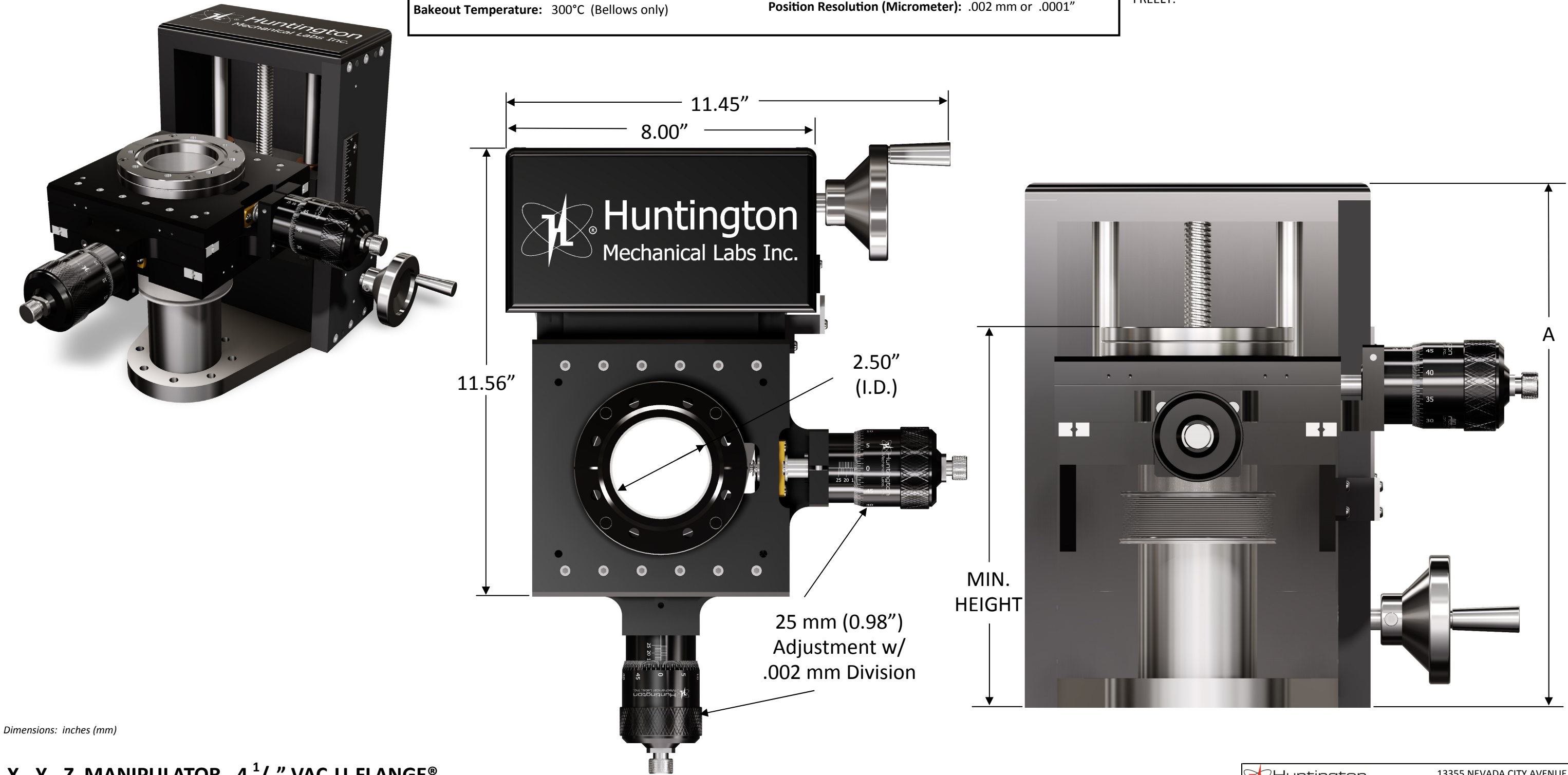


**Specifications**  
**Sealing Mechanism:** Welded Bellows  
**Bellows ID:** 2.50"  
**Bakeout Temperature:** 300°C (Bellows only)

**Operating Temperature:** -20° to 150°C  
**Pressure Range:** Atmosphere To  $1 \times 10^{-11}$  Torr  
**X-Y Motion:** +/- 12.5 mm  
**Position Resolution (Micrometer):** .002 mm or .0001"

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Dimensions: inches (mm)

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

| STROKE | MINIMUM HEIGHT | A     | WEIGHT (lbs.) | PART NUMBER |
|--------|----------------|-------|---------------|-------------|
| 4.0    | 8.40           | 13.50 | 39.6          | PM-450-4Z   |
| 8.0    | 8.40           | 17.50 | 41.6          | PM-450-8Z   |
| 12.0   | 9.40           | 22.50 | 43.6          | PM-450-12Z  |

Other stroke lengths & motorized 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, X-Y-Z AXIS  
METRIC MICROMETERS, W/SCALE

B

DWG. NO.  
**PM-450-(XX) OUTLINE**

REV.  
B

SCALE: NO SCALE

SHEET: 1

OF 1