

SMALL VIEW FIELD SUITABLE FOR MEASURING  
SMALL SIZES SUCH AS THREADS AND CHAMFERS

## QUICK MEASUREMENT SYSTEMS (WITH STITCHING)



VIDEO



QMS-A315

### SPECIFICATION

| Code                      |                          | QMS-A220                                                                                    |                           | QMS-A315                                           |                           |
|---------------------------|--------------------------|---------------------------------------------------------------------------------------------|---------------------------|----------------------------------------------------|---------------------------|
| Optical lens              |                          | dual-field dual-telecentric low-distortion lens                                             |                           |                                                    |                           |
|                           |                          | wide view field: Ø100mm<br>small view field: Ø25mm                                          |                           | wide view field: Ø100mm<br>small view field: Ø25mm |                           |
| View field range          |                          | <b>wide view field</b>                                                                      | <b>small view field</b>   | <b>wide view field</b>                             | <b>small view field</b>   |
|                           |                          | 100×80mm                                                                                    | 20×16mm                   | 100×80mm                                           | 25×20mm                   |
| Measurement range         |                          | 200×200mm                                                                                   | 130×130mm                 | 300×200mm                                          | 230×130mm                 |
| Measurement accuracy *    | without stitching        | ±3μm <sup>①</sup>                                                                           | ±1μm <sup>②</sup>         | ±3μm <sup>①</sup>                                  | ±1μm <sup>②</sup>         |
|                           | with stitching           | ±(5+0.02L)μm <sup>③</sup>                                                                   | ±(3+0.02L)μm <sup>④</sup> | ±(5+0.02L)μm <sup>⑤</sup>                          | ±(3+0.02L)μm <sup>⑥</sup> |
| Repeatability             | without stitching        | ±1μm                                                                                        | ±0.5μm                    | ±1μm                                               | ±0.5μm                    |
|                           | with stitching           | ±2μm                                                                                        | ±1.5μm                    | ±2μm                                               | ±1.5μm                    |
| Max. weight of workpiece  |                          | 5kg                                                                                         |                           |                                                    |                           |
| Measurement time          |                          | <2s                                                                                         |                           |                                                    |                           |
| Measurement data          |                          | 2D measurement                                                                              |                           |                                                    |                           |
| Power supply              |                          | 110/220V, 50/60Hz, 600W                                                                     |                           |                                                    |                           |
| Illumination system       | back light               | telecentric illuminator, green light                                                        |                           |                                                    |                           |
|                           | ring light               | 4-zone circular white high light<br>circular (directional) low-angle green light (electric) |                           |                                                    |                           |
|                           | coaxial light (optional) | vertical illuminator, white light                                                           |                           |                                                    |                           |
| Environmental requirement |                          | temperature: 20°C±2°C, relative humidity: 30%~80%, vibration: <0.002g, less than 15Hz       |                           |                                                    |                           |
| Dimension (L×W×H)         |                          | 532×480×766mm                                                                               |                           | 532×497×766mm                                      |                           |
| Weight                    |                          | 50kg                                                                                        |                           | 60kg                                               |                           |

\* The optimum temperature is 20°C±1°C

① Within 80×64mm, on focal position and environment temperature at 20°C±1°C

② Within 20×16mm, on focal position and environment temperature at 20°C±1°C

③ Within 180×180mm, on focal position and environment temperature at 20°C±1°C

④ Within 117×117mm, on focal position and environment temperature at 20°C±1°C

⑤ Within 270×180mm, on focal position, environment temperature at 20°C±1°C, and workpiece is less than 2kg, L is the travel of stage

⑥ Within 207×117mm, on focal position, environment temperature at 20°C±1°C, and workpiece is less than 2kg, L is the travel of stage

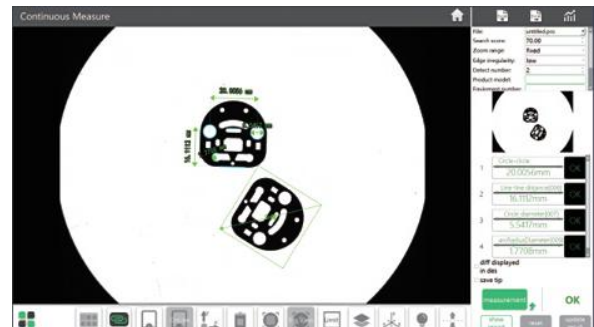
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## A digital surface profilometer (DIP) system. The main unit is white and green, featuring a color LCD screen displaying a 3D surface profile. It has a black probe arm and a black base. A separate black control unit is positioned to the right.

11.6" LCD (optional)

|                                   |                                                                        |
|-----------------------------------|------------------------------------------------------------------------|
| <b>Coaxial light illumination</b> | <b>QMS-23-A3</b> (must be installed in factory)                        |
| <b>Glass calibration plate</b>    | <b>QMS-CALIBRATION</b>                                                 |
| <b>MES transmission function</b>  | <b>QMS-23-E1</b>                                                       |
| <b>CAD import function</b>        | <b>QMS-23-C1</b>                                                       |
| <b>Laser sensor</b>               | <b>QMS-43-SJ1</b> (for <b>QMS-A315</b> , must be installed in factory) |
| <b>Foot-switch</b>                | <b>QMS-43-FS1</b>                                                      |
| <b>11.6" LCD</b>                  | <b>QMS-23-B1</b> (must be installed in factory)                        |
| <b>Rotary table</b>               | <b>QMS-43-RT1</b> (must be installed in factory)                       |

- Automatically measure widths, holes, rings, angles at the same time, simple and efficient



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- The screenshot shows the Minitab software interface. The 'Statistics' menu is open, and 'Normal' is selected. The 'Normal-Quantiles' dialog box is displayed, showing 'Extract objects: individual y's' and 'Extract range: worksheet range'. A normal distribution plot is shown with a mean of 100.000% and a standard deviation of 10.00000%. The plot includes a normal curve and several vertical lines representing individual data points. The 'Report setting' section at the bottom shows 'Normal Quantiles' selected.

