



Braze steel O-ring Face Seal fittings to a steel tube

Objective To braze O-ring Face (ORFS) sleeve or male connector to a steel tube.

- Material**
- Steel tube, 1 inch (2.54 cm) OD
 - O-ring Face Seal sleeve and a male connector fittings
 - Preform braze rings
 - White SureFlow flux
 - Steel support mandrel

Temperature 1300 °F (704 °C)

Frequency 163 kHz

- Equipment**
- Ambrell 7.5 kW induction heating system, equipped with a remote workhead containing two (2) 1.5 μ F capacitors (for a total of 0.75 μ F).
 - An induction heating coil designed and developed specifically for this application.

Process A four-turn 2.75 inch (7.0 cm) ID helical coil is used for heating both the steel tube and the ORFS sleeve or the ORFS male connector. This coil is designed to braze either the sleeve or male connector to the tube. The parts to be brazed are assembled with flux and heated for 45 seconds. Pressure is applied to the tube to make sure it is inserted fully into the fittings as the braze ring flows.

- Results/Benefits** Advantages :
- Large Inner diameter of coil allows for easy loading and unloading of parts
 - With efficient energy coupling of the coil to the fittings overheating is avoided.

