

## High Precision Automatic Video Measuring Machine-LA series

Measuring range (XY): 300x300mm-500x500mm  
Measuring range (Z): max300 mm

### Powerful LED ring lighting

The lens is equipped with double-layer 8-direction LED circular lighting. The inner ring is fixed and the outer ring can be raised and lowered, allowing you to see more boundaries than normal lighting.

### Equipped with high precision, high magnification precision optical design

Adopt 1:13 telecentric coaxial lens tube, excellent distortion elimination design, fully ensure the accuracy of size measurement within the window, object square resolution of 2um or less, support 2/3 target camera, the same rate can get a wider field of vision, detection efficiency improved by more than 90%, new structure design and process optimization, The service life of the lens is increased to 200%, and the magnification rate is increased by 100% above the same optical measuring machine, realizing the easy measurement of any product.

### ● New high-precision design, space measurement height 300mm

The whole granite structure, fixed bridge, mobile table structure, precision ball screw, central linear motor drive effectively reduce the abbe error under the condition of improving the equipment's high speed, quiet, stability, high precision measurement.

### ● Variety sensor

It can be matched with a trigger contact probe, which can trigger a single point for 3d features that cannot be recognized in the image. Confocal white light can be used to measure soft, reflective or low-contrast surfaces with sub-micron accuracy.

### ● Powerful -SBK- INSPEC measuring software

SBK-INSPEC is a composite measurement software developed by Sobekk for image measuring machine users. It inherits the core technology of measurement software INSPEC, with intuitive operation interface and intelligent feature automatic recognition function, offline programming operation, making this software easy to learn, efficient and practical.

LA series is equipped with 1:13 high resolution automatic coaxial optical system, integrating non-contact image, laser and contact probe detection functions, which can comprehensively ensure the accuracy of two-dimensional size, height size and spatial size of precision workpiece processing process. According to the process needs of different products, different hardware and software can meet the different production needs of upstream and downstream processes in 3C industry, liquid crystal industry, medical industry, semiconductor industry and so on, and improve production efficiency.

### Suitable industry: semiconductor packaging

1. IC package
2. LED packaging
3. Optoelectronic device packaging
4. Automotive electronics
5. Aerospace
6. Optical communication
7. Research institutes and universities



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SOBEKK focus on 15 years

Assist image measuring device to perform some special measurements, including:

- Height measure: using the measuring head can measure the height of the characteristics of the workpiece surface to measure the height difference;
- Measuring sphere and cylinder: using the multi-direction point contact of the measuring head can measure the position beyond the image measuring;
- Measuring flatness: Using the height and speed of the measuring head to quickly measure the flatness of the workpiece surface.

The laser sensor projects a visible light spot on the surface of the workpiece under test and reflects the laser signal from the workpiece surface to the sensor. When the distance between the sensor and the measured workpiece changes, the laser reflection Angle will change accordingly, so that the imaging position of the sensor sensor will change accordingly.

When operating machine, you can use the laser probe to perform height measurement, fast focus and workpiece flatness measurement, and can also edit the program to perform automatic measurement. Its main function is to assist the image measuring instrument to complete the measurement of special size.



**Contact probe system**  
Holes or grooves on the side of parts are measured with contact probe



**Laser measuring system**  
The flatness, thickness and contour of the parts

### Specification :

| Model                            | LA300   | LA400       | LA500       |
|----------------------------------|---|-------------|-------------|
| Measuring range (mm)             | 300*300*300   | 400*400*300 | 500*500*300 |
| X, Y axis accuracy(μm)           | 1.6+L/200   | 1.8+L/200   | 2.0+L/200   |
| Z axis accuracy (μm)             | 3.5+L/200   | 3.5+L/200   | 3.5+L/200   |
| X, Y vector accuracy(μm)         | 2.5+L/200   | 2.8+L/200   | 3.0+L/200   |
| Max load weight (kg)             | 25kg  | 30kg        |             |
| Resolution                       | 0.1um metal linear scale  |             |             |
| X, Y axis max speed              | 500mm/s   |             |             |
| X, Y max acceleration            | 1400mm/s  |             |             |
| Z axis maximum speed             | 30mm/s  |             |             |
| Optical zoom                     | 0.6 ~ 8 X (1:13) automatic telecentric coaxial lens 44x-588x  |             |             |
| Imaging device                   | 5.0 mpxl (2/3inch) gigabit color digital camera   |             |             |
| Motor                            | ultra silent linear digital camera  |             |             |
| Light source                     | programmable .4 ring 8 partition LED cold light source<br>spherical integral parallel light source<br>liftable light source |             |             |
| Expansion and upgrade (Optional) | Laser sensor /3D probe system   |             |             |