

# CNC VISION MEASURING SYSTEMS (STANDARD TYPE)



programmable segmented ring light (included)

NAVIGATION CAMERA



- Motorized zoom objective
- Granite body, high accuracy and stability
- Servo motors for X, Y, Z axis

## SPECIFICATION

Code	ISD-R320	ISD-R430	ISD-R540
Measuring range (X×Y×Z)	300×200×200mm	400×300×200mm	500×400×200mm
Stage size	620×380mm	720×480mm	750×600mm
Glass stage size	360×260mm	460×360mm	550×450mm
Resolution of X/Y/Z axis	0.5μm		
Accuracy of X/Y axis	≤(2.5+L/200)μm (L is the measuring length in mm)		≤(2.8+L/200)μm (L is the measuring length in mm)
Repeatability	2μm		
Objective	0.7X~5.0X (zoom)		
Working distance	58mm		
View field (diagonal length)	1.57~7.49mm		
Magnification	35X~165X (on 23.8" monitor)		
Camera	1/1.2" color CCD, 2.3M pixel		
Max. height of workpiece	200mm		
Illumination	surface	coaxial light, programmable segmented ring light	
	contour	adjustable LED light	
Operation system	Windows 10/11		
Max. weight of workpiece	35kg		
Drive method	automatic		
Environmental requirement	temperature: 20°C±5°C, relative humidity: 20%~80%, vibration: <0.002g, less than 15Hz		
Power supply	190~230V, 50Hz, 1500W		
Dimension (L×W×H)	620×780×1750mm	740×930×1750mm	900×1300×1800mm
Net weight	350kg	400kg	550kg

## STANDARD DELIVERY

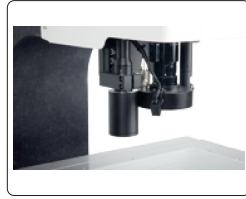
Main unit	1 pc
Dongle	1 pc
Software	1 pc
Lens with coaxial light	1 pc
Controller	1 pc
Computer	1 pc
Calibration glass chart	1 pc
Desk	1 pc
Clay	1 pc
Anti-dust cover	1 pc

## OPTIONAL ACCESSORY

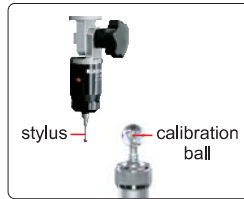
0.5X auxiliary objective	code: <b>ISD-K-OB05X</b> , working distance: 116mm magnification: 17.5~82.5X (on 23.8" monitor)
2X auxiliary objective	code: <b>ISD-K-OB2X</b> , working distance: 29mm magnification: 70~330X (on 23.8" monitor)
Spectral confocal sensor	code: <b>ISD-K-SCS</b> (must be installed in factory)
Laser probe	code: <b>ISD-K-LASER</b> (must be installed in factory)
Probe	code: <b>ISD-K-PROBE</b> , includes $\varnothing 1\text{mm}$ styli and $\varnothing 2\text{mm}$ styli, $\varnothing 20\text{mm}$ calibration ball
Line laser sensor	code: <b>ISD-K-LINE</b> (must be installed in factory)
Line profile software	code: <b>ISD-K-LP</b>
Gear software	code: <b>ISD-K-GEAR</b>
Thread software	code: <b>ISD-K-THREAD</b>
Stitching software	code: <b>ISD-K-STITCHING</b>
Office software	code: <b>7313-OFFICE</b>



laser probe (optional)  
measuring accuracy is 4 $\mu\text{m}$



spectral confocal sensor (optional)  
measuring accuracy is 5 $\mu\text{m}$



probe (optional), includes  
 $\varnothing 1\text{mm}$  and  $\varnothing 2\text{mm}$  styli,  
 $\varnothing 20\text{mm}$  calibration ball,  
measuring accuracy is 5 $\mu\text{m}$

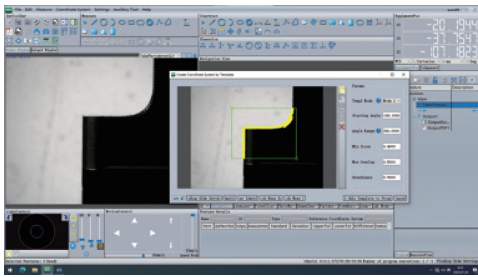


line laser sensor (optional)  
quick measurement of flatness,  
height, measuring accuracy is 10 $\mu\text{m}$

