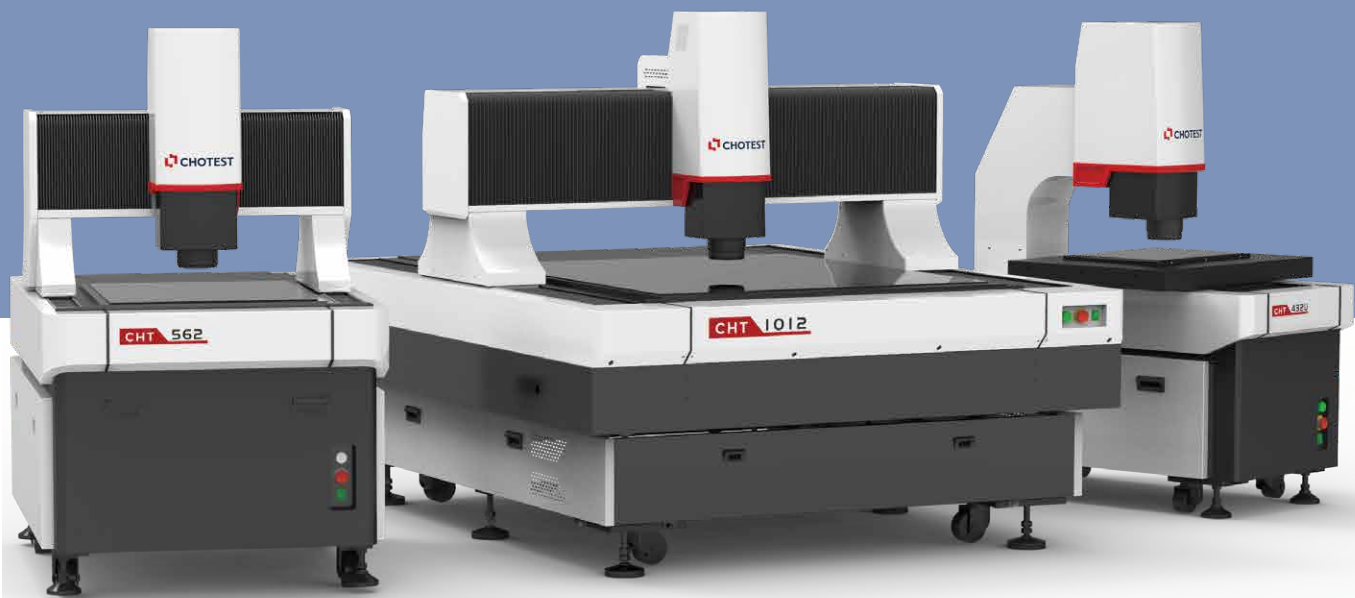


# Automatic Video Measuring Machines CHT Series

Precision, Versatile

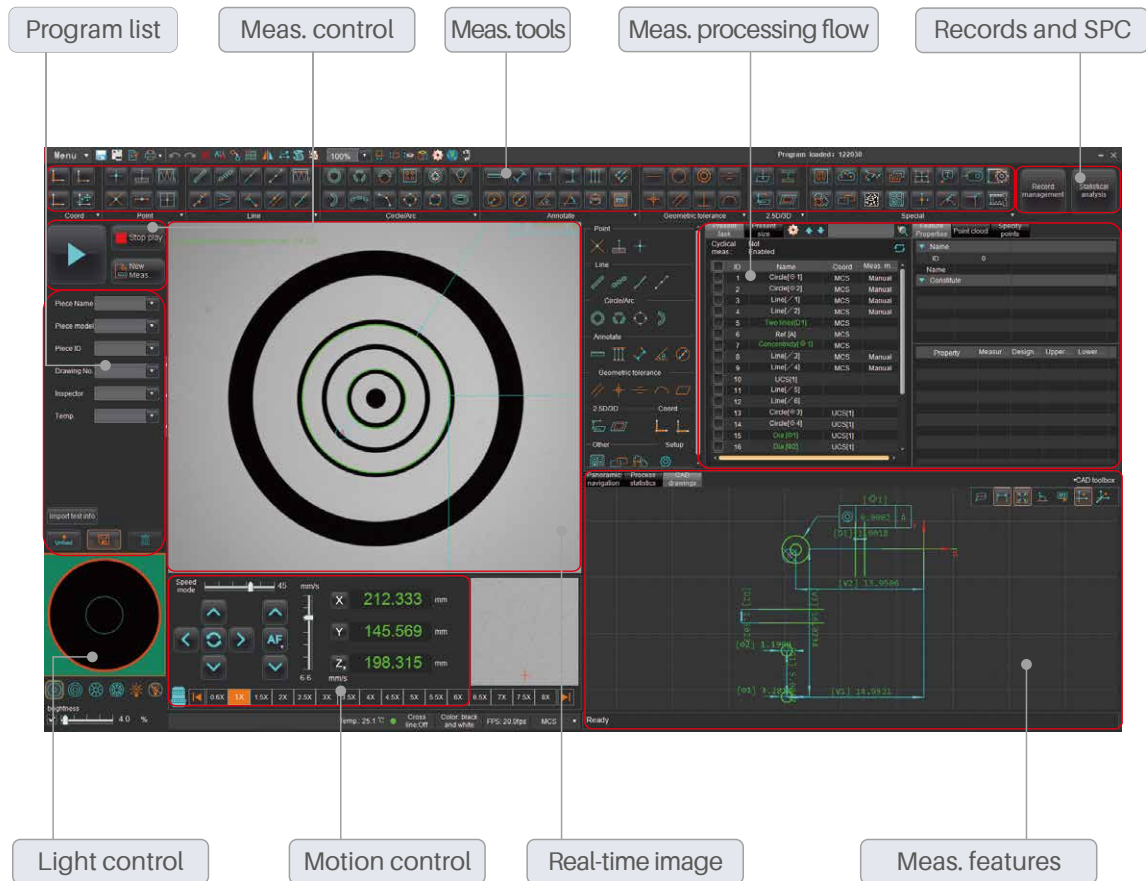


## Description

Automatic video measuring machines CHT series covers different measurement ranges and offers powerful functionality. It can perform precise measurements of surface dimensions, contours, angles, positions, and geometric tolerances for various complex parts.

