

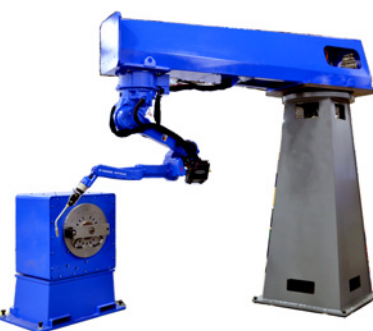
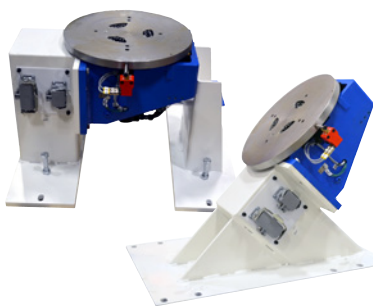
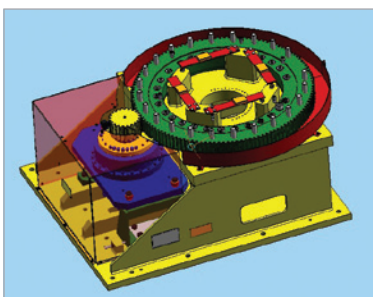
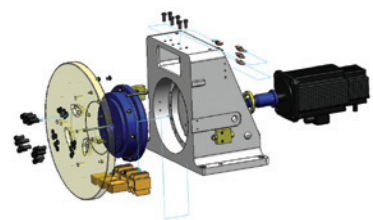
MOTOMAN[®]

FOR ALL INDUSTRIES, MOTOMAN POSITIONERS
AND TRANSPORTERS PROVIDE UNMATCHED SPEED,
ACCURACY, ROBUSTNESS AND RELIABILITY.

POSITIONERS

HISTORY

Yaskawa Motoman has extensive worldwide experience integrating servo-controlled positioners and tracks into a broad range of robotic solutions. For more than 20 years, our positioners and transporters have provided unmatched speed, accuracy, robustness and reliability. They use the same field-proven motor controls as Motoman® robots and are manufactured to the same exacting standards. Yaskawa Motoman also leads in control technology with multi-tasking software that allows coordination between multiple robots, base axes and multi-axis positioners.



DESIGN

Yaskawa Motoman offers the widest selection of positioners, designed to meet a broad range of industrial positioning needs. Determining which positioner is best for a particular application requires more than just sizing a motor to a gearbox. Other factors include:

- Ensuring that inertia characteristics match between the motor, input drive and output drive
- Motor torque curve and acceleration/deceleration rates
- Reducer backlash
- Bearing loading

APPROACH

Initially, modules were created for Motoman Headstock (MH) drives. These compact housings have multiple mounting points so they can be used as headstocks, tables or at angles in between. Features like weld grounds and safety-rated position switches are integrated into the housings.

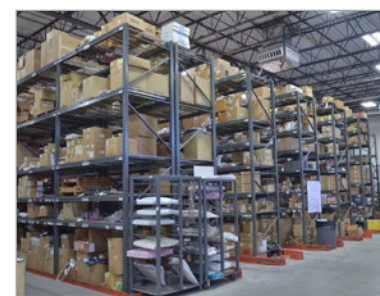
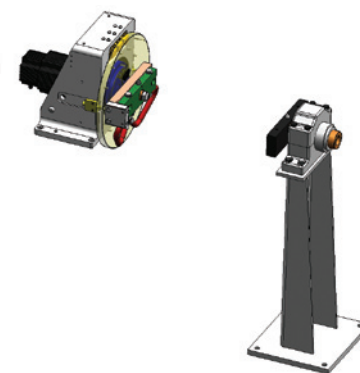
Yaskawa Motoman has extended this product line every year with new drive modules and positioner configurations that use these modules.

RESULT

Yaskawa Motoman has the most extensive line of positioner products of any robotics company, with positioners for a wide range of markets, including:

- Automotive – high-speed positioners that index medium payloads in 2-3 seconds
- Construction machinery – heavy-duty positioners that handle heavy parts or require the robot to be positioned
- Job shops – economical positioner solutions that index in 4-6 seconds

Yaskawa Motoman easily adapts to unique requirements by combining modules into custom-tailored solutions or using standard products from our parent company, Yaskawa Electric Corporation, and our European partners.



ROBUST, FIELD-PROVEN, LIFE TESTED

Every Yaskawa Motoman positioner product is developed following ISO 9001 procedures, so products adhere to a strict international standard of quality. Released products are dedicated to life testing. This effort represents more than 80 years of testing time, and is designed to identify potential problems before they occur in the field.

Even details like weld grounds were engineered and life-tested for reliability, especially for the demands of multiple robots.

SPIN-OFF TECHNOLOGY

As a spin-off to our positioner technology, we developed MotoMount™ – a patented system used to mount fixturing between headstocks and tailstocks. This innovative design reduces the stresses in the bearings from moment loading; reduces cost by eliminating the need for machined bases, spanners and precision tailstocks; improves tooling repeatability; and facilitates easy and quick fixture changeover.

Yaskawa Motoman also has patents on unique light-tight enclosures for laser processing.

CUSTOMER SUPPORT

Yaskawa Motoman recognizes that system uptime is dependent upon the positioner as well as the robot. The same motors are used to drive the robots and positioners, so spares are always available.

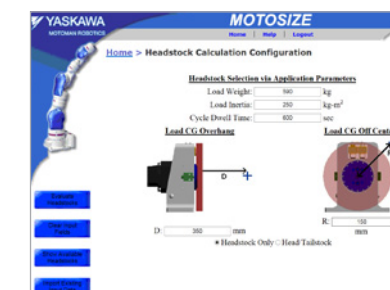
NOT SURE WHICH POSITIONER IS RIGHT FOR YOUR PROJECT?

MOTOSIZE™

While many companies only provide payload information about their positioners, Yaskawa Motoman provides additional critical parameters, including cycle dwell time, load inertia, load CG overhang, torque, acceleration and moment.

Our published payload ratings are conservative and it is often possible to exceed these ratings. Depending on the application, either the bearings, gear reducer or motor might be limiting factors. More than 30 variables are factored in when calculating whether a particular positioner is appropriate for a specific application.

