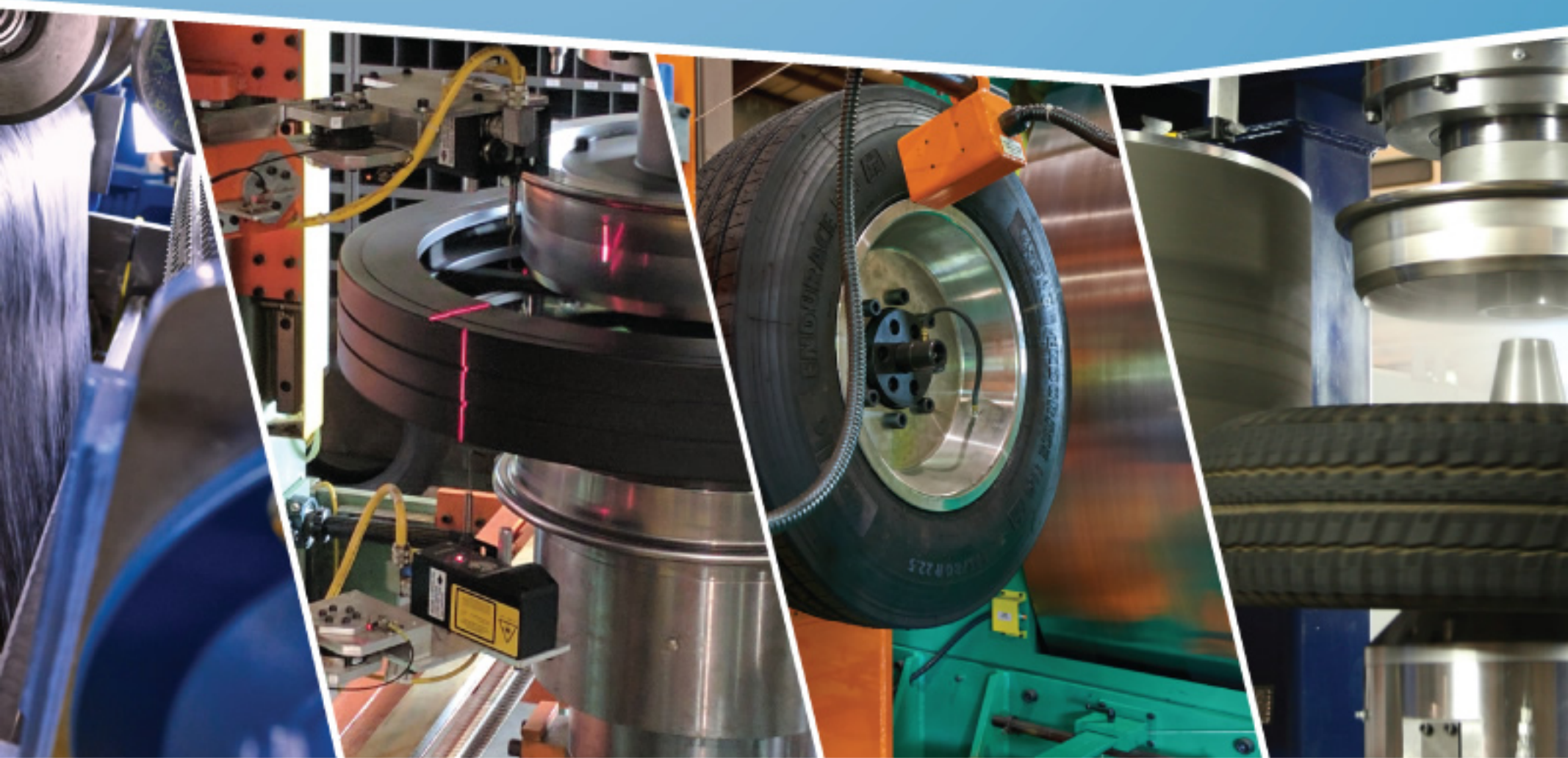




# We Know Tire Testing.



Mill Room  
Equipment



Laboratory  
Tire Testing



Final Finish  
Tire Testing



Controls &  
Data Mgmt

View our complete line of products & services at [PolingGroup.com](http://PolingGroup.com)



# the Poling Group

## FIVE COMPANIES WITH ONE GOAL

When David Poling, founder of Akron Special Machinery (ASM), had acquired his fifth company in 2003, he started using “the Poling Group” AKA\* to unify the separate, yet complimentary companies under one umbrella name. Since then, the Poling Group name has become known for quality and innovation, with their companies currently holding over 33 patents for various rubber-related equipment and software inventions.



Innovative machine design, superior manufacturing, and state-of-the-art software showcase the Poling Group's determination to use superior technology to help its customers increase machine throughput and optimize product quality. Ultimately, the integration of equipment and software has enabled the Poling Group to reach their one goal of becoming a world class supplier and innovator to the tire industry.

### **Akron Special Machinery, Inc. (ASM)**

Expertise - Final Finish / Tire Uniformity Testing, Machine Remanufacturing, Tire / Wheel Assembly Testing, Spare Parts

Founded by David Poling: 1978

### **Akron Steel Fabricators (ASF)**

Expertise - Mill Room Equipment, Custom Calender Rolls, Pressure Vessels, Cold Slab Stock Cutting Solutions

Founded : 1946 | Acquired by David Poling : 1984

### **ASM-Hasbach**

Expertise - Tire Laboratory Testing : Rolling Resistance, Endurance, Force and Moment, Durability, Tire Noise

Founded : 1930 | Acquired by David Poling : 2001

### **Commercial Timesharing, Inc. (CTI)**

Expertise - Machine Controls, Data Acquisition, Factory Management Software, Business Intelligence, Material Handling, Barcode Solutions

Founded : 1978 | Acquired by David Poling : 2001

### **Firwood~ASM**

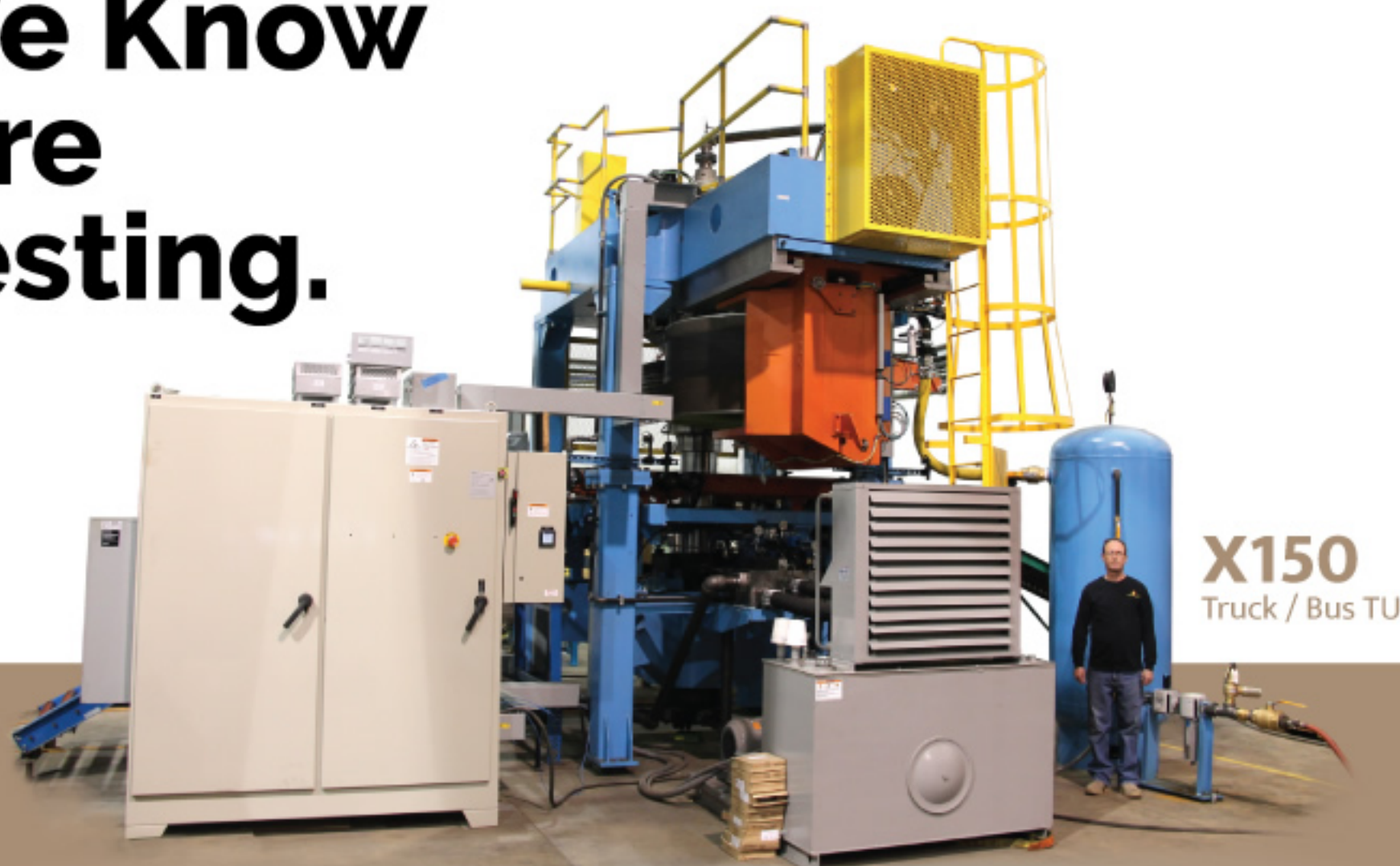
Expertise - Sidewall Grinding, Sidewall Painting, Post Cure Inflators

Founded : 1940 | Acquired by David Poling : 2003

\* the Poling Group is an AKA and holds no legal bearing



# We Know Tire Testing.



**X150**  
Truck / Bus TU

Five dedicated companies.  
Over two centuries of combined experience.

“We Know Tire Testing” is not just a slogan—it’s the foundation the Poling Group is built on.

From Laboratory Tire Testing, including Rolling Resistance, Endurance, Durability, and Force and Moment, to Final Finish Uniformity and Sidewall Testing, and all the Controls, Data Management, Material Handling, and Quality Assurance in-between, we’ve got you covered, trained, and fully supported.

Together with our comprehensive line of testing equipment, we have over 70 years’ expertise in durable, customizable, and innovative Mill Room Equipment.



