



PARTS AND SOLUTIONS FOR RAILWAY

WILLBRANDT is a well known supplier of highquality rubber and rubber-to-metal bonded parts as primary and secondary suspension for the bogie. Furthermore, we supply parts for the power pack and sealings for the car body. We can also deliver train seats of high quality and can help you with a full range of equipment for the professional workshop in the railway industry

The WILLBRANDT group supplies parts and components to all the major railway actors, mainly in the Nordic, the Baltics and in Germany. Our department in Denmark work closely together with the departments in Hannover, Berlin and Hamburg, who provide service and stock locally in Germany. Our area managers have extensive knowledge of the unique requirements for the various trains, bogies and workshops.

We exhibit an extensive development program and a wide product range which enables us to supply most of the products needed in the market. In our warehouses in Denmark and Germany, we stock a broad selection of our products and thereby ensuring swift delivery and allowing our customers to reduce their inventory.

Our target is to be carbon-neutral by 2040. Our new buildings in Haslev and in Hamburg are environmentally friendly and are fitted with solar systems producing more power than we use. We also encourage our customers to reuse material where possible when overhauling and offer services to facilitate such actions.



VALUES & MISSION

Our vision: To provide a one-stop-shop solution for our customers, helping them to perform and deliver the best possible products.

Our mission: To be a reliable partner for our customers and suppliers and ensure top quality and exclusive opportunities. We take pride in our knowledge and will do our utmost to find the best possible solution.

Our values: In collaboration and development with our customers, we use our expertise to meet their requirements. Our strength lies in tailor-made solutions.

We continuously train our employees both in-house and at our suppliers ensuring that we always have the latest and broadest possible knowledge in our field.

Our dedicated and flexible staff are passionate about providing good service and are focusing on a holistic approach to our customer's needs. Many products have a long production time and therefore, we have a large stock in hand ensuring the shortest delivery time possible.

It is important for us that our customers get the best products in the market and therefore we never compromise on quality.



PRIMARY SUSPENSIONS

The main function of the primary suspension is first and foremost safety. Primary suspensions absorb vibration, guarantees a smooth journey, keep the train steady on the rail during operation and stops it from derailing in sharp curves or when running at high speed.

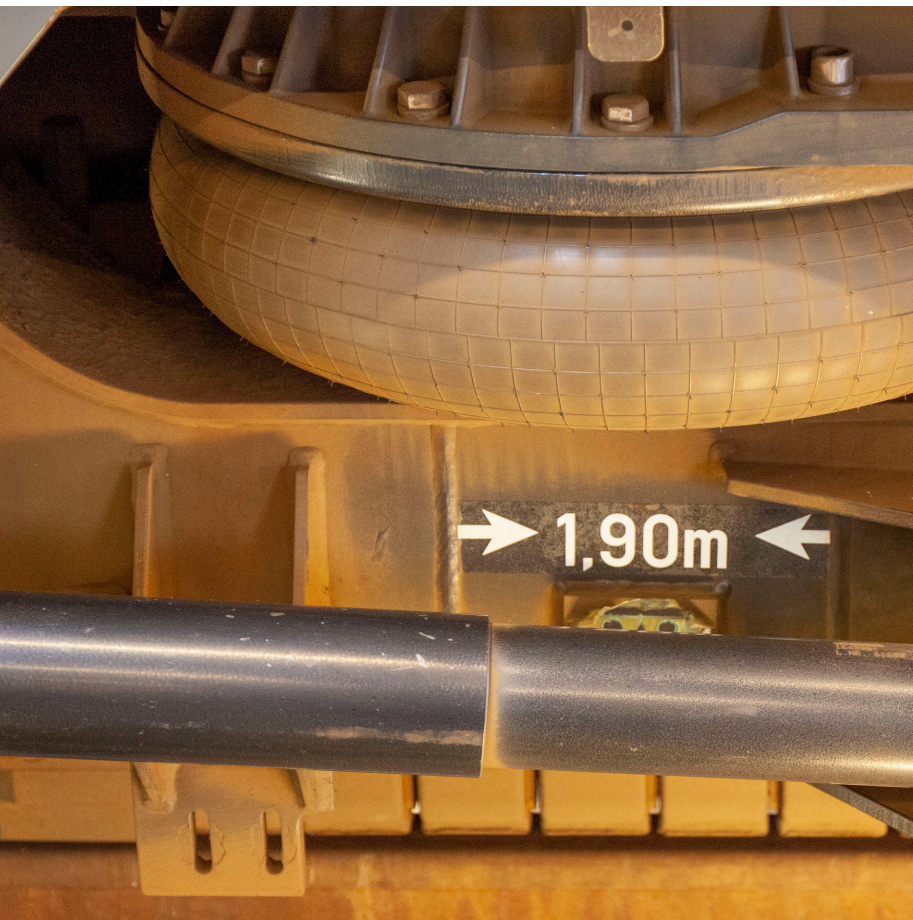
The primary suspensions therefore belongs to the most vital components in the bogie and is consequently also the part that needs the most care.

