

FLUIDIZED BED EXPERIMENT

ver 5.08

Startup:

- Pick the particles that you are going to fluidize. Unscrew the top of the column and pour them in. Make sure you put the cap back on.
- Turn on your cooling water, the valve with the green center around the back of the experiment, all the way counter clockwise.
- Go to the Bailey Controls (Learn how to run the Bailey Controls [here](#))
- Go to group displays and select the Fluidized Bed.
- Page down and make sure the blower and heater power are off.
- Page up and turn on the main power.
- You can use either manual or auto-mode to control the controller output. (20% is a good flow rate to not eject all the particles.)
- Turn on the blower. (If you are doing a hot experiment, you would set your water flow rate by selecting your water set point and putting in values. Then you would page down to the air heater and select a temperature and turn on the heater power.



NOTE: If you are using plastic beads DON'T perform a hot experiment because the beads will melt.

- Increase air flow rate until desired results are obtained
- If you want to change particles, get a container that they can be ejected into and set the air flow rate at 100%.

Shutdown:

- To eject particles
 - Make sure catch box is properly set to catch particles
 - Set air flow rate to 100%
- Now there are no particles in the fluid bed.
- Page up on the Bailey to continue your shutdown.
- Set the air flow rate at a reasonable value (20% would be fine.)
- Turn off the blower. (If it is a hot experiment, turn off the heater first.)
- Reduce the water flow rate to 0.
- Turn off the cooling water if it had been turned on, all the way clockwise.
- Turn off the main power.