Automatic video measuring machines CHT series can be used in machinery, electronics, mold, injection molding, hardware, rubber, low-voltage electrical appliances, magnetic materials, precision stamping, connection Plug-ins, connectors, terminals, mobile phones, home appliances, printed circuit boards, medical equipment, clocks, knives, measurement and testing, etc.

## Software Interface



User-Friendly Operation Interface

## Auto data export

- Support exporting data to designated excel file according to designated template in real time.
- Can output Excel, Word, PDF, TXT reports and AutoCAD files.
- Support Q-DAS transmission according to designated format.
- Support data exchanging via HTTP or socket protocol.
- Output SPC analysis report, which includes statistical values (such as CA, PPK, CPK, PP, etc.) and control charts (such as mean and range charts, mean and standard deviation charts, median and range charts, single value and moving range chart).



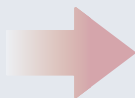
Easy to operate

With user-friendly software,  
anyone can be trained to use it quickly



Programming

Save program



Place objects

Place test objects  
on object table



Batch meas.

Measure all features  
by one-click

Measurement function



Extraction Tools

Scanning to extract edge points, multi-segment edge point extraction, circular edge point extraction, ellipse extraction, frame selection to extract contour lines, focus points, closest points, etc.



Annotation Tools

Point, line, circle (center coordinates, radius, diameter), arc, center, angle, distance, line width, hole position, aperture, number of holes, distance from hole to hole, distance from hole to edge, distance from arc center to hole, the distance from the center of the arc to the side, the distance from the high point of the arc to the high point of the arc, and the distance from the intersection to the intersection, etc.



Construction

Intersection point, center point, extreme point, end point, line connecting two points, parallel line, perpendicular line, tangent line, bisector, Centerlines, line segment fusion, radius circle, three-line inscribed circle, two-line radius inscribed circle, etc.



GD & T

Straightness, roundness, position, parallelism, symmetry, perpendicularity, concentricity, profile and position tolerance evaluation.



Coordinate

Instrument coordinate system, point to line, point to point, line to line and other workpiece coordinate systems; image registration coordinate system; Can translate, rotate, manually adjust the coordinate system.



Special Tools

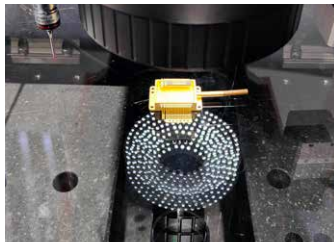
R angle, horizontal pitch, circumferential pitch, screen, slot, contour comparison, spring, O-ring and other special tools for rapid measurement.



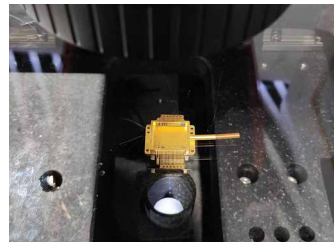
Support tolerance batch setting, scale classification, and color custom management.

## Flexible shooting and precise calculation

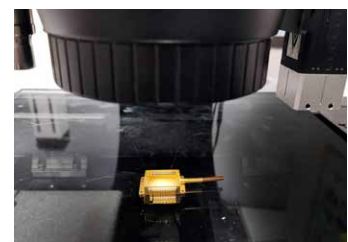
Support segmental programming control of surface light, transmitted light and coaxial light , automatically identify the measurement position, and obtain uniform and stable measurement results every time.



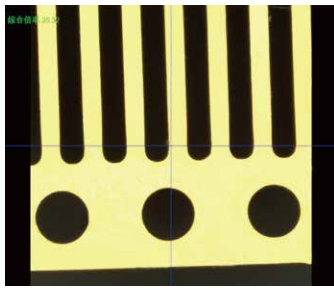
Ring light



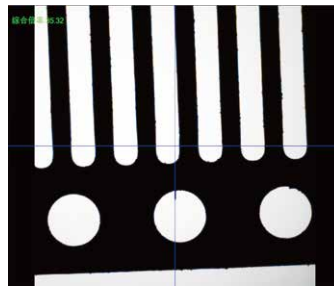
Back light



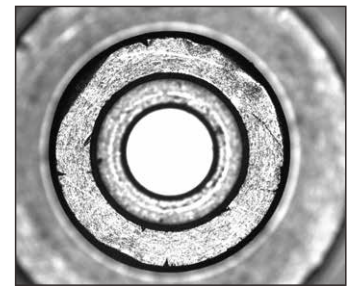
Coaxial light



Surface features are clear



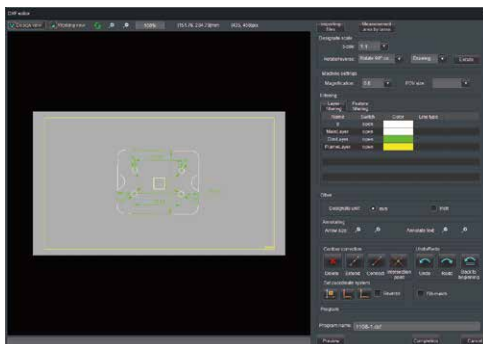
Easy to measure profile features



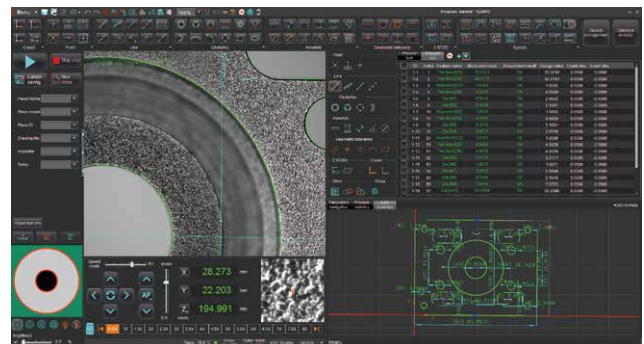
Measure diameter of blind hole

## Auto batch measurement

- The program matches the coordinate system of the workpiece, automatically executes the measurement process, supports the import of CAD drawings and Gerber drawings, and coordinates system matching measurement;
- In the CNC fixed coordinate system mode, batch measurement can be performed quickly and accurately.