At WILLBRANDT we recommend that the primary springs are replaced in due time. But of course, it is important to always keep a keen eye on them during service and overhaul. For this purpose, we can supply testing equipment to measure the conditions of the primary rubber springs and steel coil springs and thus ensuring optimal operation of the springs and thereby the train.

We supply a wide range of primary suspensions such as:

- Chevron springs
- Conical springs
- Rolling rubber-springs
- Axle guiding bushes
- Sandwich springs
- MEGI springs





SECONDARY SUSPENSIONS

Secondary suspensions are vital components in vibration dampening, ensuring comfort for passengers. WILLBRANDT supplies various solutions and has taken steps to lower time and cost as well as CO2 by offering services related to assembly, repair and overhaul of air spring systems, where metal parts are reused.

Among other we supply:

- Air spring bellows
- Emergency/additional springs
- Complete air spring systems
- Sandwich springs
- Hydraulic dampers

Our air spring bellows are fire approved according to EN45545 R9 HL3. All new bellows are developed in accordance.

In addition, we can replace existing bellows with the fire approved version without impacting the technical and functional properties.



RAILWAY PARTS



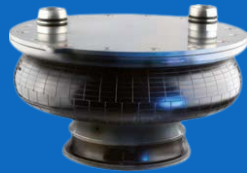
Rod with bushes



Lateral buffer



Conical suspension spring



Air spring system



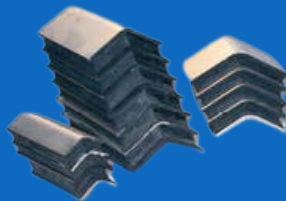
Air bellow



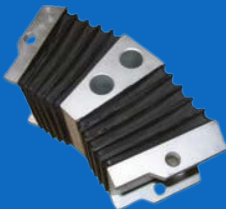
Rolling rubber spring



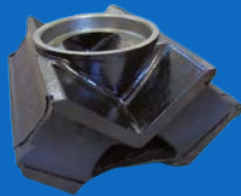
Chevron spring



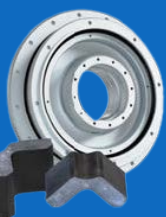
Chevron axle springs



Wedge couplings



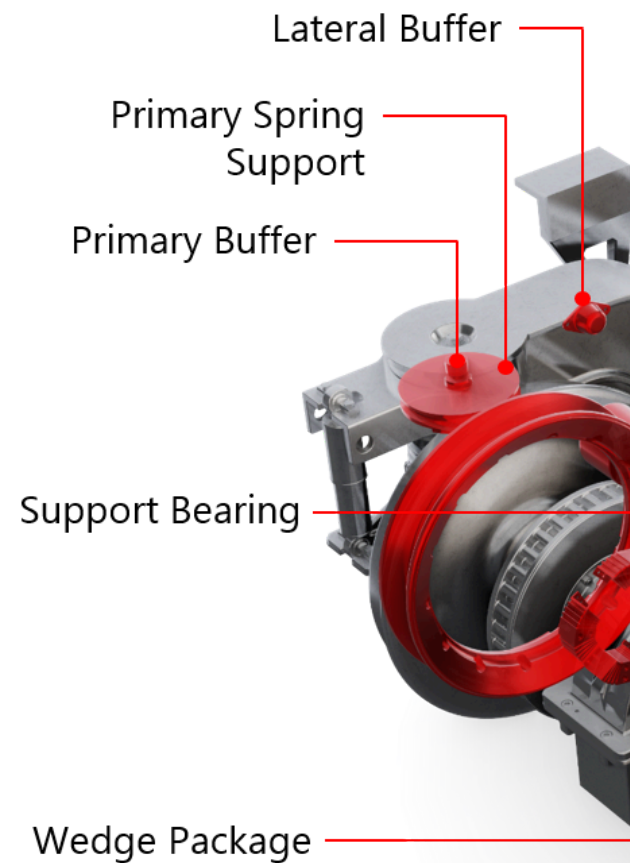
Frame support

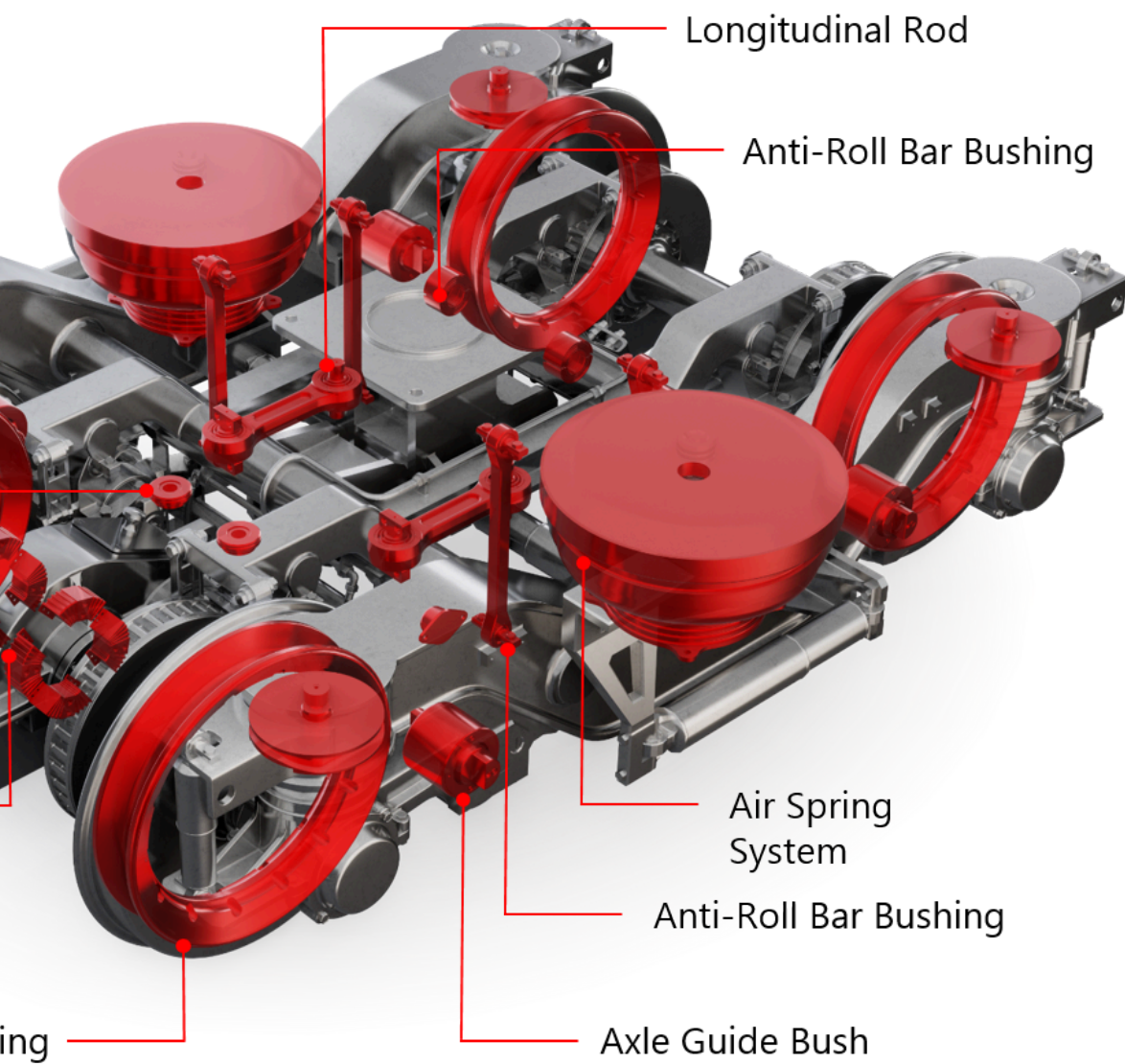


Rubber blocks and rings for wheels



Spherical bearing



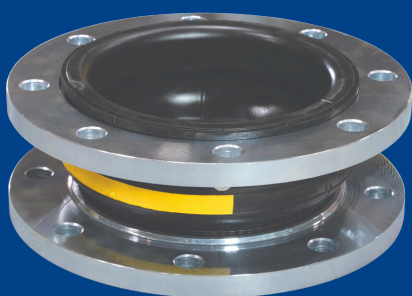


OUR PARTNERS

Together with our business partners we ensure that our products are of the highest quality. It is important for us that our product quality meets your wishes. Therefore, we continuously evaluate our business partners and encourage them to maintain their high standards.

At WILLBRANDT we act as an agency for a wide range of different suppliers of equipment for overhaul of trains - both for workshop equipment for maintenance of the exterior - as well as for the interior.

Thanks to our numerous partners, we can assist you with the latest expert knowledge and a very broad product range. Thus, making it easier and quicker for our customers to maintain their standards and have their trains back on track.



