

# NEXUS 3200 SERIES

Brinell Hardness Testers





6.5", Full color industrial LCD touch screen for easy tester operation, can also be operated by wireless mouse and keyboard.

High performance micro PC, Windows Embedded operating system, SSD drive.

IMPRESSIONS™ advanced hardness testing software, includes file storage, test program storage, machine settings storage, etc.

Front side USB connector for USB stick or data drive

Indent image via Brinell Indent Optical Scanner (BIOS) with built-in ringlight. Advanced algorithms for automatic indent measurement. Indent ZOOM function

Brinell Indent Optical Scanner (BIOS) can be used on large or small components. One push on the button generates a crisp high definition image of the Brinell indentation on the LCD screen. Automatic measurement or manual measurement according to pre-setting.

*Optional spring loaded workpiece clamping system*

Precision elevator screw (Motorized, optional)

Connectivity: USB (4), UTP-RJ45-LAN, W-LAN, RS232, Motorized X-Y stage (optional)

**NEXUS 3200**  
62.5KGF/612N - 3000KGF/26KN, WITH BIOS

## FEATURES

Top quality compact Brinell hardness tester with video measuring system.

Load cell, closed loop, force application system.

Test forces starting from 62.5kgf/612N up to 3000kgf/29kN.

Embedded high performance micro PC, Windows Embedded operating system, SSD drive for enhanced reliability.

6.5" Full color industrial LCD touch screen (can also be operated by mouse and keyboard).

IMPRESSIONS™ advanced user interface with "key in" option for indent dimensions and automatic Brinell hardness calculation.

Brinell Indent Optical Scanner (BIOS) showing crisp images on the LCD screen, fully automatic measurement.

- Simultaneous conversion to Rockwell, Vickers, Brinell and Leeb rebound testing
- Indent ZOOM function
- Fully automatic indent measurement
- BIOS equipped with LED ring light for dark field illumination
- Connectivity USB (4), UTP-RJ45-LAN, W-LAN, RS232
- Motorized X-Y stage (optional)
- XL version, 390mm workpiece height, 220mm throat depth

### Applications

- Hardness of castings and forgings
- For flat and cylindrical work pieces
- Wide application within the automotive and aerospace industry
- Foundries or workshop testing
- Sample testing or quality control testing



## IMPRESSIONS™ FIRMWARE

IMPRESSIONS™ is the advanced user operating system of the NEXUS 3200. The software incorporates, manual and automatic measurement for all scales, image editing, file storing, image storing, report printing and many other advanced functions.

The firmware converts to 2 different hardness (and tensile) scales simultaneously. The conversions can be set to particular materials and according to certain standards (ISO/ASTM).

All data can be copied or exported in to MS applications like Word, Excel, or a report generator that emails test results directly to your workstation, or server. All data can be accessed over the LAN or WLAN connections, the system also generates common CSV files.



