QATM

QUALITY ASSURED

CHD MASTER

I Including certified Vickers indenter

I 5-megapixel camera system

I Lenses: 4x, 20x, 40x

I Export tool for XLS, Word, PDF

Qness 10|30|60 CHD MASTER

Qness 10|30|60 CHD MASTER+

CHD MASTER MICRO HARDNESS TESTERS

FULLY AUTOMATIC, ECONOMICALLY, UP-TO-DATE

part of **VERDER** scientific

A RELIABLE COMPLETE PACKAGE

A SIMPLE START TO FULLY-AUTOMATED HARDNESS TESTING

Qness 10/30/60 CHD MASTER

I Attractive package price and short delivery times
I Reduced to essentials: Vickers indenter and lenses included
I Perfect for quick single-sample tests with CHD/NHD/SHD applications
I Modular extension possible with sample image camera to variant "CHD Master+"
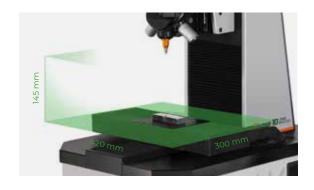
SUPPORTED TEST METHODS AND CONVERSIONS

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

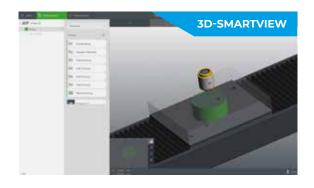| HV0.05	HV0.1	HV0.2	HV0.3	HV0.5	HV1
HV2	HV3	HV5	HV10	HV20	HV30
HV50	HV60				

CHD MASTER

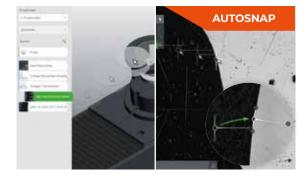# READY FOR THE FUTURE WITH CLEVER FEATURES

LARGE TEST SPACE

The sophisticated construction in anodized aluminium offers a large and well-arranged test space. The fully automatic XY slide with a high- precision incremental measurement system can be equipped with an 1-fold sample holder. Beyond that, customer specific magazines can be managed and created in the software.

3D-SMARTVIEW

REVOLUTIONARY 3D CONCEPT

Intuitive, clearly structured and professional: Qpix Control2 heralds a new generation of hardness testing software developed to guarantee maximum user-friendliness.

AUTOSNAP

TEMPLATE FUNCTION

I Types of measurement: CHD, NHD, SHD, row measurement, rapid single measurements
I Template function ideal for repeat tests / components
I Pull test series into the desired position
I The row starting point is automatically determined by the Auto-Snap function.

PROTOCOL AND DATA PRESENTATION

Wide range of structuration options for stored test item data. Adaptable content for export files and protocol content.

UPGRADE

SAMPLE IMAGE CAMERA

MODULAR EXPANDABLE WITH SAMPLE IMAGE CAMERA

Modular upgrade with sample image camera for the CHD Master possible at any time – as "CHD MASTER +" ready for new applications.

ENHANCED UNIVERSALITY

PROFESSIONAL APPLICATIONS WITH THE CHD MASTER

Qness 10/30/60 *CHD MASTER+*

I Integrated 5 megapixels sample image camera

I Single- and Multiple sample testing

I Individual configurations: 3 model variants and load
   extension available

I Expandable with innovative software modules

SUPPORTED TEST METHODS

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

HV0.05	HV0.1	HV0.2	HV0.3	HV0.5	HV1
HV2	HV3	HV5	HV10	HV20	HV30
HV50	HV60				

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

HK0.05	HK0.1	HK0.2	HK0.3
HK0.5	HK1	HK2	

BRINELL
DIN EN ISO 6506, ASTM E-10

1/1	1/2.5	1/5	1/10	1/30
2.5/31.25	2.5/62.5	5/62.5 (> 30 HBW)		

Sample
image camera

Multiple
sample testing

CHD MASTER +

SAMPLE IMAGE CAMERA AND MULTIPLE SAMPLE TESTING

SAMPLE IMAGE CAMERA

Ultimate operating comfort provided by the USB 3.0 - 5 MP color camera system for capturing the whole sample and the perfect overview in test protocols
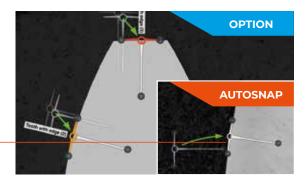

