

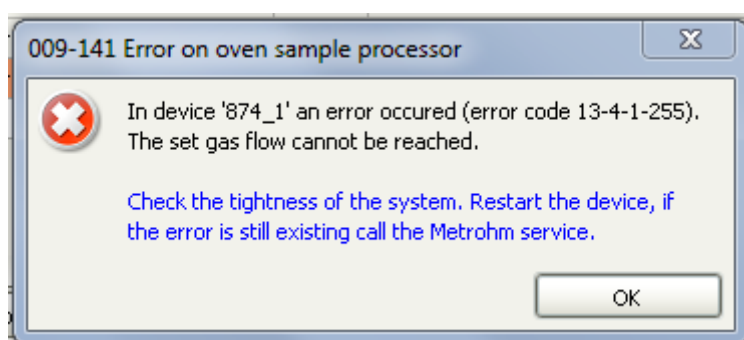
874 KF Oven Gas Flow Error

tiamo error 009-141, 874 error 13-4-1-255

Technology: Titration

How do you know you have this problem?

You have received the following error:



What can I try to resolve it?

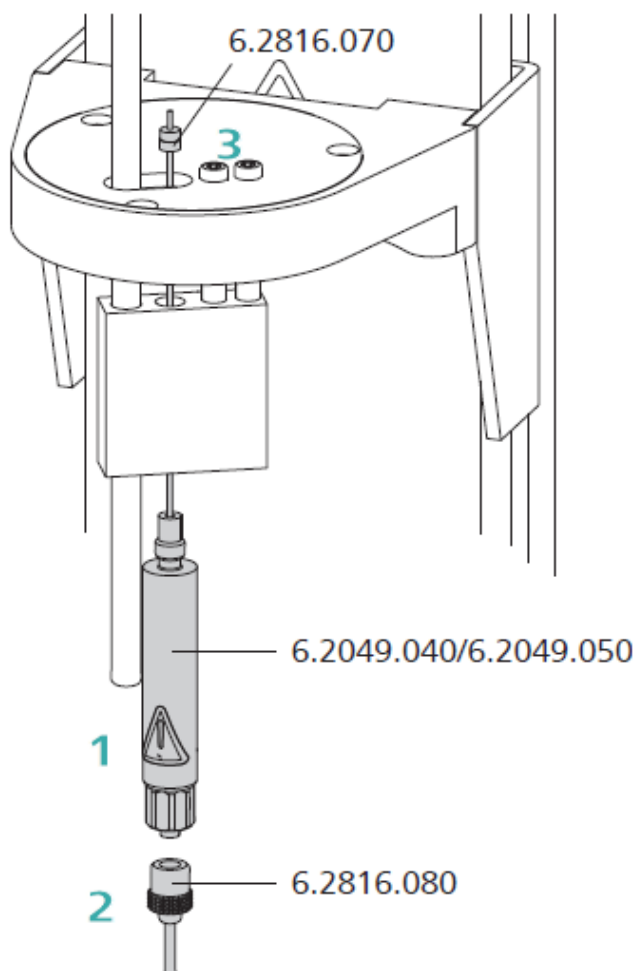
The majority of the time, gas flow error is caused by blockage.

Follow these steps to troubleshoot the gas flow error:

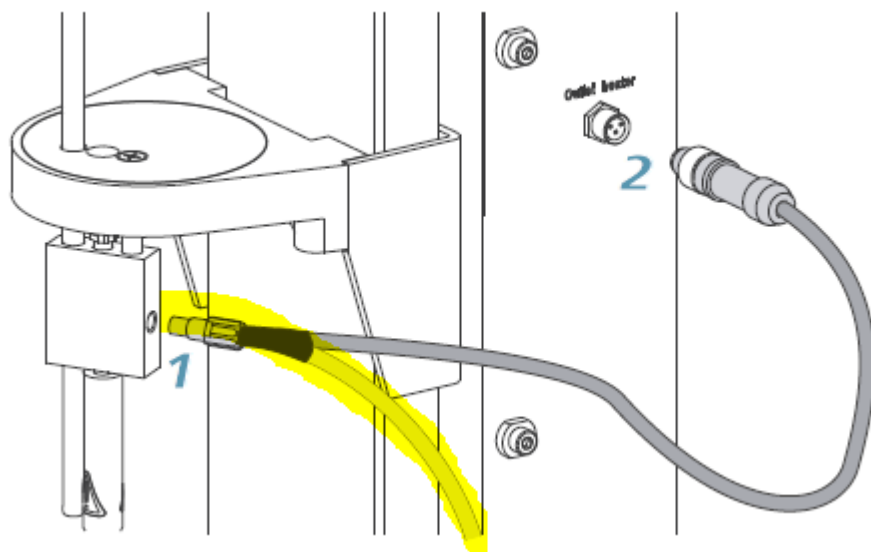
1. Ensure all tubing connections are tight
2. Ensure the gas tubing in the vessel is not crimped
3. If using pressurized air or gas, ensure the following:
 - a. Regulator is set to <4psi
 - b. The tank is not empty
 - c. The valve on cylinder is open

