

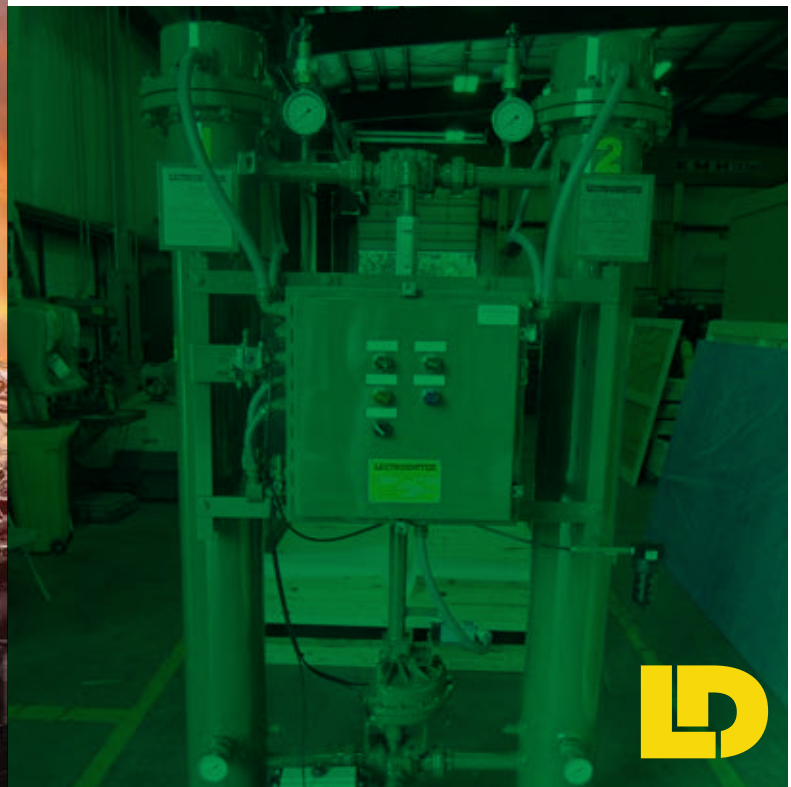
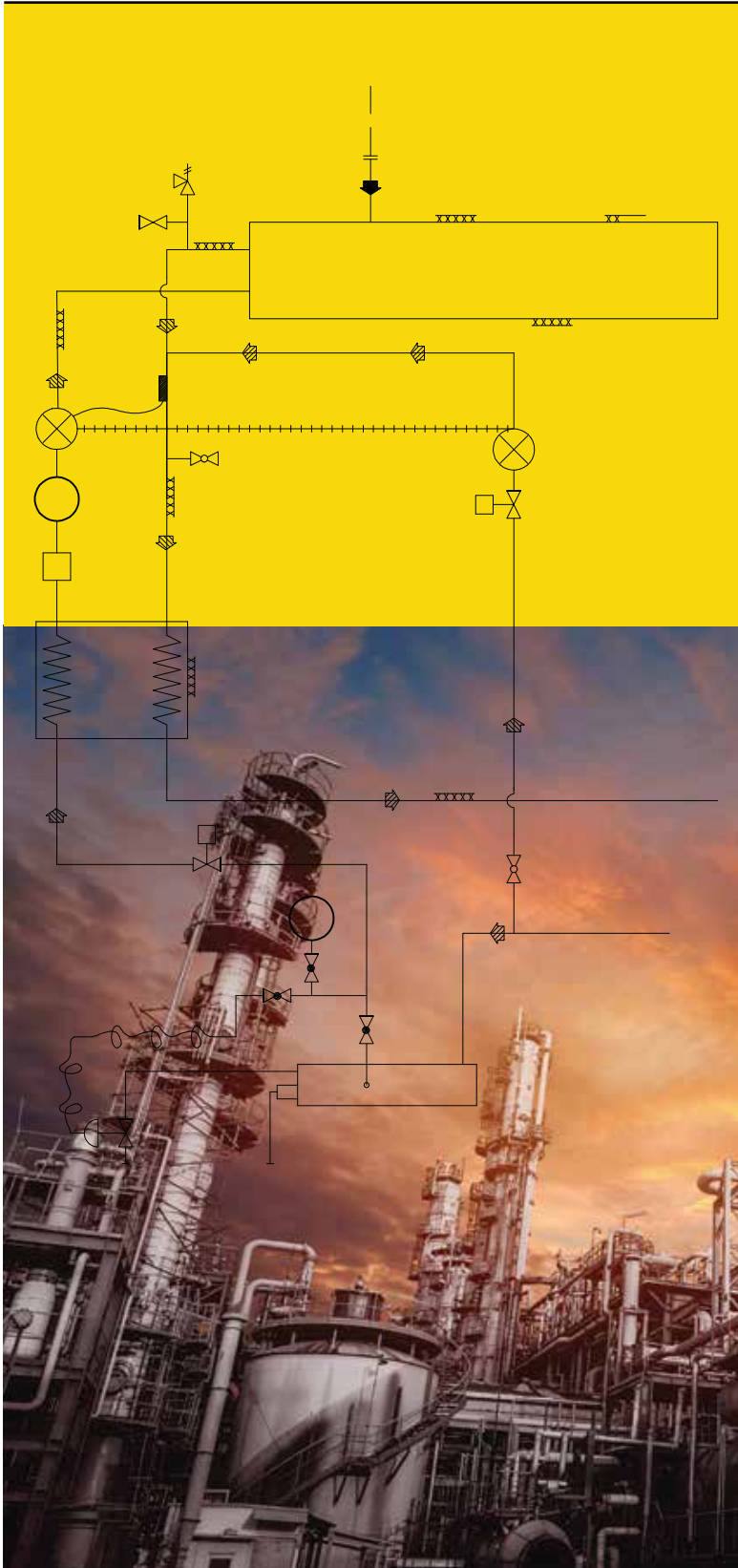
Engineered and manufactured gas and liquid process solutions

