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Welding Technology

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YASKAWA

Positioners · Tracks · Gantry

Peripheral equipment with high speed, precision and complete integration in the robot control system.

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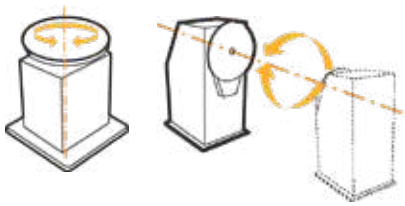
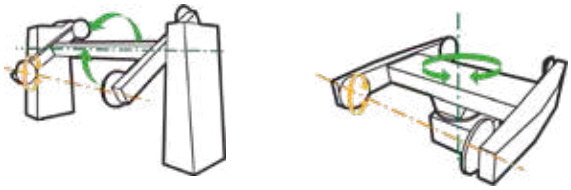
PART POSITIONERS

Fixture rotation around one axis



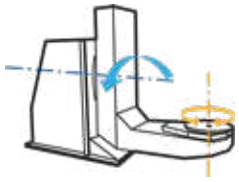
One station Payload from 250 kg to 20 tons



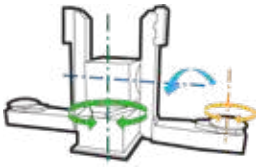
Two stations Payload from 200 to 1000 kg/station

PART POSITIONERS

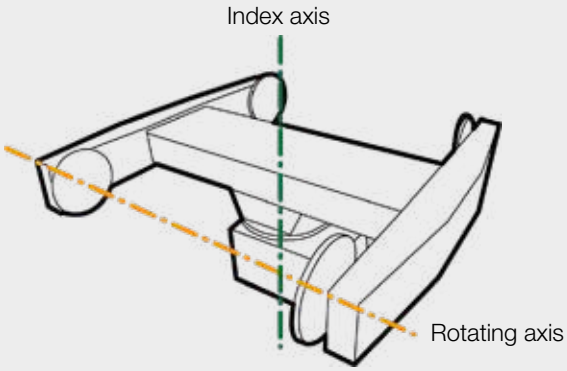
Fixture rotation around two axes

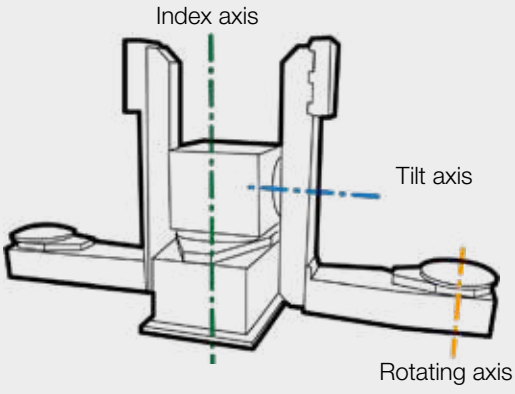


One station Payload from 250 kg to 5 tons

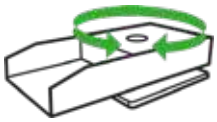


Two stations Payload from 500 to 750 kg/station



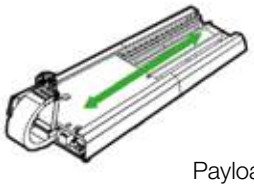


ROTATING MOTION

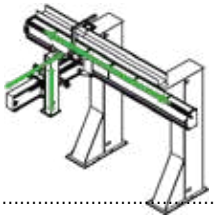


Rotating robot base Maximum rotation ± 142°

LINEAR MOTION

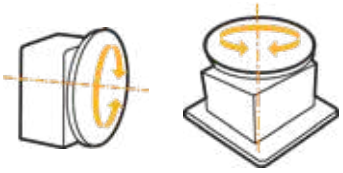


Tracks Payload from 100 kg to 4 tons

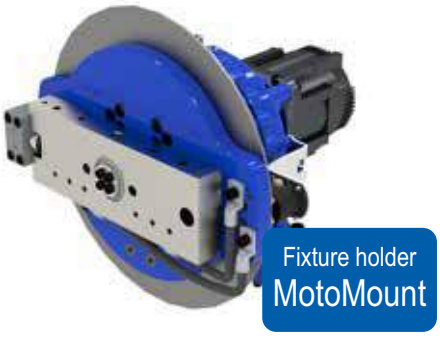


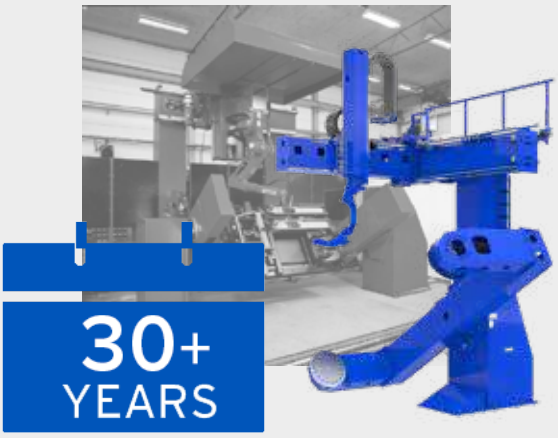
Gantry

MODULES FOR INTEGRATION



OPTIONS & SPECIFICATIONS





15
YEARS

Modular concept strategy

Unique solutions ...

In a facility with limited height, placing the robots on tilted columns is an alternative to a regular gantry.

Benefit from our design strategy

Sweep gantries, gantries on tracks and positioners mounted on a one pillar gantry. Over the years we have been able to make many customized solutions for special applications by modifying our existing products.

The benefits of working with a modular design strategy means that our standard product range and parts can be combined to create completely new, and at the same time, cost efficient customized versions.

Here are just a few examples shown. Of course there are many more that we can find inspiration from if our standard range does not have exactly what you need.

Here we have added a vertical movement to the tilt-rotate MT1 positioner model.

The stand alone headstock positioner HSB-3000 with a vertical movement "Z stroke" added.

with standard modules

The "High access" gantry adds additonal reach and increased access to the welding robot, especially when the ceiling height is limited.

SB-250

One-station positioner.

- Space saving design.
- Direct drive.
- Endless rotation.

This is one station positioner for workpieces requiring rotation about one axis. It is a stand alone positioner to be used without tailstock and suitable for integration in e.g. compact welding stations.

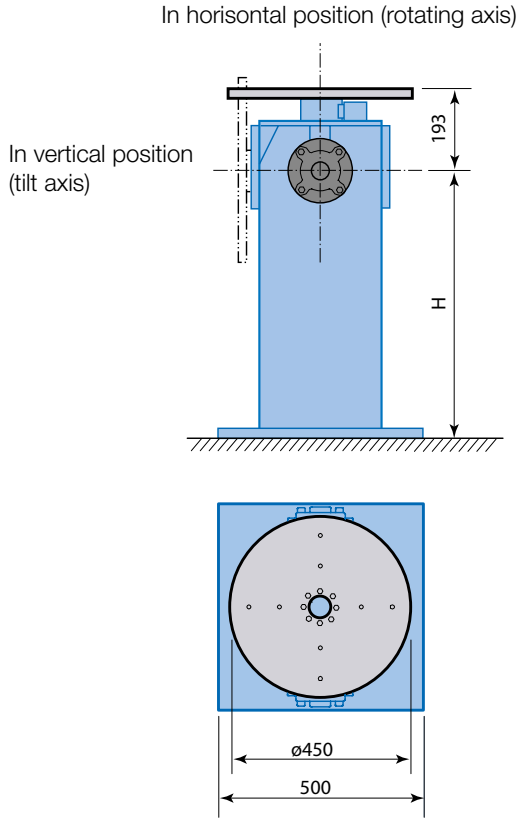
The SB positioner can have its rotating fixture disc tilted in five positions from horizontal to vertical. The position of the fixture disc is changed manually.

The SB positioner is suitable for workpieces with a diameter

Technical data		SB-250 SD
Max. payload		**250 kg**
Maximum fixture width, radius = H		655 mm
Welding capacity	100% duty cycle 60% duty cycle	350 A 460 A
Rotating axis torque	dynamic static	1046 Nm 837 Nm
Rotating axis rated speed		0-16.5 rpm
Rated offset from centre of gravity (COG)		341 mm
Weight		270 kg
Part No.		124600-101

Controlled by YRC1000

Controlled by DX200



Possible positions
Horisontal and vertical, plus tilted in 22.5°, 45° and 67.5°.

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YASKAWA

H-500, H-1000, T-1000

Head- and tailstock positioner with horizontal rotation.

One station positioner for workpieces requiring rotation about one axis. The free standing headstock can be mounted directly on the floor at an appropriate distance from the tailstock.

The head- and tailstock with MotoMount fixture mounting system must always be used together.

H-500Y

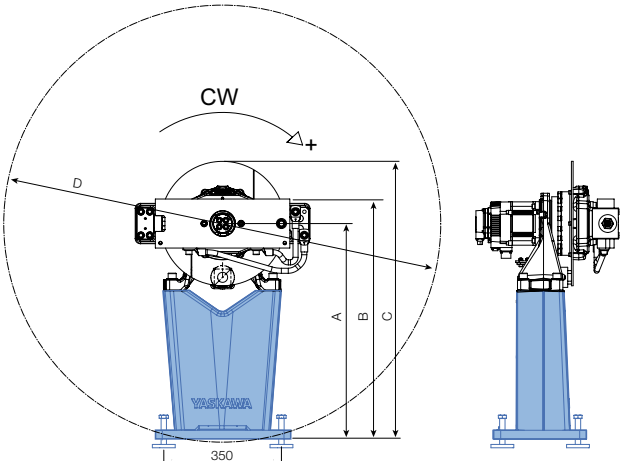
H-1000Y

Technical data		H-500Y		H-1000Y	
Max. capacity	load	**500 kg**		**1000 kg**	
	offset	191 mm		219 mm	
Motor power		1.3 kW		3.0 kW	
Gear ratio	reducer	165:1		170:1	
Speed	nominal	9.0 rpm		8.8 rpm	
	maximum	23 rpm		23 rpm	
Torque	rated	1177 Nm		2689 Nm	
	continous rated	941 Nm		2151 Nm	
	peak	2354 Nm		5378 Nm	
Rated welding current Standard	100% 60%	350 A 460 A		350 A 460 A	
Rated welding current Option	100% 60% 35%	860 A 1120 A 1380 A		860 A 1120 A 1380 A	
Max fixture width	diameter	1300 mm	1700 mm	1300 mm	1700 mm
Headstock Part No.		**141502-700**	**141502-701**	**141504-700**	**141504-701**
Tailstock Part No.		**141506-100**	**141506-101**	**141506-100**	**141506-101**

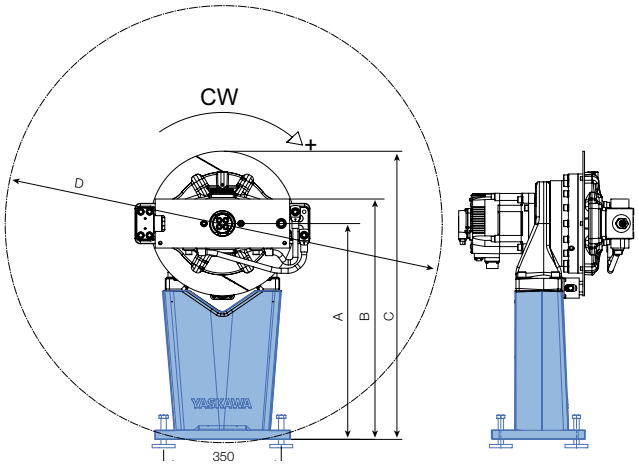
New generation Sigma-7

Fixture holder MotoMount

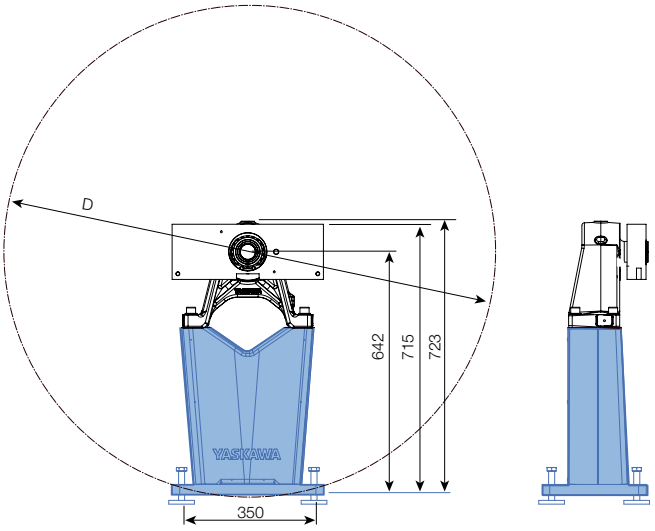
Controlled by YRC1000



Type	Part No.	D	A	B	C
H-500Y	141502-700	1300	642	715	827
	141502-701	1700	842	915	1027



Type	Part No.	D	A	B	C
H-1000Y	141504-700	1300	642	715	857
	141504-701	1700	842	915	1057



Type	Part No.	D	A	B	C
T-1000	141506-100	1300	642	715	723
	141506-101	1700	842	915	923
	141507-100	1300	642	715	723
	141507-101	1700	842	915	923

The head- and tailstock must always be used together.

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YASKAWA

H-2000, T-2000

Head- and tailstock positioner with horizontal rotation.

H-2000Y

T-2000C
with conductor

T-2000

One station positioner for workpieces requiring rotation about one axis. The free standing headstock can be mounted directly on the floor at an appropriate distance from the tailstock.

The tailstock T-2000 is ideal for uncomplicated welding fixtures where the welding current via the headstock is sufficient. Model T-2000C is equipped with a conductor and can be used in applications where additional welding capacity is needed.

The head- and tailstocks are equipped with MotoMount fixture mounting system and must be used together.

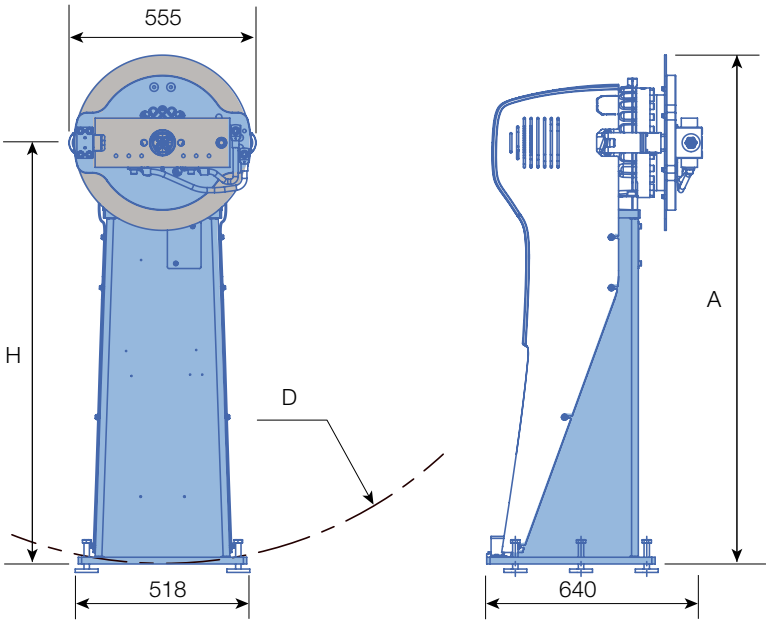
Technical data		H-2000Y		
Max. capacity	load	**2000 kg**		
	offset	144 mm		
Motor power		3.7 kW		
Gear ratio	reducer	177:1		
Speed	nominal	8.5 rpm		
	maximum	23.5 rpm		
Torque	rated	3535 Nm		
	continous rated	2828 Nm		
	peak	7070 Nm		
Rated welding current **Standard**	100% 60%	2x 350 A 2x 460 A		
Max fixture width		2000 mm	2500 mm	3000 mm
Headstock	Part No.	**149528-700**	**149528-701**	**149528-702**
Tailstock T-2000	Part No.	**149512-100**	**149512-101**	**149512-102**
Tailstock T-2000C	Part No.	**149515-100**	**149515-101**	**149515-102**

New generation Sigma-7

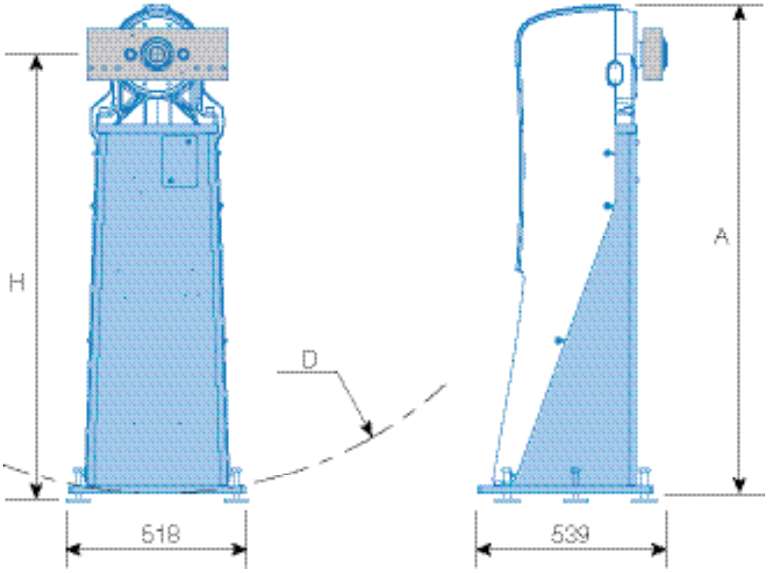
Fixture holder MotoMount

Controlled by YRC1000

Type	Part No.	D	A	H
H-2000Y	149528-700	2000 mm	1260 mm	1000 mm
	149528-701	2500 mm	1510 mm	1250 mm
	149528-702	3000 mm	1760 mm	1500 mm



Type	Part No.	D	A	H
T-2000	149512-100	2000 mm	1167 mm	1000 mm
	149512-101	2500 mm	1417 mm	1250 mm
	149512-102	3000 mm	1667 mm	1500 mm
T-2000C	149515-100	2000 mm	1200 mm	1000 mm
	149515-101	2500 mm	1450 mm	1250 mm
	149515-102	3000 mm	1700 mm	1500 mm



Options	Part No.
2x 3/8” air	141450-300
2x 3/8” air + Signal kit 4 channel I/O Fieldbus+PE	141475-302
2x 3/8” air + Signal kit 4 channel I/O ProfiNet+PE	141475-303
2x 3/8” air + Signal kit 12 channel I/O+PE	141475-300
2x 3/8” air + Signal kit 24 channel I/O+PE	141475-301

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YASKAWA

HTC-500Y, -1000Y

Head- and tailstock positioner with horizontal rotation.

One station positioner for workpieces requiring rotation about one axis. Head- and tailstock with MotoMount fixture mounting system mounted on a bed. The distance between headstock and tailstock is fixed.

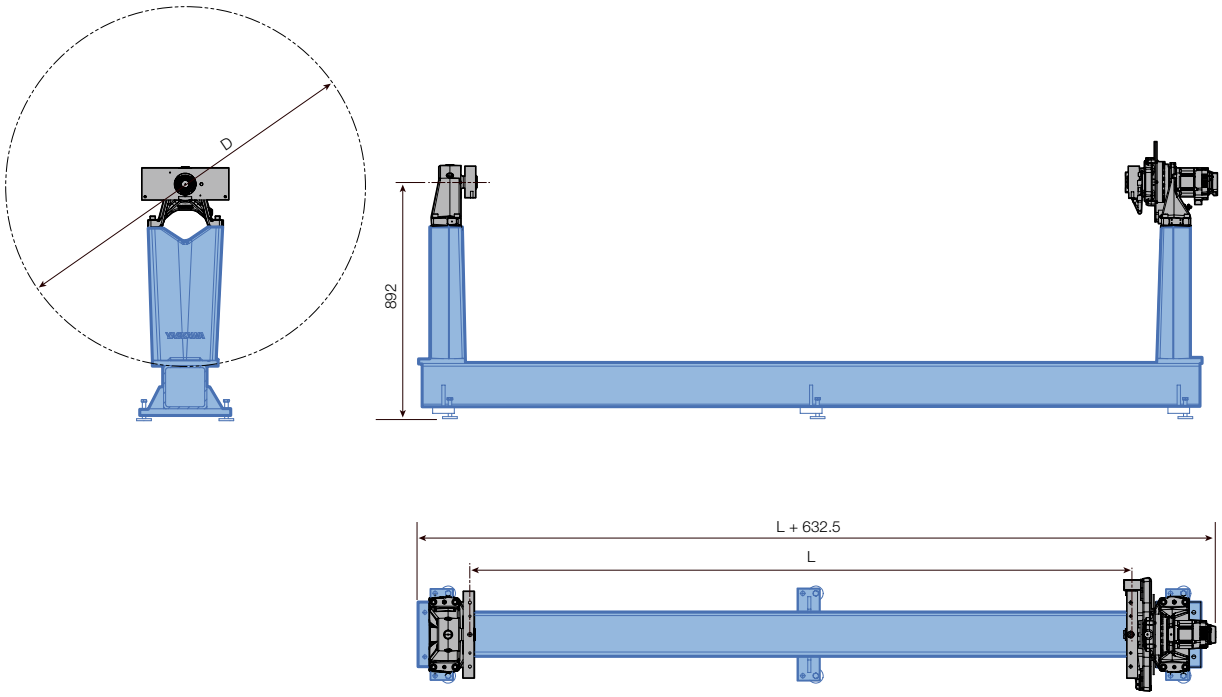
Technical data		HTC-500Y		HTC-1000Y	
Max. capacity	load	**500 kg**		**1000 kg**	
	offset	150 mm		150 mm	
Motor power		1.3 kW		3.0 kW	
Gear ratio	reducer	165:1		170:1	
Speed	nominal	9.0 rpm		8.8 rpm	
	maximum	23 rpm		23 rpm	
Torque	rated	1177 Nm		2689 Nm	
	continous rated	941 Nm		2151 Nm	
	peak	2354 Nm		5378 Nm	
Rated welding current	100% 60%	350 A 460 A		350 A 460 A	
Max fixture width	diameter	1250 mm	1650 mm	1250 mm	1650 mm
Part No.		**141510-7xx**	**141512-7xx**	**141514-7xx**	**141516-7xx**

New generation Sigma-7

Fixture holder MotoMount

Controlled by YRC1000

HTC-500Y, -1000Y



Type	L	D	Part No.
HTC-500Y	2050	1250	141510-701
		1650	141512-701
	3050	1250	141510-704
		1650	141512-704
	4050	1250	141510-706
		1650	141512-706
	Other lengths on demand.		
HTC-1000Y	2050	1250	141514-701
		1650	141516-701
	3050	1250	141514-704
		1650	141516-704
	4050	1250	141514-706
		1650	141516-706
	Other lengths on demand.		

