

engineered and manufactured gas and liquid process solutions

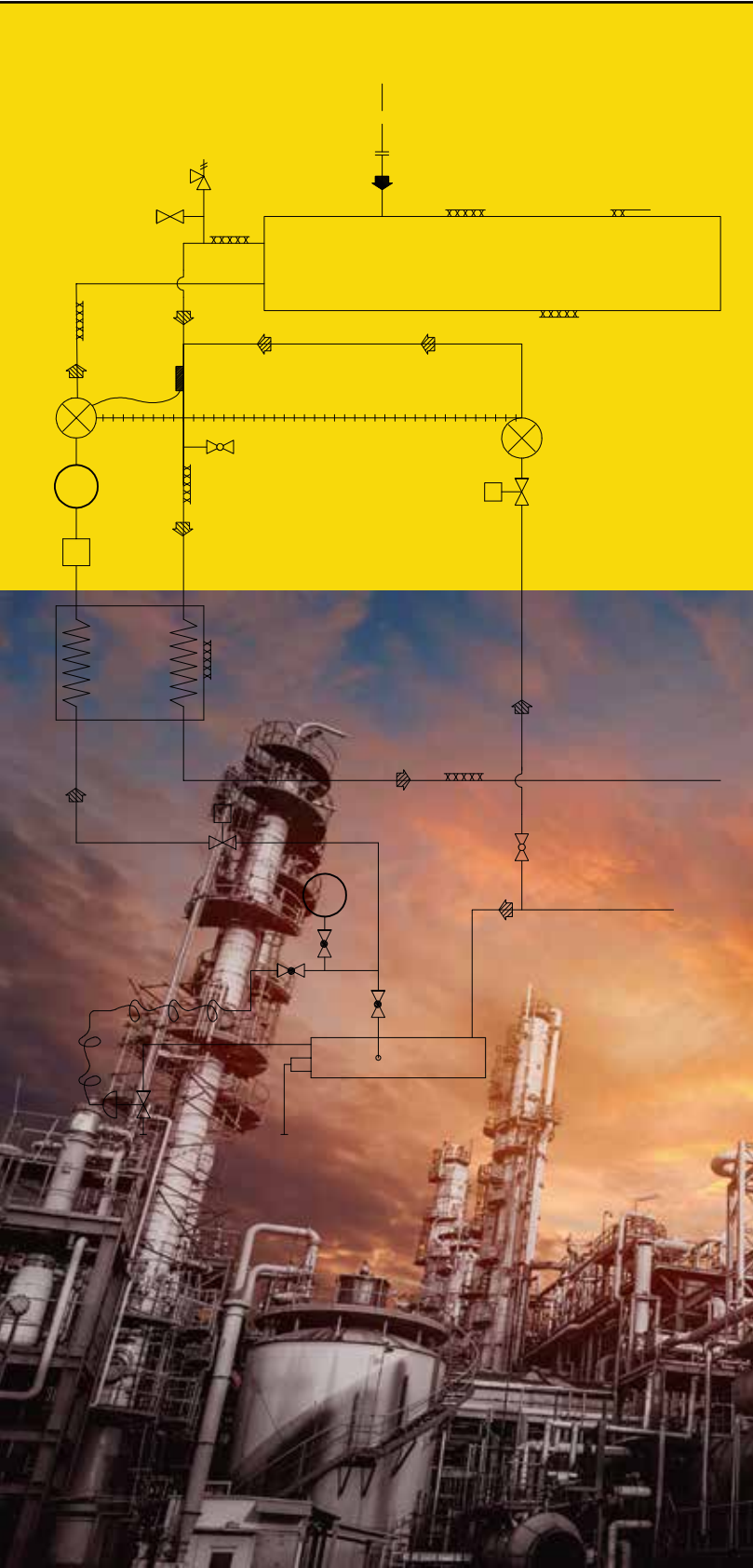
LECTRODRYER

adsorption technology experts since 1932

HPB HIGH PRESSURE DRYERS

The type HPB Lectrodryer is the most efficient and dependable high pressure desiccant dryer available.

Units are specially designed for high-pressure gas drying applications and are capable of handling pressure ranging from 300 PSIG (21 bar) up to 6000 PSIG (414 bar). HPB series are capable of providing a -60°F (-51°C) exit dewpoint with activated alumina and a -100°F (-73°C) dewpoint with molecular sieve.



HPB Series High Pressure Desiccant Dryer

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STANDARD FEATURES:

