

Mitutoyo

Mitutoyo Quality

High Accuracy CNC Coordinate Measuring Machine STRATO-Active Series

Coordinate Measuring Machines



Catalog No. E16035(2)

STRATO-Active

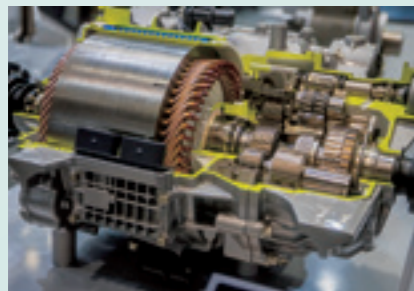
- The bridge type CNC CMM offers both high performance and cost-effective measurements.
- Achieves high accuracy of $(1.2+3L/1000) \mu\text{m}^*$.
- High speed measurement at 3 mm/s.
- Suitable for measuring medium-sized workpieces accurately.
- Thermal compensation is included as standard.



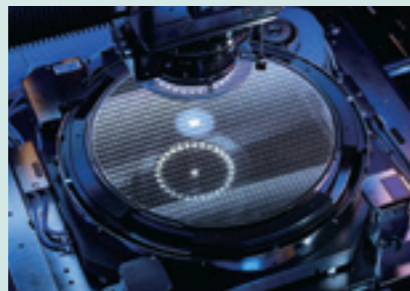
Applications

Capable of measuring high-precision parts effectively.

Automotive industry
E drive units for EV and FCV



Semiconductor industry
Semiconductor manufacturing equipment



Medical industry
Surgical robotic system



Specifications

| Model | | STRATO-Active 776 | STRATO-Active 7106 | STRATO-Active 9106 | STRATO-Active 9166 |
|---|---|--|--|-----------------------|-----------------------|
| Measuring range | X axis | 700 mm | 700 mm | 900 mm | 900 mm |
| | Y axis | 700 mm | 1000 mm | 1000 mm | 1600 mm |
| | Z axis | 600 mm | | | |
| Guide system | | Air bearing on each axis | | | |
| Drive speed | CNC MODE (Mode selector switch: AUTO) | Moving speed | Max. 300 mm/s (Max. combined speed 519 mm/s) | | |
| | | Measuring speed | 1 to 3 mm/s | | |
| | CNC MODE (Mode selector switch: MANUAL) | Moving speed | Max. 138 mm/s (Max. combined speed 239 mm/s) | | |
| | | Measuring speed | 1 to 3 mm/s | | |
| | J/S MODE | High speed | 0 to 80 mm/s | | |
| | | Low speed | 0 to 3 mm/s | | |
| Fine speed | | 0 to 0.05 mm/s | | | |
| Drive acceleration | | Each axis 1333 mm/s ² (Max. combined acceleration 2309) | | | |
| Length measuring method | | Linear encoder | | | |
| Resolution | | 0.00005 mm | | | |
| Measuring table | Material | Granite | | | |
| | Size (stage) | 876 x 1420 mm | 876 x 1720 mm | 1076 x 1720 mm | 1076 x 2320 mm |
| | Measured object fixing method | Screw (M8 x 1.25) | | | |
| Workpiece | Maximum height | 800 mm | | | |
| | Maximum mass | 800 kg | 1000 kg | 1200 kg | 1500 kg |
| Main unit dimensions (H x W x D) | | 2730 x 1465 x 1700 mm | 2730 x 1465 x 2000 mm | 2730 x 1665 x 2000 mm | 2730 x 1665 x 2740 mm |
| Mass (including the installation platform and control device) | | 1900 kg | 2150 kg | 2350 kg | 3050 kg |
| Power source | Voltage, Frequency | 100 to 120 / 200 to 240 VAC, 50/60 Hz | | | |
| | Maximum power consumption | 1.5 kW | | | |

Accuracy*

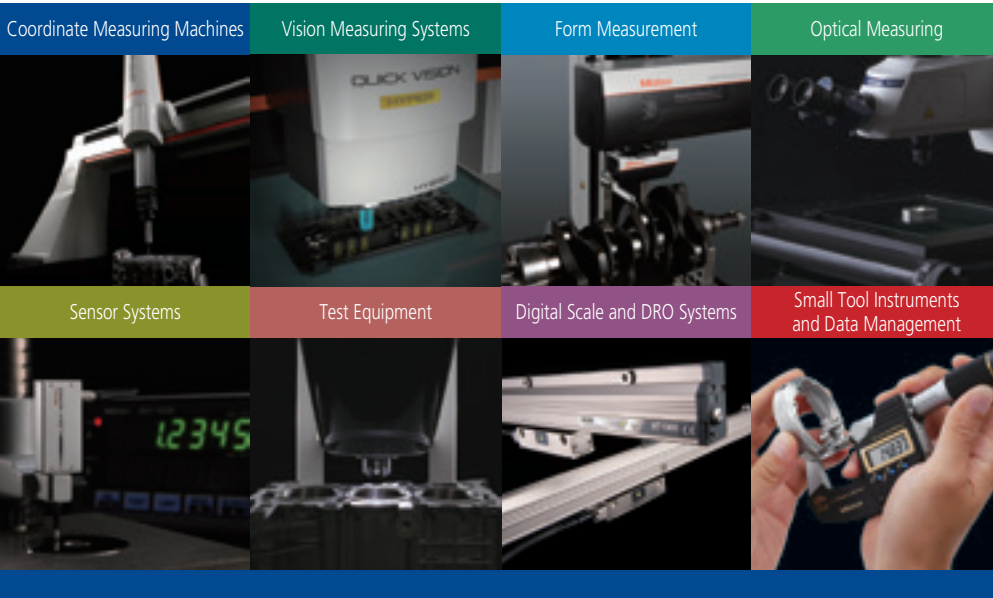
Unit: μm

| Title | Symbol | Standard | |
|--------------------------------------|---------------------------------|---|-------------|
| Length measurement error | $E_{0,MPE}$ | ISO 10360-2: 2009 (JIS B 7440-2: 2013) | 1.2+3L/1000 |
| | $E_{150,MPE}$ | | 1.2+3L/1000 |
| Repeatability range of E_0 | $R_{0,MPL}$ | | 1.2 |
| Scanning mode form error on a sphere | $P_{Form.Sph.Scan.PP.Tact,MPE}$ | ISO 10360-5: 2020 (JIS B 7440-5: 2022) | 2.0 |
| Scanning mode time | $T_{Sph.Scan.PP.Tact,MPL}$ | | 45 s |
| Single-stylus form error | $P_{Form.Sph.1x25.SS.Tact,MPE}$ | | 1.2 |

*guaranteed when using the SP25M probe system with a $\phi 4 \times 50$ mm stylus [SM25-1+SH25-1+Stylus($\phi 4 \times 50$ mm)]. L: measuring length (mm).

Guaranteed accuracy temperature

| | | |
|----------------------|------------|-------------|
| Temperature range | | 18 to 22 °C |
| Temperature change | Per hour | 1.0 °C |
| | Per day | 2.0 °C |
| Temperature gradient | Vertical | 1.0 °C/m |
| | Horizontal | 1.0 °C/m |



Whatever your challenges are, Mitutoyo supports you from start to finish.

Mitutoyo is not only a manufacturer of top quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed up by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.



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