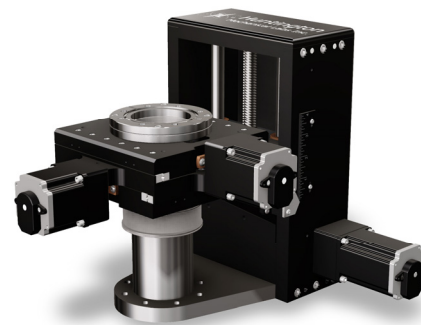
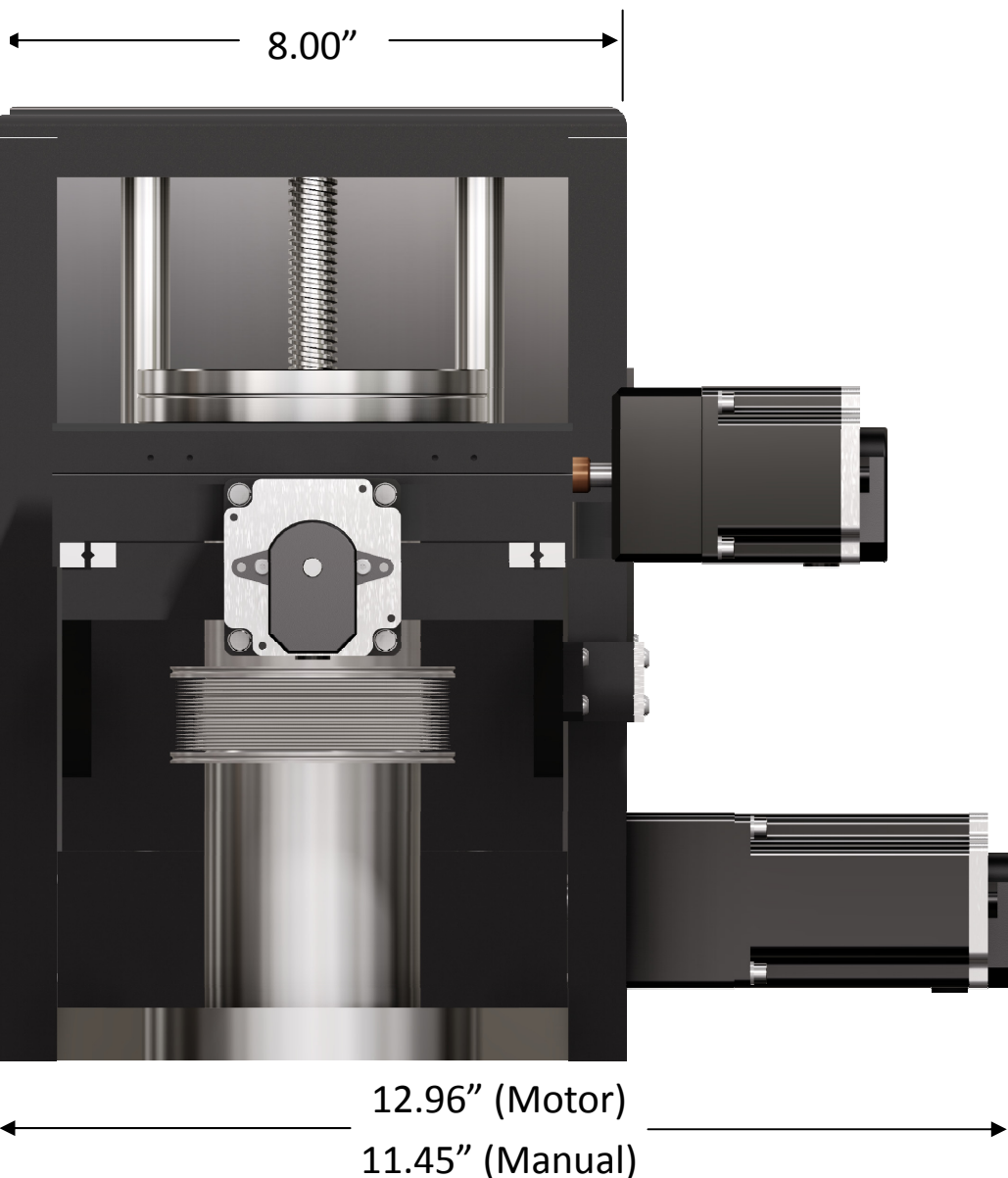


MANUAL VERSION

2.50"  
(I.D.)



