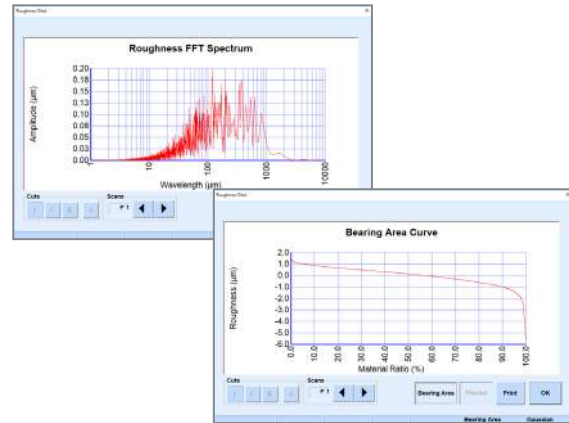


Surface Roughness Software

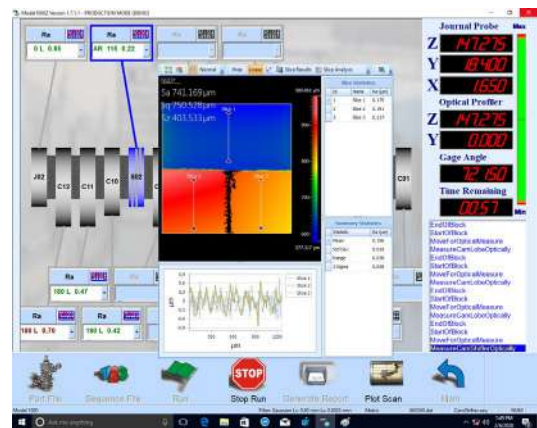
SOFTWARE



Surface Roughness software provides actionable data about surface roughness on high value manufactured components

Announcing **Adcole's Surface Roughness Measurement and Analysis software**, available for the 1000 and 1000-Z gages. This software establishes surface roughness on camshafts, crankshafts and many other cylindrical or near-cylindrical parts.

Measuring and monitoring surface roughness is an essential component of ensuring machine performance and service life. Surface roughness can have an impact on many issues, from load bearing, sealing and lubricant retention to friction and wear. As today's lubricants are getting thinner and bearing clearances are getting smaller, surface roughness is playing an increasingly critical role for advanced manufacturers. In addition to measuring and reporting standard surface roughness parameters, Adcole's software flags out-of-tolerance measurements and yellow warning zones, and provides fully programmable reports (paper or pdf). With zoomable surface roughness charts, FFT graphs and bearing area curves, Surface Roughness Software delivers additional analysis and deeper insights about surface measurement data.



Surface Roughness Software enables manufacturers to acquire and analyze 3-D optical surface scans via Zygo 3-D white-light interferometers

Roughness Parameters Calculated / Reported	MR1	Rpk
	MR2	Rsk
	Ra	Rt
	Rdc - Htps	Rtm - Rz (DIN)
	Rmr - Tp	Rvk
	Rp	R3z
	Rp/Rt	Rz (JIS)
	Rpm	Rz - Rmax
	Rpm - Rz	

The Surface Roughness Software is engineered to operate on the Adcole 1000 and 1000-Z gages, providing actionable data about:

- Balance Shafts
- Camshafts
- Crankshafts
- Eccentric Shafts
- Gears & Transmission Shafts
- Precision Hydraulic Cylinders
- Pump Lobes / Pump Shafts
- Robotic Shafts & Cylinders
- Sliding Camshafts

Features

- Offers surface roughness analysis data that meets ISO 4287 and ASME B46.1 Geometrical Product Specifications (GPS)
- Ability to selectively re-measure out-of-spec sections of the part
- Enables integration with SPC software such as Q-DAS®
- Provides adjustable scan length and data density (2 kHz, 2000 samples/mm or more)
- Permits programmable reports (paper or pdf), and flags out-of-tolerance measurements and yellow warning zones
- Features easy-to-use wizard-driven add-on utility programs to develop inspection sequences and output reports
- Delivers zoomable surface roughness charts, Fast Fourier Transform (FFT) graphs and Bearing Area curves which provide additional analysis and deeper insight into the surface roughness data

Benefits

- Offers a fully integrated part quality and traceability system solution — including the Ford Motor Company's QLS-CM — with a fully automated, push-of-a-button inspection based on the part's "birth" history
- Provides an intuitive user interface with a snapshot of the ongoing inspection in real time, including:
 - Part geometry is displayed on the screen
 - Roughness parameters are shown in callout boxes
 - Color of the numerical values indicate go (green)/no go (red) or no tolerance (black)
 - Journal being measured is highlighted with animated part rotation
- Enables users to store raw data from inspections, allowing the entire inspection process to be played back to troubleshoot part quality issues
- Provides strong security by communicating with the PLC and the motion control system on a private TCP/IP network via a dedicated network interface card (NIC)
- Supports automatic bar code scanners, tactile stylus probes, and white light optical scanners, including:
 - Cognex® Dataman® 7500/8500 bar code scanners
 - Taylor Hobson® tactile stylus probes
 - Zygo® optical 3-D white light interferometry sensors

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 Surface Roughness Measurement Software includes an Asperity Removal option (dirt removal)