From **nanometer** to **hectometer**

we provide professional precision measurement solutions

CHOTEST

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CHOTEST

Flash Measuring Machine

One-Touch Measurement

CHOTEST

Since established in 2002, Chotest Technology Inc. is focusing on the designing and manufacturing of precision dimensional measurement and calibration instruments.

With more than about twenty years of professional technology accumulation, Chotest has accumulated rich practical experience and set up a strong team who is specialized in optics, machinery, Electronics and information technology. At present, CHOTEST has more than 100 technology patents and software intellectual property rights. With competence in Micro-Nano motion, 3D Reconstruction of Micro-Nano measurement, 3D

Form and Surface Analysis of Micro-Nano measurement, Large-scale 3D Measurement, Precision Sensing Probe and Image processing technology, Chotest is capable to provide the customers with professional precision measurement solution from Nanometer to Hectometer.

Our products are widely used by public metrology labs and quality inspection workshops in the automotive, aerospace, machinery, metallurgy, power, and petrochemical industries. Chotest`s service net is covering more than 30 provinces in China, and is also focusing on the development in overseas markets like Europe and APAC.

The goal of Chotest is to provide high-end dimensional measurement equipment to manufacturing industry all over the world.

One-Touch Measurement

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VX1000 series

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Hybrid series

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Efficient measurement

- Auto illumination
- Auto focusing

5000+pcs

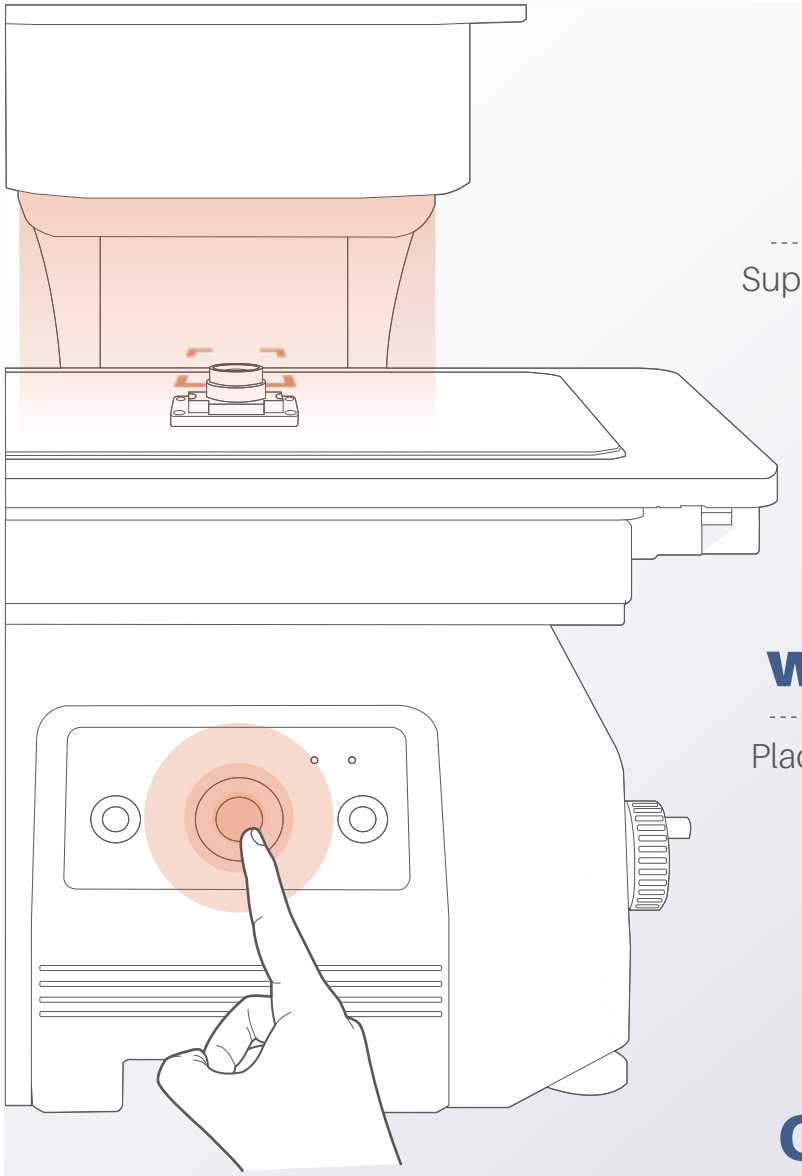
Once up to
5000+features

1024 pcs

Once up to
1024 workpieces

2 secs

In 2 seconds
Finish the
measurement



Load program

Support importing DXF file

Place workpiece

Place anywhere on table

One-Touch measurement

Touch Measure button

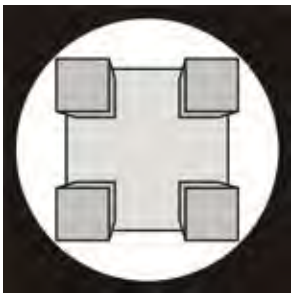
Dedicated Optical Lens

Normal Lens

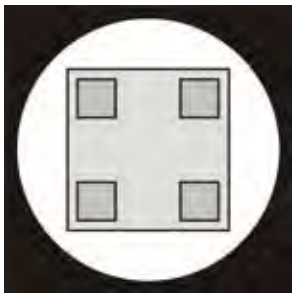
Our Dedicated Lens

Clear image even if there are stages

Equipped with a high depth optical lens and automatic focusing, the flash measuring machine only needs to focus at the tested object once. Even if there are variations in height, the images remain clear.



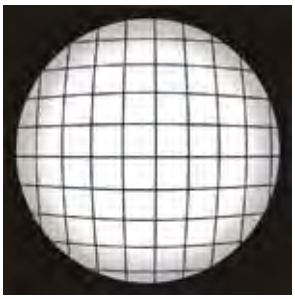
Normal Lens



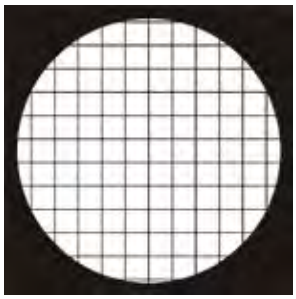
Our Dedicated Lens

Always real size even if there are stages

With a double telecentric optical lens, the size of objects in the image is always real and accurate, even features that are located at edge of the field of view.



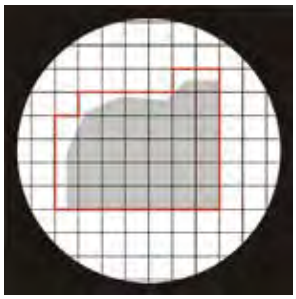
Normal Lens



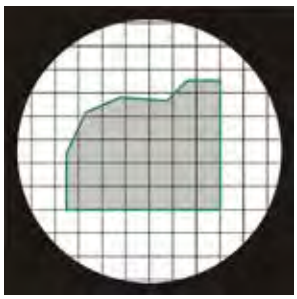
Our Dedicated Lens

Zero distortion in the full field of view

Thanks to the double telecentric optical lens with high depth of field and high resolution, it is almost zero distortion of the image in the full field of view. Test result is always the same in any position of the object table.



Normal Lens



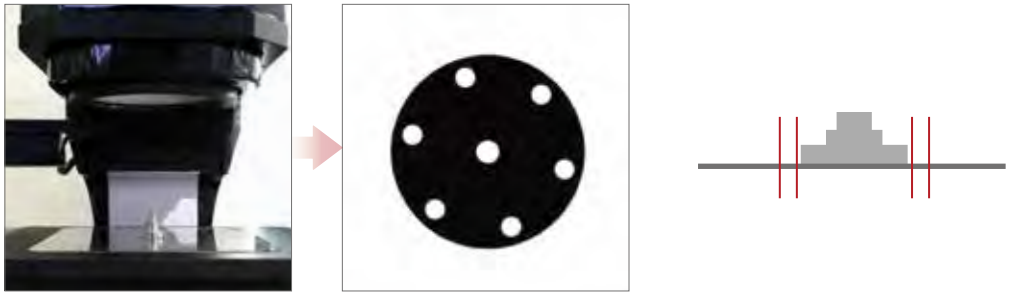
Our Dedicated Lens

Sub-pixel processing of edges

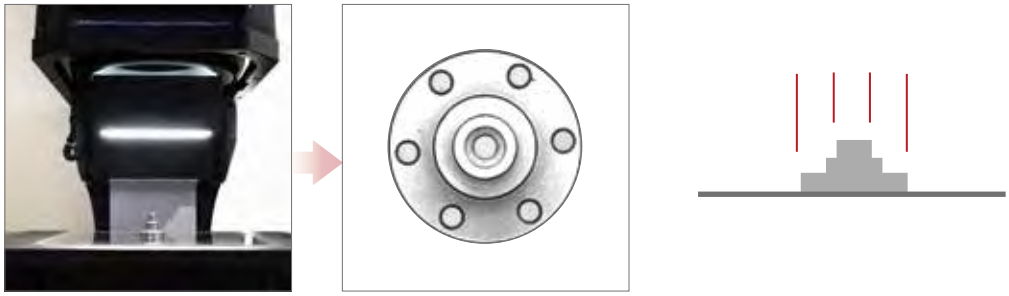
With algorithms of high-order interpolation and numerical fitting, the software can perform sub-pixel processing of the edges.

