

CM SERIES MICRO INDENTATION



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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-802)
- Digital micrometer head with on screen display (CM-802)
- USB output connection (CM-802)
- LED light source
- Complies with ASTM & ISO 17025 Standards



Shown with optional self-leveling device.



Series CM 102

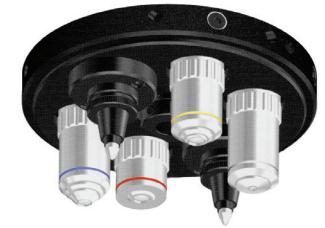


Series CM 402



Series CM 802

| ITEM | CM-102 / CM-102 AT | CM-402 / CM-402 AT | CM-802 / CM-802 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 or Automatic Turret (AT) | | |
| MICROSCOPE MAGNIFICATION | Measurement: 500X (obj. 50X – eyepiece 10X) – Observation: 100X (obj. 10X – eyepiece 10X) | | |
| MEASURING MICROSCOPE | Mechanical | Electronic | Electronic |
| Max. measuring length | | For 100X:850µm / For 500X: 170µm | |
| Min. graduation | Micrometer: 0.5 µm | 0.01µm | 0.01µm |
| Min. measuring unit | Eye judgement: 0.1µm | Digital; 0.01µm / In case of 500X | Digital; 0.01µm / In case of 500X |
| AVAILABLE TEST PARAMETER | HV/HK | HV/HK | HV / HK / HBW / Kc |
| FRACTURE TOUGHNESS TEST | Conforms to JIS R1607 / 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 XY 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 | 7.3 x 17.7 x 19.8 in / 186 x 450 x 504 mm | | |
| WEIGHT | Aprx. 85 Lbs / 39 kg | | |
| POWER SUPPLY | 120 VAC 1Ø 2A / (AC 100~240V) Please Specify | | |
| STANDARD ACCESSORIES | | | |
| Hardness Standard | 1 | Manual XY 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-802 series only.)

HV
HK
HB
Kc