

## MEASURING ARMS

- In accordance with ISO 10360-12
- Internal balance
- Dual high performance batteries
- Equivalent-arm design
- High-Speed WiFi performance
- Aerospace grade carbon-fiber material
- Automatic power off
- U-shaped anti-collision design base



CMM-CM30

### STANDARD PRECISE, BE SERIES, 6-AXIS

| Part no. | Measuring range | Maximum permissible error |                  |                   |                   |                  |
|----------|-----------------|---------------------------|------------------|-------------------|-------------------|------------------|
|          |                 | SPAT                      | E <sub>UNI</sub> | P <sub>SIZE</sub> | P <sub>FORM</sub> | L <sub>DIA</sub> |
| CMM-BE15 | 59.0"           | .00110"                   | .00142"          | .00059"           | .00114"           | .00150"          |
| CMM-BE20 | 78.7"           | .00118"                   | .00157"          | .00071"           | .00138"           | .00161"          |
| CMM-BE25 | 98.4"           | .00138"                   | .00177"          | .00079"           | .00150"           | .00197"          |
| CMM-BE30 | 118.1"          | .00217"                   | .00256"          | .00110"           | .00177"           | .00315"          |
| CMM-BE35 | 137.8"          | .00295"                   | .00315"          | .00138"           | .00228"           | .00386"          |
| CMM-BE40 | 157.5"          | .00354"                   | .00394"          | .00173"           | .00268"           | .00457"          |
| CMM-BE45 | 177.2"          | .00441"                   | .00472"          | .00189"           | .00339"           | .00504"          |

### HIGH PRECISE, CM SERIES, 6-AXIS

| Part no. | Measuring range | Maximum permissible error |                  |                   |                   |                  |
|----------|-----------------|---------------------------|------------------|-------------------|-------------------|------------------|
|          |                 | SPAT                      | E <sub>UNI</sub> | P <sub>SIZE</sub> | P <sub>FORM</sub> | L <sub>DIA</sub> |
| CMM-CM15 | 59.0"           | .00071"                   | .00093"          | .00035"           | .00063"           | .00102"          |
| CMM-CM20 | 78.7"           | .00079"                   | .00110"          | .00039"           | .00071"           | .00126"          |
| CMM-CM25 | 98.4"           | .00091"                   | .00118"          | .00047"           | .00087"           | .00150"          |
| CMM-CM30 | 118.1"          | .00133"                   | .00165"          | .00063"           | .00126"           | .00205"          |
| CMM-CM35 | 137.8"          | .00169"                   | .00220"          | .00079"           | .00150"           | .00260"          |
| CMM-CM40 | 157.5"          | .00204"                   | .00260"          | .00094"           | .00173"           | .00327"          |
| CMM-CM45 | 177.2"          | .00240"                   | .00350"          | .00150"           | .00307"           | .00425"          |

HIGH PRECISE, CM SERIES, 7-AXIS

| Part no.  | Measuring range | Maximum permissible error |                  |                   |                   |                  |
|-----------|-----------------|---------------------------|------------------|-------------------|-------------------|------------------|
|           |                 | SPAT                      | E <sub>UNI</sub> | P <sub>SIZE</sub> | P <sub>FORM</sub> | L <sub>DIA</sub> |
| CMM-CM20S | 78.7"           | .00087"                   | .00118"          | .00047"           | .00087"           | .00157"          |
| CMM-CM25S | 98.4"           | .00106"                   | .00126"          | .00051"           | .00098"           | .00189"          |
| CMM-CM30S | 118.1"          | .00165"                   | .00209"          | .00079"           | .00138"           | .00307"          |
| CMM-CM35S | 137.8"          | .00217"                   | .00260"          | .00094"           | .00169"           | .00362"          |
| CMM-CM40S | 157.5"          | .00256"                   | .00323"          | .00114"           | .00189"           | .00402"          |
| CMM-CM45S | 177.2"          | .00287"                   | .00390"          | .00169"           | .00323"           | .00520"          |

ULTRA HIGH PRECISE, HP SERIES, 6-AXIS

| Part no. | Measuring range | Maximum permissible error |                  |                   |                   |                  |
|----------|-----------------|---------------------------|------------------|-------------------|-------------------|------------------|
|          |                 | SPAT                      | E <sub>UNI</sub> | P <sub>SIZE</sub> | P <sub>FORM</sub> | L <sub>DIA</sub> |
| CMM-HP15 | 59.0"           | .00047"                   | .00087"          | .00028"           | .00047"           | .00095"          |
| CMM-HP20 | 78.7"           | .00063"                   | .00095"          | .00032"           | .00059"           | .00118"          |
| CMM-HP25 | 98.4"           | .00071"                   | .00102"          | .00035"           | .00071"           | .00126"          |
| CMM-HP30 | 118.1"          | .00102"                   | .00150"          | .00047"           | .00098"           | .00177"          |
| CMM-HP35 | 137.8"          | .00141"                   | .00205"          | .00063"           | .00134"           | .00236"          |
| CMM-HP40 | 157.5"          | .00177"                   | .00248"          | .00079"           | .00150"           | .00303"          |
| CMM-HP45 | 177.2"          | .00217"                   | .00315"          | .00110"           | .00197"           | .00398"          |