Light Source

Back light

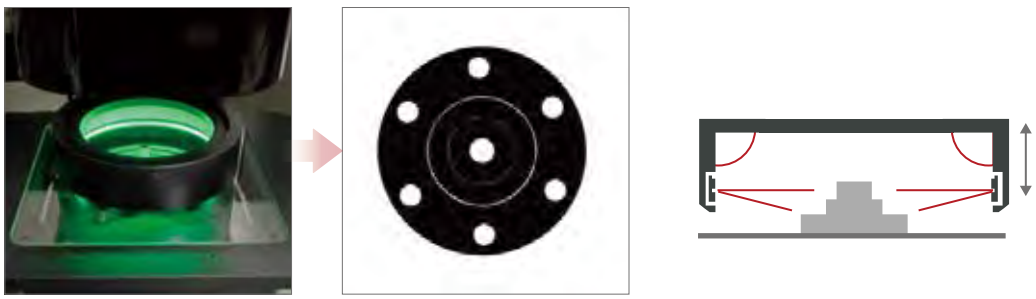


Coaxial light

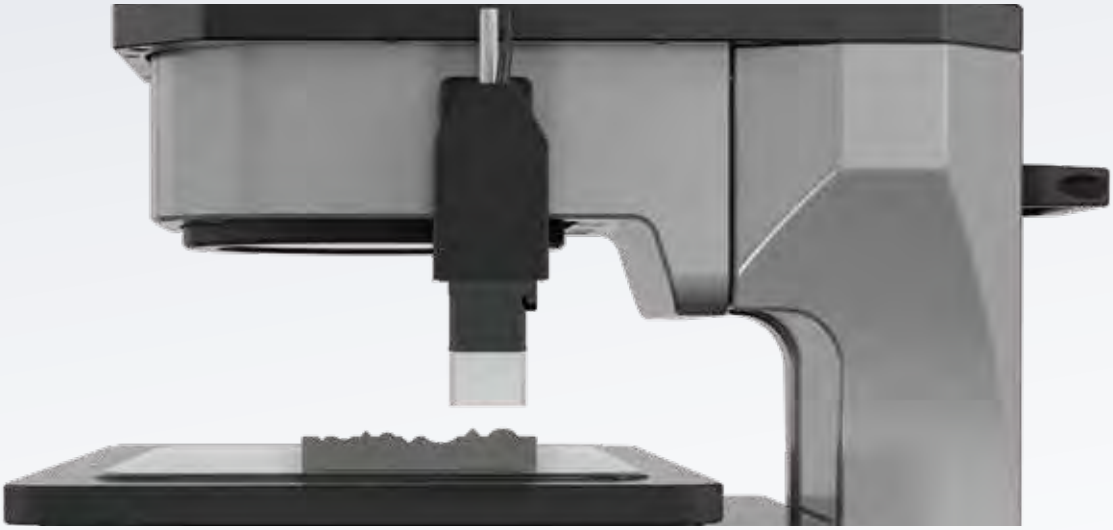


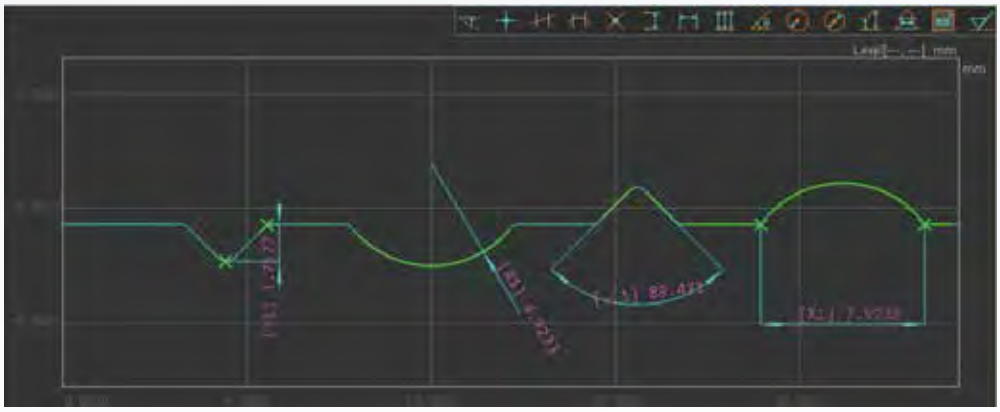
75° Ring light

0° ring light



Height probe





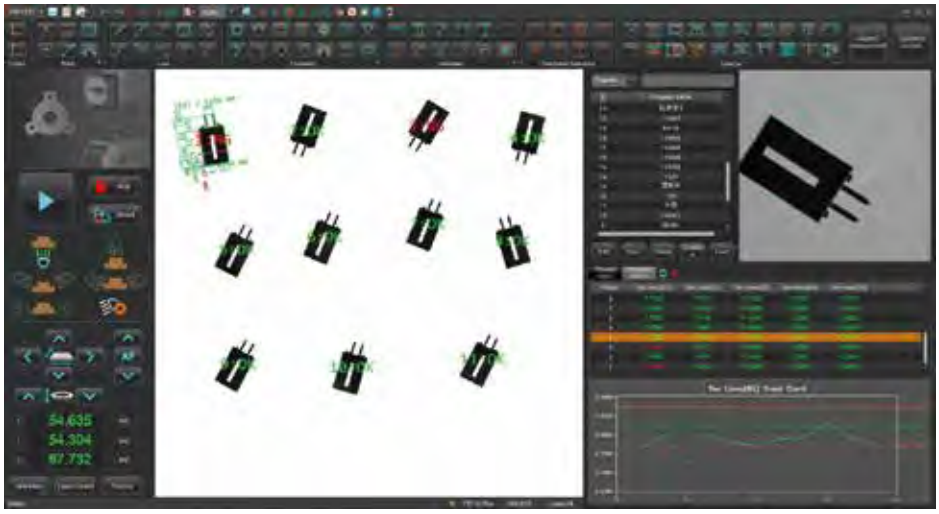
It is a white light confocal probe, and can be used to measure thickness, height difference, flatness, parallelism, etc. Moreover, this probe can scan the surface of the sample continuously.

Rotary chuck

Rotary chuck can rotate 360°. It is convenient to measure the sizes in different section according to rotation angle specified by the operator. It is an ideal solution to measure all kinds of cylindrical parts, such as shaft, etc.

Software

Vision X professional visual measurement software is completely independently developed by CHOTEST, and CHOTEST has independent intellectual property rights. VisionX has friendly user interface, convenient operation, powerful and practical functions, support more than 80 kinds of extraction and analysis tools, including feature extraction tool, auxiliary tool, annotation tool and special application tool, etc. Moreover, functions can be customized according to user's need, so as to improve work efficiency more effectively.



Home Interface

Features

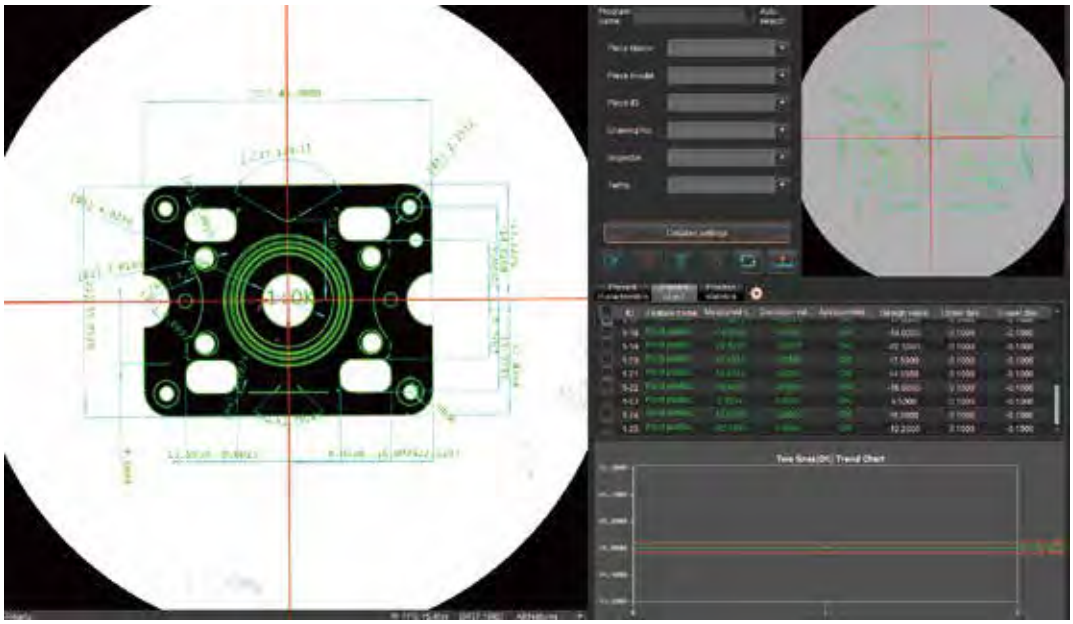
Geometric Tolerance	Straightness, Roundness, Concentricity, Symmetry, Positional Tolerance, Parallelism, Perpendicularity, Profile Tolerance, etc.
CNC Mode	Modify CNC program anytime, as well as adding or reducing features OK or NG is concluded according to tolerance in CNC program
Automatic	Only need to select the measuring features, after placing the workpiece, measuring results can be obtained quickly by one key
Coordinate System	Can create coordinate system by Point-line, Line-line, and translate & rotate coordinate system, as well as create multi-coordinate system
Special tools	Rounded corner, Contour, Thread, Slot, Perimeter, Pitch distance, Thickness, Chamfer, Spring, Gear, Sealing gasket, area, Pitch Angle, Boundary width

DXF Import

Measurement data can be obtained from CAD drawings. Even if the test object is not physically available, you can still create measurement programs quickly.The system can automatically assign features and dimensions from the DXF drawing to the sample, including surface dimensions

Sample

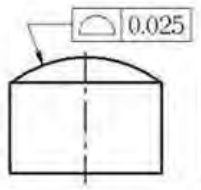
Automatically assign DXF features to the sample

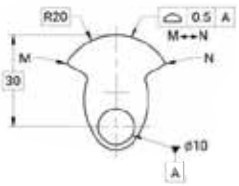


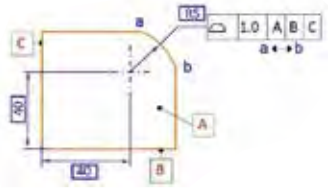
CNC Measure

Profile Tolerance

- This tool has three evaluation methods: No reference (only shape error evaluation), Single reference, Multiple references.

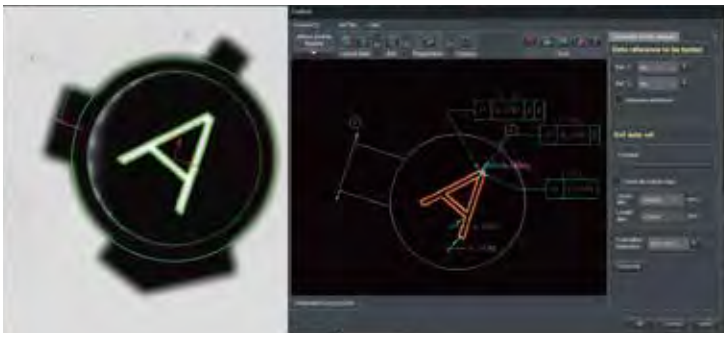






- Multiple annotations: Multiple profile tolerance can be annotated in a single program.No need to establish a coordinate system: Just need to enter the reference in the drawing .Measurement of profile tolerance in different coordinate systems can be achieved in a single program.

- Multiple types: Evaluate the profile tolerance by scanning the entire profile; Or evaluate the profile tolerance by measuring point with specifying coordinate values.

