NEW PRODUCT INFORMATION

CMM Surftest Probe

CMM Surface Roughness Measuring

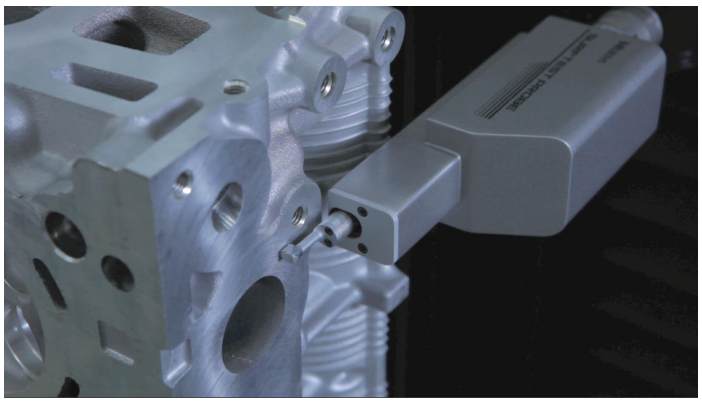
CNC CMM can be used to measure surface roughness, eliminating workpiece changeover to a second measurement device.

Mitutoyo has developed a wide range of surface roughness analysis product line-up from hand-held portable type up to CNC type Surftest with broader functions and higher accuracy. By utilizing the technologies developed over the years on surface roughness measuring machines, our Coordinate Measuring Machines can now execute surface roughness analysis by implementing a Surftest Probe and the dedicated software.

Features

- Can be attached to our CNC CMM (Retro-fitting is possible depending on the model)
- The auto joint-probe system allows probe changing automatically between scanning (SP25M) and the CMM Surftest surface analysis probe. The measurement and evaluation of size, shape and roughness, is completely automated with auto joint-probe changing.*
- PH10M(Q) allows surface roughness measurement for features requiring rotation
- The CMM Surftest Probe is derived from the successful Mitutoyo SJ-210/310 Series of Portable Surface Finish Units.

* Requires ACR3 change rack (OPTION)



Note: For new purchase of Crysta-AS700 and larger, retrofit of existing Crysta-AS CMM by request.

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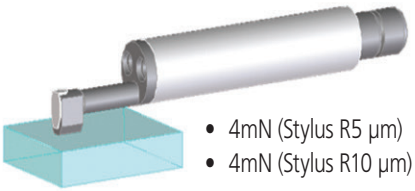
Detectors used for CMM Surftest Probe only

Standard-type detector



- 4mN (Stylus R5 µm)
- 4mN (Stylus R10 µm)

Small hole detector

- 4mN (Stylus R5 µm)

Extra small hole detector

- 4mN (Stylus R5 µm)

Deep groove detector

- 4mN (Stylus R5 µm)

Gear-tooth surface detector

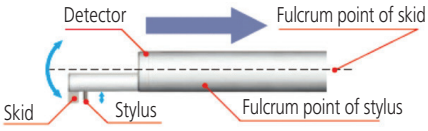
- 4mN (Stylus R5 µm)

Skid Measurement Specifications

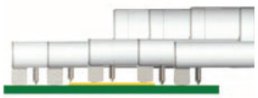
Item		Specifications
Probe (Detector specifications)	Measurement range	AUTO,25,100,360 µm
	Driving range	17.5 mm
	Measurement speed	0.25, 0.5, 0.75 mm/s
	Stylus tip radius	2,5,10*µm *Standard-type detector only
	Measuring force	4mN (Std) , 0.75mN (Opt.)
Evaluation software	Analysis software	SURFPAK-SP
	Control software	MCOSMOS
	Miscellaneous	Multi-wire autojoint probe head required (PH6M, PH10M, PH10MQ)

Skidded Measurement

In skidded measurements, surface features are measured with reference to a skid following close behind the stylus. This cannot measure waviness and stepped features exactly but the range of movement within which measurement can be made is greater because the skid tracks the workpiece surface contour.



Measuring example of stepped features: Skidded



Measured profile

Coordinate Measuring Machines
Vision Measuring Systems
Form Measurement
Optical Measuring
Sensor Systems
Test Equipment and Seismometers
Digital Scale and DRO Systems
Small Tool Instruments and Data Management

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