MotoSize software allows users to enter their unique application and tooling parameters and then automatically generates a report that graphically displays a list of available positioners that conform to all application criteria.



EAST-TO-USE INPUT SCREEN

Headstock Results	
Input Parameters	
Load Weight:	590 kg
Load Inertia:	250 kg-m ²
Cycle Dwell Time:	600 sec
CG Overhang - D:	350 mm
CG Off Center - R:	150 mm
* Headstock Only @ Head/Tailstock	
Color Key	
Rated Bearing	75.0 %
Inertia Ratio	5.0
Motor Hold Rated	75.0 %
RMS/Motor Rated	75.0 %
Results	
Model	152543-1 152543-2 152547-1 152595-4 152675-1
Part #	
Rated Bearing Moment (%)	76.8
Inertia Ratio (max 5)	42.34
Motor Hold Rated (%)	427.34
RMS/Motor Rated (%)	407.28
Headstock Speed (RPM)	24.49
Cycle Index Motion (deg)	180.0
Accel/Decel Time (sec)	0.5
Total Index Time (sec)	1.72
Reflected Load Inertia, Jr (kg-m ²)	3.81E-02
Max Reducer Hold Torque (N-m)	-868.19
Max Motor Hold Torque (N-m)	-10.72

GRAPHIC APPLICATION RECOMMENDATION

Body	Frame Chassis	Exhaust	Suspension	Interior	Implements	Backhoes	Skid Steers	Manlifts	Bulldozers	Rail	Truck Trailers	Store Fixtures	Food Equipment	Electrical Enclosures	Manufacturing Products
Big 5 Auto	1st Tier	2nd Tier	Agricultural Equipment	Light and Heavy Construction	Heavy Transportation	General Fabrication	Job Shop								

MRM2-250 Slim-line • MSR-500 • VMF Tilt-Rotate • MDK
Light-tight enclosures • Slip rings • 1.5 sec index

MRM2-1205M3X • MSR2S-500 • MHT-505 • MotoPos
3-5 sec index

MHT-3105 • MDC-2300 • MotoSweep O • Gantries
Heavy payloads

Floor Tracks • MotoRail • Transporter • MT1 Skyhook • MHT-1605

MSR-500 • MHT-505 • MRM2-MIX • MDGT Slim-line
4-6 sec index

MHT-185 • MSR-205 • MRM2-250
4-6 sec index

TURNTABLES

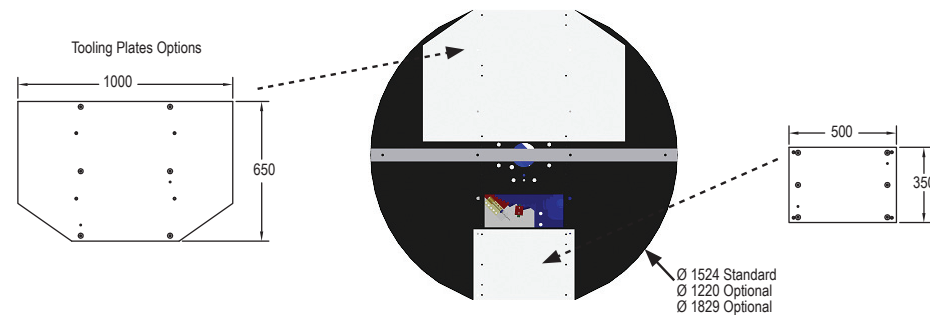


MSR-500

- For small- to medium-size parts
- Operator safely loads/unloads part(s) on one side of the positioner (outside the robot's work envelope), while the robot welds part(s) on the other side
- Metal arc screen divider creates barrier; safeguards operator from arc flash
- Run same part(s) on both sides of positioner or run one part on Side A and different part on Side B
- H-frame table top; low-inertia and quick-change tooling
- Options: tooling plates, 72" table top and slip rings for utilities

	MSR-205	MSR-500	MSR-1000
Payload Capacity (per side)	200 kg	500 kg	1,000 kg
Design	2-position servo-driven*	2-position servo-driven*	2-position servo-driven*
Thru-hole	none	100 mm	100 mm
Drive	Indexing motor control	Indexing motor control	Indexing motor control
Index Time	4-sec	2-sec	5-sec
Table Diameter	1,524 mm	1,524 mm	1,524 mm
ArcWorld Use	AWII-100	AWIII-1000 AWV-100HD	AWIII-1000 AWV-100HD

* Servo-driven models have option of multiple index positions or continuous rotation



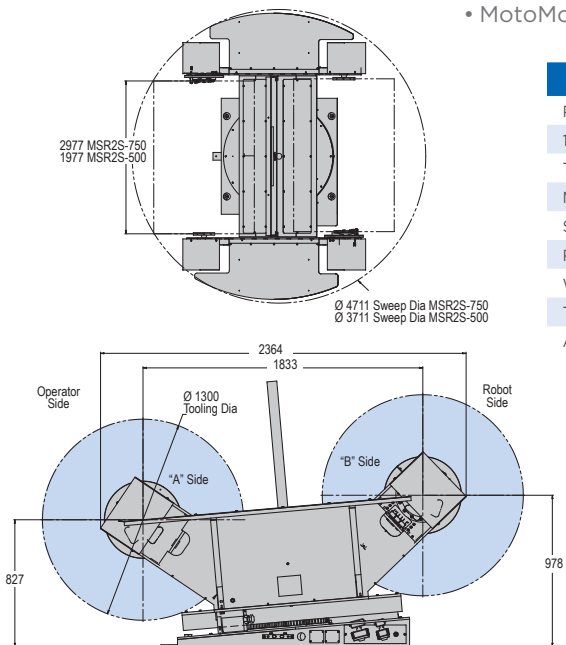
ROTATING TURNTABLES



MSR2S-500
MSR2S-750

- Medium- to high-volume production
- Provides large turning diameter for shorter parts
- Three servo-motor control
 - All axes can turn simultaneously while indexing
 - Operator can jog station axis while robot welds
- Rotary axis motion can be coordinated with one or two robots
- Load position can be programmed in 30-degree increments
- Ergonomic loading and programming heights
- MotoMount fixture mounting system

