





KE-MASTERFLEX® Rubber Expansion Joints for Liquids and Gases





KE-Maskerflex



KE-MASTERFLEX® rubber expansion joints are flexible connectors made from natural or synthetic elastomers in which special fabrics are embedded to provide physical reinforcement.

Rubber expansion joints provide a proven and flexible solution to accommodate many types of movements and requirements of industrial plant and equipment.

- These include:
- Accommodating pressure loads Neutralising axial, lateral, angular, and · torsional stresses
- · Reducing noise
- · Isolating sources of vibration Compensating for misalignment at plant start up, and
- Prolonging the life of motive equipment.

They are used in all systems transporting fluids, slurries or gases under pressure, at ambient pressure or under vacuum over a wide range of temperatures.

With more than 40 years in the business, KE-Burgmann is an experienced and respected company with a proud history of innovation, technical development and leadership in the manufacture of expansion joints. We use only the highest quality elastomers and engineered fabrics to manufacture KE-MASTERFLEX® rubber expansion joints to suit the industry's differing requirements for flexibility, pressure resistance, abrasion resistance, thermal resistance and cycle life.

Design

The KE-MASTERFLEX® rubber expansion joints are available in two types:

D-Type:

This is a high quality standard rubber expansion joint, of spherically moulded design, available in dimensions ranging from DN20 to 750 mm. Supplied with or without solid floating flanges in carbon steel as standard, the D-Type is: The standard solution for standard applications

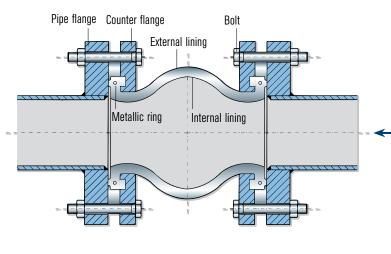
DFS-Type:

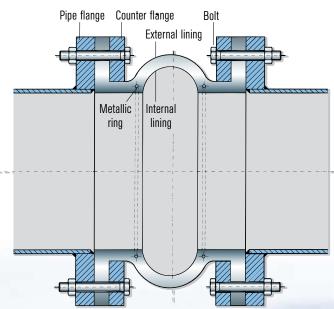
These high quality customised rubber expansion joints are handmade 'spool arch' moulded types available in dimensions ranging from DN50 mm to 3600 mm. Supplied with split flanges in carbon steel as standard. DFS-Type is: The customised expansion joint

Applications

- Air conditioning, heating and ventilating systems in industrial buildings,
- hospitals, hotels and on board ships Central and ancillary power generating stations in industrial buildings, factories, ships and off-shore
- Sewage disposal and water treatment plant, pumps, etc.

Process piping in pulp and paper manufacture.

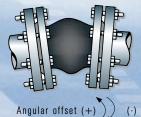


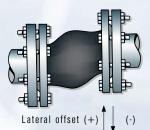


Movements



Axial compression

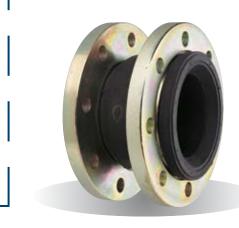






Axial elongation (+)◀ ► (-)

KE-MASTERFLEX® type D



DN Ø	* (NB)	Len	Working pressure		
mm	Inch	mm	bar		
20	3/4"	130/5	150/6	16	
25	1"	130/5	150/6	16	
32	11/4"	130/5	1 50/6	16	
40	11/2"	130/5	1 50/6	16	
50	2"	130/5	1 50/6	16	
65	21/2"	1 30/5	1 50/6	16	
80	3"	130/5	1 50/6	16	
100	4"	130/5	1 50/6	16	
125	5"	130/5	1 50/6	16	
150	6"	130/5	1 50/6	16	
200	8"		150/6	16	
200	8"	130/5	200/8	16	
250	10"	130/5	200/8	16	
300	12"	1 30/5	200/8	16	
350	14"	-	200/8	10	
400	16"	-	200/8	10	
450	18"		200/8	10	
500	20"		200/8	10	
600	24"	1.	250/10	10	
650	26"		250/10	10	
700	28"		250/10	10	
750	30"		250/10	10	

	Movements									
Axial mm Lateral Angular										
Compr	ession	Elong	jation	mm	o					
30	35	15	20	20	15					
30	35	15	20	20	15					
30	35	15	20	20	15					
30	35	15	20	20	15					
30	35	15	20	20	15					
30	35	15	20	20	15					
30	35	15	20	20	15					
30	35	15	20	20	15					
30	35	15	20	20	15					
30	35	15	20	20	15					
-	35		20	20	15					
30	40	15	20	20	15					
30	40	15	20	20	15					
30	40	15	20	20	15					
	40	-	20	20	15					
10	40	-	20	20	15					
	40		20	20	15					
-	40		20	20	15					
•	40		20	20	15					
	40		20	20	10					
	40	1000	20	20	10					
-	40	-	20	20	10					

(*) standard length and DN (NB). Others available on request. Flanges are as standard drilled to DIN norms depending on pressure steps (PN). Flanges drilled to JIS, ANSI and AWWA norms are available on request.