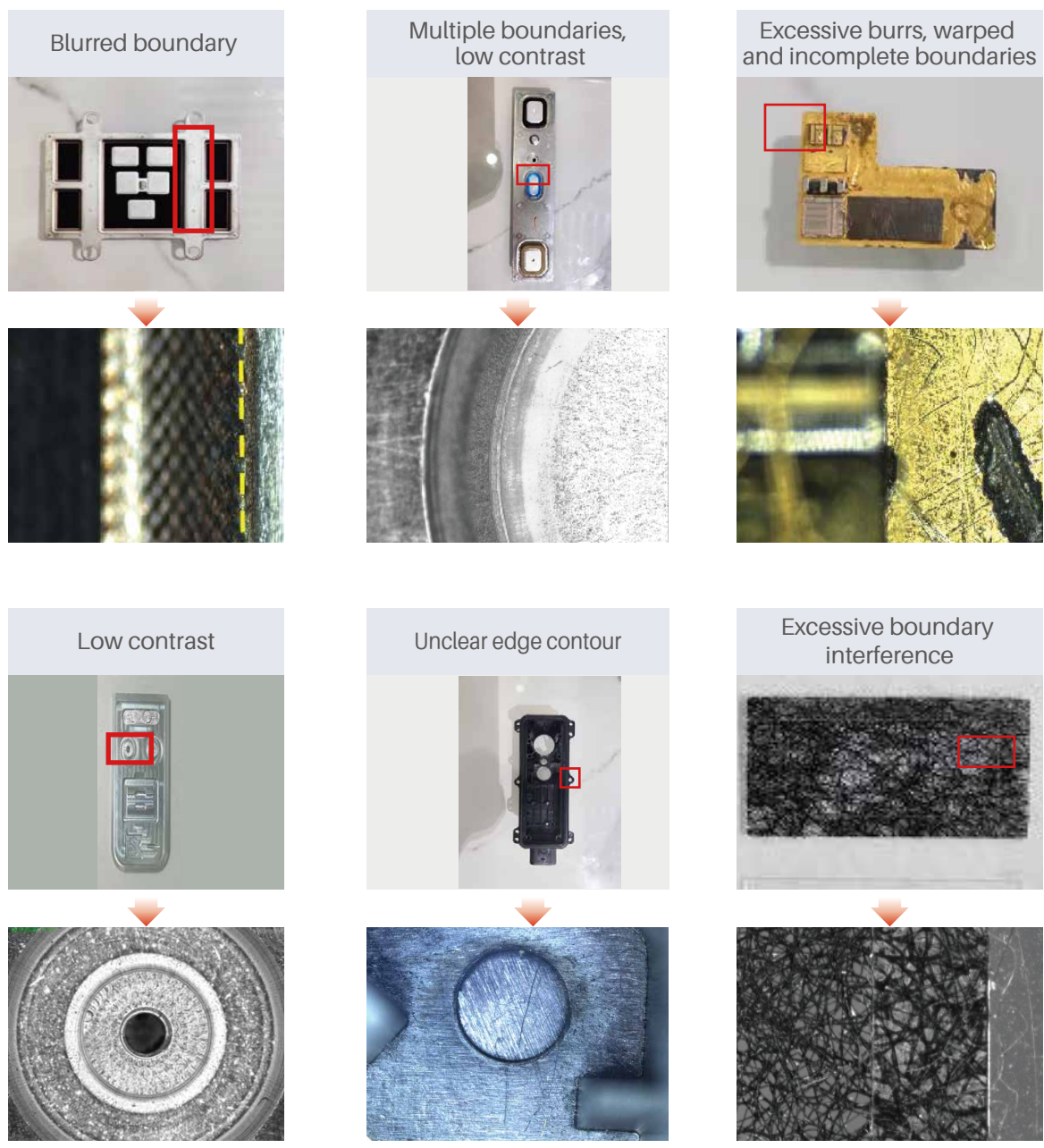
Import CAD drawing to build a program



CNC batch measurement

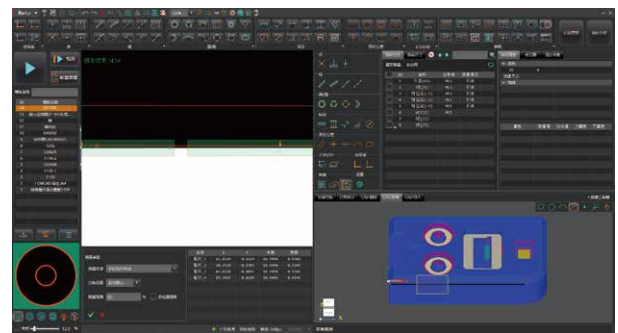
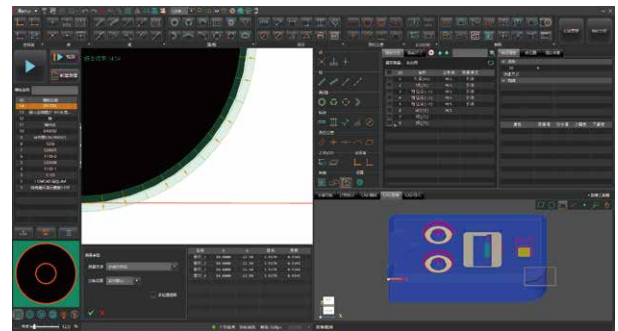
# Intelligent AI edge-finding technology

The AI measurement software has powerful algorithms and strong training capabilities. It can measure and store images at the same time, continuously optimize and iterate the model A, and can cope with scenarios where traditional measurement methods cannot automatically measure, such as warped and incomplete boundaries, blurred contours, many interferences on boundaries, and blurred boundaries. Compared to traditional manual measurement, it significantly enhances efficiency and repeatability.



