



## VIDEO MEASURING MACHINE

# CMSAM 300 CNC-VIDEO

NOTA: las imágenes y características pueden cambiar sin previo aviso.

**Cualquier duda o aclaración favor de llamarnos, estamos para SERVIRLE**



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# VIDEO MEASURING MACHINE CMSAM 300 CNC-VIDEO



## FEATURES:

- Sturdy bridge type construction with long-travel automatic vision measurement.
- GRanite base keeps machine movement steadily.
- Auto-focus for height measurement, touch probe can be fixed.
- 4-axis CNS controls, full- automatic measurement.
- Being equipped with navigational body tube performs a function of map navigation. (Automatic zoom ens optional).
- Programmable 4 rings, 8 segments ring light for surface illumination, LED light for profile illumination.
- "REINSHAW" metal linear encnder with high resolution of 1.0  $\mu\text{m}$ .
- "THK" precision linear guideway and ground ball screw.
- "DAHENG" special frame grabber with high-definition ensures the image sharpness of measurement.

1

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## TECHNICAL PARAMETER

MEASURING RANGE (mm)	3000*1500*200
WEIGHT (kg)	4500
LOADWEIGHT (kg)	30
X/Y AXIS ACCURACY (µm)	3.0+L/200
Z AXIS ACCURACY (µm)	5.0+L/200
REPEATABILITY (µm)	0.003
X/Y MOVEMENT	0-600 mm/S (optional)
Z MOVEMENT	0-1000 mm/S (optional)
OPERATING WAY	Rocker +software
MOTION CONTROLLER	SBK4000 (full closed loop controller)
MAGNIFICATION	Optics magnification: 0.7 ~ 4.5 x ; Image magnification: 44~258 x
SOFTWARE	SBK-InspeC CNC automatic measurement software
POWER	220 V/50 Hz /3 A
WORKING ENVIROMENT	Temperature: 20°C ± 2 , humidity: 30~80%
SPECIAL TABLE MACHINE	Built- in switching power supply, controller, motor drive, power supply control switch indicator light, abrupt stop switch, move the wheel.
WARRANTY PERIOD	12 months

(\* L means measuring length, unit: millimeter)

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## MAIN PARTS

CCD		1.3 mega pixel digital CCD, high color reduction degree, provide a high-definition image quality of measurement products.
Optics Lens		Auto GPS lens
Surface illumination		Adopts 4 rings 8 segment LED light, can partition control, long life service, The light exposure on the surface is very clear for various products.
Bottle illumination		<ul style="list-style-type: none"> <li>* LED cold light</li> <li>* Parallel light</li> <li>* 256 level programmable</li> <li>* Brightness adjustable</li> </ul>
Linear Guide		Taiwan "HIWIN" SP level ultra precision linear guideway (walking parallel degree accuracy of 0.003 mm or less)
Video Card		Beijing "IT" dual channel color video acquisition card, flexibility, high integration, low power consumption, adopt the PCI trunk, the collected image data transmission basically doesn't take CPU time, and the image can be directly transmitted to the computer's memory or video memory
Motor		<p>XY, leaner servo motor.</p> <p>Z axis Japan "PANASONIC", synchronous AC servo motor</p>
Workbench		Workbench is made of a whole 7075 aviation aluminum plate have the characteristics of non-deformation, stable precision
Bearing		Japanese original "NSK" double combination centripetal ball bearings
Screw Rod		Taiwan "TB" C0 level grinding ball screw.
Limit switch		Japan's original "Omron" photoelectric limit switch, responsive, low failure rate
Linear scale		Germany "RSF" metal linear resolution 0.0005 um
joystick		With German "MEGATRON" three-axis external regulation hall joystick, IP level is above 65, long service life, high cost performance.

**MOTION CONTROLLER**

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SBK4000 controller is based on the advanced DSP and FPGA technology, four axis motion control, electronic counting, automatic light adjustment, probe processing, such as joystick multi-function, which integrates automatic image instrument controller. ACT400 using Ethernet technology and computer communication, have no driver, good compatibility, high transmission speed, stable transmission, etc

**COMPUTER SYSTEM**



BRAND	INDUSTRY COMPUTER
CPU	i5
RAM	8G
HARD DISK	240 G SSD
DISPLAY	21.5 inch LED
WITH MOUSE AND KEYBOARD	

**OPTIONAL PARTS**

**1. REINSHAW MCP PROBE**

For hole or groove measure, contact measure style



**RENISHAW**

STYLUS DIAMETER	Φ 1 Φ2 Φ3 (OPTIONAL)
STYLUS LENGHT	200 mm
CALINRATION BLOCK	50 mm
STATIC ACCURACY	± 1.5 um
MEASURE ACCURACY	± 3.0 um
CAN OPTIONAL EXTENSION ROAD ACCORDING TO MEASURE REQUIREMENT	



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## 2. OMRON LASER MEASURE PROBE

None- contact measure for height or flatness



**OMRON**

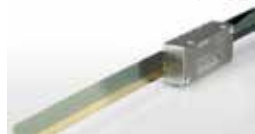
MODEL	ZW 5000	ZW 7000
MEASURE RANGE	10/20/30 mm	10/20/30 mm
SOP SIZE	9/ 13/ 18 um	50/70/100 um
RESOLUTION	0.25 um	0.25 um

## 3. COAXIAL LIGHT



Highlight the uneven of the object, overcome the interference caused by the surface reflection, make brightness uniform and image clearly.

