QUALITY ASSURED

Qness 250 EVO
Qness 750 EVO
Qness 3000 EVO

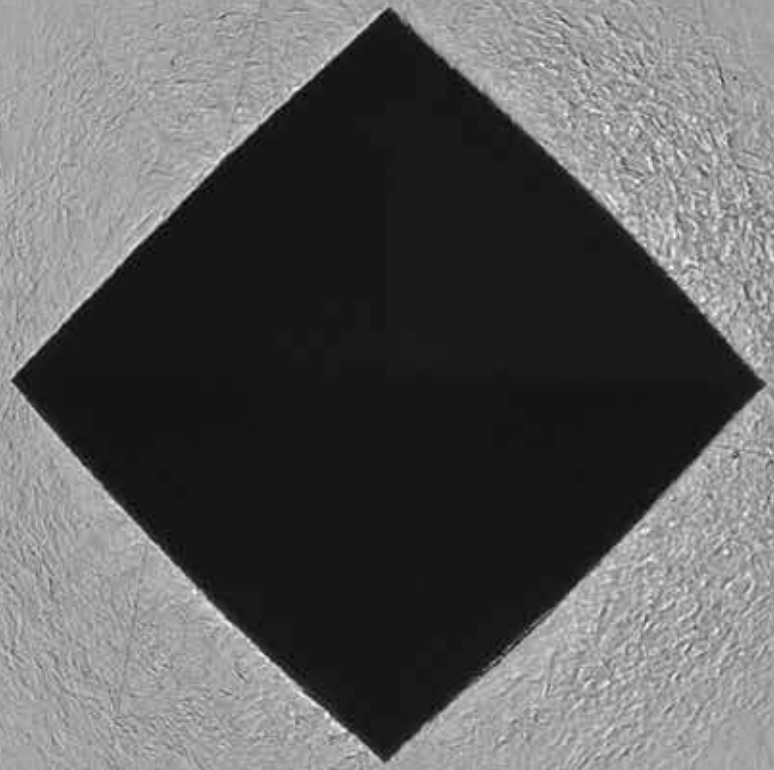
EFFICIENT AND SUSTAINABLE

NEXT-GENERATION UNIVERSAL HARDNESS TESTING

part of VERDER scientific

GENERATION EVO

EXCELLENT IMAGE QUALITY



The optics system of the new EVO series has been completely redevel-oped. It was built on site in the cleanroom at the QATM plant and benefits from the company's comprehensive expertise. All the new devices share one universal microscope system covering all the necessary visual ranges between 0.1 mm and 8 mm in maximum clarity and contrast. The QATM system guarantees uniform illumination across the entire image, regardless of the degree of magnification, and without dark edges.

EFFICIENT AND SUSTAINABLE

HIGHLY ACCURATE RESULTS IN ULTRA-SHORT TIME

UNIQUE VARIETY OF MODELS

- 3 test force ranges – 0.3 kg to 3000 kg in a machine
- 4 machine versions to serve all applications and test piece size

SUPPORTED TEST METHODS

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	2.5/62.5	2.5/187.5
5/25	5/62.5	5/125	5/250	5/750
10/100	10/250	10/500	10/1000	10/1500
10/3000	HBT (not acc. to standards)			

ROCKWELL
DIN EN ISO 6508, ASTM E-18

HRA - HRV	HR 15-N/T/W/X/Y
HR 30-N/T/W/X/Y	HR 45-N/T/W/X/Y

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

HV0.3	HV0.5	HV1	HV2	HV3	HV5
HV10	HV20	HV30	HV50	HV60	HV100
HV120	HVT (not acc. to standards)				

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

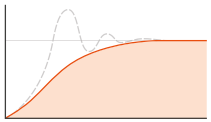
HK0.3	HK0.5	HK1	HK2

PLASTICS TESTING
DIN EN ISO 2039

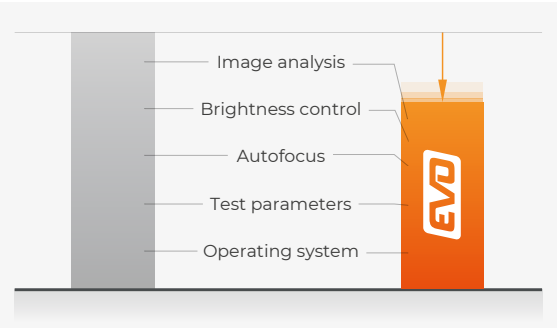
49.03 N	132.9 N	357.9 N	961 N

CARBON TESTING
DIN 51917 (optional)

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



FULLY AUTOMATED TEST CYCLE
With electronic weight application and closed-loop control



REDUCED CYCLE TIMES

The new EVO product line guarantees optimized test parameters, a faster Windows10 PC, much shorter serial autofocus times, significantly faster regulation of brightness and image evaluation, all of which contributes to far more rapid cycle completion times in everyday hardness testing – with even quieter operating noise levels.

