

## Rubber compensator ■ Type D-11, D-12, D-30

Round universal compensator 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 compensator consisting of a rubber bellows and rotating flanges
- Wide rubber rim

### Structure type D-12

- Round universal compensator consisting of a rubber bellows and rotating flanges
- Flange with stiffening ring
- Narrow rubber rim

### Structure type D-30

- Round universal compensator 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	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 compensator's size. Please inquire.

### Flanges

#### Version

- Rotating flanges
- Flange drilling for through bolts

#### Dimensions

Standard: PN 10 according to  
DIN 2501  
according to DIN 86044  
according to EN 12220

Others: DIN EN, ANSI, BS etc.

Connection dimensions see technical annex

#### Materials

Standard: 1.0038 (RSt 37-2)  
Others: unalloyed steel, stainless steel, etc.

#### Corrosion protection

Standard: anti-corrosion primed  
Others: hot-dip galvanized, special varnish, special coating, etc.



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

## Dimensions standard program

DN	BL mm	Pressure rate at 20 °C bar	ø di Bellows inner ø mm	ø W Convolution ø unpressurized mm	ø C Raised face ø		h Rubber rim thickness		ø D Flange outer ø			b Flange thickness mm
					Type D-11	Type D-12 Type D-30	Type D-11	Type D-12 Type D-30	DIN 2501 PN 10	DIN 86044	EN 12220	
					mm	mm	mm	mm	mm	mm	mm	
300	150	0.70	300	350	370	340	12	15	445	440	363	10
400	150	0.50	400	450	470	440	12	15	565	540	464	10
500	150	0.40	500	550	570	540	12	15	670	645	564	10
600	150	0.33	600	650	670	640	12	15	780	754	-	10
700	150	0.28	700	750	770	740	12	15	895	856	-	10
800	150	0.25	800	850	870	840	12	15	1015	958	874	10
900	150	0.22	900	950	970	940	12	15	1115	1060	974	10
1000	150	0.20	1000	1050	1070	1040	12	15	1230	1162	1075	10
1100	150	0.18	1100	1150	1170	1140	12	15	1345	1266	-	10
1200	150	0.17	1200	1250	1270	1240	12	15	1455	1366	-	10
1300	150	0.15	1300	1350	1370	1340	12	15	1565	1466	-	10
1400	150	0.14	1400	1450	1470	1440	12	15	1675	1566	-	10
1500	150	0.13	1500	1550	1570	1540	12	15	1795	1666	-	10
1600	150	0.12	1600	1650	1670	1640	12	15	1915	1766	-	10
1700	150	0.11	1700	1750	1770	1740	12	15	2015	1866	-	10
1800	150	0.10	1800	1850	1870	1840	12	15	2115	1966	-	10
1900	150	0.10	1900	1950	1970	1940	12	15	2220	2066	-	10
2000	150	0.10	2000	2050	2070	2040	12	15	2325	2166	-	10

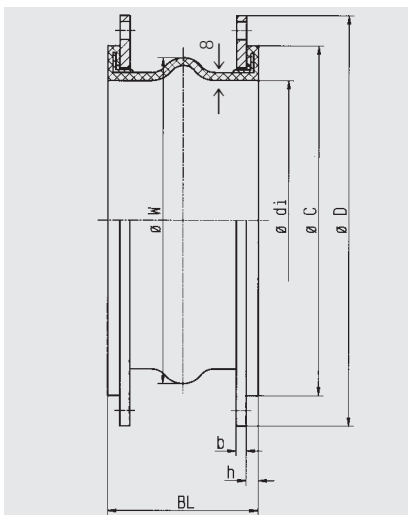
Other sizes up to DN 7500 on request.

## Movement compensation/bellows cross sectional area

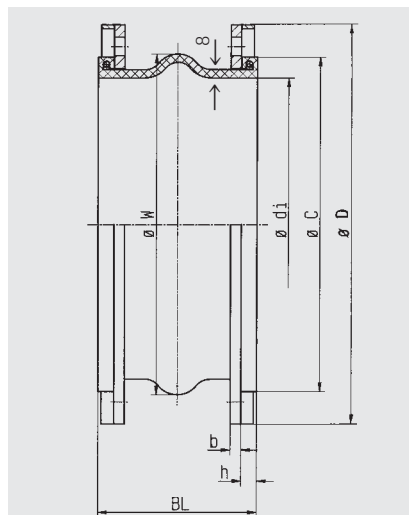
DN	Δ ax Axial movement		C ax Spring rate axial		Δ lat Lateral movement +/- mm	C lat Spring rate lateral N/mm	A* Effective bellows cross sectional area cm²
	Compression -mm	Elongation +mm	Compression -mm	Elongation +mm			
300	25	15	12	45	20	15	750
400	25	15	15	60	20	20	1300
500	25	15	20	75	20	25	2000
600	25	15	23	90	20	30	2900
700	25	15	27	105	20	35	3900
800	25	15	30	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	50	195	20	70	13400
1400	25	15	54	210	20	77	15500
1500	25	15	58	225	20	85	17800
1600	25	15	62	240	20	93	20300
1700	25	15	66	255	20	102	22800
1800	25	15	70	270	20	112	25700
1900	25	15	74	285	20	123	28600
2000	25	15	78	300	20	135	31700

\*Effective bellows cross sectional area is a theoretical value.

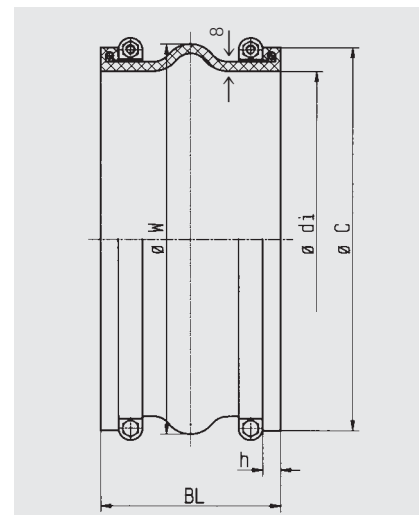
## Versions



Type D-11 with flanges



Type D-12 with flanges



Type D-30 with tightening straps