HANKISON

SERIES DHW HEATLESS DESICCANT COMPRESSED AIR DRYERS

MODELS DHW-5 THROUGH DHW-25

INSTRUCTION MANUAL

WARRANTY

The manufacturer warrants the equipment manufactured by it to be free from defects in material or workmanship for a period of one (1) year from date of shipment to buyer by manufacturer or manufacturer's authorized distributor. If the equipment or any part thereof becomes defective within one (1) year from such date, the defective equipment or part will be replaced or credit allowed therefore at the sole option of manufacturer, but without any credit or payment for any labor or expense.

The foregoing is the exclusive remedy of any buyer of manufacturer's equipment. The maximum damages liability of manufacturer is the cost of replacement of the equipment or part.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL, OR STATUTORY, AND IS **EXPRESSLY IN LIEU OF THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.** THE MANUFACTURER SHALL NOT BE LIABLE FOR LOSS OR DAMAGE BY REASON OF STRICT LIABILITY IN TORT OF ITS NEGLIGENCE IN WHATEVER MANNER INCLUDING DESIGN, MANUFACTURE OR INSPECTION OF THE EQUIPMENT OR ITS FAILURE TO DISCOVER, REPORT, REPAIR, OR MODIFY LATENT DEFECTS INHERENT THEREIN.

THE MANUFACTURER, HIS REPRESENTATIVE OR DISTRIBUTOR SHALL NOT BE LIABLE FOR LOSS OF USE OF THE EQUIPMENT OR OTHER INCIDENTAL OR CONSEQUENTIAL COSTS, EXPENSES OR DAMAGES INCURRED BY THE BUYER, WHETHER ARISING FROM BREACH OF WARRANTY, NEGLIGENCE OR STRICT LIABILITY IN TORT.

The manufacturer does not warranty any equipment, part material component, or accessory manufactured by others and sold or supplied in connection with the sale of manufacturer's products.

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AUTHORIZATION FROM THE SERVICE DEPARTMENT IS NECESSARY BEFORE MATERIAL IS RETURNED TO THE FACTORY OR IN-WARRANTY REPAIRS ARE MADE.

General Safety Information

CAUTION

1. **Pressurized devices —**
   This equipment is a pressure containing device.
   - Do not exceed maximum operating pressure as shown on equipment serial number tag.
   - Make sure equipment is depressurized before working on or disassembling it for servicing.
2. **Electrical —**
   This equipment requires electricity to operate.
   - Install equipment in compliance with national and local electrical codes.
   - Standard equipment is supplied with NEMA 1 electrical enclosures and is not intended for installation in hazardous environments.
   - Disconnect power supply to equipment when performing any electrical service work.
3. **Breathing air —**
   - Air treated by this equipment may not be suitable for breathing without further purification. Refer to OSHA standard 1910.134 for the requirements for breathing quality air.

IMPORTANT:
READ PRIOR TO STARTING THIS EQUIPMENT

A. UNPACKING

This shipment has been thoroughly checked, packed and inspected before leaving our plant. It was received in good condition by the carrier and was so acknowledged.

1) **Check for Visible Loss or Damage.** If this shipment shows evidence of loss or damage at time of delivery to you, insist that a notation of this loss or damage be made on the delivery receipt by the carrier's agent.
2) **Check for Concealed Loss or Damage.** When a shipment has been delivered to you in apparent good order, but concealed damage is found upon unpacking, notify the carrier immediately and insist on his agent inspecting the shipment. Fifteen days from receipt of shipment is the maximum time limit for requesting such inspection. Concealed damage claims are not our responsibility as our terms are F.O.B. point of shipment.

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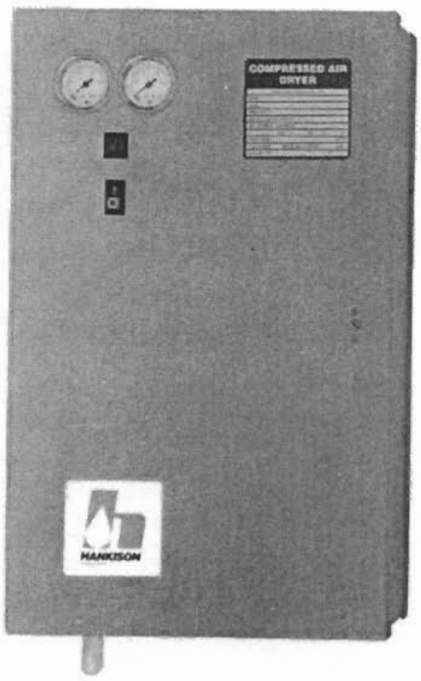


1.0 DESCRIPTION

1.1 Function

Dual tower regenerative desiccant dryers are an economical, reliable way to dry compressed air to dew points below the freezing point of water or reduce the moisture content of compressed air for use in critical process applications. Dew points as low as -150°F (1ppb @ 100 psig) are possible. Dew points of the air leaving a DHW dryer vary depending on the desiccant used, cycle time chosen, and temperature of the compressed air at the inlet to the dryer.