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YASKAWA

HSB-1000, HSB-2000

One station positioner.

SPB

SPE

- Rigid design.
- Heavy duty positioner.
- Supplementary tailstocks.

This is a one station positioner for workpieces requiring rotation about one axis.

To support long workpieces it is advisable to use a supplementary tailstock. The free standing tailstocks can be mounted directly on the floor at an appropriate distance from the positioner.

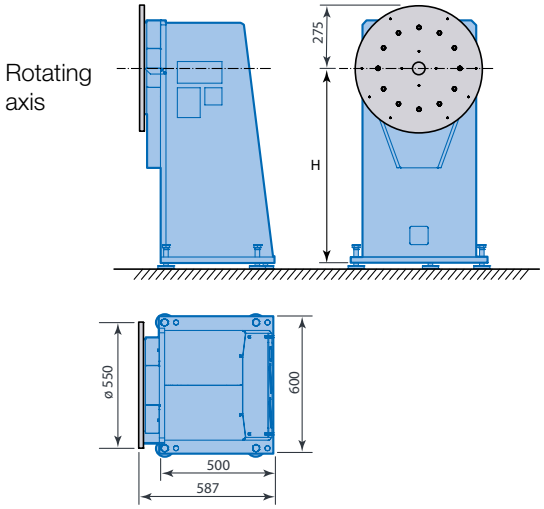
Available accessories
- Fixture brackets
- Tailstocks

Technical data		HSB-1000 SD2	HSB-2000 SD2
Max. payload		**1000 kg**	**2000 kg**
Welding capacity	100% duty cycle 60% duty cycle	2x 350 A 2x 460 A	2x 350 A 2x 460 A
Rotating axis torque	dynamic static	2830 Nm 2264 Nm	3818 Nm 3054 Nm
Rotating axis	rated speed maximum speed	0-5.36 rpm 15 rpm	0-3.6 rpm 9.6 rpm
Rated offset from COG		230 mm	155 mm
Tailstock, free standing		SPB, SPE	SPB, SPE

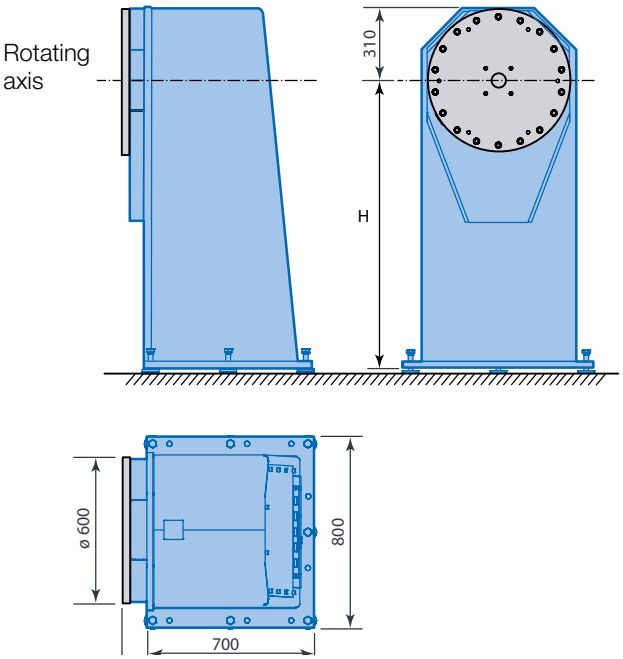
Controlled by YRC1000

Controlled by DX200

HSB-1000 SD2



HSB-2000 SD2



	H (mm)	Weight	Part No.
HSB-1000 SD2	650	313 kg	124602-100
	850	340 kg	124602-101
	970	356 kg	124602-102
	1200	387 kg	124602-103
	1500	433 kg	124602-104
HSB-2000 SD2	970	568 kg	124604-100
	1200	616 kg	124604-101
	1500	680 kg	124604-102

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HSB-5000, HSB-7000

One station positioner.

- Rigid design.
- Heavy duty positioner.
- Supplementary tailstocks.

This is a one station positioner for workpieces requiring rotation about one axis.

To support long workpieces it is advisable to use a supplementary tailstock. The free standing tailstocks can be mounted directly on the floor at an appropriate distance from the positioner.

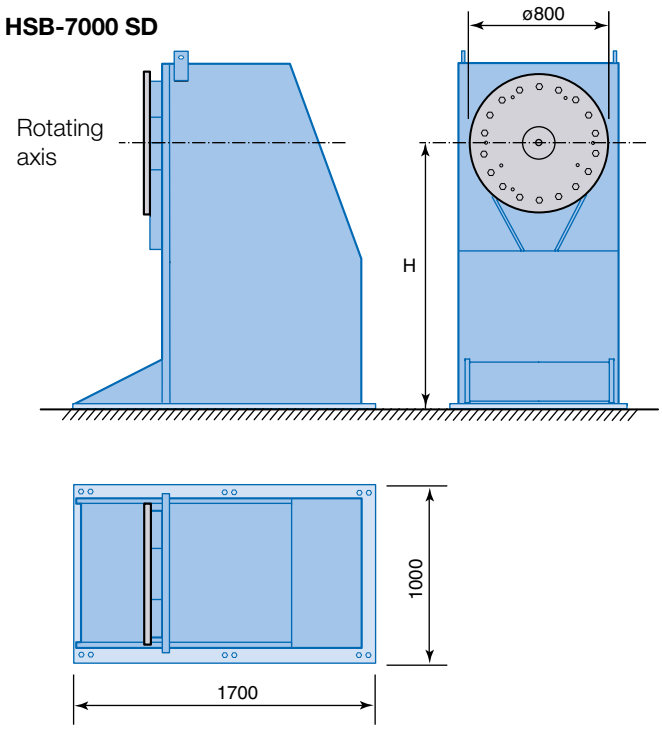
Available accessories
- Fixture brackets
- Tailstocks

Technical data		HSB-5000 SD	HSB-7000 SD
Max. payload		**5000 kg**	**7000 kg**
Welding capacity	100% duty cycle 60% duty cycle	2x 350 A 2x 460 A	2x 350 A 2x 460 A
Rotating axis torque	dynamic static	6600 Nm 5280 Nm	8290 Nm 6632 Nm
Rotating axis	rated speed maximum speed	0-3.4 rpm 9.1 rpm	0-3.4 rpm 9.1 rpm
Rated offset from COG		107 mm	96 mm
Tailstock, free standing		SPB, SPE	SPB, SPE

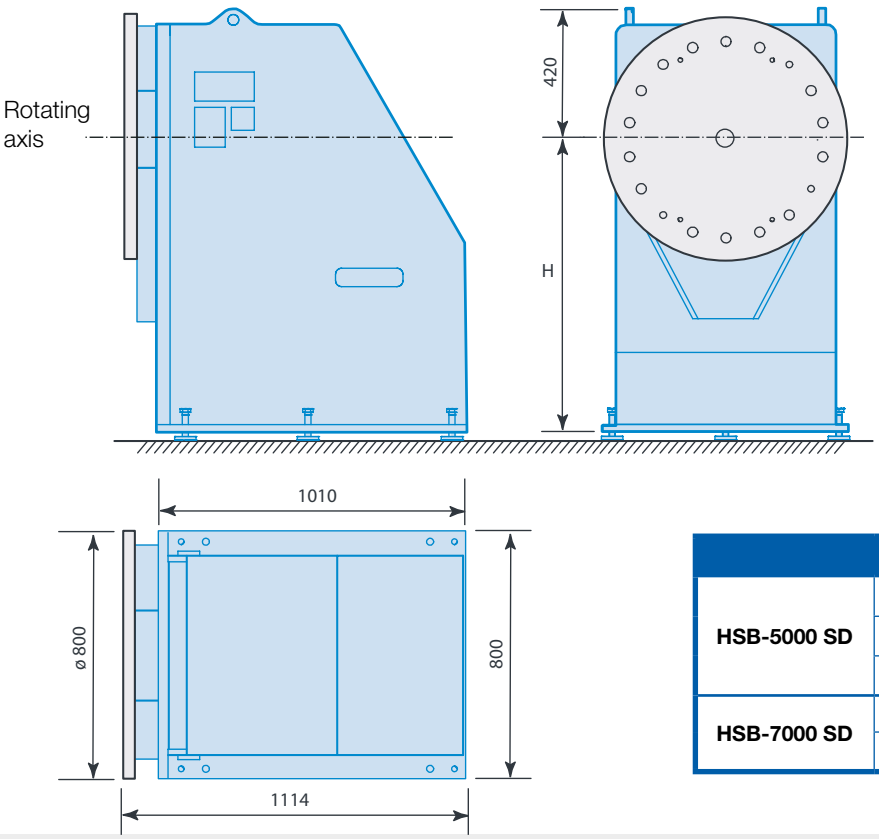
Controlled by YRC1000

Controlled by DX200

HSB-7000 SD



HSB-5000 SD



	H (mm)	Weight	Part No.
HSB-5000 SD	970	1105 kg	124605-100
	1200	1235 kg	124605-101
	1500	1390 kg	124605-102
HSB-7000 SD	1200	2052 kg	124606-100
	1500	2301 kg	124606-101

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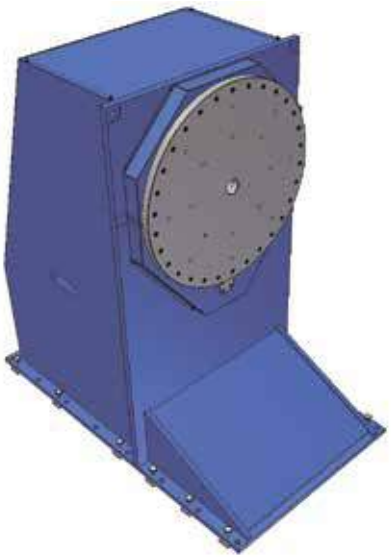
YASKAWA

HSB-10000, -20000

Heavy duty one station positioner.

SPB



- Rigid design.
- Heavy duty positioner.
- Supplementary tailstocks.

This is a one station positioner for workpieces requiring rotation about one axis.

To support long workpieces it is advisable to use a supplementary tailstock. The free standing SPB tailstock can be mounted directly on the floor at an appropriate distance from the positioner.

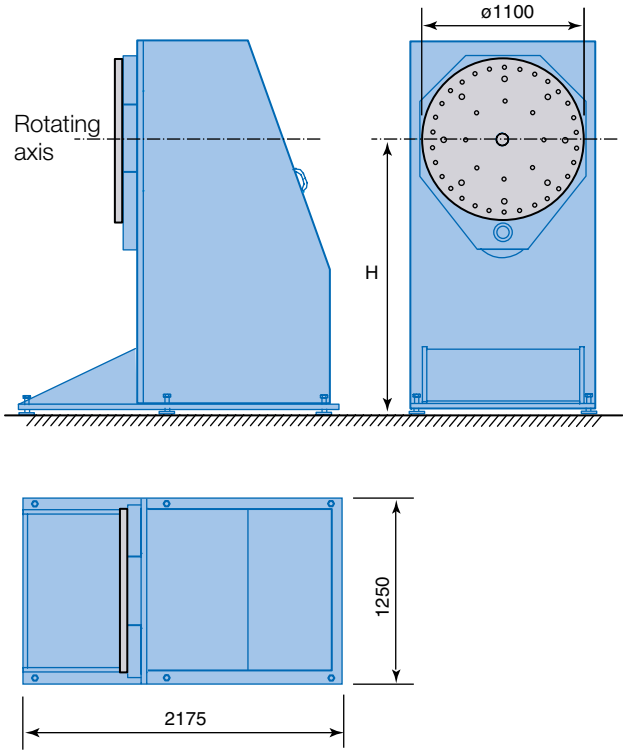
Available accessories
- Fixture brackets
- Tailstocks

Technical data		HSB-10000 SD	HSB-20000 SD
Max. payload		**10 ton**	**20 ton**
Welding capacity	100% duty cycle 60% duty cycle	2x 350 A 2x 460 A	2x 350 A 2x 460 A
Rotating axis torque	dynamic static	15058 Nm 12045 Nm	17785 Nm 14228 Nm
Rotating axis	rated speed maximum speed	0-1.92 rpm 2.5 rpm	0-2.2 rpm 4.4 rpm
Rated offset from COG		123 mm	73 mm
Tailstock, free standing		SPB	onrequest

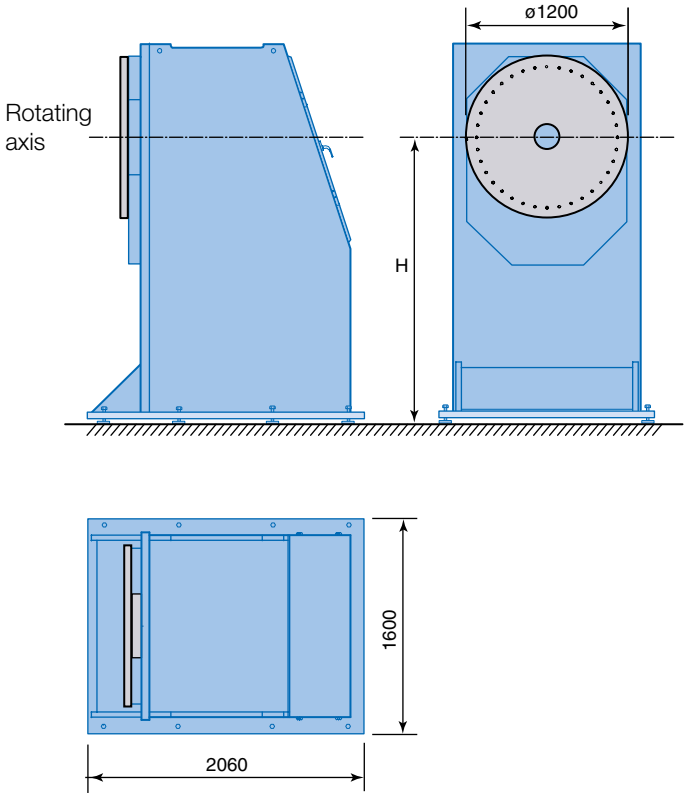
Controlled by YRC1000

Controlled by DX200

HSB-10000 SD



HSB-20000 SD



	H (mm)	Weight	Part No.
HSB-10000 SD	1200	3381 kg	124607-100
	1500	3695 kg	124607-101
	1830	4040 kg	124607-103
HSB-20000 SD	2100	7177 kg	124608-100

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SPB-2000, SPB-7000

Tailstock for one-station positioner HSB.

- Rigid design.
- Optional rail track.

This is a tailstock for floor mounting at an appropriate distance from the positioner.

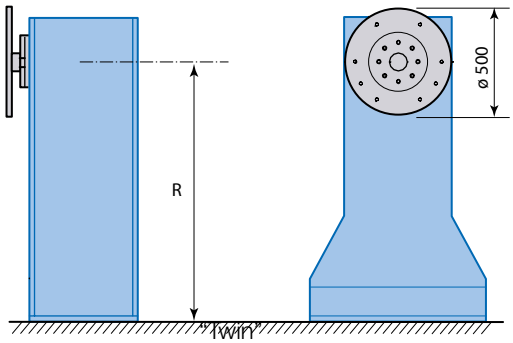
The optional rail track makes it possible to move the tail-stock by hand and fasten it anywhere along the track. The rail track can be made up to fifteen meters in total.

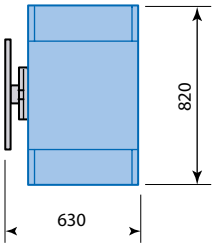
Accessories
- Shaft locking device
- Signal transfer unit
- Rail track

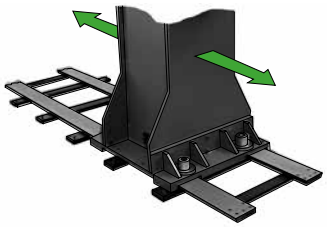
Technical data		SPB-2000	SPB-7000
Maximum fixture width, radius = R		**970, 1200, 1500 mm**	**1200, 1500, 1830 mm**
Welding capacity	100% duty cycle 60% duty cycle	2x 350 A 2x 460 A	2x 350 A 2x 460 A
Option: shaft locking device		No	Yes [1]
Option: signal transfer unit		Yes	No
Option: rail track		Available in 1 meter lengths up to 15 meter in total.	

1) Cannot be combined with the signal transfer unit

SPB-2000, -7000







SPB tailstock on a rail track

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www.yaskawa.eu.com

SPE-1000

Stand-alone tailstock.

SPE-1000

SPE-5000

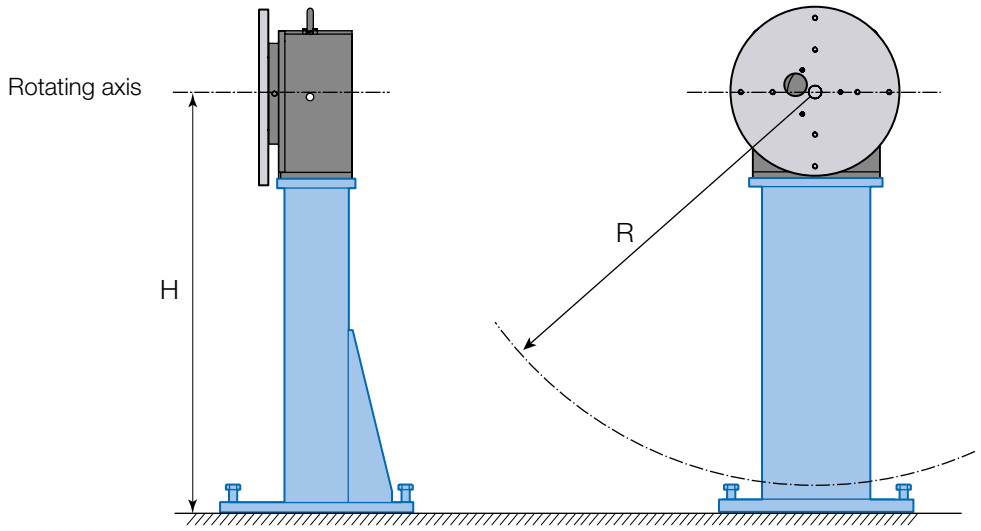
- Simple, modular design
- Prepaired for media transfer units.

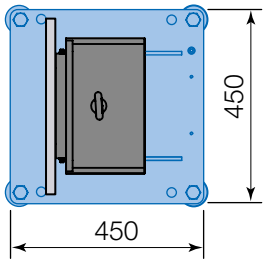
This is a one station tailstock for workpieces requiring rotation about one axis. It is a stand alone tailstock suitable for integration in e.g. compact welding stations.

Options

- Slip ring device
- Controlled air
- Air 3/8" + slip ring
- Air 2x 3/8" + slip ring
- Fixture disc
- Fixture bracket

Technical data		SPE-1000	SPE-5000
Maximum fixture width, radius = R		**650, 750, 850, 970, 1200 mm**	**970, 1200 mm**
Welding capacity	100% duty cycle 60% duty cycle	NA	350 A 460 A





	R (mm)	H (mm)	Weight	Part No.
SPE-1000	600	650	102 kg	115324-101
	700	750	150 kg	115324-106
	775	850	111 kg	115324-102
	900	970	117 kg	115324-100
	1125	1200	127 kg	115324-103
SPE-5000	970	970	172 kg	115375-100
	1200	1200	197 kg	115375-101

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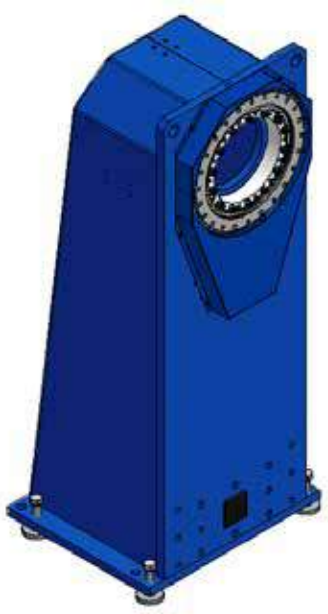
SPE-10000, SPE-20000

Stand-alone tailstock.

