



## MotoRail 7

MOTORAIL 7-24 | MOTORAIL 7-50 | MOTORAIL 7-80 | MOTORAIL 7-200

### KEY BENEFITS

Direct labor savings, improved quality, reduced scrap, increased productivity and throughput, and improved cycle time

Improved safety through reduced repetitive motion injuries to human operators, as well as reduced worker compensation claims

Expanded reach and improved flexibility provide the ability to get the most productivity from the robot

### SPECIFICATIONS

24-, 50-, 80- and 200-kg payload versions

Ceiling-mount (overhead-mount) is standard; wall-mount orientation is available upon request for robot payloads of 24-80 kg.

Available with standard servo rail linear travel lengths from 4-32 meters.

### CONTROLLERS



DX200



DX100

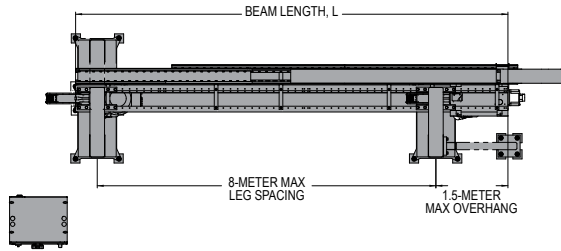


MLX200

MotoRail 7 solutions are ideal for robotic applications requiring extended reach and high throughput, including machine tending, material handling, welding, deburring, trimming, deflashing and dispensing. The MotoRail 7 series features a 7-axis design (single-axis rail and 6-axis robot) with high linear traverse speeds and exceptional repeatability of both the track and robot.

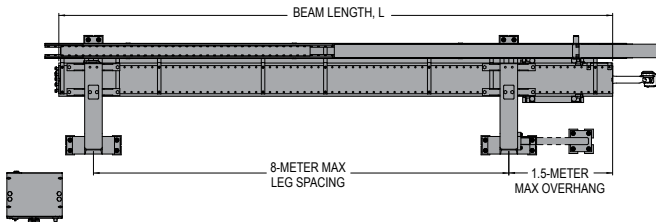
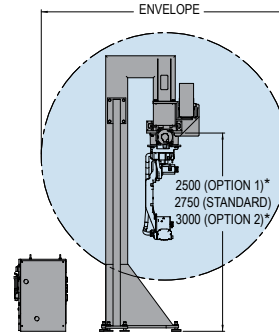
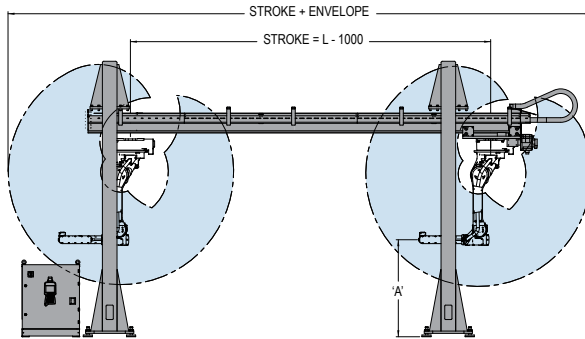
- MotoRail 7 includes 6-axis robot, transport beam, two legs, carriage, cables (manipulator and external axis) and carriage control kit.
- Available with a wide range of six-axis Motoman® robots, including:
  - MH80 II material handling robot
  - High-performance MH24, MH50 II and ES200TD robots
  - Extended-reach MH50 II-20 and MH50 II-35 robots
  - MA1440, MA2010 and VA1440 II arc welding robots
- Custom applications requiring multi-beam sections and carriage assemblies are readily configured utilizing standard, modular components. If necessary, one robot can be locked out while the other(s) continue(s) to operate.
- Left- and right-hand carriage assemblies are available for maximum flexibility on multi-carriage applications.
- Support legs may be located on either side or both sides of a beam system. They provide free-standing support that is satisfactory on most factory floors without additional foundation work.
- Installation and setup is fast and easy; modular 7-axis design minimizes alignment requirements to machine tools, conveyors and other peripheral equipment.
- Easily deployed; can often use existing machine layouts.
- Can be used for identical or progressive operations at multiple machining cells.
- Rail mounting reduces floorspace requirements and allows better access to parts through machine doors (top or side).
- Provides open access in front of the machine for tool changeover, part setup and running prototype parts, while also reducing trip hazards.
- Provides optimum flexibility with maximum reach on both sides of transport beam and beyond the beam ends (ceiling-mount configuration).
- Independent or truly coordinated operation is possible.

# MOTORAIL 7



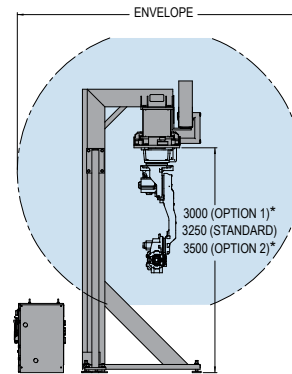
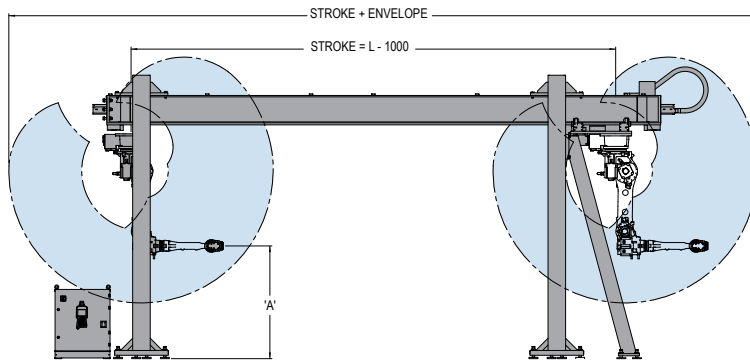
## MotoRail 7-24

Robot		MH24
Dimension A (mm)	Option 1*	1,035
	Standard	1,285
	Option 2*	1,535
Envelope Dia. (mm)		3,460



## MotoRail 7-50/7-80 (MH50 II SHOWN)

Robot		MH50 II	MH50 II-20	MH50 II-35	MH80 II
Dimension A (mm)	Option 1*	1,380	1,110	1,100	1,380
	Standard	1,630	1,360	1,350	1,630
	Option 2*	1,880	1,610	1,600	1,880
Envelope Dia. (mm)		4,122	6,212	5,076	4,122



## SPECIFICATIONS

	Unit	7-24	7-50	7-80	7-200
Robots		MH24	MH50 II, MH50 II-20, MH50 II-35	MH80 II	ES200TD (DX100)
Base Mounting Height	mm (in)	2,500 (98.4) 2,750 (108.3) 3,000 (118.1)	3,000 (118.1) 3,250 (128.0) 3,500 (137.8)	3,000 (118.1) 3,250 (128.0) 3,500 (137.8)	3,500 (137.8)
Maximum Carriage Velocity	m/sec	2.5	2.5	2.5	1.6
Rated Acceleration Time	sec	1.0	0.5	0.5	0.5
EOA Repeatability	±mm (in)	0.1 (.004)	0.1 (.004)	0.1 (.004)	0.15 (.006)
E-Stop Response Time (typical)	sec	0.4	0.4	0.4	n/a
E-Stop Response Distance (typical)	mm (in)	550 (21.7)	500 (19.7)	500 (19.7)	n/a
Duty Cycle	%	60	60	60	60

Note: Contact Yaskawa Motoman for lengths exceeding 32 m or for multiple rail/robot configurations. MotoRail products also available with MA1440, MA2010 and VA1400 II robots.

[motoman.com](http://motoman.com)

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