Zwick / Roell

EMCO-TEST

Product information

DuraVision G5 semi automatic hardness testing machine with hand wheel (0.3 - 3,000 kgf)
DuraVision 20 G5 (0.3 - 250kg) / 30 G5 (3 - 3,000kg)

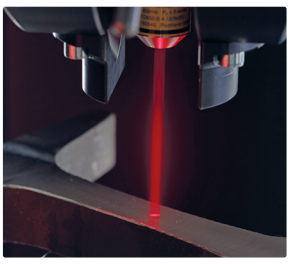
Area of usage

Robust and precise small load and macro hardness testers with hand wheel in the peerlessly broad test load ranges of 0.3 kgf - 250 kgf or 3 kgf - 3,000 kgf according to the following standards:

- Brinell DIN EN ISO 6506, ASTM E10
- Vickers DIN EN ISO 6507, ASTM E384, ASTM E92
- Rockwell DIN EN ISO 6508, ASTM E18
- Carbon test according to DIN EN 51917
- DV 20 G5: Knoop DIN EN ISO 4545, ASTM E384, ASTM E92
- DV 20 G5: Plastics test DIN EN ISO 2039

Advantages/Features

- Laser pointer for easy positioning of the measurement point
- Continuous and precise force application due to electronic force measurement sensor
- LED-lights (dimmable) for precise measurement point placement, even in difficult lighting conditions
- 12 Mpix camera with 4x zoom with fully automatic brightness control and fast autofocus
- Brinell SmartLight lenses (2.5x, 5x) – built-in mirror systems ensure that the light comes in exactly from above, thus preventing the formation of shadows - for precise evaluation of impressions
- Electronically controlled test cycle (PLC) and automatic evaluation of the test impressions without further adjustments by the operator
- Large test area
- Wide projection area embedded in a very compact product construction
- Slim test head to be able to test even complex component geometries
- Large handwheel for easy clamping
- Tensioned or untensioned measurements and individual adjustment of the tensioning force (patented)
- Star turret (up to 7 turret positions for indenters and objectives) - enables a wide range of test methods with few tool changes at the same time



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ecos Workflow Touch - intuitiv operating software with calibration assistant
Workflow-based measurement in 5 steps (sample, method, position, result, history).

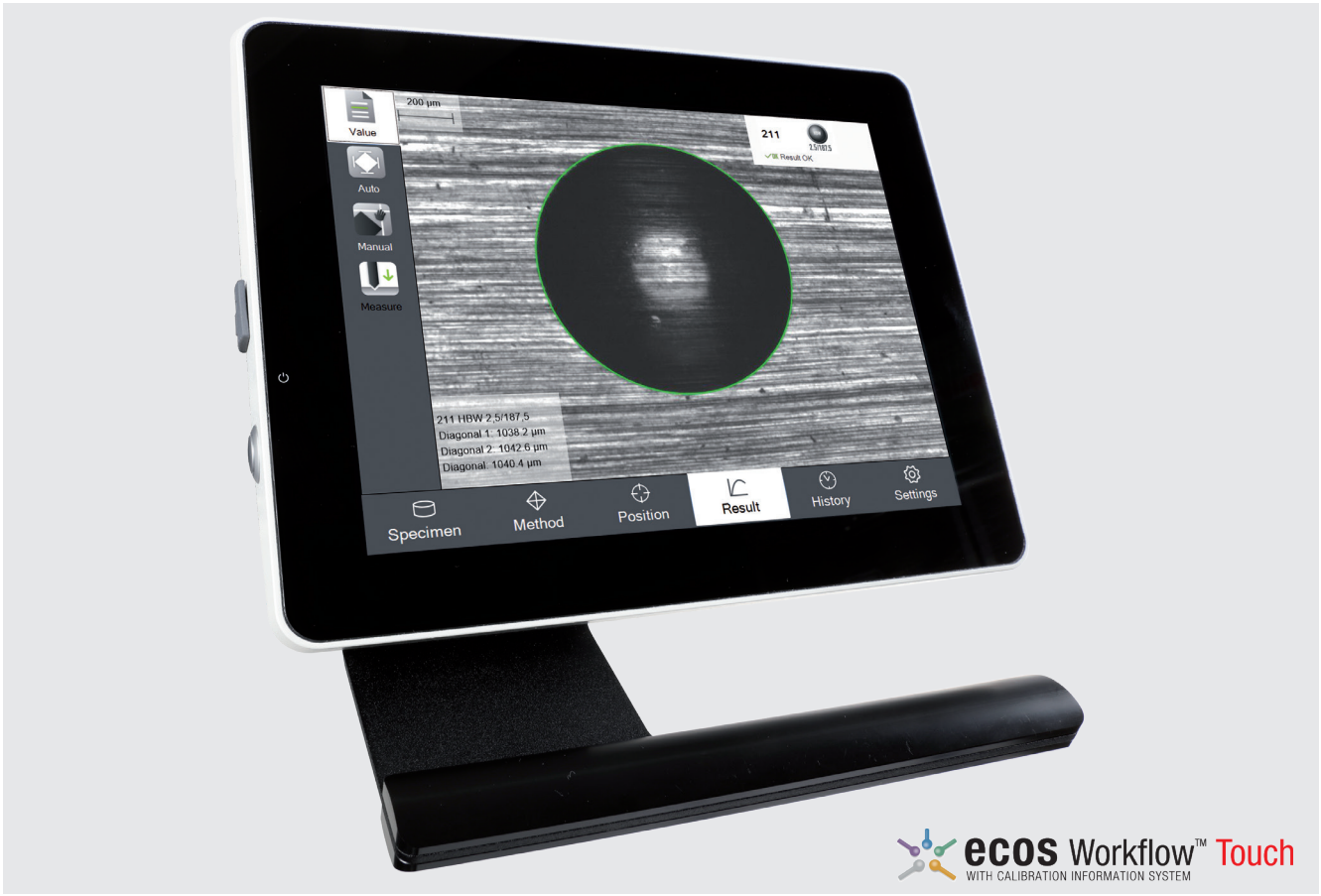
Simple operation
Simple operation and guided measurement process up to data backup.Intuitive user interface shortens training time and reduces operating errors.

