



Technical Bulletin

Place a copy of this bulletin in the front of each Blueprints Manual.
Redline drawings as needed and include a TB reference note.
Reference TB implementation on site Action Item Box-chart and/or
site tool history management log.

Number: 069
Date Issued: 03/13/08
Expiration Date: None

Subject/Key Words:	LuCID2, LuCID3, UPN2, 3-way valve failures may result in elevated particle trending and potential loss of product		
Classification:	<input type="checkbox"/> Informational	<input type="checkbox"/> Mandatory	<input type="checkbox"/> Safety Alert
	<input type="checkbox"/> Warranty Impact	<input checked="" type="checkbox"/> Purchase Parts	<input checked="" type="checkbox"/> PM Impact
Parts/Reference Documents:	<input type="checkbox"/> No Charge For Parts expires ___/___/___. Reference this TB# when ordering NC parts.		

Issue/Symptoms: Flow of heated UPN2 can be reduced or stopped if the 3-way valve fails. Investigation of this failure addresses the root cause. It also lists several preventive measures that should not be ignored.

Symptom: In some cases, valve failures have been accelerated due to elevated UPN2 temperatures commonly used in many applications. In some cases the UPN2 filter discolored and should immediately be replaced.

Test / Validate: NOTE: Heating UPN2, even to a known standard, is not absolutely necessary to dry customer product. Historically, heated UPN2 has been used to dry tank internal surfaces and sub-assemblies. Many customers dry product without using heated UPN2.

NOTE: The temperature rating of the original three way valve was suitable for the application. Revisions of the valve resulted in a lower temperature rating. However, recent CIP upgrades now spec the valve to a true high-temp rating.

NOTE: Make sure both thermocouples are wired correctly to the Temperature Controllers. When correctly wired, the process temperature in standby should read 150° C. The heater temperature should read 250° C +/- 30° C. DO NOT rewire unless you can re-qualify the process. Rewiring may cause higher temperatures to be delivered to the process chamber.

- Process TC—This TC measures the temperature of UPN2. It is called "Heater Output" and its wire label is J29. It is connected to TCM1 of the temperature controller.
- Heater TC—This TC measures the temperature of the heater element and can be identified by wire label J28. It is connected to OT1 on the temperature controller.

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If you have technical questions or require more information, please contact Akrion Technical Support Department via e-mail at techsupport@akrion.com. Authorized service personnel can obtain copies of the latest Akrion procedures and controlled documents from the Akrion Document Control department at doccontrol@akrion.com. Customers must direct all inquires to their local Akrion field service representative. (Form QA1656F1AC)

Test / Validate:

Confirm the TC wiring configuration of the UPN2 heater controls as noted above. If the TCs and heater controls are configured correctly, and the process set point is 100° C to 150° C (max setting), be sure to use three-way diverter valve 228706-001.

Solution:

The three way valve should be replaced only IF:

- Heated UPN2 is used in the LuCID2 or Lucid3 dryer; AND
- The project number is lower than 1345-01.

Project numbers lower than 1345-01 with an active warranty will be issued replacement valves.

If the original warranty has expired, replace the three-way valve as needed. The valve can be identified on the following drawings:

- LuCID2—226119-001 Base Mechanical Kit, Item #63
- LuCID3—228692-001 Base Mechanical Kit, Item #63