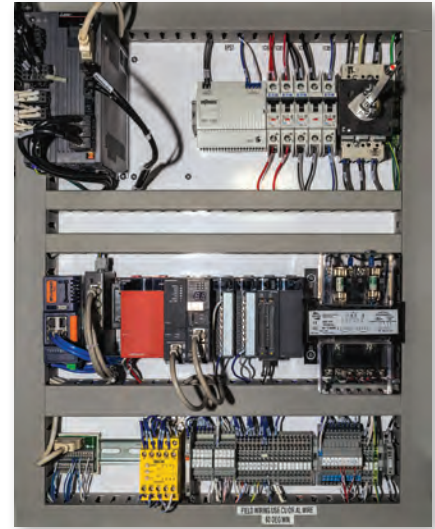
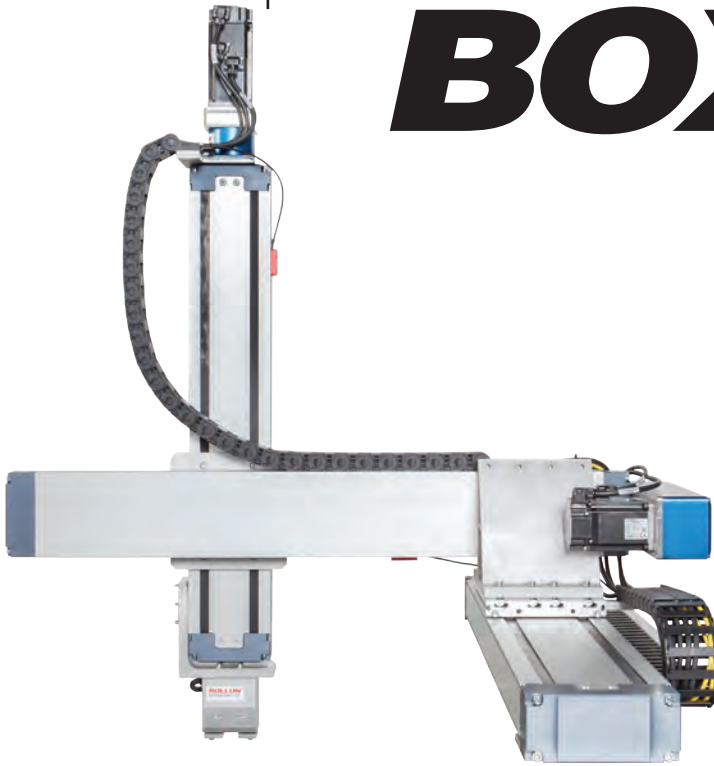


ROLLON®

MOTION BOX

Plug and Play 3-Axis Motion



Motion Box is a pre-configured 3-axis Cartesian Robot System that enables rapid deployment of the user's automated process, designed to minimize the customer's engineering and assembly efforts. It is a pre-engineered system including linear actuators, servo motors, motion controller and HMI. With a robust mechanical design and easy to use control interfaces Motion Box eliminates the time, expense, and risk in building Cartesian Robot Systems. A true plug-and-play solution.

> Performance

- Up to 5 μ m repeatability due to high resolution motor encoders; in conjunction with preloaded ball screws and linear guides (dependent on stroke and operating conditions)
- High efficiency motors and drives
- Z-axis servo motor with integrated brake
- 1G acceleration achieving a maximum speed of 1 m/s
- Preloaded ball screws and linear guides provide backlash-free movement
- Achievable cycle time of 0.6 on smallest model

> Reliability and Maintenance

- Pre-programmed HMI screens for robot status, diagnostics, and lubrication intervals
- Factory pre-tuned servo drives

