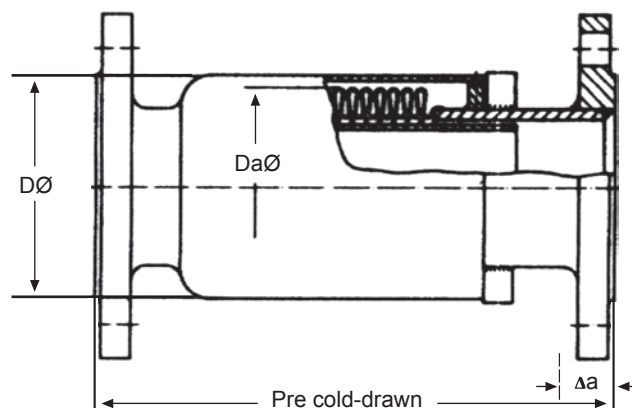


AXIAL EXPANSION JOINT

Type 711900X/711700X



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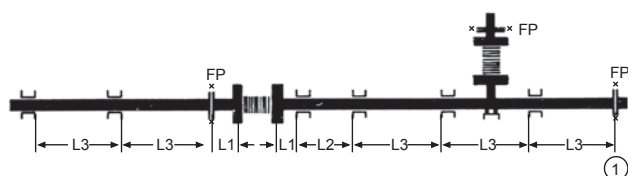


Material

- Bellow : 1.4541 (SS 321)
- Internal sleeve : 1.0305/1.0319 (carbon steel)
- Flange Connection :
DIN PN16/25/40 , ANSI 150 L5 , JIS 10k/20k

- Type 7119 00X up to DN150
- Type 7117 00X from DN200 up
- Order text : 7119 00X DN ../PN ../ax ../BI ..

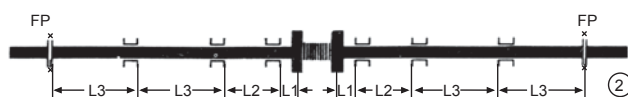
DN	PN	Nominal axial Movement capacity	Overall length B1	Outer diameter Ø D	Weight (kg)	Welded end		Bellows		
		Δ ax				Ø Dr	S	Outer diameter Ø Da	Effective cross-sectional surface A _B	Axial spring rate C _{ax}
		(mm)								
40	25	75	535	62	2.9	48.3	2.6	57	18.5	65
50	25	60	460	80	3.6	60.3	2.9	74	31.6	85
65	25	64	540	100	6.2	76.1	2.9	94	51.7	155
80	25	35	345	112	4.8	88.9	3.2	105	66.7	342
	25	64	540	112	7.5	88.9	3.2	105	66.7	171
100	25	46	400	144	8	114.3	3.6	136	113.0	415
	25	85	680	144	14	114.3	3.6	136	113.0	207
125	25	46	400	168	12	139.7	4.0	158	157.0	475
	25	85	680	168	20	139.7	4.0	158	157.0	238
150	25	46	400	197	15	168.3	4.5	186	225.0	554
	25	85	680	197	25	168.3	4.5	186	225.0	277
200	25	50	475	278	27	219.1	6.3	257	410.0	700
		90	605	278	42	219.1	6.3	257	410.0	560



$$L_1 = \max. 2 \times DN + \frac{\Delta}{2} \text{ (mm)}$$

$$L_2 = 0,7 \times L_3 \text{ (mm)}$$

$$L_3 = 400 \sqrt{DN} \text{ (mm)}$$



Note = FP : Fix point
= Previous Type 307/224

C°	PN6	PN10	PN16	PN25
120	6	10	16	25
300	3,6	6	11	17
400	-	-	8	13
Test pressure	7,8	13	20,8	32,5

DN	L1 mm	L2 mm	L3 mm
40	80 + Δ/2	1 750	2 500
50	100 + Δ/2	1 950	2 800
65	130 + Δ/2	2 250	3 200
80	160 + Δ/2	2 500	3 550
100	200 + Δ/2	2 800	4 000
125	250 + Δ/2	3 100	4 450
150	300 + Δ/2	3 450	4 900
200	400 + Δ/2	3 950	5 650
250	500 + Δ/2	4 400	6 300



