



AFA[®]

9 SERIES PRODUCTS PROTECT YOUR
PIPING AND EQUIPMENT FOR
LONGER LIFE AND BETTER ENVIRONMENT



JIWA PHILIPPINES INCORPORATED
A New Era In Total Solution

STYLE 99 RUBBER EXPANSION JOINT

Features & Characteristics



AFA Style 99 rubber expansion joint are specially designed in a spherical shape and the rubber ball is reinforced with steel wire and nylon and then finally vulcanised under high pressure. The joint is supplied with floating metallic flanges or FMCB unions. Because of its spherical ball shape, it poses high resistance to explosion and its elastic structure enable pipeline system to have the following characteristics.



SUPERIOR ABSORPTION OF VIBRATION - NOISE -SHOCK

AFA Style 99 rubber expansion joints are engineered to reduce vibration, noise and movement inherent in piping systems. Installation of the style 99 joints will enable the isolated equipment to move freely, eliminating vibration and repelling sound which is prevalent in metallic type joint. Water hammer, pumping impulse and waterborn noise are cushioned and absorbed by the AFA style 99 rubber expansion joints.

COMPENSATE GREATER ELONGATION, COMPRESSION, LATERAL AND ANGULAR MOVEMENT

Equipment such as pump, chillers, cooling tower, compressors and piping systems move out of alignment due to wear, load stress and during the setting of foundation blocks. AFA style 99 rubber expansion joints compensate for lateral, torsional and angular movement to prevent damage which eliminate costly downtime in plant operation.

OUTSTANDING PRESSURE RESISTANCE

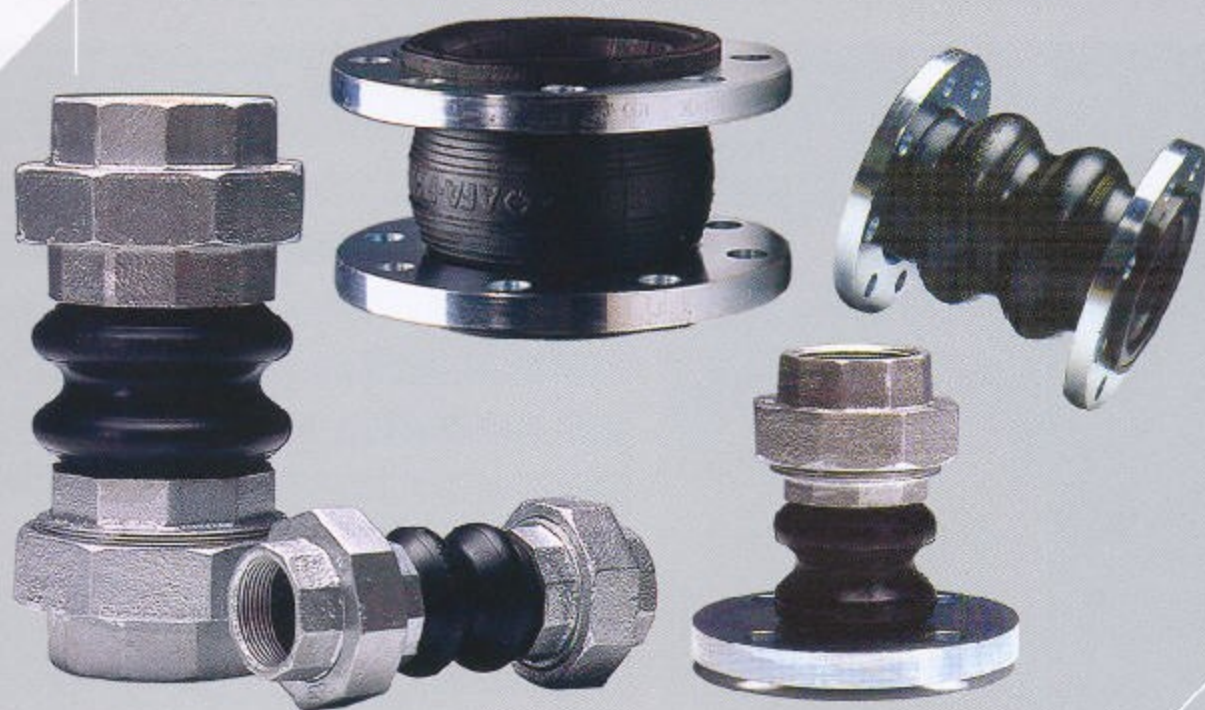
It excels in pressure resistance by the combination of spherical structure with super stability against internal pressure and strong special reinforcing nylon. AFA style 99 rubber expansion joints display an outstanding pressure resistance of bursting pressure.

WIDER CHOICE OF POLYMERS

AFA Style 99 rubber expansion joints can be manufactured and supplied in the following polymers to cover different fluid application.

