

METAL BELLOWED AXIAL EXPANSION JOINTS

kayse®

Types

- With Floating Flange,
- With Fixed Flange,
- With Liner,
- Without Liner,

flange

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

liner (Op.)

- AISI 304
- AISI 316, 321 (Op.)

bellows

- AISI 304
- AISI 316, 321 (Op.)



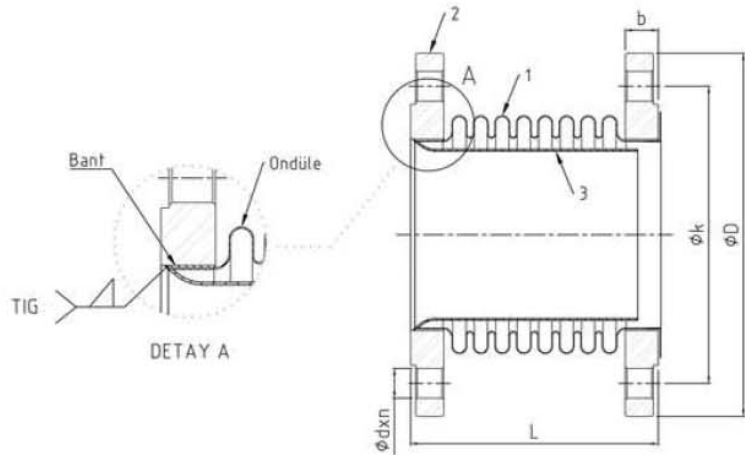
GENERAL

Metal bellows expansion joints are used to absorb the thermal expansions and to compensate the vibrations in pump, fan and pipe systems. The metal bellows expansion joint increases the operating revolutions of the bellows, while laminating the shim flow inside the expansion joints. When placing an order, the total amount of movements, type of the fluid inside the line, place of utilization, type of connection, the operating pressure and temperature of the system must be specified.

Application Areas:

Hot and Cold Water Systems, Super Heated Water Systems, Superheated Steam Systems, Steam Lines, Thermal Oil Systems, Pressurized Air Lines...

NOMINAL PRESSURE	: 16 bar / 2,5 bar - ... - 64 bar (Optional)
TEMPERATURE	: -90 °C +550 °C
CONNECTION TYPES	: Fixed or Floating Flange
CONNECTION SIZES	: DN25 (1") - ... - DN1200 (48")
EXPANSION	: 30 mm (-20+10), 45 mm (-30+15), 60 mm (-40+20)
DESIGN	: EJMA Standards
APPROVALS	: TSE 10880, CE



Part Number	Properties	
	Part Number	Material
1	Bellows	AISI 304 AISI 316 - AISI 321 (Op.)
2	Flange	St 37.2 AISI 304 - AISI 316 (Op.)
3	Liner	AISI 304 AISI 316 - AISI 321 (Op.)

(Op.) = Optional

Connection Size		Expansion (L = mm)			Dimensions				Effective Area (cm ²)	Pressure
		30 mm	45 mm	60 mm	Ø D (mm)	Ø k (mm)	b (mm)	d x n (mm)		
DN 25	1"	110	-	-	115	85	16	14 x 4	18	PN 16
DN 32	1 1/4"	110	-	-	140	100	18	18 x 4	18	PN 16
DN 40	1 1/2"	120	150	-	140	110	18	18 x 4	22	PN 16
DN 50	2"	120	150	-	165	125	20	18 x 4	36	PN 16
DN 65	2 1/2"	120	150	180	185	145	20	18 x 4	58	PN 16
DN 80	3"	120	150	180	200	160	20	18 x 8	78	PN 16
DN 100	4"	120	150	185	220	180	22	18 x 8	124	PN 16
DN 125	5"	125	155	190	250	210	22	18 x 8	180	PN 16
DN 150	6"	130	155	200	285	240	24	22 x 8	252	PN 16
DN 200	8"	150	190	230	340	295	26	22 x 12	430	PN 16
DN 250	10"	165	205	245	405	355	29	26 x 12	660	PN 16
DN 300	12"	165	215	245	445	400	26	22 x 12	910	PN 10
DN 350	14"	170	215	255	505	460	30	22 x 16	1060	PN 10
DN 400	16"	170	230	255	565	515	32	26 x 16	1420	PN 10
DN 450	18"	185	235	270	615	565	36	26 x 20	1750	PN 10
DN 500	20"	195	235	285	670	620	38	26 x 20	2180	PN 10
DN 600	24"	190	245	240	755	705	32	26 x 20	4120	PN 6
DN 700	28"	190	225	270	860	810	40	26 x 24	4250	PN 6
DN 800	32"	190	225	230	975	920	44	30 x 24	5510	PN 6
DN 900	36"	190	210	255	1075	1020	48	30 x 24	6900	PN 6
DN 1000	40"	170	210	205	1175	1120	52	30 x 28	8580	PN 6

