

COMPRESSED AIR TREATMENT



Quality by choice



HL Pro / HB SERIES
DESICCANT DRYERS

Innovative Design is Now Within Reach

OMI heatless and heated blower desiccant Dryers are:

- Engineered for **easy access, maximum efficiency and long life**
- Delivered in a state-of-the-art low profile package, making installation and operation a snap!



Our low profile design allows for upright shipping and transportation



Low profile design



Traditional design

Low Profile for Easy Maintenance

One look tells you that OMI desiccant dryers are like no others.

Our low profile design provides easy access to key maintenance points at operator level for faster servicing and less downtime. The lower silhouette also allows upright shipment and facilitates simpler installation.

With manifolds angled toward the centre at operator level, the high performance valves are easily accessed for maintenance. For example, a typical diaphragm valve in a heatless dryer can be rebuilt in less than ten minutes, without removing the valve from the manifold.



Innovative Controls and Design Lower Energy Costs

Our new dryers offer the state-of-the-art Energy Management System (EMS) that maximises energy efficiency while maintaining a constant dew point. By using a humidity sensor to continuously monitor the dew point, EMS minimises the compressed air used in regeneration, and optimises heater and blower operation.

Heated blower models are equipped with solid state soft starters that limit inrush current to ensure a smooth start and longer blower motor life.

The dryers are engineered for low pressure drop through valve selection, tower size and filter design.

On heated blower models, the heater and blower are controlled by the outlet regeneration temperature that shuts off to save electrical power once desiccant has been thoroughly regenerated.

Solid state relays provide precise heater control, reduced heating times and extended heater life.

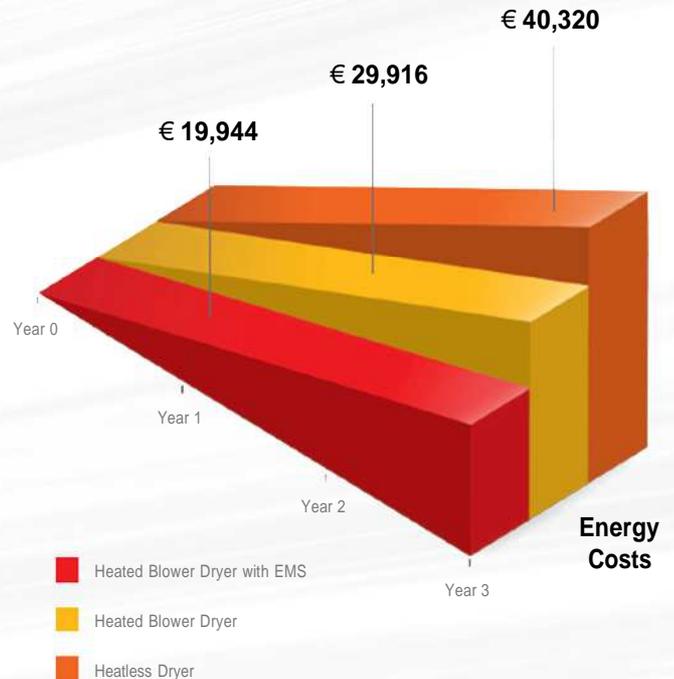
State-of-the-art Microprocessor Controller

- Maintains dryer performance at optimum levels, constantly monitors functions and provides maintenance alerts and protection notification, minimising downtime.
- Matches the dryer control to the load/unload state of the air compressor.
- Modbus compatible.
- LCD display for easy viewing.

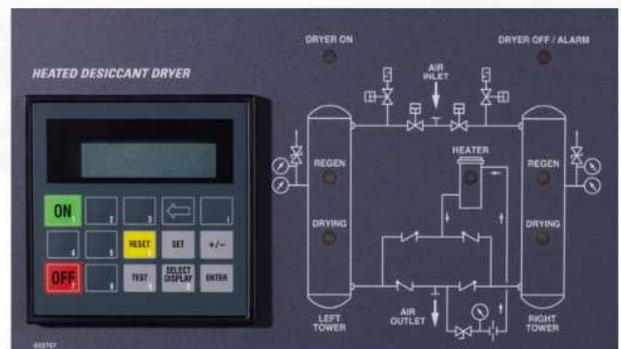
Heavy Duty Filters For Longevity (Option)

- Optional heavy duty pre-filters and after-filters extend desiccant life and provide maximum particle protection of the downstream air.

A heated blower dryer with EMS can save you over € 20,000 in just 3 years!



