



TEMAFLUX SRL

FOUNDRAX

BRIN400

series

Production Brinell
hardness tester

BRIN400B



Closed loop and servo motor force control

Load cell and servo motor force control for ultra reliable force application

Foundrax were founded in 1948 and were the first company in the world to produce a fully automatic Brinell hardness tester making the authentic Brinell hardness test – the BRINscan. The BRINscan is in use in harsh heavy duty environments all over the world, one example of which was first installed in 1984 and which the customer claims has performed over 25 million tests.

The BRIN400 series is the latest development in the Foundrax Brinell hardness testing range and uses “state of the art” technology.

The test forces are applied using a combination of bespoke load cell and servo motor. The forces are driven through a heavy duty gearbox and ballscrew working at well below their maximum capacity for long life reliability.

The force application is monitored over 125 times per second via a custom made load cell located directly above the indenter ball. By using our own custom made load cell we are able to ensure that the force measurement is optimised for Brinell hardness testing, in addition to which the load cell amplifier has been tailored to our exact specifications.

Specifications

Test height: 400mm
Throat: 250mm

NOMINAL OVERALL DIMENSIONS:
420 mm [W]
670 mm [D]
1210 mm [H]

NETT WEIGHT:
500Kg approximately

ELECTRICAL SUPPLY:
400V AC 50Hz 3 phase + Neutral +
Earth 16A max

Standard equipment

10mm , 5mm and 2.5mm indenters as
required

TESTING TABLE:
200mm dia.

VEE ANVIL: 70mm diameter

Available Hardness scales

HBW10/3000
HBW 10/1500
HBW 10/1000
HBW 5/750
HBW 10/500
HBW 10/250
HBW 5/250
HBW 2.5/187.5
HBW 2.5/62.5

Optional additional features

-S: Motorized lead screw – available
on each machine

**Foundrax manufacture
a complete range
of Brinell Hardness
Testers – portable,
laboratory, production,
semi-automatic and
fully automatic**

The advantage of using a servo motor to control the force application is that the machine is able to retain full torque when the motor is static and therefore the machine can easily make minute force adjustments to compensate for material creep or movement of the component. The combination of these two elements means that the full and correct test force is applied accurately and reliably under all circumstances.

The time cycle of the test is controlled in software. The rise time is configured during initial set up and the dwell time may be adjusted by the operator if required.



The BRIN400B-S features a powered lead screw for heavy components or high rates of testing. The lead screw is anchored to the throat of the machine by a slideway to protect it from accidental damage arising from poor jiggling of components or incorrect loading of components into the machine.

The powered lead screw design is well proven and has been used around the world for almost 15 years in the previous generation BRIN200 series of production Brinell hardness testers.

The BRIN400 Series Brinell Hardness Testers

BRIN400B	Closed loop servo motor controlled production Brinell hardness tester
BRIN400D	Closed loop servo motor controlled automatic production Brinell hardness tester with integral BRINtronic automatic Brinell microscope

Established in 1948, Foundrax are recognised as world leaders in Brinell Hardness Testing and a trustworthy partner. Foundrax is a UKAS accredited calibration laboratory (No. 0231) and takes pride in ensuring its customers receive the very highest quality of service.

Foundrax are the only Brinell hardness testing equipment manufacturer to make a range that includes everything from reference blocks and portable Brinell hardness testers to National Hardness Standard Calibration Machines

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