

NEXUS 3000 SERIES



NEXUS 3000 Series Brinell hardness tester



Features

Top quality Brinell hardness tester with various options for optical measuring systems.

Ability to measure indentations starting from 30kgf/294.2N - 3000kgf/29kN.

Advanced user interface with "key in" option for indent dimensions, automatic Brinell hardness calculation. Display automatically shows Brinell hardness with conversion to Rockwell, Vickers and Leeb.

- Load cell, closed loop system
- Test loads 30kgf/294.2N - 3000kgf/29kN
- LCD display showing Brinell and Vickers value, statistics and tester settings
- Simultaneous conversion to Rockwell, Vickers, Brinell and Leeb rebound testing
- Microscope with analogue scale for indentation measurement (3001 models)
- Indent ZOOM function (IMP models)
- Fully automatic indent measurement with motorized turret (IMP models)
- Brinell microscope with LED ring light (3001 models)
- Connectivity for data output via RS-232
- XL version, 390mm workpiece height, 220mm throat depth

- Brinell microscope with LED ringlight
- Motorized turret for automatic Brinell Video Indent Measuring System

3001, 3001XL, 3001XLM
3001XLM-IMP



XL VERSION

XL VERSION

XL VERSION

Technical specifications

NEXUS 3000	
Hardness scales	Brinell (HB)
Load range	30kgf/294.2N to 3000kgf/29kN
Test loads	30kgf/294.2N, 31.25kgf/306N, 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
Brinell test range	HB: 30kgf/294.2N, 31.25kgf/306N, 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 1mm (optional) - 2.5mm - 5mm - 10mm
Test force selection	Electronic, closed loop, load cell, force feedback system, indication in kgf or N. Test force selectable over menu operation
Test procedure	Automatic, loading/dwell/unloading
Loading speed	Variable, depending on test load
Test force accuracy	Tolerance within 0.5% full range
User display	Diameter of indent, length of diagonals, hardness value, converted value, test force, online statistics
Display resolution	0.1 HB
Hardness conversion	Rockwell, Vickers, Brinell, Leeb and Tensile 2 scales simultaneously
Standards	Meets or exceeds, ISO, ASTM, JIS (Nadcap) standards
Statistics	Total tests, max, min, average, range, standard deviation, all in real time after each test
Control panel	Start test, stop test, dwell time, print, clear, menu operation for date, time, scale and load settings, language
Firmware	V2.01 German, English, French (standard) V2.02 English, Italian, Spanish
Memory	Large memory for testing results
Connectivity	RS-232, Bi-Directional, USB
Loading mechanism	Fully automatic, closed loop, force feedback, loading, dwell, unloading
Dwell time setting	Default 10 seconds, user defined 1 to 99 seconds
Printer	Optional silent high speed printer
Eyepiece microscope	Analogue
Workpiece accommodation	Vertical capacity 190mm normal model, 390mm XL/XLM model, Horizontal capacity 220mm (from center-line), 220mm XL/XLM model (from center-line)
Operating temperature	10°C to 35°C, non-condensing
Humidity	10% to 90% non-condensing
Machine dimensions	190mm x 617mm x 790mm, 190mm x 617mm x 985mm (XL/XLM model)
Machine weight	130kg, 160kg XL/XLM 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
- Analogue measuring microscope with 20x (3001/XL/XLM series)
- Fuse 2A (3 pcs)
- Wireless mouse and keyboard
- Power cable
- Four adjustable feet
- INNOVATEST® certificate
- Installation and user manual

Optional accessories

- Certified indentors (ASTM, DIN, ISO)
- Certified reference hardness blocks (ASTM, DIN, ISO)
- Large testing table 350mm x 250mm
- Custom testing tables
- HB100 Video measuring and data base system
- Motorized X-Y stage
- Extended height/width frame XL models
- Motorized spindle for fully automatic testing on XL models
- Solid tester table and storage cabinet
- High End Brinell Microscope 20X, 30x, 40x, 60x, 100x with illumination



High End Brinell Microscope

Order details

NEXUS 3001

Brinell, analogue micrometer reading, test forces 30kgf/294.2N to 3000kgf/29kN

NEXUS 3001XL

Brinell, analogue micrometer reading, tall version, test forces 30kgf/294.2N to 3000kgf/29kN

