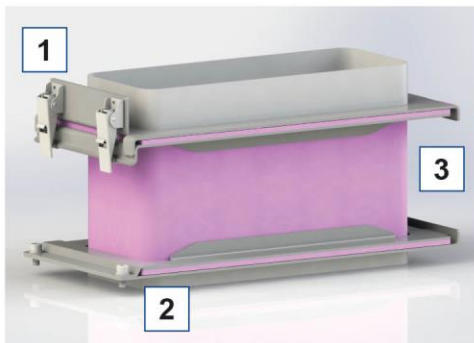


PRODUCT INFORMATION

Fabric expansion joints for rail vehicles



HIGHLIGHTS



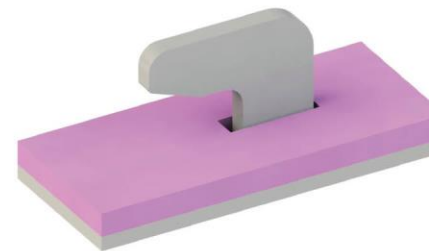
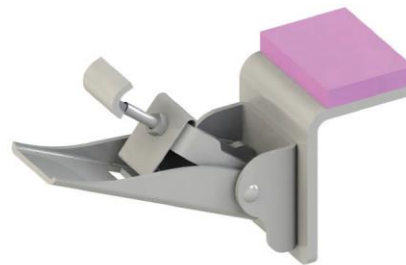
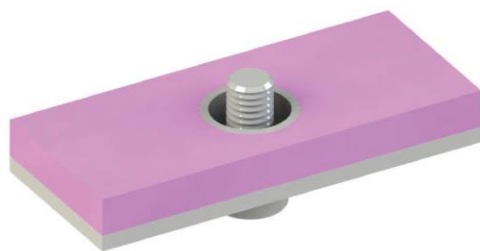
- 1 Optimized installation with quick-release fasteners
- 2 Customized seal geometry
- 3 Tolerance compensation to neighbouring components; Compensation of shifts in the system (dynamic/static)

DESCRIPTION OF THE TECHNOLOGY

Fabric expansion joints are high performance, flexible connecting elements for movement and tolerance compensation in HVAC systems. The customised fabric expansion joints are used in locomotives and passenger trains. Extreme installation situations can be implemented with asymmetric geometries. The connection to the respective interface is established with self-sealing vulcanized flanges. Optionally, the flanges can be made of aluminium or stainless steel.

TECHNICAL DATA AND BASIC GEOMETRY

Screw-Connection	Quick-release system	Plug-in system
<ul style="list-style-type: none"> ▪ Common and well-known connection ▪ Standardized joining element ▪ Robust and durable solution ▪ Expandable with screw-in bushes for defined tightening range (protection of the component, securing of the seal) 	<ul style="list-style-type: none"> ▪ System for faster assembly of the article (installation and exchange) ▪ No need of additional, special tools ▪ Well-known and self-explanatory connection system ▪ Adjustable tightening torque ▪ Optimized accessibility for maintenance 	<ul style="list-style-type: none"> ▪ Individually adapted mounting system ▪ Use for hard-to-reach or one-sided mounting areas ▪ Predefined tightening torque (individually defined for application) ▪ Both form locking and adhesion in one system



PRODUCT QUALIFICATION



NORMS AND PARAMETERS

Fire protection classifications

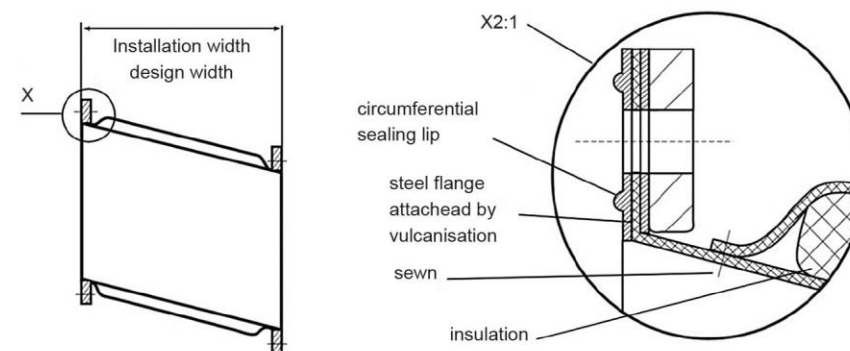
- DIN EN 45545-2
- NF F 16-101
- UNI CEI 11170
- DIN 5510-2 (2009)
- NFPA 130:2014
- GOST 12.1.04-89

Resistance

- Low temperature stability - 50 °C
- Cold break temperature - 60 °C
- Max. temperature (cont.) + 180 °C

PRODUCT OPTIONS

Additional insulating materials can be incorporated in the fabric expansion joints to avoid cold bridges. The materials utilized for compensators comply with the fire protection classes of most European railway companies.



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FABRIC EXPANSION JOINTS