

Medical Air Dryer/Retrofit Dryer with Manual and Demand Purge Control with Dewpoint (DP) and/or Carbon Monoxide (CO) Monitor with Alarms

Dryer System

- Desiccant twin tower air dryer with an integral demand based purge saving control system (Demand Purge)
- Two dryers per package (option for a single dryer package)
- Pre-filter and after-filter per dryer
- Line regulator per dryer
- Safety relief valve per dryer (75 PSI standard – others available)
- Isolation valves for each dryer
- Air sample port

Dryer

- Twin tower, pressure swing adsorption, regenerative type
- Each dryer individually sized for peak calculated demand and capable of producing your required pressure dewpoint
 - -10°C default setting, but capable of -40°C
- Desiccant is contained within a packed bed canister to prevent excessive downstream dusting
- Purge flow is minimized through an integral purge saving control system

Filters

- Pre filter: high efficiency coalescing pre-filter rated for 0.01 micron mounted before each dryer with automatic drain and includes an element change indicator
- After filter: particulate final line filter rated for 0.01 micron mounted after each dryer and includes an element change indicator

Regulator/Safety Relief Valve

- Regulator for each dryer with full dryer range
- Regulator factory set at 55 PSI
- Safety Relief Valve rated for 75 PSI (standard)

Dew Point Monitoring

- Provides continuous monitoring of dew point levels in breathing air per NFPA 99 requirements
- Alarm setting is easily adjustable thru touchscreen (preset at 2°C)
- Reading can be displayed in °C or °F
- Accuracy of reading is $\pm 2^{\circ}\text{C}$
- Horn can be silenced with button on front of enclosure
- Sensor is a ceramic sensor using thin film technology
- Sensor can be easily replaced and is pre-calibrated
- Measurement range of sensor is -80°C to +20°C

Carbon Monoxide Monitoring

- Provides continuous monitoring of carbon monoxide levels in breathing air per NFPA 99 requirements
- Alarm setting is adjustable thru touchscreen (preset at 10ppm)
- Accuracy of reading is ± 2 ppm (at 10ppm)
- Horn can be silenced with button on front of enclosure
- Sensor can be easily replaced and calibrated
- Measurement range of sensor is 0 – 1000 ppm

Part Numbering

- 64-01- <flowrate>: Simplex dryer skid with DP/CO monitoring
- 64-02- <flowrate>: Duplex dryer skid with DP/CO monitoring
- 64-03- <flowrate>: Simplex dryer skid with DP only monitoring
- 64-04- <flowrate>: Duplex dryer skid with DP only monitoring
- 64-05- <flowrate>: Simplex dryer skid with no monitoring
- 64-06- <flowrate>: Duplex dryer skid with no monitoring

Options

- -K: adds carbon filter to the discharge piping (per dryer)
- -W: add moisture separator to the inlet piping (per dryer)

Dryer Purge Control (Demand Purge)

