

ADCOLE 1310

IN-LINE CAMSHAFT INSPECTION MACHINE

The 1310 gage is designed for fully automated, high speed camshaft manufacturing operations. Offering sub-micron accuracy, the 1310 can easily monitor (in real-time) the machining process of up to 200 parts per hour. Rapid camshaft measurement cycle times of <20 seconds — depending on part requirements — ensures optimal manufacturing quality and throughput levels. The gage provides 3600 data points per revolution per follower, enables part capacities of up to 609 mm (24", with optional capacities available). This flexible gage offers 100 mm (3.9") of headstock travel, a tailstock assembly that offers a travel range of 150 mm¹ (5.9" with optional range of 300 mm [11.8"] available).

Features

- Measures up to 609 mm (24") length parts (with optional part lengths available)
- Offers a deep set of camshaft measurement parameters, containing lobes, journals, and timing references
- Provides menu-driven software for easy gage operation
- Affords a programmable parts elevator for accurate load and unload of parts into the gage²
- Engineered for shop floor conditions
- Available in robot, gantry or manual load by operator configurations

Benefits

- Enables high volume inspection capacity of up to 200 parts per hour
- Collects 3,600 data points per revolution per follower
- Affords camshaft measuring times of <20 seconds, depending on part requirements (not including load and unload time)
- Provides easy maintenance via modular gage design
- Permits easy part changeovers using a simple follower relocation system



Model 1310 Gage Specifications

Accuracy Specifications	1310 & 1310-S	
Radial Accuracy ⁱ	±0.5 µm	
Radial Resolution ⁱ	0.016 µm	
Axial Accuracy by LVDT ⁱ	±1 µm over 25 mm	
Angular Resolution	0.00001°	
Spindle Total Runout	<0.15 µm	
General Dimensions	1310	1310-S
Follower Heads	Up to 28	Up to 24
Part Length (Max)	609mm (24")	609mm (24")
Swing Diameter	102mm (4")	102mm (4")
Part Weight (Max)	25 kg (55.5 lbs)	25 kg 55.5 lbs)
Tailstock Travel	Up to 300mm	30mm
Headstock	100mm Maximum	Fixed
Rotation Speed	45.4 kg (100 lbs)	45.4 kg (100 lbs)
Base Gage Dimensions		
Gage Height	1143mm (45.0")	1074mm (42.3")
Gage Width	1803mm (71.0")	1556mm (61.2")
Gage Depth	1143mm (45.0")	984mm (38.7")
Gage Weight	2041 kg (4500 lbs)	1419 kg (3130 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 Options

The 1310 gage is available with tailstock, part capacity, and automation options. Tailstock assemblies with a center travel range of up to 300mm are available. For manufacturers requiring greater part size flexibility, optional part lengths of up to 712mm (28") are available ⁱⁱ. Hardware and software to interface to robots or gantries are available as options. The 1310S gage is an entry level CCMM, designed to measure one part length and is engineered with fewer features than the 1310. Customers have the option of equipping the 1310S with a linear scan capability, enabling manufacturers to measure multiple cuts of a complex part.

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

ⁱⁱ Ask your salesperson about optional part length sizes for the 1310 gage

