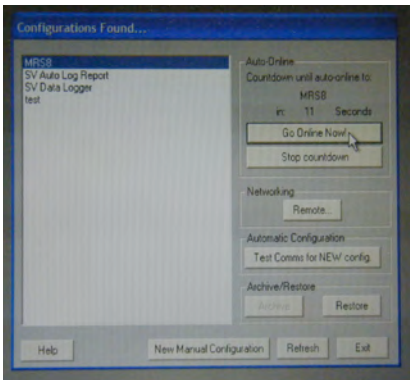
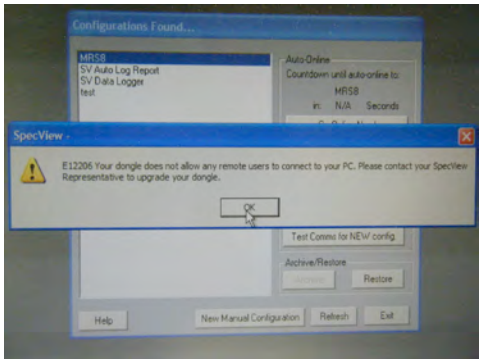
WIPF GROUP OPERATING INSTRUCTIONS:
Multiple Reactor Systems – Series 5000

All users must be trained prior to operating this system. Users trained prior to November 1, 2010 must be retrained.

1. Log in to the computer (user: CMLD) and open SpecView. A dialog box will appear:



Click 'Go Online Now!' A second dialog box will appear, click 'OK'



The system controller will appear and allows you to monitor the stirring speed, temperature, and pressure for each individual reactor.

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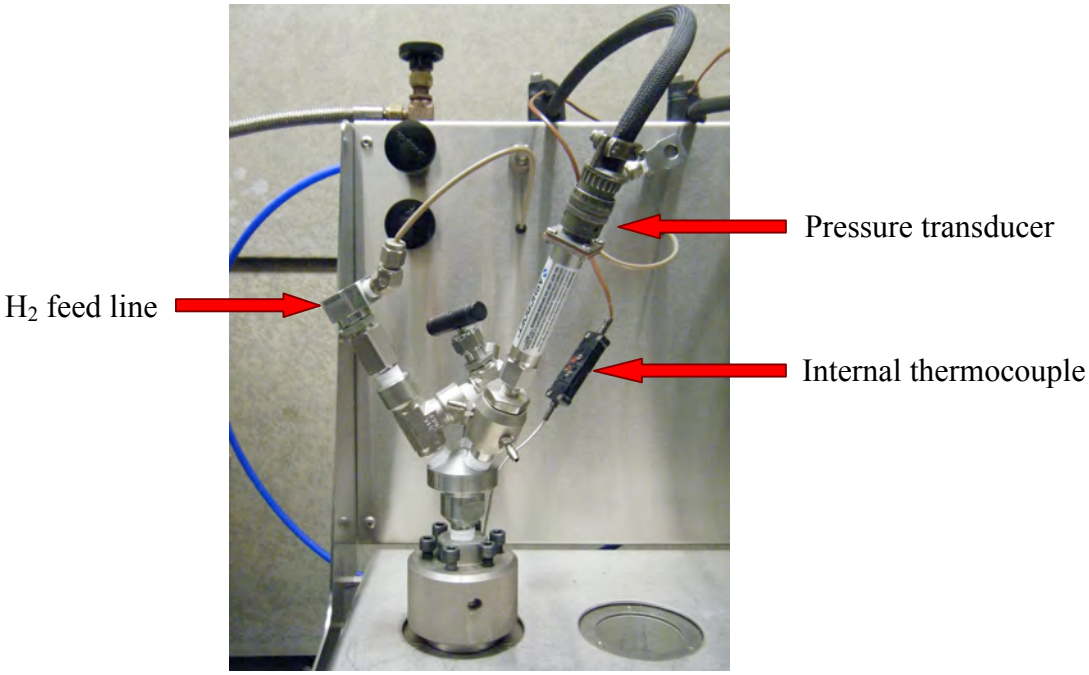
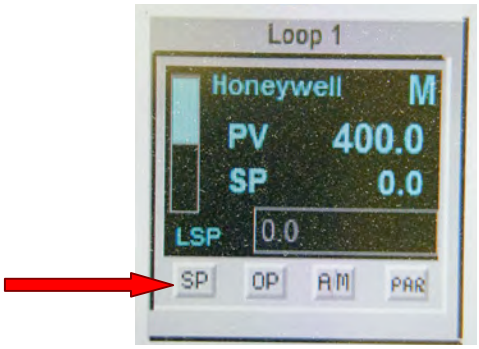
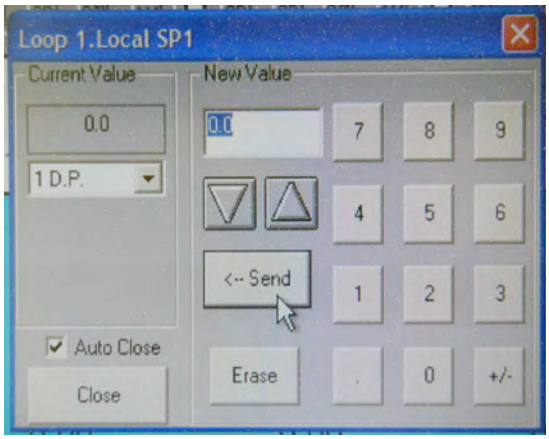
2. Place reaction mixture into the glass insert containing a magnetic stir bar.
3. Place the glass insert containing the reaction mixture into the reaction vessel. Tighten all of the screws until they are all finger tight and then tighten them again using the Alan wrench. (NOTE: The reaction vessel may be prepared in your lab area and transported to the reactor)
4. Place the reaction vessel into one of the reactor bays.
5. Connect the pressure transducer, thermocouple, and H_2 feed line to the reaction vessel.



