

The Global Measurement Leader



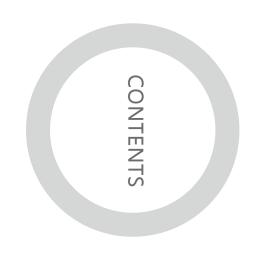








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COMPANY



European Standards



German Technology



Professional



Service System PMT is a high-tech company specialized in measurement technology, with full independent R&D and production capability. In the early stage, it mainly provides technology output and core technologies development and customization for many well-known measurement companies in the world, especially in the field of portable measurement, optical measurement, encoders, etc. In the course of its proactive participation in the global competition, PMT has an abundant accumulation of technology and innovation and always been following European standards in product research and development. Oriented by advanced technology all the time, PMT inherits German craftsmanship and quality control system and goes to great lengths to control quality. With the support of Darmstadt University of Technology, PMT has achieved certifications by European standards for its products.

With more than 20 years of experience in the field of metrology, especially in portable measurement, PMT has been promoting a sound and high quality development in global measurement with its innovative technology and holds several patents. Having contributed to a great R&D input, PMT has so far invested a lot of funds in long-term cooperation with global advanced Research Institutes and put more devotions to independent research and development.

PMT has set up R&D Centers in Germany and Japan and manufacture base in China. It is now working to establish robust service network in major industrial cities in China to guarantee an effective and prompt professional technical support and service to our customers.

Looking into the future, PMT will continue to be guided by technological innovation. Make measurement much easier and more convenient as our mission, we will create a sustainable value for customers, pursue a common progress with them, continuously exceed customer expectations, achieve long term strategic goals and create value to the society.

1



The logo simply but powerfully depicts the meaning of PMT. P means Portable. The dot on the P can be precisely embedded in the center of the T, which shows our unremitting pursuit of precision technology;



The "T" consists of three rulers, which means we work in the field of 3D metrology. PMT uses vigorous orange and tranquil blue in logo to express its strong determination on precision and portable measurement technology.

Perfect Measurement Technology is not only Precise Measurement Technology.

but also Portable Measurement Technology.













OUR VISION

The Global Measurement Leader **OUR MISSION**

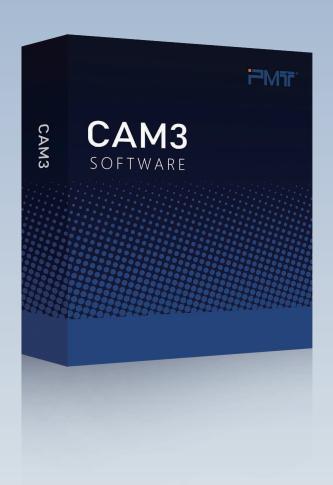
Make Measurement More Accurate and Portable **OUR VALUE**

Customer First, Full Commitment and Sustainable Innovation



PRODUCT

PMT ARM ENCODER 3D SOFTWARE







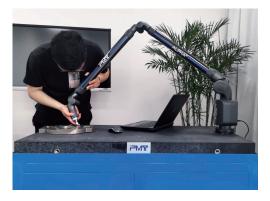


PMT ARM

ALPHA ARM Series, one revolutionary measuring arms family, has established a new standard for Portable 3D Measurement Arms. With our decades of professional experience, we committed to tailor a new generation of portable measurement equipment with great originality and performance to you. ALPHA ARM uses the internal counter balancing and equi-arm design which makes the structure simple and flexible. With all these unparalleled performance, ALPHA ARM has brought the development of portable metrology solutions to a whole new level.

Test and Accuracy Verification:

In accordance with IEC standards, PMT ARM is subjected to rigorous extreme temperature cycling tests (-20-60°C), shock and vibration tests. Rigorous accuracy verification in accordance with ISO10360-12 international standards to ensure accuracy, consistency and reliability of measurements in a variety of environments.











MODELS

ALPHAP

High Precision and Excellence Performance

This flagship measurement arm is leading the way in portable measurement with its ultra-high precision, inheriting our tradition of providing measurement consistency and reliability in any work environment. Help our customers stay ahead of the curve in quality control by providing reliable product performance.

