

# FOUNDRAx

## FOUNDRAx BRINELL REFERENCE BLOCKS (HIGHER LOADS) & BRINELL REFERENCE INDENTATION READING BLOCKS



### BRINELL REFERENCE BLOCKS

#### THE FIRST

Foundrax are the only specialist in Brinell hardness testing in Europe and were the first company in the U.K to be approved to national standards for the calibration of Brinell Reference blocks.

#### THE BEST TO USE

Foundrax Brinell Reference blocks conform fully to BS EN ISO 6506-3 and ASTM E10-00 and are complete with Reference Indentation as per BS EN ISO 6506-3 8.3

Mirror finish for clear and easy indentation measurement

Foundrax Brinell Reference blocks are supplied with record card.

#### ECONOMICAL & GOOD VALUE FOR MONEY

Foundrax Brinell blocks are supplied in two sizes 173cm<sup>2</sup> and 100cm<sup>2</sup>. The cost per indentation of the large blocks is lower

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## World Leaders

Brinell Hardness  
Testing Equipment



No 0231

SCALE	RATIO f/D <sup>2</sup>	HARDNESS RANGES AVAILABLE
HB10/3000 HB5/750 HB2.5/187.5	30	<b>140-169</b> 170-199 <b>200-229</b> <b>230-269</b> 270-299 <b>300-329</b> <b>330-369</b> 370-399 <b>400-499</b> 500-600
HB10/1500	15	<b>55-89A</b> <b>90-190A</b> 110-150A <b>140-169</b> 170-199 <b>200-229</b> <b>230-269</b> 270-299
HB10/1000 HB5/250	10	<b>55-89A</b> <b>90-109A</b> 110-150A <b>140-169</b>
HB10/500	5	55-89A 90-100A

- \* Foundrax Brinell Reference blocks in the scales shown above are UKAS certified to both **BS EN ISO 6506-3** and **ASTM E10-00**
- \* Foundrax Brinell Reference blocks calibrated in scales from HB10/3000 to HB5/250 can be supplied with a surface area of 173cm<sup>2</sup> and 100cm<sup>2</sup>
- \* 173cm<sup>2</sup> blocks are better value for money
- \* Foundrax Brinell Reference blocks are calibrated HBW
- \* All block material is steel except where marked A (aluminium)
- \* Standard hardness ranges are marked in **bold**
- \* Advise hardness range & hardness scale required e.g. 140-169HB 10/3000
- \* UKAS certified Brinell Reference blocks (lower loads) can also be supplied in scales HB2.5/62.5 HB2.5/31.25 HB1/30
- \* UKAS certified hardness blocks can also be supplied in all HR HV and HMV scales

## BRINELL REFERENCE INDENTATION READING BLOCKS

### STANDARDIZED BRINELL INDENTATIONS:

- \* Make the Brinell test more meaningful and accurate
- \* Enable the monitoring of operators
- \* Discover an operator's systematic reading errors
- \* Can be used to train operators to measure Brinell indentations correctly
- \* Resolve arguments
- \* Can be used to Indirectly Verify Brinell microscopes.

These are steel blocks containing 5 Reference Indentations made with a 10mm ball in the range 2.40-6mm and 5 Reference Indentations made with a 5mm ball in the range 1.30-3mm. These measuring ranges cover all Brinell scales using 10mm and 5mm Brinell balls.

Each Reference Indentation has been measured in accordance with BS EN ISO 6506 in a standardizing machine which is traceable to National Standards and its mean diameter is given on the accompanying certificate.

Foundrax Reference Indentation Reading blocks are supplied in protective boxes with official UKAS certificates of calibration.

### WHY IS THERE A NEED FOR FOUNDRAX BRINELL REFERENCE INDENTATION READING BLOCKS

The weakness of the Brinell test is in the measurement of Brinell indentations. With the exception of the very few acceptable automatic systems this applies to all machines and microscopes to varying degrees.

The problem lies in the fact that the start and finish of the measurement depends on a subjective judgement of where the edge of the indentation is. If one person measures the diameter of an indentation as being "A" and another measures it as being "B" who is to say who is right? Because they are made in a traceable standardizing machine, the measurements of the indentations on Foundrax Reference Indentation Reading Blocks are correct by definition and represent the standard of measurement to which operators should aspire.

### HOW TO USE FOUNDRAX BRINELL REFERENCE INDENTATION READING BLOCKS

By measuring each indentation it is possible to determine what systematic error each operator has, and if necessary to train them to measure correctly and to tighter limits than they have been used to, and for SPC this is essential. The mean diameters of the Reference Indentations are given on the Certificate and not on the Block. To avoid being influenced by the true measurements the person measuring the indentations should be asked to write down the measurements and should not be told what the actual measurements are. It can then be seen whether his measurements are large or small (and by how much) consistent, inconsistent etc.

When disputes over Brinell hardness arise it is possible to find which party is making the truer measurements.

Foundrax Brinell Reference Indentation Reading Blocks may be used for the Indirect Verification of Brinell microscopes to BS EN ISO 6506.

# FOUNDRA X

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