

1. Applications and Features

Purpose	Gap adjustment of plumbing, Absorbing lateral movement
Location	HVAC pipe line, Sanitary pipeline without drainage
Features	Structure with plate braid fixed with a band. Suitable for piping with a large diameter and high pressure. Fluid contacting part is stainless steel, loose flange type.

2. Structure and Parts

Figure 1 shows the structure, and Table 1 shows the part names and materials.

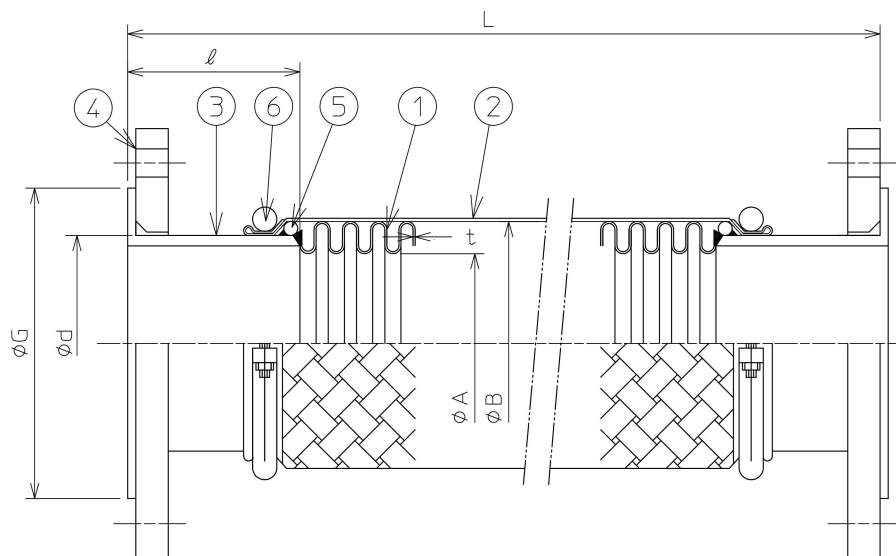


Figure 1. Structure

Table1. Parts List

No.	Name	Material (Option)
1	Bellows	Stainless steel 304 (Stainless steel 316L)
2	Braid	Stainless steel 304
3	Lap joint	Stainless steel 304 (Stainless steel 316, 316L)
4	Loose flange	Carbon steel
5	Neck ring	Carbon steel
6	Tightening ring	Carbon steel

※Flange rating : JIS 10K (Standard) , 5K, 7.5K, 20K, JPI

3. Dimensions and maximum working pressure

Table 2 shows dimensions and maximum working pressure.

Table2. Dimensions and maximum working pressure Unit : mm

Size	Bellows			Lap joint			Max. working pressure (MPa)		
	ϕA	ϕB	t	ϕG	ℓ	ϕd	1 Ply	2 Ply	3 Ply
350A	335.0	388	1.2	413	160	355.6	0.49	0.74	1.25
400A	385.0	438	1.5	475	180	406.4	0.45	0.68	1.11
450A	435.0	488	1.5	530	180	457.2	0.40	0.60	0.98
500A	485.0	538	1.5	585	200	508.0	0.37	0.55	0.90

※Max. working pressure is based on SUS304 bellows material at normal temperature.

4. Total length required for each displacement

Table 3 shows the total length required for each displacement.

Table 3. Total length required for each displacement Unit : mm

Size	Displacement					
	50	100	150	200	250	300
350A	1100	1450	1700	1900	2050	2250
400A	1300	1650	1950	2200	2400	2600
450A	1350	1750	2050	2300	2500	2700
500A	1450	1850	2150	2450	2650	2850

<Design condition> Pressure : Maximum working pressure (B1)

Temperature : Normal temperature

Number of times repeated : More than 3,000 times

5. Applicable temperature range

-20℃~300℃

6. Mounting bolt length

Table 4 shows the length of the mounting bolt.

Table 4. Mounting bolt length (JIS10K)

Size	Mounting bolt length		
	Size	Length (Below Neck)	Quantity
350A	M22	90	32
400A	M24	95	32
450A	M24	100	40
500A	M24	100	40

※Mounting bolt length does not include the thickness of flat washers and spring washers.

7. Inspection

Inspection items : Visual inspection, Dimensional inspection (Overall length),
Leak inspection

Frequency : ALL

8. Notes

- Where the water hammer generate in the piping system, the flexible joint might be damaged.
Please do appropriate impact prevention measures.
- Please refer to the "Installation Instructions" for installation procedures.