NEXUS 3001XLM

Brinell, analogue micrometer reading, tall version with motorized spindle, test forces 30kgf/294.2N to 3000kgf/29kN

NEXUS 3001XLM-IMP

Brinell, digital microscope, tall version with motorized spindle, with fully automatic measurements, test forces 30kgf/294.2N to 3000kgf/29kN

NEXUS 3001XLM-IMP Brinell hardness tester



Features

FULLY-AUTOMATIC SYSTEM

Brinell hardness tester with fully automatic indent video measuring system, equipped with a automatic motorized turret/revolver (indentor/objective positions). Optical system with high quality objective.

Powerful PC based fully automatic indent measuring software IMPRESSIONS™, with indent ZOOM function, automatic focus, automatic measurements, database testing results storage and image storage.

Standard equipped with motorized spindle for fully automatic procedure.

Procedure:

Auto-load, automatic indentation, automatic focus, automatic indent measuring, unload.

Key features IMP system:

- 2-Position motorized turret (indentor/objective)
- Auto-load, -indentation, -focus, -measuring, unload
- High resolution CCD camera
- IMPRESSIONS™ hardness testing software for automatic measuring and data/image storage
- Powerful PC with 15" industrial LCD touch screen, height adjustable bracket, keyboard and mouse (optional)
- Test loads 30kgf/294.2N - 3000kgf/29kN

Manual mode use:

- LCD display showing Brinell and Vickers value, statistics and tester settings
- Simultaneous conversion to Rockwell, Vickers, Brinell and Leeb rebound testing
- Microscope with analogue scale for indentation measurement



NEXUS 3001XLM-IMP can also be operated as a Brinell indentation press only. Without the use of the IMPRESSIONS™ interface.



NEXUS 3001XLM-IMP is standard equipped with an automatic motorized spindle for a fully automatic testing procedure.



IMPRESSIONS™ video indent measurement system and tester user interface offers unlimited testing results storage capacity and allows to set up a number of standard test programs.

Technical specifications

NEXUS 3001XLM-IMP	
Hardness scales	Brinell,
Load range	30kgf/294.2N to 3000kgf/29kN
Test loads	30kgf/294.2N, 31.25kgf/306N, 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
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Indentors	Balls 1mm - 2.5mm - 5mm - 10mm
Test force selection	Electronic, closed loop, load cell, force feedback system, indication in kgf or N. Test force selectable over menu operation
Test procedure	Automatic, loading/dwell/unloading
Loading speed	Variable, depending on test load
Test force accuracy	<0.5% for all test forces
User display	Diameter of indent, length of diagonals, hardness value, converted value, test force, online statistics
Display resolution	0.01 HB
Hardness conversion	Rockwell, Vickers, Brinell, Leeb and Tensile 3 scales simultaneously
Standards	Meets or exceeds, ISO, ASTM, JIS (Nadcap) standards
Statistics	Total tests, max, min, average, range, standard deviation, all in real time after each test
Control panel	Start test, stop test, dwell time, print, clear, menu operation for date, time, scale and load settings, language
Firmware	V2.01 German, English, French (standard) V2.02 English, Italian, Spanish
Memory	Large memory for testing results
Connectivity	RS-232, Bi-Directional, USB
Loading mechanism	Fully automatic, closed loop, force feedback, loading, dwell, unloading
Dwell time setting	Default 10 seconds, user defined 1 to 99 seconds
Printer	Optional silent high speed printer
Optical measurement system	Video measuring, 0.1µm reading
Workpiece accommodation	Vertical capacity 335mm, Horizontal capacity 220mm (from center-line)
Maximum workpiece weight	100kg
Operating temperature	10°C to 35°C, non-condensing
Humidity	10% to 90% non-condensing
Machine dimensions	190mm x 617mm x 985mm
Machine weight	160kg
Power supply	100V AC to 240V AC, 50Hz/60Hz, single phase

