

BlueLine™



PTFE Expansion Joints

PureFlex®
Inc.

BlueLine™ Flexible Couplings, Expansion Joints and Bellows

Description

BlueLine flexible couplings, expansion joints and bellows are specifically designed to compensate for pipe expansion, vibration and misalignment in process piping and vessels. All **BlueLine** flexible couplings, expansion joints and bellows are constructed from uniform-walled isostatically molded PTFE and demonstrate a high level of design consistency throughout the product line. This consistency—not apparent in competitive products—is a result of an optimally designed convolution and a proprietary manufacturing process.

BlueLine flexible couplings, expansion joints and bellows offer a wide variety of benefits for maintenance and repair personnel including:

- Reliable protection for fragile FRP, carbon or glass equipment and nozzles
- Superior corrosion resistance in acidic and caustic environments
- Heavy walls made from isostatically molded virgin PTFE
- Low spring rates with short face-to-face dimensions.

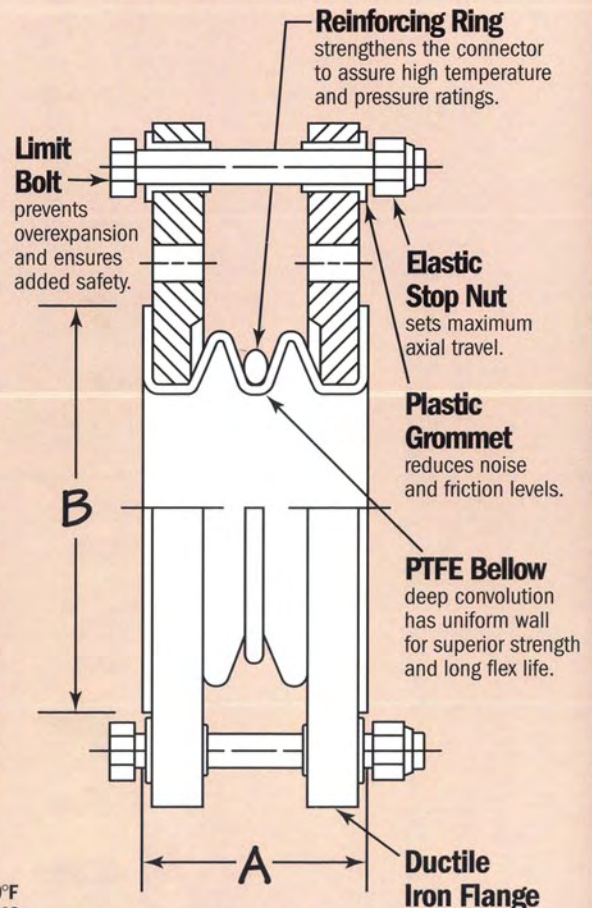


Flexible Couplings

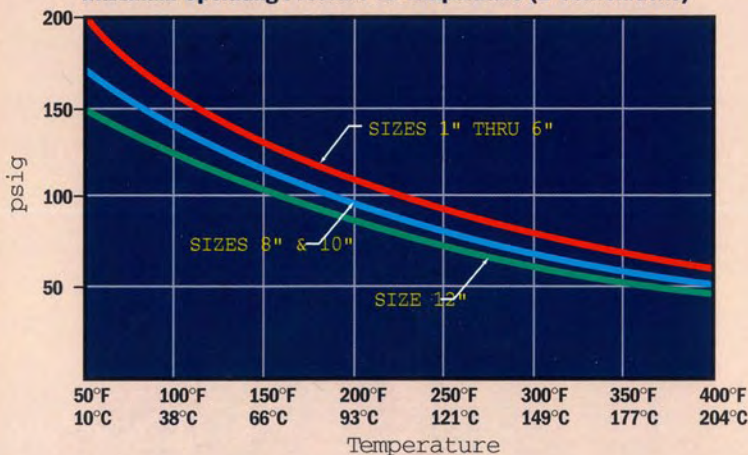
BlueLine flexible couplings are two convolution connectors, available from 1" to 12" in diameter, that compensate for minor movement and are ideal for use in piping systems as vibration and sound insulators.

