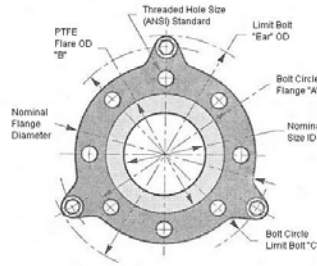
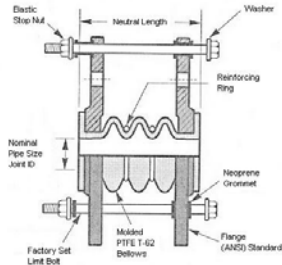


PTFE EXPANSION JOINTS



SIZES ■ MOVEMENTS ■ SPRING RATES ■ TEMPERATURES ■ FLANGE STANDARDS ■ VACUUM ■ WEIGHTS

| Nominal ID | Movement ¹ based on 3 conv design (IN) | | | Spring Rate ² (LBS/IN) | | | | Expansion Joint Flange Drilling | | | | | | | | Pressure At Temperature (PSIG) @ °F | | | | | | | | Vacuum Rating ³ Hg @ Temp. | Weight / LBS | | |
|------------|---|---------|---------|--------------------------------------|-------------|-----------|---------|---------------------------------|---------|--------------------|------------------------|-------------------|------------------|-------------------|---------------------|--|---------------------|---------------|------|---------------|---------------|---------------|---------------|--|--------------|---------------|---------------|
| | Neutral Length (in) | ± Axial | Lateral | Angular Deflection | Compression | Extension | Lateral | Thrust Factor | # Holes | Threaded Hole Size | Bolt Circle Flange 'A' | PTFE Flare OD 'B' | Flange Thickness | Nominal Flange OD | Limit Bolt Diameter | Bolt Circle Limit Bolt 'C' | Limit Bolt 'Ear' OD | 70° | 100° | 150° | 200° | 250° | 300° | | | 350° | 400° |
| | | | | | | | | | | | | | | | | | | 29.9° @ 400°F | CF | 29.9° @ 400°F | 29.9° @ 400°F | 29.9° @ 400°F | 29.9° @ 400°F | | | 29.9° @ 400°F | 29.9° @ 400°F |
| 1.00 | 1.750 | 0.500 | .250 | 14 | 190 | 82 | 96 | 2.81 | 4 | 1/2-13 | 3.125 | 2.000 | .313 | 4.250 | .250 | 5.125 | 6.000 | 138 | 126 | 107 | 90 | 115 | 64 | 53 | 45 | 29.9° @ 400°F | 2 |
| 1.25 | 1.810 | 0.500 | .250 | 14 | 40 | 120 | 314 | 2.25 | 4 | 1/2-13 | 3.500 | 2.520 | .394 | 4.630 | .250 | 5.196 | 6.850 | 128 | 120 | 96 | 85 | 72 | 56 | 42 | 36 | CF | 5 |
| 1.50 | 2.000 | 0.500 | .250 | 14 | 84 | 66 | 108 | 5.09 | 4 | 1/2-13 | 3.875 | 2.875 | .344 | 5.000 | .250 | 5.875 | 6.750 | 138 | 126 | 107 | 90 | 115 | 64 | 53 | 45 | 29.9° @ 400°F | 4 |
| 2.00 | 2.750 | 0.750 | .375 | 14 | 69 | 76 | 109 | 9.11 | 4 | 5/8-11 | 4.750 | 3.625 | .438 | 6.000 | .375 | 6.875 | 8.125 | 138 | 126 | 107 | 90 | 115 | 64 | 53 | 45 | 29.9° @ 400°F | 8 |
| 2.50 | 3.188 | 0.750 | .375 | 14 | 91 | 97 | 160 | 11.41 | 4 | 5/8-11 | 5.500 | 4.125 | .500 | 7.000 | .375 | 8.125 | 9.375 | 138 | 126 | 107 | 90 | 115 | 64 | 53 | 45 | 29.9° @ 400°F | 11 |
| 3.00 | 3.625 | 1.000 | .500 | 14 | 125 | 125 | 194 | 16.91 | 4 | 5/8-11 | 6.000 | 5.000 | .500 | 7.500 | .375 | 8.750 | 10.000 | 138 | 126 | 107 | 90 | 115 | 64 | 53 | 45 | 29.9° @ 400°F | 13 |
