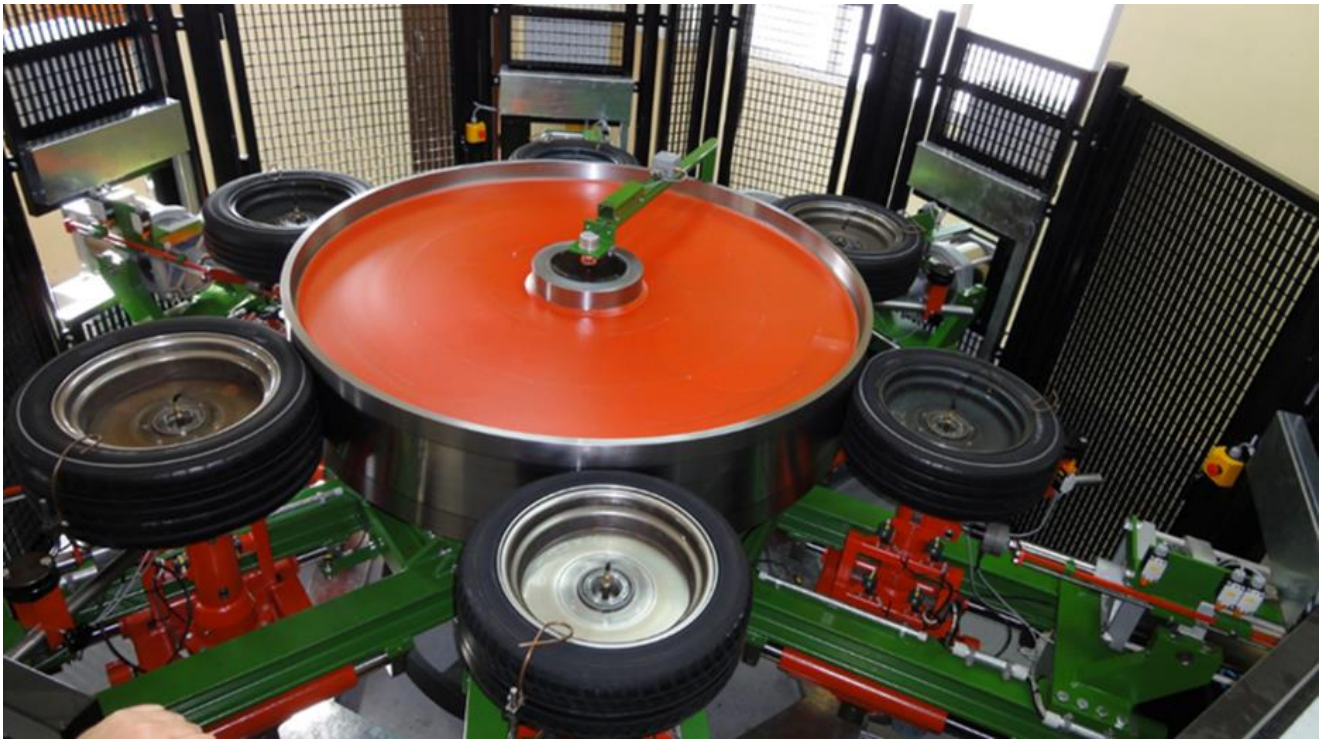
6 Position PLT Endurance Tire Test Machine

Highly efficient endurance testing

A testing machine, designed to test tires under heavy load condition to evaluate stability for driving and compliance with mandatory regulations local and abroad.



- horizontal drum
- 6 wheel stations
- standard mechanical interfaces
- a high performance AC servo motor with pulley wheel drive
- wheel carrier under load free from bending torque
- pneumatic or optional hydraulic loading
- Precision linear guides for smooth motion of the wheel carriers
- best control performance with highest accuracy
- bulge detector systems for emergency shut down
- safety housing according to CE Standards
- sliding doors with safety guard
- load stations accessible with crane to support mounting
- workstation with graphical user interface (GUI) for easy set-up and management of tests
- customized GUI design and standard test report
- data export and further treatment with common analysis tools, i.e. to MS EXCEL/ MS WORD

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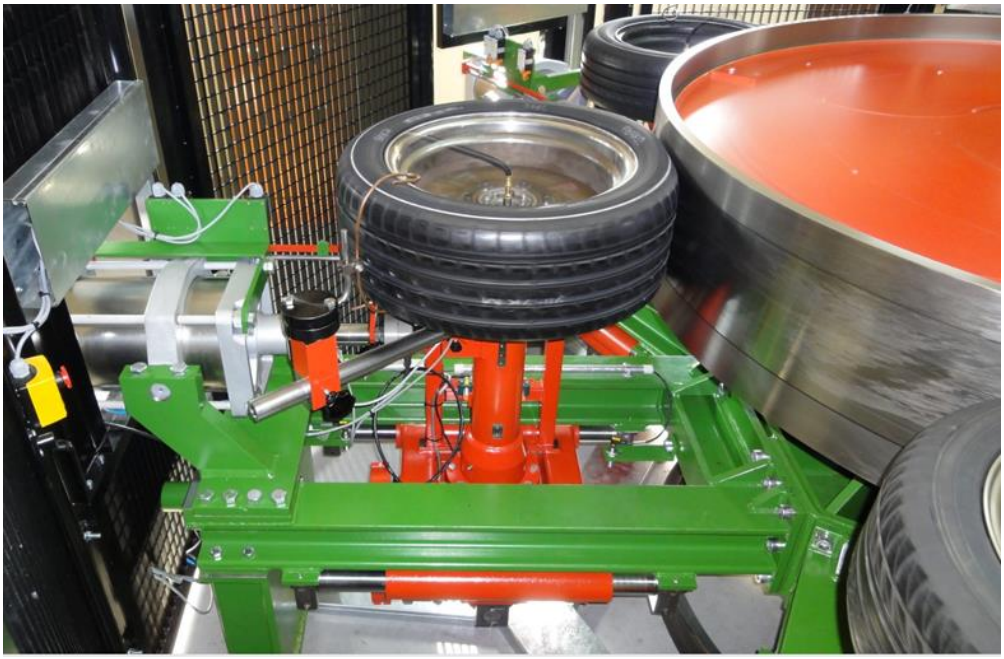
Wheel loading stations