Standard delivery

- V-anvil, hardened, $\varnothing 80\text{mm}$
- Large flat anvil, $\varnothing 200\text{mm}$
- Analogue measuring microscope with 20x (3001/XL/XLM series)
- Fuse 2A (3 pcs)
- Wireless mouse and keyboard
- Power cable
- Four adjustable feet
- INNOVATEST® certificate
- Installation and user manual

Optional accessories

- Certified indentors (ASTM, DIN, ISO)
- Certified reference hardness blocks (ASTM, DIN, ISO)
- Large testing table 350mm x 250mm
- HB100 Video measuring and data base system
- Extended height/width frame XL models
- Motorized X-Y stage
- Custom testing tables
- Solid tester table and storage cabinet



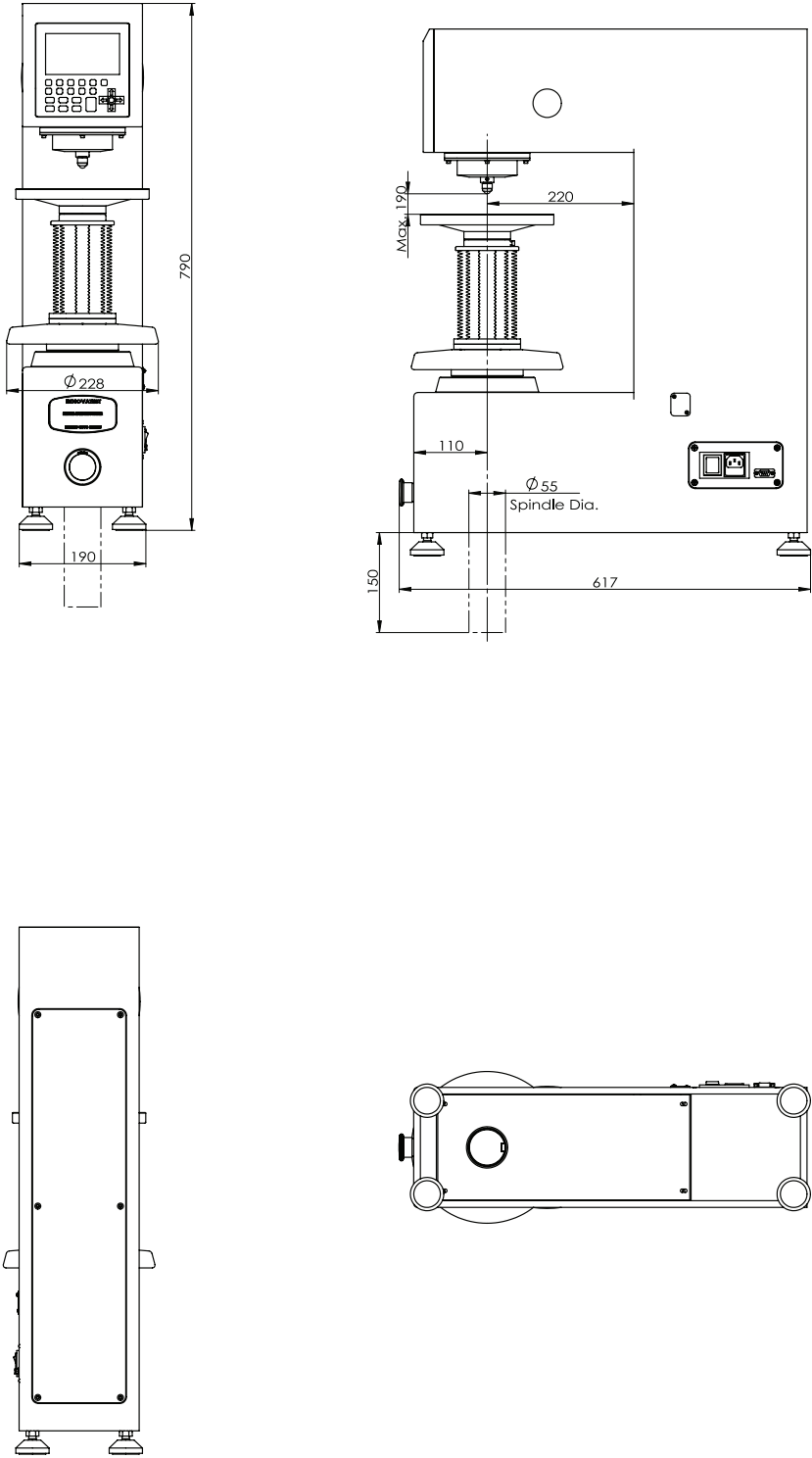
Order details

NEXUS 3001XLM-IMP Brinell, digital microscope, tall version with motorized spindle, with fully automatic measurements, test forces 30kgf/294.2N to 3000kgf/29kN