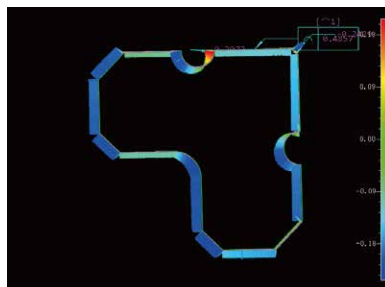
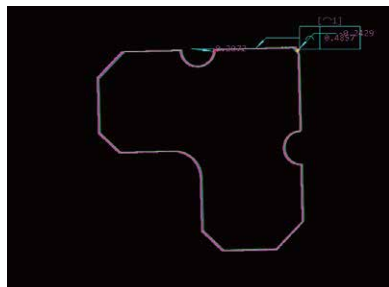
## 3D offline programming

- Without an actual VMM, the programming of measurement programs can be completed on 3D images, effectively improving the practical efficiency of using VMM.
- The interface is intuitive, easy to learn and operate.



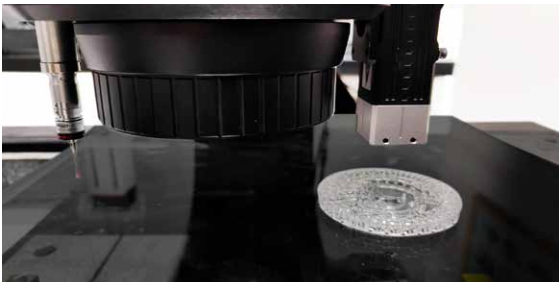
## Profile tolerance

Multiple profile-extracting tools can be used to extract profile with complex edges, as well as import a set of profile points at specified locations for extraction. Can evaluate profile by non reference, single reference, and double references. Errors are displayed with color bands, which are intuitive and clear.



Various accessories

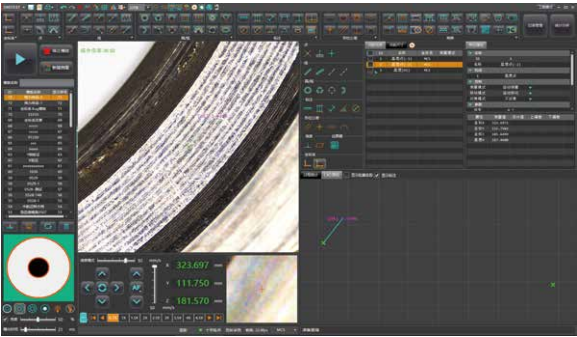
- Equips a touch probe or optical probe to measure height and flatness and realize 2.5D space measurement.
- Supports external input from digital calipers and height gauges.
- Supports label printers.



