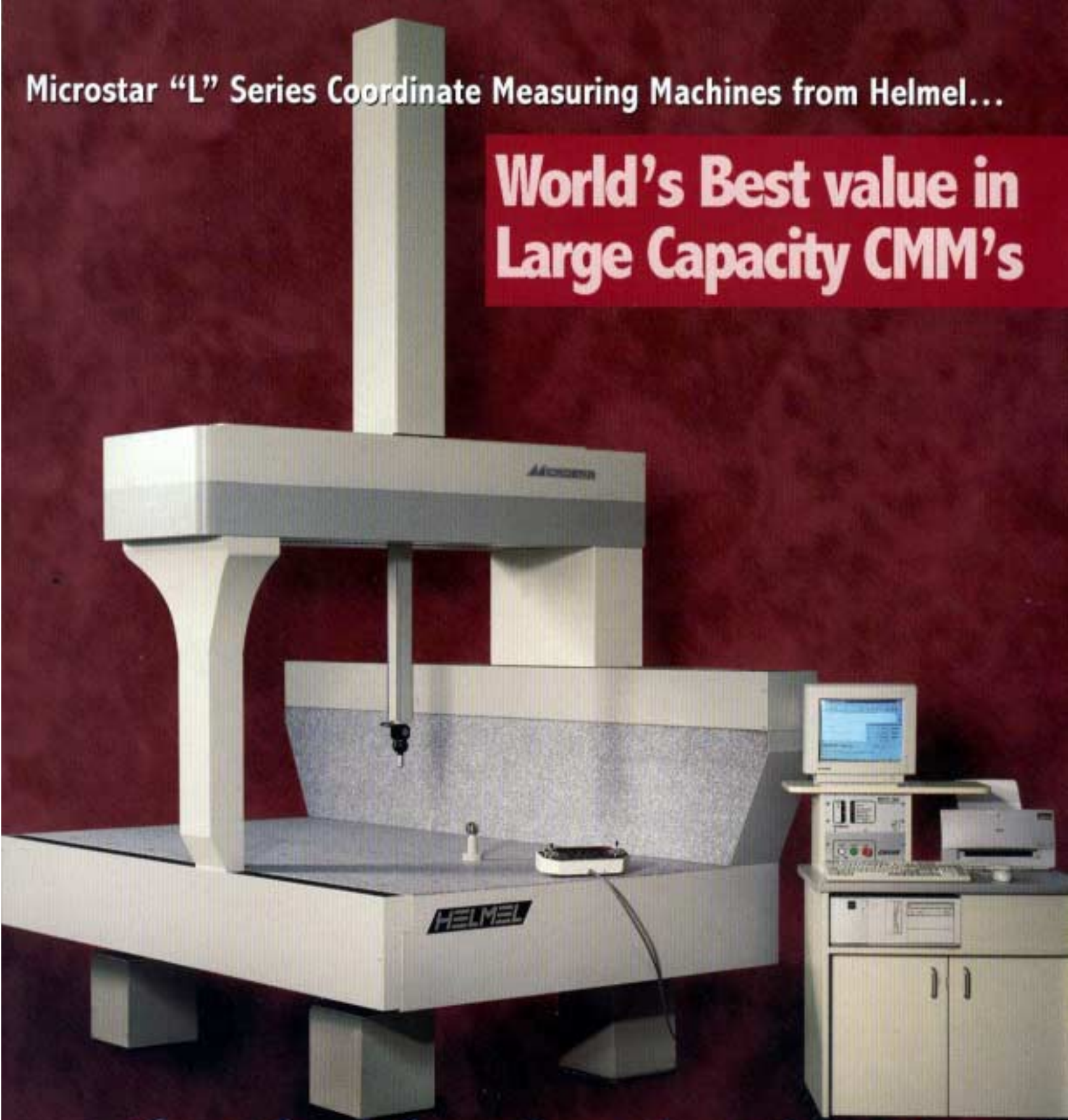


Microstar "L" Series Coordinate Measuring Machines from Helmel...

