



**Qness 150**

ROCK AND MORE

**ROCKWELL HARDNESS TESTER WITH  
ADD-ON MODULES FOR FULL AUTOMATION**

## A LONG TERM INVESTMENT

# A HARDNESS TESTER THAT GROWS WITH YOUR REQUIREMENTS



**Qness 150 R**

### ROCKWELL HARDNESS TESTER

- | Automatic test sequence with optional automatic start
- | Test clamped or unclamped
- | Creation of favorites, statistics, progression displays, ISO and ASTM conversions
- | Direct data export via RS232, Ethernet or USB
- | Various result export possibilities as configurable protocol or data export in Qpix T2R software



**Qness 150 M**

### ROCKWELL / BRINELL / VICKERS / KNOOP HARDNESS TESTER

- | Single machine (1 penetrator, 1 lens\*)
- | Integrated optic system with high resolution digital camera, long-working distance lens and automatic brightness adjustment
- | Automatic image evaluation after manual table movement
- | Ideal for narrow test point positions

## UPGRADE MODULE UND ZUBEHÖR



Lens system

**Qness 150 M** (Standard)  
**Qness 150 A**  
**Qness 150 A+**



Work space lighting

**Qness 150 R** (Standard)  
**Qness 150 M**  
**Qness 150 A**



Connected measurement  
caliper

**Qness 150 A**  
**Qness 150 A+**  
**Qpix CONTROL** (compatibel)



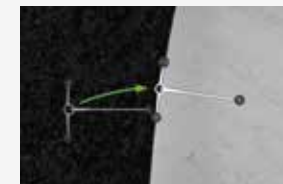
2nd lens system

**Qness 150 A**



Sample image camera

**Qness 150 A**



Edge recognition

**Qness 150 A+**



## Qness 150 A

### ROCKWELL / BRINELL / VICKERS / KNOOP FULLY AUTOMATIC SINGLE HARDNESS TESTER

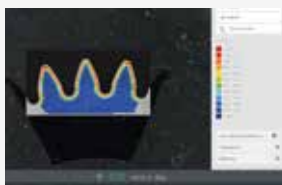
- Integrated, optical path measuring system in test head for ultimate positioning precision whilst approaching work piece or sample holder height
- Up to 8 Jominy-samples
- Up to 2 multi-sample holders
- Dynamic 3-axis joystick for the manual control of the axis



## Qness 150 A+

### ROCKWELL / BRINELL / VICKERS / KNOOP FULLY AUTOMATIC HARDNESS TESTER WITH SAMPLE IMAGE CAMERA

- Integrated sample image camera (field of view 50 x 40 mm)
- Optional 2nd screen for sample image
- Upgrade for optical test methods (Vickers, Brinell, Knoop)



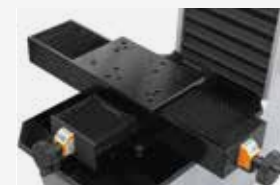
2D/3D mapping modul

Qness 150 A+



Qpix JOMINY

Qness 150 A  
Qness 150 A+



Digital slide  
260 mm x 166 mm

Qness 150 R  
Qness 150 M



Barcode reader

Qness 150 R  
Qness 150 M  
Qness 150 A  
Qness 150 A+



Qpix REMOTE Control  
via SPS/PCI

Qness 150 A  
Qness 150 A+



Sample magazine  
recognition

Qness 150 A  
Qness 150 A+

TEST SPACE LIGHTING

# TEST POINT POSITIONS PERFECTLY IN FOCUS

The functionally integrated test space lighting permits accurate positioning of the indenter. (Standard on Q150R)



