Braze two positions on a stainless steel manifold simultaneously

Objective  Simultaneously braze two positions on a stainless steel manifold

Material  Stainless steel manifold 4” (101.6mm) long, 1” (25.4mm) in diameter and nico braze

Temperature  1800 °F (982 °C)

Frequency  198 kHz

Equipment  • Ambrell 10 kW induction heating system, equipped with a remote workhead containing one 1.0µF capacitor.
  • An induction heating coil designed and developed specifically for this application.

Process  A dual six turn split helical coil is used to simultaneously braze the manifold. The manifold is placed in the coil and power is applied for 20 seconds to flow the braze and create the joint.

Results/Benefits  Induction heating provides:
  • Creates a liquid and gas-tight braze that can withstand shock and vibration
  • Precise placement of heat
  • Energy efficient
  • Hands-free heating that involves no operator skill for manufacturing
The two braze locations are heated simultaneously