MULTIPLE SAMPLE TESTING AND MULTI-BEDDING

With usage of Qness sample holders CHD Master+ variants enable tests on up to 8 embedded samples at a time – even in case several test pieces are embedded in one specimen.
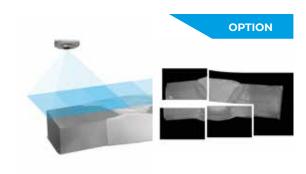

OPTION

2D/3D MAPPING

Hardness distribution across partial segments or whole planes of test samples. Colourized representation in 2D and perspectively free twistable 3D on sample image.

OPTION

AUTOSNAP

EDGE RECOGNITION

The function of the Qness software module Edge recognition is the automatic adaption of test row start points to the sample edge when using project and sample templates. The module increases the machines automation and is the perfect add-on feature to the standardized AutoSnap function.

OPTION

FROM CHD TO WELDING SAMPLES

Further to quick and simple CHD/NHD/SHD testing which the machine is basically designed for, it is optional also possible to upgrade the machine with features for welding samples and visual test point patterns for extra-large work pieces.
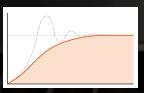
CONVINCING

BENEFITS

INCLUDED

READY TO TEST

Vickers indenter and 3 lenses included in the basic package - no restrictions with testmethods; all test load steps available and immediately useable.

FULLY AUTOMATIC TEST SEQUENCE

with electronic load application and an enclosed circuit.
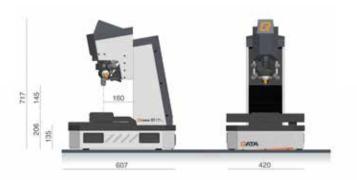
6-FOLD TOOL-CHANGE TURRET

The 6-fold toolchange turret is standard and offers plenty of space for various test methods.

OPTIMUM STOP

OPTIMUM STOP

Time-saving mode completes test series as soon as lower hardness limit has been undercut.

	Qness 10│30│60 CHD MASTER	**Qness 10│30│60** CHD MASTER+
Test force range	**Qness 10:** 50 g - 10 kg (0.49 - 98.1 N) **Qness 30:** 100 g - 31.25 kg (0.98 - 306.6 N) **Qness 60:** 200 g - 62.5 kg (1.96 - 613.1 N)	
Test head control	Dynamic, Slider in sofware	
Tool positions	6 (motorized Tool Changer)	
Measurement types	CHD, NHD, SHD, Single piece-, row measurement	Multiple samples, CHD, NHD, SHD, Single piece-, row measurement, Decarburization
Measurement types (optional)	-	Visual test patterns + Welds, Rings and tubes
Sample image camera	-	5 megapixels
Test height / Throat depth	145 mm / 160 mm	
Test anvil / XY cross slide	motorized	
Table size	150 x 120 mm	
Traverse path	X 150 mm Y 150 mm Z 145 mm	
XY positioning repeatability	+/- 3.5 µm	
Max. workpiece weight	50 kg	
Weight of basic device	58 kg	
Software	**Qpix** CONTROL²	
Power supply	100 - 240V ~1/N/P, 50 - 60Hz	

KEY DATA

Test sequence	Fully automated / electronic force application
Included basic equipment	Lenses: 4x, 20x, 40x, DakkS- or ASTM- certified Vickers indenter
Test force extension (option for CHD MASTER +)	**Qness 10:** 0.25 g - 50 g (HV0.00025 - HV0.025 / ...) **Qness 30:** 0.25 g - 100 g (HV0.00025 - HV0.5 / ...) **Qness 60:** 0.25 g - 200 g (HV0.00025 - HV0.1 / ...)
Camera system / image transfer	5 megapixels
Interfaces	1x USB3.0
Lenses	4x, 10x, 20x, 40x, 65x, 100x
Field of view (acc. to equipment)	0.100 x 0.080 mm (100x) bis 2.29 x 1.72 mm (4x)

ONLINE PRODUCT-CONFIGURATOR

For more equipment and accessories go to the online product configurator at

www.qatm.com

Online Configurator ›

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