

EMFLEX

Chlorobutyl Rubber Bellows Flexible Connectors

EMFLEX chlorobutyl (often shortened to butyl) rubber flexible connectors are comprised of a synthetic rubber membrane reinforced with nylon. The collars are wire reinforced and the unit is complete with carbon steel flanges. They are capable of absorbing movement in several directions; axial compression, axial elongation and lateral deflection. A small amount of angular movement may also be allowed. They are normally installed in the pipework to isolate various items of plant which produce noise and vibration. These flexible connectors effectively dampen the transmission of sound and vibration from plant items in building services installations.



Type **BB** Untied

Chlorobutyl rubber membrane reinforced with a nylon textile cord and fitted with untied (circular) zinc plated carbon steel flanges. Suitable for use on hot water and chilled water under 4 bar unless the pipework is secured.

Type **BB** Tied

Chlorobutyl rubber membrane reinforced with a nylon textile cord and fitted with tied (oval) zinc plated carbon steel flanges complete with isolating tie bars. Suitable for use on hot water and chilled water under 10 bar.

Nominal Bore	Installed Overall Length	Untied & Tied Unit	Untied Units Only	Untied & Tied Unit
		Axial Compression	Axial Elongation	Lateral Deflection
mm	mm	mm	mm	mm
25	95	8	4	8
32	95	8	4	8
40	95	8	4	8
50	105	8	4	8
65	115	12	6	10
80	130	12	6	10
100	135	18	10	12
125	170	18	10	12
150	180	18	10	12
200	205	25	14	22
250	240	25	14	22

Working Pressure:

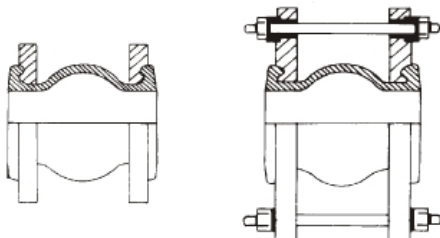
4 bar (400kPa) for untied units, unless pipe is secured.
10 bar (1000kPa) for tied units with top hat washers.
16 bar (1600kPa) PLEASE CONTACT OUR OFFICES.

Test Pressure: 1.5 x Working Pressure

Working Temperature: -10°C to 95°C

Key Features:

- Fully traceable and has the date of manufacture, nominal diameter, manufacturer, and type permanently moulded into the membrane.
- Noise and vibration reduction capabilities.
- All Tied units are fitted with noise absorbing top hat washers.



Design Consideration:

Rubber flexible connectors are subjected to the same internal pressure force as metal expansion joints and that the same force is equal to the internal pressure multiplied by the maximum internal area. This force causes the connector to lengthen and tied units are recommended where the working pressure exceeds 4 bar, unless the pipework is secured to restrict movement.

Tie rods are fitted through oval flanges and to isolate the tie-rods from the special neoprene top hat washers are used to prevent any metal to metal contact whatsoever, effectively preventing noise transmission.

After Installation of TIED UNITS the tie-rod nuts should be checked to have 1mm clearance over the steel washers.

When using with items of plant mounted on vibration isolators, such as springs or inertia bases, then TIED units must be installed.

Distributor:

Mercia Flexibles • www.merciaflexibles.co.uk
Ludlow Eco Park • Ludlow • Shropshire • SY8 1FF • UK
Tel.: +44 (0)1584 874999 • Email: emflex@merciaflexibles.co.uk