	MSR2S-500	MSR2S-750
Payload	500 kg per side	750 kg per side
180° Sweep Time	3.7 sec.	5 sec.
Turn Speed	0-19.6 rpm	0-20.7 rpm
Max Part Size	2,000 mm L x 1,300 mm dia.	3,000 mm L x 1,300 mm dia.
Sweep Diameter	3,711 mm	4,711 mm
Repeatability	±0.1 mm	±0.1 mm
Welding Ground	800 Amps	800 Amps
Tailstock Thru-hole	41 mm	41 mm
ArcWorld Use	AWIV-4000	-



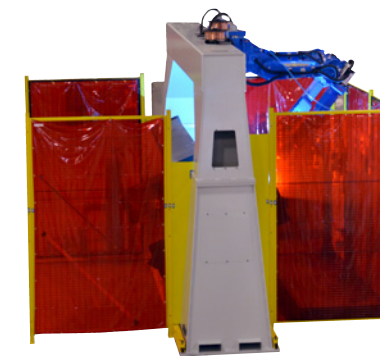
DUAL HEADSTOCK/TAILSTOCK TRUNNION POSITIONERS



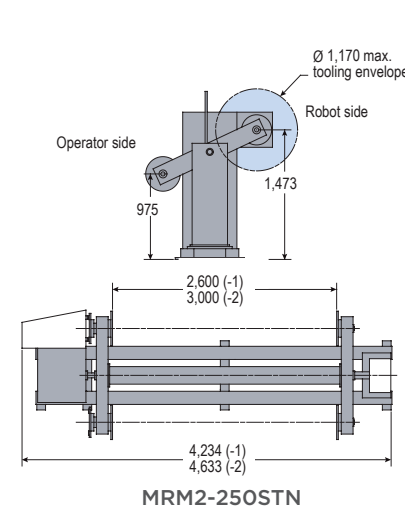
MRM2-250M3XSL
MRM2-750M3XSL



MRM2-1205M3X



ARCWORLD V
OVERHEAD MOUNTING

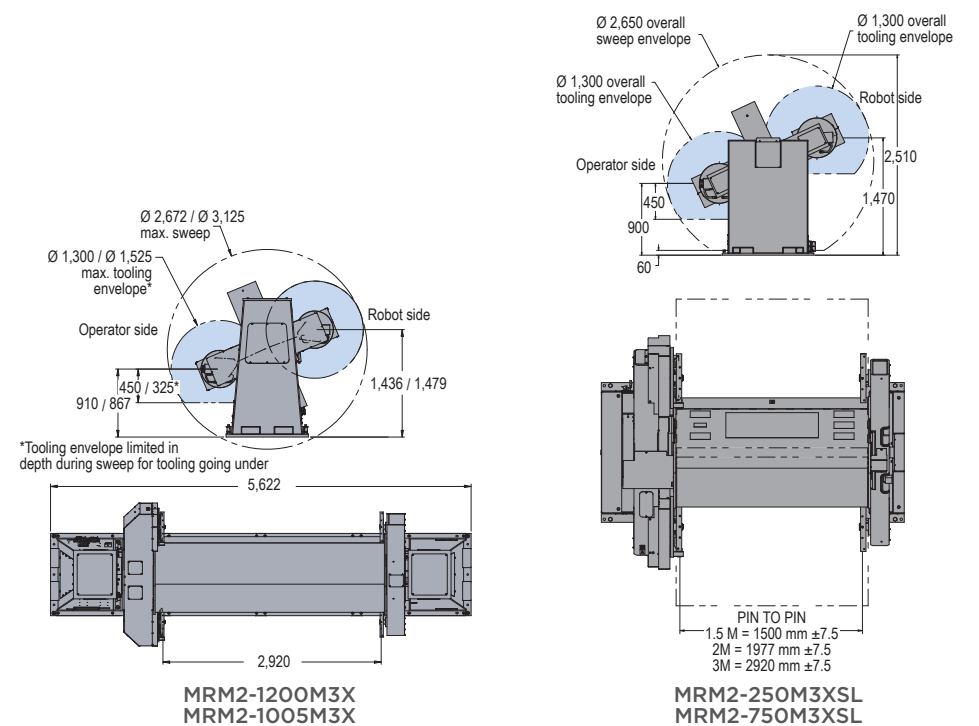


MRM2-250STN

- Medium- to high-volume, medium- to high-product mix production
- Operator safely loads/unloads parts from outside robot's work envelope
- Space-saving design for parts three meters or longer (five-meter spans on most models)
- Servo control with absolute encoder feedback provides infinite part positioning location and coordinated motion during welding; part joints are kept in gravity-neutral welding plane
- Coordinated motion software is standard with positioner
- Metal arc screen divider creates barrier; safeguards operator from arc flash
- Two different design configurations:
 - Patented single-motor drive
Economical design requires fewer parts and uses single motor to operate all three axes; operator load station locks into position
 - Three-motor drive with patented "X-beam"
Each axis is driven independently; cycle time can be reduced by positioning part while sweeping; and operator station can be repositioned while robot is welding
- Tailstock options: slip rings for fixture signals and high-volume (3/4 in.) air lines

	SINGLE-MOTOR MODEL	THREE-MOTOR MODELS			
	MRM2-250STN	MRM2-250M3XSL	MRM2-750M3XSL	MRM2-1205M3X	MRM2-1005M3X
Rated Payload (per side)	250 kg	255 kg	755 kg	1,205 kg	1,005 kg
Fixture Mounting	Faceplate	MotoMount	MotoMount	MotoMount	MotoMount
Design	Patented single-motor drive	3-motor servo drives	3-motor servo drives	3-motor servo drives	3-motor servo drives
Load Height	975 mm	900 mm	900 mm	910 mm	867 mm
Programming Height					
AW	1,171 mm	--	--	--	--
AWII	1,473 mm	--	--	--	--
AWIII	--	--	--	--	--
AWIV	--	1,270 mm	1,270 mm	1,436 mm	1,479 mm
AWV	--	--	--	1,436 mm	1,479 mm
Index Time*	4 sec	1.5 sec	2.25 sec	2.95 sec	2.95 sec
Std. Fixture Diameter	1,170 mm	1,300 mm**	1,300 mm**	1,300 mm** †	1,525 mm**
Std. Fixture Length	2,600 mm	2,920 mm	2,920 mm	2,920 mm	2,920 mm
Tailstock Hole	none	45 mm	45 mm	45 mm	45 mm
Air to Headstock	yes	no	no	no	no

