



Air Cleaning System

Refrigerated Air Dryer
High Temperature Air Dryer
Desiccant Air Dryer
Deliquescent Air Dryer
Membrane Dryer
After Cooler
Chiller
Air Filter
Oil-Water Separator
Drain

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1 Refrigerated Air Dryer HYD model



Control Panel

- on HYD-150 and smaller
 - It is equipped with a low pressure refrigerant gauge and an inlet air gauge monitoring system performance.
- on HYD-300 and larger
 - It is equipped with a temperature indicator which can monitor partial temperature and system performance.
 - The timer displaying total operating hour helps maintenance easier. Local and Remote operation is possible. (HYD-170 ~ HYD-300)



Powder Coated Painting

- Powder coated painting is very excellent for preventing corrosion. Painting with epoxy or polyethylene powder by means of electrostatic coating is vastly superior to solvent painting in terms of anti-corrosion and adhesiveness.
- Powder coated painting is more endurable at acidity, alkali and impact than solvent painting.
- Excellent waterproofing. It is free from air pollution by solvent evaporation. It is free from fire-risk because it is nonvolatile.



Automatic Drain Valve

- Automatic drain valve is for draining condensate from the heat exchanger. Our dryer has a drain access window for installing and maintaining automatic drain.
- On HYD-35 and smaller : HAD-20 (Auto Drain)
- On HYD-50 and bigger : HAD-100 (Power Drain)
- Some of big HYD model : BEKO VARIO-32 (Electric Auto Drain Valve)



Liquid Separator/Accumulator

- They are the devices for high performance and stable operation of refrigerated dryer.
- Liquid Separator: It not only protects the refrigerant compressor from liquid hammering of refrigerant flowing back from the low pressure part of Evaporator but also vaporizes the liquid refrigerant.
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Heat Exchanger

- The highly efficient heat exchanger guarantees energy saving and stable dew point through re-cooling and reheating.



Refrigerant Compressor

- We guarantee the great performance and quality by adopting the famous reciprocating refrigerant compressors of Tecumseh and Copeland.



Fan Motor Unit

- Water & dust proof IP54 class fan motor increased condenser efficiency with axial fan.



Condenser

- We increased the efficiency of heat exchanging by adopting the high quality & highly efficient grooved condenser.
- Inner Groove → Inner Groove
 - The heat transferable surface of grooved condenser has been enlarged by 40~70%, compared with flat type condenser.
 - 7~8% energy saving is realized.
 - The pressure loss of grooved inner pipe is extremely lower than that of flat type condenser.

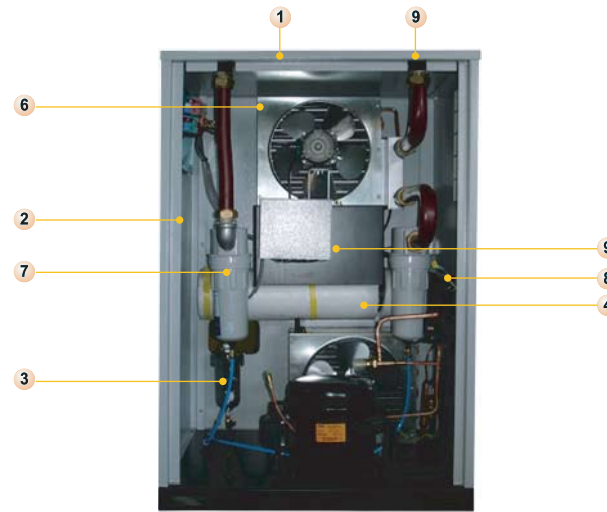


Pressure Switch

- High pressure switch (HPS) : It automatically stops the dryer in order to protect the system in case the refrigerant pressure rises above the set value by ambient temperature rise, cooling water temperature rise or circulating line problem.
- High & Low pressure switch (DPS) : It performs high pressure switch as a combination device of high pressure switch and low pressure switch. At the same time, it automatically stops the dryer in order to protect the system in case the pressure of refrigerant flowing back to refrigerant compressor drops below the set value by leakage of refrigerant.

