



February 19, 2004

Item Name: Two-Axis Belt-Drive Vertical Gantry

Description: Two-axis vertical gantry for rapid pick and place applications

Specifications:

Horizontal X-Axis

Belt Drive Positioning Stage (BLS) is driven by a 3 phase brushless rotary motor with 4000 counts per rev. rotary encoder. Stage enclosure is constructed of aluminum and houses the belt and pulley mechanisms, recirculating ball linear bearings, end of travel limit switches, end of travel hard stops and bellows. An externally mounted cable carrier is provided for routing of Y-axis cables

Travel: 40 inches

Linear force: 50 lbs continuous, 150 peak

Accuracy: +/- 500 microns/meter

Repeatability: +/- 100 microns

Max velocity: 120 inches/sec

Max acceleration: 2 G's

Vertical Y-Axis

Belt Drive Positioning Stage (BLS) is driven by a 3 phase brushless rotary motor with 4000 counts per rev. rotary encoder and an electrically operated brake for vertical operation. Stage enclosure is constructed of aluminum and houses the belt and pulley mechanisms, recirculating ball linear bearings, end of travel limit switches, end of travel hard stops and bellows. An externally mounted cable carrier is provided for routing of customer's cables and hoses.

Travel: 40 inches

Linear force: 50 lbs continuous, 150 peak

Accuracy: +/- 500 microns/meter

Repeatability: +/- 100 microns

Max velocity: 120 inches/sec

Max acceleration: 2 G's

Options: Travel lengths to 20 feet, custom mounting holes, larger/smaller cable carrier, 5 micron resolution linear encoder, stepper or servo motors, and bellows.

Benefits Summary: The H2W belt drive stage is a quiet-running economical solution for high cycle applications that require medium accuracy and rapid positioning. The simple design of the drive assembly offers long and relatively maintenance free operation. The belt tensioning system allows for quick adjustments without disassembly. A linear encoder can be installed internally for dual loop operation of servo controlled stages and position verification of stepper driven stages.

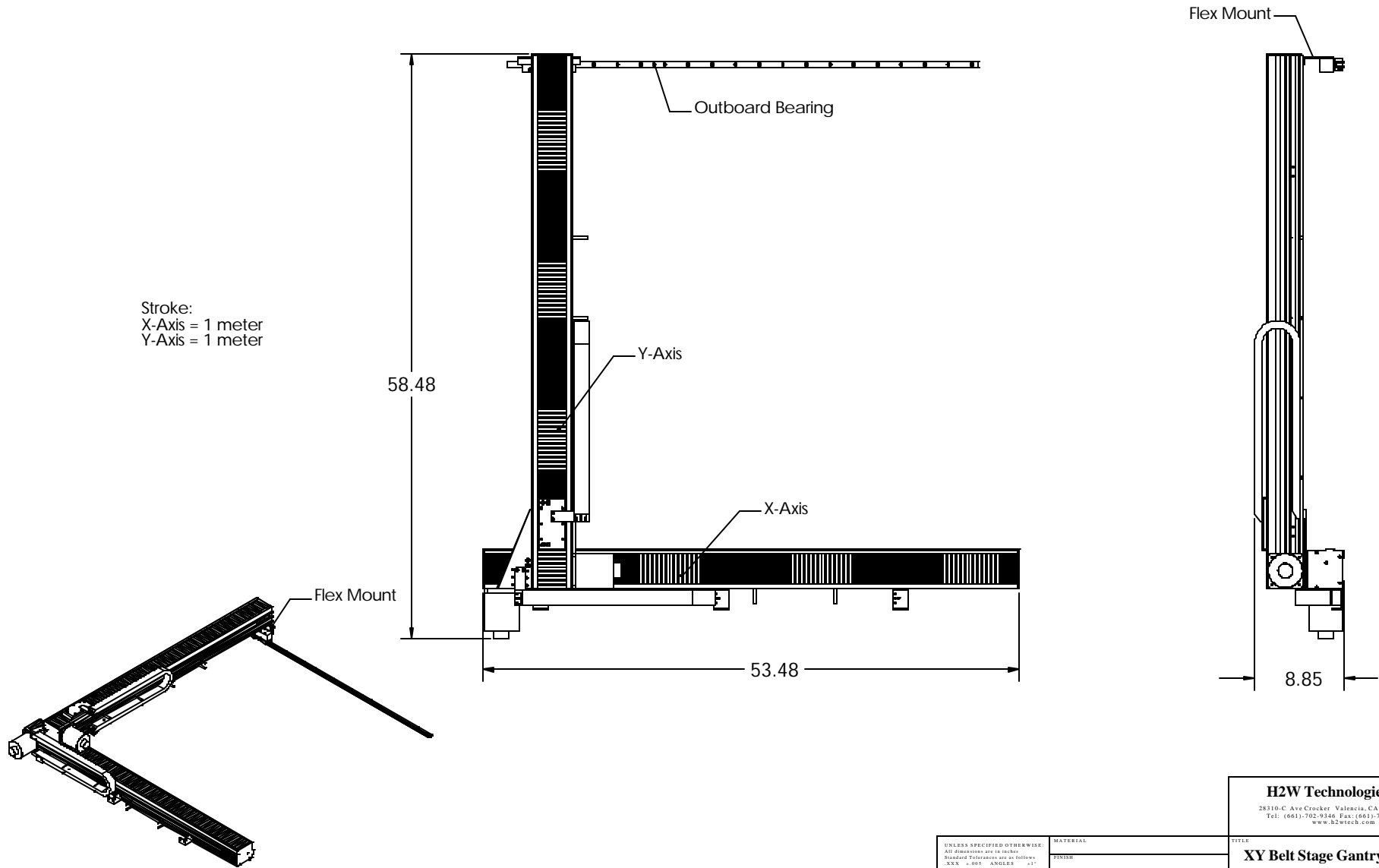
Application examples: Pick and place, test handling, painting, laser cutting, high speed sewing, water jet cutting

Innovation in Linear Motion

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Stroke:
X-Axis = 1 meter
Y-Axis = 1 meter



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UNLESS SPECIFIED OTHERWISE: All dimensions are in inches. Standard Tolerances are as follows: XXX = .005 ANGLES ±.1° XX = .010 FILETS AND X = .020 CORNERS 0.02. Remove All Burs and Sharp Edges.				MATERIAL		TITLE	
FINISH				DRAWN		45-0033	
QDD	DATE	APPROVED	DATE	FGW	11-21-03	REV	ECN