

CM SERIES MICRO INDENTATION

As a variety of new materials are being introduced to the market and products continue to be downsized, the significance of micro hardness testing has increased dramatically. CM Series Micro Testers utilize advanced technology for incredible accuracy and user friendliness. And for optimum flexibility, combine a CM Tester with the available ARS, automated system.

Special Features

- Built in **dial-a-weight** system easily changes from load to load.
- Advanced microcomputer with LCD touch panel display (CM-800/CM-800AT)
- Automated test sequence performs easy hands-free loading operation
- Vickers, Knoop, Brinell and fracture toughness (K_{IC}) testing (CM-800/CM-800AT)
- Fine measuring lines in microscope provide accurate indent readings
- Turret allows up to 3 different objectives attached at once (4 on CM-800)
- Digital micrometer head with on screen display (CM-800)
- USB output connection (CM-800)
- Unique light source with interchangeable color filters for clear viewing
- Certified and ready to use



Shown with optional self-leveling device.



Series CM-100



Series CM-400



Series CM-800

ITEM	CM-100/CM-100(AT)	CM-400/CM-400(AT)	CM-800/CM-800(AT)
TEST LOAD gf(N)	Auto-load and release method		
Type A:	5 (49.03), 10 (98.07), 25 (245.2), 50 (490.3), 100 (980.7), 200 (1961), 300 (2942), 500 (4903), 1000 (9807), 2000 (19614)		
Type B:	1 (9.807), 3 (29.42), 5 (49.03), 10 (98.07), 25 (245.2), 50 (490.3), 100 (980.7), 200 (1961), 300 (2942), 500 (4903), 1000 (9807)		
Type C:	1 (9.807), 5 (49.03), 10 (98.07), 25 (245.2), 50 (490.3), 100 (980.7), 200 (1961), 300 (2942), 500 (4903), 1000 (9807), 2000 (19614)		
Type D:	1 (9.807), 5 (49.03), 10 (98.07), 25 (245.2), 50 (490.3), 100 (980.7), 300 (2942), 500 (4903), 1000 (9807), 2000 (19614)		
Type E:	1 (9.807), 5 (49.03), 10 (98.07), 25 (245.2), 50 (490.3), 100 (980.7), 300 (2942), 500 (4903), 1000 (9807)		
LOADING MECHANISM	Auto-load and release method		
APPLYING LOAD SPEED	50µm/sec		
DWELL TIME	5-40 sec		5-99 sec
TURRET MECHANISM	Manual/Automatic		
MICROSCOPE MAGNIFICATION	Measurement: 500X (obj. 50X – eyepiece 10X) – Observation: 100X (obj. 10X – eyepiece 10X)		
MEASURING MICROSCOPE	Mechanical	Electronic	Electronic
Max. measuring length		For 100X:850µ m / For 500X: 170µ m	
Min. graduation	Micrometer: 0.5 µ m	0.01µ m	0.01µ m
Min. measuring unit	Eye judgement: 0.1µ m	Digital; 0.01µ m / In case of 500X	Digital; 0.01µ m / In case of 500X
AVAILABLE TEST PARAMETER	HV/HK	HV/HK	HV / HK / HBW / Kc
FRACTURE TOUGHNESS TEST			Conforms to JIS A1607 / IF method
OPERATION PANEL	Touch Pad	Touch Pad	LCD Touch Panel
DATA DISPLAY	Power / Loading	D1 / D2 / HV-HK / Hardness Value / Loading / OK-NG Criteria	D1 / D2 / HV-HK / Hardness Value / Conversion Data / OK-NG Criteria
DATA OUTPUT		RS232C / Centronics / D1 / D2 / HV-HK / Test Load / OK-NG	RS232C / Centronics / D1 / D2 / HV-HK / Test Load / OK-NG Conv. Scale / Conv. Data / Statistic Data / etc.
HARDNESS CONVERSION			ASTM (E-140)
DATA MEMORY			Max. 999 tests
OK/NG CRITERIA	Limit setting and HI / OK / LO display		
ACCURACY	Conforms to ASTM (E-384), ISO/DIS 6507-2, JIS B-7734/B-7725		
PHOTOGRAPHIC DEVICES	Built-In optical path and can be mounted at any time		
DIMENSIONS OF X-Y STAGE	100 x 100mm		
MAXIMUM MOVEMENT	25mm in X & Y axis		
MINIMUM MICRO GRADUATION	1/100mm		
MAXIMUM HEIGHT OF SPECIMEN	3.75" (95mm)		
MAXIMUM DEPTH OF SPECIMEN	4.5" (115mm)		
DIMENSIONS	Aprx. 186 x 450 x 504 mm		
WEIGHT	Aprx. 85 Lbs.		
POWER SUPPLY	Single phase 115 VAC / AC 100~240V 50/60HZ		
STANDARD ACCESSORIES			
Hardness Standard	1	Manual X-Y Stage	1
Diamond Indenter	1	Precision Vise	1
Measuring Microscope (electronic on CM-400, CM-800)	1	Built In Objective Lens (x50, x10)	1 ea.
Hardness Conversion Table (CM-100, CM-400)	1	Built-in Indenter Cover	1
Accessory Box	1	Machine Cover, Bulb, Accessory Box, Manuals, Leveling Leg Set	



Optional dual indenter auto-turret allowing up to four objectives. (Available on CM-800 series only.)

HV
HK
HB
Kc