These dryers continuously dry compressed air by using two identical towers, each containing a desiccant bed. While one tower is on-stream drying the compressed air, the other tower is off-stream being regenerated (reactivated, i.e., dried out). The towers are alternated on- and off-stream so that dry desiccant is always in contact with the wet compressed air, resulting in a continuous supply of dry air downstream.

Desiccant dryers lower the dew point of compressed air by adsorbing the water vapor present in the compressed air onto the surface of the desiccant. Adsorption occurs until an equilibrium is reached between the partial pressure of the water vapor in the air and that on the surface of the desiccant.

Desiccant can then be regenerated by driving off (desorbing) the water collected on its surface. Pressure-swing (also called heatless or heaterless because no outside heat is added) dryers regenerate by expanding a portion of the dried air to atmospheric pressure. This "swing in pressure" causes the expanded air to become very dry (having a very low vapor pressure). This very dry air causes the moisture to desorb from the desiccant and then carries the desorbed water out of the dryer.

1.2 Operation

Compressed air enters the dryer and is directed to TOWER I by solenoid operated 4-way valve (A). The air enters the bottom of the tower and flows upward.

Upflow drying allows any liquid that might be present in the inlet air to settle out on the bottom of the tower due to the velocity reduction that occurs here. Gravity keeps the collected liquid on the bottom of the tower until the tower is depressurized and the liquid is exhausted from the dryer.

Air entering or leaving a tower is evenly distributed through the tower by stainless steel flow diffusers. The diffusers prevent air channeling through the bed and the resulting loss of dew point.

As the air flows through the tower it is in contact with the desiccant for sufficient time to produce the design dew point. Towers in Hankison dryers are also designed with sufficient length to preserve the heat of adsorption that is released during the drying cycle. By saving 98% of the heat of adsorption, a minimum amount of purge air is required for regeneration. Tower diameter is chosen to limit air velocity. This prevents the desiccant bed from floating (fluidizing) and the desiccant from degrading (dusting).

The dry air then exits the dryer through shuttle valve (B).

A portion of the dried air is throttled to near atmospheric pressure by means of an orifice (C) built into the shuttle valve. This extremely dry, low pressure air flows through and reactivates the desiccant in TOWER II. By purging down and drying up, the air being dried is always exposed to the driest desiccant before leaving the tower. This further ensures that the exiting air has been dried to the design dew point.

The moisture laden purge air is then exhausted through purge/repressurization valve (D) and exhaust muffler (E) to atmosphere.

After a set time, the automatic solid state timer closes purge/repressurization valve (D) allowing TOWER II to repressurize slowly. Slow repressurization prevents desiccant bed movement and allows the bed to be fully repressurized before the tower goes back on-stream. This eliminates any drop in pressure downstream after switch-over. At the end of 5 minutes (when operating on a 10 minute cycle) or 2 minutes (when operating on a 4 minute cycle), 4-way valve (A) shifts and purge/repressurization valve (D) re-opens. The main air flow is now dried by TOWER II while TOWER I is reactivated.

