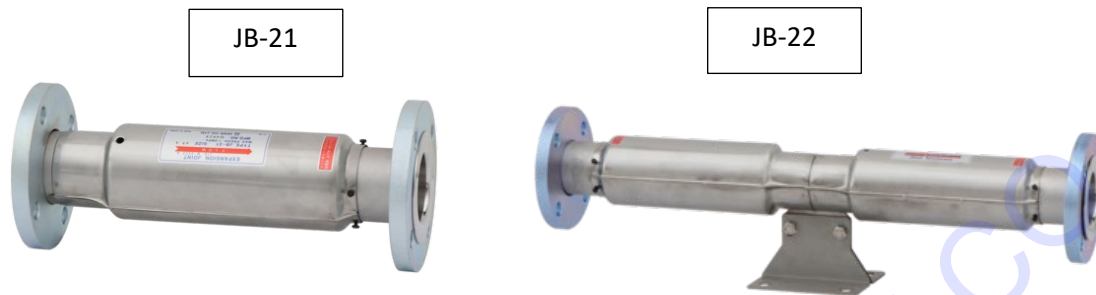


Bellows Expansion Joint

Model: JB-21, 22 (for Building• Air conditioning equipment, Factory equipment etc.)

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



Features

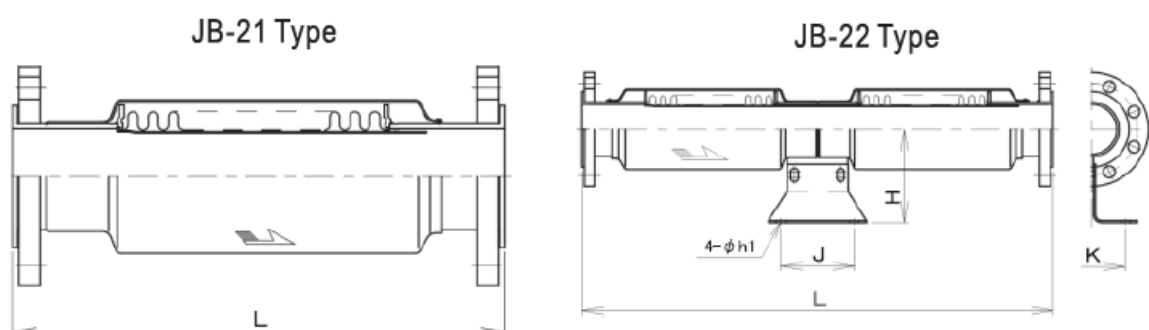
- Double-layer bellows with improved durability.
- Except for flange, all parts included bellows are made of stainless steel, and the part contacting with fluid is made of Stainless steel.
- Loose flange for end connection; preventing shifting in the circumferential direction of bolt hole.
- Duplex joint allows adjustment (inching adjustment on height and in forward and backward directions) of the position of installation foot and easier installation (JB-22, size < 150mm).

Specifications

Model name (Type)	JB-21 (Single)	JB-22 (Double)
Code name	JB21-N	JB22-N
Applicable fluid	Steam, air, gases, water & oils	
Applicable pressure	Max. 1.0MPa	
Fluid temperature	Max. 220°C	
End connection	Flanged JIS 10K (Loose type)	
Materials	Flange(Mild steel*),External sleeve(Stainless steel),Internal sleeve & Bellows (Stainless steel)	
Pressure test	Hydraulic 1.5MPa	
Expansion amount	35mm	70mm

*JB-21 and JB-22 Type with Stainless steel flange are available upon your request. (Code name:JB21-K, JB22-K Type)

Construction



Dimensions: JB-21 Type (Single Type)

(mm)

Size	L	Expansion amount		Mass(kg)
		Expansion	Contraction	
20(¾")	365	10	25	2.5
25(1")	365	10	25	3.5
32(1¼")	365	10	25	4.5
40(1½")	365	10	25	5
50(2")	365	10	25	6
65(2½")	415	10	25	8.5
80(3")	415	10	25	10
100(4")	415	10	25	12.5
125(5")	440	10	25	18.5
150(6")	440	10	25	21
200(8")	440	10	25	33
250(10")	465	10	25	47
300(12")	465	10	25	100

Flange code JIS 10K

Dimensions: JB-22 Type (Double Type)

(mm)

Size	L	Expansion amount		H	J	K	h ₁	Mass(kg)
		Expansion	Contraction					
20(¾")	680	20	50	100	100	60	12	4
25(1")	680	20	50	100	100	60	12	5.5
32(1¼")	680	20	50	120	100	70	12	7
40(1½")	680	20	50	120	100	70	12	7.5
50(2")	680	20	50	130	100	80	15	9.5
65(2½")	780	20	50	140	120	100	15	13
80(3")	780	20	50	150	120	110	15	17
100(4")	880	20	50	170	120	130	19	22
125(5")	880	20	50	200	120	150	19	30.5
150(6")	930	20	50	220	160	180	23	39
200(8")	930	20	50	250	160	220	25	60
250(10")	980	20	50	300	180	280	27	82
300(12")	980	20	50	350	200	300	27	170

Flange code JIS 10K

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 set bolt for fixing faces after piping is completed.

Axial direction load on main fixing point

Items	Size(mm)	Size(mm)												
		20	25	32	40	50	65	80	100	125	150	200	250	300
Bellow's effective area	Ae(mm ²)	650	830	1440	1770	2990	4460	6840	11930	18610	25790	42940	62640	98000
Spring constant	K(N/mm)	50	52	53	53	80	87	155	185	210	290	490	540	700
Load by max. Working pressure at 1.0MPa	Fp(N)	650	830	1440	1770	2990	4460	6840	11930	18610	25790	42940	62640	98000
Load by max. contraction at 25mm	Fe(N)	1250	1300	1325	1325	2000	2175	3875	4625	5250	7250	12250	13500	17500
Total load max. working pressure	Fm=Fp+Fe(N)	1900	2130	2765	3095	4990	6635	10715	16555	23860	33040	55190	76140	115500
Load by hydraulic test pressure at 1.5MPa	(N)	975	1245	2160	2655	4485	6690	10260	17895	27915	38685	64410	93960	147000