The Fluid Controls Double Ferrule Compression Tube Fitting consists of four pieces: the Nut, the Back Ferrule, the Front Ferrule and the Body. The two ferrules grasp the tube tightly with no damage to the tube wall. Exhaustive tests have proved that the tubing will yield before a Fluid Controls Double Ferrule joint starts leaking.

The secret behind the success of the Fluid Controls Double Ferrule Compression Tube Fitting lies in the two ferrule design. This design is a combination of geometry and metallurgy. When the joint is created, the action in the fitting is by axial movement along the tube instead of by rotary motion. This axial movement prevents the transmission of torque from the fitting to the tubing and consequently, ensures that the tubing is not weakened during joint creation. Fluid Controls Double Ferrule Compression Tube Fittings are easy to install and require no special tools. They are reusable several times and can withstand heavy impulse and vibration both in vacuum and pressure systems.

Double Ferrule Fittings : Design Advantages

- Self-aligning
- Works on thick and thin wall tubing
- Vibration resistant
- Compatible with a variety of tube ends
- All components made of the same material resulting in thermal compatibility and corrosion resistance
- Resistant to temperature cycling
- Compensates for variables encountered in tube material
- Does not significantly reduce the flow area

Double Ferrule Fittings : Performance Advantages

- Works for vacuum as well as high / low pressures
- Seals at low cryogenic temperatures as well as high temperatures rated for the tube
- Seals consistently over a wide range of temperature cycling
- Seals repeatedly under make-and-break conditions
- Resistant to pressure up to the burst point within the tubing without leakage

Product Range : Fittings

Double Ferrule Fittings : Assembly Advantages

1) Uses geometry rather than torque for uniformity of makeup
2) Requires only one-and-a-quarter turns after snug tight to complete the joint
3) Does not require disassembly and inspection of ferrule swaging at every makeup
4) No special tools required for assembly

Double Ferrule Fittings : Material

Fluid Controls Double Ferrule Compression Tube Fittings are available in a wide range of materials, sizes, connections and configurations. The most commonly used materials are Carbon Steel (ASTM A105) and Stainless Steel (ASTM A479, A182, F304, F304L, F316, F316L, F321). SS is available with conformity to NACE MR 01 75 (corrosion resistance). Other materials Monel, Inconel, Hastealloy C and Titanium.

Double Ferrule Fittings : Threading

Fluid Controls Double Ferrule Fittings have one or more tubing end connections with male or female pipe threads! The pipe threads or stud ends of our fittings conform to the foil specs:

- American National Pipe Thread (NPT): Reference Spec ANSI B1.20.1:1983
- ISO Parallel Pipe thread (British Standard Pipe Thread) : Reference Spec BS 2779, <S ISO 228/1, DIN 259, JIS B 0202, IS 2643
- ISO Taper Pipe thread (British Standard Pipe Taper Thread): Reference Spec BS 21, ISO 7/1, DIN 2999, JIS B 0203, IS 554
- United National Pipe Thread : Reference Spec ANSI B1.1:1964

Double Ferrule Fittings : Performance Specifications

There are no standards for performance of Double Ferrule Fittings. The working pressure of the fitting is restricted to the maximum working pressure of the tubes. Consequently, the working pressure of the tubing prevails as the working pressure for these fittings.
The maximum working pressure of the fitting is also restricted by the pressure rating for the pipe end connections. The lower of the two will be the maximum working pressure for the fittings.

Although there are no standard specifications available for type test requirements for Double Ferrule Fittings, some of the tests to which can be used are :

- Proof Pressure Test
- Dismantling and Reassembly Test
- Minimum Hydraulic Burst Pressure Test
- Minimum Static Vacuum Test
- Hydraulic Impulse Vibration Test