



Desiccant Fill Instructions for Sahara Air Products Regenerative Air Dryers

SAHARA AIR PRODUCTS
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Service Guide



Before servicing components, it is important and advised to read and understand all instructions and procedures in this Service Guide.

These instructions apply to the following Sahara Regenerative Air Dryers:

Blower Purge (BP)

Exhaust Purge (EP)

**Heat-of-Compression
(HC & SP)**

T Heatless (T)

INTRODUCTION

About This Service Guide

This guide contains maintenance procedures for removing and installing desiccant in Sahara Air Products regenerative air dryers.

Before Servicing Equipment

- Read and understand all instructions and procedures before servicing equipment.
- Read and observe all warnings and cautions in this Service Guide, as well as those in the air dryer instruction manual which was included with the air dryer upon shipment. They provide information that can help prevent serious injury, damage to components, or both.
- Follow your company's maintenance, service, installation, and diagnostics guidelines.
- Use proper tools to help avoid serious personal injury and damage to components.

Messages and Symbols



An advice symbol alerts of an instruction or procedure that must be followed to avoid damage to components.

Desiccant Safety Data Sheet (SDS)

Desiccant Safety Data Sheets are included in the air dryer instruction manual that shipped with the dryer and available upon request from Henderson Engineering. The SDS will be specific to the type of desiccant installed in the air dryer. When requesting an SDS, please have available either the air dryer serial number or the desiccant part number (the part number can be found on the spare parts list included with the air dryer instruction manual).

First Time Desiccant Fill-up

If the desiccant was shipped separately from your new air dryer, first time fill-up instructions can be found in the air dryer instruction manual, which was included with the air dryer upon shipment, in the "Operation & Maintenance" section.

STEPS FOR REMOVING & INSTALLING DESICCANT

advice

Advice For Protection

- **A small dust mask must be worn.**
- **If desiccant comes into contact with eyes, rinse eyes immediately with large amounts of clear water.**
- **If the desiccant is spilled, clean up to minimize the formation of dust.**
- **In case of fire, there is no restriction on the use of fire extinguishing material.**

The air dryer is filled from the top and can be emptied by either vacuuming from the top (recommended) or emptying from the bottom.

- To replace used desiccant, do not attempt any maintenance while dryer is pressurized.
- First, isolate the dryer (IF BYPASS VALVING HAS BEEN INSTALLED), or shut off compressor, turn off dryer, then slowly depressurize the dryer.
- Remove desiccant from tower. We recommend removing desiccant from the top handhole via a vacuum truck. If a vacuum truck is not available, or there is no handhole, drain desiccant from tower by removing the plug at the bottom of the tower and catch the old desiccant in a suitable container.
- On large towers with manways, remove nuts, bolts, yokes, cover, and gasket from the manway at the top of the tower. Take care not to drop the manway cover into the tower.

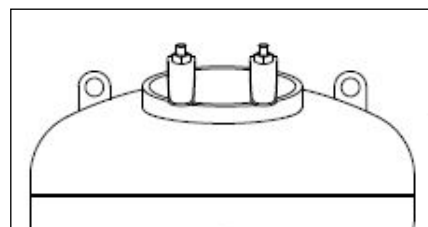


Illustration: Large tower with manway

On large T heatless air dryers with flange, remove bolts and blind flange from the desiccant fill standpipe.

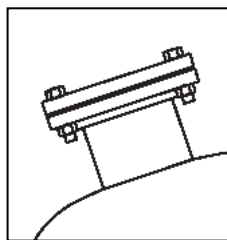


Illustration: Desiccant fill standpipe with flange on large T heatless air dryer

- On small towers with threaded desiccant fills, remove plug from the desiccant fill.

On small T heatless air dryers with threaded desiccant fill, remove pipe cap from the desiccant fill standpipe.

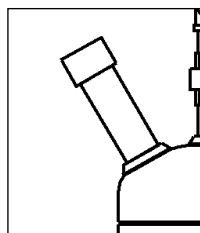


Illustration: Desiccant fill standpipe with threaded desiccant fill on small T heatless air dryer

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- The tower can be blown clean with an air hose or may be washed out with a water hose, if desired, but time must be allowed if this is done to completely dry the tower before refilling it with desiccant.
- If drain plug removed during removal of desiccant or cleaning the tower, replace drain plug in bottom of the tower.
- If equipped with manway, visually inspect both upper and lower desiccant retainers in each tower. Replace, if damaged.

advice

For air dryers with a mixed desiccant bed:

- **BP & EP:** If a mixed bed with molecular sieve is required, the molecular sieve should be installed on the bottom of the drying bed with the activated alumina on the top.
- **HC, SP & T:** If a mixed bed with molecular sieve is required, the activated alumina should be installed on the bottom of the drying bed with the molecular sieve on the top.
- Pour desiccant into the tower.

advice

On the T heatless air dryer, fill through the standpipe; it is important to make certain the standpipe is completely filled with desiccant!

- The tower on every model of dryer, except the T heatless air dryer, may not be completely full. The amount of desiccant per tower will be specific; reference the specification sheet in the air dryer instruction manual for required desiccant quantity or contact Henderson Engineering (air dryer S/N required).
- Do not tamp the desiccant.
- Reinstall the handhole or manway cover and components, or desiccant fill plug or standpipe cap, and tighten.
- A new gasket will be needed for re-assembly.
- Repeat process for the other tower.
- Make sure all drain and fill ports are in place and properly tightened. Soap test for leaks before returning the dryer to service.
- Slowly repressurize the dryer and turn on.

advice

For T heatless air dryers, recheck desiccant level one month after replacing and refill as necessary; desiccant should be filled through the standpipe.

DESICCANT DISPOSAL

Disposing of Used Desiccant

Typically, desiccant is disposed of as a non-hazardous solid waste. Contact a local waste hauler for qualification and disposal of desiccant.

Dispose of in accordance with federal, state, and local environmental control regulations. All waste materials should be reviewed to determine applicable hazards.

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INSIDE SALES FOR PARTS

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When contacting Henderson Engineering, please have the following information available:

- **Serial Number** which can be found on the air dryer; either on the ASME code nameplate on the dryer towers or in the electrical enclosure.
- **Model Number** which can be found on the air dryer; either on the ASME code nameplate on the dryer towers or in the electrical enclosure.
- Inlet air temperature and pressure.
- Actual inlet flow rate.



Henderson Engineering Co., Inc.,
is proud to be certified to the
ISO 9001 Quality Management System
standards and guidelines.

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Business Office Hours: Monday - Friday 8:00 a.m. - 4:30 p.m.
Receiving Dock Hours: Monday - Thursday 7:30 a.m. - 3:30 p.m.

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