XLED BRINELL EVALUATION LENSES

XLED illumination modules revolutionize the analysis of Brinell indentations. Due to beading on commercially available lenses, soft Brinell indentations in particular can be subject to imprecise gauging results. In contrast, XLED lenses guarantee precise and repeatable measurements, regardless of material type and hardness, due to direct and wide-extension illumination.

FASTER
TEST METHOD CHANGE-OVER

8-POSITION TOOL CHANGER

The easy way to serve universal applications: The sophisticated tool-changer concept with a rotational axis angle of 15° provides space for 8 tools in a uniquely compact unit. Downholder elements with a closed shape on three sides guarantee secure workpiece clamping around the test point – even for small test pieces.

PROVEN UNIVERSALITY

UNLIMITED SUITABILITY FOR INDUSTRIAL APPLICATIONS

ETHERNET INDUSTRIAL COLOR CAMERA

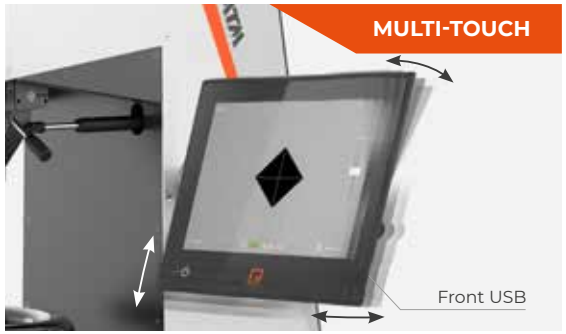
High-quality CMOS 5-megapixel cameras with Ethernet data transfer define the current industrial standard. Unlike other camera systems, a far higher transmission stability is possible here. Additionally, the PC and hardness testing device can be set up remotely at great distances from each other. This is ideal in manufacturing environments in which the control infrastructure is installed in external switch cabinets.

MADE IN AUSTRIA

Universal hardness testing devices are often used under the toughest conditions. We know how important a long-serving superior-quality device can be – and guarantee excellent quality from our Qness 250/750/3000 EVO series. Developed and manufactured in Austria!

OPTIMIZED TEST HEAD DESIGN

A range of clamping and holding elements can be configured to suit tooling requirements. The optional transparent collision guard can protect tools on the device from damage while ensuring an unrestricted view of the test cell interior.



FREELY ADJUSTABLE OPERATING DISPLAY

The 12” ultra-flat, capacitive touch display can be raised, lowered and tilted smoothly via ball-and-socket joints for ergonomically optimized use.

LARGE-SCALE FULLY AUTOMATED HARDNESS TESTING

Available as CA and A versions and with ultra-precise, automatic XY slides. Customized planning and professional project implementation.

MACRO HARDNESS TESTER

VERSION CS/C

- Redefined version of a reliable concept
- Ideal for small workpieces

VERSION CS/C

FAST, QUIET AND UNIVERSALLY APPLICABLE

TEST TABLE HEIGHT ADJUSTMENT

Via stable, ultra-precise roller-bearing spindle guide. Solid, no-maintenance structure with a sophisticated black chrome-plated handwheel. All devices are available with a Ø25 mm table mount. (Optional ¾" adapter available).

SWIVELING DOWNHOLDER

No long tool changeovers for inaccessible test positions. The downholder can be swiveled in and out via manual or motorized action, as required. Furthermore, the clamping elements can be changed easily and adapted to suit the customer's component.

2-POSITION TOOL HOLDER

All Qness 250/750/3000 EVO devices are equipped as standard with clamping for 2 tools – simple and affordable with room for a test head and a lens or XLED – ideal for unchanging testing requirements.

WIDE RANGE OF TEST TABLES AND PRISM ANVILS

The wide range of available test anvils and prisms enable hardness testing to be conducted on unusually large or spherical items, and on test objects with an uneven test surface.