ALPHA^M

Lead the Technology Trend

It is a standard measuring arm. It's a good choice for the companies looking for reliable and inexpensive measuring product to control quality, reduce waste and improve production efficiency through high-end process testing.

ALPHA^E

Economical and Practical Measurement

It is a cost-effective measurement arm for companies looking for cost-effectiveness. The reliability and operability of ALPHA E enable the manufacturer to control its quality and ensure high quality production.

ALPHA^P ALPHA^M ALPHA^E









TECHNOLOGY ADVANTAGE

01 Internal Counter Balancing

Simple structure without maintenance provides comfortable stress-free usage Flexible measurement, extend the arm body to the maximum extent, all directions can reach the maximum measurement range.

02 Equal Length Arm Design

Equal length, no blind area for measurement;

It's convenient for detecting to the position near the base to make sure the full measurement range.

03 Temperature Compensation System

The internal temperature sensor can compensate the measurement error caused by the temperature change of arm length

Continuously monitor the usage environment to ensure the best test performance.

The built-in overload induction warning device can avoid excessive external load.

04 Double High-energy Batteries

Large capacity dual battery design, support hot plugging;

The ultra-long battery life is benefit from the low-energy design to make sure the 16 hours continuous measurement.

05 High-speed WiFi Performance

Take points quickly and continuously without any lag Stable and fast connection

06 Intelligent Hidden Handle

The handle on the base can effectively protect the equipment from damage when extracting the equipment.

The hidden design saves installation space.

07 Other Features

Zircon Probe ——More durable and non-breakable for field measurement;

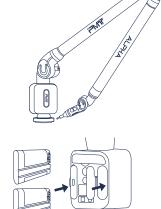
Intelligent Probe Indicator Night ——The measuring state can be determined by identifying the color of the indicator light in noisy environment;

U-shaped Anti-collision Design ——Small and stable to prevent probe from hitting base; New Generation Installation Chucks——Quickly installed and removed by hand

















OPTIONAL ACCESSORIES



FOLDING TRIPOD

Suitable for all kinds of arms and laser trackers

Performance Parameters				
Minimum height	730mm	Max. load weight	300kg	
Maximum height	1200mm	Operating temp range	-15°C-55°C	
Lifting height	470mm	Net weight	18kg	

GRANITE ROLLING CART

Complete mobile measurement workstation; Granite table

NW	L	W	Н
320kg	145cm	65cm	80cm



VACUUM CLAMPING PLATE

Battery powered vacuum mount for the PMT ARM. Specially designed to quickly, easily and rigidly mount to granite surfaces constantly without a degradation in accuracy.



MAGNETIC MOUNT

For any PMT ARM to be mounted to surface plates, tools and other ferrous surfaces.



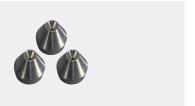
PROBE EXTENSION KIT

4" straight | two 3"straight
60 degree angle | 90 degree angle
3mm extended ball probe | 6mm extended ball probe



MAGNETIC CONE

A single cone with an adjustable magnetic base which is used for the Leapfrog command. This will increase the measuring volume of the Arm. Includes: 3 spheres.

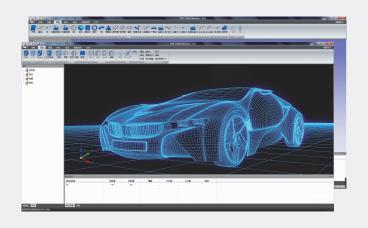




CAM3 (Computer Aided Measuring 3D) is a powerful solution used in the industrial 3D measurement that supports portable detection equipment to collect measurement data at any location in your manufacturing environment. It can realize the dimensional control of parts and tooling and in the meanwhile can judge and avoid any problems in the process of manufacturing and assembly through a real-time measurement guidance and adjustment so that the quality of assembled items can be guaranteed.

CAM33D SOFTWARE

MAIN FUNCTION





Measurement

- Calibrate all kinds of probes rapidly and easily with ability to graphically prompt for calibration programs;
- More than one reference coordinate system procedures allow users to freely establish reference coordinate system;
- Coordinate system and probe management;
- Dimension measurement of basic and extended geometric elements;
- ◆ GD&T measurement:
- Mutual length and angle relation calculation;
- Build/inspect mode can realize a real-time measurement, drive installation and assembly online.



