

UNIFLEX STEEL/STAINLESS PIPE COUPLINGS

Pressures To 3000 PSIG (207 barg)
Temperatures to 850°F (454°C)



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 # 0A0583.9

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 to provide a leak-tight joint. This design, similar in principle to

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.

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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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.

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Typical 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

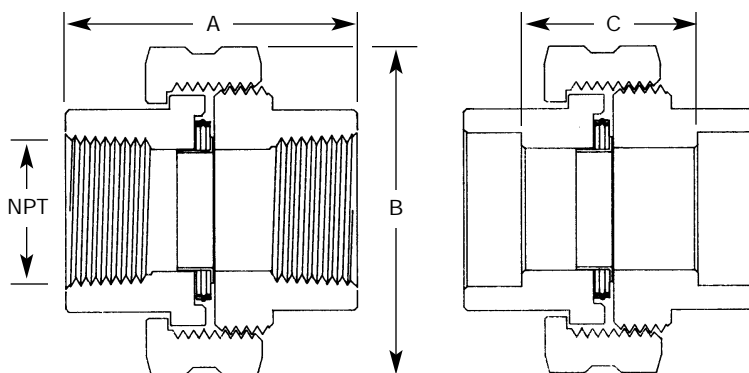
TMO: Max. Operating Temperature see Chart

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-W

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)

*1-1/4" not available in 316L SS

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.