PARTS FOR THE POWER PACK

Due to vibration and movements at various points on the train during operation, it is not possible to have rigid connections, particularly not at the engine frame/power pack.

WE OFFER

- Expansion joints in rubber and steel connections of different tubes and/or exhaust pipes
- Hoses for cooling, air, hydraulic and air intake (turbo)
- Moulded and bended hoses as flexible connections for pipes
- Bends for engines
- Clamps for mounting
- Belts
- Engine and radiator mounts
- Cavoflex® wire rope mounts

Determined by the use of the application, different qualities and materials can be used for the inner tube, outer covering, for hoses and expansion joints



OVERHAUL AND RENOVATION

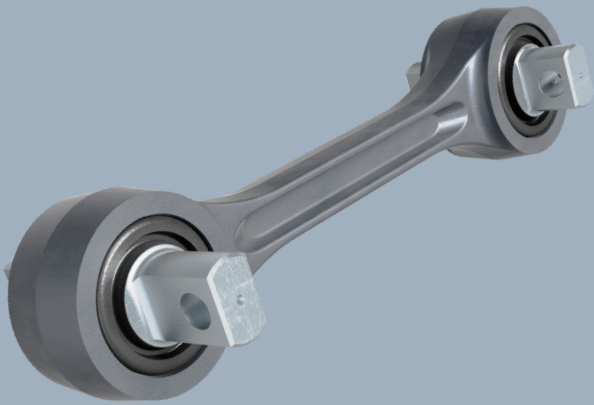
WILLBRANDT supplies various solutions and is aiming to lower energy, time and expenses of air spring systems by offering a one stop shop solution regarding assembly, repair, replacement and testing.

We offer a service where we replace the rubber bellow on air springs but maintain the steel and thereby saving both money and resources as well as lowering the environmental impact.