6. Turn the stirring on using the switch on the instrument panel and set it to the desired speed.
7. To set the reaction temperature, click on SP in the Loop display that corresponds to the reactor you are using.

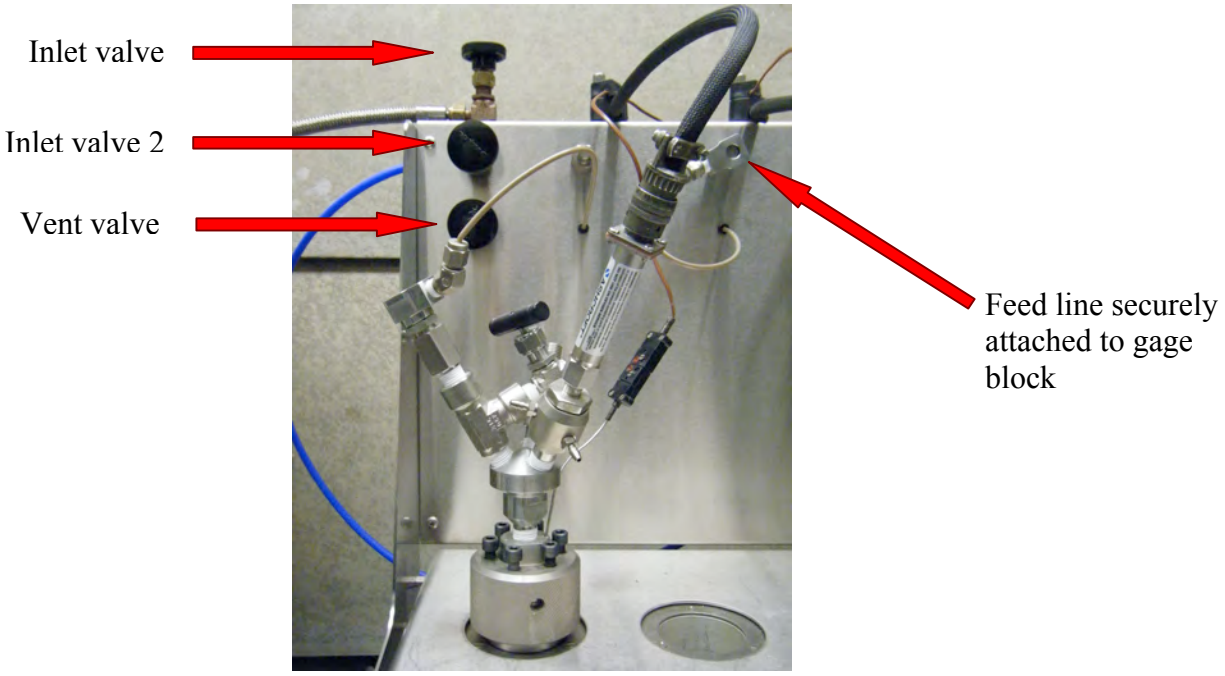


A dialog box will open:



Enter the desired temperature (°C) and click send.

8. Check that the manifold inlet and vent valves are completely CLOSED and that the feed lines that are not attached to a reaction vessel are attached securely to the gage block.



9. Turn on the H_2 tank and adjust the regulator valve until the desired pressure is displayed on the output pressure gage.

