measure with confidence...

CM- Series

CHECKMASTER 216-142

HELMEL

Builders of Coordinate Measuring Machines since 1973

Flexible, accurate, affordable 3D measurement for everyone in the shop.

Measure, scan and digitize. Imagine handling Geometric callouts like Flatness, Concentricity and True Position with ease and confidence. The Checkmaster is an indispensable multi-use tool that lets you inspect-to-print, monitor product quality, analyze process variables, solve production problems, verify tooling, produce dimensions and CAD elements for unknown parts, and professionally document your quality.

Proven reliability and ease of use.

Since 1973 we have delivered thousands of reliable mechanical bearing CMMs that need only a standard power outlet for operation. Helmel CMMs are made precisely straight and square so they deliver accuracy to specification without need for error correcting software or a "homing" sequence. It's On-and-Go, today, next week, next year, and your calibration costs are lower as a result.

Great software to start and to grow with when you're ready.

Our own Geomet has been ringing the bell for CMM users for over 30 years. It is refreshingly simple, logical, and efficient and takes care of all your typical prismatic needs elegantly and with integrity. Down the road, Geomet quickly expands to a larger pallet of tools when you need them and new and updated features are regularly released. You can also add hard probes or our Video Probe to expand the reach of your Checkmaster.

CHECKMASTER

A measure-ready basic manual system includes:

- Benchtop Checkmaster CMM - 2 sizes to choose from
- Granite base with clamping inserts
- Non-contact steel positioning scales
- Lock and fine adjustment on all axes
- Renishaw TP-ES electronic touch probe with styli
- Current PC with LCD monitor
- Latest Windows® operating system
- Scale and probe interface with USB connection
- Powerful Geomet Junior 3D software, upgradable
- Printed user guide and online help for Geomet
- Calibration sphere and iconic keyboard labels
- GeoWidget training artifact
- 1 Year warranty
- Cabinet is optional

Many options are available to tailor each Checkmaster system to the user's requirements, and custom modifications for special requirements are also possible.

Specifications

Model Number		112-102	216-142
Measuring Range:	X	300mm (12")	400mm (16")
	Y	300mm (12")	500mm (20")
	Z	250mm (10")	350mm (14")
Overall Size:	X	635mm (25")	735mm (29")
	Y	685mm (27")	915mm (36")
	Z	965mm (38")	1150mm (45")
Weight:		230 lbs (103kg)	325 lbs (146kg)
Resolution:		0.5 µm (0.000020")	0.5 µm (0.000020")
Performance:			
Per ISO 10360-2:			
MPEp:		4.5 µm	
MPEe:		(4.5 + L/200) µm, L = Measured Length in mm	
Per ANSI B89.4.1a:			
Repeatability:		0.00014"	
Linear:		0.00016" + 0.000005"/inch	
Volumetric:		0.00034"	0.00038"
Utility:		100-240 VAC, 50-60 Hz, 10A	

Based on a Renishaw TP-ES with 10mm stylus length, at 20°C (68°f) and 50% humidity. Accuracy is mechanically intrinsic without volumetrically compensating software.

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