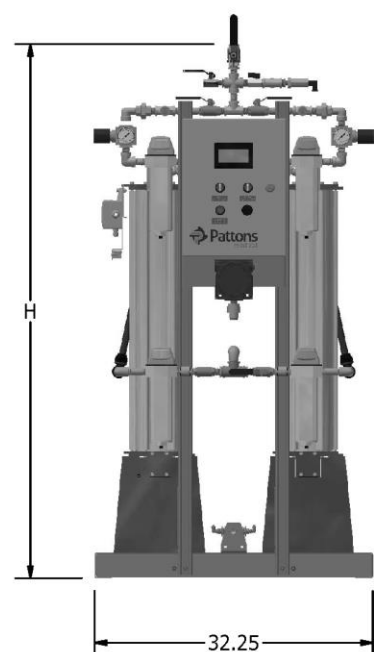
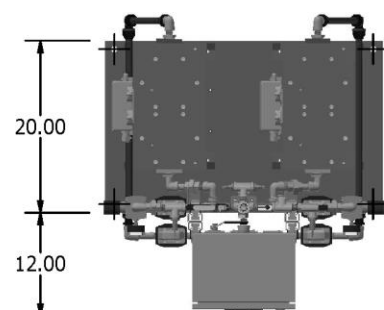
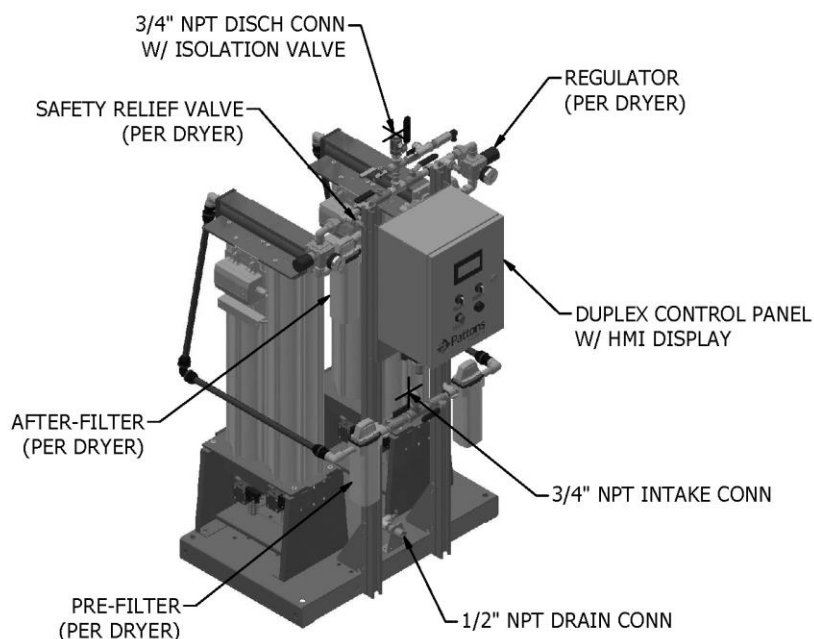
- Two single pole relays to individually control purge operation on separate dryers based on either Normally Closed or Normally Open purge control
- Purge setting easily adjustable thru touchscreen (preset at -10°C)
- Purge control visual indication shown on screen

Control System

- Mounted and wired control system
- Separate control switches allows the operator to choose between manual purge and demand purge on each dryer
- In manual purge, dryer follows it's internal controls
 - One side purges about 2 minutes
 - That side re-pressurizes for about 30 seconds
 - Other side purges about 2 minutes
 - That side re-pressurizes for about 30 seconds
 - Repeat
- In demand purge, the dryer still follows it's internal controls (above), but when the dewpoint drops below the purge setpoint, the purge valve closes until the dewpoint goes above the setpoint again
- Purge rate is about 15%, but can be adjusted based on needed flow and dewpoint (contact Pattons Medical)
- NEMA 4 and UL508A labeled
- Enclosure is 12"H x 10"W x 8"D
- 120VAC power (100 watts) into the panel
- All internal components (other than power supply) are low voltage (24vdc)
- 120VAC connections for dryers
- Visual and audible alarms with isolated contacts for remote alarms for both high dewpoint and high CO
- 3.8" wide TFT graphic (16-bit) color LCD with touchscreen
- Downloadable trend and alarm information via USB port
- Built-in ethernet port 10/100 Base-T
- Share data between HMI and Building Management Systems via Modbus TCP/IP

Standard Screen Displays

- | | |
|--------------------|-----------------------|
| + Alarm History | + Replacement Parts |
| + System Data | + Service/Maintenance |
| + Trouble Shooting | + System Setup |
| + System Health | + Historical Trending |



Medical Dryer Package / Retrofit Dryer Package / Dryer Package									
Model Number ¹	Flowrate (SCFM)	Inlet (NPT)	Discharge (NPT)	H (inches)	Weight (lbs.)		Minimum Inlet Pressure	Maximum Discharge Pressure	Min/Max Inlet Temperature
					Simplex	Duplex			
64-0X-045	45	3/4	3/4	62	214	315	58 psig	189 psig	2°C/35°F 43°C/110°F
64-0X-060	60	3/4	3/4	62	227	342			

Notes:

¹ "X" in model number designates number of dryers on package and monitoring (see "PART NUMBERING" on page 1)

1: Simplex w/DP/CO; 2: Duplex with DP/CO; 3: Simplex with DP; 4: Duplex with DP; 5: Simplex no DP/CO; 6: Duplex no DP/CO

² Normal Operating conditions at a maximum ambient of 110°F.

³ Electrical Requirements: 120V/1ph/60Hz @ 100 watts (NEMA 4 standard)

Statement of Warranty

Patton's Medical warrants all Medical Air packages, to be free of defects in material and workmanship under normal use for a period not to exceed thirty (30) months from date of shipment, or twenty-four (24) months from date of start-up.