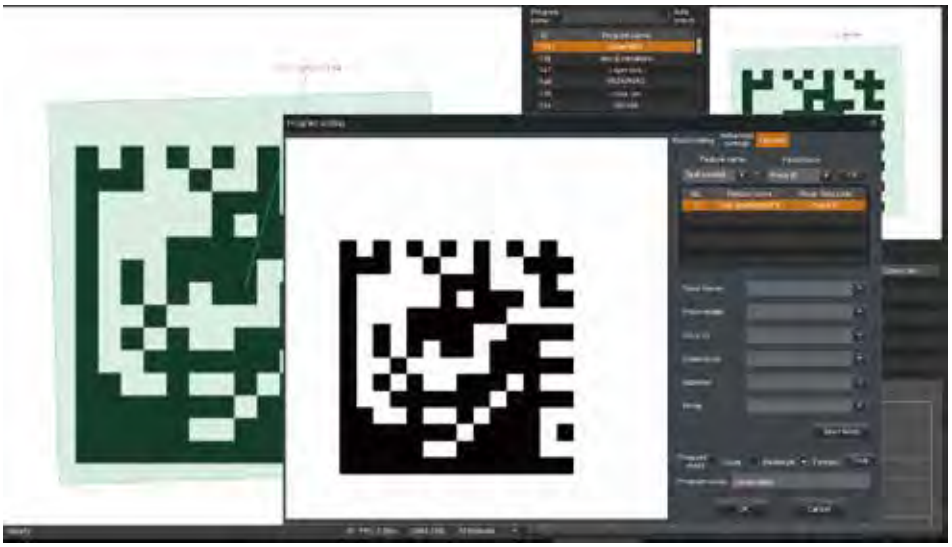


Position Tolerance

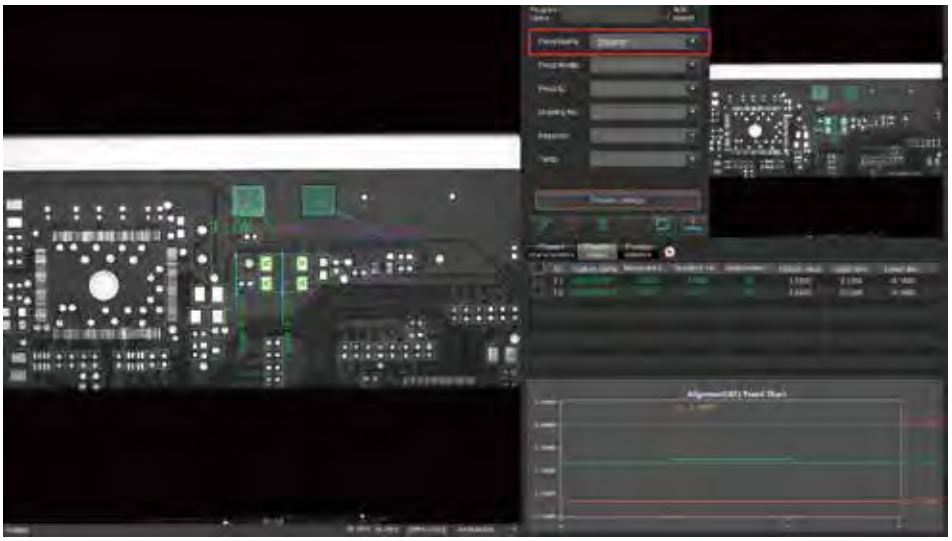
It can measure both point position tolerance and line position tolerance. Evaluation can be performed by XY coordinates in Cartesian coordinate system or radius & angle in polar coordinate system.

QR Code Recognition

The QR code on the sample can be defined as inspection information.



The QR value which is recognized by the software can be saved as inspection information during CNC measurement according to pre-setting.



Automatic Multi-Object Matching

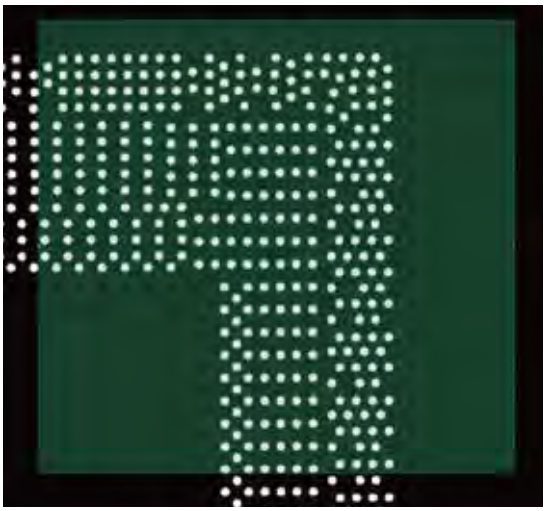
The system supports automatic measurement of multiple objects, up to 1024 objects at a time . 360-degree rotation search function, tested objects can be easily recognized and automatically measured, regardless of their orientation. The measurement sequence of the samples can be customized.

Z-order numbering

N-order numbering

Extract Multi-Circle by Lasso

When there are many circles located together on a sample, extracting circles one by one can be time-consuming and labor-intensive. This tool allows the diameter of the circles to be quickly extracted and annotated all at the same time.



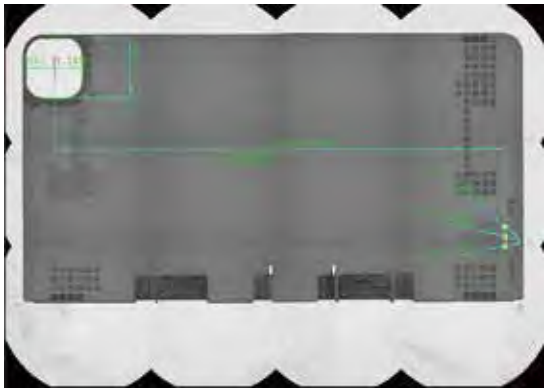
Before posture adjustment

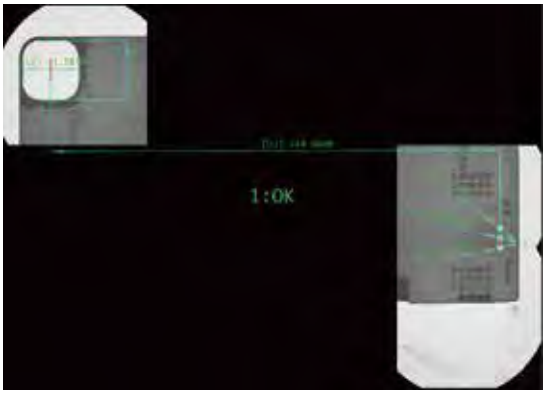
After posture adjustment

Fixed Position Measurement

Fixed position measurement eliminates the matching process, and the tested objects need to be placed in the same position. During CNC measurement, only images of the measurement areas are captured, greatly enhancing measurement efficiency.

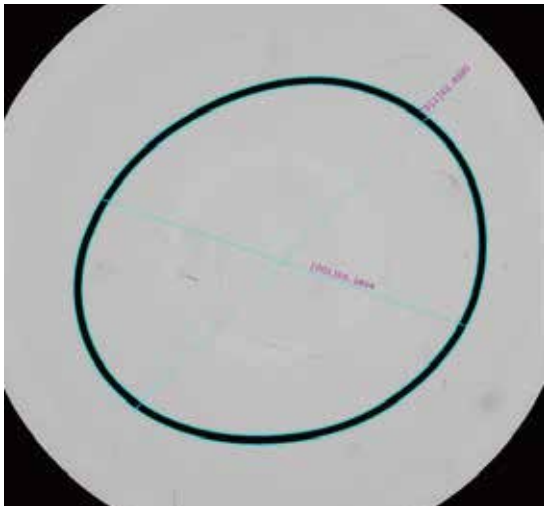
Even for samples with significant deformation, such as rubber seals, automatic CNC measurement can be achieved through fixed position measurement.

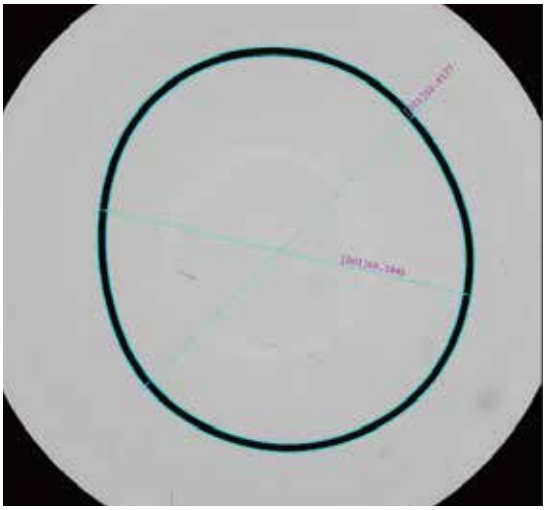




Seal Measurement

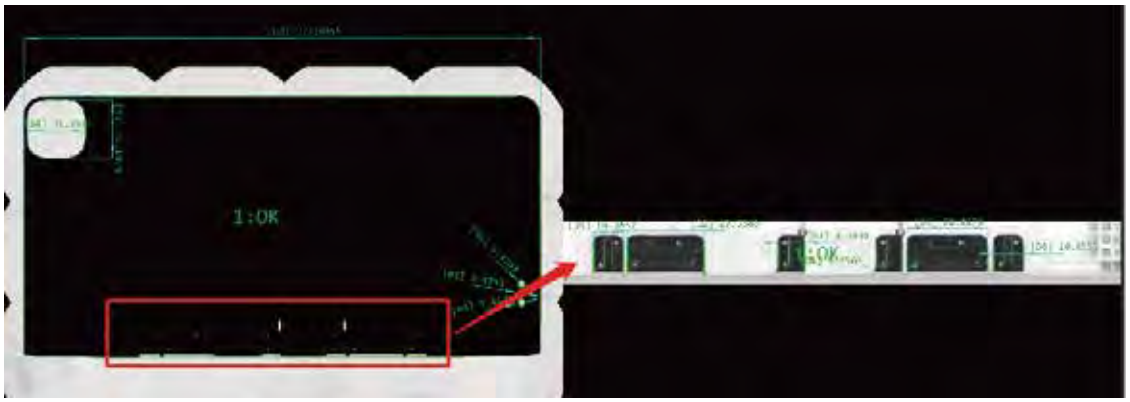
Accurate measurements can be performed even for seal rings with large deformations.