RAPID INDENTER CHANGING SYSTEM

Uniquely simple, tool-free indenter changes due to indenter quick-release mechanism.

MACRO HARDNESS TESTER

VERSION M

- Ideal for large workpieces
- Manually height-adjustable test head

MACRO HARDNESS TESTER

VERSION E

- Convenient motorized test head positioning
- All component sizes and powerful clamping force

VERSION M/E

LARGE-SCALE UNIVERSALITY

DYNAMIC HEIGHT ADJUSTMENT

The dynamic height adjustment enables comfortable positioning control via potentiometer (8 mm/s). Using the 2-hand-safety device allows a moving speed of up to 17 mm/s (included with E variant).

WORKPIECE RECOGNITION

Workpiece recognition with motorized height adjustment facilitates a high test head movement speed of 17 mm/s. Sensor technology enables the workpiece to be recognized and the bracing speed to be reduced accordingly to protect the device and workpiece.

MAXIMUM CLAMPING SAFETY

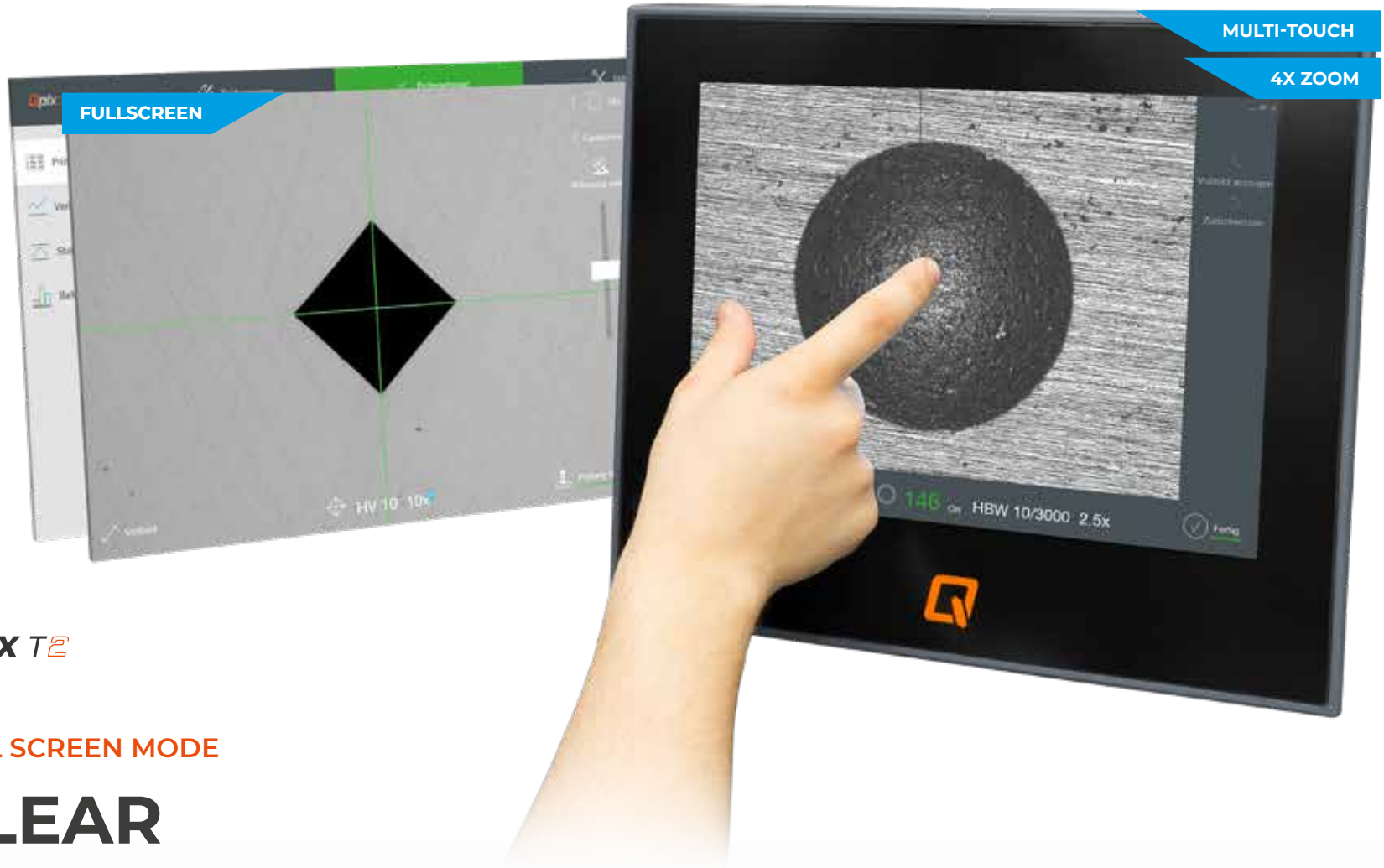
High-performance induction motor in the E version facilitates a workpiece clamping force of up to 3500 kg. Clamping power is adapted to the test method and is automatically set to be greater than the test force. Operators do not need to set levels and can rely on the device to guarantee safe, optimized adaption.

