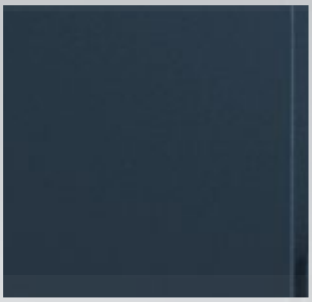
HANKISON

AN SPX BRAND



PRESSURE-SWING DESICCANT AIR DRYERS

DHW SERIES

HANKISON
AN SPX BRAND

PROTECT YOUR AIR SYSTEM
DHW SERIES

Hankison's DHW Series protects air systems exposed to temperatures below freezing. This fully enclosed wall-mounted package delivers dew points of ISO 8573.1 Class 1 (-100°F, -73°C) and Class 2 (-40°F, -40°C) and guarantees flow rates from 7 scfm to 50 scfm (12 nm³/h to 85 nm³/h). Applications including labs, hospitals, and high-tech installations all benefit from clean, dry air, improved productivity, and more floor space provided by Hankison's DHW Series Pressure-Swing Desiccant Air Dryers.

TECHNOLOGY AT A GLANCE...

- Consistent outlet pressure dew points - desiccant beds and cycle time optimized to produce 40°F (-40°C) pressure dew point at standard flow rating [equals an atmospheric dew point of -71°F (-57°C)] **or** 100°F (-73°C) pressure dew point at reduced flow rating [equals an atmospheric dew point of -122°F (-86°C)]
- Minimum purge air usage - saving the heat of adsorption maximizes the moisture holding capacity of the purge air, minimizing the amount required
- Long desiccant life - beds sized to prevent fluidization plus slow and complete regeneration prevent desiccant movement and deterioration
- Heavy duty purge exhaust muffler for quiet operation
- Non-lubricated, soft seated control valves

Supreme Craftmanship ①

Furnished in cabinet for easy wall mounting

- Completely assembled, piped and wired eases installation
- Shipped with full charge of desiccant
- Only hook-up of utilities is needed to operate
- 6' (1.8 m) cord set standard

Highly accurate solid state timer ②

- Standard 4 minute cycle
- Allows off-stream tower to fully repressurize before going on-stream
- Prevents bed movement and loss of pressure downstream

Front mounted control panel ③

- Power on light
- Tower indicator lights
- On-off switch
- Stainless steel support screens and air diffusers
- Located at the top and bottom of each vessel
- Easily removed for cleaning
- Filters out gross contaminants...protects valves
- Prevents channeling

Optional HF Series filter packages ④

- Grade 5 oil removal coalescing prefilter to 0.008 m
- Grade 6 dry desiccant afterfilter (1 micron)

DHW SERIES SPECIFICATIONS

HOW IT WORKS

See Figure 1. Compressed air enters the dryer and is directed to Tower 1 by valve (A), and then to the dryer outlet through shuttle valve (B). A portion of the dried air is throttled to near atmospheric pressure by means of orifice (C). This extremely dry, low pressure air flows through and regenerates the desiccant in Tower 2 and is 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 2 to repressurize slowly. At the end of 2 minutes, valve (A) shifts and purge/repressurization valve (D) reopens. See Figure 2. The main air flow is now dried by Tower 2 while Tower 1 is being regenerated.

Models DHW-7 thru DHW-35

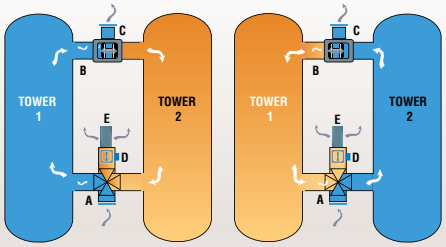


Figure 1 Figure 2

Model DHW-50

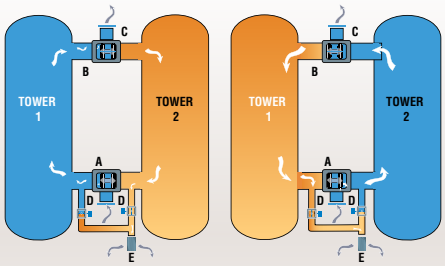


Figure 1 Figure 2

DHW Series Product Specifications

Model	Dimensions H		W		D		In/Out Connections	Weight	
	in	mm	in	mm	in	mm	NPT	lb	kg
DHW-7	30.5	774.7	17.5	444.5	6.7	170.2	1/2”	55	25
DHW-13	30.5	774.7	17.5	444.5	6.7	170.2	1/2”	60	27
DHW-20	30.5	774.7	17.5	444.5	6.7	170.2	1/2”	71	32
DHW-25	30.5	774.7	24.4	619.8	8.6	218.4	1/2”	93	42
DHW-30	30.5	774.7	24.4	619.8	8.6	218.4	1/2”	93	42
DHW-35	30.5	774.7	24.4	619.8	8.6	218.4	1/2”	99	45
DHW-50	43.4	1,102.4	24.4	619.8	8.6	218.4	1/2”	132	60

Capacity Correction Factors

- To determine maximum inlet flow at inlet pressures other than 100 psig, multiply inlet flow from Table 1 by multiplier A from Table 2 that corresponds to system pressure at inlet of dryer.
- To determine purge flow at inlet pressures other than 100 psig, multiply purge flow at 100 psig, from Table 1 by multiplier B from Table 2 that corresponds to system pressure at inlet of dryer.
- To determine outlet flow capacity, subtract purge flow from inlet flow.

