA



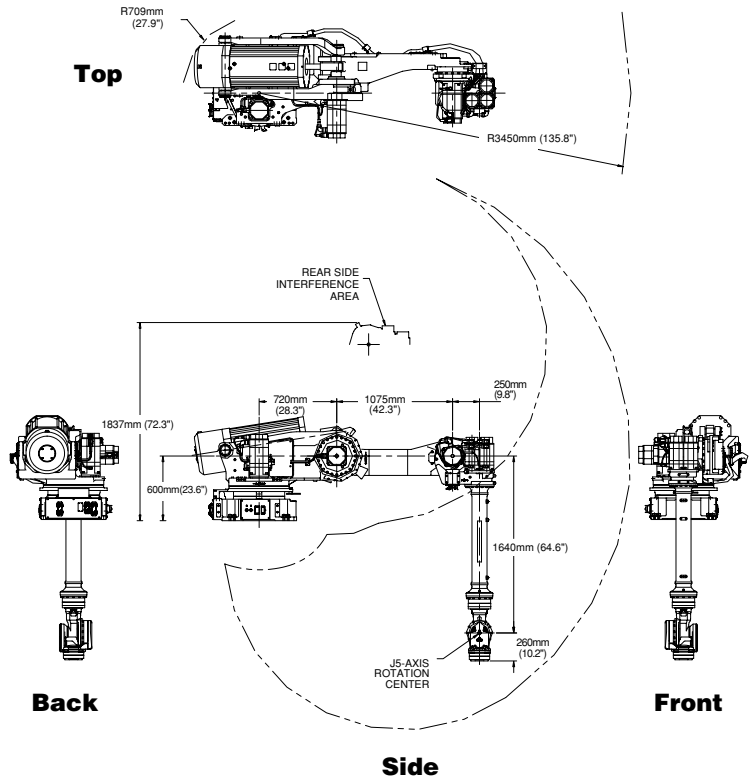
### S-430iR



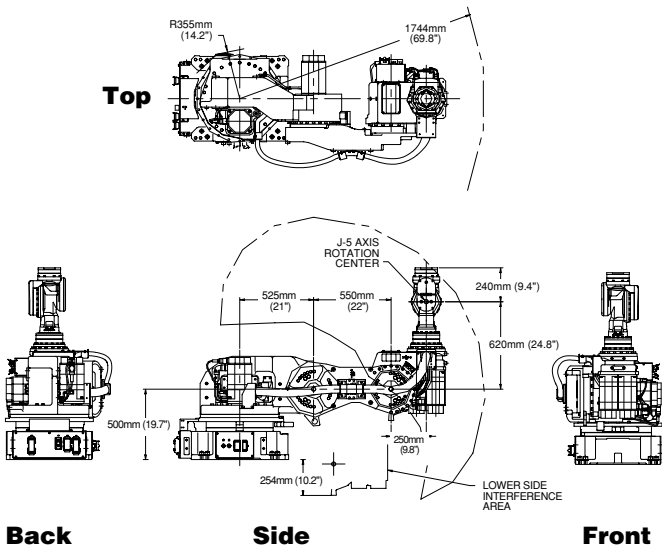
### S-430iCF



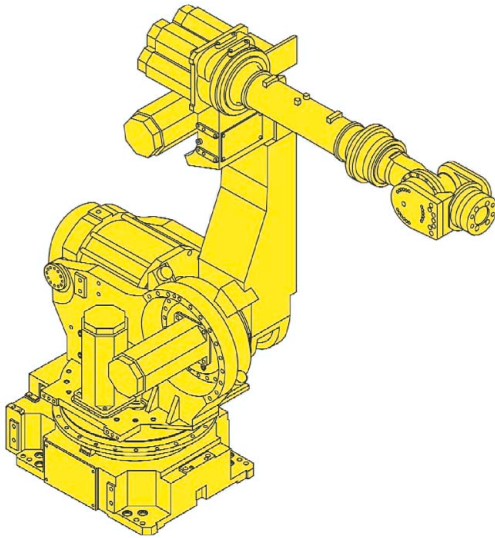
### S-430iR/ PHT, S-430iR/ PHS



### S-430iCI



# Isometric



## S-430i Specifications

Specifications	S-430iF	S-430iW	S-430iW/200	S-430iL/80	S-430iL/125	
<b>Payload</b>	130kg (286 lbs)	165kg (363 lbs)	200kg (441 lbs)	80kg (176 lbs)	125kg (275 lbs)	
<b>Reach</b>	2643mm (104')	2643mm (104')	2336mm (92')	3002mm (118')	3002mm (118')	
<b>Interference radius</b>	R585mm	R585mm	R585mm	R585mm	R585mm	
<b>Motion speed</b>	J1 axis	110°/sec	105°/sec	90°/sec	130°/sec	105°/sec
	J2 axis	110°/sec	105°/sec	90°/sec	130°/sec	105°/sec
	J3 axis	100°/sec	105°/sec	90°/sec	130°/sec	105°/sec
	J4 axis	210°/sec	130°/sec	110°/sec	200°/sec	170°/sec
	J5 axis	150°/sec	130°/sec	110°/sec	170°/sec	170°/sec
	J6 axis	210°/sec	210°/sec	150°/sec	310°/sec	260°/sec
<b>Motion range</b>	J1 axis	360°	360°	360°	360°	360°
	J2 axis	134°	134°	134°	134°	134°
	J3 axis	362°	362°	335°	352°	352°
	J4 axis	720°	720°	720°	720°	720°
	J5 axis	250°	250°	250°	250°	250°
	J6 axis	720°	720°	720°	720°	720°
<b>Allowable wrist load moment</b>	J4 axis	70kgfm	93kgfm	130kgfm	60kgfm	60kgfm
	J5 axis	70kgfm	93kgfm	130kgfm	60kgfm	60kgfm
	J6 axis	35kgfm	46kgfm	70kgfm	35kgfm	35kgfm3
<b>Allowable wrist load inertia</b>	J4 axis	417kgfcm <sup>2</sup>	900kgfcm <sup>2</sup>	1200kgfcm <sup>2</sup>	600kgfcm <sup>2</sup>	600kgfcm <sup>2</sup>
	J5 axis	417kgfcm <sup>2</sup>	900kgfcm <sup>2</sup>	1200kgfcm <sup>2</sup>	600kgfcm <sup>2</sup>	600kgfcm <sup>2</sup>
	J6 axis	104kgfcm <sup>2</sup>	450kgfcm <sup>2</sup>	600kgfcm <sup>2</sup>	200kgfcm <sup>2</sup>	230kgfcm <sup>2</sup>
<b>Repeatability</b>	±0.3mm	±0.3mm	±0.3mm	±0.3mm	±0.3mm	
<b>Mounting method</b>	Upright	Upright	Upright	Upright	Upright	
<b>Mechanical brakes</b>	All axes	All axes	All axes	All axes	All axes	
<b>Weight</b>	1300kg	1300kg	1300kg	1300kg	1300kg	
<b>Purpose</b>	Floor mount	Heavy duty floor mount	Extra Heavy duty floor mount	Long arm floor mount	Heavy duty long arm floor mount	

## S-430i Specifications cont.

Specifications	S-430iR/130	S-430iR/165	S-430iR/PHT	S-430iR/PHS	S-430iU	S-430iCF	S-430iCI