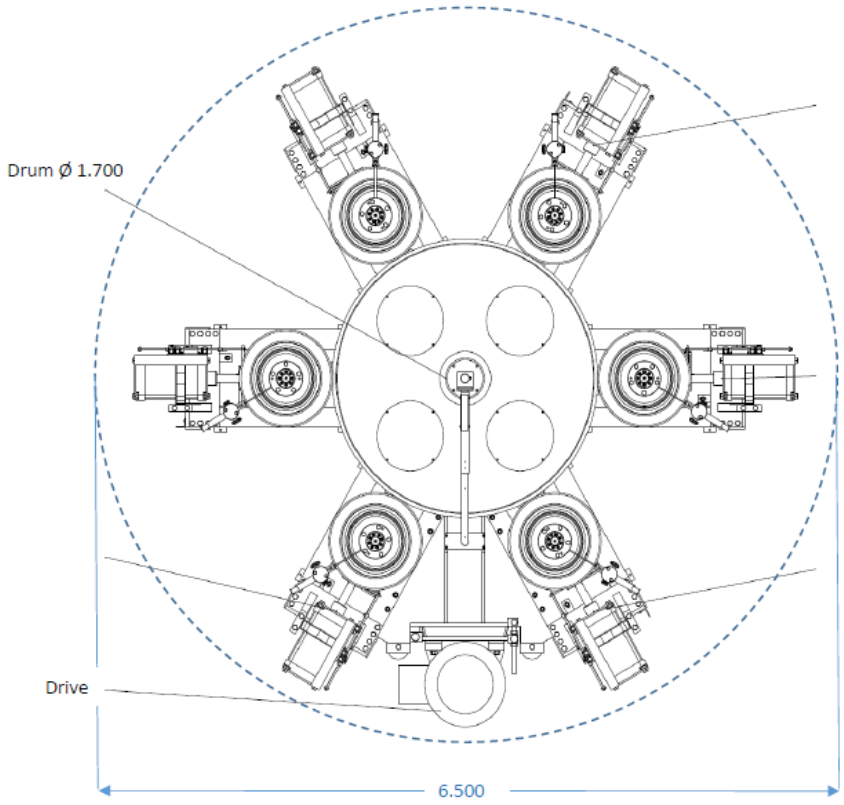


Wheel load station with pneumatic loading ≤ 35 kN and camber adjustment ± 5°
(Load capacity ≤ 50 kN is available with hydraulic loading)

Technical Data

PARAMETER	*Specification*	*Remarks*
General		
No. of Loading Positions	6	
Tire Class	PC/ LT	
No. of road wheels	1	
Drum module and drive		
Road Wheel Type	Steel welded (tbd)	
Material	Steel 1.0036 (DIN)	
Road wheel diameter	1.707,6 mm	
Road wheel diameter accuracy	+0/ -0.2mm	
Road wheel Width	500 mm	
Road Wheel Runout (radial and lateral)	< 0.2 mm	
Surface roughness	< 4.5 µm	
Road wheel balance	VDI 2060 Accuracy class Q 6.3	
Levelness road wheel axis	< 0,2mm/ 1000mm	
Tire axis vs. road wheel surface parallelism	< 0,3mm/ 1000mm	
Cleat fixation on road wheel surface	none	
Max. Speed	≤ 160 km/h	optional ≥ 160 km/h
Speed Instrumentation Accuracy	+/- 0.05 km/h	
Speed Control Accuracy	+/- 0.1 km/h	
Acceleration	20 km/h in < 30 sec	
Operation Temperature	5 - 50° C	
Ambient temperature monitoring range	0 … 60° C	
Ambient temperature monitoring accuracy	± 0.5° C	
Time measurement accuracy	1ms	
Hydraulic Power Unit	Rexroth	optional
Drive torque transmission	Pulley wheel	
Drive Unit Motor Power	AC servo Drive, power tbd.	
Voltage	440V; 50/60Hz; 3 phase	
Wheel load station		
Tire Diameter Range	400 … 1100 mm	
Loaded Radius (RL) Range	200 … 550 mm	
RL Accuracy	± 0.1 mm	
Effective Rolling Radius (Re) Range	no limits, calculated value	
Re Accuracy	± 0.1 mm	
Carriage Travel Speed Loading	standard 5 mm/s, fast gear 25mm/ s (customizable)	
Camber adjustment	± 5°	
Bead-/ rim diameter	11 … 28”	
Rim width range	4 … 15”	

PARAMETER	*Specification*	*Remarks*
Max. Section Width	450 mm	
Load Range	0 … 35.000N (3.500 kg)	Higher loads with hydraulic loading system
Load Instrumentation accuracy	0,01% FS	
Load Control accuracy	± 6 N	
Tire tread surface temperature measurement range	15 … 150°C	adjustable position (scanning system optional available)
Tire tread surface temperature measurement accuracy	± 1°C	
Inflation pressure (Pi) control range	0 … 7 bar/ 0 … 700 kPa	Requires 8 bar/ 50l/min pressurized air supply
Pressure Instrumentation accuracy	± 0.1% FS	
Pi Control Accuracy	± 1.0 kPa	
Pi Control Capability	Cap & Control	
Test Standard	Customizable	technical specification according to valid regulations



Test Stand outline