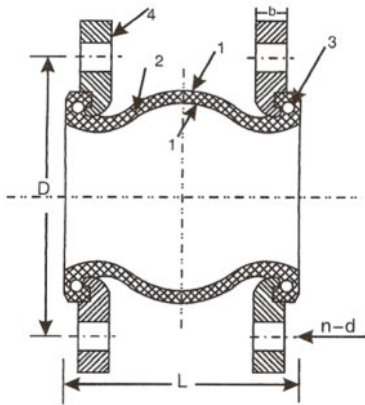


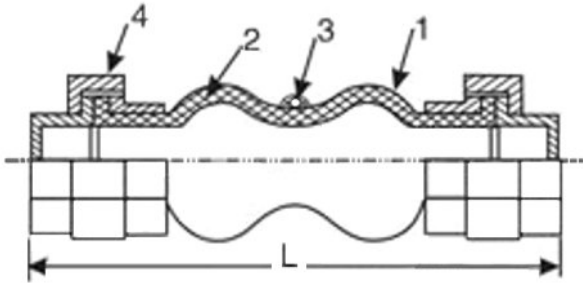
SINGLE SPHERE EXPANSION JOINT - FLANGE TYPE



| TECHNICAL SPECIFICATIONS | |
|--------------------------|--|
| Working Pressure | 1.6Mpa (16kgf/cm ²) |
| Bursting Pressure | 3.0Mpa (30kgf/cm ²) |
| Vacuum Degree | 650mmHg |
| Working Temperature | -15°C to + 115°C -30°C to + 250°C on Request |
| Working Medium | Vapour, compressed air, cold & hot water, seawater, oil, weak acid, alkali |
| Drilling | DIN Pn10, PN16, ANSI 150LBS |

| MATERIALS | | |
|-----------|-------------|----------------------|
| Item No. | Description | Material |
| 1 | Main Body | Neoprene, EPDM, NBR |
| 2 | Lining | Chinlon Cord Fabrics |
| 3 | Frame | Hard Steel Wires |
| 4 | Flange | Carbon Steel |

| DIMENSIONS | | | | | | | | | | | | | | |
|-----------------------|--------|--------|------------------|----------|----------------------|----------|------------------------|----------|----------------------|----------|--------------------|------------------|----------------------|---------------------|
| Nominal Core Diameter | | Length | Flange Thickness | | Number of Bolt Holes | | Diameter of Bolt Holes | | Bolt Circle Diameter | | Axial Displacement | | Lateral Displacement | Angle of Deflection |
| mm | Inch | L | b | | n | | d | | D | | | | | |
| | | mm | mm | | mm | | mm | | mm | | mm | | mm | a1+a2 |
| | | | ANSI 150LBS | DIN PN16 | ANSI 150LBS | DIN PN16 | ANSI 150LBS | DIN PN16 | ANSI 150LBS | DIN PN16 | Stretch | Comp- ression | | °C |
| 32 | 1.1/4" | 95 | 16 | 16 | 4 | 4 | 15.7 | 18 | 88.9 | 100 | 6 | 9 | 9 | 15 |
| 40 | 1.1/2" | 95 | 16 | 16 | 4 | 4 | 15.7 | 18 | 98.6 | 110 | 6 | 10 | 9 | 15 |
| 50 | 2" | 105 | 18 | 18 | 4 | 4 | 19.1 | 18 | 120.7 | 125 | 7 | 10 | 10 | 15 |
| 65 | 2.1/2" | 115 | 18 | 18 | 4 | 4 | 19.1 | 18 | 139.7 | 145 | 7 | 13 | 11 | 15 |
| 80 | 3" | 135 | 20 | 20 | 4 | 8 | 19.1 | 18 | 152.4 | 160 | 8 | 15 | 12 | 15 |
| 100 | 4" | 150 | 20 | 20 | 8 | 8 | 19.1 | 18 | 190.5 | 180 | 10 | 19 | 13 | 15 |
| 125 | 5" | 165 | 22 | 22 | 8 | 8 | 22.4 | 18 | 215.9 | 210 | 12 | 19 | 13 | 15 |
| 150 | 6" | 180 | 22 | 22 | 8 | 8 | 22.4 | 23 | 241.3 | 240 | 12 | 20 | 14 | 15 |
| 200 | 8" | 210 | 24 | 24 | 8 | 12 | 22.4 | 23 | 298.5 | 295 | 16 | 25 | 22 | 15 |
| 250 | 10" | 230 | 26 | 28 | 12 | 12 | 25.4 | 27 | 362 | 355 | 16 | 25 | 22 | 15 |
| 300 | 12" | 245 | 28 | 28 | 12 | 12 | 25.4 | 27 | 431.8 | 410 | 16 | 25 | 22 | 15 |
| 350 | 14" | 255 | 30 | 30 | 12 | 16 | 28.4 | 27 | 476.3 | 470 | 16 | 25 | 22 | 15 |
| 400 | 16" | 255 | 32 | 32 | 16 | 16 | 28.4 | 30 | 539.8 | 525 | 16 | 25 | 22 | 15 |
| 500 | 20" | 255 | 34 | 36 | 20 | 20 | 31.8 | 33 | 635 | 650 | 16 | 25 | 22 | 15 |
| 600 | 24" | 260 | 36 | 38 | 20 | 20 | 35.1 | 36 | 749.3 | 770 | 16 | 25 | 22 | 15 |



