

ADCOLE 1304/1306

HORIZONTAL HIGH-SPEED MULTI-HEAD GAGE

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.



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 cycles¹
- 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

THE MODEL 1304/1306 IS IDEAL FOR MEASURING FEATURES ON:

- EV shafts
- Axles
- Camshafts
- Cam lobes
- Other cylindrical parts



Model 1304/1306 Gage Specifications

Accuracy Specifications	1304/1306			
Radial Accuracy ⁱ	±0.5 µm			
Radial Resolution ⁱⁱ	0.016 µm			
Axial Accuracy ⁱⁱ	±2 µm over 100 mm			
Angular Resolution	0.00001°			
Spindle Total Runout	<0.15 µm			
General Dimensions	1304-24	1304-42	1306-24	1306-90
Follower Heads	4	4	2	2
Part Length (Max)	609mm (24")	1067mm (42")	609mm (24")	2286mm (90")
Swing Diameter	178mm (7")	178mm (7")	178mm (7")	380mm (15")
Part Weight	45.4 kg (100 lbs)	45.4 kg (100 lbs)	45.4 kg (100 lbs)	180 kg (400 lbs)
Base Gage Dimensions	1304-24	1304-42	1306-24	1306-90
Gage Height	1016mm (40")	1016mm (40")	1016mm (40")	1282.7mm (50.5")
Gage Width	1740mm (68.5")	2267mm (89.25")	1740mm (68.5")	3657.6mm (144")
Gage Depth	1170mm (46")	1170mm (46")	826mm (32.5")	1016mm (40")
Gage Weight	2270kg (5000 lbs)	3630 kg (8000 lbs)	1814 kg (4000 lbs)	5400 kg (12000 lbs)

Parameters Supported

- Angularity
- Cam Lobe Lift Error
- Center Deviation
- Chatter
- Concentricity
- Cylindricity
- Diameter
- Flatness
- Length
- Parallelism
- Perpendicularity
- Profile
- Roundness
- Runout
- Straightness
- Taper
- True Position

Gage Support

Adcole machine support is provided by a factory trained field service team that is backed by more than 60 years of industry experience and ISO 9000 certification. Machine and application support, machine retrofit and upgrade services, plus part inspection and gage recertification services are offered to our global customer base. Adcole's support regions include Japan, Korea, China, Brazil, Mexico, India, Europe and North America. 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.