| 4.00 | 3.625 | 1.000 | .500 | 14 | 220 | 155 | 264 | 25.40 | 8 | 5/8-11 | 7.500 | 6.188 | .625 | 9.000 | .375 | 9.875 | 11.125 | 138 | 126 | 107 | 90 | 115 | 64 | 53 | 45 | 29.9° @ 400°F | 19 |
| 5.00 | 4.000 | 1.000 | .500 | 14 | 320 | 210 | 324 | 34.45 | 8 | 3/4-10 | 8.500 | 7.313 | .750 | 10.000 | .500 | 11.500 | 13.000 | 138 | 126 | 107 | 90 | 115 | 64 | 53 | 45 | 29.9° @ 300°F | 25 |
| 6.00 | 4.000 | 1.125 | .563 | 14 | 289 | 187 | 266 | 50.24 | 8 | 3/4-10 | 9.500 | 8.500 | .750 | 11.000 | .500 | 12.500 | 14.000 | 138 | 126 | 107 | 90 | 115 | 64 | 53 | 45 | 29.9° @ 300°F | 30 |
| 8.00 | 6.000 | 1.125 | .563 | 14 | 178 | 218 | 423 | 83.49 | 8 | 3/4-10 | 11.750 | 10.625 | .938 | 13.500 | .500 | 14.750 | 16.250 | 120 | 110 | 94 | 80 | 100 | 57 | 47 | 38 | 29.9° @ 125°F | 48 |
| 10.00 | 7.000 | 1.188 | .500 | 14 | 420 | 531 | 857 | 128.55 | 12 | 7/8-9 | 14.250 | 12.750 | 1.000 | 16.000 | .500 | 17.500 | 19.000 | 82 | 70 | 64 | 52 | 46 | 39 | 34 | 30 | 19.0° @ 212°F | 60 |
| 12.00 | 7.875 | 1.188 | .625 | 14 | 743 | 542 | 857 | 144.72 | 12 | 7/8-9 | 17.000 | 15.000 | 1.000 | 19.000 | .625 | 20.500 | 22.000 | 82 | 70 | 64 | 52 | 46 | 40 | 34 | 30 | 10.0° @ 212°F | 77 |
| 14.00 | 8.500 | 1.250 | .688 | 14 | 239 | 628 | 970 | 233.59 | 12 | 1-8 | 18.750 | 16.250 | 1.188 | 21.000 | 1.420 | 24.172 | 27.313 | 82 | 70 | 64 | 52 | 46 | 40 | 34 | 30 | 10.0° @ 212°F | 132 |
| 16.00 | 9.188 | 1.375 | .750 | 14 | 245 | 571 | 970 | 259.68 | 16 | 1-8 | 21.250 | 18.500 | 1.188 | 23.500 | 1.420 | 27.563 | 31.500 | 82 | 70 | 64 | 52 | 46 | 40 | 34 | 20 | 10.0° @ 212°F | 165 |
| 18.00 | 11.063 | 1.188 | .750 | 14 | --- | --- | 1085 | 321.90 | 16 | 1-1/8-8 | 22.750 | 21.000 | 1.188 | 25.000 | 1.420 | 29.000 | 32.906 | 60 | 58 | 48 | 42 | 36 | 30 | 28 | 26 | 9.0° @ 212°F | 201 |
| 20.00 | 12.875 | 1.188 | 1.000 | 14 | --- | --- | 1142 | 374.57 | 20 | 1-1/8-8 | 25.000 | 23.000 | 1.188 | 27.500 | 1.420 | 31.500 | 35.438 | 60 | 58 | 48 | 42 | 36 | 30 | 28 | 26 | 6.0° @ 212°F | 243 |
| 24.00 | 11.875 | 1.000 | .750 | 14 | --- | --- | --- | 538.36 | 20 | 1/1-4/7 | 29.500 | 27.250 | 1.344 | 32.000 | 1.420 | 35.906 | 39.844 | 60 | 58 | 48 | 42 | 36 | 30 | 28 | 26 | 4.0° @ 212°F | 309 |

Notes:

- Movements are non-concurrent and based from Neutral Length with Limit Bolts installed.
- Spring Rate Capability is based on 1" of movement at zero pressure conditions.
- Vacuum Rating is based from fully extended position.
- CF = Consult Factory