AXIAL EXPANSION JOINT

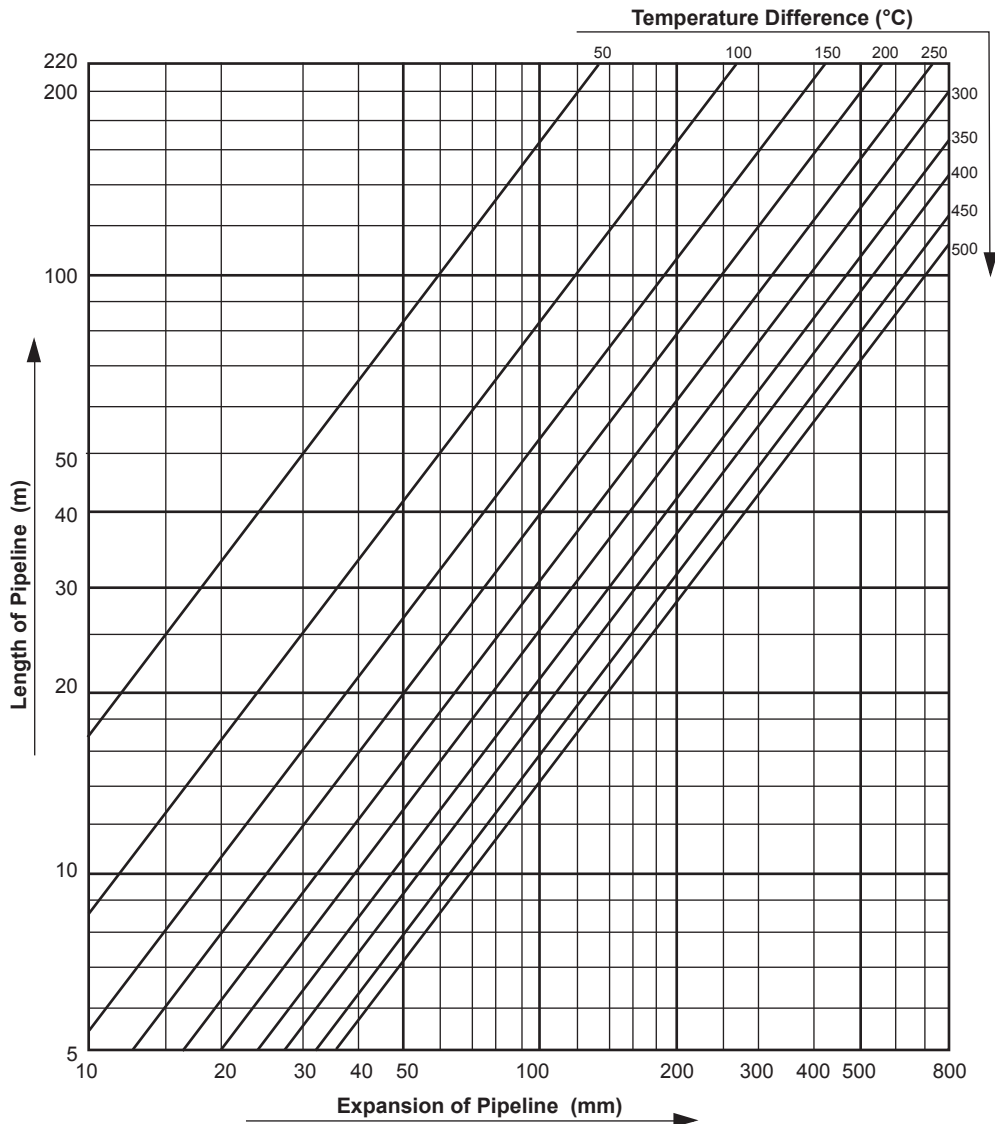
Type 711900X/711700X



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Installation Instructions



Pipe Guides

Align pipeline along axis in all directions. Assure adequate distance between pipes as indicated in fig. 1. and 2. Main anchor points have to be installed at bends. A gradient must be provided for drainage.

Pipe Supports

Sliding or roller bearings are the safest type of pipe supports to protect the lines from buckling and lifting. Spring hangers and spring supports are not to be considered as pipe supports for axial expansion joints.

Anchor Points

Each section of the pipe to be compensated must be fixed between two anchor points. Only one expansion joint may be installed between any two anchor point.

Main anchor points must be provided at bends.

These have to be designed for the deflection force and the pressure reaction force of the expansion joint plus the friction forces of the pipe supports

Intermediate anchor points and expansion joints between them have to be provided in long line sections

if one single axial expansion joints is not able to compensate the whole expansion of the pipe. Round steel shackles according to DIN 3570 without limitation stops are not suitable as anchor points to avoid longitudinal movement of the pipe. Anchor points must be capable to support tractive forces if the pipe works under vacuum.

Filling of the System

Anchor points and supports must be fixed in position before the system is filled and pressure tested. The permissible test pressure of the expansion joints must not be exceeded during the pressure test.

Movement Capacity

The maximum permissible movement capacity is marked on the expansion joint. This value should not be fully used if the temperature fluctuate very frequently (see fatigue diagram in the expansion joints brochure).

The expansion joint has to be installed according to the example shown in fig. 1 if the expansion joint has to absorb lateral movements. The maximum permissible lateral movement capacity shown in the expansion joints brochure must not be exceeded.



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