

B100

NB 50 – NB 1500

► Type B100



Type key ► page 20

B1 0 0

Support ring variant

Number of arches

Type

Universal expansion joint without arch

Design:	Cylindrical rubber bellows with a sleeve for clamped fixing
Nominal diameters:	Standard NB 50 to NB 1500, intermediate sizes possible
Installation length:	= Installation gap + 2 x fixing width Standard installation gaps L_0 = 125 to 250 mm (► page 138–139) 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 stability on request
Movement:	For slight axial compression and lateral movements (► page 138–139) 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

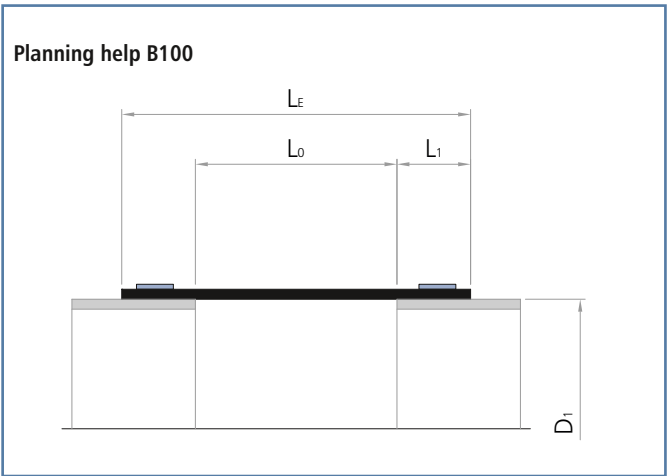


Rubber bellows

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, Take the restriction of the listed movement into account (► page 138–139)		

Fastening clamps

Design:	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		
Width:	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	
Materials:	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)	





B100
▶ without arch



Installation gap															
L ₀ = 125 mm						L ₀ = 150 mm					L ₀ = 175 mm				
NB	Movement				A cm ²	Movement				A cm ²	Movement				A cm ²
	mm	mm	± mm	± °		mm	mm	± mm	± °		mm	mm	± mm	± °	
50	6	0	10	0	29	8	0	11	0	29	9	0	13	0	29
65	6	0	9	0	45	8	0	11	0	45	9	0	13	0	45
80	6	0	9	0	62	8	0	10	0	62	9	0	12	0	62
100	6	0	8	0	103	8	0	10	0	103	9	0	12	0	103
125	6	0	8	0	153	8	0	10	0	153	9	0	11	0	153
150	6	0	8	0	222	8	0	9	0	222	9	0	11	0	222
175	6	0	7	0	295	8	0	9	0	295	9	0	10	0	295
200	6	0	7	0	377	8	0	9	0	377	9	0	10	0	377
250	6	0	7	0	585	8	0	8	0	585	9	0	10	0	585
300	6	0	7	0	824	8	0	8	0	824	9	0	9	0	824
350	6	0	6	0	993	8	0	8	0	993	9	0	9	0	993
400	6	0	6	0	1,297	8	0	8	0	1,297	9	0	9	0	1,297
450	6	0	6	0	1,642	8	0	7	0	1,642	9	0	9	0	1,642
500	6	0	6	0	2,027	8	0	7	0	2,027	9	0	8	0	2,027
550	6	0	6	0	2,452	8	0	7	0	2,452	9	0	8	0	2,452
600	6	0	6	0	2,919	8	0	7	0	2,919	9	0	8	0	2,919
650	6	0	6	0	3,425	8	0	7	0	3,425	9	0	8	0	3,425
700	6	0	6	0	3,973	8	0	7	0	3,973	9	0	8	0	3,973
750	6	0	6	0	4,560	8	0	7	0	4,560	9	0	8	0	4,560
800	6	0	5	0	5,189	8	0	7	0	5,189	9	0	8	0	5,189
850	6	0	5	0	5,858	8	0	6	0	5,858	9	0	8	0	5,858
900	6	0	5	0	6,567	8	0	6	0	6,567	9	0	7	0	6,567
1000	6	0	5	0	8,107	8	0	6	0	8,107	9	0	7	0	8,107
1100	6	0	5	0	9,607	8	0	6	0	9,607	9	0	7	0	9,607
1200	6	0	5	0	11,404	8	0	6	0	11,404	9	0	7	0	11,404
1300	6	0	5	0	13,376	8	0	6	0	13,376	9	0	7	0	13,376
1400	6	0	5	0	15,504	8	0	6	0	15,504	9	0	7	0	15,504
1500	6	0	5	0	17,789	8	0	6	0	17,789	9	0	7	0	17,789

Recommended sizes
 Additional possible sizes

Reduction of movement for expansion joints with PTFE lining:
axial compression: -33 %; lateral displacement: -25 %.
Larger movements see type B110.





Installation gap																
L ₀ = 200 mm					L ₀ = 225 mm					L ₀ = 250 mm						
Movement					Movement					Movement						
				A					A					A		
mm	mm	± mm	± °	cm ²	mm	mm	± mm	± °	cm ²	mm	mm	± mm	± °	cm ²		
10	0	15	0	29	11	0	17	0	29	13	0	19	0	29	50	
10	0	14	0	45	11	0	16	0	45	13	0	18	0	45	65	
10	0	14	0	62	11	0	16	0	62	13	0	17	0	62	80	
10	0	13	0	103	11	0	15	0	103	13	0	17	0	103	100	
10	0	13	0	153	11	0	14	0	153	13	0	16	0	153	125	
10	0	12	0	222	11	0	14	0	222	13	0	15	0	222	150	
10	0	12	0	295	11	0	13	0	295	13	0	15	0	295	175	
10	0	12	0	377	11	0	13	0	377	13	0	14	0	377	200	
10	0	11	0	585	11	0	12	0	585	13	0	14	0	585	250	
10	0	11	0	824	11	0	12	0	824	13	0	13	0	824	300	
10	0	10	0	993	11	0	12	0	993	13	0	13	0	993	350	
10	0	10	0	1,297	11	0	11	0	1,297	13	0	13	0	1,297	400	
10	0	10	0	1,642	11	0	11	0	1,642	13	0	12	0	1,642	450	
10	0	10	0	2,027	11	0	11	0	2,027	13	0	12	0	2,027	500	
10	0	9	0	2,452	11	0	11	0	2,452	13	0	12	0	2,452	550	
10	0	9	0	2,919	11	0	10	0	2,919	13	0	12	0	2,919	600	
10	0	9	0	3,425	11	0	10	0	3,425	13	0	11	0	3,425	650	
10	0	9	0	3,973	11	0	10	0	3,973	13	0	11	0	3,973	700	
10	0	9	0	4,560	11	0	10	0	4,560	13	0	11	0	4,560	750	
10	0	9	0	5,189	11	0	10	0	5,189	13	0	11	0	5,189	800	
10	0	9	0	5,858	11	0	10	0	5,858	13	0	11	0	5,858	850	
10	0	9	0	6,567	11	0	10	0	6,567	13	0	11	0	6,567	900	
10	0	8	0	8,107	11	0	9	0	8,107	13	0	10	0	8,107	1000	
10	0	8	0	9,607	11	0	9	0	9,607	13	0	10	0	9,607	1100	
10	0	8	0	11,404	11	0	9	0	11,404	13	0	10	0	11,404	1200	
10	0	8	0	13,376	11	0	9	0	13,376	13	0	10	0	13,376	1300	
10	0	8	0	15,504	11	0	9	0	15,504	13	0	10	0	15,504	1400	
10	0	8	0	17,789	11	0	9	0	17,789	13	0	10	0	17,789	1500	

Individual fabrication possible