LECTRODRYER

adsorption technology experts since 1932

TYPE GAS B INDUSTRIAL GAS DRYERS

The Type GAS-B Lectrodryer is specially designed for low pressure gas service, dissociated ammonia service, removal of moisture from cylinder gasses, and for the removal of non-condensable contaminants from all process gas. It is a solid adsorption heat-reactivated gas dryer in a dual tower design that provides efficient and continuous operation. The GAS-B was carefully developed to offer low initial cost, low operating cost and requires little or no maintenance.



TYPE GAS-B LECTRODRYER for process gas purification

The Type Gas-B Lectrodryer is available in a full range of sizes and capacities to meet the individual drying needs of your particular operation.

Standard Type GAS-B Features

- Allen Bradley PLC
- Electric reactivation heaters to utilize the optimum capacity of the desiccant
- Heaters are designed with low-watt density and thermostatic over-temperature for added durability (except Gas-B-12).
- Lubricate 4-way plug valves with an interlocking valve drive mechanism with air piston operator and solenoid controls. No copper or brass in contact with process stream.
- Dial thermometer measures reactivation exhaust temperatures
- Calibrated direct-reading purge flow meter with adjustable micrometer valve and reactivation indicator lights
- Carbon steel pressure vessels
- Relief valves on each adsorber
- Locally mounted pressure gages
- ASME Code designed except GAS-B-12

Here's how the Type Gas-B Lectrodryer works

When one column dries the gas as it passes through, the other column is reactivated by a small portion of the dried outlet gas at the same time. This procedure is then reversed on a predetermined time cycle to provide through removal of water and various other constituents.

The cycling state is continuous and fully automatic. No manual attention is required for switching adsorbed columns. The positive-drive, 4-way valves automatically reverse the adsorbers. The controls are handled by a programmable logic controller (PLC) which allows a full range of adjustments and options. Since the GAS-B has so few moving parts, there is less chance of a malfunction, or does the GAS-B require the time-consuming and costly adjustments that are necessary with other gas drying units.

By using specialized adsorbents, like molecular sieve, the GAS-B can also dry air and gas to very low moisture contents below -100°F . It can remove even the slightest trace of non-condensable contaminants such as residual ammonia, carbon dioxide, hydrogen sulfide, carbonyl sulfide, and various mercaptans from other fluids.

Specifications

Model	Length	Width	Height	Weight (lbs.)	Heater (KW)	Purge (SCFM)	Connection
GAS-B-12	32"	18"	34"	220	0.5	0.5	3/8"
GAS-B-27	50"	18"	67"	500	1.0	1.1	3/4" or 1"
GAS-B-40	56"	22"	67"	700	1.4	1.8	1" or 1 1/2"
GAS-B-75	56"	22"	87"	850	2.3	3.0	1" or 1 1/2"
GAS-B-100	59"	22"	72"	950	3.0	4.0	1 1/2" or 2"
GAS-B-135	59"	22"	89"	1200	4.0	5.5	1 1/2" or 2"
GAS-B-165	59"	22"	78"	1400	4.5	6.5	1 1/2" or 2"
GAS-B-210	59"	22"	93"	1600	5.0	8.5	1 1/2" or 2"
GAS-B-350	66"	30"	102"	3200	02.0	15.0	2" or 3"



The Gas-B Lectrodryer offers continuous service

GAS-B-12 to GAS-B-40 are available for normal operation from a 110 volt, 1 phase, 60 cycle power supply. The larger units, GAS-B-75 to GAS-B-365, are available for operation from a 440 volt, 3 phases, 60 Hz cycle supply. All electrical enclosures are NEMA 1 as standard. All electrical equipment is mounted in a single enclosure for easy accessibility.

