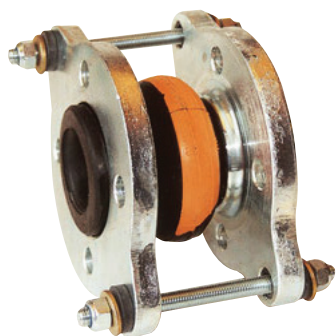


Rubber expansion joint Type B-2 and B-4

Highly flexible lateral expansion joint DN 32 – DN 400



Type B-2
DN 32 - DN 150



Type B-4
DN 32 - DN 150

Structure type B-2

Lateral expansion joint consisting of a rubber bellows with rotatable flanges and tie rods (external restraints) to absorb reaction force from internal pressure

Structure type B-4

Lateral expansion joint consisting of a rubber bellows with rotatable flanges and tie rods (external and internal restraints) to absorb reaction force from internal pressure or vacuum

Rubber bellows PN 16

- Very elastic molded bellows with specially high 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.
**Supply only for large order volumes.

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 flanges with stabilizing collar and through bolts and with ears to carry the tie rods
- DN 175 – DN 400 flanges drilled with threaded holes and with segments to carry the tie rods
- Special machined 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
- to compensate for installation inaccuracies
- power engineering
- chemical industry

Tie rod restraints

- DN 20 - DN 150 Tie rods carried on silencing rubber sockets
- DN 175 - DN 1000 Tie rods carried on spherical washers and conical seats

Materials

Standard: tie rods 8.8
Others: stainless steel

Corrosion protection

Standard: electrogalvanized
Others: hot-dip galvanized

Accessories

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

Certificates

- CE (DGR 97/23/EC)

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ

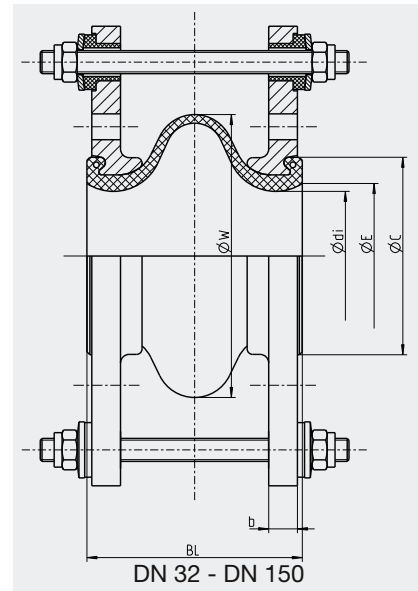
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Dimensions standard program

DN	BL	Pressure rate	ø di Bellows inner ø mm	ø C Raised face outer ø mm	ø E Raised face inner ø mm	ø W Convolution ø unpressurized mm	PN Flange connection EN 1092	ø D Flange outer ø mm	b Flange thickness mm	H Flange height mm
32	125	16	30±3	75	42	100	16	150	16	230
40	125	16	30±3	75	42	100	16	150	16	230
50	125	16	40±3	86	61	115	16	165	16	240
65	125	16	61±3	105	71	144	16	185	16	260
80	150	16	74±3	118	82	167	16	200	18	300
100	150	16	92±3	137	101	197	16	220	18	350
125	150	16	116±3	166	130	230	16	250	18	385
150	150	16	139±3	191	150	266	16	285	18	420
175	100	16	177±3	217	183	282	16	315	18	437
200	125	10	201±3	264	207	320	10	340	20	462
250	125	10	251±3	314	260	374	10	395	22	517
300	150	10	302±3	370	313	443	10	445	24	619
350	150	10	347±3	424	354	485	10	505	24	679
400	150	10	392±3	474	407	535	10	565	24	739

Versions



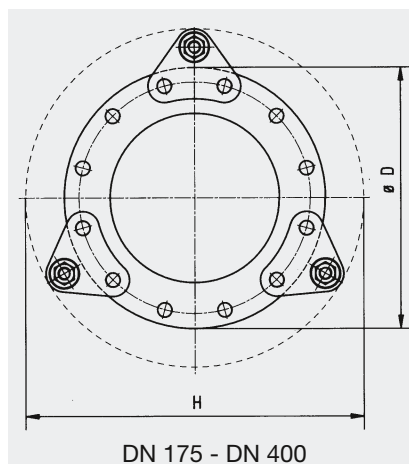
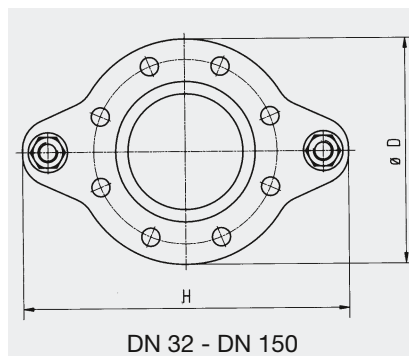
Type B-2

DN 32 - DN 150 Tie rods, external restraints, carried in silencing sockets
 DN 175 - DN 400 Tie rods, external restraints, carried in segments, on spherical washers and conical seats

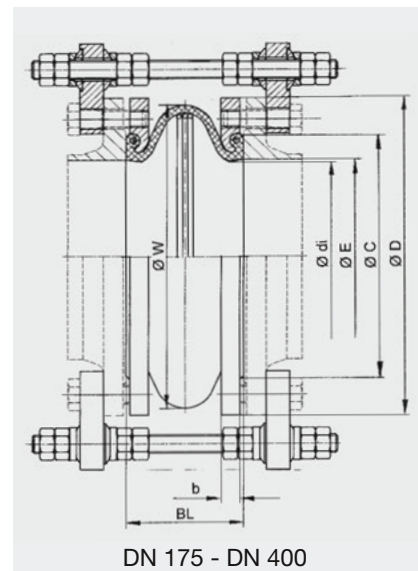
Movement compensation

DN	Δ lat Lateral movement ± mm	Weight type B-2 approx. kg
32	15	6.2
40	15	6.2
50	15	6.2
65	15	7.7
80	20	10.6
100	20	13.3
125	25	18.5
150	25	22.5
175	25	24.0
200	35	25.1
250	35	25.9
300	35	48.1
350	35	57.5
400	35	69.4

Flange versions



Number of tie rods depending on pressure



Type B-4

DN 32 - DN 150 Tie rods, external and internal restraints, carried in silencing sockets
 DN 175 - DN 400 Tie rods, external and internal restraints, carried in segments, on spherical washers and conical seats

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.