

Metallic Expansion Joint

Abstract and Feature :

- Free type is most widely used and absorb axial, lateral, angular movement and vibration.
- Normally, this type is applied for low pressure but can be used on high pressure application by multi-ply bellows designed.

Application :

- Low pressure gas line, exhaust duct line and engine exhaust line.
- Inlet and outlet of pump blower and vibration absorption, etc.

Design Condition :

- Design Temp. : 300° C
- Design Pressure : 10 bar
- Design Life Cycles: 3,000 cycles

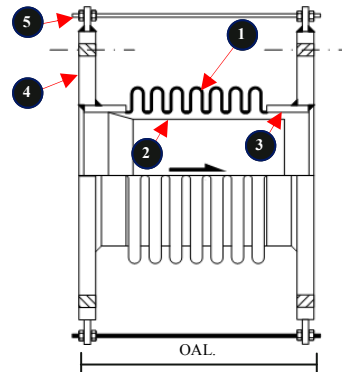
Construction & Material :

1. Bellows : SS304 (L), SS316 (L), SS321, Incoloy, Hastelloy C
2. Internal Sleeve : SSSS304 (L), SS316 (L), SS321
3. End Pipe : SS400, SS304, SS316
4. End Flanged* : SS400, SS304
5. Tie Rods : SS400

* Flange drilling : JS10K, ANSI 150#, PN10/16 or on request.



Type FT100



Nominal Pipe (Ranging)		Length	Axial Compression (mm)	Axial Elongation (mm)	Lateral Movement (mm)
Size ID (mm)	Size ID (inch)	OAL. (mm)			
40 - 600	(1-1/2) - 24	300	40	10	3
40 - 600	(1-1/2) - 24	500	50	15	5
40 - 600	(1-1/2) - 24	700	60	15	10

** Others Length, axial, lateral movement can be designed as request

Type FT101

Nominal Pipe (Ranging)		Length	Axial Compression (mm)	Axial Elongation (mm)	Lateral Movement (mm)
Size ID (mm)	Size ID (inch)	OAL. (mm)			
40 - 300	(1-1/2) - 12	300	20	20	3
40 - 300	(1-1/2) - 12	350	25	25	5



Abstract and Feature :

- De-vibration is intently used for absorb vibration. purpose.
- Bellows is flared over stud ends, no welding arch, that would free bellows to flex freely.

Application :

- Low pressure gas line, exhaust duct line and engine exhaust line.
- Inlet and outlet of pump blower and high vibration.

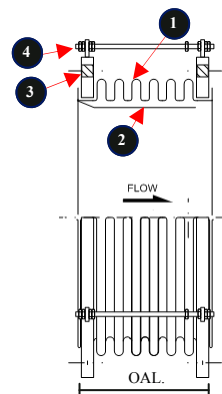
Design Condition :

- Design Temp. : 300° C
- Design Pressure : 10 bar
- Design Life Cycles: 3,000 cycles

Construction & Material :

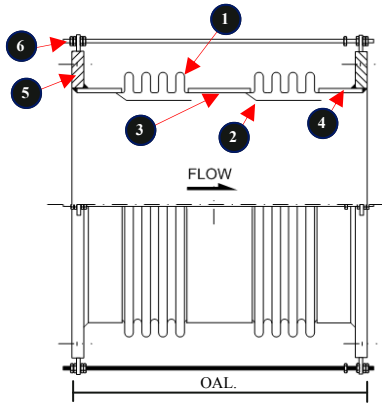
1. Bellows : SS304 (L), SS316 (L), SS321, Incoloy, Hastelloy C
2. Internal Sleeve : SSSS304 (L), SS316 (L), SS321
3. End Flanged* : SS400, SS304
4. Tie Rods : SS400

* Flange drilling : JS10K, ANSI 150#, PN10/16 or on request.



Metallic Expansion Joint

Type UT200



Abstract and Feature :

Tie rod assemblies should be designed to withstand against for the internal pressure thrust and this type absorb a lateral movement by means of angular motion of each bellows on both ends.

Application :

- Unfixed complex piping system
- Connection with equipment
- Ground Settlement for oil storage tank
- For unbalanced ground settlement and earthquake

To apply an expansion joint for the purpose of absorbing axial and lateral movement on piping system, main anchor should be considered on piping arrangement

Design Condition :

- Design Temp. : 300° C
- Design Pressure : 10 bar
- Design Life Cycles: 3,000 cycles

Construction & Material :

1. Bellows : SS304 (L), SS316 (L), SS321, Inconel, Incoloy, Hastelloy C
2. Internal Sleeve : SSSS304 (L), SS316 (L), SS321
3. Inter Pipe : SSSS304, SS316, SS321
4. End Pipe : SS400, SS304, SS316
5. End Flanged* : SS400, SS304, SS316
6. Tie Rods : SS400

* Flange drilling : JS10K, ANSI 150#, PN10/16 or on request.

Nominal Pipe		Lateral Movement (mm)							
		50	100	150	200	250	300	350	400
Size ID (mm)	Size ID (inch)	Overall Length (mm)							
80	3	700	1000	1400	1700	2100	2400	2700	3100
100	4	700	1100	1400	1800	2100	2500	2800	3200
125	5	800	1200	1600	2000	2300	2700	3100	3500
150	6	800	1200	1600	2000	2400	2800	3200	3600
200	8	900	1300	1700	2100	2500	2900	3300	3700
250	10	1000	1400	1800	2200	2600	3000	3300	3700
300	12	1000	1400	1800	2200	2600	3000	3300	3700
350	14	1100	1500	1900	2300	2700	3100	3400	3800
400	16	1200	1600	2100	2400	2800	3200	3600	4000
450	18	1200	1700	2200	2600	3100	3500	4000	4500
500	20	1300	1800	2300	2800	3300	3800	4300	4800
550	22	1300	1900	2500	3000	3600	4100	4700	5300
600	24	1400	1900	2500	3000	3600	4100	4700	5300

** Others Length, lateral movement can be designed as request



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