

VIDEO MEASURING system

nilpa



used In 2D measurement with Height Measurement as well as 3d Measurement with Touch Probe system, this instrument is high precision and high efficeincy measuring machine that integrates Optics, Machinery and electronics

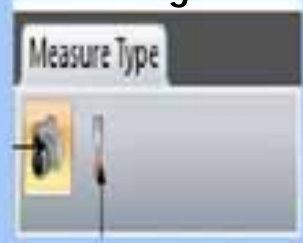
Features:

- > Data Processing, data Display, Data input and data Output
- > Programatic workpiece, straightening feature
- > detecs the Measured Workpiece's specification location by laser indicator, which is convenient position and operate
- > footswitch is matched with measuring software, which makes operatopn easier

Specification of work stage

Work stage Travel In x/Y axis in mm: 100x100mm/ 150x100mm/ 200x150mm/200x200mm
 Z-axis Tavel in mm : 100 /200mm can be customised to 400mm
 Linear scale Resolutio: 0.001mm / 0.005mm/ 0.0001mm /0.0005mm
 x & Y axis Indication error (2.5+ /100)mm

Measuring Tools



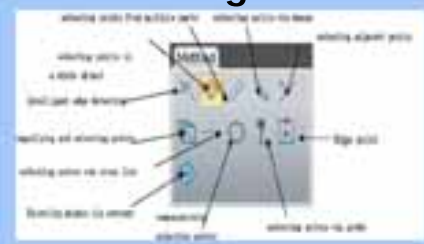
Element Method



Construct Method



Measuring Method

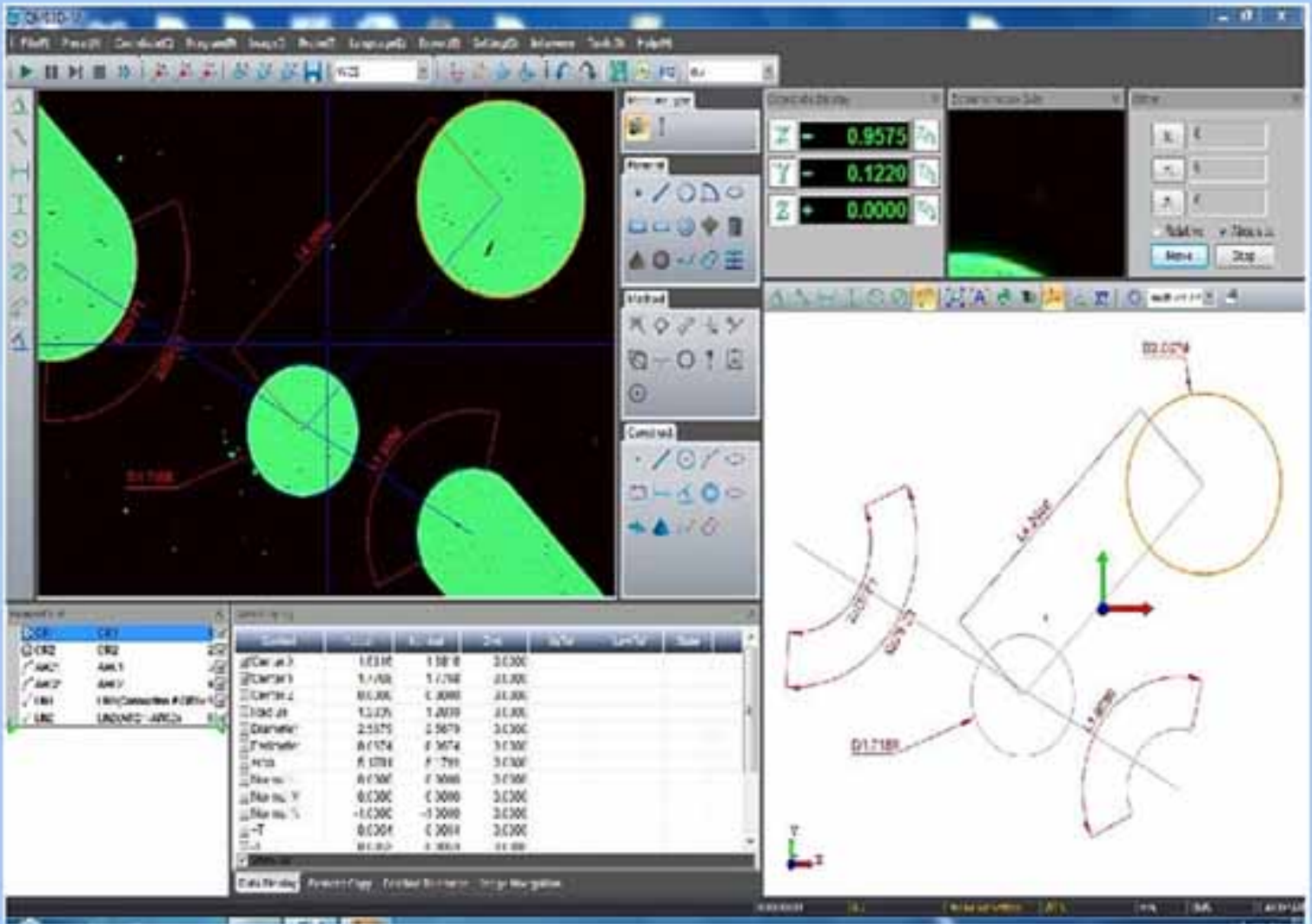


Annotation



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various features :

Co-ordinates systems

GEOMETRICAL ELEMENTS MEASURING : 15 GEOMETRICAL ELEMENTS CAN BE MEASURED LIKE Point, line, plane, circle, arc, ellipse, rectangle, key slot, ring, cylinder, cone, sphere, open curve, closed curve, focal surface, height

Features: Contact measuring – probe measuring or non-contact measuring – video measuring can be selected according to specific requirements.

Multiple Measuring methods : Intelligent automatic edge detecting, selecting points in a whole object, selecting points via mouse, selecting adjacent points via cross line, magnifying and selecting points, comparatively selecting points, selecting point via probe.

Geometric Elements Construction:

