

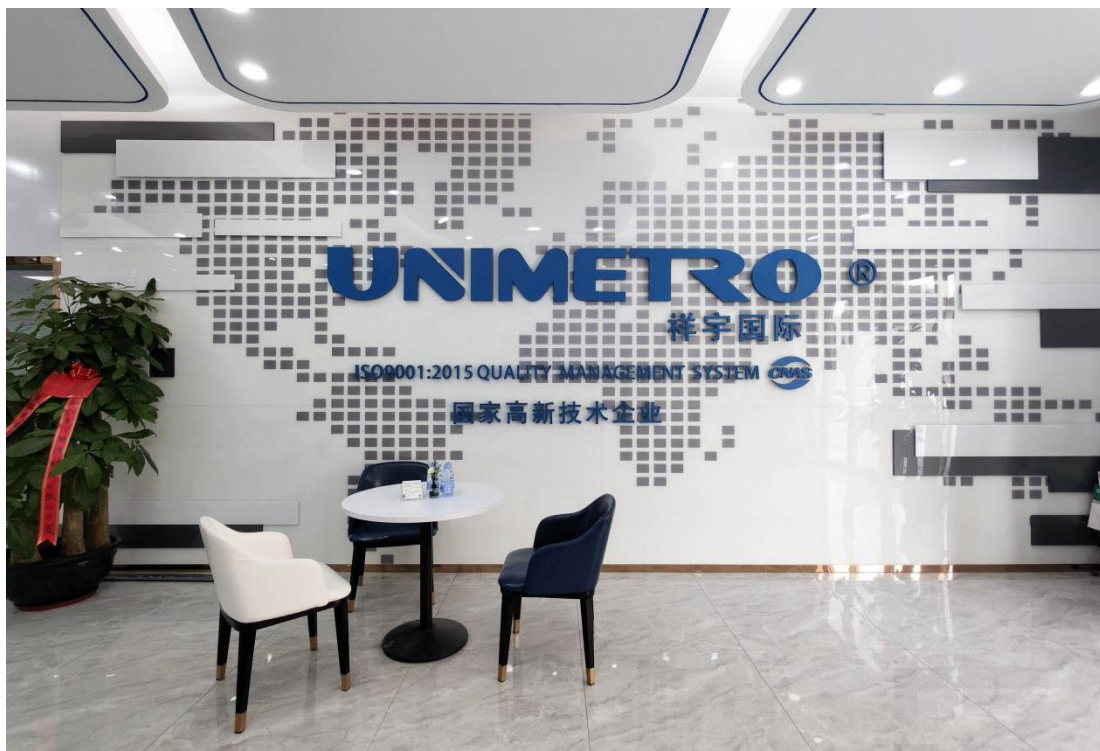
Company Profile:

UNIMETRO METROLOGY---

The Metrology Expert around you, Quality and Safety Management Consultant!

Since established in 2008, UNIMETRO has been focusing on the research and development and manufacturing of coordinate measurement technology. We have obtained 15 core patent technologies and won the title of national high-tech enterprise. At the same time, UNIMETRO has been in the leading level in the field of 3D composite measurement technology!

In 2016, UNIMETRO opened a new chapter in overseas business. At present, it has set up sales and service centers in more than 20 countries and regions around the world, providing high-quality services to more than 2000 customers at home and abroad in more than 150 industries. UNIMETRO is determined to become the innovator of precision measurement industry and regards the further improvement of manufacturing precision as a lifelong mission!



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UNIMETRO CMM Coordinate Measuring Machine

● Helium Series

Compact, cost-effective type.

● Argon Series

It is more suitable for automobile and aviation field, and can adapt to a variety of probes.

● Krypton Series

Large range, high precision, strong stability.

● Neon Series

Full ceramic, super precision.

● Xeon Series

Large range, high precision.

■ Helium Series

Bridge CMM adopts the most simplified design, which is a high cost-effective one in the current market. It is especially suitable for the inspection of finished products such as electronic products, molds, household appliances, small auto parts and aviation parts.

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✧ Performance characteristics

Working platform - high quality granite platform :

Granite working platform is the support of the whole machine, and its good quality affects the performance of the whole machine. The three shafts are made of granite material and processed as a whole. They are stress-free, anti rust and anti-corrosion, easy to maintain, low coefficient of thermal expansion and small deformation affected by temperature. Effectively reduce the vibration of the measuring machine and improve the performance of the whole machine.

