



Sealing a Nylon Shell for a Fuel Vapor Assembly

Objective To heat an electrically conductive ring gasket to seal the nylon halves of an activated-carbon fuel vapor module while reducing process time and cost.

Material Nylon housing molds, conductive seal

Temperature outer ~220 °F , inner seal ~500 °F

Frequency 165 kHz

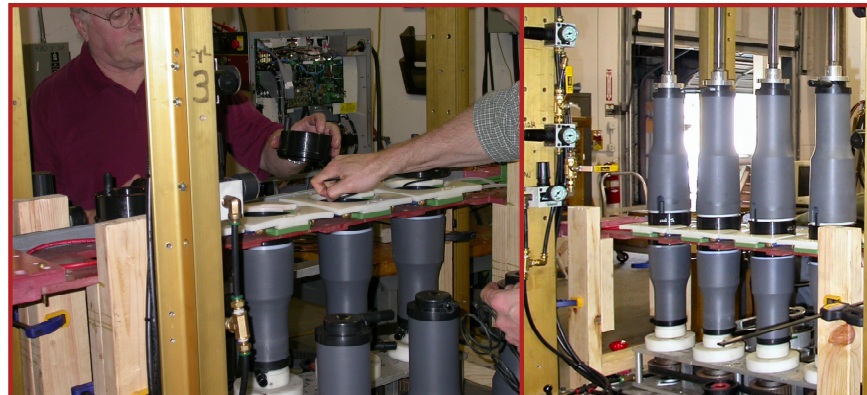
Equipment

- Ameritherm 20kW power supply
- Remote heat station with 0.66μF capacitance
- Specially-designed four-position induction coil
- Customer-designed parts and test fixture

Process Filter modules are assembled on the fixture with ring gasket. Pressure is applied to the modules, modules are rotated and induction heating is started. After 10-12 seconds, heating is halted and the modules are removed from the fixture.

Results Seal integrity is confirmed.

- Process times are reduced by more than 50%
- seal material costs are reduced by ~90%
- on-coil voltages are reduced by ~90%
- arcing and related down-times are eliminated



Download and print our Applications Lab Process Sheet (<http://www.ameritherm.com/PDFs/4110038b.pdf>). Answer the questions on the form to help us understand your process and performance requirements. Call with the info on the form to see if you should send us your parts for a free evaluation. If you have questions, call or e-mail us (info@ameritherm.com). We'll be in touch!