Flexible Couplings (2 Convolutions)

| Nom. Size | Neutral Length A | Maximum Travel + or - | Flare Diameter B | Maximum Misalignment | Weight Lbs. |
|-----------|------------------|-----------------------|------------------|----------------------|-------------|
| 1" | 1-5/16" | 1/4" | 2" | 1/8" | 2.6 |
| 1-1/2" | 1-1/2" | 1/4" | 2-7/8" | 1/8" | 3.9 |
| 2" | 1-7/8" | 1/4" | 3 5/8" | 1/8" | 7.8 |
| 2-1/2" | 1-15/16" | 5/16" | 4-1/8" | 1/8" | 10.8 |
| 3" | 2-7/16" | 3/8" | 5" | 3/16" | 13.1 |
| 4" | 2-5/8" | 1/2" | 6-3/16" | 1/4" | 18.2 |
| 5" | 3-1/16" | 11/16" | 7-5/16" | 1/4" | 22.4 |
| 6" | 2-13/16" | 1/2" | 8-1/2" | 1/4" | 27.7 |
| 8" | 3-11/16" | 13/16" | 10-5/8" | 1/4" | 41.0 |
| 10" | 4" | 1" | 12-3/4" | 1/4" | 60.1 |
| 12" | 4-1/8" | 1" | 15" | 1/4" | 89.7 |



Maximum Operating Pressure vs. Temperature (2 Convolutions)

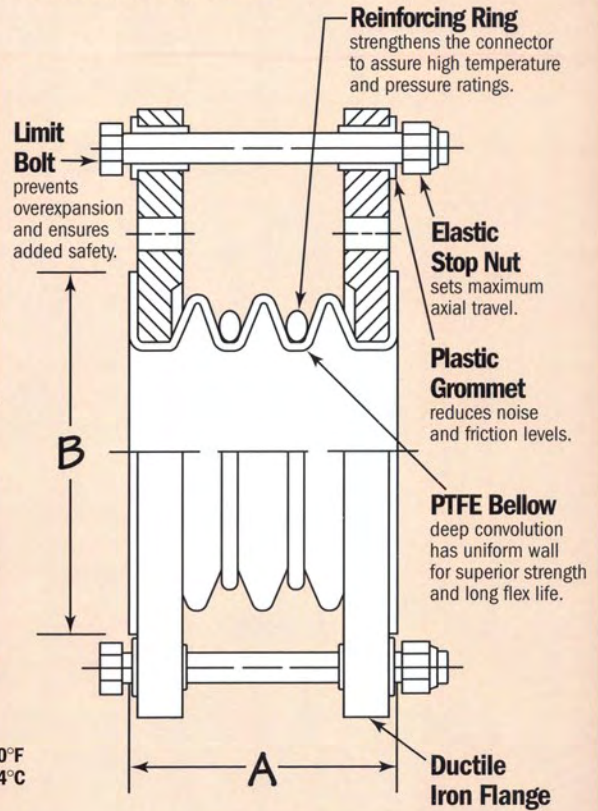
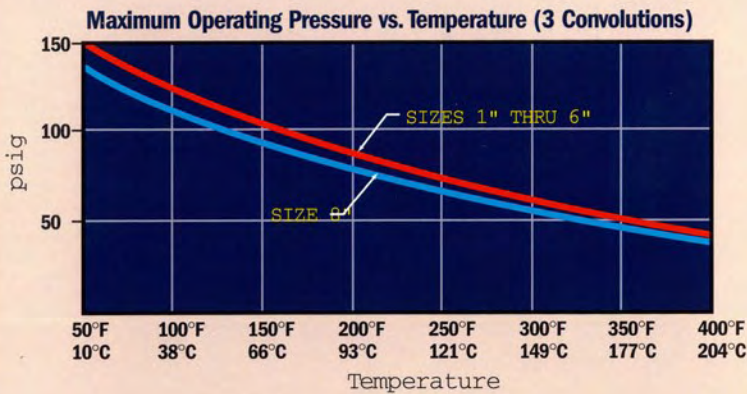


Expansion Joints

BlueLine expansion joints are three convolution connectors, available from 1" to 8" in diameter, that compensate for moderate movement or misalignment, have increased flexibility and can easily be installed in piping systems.

