

METROLOGY®

Coordinate Measuring Machine (CNC)



Innovation Design R&D
Patented Technology Award



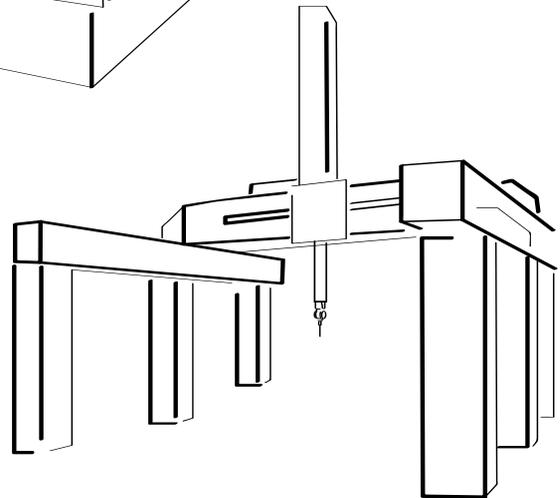
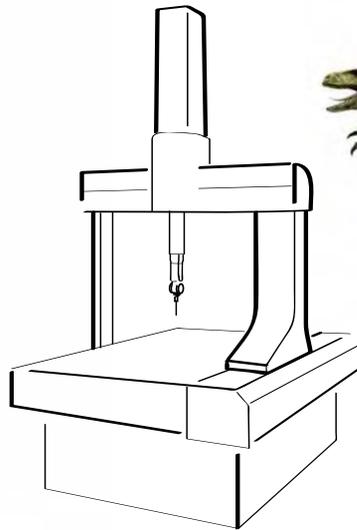
Fast \ Cool \ Accurate

NEW

5-axis Coordinate Measuring Machine (CNC)



Innovation Design R&D
Patented Technology Award



PH20 – use your head!

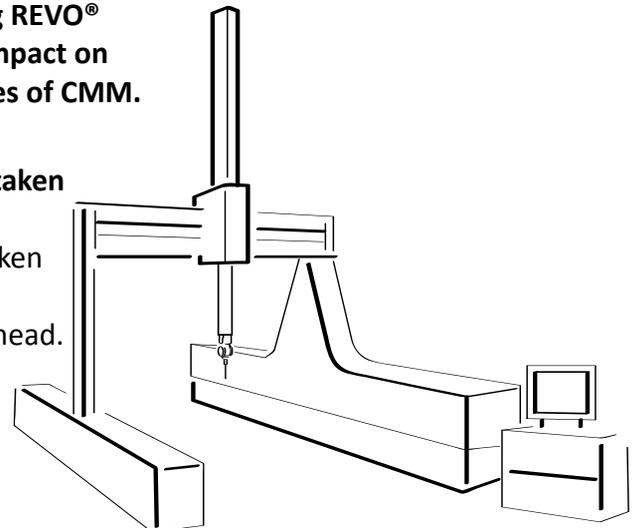
The 5-axis technology pioneered by Renishaw's award-winning REVO® is now available for touch-trigger applications with dramatic impact on inspection timescales, costs, capability and flexibility on all sizes of CMM. Increased throughput

PH20's unique head touches allow measurement points to be taken by moving only the head rather than the CMM structure.

Using only the rapid rotary motion of the head, points can be taken faster, and with improved accuracy and repeatability. Furthermore, 5-axis motion eliminates time spent indexing the head. Together these speed increases typically result in a 3-fold improvement in throughput over conventional systems.

Easy access to features at any angle

PH20's infinite positioning capability guarantees optimal feature access, minimising stylus changes. 5-axis simultaneous motion allows larger parts to be measured on the CMM by minimising the space required around the part for head rotation. PH20 automatically aligns itself with the part coordinate system, avoiding stylus collisions and the requirement for accurate fixtures.



NEW

Hi-Accuracy Coordinate Measuring Machine (CNC)



Innovation Design R&D
Patented Technology Award


VelociRaptor



FAST

3-Axis drive system adopts AMETEK high performance DC servomotor and dentiform tape gearing or optional steel wrie drive, which guarantee the drive's speed, precision and perfect movement.