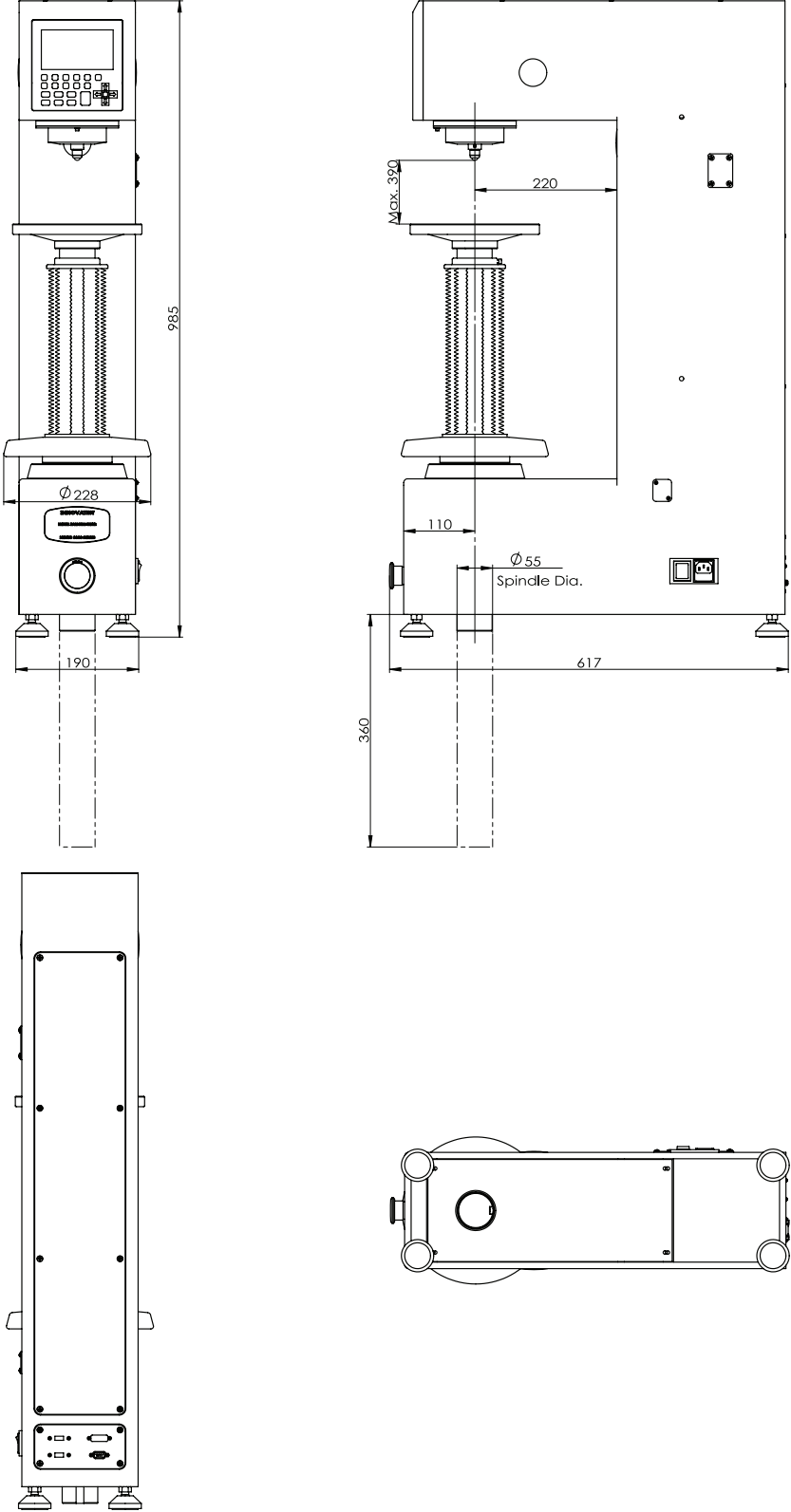
Technical drawing NEXUS 3000

All dimensions are in mm



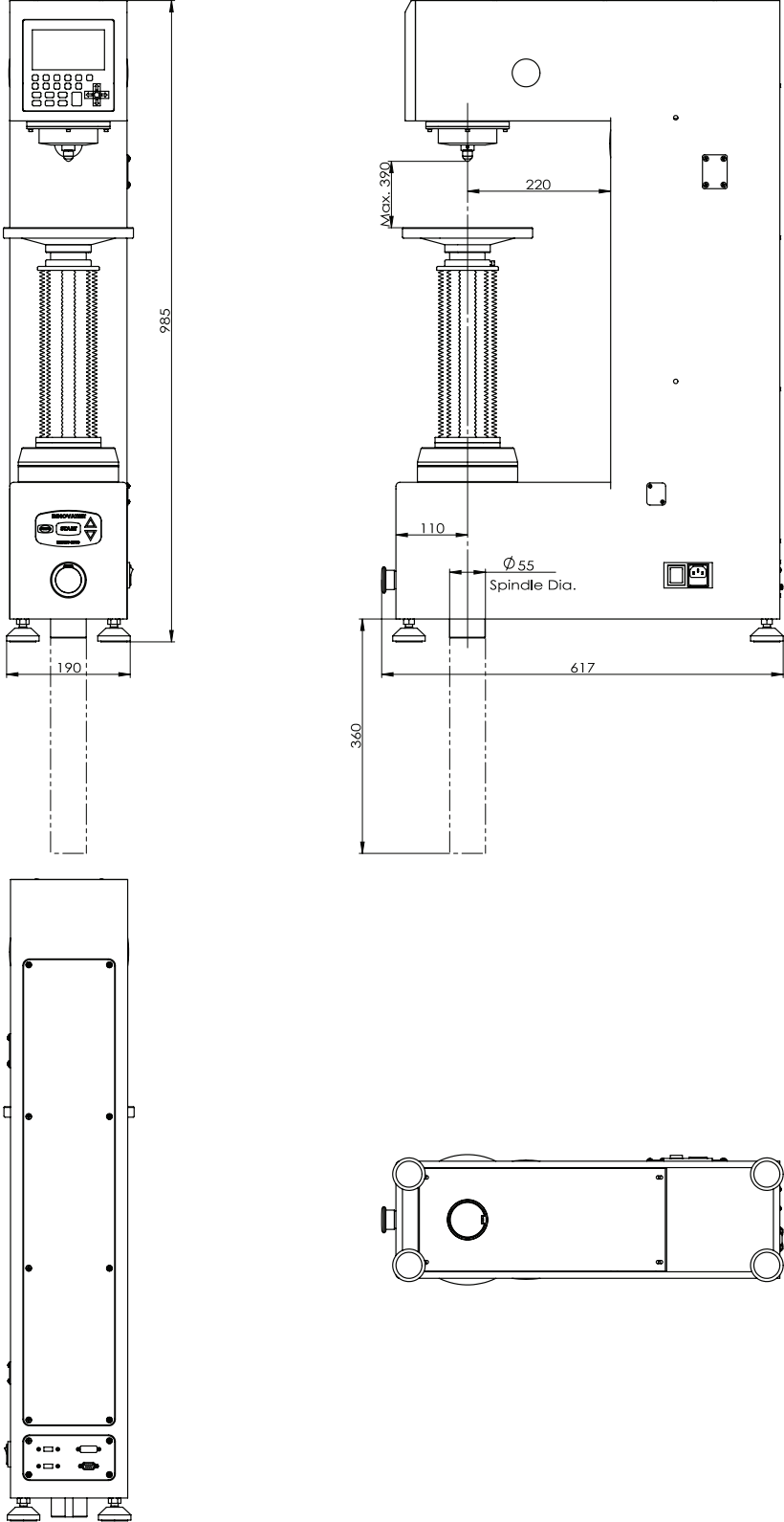