Transmission system - friction type "self correcting" transmission:

All the three-axis transmission adopts friction transmission and adopts "self correcting deviation" stable transmission system. The transmission system adopts the structure of "fixed + micro suspension" to ensure that it is parallel to the guide rail during transmission! It can keep the stability of precision and the smoothness of movement while moving at high speed. Moreover, it improves the self-protection of the machine tool in case of collision and makes it safer to use.

Grating ruler Renishaw high precision grating ruler :

Grating ruler is an important part of three-dimensional coordinate system. Renishaw is the giant of three-dimensional coordinate system in the world. It has the best market reputation and guarantee in quality and after-sales. All our machines adopt Renishaw high-precision grating ruler with resolution from 0.1 micron to 20 nm.

✧ Typical Applications

- Machining parts and stamping parts
- Plastic mould
- Castings and Forgings
- Trigger detection and non-contact detection
- Scanning and reverse engineering
- Automotive engine and gearbox components
- General precision engineering

✧ Technical Parameter

- Helium series is specially designed for small and medium-sized products, molds, electronic products and other industries. The size can be selected according to the customer's needs.
- Our design of small and medium-sized coordinate light fast, fast installation, no foundation

	Measuring Range (mm)			Accuracy (um)	
	X	Y	Z	MPEe	MPEp
He	500	500-1000	400,500	1.3+L/350	1.3
	600,700	600-1000	600	1.3+L/350	1.3
	800	800-1500	600,700	1.5+L/350	1.5
	1000	1000-3000	800	1.5+L/300	1.5

■ Argon Series

It is especially suitable for the requirements of high precision parts detection in automobile and aviation fields. Argon series CMM is a unique and unique CMM which can be equipped with a variety of probes. Its performance is excellent and incomparable.



✦ Performance characteristics

High rigidity air bearing

The unique air bearing design makes the machine running fast and stable, positioning is very accurate.

Zero hysteresis friction drive

All the three-axis transmission adopts friction transmission and adopts "self correcting deviation" stable transmission system. The transmission system adopts the structure of "fixed + micro suspension" to ensure that the transmission is parallel to the guide rail! It can keep the stability of precision and the smoothness of movement while moving at high speed. Moreover, it improves the self-protection of the machine tool in case of collision and makes it safer to use.

✧ **Typical Applications**

- Truck, ship engine and gear box parts
- Aircraft blades, engines and aircraft parts
- General precision engineering
- Pharmaceutical manufacturing

✧ **Technical Parameter**

- Argon series is specially designed for large and medium-sized high-precision workpiece processing enterprises, the size can be selected according to customer needs.
- Good overall bridge, good openness and high precision. Quick installation without foundation.

	Measuring Range (mm)			Accuracy (um)
	X	Y	Z	MPEe
Ar Series	900J000	1000-5000	700,800	1.2+L/350
	1200	1500-5000	800,1000	
	1500	1500-5000	1200,1300	
	1500J 600	1500-5000	1500	
	1800,2000	2000-5000	1500	

■ Krypton Series

It is a large-scale CMM with high precision and reliability. It adopts a unique single side height type design. Based on the general modular design concept, it ensures high reliability and easy maintenance for various specifications of CMM.

The CMM of various specifications, including the extended guide rail of more than 10m, can be installed under the ground.

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The krypton series CMM supports a variety of measurement methods, including triggered digital probe measurement, continuous contact analog probe scanning and laser probe scanning. All of these probe options are completely interchangeable, which helps to measure geometric parts and free shape parts.

✧ Performance characteristics

The accuracy elevated guideway structure is stable and greatly improved

The use of single side viaduct in CMM greatly reduces Abbe error, improves accuracy and stability.

3-axis guide and one fully closed, all granite material

We are equipped with closed guide rails on all machines, which can prevent track damage caused by external dust erosion, and avoid the influence of pollution and temperature. This is particularly important for harsh environments. The triaxial is made of granite, which is resistant to corrosion and has the same coefficient of thermal expansion with higher accuracy!

✧ Typical Applications

- Large engine and gearbox parts
- Aviation parts and structures
- Large gear
- Large steam turbine in power station
- Marine engines and propellers
- Train parts
- General precision engineering parts

✧ Technical Parameter

Krypton series is specially designed for companies that need large-scale workpiece size precision measurement. The size can be selected according to customers' needs. The unique design of the single side viaduct greatly improves the spatial accuracy of the machine, has high stability, and does not need foundation.

