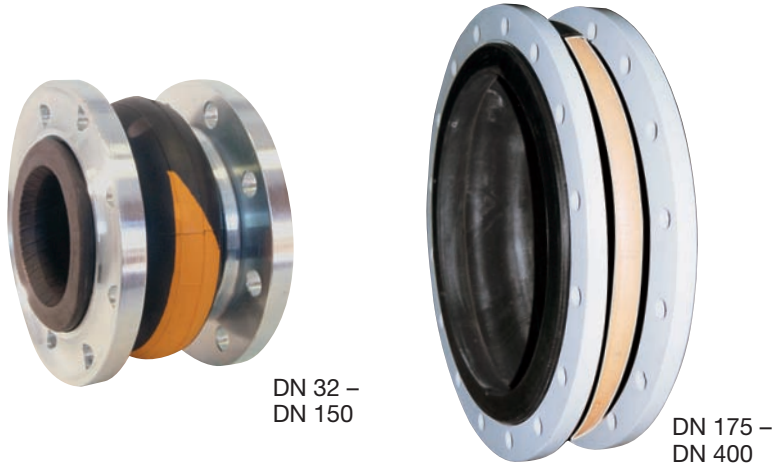


Rubber expansion joint - Type B-1

Highly flexible universal expansion joint DN 32 – DN 400



Structure type B-1

Universal expansion joint consisting of a rubber bellows and rotating flanges

Rubber bellows PN 16

- Very elastic molded bellows with specially deep convolution in various rubber grades
- Synthetic fibre reinforcement
- Wire-reinforced self-sealing rubber rim
- Electrical impedance 10^3 to 10^6 Ohm (DIN IEC 93, VDE 0303-30)

Rubber grade*	Colour code	Possible uses
EPDM	orange	Hot water, acids, lyes
NBR**	red	Oil

*Check or inquire about the resistance of the rubber grade to temperature and medium.
**Only available in large lots.

Technical design	
Max. perm. operating pressure	16 bar*
Max. perm. temperature	+100 °C
Bursting pressure	≥ 48 bar
Vacuum operation	DN 32-40 without vacuum supporting ring, DN 50-400 with vacuum supporting ring

Max. operating pressure to be set 30 % lower for shock loads.
*Please consider a decrease of pressure due to temperature (see technical annex).

Flanges

Version

- DN 32 – DN 150 rotating flanges with stabilizing collar and drilling for through bolts
- DN 175 – DN 400 rotating flanges drilled with threaded holes
- Special turned groove for rubber rim

Dimensions

Standard: DN 32 - DN 175 (PN 16)
DN 200 - DN 400 (PN 10)
according to EN 1092

Others: DIN EN, ANSI, BS etc.

Connection dimensions see technical annex

Materials

Standard: 1.0038 (S235JR)
Others: 1.4541, 1.4571 etc.

Corrosion protection

Standard: DN 32 – DN 400
electrogalvanized
Others: hot-dip galvanized, special varnish, special coating, etc.

Applications

- for compensating large axial and lateral movements
- for reducing thermal and mechanical tension in pipes and their system components, e.g.
 - pumps
 - compressors
- for muffling vibration and noise at appliances
- for compensating simultaneous movement in cooling water pipes
- to compensate for installation inaccuracies
- power station technology
- chemical industry

Accessories

- Vacuum supporting ring
- Internal guide sleeve
- Flame-proof protective cover
- Protective hood
- Protective tube

Certificates

- CE (DGR 97/23/EC)



STENFLEX® type B-1 for compensating large movements

Dimensions standard program

DN	BL	Pressure rate bar	∅ di Bellows inner ∅ mm	∅ C Raised face outer ∅ mm	∅ E Raised face inner ∅ mm	∅ W Convolution ∅ unpressurized mm	PN Flange connection EN 1092	∅ D Flange outer ∅ mm	b Flange thickness mm
32	125	16	30±3	7	42	100	16	150	16
40	125	16	30±3	7	42	100	16	150	16
50	125	16	40±3	86	61	115	16	165	16
65	125	16	61±3	105	71	144	16	185	16
80	150	16	74±3	118	82	167	16	200	18
100	150	16	92±3	137	101	197	16	220	18
125	150	16	116±3	166	130	230	16	250	18
150	150	16	139±3	191	150	266	16	285	18
175	100	16	177±3	217	183	282	16	315	18
200	125	10	201±3	264	207	320	10	340	20
250	125	10	251±3	314	260	374	10	395	22
300	150	10	302±3	370	313	443	10	445	24
350	150	10	347±3	424	354	485	10	505	24
400	150	10	392±3	474	407	535	10	565	24

From DN 200 pressure rate 16 bar also available with flanges PN 16.

Movement compensation/bellows cross sectional area

DN	Δ ax Axial movement		Δ lat Lateral movement ± mm	A* Effective bellows cross sectional area at 16 bar cm ²	Weight approx. kg
	Compression - mm	Elongation + mm			
32	25	15	15	21	4.0
40	25	15	15	21	4.4
50	30	15	15	30	4.3
65	35	20	15	55	4.9
80	45	20	20	90	5.7
100	45	25	20	150	7.2
125	45	35	25	220	9.5
150	45	35	25	330	10.4
175	25	40	25	432	13.6
200	35	40	35	553	15.6
250	35	40	35	730	20.6
300	45	50	35	975	25.3
350	45	50	35	1242	31.6
400	45	50	35	1600	38.3

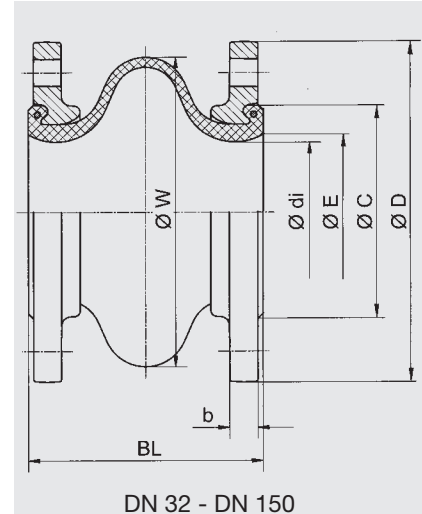
Please inquire for simultaneous (different) movement.
*Effective bellows cross sectional area is a theoretical value.

Note

Please comply with the general technical instructions regarding reaction force, moving force, fixed point load, installation instructions etc.

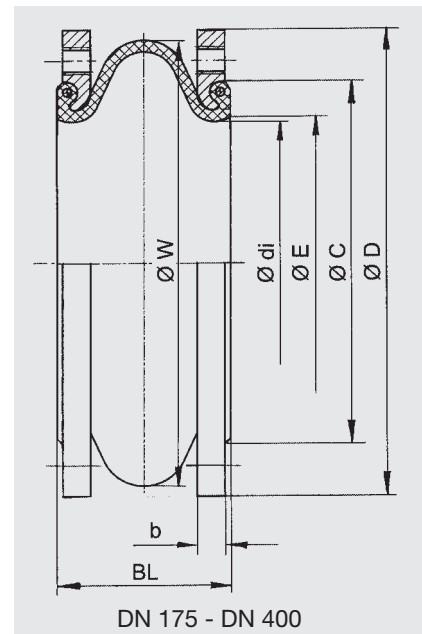
Subject to technical alterations and deviations resulting from the manufacturing process.

Versions



Type B-1

Universal expansion joint without restraint, flanges with drilling for through bolts



Type B-1

Universal expansion joint without restraint, flanges drilled with threaded holes