# **HDCOLE** LASER INTERFEROMETER-BASED SHAFT GAGE

The Adcole Model 1200-LX is a high-speed, high-precision gage designed to measure camshafts, crankshafts, pistons, and other cylindrical components in demanding production environments. The heart of the 1200-LX is a laser interferometer, which enables the gage to measure to sub-micron accuracy and repeatability.

### Features

- Smaller gage footprint saves valuable production floor space
- Swivel-hinge mounted control panel provides ergonomic, convenient positioning
- Brushless and linear slide motors supply more torque and speed, reduce friction, and improves measurement accuracy
- Optional enclosed measuring chamber with interlocking, easy-swing door ensures a clean gage measurement environment. Includes a Go/No-Go LED indicator that shows pass/fail of the part

### Benefits

TRUSTED ACCURACY

- Laser interferometer-based design offers sub-micron radial accuracy ( $\pm$  0.25  $\mu$ m) and repeatability
- 1200-LX gage measures an extensive list of parameters to provide the most complete, accurate camshaft and crankshaft inspection data available
- 3D Color Map and Program Builder software data analysis provides reporting, including: part summary, part programming, inspection packages, dimensions, calculated values for elements



#### THE MODEL 1200-LX IS IDEAL FOR MEASURING CHALLENGING FEATURES ON:

- Camshafts
- Crankshafts
  - Cylindrical Parts
  - Eccentric Shafts
  - Transmission & Axel Shafts
  - Heavy Diesel Camshafts & Crankshafts



# Model 1200-LX Gage Specifications

Accuracy Specifications	
Radial Accuracy <sup>i</sup>	±0.25 μm
Radial Resolution	0.005 μm
Axial Accuracy	±1.0 μm / 100mm
Angular Resolution	0.00001°
Spindle Total Runout	< 0.1 µm
General Specifications	
Swing Diameter	300mm (11.81")
Part Weight Max.	340 kgs (750 lbs)
Part Length Max.	1.5 meter (59.06")
Rotational Speed Max.	30 rpm
Carriage Speed	2286mm (90") per minute (vertically)
Base Gage Dimensions	
Gage Height	2535mm (99.8") - 3043mm (119.8")
Gage Width	1396mm (55″)
Gage Depth	1720mm (67.7")
Gage Weight	2495 kg (5500 lbs)

## Parameters Supported

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



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