ASM-HASBACH



Firwood ~ asm

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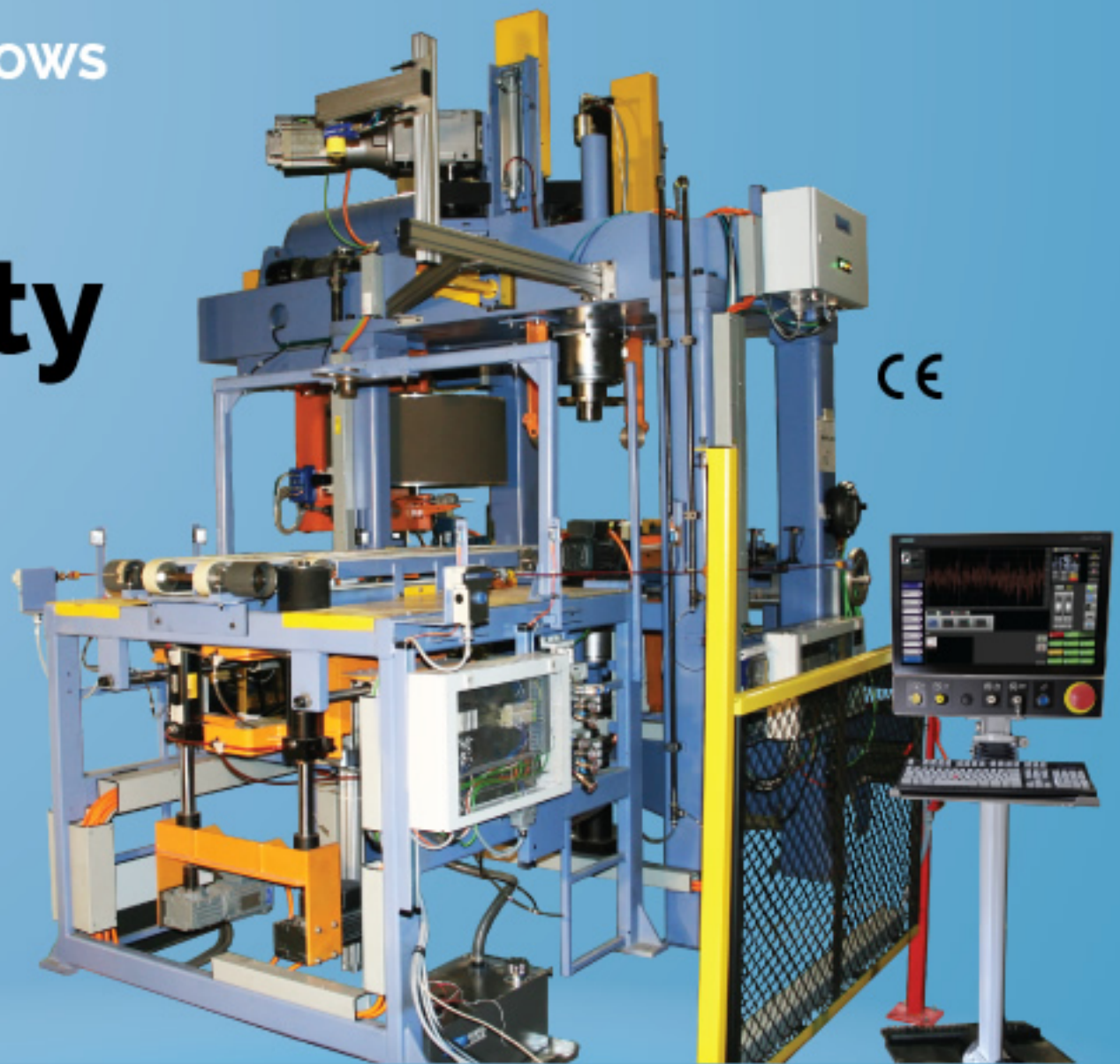
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THE POLING GROUP KNOWS

# Tire Uniformity Testing

Poling Group patented X-Frame Technology forms the robust core of our latest line of versatile X-Series Tire Uniformity testers. We include best-in-class machine control and data acquisition with each machine to ensure unmatched accuracy, reliability, and throughput.



## Smarter

Advanced proprietary testing algorithms, along with patented devices and testing methods, allow our machines to test tires accurately, even as they age and supply services change.



## Faster

A testing machine with a TTOC6 and TDAQ data acquisition system can process tires SEVERAL seconds faster than any prior or currently competing machine.



## Stronger

Our dedication to continually develop and update machine components ensures a long life for the machine and its various wear parts.





# X-Series TU Testers

By installing hundreds of CX111 units in manufacturing plants across the globe, the Poling Group saw the immediate demand for larger tire production and how it changed Tire Uniformity testing requirements. Responding to this demand, the CX111 operates with new subsystems, assemblies, and components to provide an industry leading durable and accurate machine.

Through these improvements to our hydraulics, motion systems, electronics, and, even, steel, we have created the next generation of this robust machine. Our controls, electronics, and software are updated with several patented devices and algorithms to make the CX111 an industry leading machine positioned into the “internet of things,” which is a competitive necessity for advanced tire manufacturing.

## Standard Features

- › TTOC6 Machine Controller
- › TDAQ - Tire Data Acquisition
- › Timing Belt Center Conveyor
- › Anti-mischuck system
- › Servo controlled spindle motor (precise positioning for marking and barcode spotting)
- › Precision spindles and bearings
- › Frictionless loadwheel carriage
- › Loadwheel characterization hardware & software
- › Communications software and interfaces to upper level computers, MES, external PLCs
- › Waveform Validation & Correction (WVC)
- › TAIR with Air Learn Software for quick inflate and precise regulation

## Optional Equipment

- › Full list of Optional Equipment is listed on [Pg. 11](#).



**MCX75 TU**  
Motorcycle



**CX111 TU**  
Car / Light Truck



**X150 TU**  
Truck / Bus

		MCX75 TU			CX111 TU			X150 TU	
		Min.	Max.		Min.	Max.		Min.	Max.
Outside Diameter		22 in	32 in		20 in	42 in		26 in	60 in
		559 mm	813 mm		508 mm	1067 mm		660 mm	1524 mm
Rim Width		3 in	11 in		3 in	17.5 in		6 in	24 in
Applied Load	Max.	4,000 lbf	1780 daN	Max.	4,000 lbf	1780 daN	Max.	16,000 lbf	7,117 daN
Cross Section Width	Max.	13.5 in	343 mm	Max.	18.5 in	470 mm	Max.	27.5 in	698 mm
Bead Diameter	Min.			Min.	14 in	356 mm	Min.	16 in	406 mm
	Max.			Max.	30 in	762 mm	Max.	25.5 in	648 mm

THE POLING GROUP KNOWS

# Controls & Data

## TTOC6

More than just a controller.

Standard on new test machines and available as an upgrade, **TTOC6 • TDAQ** greatly improves the speed and reliability of tire test data acquisition



### Simplified Maintenance

- › Fewer electronic parts, less points of failure, and better reliability
- › “Instant Message” support at every machine and extensive online help



### Adapts to your Control Methodology

- › Variety of customizable architectural implementations
- › Choose your PLC
- › Distributed or rack I/O



### Easy to Use Graphic-Based UI

- › Machine visualization screens convey tire position and machine status “at a glance”
- › Real-time and oscilloscope plotting modes
- › Real-time production and maintenance statistics display on demand



### Improved Capability

- › Air Learn software that monitors the machine's air regulation performance statistics to quickly stabilize tire inflation to the desired set point
- › Tire motion algorithms, along with WVC and TDAQ, allow a testing machine to test, mark, and sort more than 3 tires every minute, while maintaining industry-required measurement repeatability



# Exclusive Software for TTOC6

With advances like Waveform Validation and Correction (WVC) and Machine Effect Characterization and Compensation (MECC), the TTOC6 Controller actually "learns" about machine and tire characteristics to deliver the fastest throughput and most accurate results available.

## WVC

Waveform Validation  
& Correction

TTOC SOFTWARE BY CTI

### Better Measurement Quality

This new, iterative process of waveform collection / validation / potential waveform correction results in tires tested more accurately and with greater repeatability, within a much faster measurement cycle.

Learn more at :  
[PolingGroup.com/wvc](http://PolingGroup.com/wvc)

## MECC

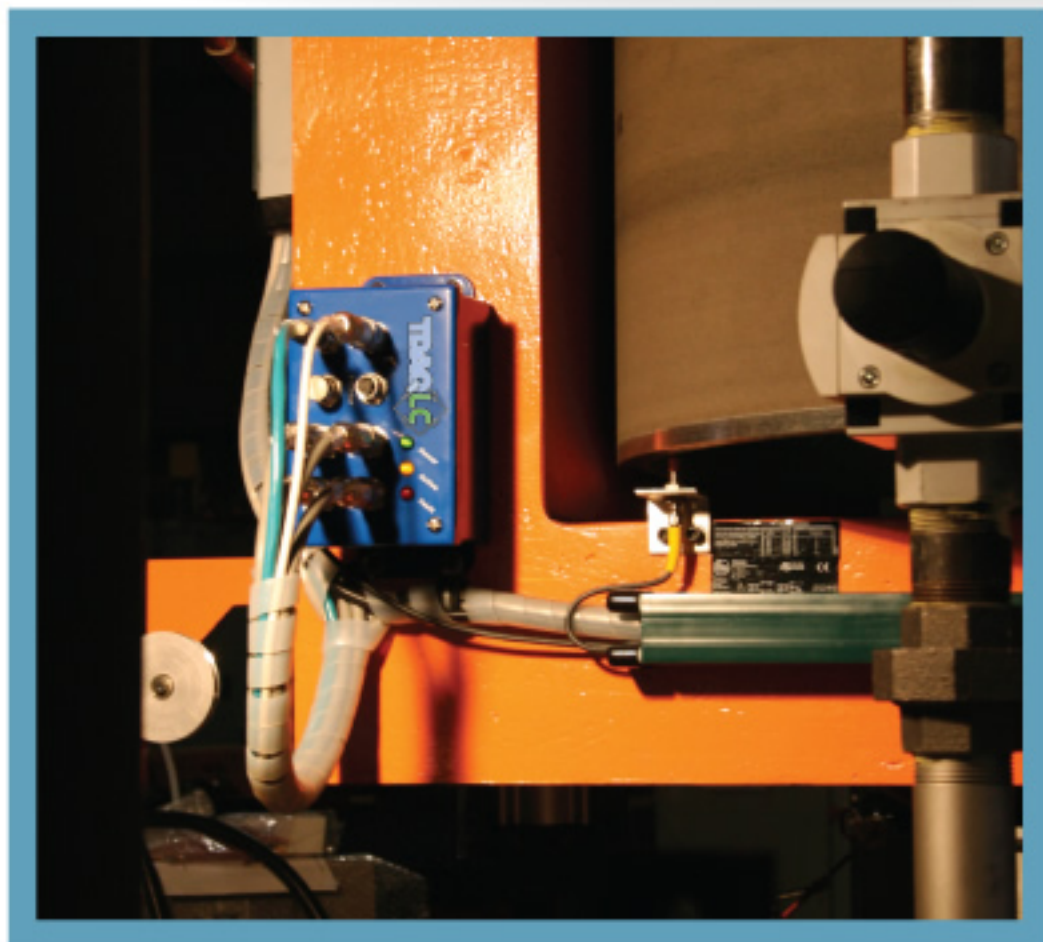
Machine Effect Characterization  
and Compensation

TTOC SOFTWARE BY CTI

### Smarter Testing

This patented concept for characterization of mechanical deficiencies and then compensation to mitigate the effect they have on the measurement is a huge step forward in advanced tire uniformity measurement methods.

Learn more at :  
[PolingGroup.com/mecc](http://PolingGroup.com/mecc)



## TDAQ

TIRE DATA ACQUISITION

Designed by CTI to process the load cells, pressure transducers, and other key tire test machine sensor signals, the TDAQ and TDAQ-LC have emerged as a robust and economical way to:

- › Simplify field wiring
- › Locate data acquisition closer to the source
- › Produce stronger and cleaner signals to bring a substantial increase in resolution