Optional Renishaw PH20 - 5axis touch trigger probe head. Upgrades to 5 axis measuring method, a 300% improvement in comparison to traditional motorized indexing head.

COOL

The main body structure design is inherited from German craftsmanship. Rigid, robust internal and external structure. Colorful exterior design distinguishes our brand from others.

This machine is a combination of expert equipment from Gemany, England, USA, Japan, China, and Taiwan.

ACCURATE

Main body hardware structure design, adoption of advance FEM (finite element method) makes it strong in rigidity, small geometrical error, high precision, high performance and high stability.

Measuring software system, adoption of U.S. RATIONAL DMIS CAD 3D metrology new standard software.

The software system passed German PTB(Physikalisch Technische Bundesanstalt) approval, which guarantees the software algorithm, accuracy, efficiency, and accountability.

Measuring accuracy ISO 10360-5 (2001) Standard

NEW

Hi-Accuracy Coordinate Measuring Machine (CNC)



Innovation Design R&D
Patented Technology Award



The 3 highs

High accuracy

3-axis adoption of England Renishaw high precision metrology system, measuring accuracy: $MPE_E : 1.2+3L/1000(\mu m)$ The measuring accuracy is at a par or better than other more costly brands from America, Europe, and Japan.

High performance

Our machine is made with a combination of key components from USA, Germany, England, and Japan. The seamless integration out-performs comparable brands in the same class.

High Functionalities

The measuring software system is from world-leading U.S.A RATIONAL DMIS CAD 3D metrology new standard software. German PTB(Physikalisch Technische Bundesanstalt) approved. This system is currently the highest standard in global software support.

The 3 lows

Low maintenance

The optical system, electronic probe system, control system are fully integrated by England Renishaw's system. This guarantees the system's compatibility and stability.

Low learning curve

The software is by world-leading USA RATIONAL DMIS CAD 3D. The user interface is simple, intuitive, and user-friendly.

Low cost

The service cost provided by Jingstone Precision Group is reasonably low in positioning, assembly, adjustment, calibration, training, and other after service.

Hi-Accuracy Coordinate Measuring Machine (CNC)



1) Main body structure

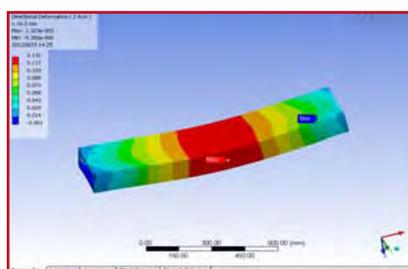
Bridge type measuring machine is inherited from German M&S Group craftsmanship. X-axis structure design, an adoption of advance FEM (finite element method) makes it strong in rigidity, which guarantee from deforming and warping to ensure its linear accuracy. Y-axis guideway adopts high precision dovetail type, which avoids runout and twisting, to ensure its positioning accuracy and stability. Three-axis adoption of quality DIN00 grade granite guarantees small coefficient in thermal expansion.



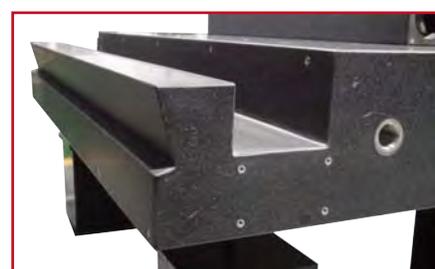
3-axis DIN00 grade granite



Bridge type structure



FEM Design



Dovetail guideway

2) Drive System

3-Axis drive system adopts AMETEK high performance DC servomotor dentiform tape gearing or patented steel wire drive, which guarantee the drive's speed, precision and perfect movement.



DC servomotor



High tensile strength belt



High rigidity steel wire

3) Air pressure system

Three-axis adoption of FESTO and SMC quiescent air pressure air-bearing guideway, comprised of air bearings which are self-cleaning, pre-loading and high precision.



Air pressure control system



Self-cleaning air bearing



Z-axis cylinder equilibrator

Hi-Accuracy Coordinate Measuring Machine (CNC)



4) Measuring system

Three-axis adoption of Renishaw reflecting metal tape measuring scale system, resolution: 0.5 um.