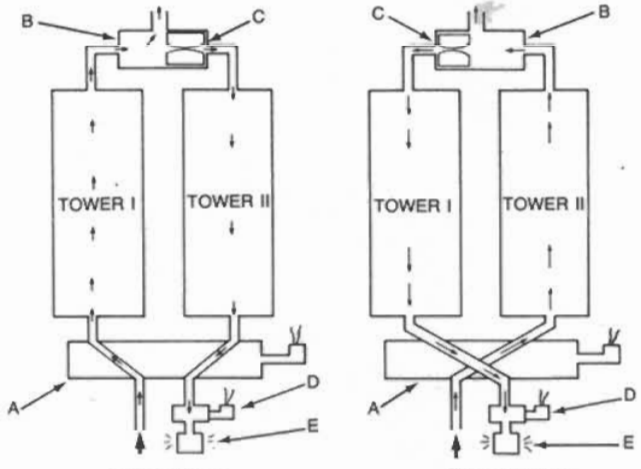


Figure 1. Flow Schematic

2.0 INSTALLATION

2.1 DIMENSIONS, CONNECTIONS, WEIGHT

MODEL NO.	DIMENSIONS IN INCHES/MILLIMETERS									WEIGHT LBS./KILO.
	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	
DHW-5	30-5/16 (770)	12 (305)	27-15/16 (710)	9-7/8 (251)	6-3/16 (157)	1-3/16 (30)	2 (51)	1-1/16 (27)	2 (51)	54 (25)
DHW-10	30-5/16 (770)	18 (457)	27-11/16 (703)	15-1/4 (387)	6-3/16 (157)	1-9/16 (40)	3 (76)	1-3/8 (35)	2-1/16 (52)	90 (41)
DHW-15	30-5/16 (770)	18 (457)	27-11/16 (703)	15-1/4 (387)	6-3/16 (157)	1-9/16 (40)	3 (76)	1-3/8 (35)	2-1/16 (52)	101 (46)
DHW-20	30-7/16 (773)	24-1/8 (613)	26-11/16 (678)	21 (533)	8-3/16 (208)	1-7/8 (48)	12 (305)	1-1/2 (38)	3-1/16 (78)	152 (69)
DHW-25	30-7/16 (773)	24-1/8 (613)	26-11/16 (678)	21 (533)	8-3/16 (208)	1-7/8 (48)	12 (305)	1-1/2 (38)	3-1/16 (78)	175 (79)

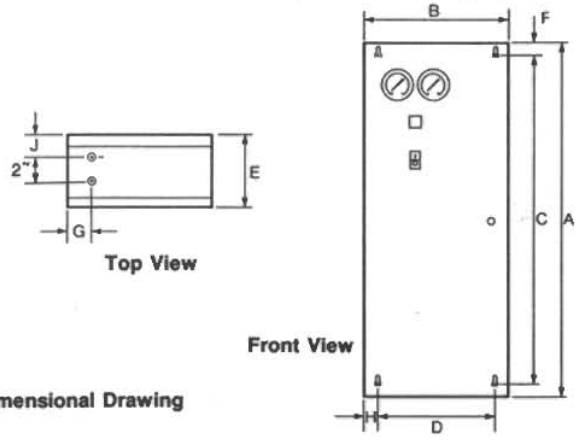
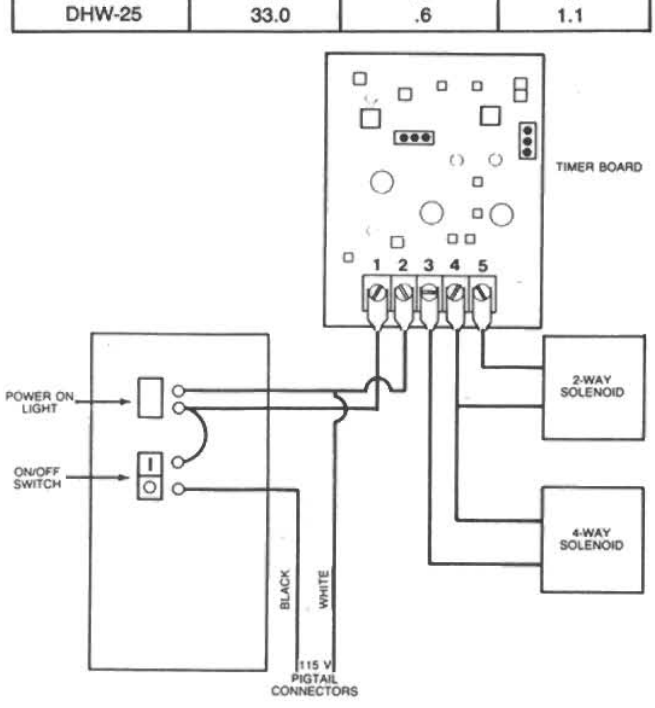


