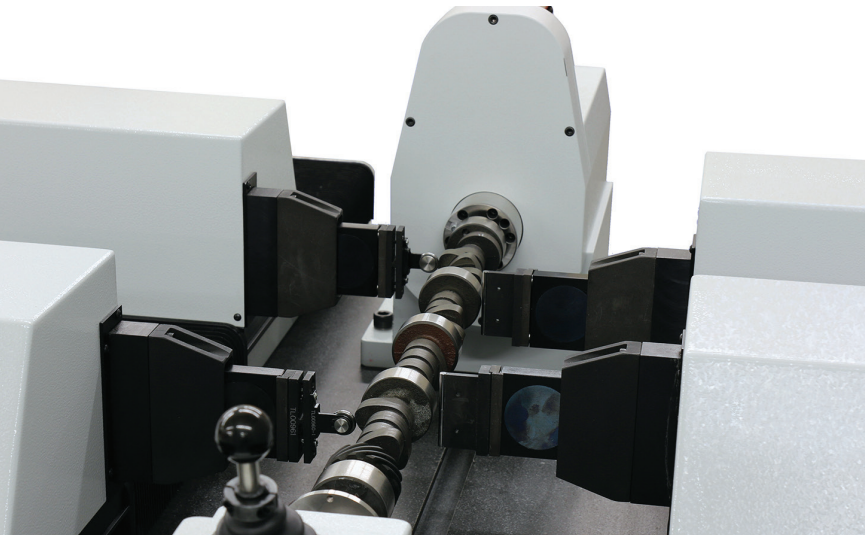


1304/1306 Horizontal High-Speed Multi-Head Gage

1304/1306



The 1304/1306 gage is a horizontal, high-speed, multi-head Cylindrical Coordinate Measuring Machine (CCMM) that provides extremely accurate manufacturing measurement data for camshafts, axles, and other rotating components. Advanced manufacturers choose the 1304/1306 gage series because it offers fast inspection speeds and a flexible platform for performing both audit gage or high-speed in-line production gage needs. Featuring a multi-head design, the horizontal gages enable manufacturers to complete part inspection routines in a fraction of the time needed by a single-head gage. Changing between part types is simple, with programmable followers that move axially along the part, and an optional power

tailstock to allow for robot or gantry loading and multiple part lengths.

The 1304/1306 gage is available in 609 mm (24"), 1067 mm (42"), and 2286 mm (90") gage capacities.

The 1304/1306 gage is ideal for measuring features on:

- Electric rotor shafts
- Axles
- Camshafts
- Cam lobes
- Other cylindrical parts

Features:

- Enables rapid inspection routine times with rotation speeds of up to 40 rpm
- Provides a very accurate high resolution glass encoding system and headstock spindle
- Offers durable carbide followers (flat and disc) and head/tailstock centers
- Supports up to 4 independent measuring heads that can traverse beyond the headstock and tailstock, enabling easy part load/unload cycles
- Optional programmable power tailstock for robot/gantry loading

Benefits:

- Measures up to 60 parts per hour
- Actionable data set is driven by 3600 data points per revolution (every 1/10 of a degree)
- Affords simple programming with user-friendly software menus
- Reduces gage fixture costs with multi-head design
- Gage can be used for audit tasks or inline production operations
- Expand throughput with automation options for in-line applications

1304/1306 Gage Specifications

| Accuracy Specifications | 1304/1306 | | | |
|-------------------------|---|--------------------|--------------------|---------------------|
| Radial Resolution | 0.016 μm^{ii} | | | |
| Spindle Total Runout | < 0.15 μm | | | |
| Radial Accuracy | $\pm 0.5 \mu\text{m}^{\text{iii}}$ | | | |
| Axial Accuracy | $\pm 2 \mu\text{m}$ over 100 mm ^{iv} | | | |
| Angular Resolution | 0.00001° | | | |
| General Specifications | 1304-24" | 1304-42" | 1306-24" | 1306-90" |
| Follower Head | 4 | 4 | 2 | 2 |
| Part Length (Max) | 609 mm (24") | 1067 mm (42") | 609 mm (24") | 2286 mm (90") |
| Swing Diameter | 178 mm (7.0") | 178 mm (7.0") | 178 mm (7.0") | 380 mm (15") |
| Part Weight | 45.4 kg (100 lbs) | 45.4 kg (100 lbs) | 45.4 kg (100 lbs) | 180 kg (400 lbs) |
| Gage Weight | 2270 kg (5000 lbs) | 3630 kg (8000 lbs) | 1814 kg (4000 lbs) | 5400 kg (12000 lbs) |
| Gage Dimensions | | | | |
| Gage Height | 1016 mm (40") | 1016 mm (40") | 1016 mm (40") | 1282.7 mm (50.5") |
| Gage Width | 1740 mm (68.5") | 2267 mm (89.25") | 1740 mm (68.5") | 3657.6 mm (144") |
| Gage Depth | 1170 mm (46") | 1170 mm (46") | 826 mm (32.5") | 1016 mm (40") |

Parameters Supported

- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> • Angularity • Cam Lobe Lift Error • Center Deviation • Chatter • Concentricity | <ul style="list-style-type: none"> • Cylindricity • Diameter • Flatness • Length • Parallelism | <ul style="list-style-type: none"> • Perpendicularity • Profile • Straightness • Roundness (Circularity) | <ul style="list-style-type: none"> • Runout • Taper • True Position |
|---|---|--|--|

Adcole Machine Support

Adcole machine support is provided by a factory trained field service team that is backed by 50 years of industry experience and ISO 9000 certification. Machine and application support, machine retrofit and upgrade services, plus inspection services are offered to our global customer base. Regular and after hours email and phone support is available 8am-11pm EST.

ⁱ Optional gantry or robot part loading features available.

ⁱⁱ Temperature 20±1 C°, Relative Humidity 40%-60%, Pressure 86KPa-106KPa.

ⁱⁱⁱ Temperature 20±1 C°, Relative Humidity 40%-60%, Pressure 86KPa-106KPa.

^{iv} Temperature 20±1 C°, Relative Humidity 40%-60%, Pressure 86KPa-106KPa.