

High Accuracy Sheffield® Endeavor™ and Endeavor FlexScan™ Coordinate Measurement Machines



Higher Accuracy Is Affordable

Endeavor High Accuracy CMMs bring you a new level of inspection performance suitable for both the shop floor and the inspection laboratory. You can rely on standard volumetric accuracy up to .0065mm and repeatability of .002mm — performance never before possible in a cost-effective machine which can withstand many manufacturing environments.

Advanced Design, Higher Reliability

Like all Endeavor CMMs, High Accuracy models feature a rigid, yet lightweight moving structure and optimal bearing locations for more accurate control. A brushless linear motor direct drive system increases reliability by eliminating problems inherent with mechanical drives. A vibration resistant design and real-time temperature compensation allows Endeavor to deliver full performance where comparable CMMs can't.

Versatile Inspection Software

Windows®-based MeasureMax+™ lets your Endeavor High Accuracy CMM do it all. You can perform inspection, process control, real-time statistical analysis, reverse engineering, and part programming through Visual Basic® or from CAD files. On the shop floor, you can even use the software's Single Touch Interface™ mode to run a part program by touching a picture on the monitor screen.

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Controls, Measurement and Sensing

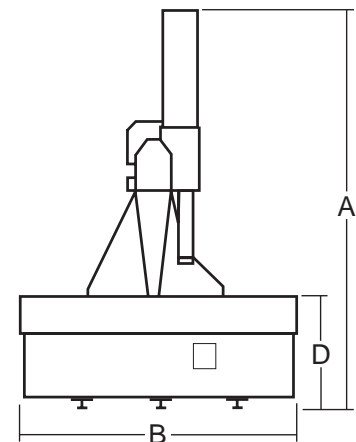
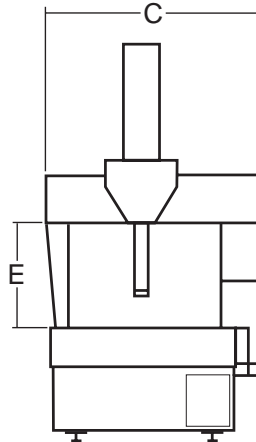


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High Accuracy Sheffield Endeavor CMM Performance and Dimensions

Model	9.9.7 HA	9.12.7 HA	9.15.7 HA	9.12.10 HA	9.15.10 HA	12.15.10 HA	12.20.10 HA	12.25.10 HA	12.30.10 HA
X Axis Travel	914mm (36")	914mm (36")	914mm (36")	914mm (36")	914mm (36")	1219mm (48")	1219mm (48")	1219mm (48")	1219mm (48")
*Y Axis Travel	914mm (36")	1219mm (48")	1524mm (60")	1219mm (48")	1524mm (60")	1524mm (60")	2032mm (80")	2540mm (100")	3048mm (120")
Z Axis Travel	660mm (26")	660mm (26")	660mm (26")	1016mm (40")	1016mm (40")	1016mm (40")	1016mm (40")	1016mm (40")	1016mm (40")
Resolution (Displayed)	.0001mm / .000004"								
Repeatability (Range) per B89.4.1 Section 5.3	.002mm / .00008"								
Linear Accuracy (Range Full Travel) per B89.4.1 Section 5.4.3									
X	.0025mm (.0001")	.0025mm (.0001")	.0025mm (.0001")	.003mm (.00012")	.003mm (.00012")	.0035mm (.00014")	.0035mm (.00014")	.0035mm (.00014")	.004mm (.00016")
Y	.0025mm (.0001")	.003mm (.00012")	.004mm (.00016")	.003mm (.00012")	.004mm (.00016")	.004mm (.00016")	.0045mm (.00018")	.005mm (.0002")	.006mm (.00024")
Z	.002mm (.00008")	.002mm (.00008")	.002mm (.00008")	.003mm (.00012")	.003mm (.00012")	.003mm (.00012")	.003mm (.00012")	.003mm (.00012")	.0035mm (.00014")
Volumetric Accuracy (Range) per B89.4.1 Section 5.5.2	.0065mm (.00026")	.007mm (.00028")	.0075mm (.0003")	.0085mm (.00034")	.009mm (.00036")	.0105mm (.00042")	.0115mm (.00046")	.0125mm (.0005")	.0135mm (.00054")
VDI/VDE 2617 Length Measuring Uncertainty U ₉₅									
1D in μm	2 + 2.5L / 1000μm				2.5 + 3L / 1000μm				
3D in μm	2.5 + 3L / 1000μm				2.8 + 3.8L / 1000μm				
Max. Velocity (Vector)	650mm per second / 25.6" per second					575mm per second / 22.6" per second			
Max. Acceleration (Vector)	1700mm per second ² / 67" per second ²								
Bearings	Air								
Maximum Work Load	1000 kg (2200 lbs.)	1000 kg (2200 lbs.)	1250 kg (2750 lbs.)	1000 kg (2200 lbs.)	1250 kg (2750 lbs.)	1500 kg (3300 lbs.)	1800 kg (3960 lbs.)	2000 kg (4400 lbs.)	2000 kg (4400 lbs.)
Machine Weight (Approx.)	2450 kg (5400 lbs.)	2750 kg (6050 lbs.)	3050 kg (6700 lbs.)	2800 kg (6160 lbs.)	3100 kg (6820 lbs.)	4350 kg (9750 lbs.)	5100 kg (11220 lbs.)	5900 kg (12980 lbs.)	8700 kg (19140 lbs.)
Mean Significant Temp. Change	±2°C (3.6°F)					±1°C (1.8°F)			
Model Dimensions	9.9.7 HA	9.12.7 HA	9.15.7 HA	9.12.10 HA	9.15.10 HA	12.15.10 HA	12.20.10 HA	12.25.10 HA	12.30.10 HA
A	3013mm (118.6")	3013mm (118.6")	3013mm (118.6")	3724mm (146.6")	3724mm (146.6")	3775mm (148.6")	3775mm (148.6")	3775mm (148.6")	3877mm (152.6")
B	2083mm (82.0")	2388mm (94.0")	2692mm (106.0")	2388mm (94.0")	2692mm (106.0")	2692mm (106.0")	3201mm (126.0")	3709mm (146.0")	4217mm (166.0")
C	1618mm (63.7")	1618mm (63.7")	1618mm (63.7")	1618mm (63.7")	1618mm (63.7")	1923mm (75.7")	1923mm (75.7")	1923mm (75.7")	1923mm (75.7")
D	813mm (32.0")	813mm (32.0")	813mm (32.0")	813mm (32.0")	813mm (32.0")	864mm (34.0")	864mm (34.0")	864mm (34.0")	966mm (38.0")
E	825mm (32.5")	825mm (32.5")	825mm (32.5")	1180mm (46.5")	1180mm (46.5")	1180mm (46.5")	1180mm (46.5")	1180mm (46.5")	1180mm (46.5")

*Extended Y axis lengths are available.



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