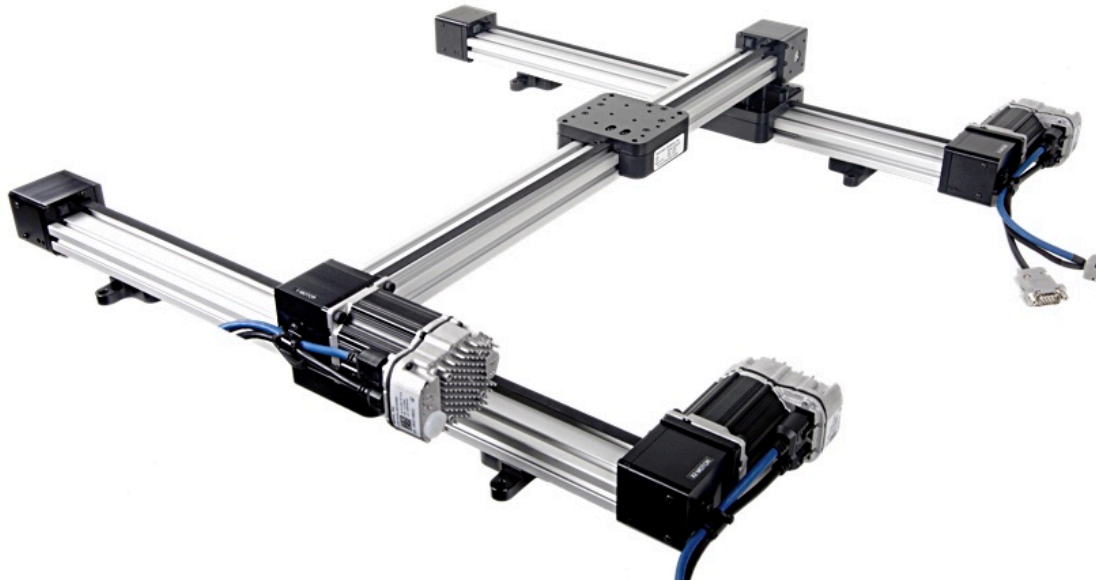


CS GANTRY SERIES



The CS XY Gantry Series is offered in travel lengths of 500mm, 1000mm, and 1500mm. Custom travel lengths are available, please consult factory. With speeds up to 1 meter/sec the CS XY Gantry Series is perfect for applications requiring high speed positioning of light payloads.

The CS XY Gantry Series comes standard with high torque size 23 stepper motors. The motors are also available with 4000 count per revolution optical rotary encoders mounted to the back of the motors. Mechanical end of travel limit switches come standard on the gantry system.

The drive system utilizes a 9.5 mm wide timing belt to move the carriage. The carriage rides on four preloaded ball bearing wheels. The wheels are profiled to match the contour of the aluminum extrusion base to provide a larger contact area.

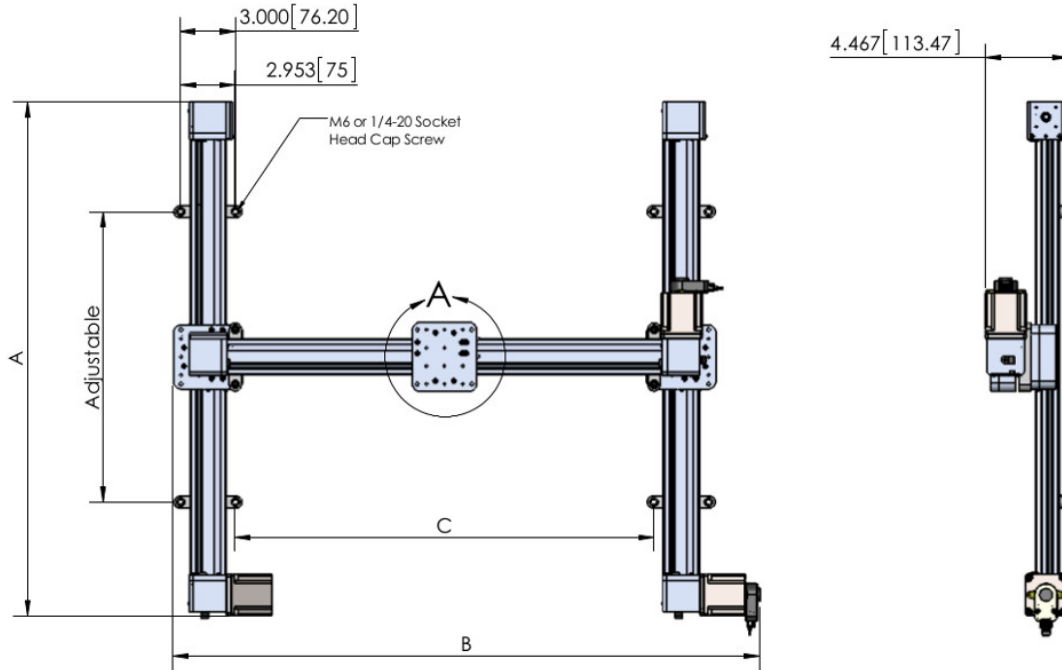
All CS XY Gantry systems are machined from 6061 aluminum alloy and black anodized. The base is an aluminum extrusion with a clear anodized finish.

