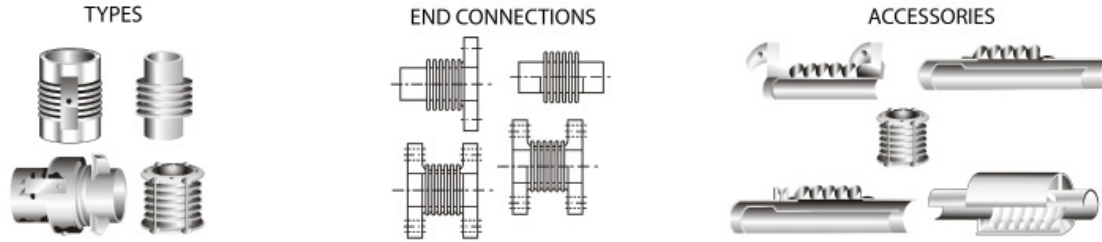


144- / 156-INCH NOMINAL DIAMETER



| D I A M E T E R | P R E S S U R E | OVERALL LENGTH AND WEIGHT | | | | | | NON-CONCURRENT MOVEMENTS | | | SPRING RATES | | | |
|---------------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------|-----|-----------|------------------------------------------------------------------------------------------------------------------|------------------|------|--------------------------|---------------|---------------|--------------|---------------|----------------------------|-------------------|
| | | FLANGED ENDS | | WELD ENDS | | COMBINATION ENDS | | AXIAL | L A T E R A L | A N G U L A R | A X I A L | L A T E R A L | A N G U L A R | T O R S I O N A L |
| | | O.A.L | WT. | O.A.L | WT. | O.A.L | WT. | | | | | | | |
| | | PSIG | IN | LB | IN | LB | IN | LB | IN | IN | DEG | LB/IN | LB/IN | IN-LB/DEG |
| KG/CM ² | MM | KG | MM | KG | MM | KG | MM | MM | GRAD | KG/MM | KG/MM | N-M/GRAD | N-M/GRAD x 10 ⁵ | |
| 144 | 25 | Customer to specify flange configuration. Weights and O.A.L. will be furnished upon receipt of this information. | 16 | 570 | Customer to specify flange configuration. Weights and O.A.L. will be furnished upon receipt of this information. | 2.91 | 0.05 | 2 | 8124 | 4068158 | 378682 | 855.0225 | | |
| | 1.7 | | 406 | 259 | | 73.9 | 1.27 | 3 | 145 | 72802 | 38512.0 | 869.5578 | | |
| Effective Area 16,781 in ² 108,264 cm ² | 25 | | 24 | 710 | | 24 | 5.82 | 0.21 | 5 | 4062 | 509520 | 189341 | 427.5112 | |
| | | | 610 | 323 | | | 610 | 148 | 5.33 | 5 | 73 | 9100 | 19256.0 | 434.7789 |
| 156 | 25 | | 32 | 850 | | 32 | 8.73 | 0.48 | 7 | 2708 | 150673 | 126227 | 285.0075 | |
| | | | | 813 | | | 386 | 813 | 222 | 12.2 | 8 | 48 | 2696 | 12837.3 |
| 156 | 1.7 | | 16 | 638 | | 16 | 3.69 | 0.06 | 3 | 5401 | 3182115 | 296205 | 957.6637 | |
| | | | | 406 | | | 290 | 406 | 93.7 | 1.52 | 3 | 97 | 56946 | 30124.0 |
| Effective Area 19,743 in ² 125,632 cm ² | 25 | 24 | 810 | 24 | 7.38 | 0.25 | 5 | 2701 | 397764 | 148102 | 478.8319 | | | |
| | | | 610 | | 368 | 610 | 187 | 6.35 | 6 | 48 | 7118 | 15062.0 | 486.9720 | |
| 156 | 1.7 | 30 | 939 | 30 | 10.1 | 0.47 | 7 | 1964 | 153009 | 107711 | 348.2414 | | | |
| | | | 762 | | 427 | 762 | 258 | 11.9 | 8 | 35 | 2738 | 10954.2 | 354.1615 | |

GENERAL NOTES

1. Rated life cycle at 650°F is 3000 cycles for any one tabulated movement.
2. To combine axial, lateral and angular movements, please refer to page 43.
3. To increase cycle life or movements, please refer to graph on page 42.
4. Rated bellows extension is equal to rated axial movement. Provided bellows is precompressed the amount of design extension. Installed O.A.L. will decrease by the amount of precompression.
5. Maximum test pressure: 1.5 X rated working pressure.
6. Bellows rated for 650°F: See page 31 for appropriate flange temperature/pressure ratings.
7. Torsional spring rate data provided only for modeling expansion joints on computer stress programs. Please consult factory for allowable torsional loadings.
8. Overall lengths and weights for unrestrained expansion joints only. Consult factory for information regarding tied, hinged, or gimbal expansion joints.
9. Pressure thrust load applied to adjacent pipe anchors/equipment when unrestrained expansion joints are used.

MATERIALS

BELLOWS: A240-T304. Alternate materials available upon request. Refer to page 33.
FLANGES: ASTM A105. Customer to specify actual flanges required.
PIPE: ASTM A285-C. 25 psig Series: 0.375-inch wall.
LINERS: A240-T304.
COVERS: Carbon steel.
TIE RODS, HINGES, GIMBALS: Carbon steel