Figure 2. Dimensional Drawing

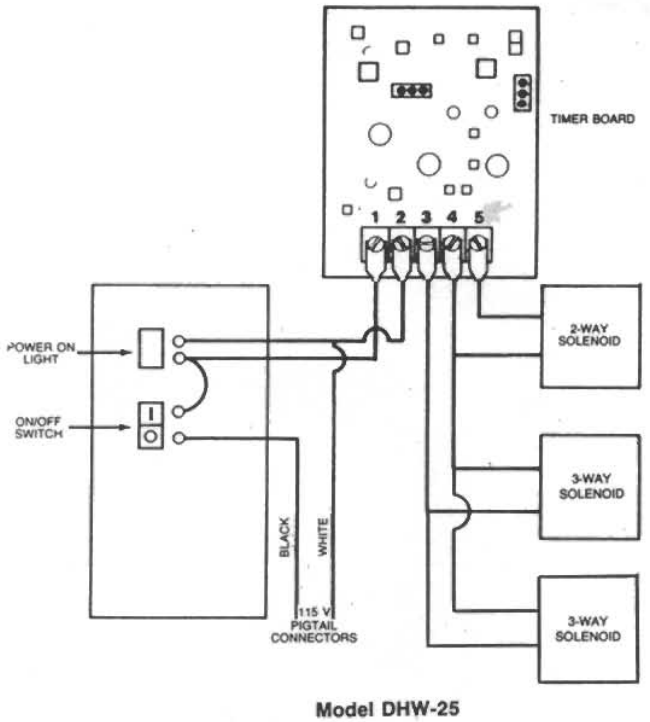
2.2 ELECTRICAL SPECIFICATIONS

TABLE 1.
Electrical Specifications

MODEL	WATTS	AMPS	
		HOLDING	INRUSH
DHW-5	27.5	.3	.5
DHW-10	27.5	.3	.5
DHW-15	27.5	.3	.5
DHW-20	31.8	.4	.8
DHW-25	33.0	.6	1.1



Models DHW-5, DHW-10, DHW-15, DHW-20,



Model DHW-25

Figure 3. Electrical Hook-up.

2.3 Location in a Compressed Air System -
To ensure long service life for the desiccant, prefilters should be installed to remove liquid water and oil from the inlet air. This can be accomplished by installing appropriate filters upstream of the desiccant dryer. To prevent desiccant dust from traveling downstream, an appropriate filter should be installed on the outlet of the desiccant dryer. See Figure 4 for recommended installation arrangement.

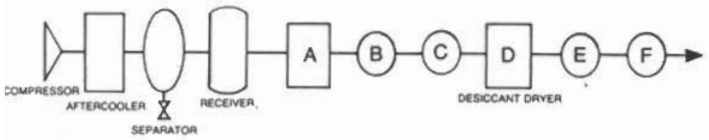


Figure 4.

A. Refrigeration Type Air Dryer -
This type of dryer is usually located upstream of filtering devices since the cooling of air after filtration can cause the formation of additional liquid aerosols by condensation.

NOTE:
Installation of a refrigerated dryer ahead of a desiccant dryer does not increase desiccant dryer capacity or reduce purge flow requirements.
OR
Cooling Unit - Cooling Unit may be installed here to reduce the inlet air temperature to the DHW dryer. Lower inlet temperatures produce lower outlet dew points.
Prefilters - Adequate filtration is required upstream of the dryer in order to protect against fouling of the desiccant bed. The following Hankison filters are recommended.

B. 3100 Series Air Line Filter -
On compressed air systems utilizing non-lubricated (oil free) air compressors, use to protect desiccant bed from solid contamination. On systems with lubricated compressors, use as a prefilter to the Aerolescer filter.

C. Aerolescer® Coalescing Type Oil Removal Filter -
On systems with lubricated compressors, use to remove oil aerosols and protect desiccant bed from oil contamination.

D. Desiccant Type Air Dryer -
Desiccant dryer is located downstream of liquid and solid removal filters to prevent contamination or poisoning of the desiccant bed thereby extending its useful life.
Afterfilters - To ensure downstream air purity adequate filtration downstream of the dryer is required. Depending on the degree of purity you require from your compressed air system, the following Hankison filters are recommended.

E. 3100 Series Air Line Filter -
Use as an afterfilter to remove desiccant fines and protect downstream components from solid particles 1 micron and larger.

F. Aerolescer® Coalescing Type Oil Removal Filter -
Use as an afterfilter to filter out desiccant fines and protect downstream components from solid particles .025 micron and larger.
OR
Hypersorb® Oil Vapor Removal Filter -
Use as an afterfilter to remove oil vapor and its subsequent taste and odor and to protect downstream components from solid particles .025 micron and larger.

NOTE:
By-pass lines and isolation valves are recommended so that maintenance work can be performed without shutting off the air supply.

IMPORTANT:
The compressed air supply inlet should be periodically checked to ensure that equipment design specifications are not exceeded. Normally the compressor installation includes intercoolers, aftercoolers, separators, receivers, or similar equipment which adequately pretreat the compressed air supply in order to avoid excessively high air temperatures and liquid slugging of downstream equipment.

2.4
Four holes are provided in the rear of cabinet for wall mounting. Bolt cabinet to wall or other support member by means of four (4) 5/16" fasteners.

2.5
Observe location of inlet and outlet connections as indicated in Figure 2 and connect inlet and outlet piping.

2.6
Check to see that power supply to dryer is the same as the power requirements indicated on the identification label. Connect wires to pigtails and ground screw on backing plate.

