

# Tube End Type - JF-250 Series (One ply bellows for medium pressure)

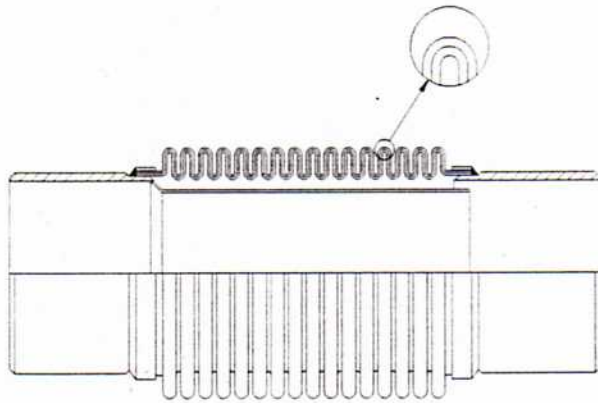
# JF-400 Series (Multiply bellows for high pressure)

## Feature

Stainless steel bellows welded with tube end or threaded tube end. Internal sleeve is optional. Designed to accommodate axial movement of pipeline in medium (JF-250series) and high (JF-400series) working pressure and high working temperature.

## CONSTRUCTION

Item	Parts	250SP	250P	250ST	400SP	400P	Material
1	Bellows	☉	☉	☉	☉	☉	SUS304/SUS316
2	Internal Sleeve	☉		☉	☉		SUS304/SUS316
3	Tube End	☉	☉	☉	☉	☉	SS400/SUS304/SUS316
4	Threaded Tube End			☉			SS400/SUS304/SUS316



## Installation

Heating no need elongation to getting compression 50 mm. or 75 mm.

Cooling need compression 50 mm. or 75 mm. to getting expansion 50 mm. or 75 mm.

## Specification

Nominal Bore		Total Length		Bellows				Axial Movement		Working Pressure		Axial Spring Rate	Effective Area	
mm	Inch	mm	inch	O.D.	CORR.	PLY	No.	mm	inch	bar	psi	N/mm	cm <sup>2</sup>	inch <sup>2</sup>
40	1 1/2	360	14.17	58.0	2.28	2	32	-50	2	25	363	29.00	20.2	3.1
		515	20.28				48	-75	3			19.34		
50	2	360	14.17	73.0	2.85	2	24	-50	2	25	363	44.25	32.1	5.0
		515	20.28				36	-75	3			29.50		
65	2 1/2	360	14.17	90.0	3.54	2	20	-50	2	25	363	89.82	49.1	7.6
		515	20.28				30	-75	3			59.88		
80	3	360	14.17	104.5	4.11	2	20	-50	2	25	363	81.54	67.4	10.5
		515	20.28				30	-75	3			54.36		
100	4	360	14.17	132.0	5.20	2	16	-50	2	25	363	146.06	108.9	16.9
		515	20.28				24	-75	3			97.37		
125	5	360	14.17	161.0	6.34	2	15	-50	2	25	363	161.14	167.1	25.9
		515	20.28				23	-75	3			105.33		
150	6	360	14.17	190.0	7.48	2	14	-50	2	25	363	192.81	239.2	37.1
		515	20.28				21	-75	3			128.54		
200	8	360	14.17	250.0	9.84	2	13	-50	2	16	232	264.16	420.9	65.2
		515	20.28				19	-75	3			179.99		
250	10	360	14.17	312.0	12.28	2	12	-50	2	16	232	428.99	644.6	103.0
		515	20.28				18	-75	3			285.99		
300	12	360	14.17	364.5	14.35	2	12	-50	2	16	232	499.81	925.4	143.4
		515	20.28				18	-75	3			333.21		

Other movements, sizes, and pressure expansion joint available on request

## Pressure Temperature rating with ISO - 15348

Bar	Temperature in degree C					
	-120 °C	150 °C	200 °C	250 °C	300 °C	350 °C
PN25	25	22.85	20.89	19.58	18.61	17.62
PN16	16	14.62	13.37	12.53	11.91	11.28

## JF-400 Stainless Steel Expansion Joint



JF-400SG

JF-400 Expansion Joint is made of multiplies bellows with SUS321. When it is used in high temperature or sustains high pressure fluid, it can make a long service life in piping system.

### ✦ JF-400 Construction

Item	Parts	Material	Remark(Option)
1	Bellows	SUS321	SUS304/316
2	Flange	SS400	SUS304 (Option)
3	Tube End	STPG38	SUS304 (Option)
4	Internal Sleeve	SUS304	
5	Tie Rods	S25C	

• JF-400SP : consists of part 1, 3 and 4

• JF-400 : consists of part 1, 2, 3 and 4

• JF-400SG : consists of part 1, 2, 3, 4 and 5

### ✦ JF-400 Specification

Nominal Bore		Total Length	Bellows			Axial Movement	Force to Compress	Effective Area	Working Pressure
			O.D.	Corr's No	Ply				
mm	Ins	mm				mm	kg	cm <sup>2</sup>	kg/cm <sup>2</sup>
13	1/2	350	25	52	1	+10 -40	33	3.6	25
19	3/4	350	32	44	1	+10 -40	34	5.9	25
25	1	350	38	40	1	+10 -40	31	8.5	25
32	1 1/4	350	48	36	2	+10 -40	75	14.1	25
40	1 1/2	350	58	32	2	+10 -40	75	17.6	25
50	2	350	76	24	2	+10 -40	110	30.4	25
65	2 1/2	350	92	20	2	+10 -40	261	43.8	25
80	3	350	106	20	2	+10 -40	205	62.8	25
100	4	350	133	16	2	+10 -40	303	107.7	25
125	5	350	163	15	2	+10 -40	630	162.9	25
150	6	350	190	14	2	+10 -40	1154	227.5	25
200	8	350	252	13	3	+10 -40	1905	385.3	25
250	10	350	315	12	3	+10 -40	1932	670.1	25
300	12	350	366	12	3	+10 -40	2353	923.5	25
350	14	350	395.5	11	2	+10 -40	1096	1102	10
350	14	350	398.1	9	4	+10 -40	2192	1102	25
400	16	350	460.0	9	2	+10 -40	1345	1464	10
400	16	350	462.8	9	4	+10 -40	2689	1464	25
500	20	350	561.6	9	2	+10 -40	1661	2235	10
500	20	350	564.0	9	4	+10 -40	3322	2235	25
600	24	350	663.2	9	2	+10 -40	1978	3167	10
600	24	350	666.0	9	4	+10 -40	3956	3167	25