Table 1 - Inlet & Purge flows @ 100 psig

Model	Inlet Flow Rating[1] scfm (m³/h)		Purge Flow[2] scfm (m³/h)	
	-40°F (-40°C)	-100°F (-73°C)	Average	Maximum
DHW-7	7.3 (12)	5.6 (9.5)	1.5 (2.5)	2.0 (3.4)
DHW-13	13 (22)	10 (17)	2.7 (4.6)	3.7 (6.3)
DHW-20	20 (34)	16 (27)	4.2 (7.1)	5.5 (9.3)
DHW-25	25 (42)	20 (34)	5.1 (8.7)	6.8 (12)
DHW-30	30 (51)	24 (41)	6.2 (11)	8.2 (14)
DHW-35	35 (59)	28 (48)	7.2 (12)	9.6 (16)
DHW-50	50 (85)	40 (68)	10.2 (17)	13.6 (23)

1 Inlet flows are established in accordance with CAGI (Compressed Air and Gas Institute) standard ADF-200, Dual Stage Regenerative Desiccant Compressed Air Dryers - Methods for Testing and Rating. Conditions for rating dryers are: inlet pressure - 100 psig (7 kgf/cm²); inlet temperature - saturated at 100°F (38°C).

2 Average Purge Flow is the total amount of air used to purge and repressurize off-stream towers averaged over the cycle time. Maximum Purge Flow is the flow rate through the off-stream tower during that portion of the cycle the purge/repressurization valve is open.

Table 2 - Inlet Pressure

Inlet Pressure	psig	50	70	90	100	110	120	130	150
	kgf/cm²	3.5	4.9	6.3	7.0	7.7	8.4	9.1	10.5
Multiplier A		0.31	0.54	0.83	1.00	1.09	1.17	1.26	1.44
Multiplier B		0.55	0.73	0.91	1.00	1.09	1.17	1.26	1.44

HANKISON
AN SPX BRAND

Hankison has built a global reputation for manufacturing quality compressed air treatment solutions. For over half a century Hankison has provided customers in the compressed air industry with the latest technology to produce superior results.

Hankison is dedicated to pursue the best solution in an expanding marketplace to manufacture new products that meet customer's performance, quality and energy savings requirements. We will continue to excel by providing the best service, sales support, and products to bring value to our customers.

OUR GLOBAL NETWORK

North America

SALES, SERVICE AND ADMINISTRATION
HANKISON
1000 PHILADELPHIA STREET
CANONSBURG, PA 15317-1700 USA
TEL | 724 | 745 | 1555 FAX | 724 | 745 | 6040

SPX RentalDryers.com

9029 GOVERNORS ROW
DALLAS, TX 75247 U.S.A.
TEL | 214 | 905 | 9734 FAX | 214 | 905 | 1282

Canada

1415 CALIFORNIA AVENUE
BROCKVILLE, ON, CANADA, K6V 7H7
TEL | 800 | 267 | 3884
FAX | 613 | 345 | 7240

Mexico and Central/South America

HANKISON DE MÉXICO, S. DE R. L. DE C. V.
AVENIDA CONSTITUCION #2165 -B
COLONIA JULIAN CARRILLO
SAN LUIS POTOSÍ, S.L.P.
C.P. 78250 MÉXICO
TEL | +52 | (444) | 815 | 7974 FAX | +52 | (444) | 815 | 8295

Europe

HANKISON GMBH
KONRAD-ZUSE-STR. 25
D-47445 MOERS GERMANY
TEL | +49 | 2841 | 8190 FAX | +49 | 2841 | 87112

Asia

SPX DEHYDRATION & FILTRATION CHINA
5TH FLOOR, PARK CENTER,
NO.1568 HUASHAN ROAD, SHANGHAI CHINA
TEL | +86 | 021 | 2208 | 5840 FAX | +86 | 021 | 2208 | 5866

HANKISON, AN SPX BRAND
1000 PHILADELPHIA STREET
CANONSBURG, PA 15317-1700 U.S.A.
TEL | 724 | 745 | 1555 FAX | 724 | 745 | 6040
Email: hankison.sales@spx.com
www.hankisonintl.com

SPX
DEHYDRATION & FILTRATION

Bulletin DHW-NA_2