* Index time for single-motor units includes 180° of tooling rotation
 ** Tooling envelope limited in depth during sweep motion
 † Larger turning diameters available



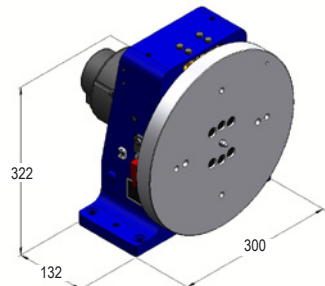
MRM2-1200M3X
MRM2-1005M3X

MRM2-250M3XSL
MRM2-750M3XSL

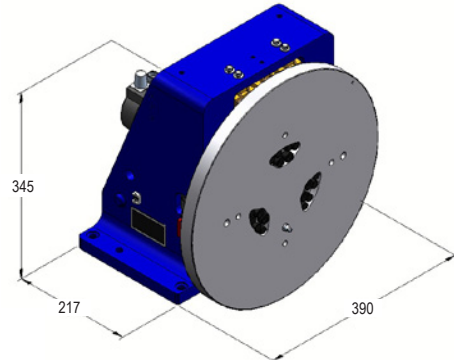
HEADSTOCK/TAILSTOCK POSITIONERS



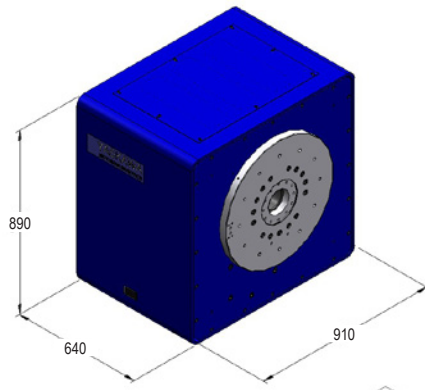
- Available as individual headstocks or combined with MotoMount
- Compact design allows MH units to be easily integrated into other machines or multi-axis positioners
- MH units can be mounted at an angle or as a rotary table
- Units have conservative torque rating and payload increases with tailstock (Contact Yaskawa Motoman for specification details)
- Multiple stations can be combined with a single robot controller or with a multiple robot controller
- Motion can be coordinated with the robot for welding contoured parts



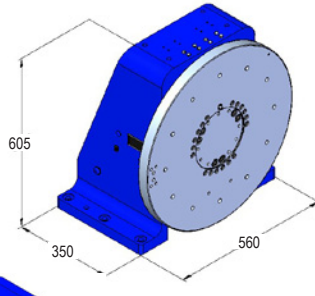
MH-95/185



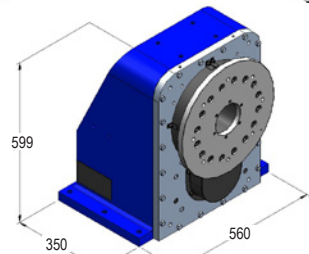
MH-505



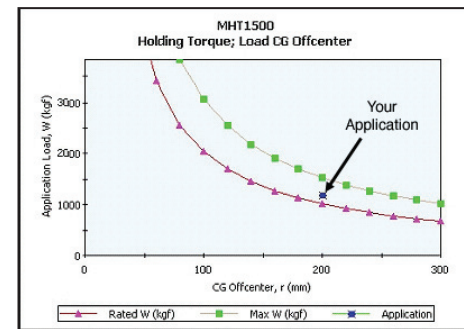
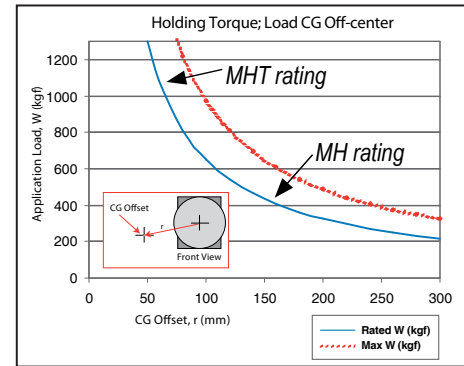
MH-3105



MH-1605



MHTH-305, MHTH-605
MHTH-905



MotoSize software provides detailed analyses

	MH-95	MH-185	MH-505	MH-1605	MH-3105	MHTH-305	MHTH-605	MHTH-905
Rated Load (kgf)	95	185	505	1,605	3,105	305	605	905
Rated MHT Load @ CG Off-center (kgf @ mm)	550 @ 30	550 @ 50	1,075 @ 80	3,000 @ 95	6,300 @ 90	969 @ 50	1,717 @ 50	2,601 @ 50
Headstock Speed (rpm)	23.8	12.4	9.8	10.8	6.7	33.3	18.8	12.4
180° Sweep Time (sec)	1.56	2.72	3.6	3.28	4.95	1.40	2.1	2.92
Rated CG Off-center (mm)	152	152	152	152	152	152	152	152
Rated CG Overhang (mm)	500	250	100	0	70	2,750	1,375	925
Load @ 500 mm CG Overhang (kgf)	75	75	175	500	1,400	1,578	1,578	1,578
Rated Inertia (kg·m ²)	20	47	105	678	3,058	66	208	477
Rated Holding Torque (N·m)	156	268	746	2,826	4,622	475	842	1,276
Rated Weld Current (std/opt)	400/800	400/800	800/1,200	800/1,600	1,200	800/1,600	1,200/1,600	1,200/1,600
Allowable Thrust (kgf)	400	400	800	2,000	3,000	800	800	800
Motor Power (kW)	0.45	0.45	1.3	3.7	4.4	1.3	1.3	1.3
Faceplate Thru-hole (mm)	none	none	none	none	110	110	110	110
Tailstock Thru-hole (mm)	38	38	41	45	41	n/a	n/a	n/a
Drive Assembly Weight (kgf/lbs)	60/131	60/131	100/220	358/790	918/2,022	295/650	295/650	295/650

DROP-CENTER AND TILT-ROTATE POSITIONERS

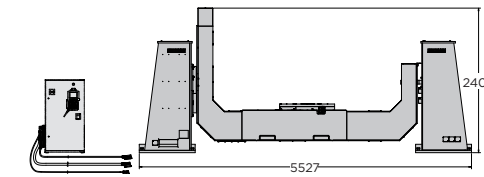
Multi-axis positioners provide added application flexibility. Many provide two axes, allowing most welding to be done in the optimum position, thereby increasing travel speeds. Yaskawa Motoman software supports the coordination of both axes with robot motion.