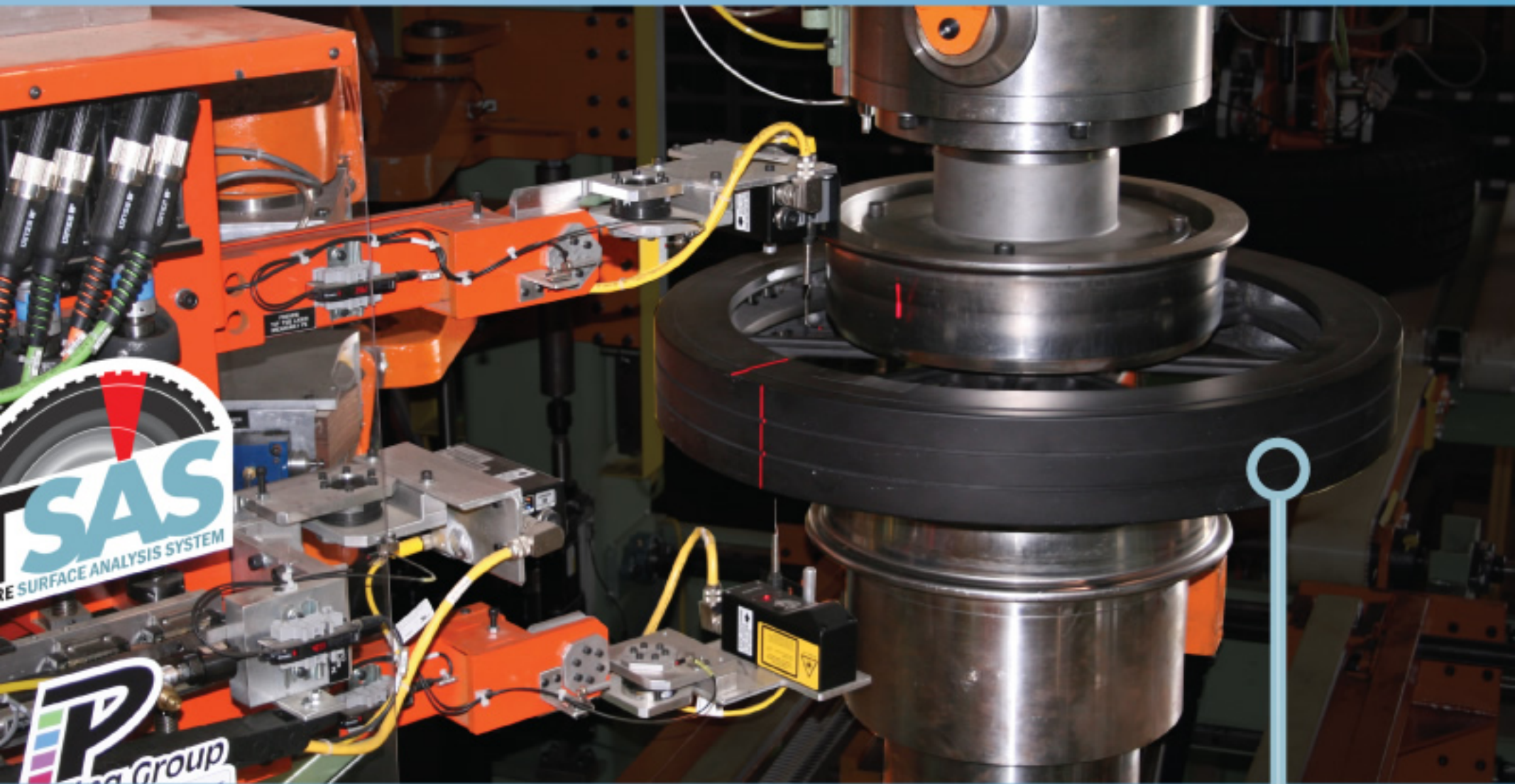
With hundreds and hundreds of TDAQs deployed since 2008 and only 12 failures, TDAQ has proven to be as reliable as it is effective.

While modern PLCs peak at about 1,000 I/O per second, TDAQ runs at a lightning-fast 16,000. But its real power comes from the ability to make split-second decisions without relying on outside commands from the machine controller.



THE POLING GROUP KNOWS

# Geometry Testing



## Features include:

- Automatic detection of test regions (with manual override)
- Store thousands of tire images for later inspection
- Perform a complete geometry setup from a single screen
- Save geometry setup directly to your host. Don't have a host? Check out our Final Finish Host (FFH) solution (pg. 21)

**Geometry testing has never been smarter!** Our new TSAS incorporates our patented Multi-Path Inspection (MPI) algorithm, complex mathematics, and 3D line laser scanning to locate and accurately measure a tire's geometry, including bulges, depressions, runout, and wobble.

The TSAS is available as a fully integrated TTOC6 controller option or as a standalone unit for replacement of your inadequate sidewall or RRO System.

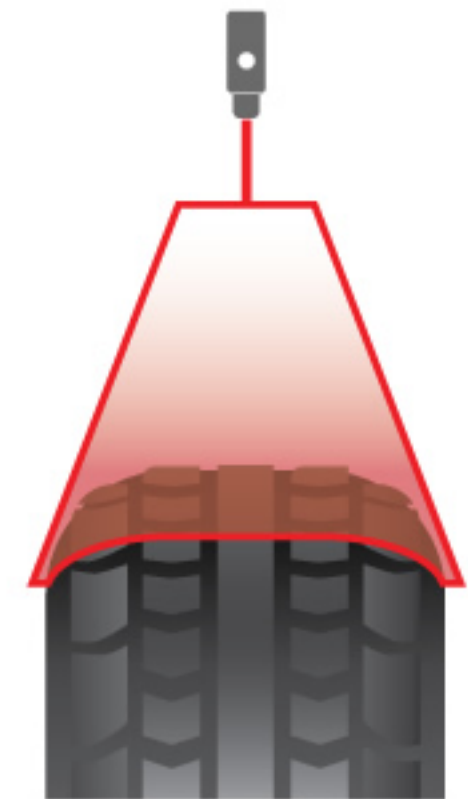
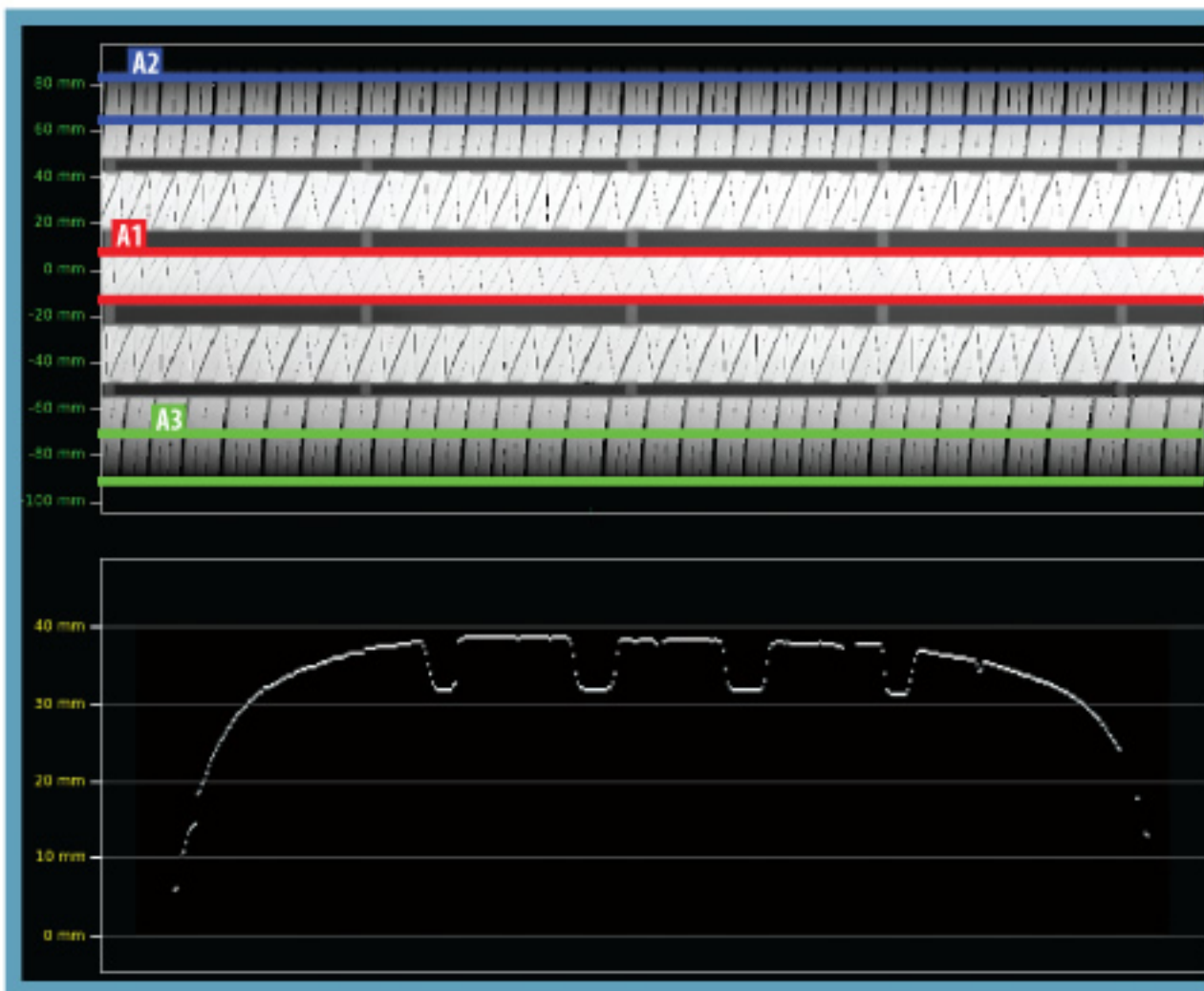
The Poling Group's new **Geometry Verification Wheel** provides the quickest way possible to verify your LRO/RRO geometry testing lasers. The verification wheel chucks directly on your testing machine's current rims (up to 20") and, therefore, requires no machine requalifying after verification, since the rims are not removed.

**Sidewall (Lateral):** Both sidewall faces consist of four bulge/depression plates of varying heights. A ring on the outer 1" has lateral runout of 0.015".

**Tread (Radial):** Three bands on the "tread" surface of the wheel each have a different radial runout for verification of the RRO laser measurement. An optional insert can be used to measure tread bump/dent (a.k.a. TDIP).



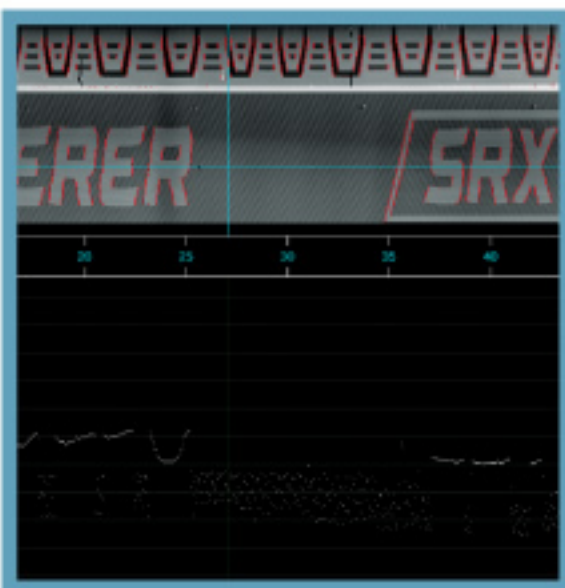
## Now supports new, larger Tread Measurement Lasers.



The TSAS tread laser can cover the entire tread and shoulder area in one pass.

For the tread measurement, TSAS now incorporates a line laser, with a larger field of view for viewing the whole tread of a tire—shoulder to shoulder (maximum 375mm). Establish regions of interest using the on-screen recipe editor, or allow the TSAS system to choose the optimal region for each tire automatically.

Measure up to 32 harmonics for top, bottom, and center RRO in a single pass, saving cycle time and energy. When coupled with the Poling Group's grinding option, TSAS feeds geometry data directly to the grinders for precise grinding of the tread, covering both the center and shoulder regions. After grind, TSAS results can be used to determine exactly how much material was removed in the process.



### TSAS Features Automatic 'Letter Elimination'

TSAS detects and ignores lettering and artwork on a tire's sidewall, which drastically reduces false-positive test results (Alpha-misses) and increases throughput.

