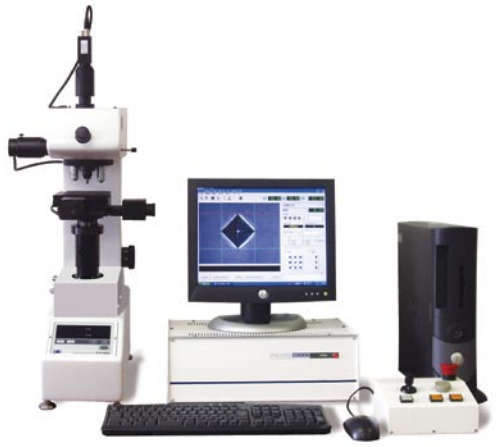
ARS 9000 TESTING SYSTEM

The ARS 9000 is a fully automatic testing system capable of programming, indenting, viewing and recording in one convenient location. By configuring the ARS to your specifications, the CM-Series performs Micro indentations from 1-1000gf in either Vickers or Knoop; or both using the optional dual indenter, while the CV-Series performs Macro/Vickers indentations from 0.3-50kgf. For accuracy and productivity, the ARS 9000 is the perfect all-in-one system.



Shown with CV Series.

Special Features

- Auto-measure by selecting your programmed pattern (indent, focus, read, record)
- Various measurement patterns (straight, zigzag, circle, line set, random)
- Instant HV hardness displayed on chart after measurements on carbonized layer
- Various data outputs available – Measurement data, hardness distribution chart, case depth, max. value, min. value, mean value, dispersion, standard deviation, coefficient of variation, OK-NG criteria, conversion data, etc.
- Upper/lower safety switches on Z-axis prevent damage to indenter and objectives

Auto-turret

Optional dual indenter auto-turret allowing up to four objectives.
(Available on CM-700 series only.)

ITEM		CM ARS 9000	CV ARS 9000
TEST LOAD	TYPE A	10 / 25 / 50 / 100 / 200 / 300 / 500 / 1000 gf	1 / 2 / 3 / 5 / 10 / 20 / 30 / 50 Kgf
	TYPE B	5 / 10 / 25 / 50 / 100 / 200 / 300 / 500 gf	0.3 / 0.5 / 1 / 3 / 5 / 10 / 20 / 30 Kgf
	TYPE C	25 / 50 / 100 / 200 / 300 / 500 / 1000 / 2000 gf	
LOADING MECHANISM		Automatic loading, holding and releasing method	
FOCUS OPERATION		Automatic / manual operation available	
AUTO-STAGE ELEVATION		Auto (step motor) / manual (FM: standard handle / joystick)	
LOAD APPLYING SPEED		Initial test speed 120μm/sec — actual test speed 60μm/sec	
DWELL TIME		5 – 40 sec	
PRECISION VISE		Max. opening: 50 mm	
TURRET MECHANISM		Automatic / manual changeable (optional dual indenter turret available)	
OBJECT LENS		10X / 50X (Third lens capability)	10X / 20X (Third lens capability)
MIN. MEASURING UNIT		Automatic – .1μm or .2μm / Manual – .1μm	
MANUAL MEASUREMENT		Video Line on CRT available	
AVAILABLE TEST INDENTER		Vickers (HV) or Knoop (HK)	
AUTOMATIC X-Y STAGE			
	Max. Movement	50 x 50mm in X and Y axis	
	Min. Movement	1μm	
	Moving Speed	Aprx. 25mm/1sec	
	Driving Motor	Stepping motor	
	Drive Control	By icon: 2 step speeds available in X, Y, Z axis	
METHOD		By joystick: flexible speed changing in X, Y, Z axis	
ACCURACY		Conforms to ASTM – E-384 / E-92	
DIMENSIONS		110mm x 110mm	
MOVEMENT PROGRAM PATTERN		Straight, Zigzag, Circle, Angle (max. 8 lines x 3,000 indents), Random, Teaching, Matrix	
PROGRAM SETTING		Start position setting for straight line and position setting. Mouse for random / teaching mode	
AUTO-MEASURING SOFTWARE		Image processing by Microsoft® Windows®	
	Test Method	Vickers (HV) or Knoop (HK)	
	Repeat Measurements	±.8% on test block 700HV / 500gf	±.8% on test block 800HV / 10Kgf
	Auto-focus Time	Aprx 10 sec.	
	Auto Reading Time	Aprx. 0.3 sec per indent	
MINIMUM INDENT		Aprx. 15μm	
OUTPUT INFORMATION		Hardness value / hardness data / case depth / hardness charts / insertion of pictures	

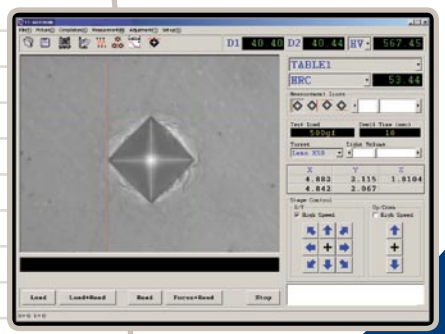
STANDARD ACCESSORIES

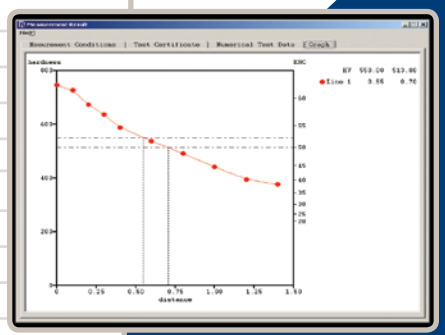
Hardness Standard	1
Diamond Indenter	1
Built In Objective Lens	1
Indenter Shaft Fixture & Cover	1

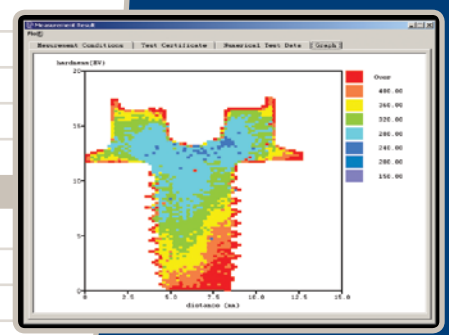
Machine Cover, Bulb, Accessory Box, Tools, Manual, Cables, Leveling Leg Set

AVAILABLE CONFIGURATIONS

ARS 90 – Auto-read only (package)
ARS 900 – Auto-read/stage (package)
ARS 9000 – Complete system
(ARS 9000 Includes Tester)







Minimum Requirements: Windows® XP 2000®, Intel Pentium™, HD Space 5 MB, RAM 16 MB+, 2 Open PCI Slots, RS-232C Connection, Min 2 IRQ, VGA Adapter