ADCOLE | 1200-HC

HIGH-CAPACITY AUTOMATED SHAFT METROLOGY

The Adcole Model 1200 Cylindrical Coordinate Measurement Machine (CCMM) is a highly accurate gage for measuring tight part tolerances on camshafts, crankshafts and other cylindrical parts. The system employs a proprietary laser interferometer technology that delivers precise radial measurements to within sub-micron accuracies of 0.5 µm. This rugged gage is designed for use on the production floor, and in quality control work environments. The Model 1200-HC gage is designed to measure parts with max lengths ranging from 1,524-4,572mm (60”-180”).

Features

- Automatic, push-of-a-button gage measures parts with max length capacities ranging from 1,524-4,572mm (60”–180”)
- Uses laser interferometer for radial and length measurements
- Includes high resolution glass scale angle encoder for accurate index measurements of rod journals and cam lobes to within <1 arc / second
- Provides precision flat granite surface plate that extends the entire length of the system
- Includes precision heavy-duty spindle bearing for long life and durability

Benefits

- Offers fast adjustments of the tailstock to easily accommodate different length parts
- Provides fully programmable follower, carriage and headstock speeds
- Employs Program Builder gage programming software, enabling part measuring sequences, reports, inspection packages
- Delivers precise radial and length measurements
- Gives automatic probe wear correction data

THE MODEL 1200 IS IDEAL FOR MEASURING CHALLENGING FEATURES ON:

- Camshafts
- Crankshafts
- Heavy Diesel Shafts
- Other Cylindrical Parts

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MODEL 1200-HC GAGE SPECIFICATIONS

	1200-HC 60	1200-HC 80	1200-HC 105	1200-HC 130	1200-HC 180
Accuracy Specifications					
Radial Accuracy [i]	±0.4 µm			±0.5 µm	
Radial Resolution [i]	0.005 µm				
Axial Accuracy	±1.0 µm				
Angular Resolution	<0.036 arc second (<0.00001º)				
Spindle Total Runout	<0.25 µm				
General Specifications					
Rotation Speed Max.	20 rpm				
Follower Stroke	270mm (10.63”)			393mm (15.5”)	
Swing Diameter	457mm (18”)			660mm (26”)	
Part Weight Max.	1,360 kg (3,000 lb)			2,268 kg (5,000 lb)	
Part Length Max. [ii]	1,524mm (60”)	2,062mm (81.2”)	2,671mm (105.2”)	3,302mm (130”)	4,572mm (180”)
Base Gage Dimensions					
Gage Height	2,692mm (106”)	3,163mm (124.5”)	3,772mm (148.5”)	4,426mm (174.3”)	5,715mm (225”)
Gage Width	2,446mm (96.3”)			2,756mm (108.5”)	2,954mm (116.3”)
Gage Depth	1,529mm (60.2”)			1,621mm (63.8”)	1,946mm (76.6”)
Gage Weight	3,630 kg (8,000 lb)	5,900 kg (13,000 lb)	7,044 kg (15,530 lb)	11,110 kg (24,500 lb)	19,050 kg (42,000 lb)

Parameters Supported

- Angularity
- Center Deviation (hourglass/barrel)
- Coaxiality
- Concentricity
- Cylindricity
- Diameter (LSC, 2-Point Max/Min)
- Eccentricity
- Flatness
- FFT Chatter
- Index Angle
- Length
- Lobing
- Lobe Lift
- Lobe Angle
- Lobe Velocity
- Parallelism
- Perpendicularity
- Profile
- Radius
- Roundness (LSC,MIC,MCC,MZC)
- Runout
- Straightness
- Stroke
- Taper
- Throw
- 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.

i Temperature 20±1 C°, Relative Humidity 40%-60%, Pressure 86KPa-106KPa.
ii 10% of typical industry part tolerance or 1 µm if tolerance less than 10 µm

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