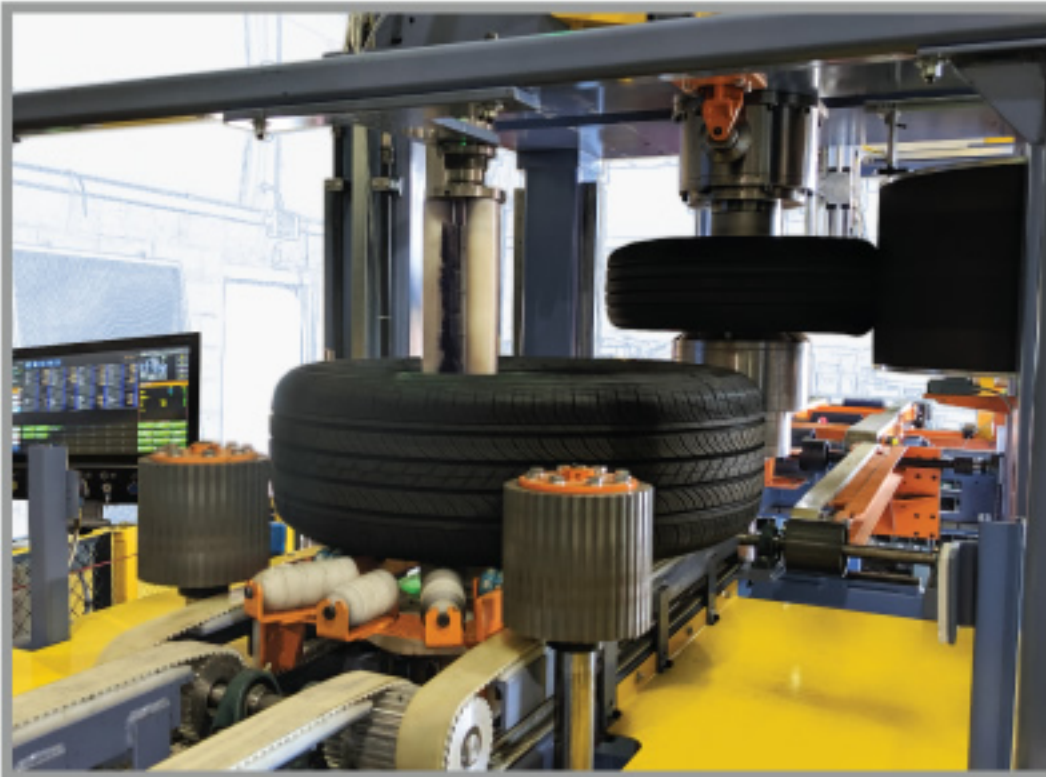
This feature, along with the many other features in our TSAS algorithm, allows our customers the most flexibility, by recipe, for testing all tire designs.

TSAS still supports traditional 'spot lasers' (fixed point lasers), which utilize our patented MPI (Multi Path Inspection) software, and are significantly less expensive than line lasers.



THE POLING GROUP KNOWS

# Testing Options

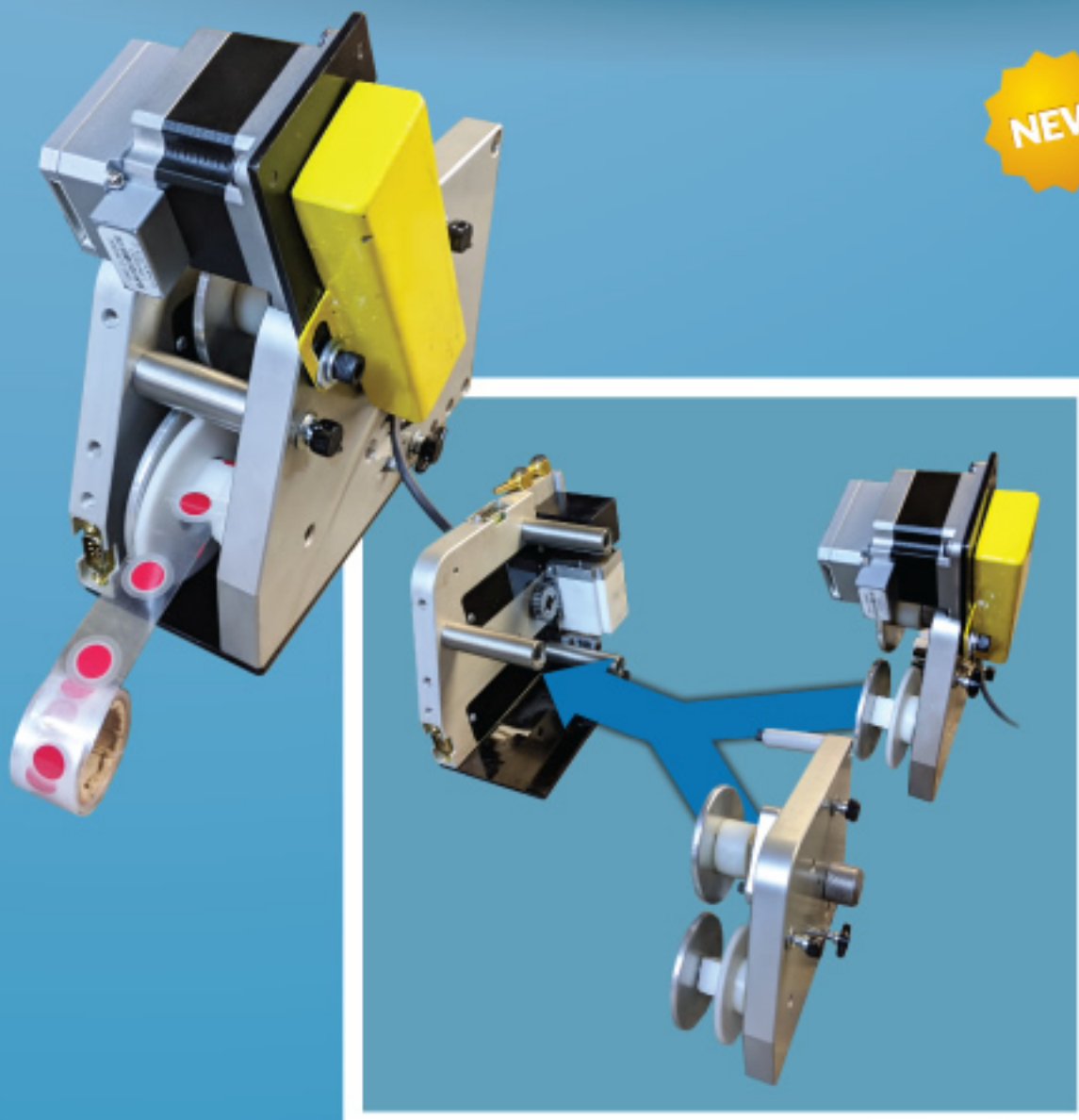


## Automatic Drive Roll Bead Luber

**Updating your process to handle mixed mode production?**

Our Drive Roll Bead Luber automatically handles a full range of tires arriving at the machine with no downtime for manual adjustment. Long-lasting steel drive rolls quickly and effectively center and lubricate each tire's bead to improve repeatability without sacrificing cycle time.

Integrate a barcode reader to accurately position tires relative to the machine's spindle location (i.e., barcode spotting), which simplifies testing waveform/data analysis and enables offline marking.



**NEW**

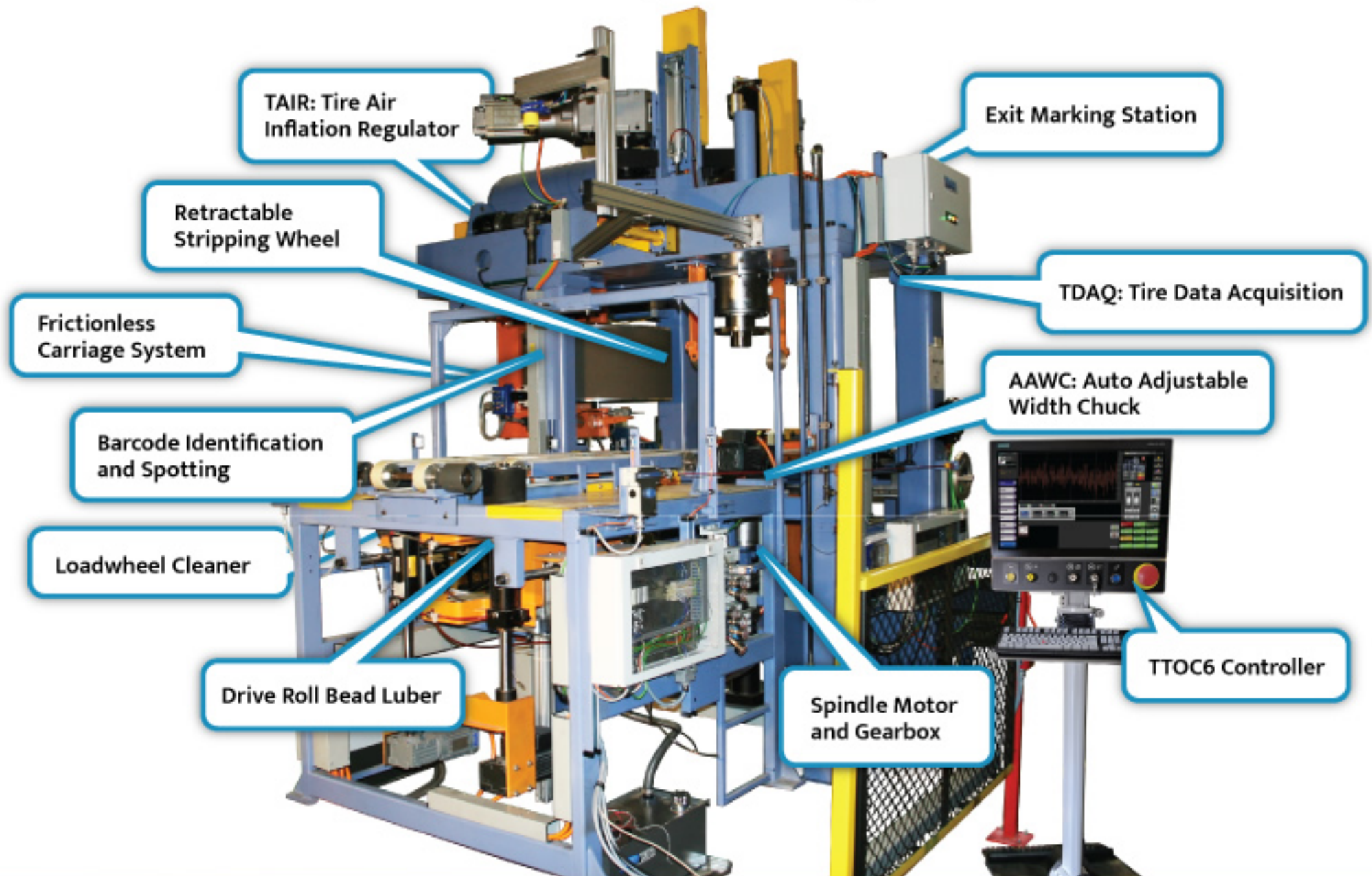
## Interchangeable Decal / Hot Stamp Marker

The Poling Group is introducing a new option for our existing Hot Stamp (Hot Foil) marking system. While keeping the same controls mounting base, easily change your Hot Stamp marking head with a clear tape (LTA) decal marker for OE tires. This interchangeable solution saves time and money, creating flexibility for internal or external marking on a Poling Group uniformity machine.