	Measuring Range (mm)			Accuracy(um)
	X	Y	Z	MPEe
Kr	1000	1000-5000	800	1.5+L/350 _s
	1200	1000-5000	1000	
	1500	2000-5000	1200,1300,1500	
	1600,1800,2000,2500	2000-5000	1500	
	2500	2500-6000	1800	
	2500	2500-8000	2000	

■ Neon Series

The coordinate measuring machine adopts innovative ceramic design to achieve ultra-high-precision scanning and detection capabilities on the current market. Particularly suitable for the application needs of high-precision products in the electronics, automotive and aerospace fields.



◇ Performance characteristics

Working platform High-quality granite platform, precise dovetail guide rail:

The granite working platform is the support of the whole machine, and its quality affects the overall performance of the machine. The platform is made of granite material, coupled with precise dovetail guides, which effectively reduces the vibration of the measuring machine and improves the whole machine performance.

Three-axis guideway fully enclosed, ceramic beam, spindle:

Both x and z axis are ceramic, corrosion-resistant, good rigidity, and have a smaller thermal expansion coefficient and higher accuracy

Base support-dual passive damping structure:

The use of the coordinate measuring machine is basically in the production plant, so it is inevitable that there will be vibration caused by the machine tool or transport vehicle next to it, which has a fatal impact on the accuracy of the three-dimensional coordinate. Making earthquake-proof foundation is a basic idea, and this will increase additional costs and troubles. Our three-coordinate bracket adopts a dual passive damping structure to prevent the influence of low-frequency vibration, which greatly guarantees the accuracy of the measurement and reduces the trouble of making earthquake-proof foundation measures.

✧ Typical Applications

- Automobile engine and gearbox parts
- General precision engineering of aviation blades, engines and aircraft parts
- Pharmaceutical Manufacturing

✧ Technical Parameter

Neon ceramic series is a machine designed for high-precision product processing, and the size can be selected arbitrarily according to customer needs.

The unique design of the overall bridge ensures the openness of the machine space and high stability.

Ne	Measuring Range (mm)			Accuracy (um)	
	X	Y	Z	MPEe	MPEp
	600,700	600-1000	600	0.9+L/350	0.9
	800	800-1500	700		
	1000	1000-3000	800		
	1200	1500-4000	1000		

■ Xeon Series

The gantry type three-coordinate measuring instrument adopts a double-sided elevated rail structure, which is characterized by high accuracy and large measurement space, and is suitable for the measurement of thousands of large parts and structural parts. Optional trigger probe, analog scanning probe, laser scanning probe. For companies that manufacture high-precision large-scale structural parts, this machine can help solve many complex measurement problems.

✧ Performance characteristics

Three-axis guideway-fully enclosed, all granite material:

We are equipped with enclosed guide rails on all machines, which can prevent damage to the track caused by external dust erosion, and are protected from pollution and temperature. This is especially important for harsh environments. All three axes are made of granite, which is corrosion-resistant and has exactly the same coefficient of thermal expansion, so the accuracy is higher!

Grating ruler-Renishaw high-precision grating ruler:

The grating ruler is an important part of the three-axis coordinate system. Our landing gantry machine adopts Renishaw's latest high-precision Tonic grating ruler.

Air-floating guide rail-embracing design on all sides:

Adopting four-sided air-floating guide rail structure, it is the embodiment of stability and high quality! We are equipped with multiple air pressure regulating valves and air bearings in different directions for each axis. The surrounding air bearing design ensures the stability of the instrument during the movement.

✧ Typical Applications

- Car body
- Large gear
- Aerospace aircraft fuselage

✧ **Technical Parameter**

The Xeon series is designed for companies that need to measure the size of very large workpieces. The size can be selected arbitrarily according to customer needs. The unique design of Linyu's landing gantry type makes the machine high stability, high positioning accuracy, and higher accuracy.

