

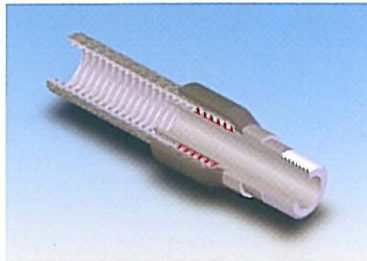
Crimped Fitting Technology

New Crimp-Tite™ Technology for Braided Metal Hose

How the Crimp-Tite™ Process Works

The Crimp-Tite™ process incorporates four components: fitting insert (stem), crimp ferrule (collar), composite rubber seal and Crimp-Tite™ braided metal hose. The fitting stem and collar are positively locked together during radial-compression crimping. This method of attachment enables the hose assembly to be used to the maximum working pressure of the particular hose style and size. Hose pressure ratings are based on a minimum 4:1 safety ratio, burst to operating pressure.

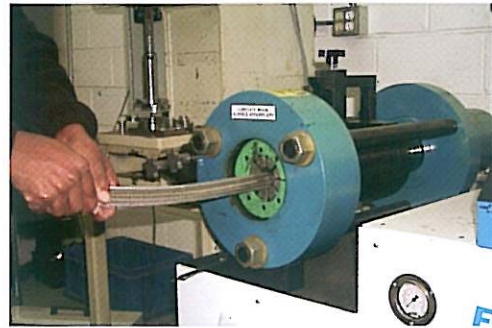
A fluoroelastomeric seal provides the broadest resistance to chemical and thermal deterioration, although seal material can vary depending upon operating temperature and flow media. Seals made from buna and silicone have been tested with the same results as the fluoroelastomer at ambient temperature.



The seal is molded into a shape to fit the hose convolution geometry (illustration above). First, the barbed stem is inserted into the inside diameter of the seal. The barbs lock onto the seal making it difficult to remove. Then, the crimp collar (with circumferential grooves on the I.D.) is pulled onto the O.D. of the braided hose assembly and the stem and the collar are threaded together. Once the fitting is assembled, the collar is crimped 360° to form a positively locked system with the hose, braid and seal compressed between the barbs on the stem and the grooves in the collar. The stem and collar are positively locked to assure a tight liquid / gas seal.

Crimp-Tite™ 321SS Metal Hose with Braid

Nominal Diameter (in.)	ID (in.)	OD (in.)	Static Min. Bend Radius (in.)	Dynamic Min. Bend Radius (in.)	Max. Working Pressure @ 70°F (PSIG) (1 braid)	Burst Pressure @ 70°F (PSIG) (1 braid)
1/2	0.551	0.768	1.77	5.51	1500	6000
3/4	0.807	1.102	2.17	6.30	1050	4200
1	1.063	1.437	2.56	7.09	1000	4000
1-1/2	1.654	2.165	3.54	10.24	660	2640
2	2.087	2.717	4.33	12.99	560	2240



The initial fitting system is made to allow many standard end attachments (JIC, female coupling, floating-flange stub end or union). The fitting components and seal are designed to mate with a specific Crimp-Tite™ hose style. The fitting system is not interchangeable between hoses with different I.D. and O.D. dimensions. The Crimp-Tite™ system is a certified system using certified components. Only authorized distributors are permitted to package and promote the system.

Crimp-Tite™ Verification Tests

Pressure Test (Hydrostatic @ 70F) - Crimp-Tite™ assemblies test higher for burst pressures than welded assemblies due to absence of heat-affected areas from welding.

Low-Pressure Pneumatic Test (Nitrogen Bubble at 30 psi)
No leaks

Ultra-high Vacuum Test with Helium
No leaks at 1×10^{-9} cc/sec

Impulse Test (Hydraulic oil alternating between 0 and 375 psi at 27 cycles/min) - Exceeded 150,000 cycles

ISO 10380 (Cantilever and U-Bend test)
Exceeded requirements

Saturated Steam (Duration: 312 hours; Temperature Range: 450 to 525°F; Pressure Range: 422 to 847 psi) - No Leaks



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