## 4. LINEAR SCALE



Germany RSF metal scale resolution 0.0001 mm

## 5. OBJECTIVE LENS



Long working distance metallographic objective lens: 5x, 10x, 20x

## 6. ORIGINAL WINDOWS OS



Original Win10 o Win professional English version

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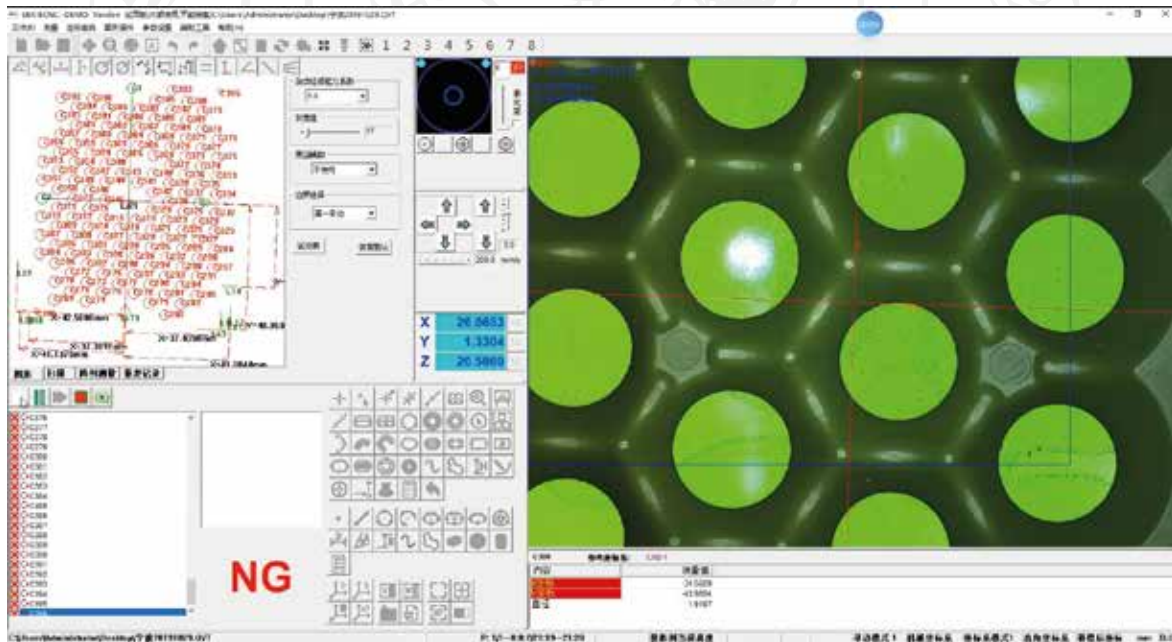
**MACHINE DISPLAY**



**INNER WIRING**



**SOFTWARE (SBK-INSPEC FULL AUTOMATIC MEASURING SOFTWARE)**



# VIDEO MEASURING MACHINE CMSAM 300 CNC-VIDEO

## Software interface

- Automatic measurement function: using the mouse to automatically find a straight line, click on the circle, box selected area, arc.
- Automatic cnc: with the help of the fixture can be fully automatic measurement (measuring efficiency is much higher).
- Quick optical measuring height function, measuring height function, measuring a height within 3 seconds.
- Optical measurement of flatness
- Auxiliary focus: to help find the z position when image most clearly (auxiliary focus to improve accuracy of measurement).
- Image output: the measurement result can be output in the format of image (equal the digital camera functions)
- Shape tolerance, roundness, straightness, parallelism and perpendicularity, concentricity
- Set the tolerance: can set the product's actual size that out of range, beyond the background with red warning
- CCD correction: correction image distortion
- Contour tracking: through the software automatically calculate the outline of work piece and display (display measuring location)
- Vector graphics function: primitive font can be magnification or shrink without a limit
- Mark function: dra, diameter, angle, linear dimension, alignment, text annotations, coordinates
- The command line: can either enter the coordinates directly from the command line, involves, line, circle, arc, etc., to meet special needs
- Map measurements: local photos that take from the workpiece can accurately integrate a complete workpiece photo, and save in a high-resolution photos. Can also open the map previously took, direct drawing, marking, modification, etc (synthetic big picture)
- Virtual measurements: the virtual measurement technology enables the image measurement software to disengage from the hardware platform, the software also can measure the size of the products without the platform and products (can be offline measurement)
- Two-dimensional copy number: product appearance can be traced, the trace of graphics can be formed into autocad engineering diagram, can do reverse engineering
- Spc analysis: can calculate, ca, cp and cpk, dnl, drr, dr, max, min, avg, range, std, and can draw x - r diagram, scatter diagram, line chart, histogram, etc.



# VIDEO MEASURING MACHINE CMSAM 300 CNC-VIDEO

- 1 SET AM-CNC HOST
- 1 PIECE SBK- INSPEC SOFTWARE
- 1 PIECE PIXEL CALIBRATION BLOCK
- 1 PIECE 16G U DISK (INNER SOFTWARE MAUAL)
- 1 SET COMPUTER SYSTEM (WITH HOST, DISPLAY, MOUSE KEYBOARD)
- 1 PIECE TABLE
- 1 PIECE WARRANTY CARD



MODEL	PACKING SIZE	GROSS WIEGHT (kg)
AM600- CNC	1500*1700*2050	1144
A800- CNC	1600*1900*2050	1332
AM1000-CNC	1900*2400*2050	2115
AM1200-CNC	2200*2600*2050	2231



**MEASURING APPLICATION**  
Connector, Sheet meatl part, Spring Display PCB, Precision Mechanical part, Electrical part, car part, Mould, Plastic parts, LED plane