

MEASURING ARMS (ADVANCED)

- According to ISO 10360-12
- External decoupling and internal balancing system
- Dual suspension support structure
- Specialized WiFi module
- Aerospace grade carbon-fiber material
- Smart sensing probe system
- Equivalent-arm design
- Optional 8-axis rotary worktable



CMM-HM30S

STANDARD ACCURACY, HE SERIES, 6-AXIS

Unit: mm

Code	Measuring range	Maximum permissible error				
		SPAT	E _{UNI}	P _{SIZE}	P _{FORM}	L _{DIA}
CMM-HE15	1500	0.028	0.036	0.015	0.029	0.038
CMM-HE20	2000	0.030	0.040	0.018	0.035	0.041
CMM-HE25	2500	0.035	0.045	0.020	0.038	0.050
CMM-HE30	3000	0.055	0.065	0.028	0.048	0.080
CMM-HE35	3500	0.075	0.080	0.035	0.058	0.098
CMM-HE40	4000	0.090	0.100	0.044	0.068	0.116
CMM-HE45	4500	0.112	0.120	0.048	0.086	0.128

STANDARD ACCURACY, HE SERIES, 7-AXIS

Unit: mm

Code	Measuring range	Maximum permissible error				
		SPAT	E _{UNI}	P _{SIZE}	P _{FORM}	L _{DIA}
CMM-HE15S	1500	0.030	0.040	0.020	0.035	0.048
CMM-HE20S	2000	0.035	0.045	0.025	0.040	0.052
CMM-HE25S	2500	0.040	0.050	0.030	0.045	0.058
CMM-HE30S	3000	0.060	0.070	0.035	0.050	0.091
CMM-HE35S	3500	0.080	0.085	0.040	0.065	0.115
CMM-HE40S	4000	0.095	0.105	0.050	0.075	0.140
CMM-HE45S	4500	0.115	0.125	0.055	0.095	0.158

HIGH ACCURACY, HM SERIES, 6-AXIS

Unit: mm

Code	Measuring range	Maximum permissible error				
		SPAT	E _{UNI}	P _{SIZE}	P _{FORM}	L _{DIA}
CMM-HM15	1500	0.018	0.024	0.009	0.016	0.028
CMM-HM20	2000	0.020	0.026	0.010	0.018	0.032
CMM-HM25	2500	0.023	0.029	0.012	0.022	0.037
CMM-HM30	3000	0.034	0.041	0.015	0.031	0.051
CMM-HM35	3500	0.043	0.055	0.019	0.038	0.066
CMM-HM40	4000	0.052	0.066	0.023	0.043	0.083
CMM-HM45	4500	0.061	0.089	0.038	0.078	0.108

HIGH ACCURACY, HM SERIES, 7-AXIS

Unit: mm

Code	Measuring range	Maximum permissible error				
		SPAT	E _{UNI}	P _{SIZE}	P _{FORM}	L _{DIA}
CMM-HM15S	1500	0.020	0.025	0.011	0.020	0.043
CMM-HM20S	2000	0.022	0.030	0.012	0.022	0.047
CMM-HM25S	2500	0.026	0.032	0.013	0.025	0.051
CMM-HM30S	3000	0.042	0.053	0.020	0.035	0.073
CMM-HM35S	3500	0.055	0.066	0.024	0.043	0.094
CMM-HM40S	4000	0.065	0.082	0.029	0.048	0.120
CMM-HM45S	4500	0.073	0.099	0.043	0.082	0.137

ULTRA HIGH ACCURACY, GP SERIES, 6-AXIS

Unit: mm

Code	Measuring range	Maximum permissible error				
		SPAT	E _{UNI}	P _{SIZE}	P _{FORM}	L _{DIA}
CMM-GP15	1500	0.012	0.022	0.007	0.012	0.024
CMM-GP20	2000	0.016	0.024	0.008	0.015	0.030
CMM-GP25	2500	0.018	0.026	0.009	0.018	0.032
CMM-GP30	3000	0.026	0.038	0.012	0.025	0.045
CMM-GP35	3500	0.036	0.052	0.016	0.034	0.060
CMM-GP40	4000	0.045	0.063	0.020	0.038	0.075
CMM-GP45	4500	0.055	0.080	0.028	0.050	0.101

