

# Video Measuring Machine VX8500

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PRO



Item No.: VX8500

Product name: Flash Measuring Machine

Image Sensor: Industrial camera 20M CMOS

Field of view : 500\*400mm/430\*330mm

Working Distance: 200mm

Accuracy:  $\pm 3\mu\text{m}$  (Without Stitching)/ $\pm 1.5\mu\text{m}$   
(Without Stitching)

Resolution: 0.1 $\mu\text{m}$

Loading Capacity: 20kg

Size (LxWxH): 900×1340×1600mm

Weight: 950kg

## Details

### §==== Description §====

Based on visual measurement principle with precision image analysis algorithms, equipped with double telecentric optical lens with high depth of field, Flash Measuring Machines VX8500 achieve fast dimensional measurement by one-key operation. VX8500 is suitable for precise dimensional measurement in the fields of machinery, electronics, molds, 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, cutting tools, etc.

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## § Parameters

Model		VX8500	
Image Sensor		20M CMOS	
Monitor	Built-in	10.4" LCD (XGA:1024×768)	
	Outside	24" LCD (XGA:1920×1080)	
Acceptance Lens		Object Space Telecentric Lens	
Light	Ring	Four-segment illumination (White Light/Green Light)	
	Bottom	Telecentric transmission illumination (Green Light)	
Field of View	Large field	500mm×400mm (4 Angle R50)	
	High precision	430mm×430mm	
Resolution		0.1um	
Repeatability of Image Meas.	Large field	Without Stitching*1	±1um
		With Stitching*2	±2um
	High precision	Without Stitching*1	±0.5um
		With Stitching*2	±1.5um
Accuracy of Image Meas.	Large field	Without Stitching*1	±3um
		With Stitching*2	±(5+0.02L) μm
	High precision	Without Stitching*1	±1.5um
		With Stitching*2	±(3+0.02L) μm
Rotation Angle		Range 360°, Resolution 0.01°	

Horizontal Rotary Unit (Optional)	Rotation Speed		0.2~2rev/s
	Max Diameter		Φ60mm
Height Meas. (Optical probe) (Optional)	Measuring Range (XY)		300mm×300mm
	Max Hole-Depth Ratio(h/φ)		1.5
	Dia. of Beam		Φ38μm
	Resolution		0.25μm
	Z Non-movement	Range(Z)	±3.5mm
		Accuracy	±2μm
	Z Movement	Range(Z)	70mm
		Accuracy	±(6+0.01H) μm, H is Z moving height in mm
Software		Vision X	
XY Object Table	X Travel range		410mm (Motorized)
	Y Travel range		310mm (Motorized)
	Loading Capacity		20kg
Z-Axis Travel range		200mm (Motorized)	
Size (LxWxH)		(900×1340×1600) mm	
Structure frame		Marble	
Weight		950kg	
Input		AC200~240V/50~60Hz	
Working Environment		Temp.10°C~35°C, Humidity 30%~80%, Vibration<0.002g, Less than15Hz	

Remark:

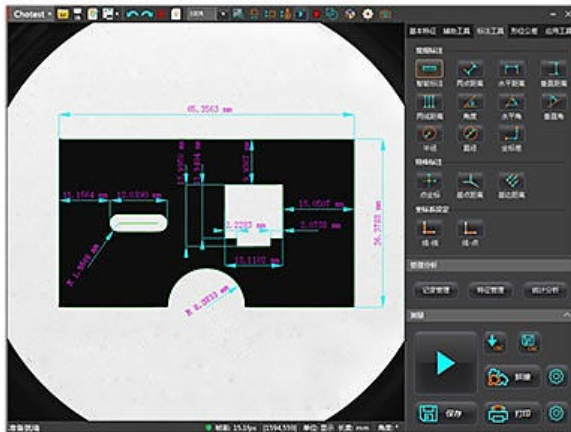
\*1 In the focus position, the environment temperature is +20 °C ± 1.0 °C

\*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).

