

## 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 of the base



**CMM-CM30**

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

(mm)

Code	Measuring range	Maximum permissible error				
		SPAT	E <sub>UNI</sub>	P <sub>SIZE</sub>	P <sub>FORM</sub>	L <sub>DIA</sub>
CMM-BE15	1500	0.028	0.036	0.015	0.029	0.038
CMM-BE20	2000	0.030	0.040	0.018	0.035	0.041
CMM-BE25	2500	0.035	0.045	0.020	0.038	0.050
CMM-BE30	3000	0.055	0.065	0.028	0.045	0.080
CMM-BE35	3500	0.075	0.080	0.035	0.058	0.098
CMM-BE40	4000	0.090	0.100	0.044	0.068	0.116
CMM-BE45	4500	0.112	0.120	0.048	0.086	0.128

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

(mm)

Code	Measuring range	Maximum permissible error				
		SPAT	E <sub>UNI</sub>	P <sub>SIZE</sub>	P <sub>FORM</sub>	L <sub>DIA</sub>
CMM-CM15	1500	0.018	0.025	0.009	0.016	0.026
CMM-CM20	2000	0.020	0.028	0.010	0.018	0.032
CMM-CM25	2500	0.023	0.030	0.012	0.022	0.038
CMM-CM30	3000	0.034	0.042	0.016	0.032	0.052
CMM-CM35	3500	0.043	0.056	0.020	0.038	0.066
CMM-CM40	4000	0.052	0.066	0.024	0.044	0.083
CMM-CM45	4500	0.061	0.089	0.038	0.078	0.108

### HIGH PRECISION, CM SERIES, 7-AXIS

(mm)

Code	Measuring range	Maximum permissible error				
		SPAT	E <sub>UNI</sub>	P <sub>SIZE</sub>	P <sub>FORM</sub>	L <sub>DIA</sub>
CMM-CM20S	2000	0.022	0.030	0.012	0.022	0.040
CMM-CM25S	2500	0.027	0.032	0.013	0.025	0.048
CMM-CM30S	3000	0.042	0.053	0.020	0.035	0.078
CMM-CM35S	3500	0.055	0.066	0.024	0.043	0.092
CMM-CM40S	4000	0.065	0.082	0.029	0.048	0.102
CMM-CM45S	4500	0.073	0.099	0.043	0.082	0.132

**ULTRA HIGH PRECISE, HP SERIES, 6-AXIS**

(mm)

Code	Measuring range	Maximum permissible error				
		SPAT	E <sub>UNI</sub>	P <sub>SIZE</sub>	P <sub>FORM</sub>	L <sub>DIA</sub>
CMM-HP15	1500	0.012	0.022	0.007	0.012	0.024
CMM-HP20	2000	0.016	0.024	0.008	0.015	0.030
CMM-HP25	2500	0.018	0.026	0.009	0.018	0.032
CMM-HP30	3000	0.026	0.038	0.012	0.025	0.045
CMM-HP35	3500	0.036	0.052	0.016	0.034	0.060
CMM-HP40	4000	0.045	0.063	0.020	0.038	0.077
CMM-HP45	4500	0.055	0.080	0.028	0.050	0.101

**ULTRA HIGH PRECISE, HP SERIES, 7-AXIS**

(mm)

Code	Measuring range	Maximum permissible error				
		SPAT	E <sub>UNI</sub>	P <sub>SIZE</sub>	P <sub>FORM</sub>	L <sub>DIA</sub>
CMM-HP20S	2000	0.018	0.026	0.010	0.019	0.038
CMM-HP25S	2500	0.020	0.028	0.011	0.022	0.042
CMM-HP30S	3000	0.032	0.048	0.016	0.032	0.072
CMM-HP35S	3500	0.045	0.061	0.020	0.039	0.088
CMM-HP40S	4000	0.055	0.076	0.026	0.044	0.098
CMM-HP45S	4500	0.065	0.095	0.036	0.065	0.122



Single-point articulation test



Distance measurement error between two points



Sphere form measurement error



Sphere size 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	3°C/5min
Battery life	5h for one battery; 10h for two batteries
Output	USB, WIFI
Operation temperature	5°C~45°C
Operation humidity	0~95%, non-condensing
Power supply	100~240VAC, 50/60Hz
Weight	8.8kg~10.6kg

**STANDARD DELIVERY**

Main unit	1 pc
3mm zircon ball probe	1 pc
6mm 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



3mm zircon ball probe (included)



6mm zircon ball probe (included)



calibration cone (included)



laser line probe  
(optional)



electric vacuum base  
(optional)



DELL laptop  
(optional)

### LASER LINE PROBE SPECIFICATION

Code	CMM-CEM-SD	CMM-CEM-HD
Accuracy	±28µm (2σ)	±15µm (2σ)
Working distance	115mm	
Effective scan width	near field 80mm, far field 150mm	
Points per line	maximum 4000 points per line	
Scan rate	1200000 points per second	
Laser	class 2	
Weight	536g	

### SYSTEM ACCURACY WITH LASER LINE PROBE

Code	CMM-CEM-SD	CMM-CEM-HD
CMM-CM20S	0.050mm	0.040mm
CMM-CM25S	0.055mm	0.045mm
CMM-CM30S	0.062mm	0.052mm
CMM-CM35S	0.076mm	0.065mm
CMM-CM40S	0.090mm	0.081mm
CMM-CM45S	0.139mm	0.131mm
CMM-HP20S	0.043mm	0.038mm
CMM-HP25S	0.048mm	0.042mm
CMM-HP30S	0.055mm	0.047mm
CMM-HP35S	0.068mm	0.060mm
CMM-HP40S	0.080mm	0.074mm
CMM-HP45S	0.125mm	0.120mm



magnetic base  
(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)