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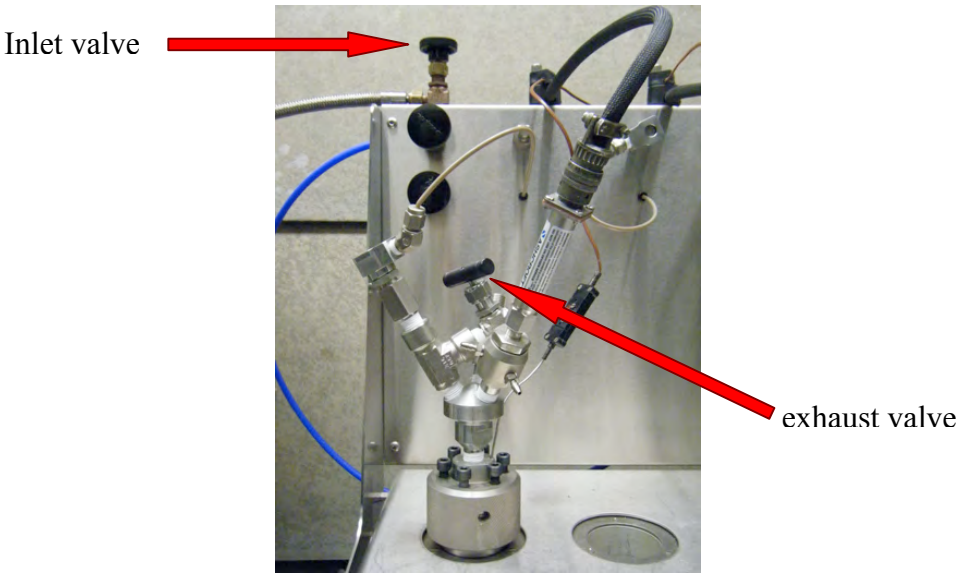
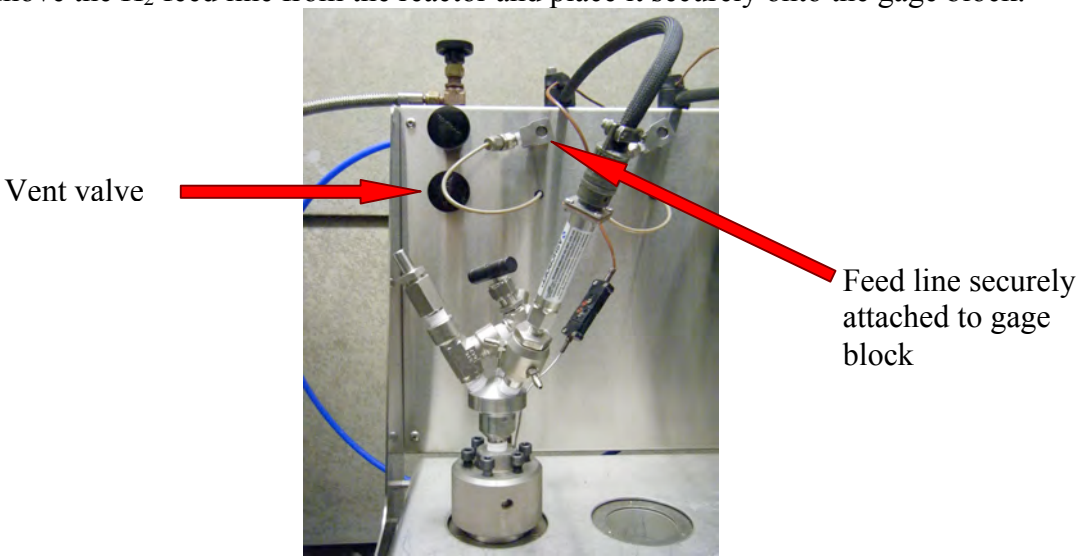
10. Purge the reaction vessel. To do this, open the manifold inlet valve to fill the reaction vessel. Close the manifold inlet valve and slowly open the exhaust valve on the reaction vessel to release the H_2. Repeat this purge sequence 1-2 more times.
    EXERCISE CAUTION WHEN RELEASING H_2 FROM THE REACTION VESSEL!



11. Once the system has been purged, open the manifold inlet valve to fill the reaction vessel.
12. CLOSE the manifold inlet valve and TURN OFF the H_2 main tank valve.
13. Release the manifold pressure by QUICKLY opening the manifold vent valve.
    IMPORTANT: Slowly opening the vent valve will result in complete loss of reactor pressure.
14. Remove the H_2 feed line from the reactor and place it securely onto the gage block.



15. At this point the tank should be OFF. Double check to make sure that the main tank valve is turned off. The regulator pressure can then be released by opening the manifold inlet valve and then the vent valve.