

Reliable CMM for shop floor & lab

ICROSTAR®

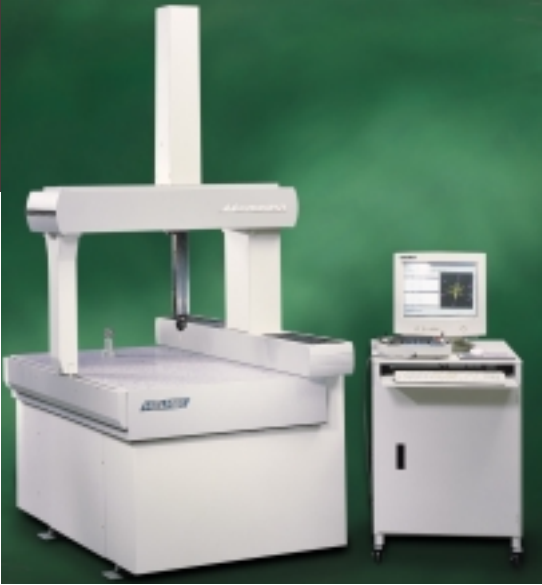
Our Microstar series of CMMs covers a wide size range from medium to large. These versatile units can be used in the lab or in the shop. The ways, bearings, scales and motors are enclosed or protected against harsh environments. All are available in manual or DCC, with several levels of software.



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Builders of CMMs Since 1973



Medium to large sizes, terrific versatility

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The Microstar is built on a substantial granite base for stability. The moving bridge construction provides the greatest flexibility, accuracy and structural integrity at a reasonable price. The design emphasizes powerful bearing ratios together with Helmel's tradition of precision mechanical bearing movement on hardened and ground steel ways. **You do not need an air supply!** Straight and square construction ensures intrinsic mechanical accuracy without reliance on volumetric error correcting software tricks. This makes calibration simple and saves you money in the future.

The Microstar features a dual beam bridge design permitting the Z-axis to be mounted symmetrically between the two cross members eliminating the twist associated with side mounted probe bars. A healthy bearing spread front to back vastly improves the long-term 3-D intrinsic accuracy. The V-and-Flat design never needs adjusting; this improves reliability with less service. Reliability is our trademark.

Manual Microstars deliver drift-free, stable and smooth motion in a system which retains machine geometry even when operated by hand; you do not need to be concerned with the settling time pneumatic systems need for accuracy. When needed to check fine features mechanical locks and fine adjustment give precise positioning. Add Geomet with its easy to use keyboard interface and you have a very efficient measuring center.

DCC Microstars are state of the art systems with a powerful motion controller, latest PC, best servo electronics and easy to program Geomet DCC software. A unique drive system contributes to the reliability of the CMM. The joystick is enclosed in a durable aluminum housing. GEOMET supports all motorized probes and stylus changers.

Geomet® Software: Maximum efficiency at the stroke of a key

Microstars are offered with Helmel's own GEOMET software, which has evolved into a widely used CMM software package over the past 20 years. GEOMET makes access to enormous measuring power very simple. All measuring functions and primary routines are one keystroke away. As a Windows based system it offers pull down menus and tool bar conventions as well. Three levels of software are offered: Geomet Junior, which is standard with manual CMMs; Geomet 101; and Geomet 301.

Performance per ANSI B 89.4.1-1998 is based on laser measurements for linear accuracy, and on dynamic measurements with touch probe and 400mm ball bar for volumetric performance.

Specifications represent intrinsic mechanical accuracy without volumetric error compensating software. Tests at 68°F and 50% humidity.

Resolution: .00002" (.5µm)

Repeatability: .00016" to .00022"

Linear Accuracy:

Models 220-162 / 320-162: .00018" + .000006"/in;

325-202 thru 530-202: .00020" + .000008"/in;

530-252 thru 850-252: .00024" + .000010"/in

Volumetric Accuracy: From .00044" to .00072"

Maximum Speed (DCC): 24"/sec (3-D moves)

Acceleration (DCC): 60"/sec²

Utility Required: 120V, 60Hz, 20A clean, grounded AC. Optional 220V, 50Hz AC. Use of surge protector and power conditioner suggested.

Microstar Sizes and Specifications

Model Number	Travels			Dimensions		
	X"	Y"	Z"	W"	L"	H"
220-162	20	20	16	40	44	85
320-162	20	30	16	40	55	85
325-202	25	30	20	46	55	96
425-202	25	40	20	46	64	96
430-202	30	40	20	51	70	96
430-252	30	40	25	51	70	106
530-202	30	50	20	51	80	96
530-252	30	50	25	51	80	106
630-202	30	60	20	51	90	96
630-252	30	60	25	51	90	106
440-202	40	40	20	61	76	96
440-252	40	40	25	61	76	106
640-202	40	60	20	61	96	96
640-252	40	60	25	61	96	106
840-252	40	80	25	61	117	106
850-252	50	80	25	74	127	112

Contact Helmel for the full range of options, accessories and training.

1-800-BEST-CMM (1-800-237-8266)



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