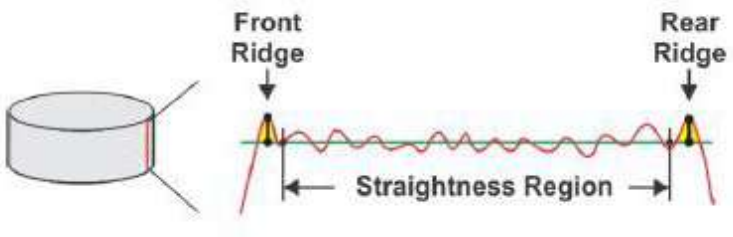
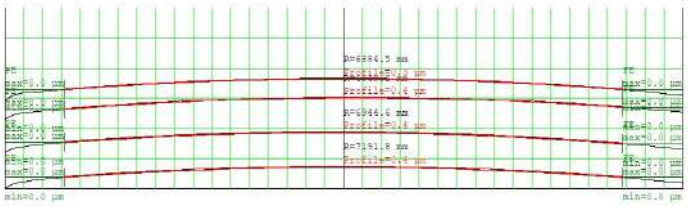
ADCOLE
TRUSTED ACCURACY

www.adcole.com

Material Build-Up & Advanced Straightness Software

GAGE SOFTWARE





Material Build-Up and Advanced Straightness software is used to detect "material build-up" on the leading or trailing edge of a journal scan

Adcole Material Build-Up & Advanced Straightness software is an advanced linear scan data analysis package. The software is used to detect any "material build-up" on the leading or trailing edge of the scan. Material build-up is usually found in a zone outside of the straightness calculation range.

Material Build-Up & Advanced Straightness software can measure one or more linear traces on a crankshaft journal, using assorted measurement methods. The basic method is to measure the journal from the lower radial cut to the upper radial cut. Alternatively, a different method is to measure the cheek positions of a journal and then take a linear measurement based on the actual length of the journal. Recently, Adcole developed a third option that uses alternative scan length measurements for material build-up and straightness. This feature enables users to set a scan length that is larger than the distance between the lower and upper radial cut positions. This capability provides an option to measure a larger percentage of the journal surface without the need of measuring the faces (thereby saving cycle time).

By extending linear scan measurements and analysis, engineers can determine if any manufacturing issues exist near the edges of the journal. Specifically, material build-up analysis enables manufacturers to pinpoint if they are experiencing wheel breakdown, subsequently resulting in "material build up" at the edge of the journal[i]. This Adcole software solution provides the means to specify the linear scan reduction method for determining the area for straightness plus other parameters, including two edge sections for material build-up.

Material Build-Up & Advanced Straightness software allows users to analyze linear scan data, broken down into segmented regions. The defined center region can be analyzed for straightness, concavity and convexity. The end sections can be analyzed for maximum and minimum error. The end section analysis is critical for material build-up problem solving because the maximum error found in the end regions of the linear scan is where the extra material is detected and recorded (if it exists).

Material Build-up & Advanced Straightness Software	Adcole Gage
	1100 1100-GX 1200-DH 1200-LX 1200-SH

MATERIAL BUILD-UP & ADVANCED STRAIGHTNESS SOFTWARE MEASURES THE FOLLOWING PARAMETERS:		
Concavity	Convexity	Maximum Error per Region
Profile Error	Barreling	Minimum Error per Region
Straightness		

Material Build-Up & Advanced Straightness software enables operators to use specific scanning methods to determine material build-up values:

- Basic Linear Scan Method
- Linear Scan Based on Cheeks
- Linear Scan Based on Alternative Scan Length
- Convexity Specification

Features

- Enables organizations to find and act about material build-up found outside of the straightness calculation range
- Offers 3 different measuring methods to provide the most accurate, and specific measurement data available for material build-up and straightness
- Allows manufacturers to analyze linear scan data broken down into segmented regions — 3 or 5 regions
- Permits engineers to define the center region of a crankshaft and analyze it for straightness, concavity, and convexity

Benefits

- Offers flexible measurement methods to drill down into the data to determine where material build-up is occurring, and its root cause
- Provides intuitive means to detect material build-up on the leading or trailing edge of the scan
- Affords the means to enable manufacturers to improve high value fabrication processes

Adcole Software Support

Adcole software support is provided by an expert software engineering team that is backed by 50 years of industry experience and ISO 9000:2015 annual certification. Software support, software upgrade services, custom software services and training are offered to our global customer base. Regular email and phone support is available 8 AM – 6 PM EST.

[i] May requires a special narrow follower for maximum scan length, i.e. undercut to undercut.

669 Forest Street, Marlborough, MA 01752 USA
Tel: 508.485.9100 | Email: info@adcole.com | www.adcole.com