

Semi-Auto Vision Measurement Machine

Vision measurement machine is an instrument used for accurate physical dimension measuring, accuracy up to micron level, which is an optical measuring instrument using the camera to capture the image of the work piece, analyse the image pixel and calculate the 2D dimension with the measuring software. It is a popular model fit for most of the accurate 2D dimension measuring application and end users from different industries, as Mold, Electronics, Semi conductor, Plastic Injection, 3C products, Medical care, Aviation...etc. It is an important instrument used in your products quality control process, ensuring your products dimension accuracy, makes your products more competitive.

EXTRA series semi-automatic vision measuring machine provides customers with measurement function and user experience beyond ordinary products. Full range of z-axis servo control, standard configuration of hand pulse generator for fine control and fine-tuning of Z-axis motion, with automatic image focusing function, your measurement efficiency and user experience are greatly improved.

UNIMETRO®



Product Characteristics:

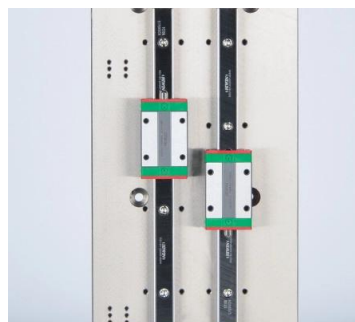
◆ Quality details control

- Granite base and column, excellent stability;
- Aluminum work stage, make the motion control fast reacting and flexible;
- Using HIWIN linear guide way and high-precision linear guide rail, with aluminum work stage and hard anodizing surface processing, ensures the high dynamic performance and long life cycle usage of the machine.
- Integrated control system, embedded with motion control, and all signal control as illumination and linear scale reading, ensures the performance of the machine is extremely stable.



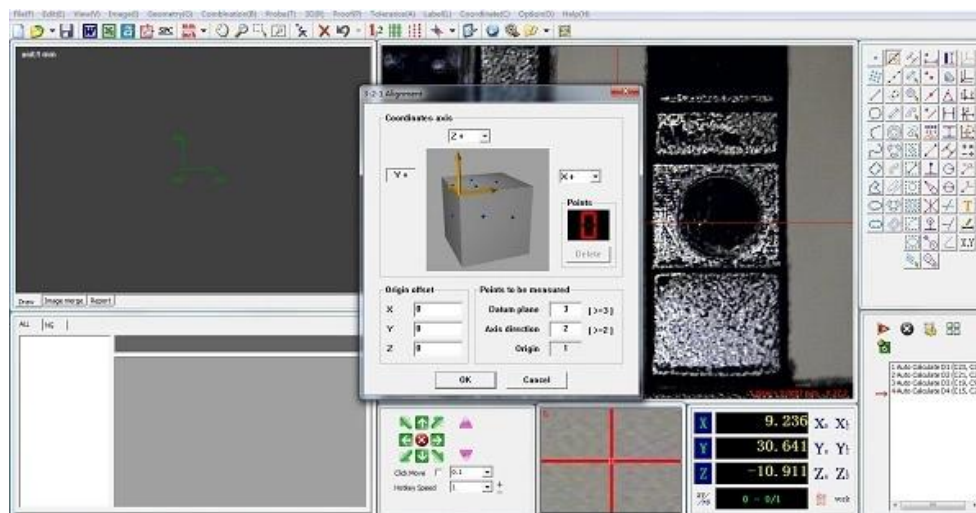
◆ High performance configuration

- 1. X, Y two-axis manual control to achieve accurate positioning;
- 2. The Z-axis adopts high-precision linear guide and servo motor control system to realize automatic focusing, eliminate the error of artificial focusing, and improve the measurement accuracy and stability;
- 3. 0.5um high-precision linear ruler and precision worktable ensure that the accuracy of the machine is $\leq 2.5 + L / 100\mu\text{m}$;
- 4. High precision toothless polished rod and fast moving locking device are used to ensure the return error of worktable within 2um;
- 5. Industrial high resolution color CCD ensures clear image quality without distortion and meets the needs of clear observation and accurate measurement;
- 6. 0.7-4.5x HD zoom manual electronic feedback signal zoom lens, the software can quickly and automatically identify the magnification and carry out the corresponding zoom action, making the measurement steps simpler;
- Programmable 3-ring 4-section LED surface light source, transmission parallel LED contour light source system, and the built-in light adjustment module of the software can freely control the brightness of light in 3 rings and 4 zones.



◆ Efficient measurement software

- EXTRA Series vision measurement machine is compatible with multiple option of powerful measuring software. Which are with diversified measuring function, can measure geometric elements such as points, circles, lines, angles, angles, etc., as well as dimensions such as distance, roundness, straightness, concentricity, etc.
- Simple and easy to understand operation interface makes measurement more simple and efficient;
- CAD file input and comparing, easy output of measuring report, and SPC analyse of the measuring results data.



◆ Flexible expansibility

- Extra series CMM is compatible with Renishaw probe series (optional), and users can easily realize two-dimensional and three-dimensional measurement functions on one machine. The software can calculate the offset between the optical lens and the touch probe to ensure that all measurement results are in one coordinate system. The measurement results can be output to 3D graphics for reverse engineering application.
- A variety of non-contact sensors and quick fixing system can be selected to meet different measurement requirements of different customers
- Green contour light can be selected to make it more flexible and powerful for different parts of different materials or shapes, and provide more powerful measurement applications.



◆ Parameter

Product Name		EXTRA Series Se-mi Auto Vision Measuring Machine					
Model		EXTRA 200	EXTRA 300	EXTRA 400	EXTRA 500		
X/Y/Z-axis Travel		200x100x150mm	300x200x200mm	400x300x200mm	500*400x200mm		
X/Y/Z-3 axis Linear Scale		Glass Linear Scale Resolution: 0.5um(0.1μm Optional)					
Guidance Mode		HIWIN linear linear guide way					
Accuracy		2.5 + L / 100			3.0 + L / 100		
Repeatability		±2.5um			±3um		
Video System	CCD	1.2M pixel HD digital camera					
	Lens	Manual electronic feedback signal zoom lens 0.7 ~ 4.5X					
Field of View(mm) (D*H*V)	Magnification	0.7X	1X	2.0X	3.0X	4X	4.5X
	1/3"CCD	8.57x6.86x5.14	6.00x4.80x3.60	3.00x2.40x1.80	2.00x1.60x1.20	1.50x1.20x0.90	1.33x1.07x0.80
Illumination System	Contour	LED parallel contour illumination					
	Surface	0~255 Stepless adjustable 3-ring 4-division LED surface illumination					
Measuring Software		UNIMETRO 2D Manual Measuring Software					
Load Capacity		25Kg					
Working Environment		Temperature 20°C±2°C , Humidity Range<2°C/hr, Humidity 30~80%, Vibration<0.002g, <15Hz					
Power Supply		220V/50Hz/10A					
Ddimension(W*D*H)mm		550*540*930	600*740*980	700*840*980	995*1420*1780mm		
Net Weight		140Kg	190Kg	240Kg	450kg		

* L is measuring length(mm), the mechanical accuracy of Z-axis and focus accuracy is related to the surface of the workpiece.

* Magnification is approximate value, it is related to the dimension of monitor and resolution.

* Field of view(mm) = (diagonal*Horizontal*Vertical)

* 0.5X or 2X objective is optional available, and realize image magnification: 13X~86X or 52X~344X.