

## Applications

- Steam Systems (up to 1500 PSIG superheat)
- Dowtherm
- Process Fluids & gases to 3000 PSIG CWP (ie: Acids, Caustics Nitrogen, etc.)
- Manifolds on Steam Traps, Valves, Pumps & Compressors
- Nuclear Power Plants
- Hydraulic Fluids/ Hot Oils

# UNIFLEX Carbon/ Stainless Steel Pipe Couplings

**Pressures To 3000 PSIG  
Temperatures to 850°F**

### Reduced Energy Costs

Spiral wound gasket assures long life and leak tight seal.

### Accepted where Standard Unions are Inadequate

Seal equivalent to flange connections meets fugitive emissions needs.

### Suitable for Most Services

Carbon steel and 316L stainless steel housings and a variety of gasket materials available to meet demands of most applications.

### No Welding Damage to Seal

Because seal is installed after welding, the danger of damaging seal is eliminated.

### Sizes to Meet Most Requirements

Available in 1/2" to 2", socketweld or threaded for a wide variety of piping needs.

### Reduced Labor Costs

No need to replace union housing or spring pipe during make-up or disassembly which reduces time by more than 60%.

### Reduced Cost of Materials

Only a change of gasket is required when disassembled.

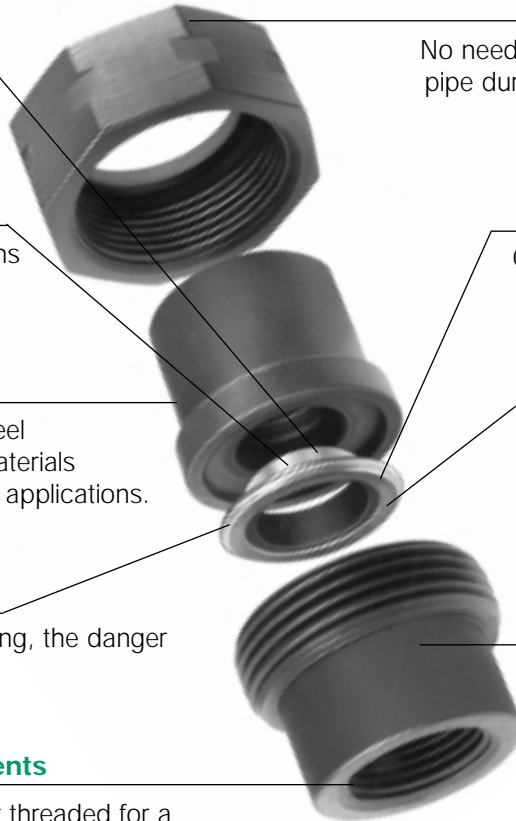
### Reduced Dollars in Inventory

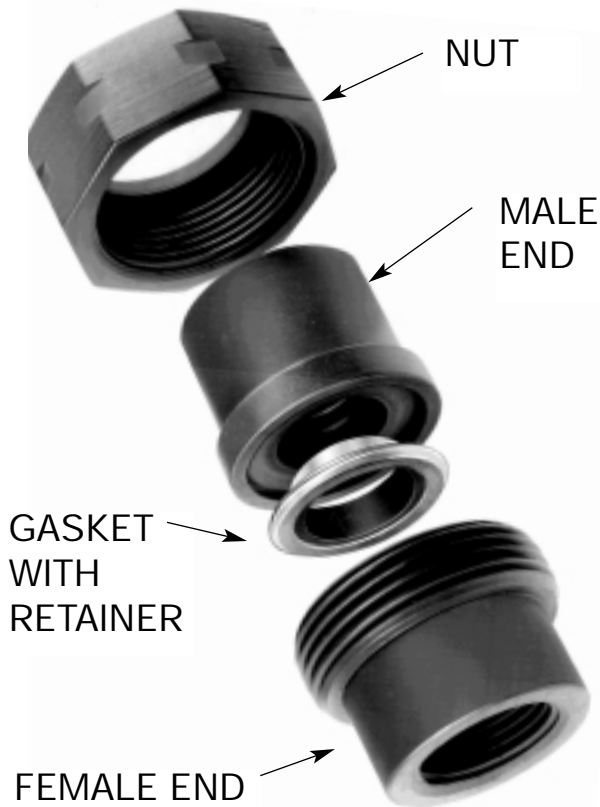
Only a few gasket kits required. Components may be stocked and replaced individually because mated parts are not needed.

### Components Interchangeable

All components within each size class are fully interchangeable. End connections can be socket weld, threaded or a combination of both.

**Meets MSS-SP-83 for 3000 pound unions.**





# UNIFLEX

## STEEL/STAINLESS PIPE COUPLINGS

Pressures To 3000 PSIG (207 barg)

Temperatures to 850°F (454°C)

**No Energy Losses** — from expensive steam and process fluid leaks. A spiral-wound gasket ensures a leak-tight seal.

**Lower Maintenance/Labor Costs** — Replacement of the union housing is eliminated. Only a change of gasket is required when the Uniflex Coupling is disassembled. No need to spring the pipe during make-up or disassembly. It is less costly to make and break than flanges.

**Lower Inventory Costs** — Only a few Uniflex Pipe Couplings and gasket kits in each size are required to back up installations. One Uniflex satisfies all pressure series of flanges in pipe sizes 1/2" to 2".

**Ease of Installation** — The gasket is held firmly in place with a patented retainer. There is no danger of damaging the seal during installation as it is fully protected from overtorquing.