## TEST METHODS AND CONVERSION

**Gness 150R / M / A / A+**



### ROCKWELL

DIN EN ISO 6508, ASTM E-18

HRA	HRB	HRC	HRD	HRE	HRF
HRG	HRH	HRK	HRL	HRM	HRP
HRR	HRS	HRV	HR 15-N/T/W/X/Y		
HR 30-N/T/W/X/Y			HR 45-N/T/W/X/Y		



### PLASTIC TEST

DIN EN ISO 2039

49.03 N	132.9 N	357.9 N	961 N
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**Gness 150M / A / A+ with lens system**



### BRINELL

DIN EN ISO 6506, ASTM E-10

HBW 1/1	1/2.5	1/5	1/10	1/30
2.5/6.25	2.5/15.6	2.5/31.25	2.5/6.5	2.5/187.5
5/25	5/62.5	5/125	5/250	10/100
10/250	HBT (not acc. to standards)			



### VICKERS

DIN EN ISO 6507, ASTM E-92, ASTM E-384

HV1	HV2	HV3	HV5	HV10	HV20
HV30	HV50	HV60	HV100		
HVT (not acc. to standards)					



### KNOOP

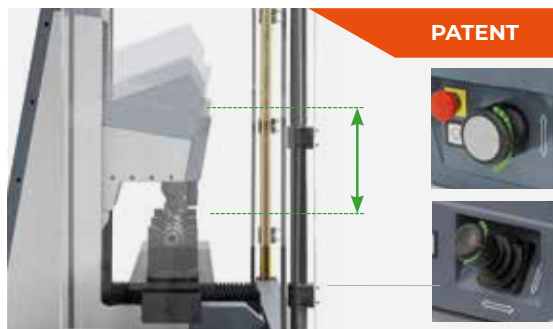
DIN EN ISO 4545, ASTM E-92, ASTM E-384

HK1	HK2
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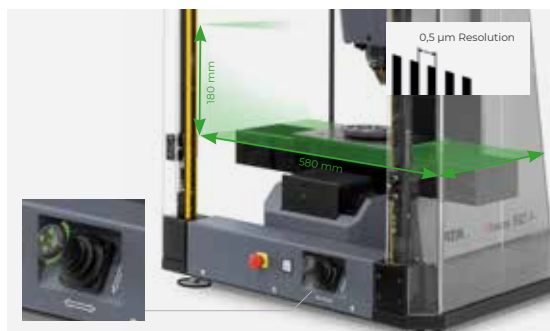
### CONVERSION

DIN EN ISO 18265, DIN EN ISO 50150, ASTM E140



## DYNAMIC HEIGHT ADJUSTMENT

The compact hardness tester in combination with the electronic movement control allows quick, accurate and sensitive positioning of the test head. Forceless, precise and collision-proof positioning of the test head via rotating the control knob (6mm/s) - even automatically with Q150A or A+, if required.



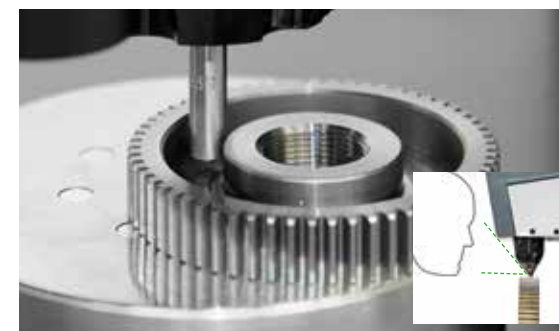
## EXACT POSITIONING AND LARGE TEST ROOM

The sophisticated construction offers a large and well arranged test area. The fully automatic XY-slide with high precision optic path measurement system can be equipped i.e. with two 8-fold sample holders. Beyond that, customer specific magazines can be managed and created in the software.



## HIGH PERFORMANCE AND HIGHLY PROFESSIONAL

Completely connected in high performance with the integrated Windows PC with SSD hard disk even in the base model Q150R in standard equipment. Customized data connection and integration into production lines possible up to request.