MDC - Drop-Center Positioner

- Suited to very heavy frame components
- Framework supports counterweights for parts with off-center CG
- Thru-hole in faceplate for utilities



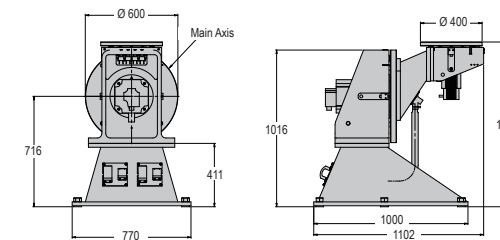
MDC-2300



MDC-2300	
Capacity	2,300 kg
Offset	0 to 650 mm from faceplate
Maximum Fixture Dia.	3,000 mm
Main Axis Speed	0-4.7 rpm
Tooling Axis Speed	0-7.4 rpm
Repeatability	±0.1 mm
Welding Capacity 100% D.C.	1,600 Amps
Tooling Axis Faceplate Thru-hole	150 mm
Load Height	814 mm



MH1605-505 TR



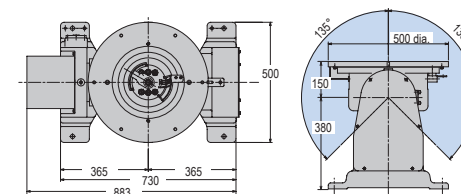
MH1605-505 TR - Tilt-Rotate Positioner

- Suited to construction equipment subassemblies
- Offset design allows open access for part load/unload
- Standard MH modules can be reconfigured with different mounting structure

MH1605-505 TR	
Payload	505 kg
Offset	100 mm
Tilt Axis Speed	0-10.8 rpm
Tilt Torque	2,236 N·m
Rotate Axis Speed	0-9.8 rpm
Rotate Torque	671 N·m
Thru-hole	none
Tilt Range	±135°
Rotate Range	±360°



D250
D500



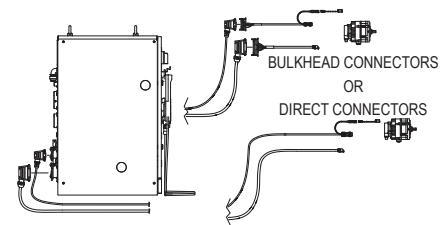
MotoPos - Tilt-Rotate Positioner

- Suited to automotive assemblies such as seats or manifolds
- Very low-profile design provides ergonomic load heights
- Optional slip rings to deliver fixture utilities through the faceplate

	D250		D500	
	TILT	ROTATE	TILT	ROTATE
Payload	250 kg		500 kg	
Torque	539 N·m	796 N·m	1,274 N·m	392 N·m
Off-center	139 mm	100 mm	175 mm	100 mm
Speed	20 rpm	30 rpm	13.3 rpm	26.7 rpm
Motor Power	1.5 kW	1.5 kW	2.2 kW	1.5 kW

NEED TO INTEGRATE YOUR FIXTURE?

OPTIONS



External Axis Kits

- Three axes can be mounted in DX100 cabinet
- Side-mount cabinet can house up to five axes
- Sigma-5 motor sizes: 500 W, 1.3 kW, 1.8 kW, 2.9 kW, 3.7 kW, 4.4 kW and 5.5 kW (Sigma-III)

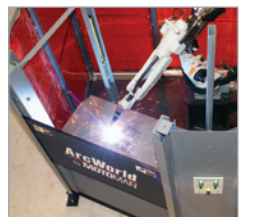
Slip Ring Kits

- Extends cable life for rotating fixtures
- Fixture wires routed through continuously rotating slip ring
 - Individual wires or DeviceNet
 - 3/4-in. high-volume air line
 - Hydraulic unions

Functional Safety Unit (FSU)

The Functional Safety Unit (FSU) can perform stop position monitoring of the robot and external axes by dual channel inputs.

- Safe operating zones for the robot and up to three external axes
- Stop state monitoring of robot and external axes

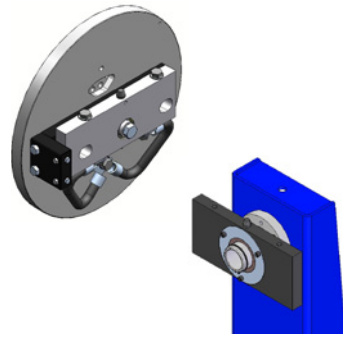


Door-Guard Table

Safeguarded loading station barrier door separates operator from robot envelope. Light curtains can be located inside cell and interlocked with door to safeguard operator.

- 1.2-m or 1.6-m width
- Electric operation
- 2-sec up/down 3x per minute
- Welding or non-welding applications

MOTOMOUNT™ - FIXTURE MOUNTING SYSTEM

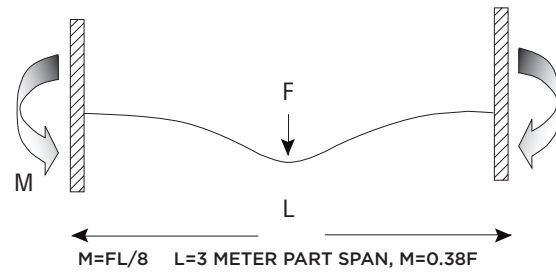
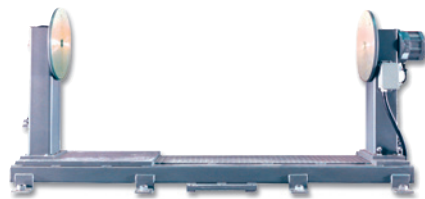


- Reduces cost by eliminating machined bases, spanners and precision tailstocks (units bolt to framework or floor)
- Eliminates need for precision headstock/tailstock alignment (allows up to two degrees of misalignment)
- Reduces tooling costs due to lower-precision mounting holes
- Easy and quick fixture changeover
- Scalable to different sizes: 1,075 kg and 6,300 kg
- Improves tooling repeatability



