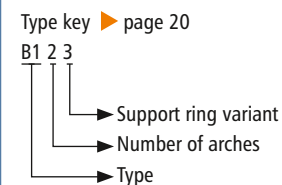


## B120

NB 50 – NB 1500



- ▶ **Type B120**  
without vacuum support rings
- ▶ **Type B121**  
with internal vacuum support rings
- ▶ **Type B122**  
with embedded vacuum support rings
- ▶ **Type B123**  
without vacuum support rings, with  
pressure support ring in the arch trough
- ▶ **Type B124**  
with internal vacuum support rings, with  
pressure support ring in the arch trough
- ▶ **Type B125**  
with embedded vacuum support rings,  
with pressure support ring in the arch  
trough

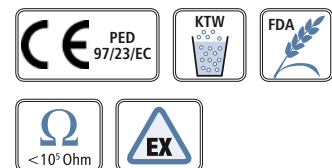


### Universal expansion joint with two arches

- Design:** Hydrodynamic, double-arched rubber bellows with sleeve for clamped fixing  
Optionally with vacuum support rings and/or external pressure support ring in the arch trough
- Nominal diameters:** NB 50 to NB 1500, intermediate sizes possible
- Installation length:** = Installation gap + 2 x fixing width  
Standard installation gaps  $L_0 = 250$  to  $500$  mm  
(▶ page 149–151)  
Other installation gaps on request
- Fixing width:** Depends on pressure, nominal diameter and clamp design, at least 40 mm
- Pressure:** Depending on the nominal diameter and installation length up to 6 bar  
Vacuum not allowed without vacuum support rings, with vacuum support rings up to 0.05 bar absolute  
Design in accordance with Pressure Equipment Directive PED 97/23/EC
- Movement:** For axial, lateral and angular movements (▶ page 149–151)  
For axial extension or vacuums, the expansion joint can be drawn from the pipeline (groove as needed at the pipeline end)

#### Application:

Power plants, plant construction, food processing, wastewater treatment plants, industrial facilities, e.g. to disconnect pipelines, on oscillating conveyor systems, on sieving machines








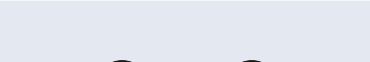
## Rubber bellows

Rubber grades			Carrier
up to 100 °C	EPDM	Cooling water, hot water, seawater, acids, dilute chlorine compounds	Nylon fabric Polyester fabric Kevlar fabric Glass fibre fabric, Steel mesh
	EPDM, drinking water approved	Drinking water	
	EPDM, white, food grade	Foodstuffs	
	EPDM, abrasion-resistant	Abrasive materials, Water-sand extraction	
	EPDM, insulating	Electrical systems construction	
	IIR	Hot water, acids, bases, gases	
	CSM	Strong acids, bases, chemicals	
	NBR	Oils, petrol, solvents, compressed air	
	NBR, bright, food grade	Oil, fatty foods	
up to 80 °C:	CR	Cooling water, slightly oily water, seawater	
up to 70 °C:	NR	Abrasive materials	
up to 150 °C:	HNBR	Oils, petrol, solvents, compressed air	
up to 180 °C:	FPM	Corrosive chemicals, petroleum distillates	
up to 200 °C:	Silicon (Q)	Air, saltwater atmosphere	
	Silicon (Q), white, food grade	Foodstuffs, medical technology	
PTFE lining:	Permanently embedded against chemical attacks on the interior at the rubber bellows, available starting at NB 300. Take the restriction of the listed movement into account (▶ page 149–151)		