	Measuring Range (mm)			Accuracy (um)	
	X	Y	Z	MPEe	MPEp
Xe	1800, 2000, 2500	2000-4000	1500	2.0+L/300	2.0
	3000, 4000, 5000	2500-6000	1800		
	2500, 3000, 4000	2500-6000	2000		
	2500, 3000, 4000	2500-8000	2500		
	3000, 4000, 5000	3500-8000	3000		
	5000, 6000	5000-8000	4000		

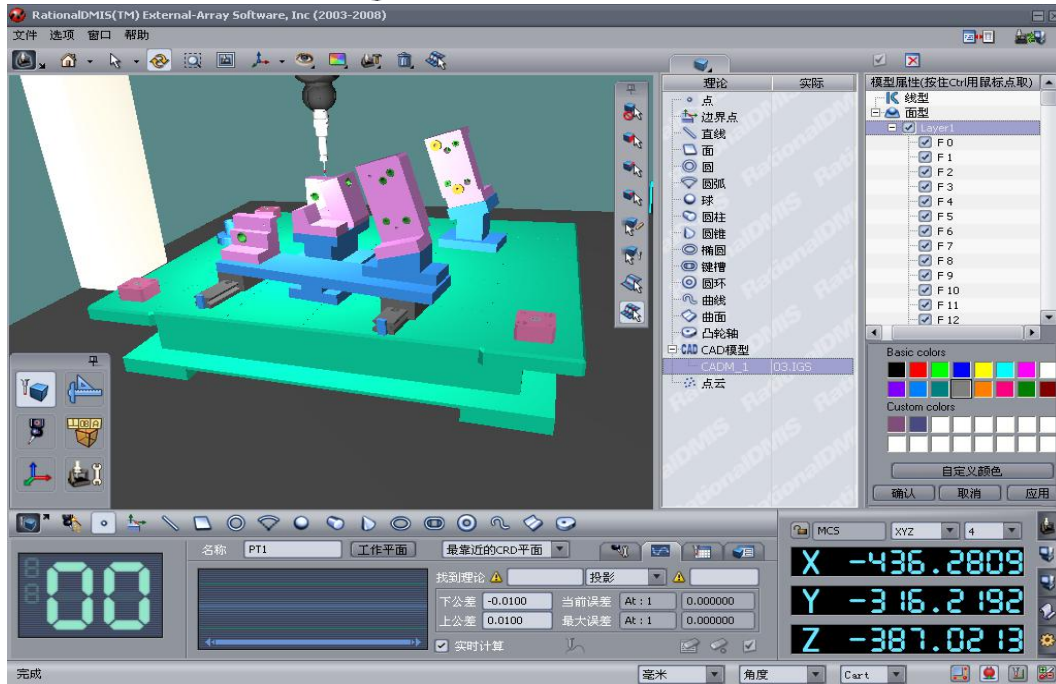
■ **SOFTWARE**

ExternalArray Rational DMIS Measuring Software

Rational - DMIS is a newly developed large-scale integrated 3D measurement software package. In addition to the development and design of the software, which takes into account the requirements of beginners for easy learning and use of the software and high-level users for the function of the software, more importantly, it becomes a model of CMM measurement software standardization.

Rational DMIS programs are designed with the full and native DMIS kernel until version 5.0 of DMIS, which is totally different from the so-called "support DMIS" (the kernel is not DMIS). As we all know, DMIS has become an ISO standard (ISO 22093:2003)

So intuitive, easy to use, intelligent CMM software in just a few days of training, even if the user did not

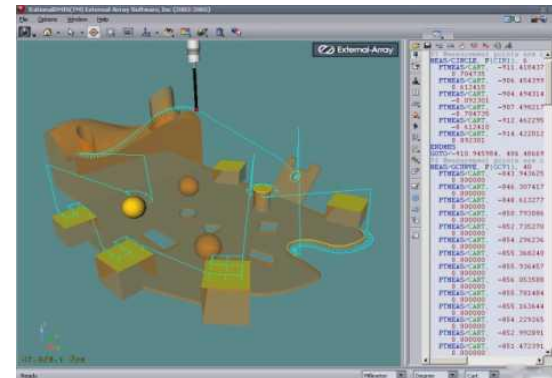
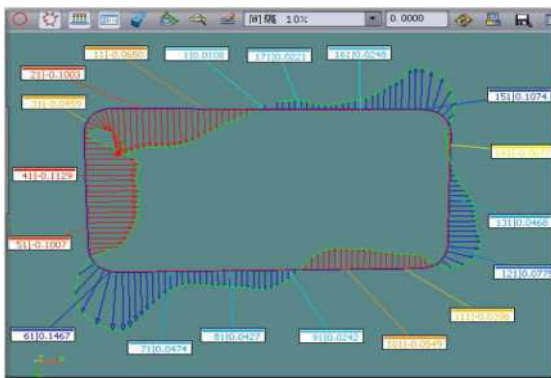


have much experience, you can easily grasp!

