

## Expansion joint technology > Bellows construction

For fabric expansion joints, there are no stiffness rates acting on the adjacent ducts, contrary to steel or rubber expansion joints. These need comparatively little installation space even for large movements.

Each fabric expansion joint is individually adapted to the conditions, and our technicians decide whether to use an elastomer or multilayer expansion joint when preparing a quotation.

### Elastomer expansion joints

This is a single-layer expansion joint made from rubber, approx. 3 to 6 mm thick, with one or more reinforcement carriers. Elastomer expansion joints are characterised by their gas-tightness and drip-tightness, even if there is condensation. The maximum deployment temperature is 200 °C. The choice of rubber grade depends on the operating temperature and the medium. This decision is made on the basis of our extensive experience and with regard to relevant durability tables.

The following table provides an overview of the elastomers we handle. For the most corrosive media, we can furnish the expansion joint with an additional interior PTFE lining, which is firmly joined to the rubber bellows. PTFE is resistant to a number of chemicals and to many different mixtures, and can for that reason be used in the event of corrosive chemical attack.

Rubber grades		
up to 100 °C:	EPDM	Flue gases, acids, bases, rinsing acids, dilute chlorine compounds, cooling water, hot water
	EPDM, drinking water approved	Drinking water
	EPDM, white, food grade	Foodstuffs
	EPDM, insulating	Electrical systems construction
	IIR	Acids, bases, gases
	CSM	Strong acids, bases, chemicals
	NBR	Oils, petrol, solvents, compressed air
	NBR, bright, food grade	Oil, fatty foods
up to 80 °C:	CR	Cooling water, slightly oily water, seawater
up to 70 °C:	NR	Abrasive media
up to 180 °C:	FPM	Corrosive chemicals, petroleum distillates
up to 200 °C:	Silicon (Q)	Air, saltwater atmosphere
	Silicon (Q), white, food grade	Foodstuffs, medical technology
PTFE lining:	Permanently embedded against chemical attacks on the interior at the rubber bellows, available starting at Ø 300 mm.	