

EXTERNALLY PRESSURISED EXPANSION JOINTS

kayse®

Types

Floating Flange x Fixed Flange,

bellows

AISI 304
AISI 316, 321 (Op.)

outside pipe

Carbon Steel
Stainless Steel (Op.)

flange

Carbon Steel
Stainless Steel (Op.)
TS EN 1092-1
ANSI, JIS, ISO (Op.)

inside pipe

Carbon Steel
Stainless Steel (Op.)



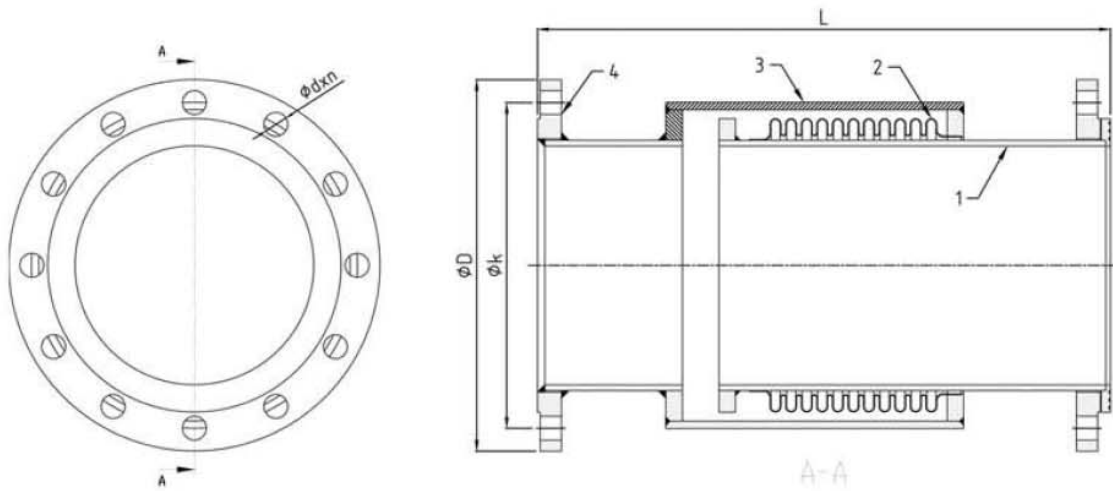
GENERAL

Externally pressurised expansion joints are preferred to remove any expansion in high pressure or long pipelines, reduce the number of expansion joints available in the system and prevent any axial deflections due to torsions. In externally pressurised expansion joints, the pressure is given external to the undulation and as such the forces causing the torsion will be balanced and thanks to this application the number of nodes can be reduced and the torsion risk of the expansion joint is minimised.

Underground pipelines, geothermal facilities, thermal oil lines and all the piping installations where thermal expansion is present.

During the ordering stage the total amount of movement, the type of the fluid in the line, place of utilization, form of connection, operating pressure of the system and temperature must be indicated.

NOMINAL PRESSURE	: 16 bar / max. 64 bar (Optional)
TEMPERATURE	: -90 °C +550 °C
CONNECTION TYPES	: Fixed or Floating Flange
CONNECTION SIZES	: DN25 (1") - ... - DN1200 (48")
EXPANSION	: 30mm (-20 +10), 60mm (-40 +20), 90mm (-70 +20)
DESIGN	: EJMA Standards
APPROVALS	: TSE 10880, CE



Properties		
Part Number	Part Number	Malzeme Material
1	Inside Pipe	Carbon Steel Stainless Steel (Op.)
2	Bellows	AISI 304 AISI 316 - AISI 321 (Op.)
3	Outside Pipe	Carbon Steel Stainless Steel (Op.)
4	Flange	Carbon Steel Stainless Steel (Op.)

(Op.) = Optional

Connection Size		Expansion (L = mm)			Dimensions			Effective Area (cm ²)	Pressure
		30 mm	60 mm	90 mm	ø D (mm)	ø k (mm)	ø dxn (mm)		
DN 25	1"	315	335	560	115	85	14x4	54	PN 16
DN 32	1 1/4"	325	445	570	140	100	18x4	54	PN 16
DN 40	1 1/2"	335	455	575	150	110	18x4	54	PN 16
DN 50	2"	340	460	595	165	125	18x4	89	PN 16
DN 65	2 1/2"	355	470	600	185	145	18x4	91	PN 16
DN 80	3"	355	475	625	200	160	18x8	141	PN 16
DN 100	4"	360	490	625	220	180	18x8	196	PN 16
DN 125	5"	375	505	635	250	210	18x8	272	PN 16
DN 150	6"	385	515	655	285	240	22x8	346	PN 16
DN 200	8"	435	560	725	340	295	22x12	572	PN 16
DN 250	10"	460	625	800	405	355	26x12	829	PN 16

Types

With Welded Neck,
With Groved,

outside pipe

Carbon Steel
Stainless Steel (Op.)

inside pipe

Carbon Steel
Stainless Steel (Op.)



welded neck

Carbon Steel
Stainless Steel (Op.)

bellows

AISI 304
AISI 316, 321 (Op.)