ULTRA HIGH ACCURACY, GP SERIES, 7-AXIS

Unit: mm

Code	Measuring range	Maximum permissible error				
		SPAT	E _{UNI}	P _{SIZE}	P _{FORM}	L _{DIA}
CMM-GP15S	1500	0.015	0.023	0.008	0.018	0.038
CMM-GP20S	2000	0.018	0.025	0.010	0.019	0.042
CMM-GP25S	2500	0.020	0.028	0.011	0.022	0.046
CMM-GP30S	3000	0.032	0.047	0.016	0.032	0.071
CMM-GP35S	3500	0.043	0.057	0.020	0.039	0.091
CMM-GP40S	4000	0.054	0.073	0.026	0.044	0.112
CMM-GP45S	4500	0.065	0.095	0.036	0.065	0.132



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	3°C/5min
Battery life	16h for one battery; 32h for two batteries
Output	USB, Wi-Fi
Operation Temperature	5°C-45°C
Operation humidity	0-95%, no condensation
Power supply	100-240VAC, 50/60Hz
Net weight	8.8kg to 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 battery	2 pcs
USB cable	1 pc
Power adapter	1 pc
Dust cover	1 pc



3mm intelligent probe (included)



6mm intelligent probe (included)



calibration cone (included)

LASER LINE PROBE SPECIFICATION (OPTIONAL)

Code	CMM-CEM-GH	CMM-CEM-GS
Accuracy	±15µm	±26µm
Scan distance	furthest	220mm
	best	157mm
	recent	110mm
Scan width	furthest	150mm
	best	110mm
	recent	80mm
Depth of field	110mm	
Maximum points per line	4000	
Maximum scan frame rate	300Hz	
Scan rate	1200000 points/s	
Laser type	450nm, class2	
Net weight	280g	



laser line probe (optional)

Matching accuracy of standard scanning probe with measuring arms *

Code	CMM-CEM-GS	Code	CMM-CEM-GS	Code	CMM-CEM-GS
CMM-HE15S	0.050mm	CMM-HM15S	0.045mm	CMM-GP15S	0.040mm
CMM-HE20S	0.058mm	CMM-HM20S	0.050mm	CMM-GP20S	0.043mm
CMM-HE25S	0.065mm	CMM-HM25S	0.055mm	CMM-GP25S	0.048mm
CMM-HE30S	0.075mm	CMM-HM30S	0.062mm	CMM-GP30S	0.055mm
CMM-HE35S	0.095mm	CMM-HM35S	0.076mm	CMM-GP35S	0.068mm
CMM-HE40S	0.110mm	CMM-HM40S	0.090mm	CMM-GP40S	0.079mm
CMM-HE45S	0.185mm	CMM-HM45S	0.139mm	CMM-GP45S	0.125mm

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

Matching accuracy of high accuracy scanning probe with measuring arms*

Code	CMM-CEM-GH	Code	CMM-CEM-GH	Code	CMM-CEM-GH
CMM-HE15S	0.045mm	CMM-HM15S	0.038mm	CMM-GP15S	0.035mm
CMM-HE20S	0.051mm	CMM-HM20S	0.040mm	CMM-GP20S	0.038mm
CMM-HE25S	0.057mm	CMM-HM25S	0.045mm	CMM-GP25S	0.042mm
CMM-HE30S	0.065mm	CMM-HM30S	0.052mm	CMM-GP30S	0.047mm
CMM-HE35S	0.085mm	CMM-HM35S	0.065mm	CMM-GP35S	0.060mm
CMM-HE40S	0.105mm	CMM-HM40S	0.081mm	CMM-GP40S	0.074mm
CMM-HE45S	0.150mm	CMM-HM45S	0.131mm	CMM-GP45S	0.120mm