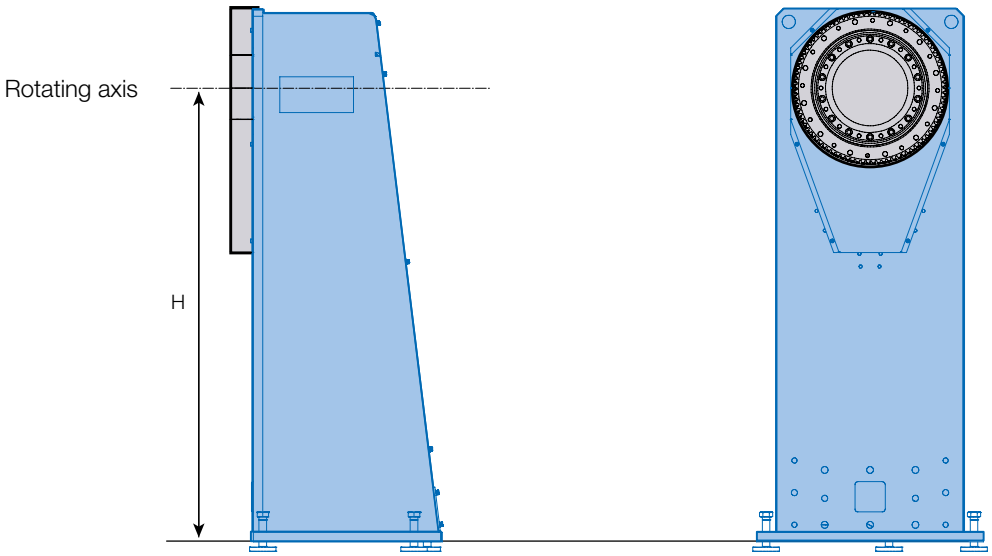


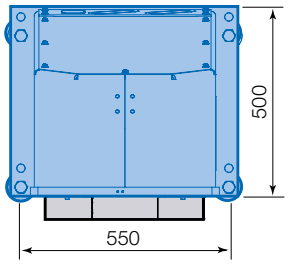
- Simple, modular design
- Prepaired for media transfer units.

This is a one station tailstock for workpieces requiring rotation about one axis. It is a stand alone tailstock suitable for integration in e.g. compact welding stations.

Options
- Slip ring device
- Controlled air
- Fixture disc
- Fixture bracket

Technical data		SPE-10000	SPE-20000
Max. payload		**10 tons**	**20 tons**
Maximum fixture width, radius = R		970, 1200, 1500 mm	1830 mm
Welding capacity, option	100% duty cycle 60% duty cycle	350 A 460 A	2x 350 A 2x 460 A





	H (mm)	Weight	Part No.
SPE-10000	970	290 kg	115405-100
	1200	321 kg	115405-101
	1500	362 kg	115405-102
SPE-20000	1830	1512 kg	115378-101

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YASKAWA

H2-500

Two-station positioner in space saving ferris wheel design.

- Space saving design.
- Patented MotoMount fixture holders.
- Easy to install and operate.
- Short delivery times.

Two-station positioner for workpieces requiring rotation about one axis. Designed for best possible shape stability whilst welding, it also features an option of enhanced welding capacity.

With an ideal working height for loading/unloading the fixtures and complete with an anti-glare shield the H2 positioner is easy to install and operate.

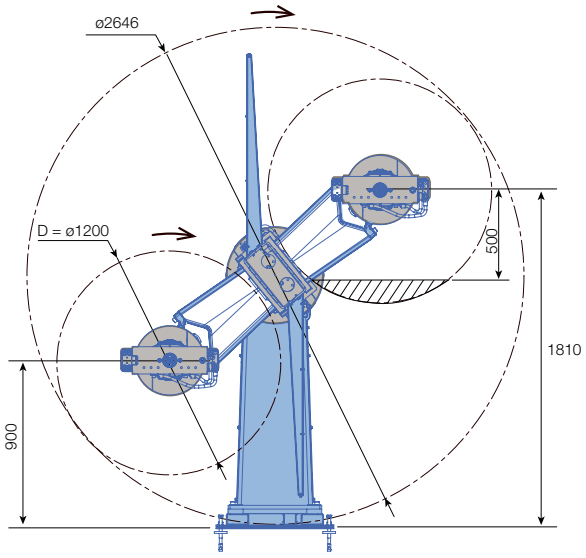
A large number of standardized options and distances between fixture holders also makes it easy to customize this positioner according to your needs.

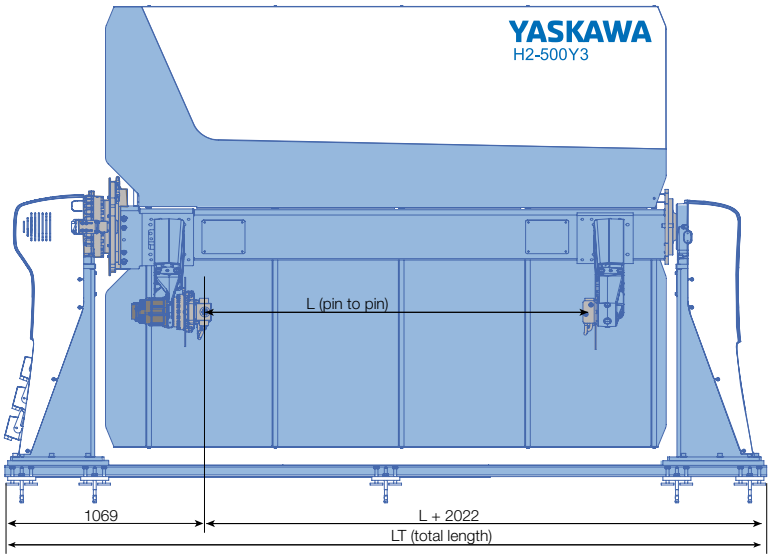
Technical data		H2-500Y3
Max. payload per station		**500 kg**
Distance between fixture holes		1650, 2050, 3050, 4050 mm
Welding capacity	100% duty cycle 60% duty cycle	2x 350 A 2x 460 A
Enhanced welding capacity, option	100% duty cycle 60% duty cycle	2x 700 A 2x 920 A
Torque rotating axis	dynamic static	1177 Nm 941 Nm
Rated speed rotating axis		9.0 rpm
Rated offset from centre of gravity (COG)		191 mm
Motor power	index rotating	3.7 kW 1.3 kW
Weight		1400 kg

New generation Sigma-7

Fixture holder MotoMount

Controlled by YRC1000





L (mm)	LT (mm)	D (mm)	Weight	Part No.
1650	3672	ø 1200	1477 kg	**147442-700**
2050	4072	ø 1200	1520 kg	**147442-701**
3050	5072	ø 1200	1628 kg	**147442-702**
4050	6072	ø 1200	1736 kg	**147442-703**

Options		Part No.
2x 3/8” air		137778-200
2x 3/8” air + Signal kit 4 channel I/O Fieldbus+PE		137778-201
2x 3/8” air + Signal kit 4 channel I/O ProfiNet+PE		137778-202
2x 3/8” air + Signal kit 12 channel I/O+PE		137778-203
2x 3/8” air + Signal kit 24 channel I/O+PE		137778-204
2x 3/8” Controlled air		137778-400
2x 3/8” Controlled-air+ Signal kit 4 channel I/O Fieldbus+PE		137778-401
2x 3/8” Controlled-air+ Signal kit 4 channel I/O ProfiNet+PE		137778-402
2x 3/8” Controlled-air+ Signal kit 12 channel I/O+PE		137778-403
2x 3/8” Controlled-air+ Signal kit 24 channel I/O+PE		137778-404
Retrofit adapter for fixtures (Length = L -130)	Headstock Tailstock	2x 143073-100 2x 143074-100
Enhanced welding capacity		140375-100
Tailstock locking kit		147768-100

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YASKAWA

VMI-200, VMI-400

Two station turntable.

- Simple, modular design.
- Servo powered.
- Suitable working height.

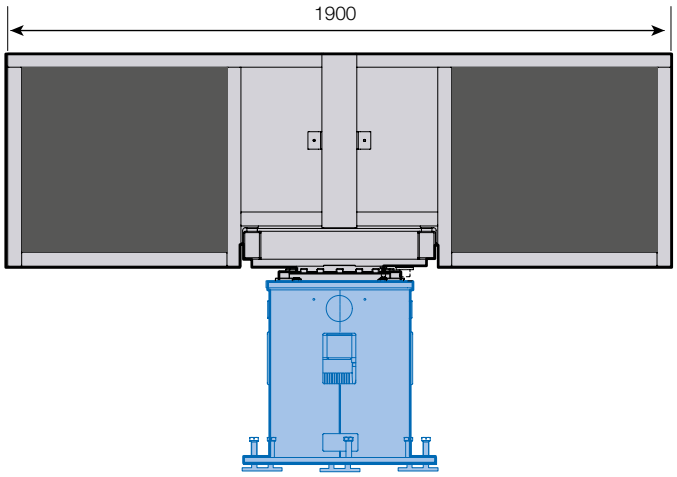
This is a two station servo powered turntable, with anti-glare shield included, for workpieces in a fixed position during welding. It has been designed for operator ease of use, with a suitable working height for loading and unloading the fixtures.

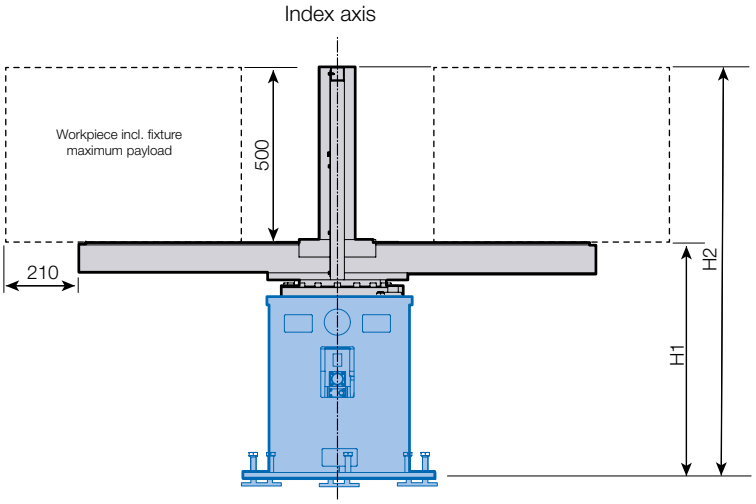
Maximum payload up to 500 kg on each side.

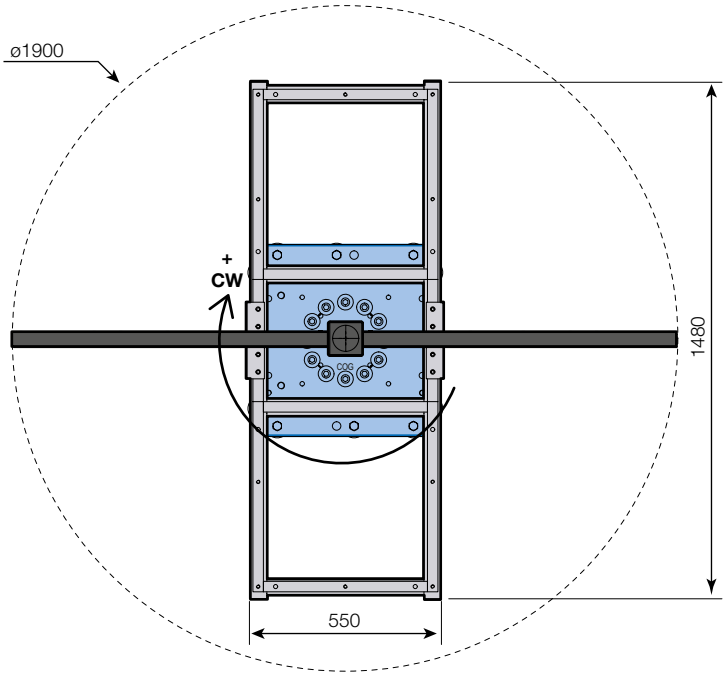
Technical data		VMI-200 SD	VMI-400 SD
Max. payload per station		**200 kg**	**400 kg**
Index axis torque	dynamic static	1330 Nm 1064 Nm	2070 Nm 1656 Nm
Index axis	rated speed maximum speed	0-10.6 rpm 30 rpm	0-10.6 rpm 28.4 rpm
Weight		293 kg	323 kg
Part No.		133387-101	148155-100

Controlled by YRC1000

Controlled by DX200







	H1 (mm)	H2 (mm)	Part No.
VMI-200 SD	630	1132	133387-101
VMI-400 SD	675	1177	148155-100

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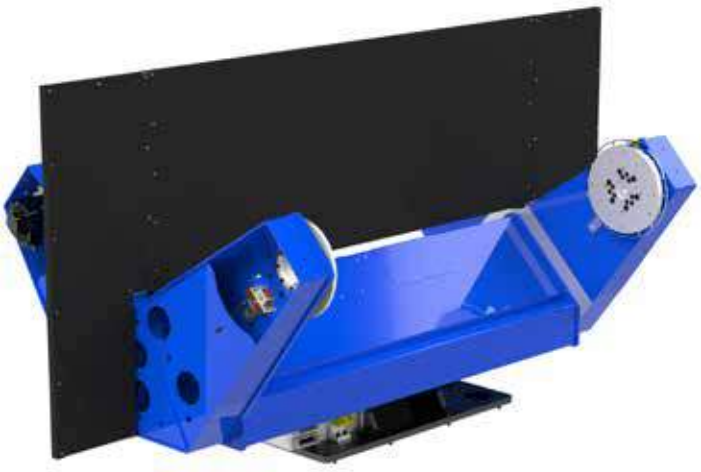
YASKAWA

VMH-1000

Two station positioner with vertical indexing.



- Rigid design.
- Ideal working height.
- Heavy duty.

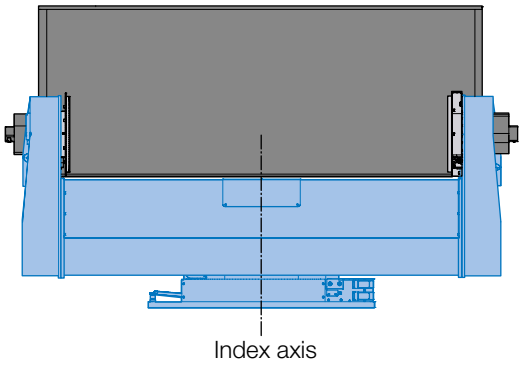
This is a two station positioner for workpieces that require rotation about one axis. It has been designed for operator ease of use, with a suitable working height for loading/unloading the fixtures, and is delivered complete with an anti-glare shield.

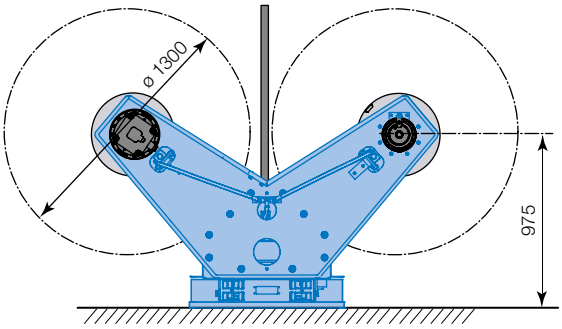
Available accessories
- Slip ring device
- Controlled air
- Fixture bracket

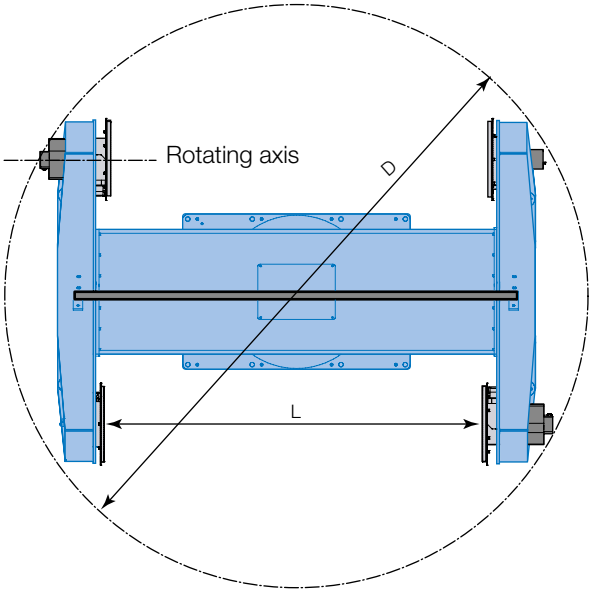
Technical data		VMH-1000 S4D
Max. payload	load per station	**1000 kg**
Max fixture width	diameter	ø1300
Welding capacity	100% duty cycle 60% duty cycle	2x 350 A 2x 460 A
Distance between fixture discs		2000, 2500 mm
Index axis	Motor power Torque dynamic Torque static	2x 2.0 kW 4930 Nm 3944 Nm
Rotating axis	Motor power Torque dynamic Torque static Offset	3.0 kW 2625 Nm 2100 Nm 214 mm

Controlled by YRC1000

Controlled by DX200







	D (mm)	L (mm)	Weight	Part No.
VMH-1000 S4D	ø 3400	2000	1583 kg	135914-101
	ø 3720	2500	1630 kg	135914-102

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YASKAWA

V2-500

Two station positioner with vertical indexing.

Two station positioner for workpieces requiring rotation about one axis. It has been designed for operator ease of use, with a suitable working height for loading and unloading the fixtures, and is delivered complete with an anti-glare shield.

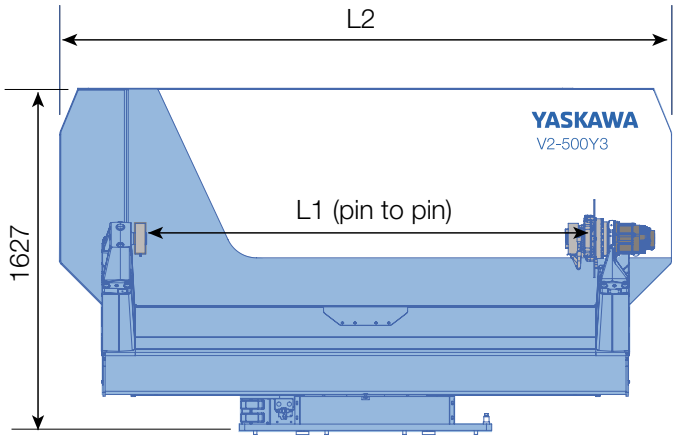
The head- and tailstock modules are equipped with MotoMount fixture mounting system.

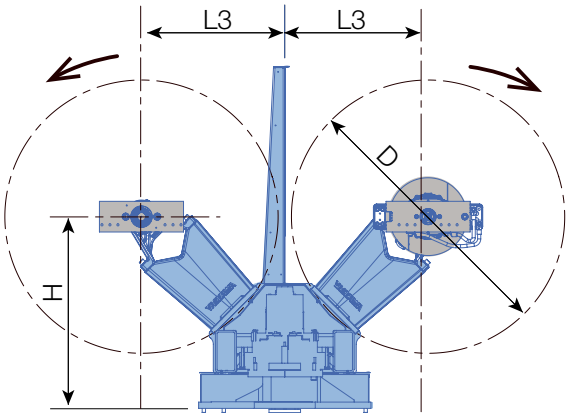
Technical data		V2-500Y3
Max. capacity	load per station	**500 kg**
Max fixture width	diameter	ø1300, ø1600 mm
Distance between fixture pin-pin		1650, 2050, 2550 mm
Index axis		
	Motor power	3.7 kW
	Torque dynamic	2251 Nm
	Torque static	1800 Nm
	Index (station changing) time	4.4 sec
Rotating axis		
	Motor power	1.3 kW
	Torque dynamic	1177 Mm
	Torque static	941 Nm
	Offset	191 mm

New generation Sigma-7

Fixture holder MotoMount

Controlled by YRC1000





Type	Part No.	L1	L2	L3	H	Weight
ø1300 mm	**148549-700**	1650 mm	2510 mm	682 mm	912 mm	1343 kg
	148549-701	2050 mm	2910 mm			1384 kg
	148549-702	2550 mm	3410 mm			1454 kg
ø1600 mm	**148548-700**	1650 mm	2510 mm	823 mm	1053 mm	1409 kg
	148548-701	2050 mm	2910 mm			1450 kg
	148548-702	2550 mm	3410 mm			1520 kg

Options	Part No.
2x 3/8” air	137778-200
2x 3/8” air + Signal kit 4 channel I/O Fieldbus+PE	137779-201
2x 3/8” air + Signal kit 4 channel I/O ProfiNet+PE	137779-202
2x 3/8” air + Signal kit 12 channel I/O+PE	137779-203
2x 3/8” air + Signal kit 24 channel I/O+PE	137779-204
2x 3/8” Controlled air	137779-400
2x 3/8” Controlled-air+ Signal kit 4 channel I/O Fieldbus+PE	137779-401
2x 3/8” Controlled-air+ Signal kit 4 channel I/O ProfiNet+PE	137779-402
2x 3/8” Controlled-air+ Signal kit 12 channel I/O+PE	137779-403
2x 3/8” Controlled-air+ Signal kit 24 channel I/O+PE	137779-404
Retrofit adapter for fixtures (Length = L -130) Headstock Tailstock	2x 143073-100 2x 143074-100
Enhanced welding capacity	140375-101

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YASKAWA

V2-1000 Y3

Two station positioner with vertical indexing.

Two station positioner for workpieces requiring rotation about one axis. It has been designed for operator ease of use, with a suitable working height for loading and unloading the fixtures, and is delivered complete with an anti-glare shield.

