

PRO-MIC

PRO-MIC Roll Measurement Systems

Reliability, Repeatability and 3 Button Operation

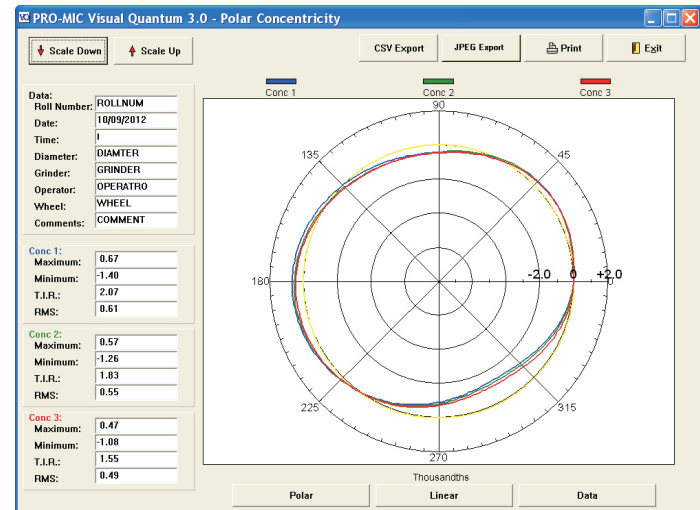
PRO-MIC Concentricity Measurement Option

The PRO-MIC Concentricity Measurement Option measures change in radius continuously as a roll rotates in the grinder. The setup, data collection and processing are accomplished by a software and hardware modification to either your PRO-MIC TRUE End-to-End or Lightweight roll profiling system.

The data is measured relative to the marked starting point of rotation and documents concentricity, eccentricity or ovality - any of which could be caused by the roll or by the bearings.

While the saddle micrometer electronics package is used to make and control measurements, the saddle micrometer itself is not used with this option.

Measurements are made on a timed basis and a proximity sensor is used to indicate each revolution of the roll. A PRO-MIC measurement probe is used to measure the dimensional change at the chosen locations as the roll rotates.



PRO-MIC Visual Quantum Polar Display (optional)

Features:

Sampling rates up to 100 Hz (adjustable).

Standard resolution of 0.000020"/0.0005mm.

Optional Resolution 0.000005"/0.0001mm.

Live readout while measuring change in radius at up to 2 locations at a time and up to 6 per measurement cycle.

Ability to measure, store and plot following the cycle: Measured change in radius vs. Straight line and 21 station data for each location.

User control of number of periods per cycle, scaling, sampling frequency and data output.

Inch or metric operation.

Optional Polar Plot output and data storage via PC.

Components:

Software and hardware upgrade for PRO-MIC electronics.

Magnetic based mounting stands for measurement probes.