**TECHNICAL SPECIFICATIONS**

Hardness scales	Brinell (HB)
Load range	62.5kgf/612N to 3000kgf/29kN
Test loads	62.5kgf/612N, 80kgf/784N, 100kgf/980.7N, 120kgf/1176N, 125kgf/1225N, 187.5kgf/1838N, 250kgf/2.45kN, 500kgf/4.9kN, 750kgf/7.35kN, 1000kgf/9806N, 1500kgf/14.7kN, 3000kgf/29kN
Brinell test range	HB: 62.5kgf/612N, 100kgf/980.7N, 125kgf/1225N, 187.5kgf/1838N, 250kgf/2.45kN, 500kgf/4.9kN, 750kgf/7.35kN, 1000kgf/9806N, 1500kgf/14.7kN, 3000kgf/29kN
Indentors	Balls 2.5mm - 5mm - 10mm
Video system	Brinell Indent Optical Scanner (BIOS-1, standard, field of view 1.5mm - 6mm), Brinell Indent Optical Scanner (BIOS-2, optional, field of view 0.6mm - 2.5mm)
Electronic system	High performance embedded micro system controller, MS Windows®, 6.5" full color touch screen, automatic and manual measurement
Test force selection	Electronic, closed loop, load cell, force feedback system. Test force selectable over menu operation
Test procedure	Automatic, loading/dwell/unloading
Loading speed	Variable, depending on test load, scale
Test force accuracy	Tolerance within 0.5% full range
Firmware	IMPRESSIONS™, advanced hardness testing software including options for: manual measurement, automatic measurement, indent zoom function, scale conversion, file storage, report printing, test program storage, machine settings storage, graphic interface for indenter position
Hardness conversion	Rockwell, Vickers, Brinell, Leeb and Tensile 2 scales simultaneously
Standards	Meets or exceeds, ISO, ASTM, JIS/GB (Nadcap) standards
Statistics	Total tests, max, min, average, range, standard deviation, all in real time after each test
Connectivity	USB (4), UTP-RJ45-LAN, W-LAN, RS232
Loading mechanism	Fully automatic, closed loop, force feedback, loading, dwell, unloading
Dwell time setting	Default 10 seconds, user defined 1 to 99 seconds
Workpiece accommodation	Vertical capacity                    220mm normal model, 390mm XL model,  Horizontal capacity                220mm (from center-line), 220mm XL model (from center-line)
Operating temperature	10°C to 35°C, non-condensing
Humidity	10% to 90% non-condensing
Machine dimensions	612mm x 180mm x 755mm, 620mm x 180mm x 950mm (XL model)
Machine weight	130kg, 160kg XL model
Power supply	100V AC to 240V AC, 50Hz/60Hz, single phase

### STANDARD DELIVERY

- V-anvil, hardened,  $\varnothing 80\text{mm}$
- Large flat anvil,  $\varnothing 200\text{mm}$
- Ball indentors  $\varnothing 2.5\text{mm}$ ,  $\varnothing 5\text{mm}$  and  $\varnothing 10\text{mm}$
- Hardness test block, 150-250 HBW 10/3000
- Hardness test block, 75-125 HBW 10/1000
- Hardness test block, 150-250 HBW 2.5/187.5
- Brinell Indent Optical Scanner (BIOS-1, field of view 1.5mm - 6mm), including large support base, small support base and magnetic support base
- Wireless mouse and keyboard
- Fuse 2A (3 pcs)
- Power cable
- Four adjustable vibration dampers
- INNOVATEST® certificate
- Installation and user manual

### OPTIONAL ACCESSORIES

- Factory indentors
- Certified indentors (UKAS, DKD, ASTM)
- Factory reference hardness blocks
- Certified reference hardness blocks (UKAS, DKD, ASTM)
- Large testing table, 350mm x 250mm, with T-slots
- Extra large testing table, 450mm x 350mm, with T-slots
- Custom testing tables
- Motorized X-Y stage
- Spring loaded workpiece clamping system
- Extended height/width frame XL models
- Motorized spindle for fully automatic testing on XL models
- Solid tester stand and storage cabinet



