

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:

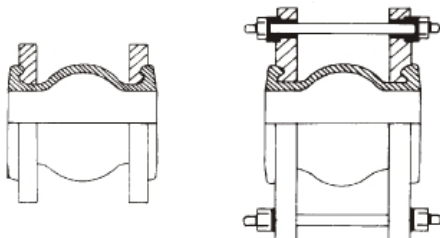
4 bar (400kPa) for untied units, unless pipe is secured.
10 bar (1000kPa) for tied units with top hat washers.
16 bar (1600kPa) PLEASE CONTACT OUR OFFICES.

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

EMFLEX

EPDM Rubber Bellows Flexible Connectors (130 mm Long)

EMFLEX EPDM (Ethylene Propylene Diene Monomer) 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 **EE** Untied

EPDM 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 **EE** Tied

EPDM 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	130	12	9	12
32	130	12	9	12
40	130	12	9	12
50	130	12	9	12
65	130	12	9	12
80	130	12	9	12
100	130	14	9	12
125	130	14	9	12
150	130	14	9	12
200	130	14	9	12
250	130	14	9	12

Working Pressure:

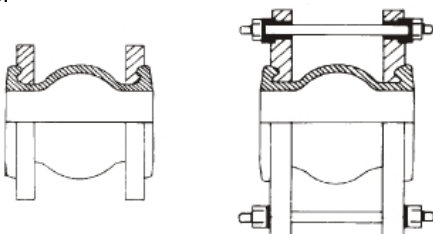
4 bar (400kPa) for untied units, unless pipe is secured.
10 bar (1000kPa) for tied units with top hat washers.
16 bar (1600kPa) PLEASE CONTACT OUR OFFICES.

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.

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NBR Rubber Bellows Flexible Connectors (130 mm Long)

Emflex NBR (Nitrile / Buna-N / Perbunan) lined 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 **N** Untied

NBR rubber membrane liner 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.

Suitable for Oils & Fuel Service.

Type **N** Tied

NBR rubber membrane liner 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.

Suitable for Oils and Fuel Service.

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	130	12	9	12
32	130	12	9	12
40	130	12	9	12
50	130	12	9	12
65	130	12	9	12
80	130	12	9	12
100	130	14	9	12
125	130	14	9	12
150	130	14	9	12
200	130	14	9	12
250	130	14	9	12

Working Pressure:

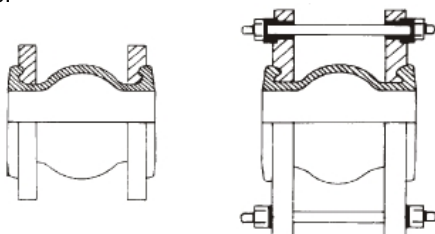
4 bar (400kPa) for untied units, unless pipe is secured.
10 bar (1000kPa) for tied units with top hat washers.
16 bar (1600kPa) PLEASE CONTACT OUR OFFICES.

Test Pressure: 1.5 x Working Pressure

Working Temperature: -10°C to 90°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.

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EPDM Rubber Flexible Connectors **DIN4809**

EMFLEX EPDM (Ethylene Propylene Diene Monomer) rubber flexible connectors are comprised of a synthetic rubber membrane reinforced with a high tensile polymer textile cord. 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 **RR** Untied

EPDM rubber membrane reinforced with a high tensile 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. They are approved to **DIN4809** for use in heating plants and are fully certified to this affect.

Type **RR** Tied

EPDM 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. They are approved to **DIN4809** for use in heating plants and are fully certified to this affect.

<i>Nominal Bore</i>	<i>Installed Overall Length</i>	<i>Untied & Tied Unit Axial Compression</i>	<i>Untied Units Only Axial Elongation</i>	<i>Untied & Tied Unit Lateral Deflection</i>
mm	mm	mm	mm	mm
25	130	30	30	30
32	130	30	30	30
40	130	30	30	30
50	130	30	30	30
65	130	30	30	30
80	130	30	30	30
100	130	30	30	30
125	130	30	30	30
150	130	30	30	30
200	130	30	30	30
250	130	30	30	30

Working Pressure: 10 bar (1000kPa)

Test Pressure: 1.5 x Working Pressure

Working Temperature: -10°C to 110°C



Key Features:

Complies with DIN4809 Parts 1 & 2 and is fully approved and certified to this affect.

Verified burst pressure of 30 bar gauge minimum after 10 years service. An increased safety point.

Fully traceable and has the date of manufacture, DIN approval registration number, pressure and temperature rating, nominal diameter, manufacture, type and identifiable colour coding permanently moulded into the membrane.

Laboratory tested for noise and vibration reduction capabilities. Tied units are fitted with noise absorbing top hat washers.

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EPDM Twin Sphere Rubber Bellows Flexible Connectors

EMFLEX twin sphere rubber flexible connectors are comprised of a twin sphere or double bubble synthetic rubber membrane reinforced with nylon. The collars are wire reinforced and the unit is complete with galvanised or stainless steel female unions. 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 **TS**

EPDM rubber membrane reinforced with a nylon textile cord and fitted with galvanised female unions. Suitable for steel pipework.

Type **TSN**

EPDM rubber membrane reinforced with a nylon textile cord and fitted with stainless steel female unions. Suitable for use on copper pipework.

<i>Nominal Size</i>	<i>Installed Length</i>	<i>Axial Compression</i>	<i>Axial Elongation</i>	<i>Lateral Movement</i>	<i>Angular Movement</i>
mm	mm	mm	mm	+ / - mm	Deg
20	200	22	6	22	40
25	200	22	6	22	40
32	200	22	6	22	40
40	200	22	6	22	40
50	200	22	6	22	40
65	240	22	6	22	40
80	240	22	6	22	40

Working Pressure:

Maximum Working Pressure: 6 bar

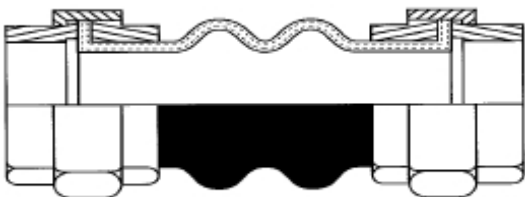
Test Pressure: 1.5 x Working Pressure.

Working Temperature: -10°C to 90°C

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.

Nitrile / NBR option for Oils & Fuels also available.



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