

SDS Systems: Efficiency in focus

SDS
Systemtechnik

Peak performance: That's all that counts

Airplanes, trucks, OTR vehicles, buses or automobiles transport millions of people and freight using new and retreaded tires. And here reliability is imperative: one hundred percent, every single day – especially for passenger traffic, freight with a delivery deadline or when transporting hazardous goods. That means that non-destructive tire testing is absolutely essential for the tire industry.

SDS is a leading global specialist for industrial quality testing for tires and carcasses. SDS optoelectronic applications are innovative systems for the whole application range from their development right through to the production of new high-class tires and retreads. There are already over 400 SDS systems being used by reputable manufacturers worldwide.

SDS is a global leader in the development and production of testing systems based on shearographic interferometry. It is the aim of every tire test to provide outstanding results – in quality and costs. SDS expertise makes the most of its potential in consulting, design, development, production and service for each and everyone of its systems.

22 years of know-how: 14 years of SDS expertise

The founder of SDS, Stefan Dengler, has been one of the significant designers of industrial applications for tire testing since 1990. After setting up SDS System Technology Ltd in 1998, he made his expertise in optoelectronic quality testing widely available for the specific requirements of the tire industry.

As it is located in south-western Germany, SDS has taken up the lively tradition of this land of inventive and independent thinkers, the home of the inventor of the automobile. At its business site covering an area of 2,500 square meters, SDS develops, produces and markets its tire testing systems which come up to all the technical and economic requirements of the tire makers. Its staff functions as a team, focussing the sum of their professional qualifications, years of experience and motivation to produce SDS tire testing systems which set new standards regarding performance, quality and efficiency.

ITT-1: The cost-effective tire testing system

Ideal for cost-effective offline inspection of smaller to medium production facilities for tires and carcasses: for tire manufacturers and retreaders working in research and production.

ITT Compact: The mobile tire testing system

The versatile, space-saving solution for production purposes, laboratory or test track. Perfect for inspecting smaller batches of tires and motorcycle tires, even when they are still on the rim.

Automatic inspection track

Every SDS testing system can be fitted with an individually designed conveyor system for loading and unloading. This means: a work cycle with no operating staff to provide cost-effective operating, more productivity and greater flexibility when testing tires.

Better quality: Lower costs

- SDS systems are suitable for every application
- SDS quality Made in Germany ensures efficient and extremely cost-effective operations
- Compact SDS construction methods are space-saving and ensure efficient testing sequences
- SDS module concept for technology and software minimizes training costs
- Automatic SDS systems reduce payroll costs
- SDS service ensures constant availability and complete cost control
- SDS remote fault diagnosis ensures uninterrupted productivity
- SDS three-head technology minimizes cycle times and maximizes testing capacity



Consulting: The basis for outstanding cost-effective solutions

The throughput and costs for every SDS-supplied tire testing system depend on the combination of individual customer-specific requirements. During the purchase process, personal consultations with SDS management or one of SDS's global agencies will enable SDS to design a perfectly customized – and therefore extremely cost-effective – solution for each function whether it is a testing system selected from the full spectrum of SDS products or an SDS application specially tailored to customer requirements. SDS makes its years of experience and the latest know-how from its development, production and service units available to the tire industry.

Perfectly equipped: For every job

Efficient SDS testing systems designed specifically for the needs of the entire tire industry. The very first tire testing system for OTR tires up to 63" was also developed by SDS.

- Manufacturers of new tires
- Retreaders
- Research and development
- Airplane tires
- Automobile tires
- Tires for vans, trucks and buses
- Tires for construction, OTR and agricultural vehicles
- Industrial tires and special uses

ITT-2: Top performance

The ideal design for industrial three-shift operation: This version provides fully automatic verification of average to large annual tire capacities.

Integrated tire testing from SDS

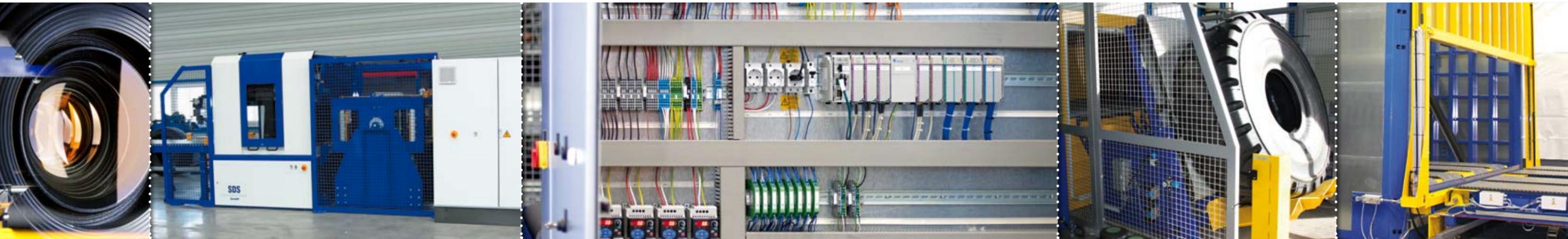
All SDS systems and conveying tracks can be combined flexibly to provide extremely cost-effective tire testing with full service. In addition, SDS conveying technology can be integrated easily into the customer's existing conveying systems by using available individual interfaces.

