Q-FLEX™

YOUR BEST CHOICE

QFSC Single Sphere Joints
Rubber Flexible Joints

QF150S/XXX

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

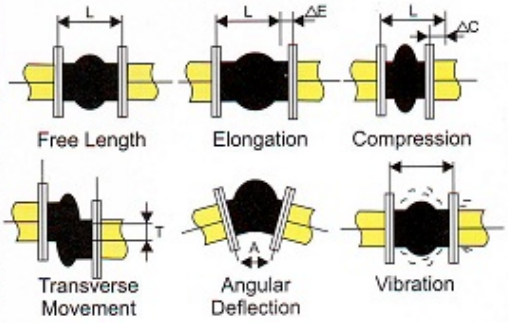
* Note : X use control tie rods.

DIMENSION AND ALLOWABLE TOLERANCE / MOVEMENT

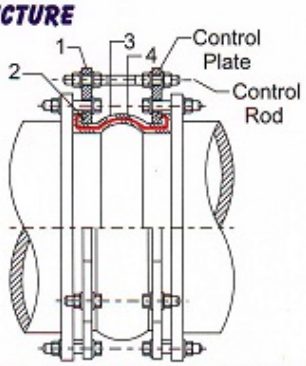
Nominal Bore (Inner Dia.) Size	Length of Bellows (mm) Face to Face Distance (mm)	Length of Bellows (mm) Total Acceptable Tolerance +/- (mm)	Transverse Movement +/- (mm)	Axial Elongation (mm)	Axial Compression (mm)	Angular Deflection
1 1/4" 32mm	95	3	5	5	10	15°
1 1/2" 40mm	95	3	5	5	10	15°
2" 50mm	115	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



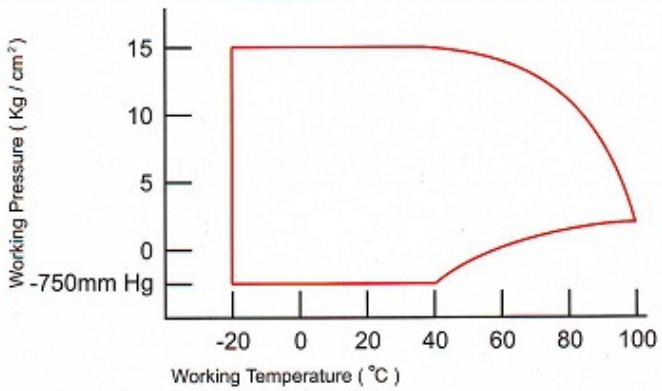
Item	Part	Material
1	Flange	* Mild Steel
2	Wire	Hard Steel Wire
3	Body	** Heat Resisting Rubber
4	Body	Nylon

* 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.	



QFTC Twin Sphere Joints
Rubber Flexible Joints

QFP16D/XXX

Pipe Size	50 PSI	100 PSI	150 PSI	200 PSI	225 PSI	300 PSI
2				X	X	X
2 1/2				X	X	X
3				X	X	X
4				X	X	X
5				X	X	X
6			X	X	X	X
8		X	X	X	X	X
10		X	X	X	X	X
12		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)				
2" 50mm	145	3	15	15	20	25°
2 1/2" 65mm	145	3	15	15	20	25°
3" 80mm	225	3	20	20	25	25°
4" 100mm	225	3	20	20	25	25°
5" 125mm	235	3	25	20	25	25°
6" 150mm	220	3	20	20	25	25°
8" 200mm	220	3	20	20	25	25°
10" 250mm	300	3	30	25	30	25°
12" 300mm	300	3	30	25	30	25°

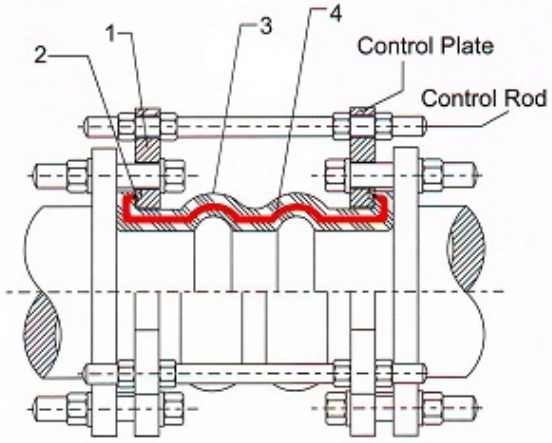
* Although the dimensional allowance for installation is as given in the table above, when installing this connector for suction purposes do not allow for its elongation.

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.

