Marmon Foodservice Technologies
A Berkshire Hathaway Company

TECHNICAL SERVICE BULLETIN

Product: Viper
Subject: Insulating Components After Service
Date: 08/30/2023

Dear Valued Customer,

At Marmon Foodservice Technologies, we are committed to providing high-quality products and supporting our customers in maintaining those products. We have recently identified a potential issue that can be caused by improper service. This impacts Viper units (VIPER (E) 2 FLAVOR, VIPER (E) 3 FLAVOR & VIPER (E) 4 FLAVOR) and may affect their reliability after service.

Products Affected: All Vipers (VIPER (E) 2 FLAVOR, VIPER (E) 3 FLAVOR & VIPER (E) 4 FLAVOR)

Potential Issue: During service of the refrigeration system, it is often necessary to remove insulation to gain required access. In addition, insulation may be damaged during brazing. Missing or damaged insulation can lead to condensation that may cause corrosion damage or safety hazards.

Solution: When insulation is removed or damaged during service, it must be replaced prior to placing the unit back into operation. All components in the refrigeration system from the liquid line solenoid through the expansion valve, foam pack, accumulator up to the compressor suction inlet must be insulated. Extra care must be taken to seal the top of the accumulator and foam pack to protect against condensation and corrosion.

Insulation must be closed cell with a minimum wall thickness of 3/8", minimum R value of 2.6, and must have a UL 94 5V-A, V-0 flame rating. It is recommended to use insulation with an anti-microbial treatment. It is critical that insulation is properly sized to eliminate internal air gaps that may lead to condensation. Where insulation has a lower R value but meets other requirements, multiple layers may be laminated with no air gap to reach the minimum R value.

Approved Insulation:

- 3/8" OD tubing should be insulated with PN 620711947 (ArmaFlex PN IPAPT03838 or equivalent).
- 5/8" OD tubing should be insulated with PN 169225014 (ArmaFlex PN IPAPT05838 or equivalent).
- Sheet insulation (to repair accumulator insulation, for example) should use ArmaFlex PN APS34043 or equivalent.
- Automatic Expansion Valves can be insulated with pre-formed insulation PN 620711959.

Marmon Foodservice Technologies
A Berkshire Hathaway Company

TECHNICAL SERVICE BULLETIN

All seams between insulation pieces must be sealed with duct tape. When applying duct tape, care must be taken not to compress the foam insulation as compression will reduce performance and could lead to condensation.

The Foam Pack and Accumulator are insulated with factory-installed foam. Even with proper heat shields and wet rags, foam may be burned away during brazing. This may leave an area where condensation can collect and cause corrosion that leads to leaks. Joints between copper and factory foam must be sealed with RTV to prevent both condensation and collection of moisture.

Example Images:

Factory foam shows damage after brazing.

Joint between copper and factory foam is sealed with RTV.

Closed cell insulation covers copper and firmly contacts the factory foam. All seams in tubing insulation are sealed with duct tape.

Following these guidelines will help keep your Viper equipment operating safely and reliably.

Thank you for your continued support and trust in our products.

Sincerely,
Marmon Foodservice Technologies