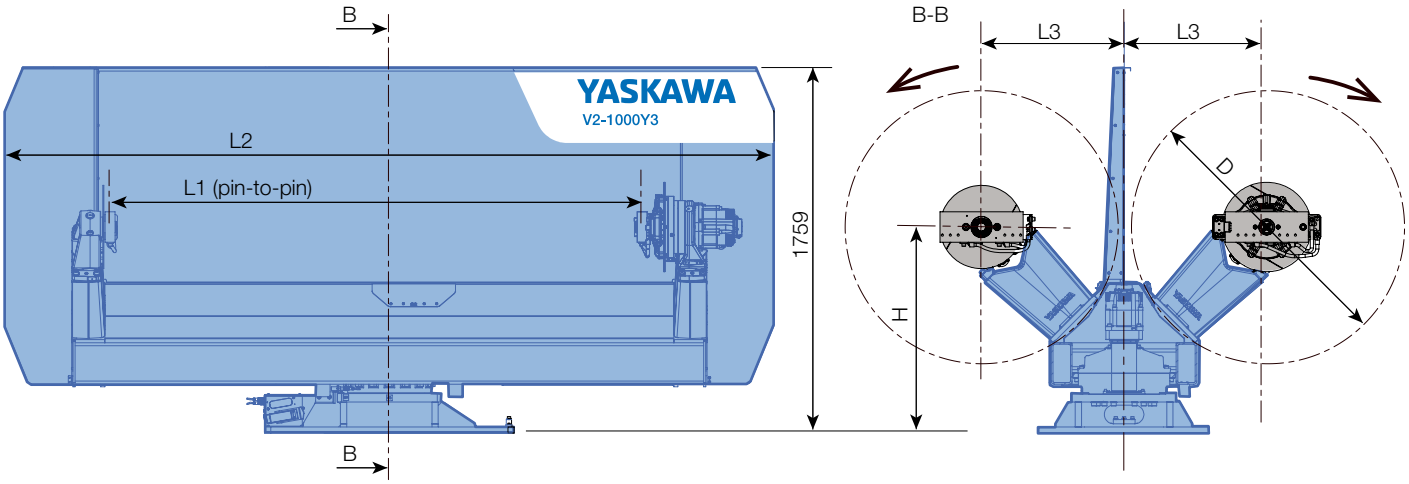
The head- and tailstock modules are equipped with MotoMount fixture mounting system.

Technical data		V2-1000 Y3	
Max. capacity	load per station	**1000 kg**	
Max fixture width	diameter	1300 mm	1600 mm
Distance between fixture pin-pin		2050, 2550 mm	2050, 2550 mm
Index axis			
	Motor power	3.7 kW	
	Torque dynamic	4756 Nm	
	Torque static	3805 Nm	
	Index (station changing) time 0-180°	4.8 sec	
Rotating axis			
	Motor power	3.0 kW	
	Torque dynamic	2689 Nm	
	Torque static	2151 Nm	
	Offset	219 mm	
	Rotating time 0-90°	1.1 sec	
	Rotating time 0-180°	1.8 sec	
	Rotating time 0-360°	3.1 sec	

New generation Sigma-7

Fixture holder MotoMount

Controlled by YRC1000



Part No.	D	L1	L2	L3	H	Weight
164208-701	ø 1300 mm	2050 mm	2944 mm	686 mm	991 mm	1690 kg
164208-702	ø 1300 mm	2550 mm	3444 mm	686 mm	991 mm	1720 kg
165572-701	ø 1600 mm	2050 mm	3198 mm	827 mm	1133 mm	1750 kg
165572-702	ø 1600 mm	2550 mm	3698 mm	827 mm	1133 mm	1780 kg

Options		Part No.
2x 3/8” air		137779-200
2x 3/8” air + Signal kit 4 channel I/O Fieldbus+PE		137779-201
2x 3/8” air + Signal kit 4 channel I/O ProfiNet+PE		137779-202
2x 3/8” air + Signal kit 12 channel I/O+PE		137779-203
2x 3/8” air + Signal kit 24 channel I/O+PE		137779-204
2x 3/8” Controlled air		137779-400
2x 3/8” Controlled-air+ Signal kit 4 channel I/O Fieldbus+PE		137779-401
2x 3/8” Controlled-air+ Signal kit 4 channel I/O ProfiNet+PE		137779-402
2x 3/8” Controlled-air+ Signal kit 12 channel I/O+PE		137779-403
2x 3/8” Controlled-air+ Signal kit 24 channel I/O+PE		137779-404
Retrofit adapter for fixtures (Length = L -130)	Headstock Tailstock	2x 143073-100 2x 143074-100
Enhanced welding capacity		140375-101

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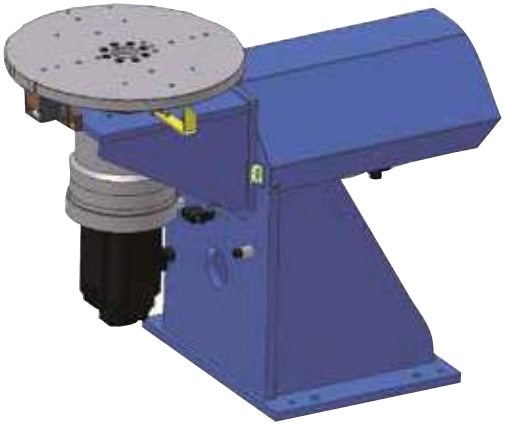
YASKAWA

MT1-250

One-station tilt-rotate positioner.



- Space saving design.
- Direct drive on tilt and rotating axes.
- Easy to install and operate.

This is a one station tilt-rotate positioner for workpieces requiring rotation about two axes. Due to its compact and space saving design, it is suitable for integration in e.g. compact welding stations.

The fixture disc can be tilted in synchronisation with the robot, ±90°.

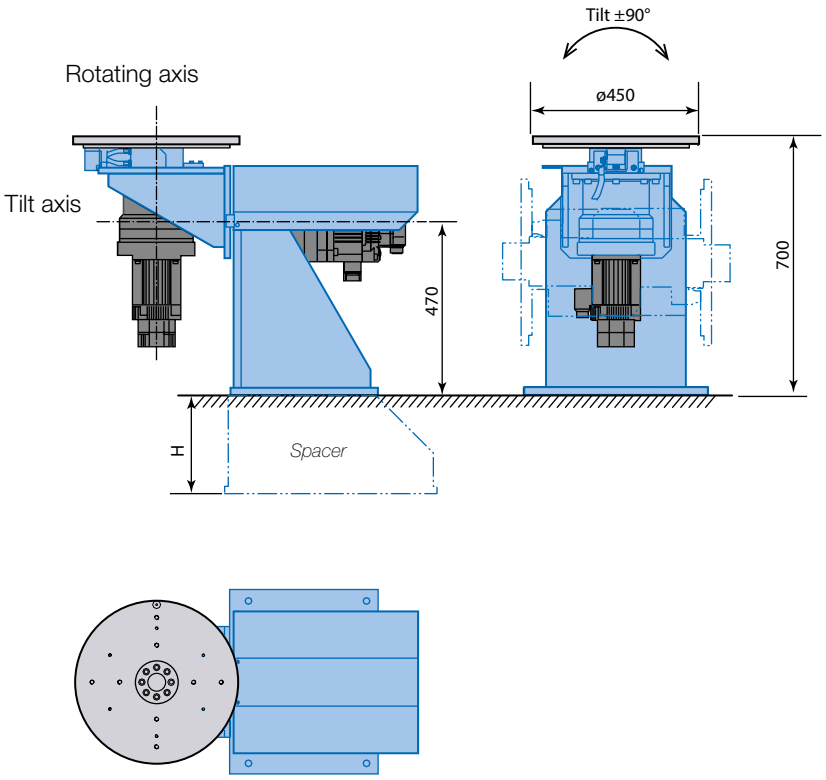
Option

- Spacer (H = 270 mm)

Technical data		MT1-250 S2D
Max. payload		**250 kg**
Welding capacity	100% duty cycle 60% duty cycle	350 A 460 A
Tilt axis torque	dynamic static	1108 Nm 896 Nm
Tilt axis rated speed		0-12.6 rpm
Rotating axis torque	dynamic static	1046 Nm 837 Nm
Rotating axis rated speed		0-9.8 rpm
Rated offset from centre of gravity (COG)		275 mm
Weight		300 kg
Part No.	MT1-250 S2D Option: Spacer 270 mm	124614-100 254322-81

Controlled by YRC1000

Controlled by DX200



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YASKAWA

MT1-500, MT1-750

One-station tilt-rotate positioner for heavy workpieces.

- Rigid design.
- High freedom of positioning.
- Easy to install and operate.

This is a tilt-rotate one station positioner for workpieces requiring rotation about two axes. Its high freedom of positioning makes it easy to find the optimum position even in complicated workpieces.

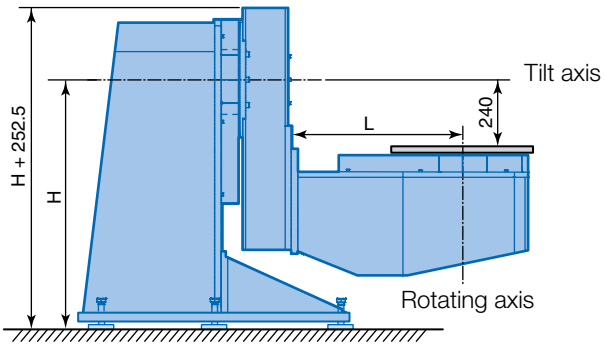
This MT1 positioner with its L arm design is able to withstand the strain of handling heavy workpieces.

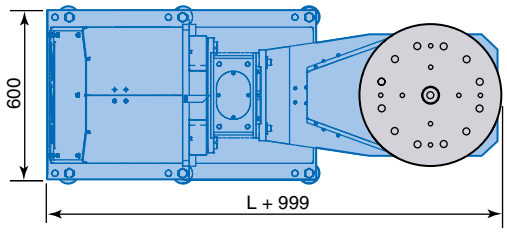
Technical data		MT1-500 S2DL	MT1-750 S2DL
Max. payload		**500 kg**	**750 kg**
Welding capacity	100% duty cycle 60% duty cycle	2x 350 A 2x 460 A	2x 350 A 2x 460 A
Tilt axis torque	dynamic static	2600 Nm 2080 Nm	2600 Nm 2080 Nm
Tilt axis rated speed		0-5.3 rpm	0-5.3 rpm
Rotating axis torque	dynamic static	2600 rpm 2080 rpm	2600 rpm 2080 rpm
Rotating axis rated speed		0-5.3 rpm	0-5.3 rpm
Rated offset from centre of gravity (COG)		424 mm	283 mm

Controlled by YRC1000

Controlled by DX200

MT1-500 S2DL, MT1-750 S2DL





	H (mm)	L (mm)	Weight	Part No.
MT1-500 S2DL	850	850	785 kg	124615-104
MT1-750 S2DL	650	600	636 kg	124616-100
	650	750	650 kg	124616-101
	850	600	752 kg	124616-102
	850	750	766 kg	124616-103

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YASKAWA

MT1-500 S2HD

One-station tilt-rotate positioner.

- Space saving design.
- Hollow drive.
- Easy to install and operate.

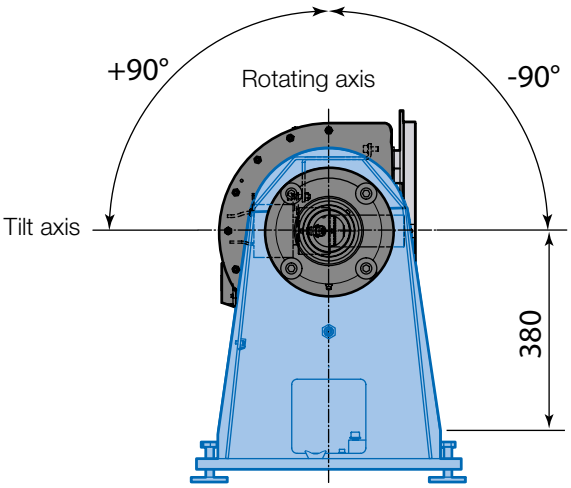
This is a one station tilt-rotate positioner for workpieces requiring rotation about two axes. Due to its compact and space saving design, it is suitable for integration in e.g. compact welding stations.

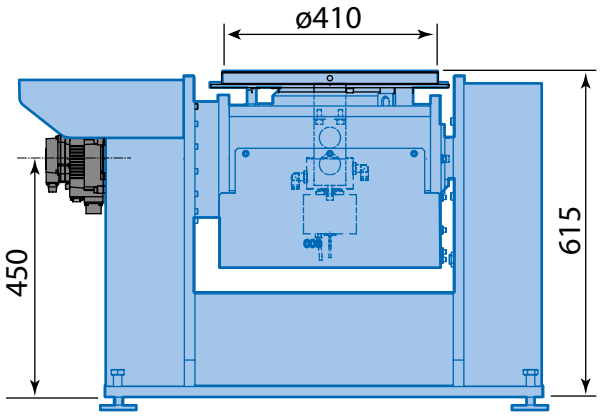
The fixture disc can be tilted in synchronisation with the robot, ±90°

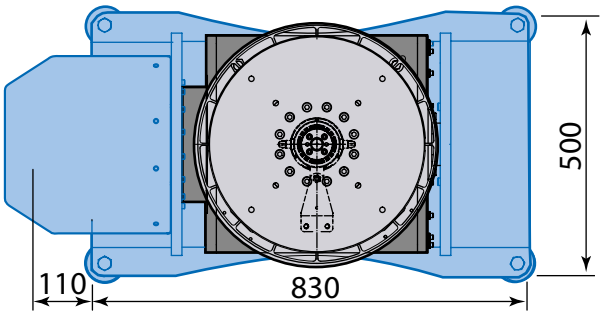
Technical data		MT1-500S2HD
Max. payload per station		**500 kg**
Welding capacity	100% duty cycle 60% duty cycle	350 A 460 A
Tilt axis torque	dynamic static	1612 Nm 1330 M,
Tilt axis rated speed		0-10.6 rpm
Rotating axis torque	dynamic static	1108 Nm 896 Nm
Rotating axis rated speed		0-11.3 rpm
Max. inertia		100 kgm^2
Rated offset from centre of gravity (COG)		145 mm
Weight		321 kg
Part No.		132990-100

Controlled by YRC1000

Controlled by DX200







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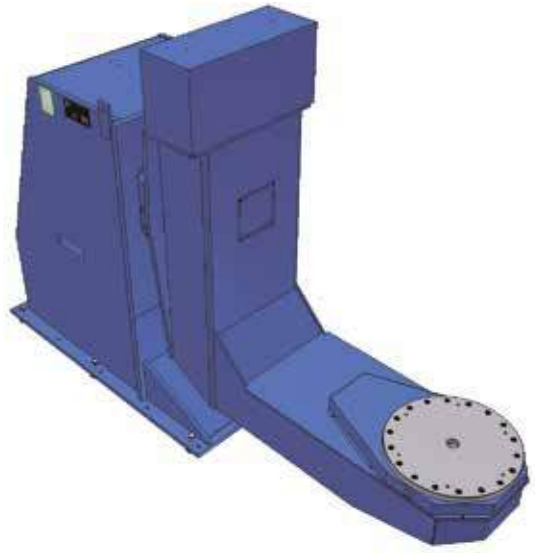
MT1-1000, MT1-1500

One-station tilt-rotate positioner.



- Rigid design.
- High freedom of positioning.
- Heavy payloads.

This is a one station positioner for workpieces requiring rotation about two axes. Its high freedom of positioning makes it easy to find the optimum position even in complicated workpieces.

This MT1 positioner with its L arm design is able to withstand the strain of handling heavy workpieces.

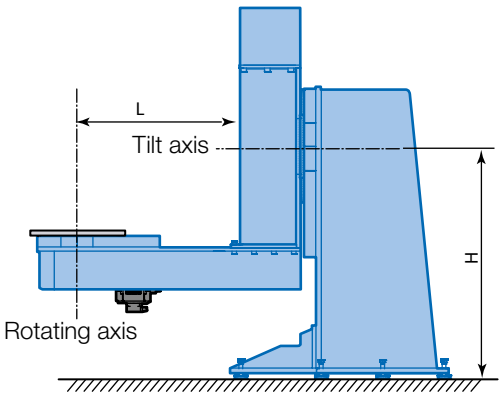
When used together with a Gantry robot it provides the best possible workpiece access.

Technical data		MT1-1000 S2D	MT1-1500 S2D
Max. payload		**1000 kg**	**1500 kg**
Welding capacity	100% duty cycle 60% duty cycle	2x 350 A 2x 460 A	2x 350 A 2x 460 A
Tilt axis torque	dynamic static	4236 Nm 3389 Nm	8290 Nm 6632 Nm
Tilt axis	rated speed maximum speed	0-3.6 rpm 9.6 rpm	0-3.4 rpm 9.1 rpm
Rotating axis torque	dynamic static	2830 Nm 2264 Nm	6480 Nm 5184 Nm
Rotating axis	rated speed maximum speed	0-5.3 rpm 15 rpm	0-4.3 rpm 15 rpm
Rated offset from centre of gravity (COG)		230 mm	352 mm

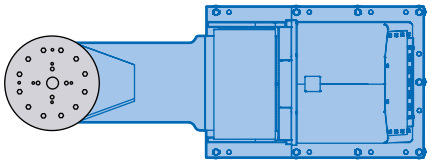
Controlled by YRC1000

Controlled by DX200

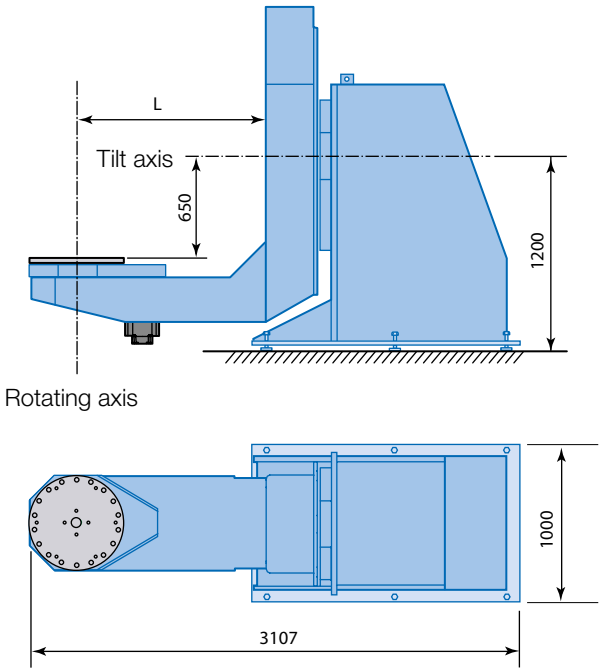
MT1-1000 S2D



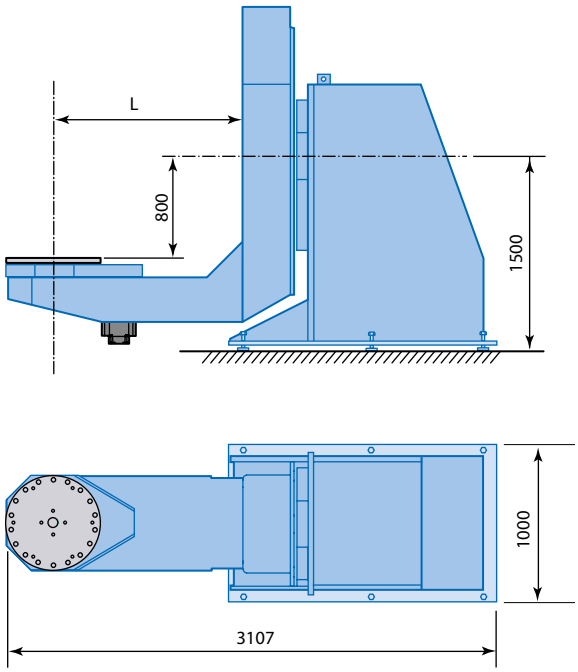
	H (mm)	L (mm)	Weight	Part No.
MT1-1000 S2D	1200	850	1610 kg	124617-102
	1200	1100	1647 kg	124617-103
MT1-1500 S2DL	1200	1195	3484 kg	124618-100
	1500	1615	4010 kg	124619-100



MT1-1500 S2D (H = 1200)



MT1-1500 S2D (H = 1500)



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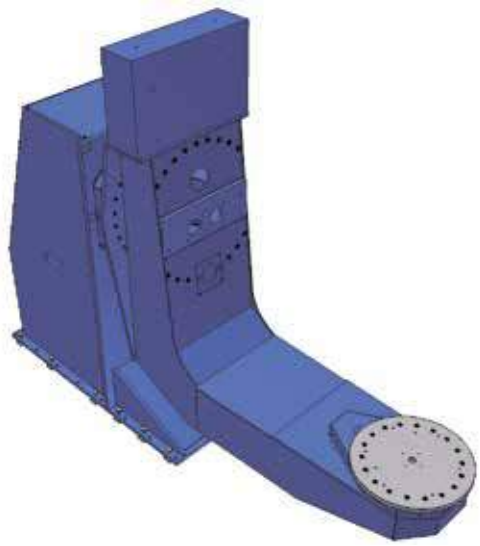
MT1-3000, MT1-5000

One-station tilt-rotate positioner for very heavy workpieces.



- Rigid design.
- High freedom of positioning.
- Ideal for very heavy parts.

This is a one station positioner for workpieces requiring rotation about two axes. Its high freedom of positioning makes it easy to find the optimum position even in complicated workpieces.

This MT1 positioner with its L arm design is able to withstand the strain of handling heavy workpieces.