These calculations are approximations based on the following assumptions: Heatless model HL3300, Heated model HB3200, 3300 m³/h, 1,800 CFM, 400 kW Compressor Motor, € 0.07 per kWh/yr 80 hours per week, and 40 weeks per year.

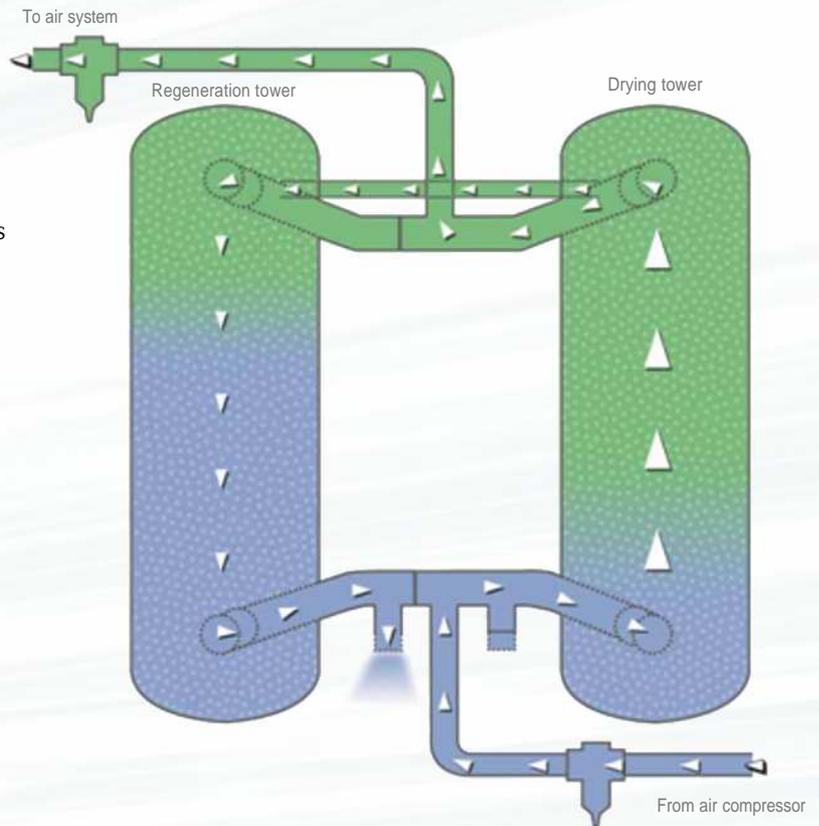


Digital Microprocessor Controller

Heatless Desiccant Dryers

Drying: (1) From the air compressor, the air enters the dryer through a pre-filter (option) that removes contaminants to protect the desiccant. (2) The air is directed through the drying tower. (3) The desiccant removes moisture from the air through adsorption. (4) Dry air passes through an after-filter (option) removing any contaminate particles before entering into the air system. (5) A small amount of the compressed air (15%) is redirected to the regenerating tower.

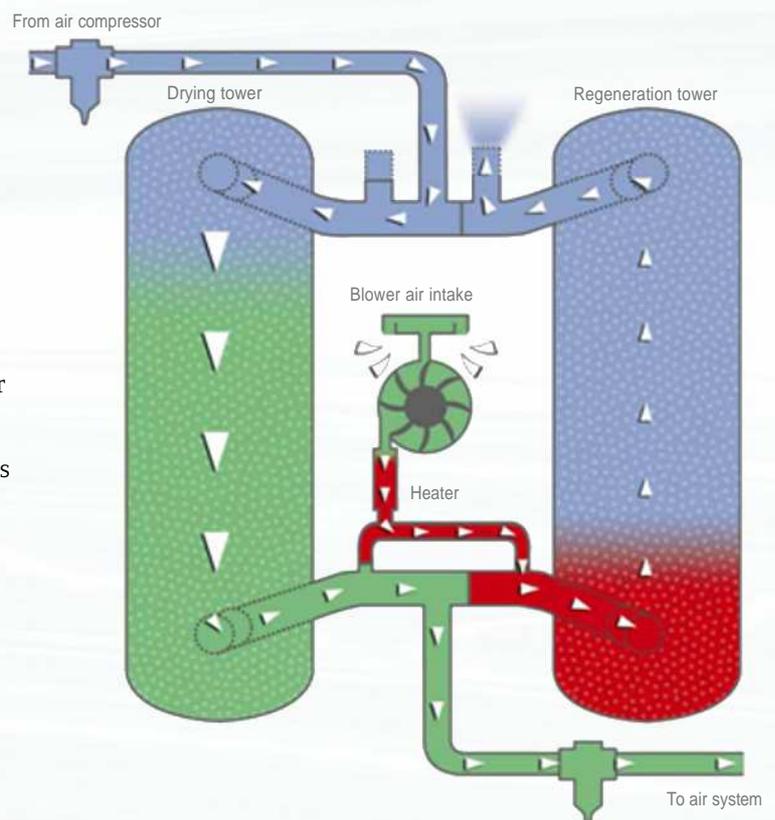
Regeneration: (1) Dry air flows in the reverse direction through the regenerating tower, removing trapped moisture from the desiccant. (2) Moist air exits the dryer through an exhaust port equipped with a silencing muffler to reduce noise.



