

# 1200-LX Laser Interferometer-Based Solution

### MODEL 1200-LX





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 submicron accuracy and repeatability.

### The 1200-LX gage is ideal for measuring challenging features on:

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

### 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:

- Laser interferometer-based design offers submicron radial accuracy (± 0.25 µm) 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

## 1200-LX Gage Specifications

### **ACCURACY SPECIFICATIONS**

Radial Resolution	0.005 μm
<b>Headstock Runout</b>	<0.1 µm
Radial Accuracy	± 0.25 μm
<b>Axial Accuracy</b>	± 1.0 μm/100mm
<b>Angular Resolution</b>	0.00001°

#### **GENERAL SPECIFICATIONS**

Part Length (Max)	1200-LX 1 meter: 1000 mm (39.37") 1200-LX 1.5 meter: 1500 mm (59.06")
<b>Swing Diameter</b>	300 mm (11.81")
Part Weight (Max)	340 kg (750 lb)
Carriage Speed	2286 mm/min (90"/min)
Headstock Rotation Speed	Max 30 rpm



#### **GAGE DIMENSIONS**

Gage Height	2535 mm - 3043 mm (99.8 - 119.8")
Gage Width	1396 mm (55")
Gage Depth	1720 mm

Measured Camshaft Parameter	Measured Cranksh	Measured Crankshaft Parameters	
<ul> <li>Center Deviation (hourglass/barrel)</li> <li>Concentricity</li> <li>Cylindricity</li> <li>Diameter (LSC, 2-Point Max/Min)</li> <li>FFT Chatter</li> <li>Length</li> <li>Lobe Angle</li> <li>Lobe Lift</li> <li>Lobe Velocity</li> <li>Radius</li> <li>Roundn MIC, MC</li> <li>Runout radial)</li> <li>Straight</li> <li>Taper</li> </ul>	<ul> <li>(hourglass/barrel)</li> <li>Coaxiality</li> <li>Concentricity</li> <li>Cylindricity</li> <li>Diameter (LSC, 2-Point Max/Min)</li> <li>Eccentricity</li> </ul>	<ul> <li>Length</li> <li>Parallelism</li> <li>Radius</li> <li>Roundness (LSC, MIC, MCC, MZC)</li> <li>Runout (axial, radial)</li> <li>Straightness</li> <li>Taper</li> <li>Throw/Stroke</li> </ul>	

### Adcole Machine Support

Adcole machine support is provided by a factory trained fi eld 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 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.

Tel: 508.485.9100 | Email: info@adcole.com | www.adcole.com