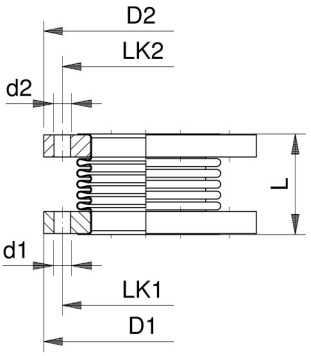
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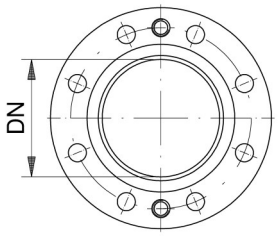
Stainless Steel Bellows
(for Graphite Block Nozzles, DIN)

Works Standard

Main Dimensions and Characteristics

DN	Neutral Length [mm]	Effective Area [cm²]	Flange Connection D1 [mm]	LK1 [mm]	d1 [mm]	D2 [mm]	LK2 [mm]	d2 [mm]
25	79	8,0	115	85	4xØ14	115	85	4xØ14
40	80	30	150	110	4xØ18	150	110	4xØ18
50	90	44	165	125	4xØ18	165	125	4xØ18
65	95	67	185	145	8xØ18	185	145	8xØ18
80	95	87	200	160	8xØ18	200	160	8xØ18
100	100	137	220	180	8xØ18	220	180	8xØ18
125	115	198	250	210	8xØ18	250	210	8xØ18





DN	Full Vacuum Performance [up to …°C]	Movements Length max. [mm]	lateral max. [mm]	angular max. [degree]	Spring rate (+/- 30% at 20°C) Axial Compress. [N/mm]	Axial Extension [N/mm]	lateral [N/mm]	angular [Nm/degr.]
25	200	+/-13	+/-1	+/-1	24	24	21	0,08
40	200	+/-9	+/-2	+/-2,5	107	107	195	0,7
50	200	+/-11	+/-2,5	+/-2,5	95	95	219	0,9
65	200	+/-13	+/-1,5	+/-1	83	83	236	1,25
80	200	+/-12	+/-2	+/-3	140	140	621	3
100	200	+/-16	+/-2,5	+/-3	124	124	688	4
125	200	+/-20	+/-3	+/-5	148	148	1088	8

Spring Rate Correction Factors

Temperature [°C]	Factor
20	1,0
200	0,94

Examples:

- Spring rate at 200°C = spring rate at 20°C x 0,94
- Axial extension at DN 50 and 200°C by 5 mm: Force F = 5 mm x 95 N/mm x 0,94 = 446,5 N

Combined Movements

- The max. movements (axial, lateral, angular) indicated in the tables are not independent movements. Avoid flexural stresses!
- The combined total of related movements must not exceed 100%.

Length Limitation

- Do not use bolts / sleeves to connect stainless steel-bellows to GAB Neumann heat exchangers.
- During pressure application and / or mechanical movement, the extension must not exceed the max. allowed extension (as per data above).
- Please ensure that the heat exchanger and piping are adequately fastened to their bearing.

Materials

Flange: 1.4571
Bellows: 1.4571

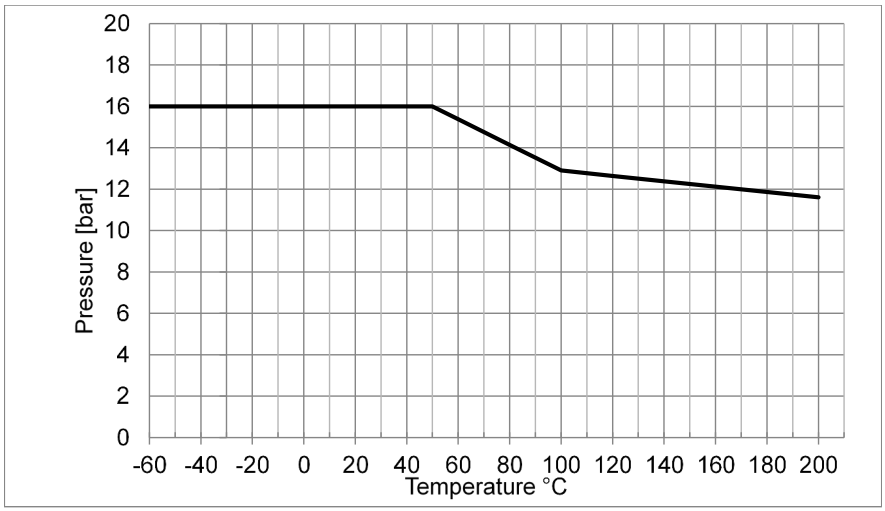
Approximate load cycles: 1000

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Graphite and SiC Heat Exchangers and Process Equipment

Stainless Steel Bellows
(for Graphite Block Nozzles, DIN)

Pressure / Temperature Chart



All Diameter

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