Rubber expansion joint ▪ Type D-11, D-30

Round universal expansion joint DN 300 – DN 7500

Type D-11

Customized production

Applications

- for reducing thermal and mechanical tension, e.g. at
  - ventilating fans
  - blowers
- for muffling vibration and noise
- for compensating axial and lateral movement
- to compensate for installation inaccuracies
- air and ventilation technology
- dedusting and filter engineering (clean-room technology)

Structure type D-11

☐ Round universal expansion joint consisting of a rubber bellows and rotable flanges
☐ Wide rubber rim

Structure type D-30

☐ Round universal expansion joint consisting of a rubber bellows and stainless steel tightening straps
☐ Narrow rubber rim

Rubber bellows PN 0.7 bar g

☐ Extruded endless vulcanized profile band
☐ Without reinforcement
☐ Self-sealing rubber rim

Rubber grade*	Colour code	Possible uses
EPDM	**orange**	**Air, gases containing acids or lyes, dust**
NBR	**red**	**Gases containing oil**

*Check or inquire about the resistance of the rubber grade to temperature and medium.

Property	Pressure	Temperature
Max. perm. operating pressure	**depending on DN not exceeding 0.7 bar g** (see table)	**up to +90 °C**
Vacuum operation	**for light vacuum down to 0.98 bar abs.**	

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

Accessories

☐ Internal guide sleeve

Note

Please comply with the general technical instructions and installation instructions.

Subject to technical alterations and deviations resulting from the manufacturing process.

Admissible operating pressure, effective cross sectional area, reaction forces, moving forces and spring rates depend on expansion joint's size. Please inquire.

Flanges

Version
☐ Rotable flanges
☐ Flange drilling for through bolts

Dimensions
Standard: according to DIN 86044
Connection dimensions see technical annex

Materials
Standard: 1.0038 (S235JR)

Corrosion protection
Standard: anti-corrosion primed
Others: hot-dip galvanized, special varnish, special coating, etc.
supply only for large order volumes

STENFLEX® type D-30 with tightening straps in an air duct

Dimensions standard program

DN	BL	Pressure rate	ø di Bellows inner ø	ø W Convolution ø unpressurized	ø C Raised face ø		h Rubber rim thickness		ø D Flange outer ø		b Flange thickness
					Type D-11	Type D-30	Type D-11	Type D-30	DIN 86044*	EN 1092, PN 6	
	mm	bar	mm	mm	mm	mm	mm	mm	mm	mm	mm
300	150	0.70	300	354	370	340	12	15	440	440	10
350	150	0.60	350	404	420	390	12	15	490	490	10
400	150	0.50	400	454	470	440	12	15	540	540	10
450	150	0.45	450	504	520	490	12	15	595	595	10
500	150	0.40	500	554	570	540	12	15	645	645	10
550	150	0.37	550	604	620	590	12	15	705		10
600	150	0.33	600	654	670	640	12	15	754	755	10
700	150	0.28	700	754	770	740	12	15	856	860	10
800	150	0.25	800	854	870	840	12	15	958	975	10
900	150	0.22	900	954	970	940	12	15	1060	1075	10
1000	150	0.20	1000	1054	1070	1040	12	15	1162	1175	10
1100	150	0.18	1100	1154	1170	1140	12	15	1266		10
1200	150	0.17	1200	1254	1270	1240	12	15	1366	1405	10
1300	150	0.15	1300	1354	1370	1340	12	15	1466		10
1400	150	0.14	1400	1454	1470	1440	12	15	1566	1630	10
1500	150	0.13	1500	1554	1570	1540	12	15	1666		10
1600	150	0.12	1600	1654	1670	1640	12	15	1766	1830	10
1700	150	0.11	1700	1754	1770	1740	12	15	1866		10
1800	150	0.10	1800	1854	1870	1840	12	15	1966	2045	10
1900	150	0.10	1900	1954	1970	1940	12	15	2066		10
2000	150	0.10	2000	2054	2070	2040	12	15	2166	2265	10

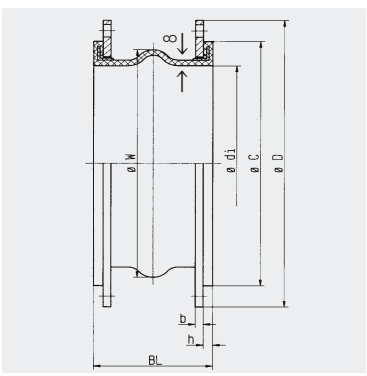
Other sizes up to DN 7500 on request.

Movement compensation/bellows cross sectional area

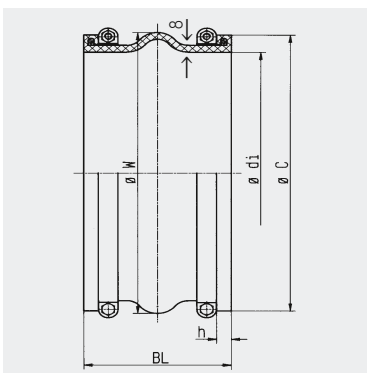
DN	Δ ax Axial movement		C ax Spring rate axial		Δ lat Lateral movement	C lat Spring rate lateral	A* Effective bellows cross sectional area
	Compression -mm	Elongation +mm	Compression N/mm	Elongation N/mm	+/- mm	N/mm	cm^2
300	25	15	12	45	20	15	750
350	25	15	14	52	20	18	1012
400	25	15	15	60	20	20	1300
450	25	15	17	67	20	22	1655
500	25	15	20	75	20	25	2000
550	25	15	22	83	20	28	2400
600	25	15	24	90	20	30	2900
700	25	15	27	105	20	35	3900
800	25	15	31	120	20	40	5100
900	25	15	35	135	20	45	6400
1000	25	15	39	150	20	51	7900
1100	25	15	43	165	20	57	9600
1200	25	15	47	180	20	63	11500
1300	25	15	51	195	20	70	13400
1400	25	15	55	210	20	77	15500
1500	25	15	59	225	20	85	17800
1600	25	15	63	240	20	93	20300
1700	25	15	67	255	20	102	22800
1800	25	15	71	270	20	112	25700
1900	25	15	75	285	20	123	28600
2000	25	15	79	300	20	135	31700

Please inquire for simultaneous (different) movement. *Effective bellows cross sectional area is a theoretical value.

Versions



Type D-11 with flanges



Type D-30 with tightening straps