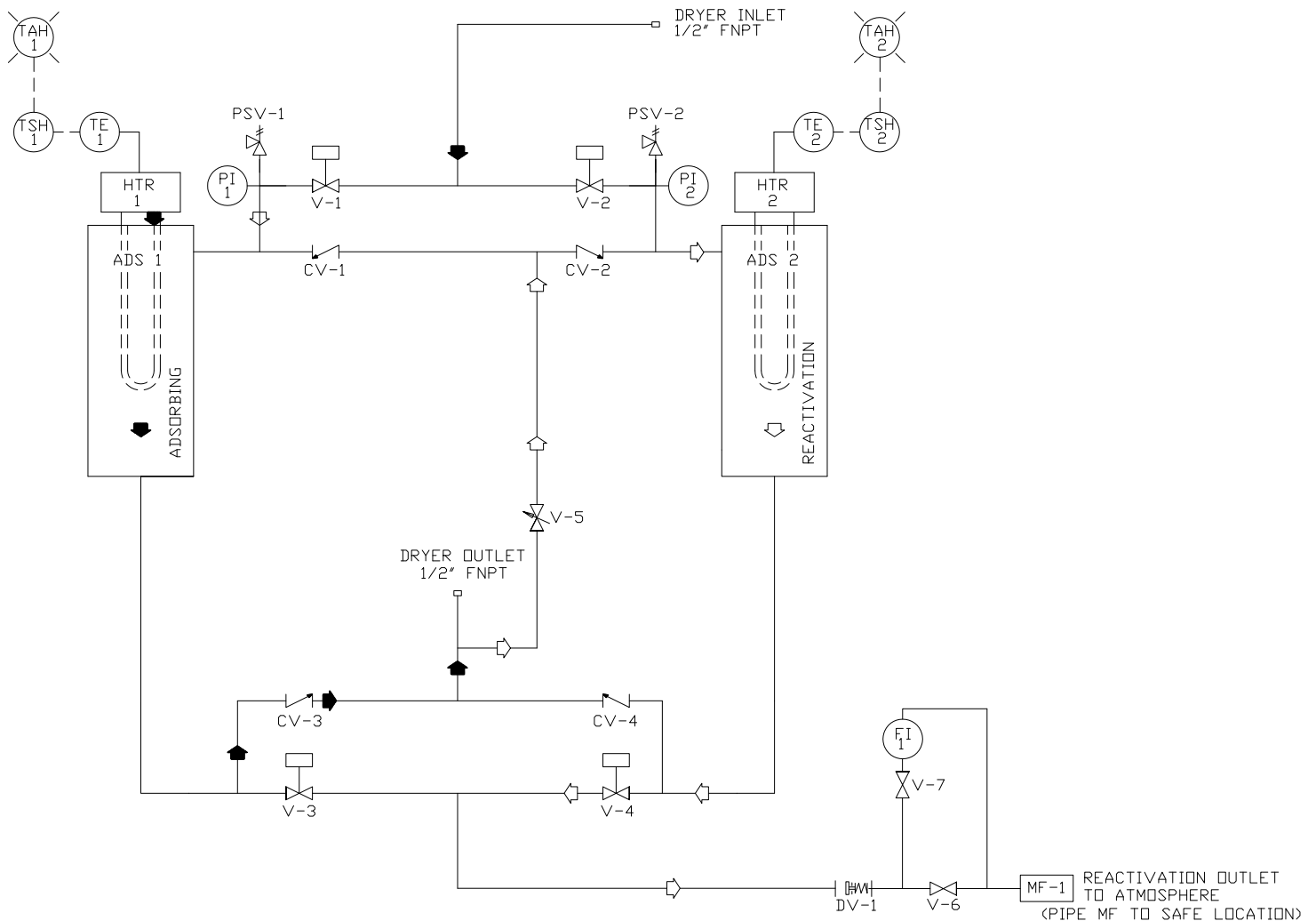
- Pressure up to 3000 PSIG (207 bar)
- Initial charge of desiccant
- Fill and drain port connections
- Stainless steel desiccant support screens
- NEMA 4 electrical enclosure
- Relief valve and pressure gage for each tower
- Purge flow meter for accurate reactivation flow adjustments
- Depressurization valve designed to control noise and reduce desiccant attrition
- Purge exhaust muffler with integral relief valve
- High pressure stainless steel ball type switching valves with pneumatic actuators
- Internal heater design for optimal efficiency
- Solid state heater control and over-temperature protection
- Allen Bradley PLC and HMI, and indicating light for dryer status
- 110 volt, single phrase, 50/60 hz

OPTIONS:

- Pressure above 3000 PSIG (207 bar) and up to 6000 PSIG (414 bar)
- Inlet and outlet filters
- NEMA 4 type-Z purged enclosure to meet Class 1 Division II Group B, C, D hazardous area
- NEMA 7 enclosure to meet Class 1, Division 1 or 2, Group B, C, D
- Nitrogen purge for reactivation
- CE—EMC, Low Voltage, PED
- ATEX



Typical Flow Diagram



The wet gas enters the HPB Lectrodryer at the adsorption inlet. Flow is directed to the left adsorbing tower, adsorber 1, and is dried passing through the desiccant bed. The dryer gas exits through the bottom dryer outlet.

While the left tower is adsorbing, the adjacent tower is reactivating. As the heater energizes, a portion of the dried gas from adsorber 1 is purged for reactivation in adsorber 2. This flow travels through the right heated reactivating tower, exhausting through the reactivation outlet to the atmosphere.

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.

Letrodryer

offers a complete range of drying and purification equipment for:

atmospheric or high pressure conditions • very small or very large air volumes • air, gases, and certain organic fluids

Power Sector

Hydrogen is used to cool large stationary generators because of hydrogen's high heat capacity and low density. It is vital that hydrogen remain dry in order to maintain these properties and prevent damage to the generator. Lectrodryer's BAC-50 hydrogen dryer is a continuous automatic operating unit that guards against damage causing moisture which can lead to costly repairs and extensive down time. The BAC-50 reduces maintenance and minimizes operator involvement. Lectrodryer also offers the GOS, which incorporates and unifies the typical generator auxiliaries. The GOS can be tailored to meet customer specifications including such components as the BAC-50 dryer, purity equipment, gas control piping, dewpoint instruments, core monitors, and annunciator cabinets.

Compressed Air



Our equipment is used for reducing compressed air waste, improving compressed air system reliability, and improving compressed air quality.

Gas Refining



Gases required for a process might be furnished with undesirable components that can range from water vapor to traces of other compounds and even solids. Lectrodryer can provide dehydration and purification systems to condition the gas to suit the application's requirements.

Letrodryer 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 efficiency of 99.985% retention (0.015 DOP penetration) for filtration to a 0.3 micron particle size and smaller.



Brochure Rev. 04



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