



# Technical Information

## Safety Management of fabric expansion joints

RAL-GZ 719

**TI-015**

Rev. 3

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### 1. General

#### 1.1. Fabric expansion joints do not jeopardize neither health nor the environment

Fabric expansion joints consist of high strength fabrics, thermoplastics and/or elastomere. They do not jeopardize neither health nor the environment. However they may be contaminated by the operated media.

#### 1.2. Professional Installation is required

In case of professional installation, fabric expansion joints are suitable for the agreed operating conditions.

#### 1.3. Risks caused by defective mounting and divergent operation conditions

Incorrect installation and divergent operation conditions may destroy expansion joints. According to the risk potential of the entire plant (e.g. heat, toxin, pressure) personal injury or death may occur.

#### 1.4. The risk assessment and load analysis must be provided by the plant operator

Every person who is operating, maintaining or examining the plant has to be introduced to the risk and load of the plant.

### 2. Possible risks in the field of expansion joints

#### 2.1. Scheme of risks

- Thermal risk
- Mechanical risk (e.g. crushing by moving elements)
- Disposal of pressurized media
- Accumulation and concentration of life-threatening media
- Electrostatical charge of the expansion joint

#### 2.2. Ageing

The life cycle of fabric expansion joints is physically and chemically limited and is usually less than the life cycle of the plant. The recommendation of the manufacturer is decisive.

In general the following maximum operation periods shall not be exceeded:

- Applications up to 200 °C (390 °F) without mechanical alternating, oscillating or pulsating load max. 8 years

**Edited by the Quality Committee of the Quality  
Association for Fabric Expansion Joints**



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- Applications up to 500 °C (930 °F) without mechanical alternating, oscillating or pulsating load max. 5 years
- Extreme applications: General statements are not possible

### 3. Precaution

- Regular maintenance and inspection
- In time replacement
- Immediate replacement in case of suspected or initiating leakage of media
- Screen protection
- Adequate personal protective equipment
- Proper disposal

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