Normal operation is fully automatic requiring a 40 to 150 PSIG compressed air supply for operation of pneumatic controls.

Optional Features

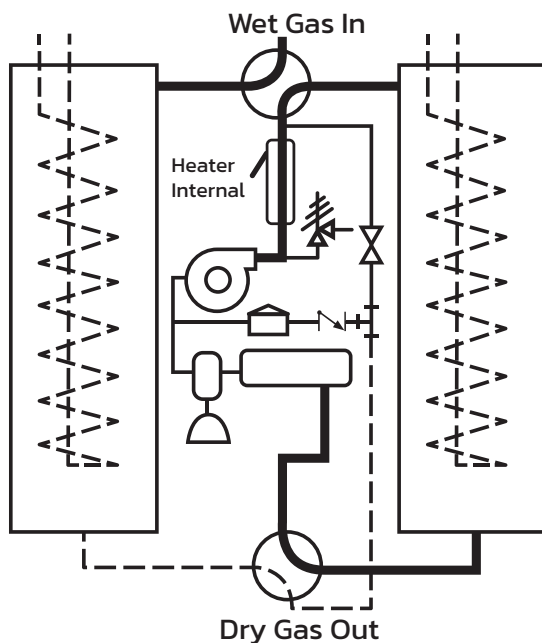
- Semi-automatic controls
- NEMA 4, 12 and 7
- Special voltages or 50 Hz electrical
- Tranflow or non-lubricated valves
- Oversize piping for reduced pressure drop
- Nitrogen purge
- Diagnostics package with switch failure, heater failure, and over-temperature detection with alarm contacts
- ASME Code stamp for 150 PSIG

Drying Cycle

Wet gas enters the type GAS-B Lectrodryer at the top 4-way valve. Flow is directed to the left tower (1) and is dried passing down through the desiccant bed. The dry gas exits through the bottom 4-way valve.

At the end of the heating period, the heater is de-energized with the purge flow continuing to help cool the bed. Just before switchover time, the reactivation exhaust is shut off and pressure is equalized.

TYPICAL FLOW DIAGRAM



Sizing of type GAS-B Lectrodryers

For sizing and quote of Gas-B Lectrodryer, fill our application questionnaire, downloadable at our website. www.lectrodryer.com

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

Regenerative Adsorption Dryer

Typical applications:

Drying compressed air for instruments; purging of refrigeration coils, compressors, and systems; drying air for ozone generators; vacuum-breaking operations controlled atmosphere gas.

Features:

Carbon steel pressure vessels with ASME Code (where applicable) for up to 150 psig stainless steel perforated metal desiccant support and inlet flow diffuser, sheathed or non-sheathed heating element in which each adsorber vessel with thermostatic over temperature protection in the heater bundle, two 4-way lubricated plug valves with air piston operator and solenoid valve controls, thermal pressure relief valves, pressure gages, dial thermometer in the purge outlet, 110 volt controls and NEMA 1 electrical enclosures.

Optional Features:

Special controls and electrical enclosures.



Refrigeration-Type Industrial Gas Dryer

Typical Application:

Low pressure situations for controlling atmospheric gases.

Features:

Power-on light, high temperature warning light, on/off switch, refrigeration analyzer gage, gas-out gage, gas-in temperature gage, low suction pressure cut-out, high head pressure cut-out, hot gas bypass capacity control, start push button pump down shut off cycle, oil pressure control, and suction accumulator.

Optional Features:

Special control and electrical enclosures.



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.

Information contained in this brochure is for reference only and needs to be confirmed by a Lectrodryer representative.



GAS-B Rev. 01



LECTRODRYER

135 Quality Drive
Richmond, Kentucky 40475
P.O. BOX 2500
Richmond, Kentucky
40476-2602

www.lectrodryer.com

Phone +1 (859) 624 2091
Fax +1 (859) 623 2436
USA Toll Free +1 (877) 403 5215