MOTORIZED VERSION



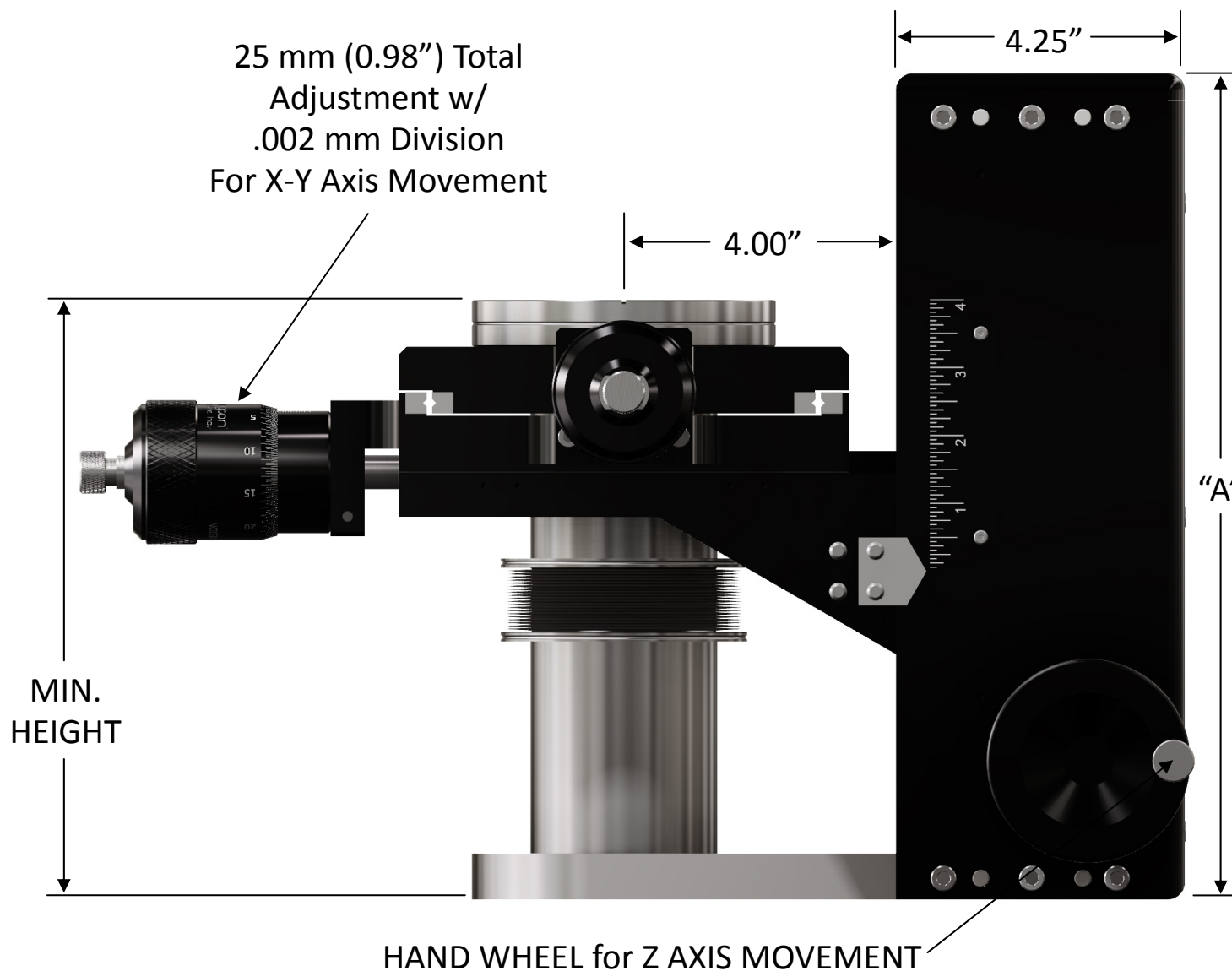
**Specifications**

Sealing Mechanism: Welded Bellows  
 Bellows ID: 2.50"  
 Bakeout Temperature: 300°C (Bellows only)  
 Operating Temperature: -20° to 80°C (Motorized)

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Pressure Range: Atmosphere To  $1 \times 10^{-11}$  Torr  
 Work Load: 50 lbs. concentric  
 X-Y Motion: +/- 12.5 mm  
 Position Resolution (Micrometer): .002 mm or .0001"  
 Stepper Motor: 1.8° full step, 51,200 microsteps/revolution

25 mm (0.98") Total Adjustment w/ .002 mm Division For X-Y Axis Movement



Dimensions: inches (mm)

**X - Y - Z MANIPULATOR, 4 1/2" VAC-U-FLANGE®**

STROKE	MINIMUM HEIGHT	"A"	WEIGHT (lbs.)	MANUAL	MOTORIZED
4.0	8.82	12.16	39.4	PM-450-4Z	MPM-450-4Z
8.0	9.01	16.38	44.6	PM-450-8Z	MPM-450-8Z
12.0	9.40	22.50	50.2	PM-450-12Z	MPM-450-12Z

Other stroke lengths & options available.  
 For quotes, please call 800-227-8059 or visit our website at [www.huntvac.com](http://www.huntvac.com). Email: [vacman@huntvac.com](mailto:vacman@huntvac.com)

Huntington Mechanical Labs, Inc. 13355 NEVADA CITY AVENUE GRASS VALLEY, CA. 95945

MANIPULATOR, MULTI-AXIS, MOTORIZED or MANUAL, W/SCALE

B DWG. NO. (M)PM-450-(XX) OUTLINE REV. SCALE: NO SCALE SHEET: 1 OF 1