2.7
Install muffler (shipped separately inside of cabinet) on bottom of cabinet.

2.8
The dryer is shipped complete with desiccant and ready to operate after piping and electrical connections are made.

3.0 OPERATION

3.1 Start-up

3.1.1
During the initial start-up, slowly pressurize dryer to full line pressure and check entire system for leaks. Depressurize and correct any leaks.

3.1.2 Timer Board Setting
With the dryer de-energized, (Power-on light off) verify position of the Cycle Time Jumpers. The jumpers are located on the timer board in the cabinet. Refer to Figure 5.

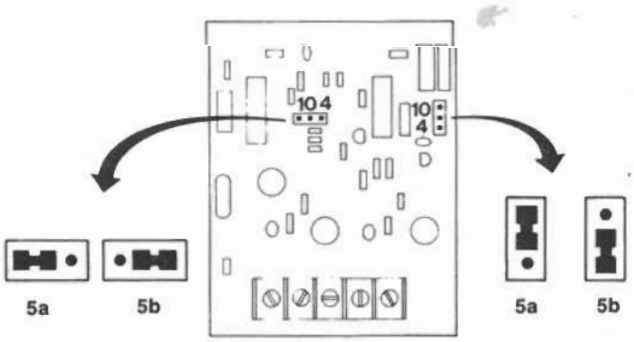


Figure 5.

3.1.2.1 Cycle Time Jumper -
Determine the cycle time necessary to produce the desired dew point and set jumpers as follows:

3.1.2.1.1 For a 10-Minute Cycle -
Position jumper on two terminals per Figure 5A.

3.1.2.1.2 - For a 4-Minute Cycle -
Position jumper on two terminals per Figure 5B.

3.1.3
Slowly pressurize the dryer.

3.1.4 Energize the Dryer -
On-Off switch located on the enclosure door (Power-on light should illuminate).

NOTE:
To prolong muffler life, mufflers may be removed during first four cycles to prevent residual fines from prematurely clogging mufflers.

IMPORTANT:
If this procedure is followed, purge air must be safely vented and hearing protection worn while mufflers are removed.

3.2 Inlet, Purge, and Outlet Flows

3.2.1 Inlet Flows

3.2.1.1 Maximum Inlet Flow at Rated Conditions -
For maximum inlet flow at rated conditions refer to Table 2.

TABLE 2
Maximum Inlet Flow at Rated Conditions

MODEL	INLET FLOW @ 100 PSIG (SCFM) (1) (2)	
	-40°F OUTLET PRESSURE DEW POINT	-100°F OUTLET PRESSURE DEW POINT
DHW-5	5	4.25
DHW-10	10	8.50
DHW-15	15	12.75
DHW-20	20	17.00
DHW-25	25	21.25

(1) Convert scfm to metric units as follows: 1 scfm = 1.736mn/h.
(2) "Performance data obtained and presented in accordance with ANSI/B93.45M - 1982, Pneumatic fluid power - Compressed air dryers - Methods for rating and testing." Conditions for rating above dryers are: 100 psig (6.9 bar) and 100°F (37.8°C) saturated inlet air, and a maximum 5 psi (.35 bar) pressure drop. Actual pressure drop for all units is less than 3 psi at rated conditions.

3.2.1.2 Maximum inlet flow at various pressures -
To determine maximum inlet flow at inlet pressures other than 100 psig, multiply inlet flow from Table 2 by multiplier from Table 3 that corresponds to system pressure at inlet of dryer.

3.2.2 Purge Flow

3.2.2.1 Maximum Purge Flow -
Maximum Purge Flow (MPF) is the amount of purge flowing through the off-stream tower when the purge/repressurization valve is open. After the purge/repressurization valve closes the purge flow will gradually decrease as the off-stream tower repressurizes to line pressure. For maximum purge flow refer to Table 4 under the cycle time the dryer is set for (4 or 10 minutes).

3.2.2.2 Average Purge Flow -
The Average Purge Flow (APF) is the actual amount of flow averaged over the entire purge/repressurization cycle. It includes the maximum purge flow (MPF) for a set amount of the purge/repressurization time and the volume of air used for repressurization.

Refer to Table 4 for Average Purge Flows. Use column corresponding to the dryer cycle time setting (4 or 10 minutes).

TABLE 4
Maximum and Average Purge Flows

MODEL	10 MIN CYCLE		4 MIN CYCLE	
	MAX	AVG	MAX	AVG
DHW-5	1.1	1.0	1.1	.8
DHW-10	2.2	2.0	2.2	1.7
DHW-15	3.3	3.0	3.3	2.6
DHW-20	4.4	4.0	4.4	3.4
DHW-25	5.5	5.0	5.5	4.4

3.2.3 Outlet Air Flow

3.2.3.1 Minimum Outlet Flow -
Determine minimum outlet flow available from dryer by subtracting Maximum Purge Flow found in 3.2.2.1 (Table 4) from inlet flow to dryer.

