

# ADCOLE

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## 1200

www.adcole.com

### Versatile Crankshaft & Camshaft Gage



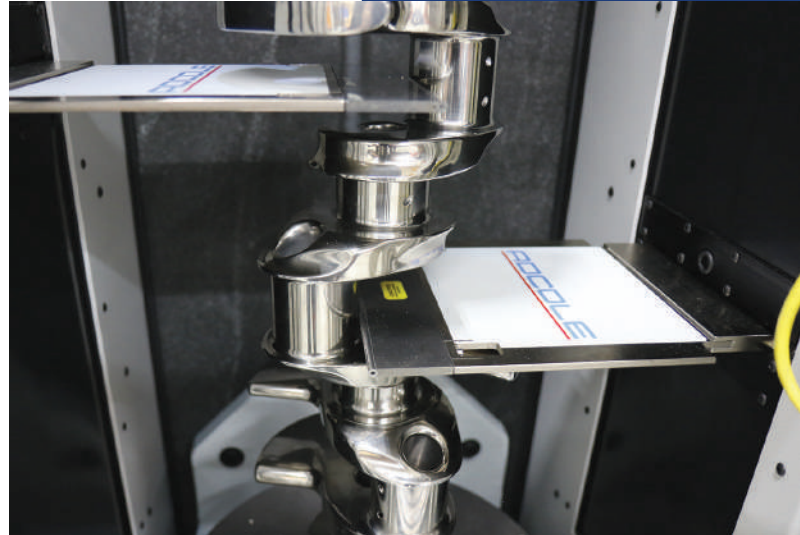
The Adcole Model 1200 Cylindrical Coordinate Measurement Machine (CCMM) is a highly accurate gage for measuring tight part tolerances on camshafts, crankshafts and other cylindrical parts. The system employs a proprietary laser interferometer technology that delivers precise radial measurements to within submicron accuracies of 0.5  $\mu\text{m}$ . This rugged gage is designed for use on the production floor, and in quality control work environments.

The Model 1200 gage is designed to measure parts with lengths ranging from 2032-4575 mm (80"-180").

#### Features:

- Automatic, push-of-a-button gage measures parts with length capacities ranging from 2032-4575 mm (80 - 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

#### MODEL 1200



#### The 1200 gage is ideal for measuring features on:

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

#### 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

# 1200 Gage Specifications

Model	1200-80" (1200-4)	1200-105" (1200-6)	1200-130" (1200-8)	1200-180" (1200-10)
Max Part Length	2032 mm (80")	2667 mm (105")	3302 mm (130")	4572 mm (180")
<b>Accuracy Specifications</b>				
Radial Accuracy	± 0.4 µm <sup>i</sup>		± 0.5 µm <sup>i</sup>	
Spindle Total Runout	< 0.15 µm		< 0.25 µm	
Radial Resolution	0.005 µm <sup>i</sup>			
Angular Resolution	0.00001°			
Angular Accuracy	< 1 arc / second			
<b>General Specifications</b>				
Part Length (Max)	2032 mm (80")	2667 mm (105")	3302 (130")	4572 (180")
Swing Diameter	460 mm (17.88")		558 mm (22")	
Part Weight (Max)	1364 kg (3000 lbs.)		1818 kg (4000 lbs.)	
Rotational Speed (Max)	20 rpm			
<b>Base Gage Dimensions</b>				
Gage Width	1226 mm (48.3")		1540 mm (60.6")	1733 mm (68.2")
Gage Height	3163 mm (124")	3759 mm (148")	4426 mm (174")	5715 mm (225")
Gage Depth	1529 mm (60.2")		1621 mm (63.8")	1946 mm (76.6")
Gage Weight	5914 kg (13,000 lbs.)	7044 kg (15,530 lbs.)	11,136 kg (24, 500 lbs.)	19,091 kg (42,000 lbs.)

1200 Gage Parameters – Camshaft		1200 Gage Parameters – Crankshaft	
Cam Lobe Lift	Lobe Lift	Axial Straightness	Index Angle
Center Deviation (hourglass/barrel)	Lobe Velocity	Center Deviation (hourglass/barrel)	Length
Concentricity	Lobing	Coaxiality	Parallelism
Cylindricity	Parallelism	Concentricity	Radius
Diameter (LSC, 2-Point Max/Min)	Radius	Cylindricity	Roundness (LSC, MIC, MCC, MZC)
FFT Chatter	Roundness (LSC, MIC, MCC, MZC)	Diameter (LSC, 2-Point Max/Min)	Runout (axial, radial)
Length	Runout	Eccentricity	Straightness
Lobe Angle	Straightness	FFT Chatter	Taper
	Taper		Throw/Stroke
	Velocity		

## 1200 Dual Head Option

For manufacturers requiring a higher inspection throughput rate than the single head 1200 gage provides — or a single gage for both crankshaft and camshaft inspection without the need to change followers — Adcole offers the 1200 Dual Head (1200-DH) option. This fast, flexible solution features two measuring heads that operate simultaneously with length capacities ranging from 26-60". The DH option increases throughput inspection volume by enabling organizations to use both measurement heads to measure a crankshaft within the same inspection sequence or to use one measurement head to independently inspect a crankshaft, and the second measurement head to independently inspect a camshaft, each using a dedicated follower.

For additional information about the 1200-DH gage, contact your local Adcole sales representative.



The 1200-DH can be configured for crankshaft and camshaft inspection

## Adcole Machine Support

Adcole machine support is provided by an expert field service team that is backed by 50 years of industry experience and ISO 9000 certification. Machine and application support, machine retrofit and upgrade services, plus inspection services are offered to our global customer base. Regular and after-hours email and phone support is available 8am-11pm EST.

<sup>i</sup> Temperature 20±1 C°, Relative Humidity 40%-60%, Pressure 86KPa-106KPa