Calibration assistant
Integrated calibration assistant CIS (Calibration Information System) monitors all calibrated methods and simplifies the normatively required testing. CIS indicates when periodic and indirect tests are due, guides through the test procedure and assists with standard-compliant documentation.

Optional modules
The software can be customized to the customer‘s needs with optional modules.

Useful features
- Rights and role management for easy administration of user rights
- QR code function for efficient control - easy creation and reading of relevant data
- Reduction of operator effort and possible operating errors through grouped measurement data management and use of the template function

Data output
- Extensive range of options for data output and data backup through integrated export editor: backup of test results directly at the hardness tester, output and storage in .pdf, .csv, .xls or .xml format (easy con-nection to Q-DAS systems)
- ecos Workflow xChange: xml-based interface for connecting the hardness tester to databases and data input devices
- Standard-form-generator to generate individualized test reports



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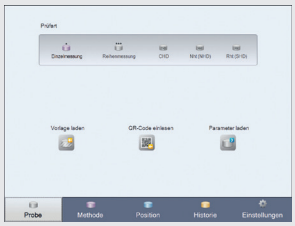
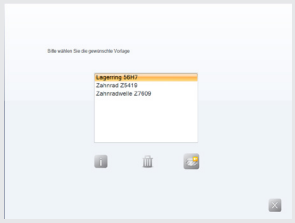
Step 1: Specimen

Select the required test type from a choice of single measurement, serial measurement, CHD, SHD and NHD progression, load a template or scan a QR code.



Selection of the test type

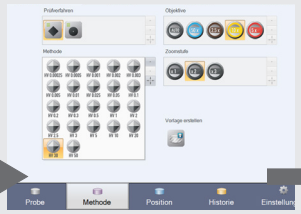


Time-saving template mode

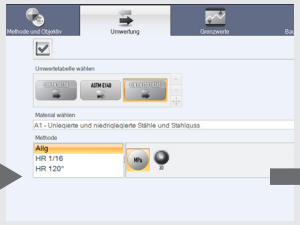
Step 2: Method

Select a measurement typ, lens, test method, zoom level and, if applicable, conversion, hardness limits and geometric correction according to standard as well.

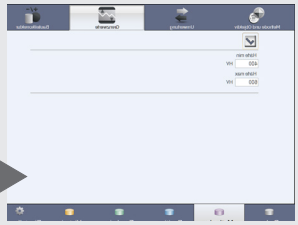
Information on method & objective, conversion, limits and component correction



The test procedure is selected with the choice of the indenter.