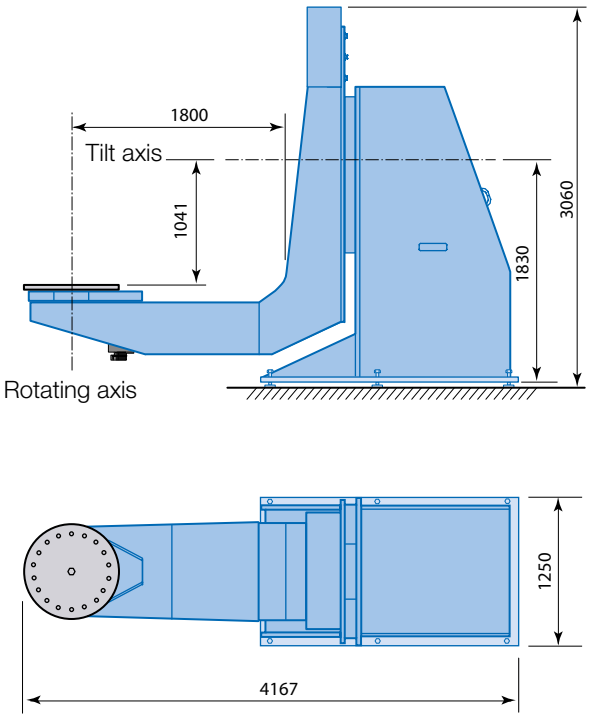
When used together with a Gantry robot it provides the best possible workpiece access.

Technical data		MT1-3000 S2D	MT1-5000 S2D
Max. payload		**3000 kg**	**5000 kg**
Welding capacity	100% duty cycle 60% duty cycle	2x 350 A 2x 460 A	2x 350 A 2x 460 A
Tilt axis torque	dynamic static	15058 Nm 12045 Nm	15058 Nm 12045 Nm
Tilt axis	rated speed maximum speed	0-1.9 rpm 2.5 rpm	0-1.9 rpm 2.5 rpm
Rotating axis torque	dynamic static	10498 Nm 8398 Nm	10498 Nm 8298 Nm
Rotating axis	rated speed maximum speed	0-2.7 rpm 3.6 rpm	0-2.7 rpm 3.6 rpm
Rated offset from centre of gravity (COG)		285 mm	171 mm
Weight		7061 kg	7044 kg

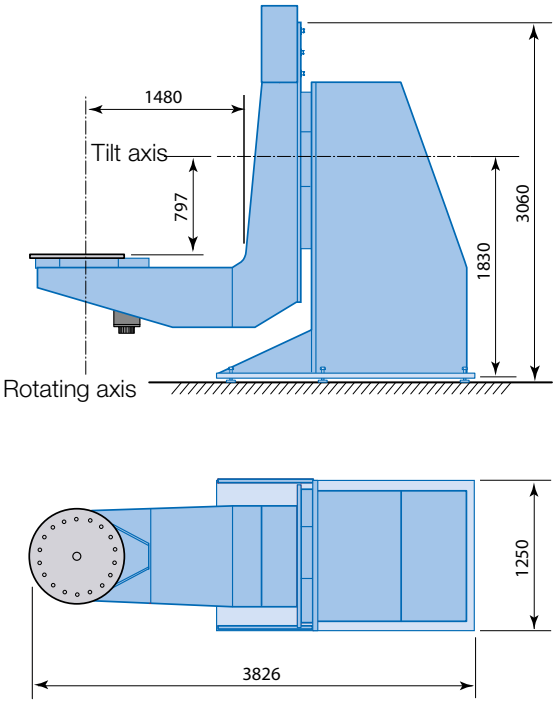
Controlled by YRC1000

Controlled by DX200

MT1-3000 S2D



MT1-5000 S2D



	H (mm)	L (mm)	Part No.
MT1-3000 S2D	1830	1800	124620-100
MT1-5000 S2D	1830	1480	124621-100

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VMF-500, VMF-750

Two station tilt-rotate positioner with C arms.

- High freedom of positioning.
- Designed for operator ease of use.
- Vertical station changing.

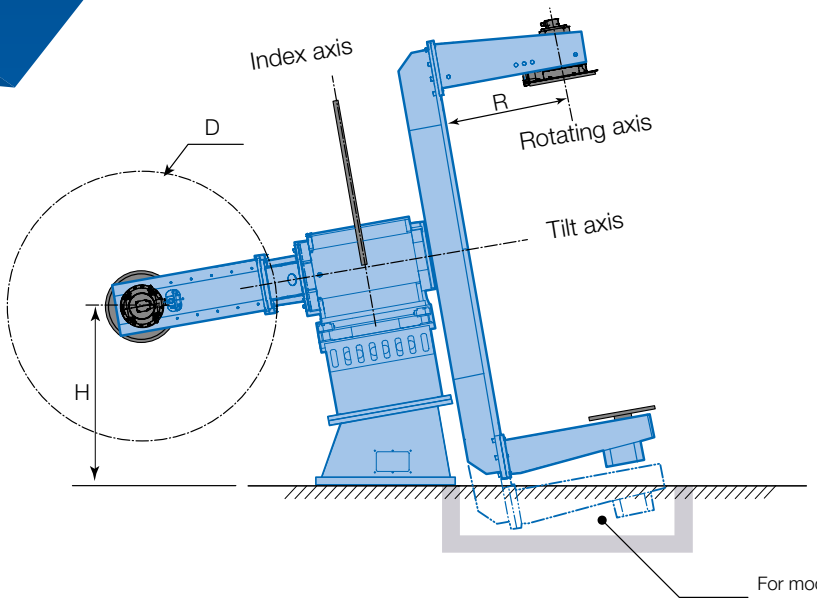
This is a two station positioner for workpieces that require rotation about one axis. It has been designed for operator ease of use, with a suitable working height for loading/unloading the fixtures, and is delivered complete with an anti-glare shield.

Available accessories
- Slip ring device
- Controlled air
- Fixture bracket

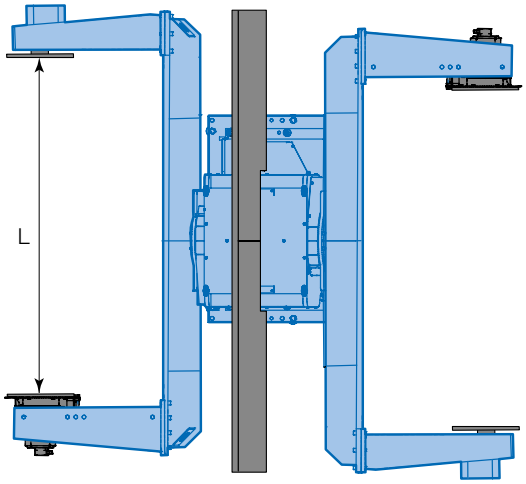
Technical data		VMF-500 S5Y	VMF-750 S5Y
Max. payload	load per station	**500 kg**	**750 kg**
Max fixture width	diameter	ø1500, ø1700 mm	ø1500 mm
Welding capacity	100% duty cycle 60% duty cycle	2x 350 A 2x 460 A	2x 350 A 2x 460 A
Index axis	Motor power Torque dynamic Torque static	3.0 kW 6055 Nm 4844 Nm	3.0 kW 6055 Nm 4844 Nm
Tilt axis	Motor power Torque dynamic Torque static	1.3 kW 3348 Nm 2678 Nm	1.3 kW 3348 Nm 2678 Nm
Rotating axis	Motor power Torque dynamic Torque static Offset	1.3 kW 952 Nm 762 Nm 155 mm	2.0 kW 1329 Nm 1063 Nm 145 mm

New generation Sigma-7

Controlled by YRC1000



For models with a distance between the fixture plates (L) of 2000-2500 mm or more, this solution makes it possible to fully rotate the arms.



	D (mm)	H (mm)	r (mm)	L (mm)	Weight	Part No.
VMF-500 S5Y	ø 1500	1070	750	1500-2050	3232 kg	124636-701
	ø 1700	1052	850	1500-2050	3251 kg	124636-702
	ø 1500	1070	750	2000-2500	3349 kg	124637-701
	ø 1500	1070	750	2500-3000	3472 kg	124638-701
VMF-750 S5Y	ø 1500	1070	750	1500-2050	3272 kg	124640-701
	ø 1500	1070	750	2000-2500	3385 kg	124641-701
	ø 1500	1070	750	2500-3000	3517 kg	124642-701
	ø 1500	1070	750	2800-3300	3587 kg	124643-701

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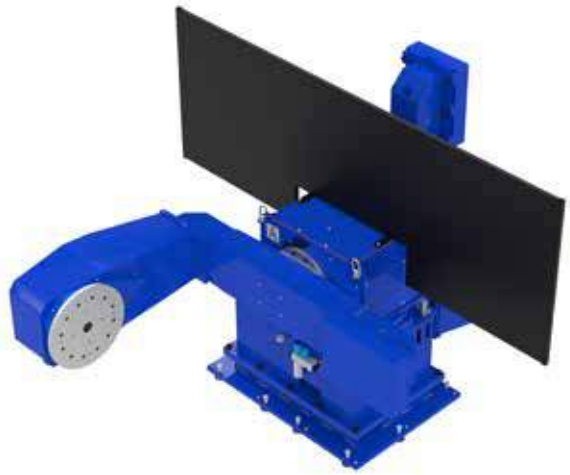
VMF-500, VMF-750

Two station tilt-rotate positioner with L arms.



- High freedom of positioning.
- Designed for operator ease of use.
- Vertical station changing.

This is a two station positioner for workpieces that require rotation about one axis. It has been designed for operator ease of use, with a suitable working height for loading/unloading the fixtures, and is delivered complete with an anti-glare shield.

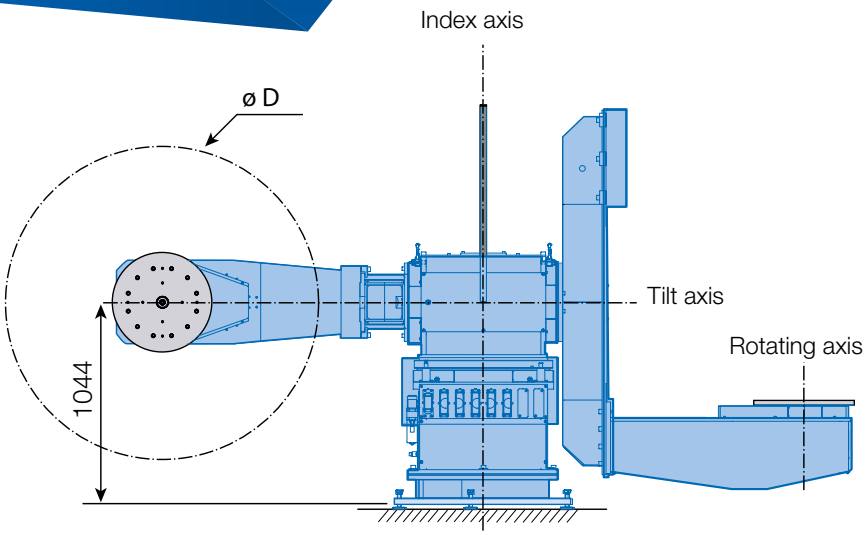
Available accessories

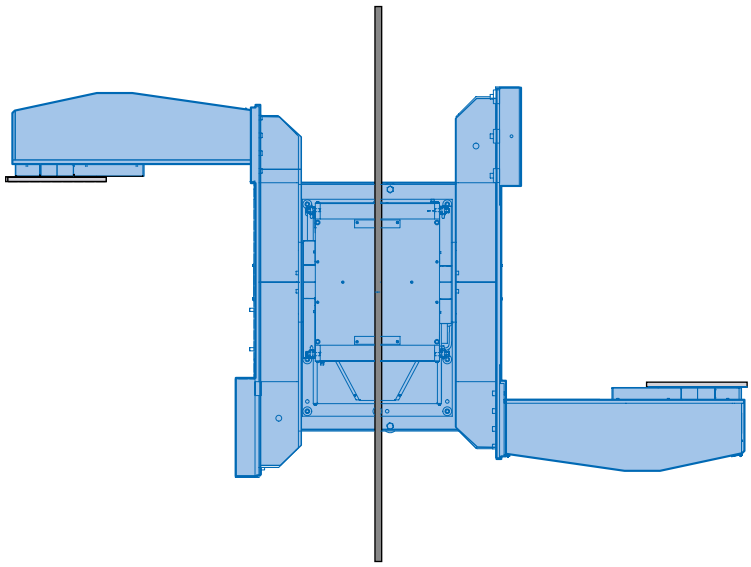
- Slip ring device
- Controlled air
- Fixture bracket

Technical data		VMF-500 S5YL	VMF-750 S5YL
Max. payload	load per station	**500 kg**	**750 kg**
Max fixture width	diameter	ø 2000, ø 2400 mm	ø 1500 mm
Welding capacity	100% duty cycle 60% duty cycle	2x 350 A 2x 460 A	2x 350 A 2x 460 A
Index axis	Motor power Torque dynamic Torque static	3.0 kW 6055 Nm 4844 Nm	3.0 kW 6055 Nm 4844 Nm
Tilt axis	Motor power Torque dynamic Torque static	1.3 kW 3348 Nm 2678 Nm	1.3 kW 3348 Nm 2678 Nm
Rotating axis	Motor power Torque dynamic Torque static Offset	2.0 kW 2600 Nm 2080 Nm 424 mm	2.0 kW 2658 Nm 2126 Nm 288 mm

New generation Sigma-7

Controlled by YRC1000





	D (mm)	Weight	Part No.
VMF-500 S5YL	ø 2000 mm	3534 kg	124644-703
	ø 2500 mm	3578 kg	124644-705
VMF-750 S5YL	ø 1500 mm	3480 kg	124645-701

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VST-600

Extending the robot's working area.

- High speed – short cycle times.
- Increased robot working area.

This is a servo powered rotating base for extending the robot's working radius e.g. when using the robot for machine tending or press brake application.

Additional sizes of VST for larger robots are available on request.

Options

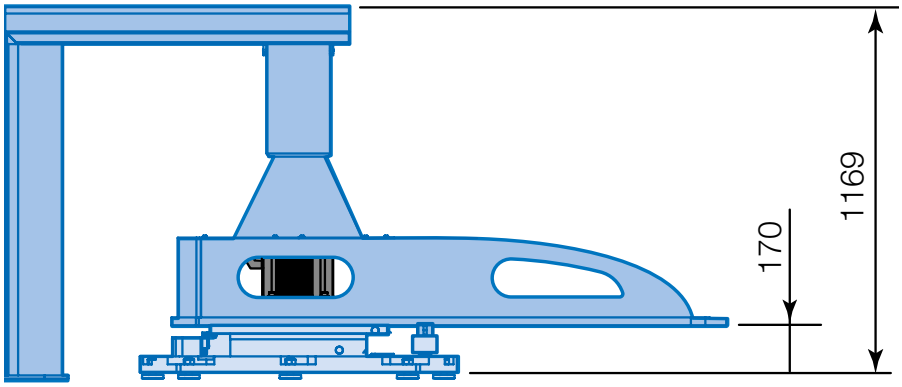
- Limiting rotation ±90° or ±120° (VST-600)

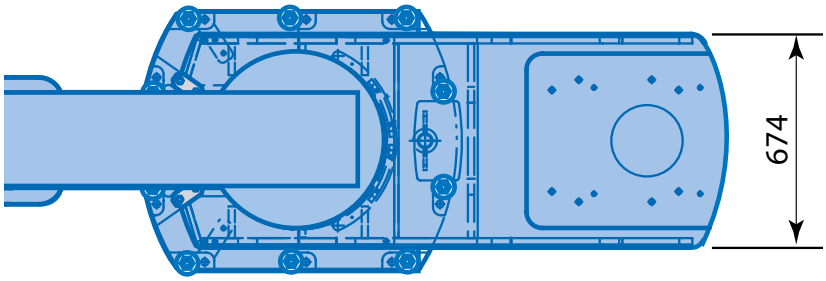
Technical data		VST-600 SD
Maximum payload		**600 kg**
Maximum rotation		±142°
Torque, dynamic		2299 Nm
Speed	rated maximum	0-12.6 rpm 16.8 rpm
Weight		864 kg
Part No.		124774-100

Controlled by YRC1000

Controlled by DX200

VST-600 SD





All dimensions are for reference only.
Request detailed drawings for design/
engineering requirements!

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TS-100D

High speed servo powered traverse track for small MOTOMAN robots.

- High speed.
- Fixed lengths of 2, 3 and 4 meters.
- Easy to install and operate.
- Short delivery times.

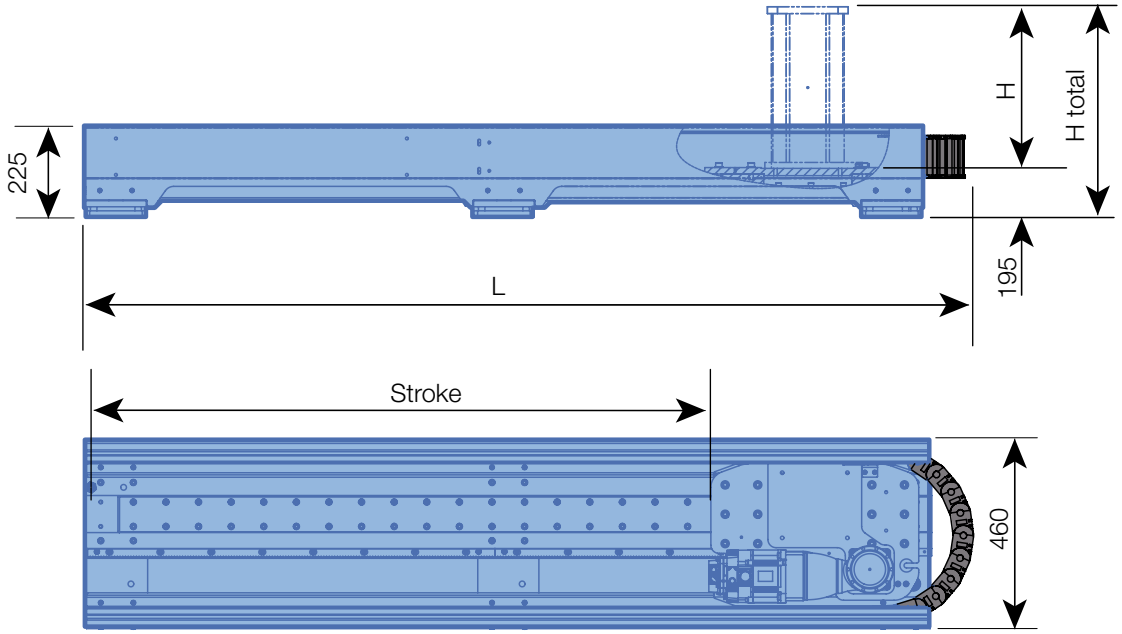
This is a servo powered floor mounted track which can be used to transport one robot from one station to another, or to increase the robot's working range.

With its narrow design, the TS-100D can get the robot very close to an object and thus make the most of the robot's working range. Choose the option of automatic lubrication of the rack and rail for an even more maintenance free operation.

Technical data		TS-100D YRC1000micro	TS-100D YRC1000
Maximum payload		100 kg	100 kg
Motor size		0.9 kW	1.3 kW
Maximum velocity		2.25 m/sec	3.0 m/sec
Acceleration velocity		3.2 m/sec^2	4.5 m/sec^2
Duty cycle		100%	100%
Suitable for industrial robots		MOTOMAN-GP7/GP8	MOTOMAN-GP7/GP8
Mounting options		Floor	Floor
Length	**2 meter** **3 meter** **4 meter**	151562-102 151562-103 151562-104	145812-102 145812-103 145812-104

Controlled by YRC1000 micro

Controlled by YRC1000



TS-100D	L	Stroke	Weight
TS-100D, 2000 mm	2180	1513	170 kg
TS-100D, 3000 mm	3146	2473	220 kg
TS-100D, 4000 mm	4110	3433	290 kg

All dimensions are for reference only. Request detailed drawings for design/engineering requirements!

Optional equipment	H total	Weight	Part No.
Robot stand, H = 200 mm	395	12 kg	**151022-102**
Robot stand, H = 300 mm	495	14 kg	**151022-103**
Robot stand, H = 400 mm	595	17 kg	**151022-104**
Automatic lubrication	-	-	**150663-100**

Calculating the cable length

The cables exit the TS-100D track as shown in the illustration above.

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TSL-600

Floor mounted track.

Bracket for wire barrel

Key benefits

- Outstanding speed.
- Quiet operation.
- Dedicated arc welding track.

This is a servo powered floor mounted track with one robot carrier. It can be used to increase the robot's working range e.g. when welding large objects. The TSL track is prepared for zeroing function.

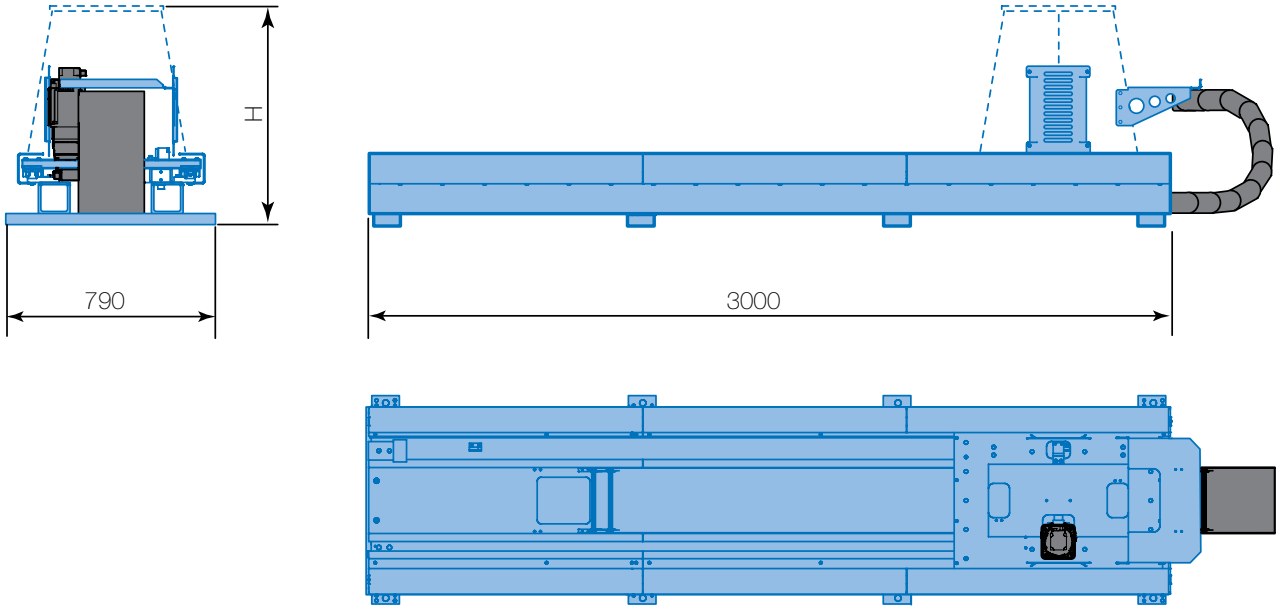
The TSL-600 track is only available in two, three or four meters total length.

