QFSC Single Sphere Joints
Rubber Flexible Joints

Pipe Size	50 PSI	100 PSI	150 PSI	200 PSI	225 PSI	300 PSI
1					X	X
1 1/4					X	X
1 1/2					X	X
2					X	X
2 1/2					X	X
3					X	X
4					X	X
5					X	X
6				X	X	X
8				X	X	X
10				X	X	X
12			X	X	X	X
14			X	X	X	X
16		X	X	X	X	X
18		X	X	X	X	X
20		X	X	X	X	X
22		X	X	X	X	X
24		X	X	X	X	X

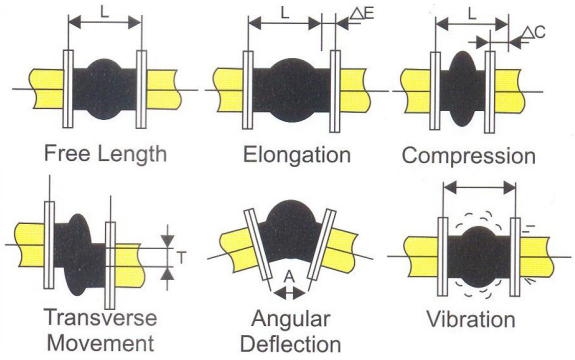
* Note : X use control tie rods.

DIMENSION AND ALLOWABLE TOLERANCE / MOVEMENT

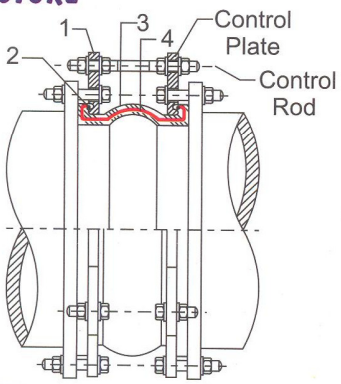
Nominal Bore (Inner Dia.) Size	Length of Bellows (mm)		Transverse Movement +/- (mm)	Axial Elongation (mm)	Axial Compression (mm)	Angular Deflection
	Face to Face Distance (mm)	Total Acceptable Tolerance +/- (mm)				
1 1/4" 32mm	95	3	5	5	10	15°
1 1/2" 40mm	95	3	5	5	10	15°
2" 50mm	115	3	10	10	10	15°
2 1/2" 65mm	125	3	10	10	10	15°
3" 80mm	150	3	10	10	15	15°
4" 100mm	150	3	10	10	15	15°
5" 125mm	150	3	10	10	15	15°
6" 150mm	150	3	10	10	20	15°
8" 200mm	150	3	10	10	20	15°
10" 250mm	200	3	20	15	20	15°
12" 300mm	205	3	20	15	20	15°
14" 350mm	205	3	20	15	20	15°
16" 400mm	210	3	20	15	25	15°
18" 450mm	210	3	20	15	25	15°
20" 500mm	205	3	20	15	25	15°
24" 600mm	255	3	25	20	25	15°

* Although the dimensional allowance for installation is as given in the table above, when installing this connector for suction purposes do not allow for its elongation.

ACCEPTANCE OF MOTION



STRUCTURE



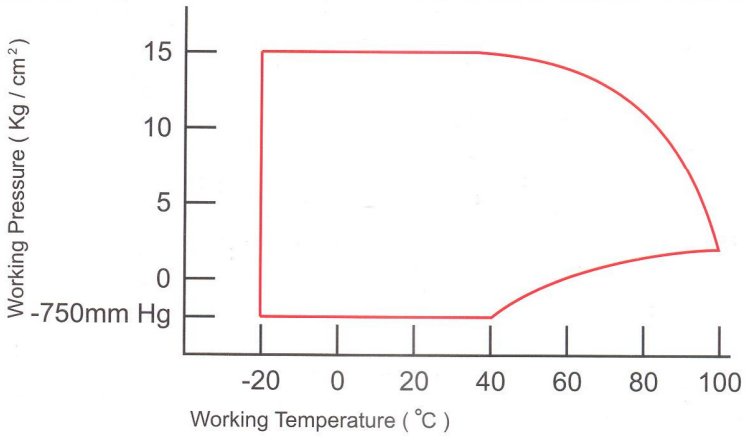
Item	Part	Material
1	Flange	* Mild Steel
2	Wire	Hard Steel Wire
3	Body	** Heat Resisting Rubber
4	Body	Nylon