SWIVEL-ACTION MACHINE TABLE

Unique operating convenience for large, awkwardly-shaped molded and formed components and workpieces. The work table, optional with the M and E versions, can be tilted up to 5° – including built-in grips – no extra workpiece clamping necessary!

ENLARGED TEST HEIGHT

If the 510mm height of the test room is still not enough for especially large, bulky or difficult-to-clamp items, on request QATM can provide an even taller machine frame. The robust steel frame can be produced in customized dimensions.



Qpix T2

FULL SCREEN MODE

CLEAR FOCUS ON ESSENTIALS

MULTI-TOUCH CAPACITY FOR ULTRA-SIMPLE OPERATION:

Modern multi-touch operation for simple zooming and easy menu navigation.

FULL SCREEN MODE

A clear overview of all the most important functions on one screen guarantees user-friendliness and, most importantly, ensures test results are clearly prioritized.

SOFTWARE QPIX

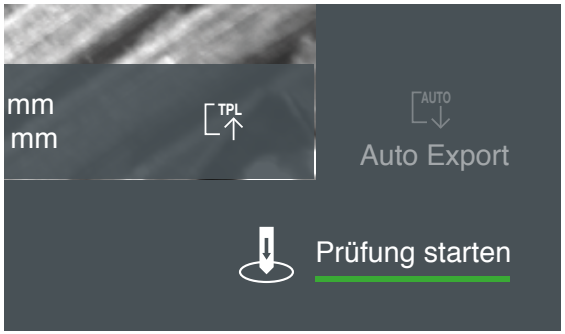
A NEW DIMENSION OF EFFICIENT OPERTATION

DATA ADMINISTRATION

- Numerous statistical functions: Bar graphs, line graphs, histo-grams
- Export test results as XML or CSV file
- Detailed normed information on each indentation
- Test report as Excel, Word, PDF or direct print
- Automatic export and deleting functions for serial operation

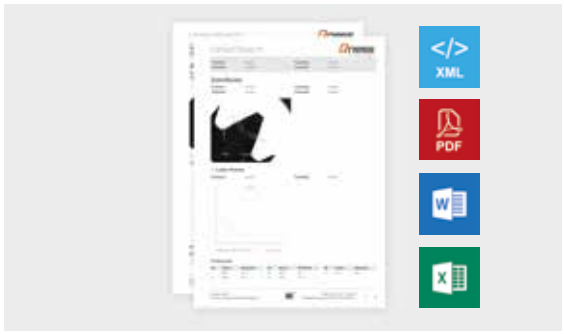
ONLINE SUPPORT

'Online Support Mode' links up the hardness testing device with the QATM service center. This allows user support and software updates to be provided as quickly as possible.



SAVE, DELETE & EXPORT FUNCTIONS

Save, create and archive data protocols at the push of a single button. Ideal for serial tests or in-line integration.



PROTOCOL AND DATA EXPORT

Export formats also in Qpix T2 PDF, XLSX, DOCX, XML or CSV, plus direct release of results via RS232 or Ethernet interface.

ROW TEST SEQUENCE

Predefinition of test programs with a fixed number of test points is included as standard. Optional expandable with manual slide, digital micrometer spindle and position feedback.

