

Golden Rules for the use of Freeze Dryers in the Laboratory



These Guidelines are applicable to Freeze Dryers used in Life Science Laboratories.

- Rule 1** Make sure all valves on the Freeze Dryer, and the Vacuum Isolation valve for the pump are closed.
- Rule 2** Turn on the Freeze Dryer Refrigeration System and the Vacuum pump. Let them run for 15-20 minutes to ensure that:
- The vacuum pump is at its normal operating temperature.
 - The condenser is down to its minimum temperature.
- Rule 3** Only when both of the above conditions are met, can you attach your sample to be dried and open the sample valve.
- Rule 4** When your sample is finished drying, close the sample valve and the isolation valve to the vacuum pump. Remove your sample. Do not turn the vacuum pump or refrigeration system off, let them run constantly in readiness for the next sample.
- Rule 5** Only with the last drying run of the day, can you initiate the procedure for turning the Freeze Dryer and vacuum pump off. When you have finished, close valves and remove your dried sample as per Point 4.0, but let the pump and refrigeration system run on for a further 20-30 minutes. This is to purge the pump of any vapours that may of collected in the oil during the day.
- Rule 6** Lastly, you can now turn the pump and refrigeration system off. Open a sample valve to vent the condenser. Arrange a collection vessel for the condensate to drain into overnight.