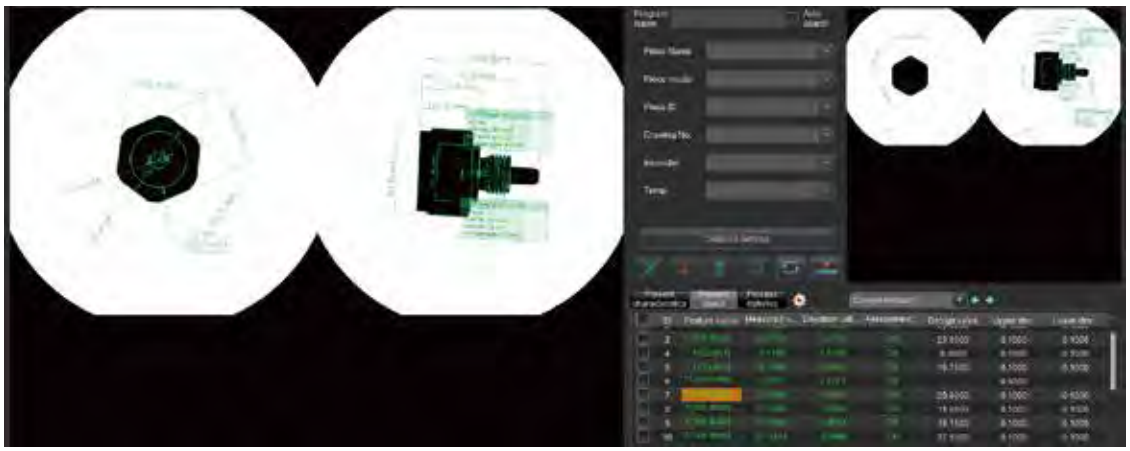


Conjoint program

Combine Wide F.O.V. and High Precision F.O.V. : Wide F.O.V. mode allows efficient measurement for large dimensions. High precision F.O.V. mode focuses on small dimensions of the test object, ensuring accuracy.



Software can combine two programs with different measurement views of the test object as a Conjoint one. During CNC measurement, two sub-programs can be performed sequentially on different views, then all data can be generated to a single measurement record for easy data management and statistic.



Barcode Scanner

The barcode value which is read by Scanner can be saved as inspection information, or used to search program according to definition of the operator.

User Management

The accounts can be defined as administrator or operator, and user rights of the operator account could be constrained according to requirement.

Statistical Analysis

The statistical analysis interface has the tabs of [Statistical Value], [Trend Chart], [Histogram] and [Data List]

Automatic recording and sorting

Measurement results and its main statistical information (e.g. average value, σ, 3 σ, 6 σ, Ca, Cp, Cpk etc) will be automatically recorded and saved. Operator could search records by different conditions.

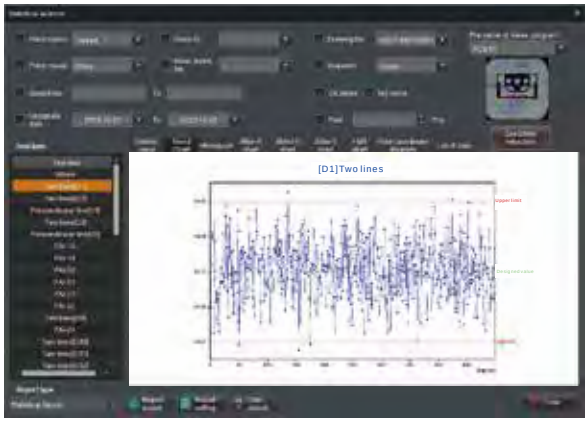
Statistic

Tabled data

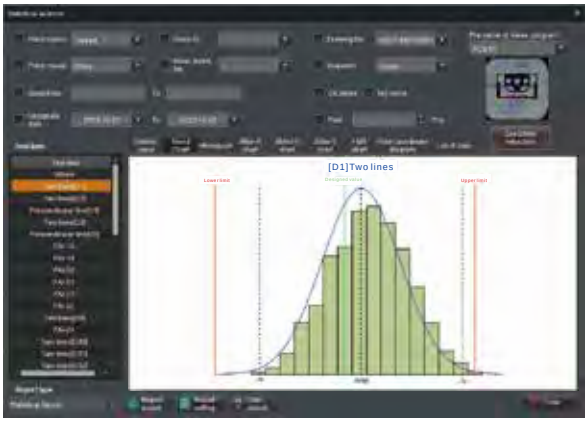
Control production process and improve product quality

The trend chart monitors the abnormalities of generating equipment and production process by regularly changing trend of measured values. Such as the monotonic and periodic changes of the measured values.

The histogram reflects the fluctuation and distribution of product quality, and transmits information about process quality, which can be used to judge and predict product quality and unqualified rate.

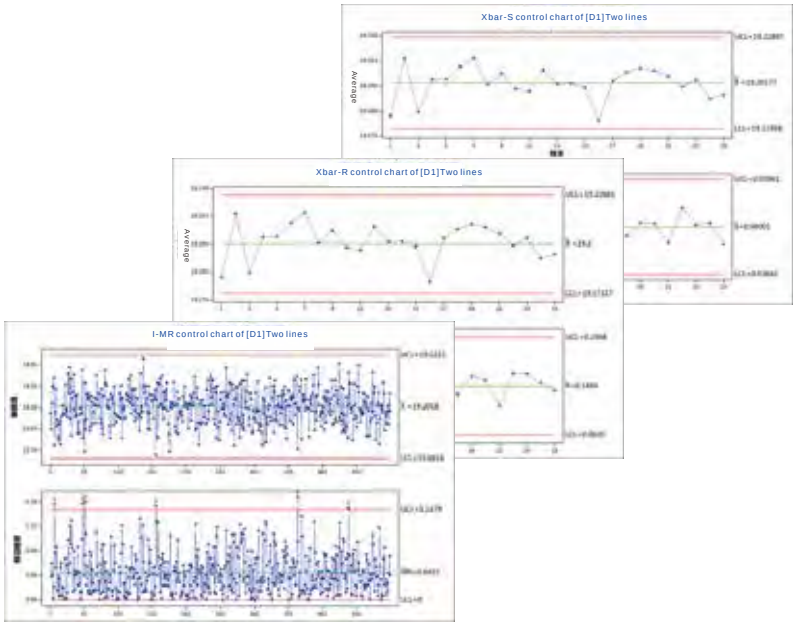


Trend Chart



Histogram

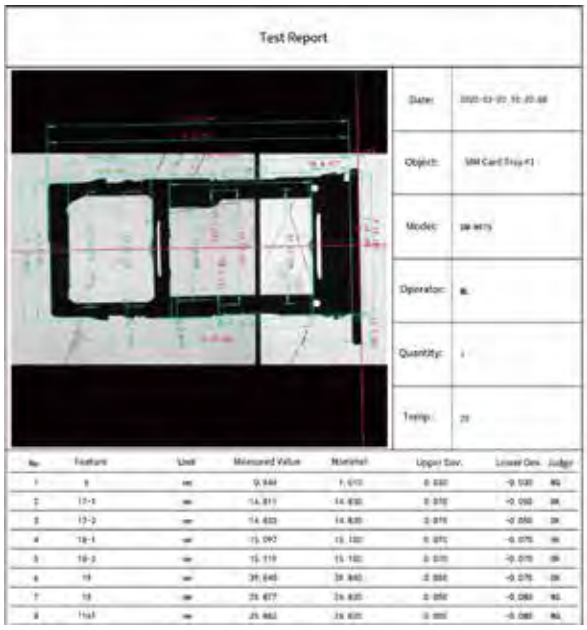
By quality diagnosis and analysis, SPC statistical method can not only realize the monitoring of product quality, but also reflect the change trend in the generation process, reduce the waste caused by post-inspection, so as to achieve the effect of controlling the production process and improving product quality.



Control Charts

Generate measurement report automatically by One Key

1. Import and export Measurement records
2. Able to saved as PDF, CSV, Excel ,text files
3. Support user-defined PDF report template
4. Support user-defined Excel report template
5. Quick export and print reports by one key



Test report

Evaluation Methods

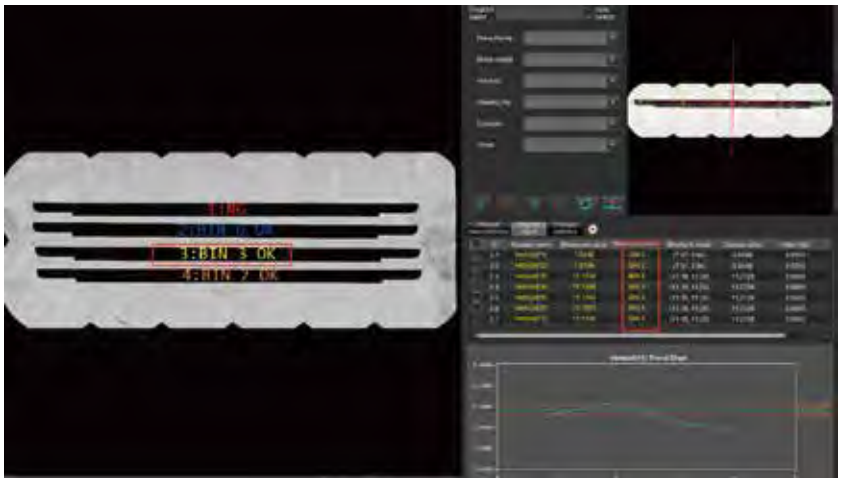
Standard Tolerance

Evaluate the measured values against the given design value and upper/lower tolerances specified on the drawing.

ID	Feature name	Measured value	Assessment result	Design value	Upper dev	Lower dev
1	[illegible]	[illegible]	[illegible]	14.0700	0.0500	-0.0500
2	[illegible]	[illegible]	[illegible]	16.0500	0.0500	-0.0500
3	[illegible]	[illegible]	[illegible]	0.2000	0.0500	-0.0500
4	[illegible]	[illegible]	[illegible]	9.5500	0.1000	-0.1000
5	[illegible]	[illegible]	[illegible]		0.1000	
6	[illegible]	[illegible]	[illegible]		0.1000	
7	[illegible]	[illegible]	[illegible]	17.9600	0.0500	-0.0500
*				[illegible]	[illegible]	[illegible]

Grade of Tolerance

Divide the tolerance into multiple grades according to deviation range. Evaluate the sample's grade based on the actual measured value; If the dimensions of a sample are not in the same grade, this sample is unqualified. Classifying samples into different grades facilitates assembly and reduces waste.



Proportion of Tolerance

Divide the tolerance into multiple grades according to tolerance percentage. Evaluate the sample's grade based on the actual measured value, so it can be used for pre-warning of processing equipment`s state.

Critical Dimensions

The sample is qualified by only Critical Dimensions which are specified by the operator.

Data

Test reports can be generated simple and fast, such as PDF, WORD, EXCEL, CSV and TXT.

Process Statistics

Automatically calculate Cp and Cpk. Real-time trend chart or histogram display quality trends and changes during measurements.

Custom Excel Report

Measurement data & corresponding test images and inspection info are automatically exported into a designated Excel template in real time.

Customer		LOT No	
Part name		Material	
Part No.		Spec.	