TECHNICAL SPECIFICATIONS

| | |
|---------------------|--|
| Working Pressure | 1.0Mpa (10kgf/cm ²) |
| Bursting Pressure | 3.0Mpa (30kgf/cm ²) |
| Vacuum Degree | 400mmHg |
| Working Temperature | -15°C to + 115°C -30°C to + 250°C on Request |
| Working Medium | Vapour, compressed air, cold & hot water, seawater, oil, weak acid, alkali |
| Threading | DIN 2999, NPT, BSPT |

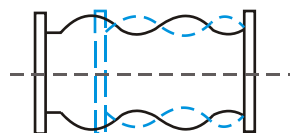
MATERIALS

| Item No. | Description | Material |
|----------|-------------|----------------------|
| 1 | Main Body | Neoprene, EPDM, NBR |
| 2 | Lining | Chinlon Cord Fabrics |
| 3 | Frame | Hard Steel Wires |
| 4 | Union | Malleable Iron |

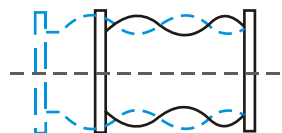
DIMENSIONS

| Nominal Diameter | | Length (L) | Axial Displacement | | Lateral Displacement | Angle of Deflection |
|------------------|--------|------------|--------------------|-------------|----------------------|---------------------|
| mm | Inch | | Stretch | Compression | | |
| 20 | 3/4" | 180 | 5-6 | 22 | 22 | a1 + a2 |
| 25 | 1" | 180 | 5-6 | 22 | 22 | °C |
| 32 | 1.1/4" | 200 | 5-6 | 22 | 22 | 45 |
| 40 | 1.1/2" | 210 | 5-6 | 22 | 22 | 45 |
| 50 | 2" | 220 | 5-6 | 22 | 22 | 45 |
| 65 | 2.1/2" | 245 | 5-6 | 22 | 22 | 45 |

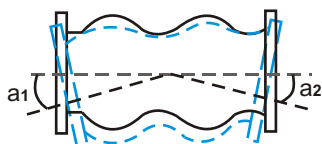
Schematic diagram of displacement and deflection



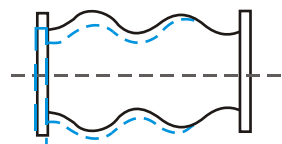
Axial Deflection



Axial Stretch



Angular Deflection



Lateral Displacement