## Fastening clamps

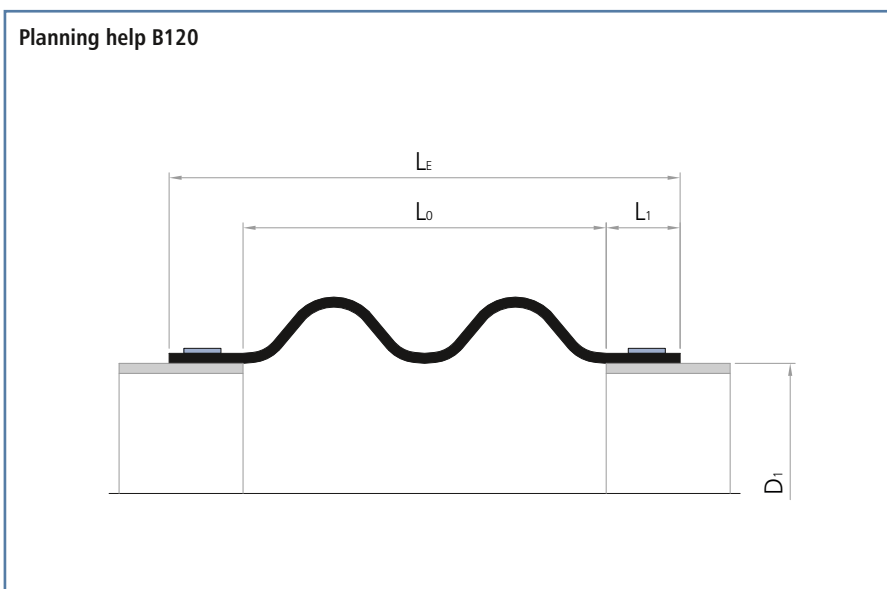
<b>Design:</b>	Depending on pressure and the nominal diameter, endless clamp belt, screw thread belt, small clamps or hinge bolt clamps. At higher pressures, 2 adjacent clamps per fastening side	
<b>Width:</b>	Endless clamp belt:	$\frac{3}{4}$ "
	Screw thread belt:	$\frac{1}{2}$ "
	Small clamp:	depending on Ø: 9–12 mm
	Hinge bolt clamp:	depending on Ø: 18–30 mm
<b>Materials:</b>	Endless clamp belt with screw lugs (tongs):	1.7300
	Screw thread belt with threaded screw lugs:	1.4310
	Small clamp, belt and housing:	1.4016 (Screw steel galvanised)
	Hinge bolt clamp, belt and housing:	1.4016 (Screw steel galvanised)

## Support rings

TYPE		Vacuum support ring	Pressure support ring	Pressure	Movement
B120		Without	Without	Slight pressure, slight vacuum	▶ page 149
B121		Medium contact, inside the arch apex	Without	Slight pressure, for vacuum up to 0.05 bar absolute	▶ page 150
B122		No medium contact, embedded into the arch apex of the rubber bellows	Without	Slight pressure, for vacuum up to 0.05 bar absolute	▶ page 151
B123		Without	External in the arch trough	Depending on the nominal diameter up to 6 bar, slight vacuum	▶ page 149
B124		Medium contact, inside the arch apex	External in the arch trough	Depending on the nominal diameter up to 6 bar, for vacuum up to 0.05 bar absolute	▶ page 150
B125		No medium contact, embedded into the arch apex of the rubber bellows	External in the arch trough	Depending on the nominal diameter up to 6 bar, for vacuum up to 0.05 bar absolute	▶ page 151

### Materials

Stainless steel: 1.4301 (X5CrNi18-10) Other materials on request  
 1.4539 (X1NiCrMoCu25-20-5)  
 1.4571 (X6CrNiMoTi17-12-2)  
 Carbon steel: 1.0570 (S355J2G3) rubber coated





