



Technical Bulletin

Number: 072
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Subject/Key Words:	I-Clean Module; UPN2 Pressure Regulator Manifold; Prevent Chemical Vapor Out-Gassing; Corrosion Failures			
Classification:	<input type="checkbox"/> Informational	<input type="checkbox"/> Mandatory	<input checked="" type="checkbox"/> Safety Alert	<input type="checkbox"/> PM Impact
Parts/Reference Documents:	232455-001 Kit Retrofit I-Clean Chem Dispense			
Attachments:	None			

Issue: When the pressure vessel (PV) of an I-Clean module is depressurized all chemical vapor inside the vessel should vent through the exhaust line. However, on some modules, chemical vapor can migrate back through the UPN2 delivery line that runs from the UPN2 pressure regulator (PR) manifold to the pressure vessel. The UPN2 pressure regulators and the manifold they mount to are not rated to withstand chemical exposure. Corrosion and damage to the regulator(s), manifold, and other components in the area may occur.

Symptoms: Backpressure in the exhaust line forces vapor back into the system and a mist or cloud of chemical can be seen exiting the exhaust port of the pressure regulator manifold. This symptom is most likely to be seen when several pressure vessels are depressurized at the same time. However, out-gassing of chemical vapor through the pressure regulator manifold may not occur at all in some modules.

Test/Validate: Inventory all I-Clean modules in the field to determine the number of pressure vessels in each tool and the total number of pressure vessels on site.

Solution: It is highly recommended that retrofit kit 232455-001 be installed to eliminate the possibility of misdirected pressure vessel chemical exhaust. Install a retrofit kit on each PV system. If there are four active PVs, order and install four separate kits.

To reduce backpressure in the system, each kit contains a 3/8" union that is installed in place of the existing PV exhaust line filter (determined to be not required). The kit also includes a check valve to prevent PV exhaust from reaching the UPN2 pressure regulator and manifold. Instructions are supplied with each kit.

Future I-Clean modules will be built with these modifications.

If you have technical questions or require more information, please contact Akriion Systems Technical Support Department via e-mail at techsupport@akrionsystems.com. Authorized service personnel can obtain copies of the latest Akriion Systems procedures and controlled documents from the Akriion Systems Document Control department at doccontrol@akrionsystems.com. Customers must direct all inquiries to their local Akriion Systems field service representative.

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