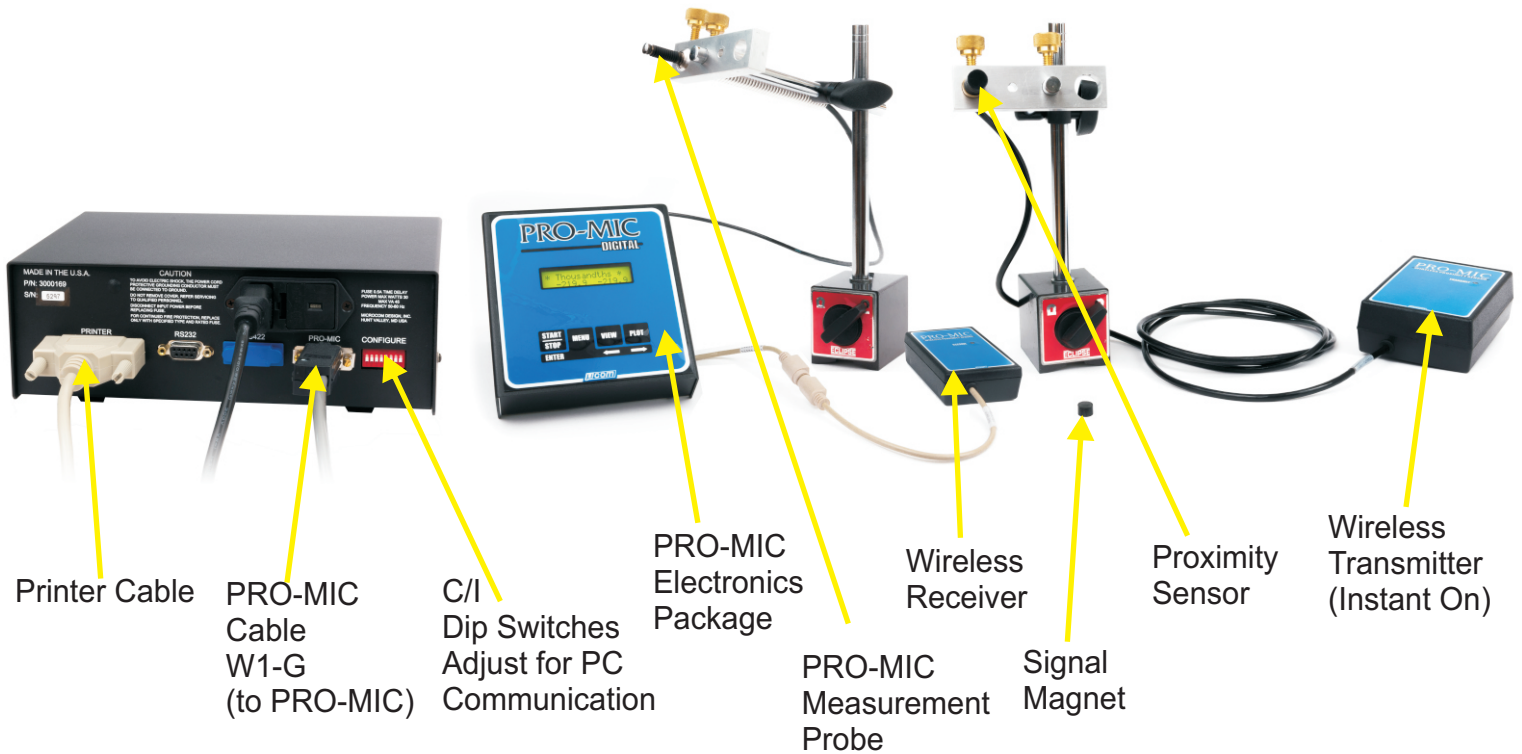
Wireless Proximity Sensor Transmitter/Receiver with mounting stand and magnet.

500 copies of Concentricity Report form.

Instruction manual.

PRO-MIC Concentricity Measurement Option

PRO-MIC Concentricity Hardware



Notes:

The Wireless Concentricity Option connects to the PRO-MIC electronics in place of the standard wired Proximity sensor. The transmitter is battery powered (AA) with instant-on to provide considerable battery life. The receiver is powered from the PRO-MIC electronics. Dip switches are on both boxes for multiple system users. Red LEDs indicate when transmit/receive takes place. Our testing shows a range of up to 200ft.

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How it works...

In overview, the PRO-MIC measurement probe is positioned against the roll using a specially designed magnetic stand and the roll is rotated.

By activating the Concentricity option using the PRO-MIC keypad, you instruct the PRO-MIC to remember each change in radius measurement around the roll. Observing the PRO-MIC's base display in this mode will show variation (TIR) as the roll rotates.