Options

- Automatic lubrication (rack and guide blocks).
- Robot stands in different heights.
- Bracket for wire barrel.

New generation Sigma-7

Controlled by YRC1000



All dimensions are for reference only.
Request detailed drawings for design/engineering requirements!

Technical data		TSL-600 SY
Maximum payload		600 kg
Maximum speed		2.14 m/s
ED		50%
Acceleration velocity		2.38 m/s²
Travel	500 mm 1000 mm	0.85 sec 1.16 sec
Repetitive position accuracy		±0.05 mm
Height (H) including robot stand		687, 887, 1087, 1287 or 1487 mm
Standard length (L)		2,3 or 4 meter
Travel length (stroke)		L-850 mm

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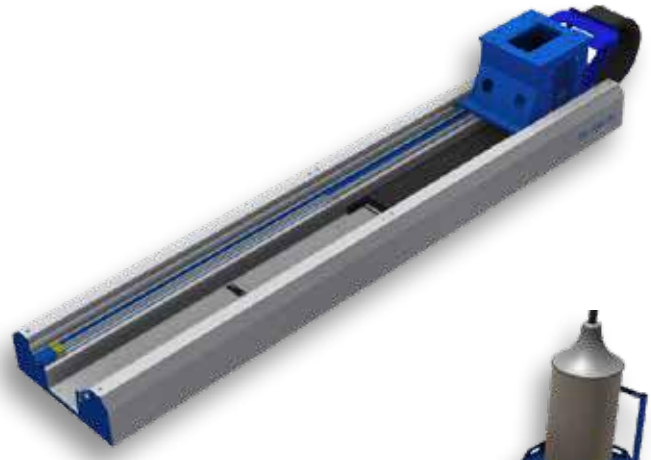
TSL-1000

Floor mounted track.



Bracket for wire barrel

Low mounted carriage

Key benefits

- Outstanding speed.
- Quiet operation.
- For high payload robots.

This is a servo powered floor mounted track with one or two robot carriages. It can be used to transport a robot from one station to another, or to increase the robot's working range. The TSL track is prepared for zeroing function.

Since the track is built in two- or four meter modules, it is easy to extend to a suitable length.

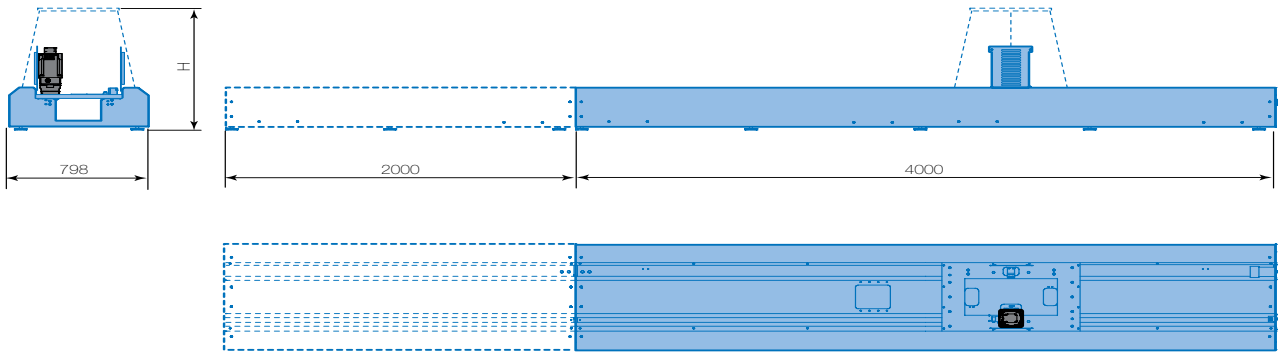
Standard lengths up to 24 meters, and possible with longer tracks on request.

Options

- Automatic lubrication (rack and guide blocks).
- Additional carriage.
- Brackets for wire barrel.

New generation Sigma-7

Controlled by YRC1000



All dimensions are for reference only.
Request detailed drawings for design/engineering requirements!

Technical data		TSL-1000 SY
Maximum payload		**1000 kg**
Maximum speed		1.8 m/s
ED		50%
Acceleration velocity		1.6 m/s^2
Travel	500 mm 1000 mm	1.0 sec 1.38 sec
Repetitive position accuracy		±0.06 mm
Height (H) including robot stand		467*, 687, 887, 1087, 1287, 1487 mm
Standard length (L)		2, 3, 4 up to 24 meter (in 2 meter steps)
Travel length, stroke (TL)		L -850 mm (L -1065 mm)*

*) Low carriage

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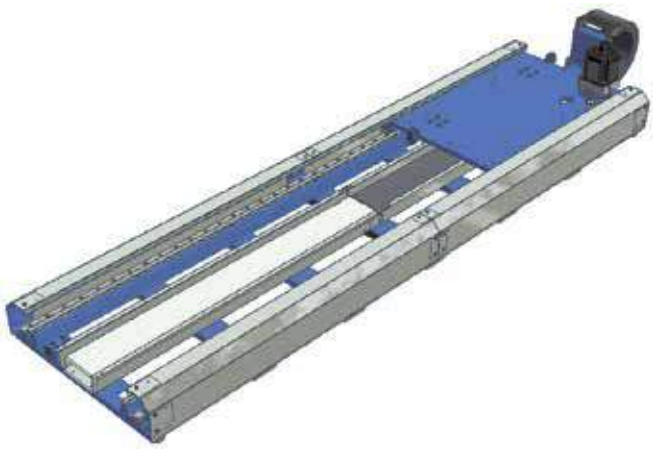
YASKAWA

TSL-2000, TSL-4000

Floor mounted track.



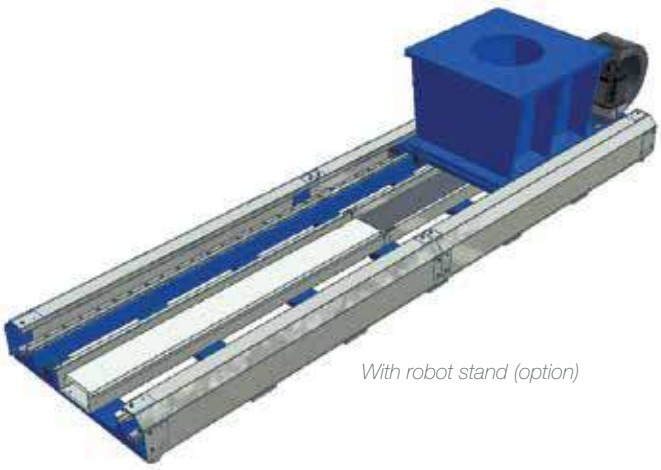
Key benefits

- Outstanding speed.
- Quiet operation.
- For high payload robots.

This is a servo powered floor mounted track with one or two robot carriages. It can be used to transport a robot from one station to another, or to increase the robot's working range. The TSL track is prepared for zeroing function.

The TSL track is built with a starting module of four meter which can be extended in two-meter intervals up to 24 meters in total.

For shelf robots we always recommend using a robot stand in order to utilise the robot's full working range.



With robot stand (option)

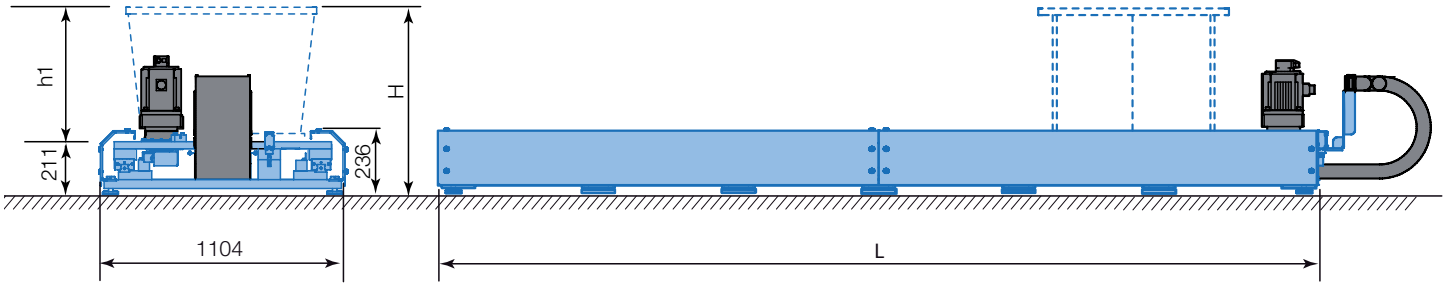
Options

- Automatic lubrication of rack and guide blocks.
- Integrated robot stand, total height (H) 1334 mm.
- Robot stands 250, 400 and 600 mm.
- Automatic lubrication (rack and guide blocks).
- Mechanical zeroing function.

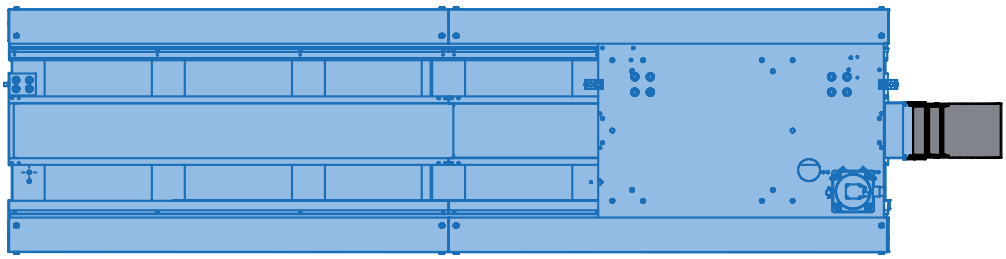
New generation Sigma-7

Controlled by YRC1000

TSL-2000S, TSL-4000



Optional robot stand	
h1 (mm)	H (mm)
250	461
400	611
600	811



All dimensions are for reference only.
Request detailed drawings for design/engineering requirements!

Technical data	TSL-2000 SY	TSL-4000 SY
Maximum payload	**2000 kg**	**4000 kg**
Maximum speed	1.8 m/s	1.6 m/s
ED	50%	50%
Acceleration velocity	2.25 m/s^2	2.0 m/s^2
Travel 1200 mm	1.45 sec	1.55 sec
Repetitive position accuracy	±0.08 mm	±0.08 mm
Height	236 mm	236 mm
Height (H) including robot stand	461, 611, 811, 1334 mm	461, 611, 811, 1334 mm
Standard length (L)	4, 6, 8 etc. up to 24 m (in 2m/steps) *)	4, 6, 8 etc. up to 24 m (in 2m/steps) *)
Travel length, stroke (TL)	L -1340 mm	L -1340 mm

*) Other lengths can be quoted upon request.

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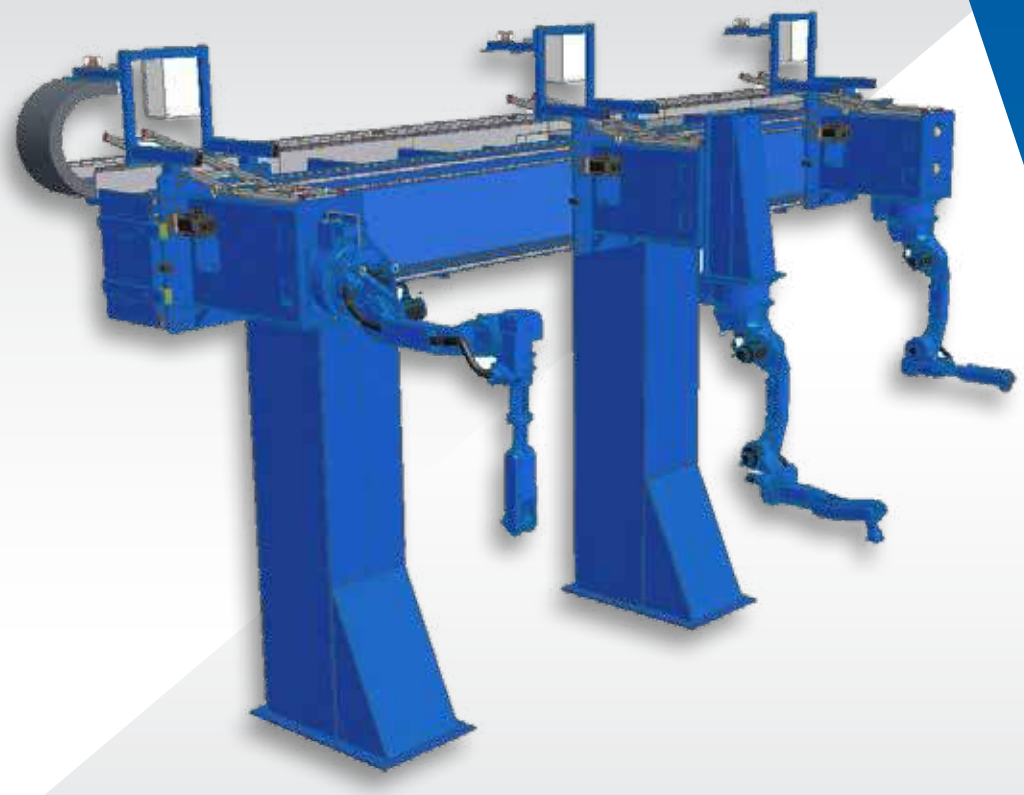
TSG Gantry

Providing reliable and accurate extention of the robot's working area.



Controlled by
YRC1000

New generation
Sigma-7

TSG-Y, TSG-YX, TSG-YZ and TSG-YZX

The TSG gantry is designed for reliable, accurate and economic robotic welding of very large components such as excavators, containers and earth moving equipment etc.

The TSG is built up by two and four meter modules to any desired length with a suitable number of supporting pillars. They are servo powered and fully synchronized with the robot controller.

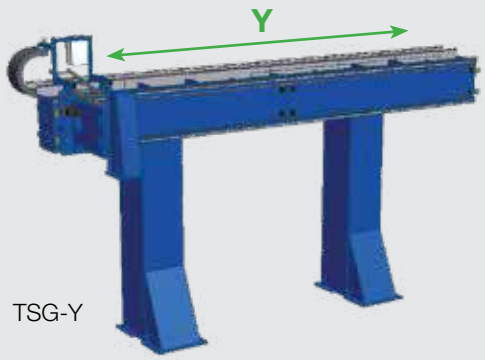
In twin systems, with several robots applied to the Y-beam, the robots can either work together or independent of each other.

Key benefits

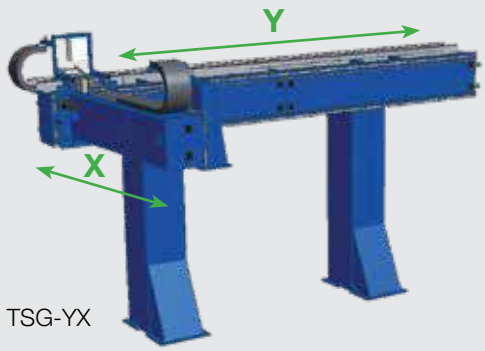
- Outstanding speed.
- Single or twin robots.
- Cost efficient.

Options

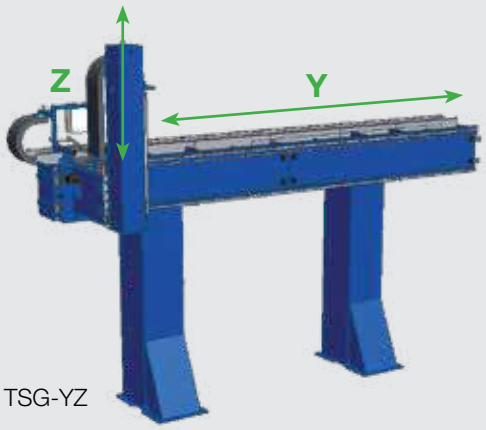
- Pillar height (H): 4300, 4600 or 4900 mm.
- Additional carriage.
- Zone limitations (up to four zones).
- Bracket mount for TSG-Y.
- Accompanying wire barrel.



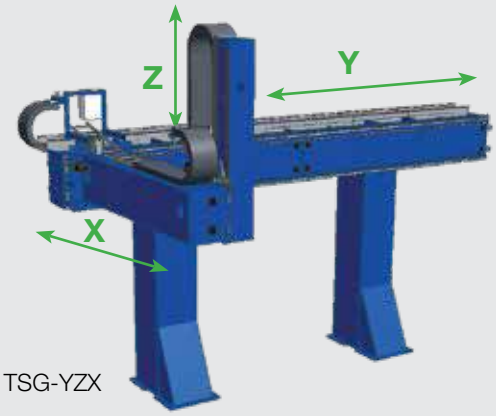
TSG-Y



TSG-YX



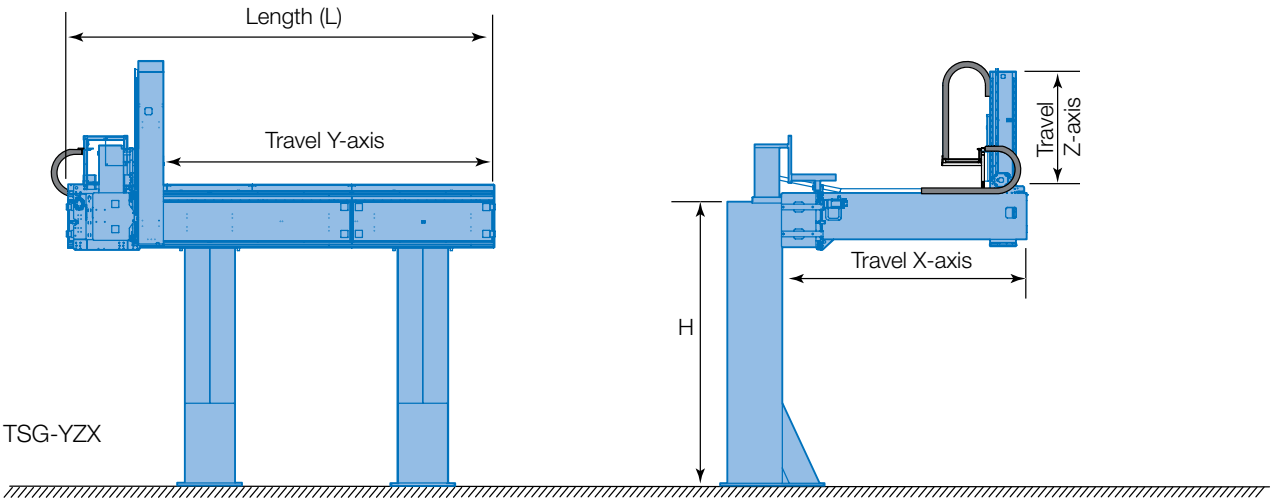
TSG-YZ

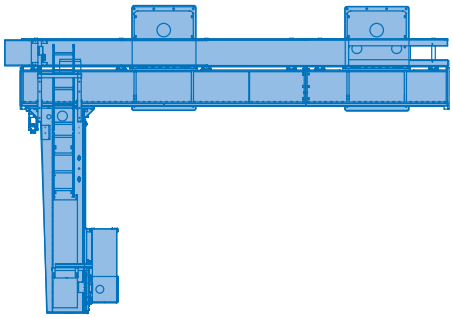


TSG-YZX

Controlled by YRC1000

New generation Sigma-7

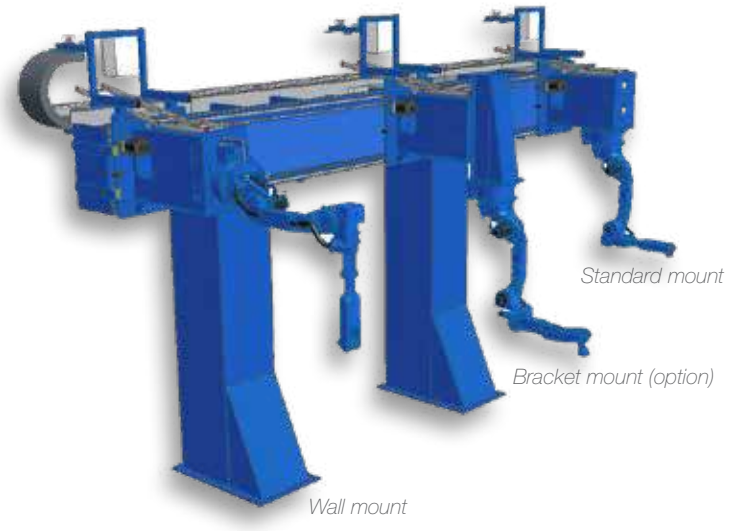


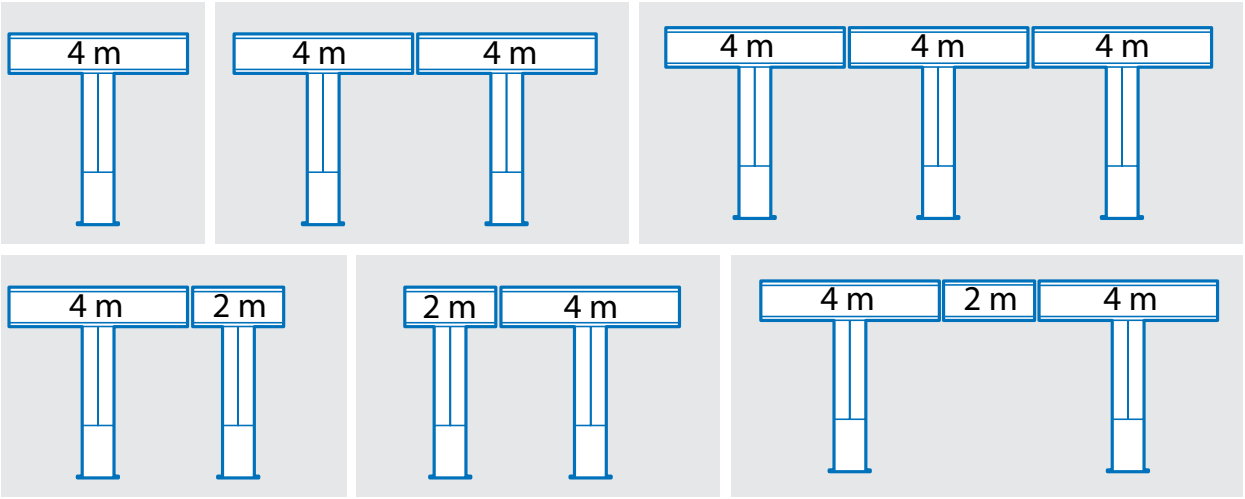


All dimensions are for reference only.
Request detailed drawings for
design/engineering requirements!