NOTE:
Air compressor should be adequately sized to handle air system demands as well as purge loss. Failure to do so could result in overloading air compressors and/or insufficient air supply downstream.

3.2.3.2 Average Outlet Flow -
Determine average outlet flow available by subtracting Average Purge Flow found in 3.2.2.2 (Table 4) from inlet flow to dryer.

NOTE:
Average outlet flow may be used to determine available downstream air supply if a storage vessel (receiver tank) of sufficient volume is available between dryer and point of air usage. Otherwise use 3.2.3.1 to compute downstream air available.

TABLE 3
Capacity Correction Factor for Various Inlet Pressures

INLET	psig	50	60	70	80	90	100	110	120	130	140	150
PRESSURE	bar	3.5	4.1	4.8	5.5	6.2	6.9	7.6	8.3	9.0	9.7	10.3
MULTIPLIER		0.31	0.42	0.54	0.73	0.83	1.00	1.09	1.17	1.26	1.35	1.44

EXAMPLE:
Find maximum inlet flow, maximum and average purge flows, and minimum and average outlet flows for a DHW-10 operated at 120 psig on a 10 minute cycle. Dryer will operate with an inlet air flow of 11 scfm.
Step 1: Find Maximum Inlet Flow by multiplying Maximum Inlet Flow at Rated Conditions from Table 2 by Inlet Pressure Correction Factor from Table 3: 10 x 1.17 = 11.7 scfm.
Step 2: Find Maximum Purge Flow by referring to Table 4. 2.2 scfm is maximum purge flow.
Step 3: Find Average Purge Flow by referring to Table 4. Average purge flow is 2.0 scfm.
Step 4: Find Minimum Outlet Flow available by subtracting Maximum Purge Flow (Step 2) from inlet flow of 11 scfm: 11 - 2.2 = 8.8 scfm.
Step 5: Find Average Outlet Flow available by subtracting Average Purge Flow (Step 3) from inlet flow of 11 scfm: 11 - 2.0 = 9.0 scfm.

3.3 Operating Conditions

3.3.1 Maximum Working Pressure -
Standard maximum working pressure is 150 psig (10 bar).

3.3.2 Minimum Working Pressure -
50 psig (3.5 bar) standard. It is recommended that the air dryer be operated at the highest available pressure not exceeding the maximum working pressure since the dryer capacity increases and % of purge air decreases as the pressure increases.

3.3.3 Maximum Operating Temperature -
120°F (48.9°C).

3.3.4 Outlet Pressure Dew Points -
Outlet pressure dew points at various inlet compressed air temperatures: The outlet pressure dew point is determined in part by the compressed air temperature at the inlet to the dryer and cycle time. Use Table 5 for dryers using Activated Alumina and Table 6 for dryers using Molecular Sieve to determine outlet dew points at corresponding inlet compressed air temperatures.

3.4 Operational Check Points

3.4.1
Check periodically that there is power to the unit - Power-on light is on.

3.4.2
If unit is equipped with optional moisture indicator check every four hours. Outlet relative humidity of the desiccant dryer is indicated by the color change humidity indicator. Green indicates R.H. below 3% and yellow indicates R.H. above 3%. Table 7 indicates outlet dew point when moisture indicator changes from green to yellow at various inlet temperatures. During startup the indicator may be yellow, however, it should begin to change green within 4 hours.

3.4.3
Periodically check tower pressure gauges to verify that valves are operating and sequencing correctly. Tower pressure gauge of tower on line should read line pressure. Tower pressure gauge of tower off line should read below 2 psig while tower is purging.

TABLE 5
Outlet pressure dew points for dryers supplied with Activated Alumina Desiccant

INLET TEMP. °F (°C)	35 (1.7)	40 (4.4)	50 (10.1)	60 (15.6)	70 (21.1)	80 (26.7)	90 (32.2)	100 (37.8)	110 (43.3)	120 (48.9)
OUTLET P.D.P. °F 10 MIN CYCLE (°C)	-75 (-59.4)	-70 (-56.7)	-65 (-53.9)	-60 (-51.1)	-55 (-48.3)	-50 (-45.6)	-45 (-42.8)	-40 (-40.0)	-35 (-37.2)	-30 (-34.4)
OUTLET P.D.P. °F 4 MIN CYCLE (°C)	-149 (-100.6)	-145 (-98.3)	-138 (-94.4)	-130 (-90.0)	-122 (-85.6)	-115 (-81.7)	-108 (-77.8)	-100 (-73.3)	-92 (-68.9)	-85 (-65.0)