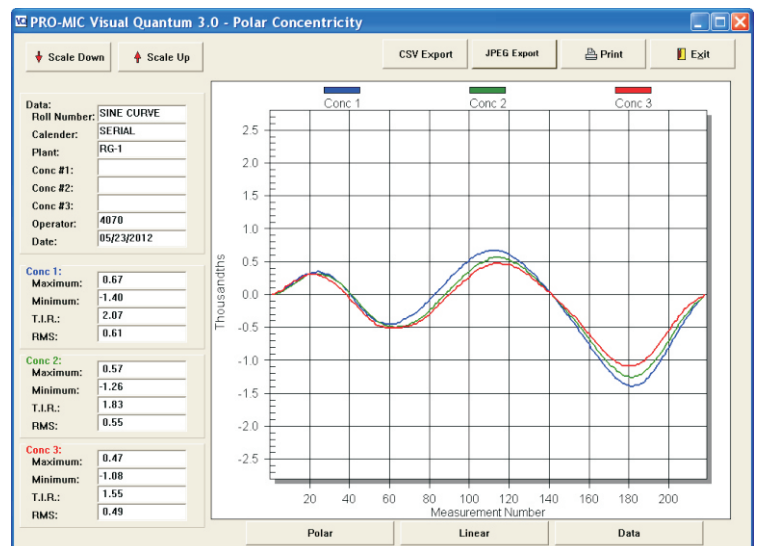
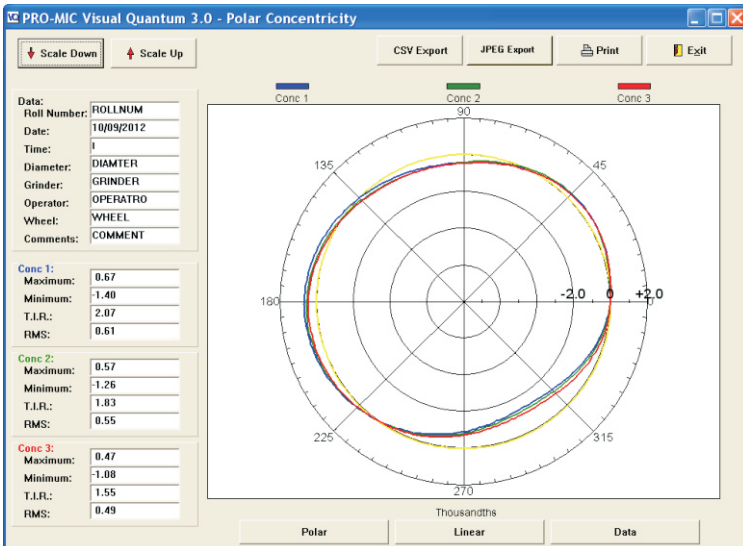
A special PRO-MIC designed wireless proximity sensor (PS) is used to tell the PRO-MIC when each revolution of the roll is completed. This allows multiple locations to be measured and compared (by moving the measurement probe from place to place while the PS remains fixed). The PS is also mounted using a magnetic stand.

A small Alnico (or other) magnet is used to trigger the PS.

During the measurement, the PRO-MIC will display TIR values on its display and further plot each measurement vs. a straight line on the Concentricity Report. The PRO-MIC Lightweight can record up to three measurements; the TRUE End-to-End can record up to six measurements.

A polar plot is available by transferring the concentricity data to the PRO-MIC Visual Quantum software package.

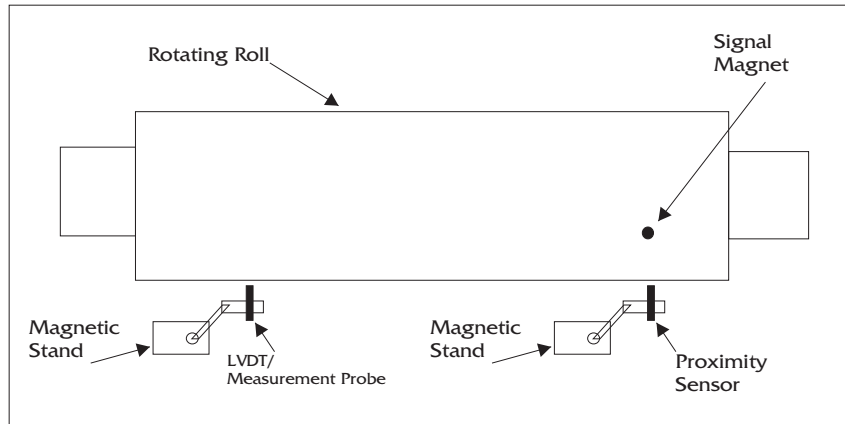
Samples of both output formats are attached.



PRO-MIC Visual Quantum Software - Concentricity Displays (optional)

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TYPICAL CONCENTRICITY SETUP



Hardcopy Report from Visual Quantum Polar Software (Optional)