**Installation gap**

NB	L <sub>0</sub> = 250 mm					L <sub>0</sub> = 300 mm					L <sub>0</sub> = 350 mm				
	Movement				A cm <sup>2</sup>	Movement				A cm <sup>2</sup>	Movement				A cm <sup>2</sup>
	mm	mm	±mm	±°		mm	mm	±mm	±°		mm	mm	±mm	±°	
50	62	20	41	38.7	96	80	40	60	58.0	155	88	41	65	58.6	159
65	62	20	40	31.6	125	80	40	59	50.9	191	88	41	63	51.6	196
80	62	20	39	26.6	152	80	40	58	45.0	224	88	41	62	45.7	229
100	62	20	38	21.8	212	80	40	56	38.7	297	88	41	61	39.4	303
125	62	20	38	17.7	283	80	40	55	32.6	379	88	41	60	33.3	386
150	62	20	37	14.9	374	80	40	54	28.1	484	88	41	59	28.7	492
175	62	20	36	12.9	466	80	40	54	24.6	588	88	41	58	25.1	597
200	62	20	36	11.3	569	80	40	53	21.8	703	88	41	57	22.3	712
250	62	20	35	9.1	819	80	40	52	17.7	979	88	41	56	18.2	990
300	62	20	35	7.6	1,098	80	40	51	14.9	1,281	88	41	55	15.3	1,294
350	62	20	34	6.5	1,292	80	40	50	12.9	1,490	88	41	54	13.2	1,504
400	62	20	34	5.7	1,636	80	40	50	11.3	1,858	88	41	54	11.6	1,873
450	62	20	33	5.1	2,020	80	40	49	10.1	2,267	88	41	53	10.3	2,283
500	62	20	33	4.6	2,445	80	40	49	9.1	2,715	88	41	52	9.3	2,734
550	62	20	33	4.2	2,911	80	40	48	8.3	3,205	88	41	52	8.5	3,225
600	62	20	33	3.8	3,417	80	40	48	7.6	3,735	88	41	52	7.8	3,757
650	62	20	32	3.5	3,964	80	40	48	7.0	4,305	88	41	51	7.2	4,329
700	62	20	32	3.3	4,551	80	40	47	6.5	4,917	88	41	51	6.7	4,941
750	62	20	32	3.1	5,178	80	40	47	6.1	5,568	88	41	51	6.2	5,595
800	62	20	32	2.9	5,847	80	40	47	5.7	6,260	88	41	50	5.9	6,288
850	62	20	32	2.7	6,555	80	40	46	5.4	6,993	88	41	50	5.5	7,023
900	62	20	31	2.5	7,305	80	40	46	5.1	7,766	88	41	50	5.2	7,798
1000	62	20	31	2.3	8,925	80	40	46	4.6	9,434	88	41	49	4.7	9,469
1100	62	20	31	2.1	10,496	80	40	45	4.2	11,047	88	41	49	4.3	11,085
1200	62	20	31	1.9	12,370	80	40	45	3.8	12,969	88	41	48	3.9	13,009
1300	62	20	30	1.8	14,420	80	40	45	3.5	15,066	88	41	48	3.6	15,109
1400	62	20	30	1.6	16,627	80	40	44	3.3	17,320	88	41	48	3.4	17,366
1500	62	20	30	1.5	18,991	80	40	44	3.1	19,731	88	41	47	3.1	19,781