Batch No.	Item	Measured value	Design Value	Upper Limit	Lower Limit	Inspector	Date
D8X62723-E75-P-N-1	L①	2.513	2.5	0.2	-0.2	Crane	09.20
D8X62723-E75-P-N-1	L②	2.512	2.5	0.2	-0.2	Crane	09.20
D8X62723-E75-P-N-1	L③	2.511	2.5	0.2	-0.2	Crane	09.20
D8X62723-E75-P-N-1	L④	2.508	2.5	0.2	-0.2	Crane	09.20
D8X62723-E75-P-N-1	L⑤	2.509	2.5	0.2	-0.2	Crane	09.20
D8X62723-E75-P-N-1	L⑥	2.511	2.5	0.2	-0.2	Crane	09.20
D8X62723-E75-P-N-1	L⑦	2.513	2.5	0.2	-0.2	Crane	09.20
D8X62723-E75-P-N-1	L⑧	2.512	2.5	0.2	-0.2	Crane	09.20
D8X62723-E75-P-N-1	L⑨	2.509	2.5	0.2	-0.2	Crane	09.20
D8X62723-E75-P-N-1	W①	1.999	2	0.3	-0.1	Crane	09.20
D8X62723-E75-P-N-1	W②	1.997	2	0.3	-0.1	Crane	09.20
D8X62723-E75-P-N-1	W③	1.998	2	0.3	-0.1	Crane	09.20
D8X62723-E75-P-N-1	W④	1.997	2	0.3	-0.1	Crane	09.20
D8X62723-E75-P-N-1	W⑤	1.997	2	0.3	-0.1	Crane	09.20
D8X62723-E75-P-N-1	W⑥	1.999	2	0.3	-0.1	Crane	09.20
D8X62723-E75-P-N-1	W⑦	1.996	2	0.3	-0.1	Crane	09.20
D8X62723-E75-P-N-1	W⑧	1.999	2	0.3	-0.1	Crane	09.20
D8X62723-E75-P-N-1	W⑨	1.997	2	0.3	-0.1	Crane	09.20
D8X62723-E75-P-N-1	H①	0.901	0.9	0.1	-0.1	Crane	09.20
D8X62723-E75-P-N-1	H②	0.904	0.9	0.1	-0.1	Crane	09.20
D8X62723-E75-P-N-1	H③	0.904	0.9	0.1	-0.1	Crane	09.20
D8X62723-E75-P-N-1	H④	0.903	0.9	0.1	-0.1	Crane	09.20
D8X62723-E75-P-N-1	H⑤	0.902	0.9	0.1	-0.1	Crane	09.20
D8X62723-E75-P-N-1	H⑥	0.905	0.9	0.1	-0.1	Crane	09.20
D8X62723-E75-P-N-1	H⑦	0.901	0.9	0.1	-0.1	Crane	09.20
D8X62723-E75-P-N-1	H⑧	0.903	0.9	0.1	-0.1	Crane	09.20
D8X62723-E75-P-N-1	H⑨	0.901	0.9	0.1	-0.1	Crane	09.20

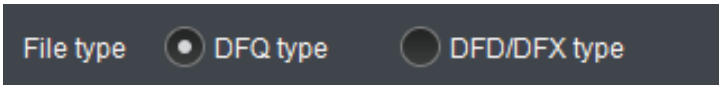
TCP

Measurement data is transmitted to the MES system of the customer via socket or HTTP protocols in real time.

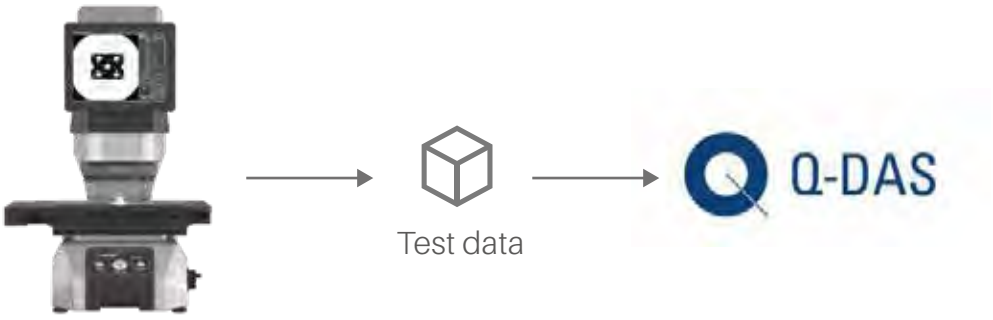
VisionX also could receive commands from the external server to load the program and begin measurement, so it is compatible with robotic arms to achieve unmanned measurements.

QDAS

Automatically generate test results in a format which can be recognizable by the QDAS system.



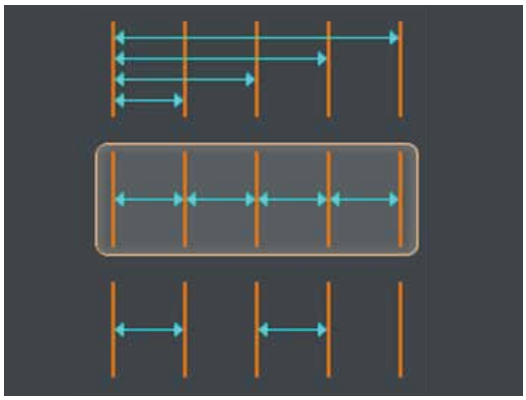
K fields can be customized to link VX machines to output parameters.

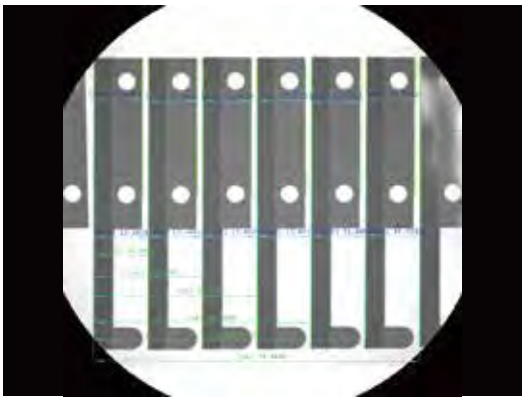


Custom Text Report: Operator can define the content format of the report in Text file, and the measurement data are exported in real time.

Baseline-Line Distance

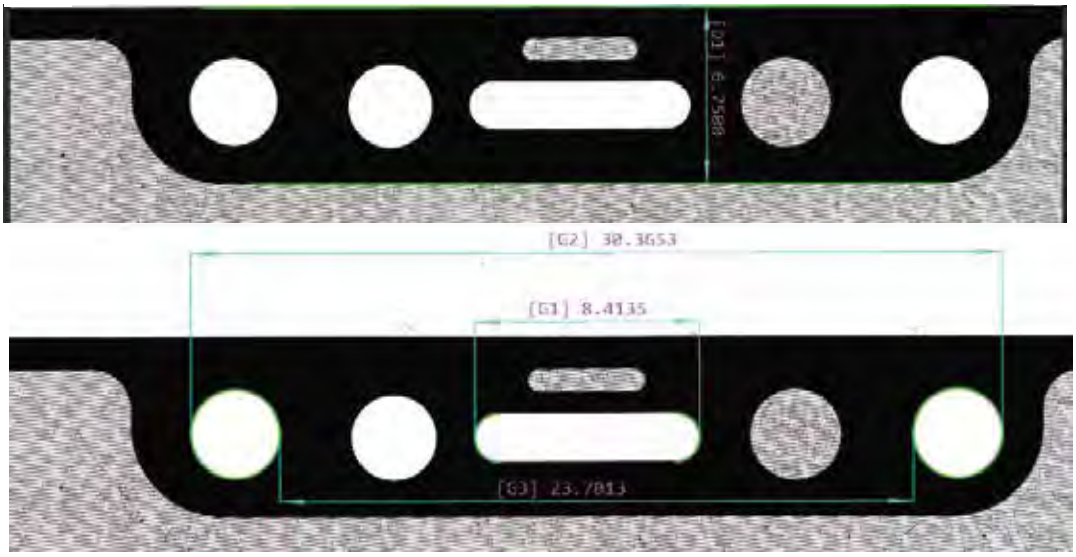
There are three options for baseline-line distance annotation. Select the desired line and annotate it with a single click.





Intelligent Annotating

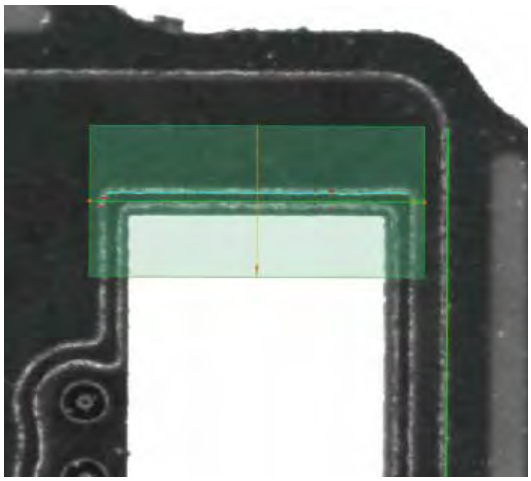
This tool can annotate distance between two points or two lines, center distance between two circles, max distance or min distance or center distance between line and circle, etc.



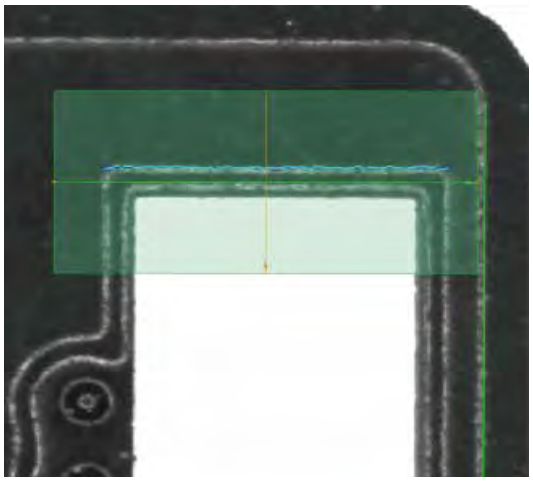
Auto Edge Detection

Simply highlight the region where the feature is located, and the system will automatically capture the edge.

Various edge extraction conditions can be set to exclude interference and accurately extract the target feature, even for tiny boundaries.