Expansion Joints (3 Convolutions)

| Nom. Size | Neutral Length A | Maximum Travel + or - | Flare Diameter B | Maximum Misalignment | Weight Lbs. |
|-----------|----------------------------|--------------------------|----------------------------|----------------------|-------------|
| 1" | 1-13/16" | 1/2" | 2" | 1/4" | 2.7 |
| 1-1/2" | 2" | 1/2" | 2-7/8" | 1/4" | 4.1 |
| 2" | 2-3/4" | 3/4" | 3-5/8" | 3/8" | 8.1 |
| 2-1/2" | 3" | 1" | 4-1/8" | 3/8" | 11.2 |
| 3" | 3-5/8" | 1" | 5" | 1/2" | 13.6 |
| 4" | 3-3/4" | 1-1/8" | 6-3/16" | 1/2" | 18.9 |
| 5" | 4" | 1-1/8" | 7-5/16" | 1/2" | 23.4 |
| 6" | 4" | 1-1/8" | 8-1/2" | 3/16" | 29.1 |
| 8" | 5-7/16" | 1-11/16" | 10-5/8" | 3/16" | 43.0 |

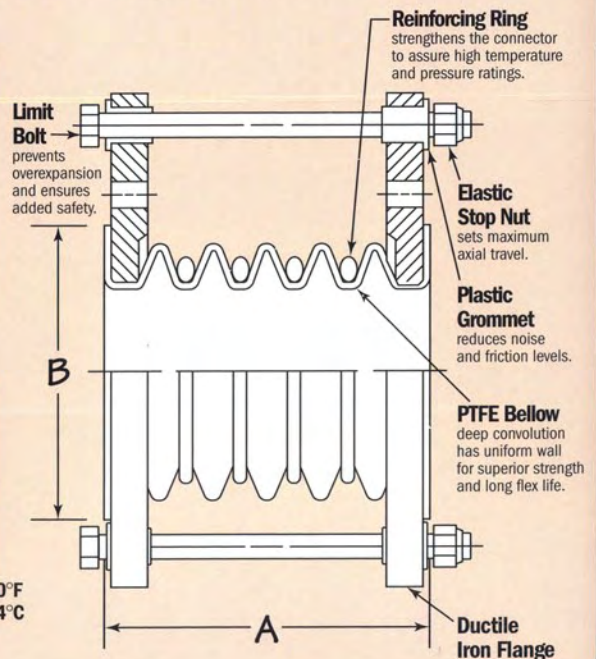
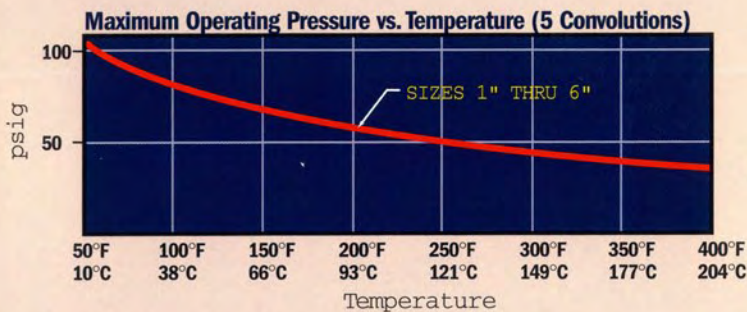


Bellows

BlueLine bellows are five convolution connectors, available from 1" to 6" in diameter, that compensate for extensive movement, misalignment and axial travel, have maximum flexibility and are ideal for use in weigh tank applications.