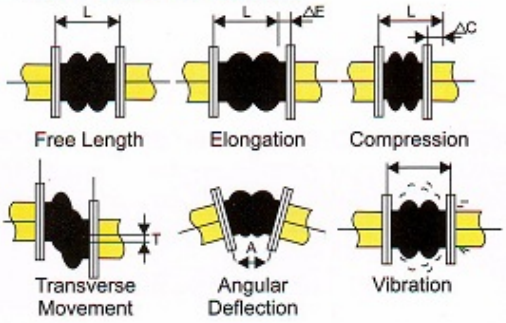
** Standard rubber material uses Neoprene, may be replaced by other special synthetic rubber.

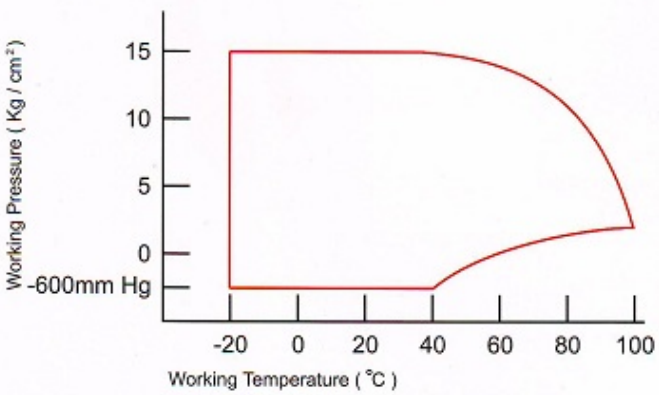


OPERATING CONDITIONS
(based on Neoprene Rubber Material)

	50mm - 300mm
Operating Pressure	16kg / cm² (228psi)
Burst Pressure	Over 50kg / cm² (711 psi)
Negative Pressure	600mm 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.

ACCEPTANCE OF MOTION





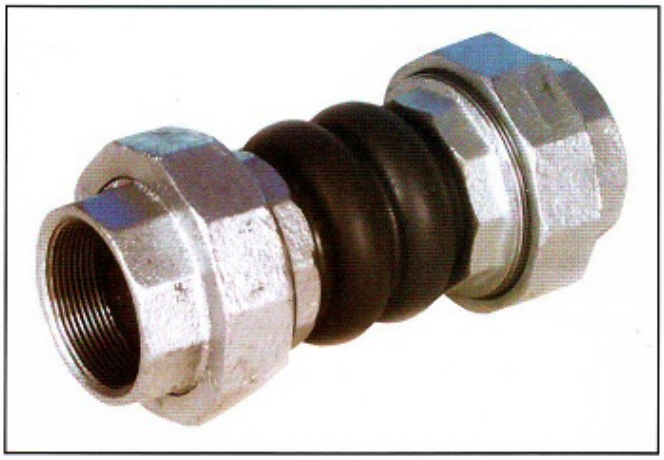
Q-FLEX™

QFTU Union Connector
Rubber Flexible Joints

QFSIS-XXX

DESCRIPTION (FEATURES)

Small diameter piping systems can present real problems when stress alleviation is required. Space is generally critical. Conventional flanged expansion joints cannot be used without relocating piping runs. QFTU type solves this problem because of their screw ends.



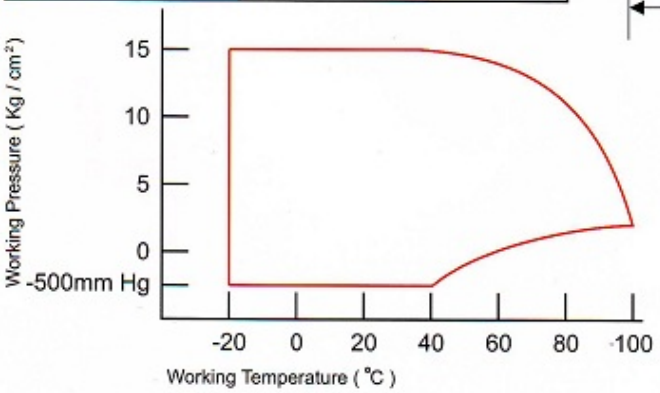
TYPICAL APPLICATIONS

1. Building equipment, piping systems for industrial plants and piping systems for private residence.
2. Prevention of disasters due to earthquakes and subsidence of ground.
3. Waterworks, sewerage and sanitary lines (feed - water and drainage).