- ▶ Interchangeable Hot Stamp (Hot Foil) and Clear Tape Decal heads use the same mounting base
- ▶ Mount internally or externally to the testing machines



# Cost-effective options and upgrades that extend machine capability



## Electrical Controls

TTOC6 Controller  
TDAQ - Tire Data Acquisition  
TAIR - Tire Automatic Inflation Regulator  
Mobile Panel  
Encoder  
Waveform Validation & Correction (WVC)  
Machine Effect Characterization and Compensation (MECC)  
Air Learn

## Geometry Testing

Multi-Path Inspection of Sidewall (MPI)  
Tire Sidewall Analysis System (TSAS)  
Runout Transport  
Low-Cost RRO  
RRO Probe Replacement  
Laser Verification Wheel

## Tire Positioning

Drive Roll Bead Luber (Automated Mixed Mode Luber)  
Auto-Adjustable Width Chuck  
Timing Belt Center Conveyor  
Upper Spindle Assembly  
Spindle Motor and Gearbox  
Retractable Stripping Wheel  
Retro-Fit Stripping Wheel  
Anti-mischucking System  
Sorting Elevator  
Multi-level Sorting Conveyor

## Grinding

Auto-position Shoulder  
Dual Inline Shoulder  
Auto-position Center  
Grind Dust Removal System

## Tooling

Precision Test Rims  
Quick Rim Changeover

## Marking

Internal Marking Transport  
Exit Marker Station  
Hot Stamp Marker  
LTA Marker

## Other

Calibration  
Exit Drop Conveyor  
Loadwheel  
Loadwheel Cleaner  
Hydraulic Power Unit  
Frictionless Carriage  
Loadwheel Motor/Drives



# PGM

## Profile Generating Machine



### Increase Yield and Improve Customer Satisfaction

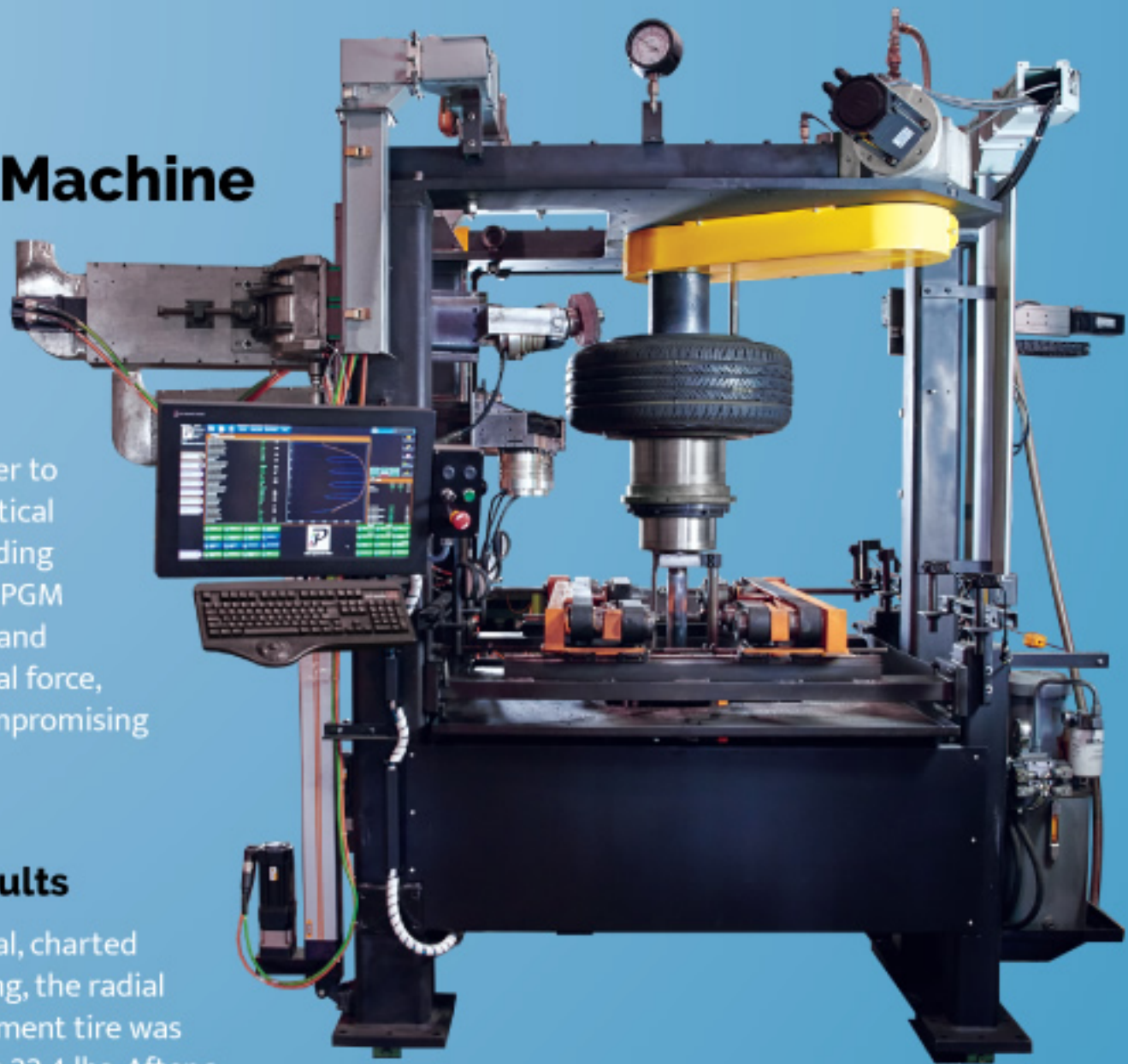
The PGM is a recipe-driven system that increases the ability of a tire manufacturer to supply consistently round tires, with identical diameter and profile, to the most demanding end-customers. Patented worldwide, the PGM uses dual precision grinder units, a laser, and Windows-based controller to reduce radial force, radial runout, and conicity -- without compromising finished tire appearance!



### The Proof is in the Results

Consider the results of this trial, charted below. Before profile generating, the radial runout of a locally purchased, 15" replacement tire was 0.0317" and radial peak-to-peak force was 22.4 lbs. After a profile scan and grind of 0.028", the new test waveform shows 0.0035" radial runout and a drop to 17.6 lbs. of radial peak-to-peak forces. Conicity was corrected from -5.2 lbs. to +0.3 lbs.

In this trial, the grinders ran at 10,000 rpm with a feed rate of 0.062" per second. The grinders shaved a total of 0.028" off the outside diameter of the tire in two passes within a cycle that totaled 103 seconds.



#### Before PGM

C. Rad. Rout Radial Load



RPP

22.4

RH1

15.8

CON

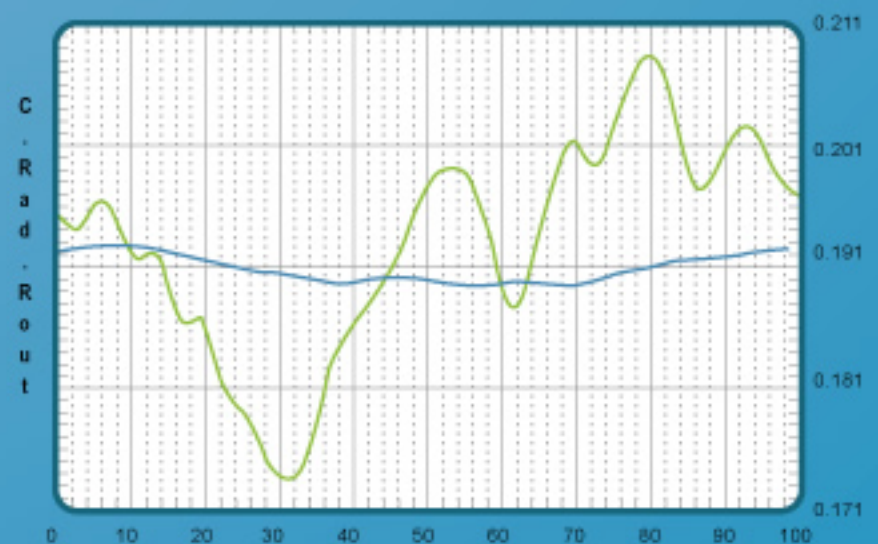
-5.2

CRRO

36.7

#### After PGM

C. Rad. Rout Radial Load



RPP

17.6

RH1

10.7

CON

0.3

CRRO

3.5



# Model 1325 & 1342 Sidewall Grinders

Increase productivity and reduce downtime

These Firwood~ASM Sidewall Grinders satisfy both requirements. The Model 1325 & 1342 are precise and unique sidewall grinders due to their incredibly sturdy frame and locking chucks that have a 100 PSI specification.

And like all Poling Group products, it's built to last!



<div> <div></div> <div>Outside Diameter</div> </div>				<div> <div></div> <div>Pass Through</div> </div>			<div> <div></div> <div>Bead Diameter</div> </div>		
1325	Min.	20 in	508 mm	Min.	14 in	356 mm	Min.	13 in	330 mm
	Max.	36 in	914 mm	Max.			Max.	20 in	508 mm
1342	Min.	20 in	508 mm	Min.	18 in	457 mm	Min.	15 in	381 mm
	Max.	42 in	1067 mm	Max.			Max.	24 in	610 mm

# UFT-111 Universal Flash Trimmer

Patented Automated Flash Trimming

The patented Poling Group UFT-111 automates the task of flash grinding traditionally performed by an operator. The trimmer's two independent sanding discs automatically trim vertical and top mold flashing based on recipe information entered directly at the controller or supplied via scanned tire barcode for mixed mode operation.

The UFT-111 can quickly, easily, and consistently process any tire tested on our CX111 TU machine.

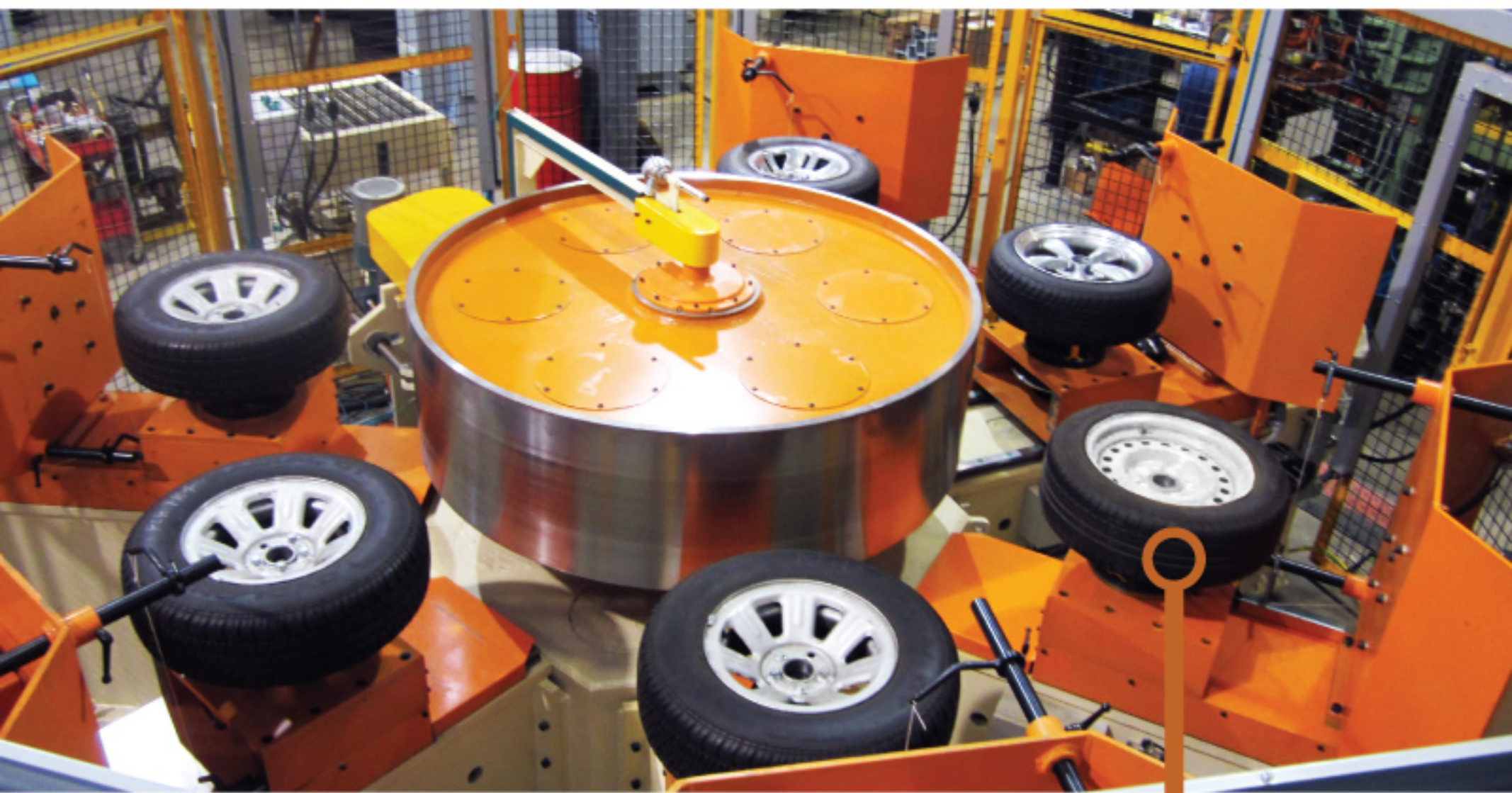


<div> <div></div> <div>Outside Diameter</div> </div>			<div> <div></div> <div>Rim Width</div> </div>		<div> <div></div> <div>Cross Section Width</div> </div>	
Min.	22 in	559 mm	Min.	3 in	76 mm	Min.
Max.	42 in	1067 mm	Max.	17.5 in	445 mm	Max.
					18.5 in	470 mm



THE POLING GROUP KNOWS

# Laboratory Tire Testing



**New global tire standards and labeling requirements mean increased testing demands for government agencies, tire manufacturers, and third-party test centers.**

The Poling Group offers a complete line of durability, endurance, characteristic, and rolling resistance machines designed to properly qualify tires for the international marketplace.