Flanges are TS EN 1092-1 norm.

Types

- With Welded Neck,
- With Thread,
- With Groved,
- With Liner,
- Without Liner,



bellows

AISI 304
AISI 316, 321 (Op.)

welded neck

Carbon Steel
Stainless Steel (Op.)



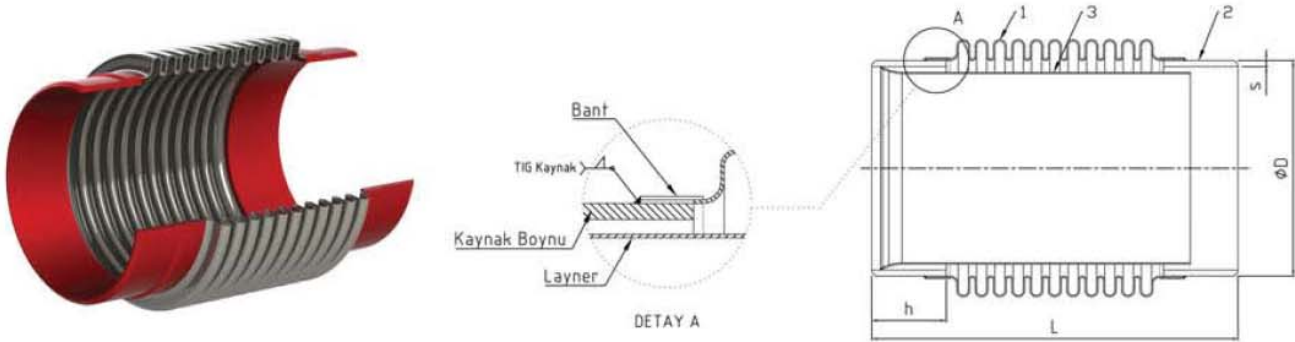
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Application Areas:

Hot and Cold Water Systems, Super Heated Water Systems, Superheated Steam Systems, Steam Lines, Thermal Oil Systems, Pressurized Air Lines...

- NOMINAL PRESSURE : 16 bar / 2,5 bar - ... - 64 bar (Optional)
- TEMPERATURE : -90 °C +550 °C
- CONNECTION TYPES : With Welded
- CONNECTION SIZES : DN25 (1") - ... - DN1200 (48")
- EXPANSION : 30 mm (-20+10), 45 mm (-30+15), 60 mm (-40+20)
- DESIGN : EJMA Standards
- APPROVALS : TSE 10880, CE



Properties		
Part Number	Part Number	Material
1	Bellows	St 37.2 AISI 316 - AISI 321 (Op.)
2	Welded Neck	St 37.2 AISI 316 - AISI 321 (Op.)
3	Liner	AISI 304 AISI 304 - AISI 316 (Op.)