Heated Blower Desiccant Dryers

Drying: (1) From the air compressor, the air enters the dryer through a pre-filter (option) that removes contaminants to protect the desiccant. (2) The air is directed through the drying tower. (3) The desiccant removes moisture from the air through adsorption. (4) The dry air passes through an after-filter (option) removing any contaminate particles before entering into the air system.

Regeneration: (1) Ambient air enters through the blower intake. (2) Air temperature is elevated as air moves across the external heater. (3) The hot air is directed to the regenerating tower. (4) Hot air flows in the reverse direction through the regenerating tower, removing the adsorbed moisture from the desiccant. (5) Moist air exits the dryer through an exhaust port equipped with a silencing muffler to reduce noise.



Desiccant Dryer Features and Benefits

A Microprocessor Controller

Controls valve switching to correctly direct air flow and operation of blowers and heaters. Protects the dryer via continuously monitoring operating parameters.

B Environmental Protection

IP54 rating provides protection against dust and moisture contamination (IP65 option for wash down applications).

C Motor Protection/Soft Starter (heated blower only)

Reduces inrush current and stress on the mechanical system.

D Power Supply

Dryers operate at 50 Hz (all models) or 60 Hz (optional). Pneumatic options also available on heatless models.

E Centrifugal Blower (heated blower only)

High performance centrifugal blower enables the use of ambient air for regeneration, eliminating compressed air loss.

F High Performance Heater (heated blower only)

Heats the air used for regeneration to increase the efficiency of moisture removal.

G Desiccant

Reliable high strength non-acidic desiccant provides maximum performance and is easily stored and handled.

H Silencing Muffler

Reduce the exhausted air noise level to ensure a worker-friendly environment.

I High Performance Valves

High performance butterfly valves with self-energised sealing provide quick response and long life. The valves are centrally angled for easy access.

J Heavy Duty Filters (Option)

Pre-filter: High efficiency removing oil aerosol content down to 0.01 mg/m³ at 21°C protecting and extending the life of the desiccant.

After-filter: Heavy duty removing particles down to 1 micron insuring high air quality downstream to the customer.

K Safety Relief Valve

Protects the dryer from over pressurisation incase of fire.

L Desiccant Towers

The towers are rated for continuous 10 bar g operation. The digital controller turns the towers off and on for regeneration regulation.



M Humidity Sensor

The sensor is part of the EMS package that allows continuous monitoring of the dew point.

N Cool Sweep Mode (heated blower only)

Reduces temperature and humidity spikes that may occur during switching.

Technical Specifications

Model	Code	Flow-rate			Max pressure	Connections	Power consumption	Dimensions			Weight
		l/min	m³/h	CFM				Bar	BSP	W	
HL160PRO	08U.0160BG	2667	160	94	10	1"	50	1130	810	1680	241
HL200PRO	08U.0200BG	3333	200	118	10	1"	50	1130	810	1680	256
HL275PRO	08U.0275BG	4590	275	162	10	1½"	50	1130	810	1690	321
HL350PRO	08U.0350BG	5840	350	206	10	1½"	50	1140	820	1710	332
HL500PRO	08U.0500BG	8333	500	294	10	2"	50	1260	820	1750	419
HL700PRO	08U.0700BG	11670	700	412	10	2"	50	1360	820	1780	506
HL900PRO	08U.0900BG	15000	900	529	10	2"	50	1440	1010	2130	710
HL1000PRO	08U.1000BG	16667	1000	588	10	2"	50	1440	1010	2130	755
HL1600PRO	08U.1600BG	26667	1600	941	10	3"	50	1920	1250	2260	1016
HL2000PRO	08U.2000BG	33333	2000	1176	10	3"	50	1920	1250	2260	1100
HL2500PRO	08U.2500BG	41660	2500	1470	10	DN100	50	1981	1440	2042	1350
HL3300PRO	08U.3300BG	55000	3300	1941	10	DN125	50	2150	1592	2430	1773

STANDARD REFERENCE CONDITIONS

- Working pressure: 7 bar
- Inlet air temperature: 35 °C (50° max)
- Dew point: CLASS 2 (-40°C) / CLASS 1 (Option / -70°C)
- Work/Purge cycle: 5/5 min.
- Regeneration air consumption: 7/15% of nominal flow rate

STANDARD VOLTAGE:

- 230V/1ph/50Hz

AVAILABLE OPTIONS

- Energy Management System (EMS).
- Low temperature kit.
- Pneumatic control.
- Marine painting.
- Remote control software.
- Pre-installed filters.

