

# 自动数显多功能硬度计

Fully automatic Hardness Testing



**Q250**

**Q750**

**Q3000**

**Qness**  
Hardness testing redefined.

# 七大特点

7 advantages. - [www.qness.at](http://www.qness.at)

## 1 测试方法

Test methods

- = Q250 (0.5 - 250 kg)
- = Q750 (3 - 750 kg)
- = Q3000 (10 - 3000 kg)



Brinell

DIN EN ISO 6506, ASTM E-10

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)		



Vickers

DIN EN ISO 6507, ASTM E-384

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



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			



塑料测试 / Plastic test

DIN EN ISO 2039

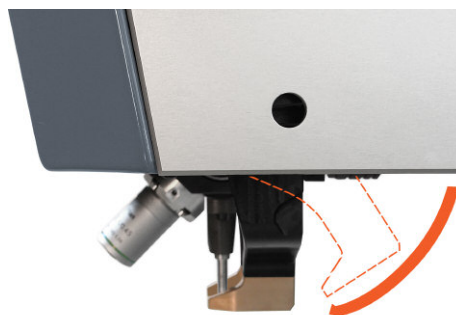
49.03 N	132.9 N	357.9 N	961 N
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硬度值转换 / Conversion

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

## 2 压头及镜头两工位旋转塔台

Sleewable downholder



由于塔台可以旋转（专利技术），因此，更换压头及镜头非常方便。塔台的旋转采用手动的方式（也可根据用户的要求改为电机驱动的方式）。同时，转台后部的夹持装置可以根据客户实际样品的形状而作特殊设计。

*No long tool changeovers for inaccessible test positions. The patented downholder can be swivelled in and out manually (and via motor is required). Furthermore, the bracing elements can be changed easily and can be adapted to suit the customer's component.*

## 3 样品测试面高度的自动识别

Workpiece recognition



测试头装置通过电机驱动进行高度调节，最大运动速度可达24毫米/秒。使用传感器技术对样品测试面的位置进行确认，从而使得在压头接近样品表面时，电机自动减速，保证夹持装置能够以很低的速度接触样品的表面（为保护样品的表面）

*Work piece recognition with motorised height adjustment facilitates a high test run speed of 24mm/s. Sensor technology enables the workpiece to be recognised and the bracing speed to be reduced accordingly (to protect the workpiece).*

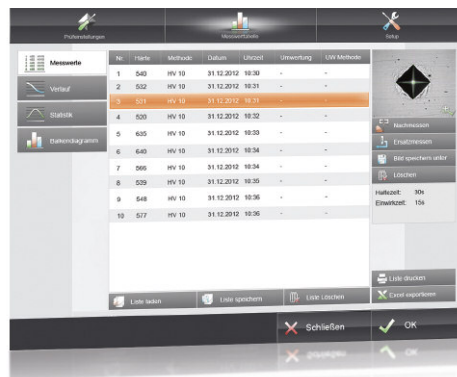
## 4 Qpix T12 软件 Software Qpix T12



- 操作简单
- 通过分析明或暗区域的边界，实现全自动压痕几何尺寸的测量
- 2×电子变焦镜头
- 12” 触摸显示屏
- 快速自动聚焦
- 可通过手动的方式进行压痕尺寸的重新测量

- Simple operation
- Fully automatic image analysis via ring light in light or dark field process
- 2 x zoom as standard saves lenses
- 12" touch screen display
- Rapid auto-focus
- Manual follow-up measurement possible

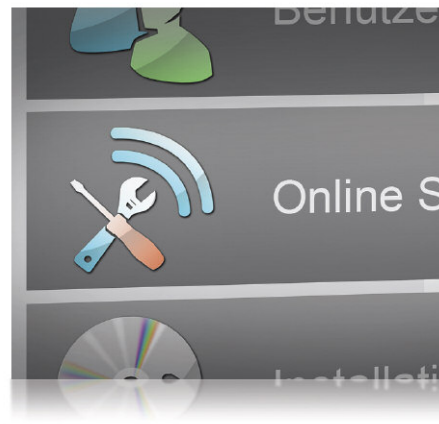
## 5 数据管理 Data administration



- 多种统计功能：柱形图，折线图，直方图
- 可输出测试结果，并保存为 'Excel' (CSV) 格式
- 可对每个压痕进行详细说明
- 可输出A4纸大小的PDF格式的测试报告
- 可直接连接打印机并打印
- 采用Qpix Collect数据采集软件可扩展硬度计的功能。

- Numerous statistical functions: Bar graphs, line graphs, histogrammes
- Export test results in 'Excel' (CSV)
- Detailed normed information on each indentation
- A4 test report in PDF format / Direct pressure
- Can be expanded with Qpix Collect Software

## 6 在线技术支持 Online support



在线技术支持是指：将硬度计通过互联网连接到Qness的售后服务中心。用户可得到在线技术支持并及时更新软件。

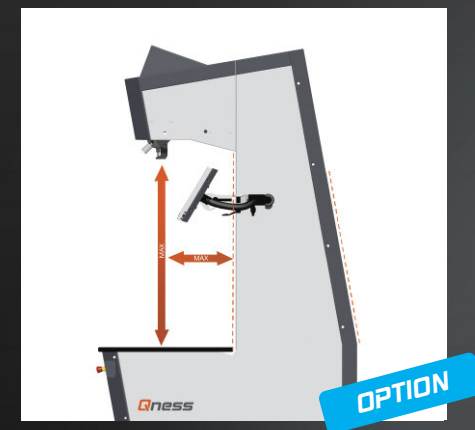
The 'Online Support Mode' links up the hardness testing device with the Qness service centre. Allowing user support and software updates to be conducted as quickly as possible.

