

HDW SERIES PRESSURE-SWING DESICCANT COMPRESSED AIR DRYERS

PROTECTS AIR SYSTEMS EXPOSED TO TEMPERATURES BELOW FREEZING

Produces pressure dew point of **-40°C**

Fully Enclosed Wall-mounted Package delivers dew points of ISO 8573.1 Class 2 (-40°C, -40°F). Labs, Hospitals, and Hi-Tech installations all benefit with dry air and more floor space.

- Flow rates from 0.29 Nm³/min to 1.01 Nm³/min (10 to 35 scfm)
- Highly accurate solid state timer
- Front mounted control panel
- Clean, streamlined piping and utility connections simplify installation
- Automatic operation and stored adsorptive energy result in long desiccant life
- HK Series coalescing filter packages available
- Stainless steel vessels, support screens and air diffusers
- Furnished in cabinet for easy wall mounting

FEATURES

- **Consistent outlet pressure dew points** - large desiccant beds produce -40°C (-40°F) pressure dew point (equals an atmospheric dew point of -57°C (-71°F))
- **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

Highly accurate solid state timer

- Automatic operation for reliability and long desiccant life.
- Allows off-stream tower to fully repressurize before going on-stream...prevents bed movement and loss of pressure downstream

Front mounted control panel

- Power on light
- Lighted on-off switch
- Active tower indicator lights

HK Series coalescing filter packages

- Type H oil removal prefilter to 0.01 micron
- Type D dry desiccant afterfilter (1 micron)



Stainless steel vessels, support screens and air diffusers

(top and bottom of vessels)

- Easily removed for cleaning
- Filters out gross contaminants...protects valves
- Prevents channeling
- Maximum corrosion resistance

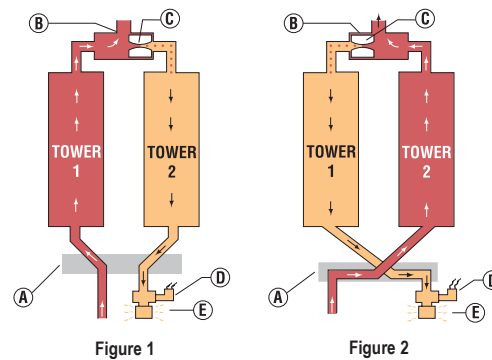
Furnished in cabinet for easy wall mounting

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

HDW SERIES PRODUCT FEATURES AND SPECIFICATIONS

Operation

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. 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.



HDW Series Product Specifications

Model	Flow Capacity ¹ Nm ³ /min	Unit kW	Power Supply	Inlet/Outlet Connections inch	Dimensions			Weight kg
					H mm	W mm	D mm	
HDW 0.2	0.29	0.05	220-240 V 1 PH 50-60 Hz	PT 1/2"	775	445	170	25
HDW 0.4	0.43				775	445	170	27
HDW 0.5	0.58				775	445	170	32
HDW 0.7	0.72				803	619	217	42
HDW 1.0	1.01				803	619	217	45

¹ Rated Flow Capacity - Conditions are 38°C inlet temperature, 6.9 bar(g) inlet pressure, 100% relative humidity, 38°C ambient temperature

Operating Conditions

HDW Models	Max. Inlet Air Pressure barg	Min. Inlet Air Pressure barg	Max. Inlet Air Temp. °C	Min. Inlet Air Temp. °C
0.2 - 1.0	9.7	4.4	49	4

Capacity Correction Factors

Maximum inlet flow capacities at various pressures: To determine maximum inlet flow at inlet pressures other than 6.9 bar (100 psig), multiply inlet flow from the specifications table by multiplier from Table 1 that corresponds to system pressure at inlet of dryer.

Table 1: Correction Factors (multipliers) for Inlet Pressure

Operating Pressure	psig	60	70	80	90	100	110	120	130	140
		bar	4.1	4.8	5.5	6.2	6.9	7.6	8.3	9.0
Multiplier		0.65	0.74	0.83	0.91	1.00	1.04	1.08	1.12	1.16

SPX HANKISON

SPX Dehydration Korea

#940-1, Yerim-ri, Jeonggan-myeon
Gijang-gun, Busan, 619-961, South Korea
Phone: +82-51-726-5010 • Fax: +82-51-726-5049
Email: hankison.ap@dehydration.spx.com • Web: www.hankison.co.kr

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Improvements and research are continuous at SPX Hankison
Specifications may change without notice.