64 Series Laboratory Membrane Air Dryers Frequently Asked Questions

Q: Where are Parker laboratory membrane air dryers typically used?

A:

- **To pre-treat dirty compressed air at the inlet of other Parker air-driven laboratory gas generators to additionally remove compressor oil, water, and particles.**
- **To provide clean, ultra-dry compressed air to the whole laboratory to protect analytical equipment.**
- **To produce ultra-dry compressed air to LC/MS instruments as pump exhaust gas supply.**
- **To produce ultra-dry compressed air to supply Auto-samplers, WISPs and laboratory sample prep robotics.**
- **To produce ultra-dry compressed air to supply air spindle and automatic sample changer at NMR instruments (only instruments where liquid nitrogen or liquid helium is not being used to cool the magnet).**
- **To produce drying blow-down gas at sample concentrators and replace nitrogen cylinders (applications where user is not concerned about oxygen).**
- **To produce GC detector support air in explosion proof areas and also support GC detectors where "rough" screening is being done (not trace analysis).**

Q: What do Parker laboratory membrane air dryers do?

A: Convert oil, water, and particle-laden compressed air into oil-free and particle-free compressed air with a -40F atmospheric dew point.

Q: How do Parker laboratory membrane air dryers work?

A: They consist of two primary technologies that blend high efficiency coalescing filtration with a passive membrane separation technology. The membrane has the ability to preferentially separate water vapor molecules from the incoming compressed air supply.

Q: Does the membrane need to be replaced?

A: No, the membrane is self-regenerative.

Q: What are the maintenance requirements for Parker laboratory membrane air dryers?

A: Depending on the model, the only maintenance requirement is the replace the single or dual filter cartridges on an annual basis. Order the corresponding Parker MK style annual maintenance kit.

Q: Is it normal to hear a slight air hiss sound from the membrane air dryer?

A:

- **Yes, that is the membrane regeneration flow being discharged from the unit harmlessly into the lab.**
- **If the air hiss is extremely loud, above normal conversation level, verify incoming compressed air pressure and verify output pressure from the unit, if there is a high differential pressure across the membrane air dryer, contact Parker technical services direct at 800-343-4048.**
- **Also, check pre-filter automatic drains, verify that drains are not stuck in the open position. If so, order drain replacement part number 21552.**

Q: Do the Parker laboratory membrane air dryers require electricity?

A: Unlike refrigerant, desiccant, pressure-swing based air dryers electricity is not needed. There are no mechanical parts to wear out.

Q: What is needed to properly install a Parker laboratory membrane air dryer?

A:

- **A compressed air source with a pressure range of 60 psig to 150 psig.**
- **If inlet compressed air pressure has wide fluctuation, purchase and install Parker's 72-130-V883 inlet pressure regulator to provide constant inlet pressure to the membrane dryer.**
- **Do not install directly on the outlet of a dedicated compressor; allow a minimum of 25′ of distance to the inlet of membrane air dyer. Metal piping is preferred over rubber hose.**
- **An inlet compressed air temperature not exceeding 140F.**
- **Inlet isolation valve prior to the unit.**
- **A Parker WFM series output flow meter if none of the downstream equipment includes flow control.**
- **Wall space or space "under" the lab bench to perpendicularly or horizontally mount the unit. Use mounting template supplied with the membrane air dryer.**

Q: How do I know that the air is at -40F atmospheric dew point coming from the membrane air dryer?

A:

- **Refer to certificate of conformity that shipped with the membrane air dryer, each dryer is dew point performance certified prior to shipment.**
- **Purchase and install optional moisture indicator, Parker part number 75851 for ¼" NPT and 75852 for ½" NPT.**

Q: What will damage the membrane air dryer?

A:

- **Foreign chemical or solvent vapors if present on the intake of the house air compressor. If present, purchase and install Parker's 76080 compressed air purifier to protect the laboratory membrane air dryer.**
- **Large excess amounts of compressor oil and water, if present purchase and install Parker's 2104N-1B1-DX pre-filter assembly.**