



Blower-Heated Regeneration Desiccant Dryer

H-IB Series



H-IB Series

Blower-Heated Regeneration Desiccant Dryer

The Hankison H-IB Series desiccant dryers employ a blower-heating principle to accomplish highly efficient compressed air drying. This significantly reduces compressed air consumption loss and saves energy.

- The blower draws in ambient air and directs it through an external electric heater. The heated air then enters the regeneration tower to thermally regenerate the desiccant.
- After a period of thermal regeneration, the heater is shut off and the blower continues to supply ambient air for cooling of the regeneration tower.
- When the temperature of the regeneration tower decreases to a predetermined level, a portion of the dry air from the operating tower outlet is introduced to cool the regeneration tower. The average regeneration air consumption is $\leq 3\%$, ensuring complete regeneration of the desiccant.
- When lower outlet air quality is acceptable (e.g., atmospheric dew point $\leq -40^{\circ}\text{C}$), or when ambient temperatures are low, the blower alone can be used for cooling without introducing dry air from the operating tower outlet. As a result, regeneration air consumption is eliminated (0% regeneration air consumption).

Product Features

- Double-eccentric PTFE-seated butterfly valves provide reliable performance and long service life.
- High-quality 5/2-way solenoid valves are used to actuate the pneumatic valves, ensuring dependable system operation.
- A high-performance blower ensures reliable operation of the dryer system.
- The unique airflow distribution design ensures uniform distribution of drying and regeneration air, eliminating channeling and preventing the "short-circuit" effect caused by high center velocity and low peripheral velocity.
- The towers and high-temperature piping are fully insulated and clad with embossed aluminum sheeting to minimize energy loss.
- A dedicated repressurization function ensures uninterrupted air supply during tower switching.
- Multiple design features prevent desiccant bed shifting and desiccant attrition, extending desiccant service life.
- Reduced airflow velocity through the dryer increases contact time between the compressed air and desiccant, ensuring stable dew point performance while minimizing pressure drop.
- Each tower is equipped with a pressure gauge and safety relief valve.
- The regeneration cycle incorporates an optimized cooling period to prevent dew point spikes during tower changeover.
- Standard configuration includes a PLC controller and Human-Machine Interface (HMI).



Technical Specifications

- Working Pressure Range: 0.7–1.0 MPa
 - Average Cycle Regeneration Purge Consumption: ≤3% (zero purge option: 0%)
 - Nominal Pressure Dew Point: –40°C (–70°C optional)
 - Rated Inlet Air Temperature: ≤38°C
 - Desiccant: Activated alumina (non-standard: molecular sieve / silica gel available)
- Cycle Period: 8 hours
 - Power Supply: 380 V / 3PH / 50 Hz
 - Pressure Drop: ≤0.02 MPa
 - Control Mode: Fully automatic PLC control

H-IB Series Blower-Heated Regeneration Desiccant Dryer

Model	Flow Rate	Power Supply	Air Connection Size	Installed Power	Dimensions (mm)			Weight
	m³/min	V/Ph/hz	mm	kW	L	W	H	kg
H840IB	14	380/3/50	DN50	18.4	1570	1000	2500	1260
H1080IB	18	380/3/50	DN65	20.5	1570	1000	2500	1260
H1320IB	22	380/3/50	DN80	23.5	1700	1150	2400	1470
H1500IB	25	380/3/50	DN80	23.5	1700	1150	2400	1570
H1980IB	33	380/3/50	DN100	29.5	1900	1200	2520	2130
H2640IB	44	380/3/50	DN100	43.5	2250	1350	2650	2890
H3000IB	50	380/3/50	DN100	43.5	2250	1300	2850	2960
H3600IB	60	380/3/50	DN125	54	2350	1500	2750	3750
H4200IB	70	380/3/50	DN125	71	3600	1500	2780	5170
H4800IB	80	380/3/50	DN125	71	3600	1500	2780	5360
H5400IB	90	380/3/50	DN150	77	3750	1850	2860	7240
H6000IB	100	380/3/50	DN150	77	3750	1850	2860	7480
H7200IB	120	380/3/50	DN150	99	4200	1800	3050	8650
H9000IB	150	380/3/50	DN200	123	4200	2150	3300	9800
H12000IB	200	380/3/50	DN200	153.5	4400	2400	3480	11400

H-IB ZP Series Zero Air Consumption Blower-Heated Regeneration Dryers

Model	Flow Rate	Power Supply	Air Connection Size	Installed Power	Dimensions (mm)			Weight
	m³/min	V/Ph/hz	mm	kW	L	W	H	kg
H840IB ZP	14	380/3/50	DN50	18.4	1800	1400	2400	1680
H1080IB ZP	18	380/3/50	DN65	20.5	1800	1400	2400	1760
H1320IB ZP	22	380/3/50	DN80	23.5	2200	1500	2500	2100
H1500IB ZP	25	380/3/50	DN80	23.5	2200	1500	2500	2160
H1980IB ZP	33	380/3/50	DN100	29.5	2400	1550	2550	2700
H2640IB ZP	44	380/3/50	DN100	43.5	2450	1850	2600	3250
H3000IB ZP	50	380/3/50	DN100	43.5	2450	1850	2850	3500
H3600IB ZP	60	380/3/50	DN125	54	2720	1960	2750	3850
H4200IB ZP	70	380/3/50	DN125	71	3500	2200	2800	4970
H4800IB ZP	80	380/3/50	DN125	71	3500	2200	2800	5120
H5400IB ZP	90	380/3/50	DN150	77	3500	2300	2900	6170
H6000IB ZP	100	380/3/50	DN150	77	3500	2300	2900	6370
H7200IB ZP	120	380/3/50	DN150	99	4100	2750	3200	7800
H9000IB ZP	150	380/3/50	DN200	123	4200	2700	3350	9500
H12000IB ZP	200	380/3/50	DN200	153.5	4400	2950	3450	12000

Note: Data refer to the following conditions: ambient temperature: 38°C, inlet temperature: 38°C, inlet pressure: 7 barg.



Contact Us

North America: Hankison, 647 SW 40 Avenue, Cala, Florida 34474, USA

Service Hotline: 1-724-745-1555

China Region: 11th Floor, Shangjia Center, No. 99 Xianxia Road, Changning District,
Shanghai, China

Service Hotline: +86 21 2221 6000

Website: <https://www.hankisonair.com>



Hankison
WeChat Account