

STEEL EXPANSION JOINT TYPE SA-13

AXIAL EXPANSION JOINT DN 15 – DN 1200



STRUCTURE TYPE SA-13 / STEEL BELLOWS PN 16

- Vacuum-proof axial expansion joint consisting of two stainless steel bellows (DN 125 - DN 1200 with connecting pipe) and welded pipe ends (welding ends)
- Guide sleeves to stabilize the expansion joint
- Guide sleeves do not supersede pipe guide bearings
- Multiple convolution bellows in various stainless steel grades
- Single ply or multi-ply structure

Material grade*	Material No. as per DIN EN	Temperature**	Possible uses
Stainless steel	1.4541	-196 °C up to +550 °C	Low temperature, acids, lyes, gases, fertilizers
	1.4404 1.4571	+550 °C	Media containing chloride, oil, soap, drinking water, food stuff, petrol

* Check or inquire about the resistance of material grades to temperature and medium.

** Check or inquire about reduction in pressure by temperature.

VERSIONS: WELDING ENDS/CONNECTING PIPE

- Welded pipe ends and connecting pipe

	Standard	Others
Dimensions	see tables page 121	on request
Materials	1.0345 (P235GH), 1.0038 (S235JR),	stainless steel etc.
Corrosion protection	anti-corrosion primed	special varnish etc.

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.

APPLICATIONS

- for compensating large axial movement
- for installation in
 - long pipe routings
 - industrial applications
 - heating installations
- for gas supply lines

GUIDE SLEEVE

Materials

Standard: 1.4541

SPECIAL DESIGN

Other sizes (DN), lengths or pressure ratings on request.

CERTIFICATES

- CE (PED 2014/68/EU)
- American Bureau of Shipping
- Bureau Veritas
- DVGW (DN 32 – DN 200)
- RINA

ACCESSORIES

- Protective tube

PRESSURE RATE STANDARD PROGRAM PN 16

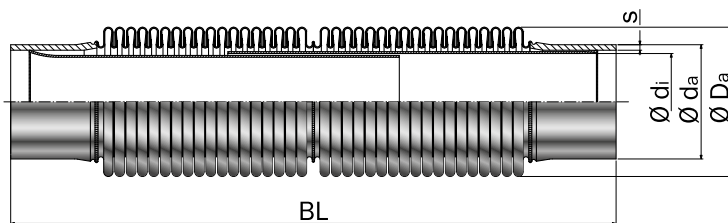
DN	BL	$\Delta a_{x_{tot}}^{**}$ Axial movement	C_{ax} Axial spring rate	A* Effective bellows cross sectional area	$\varnothing D_a$ Bellows outer \varnothing	$\varnothing d_i$ Internal guide sleeve \varnothing	$\varnothing d_a \times s$ Pipe connection	Weight approx. kg
	mm	mm	N/mm	cm ²	mm	mm	mm	
15	260	48	25	7	38	14	21.3x2.0	0.7
20	260	48	25	7	38	18	26.9x2.3	0.7
25	270	40	25	16	54	24	33.7x2.6	1.0
32	270	40	25	16	54	32	42.4x2.9	1.0
40	300	52	34	25	66	37	48.3x2.6	1.1
50	320	68	44	36	79	47	60.3x2.9	1.9
65	357	72	51	54	96	60	76.1x2.9	2.8
80	358	80	40	78	116	74	88.9x3.2	3.6
100	386	80	46	115	136	95	114.3x4.0	4.4
125	475	100	40	173	168	116	139.7x4.0	8.1
150	535	100	78	243	196	145	168.3x4.5	11.0
200	545	76	119	422	253	193	219.1x6.3	17.1
250	545	104	312	620	302	246	273.0x6.3	21.4

Table values refer to +20 °C, bellows material 1.4541, 1000 cycles. Max. allowable pressure pulsation of 1.0 bar (brief periods).

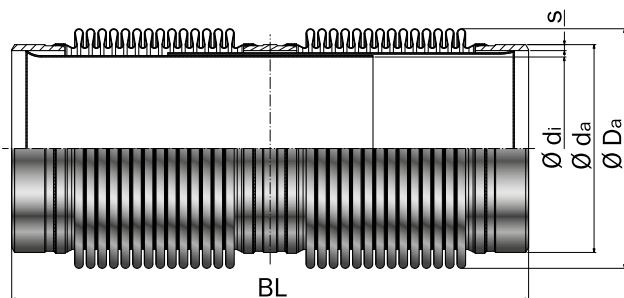
Please inquire for deviating values.

*Effective bellows cross sectional area is a theoretical value.

**This value represents the total possible movement. Example: $\Delta a_{x_{tot}} = 28\text{mm}$. This means that the expansion joint has a total movement value of 28 mm (= +/- 14 mm).



DN 15 – DN 100



DN 125 – DN 250

Type SA-13 with inner guide sleeve