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

Matching accuracy of standard scanning probe with rotary table*

Code	CMM-CEM-GS	Code	CMM-CEM-GS	Code	CMM-CEM-GS
CMM-HE15S	0.050mm	CMM-HM15S	0.045mm	CMM-GP15S	0.040mm
CMM-HE20S	0.058mm	CMM-HM20S	0.050mm	CMM-GP20S	0.043mm
CMM-HE25S	0.065mm	CMM-HM25S	0.055mm	CMM-GP25S	0.048mm
CMM-HE30S	0.075mm	CMM-HM30S	0.062mm	CMM-GP30S	0.055mm
CMM-HE35S	0.095mm	CMM-HM35S	0.076mm	CMM-GP35S	0.068mm
CMM-HE40S	0.110mm	CMM-HM40S	0.090mm	CMM-GP40S	0.079mm
CMM-HE45S	0.185mm	CMM-HM45S	0.139mm	CMM-GP45S	0.125mm

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

Matching accuracy of high accuracy scanning probe with rotary table*

Code	CMM-CEM-GH	Code	CMM-CEM-GH	Code	CMM-CEM-GH
CMM-HE15S	0.045mm	CMM-HM15S	0.038mm	CMM-GP15S	0.035mm
CMM-HE20S	0.051mm	CMM-HM20S	0.040mm	CMM-GP20S	0.038mm
CMM-HE25S	0.057mm	CMM-HM25S	0.045mm	CMM-GP25S	0.042mm
CMM-HE30S	0.065mm	CMM-HM30S	0.052mm	CMM-GP30S	0.047mm
CMM-HE35S	0.085mm	CMM-HM35S	0.065mm	CMM-GP35S	0.060mm
CMM-HE40S	0.105mm	CMM-HM40S	0.081mm	CMM-GP40S	0.074mm
CMM-HE45S	0.150mm	CMM-HM45S	0.131mm	CMM-GP45S	0.120mm

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

Matching accuracy of 8-Axis rotary worktable with measuring arms*

Code	CMM-CEM-8AXIS	Code	CMM-CEM-8AXIS	Code	CMM-CEM-8AXIS
CMM-HE15	0.038mm	CMM-HM15	0.028mm	CMM-GP15	0.024mm
CMM-HE20	0.041mm	CMM-HM20	0.032mm	CMM-GP20	0.030mm
CMM-HE25	0.050mm	CMM-HM25	0.037mm	CMM-GP25	0.032mm
CMM-HE30	0.080mm	CMM-HM30	0.051mm	CMM-GP30	0.045mm
CMM-HE35	0.098mm	CMM-HM35	0.066mm	CMM-GP35	0.060mm
CMM-HE40	0.116mm	CMM-HM40	0.083mm	CMM-GP40	0.075mm
CMM-HE45	0.128mm	CMM-HM45	0.108mm	CMM-GP45	0.101mm
CMM-HE15S	0.048mm	CMM-HM15S	0.043mm	CMM-GP15S	0.038mm
CMM-HE20S	0.052mm	CMM-HM20S	0.047mm	CMM-GP20S	0.042mm
CMM-HE25S	0.058mm	CMM-HM25S	0.051mm	CMM-GP25S	0.046mm
CMM-HE30S	0.091mm	CMM-HM30S	0.073mm	CMM-GP30S	0.071mm
CMM-HE35S	0.115mm	CMM-HM35S	0.094mm	CMM-GP35S	0.091mm
CMM-HE40S	0.140mm	CMM-HM40S	0.120mm	CMM-GP40S	0.112mm
CMM-HE45S	0.158mm	CMM-HM45S	0.137mm	CMM-GP45S	0.132mm

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

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-PPS
2mm ruby ball probe	CMM-CEM-RPS2
5mm zircon ball probe	CMM-CEM-ZPS5
Intelligent probe head	CMM-CEM-IPH
Probe adapter	CMM-CEM-PAS
8-Axis rotary worktable	CMM-CEM-8AXIS
High accuracy laser line probe	CMM-CEM-GH*
Standard accuracy laser line probe	CMM-CEM-GS*

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



adjustable tripod (optional)



DELL laptop (optional)



8-axis rotary worktable (optional)



electric vacuum base (optional)