




Vernier Height Gauge


	<p>Beam and slide manufactured from hardened stainless steel Main and vernier scales are satin chrome Sliding scale raised to prevent wear Scale magnifier provided on 300, 600 and 1000mm models Main slide locking screw Fine adjustment Carbide tipped scriber Adjustable main scale for zero setting</p>
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Packed Weight and Dimensions

Code	Description	Weight g	W mm	H mm	L mm
51-300-012	Vernier Height Gauge 300mm / 12"	3900	270	125	610
51-300-024	Vernier Height Gauge 600mm / 24"	8950	300	175	950
51-300-040	Vernier Height Gauge 1000mm / 40"	26600	430	195	1400
51-300-060	Vernier Height Gauge 1500mm / 60"	61850	455	295	1950

	<p>Accuracy Specifications:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Range</th> <th>Resolution</th> <th>Accuracy</th> </tr> </thead> <tbody> <tr> <td>51-300-012</td> <td>300mm / 12"</td> <td>0.02mm / 0.001"</td> <td>0.04mm</td> </tr> <tr> <td>51-300-024</td> <td>600mm / 24"</td> <td>0.02mm / 0.001"</td> <td>0.07mm</td> </tr> <tr> <td>51-300-040</td> <td>1000mm / 40"</td> <td>0.02mm / 0.001"</td> <td>0.07mm</td> </tr> <tr> <td>51-300-060</td> <td>1500mm / 60"</td> <td>0.02mm / 0.001"</td> <td>0.10mm</td> </tr> </tbody> </table>	Code	Range	Resolution	Accuracy	51-300-012	300mm / 12"	0.02mm / 0.001"	0.04mm	51-300-024	600mm / 24"	0.02mm / 0.001"	0.07mm	51-300-040	1000mm / 40"	0.02mm / 0.001"	0.07mm	51-300-060	1500mm / 60"	0.02mm / 0.001"	0.10mm
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	<p>Adjustable Main Scale:</p> <p>Allows the vertical measuring scale to be moved to match with the sliding vernier scale at its zero position</p>
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	<p>Base Dimensions:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Range</th> <th>Base Length</th> <th>Base Width</th> <th>Base Height</th> </tr> </thead> <tbody> <tr> <td>51-300-012</td> <td>300mm / 12"</td> <td>140 mm</td> <td>90 mm</td> <td>45 mm</td> </tr> <tr> <td>51-300-024</td> <td>600mm / 24"</td> <td>180 mm</td> <td>118 mm</td> <td>55 mm</td> </tr> <tr> <td>51-300-040</td> <td>1000mm / 40"</td> <td>250 mm</td> <td>150 mm</td> <td>65 mm</td> </tr> <tr> <td>51-300-060</td> <td>1500mm / 60"</td> <td>300 mm</td> <td>200 mm</td> <td>75 mm</td> </tr> </tbody> </table>	Code	Range	Base Length	Base Width	Base Height	51-300-012	300mm / 12"	140 mm	90 mm	45 mm	51-300-024	600mm / 24"	180 mm	118 mm	55 mm	51-300-040	1000mm / 40"	250 mm	150 mm	65 mm	51-300-060	1500mm / 60"	300 mm	200 mm	75 mm
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The diagram shows a side view and a top view of a Vernier Height Gauge. Dimension A is the total length of the beam. Dimension B is the length of the vernier scale. Dimension C is the distance from the end of the beam to the start of the vernier scale. Dimension D is the length of the vernier scale. Dimension E is the height of the beam. Dimension F is the height of the vernier scale.

Replacement Scribers

Instrument Code	Scriber Code	A mm	B mm	C mm	D mm	E mm	F mm
51-300-012	51-300-014	130	8.85	90	4	8.9	27
51-300-024	51-300-026	160	8.85	105	5.5	8.9	27
51-300-040	51-300-042	200	10	190	10	16	48
51-300-060	51-300-062	220	10	210	10	18	57

Operation

Clean under the base of the Height Gauge to ensure that there is no dirt between the base and the surface plate it is to be used on

Ensure the working surface of the plate is clean and place the height gauge carefully on to it

Fit the scriber to the instrument

If the measurements are to be taken using the surface of the plate as the datum:

Move the scriber gently down to touch the surface of the plate (measuring force 3-5N)

The final movement to provide contact with the plate should be made using the fine adjustment mechanism

Check that the zero on the vernier scale is correctly aligned with the zero on the vertical scale

If the 2 zero's are not aligned correctly, adjustment can be made to the vertical scale by using the adjustment system located at the top of the height gauge column

The instrument is now ready to take measurements

Reading a Vernier

By V.Ryan

MAIN METRIC SCALE: 19 mm

HUNDREDTHS OF mm: 32 DIVISIONS

34 DIVISIONS

Example 1:

$19 + 32 \times 0.02$

$19 + 0.64$

19.64 = Correct reading

By V.Ryan

MAIN METRIC SCALE: 13 mm

HUNDREDTHS OF mm: 21 DIVISIONS

21 DIVISIONS

Example 2:

$13 + 21 \times 0.02$

$13 + 0.42$

13.42 = Correct reading