Our machines come with selectable options and customizable features to help you address specific challenges like range of tires tested, types of testing required, and available floor space.



All Poling Group companies pride themselves on the flexibility and customization of their products to fit the client's needs. Poling Group company ASM-Hasbach met a customer's need for a multi-tire laboratory testing station, by creating this *Custom 6-Position Endurance / Durability Tester*.

Contact Poling Group company ASM-Hasbach at [Sales@PolingGroup.com](mailto:Sales@PolingGroup.com) to find the perfect solution to your Laboratory Tire Testing needs.

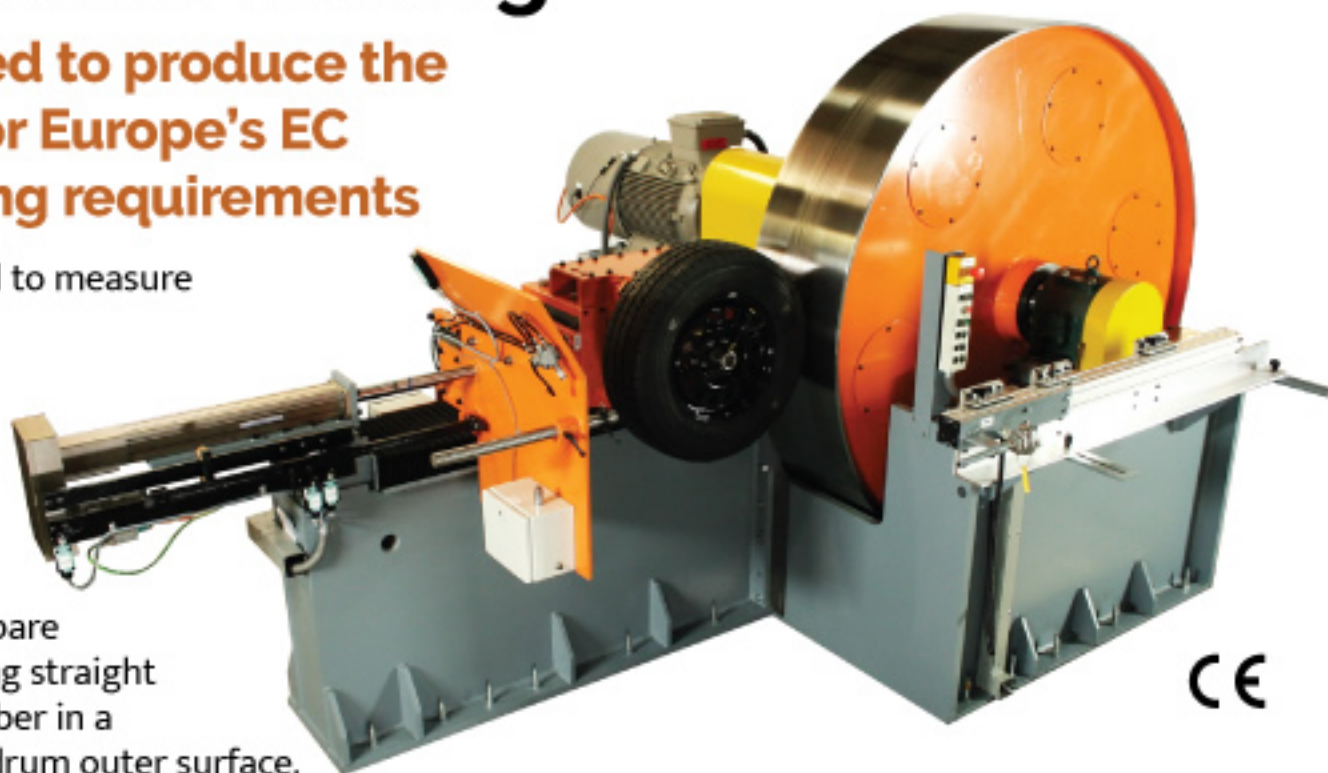


# Rolling Resistance Testing

**Provides testing needed to produce the fuel efficiency rating for Europe's EC 1222/2009 tire labeling requirements**

This machine uses the torque method to measure rolling resistance, under controlled laboratory conditions, for new passenger/light truck, or truck/bus pneumatic tires. It correlates measurement results to enable inter-laboratory comparisons.

Add the optional camber unit to compare rolling resistance from tires free-rolling straight ahead to a steady-state tire with camber in a position that is perpendicular to the drum outer surface.



## Standard Features

- › Touch screen controller and ethernet communications
- › Frictionless radial load assembly platform (patented)
- › A/C drive control
- › Servo electro spindle for radial load
- › High accuracy torque method via torque shaft
- › Two plane high dynamic balanced drum
- › High natural machine frequency
- › No machine foundation required
- › Designed for container shipment
- › SAE: J2425 ISO: 28580 Rolling Resistance Standard

## Testing Options

- › Deflection measuring
- › Tests Tire Inside Temperature
- › Tests Tire Outside Temperature
- › Tests Tire Radius Circumference
- › Capped and regulated air
- › Camber +/- 6 degrees
- › Tire inflation and regulation unit
- › Rolling resistance retrofit to existing machines

### Motorcycle

	USA	Metric		USA	Metric
Tire Outside Diameter Range	15.75 - 39.37 in	400 -1000 mm	Cross-Section Width	11.81 in	300 mm
Rim Width	3 - 11 in		Tread Width	Max 11.81 in	Max 300 mm
Inflation Pressure	72 psi	500 kPa	Test Load Maximum	2,248 lbf	1,000 daN
Loadwheel Diameter/Width	67.2 / 11.81 in	1707 / 300 mm	Test Speed Maximum	0-75 mph	0-120 kph

### PC/LT

	USA	Metric		USA	Metric
Tire Outside Diameter Range	15.7 - 43.3 in	400-1,100 mm	Cross-Section Width	19.6 in	500 mm
Rim Width	3 - 17 in		Tread Width	Max 17.7 in	Max 450 mm
Inflation Pressure	Max 95 psi	Max 655 kPa	Test Load Maximum	4,500 lbf	2,000 daN
Loadwheel Diameter/Width ■	67.1 / 19.7 in	1,707 / 500 mm	Spindle Speed	0-100 mph	0 - 160 km/h

### Truck/Bus

	USA	Metric		USA	Metric
Tire Outside Diameter Range	23.6 - 63 in	600 - 1,600 mm	Cross-Section Width	21.6 in	550 mm
Rim Width	6 - 16 in		Tread Width	Max 20 in	Max 500 mm
Inflation Pressure	Max 145 psi	Max 1,000 kPa	Test Load Maximum	11,000 lbf	5,000 daN
Loadwheel Diameter/Width ■	67.1 / 19.7 in	1,707 / 500 mm	Spindle Speed	0-75 mph	0 - 120 km/h

■ Optional loadwheel diameter of 78.7 in / 2,000 mm



# Force & Moment

## Laboratory Tire Testing



### Tests Performed

- › High Speed
- › Durability
- › Bead
- › Camber & Slip Angle
- › Belt Edge Separation
- › Tire Side Force
- › Force & Moment
- › Run-Flat Tire Testing

### Measurements

- › Tire elapsed distance
- › Tire load and speed
- › Tire radius / circumference
- › Tire deflection
- › Tire ambient temperature
- › Optionally measures tire internal and tread temperatures and RFT (run flat tires)

### Standard Features

- › Frictionless loadwheel carriage
- › Hydraulic system
- › PLC controller Siemens / Allen Bradley
- › Tire burst detection unit
- › Tire inflation and speed regulation unit

### Optional Equipment

- › Calibration equipment
- › Automated data collection system
- › Camber assembly
- › Drum brake
- › Lateral side force
- › Machine guards
- › Precision test rims
- › Rolling resistance unit
- › Slip angle assembly
- › 6 axes load cell

### PC/LT

	USA	Metric		USA	Metric
Tire Outside Diameter Range	15.7 - 43.3 in	400-1100 mm	Cross-Section Width	Max 21.6 in	Max 550 mm
Rim Width	3 - 17 in		Tread Width	Max 19.6 in	Max 500 mm
Inflation Pressure	Max 95 psi	Max 655 kPa	Test Load Maximum	11000 lbf	5000 daN
Loadwheel Diameter/Width ■	67.1 / 19.7 in	1707 / 500 mm	Spindle Speed	0 - 310 mph	0 - 500 km/h

■ Optional loadwheel diameter of 78.7 in / 2000 mm

### Truck/Bus

	USA	Metric		USA	Metric
Tire Outside Diameter Range	23.6 - 63 in	600 - 1600 mm	Cross-Section Width	Max 21.6 in	Max 550 mm
Rim Width	6 - 16 in		Tread Width	Max 19.6 in	Max 500 mm
Inflation Pressure	Max 145 psi	Max 1000 kPa	Test Load Maximum	22000 lbf	10000 daN
Loadwheel Diameter/Width ■	118.1 / 19.7 in	3000 / 500 mm	Spindle Speed	0 - 125 mph	0 - 200 km/h

■ Optional loadwheel diameter of 67.1 in / 1707 mm



# Force & Moment for Motorcycle Tire Testing

Fully dynamic F&M machine that simultaneously adjusts camber angle up to +/- 55 degrees and slip angle +/- 15 degrees while measuring tire characteristics

Measures Fz/Fy/Fx as well as Mz/My tire coordinates under extreme angles.



Motorcycle	USA	Metric		USA	Metric
Tire Outside Diameter Range	15.75 - 39.37 in	400 -1000 mm	Cross-Section Width	11.81 in	300 mm
Rim Width	3 - 11 in		Tread Width	Max 11.81 in	Max 300 mm
Inflation Pressure	72 psi	500 kPa	Test Load Maximum	2,248 lbf	1,000 daN
Loadwheel Diameter/Width	67.2 / 11.81 in	1707 / 300 mm	Test Speed Maximum	0-75 mph	0-120 kph

## Laboratory Endurance Testing

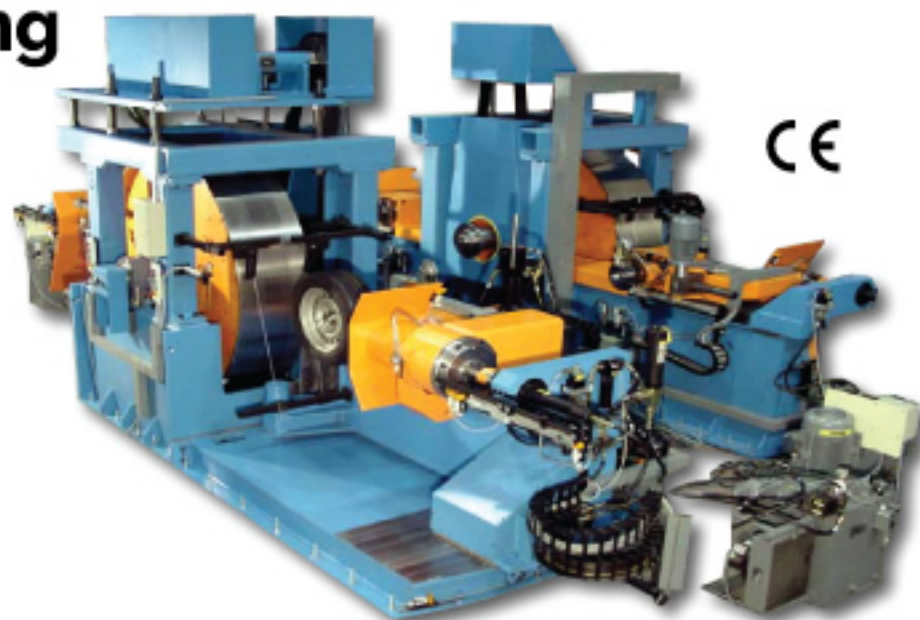
These ASM-Hasbach machines can provide High Speed Endurance, Bead, and Camber & Slip Angle testing.

