

METROLOGY®

Coordinate Measuring Machine (CNC)



TAIWAN R&D

International manufacturing


VelociRaptor




EmperorRaptor




T-Rex



Innovation Design R&D
Patented Technology Award


BrontoSaurus



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Hi-Accuracy Coordinate Measuring Machine (CNC) *International technique combination*



**Design. Assembly. Inspection.
Calibration. Technology solution.**



**Measuring scale & UCC control
Electronic trigger & scan probe**



**Main body structure design
Air pressure control system**



**High-performance drive system
DMIS measuring software system**



**Self-cleaning air bearing
High-performance drive system**



XYZ axis DIN00 granite structure

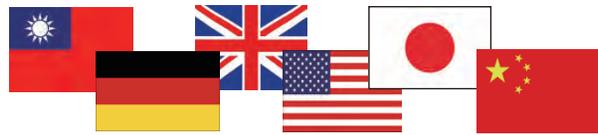


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*Hi-Accuracy
Coordinate Measuring Machine (CNC)*



Taiwan R&D International Manufacturing World Quality



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FAST

Dinosaur series

3-Axis drive system adopts USA AMETEK & JAPAN SANYO high performance DC servomotor and USA GATES synchronous belt system with steel wire, 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 Germany, England, USA, Japan, 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 USA 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 according to ISO 10360-2/2009 Standard

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The 3 highs

High accuracy

3-axis adoption of England Renishaw 0.1um high precision metrology system, measuring accuracy: from $MPE_E : 1.2+2L/1000(\mu m)$ 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 USA 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 almost free after service will reduce maintenance costs.

Dinosaur series

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1) Main body structure

Bridge type measuring machine is inherited from German M&S Group craftsmanship.

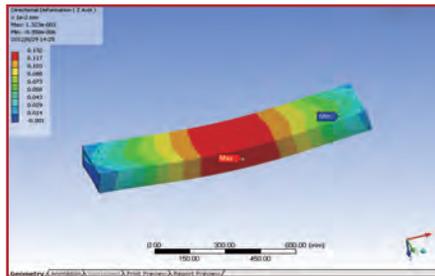
X-axis precision triangular or rectangular beam structure design, an adoption of advance FEM (finite element method) makes it strong in rigidity, which guarantee from deforming and warping to ensure its linear accuracy.

Y-axis guideway adopts high precision dovetail type, which avoids runout and twisting, to ensure its positioning accuracy and stability.

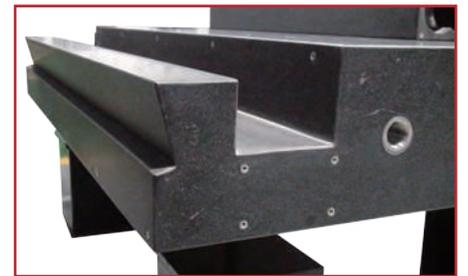
Three-axis adoption of quality DIN00 grade granite guarantees small coefficient in thermal expansion, can resist deformation and reduce the amount of deformation of dynamic geometric temperature difference.



3-axis DIN00 grade granite



X-axis FEM analysis design



Y-axis overall dovetail guideway

2) Drive System

3-Axis drive system adopts USA AMETEK or JAPAN SANYO high performance DC servomotor and USA GATES synchronous belt system with steel wire or metal friction wheel module, which guarantee the drive's speed, precision and perfect movement.



DC servomotor



High tensile strength belt



High rigidity steel wire

Adopt German IGUS low-friction and noise-free towline to reduce external force interference of various motion axes and improve the flexibility and reliability of each motion axis.

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3) Air pressure system

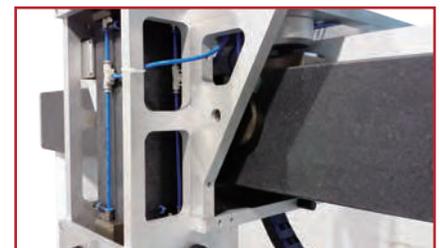
Three-axis adoption of GERMANY FESTO and JAPAN SMC quiescent air pressure air-bearing guideway, comprised of air bearings which are self-cleaning, pre-loading and high precision.



Air pressure control system



Self-cleaning air bearing



Z-axis cylinder equilibrator

4) Measuring system

Three-axis adoption of Renishaw reflecting metal tape measuring scale system, resolution: 0.1 um.



Metal tape measuring scale system

5) Control system

World- leading England Renishaw UCC control system includes dual computing system, integrated electrical control box, joystick controller which improves the system's reliability, interference resistant and avoid crashing.