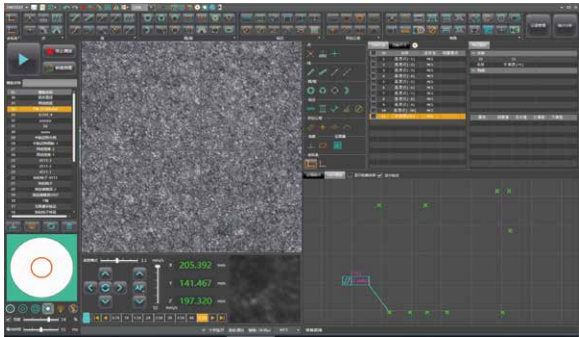
Height measurement



Flatness measurement



Height result



Flatness result

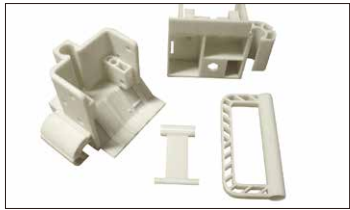
Application



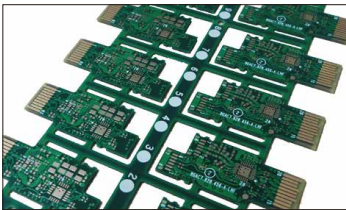
Phone accessories



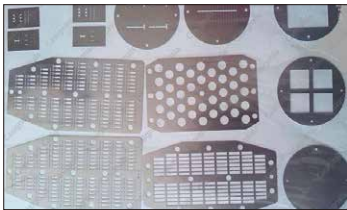
Machining parts



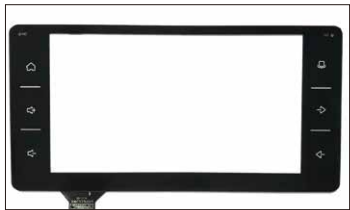
Plastic injection parts



Rigid PCB



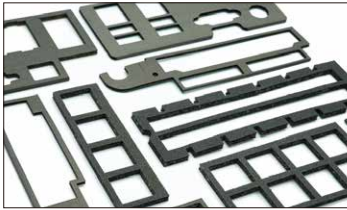
Mask board



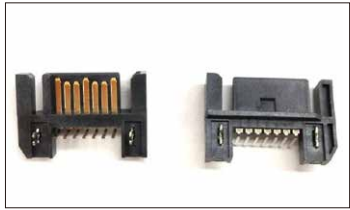
Car monitor frame



Small metal parts



Die cutting



Connectors

## Parameters

| Model No.                                     |                         | CHT322A                                                           | CHT432A                                    |
|-----------------------------------------------|-------------------------|-------------------------------------------------------------------|--------------------------------------------|
| Travel Range                                  | X                       | 300 mm                                                            | 400 mm                                     |
|                                               | Y                       | 200 mm                                                            | 300 mm                                     |
|                                               | Z                       | 200 mm                                                            | 200 mm                                     |
| Structure Type                                |                         | Column                                                            |                                            |
| Base Material                                 |                         | Granite                                                           |                                            |
| Monitor                                       |                         | 24" LCD(1920×1080)                                                |                                            |
| Image Sensor                                  |                         | 1.6MP High definition colorful industrial camera                  |                                            |
| Resolution of Glass Scale                     |                         | 0.5μm                                                             |                                            |
| Lens                                          |                         | 6.5X manual lens                                                  |                                            |
| Magnification                                 |                         | Optical Zoom: 0.7X~4.5X, Image Zoom: 32~206X                      |                                            |
| Light                                         | Back Light              | Telecentric transmission illumination                             |                                            |
|                                               | Ring Light              | 5 rings and 8 segments (256 levels) surface light                 |                                            |
|                                               | Coaxial Light           | LED(Optional)                                                     |                                            |
| Accuracy*1                                    | X/Y                     | (2.5+L/200)μm                                                     |                                            |
|                                               | X⊥Y                     | (3.0+L/200)μm                                                     |                                            |
|                                               | Z*2                     | (5.0+L/200)μm                                                     |                                            |
| Height Meas.<br>(Optical Probe)<br>(Optional) | Measuring Range(X*Y)    |                                                                   | 200*200mm      300*300mm                   |
|                                               | Max Depth/Diameter(H/Φ) |                                                                   | 1.64                                       |
|                                               | Dia. of Beam            |                                                                   | Φ100μm(Φ18μm optional)                     |
|                                               | Resolution              |                                                                   | 0.25μm                                     |
|                                               | Z<br>Non-movement       | Range(Z)                                                          | ±2mm                                       |
|                                               |                         | Accuracy                                                          | ±2μm                                       |
|                                               | Z Movement              | Range(Z)                                                          | 200mm                                      |
|                                               |                         | Accuracy                                                          | ±(6+0.01H)μm, H is Z movement height in mm |
| Max Speed                                     | XY                      |                                                                   | 500 mm/s                                   |
|                                               | Z                       |                                                                   | 200 mm/s                                   |
| Size                                          |                         | 760x1220x1670mm                                                   | 860x1350x1670mm                            |
| Weight                                        |                         | 600 kg                                                            | 650 kg                                     |
| Loading Capacity                              |                         | 25 kg                                                             |                                            |
| Power                                         |                         | 1500W                                                             | 2000W                                      |
| Sensor Option                                 |                         | (1) Touch probe; (2) Optical probe                                |                                            |
| Motion Control                                |                         | Servo control system                                              |                                            |
| Software                                      |                         | VisionX                                                           |                                            |
| Input                                         |                         | AC200~240V, 50/60Hz                                               |                                            |
| Working Environment                           |                         | Temp. 20°C ±2°C, Humidity 20~80%, Vibration<0.002g, Less than15Hz |                                            |

Note:

\*1 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.

\*2 It is mechanical accuracy, and actual accuracy depends on object surface where lens focuses.

Parameters

| Model No.                                     |                         | CHT322U                                                         | CHT432U                                    |
|-----------------------------------------------|-------------------------|-----------------------------------------------------------------|--------------------------------------------|
| Travel Range                                  | X                       | 300 mm                                                          | 400 mm                                     |
|                                               | Y                       | 200 mm                                                          | 300 mm                                     |
|                                               | Z                       | 200 mm                                                          | 200 mm                                     |
| Structure Type                                |                         | Column                                                          |                                            |
| Base Material                                 |                         | Granite                                                         |                                            |
| Monitor                                       |                         | 24" LCD(1920×1080)                                              |                                            |
| Image Sensor                                  |                         | 1.6MP High definition colorful industrial camera                |                                            |
| Resolution of Glass Scale                     |                         | 0.1μm                                                           |                                            |
| Lens                                          |                         | 8.3X motorized lens                                             |                                            |
| Magnification                                 |                         | Optical Zoom: 0.6~5.0X, Image Zoom: 27~229X                     |                                            |
| Light                                         | Back Light              | Telecentric transmission illumination                           |                                            |
|                                               | Ring Light              | 6 rings and 8 segments (256 levels) surface light               |                                            |
|                                               | Coaxial Light           | LED                                                             |                                            |
| Accuracy <sup>*1</sup>                        | X/Y                     | (2.0+L/200)μm                                                   |                                            |
|                                               | X⊥Y                     | (3.0+L/200)μm                                                   |                                            |
|                                               | Z <sup>*2</sup>         | (5.0+L/200)μm                                                   |                                            |
| Height Meas.<br>(Optical Probe)<br>(Optional) | Measuring Range(X*Y)    |                                                                 | 200*200mm      300*300mm                   |
|                                               | 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)                                                        | 200mm                                      |
|                                               |                         | Accuracy                                                        | ±(6+0.01H)μm, H is Z movement height in mm |
| Max Speed                                     | XY                      |                                                                 | 500 mm/s                                   |
|                                               | Z                       |                                                                 | 200 mm/s                                   |
| Size                                          |                         | 760×1220×1670mm                                                 | 860×1350×1670mm                            |
| Weight                                        |                         | 600kg                                                           | 650 kg                                     |
| Loading Capacity                              |                         | 25kg                                                            |                                            |
| Power                                         |                         | 1500W                                                           | 2000W                                      |
| Sensor Option                                 |                         | (1) Touch probe; (2) Optical probe                              |                                            |
| Motion Control                                |                         | Servo control system                                            |                                            |
| Software                                      |                         | VisionX                                                         |                                            |
| Input                                         |                         | AC200~240V, 50/60Hz                                             |                                            |
| Working Environment                           |                         | Temp. 20℃ ±2℃, Humidity 20~80%, Vibration<0.002g, Less than15Hz |                                            |

Note:  
\*1 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.  
\*2 It is mechanical accuracy, and actual accuracy depends on object surface where lens focuses.