* Flange material can be changed to Ductile Iron (BS 2789) Grade 500-7 Epoxy Coating.
** Standard rubber material uses Neoprene, may be replaced by other special synthetic rubber.

OPERATING CONDITIONS

(based on Neoprene Rubber Material)

	32mm - 300mm	350mm - 600mm
Operating Pressure	16kg / cm² (228psi)	8kg / cm² (114 psi)
Burst Pressure	Over 50kg / cm² (711 psi)	Over 30kg / cm² (427 psi)
Negative Pressure	750mm Hg	
Working Temperature	-20 °C to 100 °C (-4 °F to 212 °F)	
Working Fluids	Water, Hot Water, Sea Water, Compressed Air, Steam, Solvent, Acid, Weak Alkalies.	



Rubber Flexible Joints

DESCRIPTION (FEATURES)

It can be used for both suction and delivery (discharge) due to its excellent stability and pressure withstandability.

Its bursting pressure is anytime above 550psi and can be comfortably used within a normal internal pressure of 225psi.

The unique spherical shape of the connectors (QFSC, QFTC & QFTU) with its excellent indigenious structural design combined with its internally laid tough flexible fibers and lastly its moulding technique has much contributed to its success in the ability to withstand the force of creating a vacuum on both the delivery and the suction mode of applications.

Since its carcass is of spherical design, the rubber joint will not come into contact with the connecting bolts head even if it expands, thus ensuring security and reliability in use when subjected to extremely high pressure.

ITS CAPABILITIES

1. The excellent weatherability of connectors (QFSC, QFTC & QFTU) is already proven with its special composition of synthetic rubber and that can even resist heat deterioration due to hot fluid such as oil, acid, hot water and also gasoline etc.
2. Since its carcass is soft and flexible, it can be readily deformed during any pipe connections thus enhancing easy installation despite of intolerable misalignment and so on etc.
3. The specially designed Q-FLEX connector (QFSC, QFTC & QFTU) not only can convey fluid at high pressure but also has its advantage of absorbing any sounds transmitted or vibration occurs along its connections in touch with any solid structure.

OTHER ADVANTAGES

1. It needs no packing or gasket.
2. It is assembled with flanges, which enable easy installation of pipings without any difficulties.
3. It is able to absorb any intolerable elongation and contraction movements caused by expansion and contraction of the metal parts due to temperature changes, thus ensuring no breakdown in the equipment.
4. It is also able to absorb any pulsation of water from pumps and also prevent water hammering to certain extent.

EXAMPLE OF APPLICATIONS

1. Air-condition and sanitary system i.e. pumps, air compressors, etc.
2. Industrial plant equipment i.e. pumps, compressors, root air blowers, refrigeration plant, cement conveyance connector, etc.
3. Marine use: Feed water, drainage equipment, cooling generator line systems, etc.
4. Other plant piping system: Power generation plants, chemical plants, ventilating line systems.
5. Special usage: Where other connections resulted from thermal expansion, and where subsidence of ground takes place after connection of the laid piping systems, etc.

OPERATING TEMPERATURE / MATERIALS USED

Material Code	Elastomer (Inner)	Elastomer (Outer)	Maximum Operating Temp °C	Identification Colour Code
B 30	Neoprene	Neoprene	105 °C	Yellow
N 30	Nitrile	Nitrile	105 °C	Red
NR 30	Natural Rubber	Natural Rubber	Below 100 °C	White
EM 30	EPDM	EPDM	110 °C	Green
BR 30	Butyl	Butyl	115 °C	Blue
H 30	Hypalon	Hypalon	110 °C	Black