TABLE 6
Outlet pressure dew points for dryers supplied with Molecular Sieve Desiccant

INLET TEMP. °F (°C)	35 (1.7)	40 (4.4)	50 (10.1)	60 (15.6)	70 (21.1)	80 (26.7)	90 (32.2)	100 (37.8)	110 (43.3)	120 (48.9)
OUTLET P.D.P. °F 10 MIN CYCLE (°C)	-151 (-101.7)	-144 (-97.8)	-136 (-90.0)	-116 (-82.2)	-102 (-74.4)	-88 (-66.7)	-74 (-58.9)	-60 (-51.1)	-46 (-43.3)	-32 (-35.6)

TABLE 7
Outlet pressure dew points at Moisture Indicator color change

INLET TEMP. °F (°C)	35 (1.7)	40 (4.4)	50 (10.1)	60 (15.6)	70 (21.1)	80 (26.7)	90 (32.2)	100 (37.8)	110 (43.3)	120 (48.9)
OUTLET P.D.P. °F (°C)	-34 (-36.7)	-28 (-33.4)	-22 (-30.0)	-16 (-26.7)	-10 (-23.4)	-4 (-20.0)	3 (-16.1)	9 (-12.8)	15 (-9.5)	21 (-6.1)

3.5 Dryer Shutdown

To shut down the dryer, de-energize using the on-off switch (Power-on light extinguished). Unit will remain pressurized.

3.6 Depressurization

To depressurize unit:

3.7.1

Open by-pass valve (if one is installed) and close inlet and outlet valves.

3.7.2

Run timer through a tower change cycle until pressure gauges on both towers read 0 psig.

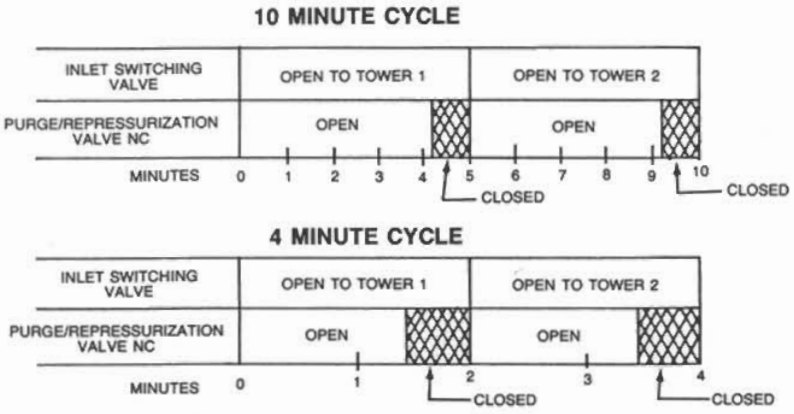


Figure 6. VALVE SEQUENCE

4.0 MAINTENANCE

CAUTION: The heatless desiccant dryer is a pressure containing device. Depressurize before servicing. (See section 3.6.)

4.1 Desiccant Replacement

IMPORTANT:

The use of the correct replacement desiccant is necessary for proper drying operation. Never use hydroscopic salts of the type commonly used in "deliquescent" type dryers.

4.1.1 Frequency of Desiccant Replacement -

Desiccant should be replaced whenever the required dew point cannot be maintained while the dryer is being operated within its design conditions and there are no mechanical malfunctions.

NOTE:

Desiccant life is determined by the quality of the inlet air. Proper filtering of the inlet air will extend the life of the desiccant.

4.1.2 Procedure for Desiccant Charge Replacement

4.1.2.1

Depressurize and de-energize the dryer.

4.1.2.2

Remove top and bottom access panel from cabinet.

4.1.2.3

To remove spent desiccant:

NOTE:

Be prepared to catch the desiccant being removed in a container. Desiccant will readily pour out when drain port is opened.

Models DHW-5 and DHW-10 -

Remove tubing from top and bottom of desiccant towers and unscrew strainer assemblies.

Models DHW-15, DHW-20, DHW-25 -

Remove fill ports from top of desiccant towers and drain ports from bottom of desiccant towers.

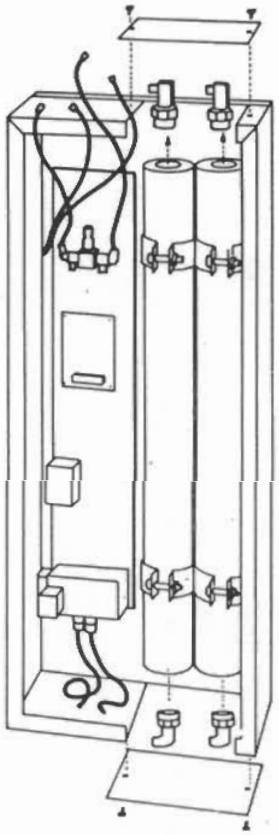


Figure 7.
Models DHW-5 & DHW-10.