## Parameters

| Model No.                                     |                         |          | CHT433S                                                                           | CHT432S          |
|-----------------------------------------------|-------------------------|----------|-----------------------------------------------------------------------------------|------------------|
| Travel Range                                  | X                       |          | 400 mm                                                                            | 400 mm           |
|                                               | Y                       |          | 300 mm                                                                            | 300 mm           |
|                                               | Z                       |          | 300 mm                                                                            | 200 mm           |
| Structure Type                                |                         |          | Column                                                                            |                  |
| Base Material                                 |                         |          | Granite                                                                           |                  |
| Monitor                                       |                         |          | 24" LCD(1920×1080)                                                                |                  |
| Image Sensor                                  |                         |          | 5MP High definition colorful industrial camera                                    |                  |
| Resolution of Glass Scale                     |                         |          | 0.1μm                                                                             |                  |
| Lens                                          |                         |          | 13.3X motorized lens                                                              |                  |
| Magnification <sup>*1</sup>                   |                         |          | Optical Zoom: 0.6~8.0X, Image Zoom: 17~380X                                       |                  |
| Light                                         | Back Light              |          | Telecentric transmission illumination                                             |                  |
|                                               | Ring Light              |          | 6 rings and 8 segments (256 levels) surface light(or RGB surface light, Optional) |                  |
|                                               | Coaxial Light           |          | LED                                                                               |                  |
| Accuracy <sup>*1</sup>                        | X/Y                     |          | (2.0+L/250)μm                                                                     |                  |
|                                               | X⊥Y                     |          | (3.0+L/250)μm                                                                     |                  |
|                                               | Z <sup>*2</sup>         |          | (4.5+L/200)μm                                                                     |                  |
| Fly-Shooting Mode                             |                         |          | Support                                                                           |                  |
| Navigation Camera                             |                         |          | Support                                                                           |                  |
| Sensor Option                                 |                         |          | (1)Touch probe; (2)Optical probe                                                  |                  |
| Max Speed                                     | XY                      |          | 500 mm/s                                                                          |                  |
|                                               | Z                       |          | 200 mm/s                                                                          |                  |
| Height Meas.<br>(Optical Probe)<br>(Optional) | Measuring Range(X*Y)    |          | 300*300mm                                                                         | 300*300mm        |
|                                               | 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) | 200mm                                                                             |                  |
|                                               |                         | Accuracy | ±(6+0.01H)μm, H is Z movement height in mm                                        |                  |
| Size                                          |                         |          | 860×1350×1800 mm                                                                  | 860×1350×1670 mm |
| Weight                                        |                         |          | 750 kg                                                                            | 650 kg           |
| Loading Capacity                              |                         |          | 25kg                                                                              |                  |
| Power                                         |                         |          | 2000W                                                                             | 2000W            |
| Motion Control                                |                         |          | Servo control system                                                              |                  |
| Software                                      |                         |          | VisionX                                                                           |                  |
| Input                                         |                         |          | AC200~240V, 50/60Hz                                                               |                  |
| Working Environment                           |                         |          | Temp. 20°C ±2°C, Humidity 20~80%, Vibration<0.002g, Less than15Hz                 |                  |

Note:

\*1 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 (mm)

\*2 It is mechanical accuracy, and actual accuracy depends on object surface where lens focuses.

Parameters

| Model No.                                     |                         | CHT452                                                           | CHT562                                     | CHT682         |
|-----------------------------------------------|-------------------------|------------------------------------------------------------------|--------------------------------------------|----------------|
| Travel Range                                  | X                       | 400 mm                                                           | 500 mm                                     | 600 mm         |
|                                               | Y                       | 500 mm                                                           | 600 mm                                     | 800 mm         |
|                                               | Z                       | 200 mm                                                           | 200 mm                                     | 200 mm         |
| Structure Type                                |                         | Bridge                                                           |                                            |                |
| Base Material                                 |                         | Granite                                                          |                                            |                |
| Monitor                                       |                         | 24" LCD(1920×1080)                                               |                                            |                |
| Image Sensor                                  |                         | 1.6MP High definition colorful industrial camera                 |                                            |                |
| Resolution of Glass Scale                     |                         | 0.1μm                                                            |                                            |                |
| Lens                                          |                         | 8.3X motorized lens                                              |                                            |                |
| Magnification                                 |                         | Optical Zoom: 0.6~5.0X, Image Zoom: 27~229X                      |                                            |                |
| Light                                         | Back Light              | Telecentric transmission illumination                            |                                            |                |
|                                               | Ring Light              | 6 rings and 8 segments (256 levels) surface light                |                                            |                |
|                                               | Coaxial Light           | LED                                                              |                                            |                |
| Accuracy*1                                    | X/Y                     | (2.5+L/200)μm                                                    |                                            |                |
|                                               | X⊥Y                     | (3.0+L/200)μm                                                    |                                            |                |
|                                               | Z*2                     | (4.5+L/200)μm                                                    |                                            |                |
| Max Speed                                     | XY                      | 500 mm/s                                                         |                                            |                |
|                                               | Z                       | 200 mm/s                                                         |                                            |                |
|                                               | Measuring Range(X*Y)    | 300*500mm                                                        | 400*600mm                                  | 500*800mm      |
| Height Meas.<br>(Optical Probe)<br>(Optional) | 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)                                                         | 200mm                                      |                |
|                                               |                         | Accuracy                                                         | ±(6+0.01H)μm, H is Z movement height in mm |                |
|                                               | Size(mm)                | 1050×1400×1700                                                   | 1100×1600×1700                             | 1200×2000×1700 |
| Weight                                        |                         | 1400 kg                                                          | 1500 kg                                    | 2000 kg        |
| Loading Capacity                              |                         | 25kg                                                             |                                            |                |
| Power                                         |                         | 2000W                                                            | 2500W                                      | 2500W          |
| Sensor Option                                 |                         | (1)Touch probe; (2)Optical probe                                 |                                            |                |
| Motion Control                                |                         | Servo control system                                             |                                            |                |
| Software                                      |                         | VisionX                                                          |                                            |                |
| Input                                         |                         | AC200~240V, 50/60Hz                                              |                                            |                |
| Working Environment                           |                         | Temp. 20°C ±2°C Humidity 20~80%, Vibration<0.002g, Less than15Hz |                                            |                |

Note:  
\*1 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.  
\*2 It is mechanical accuracy, and actual accuracy depends on object surface where lens focuses.

