



# Technical Information

## Safety Management of fabric expansion joints

RAL-GZ 719

**TI-015**

Rev. 2 – 03/10

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### 1. General

#### **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.

#### **Professional Installation is required**

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

#### **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.

#### **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

#### **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

#### **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 without mechanical alternating, oscillating or pulsating load  
max. 8 years
- Applications up to 500°C without mechanical alternating, oscillating or pulsating load  
max. 5 years
- Extreme applications: General statements are not possible

**Edited by the Quality Committee of the Quality Association for Fabric  
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### 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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