

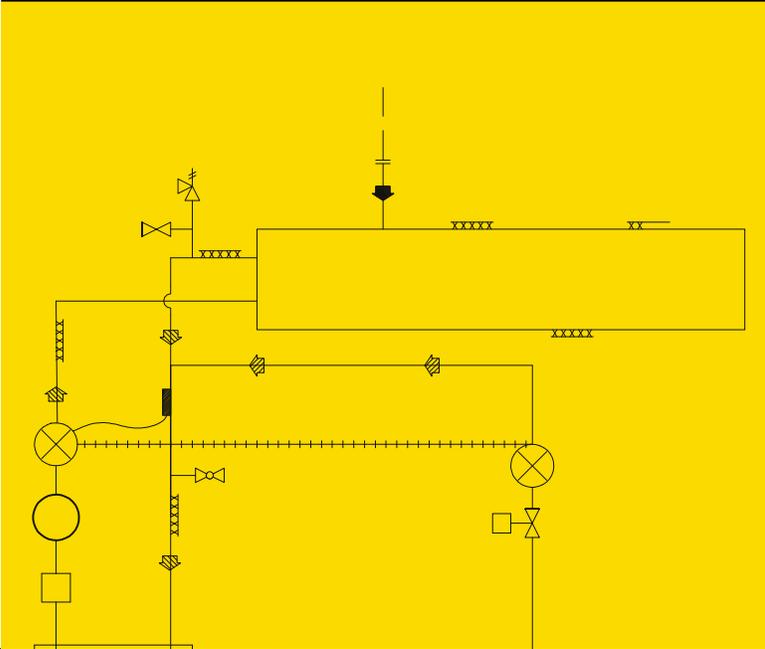
Engineered and manufactured gas and liquid process solutions

LECTRODRYER

adsorption technology experts since 1932

TYPE GAS CC-CNG COMPRESSED NATURAL GAS DRYER

Lectrodryer's line of desiccant dryer is ideal for the compressed natural gas industry serving natural gas vehicles.



LECTRODRYER CNG closes circuit dryer offer increased efficiency and safety

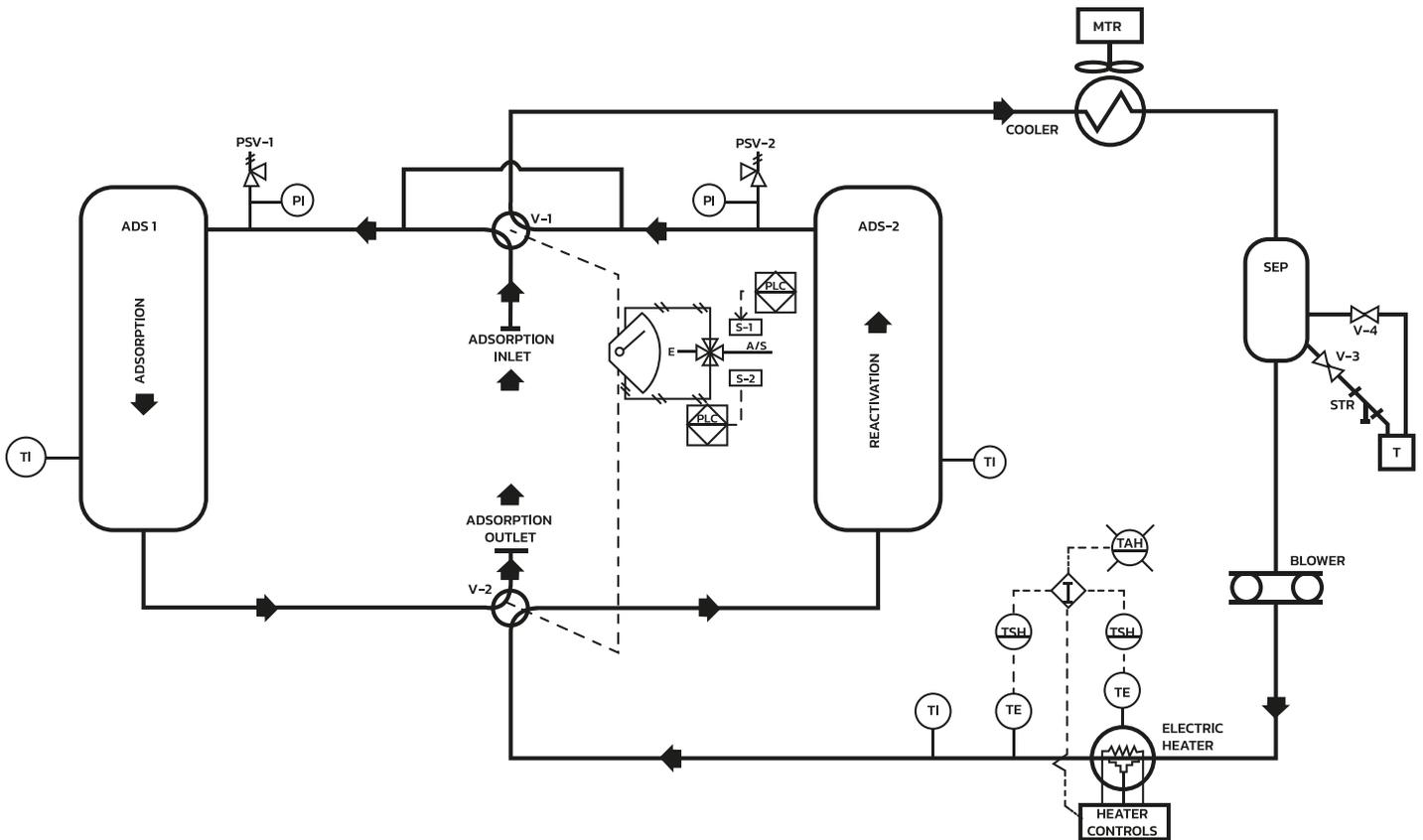
The dryers are capable of reaching the fuel vehicle standards with no purging or venting requirements. Unlike many systems being offered to the industry, Lectrodryer's closed circuit system overcomes fuel quality and storage tank problems, and works equally well with low and high pressure compressors. A special grade of molecular sieve is used to guard against heavy hydrocarbon adsorption and mercaptan loss.