Strong ability to fabricate two-dimension and three-dimension geometric elements.

Features: Ability to fabricate multiple elements: points, line, circle, arc, ellipse, rectangle, distance, angle, ring, key slot, plane, cylinder, cone and sphere.

Multiple construction methods: extracting, intersecting, perpendicular, paralleling, tangency, mirroring etc.

Graphic Function: Perfect graphic processing and display function (zoom, translation, display window, local zoom, full screen) contribute to vivid and intuitive measuring result and easy operation.

Annotation function: Angle, distance, X direction, Y direction, circle (arc), radius, circle (arc) diameter, length of arc can be directly marked in the drawing area and image are.

Error compensation :The software possesses systematic error compensation and lens central error compensation as well. So far coordinate positioning systematic error and perpendicularity systematic error can be compensated. In terms of coordinate positioning systematic error compensation, there are linear compensation and section compensation for selection. Lens central compensation means lens off-centre compensation under different magnification.

Tolerance: Perfect dimension tolerance computing ability.

Geometric tolerance conforms to national standard, straightness of the line, roundness of the circle and arc can be illustrated.

Position tolerance computing covers position accuracy, degree of parallelism, perpendicularity, skewness, concentricity, coaxiality and degree of symmetry.

Report Function: Measured data can be output into default Excel, custom Excel, Word SPC form.

Probe Management System: Probe Management system includes establishment of standard, probe calibration, probe management and probe system management.

Sensor synchronization includes synchronization of probe image and, synchronization of shifter and image.

