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 3,600 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 mm[1] (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 gage[2]
- 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

	1310	1310-S
Accuracy Specifications		
Radial Accuracy [i]	±0.5 µm	
Radial Resolution [i]	0.016 µm	
Axial Accuracy [i]	±2 µm / 100mm	
Angular Resolution	<0.036 arc second (<0.00001°)	
Spindle Total Runout	<0.1 µm	
General Dimensions		
Follower Heads	Up to 28	Up to 24
Follower Stroke	51mm (2”)	
Swing Diameter	102mm (4”)	
Part Length (Max)	609mm (24”)	
Part Weight (Max)	25 kg (55 lb)	
Rotation Speed	1 to 30 rpm (Maximum 40 rpm)	
Base Gage Dimensions		
Gage Height	2,004mm (80”)	2,229mm (90.5”)
Gage Width	887mm (34.9”)	
Gage Depth	1,195mm (47”)	
Gage Weight	2,160 kg (4,760 lb)	2,380 kg (5,250 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 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

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www.adcole.com info@adcole.com 508.485.9100