JB-13, 14 Type Bellows Expansion Joint

for Building・Air Conditioning Equipments, Factory Equipments etc.

JIS certified

JIS B 2352 Bellows Type Expansion Joint (mainly for piping of air conditioning and sanitary systems).

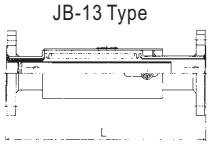
Absorb expansion or contraction by temperature changes in the axial direction of pipe.

JB-13 Type

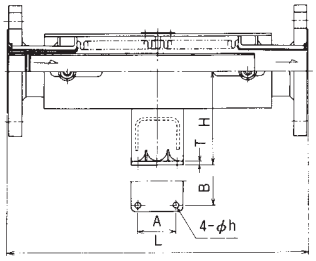
JB-14 Type

CONSTRUCTION

JB-13 Type



JB-14 Type



Note:
1.Depending on size, the structure may vary.
2.The size for 400mm (see the following table for max. working pressure and test pressure).

(MPa)

Size	Applicable pressure	Pressure test
350(12″)	1.0	1.5
400(16″)	0.8	1.2

FEATURES

- Stainless steel bellows with internal pipe manufactured using exclusive formation and fixing method; highly durable and corrosion resistant.
- 20~40% lighter than prior products.

SPECIFICATIONS

Model name(Type)	JB-13(Single)	JB-14(Double)
Code name	**JB13-N**	**JB14-N**
Applicable fluid	Steam, air, gases, water & oils	
Applicable pressure	Max. 1.0MPa	
Fluid temperature	Max. 220℃	
End connection	Flanged JIS 10KRF(ANSI Class150 with is available upon request)	
Materials	Flange(Mild steel), External sleeve(Carbon steel or Mild steel), Internal sleeve & Bellows(Stainless steel)	
Pressure test	Hydraulic 1.5MPa	
Expansion amount	35mm	70mm

DIMENSIONS JB-13 Type (Single Type)

(mm)

Size	L	Expansion amount		Mass(kg)
		Expansion	Contraction	
20(¾″)	365	10	25	4
25(1″)	365	10	25	4
32(1¼″)	365	10	25	5.5
40(1½″)	365	10	25	5.5
50(2″)	365	10	25	7.5
65(2½″)	415	10	25	10.5
80(3″)	415	10	25	12
100(4″)	415	10	25	16
125(5″)	440	10	25	22
150(6″)	440	10	25	29
200(8″)	440	10	25	49
250(10″)	465	10	25	59
300(12″)	465	10	25	95

Flange code JIS 10KRF

DIMENSIONS JB-14 Type (Double Type)

(mm)

Size	L	Expansion amount		H	A	B	T	h	Mass(kg)
		Expansion	Contraction						
20(¾″)	680	20	50	100	100	60	3.2	12	6
25(1″)	680	20	50	100	100	60	3.2	12	6
32(1¼″)	680	20	50	120	100	70	3.2	12	9
40(1½″)	680	20	50	120	100	70	3.2	12	9
50(2″)	680	20	50	130	100	80	3.2	15	12
65(2½″)	780	20	50	140	120	100	3.2	15	17
80(3″)	780	20	50	150	120	110	4.5	15	20
100(4″)	880	20	50	170	120	130	4.5	19	30
125(5″)	880	20	50	200	120	150	4.5	19	35
150(6″)	930	20	50	220	160	180	6.0	23	62
200(8″)	930	20	50	250	160	220	6.0	25	91
250(10″)	980	20	50	300	180	280	6.0	27	103
300(12″)	980	20	50	350	200	300	19	28	198

Flange code JIS 10KRF

POINTS FOR INSTALLATION

- The arrow mark on the main body should match with the flow of fluid.
- Make sure no torsional stress is applied on bellows.
- Remove nut for fixing faces and washers after piping is completed.

AXIAL DIRECTION LOAD ON MAIN FIXING POINT

Items \ Size(mm)		20	25	32	40	50	65	80	100	125	150	200	250	300
Bellows' effective area	Ae(mm²)	880	880	1960	1960	3130	4950	6570	11100	17700	24400	42900	62700	92100
Spring constant	K(N/mm)	28	28	54	54	68	90	91	185	255	372	590	648	1240
Load by max. Working pressure at 1.0MPa	Fp(N)	880	880	1960	1960	3130	4950	6570	11100	17700	24400	42900	62700	92100
Load by max. contraction at 25mm	Fe(N)	700	700	1350	1350	1700	2250	2280	4630	6380	9300	14750	16200	31000
Total load t max. working pressure	Fm=Fp+Fe(N)	1580	1580	3310	3310	4830	7200	8850	15730	24080	33700	57650	78900	123100
Load by hydraulic test pressure at 1.5MPa	(N)	1320	1320	2940	2940	4700	7430	9860	16650	26550	36600	64350	94050	138150