MS - Series

iCROSTAR

Reliable CMM for the Metrology Lab or Production Floor

Manual or DCC

Wide size range from medium to large

Trigger Probe or Continuous Scanning

Inspect, Scan, Digitize, Reverse Engineer

Intrinsically Accurate and Repeatable

Affordable and economical to own

Strong, Rugged, Durable

Easy to learn, maintain and use

Powerful **Geomet** Software developed by Helmel

One company with total responsibility

Service, Support, Updates continuously since 1973

madeinusa

By America's CMM Builder

low energy compressorless

HELMEL

Builders of Coordinate Measuring Machines since 1973

Standard Models:

Model	X	Y	Z
220-162	20 (500)	20 (500)	16 (400)
320-162	20 (500)	30 (750)	16 (400)
325-202	25 (625)	30 (750)	20 (500)
430-202	30 (750)	40 (1000)	20 (500)
430-252	30 (750)	40 (1000)	25 (625)
630-252	30 (750)	60 (1500)	25 (625)
640-252	40 (1000)	60 (1500)	25 (625)
840-252	40 (1000)	80 (2000)	25 (625)
850-252	50 (1250)	80 (2000)	25 (625)

Specifications:

Resolution: 0.00002" (0.5 µm)

Repeatability: 0.00016" (3 µm) to 0.00022" (5.6 µm)

Volumetric Accuracy: 0.00044" (11.2 µm) to 0.00072" (18.3 µm)

Linear Accuracy:

220-162 - 320-162: 0.00018" + 0.000006" per inch (4.5 µm + L / 150 µm), L in mm

325-202 - 430-202: 0.00020" + 0.000008" per inch (5.0 µm + L / 125 µm), L in mm

430-252 - 850-252: 0.00024" + 0.000010" per inch (6.1 µm + L / 100 µm), L in mm

Performance per ANSI B89.4.1a-1998. Performance is based on dynamic measurements with touch trigger probes and 400 mm Ball Bar. Tests are at 68°F and 50% relative humidity.

Utility: 100-230 V~, 50-60 Hz, 20A grounded main power supply

Note: Dimensions provided in "inch (millimeter)" format.

MICROSTAR

Helmel DNA:

Since 1973, a common genetic thread has run through all Helmel CMMs reflecting a philosophy and culture of sound mechanical designs, properly constructed, and coupled with leading probe systems and software that is powerful, efficient, and simple. Our objective is to provide customers with a durable and long lasting precision CMM that is affordable, economical to operate, easy to learn and use, and delivers decades of value and return on investment. It is an added bonus that Helmel is a stable company who will promptly provide knowledgeable service and support.

All Helmel Coordinate Measuring Machines have mechanical bearing systems characterized by strong bearing ratios, design emphasis on balance, attention to the center of moving mass, and optimized drive locations on powered machines. Our CMMs are constructed with Intrinsic Mechanical Accuracy - *IMA*: they are physically straight, flat, square, and true, with precision derived from the structure, not from software error mapping. That is our Credo.

Intrinsic Mechanical Accuracy is standard in every Microstar. Performance is delivered without 3D error correction software.

Turn off error mapping on any competitive machine and you reveal a poor underlying product, for which you pay a dear price. Mapping is done to reduce production costs, but it will cost you more each time you need calibration. Error correction files are hidden behind password protection only the OEM can access, binding you to their higher priced services for years. A Helmel CMM employs scale correction factors only, and ours are open and accessible files.

We are a vertically integrated manufacturer with all key processes in-house: concepts, prototyping, mechanical and electrical design, machining, grinding, welding, painting, electronic and controller assembly, motion control and **Geomet** metrology software development, system build, calibration and test, installation, training, and ongoing service and support. Helmel takes total responsibility for our products. We are still servicing Helmel products over 30 years old.

Helmel's **Geomet®** *Universal CMM Software* has been an industry leader since the early 1980's. Like our machines, there has been a continuity of concepts, and a fundamental goodness in ease and efficiency, that runs through the decades. A user of early HP Basic **Geomet** would have little difficulty to walk up and use the later DOS versions, or today's Windows® versions, because the operating principles have not changed. The user interface, though vastly updated with graphical and Windows® functionality, remains recognizable through our parallel iconic keyboard keylabel interface trademarked "Keystroke Magic™". Users inevitably gravitate to this ultimately efficient interaction with **Geomet**.

The standard MICROSTAR system includes:

- Dual beam bridge design
- Bearings, ways, drives (DCC systems) and scales are covered
- Precision bearings on hardened & ground ways
- Non-contact optical steel scales mounted on steel structures
- Granite base
- 3/8-16 clamping inserts
- Rugged 3-axis joystick (DCC only)
- Machine cabinet (open PC rack for manual systems)
- Latest computer hardware
- Flat panel LCD monitor
- Pull-out keyboard with **Geomet** Keystroke Magic™ keylabels
- **Geomet** 101 DCC software
- Training part and manual
- 1.0" (25.4) calibration sphere
- 1 Year Warranty

RFM
Resources For Manufacturing, Inc.
www.RFMInc.net
P.O. Box 751432 Dayton, OH 45475 Ph: (937) 436-4699 Fx: (937) 436-9244 Sales@RFMInc.net