## 测试空间的扩展

可根据客户特殊要求订制测试空间高度和压头到后壁的距离

Extended test area

Customer-specific test height and throat depth

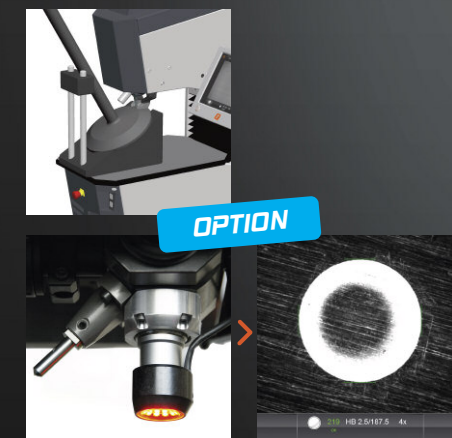


## 特殊订制解决方案

针对样品的特种砧板、自动化的送料方式以及软件的特殊要求等均可按照用户的要求进行特殊订制

Customer-specific solutions

From workpiece bracing and means of automation to software adaptations



环状光源特别适合于针对软性材料的硬度测试

Ring light recommended for all soft materials.

# 技术数据

## Technical data

**Qness**  
Hardness testing redefined.

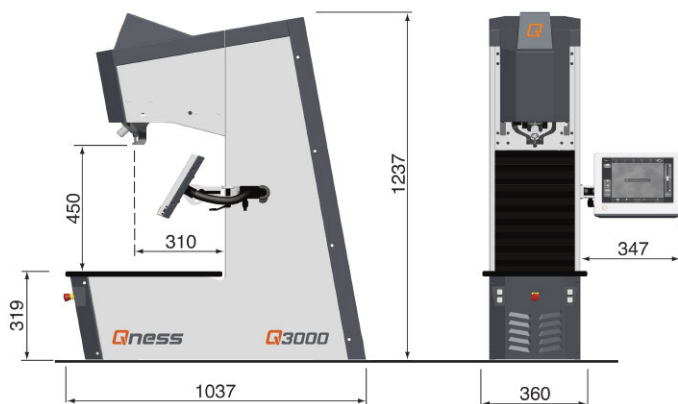
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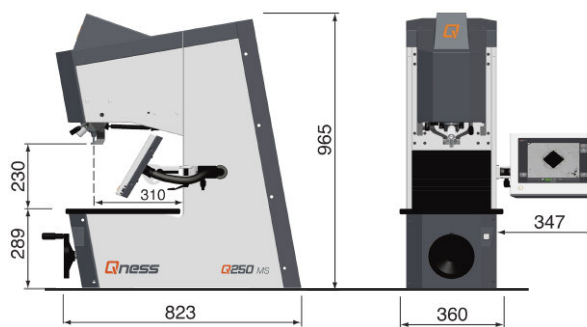
Q3000, Q750, Q250:



„MS“ Version:

“MS” 机架为该系列产品小型化的设计方案。这种小型化机架使得放置硬度计所需的面积节省25%，但硬度计仍然具有全部的Qness技术。

The 'MS' stand version is approximately 25% smaller enabling the entire range of Qness technology to be used within the smallest possible area.



	Q3000 E	Q3000 M	Q3000 MS	Q750 E	Q750 M	Q750 MS	Q250 E	Q250 M	Q250 MS
载荷范围 Test load range	10 - 3000 kg (98 - 29430 N)			3 - 750 kg (29.4 - 7358N)			0.5 - 250 kg (4.9 - 2450 N)		
高度调节 Height adjustment	采用异步电机	手轮 Hand wheel		采用异步电机	手轮 Hand wheel		采用异步电机	手轮 Hand wheel	
测试空间高度 Test height	450 mm	450 mm	230 mm	450 mm	450 mm	230 mm	450 mm	450 mm	230 mm
样品允许最大重量 Max. work piece weight	300 kg	300 kg	300 kg	300 kg	300 kg	300 kg	300 kg	300 kg	300 kg
主机重量 Weight of basic machine	400 kg	380 kg	280 kg	400 kg	230 kg	170 kg	250 kg	230 kg	170 kg
数据接口 Data interface	1 x USB (Front) 2 x USB, 1 x RS232, 1 x RJ45 (Ethernet)								
电源 Power supply	230~1/N/PE, 110~1/N/PE								
最大电耗 Max. power consumption	~ 800 W	~ 360 W	~ 360 W	~ 800 W	~ 360 W	~ 360 W	~ 800 W	~ 360 W	~ 360 W