## § Applications

Vision X Pro software provides up to 80 extraction analysis tools, including [Feature Extraction] (such as maximum points, centerlines, arcs, peaks, etc.), [Accessory Tools] (such as any dot & line & circle, fitted straight line, Fit circle, tangent, inscribed circle, etc.), [Smart Labeling], [shape tolerance], special [Application Tool] (such as pitch distance, pitch angle, slot, thread, round cross, down Angle, rounded corners, etc.)

The measurement results and their main statistical values (such as average,  $\sigma$ ,  $3\sigma$ ,  $6\sigma$ , Ca, Cp, Cpk, etc.) will be automatically recorded and archived. Operators can select different filter conditions for history extraction.



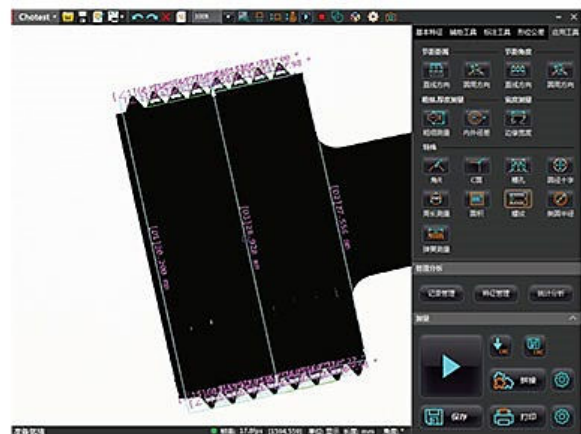
Metal plate



Gear



Metal workpiece

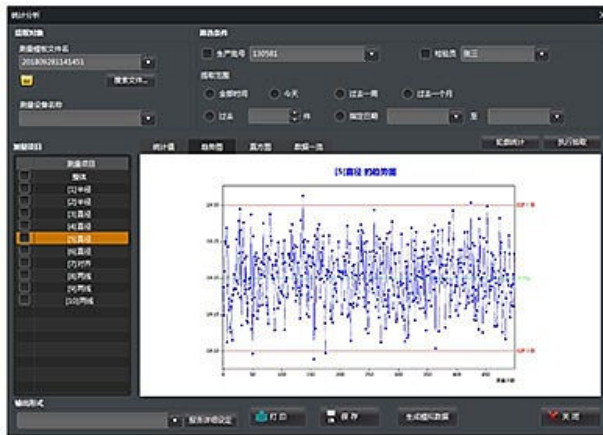


Thread

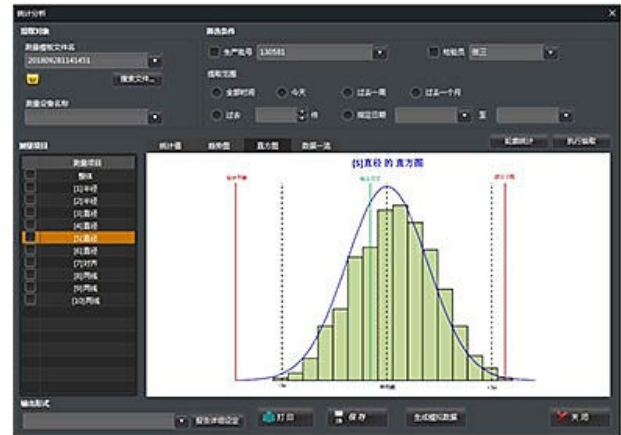
## § Statistics §

The trend graph displays the regular trend of the measured values, such as the monotonic and periodic change of the measured values, which can be used for monitoring the abnormality of the production process of producing equipment. Reflecting the status and distribution of fluctuations in product quality, the histogram can intuitively expose information about the quality situation in producing process, which can be used to predict product quality and failure rate.

Through quality diagnosis and analysis with statistical methods, SPC can monitor the product quality and changing trend of the producing process. With SPC we can find the preventive solution in the producing process, so that the subsequent inspection and repair are reduced. Consequently, the producing process control and product quality improvement are achieved.



Trend Graph



Histogram

## § More Applications §



Metal



Gasket



PCB



Phone accessories



Magnetic parts



Spring



Bearing



Instrument accessorie