MATERIALS OF CONSTRUCTION

| Description | 1" thru 12" | 14" thru 24" |
|-------------------|-----------------|--------------------------|
| Bellows | PTFE T-62 | PTFE T-62 |
| Flanges | Ductile Iron | Zinc Plated Carbon Steel |
| Reinforcing Rings | Stainless Steel | Stainless Steel |
| Limit bolts | Carbon Steel | Carbon Steel |
| Nuts | Carbon Steel | Carbon steel |
| Grommets | Neoprene | Neoprene |
| Washers | Carbon Steel | Carbon Steel |

Toll Free: 877-462-1007

Fax: 847-462-1450

24/7 Emergency Service: 847-337-9459

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765 Industrial Drive

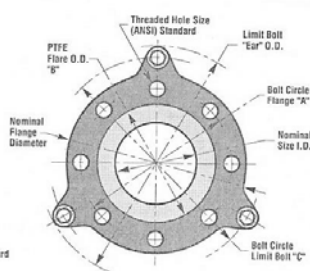
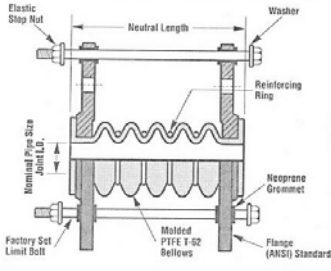
Cary, IL 60013