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PROFILE PROJECTOR

nilpa

Bench / Floor Profile Projector

MODEL	JPP 250	JPP300	JPP400/500/600
CONFIGURATION	Vertical Light Path, Front Vertical Screen- Bench Model	Vertical Light Path, Front Vertical Screen- Bench Model	Vertical Light Path, Front Vertical Screen-FLOOR MODEL Model
SCREEN	Antiglare Hard Glass Screen 250 mm with cross hair Rotatable through 360° with Least Count 1 minute of an arc	Antiglare Hard Glass Screen 300 mm with cross hair Rotatable with through 360° Least Count 1 minute of an arc.	Antiglare Hard Glass Screen 400/500/600 mm with cross hair Rotatable with through 360° Least Count 1 minute of an arc.
MAGNIFICATION - Standard	10X, Multilayer Coated.	10X, 20X Multilayer Coated.	10X, 20X Multilayer Coated.
WORK STAGE	150X150MM Cross Travel x axis = 50mm, Y axis = 50 mm	150X150MM Cross Travel x axis = 50mm, Y axis = 50 mm	350 mm x 250mm Cross Travel x axis = 220mm, Y axis = 120 mm
MAGNIFICATION - Optional	20X, 50X, 100X	50X, 100X Multilayer Coated	50X, 100X Multilayer Coated
FOCUSSING	100mm		
PROJECTION ACCURACY	Contour $\pm 0.05\%$ Surface $\pm 0.075\%$ (Optional)		
ILLUMINATION CONTOUR	CONTOUR ILLUMINATION: Equipped with contour illumination with built in adjustable condenser provided		
MEASUREMENT METHOD	By Micrometers BY DRO By P.C. Based software		



Vertical Profile Projector



MODEL	JVP300	JVP400/500/600
CONFIGURATION	Vertical Light Path, Front Tilted Screen, Floor Model	Vertical Light Path, Front Tilted Screen, Floor Model
SCREEN	Antiglare Hard Glass Screen 300 mm with cross hair Rotatable with through 360° Least Count 1 minute of an arc.	Antiglare Hard Glass Screen 400/500/600 mm with cross hair Rotatable with through 360° Least Count 1 minute of an arc.
MAGNIFICATION - Standard	10X, 20X Multilayer Coated.	10X, 20X Multilayer Coated. (INDIAN / German)
WORK STAGE	150X150MM Cross Travel x axis = 50mm, Y axis = 50 mm	250 mm x 200mm Cross Travel x axis = 100mm, Y axis = 75mm
MAGNIFICATION - Optional	50X, 100X Multilayer Coated	50X, 100X Multilayer Coated
FOCUSSING	100mm	
PROJECTION ACCURACY	Contour $\pm 0.05\%$ Surface $\pm 0.075\%$ (Optional)	
ILLUMINATION CONTOUR	CONTOUR ILLUMINATION: Equipped with contour illumination with built in adjustable	
MEASUREMENT METHOD	By Micrometers BY DRO By P.C. Based software	

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MAGNIFICATION - Standard	10X, Multilayer Coated.	10X, 20X Multilayer Coated.	10X, 20X Multilayer Coated.
WORK STAGE	150X150MM Cross Travel x axis = 50mm, Y axis = 50 mm	150X150MM Cross Travel x axis = 50mm, Y axis = 50 mm	350 mm x 250mm Cross Travel x axis = 220mm, Y axis = 120 mm
MAGNIFICATION - Optional	20X, 50X, 100X	50X, 100X Multilayer Coated	50X, 100X Multilayer Coated
FOCUSSING	100mm		
PROJECTION ACCURACY	Contour $\pm 0.05\%$ Surface $\pm 0.075\%$ (Optional)		
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MAGNIFICATION - Standard	10X, 20X Multilayer Coated.	10X, 20X Multilayer Coated. (INDIAN / German)
WORK STAGE	150X150MM Cross Travel x axis = 50mm, Y axis = 50 mm	250 mm x 200mm Cross Travel x axis = 100mm, Y axis = 75mm
MAGNIFICATION - Optional	50X, 100X Multilayer Coated	50X, 100X Multilayer Coated
FOCUSSING	100mm	
PROJECTION ACCURACY	Contour $\pm 0.05\%$ Surface $\pm 0.075\%$ (Optional)	
ILLUMINATION CONTOUR	CONTOUR ILLUMINATION: Equipped with contour illumination with built in adjustable	
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Tool Maker Microscope **nilpa**