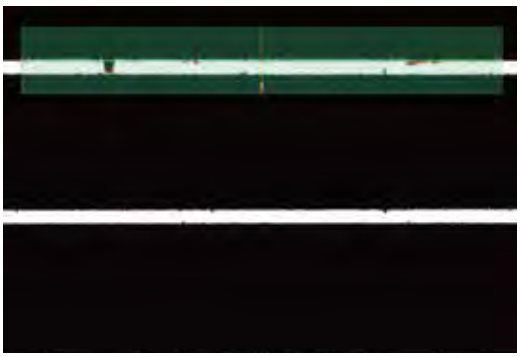
Extract from bright to dark

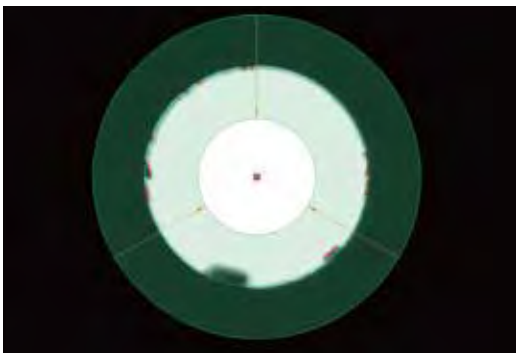


Extract from dark to bright

Auto deburring

Automatically remove abnormal points to eliminate the interference of edge burrs, and extract features accurately.



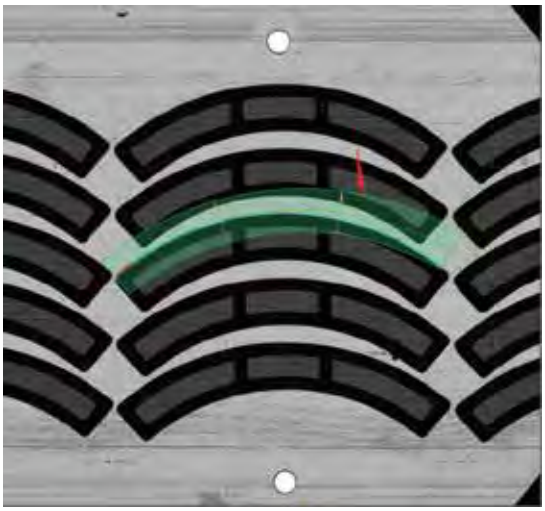


Even if boundary is discontinuous, the system can eliminate interference from nearby features. Complex settings are not required as the system automatically removes abnormal points.

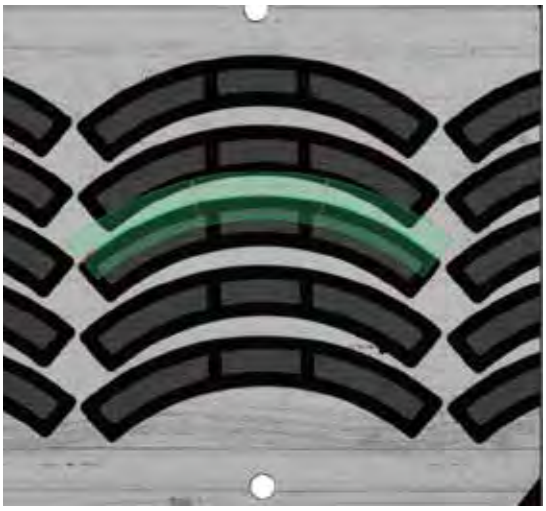
The arcs at both ends of a straight line can also be automatically excluded

Posture Adjustment

The posture adjustment function automatically adjusts the orientation of the lasso to ensure precise feature extraction.Even if the lasso does not contain the target feature appropriately, the system automatically adjusts the posture of the lasso to center on the feature.



Free selection



After auto adjustment

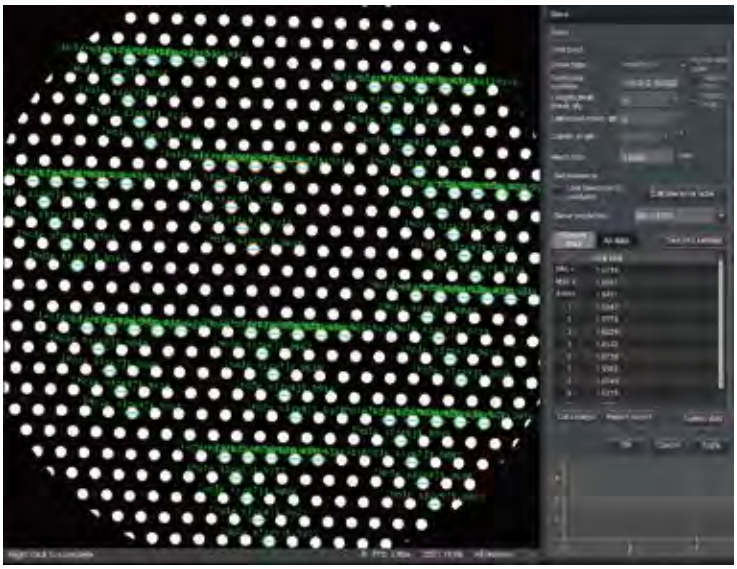
For the measurement of peak point, the operator can set condition to constrain orientation of the lasso to ensure accurate calculation of peak value.

Before posture adjustment

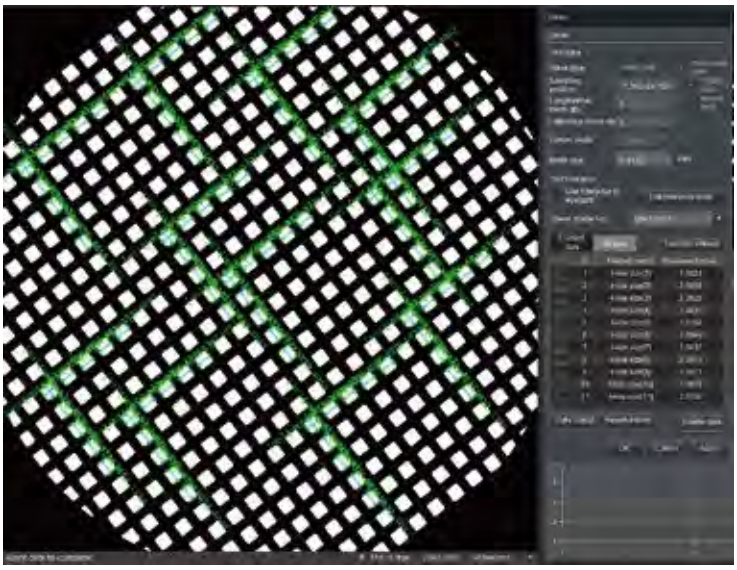
After posture adjustment

Sieve Measurement

Multiple measurements can be made continuously, and the report can be output with the deviation values.



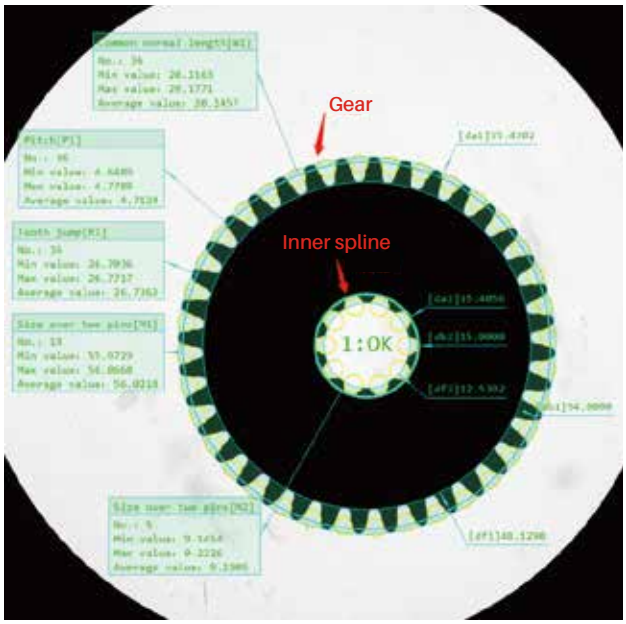
Circles



Squares

Gear/R Gauge Measurement

- Gear parameters can be measured in as fast as 2 seconds, such as pitch distance, tooth spacing, normal line, tooth runout, etc. Splines also can be measure by this tool, and both internal and external gears/splines can be measured.



Gear

- No need to create a program. Place the objects on the table then click Measure.

R Gauge

Application

Flash measuring machines are widely used in industry of machinery, electronics, mold, injection molding, hardware, rubber, low-voltage electrical appliances, magnetic materials, precision stamping, connectors, connectors, terminals, mobile phones, home appliances, printed circuit boards, medical equipment, watches, tools, etc.