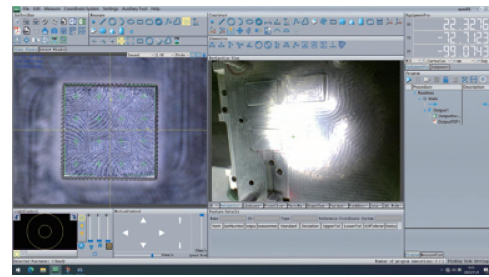
## SOFTWARE (INCLUDED)

The screenshot displays the software interface with several key components labeled:

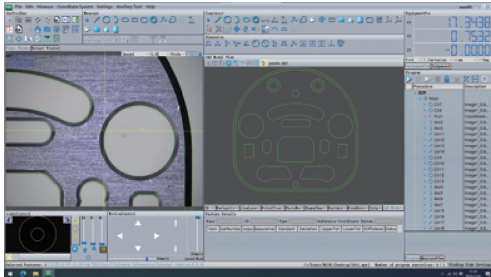
- real-time image:** Points to the central camera view showing a calibration chart.
- operation tools:** Points to the top toolbar containing various measurement and navigation icons.
- X/Y/Z axis:** Points to the coordinate system data panel on the right, showing values for X0, Y0, and Z0.
- measuring objects:** Points to the 'Procedure' and 'Description' table in the bottom right panel.
- light controller:** Points to the 'LightControl' panel at the bottom left.
- movement controller:** Points to the 'MotionControl' panel at the bottom center.
- measuring results:** Points to the 'Feature Details' table at the bottom, which lists items, sizes, and tolerances.



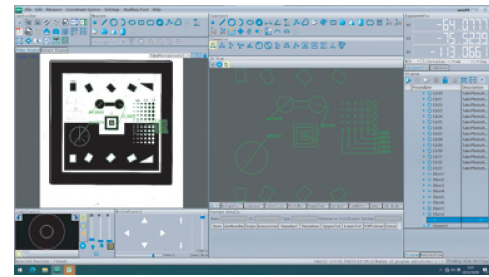
template assisted positioning function (included)  
when the program runs repeatedly, as long as the positioning feature appears within the field of view, automatic measurement will be performed



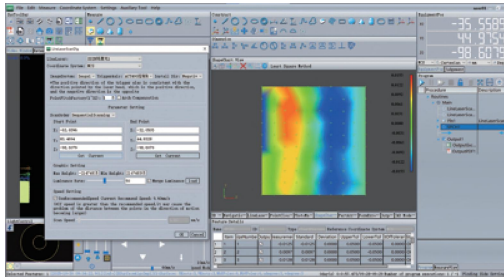
multi point autofocus function (included)  
a single autofocus operation acquires height information of multi points, enabling efficient height measurement and flatness measurement



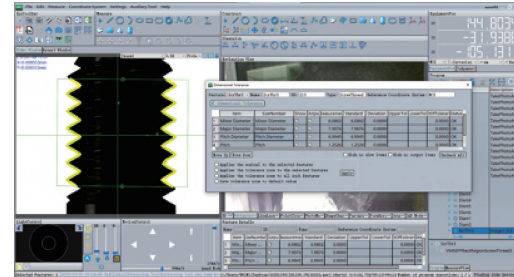
CAD import programming function (included)  
import CAD drawings for quick programming



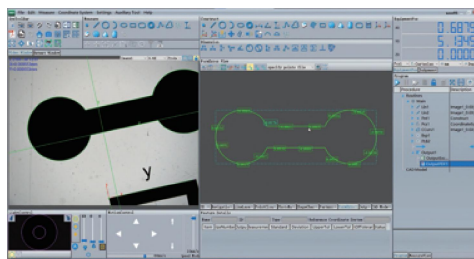
stitching software (optional)  
stitching measurement for workpieces out of the field of view



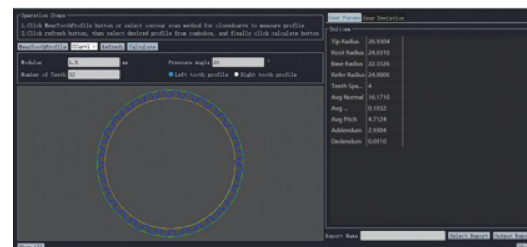
line laser sensor (optional)  
high measurement efficiency, capturing all point data along a line segment in a single scan



thread software (optional)  
capture thread images, extract features through edge detection and contour fitting algorithms, and calculate parameters



line profile software (optional)  
import the theoretical profile model and calculate the profile measurement results



gear software (optional)  
non-contact measurement technology based on optical imaging for detecting critical dimensions of gears