Em: duraflex@duraflexinc.com

3 CONVOLOUTIONS

MOLDED PTFE

PTFE EXPANSION JOINTS



SIZES ▪ MOVEMENTS ▪ SPRING RATES ▪ TEMPERATURES ▪ FLANGE STANDARDS ▪ VACUUM ▪ WEIGHTS

| Nominal ID | Movement ¹ based on 5 conv design (IN) | | | | Spring Rate ² (LBS/IN) | | | | Expansion Joint Flange Drilling | | | | | | | | Pressure At Temperature (PSIG) @ °F | | | | | | | | Vacuum Rating ³ Hg @ Temp. | Weight /LBS | |
|------------|--|-----------|---------|--------------------|--------------------------------------|-----------|---------|---------------|---------------------------------|--------------------|------------------------|-------------------|------------------|-------------------|---------------------|----------------------------|--|-----|------|------|------|------|------|------|--|-------------|------|
| | Neutral Length (in) | | Lateral | Angular Deflection | Compression | Extension | Lateral | Thrust Factor | # Holes | Threaded Hole Size | Bolt Circle Flange "A" | PTFE Flare OD "B" | Flange Thickness | Nominal Flange OD | Limit Bolt Diameter | Bolt Circle Limit Bolt "C" | Limit Bolt "Ear" OD | 70° | 100° | 150° | 200° | 250° | 300° | 350° | | | 400° |
| | ± Axial | ± Lateral | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.00 | 3.000 | 0.500 | .500 | 20 | 30 | 44 | 22 | 2.81 | 4 | 1/2-13 | 3.125 | 2.000 | .313 | 4.250 | .250 | 5.125 | 6.000 | 72 | 61 | 46 | 40 | 34 | 29 | 27 | 24 | 2 | |
| 1.25 | 2.670 | 0.394 | .470 | 20 | 36 | 114 | 171 | 2.25 | 4 | 1/2-13 | 3.500 | 2.520 | .394 | 4.630 | .250 | 5.196 | 6.850 | 62 | 56 | 42 | 36 | 30 | 26 | 22 | 22 | 5 | |
| 1.50 | 3.500 | 0.750 | .500 | 20 | 75 | 83 | 46 | 5.09 | 4 | 1/2-13 | 3.875 | 2.875 | .344 | 5.000 | .250 | 5.875 | 6.750 | 72 | 61 | 46 | 40 | 34 | 29 | 27 | 24 | 5 | |
| 2.00 | 4.000 | 1.000 | .500 | 20 | 60 | 47 | 50 | 9.11 | 4 | 5/8-11 | 4.750 | 3.625 | .438 | 6.000 | .375 | 6.875 | 8.125 | 72 | 61 | 46 | 40 | 34 | 29 | 27 | 24 | 9 | |
| 2.50 | 4.600 | 0.980 | .510 | 20 | 116 | 319 | 285 | 10.08 | 4 | 5/8-11 | 5.500 | 4.125 | .500 | 7.000 | .375 | 8.125 | 9.375 | 62 | 56 | 42 | 36 | 30 | 26 | 22 | 22 | 11 | |
| 3.00 | 5.000 | 1.000 | .500 | 20 | 55 | 60 | 170 | 16.91 | 4 | 5/8-11 | 6.000 | 5.000 | .500 | 7.500 | .375 | 8.750 | 10.000 | 72 | 61 | 46 | 40 | 34 | 29 | 27 | 24 | 14 | |
| 4.00 | 5.250 | 1.250 | .625 | 20 | 72 | 60 | 80 | 25.40 | 8 | 5/8-11 | 7.500 | 6.188 | .625 | 9.000 | .375 | 9.875 | 11.125 | 72 | 61 | 46 | 40 | 34 | 29 | 27 | 24 | 20 | |
| 5.00 | 6.000 | 1.250 | .625 | 20 | 140 | 388 | 400 | 32.33 | 8 | 3/4-10 | 8.500 | 7.313 | .750 | 10.000 | .500 | 11.500 | 13.000 | 62 | 56 | 42 | 36 | 30 | 26 | 22 | 22 | 26 | |
| 6.00 | 6.000 | 1.250 | .625 | 20 | 190 | 130 | 195 | 50.24 | 8 | 3/4-10 | 9.500 | 8.500 | .750 | 11.000 | .500 | 12.500 | 14.000 | 72 | 61 | 46 | 40 | 34 | 29 | 27 | 24 | 31 | |
| 8.00 | 8.000 | 1.250 | .625 | 20 | 304 | 388 | 457 | 76.07 | 8 | 3/4-10 | 11.750 | 10.625 | .938 | 13.500 | .500 | 14.750 | 16.250 | 48 | 42 | 34 | 30 | 26 | 22 | 22 | 22 | 49 | |
| 10.00 | 8.750 | 1.250 | .625 | 20 | 458 | 388 | 457 | 128.55 | 12 | 7/8-9 | 14.250 | 12.750 | 1.000 | 16.000 | .500 | 17.500 | 19.000 | 48 | 42 | 34 | 30 | 26 | 22 | 22 | 22 | 64 | |
| 12.00 | 9.000 | 1.375 | .688 | 20 | 529 | 445 | 457 | 144.72 | 12 | 7/8-9 | 17.000 | 15.000 | 1.000 | 19.000 | .625 | 20.500 | 22.000 | 48 | 42 | 34 | 30 | 26 | 22 | 22 | 22 | 88 | |
| 14.00 | 12.790 | 1.375 | .688 | 20 | 203 | 371 | 514 | 233.59 | 12 | 1-8 | 18.750 | 16.250 | 1.188 | 21.000 | 1.420 | 24.172 | 27.313 | 48 | 42 | 34 | 30 | 26 | 22 | 22 | 22 | 143 | |
| 16.00 | 13.500 | 1.625 | 1.000 | 20 | 180 | 383 | 514 | 259.68 | 16 | 1-8 | 21.250 | 18.500 | 1.188 | 23.500 | 1.420 | 27.563 | 31.500 | 48 | 42 | 34 | 30 | 26 | 22 | 22 | 22 | 179 | |
| 20.00 | 20.470 | 1.625 | 1.000 | 20 | 185 | 371 | 571 | 374.57 | 20 | 1-1/8-8 | 25.000 | 23.000 | 1.188 | 27.500 | 1.420 | 31.500 | 35.438 | 48 | 42 | 34 | 30 | 26 | 22 | 22 | 22 | 243 | |

Not Designed For Vacuum Service

Notes:

- Movements are non-concurrent and based from Neutral Length with Limit Bolts installed.
- Spring Rate Capability is based on 1" of movement at zero pressure conditions.
- Not Designed for Vacuum Service.

MATERIALS OF CONSTRUCTION

| Description | 1" thru 12" | 14" thru 24" |
|-------------------|-----------------|--------------------------|
| Bellows | PTFE T-62 | PTFE T-62 |
| Flanges | Ductile Iron | Zinc Plated Carbon Steel |
| Reinforcing Rings | Stainless Steel | Stainless Steel |
| Limit bolts | Carbon Steel | Carbon Steel |
| Nuts | Carbon Steel | Carbon steel |
| Grommets | Neoprene | Neoprene |
| Washers | Carbon Steel | Carbon Steel |

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