Typical applications for a gantry system includes pick & place, inspection, and dispensing.

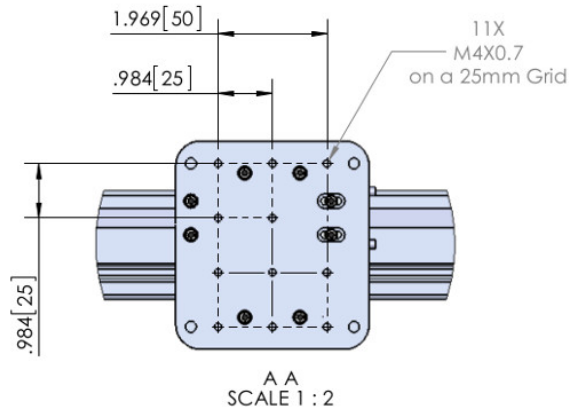
Specifications

Travel Range	500 mm, 1000 mm, 1500 mm (custom travel lengths available)
Resolution	3.6 μm @ (125 Microsteps)
Max. Speed	1 m/sec
Unidirectional Repeatability	20 μm
Bi-Directional Repeatability	80 μm
Maximum Load	4 kg (8.8 lbs)
Encoder	Optical rotary encoder mounted to read of motor, 4000 CPR with index
Limit Switches	End of travel mechanical switches
Linear Travel per Motor Revolution	90.0104 mm/rev
Stage Weight	CS-500-500: 9 kg (20 lbs), CS-1000-1000: 11.8 kg (26 lbs) CS-1500-1500: 13.6 kg (30 lbs)
Material	Aluminum Alloy Construction
Finish	Black Anodize, Clear Anodize Base
Operating Temperature	0°C to 50°C

Dimensions



	TRAVEL	DIM "A"	DIM "B"	DIM "C"
[mm] inch	CS-500-500-1	[703.2] 27.68	[703.2] 31.85	[577.25] 22.72
	CS-1000-1000-1	[1203.2] 47.37	[1305] 51.38	[1077.25] 42.41
	CS-1500-1500-1	[1703.2] 67.06	[1748] 68.84	[1577.25] 62.09



Standard Stepper Motor Version

Motor

DB-9 Male	Description
1.	Phase A
2.	Phase A'
3.	Phase B
4.	Phase B'
5.	Phase A Center
6.	Phase B Center

Motor Specifications

Step Size: 1.8°/step

Amps/Phase: 0.95

Resistance: 4.0 Ohm/Phase

Inductance: 3.1 mH/Phase

Signals (Encoder Option)

DB-9 Female	Description
1.	+ Limit Switch
2.	- Limit Switch (motor side)
3.	Limit Switch Ground

Limit switch wired normally open

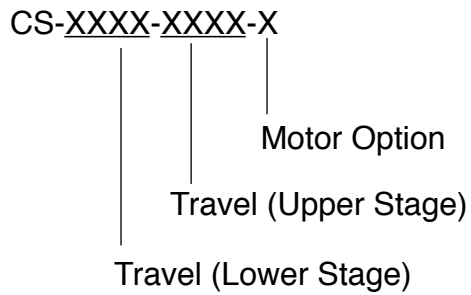
Signals (Encoder Option)

HD-15 Female	Description
1.	+ Limit Switch
2.	- Limit Switch
3.	Limit Switch Ground
4.	Encoder Ground
5.	+5V Encoder Power
6.	Ch. A
7.	Ch. A-
8.	Ch. B
9.	Ch. B-
10.	Index +
11.	Index -

Limit switch wired normally open

Ordering Information

Part Number Configuration



Travel Length

- 500 mm
- 1000 mm
- 1500 mm

Motor Options

- 1 Stepper Motor
- 2 Stepper Motor with Encoder

Motion Controllers

The following Newmark Systems, Inc. controllers are compatible with the CS XY Gantry Stage.

[NSC-G Series](#)