## ACCESSIBILITY TO NARROW TEST PLACES

- Maximal visibility
- LD lenses provide an increased working distance
- Collision proof
- Overview and analysis via optical system
- Field of view 0.2 - 40 mm





Ergonomically adaptable

High-quality and sturdy aluminium case



USB for data export and data input

**Qpix T2 R**

**MOST SIMPLE OPERATION**

# ON 10,1" TOUCH-SCREEN

- | Across-the-line software design
- | Numerous statistic functions: bar graph, progression, histogram
- | Measurement value list to export as „Excel“ (CSV via export configurator))
- | Standardized detail information to each indentation
- | A4 protocol as PDF / direct print
- | User management with different security access levels



Configurable protocol and data management



Test result harder than allowed limit hardness



Result list test point identification

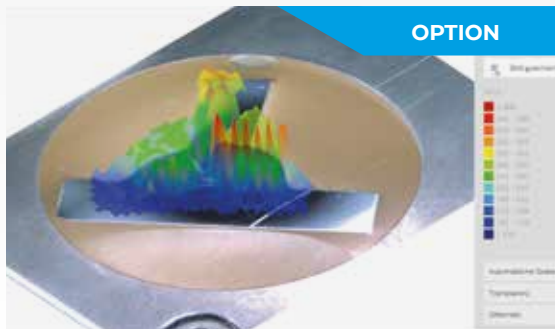


Integrated statistic view



### CONFIGURABLE PROTOCOL AND DATA PRESENTATION

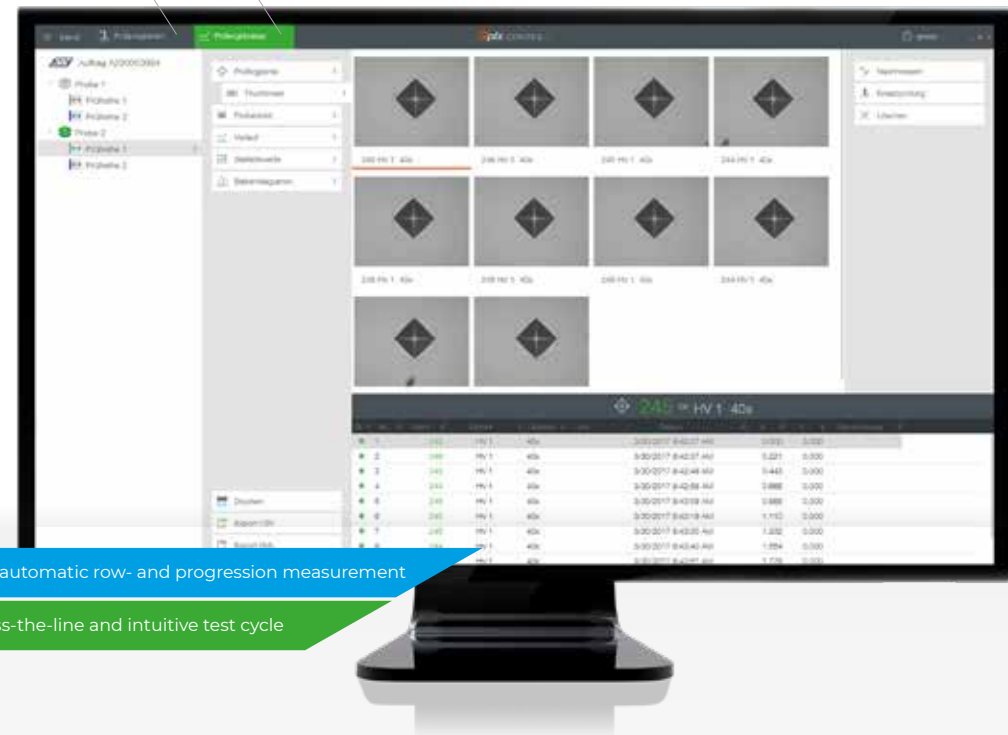
Wide range of structuration options for stored test item data. Adaptable content for export files and protocol content simplifies daily operation with Qpix Control2 software.