**Installation gap**

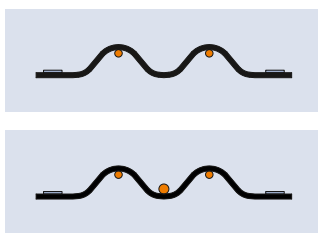
NB	L <sub>0</sub> = 400 mm					L <sub>0</sub> = 450 mm					L <sub>0</sub> = 500 mm				
	Movement				A cm <sup>2</sup>	Movement				A cm <sup>2</sup>	Movement				A cm <sup>2</sup>
	mm	mm	±mm	±°		mm	mm	±mm	±°		mm	mm	±mm	±°	
50	106	61	84	67.7	233	121	65	93	69	255	138	85	112	73.6	347
65	106	61	82	62	278	121	65	91	63.4	302	138	85	109	69.1	402
80	106	61	80	56.7	317	121	65	89	58.4	343	138	85	107	64.8	448
100	106	61	79	50.7	402	121	65	87	52.4	431	138	85	105	59.5	549
125	106	61	77	44.3	498	121	65	85	46.1	530	138	85	103	53.7	659
150	106	61	76	39.1	617	121	65	84	40.9	653	138	85	101	48.6	796
175	106	61	75	34.9	734	121	65	83	36.6	773	138	85	100	44.2	928
200	106	61	74	31.4	861	121	65	82	33	903	138	85	99	40.4	1,070
250	106	61	72	26	1,164	121	65	80	27.5	1,213	138	85	97	34.2	1,405
300	106	61	71	22.1	1,492	121	65	79	23.4	1,548	138	85	95	29.5	1,764
350	106	61	70	19.2	1,717	121	65	78	20.4	1,777	138	85	94	25.9	2,008
400	106	61	69	17	2,111	121	65	77	18	2,176	138	85	93	23	2,431
450	106	61	69	15.2	2,545	121	65	76	16.1	2,617	138	85	92	20.7	2,896
500	106	61	68	13.7	3,019	121	65	75	14.6	3,097	138	85	91	18.8	3,400
550	106	61	67	12.5	3,534	121	65	75	13.3	3,619	138	85	90	17.2	3,946
600	106	61	67	11.5	4,090	121	65	74	12.2	4,181	138	85	89	15.8	4,532
650	106	61	66	10.6	4,686	121	65	73	11.3	4,783	138	85	89	14.7	5,158
700	106	61	66	9.9	5,322	121	65	73	10.5	5,426	138	85	88	13.7	5,825
750	106	61	66	9.2	5,999	121	65	72	9.8	6,110	138	85	87	12.8	6,533
800	106	61	65	8.7	6,717	121	65	72	9.2	6,834	138	85	87	12	7,281
850	106	61	65	8.2	7,475	121	65	72	8.7	7,598	138	85	86	11.3	8,069
900	106	61	64	7.7	8,274	121	65	71	8.2	8,404	138	85	86	10.7	8,898
1000	106	61	64	7	9,993	121	65	71	7.4	10,136	138	85	85	9.6	10,678
1100	106	61	63	6.3	11,652	121	65	70	6.7	11,805	138	85	84	8.8	12,390
1200	106	61	63	5.8	13,623	121	65	69	6.2	13,789	138	85	84	8.1	14,420
1300	106	61	62	5.4	15,770	121	65	69	5.7	15,948	138	85	83	7.5	16,627
1400	106	61	62	5	18,074	121	65	68	5.3	18,265	138	85	83	6.9	18,991
1500	106	61	62	4.6	20,536	121	65	68	5	20,739	138	85	82	6.5	21,512

Recommended sizes

Additional possible sizes

Reduction of movement for expansion joints with PTFE lining: axial compression: -33 %; axial extension: -66 %; lateral displacement: -50 %; angular movement: -66 %. In the event of axial extension and simultaneous lateral displacement the above movements are reduced (▶ page 29). Angular movement only possible with guided pressure support ring. For larger movements see type B130 or B133.

**Individual fabrication possible**



### B121

▶ with internal vacuum support rings

### B124

▶ with internal vacuum support rings, with pressure support ring in the arch trough



Installation gap															
L <sub>0</sub> = 250 mm						L <sub>0</sub> = 300 mm					L <sub>0</sub> = 350 mm				
NB	Movement				A cm <sup>2</sup>	Movement				A cm <sup>2</sup>	Movement				A cm <sup>2</sup>
	mm	mm	±mm	±°		mm	mm	±mm	±°		mm	mm	±mm	±°	
50	62	7	27	15.6	96	80	13	40	27.5	155	88	13	43	27.5	159
65	62	7	26	12.2	125	80	13	39	21.8	191	88	13	42	21.8	196
80	62	7	26	9.9	152	80	13	38	18.0	224	88	13	41	18.0	229
100	62	7	25	8.0	212	80	13	37	14.6	297	88	13	40	14.6	303
125	62	7	25	6.4	283	80	13	36	11.7	379	88	13	39	11.7	386
150	62	7	24	5.3	374	80	13	36	9.8	484	88	13	39	9.8	492
175	62	7	24	4.6	466	80	13	35	8.5	588	88	13	38	8.5	597
200	62	7	24	4.0	569	80	13	35	7.4	703	88	13	38	7.4	712
250	62	7	23	3.2	819	80	13	34	5.9	979	88	13	37	5.9	990
300	62	7	23	2.7	1,098	80	13	34	5.0	1,281	88	13	36	5.0	1,294
350	62	7	23	2.3	1,292	80	13	33	4.2	1,490	88	13	36	4.2	1,504
400	62	7	22	2.0	1,636	80	13	33	3.7	1,858	88	13	35	3.7	1,873
450	62	7	22	1.8	2,020	80	13	32	3.3	2,267	88	13	35	3.3	2,283
500	62	7	22	1.6	2,445	80	13	32	3.0	2,715	88	13	35	3.0	2,734
550	62	7	22	1.5	2,911	80	13	32	2.7	3,205	88	13	34	2.7	3,225
600	62	7	22	1.3	3,417	80	13	32	2.5	3,735	88	13	34	2.5	3,757
650	62	7	21	1.2	3,964	80	13	31	2.3	4,305	88	13	34	2.3	4,329
700	62	7	21	1.1	4,551	80	13	31	2.1	4,917	88	13	34	2.1	4,941
750	62	7	21	1.1	5,178	80	13	31	2.0	5,568	88	13	33	2.0	5,595
800	62	7	21	1.0	5,847	80	13	31	1.9	6,260	88	13	33	1.9	6,288
850	62	7	21	0.9	6,555	80	13	31	1.8	6,993	88	13	33	1.8	7,023
900	62	7	21	0.9	7,305	80	13	30	1.7	7,766	88	13	33	1.7	7,798
1000	62	7	21	0.8	8,925	80	13	30	1.5	9,434	88	13	33	1.5	9,469
1100	62	7	20	0.7	10,496	80	13	30	1.4	11,047	88	13	32	1.4	11,085
1200	62	7	20	0.7	12,370	80	13	30	1.2	12,969	88	13	32	1.2	13,009
1300	62	7	20	0.6	14,420	80	13	29	1.1	15,066	88	13	32	1.1	15,109
1400	62	7	20	0.6	16,627	80	13	29	1.1	17,320	88	13	32	1.1	17,366
1500	62	7	20	0.5	18,991	80	13	29	1.0	19,731	88	13	31	1.0	19,781