## Parameters

| Model No.                                     |                         |          | CHT0810                                                         | CHT1012        | CHT1216        |
|-----------------------------------------------|-------------------------|----------|-----------------------------------------------------------------|----------------|----------------|
| Travel Range                                  | X                       |          | 800 mm                                                          | 1000 mm        | 1200mm         |
|                                               | Y                       |          | 1000 mm                                                         | 1200 mm        | 1600mm         |
|                                               | Z                       |          | 200 mm                                                          | 200 mm         | 200 mm         |
| Structure Type                                |                         |          | Bridge                                                          |                |                |
| Base Material                                 |                         |          | Granite                                                         |                |                |
| Monitor                                       |                         |          | 24" LCD(1920×1080)                                              |                |                |
| Image Sensor                                  |                         |          | 1.6MP High definition colorful industrial camera                |                |                |
| Resolution of Glass Scale                     |                         |          | 0.1μm                                                           |                |                |
| Lens                                          |                         |          | 8.3X motorized lens(13.3X Optional)                             |                |                |
| Magnification                                 |                         |          | Optical Zoom: 0.6~5.0X, Image Zoom: 27~229X                     |                |                |
| Light                                         | Back Light              |          | Telecentric transmission illumination                           |                |                |
|                                               | Ring Light              |          | 6 rings and 8 segments (255 levels) surface light               |                |                |
|                                               | Coaxial Light           |          | LED                                                             |                |                |
| Accuracy*1                                    | X/Y                     |          | (3.0+L/200)μm                                                   | (3.5+L/200)μm  |                |
|                                               | X⊥Y                     |          | (4.0+L/200)μm                                                   | (4.5+L/200)μm  |                |
|                                               | Z*2                     |          | (4.5+L/200)μm                                                   | (4.5+L/200)μm  |                |
| Max Speed                                     | XY                      |          | 500 mm/s                                                        |                |                |
|                                               | Z                       |          | 200 mm/s                                                        |                |                |
|                                               | Measuring Range(X*Y)    |          | 700*1000mm                                                      | 900*1200mm     | 1100*1500mm    |
| Height Meas.<br>(Optical Probe)<br>(Optional) | 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) | 200mm                                                           |                |                |
|                                               |                         | Accuracy | ±(6+0.01H)μm, H is Z movement height in mm                      |                |                |
|                                               | Size(mm)                |          |                                                                 | 1750×2220×1700 | 1830×2300×1700 |
| Weight                                        |                         |          | 2900 kg                                                         | 3600 kg        | 4200kg         |
| Loading Capacity                              |                         |          | 50kg                                                            |                |                |
| Power                                         |                         |          | 2500W                                                           | 2500W          | 2500W          |
| Sensor Option                                 |                         |          | (1)Touch probe; (2)Optical probe                                |                |                |
| Motion Control                                |                         |          | Servo control system                                            |                |                |
| Software                                      |                         |          | VisionX                                                         |                |                |
| Input                                         |                         |          | AC200-240V, 50/60Hz                                             |                |                |
| Working Environment                           |                         |          | Temp. 20℃ ±2℃, Humidity 20~80%, Vibration<0.002g, Less than15Hz |                |                |

Note:

\*1 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.

\*2 It is mechanical accuracy, and actual accuracy depends on object surface where lens focuses.

# Automatic Video Measuring Machines

## Novator Series



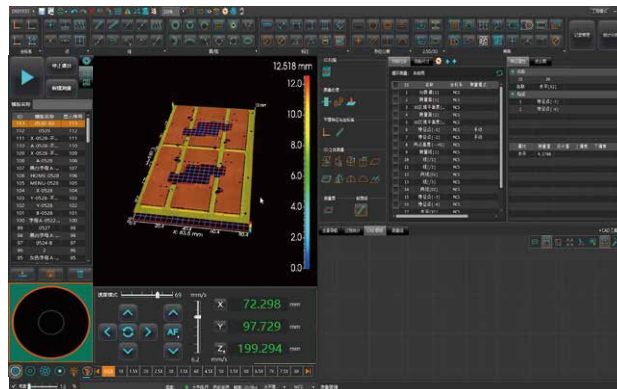
### Functions

1. Measurement tools: Extracting edge points by scanning, extracting edge points by multi-segment, extracting edge points by circle, ellipse extraction, extracting contour line by frame selection, focus point, nearest points, etc.
2. Measure geometric features: Point, line, circle (center coordinate, radius, diameter), arc, center, angle, distance, line width, hole site, aperture, number of holes, distance from hole to hole, hole to edge, distance from the arc center to the hole, distance from the arc center to the edge, distance from the arc high point to the other arc high point, distance from the intersection to the intersection, etc.
3. Construction features: Intersection, center point, extreme point, endpoint, two-point connection, parallel line, perpendicular line, tangent, bisector, center line, line segment fusion, drawing circle by radius, drawing inscribed circle among three lines, drawing inscribed circle by two lines & radius, etc.
4. Geometric tolerance: Straightness, roundness, contour, position, parallelism, symmetry, perpendicularity, concentricity, profile and position tolerance evaluation.