Programming

- Record the steps of the component measurement procedure;
- Demonstrate the steps of the measurement procedure;
- Integrated programming module;
- Self-learning, online or offline programming functions which simplify repetitive work.



Import/Export

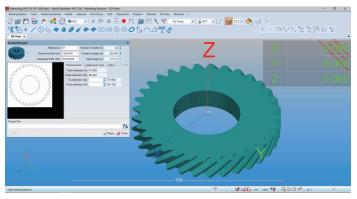
- Import/Export the measurement points to a text file;
- Export the measurement result to CAD;
- Import CAD and alignment techniques including feature-based, reference point, surface point, etc.

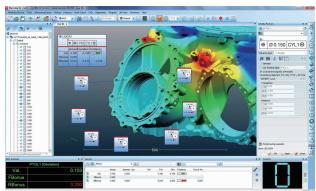


Report

- General export format;
- Text reports output, display and deviations analysis;
- The report extension features include user-defined report pages, automatic reports generation, PDF format export, etc.







- Metrolog EVO
- Metrolog X4
- Metrolog X4 Scan
- ♦ Metrolog X4 Gear

Metrolog X4 is the latest evolution of the famous 3D inspection software Metrolog XG. The new Metrolog X4 architecture is designed not only to benefit from current computer and OS technologies (Windows 64-bit and multiprocessor PCs) that significantly increase the performances and throughput of your Metrology software, but is also aimed at simplifying your day-to-day measurement work.





High Performances

Large Data file import (CAD files, Point clouds,...)



Dynamicity

Automatic Re-computation No need to remeasure



Compatibility Connectivity

All Devices Supported



Optimal Interface

Usage easiness Optional customization



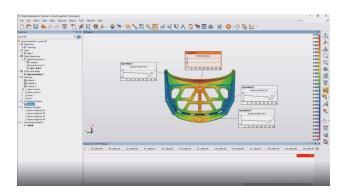
Enhanced Analysis

Best in Class GD&T and Reporting;Best 3D Point Cloud Analysis module

PolyWorks 3D SOFTWARE

Polyworks is a leading and comprehensive solution that supports all 3D measurement workflows in industrial manufacturing fields, from measurement planning by design and manufacturing teams to measurement execution by quality control teams, as well as the sharing of 3D measurement data and results across the field.

PolyWorks Inspector is known for its powerful, stable and direct hardware interface. It provides a comprehensive instructive technology that the world's largest industrial manufacturing companies believe can provide efficient, accurate and repeatable measurement processes for portable measuring devices.







ENCODER

RA-1 Angle Encoder is especially developed by PMT Technologies for high-precision encoder market. It is mainly used for high-precision Angle measurement and its required accuracy is within a few arc seconds.











Items	Major performance parameters	
Number of Outgoing Lines (L/R)	45000、90000、80000 (Customized line number: 9000、18000、36000、56250、72000、112500、144000、225000、288000、360000、450000)	
Reference Point	one point	
Accuracy	±5"、±8"、±15"	
Operating Voltage Current	5V±5% , 210mA	
Allowable Electric Rotating Speed	120rpm	
Output Signal Frequency	Highest 200KHz	
Cable Length	1.5m (Special length can be customized)	
Interface	Nine-pin plug (Axis/Radial Direction)	
Output Signal	TTL Signal, RS-422Signal, Sinusoidal wave signal~1VPP	
Allowable Mechanical Rotating Speed	≤ 10000rpm	
Starting Torque	≤ 0.01Nm	
Moment of Inertia	20 X 10kgm	
Allowable Axis Load	Axial direction: 10N Radial direction: 10N	
Anti-vibration (50~2000Hz)	≤100m/s (IEC 60068-2-6)	

At present, the high precision encoder is mainly used in machine tool rotary table, machine tool inclined joint, CMM, printing device, telescope, etc.

PMT technical staff will be there to explore technical solutions with you in case of any special applications and prepared to tailor angle encoders to meet individual requirements.









APPLICATION



#0

Auto Industry

To make sure the automobile performance and appearance, PMT 3D measuring technique will provide solution for automobile making and installation which is simple and accurate.