Qpix CONTROL 2 R / M

OPERATION VIA EXTERNAL PC SYSTEM

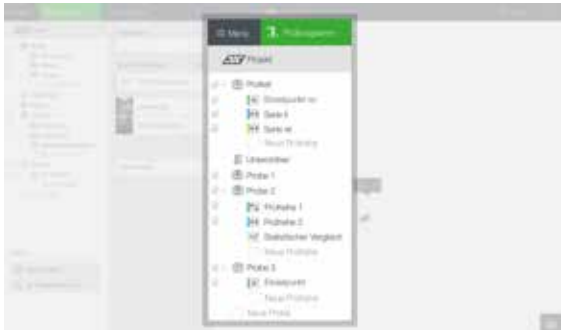
ALSO FOR SEMI-AUTOMATIC HARDNESS TESTING DEVICES

BASIS FOR BI-DIRECTIONAL DATA LINK-UP

All Qness 250/750/300 EVO series devices 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.

INDUSTRY 4.0

EQUIPPED FOR TODAY AND TOMORROW

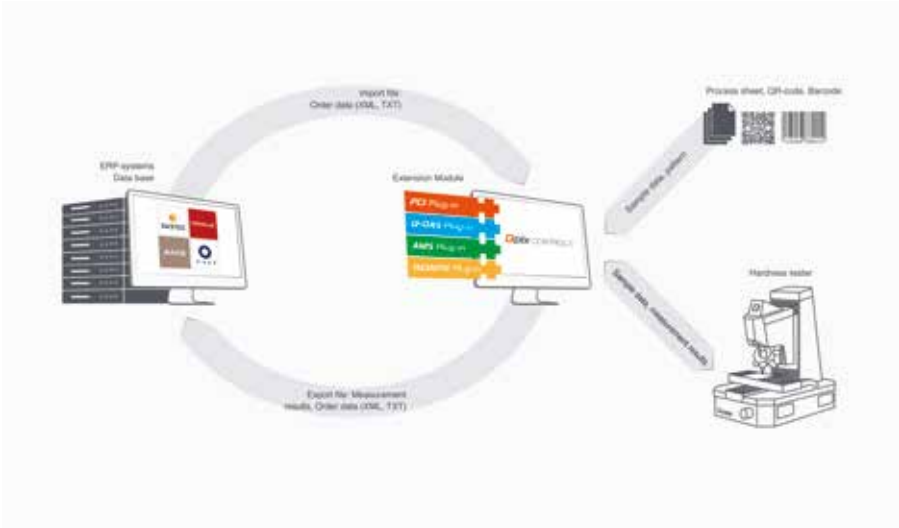


PROFESSIONAL DATA MANAGEMENT

Clearly structured batch management and effective use of templates from a wide range of test projects. Structured measurements with comprehensive background order information. Templates can be generated to contain all necessary information about test patterns, test methods, names and user-field information.

QNESS CALIBRATION MANAGER: ADVANCED TEST BLOCK MANAGEMENT

Redefining calibration result management: The Qness Calibration Manager can be set up to provide users with reminders of necessary checks at selected intervals. Test results can be added to the ongoing statistical profile at the push of a button. A clearly comprehensible overview of permitted toler-ance values and long-term tracing of trends derived from all results, for every device and every test block. QATM test block data can be called up conveniently online without the need to enter test plate details. Extremely simple protocol access for purposes such as audits.

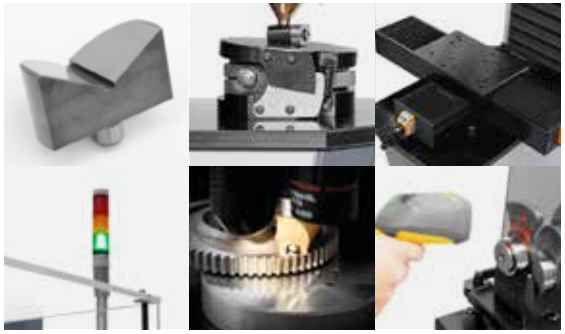


COMPLETE INTERLINKABILITY

Optionally completely interlinkable with databases, CRM systems and statistics programs via the PCI software module and with a direct link-up to production control systems - also for completely unmanned operation via the Qpix Remote Plug-In interface. The expert QATM team looks forward to helping you conceive the best possible solution for every link-up option.

