



# AMETEK® Model HK Deadweight Tester

- ❑ **Accurate to  $\pm 0.025\%$  of Indicated Reading**
- ❑ **Five Ranges**
  - 10 to 300 PSIG
  - 10 to 500 PSIG
  - 10 to 700 PSIG
  - 10 to 1000 PSIG
  - 10 to 1500 PSIG
- ❑ **Prefill Supplied for Quick Filling Large Static Output Volumes**
- ❑ **NIST Traceable**

## PRODUCT DESCRIPTION

The AMETEK HK Pneumatic Deadweight Tester is a primary standard used to calibrate pressure and differential pressure gauges, transmitters, transducers, recorders and controllers, and that can provide a reference pressure in process control applications.

The HK tester is self-regulating with accuracy independent of the operator. These testers feature superior accuracy and repeatability and a prefill feature that minimizes the filling of large static output volumes before the test.

The HK tester is available in these ranges:

- ❑ 10 to 300 PSIG
- ❑ 10 to 500 PSIG
- ❑ 10 to 700 PSIG
- ❑ 10 to 1000 PSIG
- ❑ 10 to 1500 PSIG

The HK tester is very easy to setup and use. The unit's precision stainless steel weights are calibrated for international specific gravity of 980.665cm/sec<sup>2</sup>.

## FUNCTIONAL SPECIFICATIONS

### Accuracy

$\pm 0.025$  PSI or  $\pm 0.025\%$  of indicated reading (whichever is greater)

### Repeatability

0.005% of output reading

### Temperature Coefficient

0.00167% of output per °C based on 23°C

### Maximum Supply Pressure

1500 PSIG (2000 PSI for HK-1500) Instrument quality air per ISA Quality Standard S 7.3.

### Minimum Supply Pressure

150 PSIG or 150% of output pressure, whichever is greater

### Flow Rate

3 SCFH at 10 PSIG output  
50 SCFH at 1000 PSIG output  
100 SCFH at 1500 PSIG output

## PHYSICAL SPECIFICATIONS

### Connections

0.25-inch OD tubing, <sup>7</sup>/<sub>16</sub>-20, 37° AN angle

### Weight

Tester Only ..... 18 to 31.5 lbs (8.2 - 14.3kg)  
Weights ..... 17.5 to 61.5 lbs (8.0 - 30.0kg)

### Shipping Dimensions (L x W x H)

Tester ..... 16.0 x 16.0 x 16.0-inches  
(40.6 x 40.6 x 40.6 cm)  
Weight Set Storage Case ..... 2.0 x 12.0 x 12.0-inches  
(5.1 x 30.5 x 30.5 cm)

### Notes:

Deadweight tester and deadweight gauge accuracy is expressed as "Percent of Indicated Pressure". A 1000 psi tester with an accuracy of  $\pm 0.01\%$  of indicated pressure will have an allowable error of 0.1 psi at 10 psi,  $\pm 0.1$  psi at 100 psi and  $\pm 1.0$  psi at 1000 psi. Generally, deadweight testers are used only in the upper 90% of the range.

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## ORDERING INFORMATION

### MODEL HK HYDRAULIC DEADWEIGHT TESTER

Order Number	Description
HK-	<b>Base Number - 1st thru 3rd characters</b> HK Deadweight Tester
	<b>Range, Minimum Increment and Weight Carrier &amp; Ball - 4th thru 11th characters</b> <b><i>1 PSI Minimum Increment, 10 PSI Carrier &amp; Ball Weight</i></b>
300	10 - 300 PSI
300/C	10 - 300 PSI, with NIST Data
500	10 - 500 PSI
500/C	10 - 500 PSI, with NIST Data
700	10 - 700 PSI
700/C	10 - 700 PSI, with NIST Data
1000	10 - 1000 PSI
1000/C	10 - 1000 PSI, with NIST Data
1500	10 - 1500 PSI
1500/C	10 - 1500 PSI, with NIST Data
	<b><i>0.1 kg/cm<sup>2</sup> Minimum Increment, 0.5 kg/cm<sup>2</sup> Carrier &amp; Ball Weight</i></b>
70M	0.5 - 70 kg/cm <sup>2</sup>
70M/C	0.5 - 70 kg/cm <sup>2</sup> , with NIST Data
	<b><i>10 kPa Minimum Increment, 50 kPa Carrier &amp; Ball Weight</i></b>
2000N/C	50 - 2000 kPa, with NIST Data
4000N/C	50 - 4000 kPa, with NIST Data
5000N/C	50 - 5000 kPa, with NIST Data
7000N	50 - 7000 kPa
7000N/C	50 - 7000 kPa, with NIST Data
10000N/C	50 - 10000 kPa, with NIST Data
	<b><i>0.1 Bar Minimum Increment, 0.5 Bar Carrier &amp; Ball Weight</i></b>
20B/C	0.5 - 20 Bar, with NIST Data
40B/C	0.5 - 40 Bar, with NIST Data
50B/C	0.5 - 50 Bar, with NIST Data
70B	0.5 - 70 Bar
70B/C	0.5 - 70 Bar, with NIST Data
100B.1	7 - 100 Bar
100B.1/C	7 - 100 Bar, with NIST Data
	<b><i>0.1 kg/km<sup>2</sup> Minimum Increment, 0.5 kPa/km<sup>2</sup> Bar Carrier &amp; Ball Weight</i></b>
20M/C	0.5 - 20 kg/km <sup>2</sup> , with NIST Data
40M/C	0.5 - 40 kg/km <sup>2</sup> , with NIST Data
50M/C	0.5 - 50 kg/km <sup>2</sup> , with NIST Data
<b>HK-7000N/C</b>	<b>Sample Order Number</b> HK Deadweight Tester with a 50 - 7000 kPa range (minimum increments- 10 kPa), 0.025% stainless steel weight set, supplied with NIST Data and protective carrying case



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