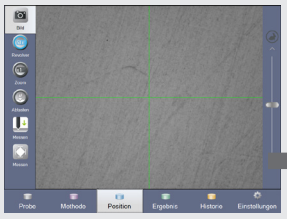
Selection of the desired conversion



Setting the desired limits

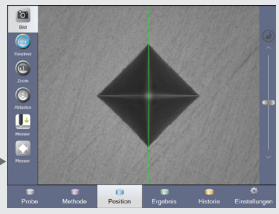
Step 3: Position

Position your test point on the workpiece.With the integrated tools, such as the surface lighting, this is quickly accomplished. Then simply start the test.



Position your test point on the workpiece in the Workflow step “Position”.

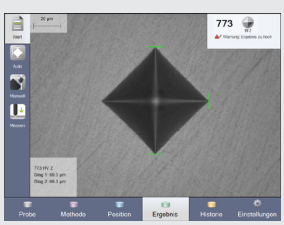
The turret shows the currently swiveled-in objective or indenter



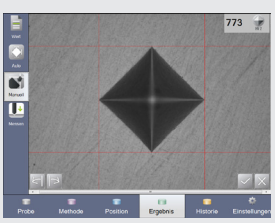
Measurement is performed

Step 4: Result

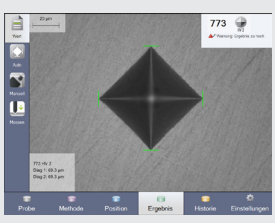
The result is shown clearly and is available for further use. The measurement can also be repeated automatically or manually if required.



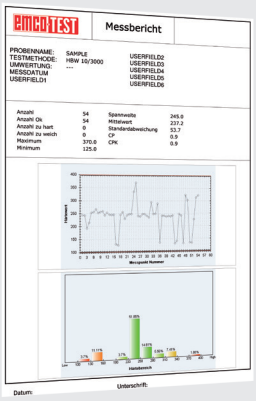
The value from the test is displayed clearly together with the indent image.



If necessary, the indent can be remeasured



Further measurements with the same parameters can be performed



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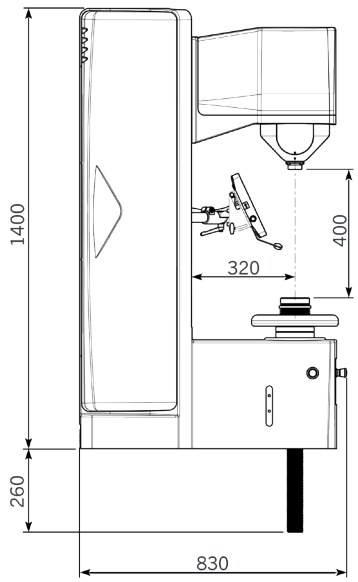
DuraVision 20 G5/30 G5

Typ	DuraVision 20 G5	DuraVision 30 G5
Load range	2,942-2452 N (0,3 - 250 kg)	29,42-29420 N (3 - 3000 kg)
Test force application resolution	0,45 nm	0,45 nm
Length measuring probe resolution	0,05 µm	0,05 µm
Dimensions (W x H x D)	380 mm x 1400 mm x 830 mm	380 mm x 1400 mm x 830 mm
Weight of basic unit	ca. 420 kg	ca. 420 kg
Max. test height	400 mm	400 mm
Voltage supply	110 ... 230 V (PH,N,PE)	110 ... 230 V (PH,N,PE)
Frequency	50/60 Hz	50/60 Hz
Power consumption	120 W	120 W
Test anvil	Ø 90 mm	Ø 90 mm
Resolution evaluation camera	12 Mpix with CMOS Sensor	12 Mpix with CMOS Sensor
Room temperature (to ISO/ASTM)	+5°C to +40°C	+5°C to +40°C
Humidity	max. 70% (non-condensing)	max. 70% (non-condensing)
Max. workpiece weight	Windows 10/64 bit	Windows 10/64 bit
Max. workpiece weight	200 kg	200 kg
Protection class to EN 60529	IP20	IP20
Integrated memory (SSD)	128 gb	128 gb



Accessories

Description
Dust protection system for harsh environments
Base for stability and ergonomics
Handheld scanner for scanning QR-codes
Laser for easy test point positioning