	DN Ø	* (NB)	Len	qth*	Working		S		
KE_MASTEDELEY® type DES				.	pressure	Axial mm		Lateral Angı	
KE-MASTERFLEX® type DFS	mm	Inch	mm	/inch	bar	Compression	Elongation	mm	0
	50	2"	200/8	-	10	40	15	30	6
	65	21/2"	200/8	-	10	40	15	30	6
	80	3"	200/8	-	10	40	15	30	6
	100	4"	200/8	-	10	40	15	30	6
	1 2 5	5"	250/10	-	10	40	15	30	6
	1 50	6"	250/10	-	10	40	15	30	6
	200	8"	250/10	-	10	40	15	30	6
	250	10"	250/10	-	10	40	15	30	6
	300	12"	250/10	-	10	40	15	30	6
	350	14"	250/10	-	10	40	15	30	6
	400	16"	250/10	-	10	40	15	30	6
	450	18"	-	300/12	10	40	15	30	6
	500	20"	-	300/12	10	40	15	30	6
	600	24"	-	300/12	10	40	15	30	6
	700	28"	-	300/12	10	40	15	30	6
	800	32"	-	300/12	10	40	15	30	6
	900	36"	-	300/12	10	40	15	30	6
	1000	40"	-	300/12	8	40	15	30	6
	1100	44"	-	350/14	8	40	15	30	6
	1 200	48"	-	350/14	8	40	15	30	5
	1 300	52"	-	350/14	8	40	15	30	5
	1400	56"		350/14	8	40	15	30	5
	1 500	60"	-	350/14	8	40	15	30	5
NEW!	1600	64"	-	350/14	6	40	15	30	4
Dimensions up	1700	68"	- 52	350/14	6	40	15	30	4
to DN 3600 mm/144"	1800	72"		350/14	6	40	15	30	4
available now.	1900	76"		350/14	6	40	15	30	4
	2000	80"	-	350/14	6	40	15	30	4
Contact	21 00	84"		350/14	6	40	15	30	4
KE-Burgmann	2200	88"		350/14	6	40	15	25	4
	2400	96"		350/14	6	30	15	25	3

steps (PN). Flanges drilled to JIS, ANSI and AWWA norms are available on request.

MAT	ERIAL	. CHA	RT

Colour coding for identification of material type

Colou	ur dots	Material	Main applications Max. temperat	ture °C (°F)*
Black	k	Neoprene	Applications involving sea water, water cooling systems	90°C (194°F)
Red		EPDM	Hot water, heating and ventilation systems	100°C (212°F)
Yello	W	Nitrile	Oil and gas transportation, refineries	90°C (194°F)
Green	n	Hypalon®	Chemical plants, transportation of strong acids (except nitric or sulphuric acid)	100°C (212°F)
Red/r	red	Viton®	High temperature applications, transportation of products derived from petroleum	160°C (320°F)
White	е	Nitrile	Transportation of foodstuffs, potable water distribution	80°C (176°F)
Blue/	/white	Buthyl HT	High temperature	150°C (302°F)

(*) Temperature resistance is dependent on system pressure. Chemical resistance guide for elastomers is available on request. Other rubber types such as natural rubber, etc. can be supplied on request.



Special designs

The KE-MASTERFLEX® range of rubber expansion joints is extensive and KE-Burgmann specialises in meeting customer requirements for special designs to meet demanding requirements. Some of these special designs are described and illustrated below:

Multiple arch design:

A rubber expansion joint with two or more arches to accommodate large movements.

Internal sleeve:

Rubber expansion joints can be supplied with an internal sleeve for protection against abrasion. Such a sleeve is available in different steel gualities.

The special T-Max with integrated PTFE lining:

PTFE lining as an integral part of the rubber expansion joint, covering all surfaces in the arch and flange areas. This design provides exceptional resistance to almost all chemicals within the temperature range of the elastomeric body construction.





Designs with control units (tie rods, spherical washers etc.) and/or metal reinforcing/vacuum rings:

Tie rods are installed against the back of the flanges, and through to the mating flange of the pipe. This design is effective in controlling expansions caused by pressure. Metal reinforcement rings can be fitted as an integrated part of the rubber bellows, and the design is successfully tested to withstand full vacuum. This is applicable for all our DFS sizes.



Other special products:

We manufacture other specialized rubber products, or combinations with rubber and metal, such as rubber hoses, cylindrical dock-fenders, special round or rectangular joints.

Certificates:

Certificates and other documentation are available on request, covering the following tests:

Hydraulic testsTemperature resistance

Cvcle life

- Tensile strength
- Burst strength
 - Reaction forces
 Compression testing
- Abrasion resistance
- Pressure Equipment Directive (PED) 97/23/EC
- Bureau Veritas' Type Approval Certificate no. 12823/AO BV (Fire resistance)



KE-Burgmann A/S, Expansion Joint Manufacturer

Founded in 1963 as a company dedicated to the manufacture of expansion joints, KE-Burgmann can claim more than 40 years of experience with expansion joints as our core product. We develop, engineer and manufacture fabric, rubber and metal expansion joints in an almost unlimited variety of designs for the solution of a similarly vast range of industrial alignment problems in industrial facilities throughout the world. KE-Burgmann DK is approved according to the ISO 9001:2000, ISO 14001, and OHSAS 18001 quality and environmental standards. Contact our experienced engineers for the start of good connections.

Product warranty. Unless otherwise agreed in writing, the following warranty applies: We guarantee our rubber expansion joints to be free from defects in workmanship and materials, and to operate satisfactorily for one year after system start-up or 18 months after shipment, whichever occurs first. The warranty period is considered valid, provided the expansion joints have been correctly stored and correctly installed, and used for the application for which they were manufactured. Our financial liability is limited to the original purchase price of the equipment.



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