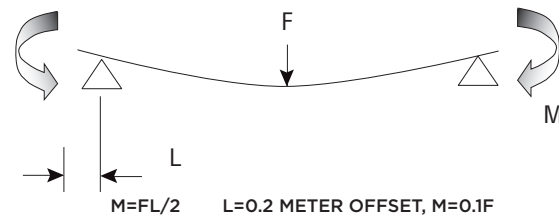
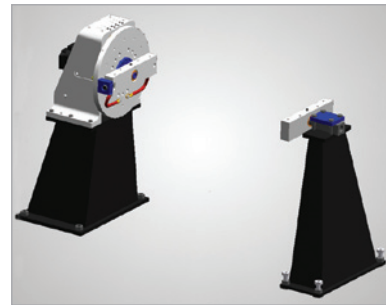
Traditional Mounting System vs. MotoMount

- Fixed mount increases stress on headstock/tailstock
- Alignment is critical with fixed mount
- Expensive machined base is necessary for headstock/tailstock alignment



MotoMount Solution

- Reduces stress close to 7x or more as span goes beyond three meters
- Increase positioner life due to less stress and wear on bearings
- Improved repeatability; stress from restrained load does not cause warpage
- Pinned fixture blocks provide quick, repeatable changeover



TRANSPORTERS

Moving the robot greatly increases the working range and application flexibility. Yaskawa Motoman provides rotary transporters for robots in overhead- or floor-mounted configurations (MotoSweep™ O). Linear transporters are also available (MotoRail™) in wall- or floor-mounted configurations. Both are available in heavy-duty configurations for large-payload robots. Multi-axis gantries are also available.

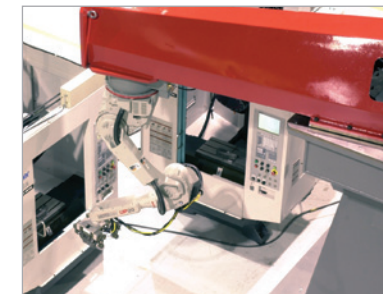
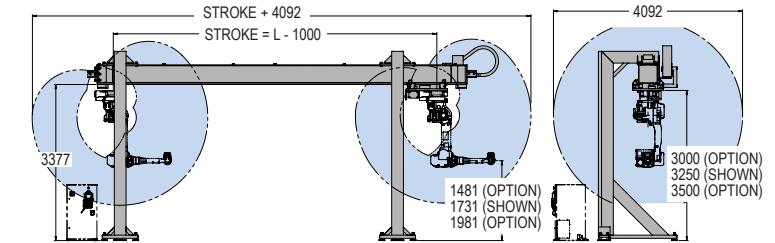
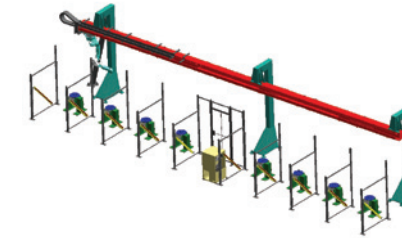


MotoRail

- Suited for machine load/unload or welding applications
- Track motion is coordinated with robot
- 6-axis robot on rail provides additional range of motion and lower cycle time

	MOTORAIL 7-20	MOTORAIL 7-50	MOTORAIL 7-HD
Robot(s)	HP20D, HP20D-6, MA1900T	MH50, MH50-20, MA3100	HP200T
Mount	Ceiling, Wall	Ceiling, Wall	Ceiling
Velocity	2.5 m/sec	2.5 m/sec	2.66 m/sec
Repeatability	±0.1 mm	±0.1 mm	±0.15 mm

Maximum travel is 31-m with controller on the ground
Multiple carriages can operate on the same rail
Options: limit switch kits and wire feeder assist kits

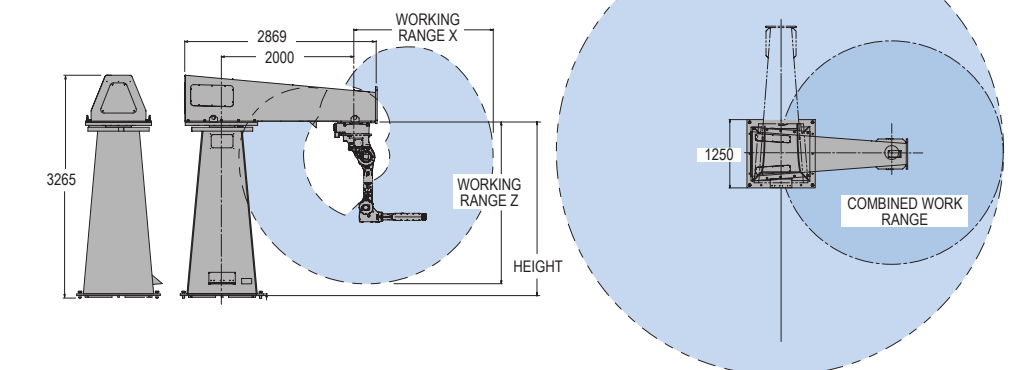


MotoSweep O

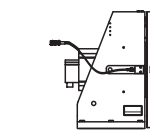
- Suited for machine loading, press tending or arc welding
- Provides expanded working range for robot with minimal floorspace
- Full 360° working range
- Variety of payload capacities and boom lengths

	MOTOSWEEP O20	MOTOSWEEP O50
Robot(s)	HP20D, HP20D-6, MA1400, MA1900T	MH50, MH50-20, MA3100
Mount	Ceiling, Wall	Ceiling
Height	2,640 mm*	2,640 mm*
Boom L	2,000 mm**	2,000 mm**
Offset	1,025 mm*	1,025 mm*

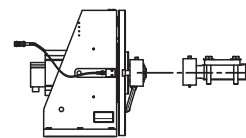
* Straight or C-frame riser available; straight raiser height is 2,580 mm
** O20 has 2.5-m boom as an option
Options: hard stops, zone rings and weld wire assist feeder