Phone case


Phone accessories


Watch inner parts


Watch chain


Machining parts


Stamping parts


Sheet metal parts


Plastic injection parts


Magnetic component


Cutting tools

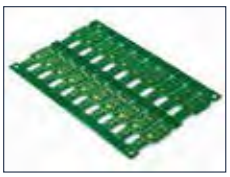

Small metal parts


Gear


Rubber ring


Spring


Thread, Shaft


Rigid PCB


Soft PCB


Shielding case


Mask board


Ceramic plate


Car monitor frame

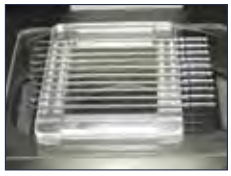

Connectors


Battery


Resistors


Filter mesh


Die cutting

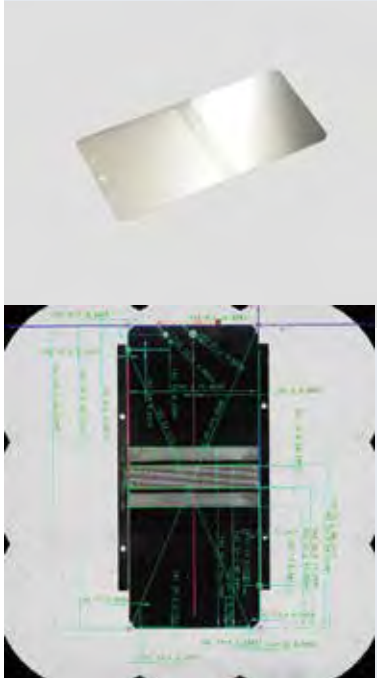

Medical drill


Sieve


Radius gauge

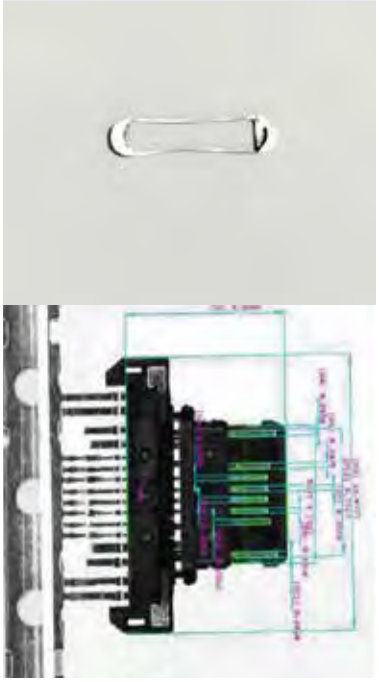

Thread template

Foldable Screen of Mobile Phone

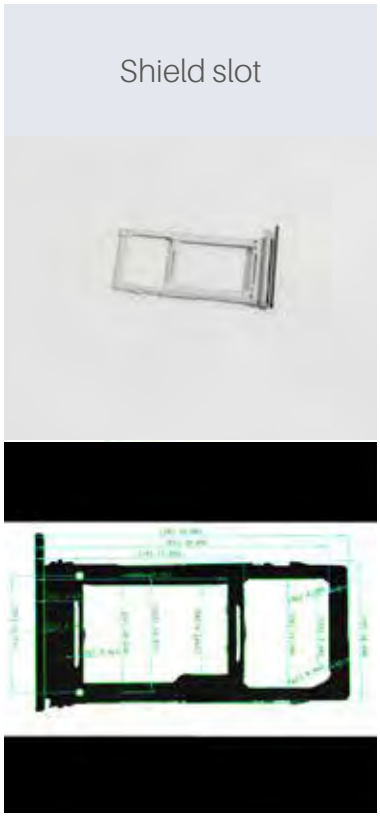


Phone Casing

Camera support

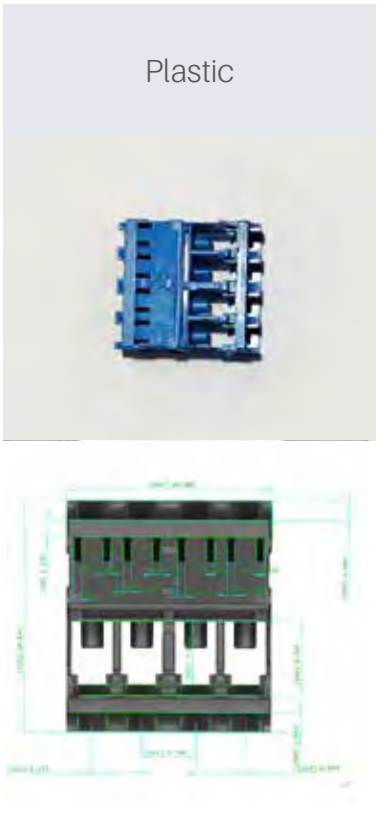


Shield slot

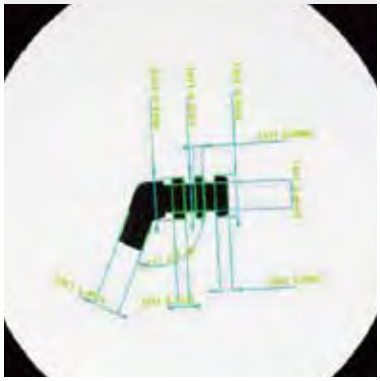


Back Cover Glass of Mobile Phone

Plastic



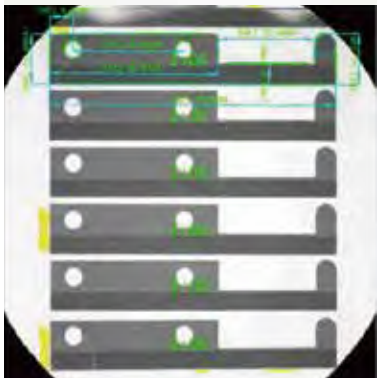
Terminal



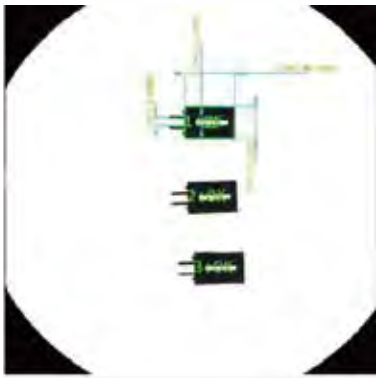
Shielding Covers

Resistors

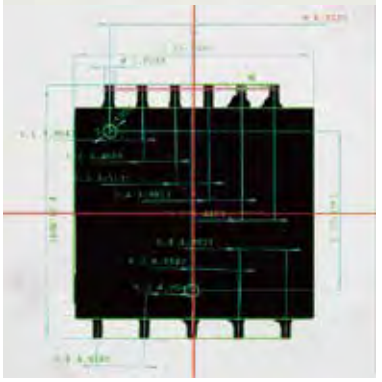
Die Cutting



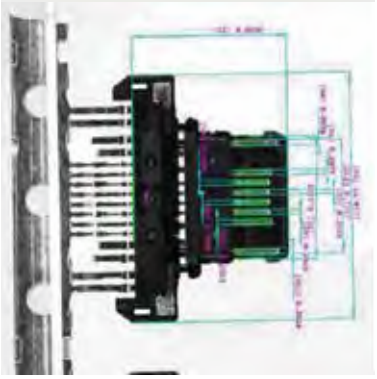
Sockets



Magnetic Component



Type-C Charging Port

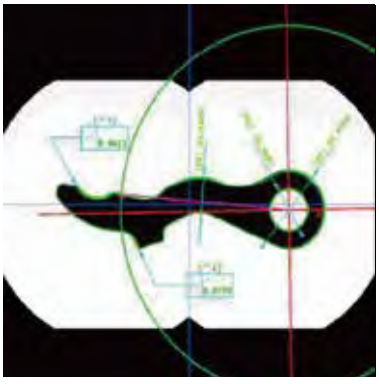


Medical drill

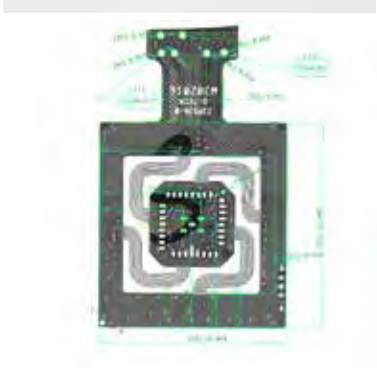
Filter

Connector

Parking Pawl



Soft PCB



VX8100/VX8200/VX8300

Imaging by 20 million pixel CMOS is clearer
Rotary chuck is available for 360° measurement of cylindrical samples

Rotary chuck

Parameters

Model No.			VX8100	VX8200	VX8300
Image Senor			20MP CMOS		
Monitor	Built-in		10.4″ LCD(XGA: 1024x768)		
	Outside		24"LCD(XGA: 1920x1080)		
Acceptance Lens			Double Telecentric Lens		
Light	Ring light		Four-segment illumination(White Light/Green light)		
	Backlight		Telecentric transmission illumination(Green Light)		
	Coaxial light (optional)		LED directional light		
F.O.V.	Large Field(mm)		200x100(4 Angles R50)	200x200(4 Angles R50)	300x200(4 Angles R50)
	High Precision(mm)		130x20	130x130	230x130
Resolution			0.1μm		
Repeatability of Image Meas.	Wide Field	Without Stitching*1	±1μm		
		With Stitching*2	±2μm		
	High Precision	Without Stitching*1	±0.5μm		
		With Stitching*2	±1.5μm		
Accuracy of Image Meas.	Wide Field	Without Stitching*1	±3μm		
		With Stitching*2	±(5+0.02L) μm		
	High Precision	Without Stitching*1	±1.5μm		
		With Stitching*2	±(3+0.02L) μm		
Horizontal Rotary Unit (Optional)	Rotation Angle		———	Range 360°, Resolution 0.02°	
	Rotation Speed		———	0.2~2rev/s	
	Max Diameter		———	Φ 60mm	
Height Meas. (Optical Probe) (Optional)	Measuring Range(X*Y)		———		120*110mm
	Max Depth/Diameter(H/Φ)		———		1.64
	Dia. of Beam		———		Φ100μm(Φ18μm optional)
	Resolution		———		0.25μm
	Z Non-movement	Range(Z)	———		±2mm
		Accuracy	———		±2μm
	Z Movement	Range(Z)	———		75mm
		Accuracy	———		±(6+0.01H) μm, H is Z movement height in mm
XY Object Table	X Travel Range		110mm	110mm	210mm
	Y Travel Range		/	110mm	
	Loading Capacity		2kg	7.5kg	
Z-Axis Travel Range			35mm	75mm(Motorized)	
Size(LxWxH) mm			500x280x670	531x386x731	531x503x731
Weight			30kg	49kg	75kg
Input			AC100~240V,50/60Hz, 2A, 300W		
Working Environment			Temp.10 °C~35 °C ,Humidity 20~80% , Vibration<0.002g Less than15Hz		

Remark : *1 In the focus position, the environment temperature is +20 °C ± 1.0 °C
*2 In the focus position, the environment temperature is +20 °C ± 1.0 °C, and the load on the table is 2 kg or less;
L is the moving range of the table (mm)

VX3200D/VX3300D

Vision X software

Motorized
Focusing System

Double Telecentric
Optical Lens

Intellegent
Lighting System

Motorized
Object Table

One-Touch Button

Parameters

Model No.			VX3200D	VX3300D
Image Senor			5MP CMOS	
Monitor	Built-in		10.4″LCD(XGA : 1024x768)	
	Outside		24"LCD(XGA : 1920x1080)	
Acceptance Lens			Double Telecentric Lens	
Light	Ring Light		Four-segment illumination(White Light/Green light)	
	Backlight		Telecentric transmission illumination(Green Light)	
F.O.V.	Large Field(mm)		200x200(4 Angles R50)	300x200(4 Angles R50)
	High Precision(mm)		130x130	230x130
Resolution			0.1μm	
Repeatability of Image Meas.	Wide Field	Without Stitching*1	±1μm	
		With Stitching*2	±2μm	
	High Precision	Without Stitching*1	±0.5μm	
		With Stitching*2	±1.5μm	
Accuracy of Image Meas.	Wide Field	Without Stitching*1	±5μm	
		With Stitching*2	±(7+0.02L)μm	
	High Precision	Without Stitching*1	±2μm	
		With Stitching*2	±(4+0.02L)μm	
Height Meas. (Optical Probe) (Optional)	Measuring Range(X*Y)		——	120*110mm
	Max Depth/Diameter(H/Φ)		——	1.64
	Dia. of Beam		——	Φ100μm(Φ18μm optioinal)
	Resolution		——	0.25μm
	Z Non-movement	Range(Z)	——	±2mm
		Accuracy	——	±2μm
	Z Movement	Range(Z)	——	75mm
		Accuracy	——	±(6+0.01H)μm, H is Z movement height in mm
XY Object Table	X Travel Range		110mm	210mm
	Y Travel Range		110mm	110mm
	Loading Capacity		7.5kg	
Z-Axis Travel Range			75mm(Motorized)	
Size(LxWxH)			(531x386x731)mm	(531x503x731)mm
Weight			49kg	75kg
Input			AC100-240V,50/60Hz, 2A,300W	
Working Environment			Temp.10 °C~35 °C,Humidity 20~80%,Vibration<0.002g,Less than15Hz	