At the end we carry out the final leakage test and documentation.

We press bushings and spherical bearings of rods and housings in and out. Our experts also handle all testing and documentation to ensure optimal performance.

If you prefer to carry out overhaul and testing at your own site, we can supply test benches, and other equipment for your workshop.



**Overhaul helps the
environment and
saves CO2**



GANGWAY BELLOWS

The outer gangway bellow is worn quicker than the inner due to exposure to various kinds and degrees of emission. WILLBRANDT can supply your new gangway bellows in OEM quality.

We offer a wide range of gangway bellows, suitable for all types of vehicles, which can be equipped with:

Folding bellows, single corrugated bellows, double corrugated bellows, interior panelling, floor systems (bridge plate, chain bridge, routable floor), air ducts or cable support systems, compact upper and lower articulation systems for light rail.

In addition to this, we offer a wide range of other articles such as gangway rubber bellows for trains and for double decker trains, e.g. Görlitz VIII.



**Time for a mid-life upgrade and replacement?
Contact us for advice and alternative solutions.**



RUBBER PROFILES & SEALINGS FOR DOORS, WINDOWS, BOXES AND FLOOR

Our products help you protect your components from damage, ensure your passengers a safe journey and provides a better working environment for your staff. Our rubber profiles and sealings are developed for optimal vibration dampening and noise reduction.

We manufacture various custom-made gaskets and rubber frames for windows and doors, taking comfort, working environment and weather conditions into account providing you with a durable product.

We can make your sealing profile from a small sample or drawing. All our products are fire tested and approved according to EN 45545-2/3.

Our experienced engineers are happy to assist you in finding a solution to suit individual needs.



We supply profiles, sealings and moulded parts for the coaches

For example:

- Window & door sealings/profiles
- Gangway bellows / Gummiwulst
- Cell or sponge foam rubber for sealings
- Wheel guards / protection
- Hoses for HVAC, cooling, air, water or hydraulic
- Gaskets in different elastomers
- Bellows for snow or dust protection





Easy access
with reference to
**European
Accessibility Act**
(EU) 2019/882

GAP FILLER

WILLBRANDT GAP-Fillers bridge the gap between platform and train supporting passengers with walking stick, wheelchairs or prams. In the event of contact with a train, the slates move to the sides.

- Robust and hard-wearing
- Different widths to bridge almost any gap
- Easy to adapt to structural conditions
- Ideal for curved platforms
- Different colour variants available
- In operation at Hamburger Hochbahn/S-Train and other locations in Europe