**Welded Piping Systems** — With the gasket removed while welding coupling into the piping, the danger of damaging the seal is eliminated. Costly removal of sections of pipe to replace leaky unions is eliminated.

**Component Interchangeability** — All components of the Uniflex Couplings, in each size class, are fully interchangeable. End connections can be socket weld, threaded, or a combination of both.

### APPLICATIONS

- Steam Systems—up to 1500 PSIG Superheat
- Dowtherm
- Variety of process fluids and gases to 3000 PSIG CWP, i.e.: Acids, Caustics, Nitrogen, etc.
- Steam Trap, Valve, Pump & Compressor Manifolds
- Nuclear Power Plants
- Hydraulic Fluids/Hot Oils

### OPTIONS

- Teflon Gasket Filler
- Type 347 SS, Type 316 SS, Monel, Inconel 600, Hastalloy, Nickel Gasket Windings (other materials available on request)

Canadian Registration # 0A0583.9C

### OPERATION

The Uniflex Pipe Coupling (SUA) has successfully solved frequent leakage, intensive maintenance and stocking difficulties associated with ground joint-pipe unions.

The SUA is a modified forged steel or stainless steel pipe union utilizing a Spiral-Wound Gasket

### MODELS

- **SUA-T**—Threaded Carbon Steel
- **SUA-SW**—Socketweld Carbon Steel
- **SUASS-T**—Threaded Stainless Steel
- **SUASS-SW**—Socketweld Stainless Steel
- **SUG**—Gasket Kit includes 10 gaskets.
- **SUGR**—Gasket Kit includes 10 gaskets and 10 retaining rings

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*Installation Tip: Use UNIFLEX in all Regulator and Trap Stations through 2" to simplify future changeouts.*

to provide a leak-tight joint. This design, similar in principle to flange joints, has been proven in the field for many years. Because the joint seal is formed by the replaceable gasket (not a ground joint finish), failures caused by poor mating surfaces are eliminated. Components may be stocked and replaced individually because mated parts are not required for sealing.

# UNIFLEX STEEL/STAINLESS PIPE COUPLINGS

## SPECIFICATION

Union shall be of the straight-through design with connections oppositely aligned, suitable for either horizontal or vertical piping installations. Union shall meet standards of MSS SP-83 for 3000 lb. unions. Connections shall be either screwed or socketweld and union shall have threaded nut. Gasket shall be of the spiral wound design and a retainer shall be utilized to locate and hold gasket during installation.

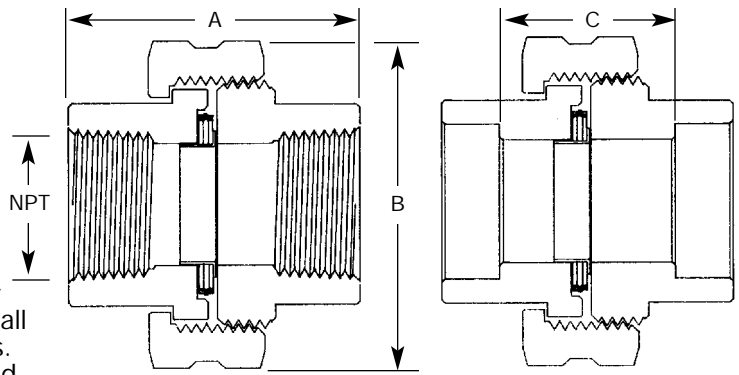
Union housing shall be forged steel ASTM A105 and have a pressure rating of 3000 PSIG at 100°F or type 316L stainless steel and have a pressure rating of 2430 PSIG at 100°F. Gasket winding shall be type 304 stainless steel with filler material of graphite. Gasket retainer shall be of type 316 stainless steel.

### MAXIMUM OPERATING CONDITIONS

PMO: Max. Operating Pressure see Chart  
TMO: Max. Operating Temperature see Chart

### MATERIALS OF CONSTRUCTION

Housing: Forged Carbon Steel, ASTM-A-105 or Type 316L SS  
Gasket: Spiral wound 304 Stainless w/graphite filler  
Gasket Retainer: Type 316 Stainless Steel



Uniflex Model SUA-T

Uniflex Model SUA-SW

Connections:  
1/2"-2" NPT or socketweld

Dimensions				
Pipe Size	Inches (mm)			Weight Lbs (kg)
	A	B	C	
1/2"	2.0 (51)	1.8 (46)	.9 (24)	0.8 (.36)
3/4"	2.2 (56)	2.2 (56)	1.1 (29)	1.2 (.55)
1"	2.4 (62)	2.6 (65)	1.1 (29)	1.6 (.73)
1 1/4"	2.8 (71)	3.0 (77)	1.4 (35)	2.5 (1.2)
1 1/2"	3.0 (76)	3.4 (86)	1.5 (38)	3.3 (1.5)
2"	3.4 (86)	4.1 (103)	1.6 (41)	4.7 (2.2)

Average weights listed-actual weights may vary slightly

Temperature/Pressure Ratings†		
Temperature	Pressure (PSIG) Carbon Steel	Pressure (PSIG) 316L SS
100°F	3000 (-20°F*)	2430 (-325°F*)
200°F	2735	2050
300°F	2655	1835
400°F	2565	1670
500°F	2425	1545
600°F	2220	1460
700°F	2155	1390
800°F	—	1330
850°F	—	1300

\*Minimum recommended temperature  
†For 3000 lb. unions from MSS SP-83.