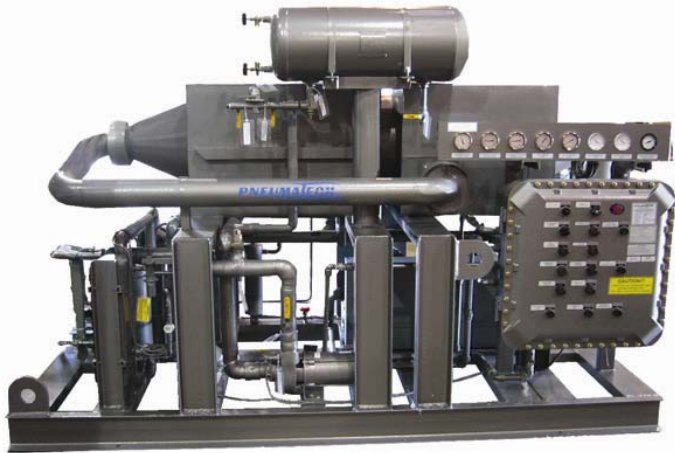


Custom Built Gas Dryer



A duplicate of a 2004 refrigerated air cooled chiller type digester type gas dryer was recently built for a Canadian customer. This dryer was custom designed for a low gas pressure application to keep the customers operating costs at a minimum. The dryer was designed for 172 SCFM at 5 PSIG minimum operating pressure, 140 Deg. F maximum inlet gas temperature and provides a 40 Deg. F pressure dew point. The dryer has the following design features:

- Chiller type design using a propylene glycol mixture to chill the gas to design Dewpoint of 40 Deg. F. The refrigeration system chills the glycol solution which in turn chills the digester gas to the dew point temperature.
- 304 Stainless Steel heat exchanger consisting of a gas to gas heat exchanger, gas to glycol heat exchanger and internal moisture separator.
- Glycol system consisting of a chiller barrel, explosion proof water pump and hydronic controls.
- Remote air-cooled condenser with explosion proof motor and low ambient controls
- All 304 Stainless Steel piping on all gas areas
- Explosion proof electrical enclosure meeting Class 1, Division 1, Group D
- 575-3-60 voltage
- Allen Bradley Micrologix 1000 Process Controller
- Power on/off selector switch
- Pilot lights for power on, compressor running, oil pressure, dual pressure, motor overloads & freeze-up
- Gas inlet & outlet temperature & pressure gauges
- Refrigerant suction, refrigerant discharge & oil pressure gauges with isolation valves
- Safety controls for refrigerant dual pressure, oil pressure, motor overload & freeze-up
- Open frame construction
- Open type belt driven refrigeration compressor with explosion proof motor
- Pneumatech model 4488, NEMA 7 auto drains for no gas loss operation.
- All cold gas system piping and refrigeration piping are insulated to prevent sweating.