

# SPECIFICATIONS

FM-100 / 300series FM-800series  
 \* ( ) Choose either 1,000 or 2,000

MODEL		FM-100e	FM-100	FM-300e	FM-300	FM-800e	FM-800						
TEST LOAD	TYPE A	mN: 49.03 gf: 5	98.07 10	245.2 25	490.3 50	980.7 100	1,961 200	2,942 300	4,903 500	9,807 1,000	19,614 2,000		
	TYPE B	mN: 9.807 gf: 1	29.42 3	49.03 5	98.07 10	245.2 25	490.3 50	980.7 100	1,961 200	2,942 300	4,903 500	9,807 1,000	
	TYPE C	mN: 9.807 gf: 1		49.03 5	98.07 10	245.2 25	490.3 50	980.7 100	1,961 200	2,942 300	4,903 500	9,807 1,000	19,614 2,000
	TYPE D	mN: 9.807 gf: 1		49.03 5	98.07 10	245.2 25	490.3 50	980.7 100		2,942 300	4,903 500	9,807 1,000	19,614 2,000
	TYPE E	mN: 9.807 gf: 1	29.42 3	49.03 5	98.07 10	245.2 25	490.3 50	980.7 100		2,942 300	4,903 500	9,807 1,000	
LOADING MECHANISM		Automatic Load and Release Method											
LOAD APPLYING SPEED		60μm/ sec											
DWELL TIME		5 ~ 40 sec					5 ~ 99 sec						
TURRET MECHANISM		Manual	Automatic	Manual	Automatic	Manual	Automatic						
DIAMOND INDENTER	Standard	Vickers Indenter (HV)											
	Option	— Knoop Indenter (HK) / Two Indenters (HV + HK) are available on the special Dual Indenter Turret simultaneously											
OBJECT LENS	Standard	2 Lenses (X 50 & X 10)											
	Option	Max. 3 Lenses (X 50 & X 10 plus 1 Lenses)					Max. 4 Lenses (X 50 & X 10 plus 2 Lenses)						
EYEPIECE		X 10											
MEASURING MICROSCOPE	Type	Mechanical					Electronic						
	Max. measurement length	In case of X 100: 850 μm / In case of X 500: 170 μm											
	Min. graduation	Micrometer : 0.5 μm					Digital : 0.01 μm (In case of X 500)						
	Min. measurement unit	Eye judgement : 0.1 μm					Digital : 0.01 μm (In case of X 500)						
X-Y STAGE	Type	Manual											
	Dimensions	100 x 100 mm											
	Max. movement	(X) 25 x (Y) 25 mm											
	Min. micro graduation	1/100 mm											
	Option	Digital microhead					Digital microhead (Panel display)						
PRECISION VISE	Max. opening	50 mm											
MAX. HEIGHT OF SPECIMEN		95 mm											
MAX. DEPTH OF SPECIMEN		115 mm											
TEST PARAMETER		—					HV / HK		HV / HK / HBS / HBW / Kc				
FRACTURE TOUGHNESS TEST (Kc)		—					Conform to JIS R1807/IF Method						
HARDNESS CONVERSION		—					Conform to SAE (J-417b) & ASTM (E-140)						
OPERATION PANEL (SHEET SW for FM-100 / 300 Series & TOUCH PANEL SW for FM-800 Series)		START / LIGHT UP-DOWN / TURRET ROTATION (For Auto-Turret Type)					START / RESET / DWELL TIME / LIGHT UP-DOWN / TURRET ROTATION (For Auto-Turret Type)			START / RESET / DWELL TIME / LIGHT UP-DOWN / TEST LOAD / CONVERSION SCALE / TURRET ROTATION (For Auto-Turret Type) / CLEAR			
DATA DISPLAY (LED for FM-100 / 300 Series & LCD for FM-800 Series)		POWER / LOADING (Pilot Lamp)					D1 / D2 / HV-HK / HARDNESS VALUE / LOADING / OK-NG CRITERIA			D1 / D2 / HV-HK / HARDNESS VALUE / CONVERSION DATA / OK-NG CRITERIA / START (Blinking for Loading) / TEST TIMES / etc.			
DATA OUTPUT & PRINT OUT		—					RS232C (HV-HK / HARDNESS VALUE / OK-NG) / CENTRONICS (D1 / D2 / HV-HK / HARDNESS VALUE / TEST LOAD / OK-NG)			RS232C / CENTRONICS (D1 / D2 / HV-HK / HARDNESS VALUE / TEST LOAD / OK-NG / CONVERSION SCALE / CONVERSION DATA / STATISTIC DATA / etc.)			
OK / NG CRITERIA		—					Limit setting and HI / OK / LO display						
SELF DIAGNOSIS		—					Display troubles with motors and switches						
LIGHT SOURCE		6V / 18W (Auto-iris mechanism)											
OPTICAL FUNCTION		Aperture diaphragm / Field aperture / Color filter : Replaceable											
ACCURACY		Conform to JIS B-7734/B-7725, ASTM E-384, and ISO/DIS 6507-2											
PHOTOGRAPHIC DEVICE		Capable to mount at anytime on top of the machine (Camera / Attachment : Option)											
DIMENSIONS		(W) 186 x (D) 450 x (H) 504 mm											
WEIGHT		Approx. 40 kg (Including Standard Accessories)											
POWER SUPPLY		Japan : Single phase AC 100V 50 / 60Hz Overseas : Single phase AC 100 ~ 240V 50 / 60Hz (Should be specified before shipment)											