



**POLYGON
EQUIPMENT
DATASHEET**

DHi-125-ESU

Desiccant Dehumidifier with
PowerPurge™ Technology



Product Description

The DHi-125 is a completely self-contained dehumidifier with an active Titanium Silica Gel desiccant wheel. The DHi-125 operates cost-effectively because of the patented PowerPurge™ wheel technology. The system is integrally designed and controlled for superior performance in even the highest humidity load conditions.

- Reactivation utility: electric with solid-state proportioning control. Optional: Direct fired gas with modulating gas valve for natural or propane gas.
- Dehumidifier housing: process and reactivation air flow insulation. Quiet operation with plenum mounted process fan.
- Patented PowerPurge technology: energy savings within a heavy duty field-proven design.



PowerPurge™ Wheel Technology

PowerPurge saves energy in two ways. The unique, patented PowerPurge acts as an energy recovery system, collecting waste heat from the hottest section of the desiccant wheel and using it to help with the regeneration. This reduces the energy required for reactivation while also reducing the discharge temperature of the process air, resulting in lower energy costs for post cooling.

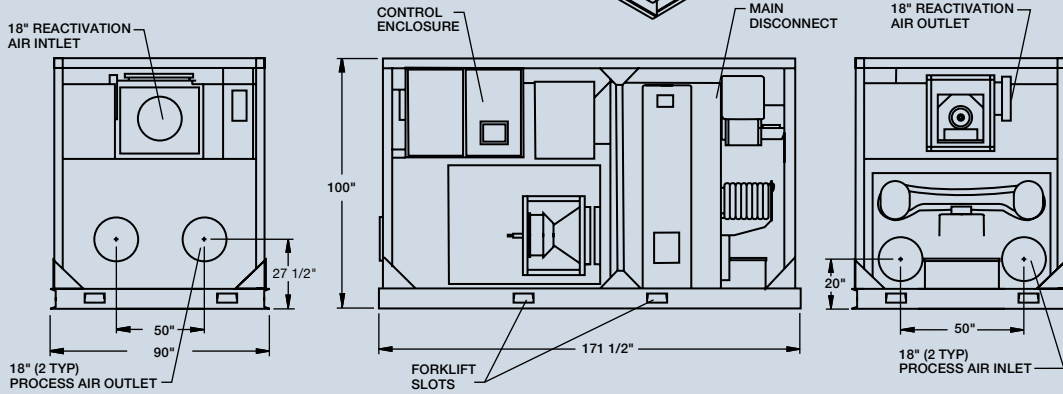
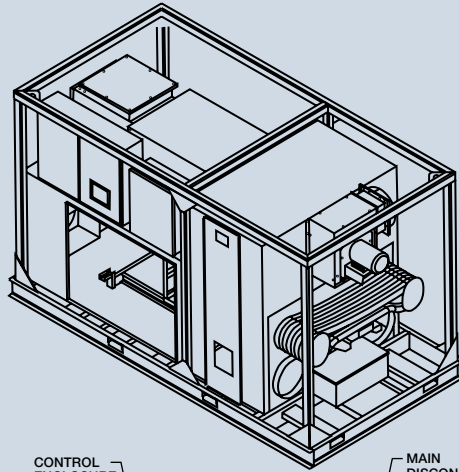
Features

- Process air: flow rates of 4,500-12,500 SCFM. Nominal moisture removal: 272 lb/hr at 75°F, 50% RH at 12,500 SCFM. Delivered air moisture levels of -55°F dew point and lower are attainable.
- Contact air seals: separate process and reactivation air pressures up to 8" water gauge with five-year life expectancy
- Process and reactivation fans: centrifugal, direct drive with totally enclosed fan cooled motors
- Electrical controls: continuous automatic operation including motor starters, overload protective devices and full controls with indicating lights and fault circuits
- Desiccant reactivation via modulating electric, with propane or natural gas optional
- All wiring to NEC codes
- Drive system: simple drive belt arrangement with few moving parts

Benefits

- Flexibility - weather-tight construction makes unit suitable for indoor or outdoor use
- Low profile cassette design provides space savings
- Quick access for easy maintenance
- Cost savings-18" deep Titanium Silica Gel desiccant provides optimal drying performance with the least energy consumed





DHi-125-ESU

Equipment Specifications

Length: 174"

Width: 90"

Height: 100"

Weight: 8,000 lb

Power required:

272 @ 460 volt three phase-electric reactivation

50 @ 460 volt three phase-gas reactivation

Fuel required:

8 g/hr diesel for electric

3 g/hr diesel for gas

5-9 therms natural gas/hr

6-10 gal/hr of propane

Working gas pressure 4" to 10" water column

SCFM range: 3" ESP @ 4,500-12,500 SCFM

ETL listed CSA and UL compliant

NFPA 255-ASTM E84 compliant

Insurance value: \$170,720.00

PowerPurge™ Wheel Technology