## Features



Replaceable RGB surface light



Integrate 3D topography measurement

### ■ Stable moving stage, high measurement accuracy

1. Precision marble body, good stability and high precision.
2. Precision linear slide rail and servo control system, smooth and silent movement.
3. Three axes x/y/z programmable, realize batch inspection for complex features.

### ■ Laser scanning imaging, 3D composite measurement

1. Support spot-type laser probe to scan profile in height direction.
2. Support 3D line-scanning laser probe.
3. VisionX supports a variety of contour measurements and 3D spatial measurements, seamlessly connecting 2D/3D hybrid measurements.

### ■ Strobe lighting source, high speed fly-shooting

1. Equipped with strobe lighting source, support strobe and normal lighting modes.
2. Support fly-shooting measurement mode, measurement efficiency is increased by 5~10 times.
3. Support the stitching measurement function of the flash measuring machines.

### ■ Replaceable RGB surface light, independent lifting up and down

1. RGB and white light can be replaced to adapt to a variety of complex colors and material surfaces.
2. The surface light can be lifted independently to better observe the sample surface.
3. Support programmable back light, coaxial light and 6 rings and 8 segments of the surface light.

### ■ Automatic and fast batch measurement

1. The program matches the workpiece coordinate system and automatically executes the measurement process.
2. Support CAD drawing and Gerber drawing import.
3. Can execute quickly and accurate batch measurement in CNC fixed coordinate system mode.

### ■ Easy operation, hassle-free

1. Equipped with a large FOV navigation camera for fast workpiece positioning.
2. Mechanical lens anti-collision function
3. User-friendly operation interface, anyone can easily set and measure.

## Parameters

| Model No.                   |                     | Novator333                                                                        | Novator342       | Novator562       | Novator682       |
|-----------------------------|---------------------|-----------------------------------------------------------------------------------|------------------|------------------|------------------|
| Travel Range                | X                   | 300 mm                                                                            | 300 mm           | 500 mm           | 600 mm           |
|                             | Y                   | 300 mm                                                                            | 400 mm           | 600 mm           | 800 mm           |
|                             | Z                   | 300 mm                                                                            | 200 mm           | 200 mm           | 200 mm           |
| Structure Type              |                     | Bridge                                                                            |                  |                  |                  |
| Base Material               |                     | Granite                                                                           |                  |                  |                  |
| Monitor                     |                     | 24" LCD(1920×1080)                                                                |                  |                  |                  |
| Image Sensor                |                     | 5MP High definition colorful industrial camera                                    |                  |                  |                  |
| Resolution of Glass Scale   |                     | 0.1μm                                                                             |                  |                  |                  |
| Lens                        |                     | 13.3X motorized lens                                                              |                  |                  |                  |
| Magnification               |                     | Optical Zoom: 0.6X~8.0X, Image Zoom: 17X~380X                                     |                  |                  |                  |
| F.O.V.                      |                     | Max: 13x11mm; Min:1.0x0.8mm                                                       |                  |                  |                  |
| Light                       | Back Light          | Telecentric transmission illumination                                             |                  |                  |                  |
|                             | Ring Light          | 6 rings and 8 segments (256 levels) surface light(or RGB surface light, Optional) |                  |                  |                  |
|                             | Coaxial Light       | LED                                                                               |                  |                  |                  |
| Accuracy*1                  | X/Y                 | (1.6+L/250)μm                                                                     | (1.6+L/250)μm    | (1.8+L/250)μm    | (2.0+L/250)μm    |
|                             | X⊥Y                 | (2.0+L/250)μm                                                                     | (2.0+L/250)μm    | (2.2+L/200)μm    | (2.5+L/200)μm    |
|                             | Z                   | (3.0+L/200)μm                                                                     | (3.0+L/200)μm    | (3.0+L/200)μm    | (3.0+L/200)μm    |
| 3D Scanning*2<br>(Optional) | Z Measuring Range*3 | 5mm                                                                               |                  |                  |                  |
|                             | Scanning Width*4    | 30mm                                                                              |                  |                  |                  |
|                             | Repeatability*5     | ±1μm                                                                              |                  |                  |                  |
|                             | Z Accuracy*5        | ±0.1%F.S.                                                                         |                  |                  |                  |
|                             | Scanning Speed      | 10~80mm/s                                                                         |                  |                  |                  |
| Fly-Shooting Mode           |                     | Support                                                                           |                  |                  |                  |
| Navigation Camera           |                     | Support                                                                           |                  |                  |                  |
| Sensor Options              |                     | (1)Touch probe; (2)Optical probe                                                  |                  |                  |                  |
| Max Speed                   | XY                  | 500 mm/s                                                                          |                  |                  |                  |
|                             | Z                   | 200 mm/s                                                                          |                  |                  |                  |
| Size                        |                     | 1300×900×1920mm                                                                   | 1000×1380×1700mm | 1100×1820×1700mm | 1200×2030×1700mm |
| Weight                      |                     | 1160kg                                                                            | 1200kg           | 1650kg           | 2000kg           |
| Loading Capacity            |                     | 25kg                                                                              | 25kg             | 50kg             | 50kg             |
| Power                       |                     | 2000W                                                                             | 2000W            | 2500W            | 2500W            |
| Motion Control              |                     | Servo control system                                                              |                  |                  |                  |
| Software                    |                     | VisionX                                                                           |                  |                  |                  |
| Input                       |                     | AC200~240V, 50/60Hz                                                               |                  |                  |                  |
| Working Environment         |                     | Temp. 20℃ ±2℃, Humidity 20~80%, Vibration<0.002g, Less than15Hz                   |                  |                  |                  |

Note:

\*1 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 (mm)

\*2 Optional line-scanning probe is required.

\*3 Measuring range 5mm~40mm optional.

\*4 Scanning width 30mm~145mm optional.

\*5 Environment temperature is +20 °C ± 1.0 °C