Installation gap															
L <sub>0</sub> = 400 mm						L <sub>0</sub> = 450 mm					L <sub>0</sub> = 500 mm				
NB	Movement				A cm <sup>2</sup>	Movement				A cm <sup>2</sup>	Movement				A cm <sup>2</sup>
	mm	mm	±mm	±°		mm	mm	±mm	±°		mm	mm	±mm	±°	
50	106	20	55	38.7	233	121	21	61	40.0	255	138	28	74	48.2	347
65	106	20	54	31.6	278	121	21	60	32.9	302	138	28	72	40.7	402
80	106	20	53	26.6	317	121	21	59	27.7	343	138	28	71	35.0	448
100	106	20	52	21.8	402	121	21	57	22.8	431	138	28	69	29.2	549
125	106	20	51	17.7	498	121	21	56	18.6	530	138	28	68	24.1	659
150	106	20	50	14.9	617	121	21	55	15.6	653	138	28	67	20.5	796
175	106	20	49	12.9	734	121	21	55	13.5	773	138	28	66	17.7	928
200	106	20	49	11.3	861	121	21	54	11.9	903	138	28	65	15.6	1,070
250	106	20	48	9.1	1,164	121	21	53	9.5	1,213	138	28	64	12.6	1,405
300	106	20	47	7.6	1,492	121	21	52	8.0	1,548	138	28	63	10.6	1,764
350	106	20	46	6.5	1,717	121	21	51	6.8	1,777	138	28	62	9.1	2,008
400	106	20	46	5.7	2,111	121	21	51	6.0	2,176	138	28	61	8.0	2,431
450	106	20	45	5.1	2,545	121	21	50	5.3	2,617	138	28	60	7.1	2,896
500	106	20	45	4.6	3,019	121	21	50	4.8	3,097	138	28	60	6.4	3,400
550	106	20	45	4.2	3,534	121	21	49	4.4	3,619	138	28	59	5.8	3,946
600	106	20	44	3.8	4,090	121	21	49	4.0	4,181	138	28	59	5.3	4,532
650	106	20	44	3.5	4,686	121	21	48	3.7	4,783	138	28	58	4.9	5,158
700	106	20	44	3.3	5,322	121	21	48	3.4	5,426	138	28	58	4.6	5,825
750	106	20	43	3.1	5,999	121	21	48	3.2	6,110	138	28	58	4.3	6,533
800	106	20	43	2.9	6,717	121	21	48	3.0	6,834	138	28	57	4.0	7,281
850	106	20	43	2.7	7,475	121	21	47	2.8	7,598	138	28	57	3.8	8,069
900	106	20	43	2.5	8,274	121	21	47	2.7	8,404	138	28	57	3.6	8,898
1000	106	20	42	2.3	9,993	121	21	47	2.4	10,136	138	28	56	3.2	10,678
1100	106	20	42	2.1	11,652	121	21	46	2.2	11,805	138	28	56	2.9	12,390
1200	106	20	41	1.9	13,623	121	21	46	2.0	13,789	138	28	55	2.7	14,420
1300	106	20	41	1.8	15,770	121	21	46	1.9	15,948	138	28	55	2.5	16,627
1400	106	20	41	1.6	18,074	121	21	45	1.7	18,265	138	28	55	2.3	18,991
1500	106	20	41	1.5	20,536	121	21	45	1.6	20,739	138	28	54	2.1	21,512

