

Product Guide for TBR Tires

Committed to Maximizing the Return of Your Investment

- FD90
- AkroDYNE® FXT
- TGIS FS
- CTXS® Plus



FD90

Uniformity Force Measurement for TBR Tires

The FD90 Truck/Bus Tire Uniformity Machine measures force variation, a tire behavior that creates ride disturbances such as vehicle vibration.

- The Automatic Adjustable Width Chuck (AAWC) minimizes downtime and results in maximum throughput
- High tire throughput
- Highly accurate tire measurement results
- Optional integrations include: Handling station, Rim Change Assist, TGIS-SLT, Marker, Sorter



FD90 Technical Specifications		
Tire Dimensions	Metric	US Customary
Outer Diameter	711-1524 mm	16-25.5 in
Bead Diameter	406-678 mm	16-25.5 in
Bead Width	102-457 mm	4-18 in
Section Width	127-584 mm	5-23 in
Parameter	Metric	US Customary
Radial Force Variation Measurement Range	0-454 kg	0-1000 lbs
Radial Force Variation Repeatability	$\sigma \leq 1.35$	$\sigma \leq 3.04$
Lateral Force Variation Measurement Range	0-227 kg	0-500 lbs
Lateral Force Variation Repeatability	$\sigma \leq 0.68$	$\sigma \leq 1.53$
Conicity Measurement Range	± 227 kg	± 500 lbs
Conicity Repeatability	$\sigma \leq 0.68$	$\sigma \leq 1.53$
Cycle	Dual Direction Test	TGIS-SLT
Cycle Time	52 Seconds	Does not add Cycle Time



AkroDYNE® FXT

Truck and Bus Tire Dynamic Balancing System

The AkroDYNE® FXT Tire Dynamic Balance System utilizes a “force measuring” imbalance-sensing system in conjunction with computer-based software. The force measuring system accurately measures the imbalance in a wide variety of tires, regardless of their weight.

- The AkroDYNE® FXT is a fully automatic machine used for 100% tire checking in production
- PLC Status Screens help operators and maintenance technicians to insure continuous operation
- The best Measurement Repeatability of any machine in the industry
- The best Cycle Time in the industry
- Optional integrations include: Barcode reader, TGIS FS, Marker, Sorter



AkroDYNE® FXT Technical Specifications		
Tire Specifications	Metric	US Customary
Outer Diameter	660-1350 mm	26-53 in
Bead Diameter	407-622 mm	16-24.5 in
Bead Width	102-406 mm	4-16 in
Section Width**	150-600 mm**	6-23.6 in
Inflation Pressure (max)	7.5 bar	110 psi
Tire Weight (max)	120 kg	264 lb
Cycle	90 psi	With Geometry 90 psi Balance
Cycle Time*	35 seconds	39 seconds

*Cycle times are specified using a 295/75 R22.5 TBR tire size. Cycle time varies with tire size.

**Tire Section Width: 535 mm with 57" (1448mm) conveyor height (possibly up to 600 mm inflated. 570 mm uninflated with 55.7" (1415mm) conveyor height)

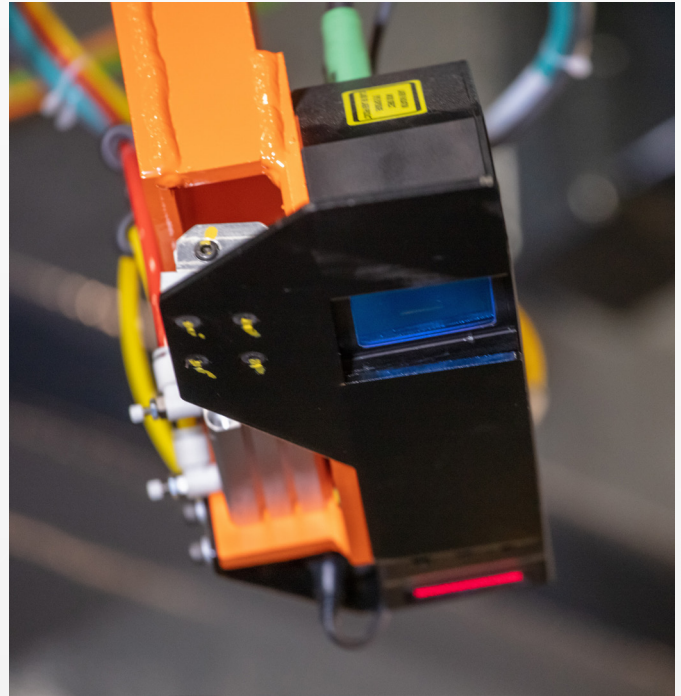


TGIS FS

Tire Geometry Inspection System for TBR Tires

The TGIS FS Tire Geometry Inspection System with Micro-Tech™ TrueView™ Laser Sensor Technology is the most complete, flexible, and efficient solution for measuring finished tire surfaces for bulges, dents, and more.

- Eliminates the need for sensor positioning and set-up for every tire type tested due to three TrueView™ fixed position sensors
- Full track scans the tread surface and each sidewall and presents the results for user-defined test regions
- Decoration & Lettering Removal (DLR) software eliminates patterns and mold engravings to measure only the underlying tire surface
- Image Storage captures scanned images efficiently



TGIS FS Technical Specifications		
Accuracies	Metric	US Customary
Bulge, Depression, Peak-to-Peak	± 0.05 mm	± 0.002 in
Lateral, Radial, Wobble, Run-Out *Using TGIS position Calibration Wheel	± 0.075 mm	± 0.003 in
Repeatability	Metric	US Customary
Calibration and Verification Device	0.025 mm	0.0001 in
Tire Measurements*	0.075 mm	0.003 in
Sensor Specifications		
Scan Rate @ 128 rows	2700 profiles per second	
Profiles per Revolution	Up to 2000	
Points per Profile	2048	

*Measurements may be taken with stabilized master tires under previously defined requirements.
 $\sigma = 0.025$ mm on measurements using TGIS position calibration and verification device



CTXS® Plus

X-Ray Measurement for PCR, LTR, and TBR Tires

The CTXS® Plus X-ray inspection system vertically X-rays tires to limit deformation and display the images on the monitor. Coll-Tech Automatic Defect Recognition (ADR) software allows the operator to set warning limits to detect abnormalities in any area and tire direction.

- Industries first multi-axis robot handler
- Automatic Defect Recognition (ADR) Software
- Tire sorting device for passenger tires
- Tire marking device, hot foil or label



CTXS® Plus Technical Specifications

Tire Dimensions	Metric	US Customary
Outer Diameter	495-1400 mm	19.5-55 in
Section Width	135-510 mm	5.3-20 in
Bead Diameter	330-762 mm	13-30 in
Bead Spread Distance	70-500 mm	2.75-19.7 in
Tire Weight max	160 kg	
X-ray Tube		
Omni Directional Tube max	3.0 mA	100 KV
Radiation Emission Angle	6° x 280°	



Aftermarket Products & Services

To protect and maximize the return of your investment, Micro-Poise® has an established global Aftermarket Products & Services network that is unsurpassed in the industry. Our responsive and knowledgeable group will exceed your expectations for cost savings, performance and reliability.

- Technical services for start-up, on-going maintenance, preventative and predictive maintenance and training
- Spare parts and precision tooling, kits and repairs
- Machine modernization and upgrades

With more than 105 years of innovation behind us,
we continue pushing leading-edge tire measurement systems forward.
Micro-Poise®. Better by every measure.

Guide to Our Products: 12/2023

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