



WHEELSET DIAGNOSTIC SYSTEM ARGUS® TRAM

➤ APPLICATION AND USE

Fast condition assessment, predictive maintenance, and maximum vehicle availability: With HEGENSCHIEDT ARGUS® Tram, wheel profiles of tram and metro vehicles can be measured automatically during normal operation. The stationary wheelset diagnostic system captures all relevant wheelset data as vehicles pass over it at speeds of up to 20 km/h, providing the basis for efficient condition-based maintenance.

The system has been specifically developed for light rail vehicles and can be installed in workshops as well as, optionally, in outdoor environments. Thanks to its compact design, ARGUS® Tram can be integrated into the pit of a maintenance track with minimal installation effort. Operators benefit from automatic wheel measurements performed within seconds as vehicles enter and leave the maintenance facility. A short section of specially designed rail positioned above the sensor unit enables precise capture of wheel profiles and reliably provides the data required for optimized maintenance planning.

➤ VALUE ADDED

- **Fully automated wheelset diagnostics** | Personnel-independent monitoring 24/7
- **Inspection during normal operation** | Automatic wheelset inspection during vehicle pass-through with no downtime
- **Non-contact measuring technology** | Wear-free, highly precise data acquisition
- **Minimal calibration effort** | Calibration intervals exceeding one year
- **Seamless machine integration** | Direct interface to the HEGENSCHIEDT underfloor wheelset lathe
- **Integrated data management** | Interface to the HEGENSCHIEDT TWM wheelset management system
- **Complete data transparency** | Database-based storage of all measurement data with online access available at any time
- **Comprehensive condition overview** | Wheelset history and wear forecasts at the touch of a button
- **Optimized workshop processes** | Improved planning and logistical preparation for maintenance activities
- **Increased operational availability** | Greater reliability and on-time performance in daily operations



FUNCTION

Upon entering the measurement section, vehicles are automatically identified and the wheels are measured simultaneously at multiple points using the light-section method. In addition to the profile contours, the system also determines the distance between the wheel discs as well as their diameters at the measuring circle. Based on these initial measurements, the software can then calculate additional parameters individually according to the customer's specific requirements.

TECHNICAL SPECIFICATION

AREA OF APPLICATION		
Length of the system	mm	7,000
Track width	mm	1,435*
Back to Back Dimension	mm	Nominal + - 3
Axle distance in bogie	mm	1,300
Width of the measuring module	mm	~ 2,500
Dimensions of base unit (control cabinet) (D x W x H)	mm	600 x 1,400 x 2,100
Track leading and trailing straight line each	mm	~ 10,000
Total connected load	kVA	10
Power supply	400 V, 3 phases, 50 60Hz	
Designed according to	VDE, EN and IEC regulations- buyer's electrical regulations are taken into account as far as confirmed	
WHEEL PROFILES (according to BoStraB) AND MEASUREMENT CAPABILITIES		
Axle load, max.	kN	130 optional 210
Measuring range measuring circle diameter	mm	400 – 900
Passing speed without measurement	km/h	0 – 30
Passing speed for measurement	km/h	3 – 20
Speed fluctuation during measurement	%	+ - 10
Evaluation speed train units (≤ 70 wheel sets)	min.	~ 1 (after the end of the train passage)
Time between 2 measurements	min.	5

* or according to customer requirements