Metal tape measuring scale system

5) Control system

World- leading England Renishaw UCC control system includes dual computing system, which improves the system's reliability, interference resistant and avoid crushing.



UCC controller

6) Software system

RATIONAL DMIS CAD
New 3D graphical display measuring software



Fixture sets

7) Fixture system (optional accessories)

8) Electronic probe system

England Renishaw– Electronic auto trigger probe, scan type trigger probe, optical laser probe, module changing rack, ceramic origin standard ball, ruby stylus kit



Module changing rack



RTP20



PH10



PH20

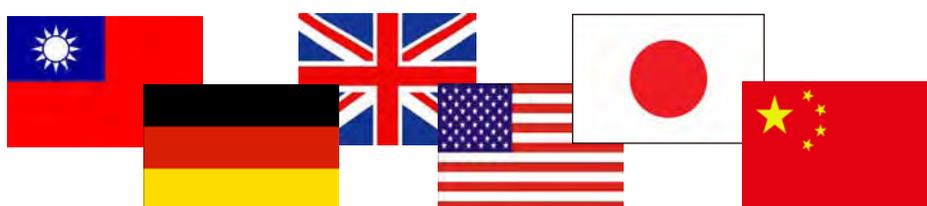


REVO

Hi-Accuracy Coordinate Measuring Machine (CNC)



Model NO.	CMM-V575CNC	CMM-V7106CNC	CMM-V9128CNC
Measuring Range (X.Y.Z)	500x700x500mm	700x1000x600mm	900x1200x800mm
Resolution	0.0005mm / 0.00002"		
Measuring Accuracy	MPE _E : 1.8+2.5L/1000 (um)	MPE _E : 2.2+3L/1000 (um)	MPE _E : 2.8+3L/1000 (um)
Repeatability	MPE _P : 1.8um	MPE _P : 2.2um	MPE _P : 2.8um
Main Structure	3-Axis DIN00 grade granite Bridge type measuring machine		
Motion System	3-Axis with USA AMETEK high performance DC motor drive Max movement speed: 500mm/S		
Drive Speed	Uniaxial Max: 500mm/s Space Max: 800mm/s		
Pressure System	3-Axis with FESTO pressure control configuration Japan SMC self-clean air floating and filter system		
Measuring System	3-Axis Renishaw high accuracy reflecting metal tape measuring scale system		
Probe System (Optional)	1. Renishaw MH20I - 360° rotating and 15° indexing electronic manual trigger probe 2. Renishaw RTP20 - 360° rotating and 15° indexing electronic half auto trigger probe 3. Renishaw PH20MT - 360° rotating and unlimited indexing electronic auto trigger probe 4. Renishaw PH10T - 360° rotating and 7° indexing electronic auto trigger probe 5. Renishaw PH20 - 5 axis measurement, 360° rotating and unlimited indexing electronic auto trigger probe 6. Renishaw PH10M+SP25 - 360° rotating and 7° indexing electronic auto scanning probe 7. Renishaw REVO - 5 axis multi-sensor scanning measurement and probe system 8. Standard Accessories: Stylus kit / Extension rod / Ø 25mm origin standard ball		
Control System	Renishaw UCC control system		
Measuring Software	RATIONAL DMIS CAD New auto 3D graphical display measuring software		
Computer Hardware	2.5G Dual-Core Computer / Win 7 / 19" LED monitor		
Dimension of Machine (LxWxH)	1300x1800x2400mm	1500x2100x2600mm	1700x2300x3000mm
Machine Weight	1200kg	1500kg	2000kg
Maximun Loading	900kg	1200kg	1500kg
Air Supply	≥ 0.6 Mpa		
Power Requirement	220VAC ±10% 50-60HZ		
Environment Requirement	Storage temperature 15°C ~ 32°C Humidity <70%RH The best temperature of measuring 18°C ~ 22°C Humidity 45%~65%RH		
Optional Accessory	Fixture / Stylus kit / Replacement rack / Sensor module / Image measuring system / Other special software or accessory		