Recommended sizes  
Additional possible sizes

Reduction of movement for expansion joints with PTFE lining: axial compression: -33 %; axial extension: -0 %; lateral displacement: -25 %; angular movement: -0 %. In the event of axial extension and simultaneous lateral displacement the above movements are reduced (▶ page 29). Angular movement only possible with guided pressure support ring. For larger movements see type B131 or B134.

**Individual fabrication possible**


**Installation gap**

NB	$L_0 = 250 \text{ mm}$					$L_0 = 300 \text{ mm}$					$L_0 = 350 \text{ mm}$				
	Movement				A cm <sup>2</sup>	Movement				A cm <sup>2</sup>	Movement				A cm <sup>2</sup>
	mm	mm	±mm	±°		mm	mm	±mm	±°		mm	mm	±mm	±°	
50	41	7	20	15.6	96	52	13	30	27.5	155	58	13	32	27.5	159
65	41	7	20	12.2	125	52	13	29	21.8	191	58	13	32	21.8	196
80	41	7	20	9.9	152	52	13	29	18.0	224	58	13	31	18.0	229
100	41	7	19	8.0	212	52	13	28	14.6	297	58	13	30	14.6	303
125	41	7	19	6.4	283	52	13	28	11.7	379	58	13	30	11.7	386
150	41	7	18	5.3	374	52	13	27	9.8	484	58	13	29	9.8	492
175	41	7	18	4.6	466	52	13	27	8.5	588	58	13	29	8.5	597
200	41	7	18	4.0	569	52	13	26	7.4	703	58	13	29	7.4	712
250	41	7	18	3.2	819	52	13	26	5.9	979	58	13	28	5.9	990
300	41	7	17	2.7	1,098	52	13	26	5.0	1,281	58	13	27	5.0	1,294
350	41	7	17	2.3	1,292	52	13	25	4.2	1,490	58	13	27	4.2	1,504
400	41	7	17	2.0	1,636	52	13	25	3.7	1,858	58	13	27	3.7	1,873
450	41	7	17	1.8	2,020	52	13	25	3.3	2,267	58	13	26	3.3	2,283
500	41	7	17	1.6	2,445	52	13	24	3.0	2,715	58	13	26	3.0	2,734
550	41	7	16	1.5	2,911	52	13	24	2.7	3,205	58	13	26	2.7	3,225
600	41	7	16	1.3	3,417	52	13	24	2.5	3,735	58	13	26	2.5	3,757
650	41	7	16	1.2	3,964	52	13	24	2.3	4,305	58	13	26	2.3	4,329
700	41	7	16	1.1	4,551	52	13	24	2.1	4,917	58	13	25	2.1	4,941
750	41	7	16	1.1	5,178	52	13	23	2.0	5,568	58	13	25	2.0	5,595
800	41	7	16	1.0	5,847	52	13	23	1.9	6,260	58	13	25	1.9	6,288
850	41	7	16	0.9	6,555	52	13	23	1.8	6,993	58	13	25	1.8	7,023
900	41	7	16	0.9	7,305	52	13	23	1.7	7,766	58	13	25	1.7	7,798
1000	41	7	16	0.8	8,925	52	13	23	1.5	9,434	58	13	25	1.5	9,469
1100	41	7	15	0.7	10,496	52	13	23	1.4	11,047	58	13	24	1.4	11,085
1200	41	7	15	0.7	12,370	52	13	22	1.2	12,969	58	13	24	1.2	13,009
1300	41	7	15	0.6	14,420	52	13	22	1.1	15,066	58	13	24	1.1	15,109
1400	41	7	15	0.6	16,627	52	13	22	1.1	17,320	58	13	24	1.1	17,366
1500	41	7	15	0.5	18,991	52	13	22	1.0	19,731	58	13	24	1.0	19,781