Joystick controller

6) Software system

RATIONAL DMIS CAD

New 3D graphical display measuring software

It is the latest international standard CMM measurement software certified by German PTB



UCC controller

7) Fixture system (optional accessories)

400*300mm metal plate with thread, fixed and adjustable bolt group, various clamps 106 pcs / set

*Special size or style of bottom plate, fixed rod, double top center support, V-shaped center support, V-shaped block, pressure plate and various magnetic stand are available



Fixture sets

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8) Electronic probe system

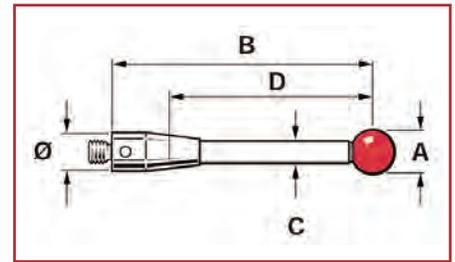
England Renishaw– Electronic auto trigger probe, scan type trigger probe, optical laser probe, module changing rack, ceramic origin standard ball, ruby stylus kit



Module changing rack



Ceramic precision origin ball



Ruby stylus set



RTP20



PH10



PH20

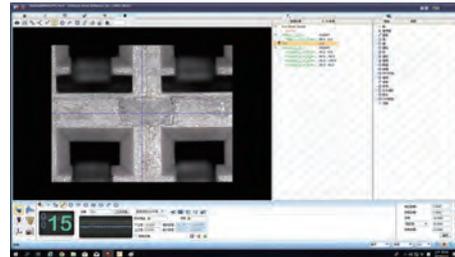


REVO

9) Image Measuring system (optional for non-contact measurement)



Hardware configuration



Measurement software

- 1/3" 0.41M pixel high-resolution color CCD
- 0.7-4.5X optical continuous zoom lens
- High brightness adjustable LED surface lighting source
- Image correction optical glass ruler
- Image capture card and measuring software

- A variety of measurement and point picking functions, automatic recapture and manual auxiliary point picking
- Auto focus function, can find the best definition of the image by itself
- It can realize combined calibration and combined measurement with trigger electronic probe
- Support a variety of lighting sources, with the same error evaluation function for touch measurement
- Smart keys can realize automatic measurement of elements, and can set collection points
- Realize automatic tracking scan measurement of unknown contour curve

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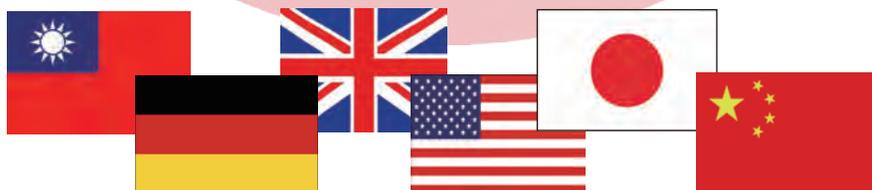
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Hi-Accuracy Coordinate Measuring Machine (CNC)



MODEL NO.	CMM-V564CNC	CMM-V686CNC	CMM-V8106CNC	CMM-V8126CNC
Measuring Range (X.Y.Z)	500x600x400mm	600x800x600mm	800x1000x600mm	800x1200x600mm
Resolution	0.0001mm / 0.00001" Renishaw reflecting metal tape scale			
Measuring Accuracy	MPE _E : 1.5+2L/1000(um)	MPE _E : 1.8+2L/1000(um)	MPE _E : 2.0+2L/1000(um)	MPE _E : 2.0+2L/1000(um)
Repeatability	MPE _P : 1.8um	MPE _P : 2.0um	MPE _P : 2.0um	MPE _P : 2.0um
Main Structure	3-Axis DIN00 grade granite Bridge type measuring machine			
Motion System	3-Axis with USA AMETEK & JAPAN SANYO high performance DC motor drive USA GATES synchronous belt system			
Drive Speed	Uniaxial Max: 520mm/s Acceleration Max: 1350mm/S ²			
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 7.5° 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 7.5° 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 10 / 22" LED monitor			
Dimension of Machine (LxWxH)	1100x1400x2300mm	1400x1700x2800mm	1600x1900x2800mm	1600x2100x2800mm
Machine Weight	900kg	1300kg	1700kg	1900kg
Maximun Loading	500kg	800kg	1000kg	1000kg
Air Supply	0.6~0.8 Mpa			
Power Requirement	100-240VAC ±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			



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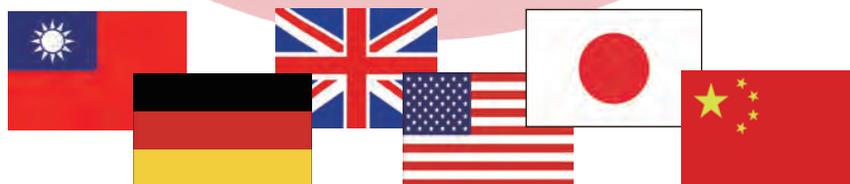
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Hi-Accuracy Coordinate Measuring Machine (CNC) *EmperorRaptor*