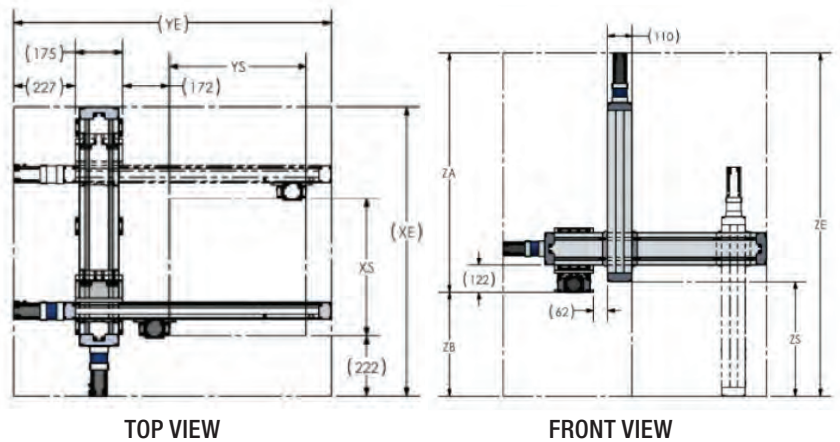
> System Includes

- Mitsubishi QD77 motion controller and J4 servo amplifier (4-axis motion control capability)
- 3 ball screw driven axes complete with home switches, cable management and mounting brackets
- Additional 4th axis capability
- Pre-wired hand held E-stop circuit configured to the drive
- Programmable 10 inch color touch screen HMI
- 32 I/O – 16 on-board Z-axis, 16 at control cabinet
- 5 meter dynamic cable set
- Multiple network interface options
- 24VDC power supply
- Control cabinet dimensions: 762mm (30in) x 1930mm (76in) x 381mm (12in)

Serial Based Protocols:	Ethernet Based Protocols:
CC Link	Ethernet/IP Scanner
DeviceNet Master	TCP/IP
Profibus-DP Master V1 & V2	Modbus/TCP
Profibus-DP Slave	ProfiNet Master
Modbus/RTU Master	CC-Link iE Control
	CC-Link iE-Field

> Specifications

Actuator Specifications	mm (in)		
	X	Y	Z
Module Cross Section	145 (5.71)	145 (5.71)	110 (4.33)
Ball Screw Diameter	20 (0.79)	20 (0.79)	16 (0.63)
Ball Screw Lead	20 (0.79)	20 (0.79)	10 (0.39)
Linear Guide Size	20 (0.98)	20 (0.98)	15 (0.59)
Couplings	Bellows		



PN	Travel mm (in)			Envelope					Max Payload	
	XS	YS	ZS	XE	YE	ZE	ZA	ZB	Kg	(lbs)
MB12	305 (12)	305 (12)	305 (12)	868	973	1323	862	258	50	(110)
MB16	407 (16)	407 (16)	407 (16)	970	1075	1425	964	360	50	(110)
MB20	508 (20)	508 (20)	508 (20)	1071	1176	1526	1065	461	50	(110)
MB30	762 (30)	762 (30)	508 (20)	1325	1430	1526	1065	461	50	(110)
MB40	1016 (40)	1016 (40)	508 (20)	1579	1684	1526	1065	461	30	(66)
MB60	1524 (60)	1016 (40)	508 (20)	2087	1684	1526	1065	461	30	(66)
MB40HD	1016 (40)	1016 (40)	508 (20)	1579	1684	1526	1065	461	50	(110)
MB60HD	1524 (60)	1016 (40)	508 (20)	2087	1684	1526	1065	461	50	(110)

> User Supplied Items

- 230V to 240AC, 1 phase 50/60Hz (20 A)
- End of arm tooling

> Module Types

- Standard: 3-axis cantilever system
- Heavy Duty: Gantry style for MB40HD and MB60HD

> Options

- Analog I/O
- Available without controller (contact Rollon for details)

All Product specifications, including performance and design specifications, are believed to be reliable but may not be achievable in your environment or application. Rollon makes no warranty, representation, or guarantee regarding the information contained herein, or the suitability of this Product and any services for any particular purpose, nor does Rollon assume any liability whatsoever arising out of this Product, its application or use, except as expressly set forth in Rollon's Terms and Conditions, a copy of which can be found at the following link: <http://www.rollon.com/US/en/general-terms-and-conditions-of-purchase/>. Rollon reserves the right to make any changes to the information in this document or to any of its products and services at any time without notice.

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