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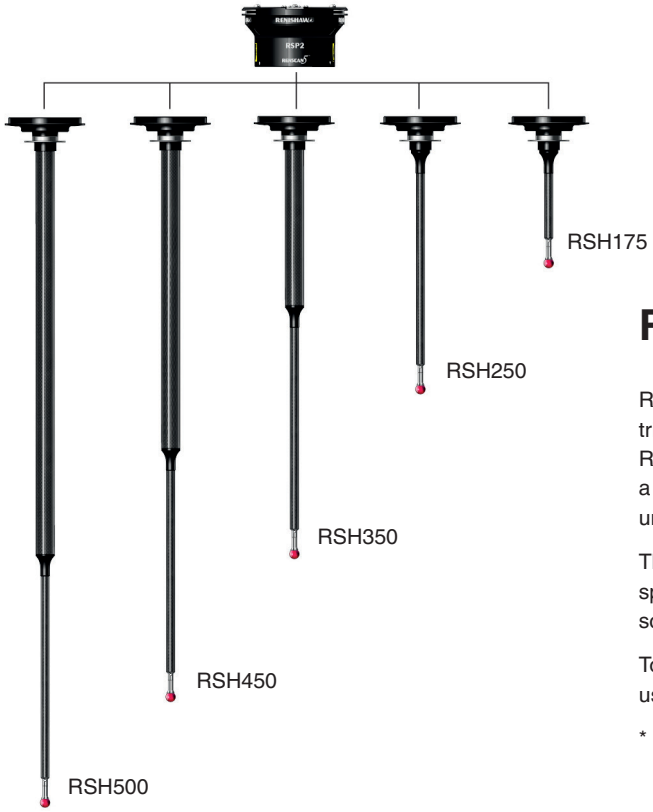
REVO-2 and RSP2 probes

The REVO-2 dynamic measuring system is designed to maximise measurement throughput whilst maintaining high system accuracy

REVO-2 is the only scanning system for CMMs that simultaneously controls the motion of three machine and two head axes whilst collecting work piece data using its range of 2D and 3D tactile probes, surface roughness measurement probe and now non-contact vision probe too.

The head's design incorporates sophisticated laser measurement and electrical signal transmission technology for precise work piece measurement at extremely high rates of data capture. The 5-axis control system removes unwanted dynamic errors associated with machine movement because the measuring head performs most of the work. As the head is much lighter and more dynamic than the CMM, it is able to quickly follow changes in the part geometry without introducing large dynamic errors.





RSP2 probe for REVO

RSP2 is a probe capable of 2D-scanning (x, y) and 3D touch-trigger measurement (x, y, z). A number of different length RSH stylus holders with a minimum reach of 175 mm* and a maximum reach of 500 mm*, can be fitted to the probe's universal body.

The RSP2 utilises Renishaw's tip-sensing technology, specifically designed for high speed scanning with low scanning forces and minimal stylus wear.

To ensure optimal metrology performance, the type of stylus used with RSP2 is managed by the UCCserver software.

* The number behind RSH represents length from head centre of rotation to stylus ball centre when carrying a 10 mm stylus.

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RSP2 and RSH# changing system

The RCP TC-2 (thermally controlled REVO change port) is used for changing RSP2, whereas the RCP2 (REVO change port) is configured to change RSP2 stylus holders (RSH175, RSH250, RSH350, RSH450 and RSH500).

Specification

Scan speed	Up to 500 mm / sec (19.68 in / sec)
Data collection rate	Up to 4000 points / sec (RSP2 and RSP3)
Operating temperature	+10 °C to +40 °C (+50 °F to +104 °F)
Storage temperature	-25 °C to +70 °C (-13 °F to +158 °F)
Weight (excluding probe and cables)	2.1 kg (4 lb 10 oz)
Height (overall)	176.5 mm (6.95 in) (Quill to probe mount, including 4 mm mounting plate)
B-axis dimensions	92 mm × 93 mm (3.62 in × 3.66 in)
A-axis swept diameter	116 mm (4.65 in)
Movement speed	3 revs/sec
A-axis rotation	-5° to +120° (for measurement with RSP2 and RVP) -100° to +120° (used for calibration and measurement with RSP3 and SFP2)
B-axis rotation	Continuous
Angular resolution	0.02 arc sec (0.01 µm / 100 mm)
Bearings	Air - consumption rate up to 50 l / min (5 bar to 8.5 bar) (Refer to user's guide for detail)
Change rack system	RCP TC-2 for probe changing / RCP2 for stylus changing VPCP and VMCP for vision system
Mounting	Quill mounting in the vertical orientation only (adaptor may be required)

REVO-2 probe comparison chart

	RSP2	RSP3-1 to -4	RSP3-6	SFP1	RVP
Tip sensing	Yes	No	No	Yes	n/a
Non-contact	No	No	No	No	Yes
Head scanning	Yes	No	No	No	No
Cranked styli	No	Yes	Max. 50 mm	n/a	n/a
Sensing axes	XY scan XYZ touch	XYZ scan XYZ touch	XY scan XYZ touch	n/a	2D sensor array
Automatic probe changing	Yes	Yes	Yes	Yes	Yes
Automatic stylus / module changing	Yes	Yes	Yes	Yes	Yes

www.renishaw.com/REVO

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