*Neoprene *EPDM *Natural Rubber *Nitrile *Etc

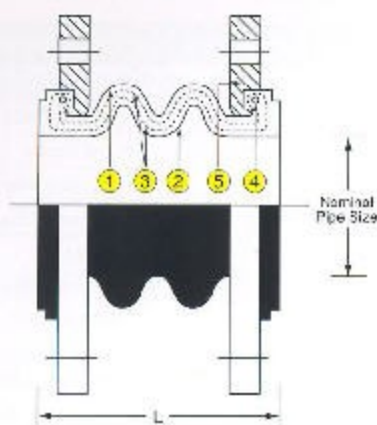




Rubber Expansion Joint

AFA[®] STYLE 99 TF

TWIN SPHERE FLANGE



S/Nº	PART NAME	MATERIAL
1	Body (Outer Layer)	Special Synthetic Rubber
2	Body (Inner Layer)	Special Synthetic Rubber
3	Reinforcing Fabric	Nylon Fabric
4	Wire	Hard Steel Wire
5	Flange	Mild Steel (Galv'd)

Operating Pressure	: 16 Bar
Operating Temperature	: -10 to 80 Deg C
Vacuum Rating	: 650 MM/HG
*Applicable Fluids	: Water, Warm Water, Sea Water, Air & Weak Acid
Flanges Standard	: DIN, ANSI, JIS & BS

NOMINAL PIPE SIZE		NEUTRAL LENGTH L	AXIAL COMPRESSION	AXIAL ELONGATION	LATERAL DEFLECTION	ANGULAR DEFLECTION
MM	INS	MM	MM	MM	+ OR - MM	+ OR - DEG
20	3/4	120	15	10	15	20
25	1	120	15	10	15	20
32	1 1/4	175	25	15	20	30
40	1 1/2	175	25	15	20	30
50	2	175	25	15	20	30
65	2 1/2	175	25	15	20	30
80	3	175	25	15	20	30
100	4	225	30	20	25	30
125	5	225	30	20	25	30
150	6	225	30	20	25	30
200	8	325	40	25	30	30
250	10	325	40	25	30	30
300	12	325	40	25	30	30

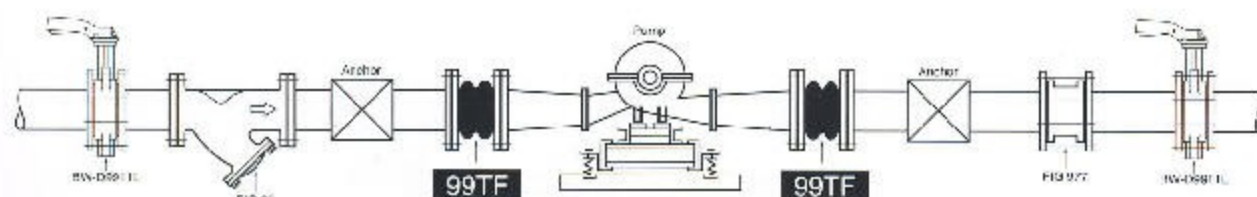
OPERATING TEMPERATURE AGAINST OPERATING PRESSURE

OPERATING TEMPERATURE °C	AMBIENT	50	60	70	80
MAXIMUM OPERATING PRESSURE (BAR)	16	12.4	10	7.5	6.5



NOTES

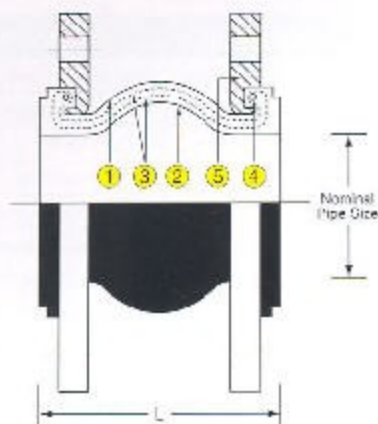
- Higher temperatures affect movement and pressure. As temperature increases, rated values must be reduced accordingly.
- Pressures shown are recommended "operating", test pressure is 1.5 times "operating".
- Vacuum rating is based on neutral installed length without external load. Products shall not be installed "elongated" on vacuum applications.
- Expansion joints may operate in pipelines or equipments carrying fluids at evaluated temperatures and pressures. Normal precautions shall be taken to make sure these parts are installed correctly and inspected regularly. Precautions shall be taken to protect personnel in the event of leakage or splash.
- * For other kinds of applicable fluids, except the above, to which the rubber joint becomes applicable, please kindly consult your supplier or manufacturer.





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STYLE 99 SF SINGLE SPHERE FLANGE



S/NO	PART NAME	MATERIAL
1	Body (Outer Layer)	Special Synthetic Rubber
2	Body (Inner Layer)	Special Synthetic Rubber
3	Reinforcing Fabric	Nylon Fabric
4	Wire	Hard Steel Wire
5	Flange	Mild Steel (Galv'd)

Operating Pressure	: 16 Bar
Operating Temperature	: -10 to 80 Deg C
Vacuum Rating	: 700 MM/HG
*Applicable Fluids	: Water, Warm Water, Sea Water, Air & Weak Acid
Flanges Standard	: DIN, ANSI, JIS & BS