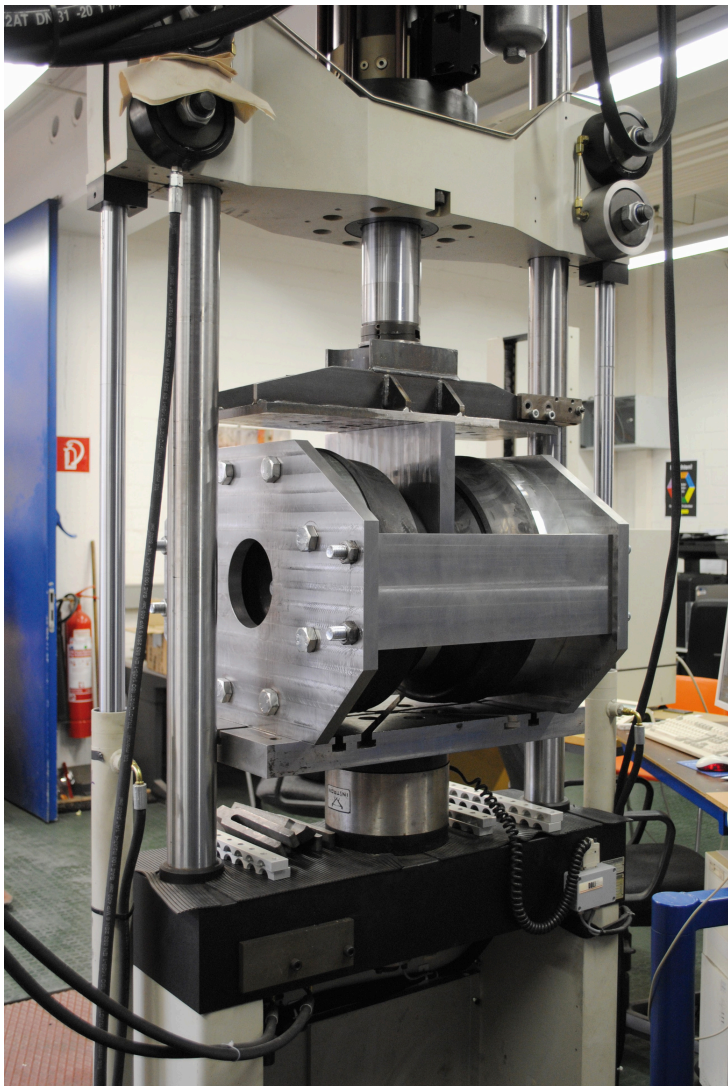
TESTING
CONDITION STATE ASSESMENT
REVERSE ENGINEERING
DOCUMENTATION
KNOW-HOW

WILLBRANDT offers a wide range of services for the development and modification of rubber and plastic products, such as: spring characteristic calculations, advice from our in-house testing laboratory, FEM calculations, local consultation with our sales engineers, drawings and models in 2D and 3D, airborne and structure-borne noise measurements, e.g. for subsequent apparatus encapsulation.

At our testing laboratory we can perform a variety of tests of the rubber quality to determine specific physical data, such as abrasion, specific weight, expansion, tensile strength and elasticity.

Specialists assigned to all product areas are at your service both technically and commercially. Our sales engineers are situated in Denmark, Sweden and Germany. When required, our engineers can assist with on-site consultancy, calculations, reports, and documentation. All tests are carried out according to DIN/ISO/EN specifications.

Should you need a second production source, or would you like to save money? We can help you by doing reverse engineering. We have the know-how and a proven track record.