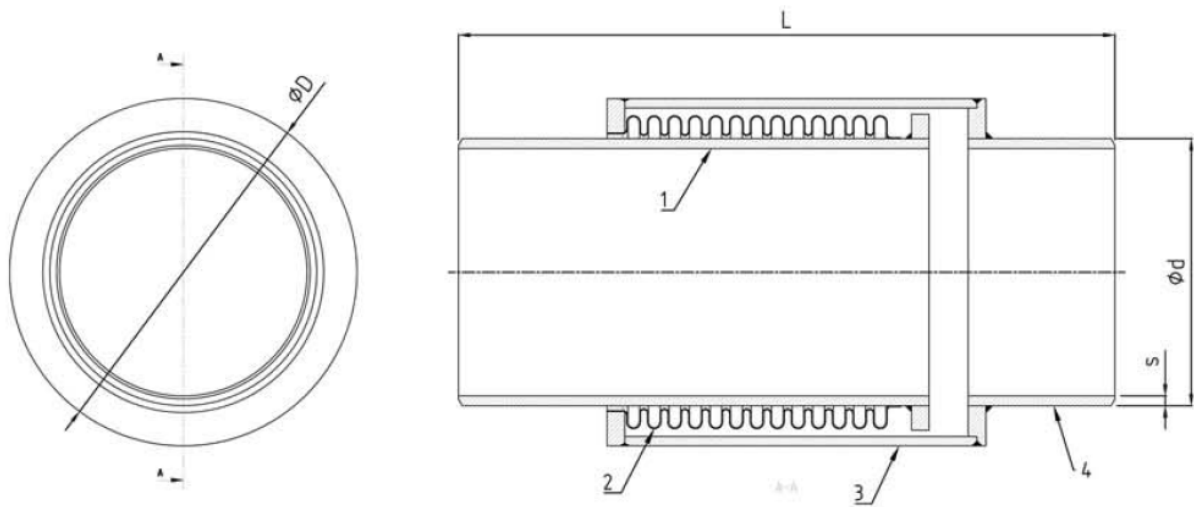
GENERAL

Externally pressurised expansion joints are preferred to remove any expansion in high pressure or long pipelines, reduce the number of expansion joints available in the system and prevent any axial deflections due to torsions. In externally pressurised expansion joints, the pressure is given external to the undulation and as such the forces causing the torsion will be balanced and thanks to this application the number of nodes can be reduced and the torsion risk of the expansion joint is minimised.

Underground pipelines, geothermal facilities, thermal oil lines and all the piping installations where thermal expansion is present.

During the ordering stage the total amount of movement, the type of the fluid in the line, place of utilization, form of connection, operating pressure of the system and temperature must be indicated.

NOMINAL PRESSURE	: 16 bar / max. 64 bar (Optional)
TEMPERATURE	: -90 °C +550 °C
CONNECTION TYPES	: With Welded Neck
CONNECTION SIZES	: DN25 (1") - ... - DN1200 (48")
EXPANSION	: 30mm (-20 +10), 60mm (-40 +20), 90mm (-70 +20)
DESIGN	: EJMA Standards
APPROVALS	: TSE 10880, CE



Part Number	Properties	
	Number	Material
1	Inside Pipe	Carbon Steel Stainless Steel (Op.)
2	Bellows	AISI 304 AISI 316 - AISI 321 (Op.)
3	Outside Pipe	Carbon Steel Stainless Steel (Op.)
4	Welded Neck	Carbon Steel Stainless Steel (Op.)

(Op.) = Optional

Connection Size		Expansion (L = mm)			Dimensions			Effective Area (cm ²)	Pressure
		30 mm	60 mm	90 mm	Ø d (mm)	s (mm)	Ø D (mm)		
DN 25	1"	295	315	540	33,70	3,20	88,9	54	PN 16
DN 32	1 1/4"	305	425	550	42,40	3,20	88,9	54	PN 16
DN 40	1 1/2"	315	435	555	48,30	3,20	88,9	54	PN 16
DN 50	2"	320	440	575	60,30	3,60	114,3	89	PN 16
DN 65	2 1/2"	335	450	580	76,10	3,60	114,3	91	PN 16
DN 80	3"	335	455	605	88,90	4,00	139,7	141	PN 16
DN 100	4"	340	470	605	114,30	4,50	168,0	196	PN 16
DN 125	5"	355	485	615	139,70	5,00	219,0	272	PN 16
DN 150	6"	365	495	635	165,00	5,00	273,0	346	PN 16
DN 200	8"	415	540	705	219,10	6,30	323,9	572	PN 16
DN 250	10"	440	605	780	273,00	6,30	355,6	829	PN 16