<b>Payload</b>	130kg (286 lbs)	165kg (363 lbs)	130kg (286 lbs)	130kg (286 lbs)	130kg (286 lbs)	165kg (363 lbs)	165kg (363 lbs)
<b>Reach</b>	3093mm (121.77')	3093mm (121.77')	3450mm (136')	3450mm (136')	2336mm (92')	1418mm (55.8')	1716mm (67.5')
<b>Interference radius</b>	R709mm	R709mm	R709mm	R709mm	R585mm	R355mm	R355mm
<b>Motion speed</b>	J1 axis	110°/sec	105°/sec	118°/sec	118°/sec	90°/sec	110°/sec
	J2 axis	90°/sec	90°/sec	90°/sec	90°/sec	90°/sec	90°/sec
	J3 axis	100°/sec	105°/sec	105°/sec	105°/sec	90°/sec	100°/sec
	J4 axis	210°/sec	130°/sec	114°/sec	180°/sec	110°/sec	130°/sec
	J5 axis	150°/sec	130°/sec	114°/sec	180°/sec	110°/sec	130°/sec
	J6 axis	210°/sec	210°/sec	160°/sec	285°/sec	150°/sec	210°/sec
<b>Motion range</b>	J1 axis	360°	360°	360°	360°	360°	360°
	J2 axis	129°	129°	129°	129°	134°	165°
	J3 axis	238.5°	238.5°	238.5°	238.5°	345°	250°
	J4 axis	720°	720°	720°	720°	720°	720°
	J5 axis	250°	250°	250°	250°	250°	250°
	J6 axis	720°	720°	720°	720°	720°	720°
<b>Allowable wrist load moment</b>	J4 axis	70kgfm	93kgfm	150kgfm	93kgfm	70kgfm	93kgfm
	J5 axis	70kgfm	93kgfm	146kgfm	92kgfm	70kgfm	93kgfm
	J6 axis	35kgfm	46kgfm	101kgfm	56kgfm	35kgfm	46kgfm3
<b>Allowable wrist load inertia</b>	J4 axis	417kgfcm <sup>2</sup>	900kgfcm <sup>2</sup>	4200kgfcm <sup>2</sup>	3900kgfcm <sup>2</sup>	417kgfcm <sup>2</sup>	900kgfcm <sup>2</sup>
	J5 axis	417kgfcm <sup>2</sup>	900kgfcm <sup>2</sup>	4200kgfcm <sup>2</sup>	3800kgfcm <sup>2</sup>	417kgfcm <sup>2</sup>	900kgfcm <sup>2</sup>
	J6 axis	104kgfcm <sup>2</sup>	450kgfcm <sup>2</sup>	2100kgfcm <sup>2</sup>	1400kgfcm <sup>2</sup>	104kgfcm <sup>2</sup>	450kgfcm <sup>2</sup>
<b>Repeatability</b>	±0.3mm	±0.3mm	±0.4mm	±0.4mm	±0.3mm	±0.3mm	±0.3mm
<b>Mounting method</b>	Shelf	Shelf	Shelf	Shelf	Inverted	Upright	Upright
<b>Mechanical brakes</b>	All axes	All axes	All axes	All axes	All axes	All axes	All axes
<b>Weight</b>	1600kg	1600kg	1600kg	1600kg	1200kg	1050kg	1100kg
<b>Purpose</b>	Rack mount	Heavy duty rack mount	High torque rack mount	High speed rack mount	Invert mount	Compact floor mount	Compact floor mount



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