Conception: Efficiency all along the line

The pioneering SDS module concept incorporates years of experience gathered by SDS. The technical and software modules are designed with a uniform concept making them easy to operate and maintain – and ideal for providing perfect test results with an effective cost-saving structure. All the components used for SDS systems can be exchanged quickly and updated regardless of type and production year and are easy to operate. This is also true for the uniform software architecture for the machine control system as well as for collecting, archiving and verifying the data. Operators are able to familiarize themselves with every SDS tire testing system and run the tests immediately without needing any expensive and time-consuming lead-in period or training.

ITT-OTR: Tire testing chamber

Quality control for cost-intensive OTR tires: Since 2005, SDS has been developing and supplying customized tire testing chambers for tire sizes up to 63".



Development and production: Innovation ex factory

SDS is the driving force behind global progress in optoelectronic tire testing by developing its own applications to meet the dynamic requirements of the tire industry. Specific technologies and complete plants are designed by SDS either on their own initiative or jointly with manufacturers of new tires or retreaded tires. Pioneering products, configuration methods and procedures such as EMS, PTS or the efficient testing sequence with SDS multi-head technology are the result of SDS ongoing development and research. A multitude of innovations and international patents ensure that users of SDS systems always have the competitive edge.

SDS has a unique range of products covering the whole range of applications needed for efficient quality control for tires and car-cases. Made in the SDS production plant in southern Germany, each system receives the renowned "Made in Germany" stamp as a sign of its excellent results in testing tires.

Service: Available worldwide – also on-site

When an SDS testing system is installed, it is automatically linked to the SDS global service network. All services can be called as required or with a customized service contract. Trained SDS employees are responsible for setting up the system and instructing the operators as well as for providing support for further training.

In general, SDS tire testing systems require little maintenance – an individual inspection service also guarantees lasting top testing results and availability. As a result, the SDS testing system with the serial number 1 is still running daily with the latest software and testing technology and can still be fully serviced.

Whether for a regular inspection, updates, data storage or a request for spare parts, or for a diagnosis or repair, SDS service staff at the multi-lingual SDS Help Desk are always available quickly and personally worldwide: by telephone, email, on-site or with the service tools via remote diagnosis. The SDS spare parts depot guarantees quick delivery all over the world with original SDS spare parts or equipment. In addition, all parts are available for many years. In this way, the comprehensive SDS service makes sure that each and every SDS tire testing system is always ready for use and working efficiently and economically.

Dmark: The laser marking system

Flexible, cost-effective laser marking in particular for fleet or OTR uses: It is ideal for marking sidewalls with statutory identification numbers and codes as well as customer data. It can be used as a stand-alone-system or as an automatic system integrated in the conveying system.

PTS: The automatic tire pressure testing system

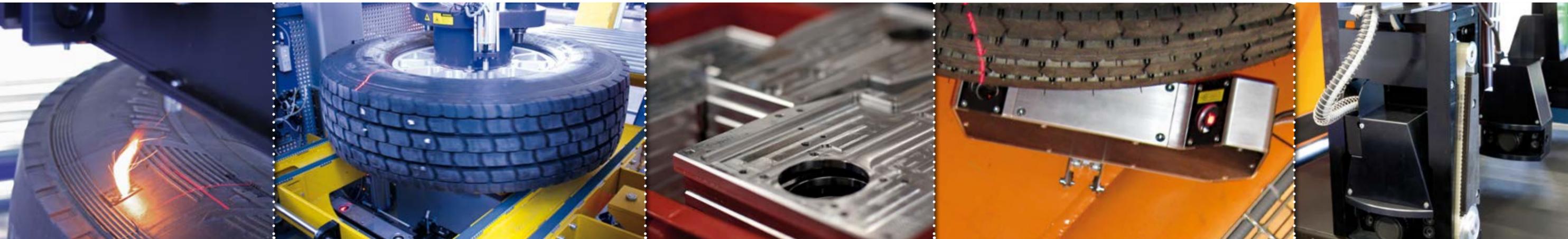
This is for recognizing, displaying and archiving structural defects and sidewall anomalies as well as for checking geometry data. The system replaces the classic tire pressure check with modern technology and image processing which enables the tire to be tested at different pressure stages.

EMS: Endurance test monitoring system.

This SDS innovation provides non-stop online monitoring with wheeled testing stations. The system also allows almost endless monitoring to display and record how defects arise and change over a period of time. It also offers automatic shut-down criteria depending on the size of the defect, position etc.

ITT: Patented three-head technology from SDS

Compared with single head systems or other multi-head systems, the SDS three-head technology makes a significant and efficient reduction in the time needed for the test cycle, in particular for bead-to-bead testing. This patented SDS method increases testing capacity by allowing the entire tire to be recorded in only two testing cycles.





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