### Measurements

- › Tire elapsed distance
- › Tire load and speed
- › Tire radius / circumference
- › Tire deflection
- › Tire ambient temperature
- › Optional: tire internal and tread temperatures

### Standard Features

- › Frictionless loadwheel carriage
- › Hydraulic system
- › PLC controller Siemens / Allen Bradley
- › Tire burst detection unit
- › Tire inflation and speed regulation unit



PC/LT	USA	Metric		USA	Metric
Tire Outside Diameter Range	15.7 - 43.3 in	400-1100 mm	Cross-Section Width	Max 21.6 in	Max 550 mm
Rim Width	3 - 17 in		Tread Width	Max 19.6 in	Max 500 mm
Inflation Pressure	Max 95 psi	Max 655 kPa	Test Load Maximum	11000 lbf	5000 daN
Loadwheel Diameter/Width ■	67.1 / 19.7 in	1707 / 500 mm	Spindle Speed	0 - 310 mph	0 - 500 km/h

Truck/Bus	USA	Metric		USA	Metric
Tire Outside Diameter Range	23.6 - 63 in	600 - 1600 mm	Cross-Section Width	Max 21.6 in	Max 550 mm
Rim Width	6 - 16 in		Tread Width	Max 19.6 in	Max 500 mm
Inflation Pressure	Max 145 psi	Max 1000 kPa	Test Load Maximum	22000 lbf	10000 daN
Loadwheel Diameter/Width ■	67.1 / 19.7 in	1707 / 500 mm	Spindle Speed	0 - 125 mph	0 - 200 km/h

■ Optional loadwheel diameter of 78.7 in / 2000 mm



**THE POLING GROUP KNOWS**

# Mill Room Equipment

**Next Generation 1270 combines field-proven strength and reliability with new accuracy and labor-saving features.**

With a heavy duty cutter frame fabricated from plate and structural steel, our latest slab cutter/feeder features a precision-machined cutter and anvil driven by a fixed speed gear motor and gears. The knife/anvil assembly mounts onto piloted bearings (consisting of double-row spherical roller bearings) and installs into line bored housings.

Cut pieces drop onto a weigh conveyor that sends a precise measurement to the control system. As the measurement nears target weight, the system automatically slows the conveyor to reduce piece size until the target is met - achieving more accuracy while reducing labor costs.



NG 1270  
Slab Cutter/Feeder

## Modular Flex design allows the fastest change-out of knife/anvil assembly in the industry

### NG 1270 Standard Features

- › Cuts up to 3 thicknesses with an occasional fold
- › Knives and Anvil are made from Tool Steel
- › Heavy duty gears used to drive the cutter
- › ANSI guards including conveyor safety cable
- › Heavy duty frame and stand

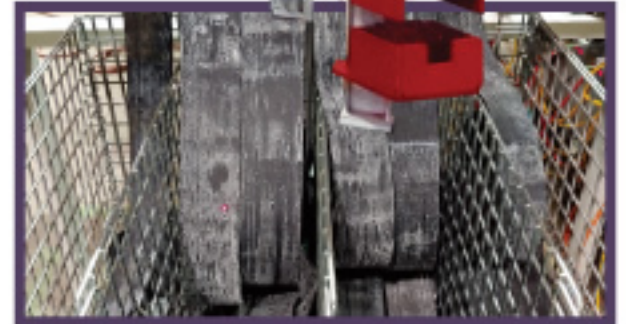
### Optional Equipment

- › ANSI approved complete drive and control packages
- › Plastic conveyor belt with pneumatic take-up
- › Centralized lubrication system
- › Integrated weigh and charge conveyors
- › Sized to fit your stock requirements



# S2S Slitter

## Cold Slab Stock Cutting Solution



To meet our customers' demands for precision strip production, we've introduced our New S2S Series Slitter. The S2S is a newly designed offline Cold Slitter with Automatic Strip Separation and Handling to a pallet/basket, offering the precision and flexibility the industry demands. This Slitter System is made up of an Intralox Belt Feed Conveyor feeding stock into the Slitter with a motor-driven quick change Slitter Assembly and two integrated pull roll assemblies.

The S2S series offers a quick change knife cartridge, allowing customers to quickly adjust for multiple strip sizes. With a minimum strip size of 25mm and the ability to increase the strip size in increments of 25mm, the S2S Series Slitter handles full or half sheets of incoming wig-wag, up to 75 ft (23 m) per minute, that is cut to customer specifications.

**Contact ASF (pg. 23) to learn more.**

For over 70 years, Akron Steel Fabricators (ASF) has produced well-designed mill room machinery that is strong, reliable, and most importantly, customizable.

### Conveyors

- › Wig-Wag type conveyors
- › Reciprocating conveyors
- › Fixed conveyors

### Splice Press

- › Electrically heated or steam heated
- › ANSI-approved controls

### Accumulator

- › Available in any size storage capacity
- › Chrome plated rolls as required
- › Easy thread option available

### Let-offs

- › Dual let-offs, with or without guiding
- › Liner rewind, with or without guiding
- › Male or female chucks

### Pull Roll Stands

- › Manufactured to your tension requirements
- › Available with hold and cutting feature

### Wind-ups

- › Surface wind-up
- › Dual wind-up
- › Shuttle type wind-up

### Blister Breakers

- › Fixed blade systems
- › Reciprocating blade systems
- › Multi blade systems

### Process Rolls

- › Cooling drums
- › Pressure rolls
- › Comb rolls

### ASME Code Manufacturing

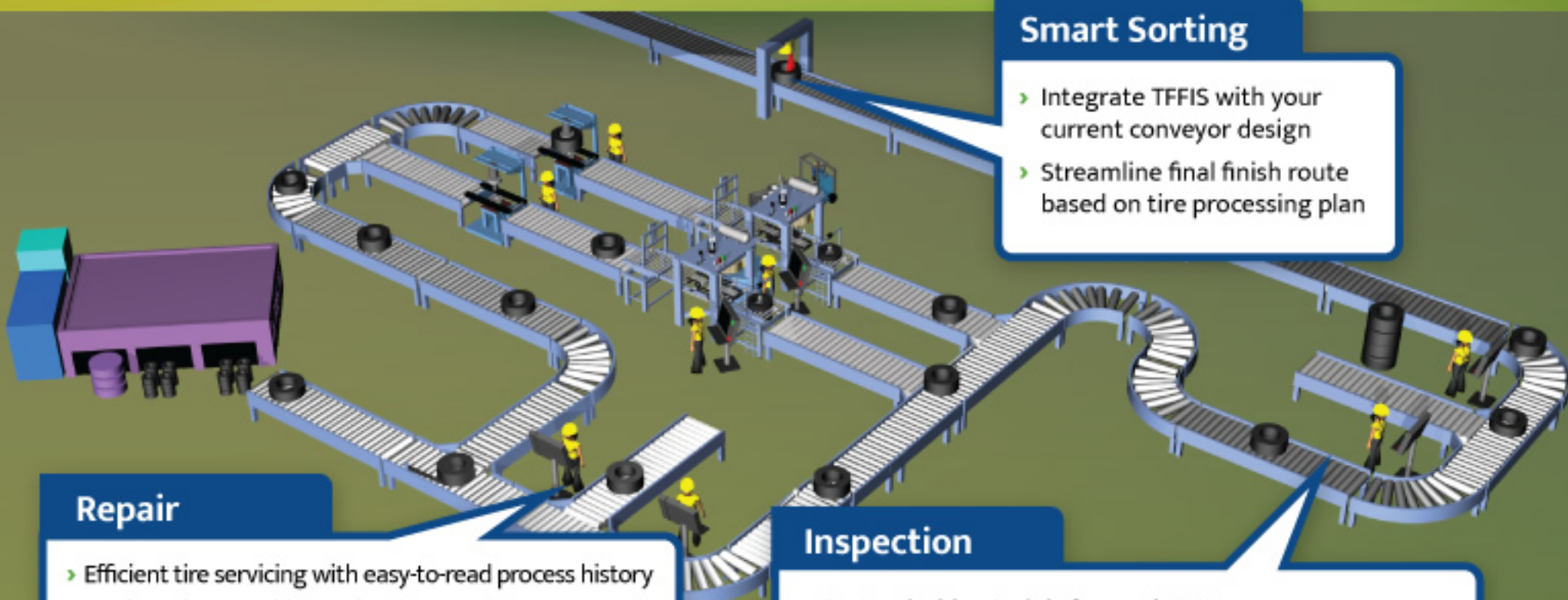
- › Top and bottom steam heated domes
- › Drying drums



THE POLING GROUP KNOWS



# Tire Factory Management Software



## Smart Sorting

- › Integrate TFFIS with your current conveyor design
- › Streamline final finish route based on tire processing plan

## Repair

- › Efficient tire servicing with easy-to-read process history
- › Replace damaged barcodes
- › Discard unacceptable tires

Refresh Action Center Clear

Machine: Repair17 Inspector: Ann Swinderman Barcode: 1213469857 Search

Green Tire Code: 06655 Plan Desc: Normal Plan (1) Next Process: Reject Review

Process Desc	Required Gr	Actual Gr	Re-Do	Resource Desc
Inspection	A - Good	A	<input type="checkbox"/>	Inspect 5 conveyor 11
FVM Uniformity	B - Replacement	C	<input checked="" type="checkbox"/>	
FVM Geometry	B - Replacement	A	<input type="checkbox"/>	
Final Inspection	A - Good			

CONFIRM RE-DO

Replace Damaged Barcode Scrap Remarks

Replace Barcode

Scrap

## Inspection

- › Customizable, straightforward HMI
- › Effortlessly record visual inspection data
- › Review upstream tire production history

Refresh Action Center Clear Reset

TBM: Press01 TBM Op: Taylor Jones Pot: Press2 Mold: CJ57 Press Op: Larkin, L

Cure Time: 10/06/2019 07:08:34 **Curing Alarm**

Trimmer: TR7 Shift Count: 0 **Chute Status: Waiting for Inspection**

Communication: Connected Machine: VL1 Operator: Fred Kirkbride **PREV INSP**  
Repair - Blister

Current Barcode: 1213469857 Stock Code: JMMGT015A Stock Description: 265/70R17 LW D

ACCEPT

REPAIR

SCRAP

Simplify tire inspection and routing with our TFFIS software.