(Op.) = Optional

Connection Size		Expansion (L = mm)			Dimensions			Effective Area (cm ²)	Pressure
		30 mm	45 mm	60 mm	Ø D (mm)	s (mm)	h (mm)		
DN 25	1"	180	-	-	33,70	3,20	50	18	PN 16
DN 32	1 1/4"	180	-	-	42,40	3,20	50	18	PN 16
DN 40	1 1/2"	190	220	-	48,30	3,20	50	22	PN 16
DN 50	2"	190	220	-	60,30	3,60	50	36	PN 16
DN 65	2 1/2"	190	220	240	76,10	3,60	50	58	PN 16
DN 80	3"	190	220	250	88,90	4,00	50	78	PN 16
DN 100	4"	200	230	270	114,30	4,50	60	124	PN 16
DN 125	5"	200	230	270	139,70	5,00	60	180	PN 16
DN 150	6"	250	270	320	168,30	5,00	80	252	PN 16
DN 200	8"	270	305	340	219,10	6,30	80	430	PN 16
DN 250	10"	310	360	395	273,00	6,30	100	660	PN 16
DN 300	12"	310	360	395	323,90	7,10	100	910	PN 10
DN 350	14"	320	370	405	355,60	8,00	100	1060	PN 10
DN 400	16"	320	370	405	406,40	8,00	100	1420	PN 10
DN 450	18"	330	375	420	457,00	10,00	100	1750	PN 10
DN 500	20"	340	385	430	508,00	11,00	100	2180	PN 10
DN 600	24"	340	385	430	610,00	12,50	100	4120	PN 6
DN 700	28"	340	385	430	711,00	12,50	100	4250	PN 6
DN 800	32"	335	340	380	813,00	12,50	100	5510	PN 6
DN 900	36"	335	360	405	914,00	12,50	100	6900	PN 6
DN 1000	40"	315	305	350	1016,00	12,50	100	8580	PN 6

DECORATIVE TYPE PIPE EXPANSION JOINTS

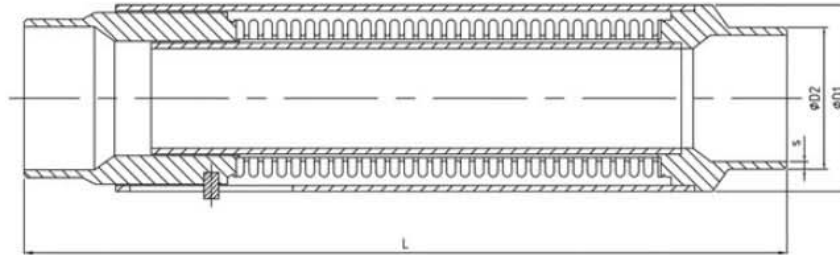
kayse®

Types

With Welded Neck,
With Thread,



CE



Dimensions	Connection Diameter									
	-	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Outside Dia.	D	34	38	48.3	57	60.3	76	89	114.3	139.7
Length	L	260	260	260	260	260	260	260	260	260

GENERAL

In installation columns of high rise buildings, expansions take place due to differences in temperature. This causes undue force on the pipes along with torsions and noise.

- ▶ Prevents thermal expansion, noise and flexibility problems in column posts,
- ▶ Due to its aesthetic design, it can be used in residences, hotels and places that are visible,
- ▶ Prevent inner bushing pressure losses as well as axial deviations, and protects the outer bushing and bellows against external effects,
- ▶ The amount of expansion can be easily observed thanks to the limit pin,
- ▶ In return for the high total expansion capacity, it is recommended to use one unit for each 30 meters (approximately 10 floors) against assembly and pre-tensioning faults.

NOMINAL PRESSURE : 16 bar
 TEMPERATURE : 100 °C
 CONNECTION TYPES : Thread or Welded Neck Dişli veya Kaynak B.
 CONNECTION SIZES : 1/2" - ... - 4"
 EXPANSION : 50 mm (-25 +25)
 APPROVALS : TSE 10880, CE