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 cycles [i]
- 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

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Model 1304/1306 Gage Specifications

	1304 (24”)	1304 (42”)	1306 (24”)	1306 (90”)	1306 (92”)
Accuracy Specifications					
Radial Accuracy [i]	±0.5 µm				
Radial Resolution [ii]	0.016 µm				
Axial Accuracy [ii]	±2.0 µm				
Angular Resolution	< 0.036 arc second (< 0.00001°)				
Spindle Total Runout	<0.1 µm				
General Dimensions					
Follower Heads	4			2	
Swing Diameter	190mm (7.5”)		178mm (7”)	350mm (13.78”)	
Part Length (Max)	965mm (38”)	1,520mm (59.8”)	609mm (24”)	2,286mm (90”)	2,438mm (96”)
Part Weight	36 kg (80 lb)		45.4 kg (100 lb)	180 kg (400 lb)	
Base Gage Dimensions					
Gage Height	1,239mm (48.8”)		1,016mm (40”)	1,283mm (50.5”)	
Gage Width	887mm (34.9”)	1,708mm (67.25”)	1,740mm (68.5”)	3,658mm (144”)	
Gage Depth	1,111mm (43.75”)		826mm (32.5”)	1,016mm (40”)	
Gage Weight	1,708 kg (3,760 lb)	2,409 kg (5,300 lb)	1,814 kg (4000 lb)	5,400 kg (12000 lb)	

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.

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