

# Quiet-Sphere Flexible Connectors

Compensates for Axial and Lateral movement due to thermal changes

Isolates noise and vibration from piping system

Floating steel plate flanges drilled to mate with companion flanges for ease of installation

Suitable for pressure and vacuum service

Twin Sphere designs

Operating temperature up to 220°F., and pressure up to 214 PSI

Typical applications:

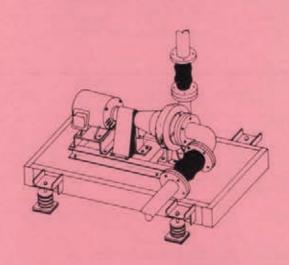
All piping connected to rotating equipment, such as: Centrifugal Pumps•Chillers•Cooling Towers•Condensers

#### To Specify:

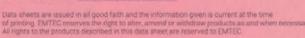
Install Quiet-Sphere Flexible Connectors at the suction and discharge of each pump and inlet and outlet of each chiller and condenser. The connectors shall be moulded in spherical design of multiple layers of neoprene and synthetic fibre with integral corrosion resistant plate steel floating flanges. The connectors shall be suitable for pressures up to 214 PSI and temperatures up to 220°F. Where piping is not anchored, control rods must be installed at each connector to limit movement within their specified limits. Flexible connectors shall be Quiet-Sphere Type VMT or VMU as manufactured by VMC and as supplied by EMTEC Products Limited.







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## **TYPE VMT**

## Twin Sphere with Floating Flanges



#### **Dimensions**

| Item No. | See I.D | L   |
|----------|---------|-----|
| VMT-202  | 2"      | 7"  |
| VMT-202H | 21/2"   | 7"  |
| VMT-203  | 3"      | 7"  |
| VMT-204  | 4"      | 9*  |
| VMT-205  | 5*      | 9*  |
| VMT 206  | 6*      | 9*  |
| VMT-208  | 8*      | 13* |
| VMT-210  | 10"     | 13* |
| VMT-212  | 12"     | 13" |

# TYPE VMU

Twin Sphere with Union Threads

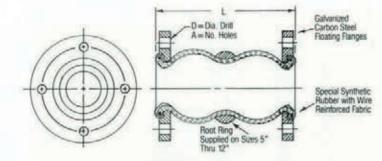


#### **Dimensions**

| Item No. | Size I.D. | 1   |
|----------|-----------|-----|
| VMU-2010 | 14"       | .8* |
| VMU-201  | 15        | 8"  |
| VMU-2010 | 114"      | 8*  |
| VMU-201H | 116"      | 8"  |
| VMU-202  | 2"        | 8"  |

#### Installation Procedures:

- Before installing the connector, examine all surfaces making sure they are clean and free from sharp edges on the flanges. Gaskets are not required.
- Never mate the connector flange to a victaulic type flange. Connector flanges are designed to mate with standard slip on or weld neck flanges.
- Never weld near the rubber connectors or weld the steel flanges to piping after the connectors are installed.
- 4. Connectors should be installed at listed face to face



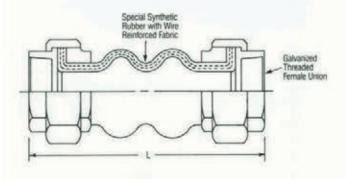
| item No. | Axial<br>Compression | Axial<br>Elongation | Transverse<br>Movement | Angular<br>Deflection |
|----------|----------------------|---------------------|------------------------|-----------------------|
| VMT-202  | In.                  | 34.5                | 1"                     | 30°                   |
| VMT-202H | 14                   | 54"                 | 1"                     | 30°                   |
| VMT-203  | 1"                   | 34"                 | 1"                     | 30°                   |
| VMT-204  | 116"                 | 10                  | 154"                   | 30°                   |
| VMT-205  | 116"                 | 10                  | 194"                   | 30°                   |
| VMT-206  | 114"                 | 1"                  | 11/4"                  | 30°                   |
| VMT-208  | 112"                 | 1"                  | 1%"                    | 30°                   |
| VMT-210  | 11/2"                | 1"                  | 1%"                    | 30°                   |
| VMT-212  | 11/2"                | 40                  | 136"                   | 30°                   |

**Operating Conditions:** 

Operating Pressure ... 214 psig at 170°F Vacuum Rating .... 29" HG Burst Pressure ..... 850 psig Temperature Max .... 14 °F to 220 °F

Temperature-Pressure Ratings:

170°F - 214 PSI / 200°F - 180 PSI / 220°F - 150 PSI



| Item No. | Axial<br>Compression | Axial<br>Elongation | Transverse<br>Movement | Angular<br>Deflection |
|----------|----------------------|---------------------|------------------------|-----------------------|
| VMU-2010 | 7/4"                 | 56"                 | 2/4"                   | 450                   |
| VMU-201  | 3/4"                 | 56**                | 1/4"                   | 450                   |
| VMU-2010 | 1/4"                 | 54**                | 7/6"                   | 45°                   |
| VMU-201H | 1/4"                 | 34"                 | 1/4"                   | 45°                   |
| VMU-202  | 7/4"                 | 16"                 | %"                     | 450                   |

**Operating Conditions:** 

Operating Pressure ... 150 psig at 170°F Vacuum Rating ...... 15" HG Burst Pressure ...... 710 psig Temperature Max .... 14°F to 220°F

dimensions and never compressed, stretched, or torqued beyond specified limits.

- Flange bolts are to be inserted with the heads facing the inside of the rubber connector flange and the nuts on the outside of the mating flange.
- If piping is not anchored or when operating pressures exceed those listed above, control rods must be installed at each connector to limit movements to within their specified limits.

