



# Fabric expansion joint Type GWK-20, GWK-21, GWK-22, GWK-23

Multiple convolution universal fabric expansion joint DN 80 – DN 5000



Type GWK-21

Customized production

### Structure type GWK-20

- Multiple convolution self-sealing universal fabric expansion joint without insulation
- Tightening straps to attach the fabric bellows to round or oval pipes up to DN 800

### Structure type GWK-21

- Multiple convolution self-sealing universal fabric expansion joint without insulation
- Retaining flanges to attach the fabric bellows to round, oval or rectangular pipes up to DN 5000

### Structure type GWK-22

- Multiple convolution self-sealing universal fabric expansion joint without insulation
- One side tightening strap, other side retaining flange to attach the fabric bellows to round or oval pipes up to DN 800

### Structure type GWK-23

- Multiple convolution self-sealing universal fabric expansion joint with inner insulation
- Protruding flanges to attach the fabric bellows to round, oval or rectangular pipes up to DN 5000

### Fabric bellows PN 0,2 g / PN 4

- Elastic multiple convolution fabric bellows in various materials
- Bellows of one layer (fabric) with one- or two-sided elastomer coating
- Bellows of several layers (fabric) and additional sealing foils in between, one- or two-sided elastomer coating
- Bellows of several layers (fabric) and weather-proof outer coating, inner insulation

Materials	Material designation	Possible uses
<b>Layers</b>	Fabrics of polyester, aramide, fibre glass, silicate, ceramic fibre or stainless steel cord	Acids Lyes Gases
<b>Coating</b>	EPDM, CR, Hypalon, Silicon, Viton, PTFE	
<b>Sealing</b>	Foil of EPDM, Hypalon, Silicon, Viton, PTFE or stainless steel	
<b>Insulation</b>	Rock wool, ceramic wool	

Check or inquire about the resistance of the materials to temperature and medium.

Type	GWK-20	GWK-21	GWK-22	GWK-23	Temperature
Max. perm. operating pressure	0.2 bar g	4 bar	0.2 bar g		up to +350 °C up to +500 °C
Test pressure	0.3 bar g	6 bar	0.3 bar g	0.3 bar g	up to +700 °C
Vacuum	≥ 0.3 bar abs. with vacuum supporting ring or with internal guide sleeve				

Max. operating pressure to be set 30 % lower for shock loads.

### Applications

- for reducing thermal and mechanical tension
- for muffling vibration and noise
- for compensating axial, lateral and angular movement
- to compensate for installation inaccuracies
- ceramic industry
- dedusting and filtration technology
- drying technology
- energy technology
- waste incineration/disposal
- cement industry
- chemical industry
- conveying systems
- steel mills

### Flanges

#### Versions

- Protruding flanges (and press-on steel band) drilled for through bolts
- Press-on retaining flanges in round, oval or rectangular shape drilled for through bolts

#### Materials

Standard: 1.0038 (S235JR)  
others: stainless steel etc.

#### Corrosion protection

Standard: anti-corrosion primed  
Others: galvanized, special varnish, special coating, etc.

#### Dimensions

According to customer's specification

### Press-on steel band

#### Materials

Standard: 1.0038 (S235JR)  
Others: stainless steel etc.

#### Corrosion protection

Standard: electrogalvanized (1.0038)

## Special versions

- Conical version: different fitting diameters
- Different shapes of fitting: one side rectangular, other side round

## Accessories

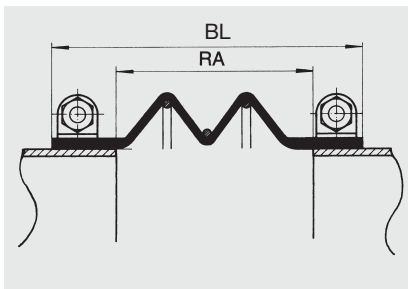
- Internal guide sleeve for abrasive solids in the medium and flow speeds exceeding 10 m/s
- Vacuum supporting ring

## Movement compensation

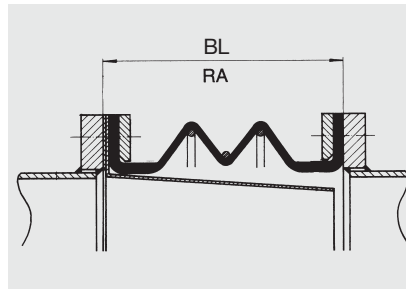
The permissible movement depends on expansion joint type and installation length (gap between pipe ends RA)

- Axial movement (compression): 50 % of gap between pipe ends RA
- Lateral movement:  $\pm 30\%$  of gap between pipe ends RA

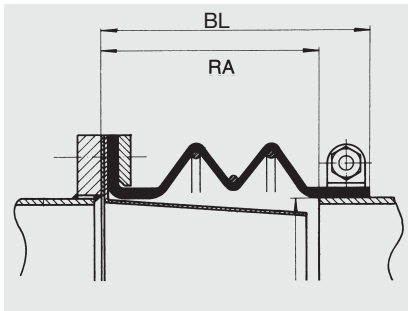
## Versions



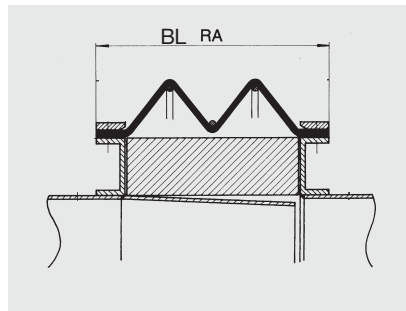
Type GWK-20



Type GWK-21



Type GWK-22



Type GWK-23

## Note

Please comply with the general technical instructions. Subject to technical alterations and deviations resulting from the manufacturing process.

Please inquire for simultaneous (different) movement.

The installation length refers to the gap between pipe ends RA. The expansion joint's length (BL) can be longer than RA, depending on the type.