

Vida

Vickers innovative automatic tester 全自动维氏硬度计



Via Feature 特点

Wide range Vickers hardness testing (980.7mN to 490.3N)
载荷范围 980.7mN - 490.3N

Closed-loop test force control (with load cell)
电子闭环传感器加载

Auto focus and auto reading function
自动聚焦，自动读值

Light weight & Compact
小巧，轻便

Test methods
测试方法可选

LED indicator
LED指示灯

Windows 7 PC
Windows 7 触摸屏电脑

**The turret which mounted
four objective lenses**
自动转塔，可装配4个物镜

Wide range Vickers hardness testing (980.7mN to 490.3N)

载荷范围 980.7mN - 490.3N

All the test force control is performed by electric control. The high quality load sensing system can do a wide-range Vickers hardness test by one load cell.

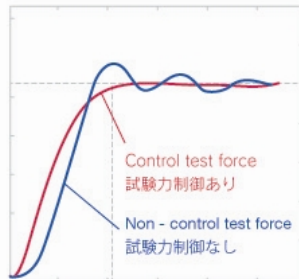
加载力方式采用电子闭环传感器加载，高精度的载荷传感器拥有广阔的加载力范围，适合多个维氏硬度标尺。

Test force 加载力



Closed-loop test force control (with load cell)

电子闭环传感器加载



Test force is controllable with high precision from the output of a load cell.

采用高精度电子闭环传感器加载方式。



Feedback control controls the vibration from the outside.

反馈控制排除外部干扰。

Test methods (Standard setting)

测试方式

Vickers 维氏

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

Brinell 布氏

1/1	1/2.5	1/5	1/10	1/30
2.5/6.25	2.5/15.625	2.5/31.25	5/25	

Knoop 努氏

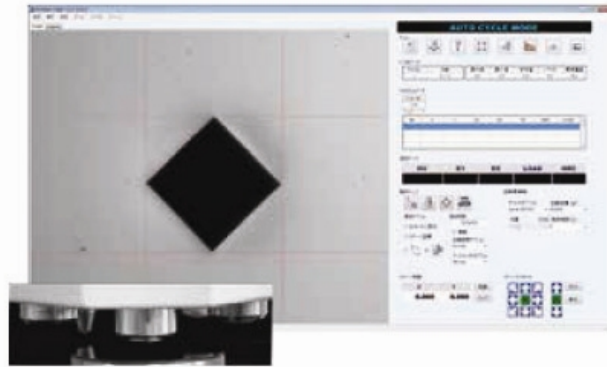
HK0.1	HK0.2	HK0.3	HK0.5	HK1	HK2
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Auto focus and auto read function (standard equipment)

自动对焦，自动读值

Autofocus and automatic reading are equipped standardly. Infinity-corrected objective lens and 1.3M high-speed USB camera offers a clear image.

硬度计标配自动对焦，自动读值系统。



自动读值系统依靠图像分析系统，能够避免人工读数带来的误差，使硬度读值简单快捷。

This automatic-system can dissolve a personal error in reading of indentation by the latest image processing software and reduce hardness measurement cost time.

LED indicator

LED 指示灯



LED indicator is displayed so that LED may flow during operation. Operation of a testing machine can check easily.

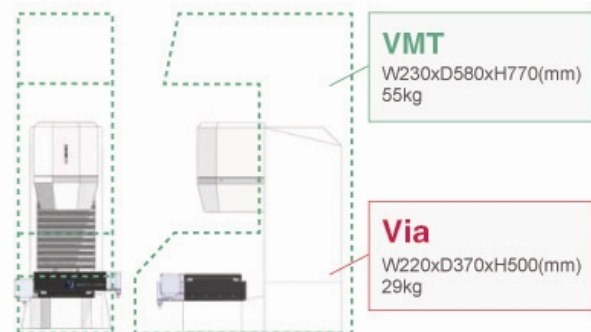
LED 指示灯事实显示仪器状态，使整个测试过程的操作更加简单。

Light weight & Compact

小巧，轻便

The optimal design realized the light weight and the compact. Operation of the testing machine which was difficult until now can also be performed easily.

硬度计设计更加小巧，轻便，便于不同环境使用，移动搬运也更加简单。



The turret which mounted four objective lenses

全自动转塔，可安装4个物镜



The objective lens is up to four can be mounted.

全自动转塔，可安装不同倍率的4个物镜，确保精准测量。

Windows7 PC

Windows7 触摸屏电脑



In addition to operation of a testing machine, Windows7 PC realizes many functions, such as data processing, printing, and connection with a network.

硬度计软件配合Windows7操作系统的触摸屏电脑使用，软件提供数据处理及统计功能，方便打印及联网。

Flexible Auto-focus and Auto-reading function.

自动聚焦和自动读值系统。

This function sets four kinds of detailed set values of an automatic focus and reading beforehand those calls those set values easily on software.

An automatic focus and reading can be done more smoothly and accurately. In the measurement of the sample with rough surfaces like etching, a very high effect is demonstrated.

Even if some of the samples with a rough surface are mixed, they can be measured smoothly and accurately by only selecting set values.

Please prepare several kinds of samples with a significantly different state on the surface.