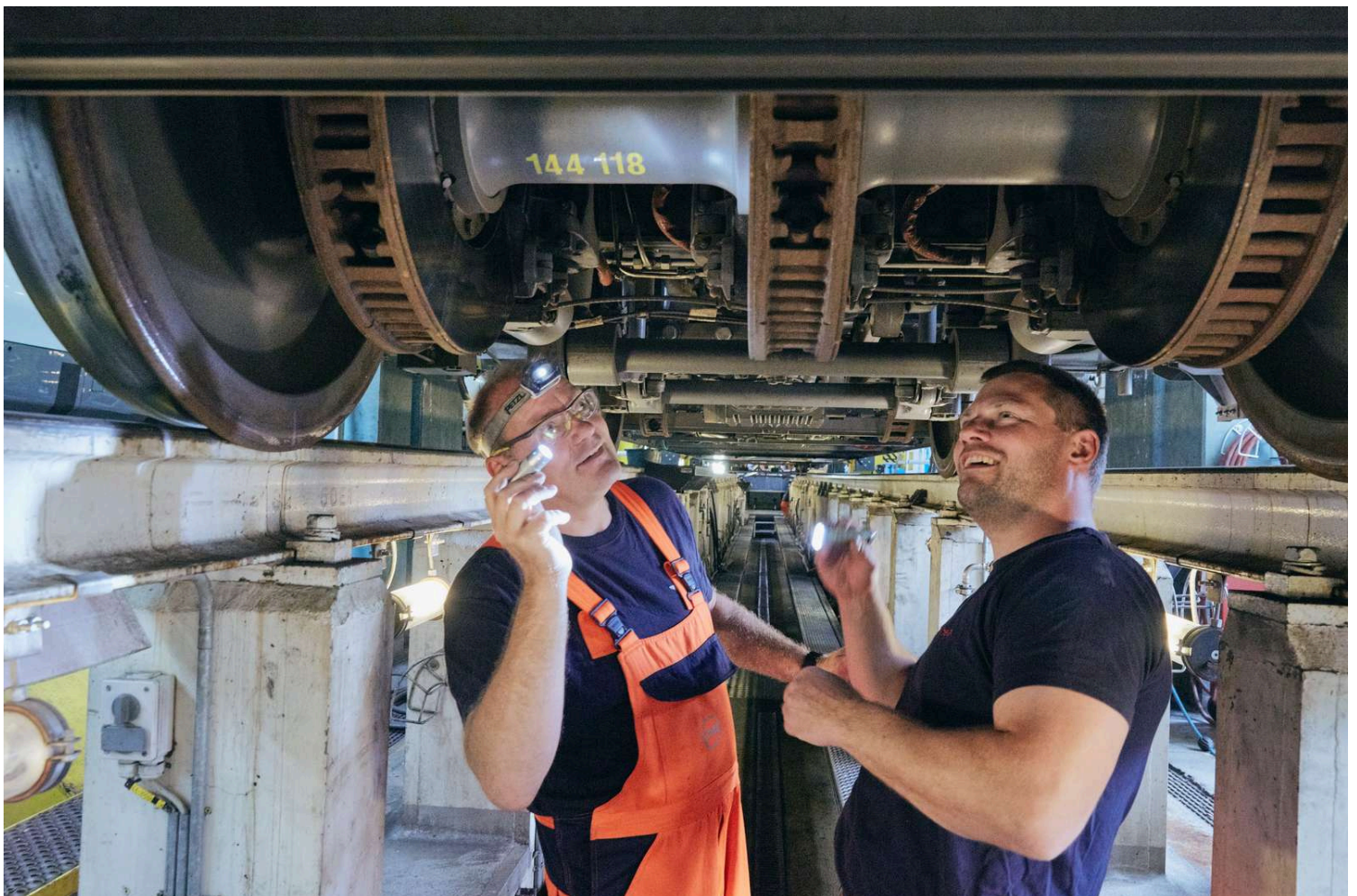
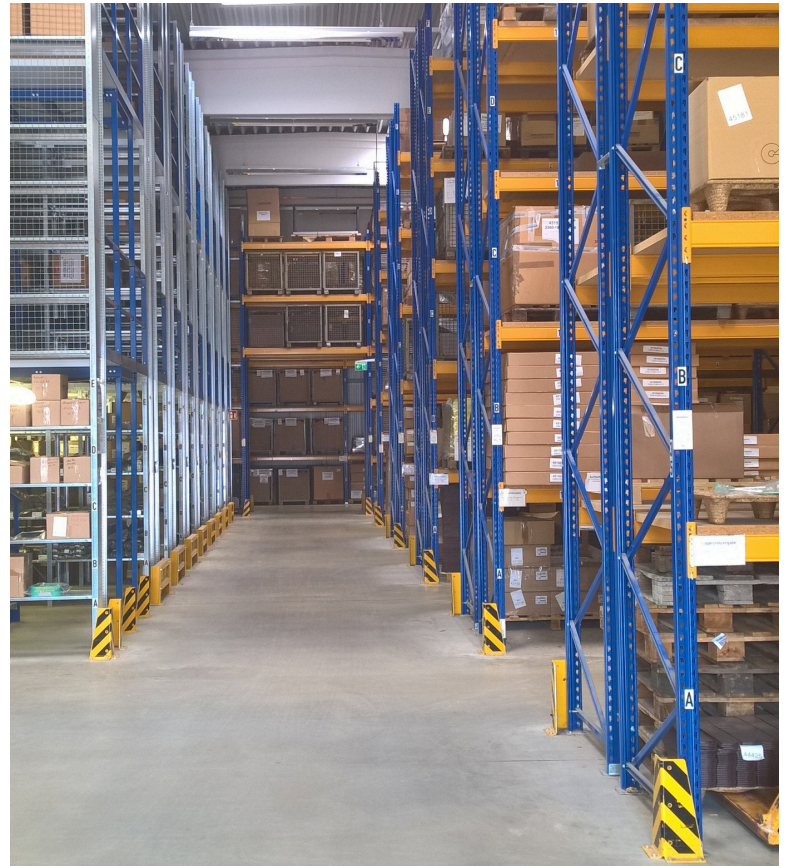
Do you need help developing your new product? Do not hesitate to contact us!

