

[SPECIFICATIONS]

ITEM	FULLY-AUTOMATIC MICROHARDNESS TESTING SYSTEM FM-ARS 9000	FULLY-AUTOMATIC VICKERS HARDNESS TESTING SYSTEM FV-ARS 9000
STANDARD SYSTEM COMPONENT	Analog Microhardness Tester Model: FM-100S (OPTION: FM-300S, FM-700S available)	
	Analog Vickers Hardness Tester Model: FV-100S (OPTION: FV-300S, FV-700S available)	
	Automatic X-Y Stage & Motor Drive Unit	
	CCD Camera	
	Complete set of PC: 17"Color CRT, Mouse, Keyboard, and Joy-Stick with Controller	
	Standard Software for System ARS 9000	
Ink-Jet Type Color Printer		
PC: DELL or IBM Compatible Model with OS Windows XP		
MODEL	Model FM-100S: Stage Elevation Motor Built-in	Model FV-100S: Stage Elevation Motor Built-in
TYPE	Analog Type: Controllable Loading Operation by External PC	
TEST LOAD	A: mN: 98.07, 245.2, 490.3, 980.7, 1961, 2942, 4903, 9807 gf: 10, 25, 50, 100, 200, 300, 500, 1000	A: N: 9.807, 19.61, 29.42, 49.03, 98.07, 196.1, 294.2, 490.3 kgf: 1, 2, 3, 5, 10, 20, 30, 50
	B: mN: 49.03, 98.07, 245.2, 490.3, 980.7, 1961, 2942, 4903 gf: 5, 10, 25, 50, 100, 200, 300, 500	B: N: 2.942, 4.903, 9.807, 29.42, 49.03, 98.07, 196.1, 294.2 kgf: 0.3, 0.5, 1, 3, 5, 10, 20, 30
	C: mN: 245.2, 490.3, 980.7, 1961, 2942, 4903, 9807, 19614 gf: 25, 50, 50, 100, 200, 300, 500, 1000, 2000	
	D: mN: 9.807, 49.03, 98.07, 490.3, 980.7, 2942, 4903, 9807 gf: 1, 5, 10, 50, 100, 300, 500, 1000	
LOADING MECHANISM	Automatic Load/Hold/Release Method	
FOCUS OPERATION	Automatic / Manual Operation available * Focusing Steps adjustable	
AUTO-STAGE ELEVATION	Automatic: by Built-in Stepping Motor Manual: FM: by Standard Handle & Joy-Stick Operation / FV: by Joy-Stick Operation * Safety Devices equipped to Overrun of Elevation.	
PRECISION VISE	Standard: Max. Opening: 50mm	
TURRET ROTATION	Automatic / Manual changeable	
LOAD	Initial Speed: 120μm/sec / Actual Loading Speed: 60μm/sec	
APPLYING SPEED	5 - 40sec	
DWELL TIME	(OPTION: Analog Type)	
MANUAL OCCULAR	By Video Line on CRT available	
MANUAL MEASUREMENT	By Video Line on CRT available	
OBJECT LENS	X10 / X50 (Optical Parts for 3rd Lens Built-in)	X10 / X20 (Optical Parts for 3rd Lens Built-in)
AUTOMATIC MEASUREMENT SCALE	Vickers Hardness (HV) / Knoop Hardness (HK)	
DRIVING MOTOR	Stepping Motor	
DRIVE CONTROL	By Alcon: 2 Steps Speed available in X-Y-Z axis	
METHOD	By Joy-Stick: Flexible Speed Changing in X-Y-Z axis	
DIMENSIONS	110 x 110mm	
MAX. MOVEMENT	50 x 50mm in X-Y axis	
MIN. MOVEMENT	1μm	
MOVING SPEED	1 - 25mm/sec adjustable	
MOVEMENT PROGRAM PATTERN	Straight Line (Horizontal & Vertical) / Zigzag / Circle / Arc / Line Set for any Angle (8 Lines and Max. 3000 Indents on 1 Line) / Random / Teaching / Matrix / Specificity of 2 Points / Specificity of Angle Sample Profile Memory Function & Measurement along with Profile Line	
PATTERN SETTING	Start Position Setting for Straight Line and Position Setting for Random/Teaching Mode shall be performed by Mouse-Click	
SOFTWARE	OS: Microsoft Windows XP	
AVAILABLE HARDNESS SCALE	Vickers (HV) / Knoop (HK)	
MEASUREMENT REPEATABILITY	±0.8% on Test Block 700HV/500gf	±0.8% on Test Block 800HV/10kgf
AUTO-FOCUS TIME	Shortest 3 sec	
AUTO READING TIME	Approx. 0.2 sec/1 Indent	
MEASURABLE MIN. INDENT	5μm	
MIN. MEASUREMENT UNIT	0.1μm	
MANUAL MEASUREMENT	By OPTIONAL Occular or Video Line on CRT	
AVAILABLE LANGUAGES SUPPORT	Japanese / English	
DATA OUTPUT FORMAT & EDITING FUNCTION	Hardness Value, Hardness Chart, Case Depth, Insertion of Picture, etc. and Flexible Data Editing on "EXCEL"	
PRINTER	Standard: Color Ink-Jet Type	
JOY-STICK	For X-Y-Z axis Movement / Standard: Digital Type	
MANUAL OCCULAR	OPTION: Analog Type	
SAFETY DEVICE	Safety Devices equipped for Unmanned Operation * Turret Rotation stop instantaneously in case of Object Lens or Indenter hit a Specimen. * Upper & Lower Limit Stopper are equipped against Uncontrollable Stage Elevation	