➤ Rational-DMIS Software package function:

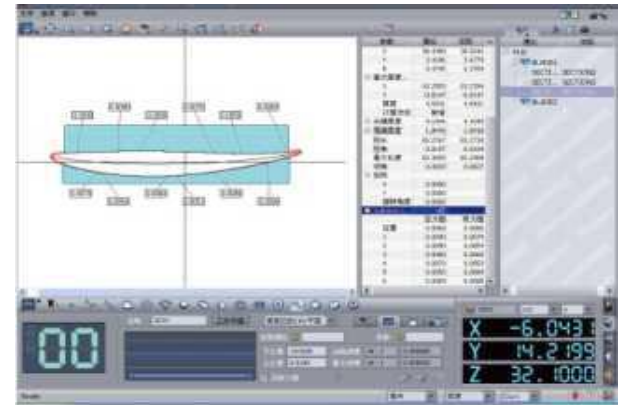
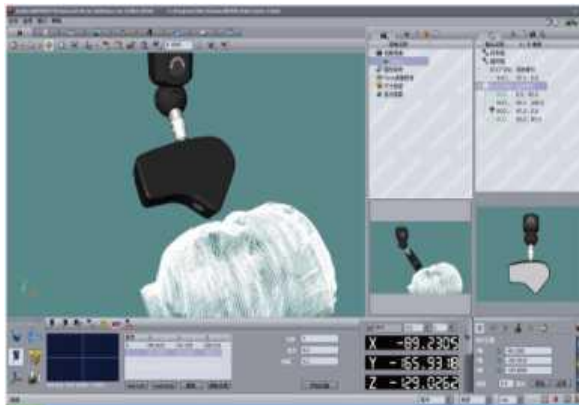
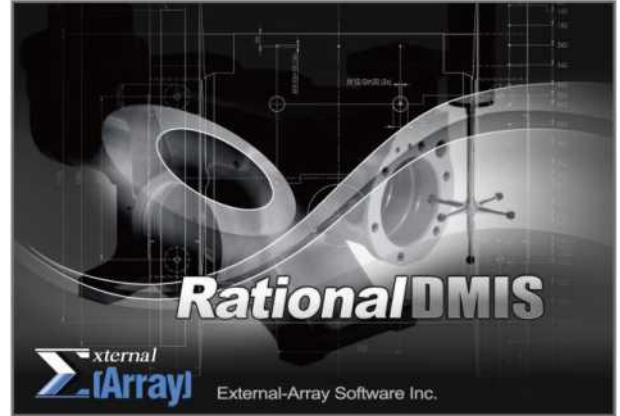
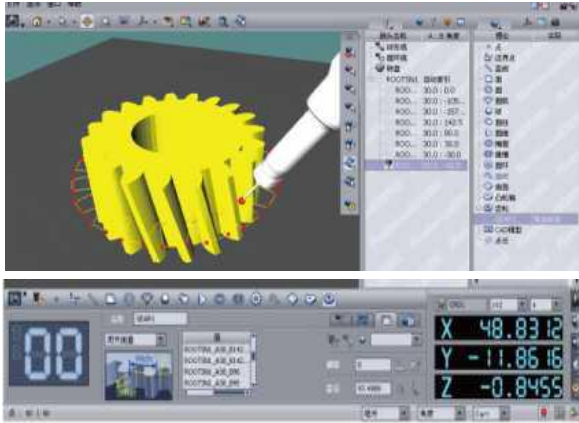
Rational-DMIS measurement software has been developed and used for more than 20 years. Its unique features include:

- Online and offline programming, real-time display of measurement path and provide collision warning.
- Full DMIS kernel, DMIS 3.0, 4.0 and 5.0 measurement languages can be applied. Compatible with any software using DMIS.
- Various CAD interface formats are supported, including CATIA[®] V4, CATIA V5, Pro / E[®], UG[®], Parasolid[®], hoops[®], step[®] and IGES[®]



- Graphics engine is ACIS, one of the most powerful engines in the world. It can easily control large-scale CAD digital and analog files through CATIA professional verification.

- Algorithm is PTB certified (Level 1)
- The fastest point-to-point scanning, with scanning interval of 0.002mm
- The processing speed of "point cloud level" of laser scanning data can reach 20000 points / second, so it can expand the function to use laser probe to detect and reverse.
- Built in all Renishaw product data models, it can realize analog assembly, automatic calibration and temperature compensation of probe probe.



■ PROBE SYSTEM

A variety of Renishaw probes can be selected to meet more measurement needs.