Technical drawing NEXUS 3000XL

All dimensions are in mm



Technical drawing NEXUS 3000XLM

All dimensions are in mm

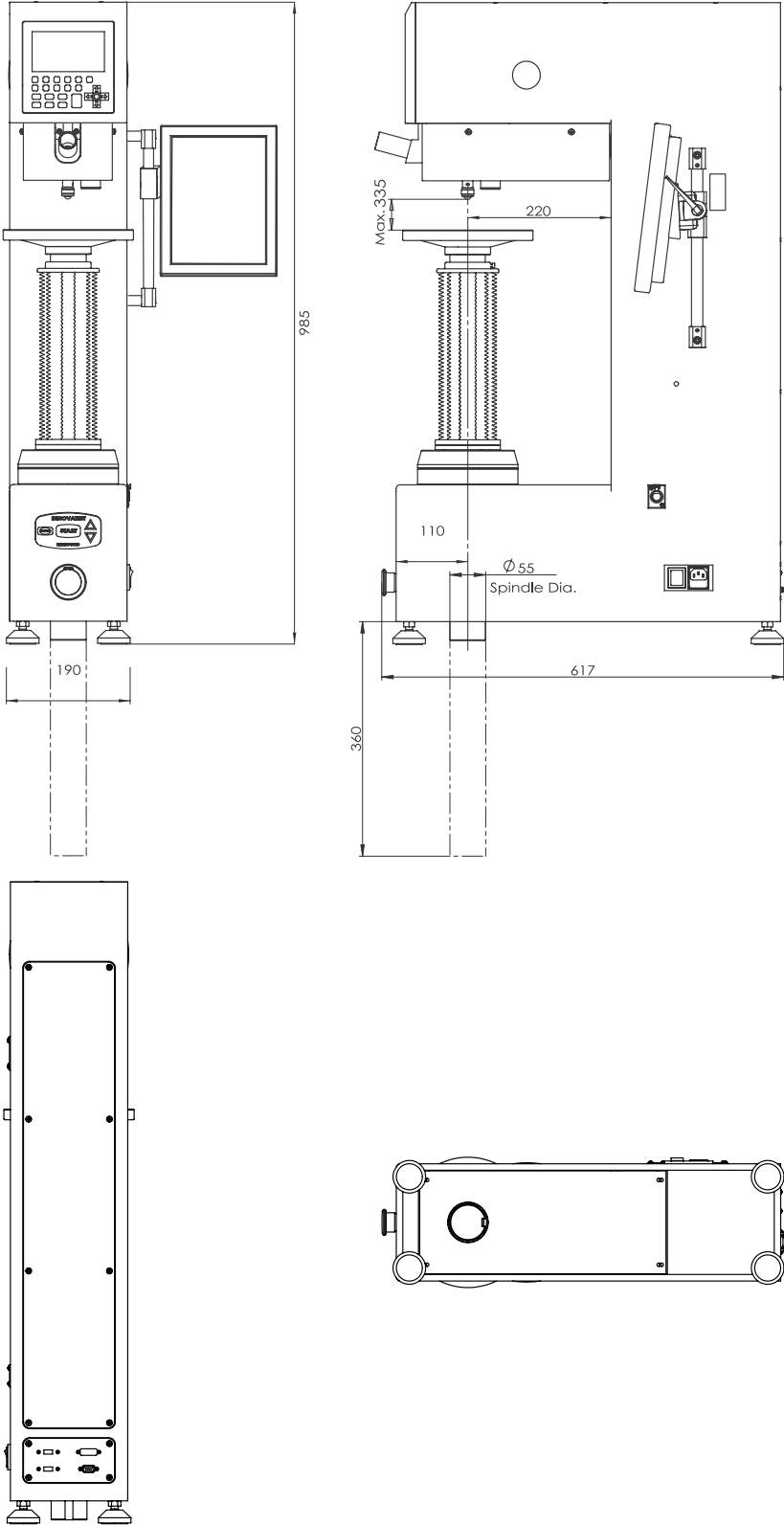


NEXUS 3000 Series
Brinell hardness tester



Technical drawing NEXUS 3001XLM-IMP

All dimensions are in mm



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