Bellows (5 Convolutions)

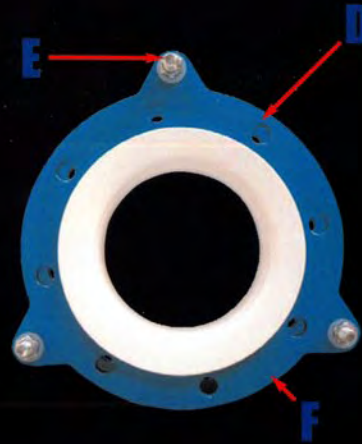
| Nom. Size | Neutral Length A | Maximum Travel + or - | Flare Diameter B | Maximum Misalignment | Weight Lbs. |
|-----------|----------------------------|--------------------------|----------------------------|----------------------|-------------|
| 1" | 2-11/16" | 13/16" | 2" | 1/2" | 2.9 |
| 1-1/2" | 3-3/16" | 1-1/16" | 2-7/8" | 1/2" | 4.3 |
| 2" | 3-15/16" | 1-1/16" | 3-5/8" | 1/2" | 8.7 |
| 3" | 4-15/16" | 1-1/16" | 5" | 1/2" | 14.8 |
| 4" | 5-3/16" | 1-5/16" | 6-3/16" | 5/8" | 20.4 |
| 6" | 5-11/16" | 1-9/16" | 8-1/2" | 5/8" | 31.8 |



BlueLine™ flanges are ductile iron, drilled and tapped per ANSI B16.5 for Class 150 piping systems. Limitbolts are stainless steel mounted through plastic grommets

DUCTILE IRON FLANGE DATA

| Flange size | D Class 150# | | E Limit Bolt | | | F Flange | |
|-------------|-----------------|--------|-----------------|--------|-----------|-------------|--------|
| | Holes | Thread | B.C. | Dia. | B.C. | Dia. | Thk. |
| | 1" | 4 | 1/2-13 | 3-1/8" | 1/4" | 5-1/16" | 4-1/2" |
| 1-1/2" | 4 | 1/2-13 | 3-7/8" | 1/4" | 5-13/16" | 5" | 3/8" |
| 2" | 4 | 5/8-11 | 4-3/4" | 3/8" | 7-1/16" | 6" | 1/2" |
| 2-1/2" | 4 | 5/8-11 | 5-1/2" | 3/8" | 8-1/16" | 7" | 1/2" |
| 3" | 4 | 5/8-11 | 6" | 3/8" | 8-9/16" | 7-1/2" | 3/16" |
| 4" | 8 | 5/8-11 | 7-1/2" | 3/8" | 10-1/16" | 9" | 5/8" |
| 5" | 8 | 3/4-10 | 8-1/2" | 1/2" | 11-5/16" | 10" | 11/16" |
| 6" | 8 | 3/4-10 | 9-1/2" | 1/2" | 12-5/16" | 11" | 11/16" |
| 8" | 8 | 3/4-10 | 11-3/4" | 1/2" | 14-13/16" | 13-1/2" | 3/4" |
| 10" | 12 | 7/8-9 | 14-1/4" | 5/8" | 17-1/2" | 16" | 13/16" |
| 12" | 12 | 7/8-9 | 17" | 5/8" | 20-1/2" | 19" | 7/8" |



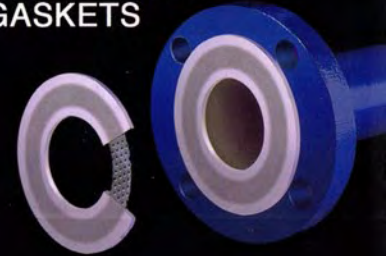
BlueLine™ PTFE flexible products can be used in full vacuum applications to the following Temperatures

| SIZE | Flexible Coupling (2) Convolutions | Expansion Joint (3) Convolutions | Bellows (5) Convolutions |
|--------|---------------------------------------|-------------------------------------|-----------------------------|
| 1" | 450°F | 450°F | 425°F |
| 1-1/2" | 450°F | 450°F | 425°F |
| 2" | 450°F | 450°F | 425°F |
| 2-1/2" | 425°F | 425°F | 400°F |
| 3" | 425°F | 425°F | 350°F |
| 4" | 400°F | 400°F | 300°F |
| 5" | 400°F | 350°F | 250°F |
| 6" | 320°F | 300°F | 200°F |
| 8" | 250°F | 200°F | 150°F |
| 10" | 200°F | 200°F | 100°F |
| 12" | 150°F | 120°F | CF |

BlueLine™ HP - High Purity PFA
(Note: PFA does not have the Flex-life of PTFE)



TASK-LINE® REUSABLE PTFE GASKETS



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PTFE / FEP / PFA HOSE & FITTINGS



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