Fault finding vacuum issues with the turbo pumped, RV/Diaphram/Scroll pump backed systems.

When fitted with the EXT70H The control box has 3 LEDs, the 1 on the left lights when the turbo reaches 80%. The 3 to the right flash rapidly as the turbo accelerates. If any of these do not flash then there is a fault with 1 of the 3 phases on the motor.

If all 3 LED’s flash as below then the motor is starting correctly.

If the turbo is running between 20 and 30% then a leak is usually suspected on the backing hose or main chamber gaskets or possibly a defect on the glassware ie chip.
If the turbo runs faster <50% to start and slows down over time it would be a smaller leak possible on a o-ring or seal.

If the turbo is starting up correctly as shown then a leak would be the main suspect.

Remove gaskets from Chamber glassware and clean with Alcohol and a lint free wipe or cloth.

Turn off the turbo pump in the main system menu and pump the chamber using only the backing pump. After half an hour or so you should reach a vacuum somewhere around $1 \times 10^{-1}$. Pumping the system with the turbo on for long periods while a large leak is present can cause damage to the turbo pump.

Get a bottle of Isopropyl Alcohol or ethanol and spray this around the joints on the gaskets, hose joints and o-ring seals etc. You should be able to hear the alcohol being drawn into the chamber, this will be a sucking bubbling sound and you may be able to see this occur also.