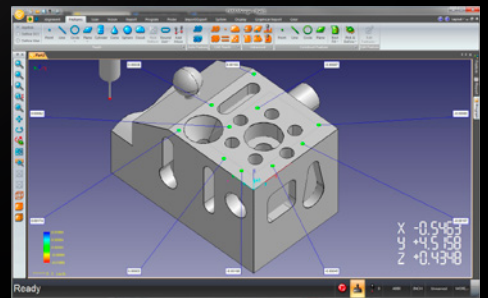
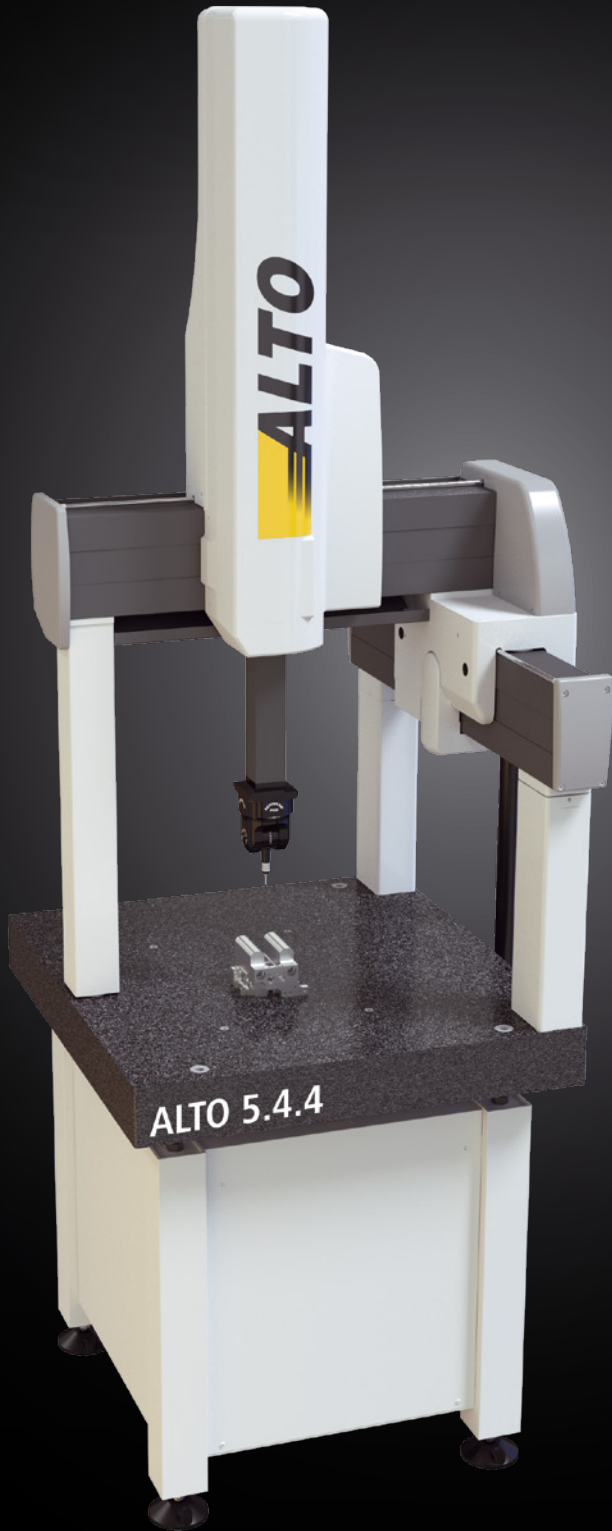




ALTO CMM

Unequaled price/performance



COST-EFFECTIVE METROLOGY

PROVEN QUALITY

ALTO is ideal for manufacturers purchasing a cost-effective CMM with easy-to-use software for a variety of measurement tasks.

From first article to final inspection, fixture calibration to troubleshooting, ALTO is the perfect quality control tool for inspection and production departments alike.

The small half-gantry design combines aluminium construction, air bearings and state-of-the-art electronics with today's most intelligent CMM software for outstanding performance.

Every ALTO is built to exacting quality standards and backed by a manufacturing warranty with first-class service support worldwide.

- Aluminium alloy beam and spindle, micro-machined for additional precision
- Low maintenance air bearings with increased spread for lasting stability
- Zero hysteresis friction drive on all axes for smooth motion control
- High accuracy 0.1 μm optical scale system
- Also available as manual version with the option to upgrade to CNC at a later date on-site.