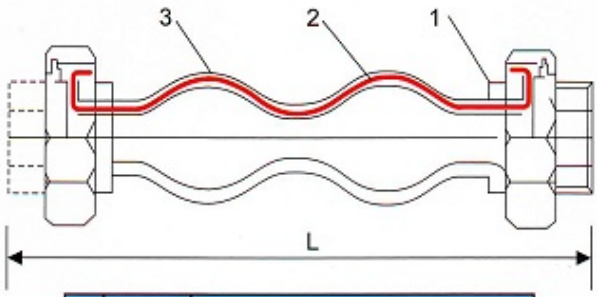
OPERATING CONDITIONS

(based on Neoprene Rubber Material)

Operating Pressure	10kg / cm^2
Burst Pressure	Over 50kg / cm^2 (711psi)
Negative Pressure	500mm 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



STRUCTURE



	Part	Material
1	Union	Ductile Iron or Malleable Iron
2	Body	Nylon Cord
3	Body	* Heat Resisting Rubber

* Standard rubber material uses Neoprene, may be replaced by other special synthetic rubber.

DIMENSION AND ALLOWABLE TOLERANCE / MOVEMENT

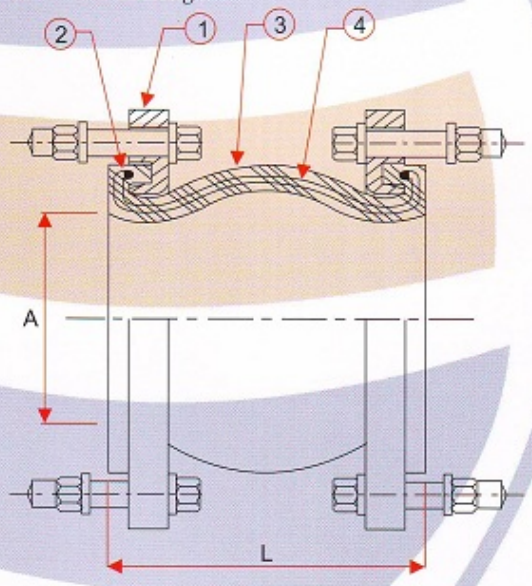
Nominal Bore (Inner Dia.) Size	Installation Length		Transverse Movement (± mm)	Axial Elongation (mm)	Axial Compression (mm)	Angular Deflection
	End to End Distance L (mm)	Total Acceptable Tolerance (-mm)				
20mm (3/4 inch)	190	2	22	6	10	20°
25mm (1 inch)	202	2	22	6	10	20°
32mm (1 1/4 inch)	198	2	22	6	15	20°
40mm (1 1/2 inch)	198	2	22	6	15	20°
50mm (2 inch)	202	2	22	6	15	20°
65mm (2 1/2 inch)	235	2	30	6	15	20°
80mm (3 inch)	245	2	30	6	15	20°

QF 10

DIMENSIONS AND ALLOWABLE MOVEMENTS IN OPERATION

Nominal Bore	Size (mm)		Allowable Movement				Installing Allowance			
	A	L	T. M (mm)	A. E (mm)	A. C (mm)	A. D (°)	T. M (mm)	A. E (mm)	A. C (mm)	A. D (°)
32mm (1 1/4 inches)	32	100	10	10	10	10	4	3	3	5
40mm (1 1/2 inches)	40	105	10	10	10	10	4	3	3	5
50mm (2 inches)	50	105	10	10	10	10	4	3	3	5
65mm (2 1/2 inches)	65	105	10	10	10	10	4	3	3	5
80mm (3 inches)	75	105	10	10	10	10	4	3	3	5
100mm (4 inches)	100	105	10	10	10	10	4	3	3	5
125mm (5 inches)	125	125	10	10	10	10	4	3	3	5
150mm (6 inches)	110	125	10	10	10	10	4	3	3	5
200mm (8 inches)	200	125	10	10	10	10	4	3	3	5
250mm (10 inches)	250	130	10	10	10	10	4	3	3	5
300mm (12 inches)	300	130	10	10	10	10	4	3	3	5

1. T. M = Tranverse Movement A. E = Axial Elongation A. C = Axial Compression A. D = Angular Deflection
2. Although the dimensional allowance for installation is as given in the table above, when installing this connector for suction purpose do not allow for its elongation



STRUCTURE

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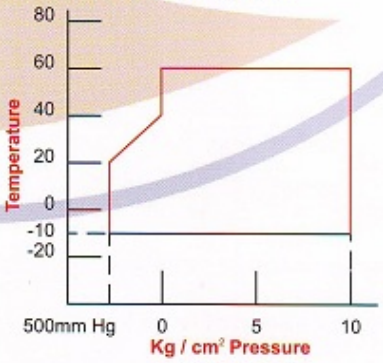
2	Wire	Hard Steel Wire
3	Body	** Heat Resisting Rubber
4	Body	Nylon

* 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



Use QF 10 conditions specified in the above graph.

Working Pressure : Max. 10kgf / cm at normal temperature

Negative Pressure : 500mm Hg at normal temperature

ACCEPTANCE OF MOTION