**Installation gap**

NB	$L_0 = 400 \text{ mm}$					$L_0 = 450 \text{ mm}$					$L_0 = 500 \text{ mm}$				
	Movement				A cm <sup>2</sup>	Movement				A cm <sup>2</sup>	Movement				A cm <sup>2</sup>
	mm	mm	±mm	±°		mm	mm	±mm	±°		mm	mm	±mm	±°	
50	70	20	42	38.7	233	80	21	46	40.0	255	91	28	56	48.2	347
65	70	20	41	31.6	278	80	21	45	32.9	302	91	28	55	40.7	402
80	70	20	40	26.6	317	80	21	44	27.7	343	91	28	54	35.0	448
100	70	20	39	21.8	402	80	21	44	22.8	431	91	28	53	29.2	549
125	70	20	39	17.7	498	80	21	43	18.6	530	91	28	51	24.1	659
150	70	20	38	14.9	617	80	21	42	15.6	653	91	28	51	20.5	796
175	70	20	37	12.9	734	80	21	41	13.5	773	91	28	50	17.7	928
200	70	20	37	11.3	861	80	21	41	11.9	903	91	28	49	15.6	1,070
250	70	20	36	9.1	1,164	80	21	40	9.5	1,213	91	28	48	12.6	1,405
300	70	20	36	7.6	1,492	80	21	39	8.0	1,548	91	28	48	10.6	1,764
350	70	20	35	6.5	1,717	80	21	39	6.8	1,777	91	28	47	9.1	2,008
400	70	20	35	5.7	2,111	80	21	38	6.0	2,176	91	28	46	8.0	2,431
450	70	20	34	5.1	2,545	80	21	38	5.3	2,617	91	28	46	7.1	2,896
500	70	20	34	4.6	3,019	80	21	38	4.8	3,097	91	28	45	6.4	3,400
550	70	20	34	4.2	3,534	80	21	37	4.4	3,619	91	28	45	5.8	3,946
600	70	20	33	3.8	4,090	80	21	37	4.0	4,181	91	28	45	5.3	4,532
650	70	20	33	3.5	4,686	80	21	37	3.7	4,783	91	28	44	4.9	5,158
700	70	20	33	3.3	5,322	80	21	36	3.4	5,426	91	28	44	4.6	5,825
750	70	20	33	3.1	5,999	80	21	36	3.2	6,110	91	28	44	4.3	6,533
800	70	20	33	2.9	6,717	80	21	36	3.0	6,834	91	28	43	4.0	7,281
850	70	20	32	2.7	7,475	80	21	36	2.8	7,598	91	28	43	3.8	8,069
900	70	20	32	2.5	8,274	80	21	36	2.7	8,404	91	28	43	3.6	8,898
1000	70	20	32	2.3	9,993	80	21	35	2.4	10,136	91	28	43	3.2	10,678
1100	70	20	32	2.1	11,652	80	21	35	2.2	11,805	91	28	42	2.9	12,390
1200	70	20	31	1.9	13,623	80	21	35	2.0	13,789	91	28	42	2.7	14,420
1300	70	20	31	1.8	15,770	80	21	34	1.9	15,948	91	28	42	2.5	16,627
1400	70	20	31	1.6	18,074	80	21	34	1.7	18,265	91	28	41	2.3	18,991
1500	70	20	31	1.5	20,536	80	21	34	1.6	20,739	91	28	41	2.1	21,512

Recommended sizes

Additional possible sizes

Reduction of movement for expansion joints with PTFE lining: axial compression: -0 %; axial extension: -0 %; lateral displacement: -0 %; angular movement: -0 %. In the event of axial extension and simultaneous lateral displacement the above movements are reduced (▶ page 29). Angular movement only possible with guided support ring. For larger movements see type B132 or B135.

**Individual fabrication possible**