ACCESSORIES AND

CUSTOMIZED SOLUTIONS

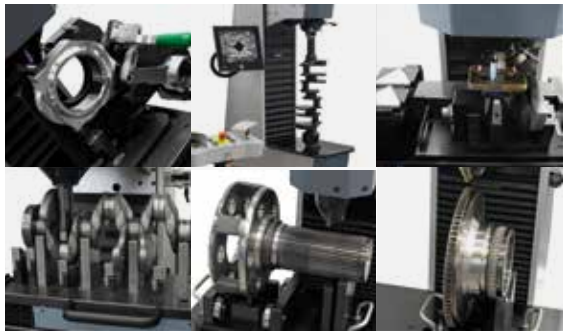


INDIVIDUAL CONFIGURATIONS

Test anvils, XY tables, lasers, signal lamps, work room lighting, barcode readers... – Configure your Qness 250/750/3000 EVO to suit your requirements with items from the comprehensive QATM accessories portfolio.

PREMIUM HARDNESS COMPARISON PLATES

Premium quality and comprehensive variety. Independent DAkkS (ISO/IEC 17025) accredited calibration, DIN EN ISO and ASTM, including software for periodic inspections.



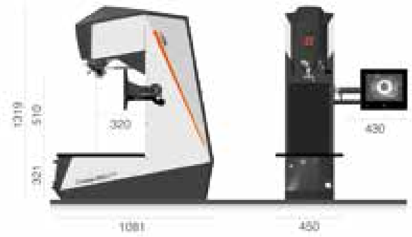
CLAMPING SOLUTION

QATM is the perfect contact for complex requirements and bracing devices! We look forward to advising you on the concept design and implementation of a customized solution. Reliable results can only be guaranteed if test pieces are clamped and braced correctly.

QATM DESIGNER MACHINE PEDESTAL

Functional, adapted to the design of the machine, and suitable for the QATM lab furniture program. Robust and superior-quality structure with sheet steel paneling and large soft-close drawers.



	CS EVO	C EVO	M EVO	E EVO
Test force range	Qness 250 1 - 250 kg (9.81 - 2450 N) Qness 750 0.3 - 750 kg (2.94 - 7358 N) Qness 3000 0.3 - 3000 kg (2.94 - 29430 N)	Qness 250 1 - 250 kg (9.81 - 2450 N) Qness 750 0.3 - 750 kg (2.94 - 7358 N) Qness 3000 0.3 - 3000 kg (2.94 - 29430 N)	Qness 250 1 - 250 kg (9.81 - 2450 N) Qness 750 0.3 - 750 kg (2.94 - 7358 N) Qness 3000 0.3 - 3000 kg (2.94 - 29430 N)	Qness 250 1 - 250 kg (9.81 - 2450 N) Qness 750 0.3 - 750 kg (2.94 - 7358 N) Qness 3000 0.3 - 3000 kg (2.94 - 29430 N)
Height adjustment	manual / Spindle	manual / Spindle	manual / Hand wheel	electrical / Asynchron motor
Test height	175 mm	395 mm	510 mm	510 mm
Throat depth	220 mm	220 mm	320 mm	320 mm
Test anvil	Ø 100 mm	Ø 100 mm	584 x 450 mm	584 x 450 mm
Max. work piece weight	‘unlimited‘	‘unlimited‘	‘unlimited‘	‘unlimited‘
Weight of basic device	250 kg	300 kg	490 kg	500 kg

Test sequence	fully automatic / electronic force control
Camera system / Image transfer	5 MP Ethernet Industrial standard / up to 270FPS
Tool positions	2 (Standard) or 8 (Tool Changer)
Software	Qpix T2 (Option: Qpix CONTROL2)
Operating system / Hard disk	Windows 10 IoT / 128 GB SSD
Interfaces	1x USB (Front) 4x USB, 2x RJ45 (Ethernet), 1x DisplayPort, 1x RS232, 1x HDMI
Lenses	XLED 1, XLED 2, XLED 5, 5x, 10x, 20x, 50x, 100x
Blickfelder (je nach Bestückung)	0.113x 0.084 mm (100x) bis / up to 7.98 x 5.97 mm (XLED 1)
Additional options	Qness designer pedestal, collision protection, cross laser, test anvils, prisms, data connections, barcode/QR code reader etc.

ONLINE PRODUCT CONFIGURATOR

Additional modules and accessories can be viewed using the online product configurator at **www.qatm.com**

Online Configurator ›

QATM
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PREMIUM QUALITY
MADE IN GERMANY

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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.

CARBOLITE GERO 30-3000°C
ELTRA
Retsch
QATM
MICROTRAC MRB