#04

Energy Industry

To use and deliver electricity in a reliable and safe way is the responsibility of electricity generation. PMT portable coordinate measuring machines can improve efficiency through parts detection, alignment inspection or completion report.





Engineering Machinery

The engineering machinery measurement solution can not only assist to improve the processing quality, but also improve the processing efficiency and reduce the cost through timely feedback of the processing results.





#05

Machinery Manufacturing

Today's production lines keep improving on precision control.lt is especially significant to ensure and improve the quality of strip steel during the production.PMT portable measuring instrument has become the best solution in controlling the whole production line installation.





03

Aerospace

PMT can guarantee efficiency and accuracy, provide customers with digital assembly and calibration solutions, as well as information for aviation design and production by real measuring data. Besides, PMT continuously improve production efficiency and automation of the aviation industry.





#06

Education

PMT will provide students with practical experience of 3D measurement systems which enhances competitive advantage when they work in the manufacturing industry or academic fields.





APPLICATION

Data Restoration





In today's high developing time, all walks of life show their vitality. The new energy technology is getting increasingly popular. 3D measurement technology has become an indispensable part of automobile industry.

PMTARM can be used to inspect accident vehicles. It can provide customers deformation quantity and data restores to increase size accuracy and optimize improvement efficiency.

PMTARMS can do a prototype fit analysis with a visible method to detect machining error. Customers can propose the improvement program according to the report where PMT ARMS showing the deviation location and quantities in real time with prototype analysis solution.

The picture on the left shows a factory is doing self-inspection for its automatic production line product.PMT ARM can quickly display the deviation of the target and its CAD model with visual data to ensure that every product processed meets the standard requirements.

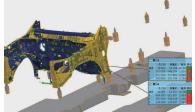


Prototype Fit Analysis



Real-time Verification





PMT has powerful advantages in dealing with medium, large and complex components with its characteristics of high precision, flexibility, no environment limitations, portability and wide application. For real time inspection, we can also complete the data collection at the fastest speed and the most accurate data within the shortest time.

Incoming-inspection

Incoming inspection refers to the inspection for raw materials, components or products and quality confirmation by sampling method, and then to confirm whether the products are acceptable or rejected.

PMTARMS can not only reduce the number of measurement tools and time, but also greatly improve the accuracy.







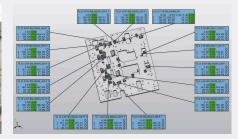
Dimensional Analysis

For processing enterprises, the quality of the product ensures the highest standard of customer reputation. And the valid data guarantees the effective inspection, size controlling and normal production by dimensional analysis G&RR.

PMT measurement data can successfully meet customer's standard, and even exceed their ideal value, which promises a mass production in the future for them.







Tool Alignment

With the rapid development of the automobile industry, customers pay more attention on the safety, power performance and body shape, and all the demands are down to the strict quality requirements for stamping, welding, final assembly and coating.

According to the different needs of customers, PMT portable measuring equipment can easily complete the point-to-point contact measurement as well as measurement task for all angles.







Heritage

The historical relics are of great value. It's urgent to digitize and archive the cultural relics to protect the appearance and possible future restoration. Therefore, a high-tech solution is needed to sample the current cultural relics.

It's especially outstanding to capture the details of cultural relics with PMTARMS combined with laser scanning technique which safeguards the subsequent protection work for its high accuracy within 0.1mm without touching them.









PMT WORLDWIDE





PMT CHINA (Operating Headquarters)

Industrial Park

Tel: 0512-6286 8300 Email: info@pmt3d.com

PMT CHINA (Beijing Solution Center)

District,Beijing Room 30T, F4, Building 4, Jiao 'ao Center

Tel: 010-5368 9509 Email: info@pmt3d.com

No. 59 Hua Gong Rd, Chaoyang

PMT CHINA (Guangzhou Solution Center)

Panyu District, Guang-zhou City, GuangdongProvince, China Room

Tel: 020-8450 4710 Email: info@pmt3d.com

PMT CHINA (Liaoning Solution Center)

Room 1203-1205, Zhongguancun

Tel: 024-2671 9562

PMT GERMANY (R&D Center)

PMT JAPAN (R&D Center)