MODEL NO.	CMM-E8127CNC	CMM-E10128CNC	CMM-E10158CNC
Measuring Range (X.Y.Z)	800x1200x700mm	1000x1200x800mm	1000x1500x800mm
Resolution	0.0001mm / 0.00001" Renishaw reflecting metal tape scale		
Measuring Accuracy	MPE _E : 1.5+L/500 (um)	MPE _E : 1.8+L/500 (um)	MPE _E : 1.8+L/500 (um)
Repeatability	MPE _R : 2.2um	MPE _R : 2.5um	MPE _R : 2.5um
Main Structure	3-Axis DIN00 grade granite Bridge type measuring machine		
Motion System	3-Axis with USA AMETEK & JAPAN SANYO high performance DC motor drive USA GATES synchronous belt system		
Drive Speed	Uniaxial Max: 520mm/s Acceleration Max: 1350mm/S ²		
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 7.5° 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 7.5° 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 10 / 22" LED monitor		
Dimension of Machine (LxWxH)	1700x2200x3000mm	1900x2200x3200mm	1900x2500x3200mm
Machine Weight	2000kg	2900kg	3300kg
Maximun Loading	1000kg	1500kg	1600kg
Air Supply	0.6~0.8 Mpa		
Power Requirement	100-240VAC ±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		

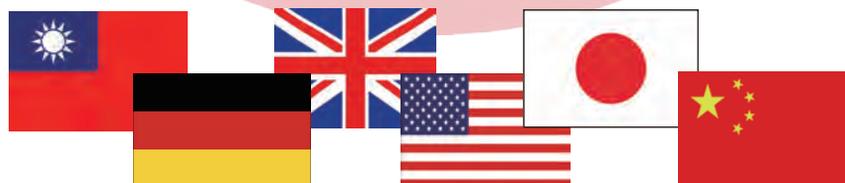


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MODEL NO.	CMM-E10228CNC	CMM-E121510CNC	CMM-E122210CNC
Measuring Range (X.Y.Z)	1000x2200x800mm	1200x1500x1000mm	1200x2200x1000mm
Resolution	0.0001mm / 0.00001" Renishaw reflecting metal tape scale		
Measuring Accuracy	MPE _E : 2.0+L/500 (um)	MPE _E : 2.2+L/500 (um)	MPE _E : 2.2+L/500 (um)
Repeatability	MPE _P : 2.5um	MPE _P : 3.0um	MPE _P : 3.0um
Main Structure	3-Axis DIN00 grade granite Bridge type measuring machine		
Motion System	3-Axis with USA AMETEK & JAPAN SANYO high performance DC motor drive USA GATES synchronous belt system		
Drive Speed	Uniaxial Max: 520mm/s Acceleration Max: 1350mm/S ²		
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 7.5° 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 7.5° 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 10 / 22" LED monitor		
Dimension of Machine (LxWxH)	1900x3400x3200mm	2100x2500x3600mm	2100x3400x3600mm
Machine Weight	4300kg	4600kg	6000kg
Maximun Loading	1800kg	2000kg	2200kg
Air Supply	0.6~0.8 Mpa		
Power Requirement	100-240VAC ±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		



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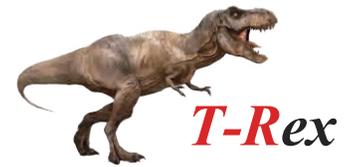
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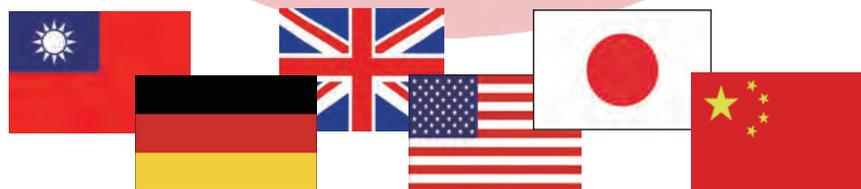
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Hi-Accuracy Coordinate Measuring Machine (CNC)



MODEL NO.	CMM-T152012CNC	CMM-T152512CNC	CMM-T153012CNC
Measuring Range (X.Y.Z)	1500x2000x1200mm	1500x2500x1200mm	1500x3000x1200mm
Resolution	0.0001mm / 0.00001" Renishaw reflecting metal tape scale		
Measuring Accuracy	MPE _E : 2.4+L/350 (um)	MPE _E : 2.4+L/350 (um)	MPE _E : 2.4+L/350 (um)
Repeatability	MPE _P : 3.5um	MPE _P : 3.5um	MPE _P : 3.5um
Main Structure	3-Axis DIN00 grade granite Bridge type measuring machine		
Motion System	3-Axis with USA AMETEK & JAPAN SANYO high performance DC motor drive USA GATES synchronous belt system		
Drive Speed	Uniaxial Max: 520mm/s Acceleration Max: 1350mm/S ²		
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 7.5° 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 7.5° 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 10 / 22" LED monitor		
Dimension of Machine (LxWxH)	2500x3300x3900mm	2500x3800x3900mm	2500x4300x3900mm
Machine Weight	8000kg	9000kg	10000kg
Maximun Loading	2400kg	2600kg	2800kg
Air Supply	0.6 - 0.8Mpa		
Power Requirement	100V-240VAC ±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		



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CMM-B20Y15CNC

X:2000mm Z:1500mm

CMM-B30Y15CNC

X:3000mm Z:1500mm

CMM-B30Y20CNC

X:3000mm Z:2000mm

Y-axis can supply measurement range : 3000-10000mm