### 2D/3D AREA MAPPING

The optional software module '2D/3D hardness chart' is the perfect aid for the detailed determination of hardness distribution over the total cross section, especially for heat-treated samples. This is extremely important in material exploration, and also for weld testing or in damage analysis.

Creation of test data    Test result management



**Qpix CONTROL2**

**SETS NEW STANDARDS**

# MAXIMUM REPEATABILITY

All test specific data are stored for every single test point. Test points can be easily checked or tested a second time. In addition to the automated A and A+ versions also the semi-automatic devices Qness 150 R and M can, if required, be equipped with a desktop PC system. Customers can provide their own PC system and use it to control their hardness tester.



**Qpix CONTROL2**

OPERATION VIA EXTERNAL PC SYSTEM

# REVOLUTIONARY 3D OPERATING CONCEPT

Intuitive, clearly organized and professional: Qpix Control2 next-generation hardness testing software, developed based on customer feedback and input for maximum user-friendliness. The controlled test head benefits from automatic height adjustment and contactless exploration, complete integration of the Qness sample holder, CAD compatibility with 3D imaging and a whole range of easily understood 3D control elements and views included in the software. It sets new standards in hardness testing.



## CUSTOMER SPECIFIC SAMPLE HOLDER

Identical samples can be set up in the software in scale as 3D model.