### ORDER DETAILS

#### NEXUS 3200

Brinell, with BIOS, test forces 62.5kgf/612N to 3000kgf/29kN

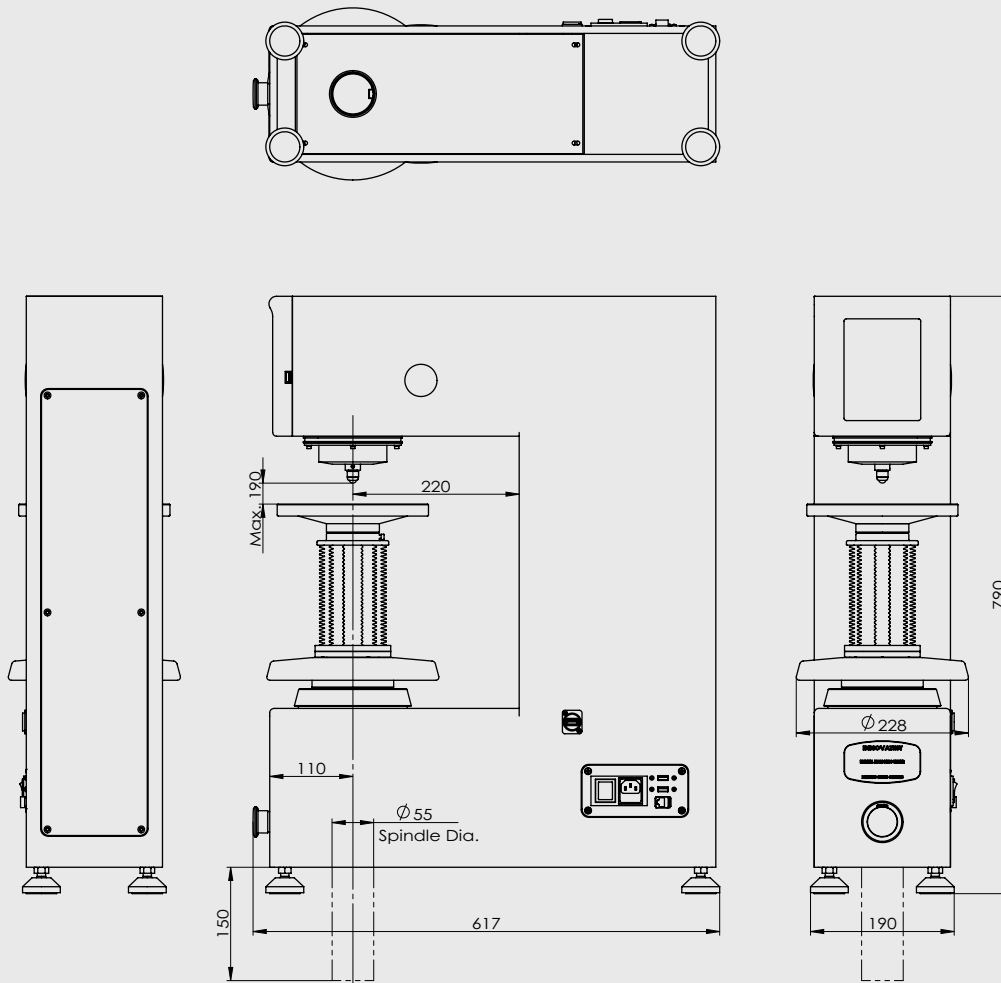
#### NEXUS 3200XL

Brinell, with BIOS, tall version, test forces 62.5kgf/612N to 3000kgf/29kN

#### NEXUS 3200XLM

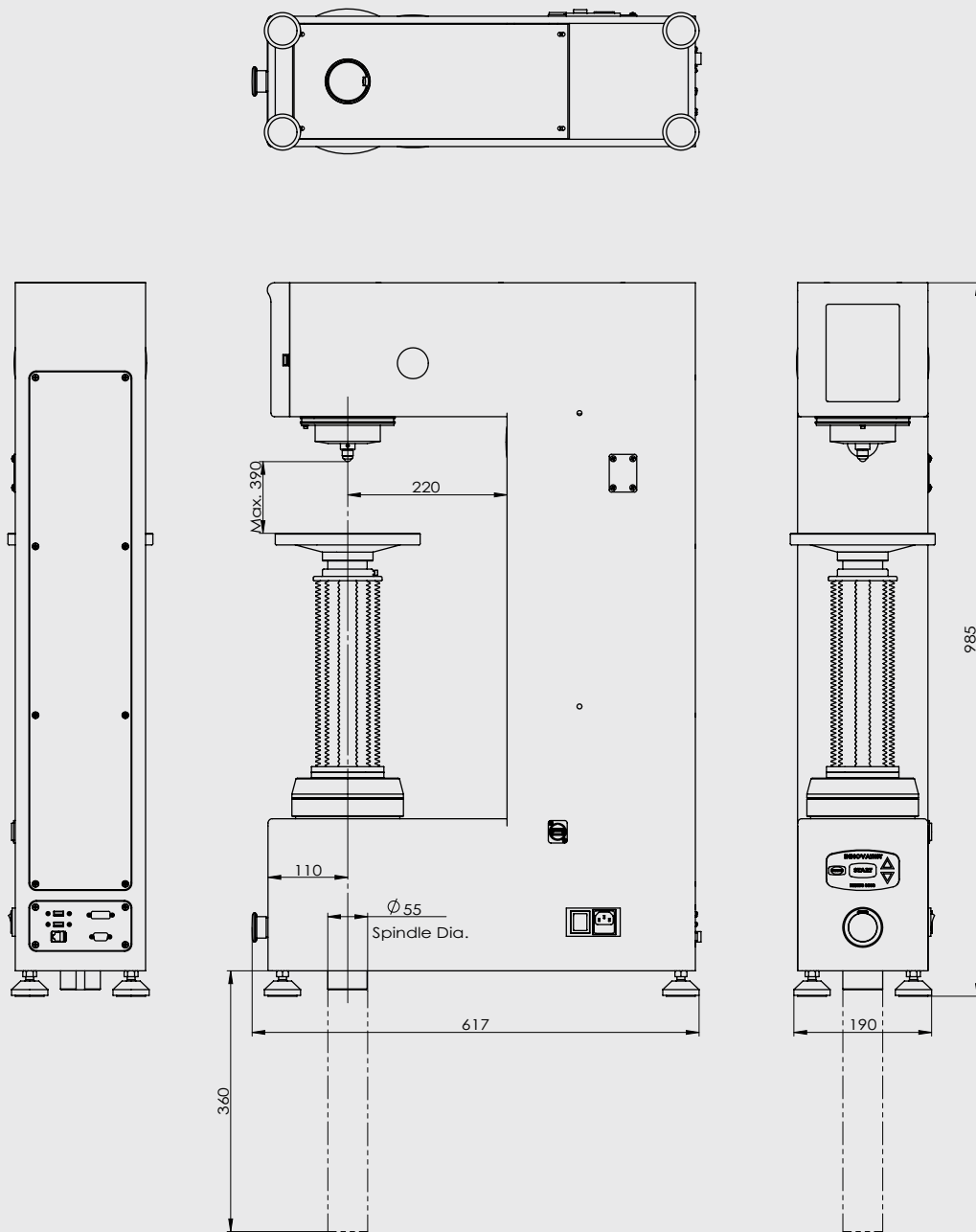
Brinell, with BIOS, tall version with motorized spindle, test forces 62.5kgf/612N to 3000kgf/29kN

**TECHNICAL DRAWING NEXUS 3200**



All dimensions are in mm

**TECHNICAL DRAWING NEXUS 3200XL(M)**



All dimensions are in mm

Represented by:

INT3-286 200314

## **CORPORATE HEAD OFFICE**

### **MANUFACTURING, DISTRIBUTION & SERVICE**

#### **INNOVATEST Europe BV**

Borgharenweg 140  
6222 AA Maastricht (The Netherlands)  
Phone: +31 43 3520060  
Fax: +31 43 3631168  
Email: [info@innovatest-europe.com](mailto:info@innovatest-europe.com)

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#### **INNOVATEST Benelux BVBA**

##### **SALES & SERVICE**

Phone: +32 12 779002  
Fax: +32 12 779003  
E - mail: [info@innovatest-benelux.com](mailto:info@innovatest-benelux.com)

#### **INNOVATEST Shanghai Co., Ltd.**

##### **DISTRIBUTION, SALES & SERVICE**

Building 2, No.123, 1165 Nong Jindu Road,  
South Metropolis Industrial Park  
Minhang District, Shanghai, P.R. China  
Zip code: 201108  
Phone: +86 21 60906200  
Fax: +86 21 60912595  
E - mail: [info@innovatest-shanghai.com](mailto:info@innovatest-shanghai.com)

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