EXPANSION JOINTS

Beaver Double-Arch Moulded Rubber Expansion Joint

A precision-moulded rubber expansion joint with two spheres to provide extra flexibility in a piping system.

E21, E22

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Beaver E22 Expansion Joint

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The Beaver Double-Arch Moulded Rubber Expansion Joint enables greater compression, deflection, and elongation than a single-arch joint. It only requires a small force to cause a range of movement that covers axial extension, axial compression, angular movement, lateral deflection, and torsional movement.

This expansion joint is also used to compensate for pipe misalignment, absorb thermal expansion, and dampen noise and vibration in the pipeline. It's well suited to transporting fluids, slurries, or gases.

KEY FEATURES

- Spherical design distributes internal pressure in all directions, reduces turbulence, and prevents sediment build-up.
- Inner tube and outer lining use wide variety of elastomers to prevent leakage, provide thermal resistance, and offer protection from various media.
- Steel reinforcement embedded in grooved rubber ends provides strength under pressure or vacuum.
- High strength supporting canvas gives additional pressure resistance.
- Floating flanges ensure a reliable seal and are easy to install.

Need technical advice? Our friendly specialists are here to help.

Talk to an expert →

E21, E22
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Tables 1–2. E21–E22 Expansion Joint Specifications

Technical Specifications	
Size range	DN40–600 (1½ –24″)
Pressure class and model	PN10 (E21) PN16 (E22)
End connections	DIN PN10, PN16, others flange drilling as BS EN1092, PN 16 AS2129 Table D, E ANSI150 and JIS10K available on request
Vacuum	660mm Hg* *Anything higher requires a vacuum spiral or ring

Material Specifications		
1	**Cover**	EPDM
2	**Reinforcing fabric**	Nylon
3	**Tube (temperature range)**	EPDM (-45°C to 129°C) Contact us for the following: Hypalon (-62°C to 82°C) Neoprene (-53°C to 68°C) NBR (-53°C to 79°C) Viton (-45°C to 179°C) PTFE and EPDM (-53°C to 148°C)
4	**Retain ring**	Steel
5	**Flange material**	Carbon steel

Diagram. E21–E22 Expansion Joint Parts

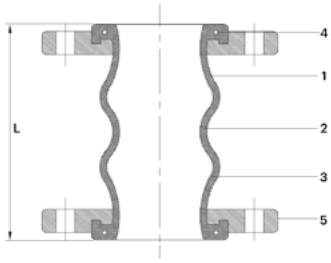

Table 3. E21–E22 Expansion Joint Dimensions

Product Dimensions									
Nominal diameter (mm)		40	50	65	80	100	125	150	200
Neutral length		175	175	175	175	225	225	225	325
Allowable movement (mm)	**Axial compression**	51	51	51	51	57	57	57	64
	Axial extension	30	30	30	30	35	35	35	35
	Lateral	±44	±44	±44	±44	±40	±40	±40	±35
	Angular (°)	45°	45°	43°	38°	34°	29°	25°	19°
Max. pressure (bar)		16	16	16	16	16	16	16	16

Nominal diameter (mm)		250	300	350	400	450	500	600
Neutral length		325	325	350	350	350	350	350
Allowable movement (mm)	**Axial compression**	64	64	44	44	44	44	44
	Axial extension	35	35	30	30	30	30	30
	Lateral	±35	±35	±30	±30	±30	±30	±30
	Angular (°)	15°	13°	9°	8°	7°	7°	5°
Max. pressure (bar)		16	16	10	10	10	10	10

Notes

- Movements shown are non-concurrent.
- Control rods must be installed when pressure exceeds the above pressure rating.

We’re here to help

We know it’s important for you to talk to someone who knows their stuff. So if you have technical questions or need help choosing the right products, talk to our team. We’ll walk you through our proven problem solving process.

1. Tell us what you need.

Tell us about your project. What do you want to achieve? What problems do you need to overcome? Let’s work back from there.

2. Choose the right solution.

Weigh up the options. We’ll do the analysis, discuss the options with you, and make a recommendation—the choice we’d make in your shoes.

3. Get the job done.

Complete your project, with the right products, on time and to spec. We’ve got your back all the way, with support during installation and commissioning.

Tap into our expertise and talk to our friendly, expert team.

Let’s get started →

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