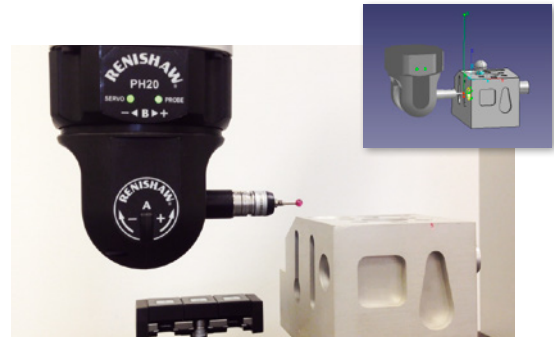
- Affordable quality
- Easy-to-use software
- Outstanding performance
- CNC or manual version
- Versatile solution
- Small footprint



INTELLIGENT SOFTWARE

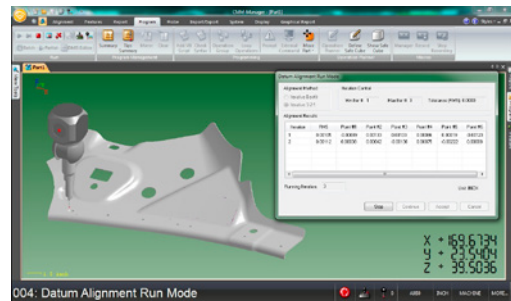
HIGHLY INTUITIVE OPERATION

CMM Manager empowers users of all skill levels after just a few hours. Intelligent software tools such as quick-measure and one-click CAD measure guide the user through the inspection and boost CMM productivity. Graphical reports instantly provide a concise analysis of inspection data and can be easily shared with others via web-ready reporting.



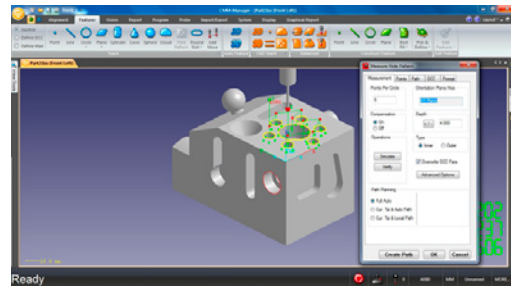
Integrated environment

- Easy-to-learn user interface and workflow
- Efficient Click-&-Measure inspection routines
- Walk-in metrology for quick dimensional checks
- Virtual simulation and real-time path verification
- DMIS part program support



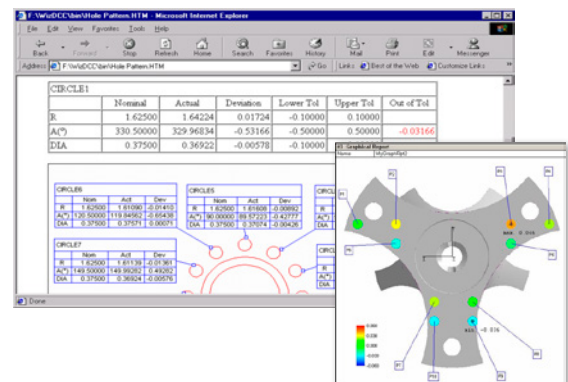
Advanced path planning

- Automatic probe angle selection
- Smart collision avoidance
- Automatic collision detection
- Inspection path optimization



Convenient reporting

- Complete ASME Y14.5 GD&T support
- Graphics based tolerance definition assistance
- Graphical dimensioning tool for quick reporting
- Web-ready HTML report output
- Excel and AS9102 compatibility



CONFIGURATIONS

ALTO PROBES



MH20i

- Manual adjustable indexing head with integral touch probe
- Rotate axis $\pm 180^\circ$, tilt axis $0-90^\circ$, 168 repeatable positions, 15° increments
- Repeatable stylus changing



PH20*

- Advanced motorised 5-axis head with integral touch probe
- Infinite rotate axis angles, tilt axis -115 to 105° , infinite number of repeatable positions
- Repeatable stylus changing



RTP20

- Low-cost 'motorised head functionality' automated indexing head with integral touch probe
- Rotate axis $\pm 180^\circ$, tilt axis $0-90^\circ$, 168 repeatable positions, 15° increments
- Repeatable stylus changing



PH10 PLUS*

- Industry standard motorised indexing probe head with multi-sensor support
- Rotate axis $\pm 180^\circ$, tilt axis $0-105^\circ$, 720 repeatable positions, 7.5° increments
- Repeatable stylus changing



*SPECIAL PROMOTION

Free stylus change rack with all Renishaw motorised probe heads when purchased as part of an ALTO CMM sales package.

MODEL SIZES

	Measuring stroke			Overall dimension			Weight	
	X	Y	Z	Width	Length	Height	Max. part	Machine
ALTO 5.4.4	500 mm (19.7")	400 mm (15.7")	440 mm (17.3")	929 mm (36.6")	888 mm (35.0")	2411 mm (94.9")	300 kg (660 lbs)	300 kg (660 lbs)
ALTO 6.5.4	600 mm (23.6")	500 mm (19.7")	440 mm (17.3")	1044 mm (41.1")	1018 mm (40.0")	2411 mm (94.9")	300 kg (660 lbs)	390 kg (860 lbs)



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