

# MICRO-VICKERS HARDNESS SYSTEM 400DM™

Motorized turret, digital measuring microscope with external ccd monitor system

- "Easy measure" monitor system
- Motorized turret
- High quality digital microscope
- Fully automatic load control
- Easy to use operating system
- Two optical paths
- Built-in high speed thermal printer
- XY stage with minimum reading of 0.01mm
- Dual indenter (Vickers/Knoop) turret optional
- 2kg load optional

### Typical applications

- Steels, nonferrous metals, IC wafers, small precision components
- Thin plastic, metallic foils, plating, coating, surface layers, laminated metals
- Effect of heat treatment, case depth analysis, depth of carburised and flame hardened layers



### Technical specifications

Vickers scales	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1 (HV2)
Display	Dwell time (sec), hardness value, menu operated user interface, shows: hardness readings, general settings, diagonals, RS-232 connections, illumination settings. CCD camera on eyepiece projects indentation on standard accessory CRT screen, allowing easy to read and more accurate measurement
Test load	10 - 25 - 50 - 100 - 200 - 300 - 500 - 1000gf (2000gf optional)
Accuracy	Conforms to EN-ISO 6507 and ASTM E384
Load control	Automatic (loading/dwell/unloading)
Load duration	5 to 60 sec (5 sec increments)
Test force selection	By dial knob; applied load shows on display
Microscope	
Objectives	10x, 40x
Eyepiece magnification	15x / mechanical thumbwheel, digital encoder built-in
Total magnification	150x (observation), 600x (measurement)
Measuring range	200µm
Resolution	0.03µm
XY stage	
Dimensions	100mm x 100mm
Travel range	25mm x 25mm
Resolution	0.01mm (micrometers)
Specimen	
Maximum height	85mm (2.55")
Maximum depth	90mm (3.35") (from the centre)
Optical path	2-way switchable
Power supply	110-220V, 50Hz
Dimensions	470mm x 210mm x 420mm
Weight	36kg

### Standard delivery

- Main unit with CCD Camera and monitor
- Motorized turret
- Diamond indenter Vickers
- Objectives 10x, 40x
- Eyepiece 15x
- XY-stage with micrometers
- Adjustable feet (3pcs)
- Clamping devices (3pcs)
- Extension tube for CCD-camera
- Digital eyepiece incl. protection cover
- Spirit level
- Micro-Vickers test plates (2pcs)
- Spare light bulb 12V-30W
- Spare fuses (2pcs)
- Installation and user manual

### Optional accessories

- 2kg test load / scales
- Knoop indenter
- Precision vice
- Certified indentors and test blocks

### Optional system

- CV-CCD system for (semi-) and automatic traverses, pattern testing through pc support and motorised XY stage