Non Contact Depth Measuring Microscope

Video toolmaker microscope is a photoelectric measuring system of high precision and efficiency. This video tool-maker Microscopes widely used in different kinds of precision finishing industries, such as electronic part, precision mold, spring, plastic precision tool, rubber, oil seal valve, cam gear part, pedal cycle part and PCB processing. This toolmaker Microscope is mainly applied in 2D measurement, sometime in 3D as well. With eyepiece gauge, This video tool-maker Microscopes can also measure by comparing. This video tool-maker Microscopes can measure the pitch and external diameter of the thread. This video tool-maker Microscopes is a must for the metric room, laboratory or workshop of various sectors concerning to machinery, electronics, gauging instrument as well as academies, research institutions and measurement-inspecting department.

Specialities

Video toolmaker microscope has many functions such as displaying, magnifying, inputting and outputting. With color CCD camera (with C-mount interface), the microscope can input and output the data by connecting with the computer. This video tool-maker Microscopes is very convenient for the user to measure with standard M2D-AT or QIM 3008 software.

Scanification



Model	TM-1510F	TM-2010F	TM-2515F	TM-2515F
The metal table's size(mm)	354*228	404*228	450*280	500*330
The glass table's size(mm)	210*160	260*160	306*196	350*250
Travel(mm)	150*100	200*100	250*150	300*200
Z-axis travel(mm)	150	150	200	200
Resolution for X,Y,Z axis	0.5µm	0.5µm	0.5µm	0.5µm
Weight(kg)	100	110	135	140
Dimension(L*W*H)(mm)	540*667*850	540*667*850	800*675*920	800*675*920
X,Y axis accuracy	±(3+L/75)(L is the length of the work)			
Lens magnification	1X,3X(standard),5X			
Eyeiece magnification	10X(same for single and double eyeiece)(option)			
Total magnification	10X--50X			
Accuracy	±0.08%			
Transmission illumination	24V/20W Halogen lamp			



Model No:	Tool Maker Micoscope
Optical Head	Monocular (Binocular for camera attachment)
Measuring Range	50mm X 50mm X 70mm
Objective Lens	Standard: 2X Optional: 3X, 4X, 5X
Eyeiece	Standard: WF 15X (with cross hair) Optional: WF 10X, WF 20X
Magnification	Standard: 30X Optional: Upto 100X
Linear Accuracy	3 + L/200 µm
Repeatability	±2 µm
Workstage Size	150mm X 150mm for micrometers and 260mm X 260mm for D.R.O. and software
Measuring Range or Travel	50mm X 50mm for micrometers and 100mm X 100mm for D.R.O. and software
Measurement Method	Micrometer/ D.R.O. / Software
Resolution	15µm / 1µm / 0.5µm
Eyeiece Protector	0-360° with adjustable vernier of least count 6 mins.
Focusing Range	100mm
illumination	Contour: Built-in Base Halogen Lamp Surface: Incident Light from 2 Halogen Lamps

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DIGITAL READ OUT



DC 200 SERIES

DC-200 data processor is suitable for digital grating measurement system, tool microscope and video measurement system. With the analysis and process of the two-dimension measurement data, this data processor is widely used in optical comparator, profile projector, tool microscope, CCD video measurement machine and other 2D measurement instrument.

Specialities

1. CPU adopts ARM9, with more processing power
2. DC200 display counter is with a 640*800 TFT true color monitor, with more clear display
3. With 24-bit counter, the count speed can be 2m/s, when the resolution is 0.001mm
4. Power Anti-interference ability and signal interference ability can be more than 2200v
5. With screen protection function, can enhance LCD usage life
6. Can set 14 kinds of font and color, can set two kinds of user operation interface
7. Real-time clock function
8. Pure aluminum alloy shell can effectively reduce the radiation on the human body and the external interference on the DRO system

