



V4 – V5 G3

Vertical hardness  
testing machines  
of the 3<sup>rd</sup> generation

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## Testing of large, heavy workpieces

With the new machines of the V-series, testing of large or heavy parts on the fixed testing platform 800 x 600 mm is no problem at all. These machines are a completely new development. The testing unit is traversed to the workpiece by means of a motor – a system that has been applied only for large inline hardness testers up to now. A testing height of 700 mm and a mount capacity of 400 mm also enables the testing of bulky parts in a very short time. According to the machine configuration, the machine can handle loads between 9.81N (HV1) up to 29430N (HBW10/3000).

## Fully automatic evaluation (V4C / V5C)

The fully automatic evaluation via camera and software is made possible by the special brightness control and the automatic focussing of the indentation. The TFT display with touch-screen operation is mounted on the front of the machine and shows settings and displays.

## Implementation of customer-specific conveyor systems

Various slide and conveyor systems can be optionally added and make an individual adaptation to customer-specific components and their infeed possible. Together with the software extensions the machine can be extended to a fully automatic hardness tester.

## CHD quick testing

Various optional modules such as X-Y slide units for series measurements or multiple tests of components or surface prepared samples as well as the CHD quick testing, that provides the result to the customer within one minute, can be added. Programmed multiple sample tests and an optional connection to a quality-assurance server make it possible to fully automate testing processes, thus becoming safer and more economical.

## Highlights:

- Universal, industrially usable measurement systems (V4R/V4C/V5C).
- Conceived for the automated hardness testing process in combination with customized workpiece conveying and positioning systems.
- Vertically moved measurement system with test strokes of approx. 600 mm and a mount capacity of 400 mm.
- Standardized, testing methods for Brinell (ball diameter 1/2.5/5/10), Vickers and Rockwell.  
Brinell, EN ISO 6506 / ASTM E10 • Vickers, EN ISO 6507 / ASTM E92 • Rockwell, EN ISO 6508 / ASTM E18.
- Fully automatic image analysis of the Brinell and Vickers indentations by means of a high resolution 1/2" USB camera, 128 x 1024 pixel, TFT LCD monitor 8.4", 170 x 130 mm, 800 x 600 pixel, automatic focussing and evaluation software.
- Electronic test forces via load cell, closed loop and machine software.
- Steel structure pedestal laid out for heaviest loads of conveyor systems or workpieces.
- Conversion of hardness values according to DIN EN ISO 18265.
- The software includes extensive data management (import/ export function) and statistics function.
- The new generation of V4-V5 hardness testing machines ensures very flexible and easy testing of components.
- 2 USB interfaces and a 1 RJ45 100 MBit interface (Ethernet) for data transfer to PC or network.
- Possibility to connect an A4 printer to the USB interface to print A4 reports(direct printout from the hardness testing machine with necessity for an additional PC).

## Advantages of the 3<sup>rd</sup> generation:

- Very easy to operate by optimum user guidance and self-explanatory menus.
- Easy selection of all settings via drop-down menus.
- The hardness tester automatically saves test parameters and test results.
- Clearly structured data management with efficient import and export functions.
- Report forms ready for printing via USB interface.
- Possibility to select user groups with different authorizations.
- Connection to company network or internet with built-in network card



## Technical data:

Outside dimensions approx. 2100 x 1400 x 800 • Machine weight approx. 800 kg • Testing platform 800 x 600 mm

Type	load range	testing height	test stroke	mount capacity
V4C 250	9.81N (HV1) – 2450N (HBW 5/250)	730	600	400
V4C 750	49N (HV5) – 7350N (HBW 5/750)	730	600	400
V5C 300	196N (HV20) – 29430N (HBW 10/3000)	700	600	400
V4R 750	49N (HVT5) – 7350N (HBT 5/750)	735	600	400
V4-Eht-R	29.4N – 7350N	735	600	400

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