4. Inspect needle holder (6.2049.040 or 6.2049.050) for damage
5. Clean or replace injection needle (6.2816.070) and outlet needle (6.2816.080)
 - a. Needles can be flushed with methanol or sonicated for faster cleaning

Mounting the injection and outlet needle

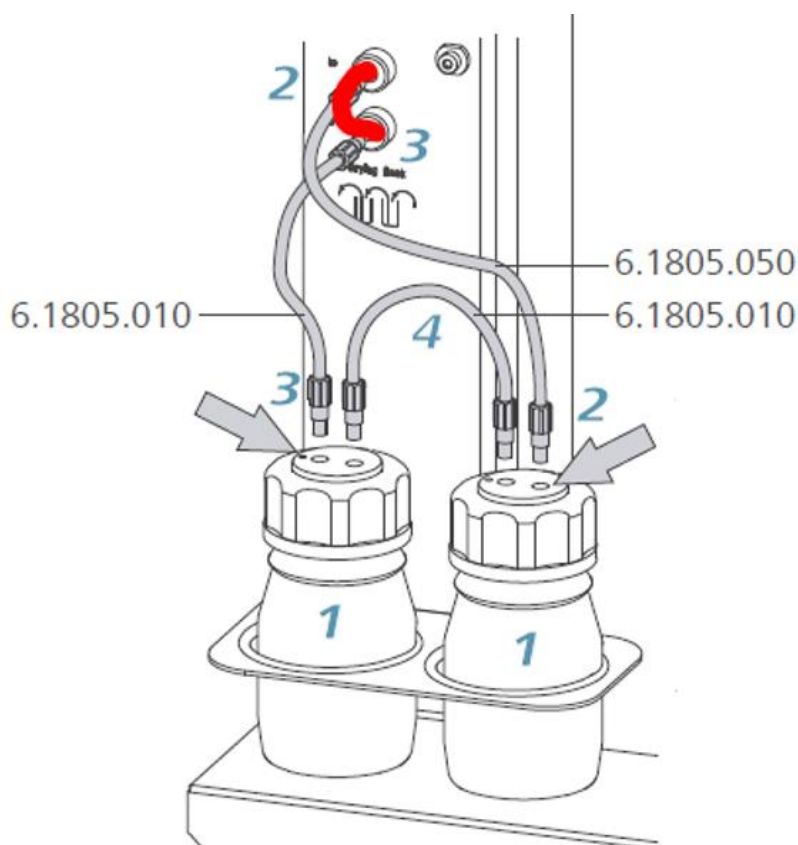


6. Clean or replace the transfer tube
 - a. Tube can be flushed with methanol



Here is a video to walk you through the process: [HOW TO troubleshoot gas flow issues on a Metrohm 874 Karl Fischer Oven system](#)

7. Evaluate impact of molecular sieve by connecting tubing for 'to' and 'from' of the tower to bypass the molecular sieve bottles
 - a. Disconnect 'from' tubing from the tower (see below)
 - b. Disconnect 'to' tubing from the cap of molecular sieve bottle (see below)
 - c. Connect this end of the 'to' tubing to the 'from' port on the tower
 - d. If error no longer occurs with sieve bypassed, replace molecular sieve



What are some ways to prevent the problem?

- Use Metrohm KF oven vials and septum caps
- Regularly inspect and clean needles / transfer tube
- Regularly inspect, regenerate or replace molecular sieve
 - The molecular sieve can be regenerated at 300 °C in the drying oven. The regeneration time is at least 24 hours. The molecular sieve is then placed in a desiccator for cooling down and afterwards stored in a glass bottle with an airtight seal.

Other ideas

'Submit a request' for further assistance from Metrohm Technical Support at support.metrohmusa.com should error persist after these troubleshooting measures have been taken.