Technical data	TSG-Y	TSG-YX	TSG-YZ	Standard TSG-YZX	XL TSG-YZX
Y AXIS					
Travel length (TL)	**L -975 mm**	**L -1100 mm**	**L -1100 mm**	**L -1100 mm**	**L -1100 mm**
Standard length (L) in 2 meter steps	4-24 m	4-24 m	4-24 m	4-24 m	4-24 m
Standard pillar height	4 meter	4 meter	4 meter	4 meter	4 meter
Maximum speed 50% duty cycle	1.56 m/s	1.56 m/s	1.56 m/s	1.56 m/s	1.56 m/s
Acceleration	1.48 m/s²	1.48 m/s²	1.48 m/s²	1.48 m/s²	1.48 m/s²
Travel 0.5 / 1.0 / 1.5 m 2.0 / 2.5 / 3.0 m 3.5 / 4.0 m	1.07 / 1.50 / 1.87 s 2.24 / 2.61 / 2.99 s 3.36 / 3.74 s	1.07 / 1.50 / 1.87 s 2.24 / 2.61 / 2.99 s 3.36 / 3.74 s	1.07 / 1.50 / 1.87 s 2.24 / 2.61 / 2.99 s 3.36 / 3.74 s	1.07 / 1.50 / 1.87 s 2.24 / 2.61 / 2.99 s 3.36 / 3.74 s	1.07 / 1.50 / 1.87 s 2.24 / 2.61 / 2.99 s 3.36 / 3.74 s
		X AXIS			
Travel length (TL)		2000 mm		2000 mm	3100 mm
Maximum speed 50% duty cycle		1.50 m/s		1.50 m/s	1.50 m/s
Acceleration		1.76 m/s²		1.76 m/s²	1.76 m/s²
Travel 0.5 / 1.0 m 1.5 / 2.0 m		0.94 / 1.31 s 1.64 / 1.97 s		0.94 / 1.31 s 1.64 / 1.97 s	0.94 / 1.31 s 1.64 / 1.97 s
			Z AXIS		
Travel length (TL)			1500 mm	1500 mm	1500 mm
Maximum speed 50% duty cycle			0.57 m/s	0.57 m/s	0.57 m/s
Acceleration			1.90 m/s²	1.90 m/s²	1.90 m/s²
Travel 0.5 / 1.0 / 1.5 m			1.22 / 2.09 / 2.97 s	1.22 / 2.09 / 2.97 s	1.22 / 2.09 / 2.97 s

Robot mounting positions





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Head- and tailstock modules

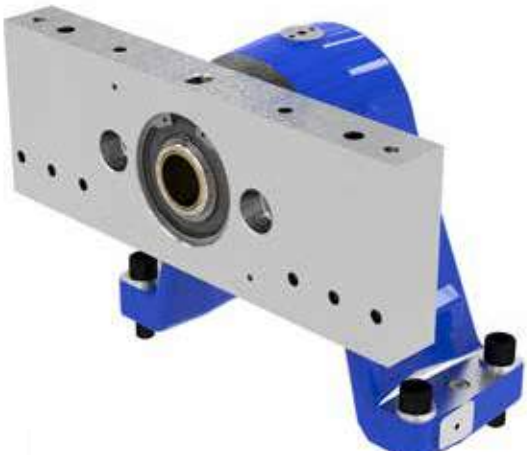
The HM and TM are modules for customized part positioner assembly with horisontal assembly only. Due to the functionality of the MotoMount fixture system, the headstock module must always be used together with a corresponding tailstock module.

Headstock module (HM)

- Precision controlled rotary motion.
- Common footprint and rotation heights.
- Equipped with MotoMount fixture brackets.
- Weld ground brush included as standard.
- Additional brushes as option.
- Must be used together with TM.

Tailstock module (TM)

- Allows for deviations in fixture lengths.
- Equipped with MotoMount fixture brackets.
- Options: direct air, controlled air, slipring with signals (I/O, Fieldbus, Profinet).
- Must be used together with HM.



The Head- and tailstock modules must be used together e.g. in a pair of free standing positioners or a built-in combination.

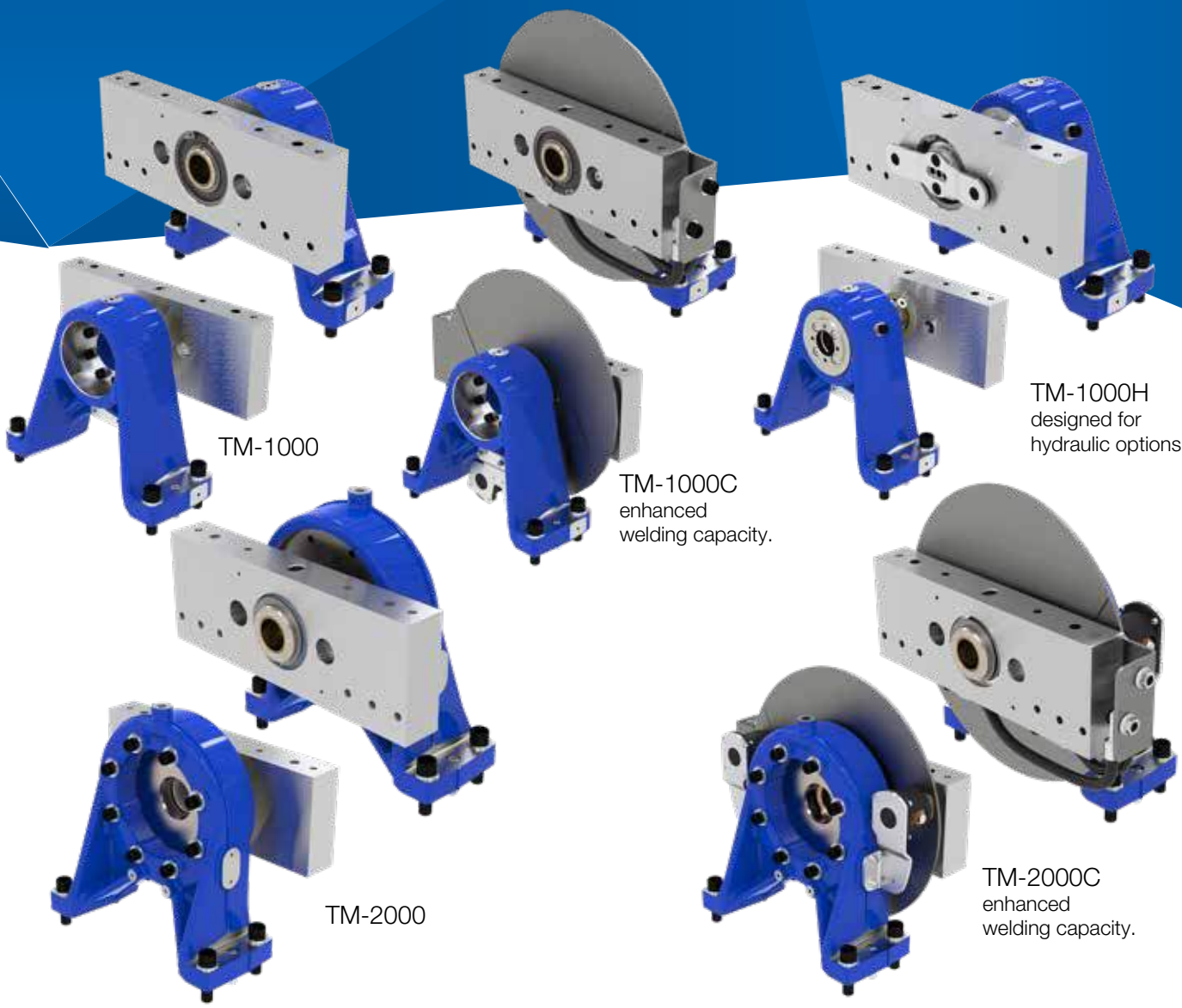
Fixture holder
MotoMount

Technical data & options

Optional equipment for fixture control and operation with air and I/O signals.

Technical data		HM-500Y	HM-1000Y	HM-2000Y
Part No.		**140335-701**	**140365-701**	**140380-701**
Max. capacity	load offset	**500 kg** 191 mm	**1000 kg** 219 mm	**2000 kg** 144 mm
Motor power		1.3 kW	3.0 kW	3.7 kW
Gear ratio	reducer	165:1	170:1	177:1
Speed	nominal maximum	9.0 rpm 23 rpm	8.8 rpm 23 rpm	8.5 rpm 23.5 rpm
Torque	rated continous rated peak	1177 Nm 941 Nm 2354 Nm	2689 Nm 2151 Nm 5378 Nm	3535 Nm 2828 Nm 7070 Nm
Workpiece data	max. diameter max. inertia	1600 mm 250 kgm^2	1600 mm 635 kgm^2	3000 mm
Rated welding current	**Standard** 100% 60%	 350 A 460 A	 350 A 460 A	 2X 350 A 2X 460 A
Rated welding current	**Option** 100% 60% 35%	 860 A 1120 A 1380 A	 860 A 1120 A 1380 A	 On request
Corresponding Tailstock model		TM-1000 TM-1000C	TM-1000 TM-1000C	TM-2000 TM-2000C

Fixture holder
MotoMount



TM-1000

TM-1000C
enhanced
welding capacity.

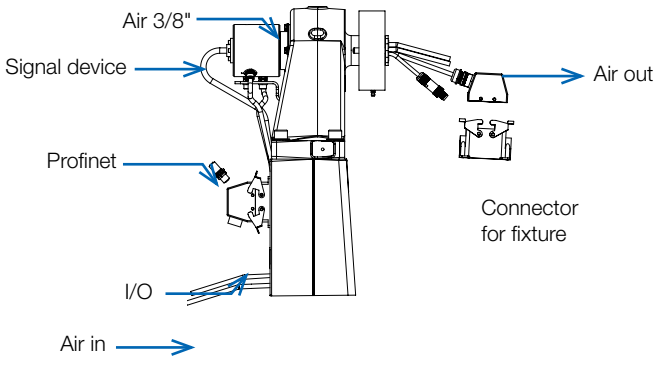
TM-1000H
designed for
hydraulic options.

TM-2000

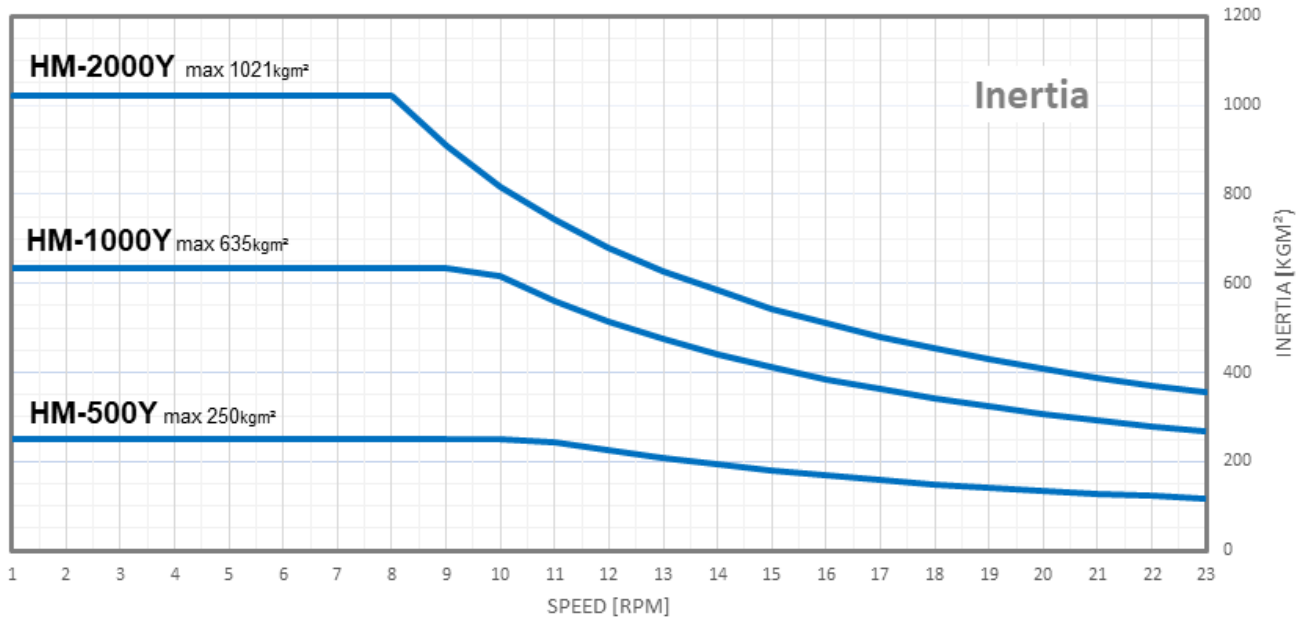
TM-2000C
enhanced
welding capacity.

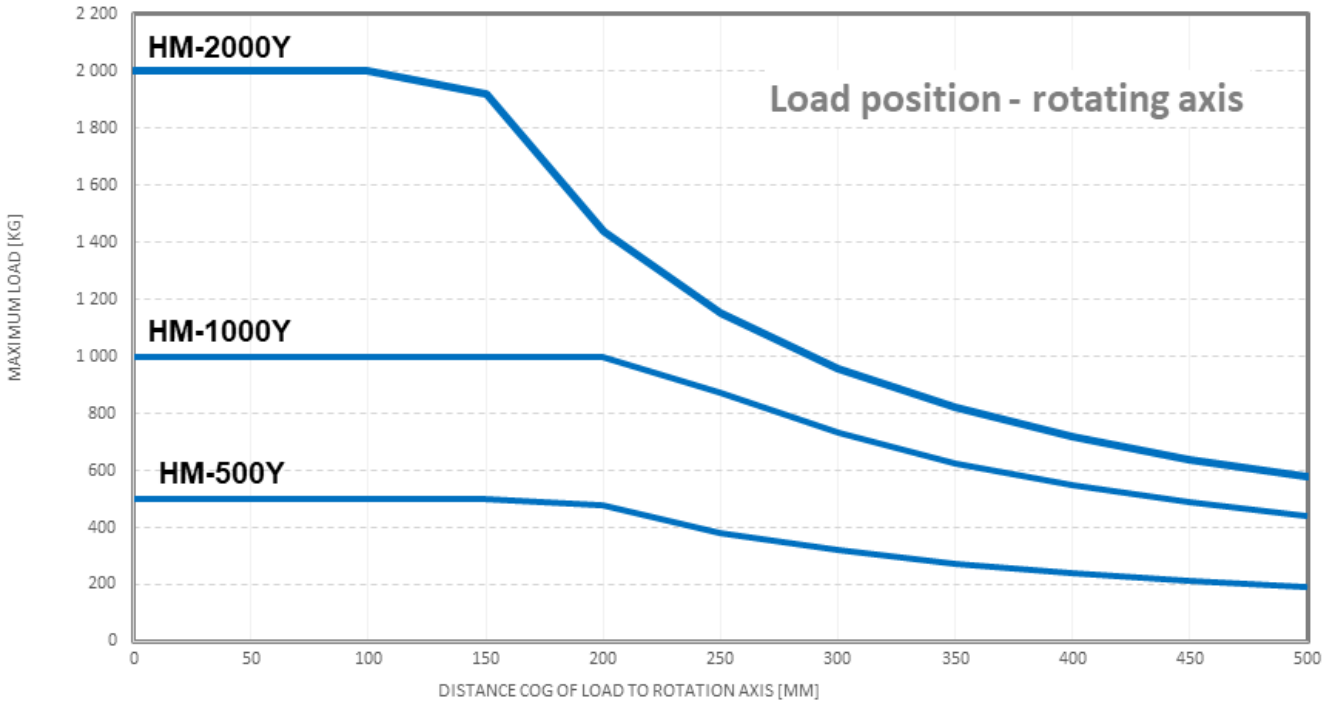
Technical data	TM-1000	TM-1000H	TM-1000C	TM-2000	TM-2000C
Part No.	**140320-101**	**140320-103**	**140320-102**	**140370-100**	**140370-101**
Max. capacity load	**1000 kg**	**1000 kg**	**1000 kg**	**2000 kg**	**2000 kg**
Options air 2x 3/8" Direct air	141450-100	On request	141450-100	141450-300	141450-300
Valve controlled air	141450-101		141450-101	141450-301	141450-301
Options air 2x 3/8" + signals					
12 channels I/O +PE	141475-100	On request	141475-100	141475-300	141475-300
24 channels I/O +PE	141475-101		141475-101	141475-301	141475-301
4 channels + Fieldbus + PE	141475-102		141475-102	141475-302	141475-302
4 channels + Profinet + PE	141475-103		141475-103	141475-303	141475-303

Options air and signal
in a complete tailstock design



Inertia and Load position





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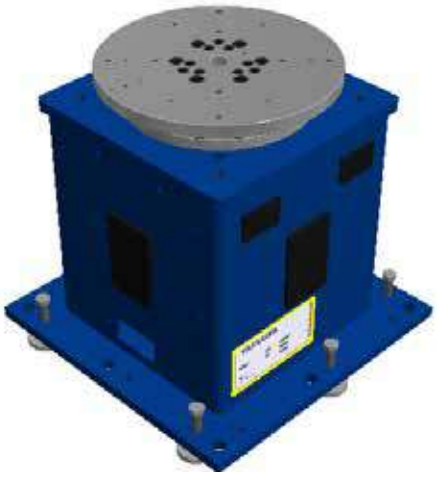
VMS-350, VMS-500

Rotating base, with direct drive, for tailor-made positioners.



- Endless rotation.
- Maintenance free operation.
- High speed with direct drive.

The VMS rotating module is normally used as a base in more complicated two station positioners or turning tables. Due to its simple design, with few mechanical parts, it provides maintenance free operation even with high payloads.

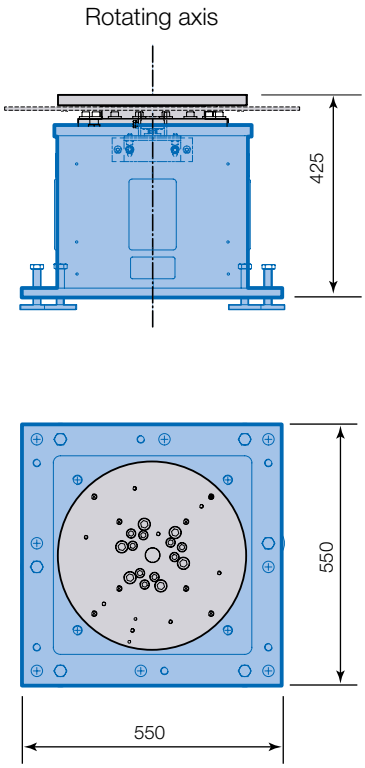
The sleeve bearings makes endless rotation possible. Cables and hoses are fed into the fixture from a hole in the center of the fixture disc.

