

Ultrasonic Thickness Blocks

for use with Ultrasonic Thickness Gauges

Western manufactures the following Thickness Blocks, which are provided in a Wood Storage Case, and Certificate of Conformance. Thickness Blocks are manufactured to ASTM E797.

Flat Series

Flat Series Thickness Blocks are manufactured with Parallel Thicknesses and Perpendicular Sides, as the name implies all edges are flat and angle square. Unless otherwise specified Flat Calibration Blocks are manufactured from ASTM 1018 material.

Imperial (Inch)

- 1 6 Step Imperial Calibration Block (P-008) *The Boiler Block*
0.125" to 0.750" in 0.125" increments.
- 2 5 Step Imperial Calibration Block (P009)
0.100" to 0.500" in 0.100" increments.
- 3 4 Step Imperial Calibration Block (P010)
0.250" to 1.000" in 0.250" increments.
- 4 6 Step 304L Stainless Steel, Imperial Calibration Block (P008-SS)
0.125" to 0.750" in 0.125" increments. *Stainless Boiler Block*
- 5 5 Step 304L Stainless Steel Imperial Calibration Block (P009-SS)
0.100" to 0.500" in 0.100" increments x 0.600" wide.

Metric

- 7 6 Step Metric Calibration Block (P-008) *The Boiler Block*
2.5mm to 19mm in 2.5mm increments.
- 6 5 Step Metric Calibration Block (#P009-M)
2.5 mm to 12.5 mm in 2.5 mm increments x 15 mm wide.
- 7 4 Step Metric Calibration Block (P010-M)
6.0mm to 24.0mm in 6.0mm increments x 18mm wide.
- 8 5 Step 304L Stainless Steel Imperial Calibration Block (#P008-M-SS)
2.5 mm to 12.5 mm in 2.5 mm increments x 15 mm wide.
- 9 6 Step Metric Calibration Block (P-014-M)
1.0mm, 2.5mm, 5mm, 10mm, 15mm, and 20mm

Curved Series

Curved Series Calibration Blocks are manufactured from ASME A106 material with an outside diameter of 3.5" to comply with the ASTM E797 Specification for Curved Surfaces.

Imperial (Inch)

- 1 5 Step Curved Calibration Block (P-011)
0.125" to 0.750" in 0.125" increments.
- 2 4 Step Curved Calibration Block (P012)
0.250" to 1.000" in 0.250" increments.
- 3 5 Step Aluminium Curved Calibration Block (P-011-A)
0.125" to 0.750" in 0.125" increments.

Metric

- 6 5 Step Metric Curved Calibration Block (#P011-M)
2.5 mm to 12.5 mm in 2.5 mm increments.
- 7 4 Step Metric Curved Calibration Block (P012-M)
6.0mm to 24.0mm in 6.0mm increments

Flat Bottom Holes

Western Instruments commonly introduces one or more Flat Bottom Holes into either it's Flat or Curved Series Ultrasonic Thickness Blocks. Flat Bottom Holes are typically machined into a corner of a single Thickness pad. This corner location insures that the Flat Bottom Hole does not interfere with the common use of the Calibration Block for Standardization (Material Calibration).

Training Aids

A Curved Calibration Block demonstrates an operator's ability to test for corrosion on small diameter piping or Downhole Tubulars. Adding a Flat Bottom Hole to either a Flat or Curved Calibration Standard demonstrates an operator's ability to test for Corrosion Pitting or laminations. Changes in surface condition, by either machined finish or Corrosion (in a test chamber), demonstrate the operator's ability to inspect In-Service equipment. While most would consider these 3 items as unnecessary, they are specifically address in ASTM E797, which is the reference specification for most ultrasonic testing standards.