

High-Temp / Steam Unions Extreme Environment, Class 3000 Service

HART Industrial spiral wound gasket unions are engineered to provide Class 3000 Service in extreme temperature and environmental conditions. Operational conditions such as temperature, pressure, and media will dictate selection of the proper spiral wound gasket for your application.

Unions containing spiral wound gaskets can be supplied to meet national standards such as MSS-SP-83 and ASME B16.20. The pipe union design is similar in principle to flange joints but outperforms the difficulties associated with standard "ground-joint" pipe unions. This is accomplished by forming the seal with replaceable spiral wound gasket without the need of a ground joint (ball & cone) finish. Our flat face design provides turbulence-free fit across seats. This design is ideal where piping requirements dictate the necessity of having a flat face seal to make and break the pipe line.

All HART Unions are made in the USA!

	Configuration	Description
	Standard	316 Stainless Steel with Flexible Graphite Filler
	Optional	316 Stainless Steel with Silicate Filler
	Custom Materials	Monel 400, Inconel 600, Hastalloy, 347 Stainless, and more!

Application & Performance:

Standard graphite spiral wound gasket union

Resistant to 850 F (450C) for hydrocarbon and superheated steam service.

- **Higher Temperature** Options Available! Engineered solutions for 1400 F (760C) and higher including turbine and energy.
- Steam Systems (superheated) Saturated steam, steam trap, valve, pump and compressor manifolds.
- Variety of process fluids and gases to 3000 PSIG (CWP) Heat Transfer Fluids, acids, caustics, nitrogen, hydraulic fluids, and hot oils with extreme temperature requirements.
- **Nuclear Power Plants**

Features & Benefits:

- Turbulence free: All HART unions provide a turbulence-free fit across the seats.
- Interchangeable Spiral Wound Gaskets: The common spiral wound gaskets used for the gas, oil, and power generation industries is 316 stainless steel with a graphite filler material. Options such as 347 stainless, Monel 400, Inconel 600, and Hastalloy windings are also available upon request in combination with different gasket fillers (graphite, silicate, PTFE).

Questions? Call us at 1-800-769-0503. Our Customer Service and Engineering Teams are available to assist you with any needs!





- Interchangeable union end connections: All HART unions, in each size class, are fully interchangeable. End connections can be FNPT, MNPT, Socket Weld, Butt Weld, or any combination. This features reduces overall costs by eliminating unnecessary nipples, bushings, couplings, and inserts.
- Material Versatility: Unions can be provided in all standard metals or combination of metals. This includes 304/304L and 316/316L Stainless Steel, A105 Carbon Steel, Brass, Monel 400, Inconel 600, Hastalloy, Titanium, and more!
- **Excellent Vibration Resistance:** Seals will not loosen, even under extreme pressure and thermal environments.
- Lower Maintenance / Labor Costs: Replacement of the union body is eliminated and only requires the change out of the spiral wound gasket when disassembled. There is no need to spring the piping system during make-up or disassembly, resulting in lowering overall costs by 70% when compared to pipe flanges.
- **Reduced Total Cost of Ownership** Spiral wound gaskets assure long service life and a leak tight seal. Each union is precision machined to provide high quality and fail-safe leak proof reliability. Once inital seal is made, no further tightening is required. All HART unions are domestically manufactured!
- No Welding Damage to Seal: The danger of damaging the seal during the welding process is eliminated. The spiral wound gasket is always installed after welding connections for socket and butt weld unions.



