



# Veeco MS-50

## Technical Specifications

### Internal Calibrator

1 x  $10^{-8}$  to 3 x  $10^{-8}$  std cc/sec air equivalent Helium Mass 4 leak standard with integral solenoid valve and thermal sensor for temperature compensation. Traceable to NIST.

### Ranging (Automatic)

Starts in the  $10^{-3}$  range if **Gross Screening** is selected. If Gross Screening is not selected, the MS-50 starts at the least sensitive range ( $10^{-4}$  if MS-50 is in Automatic flow mode switching or locked into Reverse mode;  $10^{-5}$  if MS-50 is locked into Direct flow mode). If a larger leak is detected, the unit ranges up to the appropriate decade. If a gross leak is not detected, the unit ranges downward until a leak is detected or until it reaches its most sensitive range.

#### NOTE:

*If the unit is set for Automatic flow mode switching or Direct Flow only, the most sensitive range is  $10^{-10}$ . If the unit is set for Reverse flow only, the most sensitive range is the  $10^{-9}$  range.*

### Roughing Pump:

16-cfm dual stage rotary vane mechanical pump.

### Turbo Pump:

52 liter/second hybrid turbo/drag pump. Magnetically suspended bearing.

### Foreline Pump:

7-cfm dual stage rotary vane mechanical pump.

### Sensitivity

Reverse Flow Mode: 3 x  $10^{-10}$  std cc/sec air equivalent  
Direct Flow Mode: 3 x  $10^{-11}$  std cc/sec air equivalent  
Leak Rate Range: 10 x 100 to 3 x  $10^{-11}$  std cc/sec air equivalent

### Resolution

14 at Mass 4

### Maximum Measurable Leak

10 x 100 std cc/sec air equivalent

### Test Mode Maximum Crossover Pressure (Torr)

Gross Mode: 100.0  
Reverse Mode: 10.0  
Direct Mode: 0.2

### Test Mode Leak Rate Ranges (std cc/sec air equivalent)

Reverse: 10 x  $10^{-4}$  to 0.3 x  $10^{-9}$   
Direct: 10 x  $10^{-5}$  to 0.3 x  $10^{-10}$   
Gross: 10 x 100 to 0.6 x  $10^{-4}$

### Dimensions:

Height: 35 1/4" (89.6 cm), to tabletop.  
Width: 25 3/4" (65.4 cm).  
Depth: 30 5/8" (77.8 cm).

### Shipping Weight:

475 lb. (216 kg), crated.

