

Reactor Error Code Trouble Shooting Guide

Reactor

E24: Pressure Imbalance

Pressure Imbalance: There is a pressure difference between the “A” and “B” fluids of more than 50% of the set point pressure.

- There are two types of E24 errors:
 - “Fast” & “Slow” E24 errors
- “Fast” E24:
 - When the pump zone is turned on and within 5 - 10 seconds you get an E24.
 - When the pressures are balanced and as soon as you pull the trigger you get an E24.

Causes:

- One side of the Gun is plugged.
 - One of the pressure transducers has failed.
 - Plugged or damaged pump.
 - Plugged pre-heater.
 - Plugged hose.
 - Plugged manifold.
 - One pressure relief valve is leaking or in bypass.
- When you get a “Fast” E24 error, check and see what your gauges are reading.
- If gauge pressures are very close
 - ✓ Try clearing the error and running the unit.
 - If you get the error code E24 again and your analog gauges are very close in pressure.
 - ✓ Check plug J10 (E20/E-XP1) or J7 (E30/E-XP2) or the jumpers 7 to 8, or 9 to 10 on the motor control board.
 - ✓ One of the pressure transducers has failed.
 - The digital display on a Reactor always shows the higher of the two pressures. As soon as the higher analog pressure drops below the lower analog pressure the digital display will switch to the new highest reading. Knowing this, the following tests should show which pressure transducer has failed.

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- For testing purposes only – Find the dip switches (labeled SW2 in the manual) on the motor control board, and set dipswitch 3 to off. This will allow the Reactor to run with a pressure imbalance alarm.
 - Run the unit to build up some pressure (1000 – 1200 psi). Shut down the unit, clear the alarm and power back up, but don't depressurize the unit.
 - Check the analog gauges to see which pressure is higher. And then check and see if the display pressure matches. If it does, that would indicate that the motor control board is "Seeing" that transducer. Continue on with the test process. If not, then that would indicate that the motor control board is not "seeing" that transducer. Check the wire connections and or replace the transducer.
 - With the pump zone off, use the pressure relief valves to slowly relieve the "high" side pressure, while watching the digital display and the analog gauges. Once the higher analog gauge drops below the lower analog pressure the motor control board should start reading the "new" high side pressure (because it is now the higher of the two). Continue dropping the original "high" side pressure couple hundred psi. (The digital display should stop dropping). And repeat the process to check the other pressure transducer.
- ✓ The last test is to determine if the pressure transducer has failed or if the socket on the pressure control board has gone bad.
- Swap the transducer plug-ins on the motor control board. (J3 & J8 for the E-20 & E-XP1. J3 & J5 for the E30 & E-XP2)
 - Repeat above test.
 - If the problem stays with the same side as before then the pressure transducer is bad.
 - If the problem appears to switch over to the other transducer, then the problem is in the motor control boards socket.
- If the gauges are not reading equal.
 - ✓ Try clearing the error and balancing the pressures using the dump valves.
 - If you cannot get the pressures to balance.
 - Check to see if one of the pumps has failed.
 - Check and see if you ran out of material.
 - Check and see if you have a plugged fluid path by using the feed pump to push fluid out through the gun manifold.
 - If you are able to balance the pressures, try running the unit.

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- If you get a “Fast” E24 error code again, and your analog gauges are not reading an equal pressure.
 - ✓ Check and clean the gun inlet screens.
 - ✓ Check and clean the mix chamber “A” & “B” impingement ports as well as the center port.

Note: Some mix chambers have counter bored holes, and require two drill sizes to clean impingement ports completely.

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- **“Slow” E24:**
 - When the pressures are balanced and you start spraying and you slowly get a pressure imbalance and then eventually the pressures get far enough apart that you get the E24.

Causes:

- One side of the Gun is partially blocked.
- The “A” or the “B” pump on the Reactor has failed.
- The “A” or the “B” feed pump has failed.
- The “A” or the “B” feed pump pressure is set too high.
- The “A” or the “B” inlet screen is plugged.
- The hose is not heating properly.
- Kinked supply hose.
- Bottom of the drum is damaged causing a blockage to the inlet of the feed pump.
- The drum is not vented properly.