The system is fully automatic and utilizes a high efficiency, low watt density heater for safety and long service life.

Regeneration is accomplished at line pressure with no purging, delivering more usable gas at lower operating costs.

Lectrodryer's CNG dryer is designed to meet all codes and safety regulations with ASME code stamped vessels. For additional safety, all electrical equipment is mounted in an enclosure suitable for Class I, Group D, Division II areas, and as an option can be UL listed when specified.

Typical Flow Diagram for Model GAS-CC-350-CNG Through GAS-CC-3500-CNG with External Heater



LECTRODRYER CNG closed circuit dryer

GAS-CC-CNG Features

- Special formulation of molecular sieve to prevent heavy hydrocarbon adsorption and mercaptan loss
- Close loop system maintains positive pressure throughout regeneration
- Solid state PLC controller for state-of-the-art dryer control and adjustment
- Class 1, Group D, Division II electricals
- Heater elements have extremely low-watt density for extended durability and safety
- Air or water-cooled inner-cooler
- Centrifugal separator and condensate trap
- ASME code vessels
- Full instrumentation to monitor dryer performance
- No depressurization or repressurization for desiccant life

Optional Features

- Diagnostic Package A-switch failure, heater failure, blower motor failure
- Diagnostic Package B- Lectrolod demand cycle and high humidity alarm
- U.L. listed control panel
- Coalescing prefilter, particulate after-filter, and other customer specified alarms and instrumentation

Drying Cycles

Wet gas enters the Type GAS-CC-CNG Lectrodryer at the top 4-way valve. It is then directed through the left tower and through the bottom 4-way valve.

The gas in the closed circuit is heated and routed through the right tower and then directed the condensable materials being driven off the desiccant.

At the end of the heating period, the heater is de-energized with the flow continuing to cool the bed. After cooling, the valves are switched and the same operations are repeated.

Sizing of Type GAS-CC-GNC Lectrodryers

The selection of a particular Type Gas-CC-CNG Lectrodryer for an application is somewhat more complex than the selection of a compressed air dryer. The various parameters that affect the sizing of the Type Gas-CC-CNG Lectrodryer are many. Because of the complex nature of the selection of this type of Lectrodryer, each problem should be handled individually.



LECTRODRYER offers a complete range of drying and purification equipment:

- * For atmospheric or high pressure conditions
- * For very small or very large volumes
- * For air, gases, liquids and certain organic fluids
- * Completely packaged systems
- * Custom engineered and manufactured

Lectrodryer offers a complete range of drying equipment of the CNG industry. For over 60 years Lectrodryer has been considered the leader in adsorption technology.

Today, Lectrodryer maintains an efficient and productive manufacturing facility in Richmond, KY. Strict quality control coupled with in-house engineering and advanced manufacturing techniques enable Lectrodryer to service any CNG application.

In addition to the GAS-CC-CNG Lectrodryer described in this brochure, Lectrodryer can offer a wide range of equipment for CNG service. Lectrodryer can also custom design dryers to meet your specific requirements.

PURGE TYPE CNG DRYERS

- Lower initial cost
- Recycle purge to inlet of compressor
- Dewpoints as low as - 100°F can be achieved

High Pressure Heatless or Heated CNG Dryers

- Pressure up to 6000 PSIG
- Purge or non -purge heated type
- Designed for any flow range

Lectrodryer Filters



The Lectrodryer type SF and type F filters provide high efficiency filtration with ten sizes available in each type for flows to 8400 SCFM, larger sizes available on application. Both types have a high level filter

Lube Oil / Air Tanks



Lectrobreather tank vent dryers prevent atmospheric moisture from entering storage during "breathing" due to ambient temperature changes and draining periods.



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