

# Profilometer SL

Profilometer-SL brings the Sheet-of-Light (SL) technology to Bytewise' proven Profilometer software platform to produce a low-cost, reliable, and accurate tread and sidewall extrusion measurement system. With this new instant-scan capability and portability, geometry checks on tire components can be performed quickly at any location in the factory.



## Features

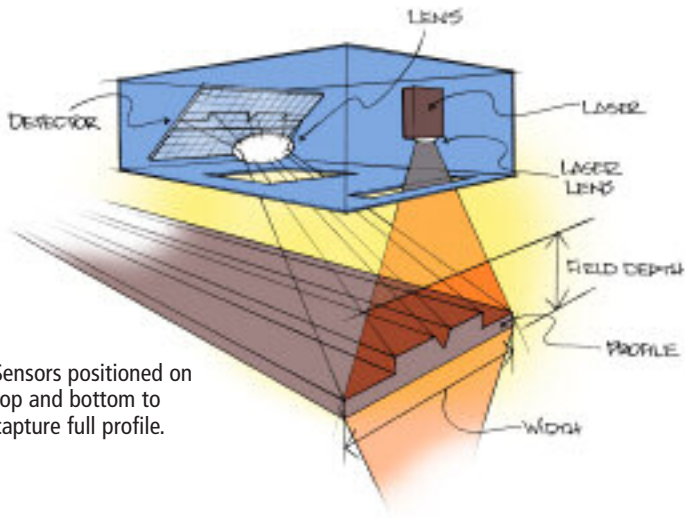
- Overlays actual measurement onto extrusion design.
- Displays and compares design and actual measurements at any point on the extrusion.
- Conicity analysis allows accurate comparison of extrusion halves.
- Regional analysis allows detailed review of specific areas.
- Statistical analysis allows export of data for analysis in spreadsheet applications.
- No moving parts
- Instantaneous cycle time
- Portable
- Same proven Bytewise software used by the top tire manufacturers worldwide.

## Benefits

- Maintains the integrity of geometric extrusion profile with fewer die trials, conserving time and raw materials.
- Allows dies to be designed to increasingly tighter tolerances for materials that are more difficult to extrude uniformly.
- Identifies conicity problems early in the extrusion process, allowing for correction, and thus, saving time.
- Enables quick, easy and accurate detection of profile distortion, porosity changes, and weigh-scale drift.
- Improves quality assurance through extrusion process knowledge that can be quantified, not simply presumed.
- Results in lower costs and high reliability.
- Provides immediate feedback.
- Provides ease of mobility to any location in plant.
- Ensures a reliable, mature, well-supported measurement software platform.

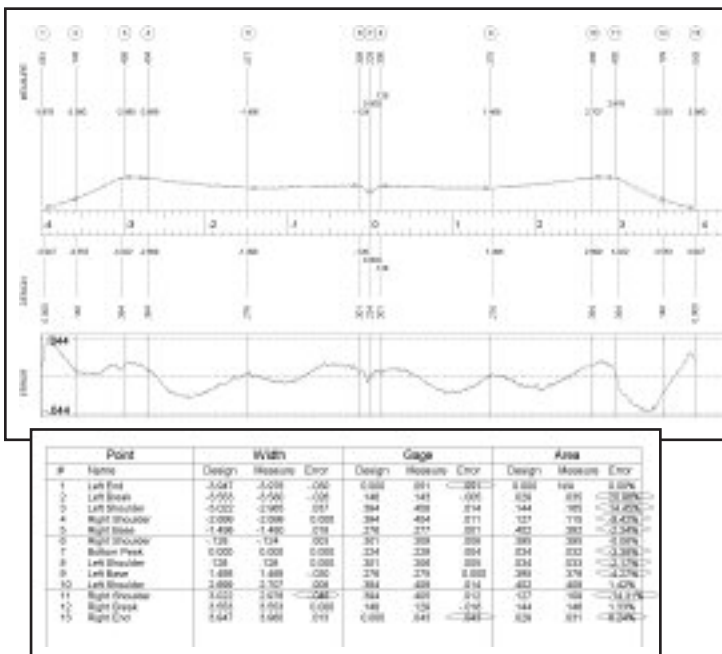
## Operational Overview

### How It Works



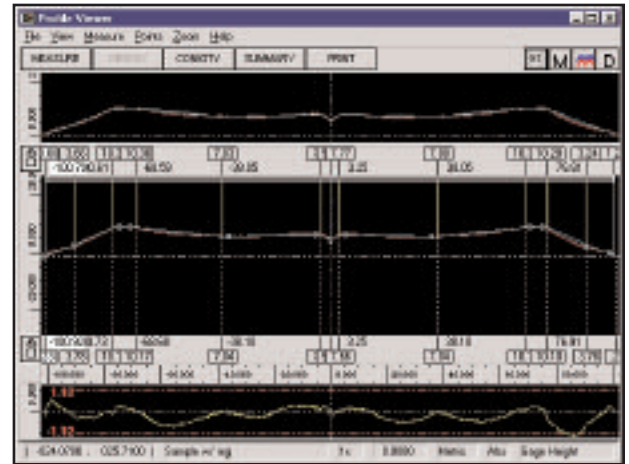
Sensors positioned on top and bottom to capture full profile.

### Easy-to-Read Graphical Reports ...

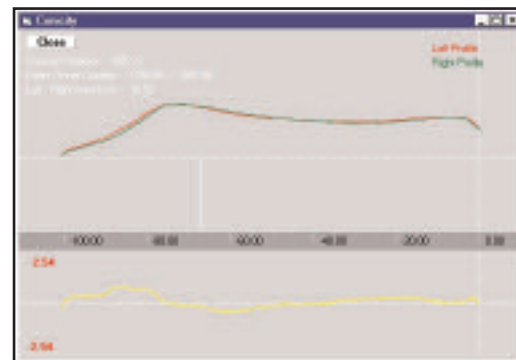


Measurement points from graphical report summarized

### Software



Profile View



Graphical View of Conicity Effects

Point	Left Profile	Right Profile	Left Profile - Right Profile
Point Size	1.12	1.31	-0.20
1.12	5.16	3.74	1.42
3.12	12.31	10.20	2.11
4.12	12.31	10.20	2.11
5.12	1.12	1.31	-0.19
6.12	1.12	1.31	-0.19
Shoulder Width	100.75	100.75	0.00
Shoulder Peak	100.75	100.75	0.00
Shoulder Peak	100.75	100.75	0.00
Shoulder End	100.75	100.75	0.00
Shoulder End	100.75	100.75	0.00

Table View of Conicity Effects

## Specifications

### Measurement Parameter

Thickness Measurement Range	60mm
Width Measurement Range	300mm (4 sensors) 450mm (6 sensors)
Gage Repeatability of Flat Surfaces	<.025mm
Gage Accuracy on Flat Surfaces	<.05mm
Area Calculation Repeatability	<.25%

### Measurement Parameter

Area Calculation Accuracy	<.25%
Sample Interval (Width Resolution)	.1mm
Scan Speed	Instantaneous
Dimensions	900mm(W) x 1070mm(L) x 1880mm(H) (with monitor at standard operating position)
Laser Classification	IIIa CDRH