

X1.1 Version Outside running on dedicated compressor.



Notes:

- 60 psi was ~the max output
 - Pressure cycle needs small tank
 - Performance was outstanding
 - -47.3 F Dew Point
 - 37F @96% RH outside
 - 49.4F@ 0.6 % RH exit
 - 10 min operating time
 - 20 LPM dry air
 - 3 LPM purge/waste air
 - 1.25.24
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- Regulator may not be needed.
 - Reservoir = vessel volume ??

X1 Initial Results

P inlet = 60 psi	P inlet = 60 psi
P exit = 55 psi	P exit = 55 psi
RH inlet = 16% @ 72F	RH inlet = 16% @ 72F
RH exit = 1.25% @72F	RH exit = 0.95% @72F
Dry Flow = 20 LPM	Dry Flow = 20 LPM
Purge Flow=3 LPM	Purge Flow=20 LPM
Swing time = 62 sec	Swing time = 62 sec
Calc DP exit= -23.8 F	Calc DP exit= -28.3 F

1.23.24

1.22.24

X1.1 Results

P inlet = 60 psi
P exit = 55 psi
RH inlet = 97% @ 37F
RH exit = 0.6% @49.4F
Dry Flow = 20 LPM
Purge Flow=3 LPM
Swing time = 62 sec
Calc DP exit= -47.3 F

Outside Test w/compressor

10 min operation time

1.25.24

Comments:

Approx 10 min before stabilized output.

5 psi drop across check valves

Purge flow rate stabilizes faster with 20 LPM than 3 LPM

Desiccant – 5A molecular sieve

Restrictor drops exit flow to 20 LPM @ atmo pressure