

# SINGLE SPHERE RUBBER FLEXIBLE JOINT

PN16 F83SJ16  
PN25 F83SJ25



## GENERAL

- Absorbs and reduces vibration and shock in the system
- Absorbs the stress generated by the expansion and compression of the pipe line
- Provides flexibility to the system as allowance connection and installation error
- Excellent resistance against pressure
- Control rods available upon request

## FEATURES

- Molded and vulcanised in hydraulic presses
- Solid carbon steel internal reinforcing ring
- With BS 4504 PN16 / BS 4504 PN25 / EN 1092-2 PN16 / EN 1092-2 PN25 / ANSI Class 150 floating flanges (Specify on order)

## APPLICATIONS

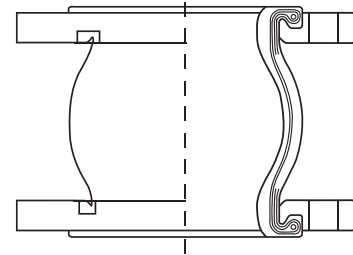
- Building Services, Air-Conditioning, Fire-Protection, Cold Water Plumbing, Sewerage & Water Treatment, Marine Services, General Industries
- Suitable for suction and discharge within specify working pressure



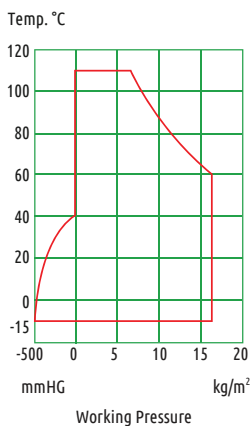
## MATERIAL SPECIFICATIONS

Part	Material
Flanges	Ductile Iron (DN25 ... DN300)
	Carbon Steel (DN350 ... DN600)
	Stainless Steel 304
	Stainless Steel 316
Reinforcing Ring	Carbon Steel
Inner Rubber	EPDM
Outer Rubber	EPDM
Reinforcing Cord	Nylon
Control Rod	Mild Steel

Notes: Carbon steel flanges only available for PN25 (DN25 ... DN300)



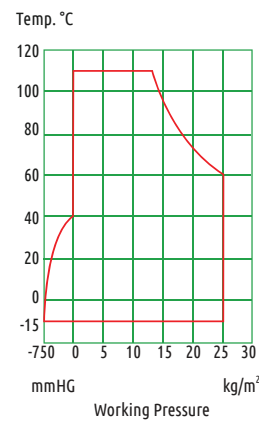
## OPERATING PRESSURE & TEMPERATURE



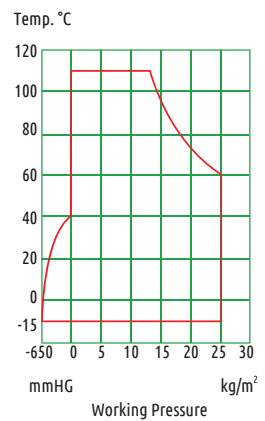
F83SJ16  
DN25 ... DN300  
Burst Pressure 48bar



F83SJ16  
DN350 ... DN600  
Burst Pressure 48bar



F83SJ25  
DN25 ... DN200  
Burst Pressure 60bar



F83SJ25  
DN250 ... DN300  
Burst Pressure 60bar

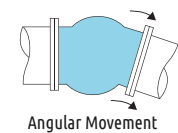
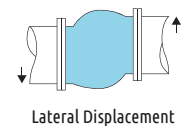
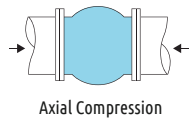
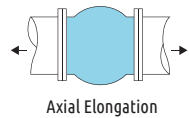
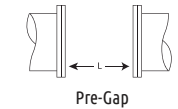
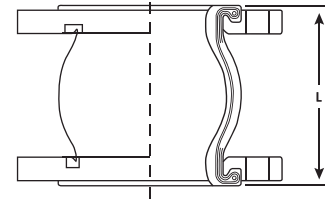
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PN25 F83SJ25



## DIMENSIONS AND MOVEMENTS

Diameter		Dimension	Pre-Gap	Allowable Movements(mm)			
mm	inch	L(mm)	L(mm)	Axial Elongation (mm)	Axial Compression (mm)	Lateral Displacement (mm)	Angle of Deflection (°)
25	1	130	125-135	9	12	12	12
32	1¼	150	145-155	9	15	15	15
40	1½	150	145-155	9	15	15	15
50	2	150	145-155	9	15	15	15
65	2½	150	145-155	9	15	15	15
80	3	150	145-155	9	15	15	15
100	4	150	145-155	9	16	15	15
125	5	150	145-155	9	16	15	15
150	6	150	145-155	9	16	15	10
200	8	150	145-155	9	16	15	10
250	10	200	195-205	15	20	20	10
300	12	200	195-205	15	20	20	10
350	14	200	195-205	15	20	20	10
400	16	200	195-205	15	20	20	10
450	18	200	195-205	15	20	20	10
500	20	200	195-205	15	20	20	10
600	24	265	260-270	16	28	28	10



## USE OF CONTROL UNITS WITH RUBBER FLEXIBLE JOINTS

A control unit assembly is an accessory of two or more control rod units (limit rods, tie rods or compression sleeves) placed between the flanges across a flexible joint to minimize possible destruction caused by excessive motion of a pipeline. When used in this manner, control units are an additional safety factor which can minimize possible damage to the adjacent equipment.

A control unit is strongly recommended to use when:

- In case that proper anchoring cannot be provided
- In case that it is hard to withstand the line thrusts generated by internal pressure or wide temperature fluctuations
- In case that the anticipated elongation, compression and lateral movement are more than the design, pre-gap and/or installation tolerance
- In case that the anticipated angle of deflection is more than the design and/or installation tolerance.

## RECOMMENDED QUANTITY FOR CONTROL RODS

DN (mm)	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
DN (inch)	1	1¼	1½	2	2½	3	4	5	6	8	10	12	14	16	18	20	24
Quantity - PN16	N/A	2	2	2	2	2	2	2	2	2	3	3	4	4	4	4	4
Quantity - PN25	N/A	2	2	2	2	2	2	2	2	3	4	4	-	-	-	-	-

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