# Calibration Blocks

# V1/5 (A2) Calibration Block (V1)

For calibrating ultrasonic flaw detection equipment in both laboratory and on-site conditions. Used for calibration of shear and longitudinal transducers, determination of shear wave emission point, refracted angle.

Includes a 100 mm radius, 1.5 mm and 50.0 mm holes, engraved reference mark scales, and slots at the zero point which provide calibrating signals at intervals of 100 mm range. Used for calibrating in accordance with British Standard BS 2704 Block A2 Mod. 1, EN 12223, German Standard DIN 54-120, Australian Standard AS 2803, and ISO 2400. Also meets the requirements of the Dassault Aviation Falcon 10 Mandatory Service Bulletin #294 dated March 20, 2002.

# IIW TYPE 2 BLOCK

A modified version of the original IIW-Type 1 design. Includes a 2.0" radius x .250" deep cut-out superposed on the 4.0" radius for distance calibration. Also includes numbers 3, 5 and 8 through holes (3/64", 5/64" AND 8/64" diameter) and distance calibration marks to the 2.0" hole. In accordance with International Institute of Welding, ASTM E164 and U.S. Air Force NDI Manual T.O. 33B-1-1 specifications.

- Dimensions: 12.0" x 4.0" x 1.0"
   4340 Steel, Nickel-plated
- Fitted wooden storage case or Cordura shoulder case optional

## V2 (A4) Calibration Block (V2)

12.5 mm thick small, carbon steel, calibration block for on-site checking of miniature shear wave probe index, time base, beam angle and gain. Includes a 25 mm and 50 mm radius, 1.5 mm hole (or 5mm), engraved reference mark scales from 35° to 75°. In accordance with British Standard BS 2704 block A4, Fig. 4, and AS 2083.

Dimensions: 75mm x 43mm x 12.5mm

- Also available in 20 mm and 25 mm thicknesses for calibration of non-miniature probes.
- Fitted wooden storage case optional

## Velocity Block (CBV)

Equivalent to a 1US thickness of a known velocity in steel. The block is mounted in perspex. Used to check the velocity of other materials with thickness meters.

#### Universal CBU Calibration Block

For the calibration of small shear wave and longitudinal transducers, determination of shear wave emission point, refracted angle and measurement of sensitivity and depth resolution. 50 mm radius.

# SteelPipe Wedge (PW)

Made from 50 mm diameter pipe with thickness steps of 10, 8, 6, 4, and 2 mm. The pipe wedge simulates steam boiler tubes in power stations and is used to calibrate flaw detectors for thin tube inspections.





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### AWS Resolution Block

Also called an RC block, the AWS Resolution Reference Block is used for checking resolution capabilities of angle beam transducers. Contains three sets of .0625" diameter through-holes for 45°, 60° and 70°. In accordance with AWS Welding Highway and Railway Bridges specification D2.0, and Structural Welding Code ANSI/AWS D1.1. Made from 1018 Steel, Nickel-plated.

#### • Dimensions: 6.000" x 3.000" x 1.000" (152.4 mm x 76.2 mm x 25.4 mm)

• AWS does not specify a separate metric version of the AWS Resolution block. The metric block in AWS shows only the metric equivalents to the standard design. Therefore, this one block can be used for both inch and metric requirements.

Fitted wooden storage case optional

#### DSC Test Block (Imperial & Metric version available)

AWS-type block used for shear wave distance and sensitivity calibration. Contains a 1.0" radius opposite a 3.0" radius. The 3.0" radius includes a .375" deep x .032" wide radiused slot. Also contains a 0° reference point for checking exit point on wedge, and a .125" diameter through hole and corresponding markings at 45°, 60°, and 70° for measuring actual refracted angle. In accordance with ASTM E164 and AWS 6.16.1B.

 Special DSC blocks with radiussed scanning surfaces for NPS sizes also offered.

 • Dimensions: 1" thick
 • Fitted wooden storage case optional





#### Navships Block

This special Phased Array version of the popular NAVSHIPS block solves the problem of too many holes interfering with one another. The block contains four holes at 3/64" diameter drilled through the 1.250" width. The holes are located at .250, .750, 1.250, 1.750, 2.250, and 2.750". **Dimensions: 1.250**" wide x 3.000" tall x 12.00" long Alloy: 1018 Steel, nickel-plated



#### Calibration Step Wedge

(Imperial (CBI) & Metric (CBM) available) Series of steel discs set into a perspex block for calibration and linearity checking of thickness gauges and flaw detectors.

#### Wedge thicknesses are:

Inches: 0.05, 0.1, 0.2, 0.3, 0.4, 0.6 inches mm: 1.5, 2.5, 5.0, 10.0, 15.0, 20.0 mm

## Steel Step Wedge (VW)

Used for checking the sensitivity of twin transducers on thin sections when using flaw detectors, thickness and linearity calibration.

- 1 mm to 8 mm in 1 mm steps.
- Each "step" is 20 mm x 20 mm. (0.75" x 0.75" )
- Specification ASTM E797.
- Fitted wooden storage case optional.