NOMINAL PIPE SIZE		NEUTRAL LENGTH L	AXIAL COMPRESSION	AXIAL ELONGATION	LATERAL DEFLECTION	ANGULAR DEFLECTION
MM	INS	MM	MM	MM	+ OR - MM	+ OR - DEG
20	3/4	93	0	4	0	15
25	1	93	8	4	8	15
32	1 1/4	93	8	4	8	15
40	1 1/2	93	8	4	8	15
50	2	99	8	4	8	15
65	2 1/2	108	12	6	10	15
80	3	116	12	6	10	15
100	4	129	12	10	12	15
125	5	142	16	10	12	15
150	6	156	16	10	12	15
200	8	177	20	14	18	15
250	10	208	20	14	18	15
300	12	217	20	14	18	15

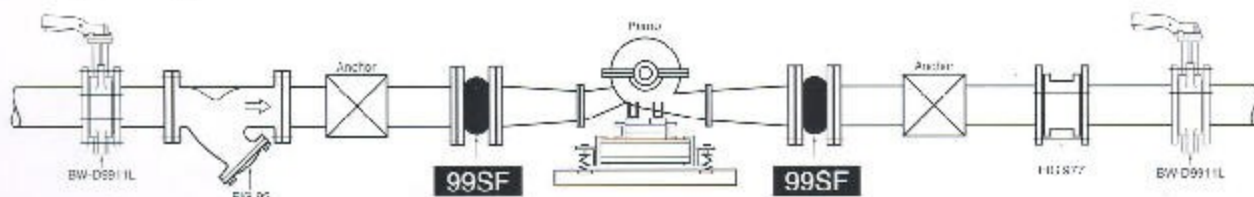
OPERATING TEMPERATURE AGAINST OPERATING PRESSURE

OPERATING TEMPERATURE °C	AMBIENT	50	60	70	80
MAXIMUM OPERATING PRESSURE (BAR)	16	12.4	10	7.5	6.5

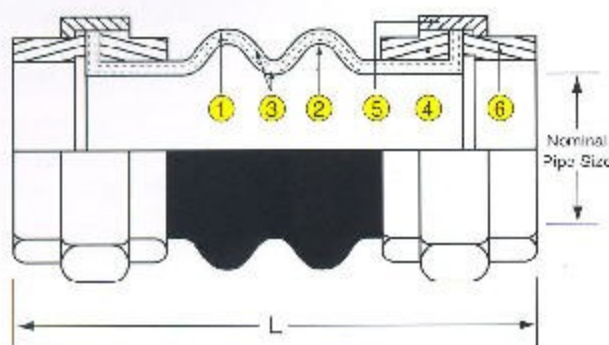


NOTES

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**AFA®****STYLE 99 TU****TWIN SPHERE UNION – SCREW END**

S/NO	PART NAME	MATERIAL
1	Body (Outer Layer)	Special Synthetic Rubber
2	Body (Inner Layer)	Special Synthetic Rubber
3	Reinforcing Fabric	Nylon Fabric
4	Union Flange	Malleable Iron (Galv'd)
5	Union Nut	Malleable Iron (Galv'd)
6	Union Screw	Malleable Iron (Galv'd)

Operating Pressure	: 16 Bar
Operating Temperature	: -10 to 80 Deg C
Vacuum Rating	: 500 MM/HG
*Applicable Fluids	: Water, Warm Water, Sea Water, Air & Weak Acid
Union	: BSP & NPT Threaded

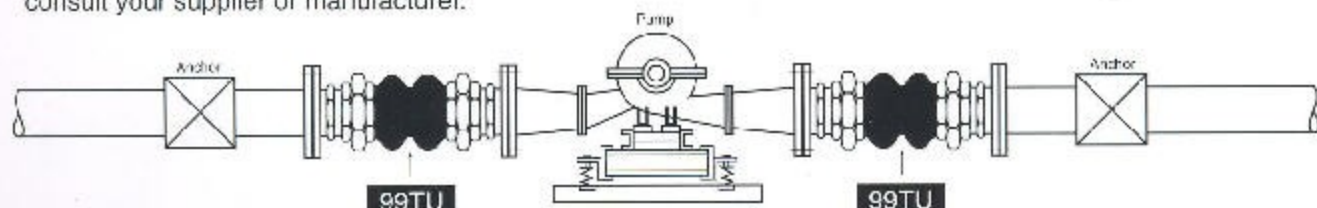
NOMINAL PIPE SIZE		NEUTRAL LENGTH L	AXIAL COMPRESSION	AXIAL ELONGATION	LATERAL DEFLECTION	ANGULAR DEFLECTION
MM	INS	MM	MM	MM	+ OR - MM	+ OR - DEG
15	1/2	105	22	6	22	30
20	3/4	105	22	6	22	30
25	1	175	22	6	22	30
32	1 1/4	186	22	6	22	30
40	1 1/2	186	22	6	22	30
50	2	200	22	6	22	20
65	2 1/2	218	22	6	22	15
80	3	260	22	6	22	15

OPERATING TEMPERATURE AGAINST OPERATING PRESSURE

OPERATING TEMPERATURE °C	AMBIENT	50	60	70	80
MAXIMUM OPERATING PRESSURE(BAR)	16	9.6	7.5	6.2	5.0

**NOTES**

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