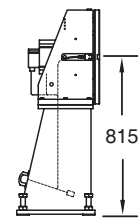
Positioner Configurations



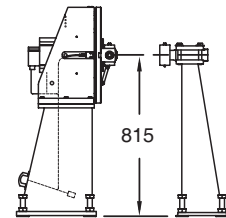
Drive Assembly



Drive Assembly with MotoMount

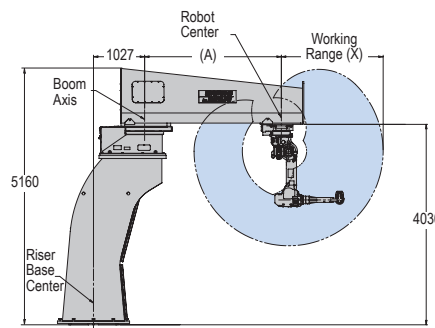


Headstock Assembly



Positioner Assembly (headstock and tailstock)

TRANSPORTERS



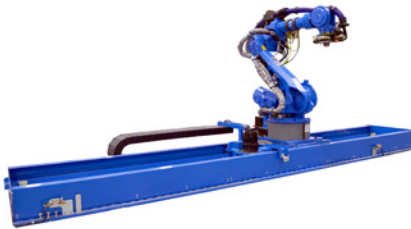
MotoSweep O HD

- Suited for machine loading, press tending or arc welding
- Provides expanded working range for robot with minimal floorspace
- Full 360° working range
- Variety of payload capacities and boom lengths

	HP200T	MH50	MH50-20	MA3100
Sweep Radius (A)	2,000	2,750/3,500	2,750/3,500	2,750/3,500
Working Range (X)	2,415	2,046	3,106	3,106
Boom Velocity	3.9 rpm	3.9 rpm	3.9 rpm	3.9 rpm
Boom Range	±180°	±180°	±180°	±180°
Repeatability	±0.15 mm	±0.15 mm	±0.15 mm	±0.15 mm

Floor Tracks

- Wide variety of payload capacities and travel speeds available.
- Robot motion coordinated with linear travel and part positioners
- Options include multiple carriages on single track or larger carriages to carry robot controller or process equipment.



Gantry

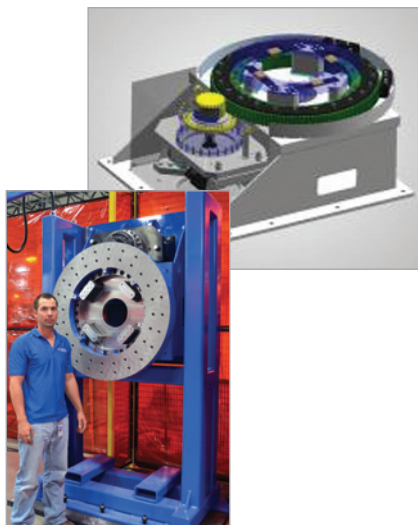
- Expands range of robot
- Coordinated motion between all axes

GANTRY	
Robot(s)	MA1400, MA1900, MH6 or HP20D
Axis	X, Y, Z
Speed	0-16.9 rpm, 0-16.9 0-8.7 m/min.
Length	Varies

Heavy-Duty Drive Module

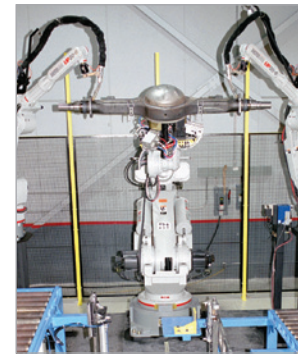
- Heavy-duty turning unit can be integrated with heavy fixtures
- Low-profile design
- Turning unit is common with MotoSweep HD

HD DRIVE MODULE	
Rated Load	10,000 kg
Rated Torque	12,000 N•m
Rotation Speed	3.9 rpm
Rotation	Continuous or reciprocating



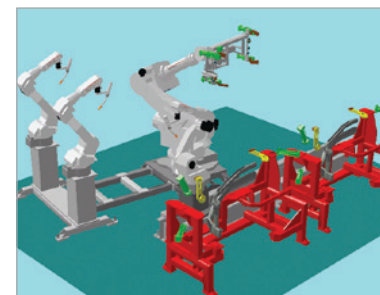
LEADING THE INDUSTRY WITH MULTIPLE ROBOT CONTROL

JIGLESS



Robots provide six degrees of freedom with up to 600 kg payload capacity at an economical price. Multiple robots can be combined to lift heavier parts. Yaskawa Motoman's industry-leading multiple robot control has been used to create unique solutions to incorporate handling robots for pre- or post-processing as well as "jigless" applications.

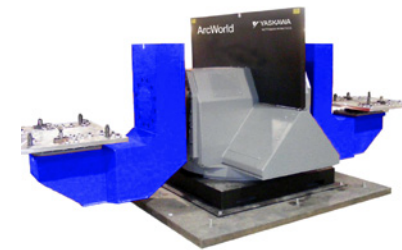
- Combine robots of varying payloads and applications for flexibility
- Utilize part positioning robots for optimum process speeds and flexibility
- Robotic unload of bulky/heavy assemblies can reduce worker injuries and lower insurance rates
- Automatic part inspection can be incorporated into unload operation for separation of conforming and non-conforming parts



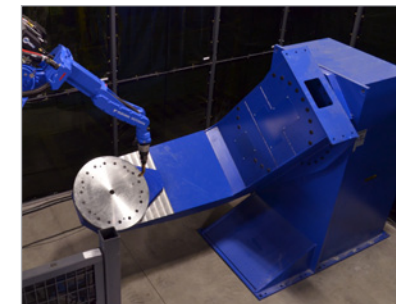
MULTI-AXIS POSITIONERS



VMF-500
VMF-750



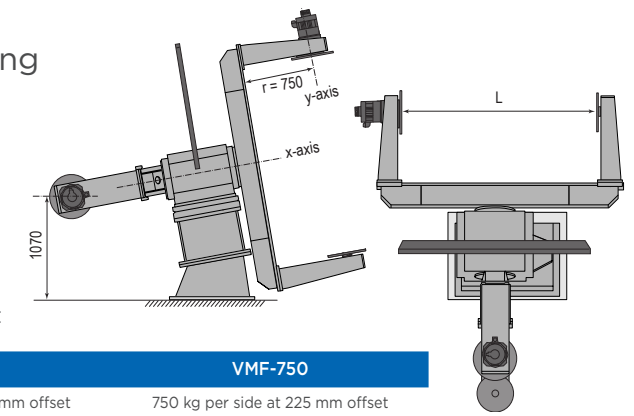
MSR2SH-900



MTI-1500, MTI-3000
MTI-5000

VMF - Five-Axis Indexing Tilt-Rotate Positioner

- Suited to longer parts such as final exhaust assemblies
- Tilting axis allows complex geometries to be welded in 1F position
- Positioner base is angled to provide ergonomic load height