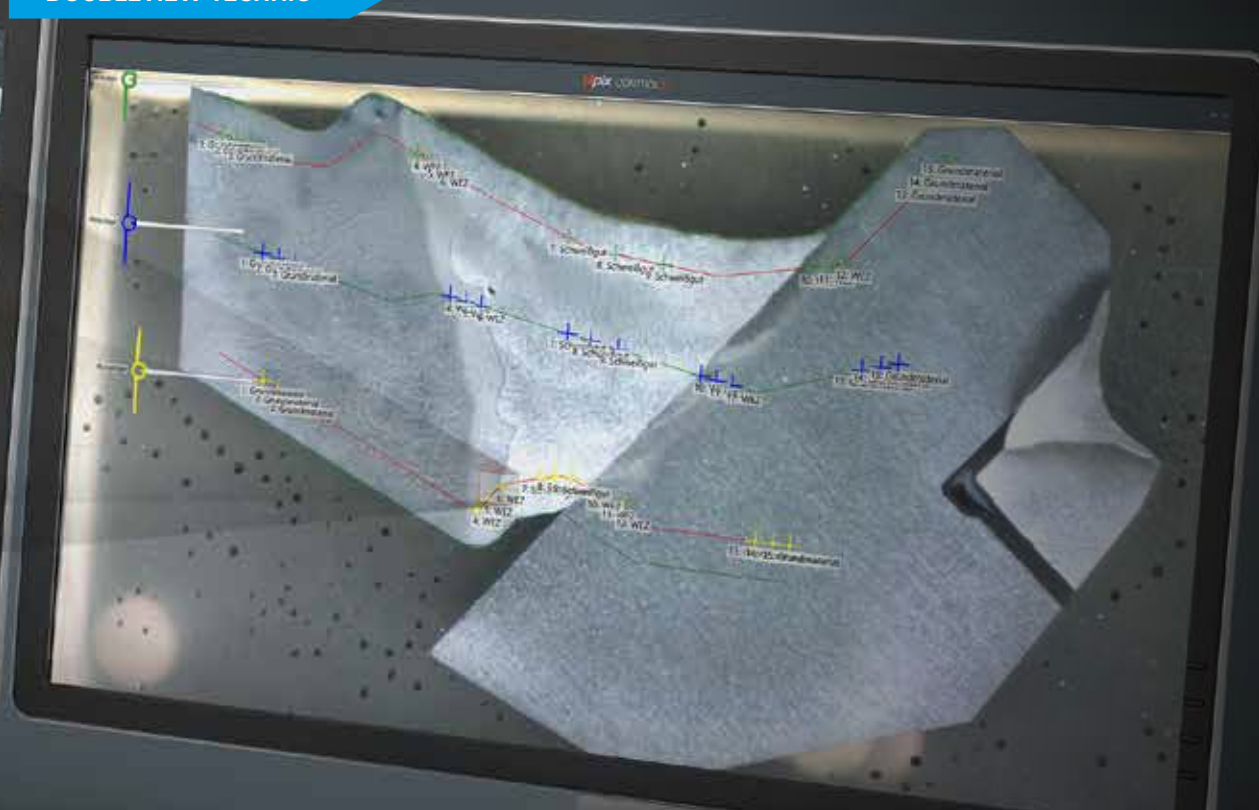


## CAS TECHNOLOGY

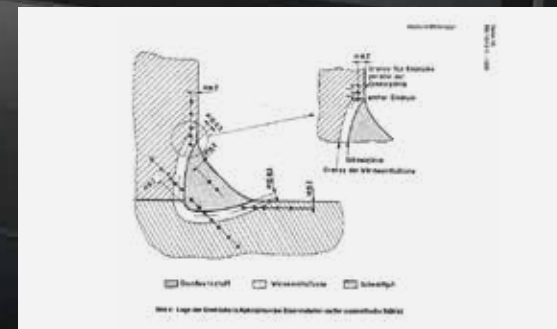
Innovative CAS technology (Collision Avoidance System) protects the mechanical components in the device from collisions and operating errors by generating 3D preview calculations of all movements in the visualized testing area.



## DOUBLEVIEW-TECHNIC



## BEST ORIENTATION

BY SIMULTANEOUS  
MACRO AND  
MICRO VIEW

## SOPHISTICATED SOFTWARE TOOLS

- | Image with graphic indentation size pre calculation
- | Graphic hint when test points are located too close to each other (3x d)

## WELDING TEST SAMPLES

- | Ideal for welding test samples or visual test point positioning jobs
- | Test points can be norm-positioned based on the visual presentation

## PROVEN UNIVERSALITY

# PRACTICAL APPLICATIONS



### IDENTICAL PART TESTING

Identical sample test series can be saved as templates. Pre-defined sample magazines can be used to activate all relevant data, such as test patterns, test methods and user fields.



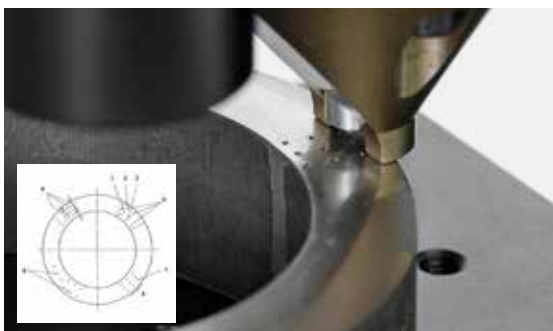
### EMBEDDED SAMPLES FOR CHD, NHD, SHD

The sample patterns can be easily selected using the program. In addition to the single and row measurement, the user can select CHD, NHD and SHD.



### MULTI JOMINY SAMPLE TESTING

Up to 8 samples can be placed in the Jominy sample holder for testing. The testing cycle is fully automatic and executed according to the norm.



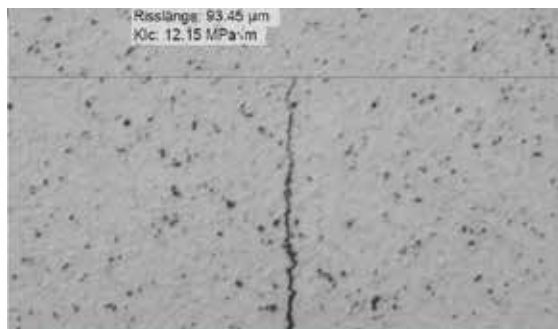
### PIPE TESTING

Check pipes economically with the Q150A/A+ according to the applicable API standards.