CONSULTANCY, LOGISTIC & COST REDUCTION

Together with our customers we examine and identify the parts on the train and bogie in order to verify part numbers or supplier. We establish the condition of the parts, prolong the durability and thereby reach the optimal mix of lifespan and performance.

We stock many of our standard products at our warehouses in Haslev and Hamburg, thus ensuring a short delivery time for our customers.

WILLBRANDT also offers on-site training, educating and informing our customers on what to be aware of in connection with our products and especially rubber. Rubber, as it is an organic material, ages in different ways according to installation, location, environment and performance.



SEATS AND INTERIOR

We supply train seats of high quality. The service includes both production of new seats as well as upholstery and renovation of old seats and bunks and beds for sleeping cars. Both the inner seat foam structures as well as cover fabrics and leather surfaces are made in materials approved according to EN 45545-2 HL3.

We supply seats to accommodate your wishes regarding design and safety.

We provide following products from soft polyurethane foam:

- Seats
- Backrests
- Back support cushions
- Different mats and mattresses
- Different pillows for sofas and armchairs
- Seat and back pillows for design products

New seats

We deliver new seats as a complete package. Including connection of metal frames between floor and seat, seat frames, armrests, new foam and new upholstery and fabric and final assembly.

Renovation and upholstery of existing seats

Renovation includes dismantling of seats, discarding old foam and fabric, preparation of new foam-lining in fire-resistant material, cutting and sewing of new fire-resistant fabric, complete upholstery and finally assembly in the train at your site.

Driver's seats

We offer seating solutions from soft fire-approved polyurethane for all kind of rail borne vehicles. All seats are produced under contract using the latest standards and manufacturing techniques. Apart from that, we also offer overhaul of existing driver seats from e.g. Grammer, BE-GE, SKA and ISRI.





WORKSHOP EQUIPMENT

WILLBRANDT can help you with a full range of equipment for the professional workshop.

We offer solutions from highly qualified suppliers with many years of experience and high expertise within their specific products.

Among others, we can supply lifting equipment and working platforms for safety, wheel turning lathes, measuring equipment, test benches, bogie and wheel presses, turning tables, shunters, industrial ovens, washing facilities and any other workshop equipment you need.

Through our partners within the engineering industry, we can also assist you with workshop design.

Here you will find a small sample of our supplier's large portfolio, at a glance.

Please contact us for further information.

YOU CAN SEE OUR AGENCIES IN THIS BROCHURE:



**WORKSHOP EQUIPMENT
RAILWAY**



SPARE PARTS

We offer a broad selection of spare parts for trains, trams and busses. We can deliver both standardized products and systems. We keep several of our standard products in stock and are able to deliver with short notice

Among others we provide:

- Locks, fittings and handrail systems
- Roof hatches, emergency hammers and vents
- Signal buttons and grab handles
- Sun visors and roller blinds
- Profiles and gaskets
- Acoustic products





WILLBRANDT Gummitechnik A/S are experts within rubber and polyurethane products. We deliver dampers to reduction of oscillation, vibration and shock waves. Furthermore, we deliver expansion joints absorbing movements in piping systems. We focus on a holistic approach ensuring our customers products maintain their high quality. It is our ambition to understand our customers' demands and expectations and offer quality solutions abiding with applicable standards and legislation. We offer advice and guidance as part of our service and are always happy to assist our customers in getting the optimal solution



TOGETHER WE ARE STRONGER

At WILLBRANDT we value our customers and it is important to us that our customers get the best products in the market

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