

PERFORMANCE ON TRACK®

OUR SERVICES
FOR THE TRACK SYSTEM



TRAINING CENTERS

Under the Railway Systems Academy brand, we offer a comprehensive course program on switches, rails, as well as surveying, maintenance, and inspection. This makes us your training center for the track system.

YOUR BENEFITS

- » High-quality training with the latest technology
- » Theoretical and practical courses at the best possible location
- » Weather-independent training
- » Insight into production
- » In-house training at your location

OUR SERVICES

- » Lecturers who are experts from the industry, railway infrastructure, and universities
- » Modern, well-equipped seminar rooms
- » On-site training objects
- » Customized training programs tailored to your needs



WS Academy – Please scan for more information.
<https://www.ws-akademie.at/wsakademie/de/schulungen/>



SURVEYING AND TRACK ALIGNMENT

To optimize the track position, track and switch systems are measured using a theodolite and track measuring vehicle. With the expertise of a switch designer, alignments are then carried out, and the best possible solution is presented in the staking-out plan.

YOUR BENEFITS

- » Reduction of special solutions in the track
- » Achieving the best possible switch position
- » Everything from planning to switch delivery from a single source
- » Shortened lead times for creating the switch installation plan

OUR SERVICES

- » Surveying of existing track systems, as well as new and existing track alignments for planned railway systems
- » Staking out switch points and relevant installations in the track area



SWITCH LOGISTICS

With our fleet of switch transport wagons, we deliver your pre-assembled switch directly to the installation site. The switch is transported by rail at the right time and seamlessly integrates into the construction site logistics.

YOUR BENEFITS

- » Significantly improved installation quality
- » Track closure time is minimized
- » No need for an assembly site, as delivery is made directly to the installation location
- » Rapid track availability is ensured
- » Delivery of pre-assembled switches enables important automation steps during installation (cost optimization)

OUR SERVICES

- » Under the WS Logistics brand, we offer pre-assembled switches in various geometries, including full logistical handling and delivery using specialized tilt wagons
- » Thanks to our fleet size and experience, we are the global market leader in pre-assembled switch logistics



INITIAL SWITCH SERVICING

For high system availability and durability, the quality of the initial installation is a crucial factor. To ensure the highest possible quality, we recommend performing an initial switch service after approximately 2–3 million gross tons of traffic load.

YOUR BENEFITS

- » Expertise of the switch manufacturer
- » Ensuring availability
- » Optimal use of warranty coverage
- » Prevention of costly failures
- » Increased track positioning quality

OUR SERVICES

- » Visual inspection
- » Geometric inspection of the switch
- » Deburring
- » Inspection of fastening materials
- » Creation of an inspection report



REGULAR SWITCH MAINTENANCE

Targeted maintenance is the logical continuation of the initial switch service to preserve the high initial quality over the long term.

YOUR BENEFITS

- » Maintaining track availability
- » Preserving the condition without costly investments
- » Early detection and elimination of damage
- » Predictable costs and maintenance schedules
- » Maintenance of track and signaling systems

OUR SERVICES

- » Visual inspection
- » Inspection of small components
- » Grinding-based maintenance
- » Maintenance of locks
- » Adjustment rods
- » Drives and end position detectors
- » Switch measurement
- » Ultrasonic and RSCM testing of switches
- » Deburring
- » Fastening regulation
- » built-up welding as needed
- » Straightening of switch tongues
- » Adjustment of drive and lock
- » Insulated joint repair
- » Bonding of individual sleeper screws for secure fastening
- » Manual tamping of individual sleepers

DIGITAL ASSET AND MAINTENANCE MANAGEMENT

With smart and integrated monitoring of fixed railway infrastructure and rolling stock inspection, zentrak enables preventive and precise maintenance of the entire railway system for operators. In addition, the necessary hardware – sensor technology – is provided to customers under the zentrak brand.

YOUR BENEFITS

By continuously diagnosing and monitoring the entire railway infrastructure – from the track bed to rolling stock – railways become:

- » More attractive
- » More user-friendly
- » More efficient and competitive
- » More affordable
- » Easier to maintain
- » More sustainable

OUR SERVICES

- » Monitoring of fixed railway infrastructure
- » Train detection and identification
- » Detection of reliable power supply



zentrak – Please scan for more information.

<https://www.voestalpine.com/railway-systems/de/produkte/zentrak/>



NON-DESTRUCTIVE TESTING: ULTRASONIC & RAIL SURFACE CRACK MEASUREMENT (RSCM)

To detect damage in rails and switch components at an early stage, we offer ultrasonic and RSCM testing. The RSCM test complements the ultrasonic inspection by enabling the detection of damage on the running edge.

YOUR BENEFITS

- » The combination of RSCM and ultrasonic testing covers a large part of the rail profile
- » Detection of squats, head checks, and other surface defects
- » Continuous recording of the inspected rail
- » Combined testing reduces track section closures and personnel deployment

OUR SERVICES

- » Condition assessment according to EN Standard 16729-1 and UIC 712
- » Testing of the rail head, web, and part of the rail foot
- » Creation of an inspection report including defect classification
- » The same personnel perform both UT and RSCM inspections
- » Inspection of the entire rail head surface up to 7mm depth (RSCM)
- » Recording of the inspected track sections



SCREW HOLE RESTORATION

Thread hole restoration serves to re-establish the secure fit of sleeper screws, thereby ensuring track gauge compliance. It is often used as a temporary measure until the planned renewal of the system and helps extend the lifespan of wooden sleepers.

YOUR BENEFITS

- » Sustainable thread hole restoration for wooden sleepers
- » Cost-effective alternative to sleeper replacement
- » Restoration possible during operation
- » Significant extension of service life

OUR SERVICES

- » Switch and track measurement
- » Installation of gauge rods to maintain operation
- » Loosening of sleeper screws
- » Drilling out of thread holes
- » Placement and bonding of new sleeper screws, including spring washers
- » Regulation and re-measurement before release of the area



REPAIR AND BUILD-UP WELDING

Build-up welding of switch components and rails extends their service life and reduces life cycle costs. We provide this service for both Vignole and grooved rail systems.

YOUR BENEFITS

- » Damage is repaired before more significant issues arise
- » Delays the need for component replacement
- » Low costs due to short deployment times
- » Ensures quick availability

OUR SERVICES

- » Visual inspection and PT testing for condition assessment
- » Grinding out of defects
- » Material application using welding techniques
- » Grinding and profiling
- » Repeated PT testing
- » Report with photographic documentation



SWITCH TAKE-BACK & RECYCLING

As part of the delivery of fully pre-assembled new switches on tilt wagons, removed switches can be taken back to the factory for refurbishment. At the factory, professional disassembly and recycling of reusable switch components take place. The recycled switches are primarily used on lower-category tracks, serving as cost-effective or temporary solutions.

YOUR BENEFITS

- » Positive environmental impact
- » Lower costs through targeted reuse of switch components
- » Significantly reduced dismantling times, leading to higher track availability
- » Simplified logistics during old switch disassembly

OUR SERVICES

- » Our take-back service for old switches allows us to oversee the switch's entire lifecycle, from manufacturing to end-of-use
- » By recycling old switches, we make a strong commitment to sustainability, resource conservation, and reducing our ecological footprint

Contact Person for Services



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Please scan for more information.

<https://www.ws-akademie.at/wsakademie/de/schulungen/>

* Subject to changes and errors. *

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ONE STEP AHEAD.