Our customers have used TFFIS to:

- › Monitor final finish production efficiency
- › Maintain and view tire stock inventory
- › Report product traceability
- › Communicate changing production conditions to operators and supervisors
- › Verify processes, making sure the right product is processed by the right machine



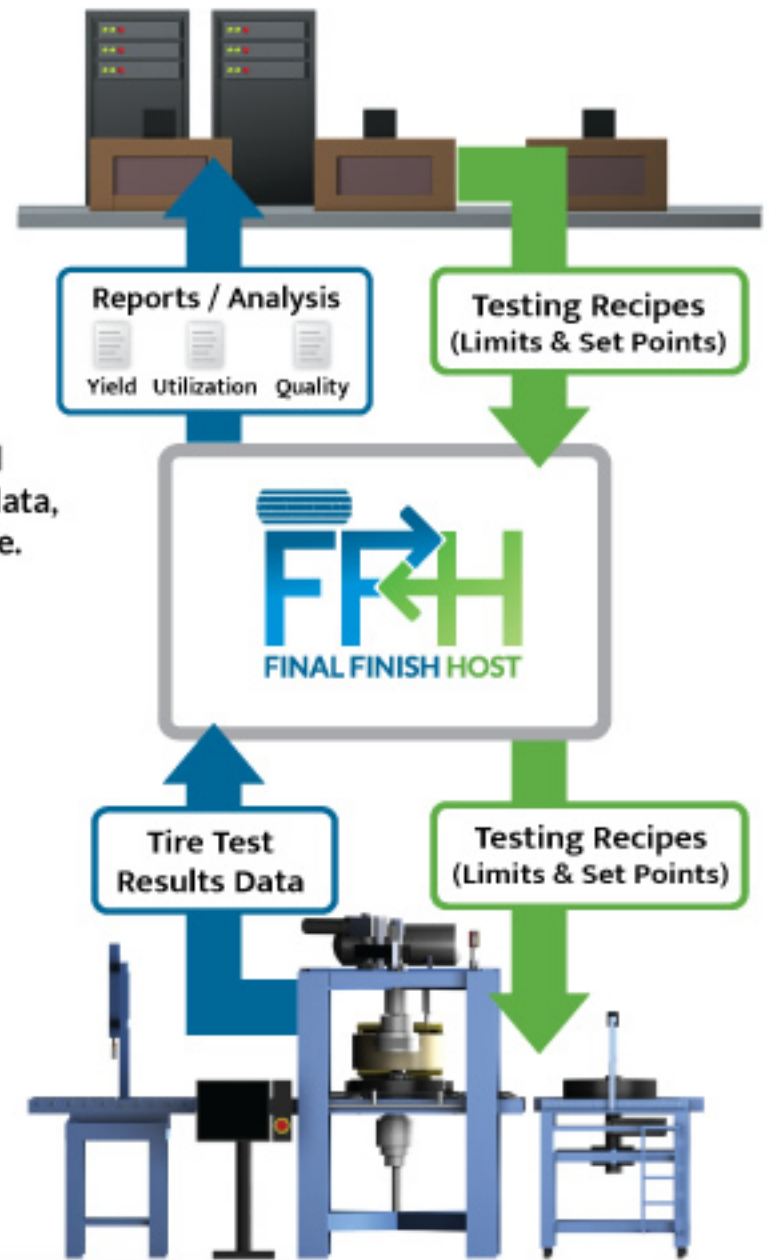


FFH converts tire test results into actionable data. Whether you need a standalone or building block solution, FFH can meet your QA goals.

FFH has been successfully implemented at several global tire companies, and helps them provide a single access point to control customer specs, analyze data, view machine performance, and schedule machine preventative maintenance.

- Automated Data Collection**  
FFH collects, summarizes, and stores test results for tire uniformity, geometry, and balance machines.
- Centralized Recipe Maintenance**  
Use a web browser to design recipes that include test sequence, grading limit, and machine setup parameters (such as servo positions), then download the recipes directly to final finish machines.
- Production and Uniformity Reporting**  
A variety of graphic and tabular reports display uniformity, repeatability, and machine utilization in PDF format.

Like other CTI products, FFH provides extra value because we customize it to fit your particular machines, operations, and business requirements. We developed FFH specifically for tire manufacturing final finish to provide the data and reporting you need to satisfy both external and internal customers.

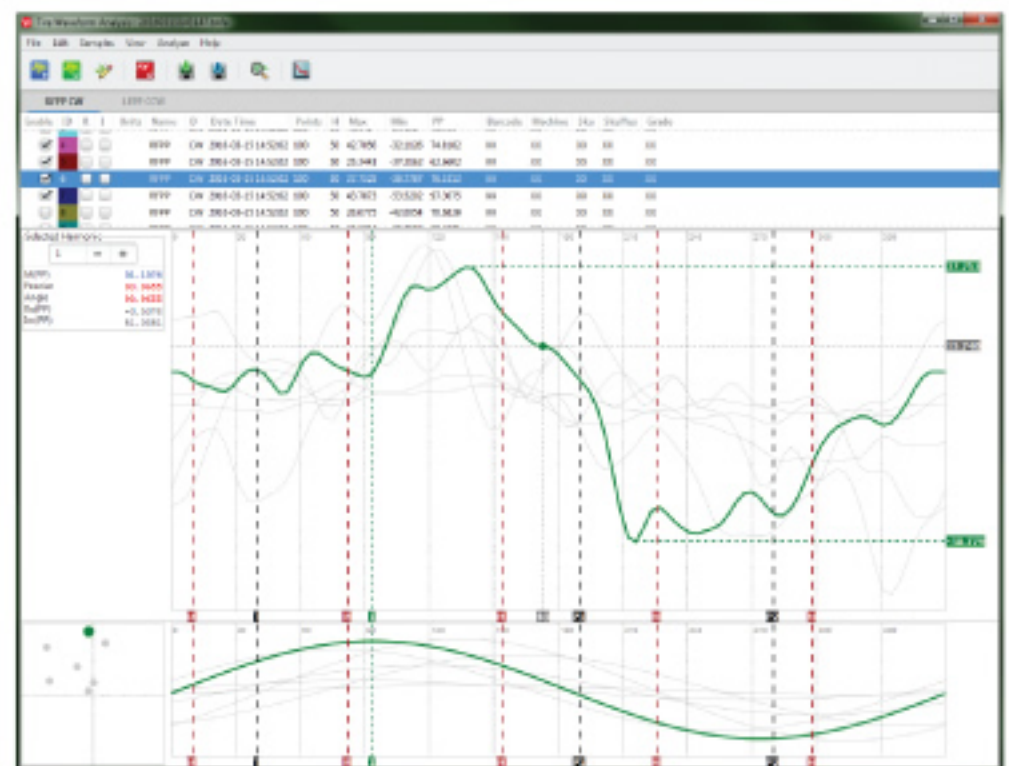


Easily collect, visualize, and analyze final finish tire test waveforms and harmonics

TWave software integrates with your existing plant database via ODBC. This new software plots harmonic information as a waveform view and transforms waveform data to individual harmonic magnitudes and angles. This process gives you unparalleled visualization and analysis of typical final finish data. Then overlay tire component splice and mold segment information on top of the waveform plot. Adjust individual harmonic magnitudes or angle values as needed and see the outcome instantly.

Replace your non-centralized custom spreadsheets with TWave and quickly view trend analysis, while you provide continuity from plant to plant.

Plots for visualization of tire data include: Complex, Individual Harmonic, Waveform, Harmonic Magnitudes, and Trend.

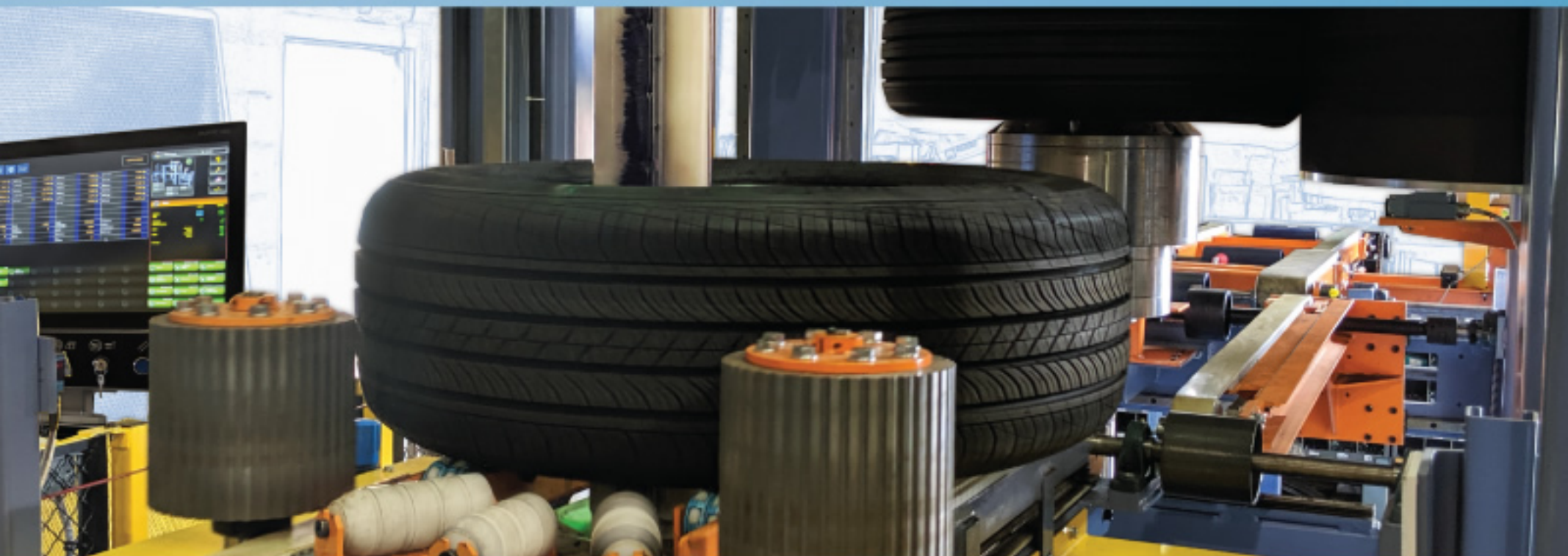


TWave lets you view component splice angles relative to harmonic angles. Overlay any or all splice values on a waveform or harmonic.



THE POLING GROUP KNOWS

# Quality. Service. Customization.



## Spindle Exchange Program

Worn out spindles greatly contribute to testing problems, including the failure of a machine to meet repeatability and correlation requirements. Excessive or unaligned spindle movement also places additional stress on other key mechanical components that can cause them to prematurely fail.

These problems often go unsolved because of the perceived cost and downtime associated with spindle replacement. Poling Group wants to change that!

### How it works:

Replace your worn out spindle with our factory rebuilt cartridge assembly, then return the old spindle to us. We'll only charge you for the necessary replacement parts and rebuild labor.

Poling Group's patented cartridge design makes it possible for you to completely replace a test machine spindle assembly in about 3 hours, greatly reducing changeover downtime.

## Any-Time Remote Support

**The Poling Group's Online Service advantage provides remote support to our customers on a 24/7/365 basis.**

This option is available for any testing machine that uses our TTOC controller, or for any information system we've installed to perform data acquisition, storage, and reporting.

With remote support you don't have to schedule, wait, and pay for service personnel just to arrive on site!

### What we do:

- › Instantly view and analyze tire test machine data, including current machine settings, component and drive status, and various status and error logs.
- › Run diagnostics to evaluate machine fault conditions.
- › Use the machine's chat feature to guide plant engineering/maintenance personnel who need to diagnose problems or implement machine customization.
- › Download and install software updates, then monitor subsequent machine or data system performance. Perform database and other system maintenance.





## the Poling Group

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Focus: Tire Uniformity and Geometry Machine Controllers,  
Data Acquisition, Tire Factory Management Software,  
Barcoding, Material Handling, Tread Label Solutions

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Focus: Laboratory Tire Testing that includes Endurance,  
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Focus: Mill Room Equipment, Calenders,  
ASME Pressure Vessels / Repair, Mixing / Extrusion

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Focus: Raised Letter Grinding & Painting, Post Cure Inflators

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Mill Room  
Equipment



Laboratory  
Tire Testing



Final Finish  
Tire Testing



Controls &  
Data Mgmt

## Spare Parts

The Poling Group offers spare and replacement parts for all of our Testing and Mill Room machines, and even some replacement parts for machines that we didn't manufacture.

Our Spare Parts team is committed to making sure you get the right spare or replacement part at the right time.

Call any Poling Group listed below or:  
Submit a request via

[www.PolingGroup.com/spareparts](http://www.PolingGroup.com/spareparts)

## Contact the Poling Group

[www.PolingGroup.com](http://www.PolingGroup.com)  
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AKRON STEEL FABRICATORS

**Firwood~asm**