



AkroDYNE[®] FXT

Truck and Bus Tire Dynamic Balancing System

The AkroDYNE[®] FXT Tire Dynamic Balancing System from Micro-Poise[®] helps assure tire quality by measuring, grading, marking, and sorting tires according to static, couple, and upper and lower plane imbalance for medium radial truck and bus tires.

Key Process Advantages:

- Lowest cost of ownership through the system lifecycle
- Operator friendly and efficient
- Fastest cycle time of any commercially available dynamic balance system

Key Technical Advantages:

- Best accuracy and precision due to the tight machining specifications of our spindle drive system
- Patented direct drive spindle
- Reliable tire inflation techniques
- Fully integrated with our Tire Geometry Inspection Systems (TGIS FS)



AkroDYNE[®] FXT



Features and Benefits

The AkroDYNE[®] FXT Tire Dynamic Balance System is a fully automatic system used for 100% tire checking in production

- Automatically adjusts to different tire widths and test conditions while processing a variety of tires with various bead diameters (adapter dependent), outside diameters, section widths and weights.

All Micro-Poise[®] Dynamic Balancers utilize a “force measuring” imbalance-sensing system in conjunction with computer based software. There are several advantages to this system including:

- The force measuring system accurately measures the imbalance in a wide variety of tires providing the tire manufacturer with flexibility when using the AkroDYNE[®] FXT in the final finish process and aiding in maximizing production yields.
- The electronics are very stable and allow the machine to be set up for all types of production tires. Recalibration for varying tire sizes is not necessary.
- Tires are measured while inflated and rotating, simulating tire & wheel assembly conditions, and enabling bulge and dent detection by TGIS FS. Confidence of a quality measurement system for each tire tested is assured.

These features make the AkroDYNE[®] FXT a high up-time, high-throughput and ergonomically friendly machine.



Tire Test Station



Human Machine Interface



Technical Specifications

Size and Range Specifications	Metric	US Customary
Outer Diameter (max/min)	1350/660 mm	53/26 inch
Bead Diameter (max/min)	622/407 mm	24.5/16 inch
Bead Width (max/min)	406/102 mm*	16/4 inch*
Section Width (max/min)	500/150 mm**	19.7/6 inch**
Inflation Pressure (max)	7.5 bar	110 psi
Tire Weight (max)	120 kg	264 lb

*In 3/4 inch (19.05 mm) increments.

** Option being developed to expand tire width to 23 5/8 inch (600 mm).

Balance Measurement Range	Metric	US Customary
Range - Plane	144 g-m per plane	200 oz-inch per plane
Range - Static	288 g-m	400 oz-inch
Range - Runout	10 mm	0.4 inch

Measurement Accuracy	Metric	US Customary
Static	≤ 54 g-cm	≤ 0.75 oz-inch
Couple	≤ 72 g-cm	≤ 1.0 oz-inch
Planes	≤ 72 g-cm	≤ 1.0 oz-inch



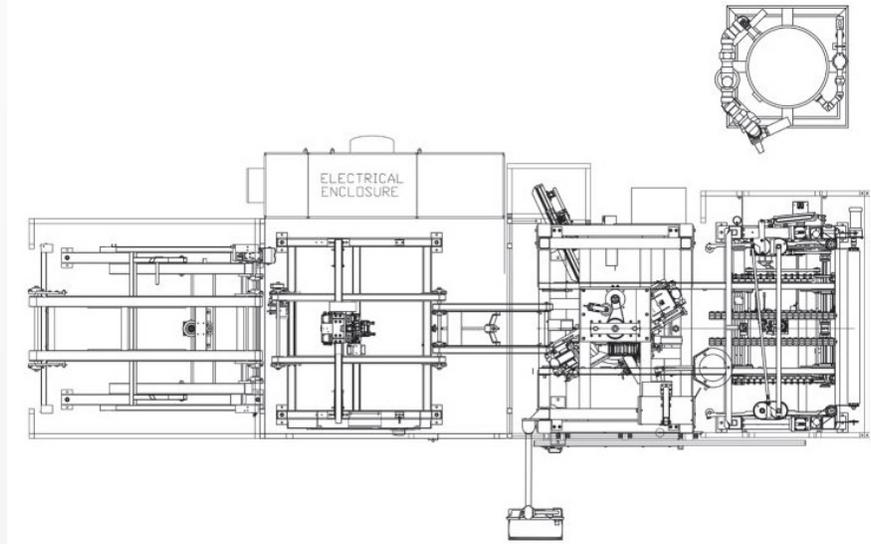
Spindle with measurement devices and transfer conveyor

Cycle Times	90 psi balance	With Geometry 90 psi balance
Time for complete cycle plus one orient for external marking preparation	35 seconds	39 seconds

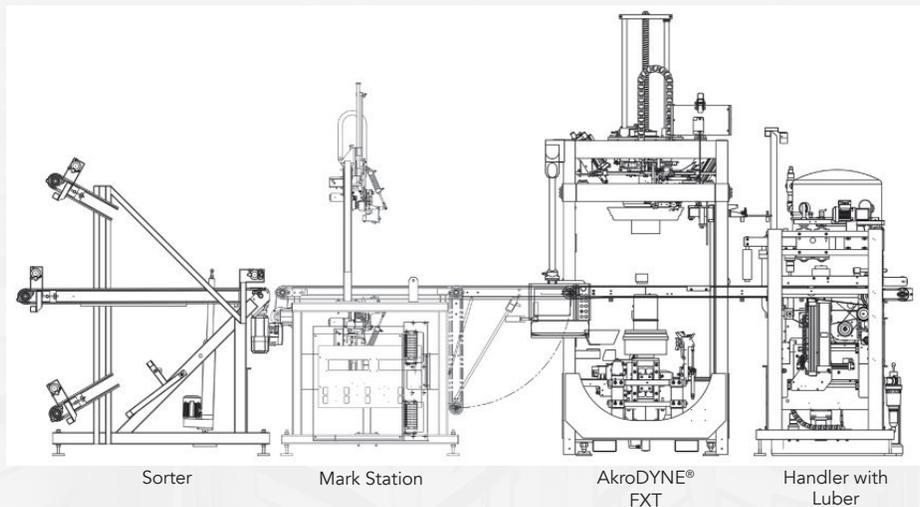
*Cycle times are specified using a 295/75R22.5 tire. Cycle time varies with tire size.



Layout Options



Layout showing base AkroDYNE[®] FXT with entrance conveyor and integrated Tire Geometry Inspection System (TGIS FS). The illustration also shows the exit drop conveyor for ease-of-access during maintenance, optional remote marking station and optional sorter.



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

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