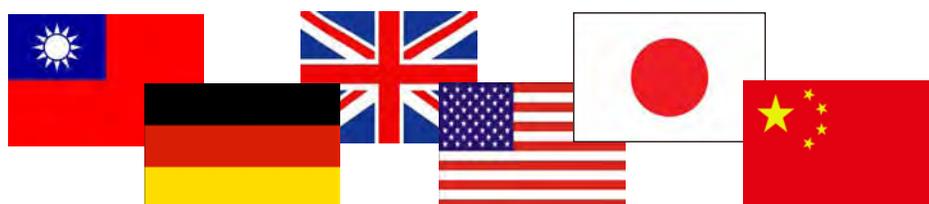


German craftsmanship Heritage International technique combination

Hi-Accuracy Coordinate Measuring Machine (CNC)

T-Rex

Model NO.	CMM-T10128CNC	CMM-T121510CNC	CMM-T152012CNC
Measuring Range (X.Y.Z)	1000x1200x800mm	1200x1500x1000mm	1500x2000x1200mm
Resolution	0.0005mm / 0.00002"		
Measuring Accuracy	MPE _E : 3.0+3L/1000 (um)	MPE _E : 3.5+3L/1000 (um)	MPE _E : 4.0+3L/1000 (um)
Repeatability	MPE _P : 3.0um	MPE _P : 3.5um	MPE _P : 4.0um
Main Structure	3-Axis DIN00 grade granite Bridge type measuring machine		
Motion System	3-Axis with USA AMETEK high performance DC motor drive Max movement speed: 500mm/S		
Drive Speed	Uniaxial Max: 500mm/s		Space Max: 800mm/s
Pressure System	3-Axis with FESTO pressure control configuration Japan SMC self-clean air floating and filter system		
Measuring System	3-Axis Renishaw high accuracy reflecting metal tape measuring scale system		
Probe System (Optional)	1. Renishaw RTP20 - 360° rotating and 15° indexing electronic half auto trigger probe 2. Renishaw PH20MT - 360° rotating and unlimited indexing electronic auto trigger probe 3. Renishaw PH10T - 360° rotating and 7° indexing electronic auto trigger probe 4. Renishaw PH20 - 5 axis measurement, 360° rotating and unlimited indexing electronic auto trigger probe 5. Renishaw PH10M+SP25 - 360° rotating and 7° indexing electronic auto scanning probe 6. Renishaw REVO - 5 axis multi-sensor scanning measurement and probe system 7. Standard Accessories: Stylus kit / Extension rod / Ø25mm origin standard ball		
Control System	Renishaw UCC control system		
Measuring Software	RATIONAL DMIS CAD New auto 3D graphical display measuring software		
Computer Hardware	2.5G Dual-Core Computer / Win 7 / 19" LED monitor		
Dimension of Machine (LxWxH)	1800x2400x3300mm	2100x2700x3600mm	2400x3300x4000
Machine Weight	3200kg	5300kg	6300kg
Maximum Loading	1500kg	1800kg	1800kg
Air Supply	≥ 0.6 Mpa		
Power Requirement	220VAC ±10% 50-60HZ		
Environment Requirement	Storage temperature 15 °C ~ 32 °C The best temperature of measuring 18 °C ~ 22 °C		Humidity <70%RH Humidity 45%~65%RH
Optional Accessory	Fixture / Stylus kit / Replacement rack / Sensor module / Image measuring system / Other special software or accessory		



German craftsmanship Heritage International technique combination

Coordinate Measuring Machine (CNC)

2017 Plus Series

0.1um Hi-accuracy

Fast \ Cool \ Accurate



Innovation Design R&D
Patented Technology Award

Measuring Range	Measuring Accuracy	Repeatability
MAX. 1000MM	$MPE_E : 1.2+3L/1000(\mu m)$	$MPE_P : 1.2\mu m$
MAX. 1500MM	$MPE_E : 2.2+3L/1000(\mu m)$	$MPE_P : 1.7\mu m$
MAX. 2000MM	$MPE_E : 2.8+3L/1000(\mu m)$	$MPE_P : 2.4\mu m$
MAX. 3000MM	$MPE_E : 3.5+3L/1000(\mu m)$	$MPE_P : 3.1\mu m$
MAX. 4000MM	$MPE_E : 4.5+3L/1000(\mu m)$	$MPE_P : 4.0\mu m$

