

## Nitrogen Venting for PHI Systems

When bringing your PHI system up to atmospheric pressure by backfilling with nitrogen, it is essential that your turbo pump is ON during the vent procedure. If you have 2 turbo pumps then they should both be ON. The reason is that the turbo pumps are vented with the same nitrogen line that backfills the system. There is a check valve in the mechanical pump that closes when the turbo pump is off. However, if the check valve does not seat properly, oil vapors or actual oil can be sucked into the system during the backfill procedure. When the turbo pump is ON, the V5 turbo vent valve is closed and it is not possible for oil to back-stream into the system. The diagrams to the right illustrate this concept.

Please note: *If you have purchased a [magnetic load lock upgrade](#) from RBD Enterprises or RBD Instruments, the mechanical pump roughing line to the intro is no longer used.*