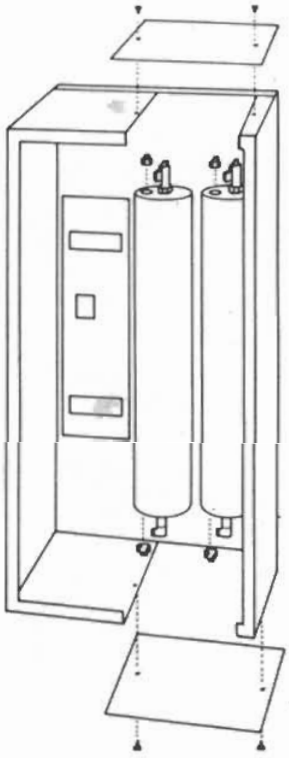


Figure 8.
Models DHW-15, DHW-20 & DHW-25.

4.1.2.4
Allow the spent desiccant to drain from the towers.

4.1.2.5
Replace bottom strainer assemblies (models DHW-5 and DHW-10) or bottom drain plugs (models DHW-15, DHW-20, DHW-25) using teflon tape sealant or equivalent.

4.1.2.6
Fill the desiccant drying towers as full as possible with dry desiccant.

4.1.2.7
Replace top strainer assemblies (models DHW-5 and DHW-10) or top drain plugs (models DHW-15, DHW-20, and DHW-25) using teflon tape sealant or equivalent.

4.1.2.8 Models DHW-5 and DHW-10 -
Reinstall tubing to top and bottom of desiccant towers.

NOTE:
To prolong muffler life, mufflers may be removed during first four cycles after changing desiccant to prevent residual fines from prematurely clogging mufflers.

IMPORTANT:
If this procedure is followed, purge air must be safely vented and hearing protection worn while mufflers are removed.

4.1.3 Ensuring Desiccant Dryness

4.1.3.1
Hankison replacement desiccant is shipped in air tight containers. Keep containers closed until use to avoid moisture contamination. If desiccant is exposed to air it can be heated in an oven at 400°F for four hours before use, or the procedure in 4.1.3.2 can be used.

4.1.3.2
If the dryer is not refilled with dry desiccant, it will be necessary to operate the dryer on 100% purge for approximately twenty-four hours to dry the desiccant.

TABLE 8
Amount of desiccant required for complete change

MODEL	DESICCANT REQUIRED (lb) (kilo)
DHW-5	7 (3)
DHW-10	15 (7)
DHW-15	22 (10)
DHW-20	28 (13)
DHW-25	39 (18)

4.2 REPAIR PARTS

PART	MODEL				
	DHW-5	DHW-10	DHW-15	DHW-20	DHW-25
MOISTURE INDICATOR	3004-1	3004-1	3004-1	3004-1	3004-1
SOLID STATE TIMER	5945.690.17	5945.690.17	5945.690.17	5945.690.17	5945.690.17
SWITCH (ON/OFF)	6110.706.3	6110.706.3	6110.706.3	6110.706.3	6110.706.3
LIGHT (POWER ON)	6350.457.3	6350.457.3	6350.457.3	6350.457.3	6350.457.3
PRESSURE GAUGE (TOWER)	6685.279.1	6685.279.1	6685.279.1	6685.279.1	6685.279.1
STRAINER (BOTTOM)	4130.698.13	4130.698.13	4130.698.13	4130.698.13	4130.698.13
REPAIR KIT (P/R VALVE)	4810.442.1	4810.442.1	4810.442.1	4810.442.1	4810.442.1
COIL (P/R VALVE)	4810.130.1	4810.130.1	4810.130.1	4810.130.1	4810.130.1
STRAINER (TOP)	33.7420-01	33.7420-01	33.7420-01	33.7420-01	33.7420-01
REPAIR KIT (SWITCH, VALVE)	4810.443.7	4810.443.8	4810.443.8	4810.443.9	*
COIL (SWITCH VALVE)	4810.129.9	4810.129.9	4810.129.9	4810.130.1	4810.129.10
SHUTTLE VALVE	4820.715.1-1	4820.715.2-1	4820.715.2-2	4820.715.2-3	4820.715.3-1
MUFFLER	3442.517.2	3442.517.2	3442.517.2	3442.517.3	3442.517.3

*N.C. Valve 4810.443.10
N.O. Valve 4810.443.11

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