	VMF-500	VMF-750
Payload	500 kg per side at 173 mm offset	750 kg per side at 225 mm offset
Sweep Time	6 sec.	6-8 sec.
Turn Speed	0-5.2 rpm tilt, 0-16.8 rpm rotate	0-5.2 rpm tilt, 0-8.4 rpm rotate
Max Part Size	3,300 mm L x 1,500 mm dia.	3,200 mm L x 1,500 mm dia.
Torque (Static)	2,400 N•m, 848 N•m	2,400 N•m, 1,656 N•m

Double-Ended Skyhook Positioner

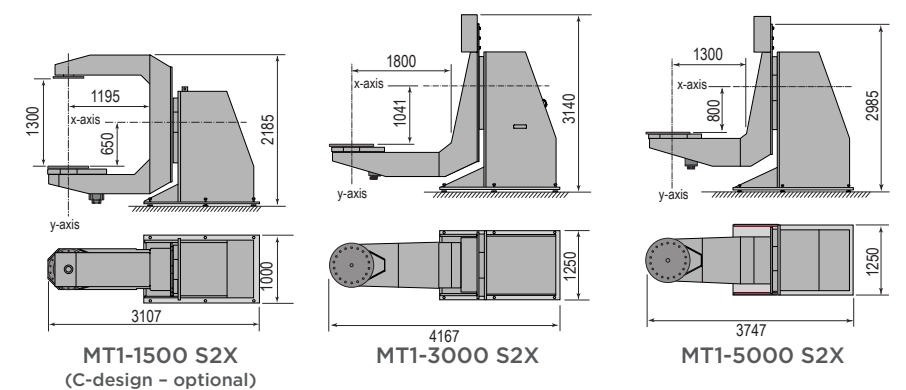
- Suited to box structures and tubular frames
- Coordinated two-axis positioning for best joint access
- In-line design; sides A and B in same position to simplify programming

MSR2SH-900	
Payload	900 kg @ 152 mm off-center, 500 mm overhang
Sweep Time	7 sec.
Turn Speed	TILT: 12.9 rpm, ROTATE: 12.4 rpm
Max Part Size	1 m tall x 1.76 m dia.
Torque (Static)	1,276 N•m
Offset Dimension (X,Y)	248 mm, 880 mm

MTI - Skyhook Positioner

- Suited to heavier parts such as construction equipment frames
- Offset "Skyhook" design keeps part on center while tilting
- Thru-hole in faceplate for utilities

	MTI-1500	MTI-3000	MTI-5000
Payload	1,500 kg	3,000 kg	5,000 kg
Offset X, Y	272 mm, 180 mm	462 mm, 321 mm	283 mm, 197 mm
Tilt	0-4.5 rpm	0-1.9 rpm	0-1.9 rpm
Rotate	0-6.9 rpm	0-2.7 rpm	0-2.7 rpm
Max Part Size	1,500 mm L x 2,390 mm dia.	2,335 mm L x 3,600 mm dia.	1,875 mm L x 2,600 mm dia.
Torque (Static)	4,080 N•m X, Tilt 2,680 N•m Y, Tilt	13,880 N•m 9,650 N•m	13,880 N•m 9,690 N•m



MTI-1500 S2X
(C-design - optional)

MTI-3000 S2X

MTI-5000 S2X



WORLDWIDE PEACE OF MIND

OUR GLOBAL PRESENCE GIVES YOU PEACE OF MIND THAT WHATEVER YOU NEED, WHEREVER YOU ARE, OUR STAFF IS READY AND ABLE TO HELP.

- **EDUCATE**
We offer scalable education programs to develop tomorrow's workforce and to enable your staff to push productivity higher today.
- **SUSTAINABILITY**
We help ensure your production is sustainable and your equipment operates at optimal levels.
- **SUPPORT**
Our customer care center provides a single-point of contact so we know your needs and history.
- **ASSET MANAGEMENT**
Our robot lifecycle management programs cover spare parts, on-site services, system audits, retrofits and complete robot rebuilds to ensure higher productivity gains.

24-HOUR HOTLINE: 937.847.3200

One call support; 24/7 coverage

GLOBAL SUPPORT NETWORK

**Yaskawa America, Inc.
Motoman Robotics**
100 Automation Way
Miamisburg, OH 45342
937.847.6200 (HQ)

**Yaskawa America, Inc.
Motoman Robotics**
2050 Austin Avenue
Rochester Hills, MI 48309
248.668.8800

**Yaskawa America, Inc.
Motoman Robotics**
1701 Kaiser Avenue
Irvine, CA 92614
949.263.2640

Yaskawa Canada, Inc.
3530 Laird Road, Unit 3
Mississauga, Ontario L5L 5Z7
Canada
905.569.6686

Yaskawa Canada, Inc.
298 Labrosse
Pointe Claire, Quebec H9R 5L8
Canada
514.693.6770

Yaskawa México SA de CV
Circuito Aguascalientes Oriente 134C
Parque Industrial del Valle de Aqs
San Francisco de los Romo, Aqs 20358
México
52.449.973.1170

Yaskawa México SA de CV
Av. Regioparque 128
Regio Parque Industrial
Apodaca, Nuevo León 66633
México
52.81.8386.8113

Motoman Robótica do Brasil
Av. Dona Ida Cerati Magrini 936
Vila Oriental
Diadema - São Paulo
09951-260
Brazil
55.11.4352.3002

www.motoman.com

YASKAWA
MOTOMAN ROBOTICS

ALL DIMENSIONS ARE METRIC (MM) AND FOR REFERENCE ONLY
REQUEST DETAIL DRAWINGS FOR ALL DESIGN/ENGINEERING REQUIREMENTS
TECHNICAL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
DS-297-B ©2013 YASKAWA AMERICA, INC. SEPTEMBER 2013



MOTOMAN IS A REGISTERED TRADEMARK
ALL OTHER MARKS ARE THE TRADEMARKS AND
REGISTERED TRADEMARKS OF YASKAWA AMERICA, INC.