

AN SPX BRAND



DHW SERIES



PROTECT YOUR AIR SYSTEM

Hankison's DHW Series Pressure-Swing Desiccant Air Dryers protect air systems exposed to temperatures below freezing. The 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) with guaranteed flow rates of 7 to 50 scfm (12 to 85 nm³/h). Applications including labs, hospitals, and high-tech installations all benefit from the clean, dry air, improved productivity, and more floor space provided by Hankison's DHW Series.

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 *lequals an atmospheric dew point of -71°F (-57°C)J or 100°F (-73°C) pressure dew point at reduced flow rating lequals an atmospheric dew point of -122°F (-86°C)J*
- 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



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.





DHW Series Product Specifications

Model			Dime		In/Out	We	ight		
	Н		W		D		Connections		
	in	mm	in	mm	in	mm	NPT	lbs	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	43.0	1,092.2	24.4	619.8	8.5	215.9	1/2"	132	60

Capacity Correction Factors

- To determine maximum inlet flow at inlet pressures other than 100 psig (7 kg/cm²), 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 (7 kg/cm²), multiply purge flow at 100 psig (7 kg/cm²), 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 Table 2 - Inlet Pressure

Model	Inlet Flo	w Ratin	g¹ scfm ((nm³/h)	Purg	e Flow ²	scfm (n	m³/h)
	-40°F	-40°C	-100°F	-73°C	Avei	age	Maxii	num
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 kg/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.

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



OUR GLOBAL NETWORK...

SPX Flow Technology North America

 Hankison Headquarters

 1000 PHILADELPHIA STREET

 CANONSBURG, PA 15317-1700 USA

 TEL | 724 | 745 | 1555
 FAX | 724 | 745 | 6040

Hankison Rental

1486 CHAMPION DRIVE TERRELL, TX 75160 U.S.A. TEL | 800 | 379 | 3711 FAX | 972 | 563 | 9991

SPX Flow Technology Canada

 Hankison Canada

 1415 CALIFORNIA AVENUE

 BROCKVILLE, ON, CANADA K6V 7H7

 TEL | 800 | 267 | 3884
 FAX | 613 | 345 | 7240

SPX Flow Technology Mexico Hankison México

AVENIDA CONSTITUCIÓN #2165 -B COLONIA JULIÁN CARRILLO SAN LUIS POTOSÍ, S.L.P. C.P. 78250 MÉXICO TEL | +52 | 444 | 815 | 7074 FAX | +52 | 444 | 815 | 8295

SPX Flow Technology South America

Hankison Brazil RUA JOAO DAPRAT, 231 B 09600-010-SÃO BERNARDO DO CAMPO, SP BRAZIL TEL |+55 | 19 | 3276 | 8266 FAX |+55 | 19 | 3276 | 8266

SPX Flow Technology Europe

Hankison Ireland KILLARNEY, CO KERRY IRELAND TEL | +353 | 6466 | 33322 FAX | +353 | 6466 | 33371

Hankison Netherlands

MUNNIKENHEIWEG 41 POSTBUS 570 4870 NE ETTEN-LEUR NETHERLANDS TEL | +31 | 76 | 5085800 FAX | +31 | 76 | 5085800

 Hankison Germany

 KONRAD-ZUSE-STR. 25

 D-47445 MOERS GERMANY

 TEL | +49 | 2841 | 8190

 FAX | +49 | 2841 | 8712

SPX Flow Technology India

 SPX India PVT, LTD

 MANUFACTURING G-72/73

 RIICO INDUSTRIAL AREA

 MANSAROVAR, RAJASTHAN

 JAIPUR 302 020

 INDIA

 TEL | +91 | 141 | 2396759

 FAX | +91 | 141 | 2395048

SPX Flow Technology Asia

SPX China

5TH FLOOR, PARK CENTER, NO.1568 HUASHAN ROAD, SHANCHAI CHINA TEL | +86 | 021 | 2208 | 5840 FAX | +86 | 021 | 2208 | 5866

SPX Flow Technology Korea

#940-1 YERIM-RI JEONGGWAN-MYEON GIJANG-GUN BUSAN REP OF KOREA TEL |+82 | 51 | 728 | 5360 FAX |+82 | 51 | 728 | 5359



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



Bulletin DHW-NA_3 © 2010 SPX Corporation. All rights reserved.