



LINGYU 凌宇

—COMPRESSED AIR SYSTEM—

ZHONGSHAN LINGYU MACHINERY CO. , LTD .



Main Product:

- Air cooled/water cooled /energy-saving refrigerated dryer
- Heatless regeneration / heated regeneration / modular adsorption dryer
- Zero loss/ micro air consumption adsorption dryer
- PSA nitrogen generator
- Filter and accessories



Corporate mission:

To provide professional, comprehensive and competitive complete solutions and services for industrial gas separation and purification



Corporate vision:

To be a leading enterprise in the industry and create a world-renowned brand



Corporate development philosophy:

Technology-supported value-driven



Marketing strategy:

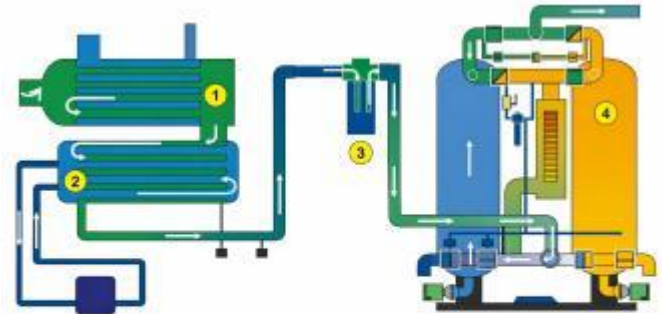
To win the market with high-quality products and professional service

DC SERIES

COMBINED COMPRESSED AIR DRYER

■ Operating conditions

Applicable Fluids: Compressed air, non-corrosive air
Rated Inlet Pressure: 0.7 MPa (0.6–1.0 MPa, customizable)
Rated Air Inlet Temperature: 50 °C (max 80 °C)
Regeneration Method: No heat / Micro-heat
Cooling Method: Air-cooled and Water-cooled
Outlet Pressure Dew Point: ≤ -40 °C
Adsorbent: Activated alumina
Rated Ambient Temperature: 35 °C (usable 2–45 °C)



Working Principle

Note: Standard units are equipped with one middle filter; additional filters can be configured as needed.

■ Design Features

Advanced refrigeration drying system and adsorption drying system design

The refrigeration drying system is engineered to maximize the contact area and contact time between compressed air and refrigerant, ensuring more thorough heat exchange. High-precision refrigeration components, advanced expansion throttling devices, and automatic temperature control and capacity modulation systems automatically adjust to optimal operating conditions based on actual application requirements. This effectively reduces the power consumption of the refrigeration compressor and further improves energy efficiency.

The adsorption drying system adopts high-efficiency adsorbents and optimized adsorption cycles. With high mechanical strength and excellent abrasion resistance, the system delivers superior adsorption efficiency. Moisture adsorption is carried out at low temperatures using an optimal process, significantly increasing adsorption depth and achieving ultra-low pressure dew points.

Integrated design

The unit features a compact footprint and easy installation. Backed by years of technical research and manufactured using modern processes and equipment, each product undergoes strict testing and inspection to ensure it meets operational standards before leaving the factory.



■ Working Principle

Moist compressed air first enters the pre-cooler in the refrigeration drying system, where it exchanges heat with dry, low-dew-point air from the adsorption drying system. This process raises the temperature of the low-dew-point air while simultaneously reducing the temperature of the compressed air entering the evaporator, removing part of the moisture and lowering it to near ambient temperature, thereby reducing the load on the evaporator.

The air then flows into the evaporator for further heat exchange, where the compressed air is cooled to a pressure dew point of approximately 2–10 °C. At this stage, most of the moisture, oil vapor, and some impurities in the compressed air condense and are separated from the air by a gas-water separator, achieving preliminary drying.

The pre-dried compressed air then passes through an oil removal filter and enters the adsorption drying system. Within the adsorption bed, high-efficiency molecular sieves perform deep adsorption, producing low-dew-point compressed air. The low-dew-point compressed air is subsequently filtered through a precision filter to remove fine particles, ultimately delivering ultra-low dew point, clean compressed air.

■ Technical Parameter

AH Series Refrigerated Air Dryer + CH Series Heatless Desiccant Air Dryer

Model	Capacity m³ min	Voltage V Hz	Power kW	Inlet/Outlet	Weight (kg)	Dimensions (mm)
LY-DC10AHN	1.5	380/50	0.9	G1"	154	1150x680x1692
LY-DC20AHN	2.5	380/50	0.9	G1"	208	1260x940x1700
LY-DC30AHN	3.8	380/50	1.2	G1½"	320	1270x980x1691
LY-DC50AHN	6.5	380/50	1.6	G1½"	460	1340x1030x1713
LY-DC75AHN	10.5	380/50	2.2	G2"	622	1630x1260x1892
LY-DC100AHN	13.5	380/50	2.8	G2"	850	1665x1304x2162
LY-DC120AHN	17.0	380/50	2.9	DN65	930	1665x1355x2175
LY-DC150AHN	21.5	380/50	5.3	DN80	1150	1815x1265x2307
LY-DC180AHN	25.0	380/50	5.3	DN80	1330	1925x1450x2384
LY-DC200AHN	28.5	380/50	5.6	DN80	1630	2045x1559x2311
LY-DC250AHN	32.0	380/50	6.3	DN80	1800	2100x1600x2510
LY-DC300AHN	37.0	380/50	7.9	DN100	2000	2165x1700x2448
LY-DC400AHN	45.0	380/50	10.6	DN100	2750	2200x1842x2541

AH Series Refrigerated Air Dryer + CH Series Heat-Regenerated (Low-Heat) Desiccant Air Dryer

Model	Capacity m³ min	Inlet/Outlet	Dimensions (mm)
LY-DC10AHH	1.5	G1"	1150x680x1692
LY-DC20AHH	2.5	G1"	1260x940x1700
LY-DC30AHH	3.8	G1½"	1270x980x1691
LY-DC50AHH	6.5	G1½"	1340x1030x1713
LY-DC75AHH	10.5	G2"	1630x1260x1892
LY-DC100AHH	13.5	G2"	1665x1304x2162
LY-DC120AHH	17.0	DN65	1665x1355x2175
LY-DC150AHH	21.5	DN80	1815x1265x2307
LY-DC180AHH	25.0	DN80	1925x1450x2384
LY-DC200AHH	28.5	DN80	2045x1559x2311
LY-DC250AHH	32.0	DN80	2100x1600x2510
LY-DC300AHH	37.0	DN100	2165x1700x2448
LY-DC400AHH	45.0	DN100	2200x1842x2541

OUR SERVICES

■ LINGYU Services



**Professional
efficient**



**Strive to improve
customer satisfaction**



**National coverage
fast response**

LINGYU

■ Service Content




- **Provide free after-sales consultation;**
- Debug, repair, and maintenance of Lingyu equipment during the warranty period;
- Survey the site of other brands outside the warranty period of Lingyu and formulate plans.

■ Complete Accessories

- **Refrigerated air dryer**
Fans, compressors, condensers, evaporators, dry filters, expansion valves, bypass valves, pressure gauges, various drains, etc.
- **Adsorption air Dryers**
Valves, electrical boxes, adsorbents, diffusers, silencers, solenoid valves, check valves, etc.
- **Other accessories**
Various filter elements, differential pressure gauges, etc.



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