自动聚焦和自动读值功能均有4个设置选项，通过调整选项获得最佳聚焦和读值效果。

由于标准硬度块和被测工件的表面粗糙度有所差异，通过调整参数，使聚焦达到最佳效果，确保读值精准。即便有些工件表面过于粗糙，也能通过调整得到最佳读值。

可以预先设置合适的参数方便日后调用。



Auto-focus
自动聚焦选项



Auto-reading option
自动读值选项

Product Line-up 製品ラインナップ

Full-automatic model **Via-F**
全自动维氏硬度计



Semi-automatic model **Via-S**
半自动维氏硬度计



SPECIFICATION 技术参数

Item / Model		Via-F	Via-S
Test force 加载力	Vickers 维氏	0.981, 1.961, 2.942, 4.903, 9.807, 19.61, 29.42, 49.03, 98.07, 196.1, 294.2, 490.3 (N)	
		0.1, 0.2, 0.3, 0.5, 1, 2, 3, 5, 10, 20, 30, 50(kgf)	
	Knoop 努氏	0.981, 1.961, 2.942, 4.903, 9.807, 19.614 (N)	
		0.1, 0.2, 0.3, 0.5, 1, 2(kgf)	
	Brinell 布氏	1/9.807, 1/24.52, 1/49.03, 1/98.07, 1/294.2, 2.5/61.29, 2.5/153.2, 2.5/306.5, 5/245.2 (N)	
		1/1, 1/2.5, 1/5, 1/10, 1/30, 2.5/6.25, 2.5/15.625, 2.5/31.25, 5/25(kgf)	
Load apply speed 加载速度	0.981 ~ 4.903N : 50um/sec, 9.807 ~ 490.3N : 100um/sec		
Indenter 压头	Standard : Vickers(HV), Option : Knoop(HK), Option : Brinell(HBW 1, 2.5, 5mm) 标配: 维氏压头 (HV), 选配: 努氏压头 (HK), 布氏压头 (HBW 1,2.5,5mm)		
Objective lens 物镜	Infinity-corrected objective lens Standard:10x, 20x, Option : 5x, 50x, 100x 多种放大倍数物镜,标配: 10x, 20x; 选配: 5x, 50x, 100x		
Indent measurement 压痕测量	Automatic / manual , Auto focus 手动测量 / 自动测量, 自动聚焦		
Min measuring unit 测量分辨率	0.1μm		
Auto focus speed 自动聚焦速度	2sec/1point(Depending on the sample surface) 每个点2秒 (取决于工件表面粗糙度)		
Camera 相机	1/2" 1.3M BW USB2.0 Camera 1/2" 130万像素 USB2.0 工业相机		
Stage / anvil 工作台 / 砧座	50×50mm stroke XY auto stage 50 x 50mm 行程自动XY工作台 Movement Speed 1μm 移动分辨率 1μm	D60mm flat anvil φ60mm 平面砧座	
Controller 控制器	3-axis controller 3轴控制器	1-axis controller 单轴控制器	
	With Safeguard against malfunction (Full operation is stopped by the emergency stop button) 3轴控制器		
Operation panel 操作面板	21.5" monitor PC (Windows7) 21.5" 一体式电脑 (Windows7)	11.6" tablet PC (Windows8.1) 11.6" 触摸屏电脑 (Windows8.1)	
Max. specimen height 容高	140mm		
Max. specimen depth 容深	100mm		
Dimensions 尺寸	W220×D370×H500mm		
Weight 重量	34kg	29kg	
Accuracy 精度	ISO 6507-2.JIS B7725 JISB7734, ASTM E-92, ASTM-E384		
Power supply 电源	AC 100 ~ 240V 50/60Hz		

STANDARD ACCESSORIES 标配

Code No.	Item	Contents
V061	Hardness standard block 硬度标准块	800HV
V001	Diamond indenter 维氏金刚石压头	Built in 内置
M073~M074	Object lens 物镜	10x(M074), 20x(M073)
R101,R105	Anvil 砧座	60mm ϕ flat, V-shape 60 ϕ 平、V型(大)
-	Spare fuse 备用保险	2A (Built in 内置)
C031	Power cord 电源线	3P-2.5m
-	Auxiliary tools 辅助工具	-
V161	Machine cover 防尘罩	-

SPECIAL ACCESSORIES 选配

Code No.	Item	Contents
V002	Knoop indenter 努氏压头	
V003 Other V003 他	Brinell indenter 布氏压头	ϕ 1mm (V003)、 ϕ 2.5mm※ ¹ 、 ϕ 5mm※ ¹
M071,M075 M080	Objective lens 物镜	5x(M075), 50x(M080), 100x(M071)
M011	Precision vice (Max. opening 50mm) 50mm开口精密夹钳	
M012	Precision vice (Max. opening 100mm) 100mm开口精密夹钳	
M013	Rotary table 旋转工作台	
M014	Thin specimen measuring device 薄型工件测量装置	
M015	Fine specimen measuring device (vertical type) 小型工件测量装置(垂直型)	
M016	Fine specimen measuring device (horizontal type) 小型工件测量装置(水平型)	
M017	Specimen inclining device 工件倾斜装置	
M018	Rotary inclining device 旋转倾斜装置	
M019	Universal inclining device 多功能倾斜装置	
R104	V-shape anvil (small) V型砧座(小)	
R103	V-shape anvil (large) V型砧座(大)	
V032~V034	Manual X-Y stage 手动XY工作台	Max. movement : X and Y axis 25mm (withstand load 20kg : V032, withstand load 50kg : V034) or 50mm, (eithstand load 50kg : V033) 25mm行程, 载重20kg: V032 25mm行程, 载重50kg: V034 50mm行程, 载重50kg: V033
R111	Round table 圆形工作台	ϕ 200mm
M171~M175	Vibration isolation table 防震台	Tabletop type (Rubber cushion type : 171, Manual air type : M172, Auto air type : 173, Compound mount type : 175), Desk top type(M174) 台式, 手动: M171; 自动: M172; 自动空气型: M173; 多功能型: M175; 便携式 M174
※ ¹	Optional size of stage 多种尺寸可选	(X)100 × (Y)50 mm



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