Functions

- Measure, preset and construct the graphic elements such as the point, line, circle, angle, distance, rectangle, thread and so on
- Conveniently axis-skew and coordinate shift
- Quickly data getting by foot switch and edge detector
- Print out user program, graphic elements and displayed three-axis coordinates
- Transfer current linear scale positions to PC by RS232
- Record the measuring steps and the measure the same word pieces in batch quantity
- Various coordinates displaying ways: Polar, Cartesian, INC and ABS coordinates in Metric units or Imperial units
- Linear error correction and segmental linear error correction
- Connect with linear scale or rotary encoder with Z-axis
- Store 100 permanent graphic elements and 10 temporary graphic elements
- DC200 metrology counter support English and Simplified Chinese display interface, the font, color and interface



DC-3000 is appropriate to digital measuring system and the video measuring system. With analysing and processing the 2D measuring data, this digital readout system is widely used in the profile projector, the tool microscope, Video measuring system and other two-dimension measuring instrument.

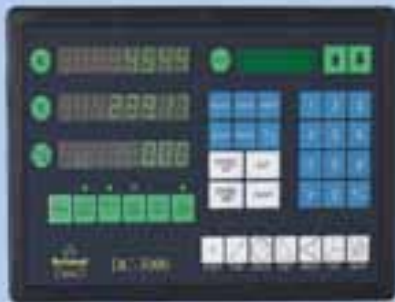
Character

1. With isolated three-axis 24-bit reversible counter
2. Three-axis counter will be locked at the same time when exterior is triggered. The delay of 3-axis locked is less than 20ns.
3. 1.0Hz four split-phase ended input
4. A,B signal of each axis support single can be chosen when differential ended
5. The polarity of RI signal, A and B signal can be chosen when searing RI point
6. The computation direction (+ or-) is adjustable
7. Fourth-order digital filter can process the deviant signal.
8. Two groups of isolated external trigger which can lock the computation value of any axis

Applications

- Coordinate measuring machine
- Movement control
- Position monitoring
- Coordinate measurement
- X-Y working table monitor
- Mechanical control
- The other area of linear scale and rotary encoder

DC 3000



Tool maker Microscope / Depth Measuring Microscope (3D)



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HUND METALLURGICAL MICROSCOPE

nilpa

hund
WETZLAR

H 600 AM

FÜR AUFLICHT- UND DURCHLICHTMIKROSKOPIE
FOR INCIDENT AND TRANSMITTED LIGHT MICROSCOPY

H 600 AM
FOR INCIDENT AND TRANSMITTED-LIGHT MICROSCOPY IN QUALITY ASSURANCE INSTITUTES, IN THE STEEL-PROCESSING INDUSTRY, IN THE ELECTRONIC, PLASTIC AND CERAMIC INDUSTRIES

Quality assurance in the framework of industrial development often requires the microscopic investigation of component parts. The structure of the workpiece is responsible for its quality. Distortions in the structure become visible, particle sizes can be determined and inhomogeneities in the material become apparent. Quality assurance is meant to avoid costs and produce consistent results. Rationalisation and economy also play an important role and this means that the equipment must be efficient. The H 600 AM meets these requirements for investigations of polished sections of metals, metal alloys, ceramics, composite materials, assembled units in order to investigate the surface and to assess the quality of, e.g., etching and polishing steps. The microscope H 600 AM for incident and transmitted light can be used as a mere incident-light microscope with a set of corresponding EPI-objectives as well as a transmitted-light microscope for the investigation of transparent materials or powders.



H 600 AM 50

For incident-light investigations

- _ Eyepieces WF 10x/18
- _ Achromatic EPI objectives
- EPI A 4/0.13
- EPI A 10/0.30
- EPI A 20/0.50
- EPI A 40/0.60

H 600 AM AL/DL 50

For incident- and transmitted-light

- _ Eyepieces WF 10x/18
- _ Achromatic EPI objectives
- EPI A 4/0.13
- EPI A 10/0.30
- EPI A 20/0.50
- EPI A 40/0.60

_ Condensor NA 0.9

The microscopes are available either with incident light illuminator AM or with external cold light source. Maximum object height: 53 mm

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certified company