ULTRA HIGH PRECISE, HP SERIES, 7-AXIS

| Part no.  | Measuring range | Maximum permissible error |                  |                   |                   |                  |
|-----------|-----------------|---------------------------|------------------|-------------------|-------------------|------------------|
|           |                 | SPAT                      | E <sub>UNI</sub> | P <sub>SIZE</sub> | P <sub>FORM</sub> | L <sub>DIA</sub> |
| CMM-HP20S | 78.7"           | .00071"                   | .00102"          | .00039"           | .00075"           | .00150"          |
| CMM-HP25S | 98.4"           | .00079"                   | .00110"          | .00043"           | .00087"           | .00165"          |
| CMM-HP30S | 118.1"          | .00126"                   | .00189"          | .00063"           | .00126"           | .00284"          |
| CMM-HP35S | 137.8"          | .00177"                   | .00240"          | .00079"           | .00154"           | .00347"          |
| CMM-HP40S | 157.5"          | .00217"                   | .00299"          | .00102"           | .00173"           | .00386"          |
| CMM-HP45S | 177.2"          | .00256"                   | .00374"          | .00142"           | .00256"           | .00480"          |



Single-point articulation test



Distance measurement error between two points



Sphere size measurement error



Sphere form measurement error



Sphere diameter obtained from performing the articulated location test  
(Diameter of the spherical zone containing the centers of a sphere  
measured from multiple orientations)

SPECIFICATION

|                       |                                           |
|-----------------------|-------------------------------------------|
| Temperature rate      | 5.4°F/5min                                |
| Battery life          | 5h for one battery; 10h for two batteries |
| Output                | USB, WI-FI                                |
| Operation Temperature | 41°F-113°F                                |
| Operation humidity    | 0-95%, non-condensing                     |
| Power                 | 100-240V, 50/60HZ                         |
| Weight                | 19.4lb to 23.4lb                          |

STANDARD DELIVERY

|                         |       |
|-------------------------|-------|
| Main unit               | 1 pc  |
| .118" zircon ball probe | 1 pc  |
| .236"zircon ball probe  | 1 pc  |
| Calibration cone        | 1 pc  |
| Lithium batteries       | 2 pcs |
| USB cable               | 1 pc  |
| Power adapter           | 1 pc  |
| Dust cover              | 1 pc  |



.118" zircon ball probe (included)



.236" zircon ball probe (included)



calibration cone (included)

LASER LINE PROBE SPECIFICATION

|                      |                                    |            |
|----------------------|------------------------------------|------------|
| Code                 | CMM-CEM-SD                         | CMM-CEM-HD |
| Accuracy             | ±28µm(2σ)                          | ±15µm(2σ)  |
| Working distance     | 115mm                              |            |
| Effective scan width | near field 80 mm, far field 150 mm |            |
| Points per line      | maximum 4000 points per line       |            |
| Scan rate            | 1200000 points per second          |            |
| Laser                | class 2                            |            |
| Weight               | 1.18lb                             |            |

SYSTEM ACCURACY WITH LASER LINE PROBE

|           |            |            |
|-----------|------------|------------|
| Code      | CMM-CEM-SD | CMM-CEM-HD |
| CMM-CM20S | .00197"    | .00158"    |
| CMM-CM25S | .00217"    | .00177"    |
| CMM-CM30S | .00244"    | .00205"    |
| CMM-CM35S | .00299"    | .00256"    |
| CMM-CM40S | .00354"    | .00319"    |
| CMM-CM45S | .00547"    | .00516"    |
| CMM-HP20S | .00169"    | .00150"    |
| CMM-HP25S | .00189"    | .00165"    |
| CMM-HP30S | .00217"    | .00185"    |
| CMM-HP35S | .00268"    | .00236"    |
| CMM-HP40S | .00315"    | .00291"    |
| CMM-HP45S | .00492"    | .00472"    |



laser line probe(optional)

## OPTIONAL ACCESSORY

|                                    |              |
|------------------------------------|--------------|
| DELL laptop                        | CMM-CEM-PCE  |
| PolyWorks software                 | CMM-CEM-PW   |
| Adjustable tripod                  | CMM-CEM-FAT  |
| Electric vacuum base               | CMM-CEM-EVCP |
| Magnetic base                      | CMM-CEM-IMM  |
| Magnetic cones                     | CMM-CEM-MC   |
| Magnetic spheres                   | CMM-CEM-MS   |
| Point probe                        | CMM-CEM-PP   |
| 2mm ruby ball probe                | CMM-CEM-RP2  |
| 5mm zircon ball probe              | CMM-CEM-ZP5  |
| 10mm zircon ball probe             | CMM-CEM-ZP10 |
| 3" straight probe extension        | CMM-CEM-SPE3 |
| 4" straight probe extension        | CMM-CEM-SPE4 |
| 60° probe adapter                  | CMM-CEM-DP60 |
| 90° probe adapter                  | CMM-CEM-DP90 |
| 3mm extended ball probe            | CMM-CEM-EPB3 |
| 6mm extended ball probe            | CMM-CEM-EPB6 |
| Probe adapter                      | CMM-CEM-PA   |
| High accuracy laser line probe     | CMM-CEM-HD*  |
| Standard accuracy laser line probe | CMM-CEM-SD*  |

\*Laser line probes are suitable for 7-axis measuring arms only



adjustable tripod (optional)



DELL laptop (optional)



magnetic base (optional)



electric vacuum base (optional)