



BANBROS ENGINEERING PVT. LTD.

The Precision Measurement People

HORIZONTAL VISION MEASUREMENT MACHINE

- *VALUE*
- *VERSATILITY*
- *PERFORMANCE*



BYMM-3020B

**DESCRIPTION:**

Horizontal vision measuring machine is a precise high-efficient measuring instrument which is combined with optical, mechanical and electrical integrative principle, this machine can replace horizontal profile projector completely and widely used in the industries of machinery, module, meter, electronics, light industry etc, so it is one of indispensable measuring instruments in metrology room and workshop. Adopting functional YR-E measuring software, it can high-efficiently measure the profile and surface shape of all complicated work-pieces, such as templates, punching pieces, cams, forming cutters and other tools, cutting tools and parts, as well as terminals, watches, diamond etc.

PERFORMANCE PARAMETERS (Accuracy Parameters):

- X, Z axis travel : 300*200mm
- Y axis travel : 200mm
- Machine overall size: 850×1500×1500mm
- Metal stage size: 460X360mm
- Glass stage size: 340X250mm
- Machine weight: 350kgs
- Loading weight: 20kgs
- X、Y、Z axis resolution : 0.001mm (0.0005mm and 0.0001mm is optional)
- X.Y axis accuracy : (3+L/200) um Z axis accuracy: (5+L/200) um
- Repeatability: 0.003mm
- Linear Scales: glass linear scales
- High definition electronic step zoom lens : 0.7X-4.5X; image magnification: 24X-158X
- 1/3' inch 700 lines high-definition colour CCD camera with black-white balance
- Optical system: 6:5:1
- YR-E multi-functional measuring software
- 000 grade granite base and column ensure a higher stability
- Surface and contour illumination both adopt brightness adjustable LED cold light source, (contour illumination adds condenser to realize parallel illumination, light brightness is adjustable by software which reduces damage of electrical components)
- Working Condition
- Power : 220V/ 50Hz/3A
- Working temperature: 20+2°C
- Relevant humidity: 30%-80%



YR-E MEASURING SOFTWARE (The most Advanced Measuring Software)

- Auto-Measurement Function: it can automatically find out by mouse straight line, create circle by points, create circle by selectrect, auto-circle in multi-zones, auto-arc.
- Manual CNC function: if there is clamps, it can make semi-auto measurement. (measuring effective is far higher than competitor)
- Height Measurement by optical image method
- Flatness Measurement by optical method
- Auxiliary Focusing: it can help to find out the clearest Z axis position. (Auxiliary focusing function improves measuring accuracy.
- Image Putout: measuring results can be put out in image format. (it just likes a digital camera's function)
- Geometric tolerance: roundness, linearity, parallelism, verticality, concentricity.
- Set up tolerance : it can set up part's actual size exceeding range, if any exceeding, it will warn with red background
- CCD Correction: correct CCD image distortion Profile Track: software can automatically calculate and display the profile of the work piece. (clearly display the measuring position).
- 11、 Vector Plotting Function: graphic primitive typeface can be cam zoomed without any limit.
- Profile Track: software can automatically calculate and display the profile of the workpiece. (clearly display the measuring position).
- Vector Plotting Function: graphic primitive typeface can be cam zoomed without any limit
- Mark Function: it can mark the radius, diameter, angle, linearity, alignment, words and coordinates.
- Command line: user can put in the coordinates data from command line directly to get point, line, circle, arc and so on, to meet special requirement.
- Map Measurement: it can combine all small pictures taken by our software for a bigger work-piece into a piece of complete picture, and save it as high definite pictures. It also can open the pictures taken by software before to directly do the operations of drawing, marking, and modification etc, and also can measure all geometrical parameters on picture directly. (It can combine many small pictures into a whole complete photo)
- Virtual Measurement: virtual measuring technology makes measuring software of video machine can depart from main machine, under the circumstance of without sample and main machine, the software still can measurement the geometrical size of the sample. (It can do all measurements without machine and sample).
- 2D Scan Function: it can scan the profile of the sample, and transfer the profile drawing of the sample into AutoCAD engineering drawing to do reverse engineering
- SPC Function: It can calculate CA、 CP、 CPK、 DRL、 DRR、 DR、 MAX、 MIN、 AVG、 RANGE、 STD, and can draw X-R graph, broken line graph, bar graph etc.
- Report Output: measuring results can be transferred to Excel File directly.