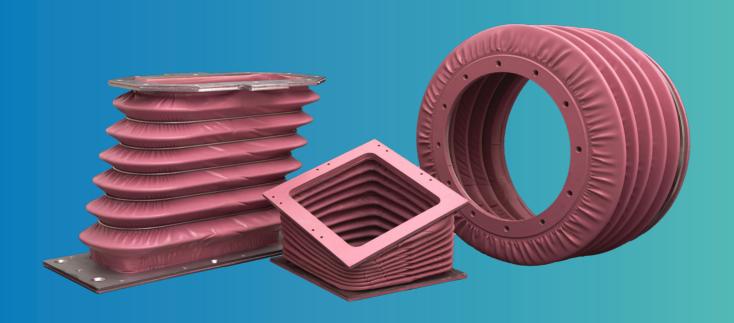


# TRACTION MOTOR BOOTS FOR RAIL VEHICLES



**Dynamic. Different. Dedicated.** 



## TRACTION MOTOR BOOTS

## HIGHLIGHTS

- 10 Optimal movement performance even at extreme deflection
- M Individual product geometry, tailored to the movement profile of the vehicle
- W Specially developed, robust silicone-aramid fabric
- **W** Certification according to national and international fire and smoke protection norms for railway bellows





### PRODUCT DESCRIPTION

Traction motor boots are customized products that adapt to the individual movement profile of the particular vehicle. The connections are designed according to the installation situation on the wagon body or the bogie. Moreover, the connections (flanges) of the bellows have circumferential sealing surfaces. Vulcanized flanges attached to the bellows ensure a self-sealing connection. The design of the traction motor boots is customized and developed based on the assembly dimensions and movement requirements.

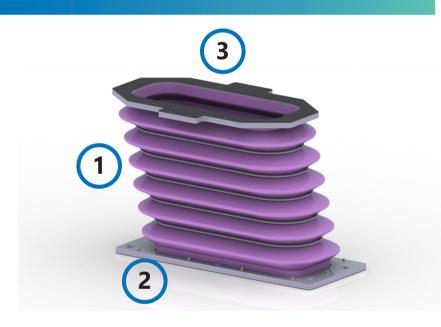
Furthermore, the required air flow and pressure loss are taken into account during the design phase of the product. The defined geometries are molded on specially designed tools and tested as required. Apart from that the traction motor boots can be stabilized with wire rings if necessary depending on the operating requirements.

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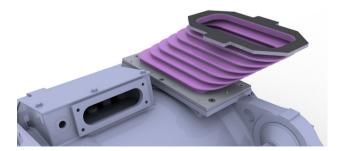


# **Design and mounting systems**



- Specific fold geometry, tailored to the movement profile
- 2 Individual mounting and installation systems
- 3 Ultra durable and field-proven

- Specific mounting systems for various installation requirements available
- Individual design according to customer requirements
- Special solutions such as self-centric, mounting free and sealing system upon request
- System integration into existing applications possible



# **Norms and parameters**



## Fire protection classifications

- DIN EN 45545-2
- NFPA 130
- Special fire protection requirements

#### Resistance

- Cold resistance -50°C
- Cold crack temperature -60°C
- Max. thermal stability +180°C

The maximum stipulated movement of a bellow for a new project is simulated with testing facilities. The long-term durability of the traction motor boot can be tested before the start of serial production by calculation in testing facilities with a pre-defined movement matrix over a defined period of time. Thereby the wear behaviour with various installation lengths and deformation sequences can be tested as well.

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