



May 30, 2002

**Item Name:** Two Axis Linear Stepper Motor Gantry Stage

**P/N:** LSS-007-12-006-XY

**Description:** Two axis linear stepper motor gantry stage with out-board bearing

**Specifications:**

- Roller bearing type linear stepper motor drive
- Zero backlash
- System life (typical): 100,000,000 cycles
- Continuous force in X & Y directions: 6 lbs (27 N)
- Peak force: 8 lbs (36 N)
- Total travel: 7 inches x 7 inches
- Max acceleration: 1 g
- Open loop accuracy (typical): 0.001 inches/ft (85 microns/meter)
- Open loop repeatability (typical): 0.0004 inches/foot (10 microns)
- Electronics requirement – 2 phase stepper motor driver/indexer
- Options – Encoder for closed loop operation, travel lengths to 12 inches (300 mm)

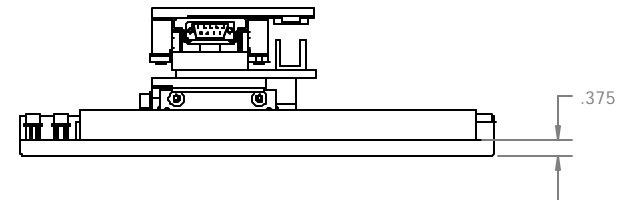
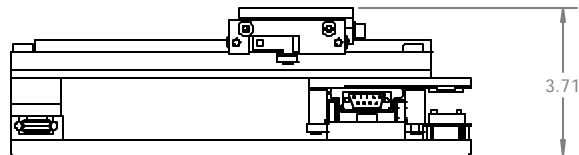
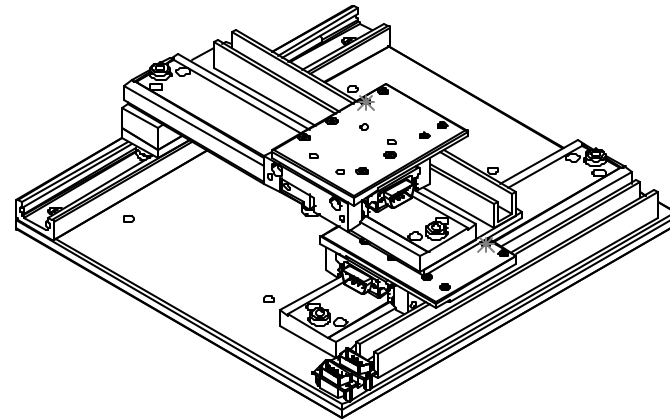
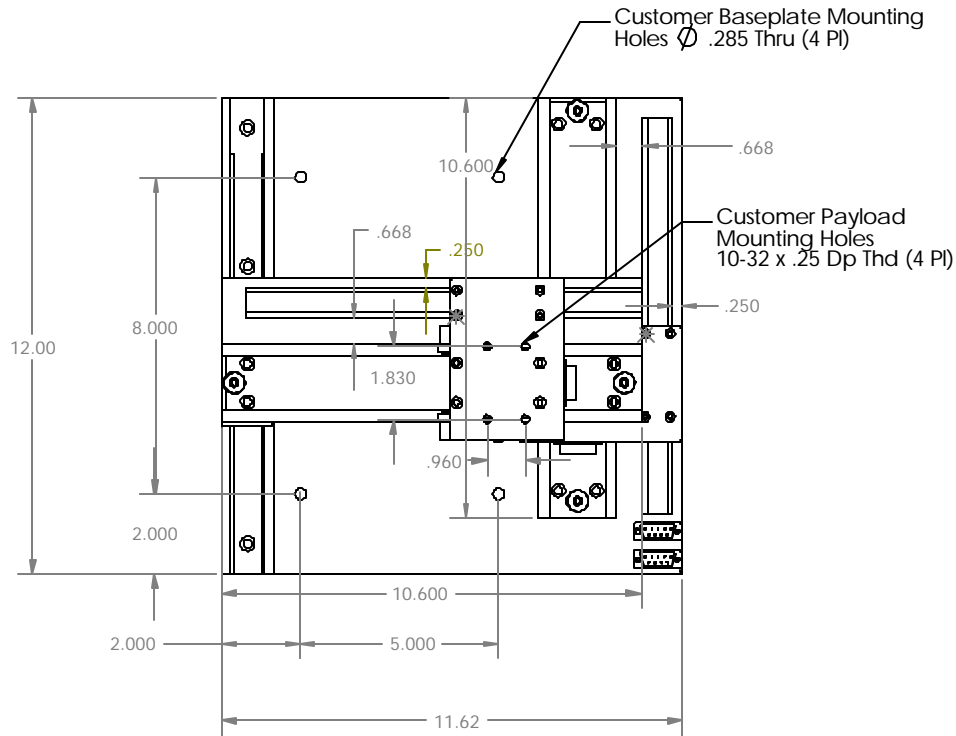
**Benefits Summary:** The LSS-007-12-006-XY Two Axis Stepper Motor Gantry Stage was designed for applications requiring a compact dual axis linear motion device. The linear stepper motor's simple design provides trouble free open loop operation while offering a highly repeatable motion platform. The stage is manufactured with long life high cycle flexible flat ribbon cables which are strain relieved and terminated with DB 9 connectors. The linear stepper motor requires a step and direction signal from a standard micro-stepping drive and indexer. The full step resolution is 0.010 inches, however when micro-stepped, step sizes as small as 0.00004 inches can be achieved.

Custom mounting patterns are available for easy integration with other machine components.

**Application:** Originally designed for a laser marking application, the two axis stage is ideal for many applications such as pick and place, inspection systems, rapid prototyping, medical testing equipment, parts transfer, textile machines, among others.

**Innovation in Linear Motion**

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UNLESS SPECIFIED OTHERWISE: All dimensions are in inches. Standard Tolerances are as follows: XXX +.005 ANGLES .01" XX +.010 FILLETS AND X +.010 CORNERS .010 Remove All Bore and Sharp Edges.		MATERIAL FINISH NONE		TITLE <b>XY Linear Stepper Gantry</b>	
DRAWN	DATE	APPROVED	DATE	DWG #	REV
MPW	5-15-02	FGW	5-15-02	10-0066	A