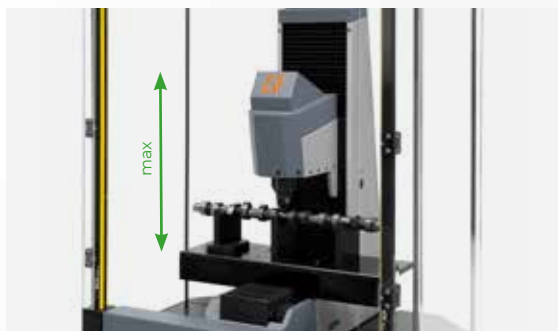
### RAIL TESTING

Another perfect application is the testing of rail profiles. The complete track can be scanned via the standardized panorama picture function, thus allowing accurate and fast positioning of the individual test series.



### CRACK LENGTH MEASUREMENT K1C

For evaluating the K1C value the 4 cracks are measured according to the norm. After that the MPa√m value is evaluated automatically.



### EXTENDED TEST AREA

The complete Q150 series can be customized. Send us your specifications and you will immediately receive a customized concept.



	<b>Qness 150 R</b>	<b>Qness 150 M</b>	<b>Qness 150 A</b>	<b>Qness 150 A+</b>
Test force range	1 - 250 kg (9.81 - 2450 N)	1 - 250 kg (9.81 - 2450 N)	1 - 250 kg (9.81 - 2450 N)	1 - 250 kg (9.81 - 2450 N)
Test height/Throat depth	260 mm / 180 mm		187 mm / 180 mm	
Test height extension	450 mm (Option)		377 mm (Option)	
Height adjustment	v max 6 mm/s		v max 6 mm/s	
Software	<b>Qpix T<sup>2</sup> R</b>	<b>Qpix T<sup>2</sup> M</b>	<b>Qpix CONTROL<sup>2</sup> A</b>	
Integrated optic system	-	Yes	- (Option)	
Camera system	-	high resolution camera system	up to 2x high resolution camera systems	
Sample image camera	-	-	-	Yes
Test anvil/Cross slide	250 x 260 mm	Manual cross slide 250 x 260mm	motorized 170 x 250mm	
Traverse path	-	-	X 260 / Y 166 mm	
Data interface	1x USB (Display), 2x USB, 1x RJ45 (Ethernet), 1x RS232		Interface PC-Hardness tester: 3x USB	
Weight of basic machine with Test height extension	105 kg 125 kg	115 kg 135 kg	172 kg 192 kg	
Max. work piece weight	100 kg		50 kg	
Power supply	100 - 240V ~1/N/P, 50 - 60Hz		100 - 240V ~1/N/P, 50 - 60Hz	

### ACCESSORIES AND OPTIONS

General	Test anvils, Indenters	Single and multi sample holders, Jominy sample holder, Indenters, Lenses, Software modules
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### ONLINE PRODUCT CONFIGURATOR

Additional modules and accessories can be viewed using the online product configurator at [www.qatm.com](http://www.qatm.com)



Online Configurator >



**ATM Qness GmbH**

Emil-Reinert-Str. 2  
57636 Mammelzen  
Germany

Phone: +49 2681 9539 0

Fax: +49 2681 9539 27



**ATM Qness GmbH**

Reitbauernweg 26  
5440 Golling  
Austria

Phone: +43 6244 34393

Fax: +43 6244 34393 30



info@qatm.com www.qatm.com

# VERDER scientific

## VERDER SCIENTIFIC

## SCIENCE FOR SOLIDS

Verder Scientific is a business field belonging to the Verder Group and sets standards in the development, manufacture and sale of laboratory and analytics devices. Used in quality control, research and development for test-piece preparation and the analysis of solids.

For several decades our companies have supplied production plants and research institutes, laboratories for quality testing and analytics, all kinds of technical specialists and scientists with modern, reliable devices to solve the many and varied challenges they face.

