

# PHOENIX<sup>®</sup>

## Everything you want in a CMM



High Reliability –  
Low Maintenance

Fully Covered – Shop Friendly

Superior Design –  
Intrinsic Accuracy

No Air Required

Powerful Windows<sup>®</sup> Based  
Software – Easy To Use

Advanced Features –  
Digitizing, Scanning,  
CAD Interfacing

# HELMEL

*Builders of CMMs Since 1973*



Model 112-102

### PHOENIX Specifications:

Model Number		112-102	216-142
Measuring Range	X	12" (300mm)	16" (400mm)
	Y	12" (300mm)	20" (500mm)
	Z	10" (250mm)	14" (350mm)
Weight		436lbs (198kg)	616lbs (280kg)
Volumetric Accuracy		0.00032" (8µm)	0.00034" (8.5µm)
Resolution		0.000020" (0.5µm)	0.000020" (0.5µm)
Repeatability		0.00012" (3µm)	0.00012" (3µm)

**Linear Accuracy** 0.00018" + 0.000006"/in. (4.5µm + L/150µm)L in mm

**Performance per ANSI B 89.4.1a-1998.** Standard is based on dynamic measurements with electronic probe and 300mm ball bar. Tests are at 68°F and 50% relative humidity.

**Power requirements:** 120V, 60Hz, 10A, grounded AC outlet.

*Mechanical accuracy is intrinsic without volumetric compensating software*



Building on decades of experience with shop floor Coordinate Measuring Machines, Helmel now offers the PHOENIX... a heavy-duty, covered version of its popular Checkmaster. The PHOENIX is made for harsh environments, with well-placed covers that prevent temperature shock. Its steel measuring scales on metal structures assure uniform expansion.

The PHOENIX CMM incorporates all the time-proven features of its "big brother", the MICROSTAR: hardened precision-ground ways, dual beam bridge with reliable V-and-Flat bearing arrangement and intrinsic accuracy. The latter is very important to reliably retain accuracy over time and reduce calibration cost. The PHOENIX comes equipped with a full granite base and ergonomic stand.

The motorized system is outfitted with the powerful PMAC controller, the latest computer system and our proprietary GEOMET software, the best CMM package on the market.

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

GEOMET 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.

Four levels of software are offered: Geomet Junior, Geomet 101, Geomet 301, and GeoCAD. The CAD interface supports solid modeling and data point cloud mapping, an ideal tool for reverse engineering.

### A Standard PHOENIX System includes:

- Dual beam bridge design
- All ways and drives covered
- Precision bearings on hardened & ground ways
- Optical non-contact measuring scales
- Granite base
- 3/8-16 clamping inserts
- Machine cabinet
- Rugged 3-axis joystick pendant
- Latest computer system
- Flat panel TFT display
- Pull-out keyboard with GEOMET keylabels
- GEOMET 101 DCC software
- Training part and manual
- 1" calibration sphere
- 1 year warranty

Contact Helmel for the full range of options, accessories and training.  
**1-800-BEST-CMM** (1-800-237-8266)