Model	Code	Flow-rate			Max pressure	Connections	Heater consumption	Blower consumption	Dimensions			Weight
		l/min	m³/h	CFM					Bar	BSP	kW	
HB 500	08V.0500BG.0	8333	500	294	10	1½"	6	1,5	1350	930	1760	670
HB 900	08V.0900BG.0	15000	900	529	10	2"	12	2,2	1485	1140	2103	958
HB 1400	08V.1400BG.0	23333	1400	824	10	3"	18	5,5	1819	1485	2234	1451
HB 1800	08V.1800BG.0	30000	1800	1059	10	3"	24	4	2083	1567	2034	1710
HB 2200	08V.2200BG.0	36667	2200	1294	10	3"	24	5,5	2083	1567	2034	1857
HB 2600	08V.2600BG.0	43333	2600	1529	10	3"	30	7,5	2510	1980	2360	2504
HB 3200	08V.3200BG.0	53333	3200	1882	10	DN 125	36	9,2	2490	1750	2328	2775
HB 3900	08V.3900BG.0	65000	3900	2294	10	DN 125	45	11	2489	1708	2328	3138
HB 5300	08V.5300BG.0	88333	5300	3118	10	DN 150	60	15	3048	1951	2538	4417
HB 7000	08V.7000BG.0	116667	7000	4118	10	DN 150	80	30	3404	2154	2350	5524
HB 9300	08V.9300BG.0	155000	9300	5471	10	DN 150	100	37	3810	2296	2460	6072
HB 10600	08V.A106BG.0	176667	10600	6235	10	DN 150	125	37	4110	2340	2707	7264
HB 14900	08V.A149BG.0	248333	14900	8765	10	DN 200	175	55	4367	2503	2819	9035

STANDARD REFERENCE CONDITIONS

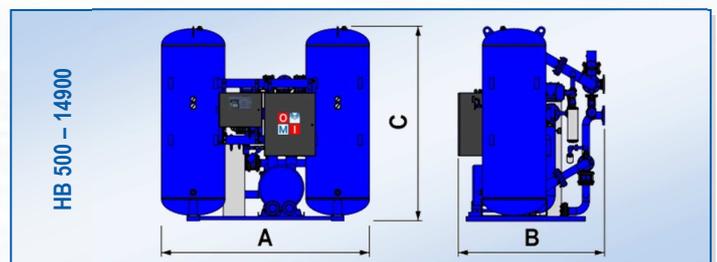
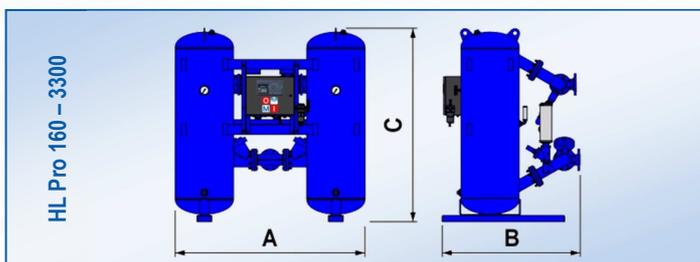
- Working pressure: 7 bar
- Inlet air temperature: 35 °C (50° max)
- Dew point: CLASS 2 (-40°C)
- Work/Purge cycle: 240/240 min.

STANDARD VOLTAGE:

- 400V/3ph/50Hz

AVAILABLE OPTIONS

- Non-standard voltages: all models available in 60Hz version.
- ANSI connection flanges.
- Marine painting.
- Remote control software.
- Tower insulation.
- Pre-installed filters.





OFFICINE MECCANICHE INDUSTRIALI

Via dell'Artigianato, 34 - 34070 Fogliano Redipuglia (GO) - ITALY

Tel. ++39.0481.488516 - Fax. 0481.489871

www.omi-italy.it e-mail: omi@omi-italy.it

Cod. 712.0031.00.00-15

© Copyright 2015 OMI Srl