Technical data		VMS-350 SD	VMS-500 SD
Max. payload		**350 kg**	**500 kg**
Rotating axis torque	dynamic static	1176 Nm 941 Nm	1330 Nm 1054 Nm
Rotating axis	rated speed maximum speed	0-10.7 rpm 30 rpm	0-10.6 rpm 30 rpm
Max. inertia		100 kgm^2	125 kgm^2
Weight		167 kg	179 kg
Part No.		133398-103	133398-102

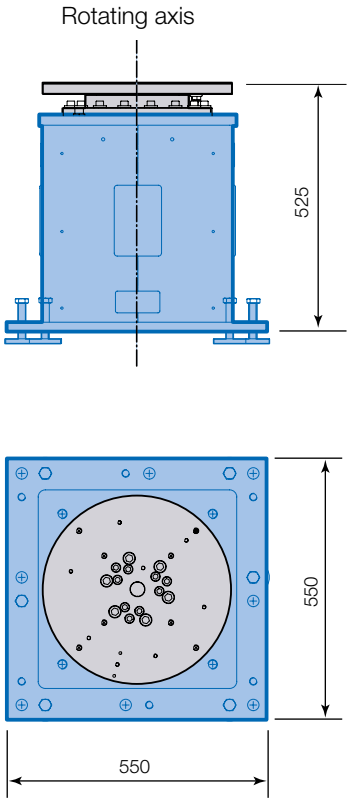
Controlled by YRC1000

Controlled by DX200

VMS-350 SD



VMS-500 SD



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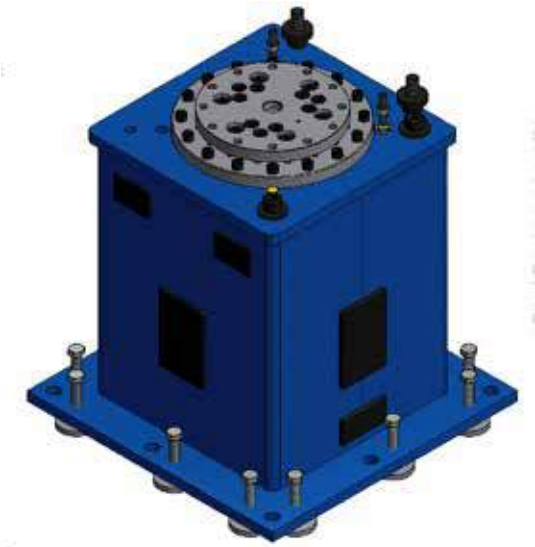
VMS-1000, VMS-1500

Rotating base, with direct drive, for tailor-made positioners.



- Endless rotation.
- Maintenance free operation.
- High speed with direct drive.

The VMS rotating module is normally used as a base in more complicated two station positioners or turning tables. Due to its simple design, with few mechanical parts, it provides maintenance free operation even with high payloads.

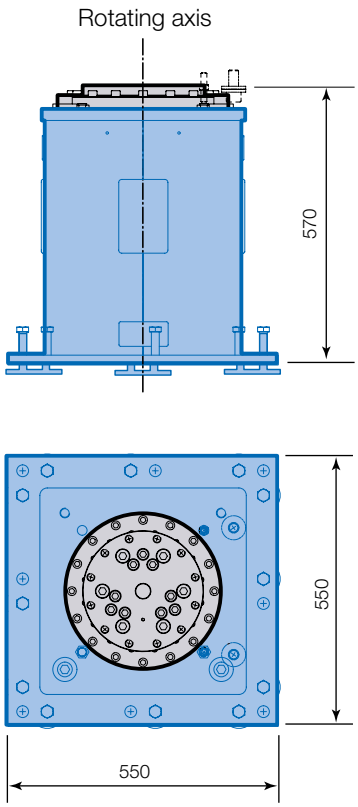
The sleeve bearings makes endless rotation possible. Cables and hoses are fed into the fixture from a hole in the center of the fixture disc.

Technical data		VMS-1000 SDD	VMS-1500 SD
Max. payload		**1000 kg**	**1500 kg**
Rotating axis torque	dynamic static	2070 Nm 1656 Nm	2251Nm 1800 Nm
Rotating axis	rated speed maximum speed	0-10.6 rpm 28.4 rpm	0-12.6 rpm 16.8 rpm
Max. inertia		420 kgm^2	800 kgm^2
Weight		210 kg	286 kg
Part No.		148154-100	139674-100

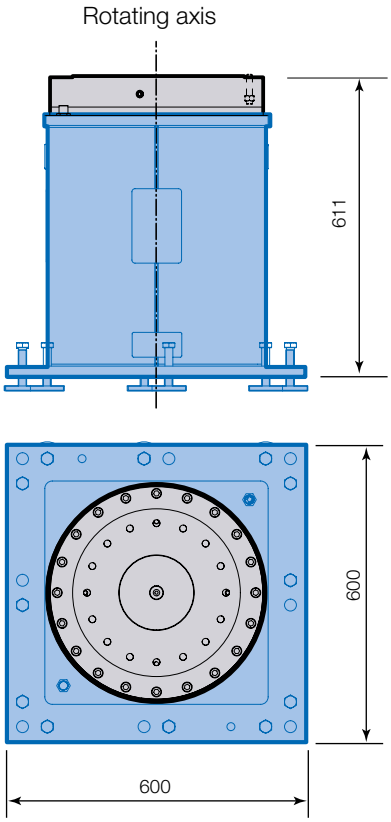
Controlled by YRC1000

Controlled by DX200

VMS-1000 SDD



VMS-1500 SD



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VMS-1000, VMS-3000

Heavy duty rotating base for tailor-made positioners.

- Endless rotation.
- Maintenance free operation.
- High payload.

The VMS rotating module is normally used as a base in more complicated two station positioners or turning tables. Due to its simple design, with few mechanical parts, it provides maintenance free operation even with high payloads.

The sleeve bearings makes endless rotation possible. Cables and hoses are fed into the fixture from a hole in the center of the fixture disc.

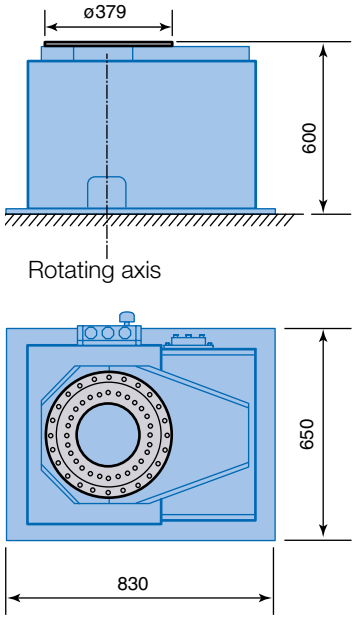
The VMS rotating module is available in two sizes for payloads up to 3,000 kgs.

Technical data		VMS-1000 SD	VMS-3000 SD
Max. payload		**1000 kg**	**3000 kg**
Rotating axis torque	dynamic	1878 Nm	6315 Nm
Rotating axis	rated speed maximum speed	0-5.3 rpm 14.2 rpm	0-3.7 rpm 10.0 rpm
Max. inertia		215 kgm^2	9000 kgm^2
Weight		433 kg	721 kg
Part No.		124784-100	124757-100

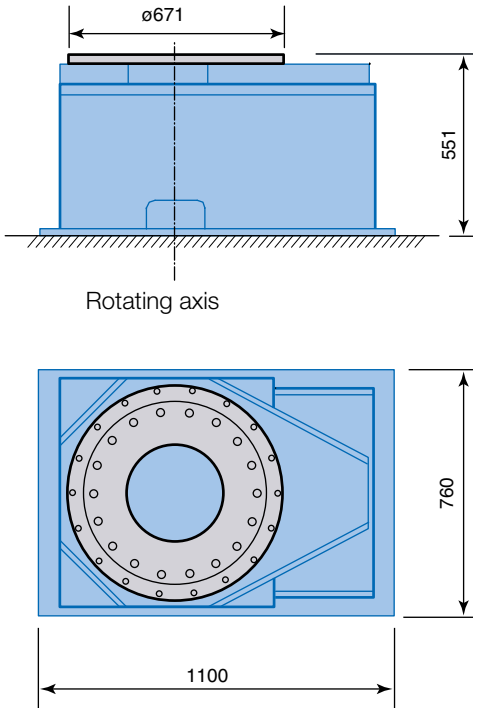
Controlled by YRC1000

Controlled by DX200

VMS-1000 SD



VMS-3000 SD



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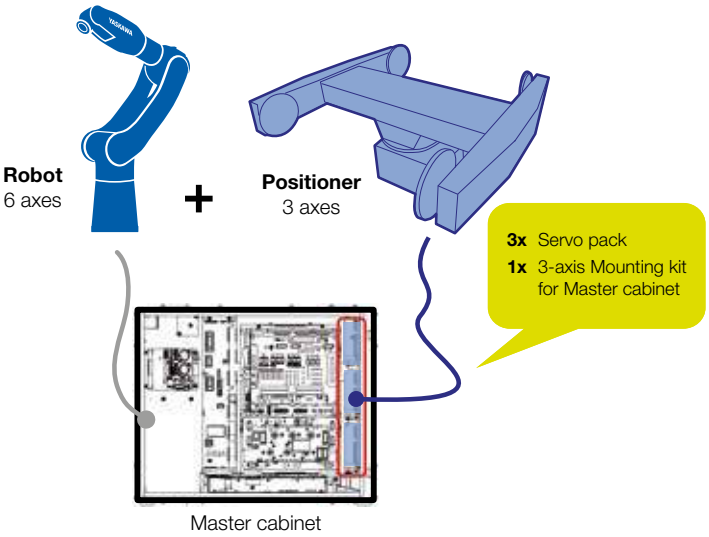
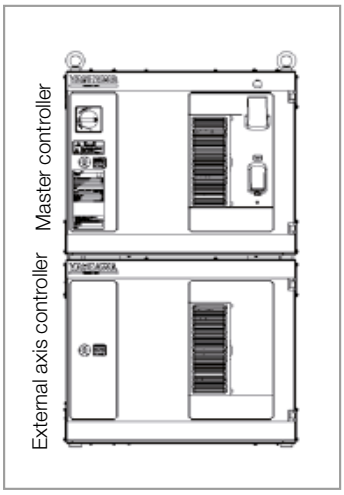
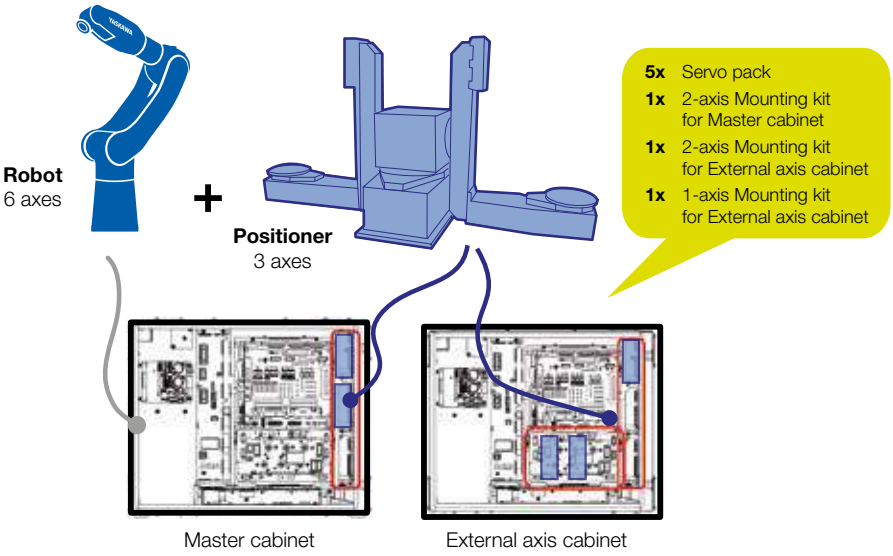
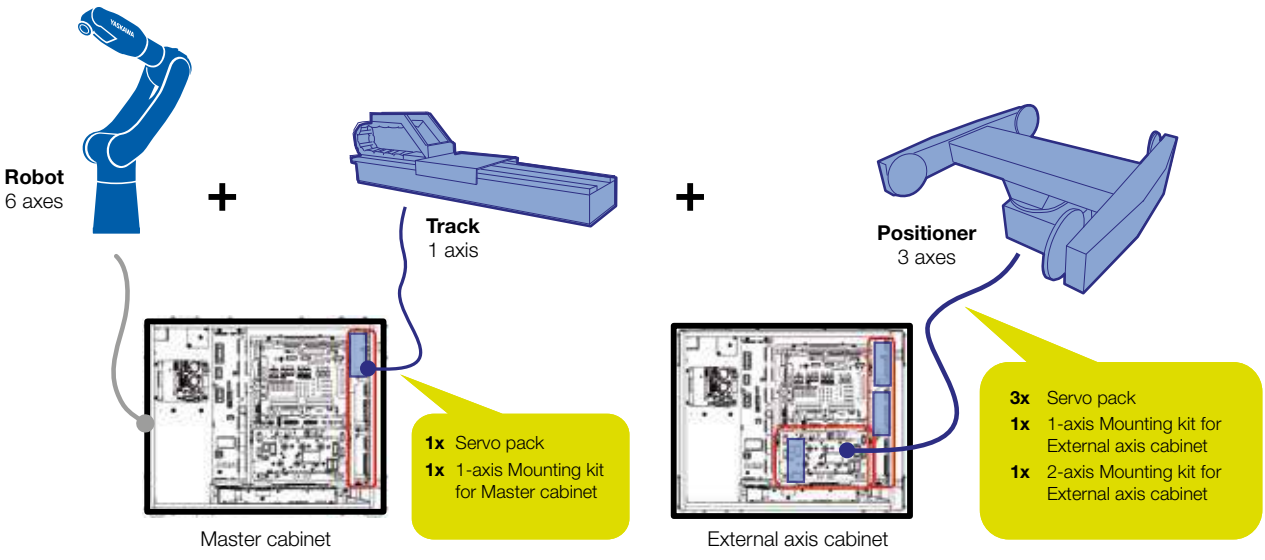
External axes and YRC1000



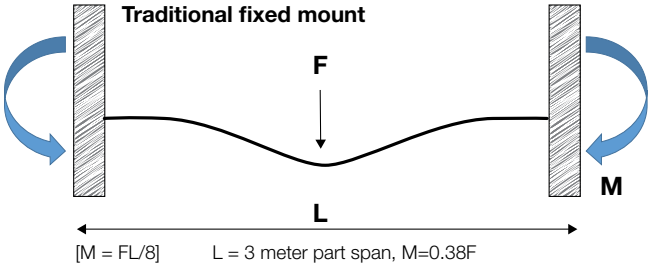


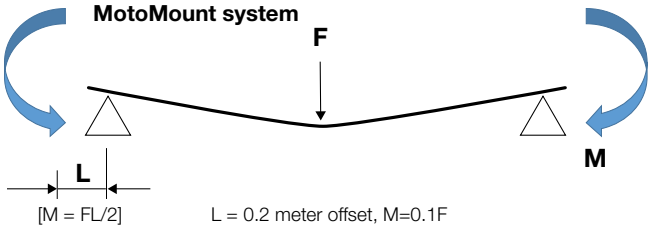




MotoMount fixture brackets

The patented MotoMount fixture mounting system will reduce the stress close to seven times or more, as the span between the fixture discs goes beyond three meters.





MotoMount fixture brackets

MotoMount will increase the positioner lifetime and improve welding repeatability while reducing the implementation cost. It allows for simplyfied tooling, and lower precision mounting holes while making fixture changeover faster and easier.
By reducing the stress and wear on the positioner and fixture, part warping from load stress is eliminated.

Key benefits

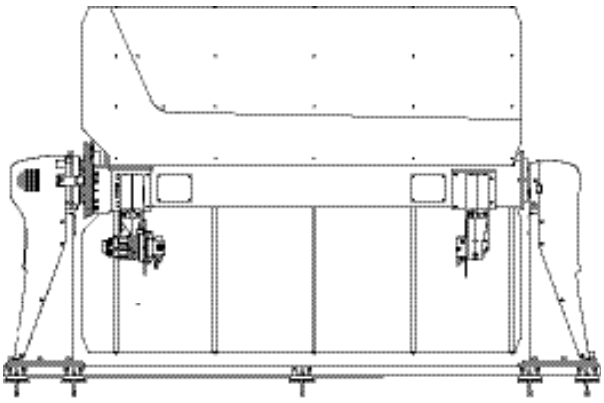
- Improved repeatability.
- Reduce stress and extend lifetime of structures.
- Adaptable for existing fixtures.
- Allows for simplified tooling.
- Fast and easy fixture changeover.

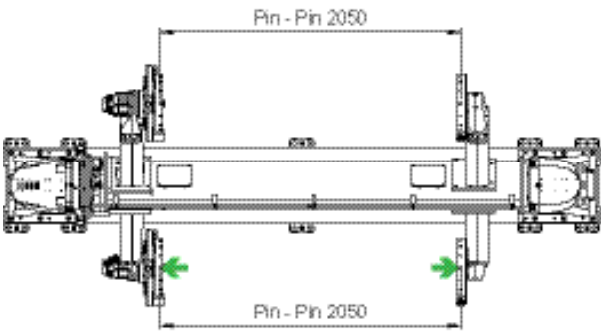
The head- and tailstock modules are a vital component in the positioners used in the ArcWorld CS series.

Fixture holder
MotoMount

Pin-to-Pin explained

With the RM2 and H2 positioner as an example.





Standard H2 positioner with the MotoMount fixture system.

Our new line of positioners featuring the MotoMount system have allowed for wider fixtures than before. However, a fixture often represents a substantial value in design and cost to our customers.

That is why we have designed our new line of positioners so that existing fixtures can be used also with a new positioner.

Headstock module.

Tailstock module.

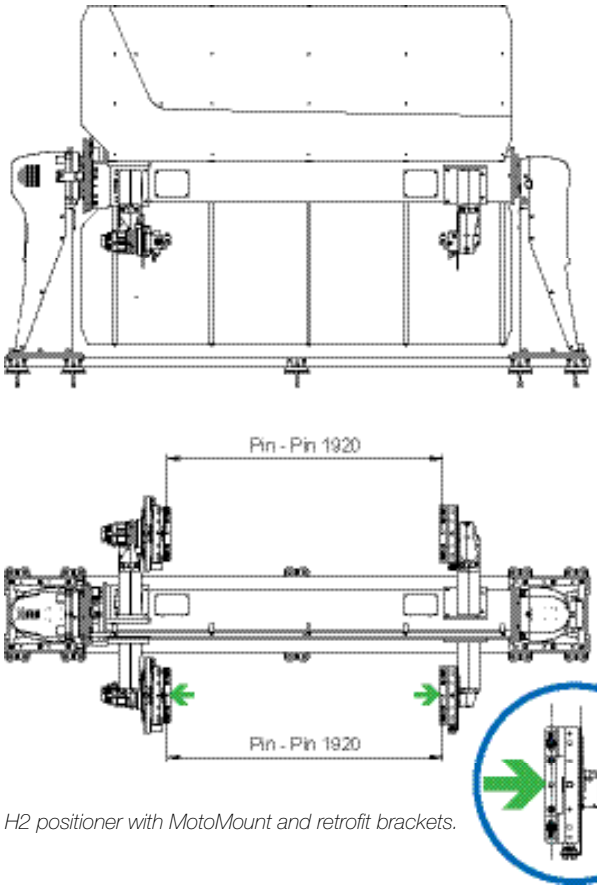
Positioners with MotoMount

Fixtures are mounted on top of the bracket as shown in the illustration above. The distance between the two guide holes is shown with the pin-to-pin reference on our dimensional drawings.

Retrofit kit for old fixtures

In order to make use of an existing fixture all you need is our optional bracket for retrofit use. This makes it possible e.g. to use a fixture designed for an RM2 model, see page two.

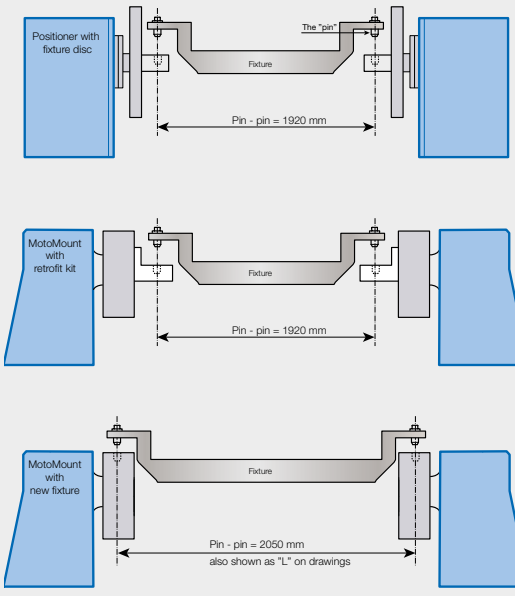
Pin-to-pin

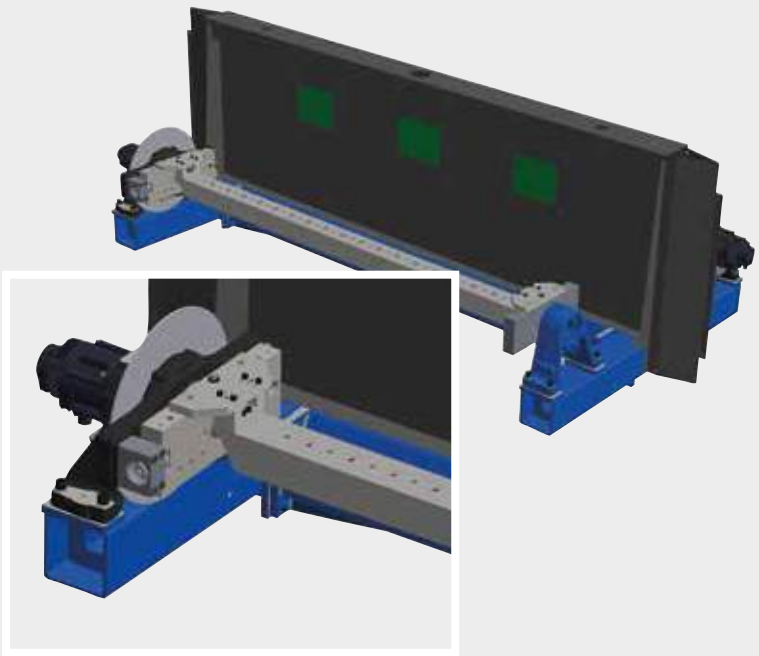


Using fixtures from an RM2 positioner
Our brackets for retrofit makes possible to use a fixture for an RM2-model, with its pin-to-pin distance of 1920 mm, with a new H2-500 positioner.

H2 positioner with MotoMount and retrofit brackets.

The “Pin-to-pin” principle





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