Remark : *1 In the focus position, the environment temperature is +20 °C ± 1.0 °C
*2 In the focus position, the environment temperature is +20 °C ± 1.0 °C, and the load on the table is 2 kg or less;
L is the moving range of the table (mm)

VX3030D/VX3100/3100D

Parameters

Model No.			VX3030D	VX3100	VX3100D
Image Senor			5MP CMOS		
Monitor	Built-in		10.4"LCD(XGA: 1024x768)		
	Outside		24"LCD(XGA: 1920x1080)		
Acceptance Lens			Double Telecentric Lens		
Light	Ring Light		Four-segment illumination(White Light/Green light)		
	Backlight		Telecentric transmission illumination(Green Light)		
F.O.V.	Large Field(mm)		130x20	200x100(4 Angles R50)	200x100(4 Angles R50)
	High Precision(mm)		116x6	———	120x20
Repeatability of Image Meas.	Wide Field	Without Stitching*1	±0.5μm	±1μm	±1μm
		With Stitching*2	±1 μm	±2μm	±2μm
	High Precision	Without Stitching*1	±0.1μm	———	±0.5μm
		With Stitching*2	±0.5μm	———	±1.5μm
Accuracy of Image Meas.	Wide Field	Without Stitching*1	±2 μm	±5μm	±5μm
		With Stitching*2	±(4+0.02L)μm	±(7+0.02L)μm	±(7+0.02L)μm
	High Precision	Without Stitching*1	±0.7μm	———	±2μm
		With Stitching*2	±(2+0.02L) μm	———	±(4+0.02L) μm
Software			VisionX		
Resolution			0.1μm		
Physical Probe			No		
XY Object Table	X Travelrange		110mm		
	Y Travelrange		———		
	Loading Capacity		2kg		
Z-Axis Travelrange			35mm(Motorized)		
Size(LxWxH)			(500x280x670)mm	(500x280x670)mm	(500x280x670)mm
Weight			31kg	30kg	31kg
Input			AC100-240V,50/60Hz, 2A,300W		
Working Environment			Temp.10°C~35°C, Humidity 20~80%, Vibration<0.002g, Less than15Hz		

Remark : *1 In the focus position, the environment temperature is +20 °C ± 1.0 °C
*2 In the focus position, the environment temperature is +20 °C ± 1.0 °C, and the load on the table is 1 kg or less;
L is the moving range of the table (mm)

VX1060/VX1100

Parameters

Model No.		VX1060	VX1100
Image Senor		20MP CMOS	
Monitor		24" LCD (XGA:1920×1080)	
Acceptance Lens		Double Telecentric Lens	
Light	Ring Light	Four-segment illumination(White Light, Manual up & down)	
	Backlight	Telecentric transmission illumination(Green Light)	
F.O.V.		Φ60mm	Φ100mm
Repeatability of Image Meas.		±1μm	±1μm
Accuracy of Image Meas.*1		±2μm	±3μm
Software		VisionX	
Resolution		0.1μm	
Z axis travel range		35mm	
Loading Capacity		3kg	
Size(L×W×H)		500×280×670mm	
Weight		25kg	
Input		AC100-240V, 50/60Hz,2A , 300W	
Working Environment		Temp.10°C~35°C, Humidity 20~80%, Vibration<0.002g, Less than15Hz	

Remark : *1 In the focus position, the environment temperature is +20 °C ± 1.0 °C

VX4230S/VX4230

No stitching measurement, any position on object able.
Ideal for measurement of phone case and big accessories.

Parameters

Model No.	VX4230S	VX4230
Image Senor	25MP CMOS	12MP CMOS
Outside Monitor	24" LCD (XGA:1920×1080)	
Acceptance Lens	Double Telecentric Lens	
Transmission Illumination system	Parallel transmission illumination(White Light)	
F. O.V.	Φ230mm	200x150mm
Depth of Field	50mm	50mm
Working Distance	400mm	
Repeatability of Image Meas.	±2μm	
Accuracy of Image Meas.*1	±5μm	
Z axis travel range	65mm	100mm
Software	VisionX	
Resolution	0.1μm	
Loading Capacity	15kg	
Size(L×W×H)	830×605×2030mm	
Weight	375kg	370kg
Input	AC100-240V,50/60Hz, 4A,600W	
Working Environment	Temp.10°C~35°C, Humidity 20~80%, Vibration<0.002g, Less than15Hz	

Remark: *1 In the focus position, the environment temperature is +20 °C ± 1.0 °C

VX5100

No need workholder
Ideal for measurement of thread and shaft

Vision X software

One-Touch Button

Double Telecentric
Optical Lens

Motorized Object Table

Parameters

Model No.		VX5100
Image Senor		5MP CMOS
Outside Monitor		24" LCD (XGA :1920×1080)
Acceptance Lens		Double Telecentric Lens
Transmission Illumination system		Telecentric transmission illumination(Green Light)
F. O.V.		Φ100mm
Repeatability of Image Meas.		±2μm
Accuracy of Images Meas.*1		±5μm
Software		VisionX
Resolution		0.1μm
XY Motorized Object Table (Optional)	Rotational Speed	0.2 Revolution/s~2 Revolutions/s
	Diameter	Φ60mm
	Loading Capacity	3kg
Size(L×W×H)		(736×200×325)mm
Weight		25kg
Input		AC100-240V,50/60Hz,1.3A,150W
Working Environment		Temp.10 °C~35 °C, Humidity 20~80%, Vibration<0.002g, Less than15Hz

Remark: *1 In the focus position, the environment temperature is +20 °C ± 1.0 °C

VX3500 /VX8500

Parameters

Model No.			VX3500	VX8500
Image Senor			5MP CMOS	20MP CMOS
Monitor			24"LCD(XGA:1920x1080)	
Acceptance Lens			Double Telecentric Lens	
Light	Ring Light		Four-segment illumination(White Light/Green light)	
	BackLight		Telecentric transmission illumination(Green light)	
F.O.V.	Large Field		500x400mm(4 Angles R50)	
	High Precision		430x330mm	
Resolution			0.1μm	
Repeatability of Image Meas.	Wide Field	Without Stitching*1	±1μm	±1μm
		With Stitching*2	±2μm	±2μm
	High Precision	Without Stitching*1	±0.5μm	±0.5μm
		With Stitching*2	±1.5μm	±1.5μm
Accuracy of Image Meas.	Wide Field	Without Stitching*1	±5μm	±3μm
		With Stitching*2	±(7+0.005L)μm	±(5+0.005L)μm
	High Precision	Without Stitching*1	±2μm	±1.5μm
		With Stitching*2	±(4+0.005L)μm	±(3+0.005L)μm
Horizontal Rotary Unit (optional)	Rotation Angle		Range 360°, Resolution 0.01°	
	Rotation Speed		0.2~2rev/s	
	Max Diameter		Φ60mm	
Height Meas. (Optical Probe) (Optional)	Measuring Range(X*Y)		300*300mm	
	Max Depth/Diameter(H/Φ)		1.64	
	Dia. of Beam		Φ100μm(18μm Optional)	
	Resolution		0.25μm	
	Z Non-movement	Range(Z)	±2mm	
		Accuracy	±2μm	
	Z Movement	Range(Z)	200mm	
		Accuracy	±(6+0.01H)μm, H is Z movement height in mm	
XY Object Table	X Travel Range		410mm	
	Y Travel Range		310mm	
	Loading Capacity		20kg	
Z-Axis Travel Range			200mm(Motorized)	
Size(LxWxH)			(900x1340x1600)mm	
Weight			950kg	
Input			AC200-240V,50/60Hz, 10A,2500W	
Working Environment			Temp.10 °C~35 °C, Humidity 20~80%, Vibration<0.002g, Less than15Hz	

Remark: *1 In the focus position, the environment temperature is +20 °C ± 1.0 °C
*2 In the focus position, the environment temperature is +20 °C ± 1.0 °C, and the load on the table is 2 kg or less;
L is the moving range of the table (mm)

Hybrid series

Parameters

Model No.		Hybrid432	Hybrid562	Hybrid682
Travel range	X(mm)	400	500	600
	Y(mm)	300	600	800
	Z(mm)	200	200	200
Structure type		Column	Bridge	Bridge
Base material		Granite	Granite	Granite
Monitor		24" LCD (1920x1080)		
Resolution of glass scale		0.1μm		
Guide rail		Precision linear guide rail		
High-resolution electric zoom lens	Lens	13.3X Electric continuous zoom		
	Magnification*1	Optical zoom: 0.6~8.0X, Image zoom: 17~232X		
	Image sensor	HD colorful industrial camera		
	Single F.O.V	1mm×1mm~12mm×12mm		
	Meas. range	360×310mm	410×600mm	610×800mm
	Measurement accuracy (XY)*2	(1.8+L/200)μm	(2.0+L/200)μm	(2.2+L/200)μm
	Measurement accuracy (Z)*3	(2.8+L/200)μm		
	Backlight	Telecentric transmission Illumination (Green)		
	Ring Light	6 rings and 8 segments light (white light)		
	Coaxial light	LED light		
Double telecentric wide F.O.V optical lens	Lens Specifications	Φ100mm double telecentric lens		
	Size of Single F.O.V	90×90mm		
	Measuring range	460X330mm (4 Angles R50)	480X600mm (4 Angles R50)	580X800mm (4 Angles R50)
	Accuracy of Single F.O.V*4	±4μm		
	Stitching Accuracy*2	(4+L/200)μm	(5+L/200)μm	(6+L/200)μm
	Backlight	Telecentric transmission Illumination (Green)		
	Ring Light	4 segments illumination (White light, 75°), directional ring light (Green light, 0°)		
Max speed	XY(mm/s)	500		
	Z(mm/s)	100		
Size (mm)		860×1350×1670	1050×1520×1700	1150×1720×1700
Weight (kg)		650	1000	1300
Loading capacity (kg)		25kg	50kg	50kg
Power supply		2000W	2500W	2500W
Motion control		Servo control system		
Software		VisionX Pro		
Input		200-240VAC, 50/60Hz		
Working environment		Temperature 20°C±2°C, humidity 20~80%, vibration<0.002g, lower than 15HZ		

Remark: *1 Image magnification is approximate and depends on monitor size and resolution.

*2 In the focus position, the environment temperature is +20 °C ± 1.0 °C, and the load on the table is 5 kg or less; L is the moving range of the table in mm.

*3 It is mechanical accuracy, and actual accuracy depends on object surface where lens focuses.

*4 In the focus position, the environment temperature is +20 °C ± 1.0 °C