Polypropylene Wet Benches
Located in MRC Cleanrooms
Hood Numbers with Fan Numbers for Second Floor MRC
The polypro hoods in the cleanroom are laminar flow hoods. This is a hood that is a combination of clean air coming into the hood through a HEPA (high efficiency particle filter) and exhaust. These hoods are designed to be balanced with the sash opened at 11”. Air coming into the hood is captured at the holes in the front, which is why those holes should not be covered. It disrupts the balance of the hoods’ air flow. The air from the HEPA is split between the front and rear holes. This system protects both the user and the material, as long as the balance is correct.
Hoods have holes in the front, side and back of hoods.

Do not block these holes.

Do not put notebooks in hoods.

Sash is left at 11” during all operations.

Covering holes will disrupt the air flow. In some hoods there are electronics under the front section that could get chemicals on them, if user passes boat over the holes. Shorting the lifetime of those devices.
HEPA Filter

- Above the HEPA filter are 20 X 20 air filters
- Fan motor and bag that is attached to the HEPA filter
- When the bag is inflated, the Magnehelic gauge will have a value displayed
Magnehelic Pressure Gauge

- Indicates pressure drop across the filter
- Only an indicator, not an alarm
- Pressure drops as filter gets clogged
How the Magnehelic Knows

- There is a tube that is attached into the bag and the magnehelic.
- As soon as there is no pressure on the gauge, the gauge will drop to zero and the hood will have negative air flow.
- Excess exhaust can increase the possibility of exposure and contamination due to the amount of turbulence in the hood.
Collapsed Bag

- The picture on the left shows a collapsed bag.
- The causes could be a motor problem, bag disconnected, the potentiometer which is used to adjust the air flow or electronic controls for the motor speed control.
- The magnehelic gauge on the left is reading zero, which is correct for this problem.
- Be aware that when the blower is off, the hood is 100% exhaust.
- If particle control is what is needed, then this hood should not be used until fixed.
Hood Controls

- Two circuit breakers
- Duplex outlet is for the outlets in the front of the hoods.
- Light is for the hood lamp.
- Alarm disable is for the window sash, if it had to be raised for some purpose. Not to be used in routine operation.
- Blower is for the fan that blows the air through the HEPA filter. This should always be on.
- Airflow control is used to adjust air volume when hood is being balanced.