**World's Best value in
Large Capacity CMM's**



▶ LARGE, HEAVY PARTS

▶ INTRINSIC ACCURACY

▶ FULLY AUTOMATIC

▶ FAST & SIMPLE

▶ IMPROVES QUALITY

▶ SUPERIOR VALUE

▶ AMERICAN MADE

HELMEL

Builders of CMMs Since 1973

Microstar "L" Series

When you need day in, day out reliability for your large part inspection

- ⊕ Large capacity range-of-moving bridge CMMs
- ⊕ Massive granite base includes a raised granite beam for the Y axis guideway, improving the bridge geometry and providing dimensional and thermal stability, while positioning the Y axis drive closer to the center of moving mass
- ⊕ Dual beam steel bridge structure is designed for stiffness, low mass and balance
- ⊕ Swift, accurate, and suited for lab or plant floor
- ⊕ Non-contact optical steel scales, mounted on steel members assure uniform thermal behavior
- ⊕ Design emphasizes powerful bearing ratios in its use of hardened and ground ways and precision pre-loaded, mechanical linear bearings, insuring dynamic accuracy
- ⊕ Straight and square construction guarantees intrinsic mechanical accuracy without relying on volumetric error correcting software tricks so you save money on every calibration.

CNC MICROSTAR "L" SERIES CMMs feature a state-of-the-art layout with joysticks, motion controller, PC and the GEOMATIC Measuring System for Windows. Helmel features the ultimate drive system: brushless non-contact linear motors consisting of a coil between parallel rows of magnets running the full length of travel. There are no other moving parts. Conventional drives must convert rotary motion to linear motion, inducing torque into the machine structure while requiring gear reduction and friction. Our linear motors eliminate the heat, vibration, wear, backlash and cogging of rotary motor systems. Even better, when the motors are off, you are free to use your MICROSTAR for manual measurement.

We use the American made PMAC programmable multi-axis motion controller from Delta Tau, considered to be the most powerful on the market. The open architecture allows it to be easily upgraded in the field as motion features are enhanced. Our joystick control is enclosed in a durable aluminum housing with all needed function keys and LCD display so you won't have to go to the PC every time you want to perform an operation at the machine.

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

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

HELMEL

Builders of CMMs Since 1973

HELMEL ENGINEERING PRODUCTS, INC. • 6520 Lockport Road, Niagara Falls NY 14305
Phone 716-297-8644 • FAX 716-297-9405 • internet:www.helmel.com • email: sales@helmel.com

Microstar L Series Specifications, Sizes and Software

- ▶ Performance per ASME B89 Standard is based on dynamic measurements with electronic touch trigger probe and 750mm Ball Bar.
- ▶ Specifications represent intrinsic mechanical accuracy without volumetric error compensating software.
- ▶ Tests at 68°F and 50% humidity.
- ▶ Resolution 0.00004"
- ▶ Repeatability 0.00020"
- ▶ Linear Accuracy 0.00020" + .000009" /in (Bandwidth)
- ▶ Volumetric Accuracy: From .00076" to .00088"
- ▶ Maximum Speed (CNC): 10"/sec
- ▶ Utility Required: 120V, 60Hz, 15A, clean, grounded AC outlet. Use of uninterrupted power supply suggested.

TRAVELS	X	Y	Z
Model 645-404	45	60	40
Model 845-404	45	80	40
Model 1045-404	45	100	40
Model 660-404	60	60	40
Model 860-404	60	80	40
Model 1060-404	60	100	40
Model 1260-404	60	120	40

GEOMET SOFTWARE: THE INTELLIGENT CHOICE

MICROSTARS are offered with Helmel's own GEOMET Software, since 1980 the paradigm for competitive CMM software. With over 5 million application hours behind it, GEOMET is every bit a leader today with a range of WINDOWS solutions.

MICROSTARS are also compatible with the full line of Renishaw CMM probing products.