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2 High inlet temperature air dryer HT model



One-Touch Panel

1. With one-touch panel, opening & closing the side panels and maintenance are easy.



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Automatic Drain

1. Condensate drain is superior because 2~3 units of automatic drains are installed inside high inlet temperature dryer. (On each filter and dryer)



Heat Exchanger

1. The highly efficient heat exchanger guarantees energy saving and stable dew point through re-cooling and reheating.



Air Filter

1. The built-in pre-filter (5μm particulate filter) and line-filter (1ppm oil filter) improve the compressed air quality.
 2. Please check the dryer's specification before purchasing because the number of built-in filters is different according to model. (Only pre-filter is equipped on HYD-50HY and above)



Refrigerant Compressor

1. We guarantee the great performance and quality by adopting the famous reciprocating refrigerant compressors of Tecumseh and Copeland.



Control Panel

1. A lamp displaying the dew point of dryer's outlet is equipped. (On HYD-5HT ~ HYD-30HT)



Easy Wiring

1. Wiring is easy because the terminal block is exposed outwards. Its cover prevents it from being contaminated by dust or pollutant.



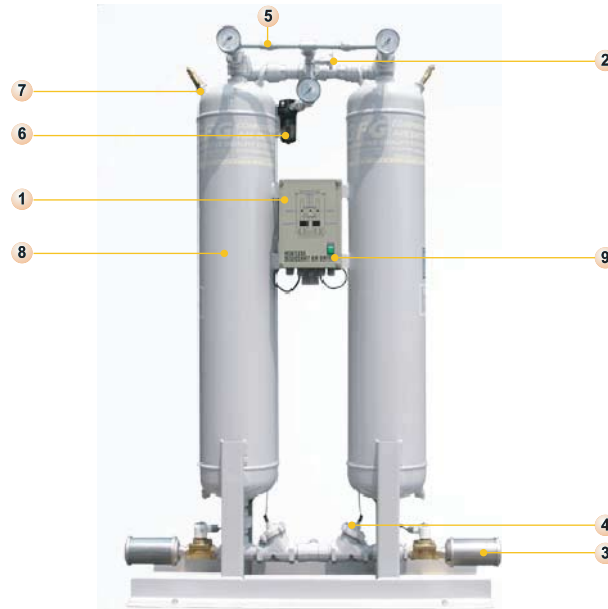
After-Cooler Sensor

1. The automatic temperature sensor equipped with built-in after-cooler can prevent the refrigerant compressor from being super-cooled in winter.
 2. Built-in after-cooler operating temperature is 40°C. (OFF: 30°C)

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3 Desiccant Air Dryer PHL model



Safety Valve

1. For the safety of user, in case the internal pressure rises over a certain level, the safety valve releases the over-pressurized internal pressure. (9.9kgf/cm²)



Axens

1. With AXENS active alumina gel, we guarantee high performance of desiccant air dryer.



Built-in Microprocessor PCB board

1. Low Pressure prevention function: It closes the purge valve if the outlet pressure of desiccant dryer is lower than set value. (Upon request)
2. It delays the tower switch-over time for a period of time if the dew point is superior to the set value of demand cycle dew point meter.
3. Noise Filter: It prevents the malfunction of desiccant dryer which might happen by the higher harmonic waves of electronic devices around the unit.



Control Box

1. It is easy for user to recognize the process of unit's working with displaying the process of drying, depressurizing and regenerating on the timer.
- 1) The purge valve of right side tower opens 20 seconds after supplying power.
- 2) The right side tower is regenerated with a steam of dried purge air for 4 minutes.
- 3) Purge valve closes after regeneration is completed.
- 4) Depressurizing for 4 minutes
- 5) The tower selector switches over the inlet valve.
- 6) The purge valve of left side tower opens after 5 seconds.



Accurate Control of Purge Volume

1. Orifice helps to control the purge air volume accurately.



Muffler

1. The muffler reduces the noise of purge air discharged after drying the desiccant.



Inlet Valve

1. The aquamatic valve making correct open and close possible when tower switching over gives you maximum dependability.



Check Valve

1. The Teflon check valve minimizes the working noise.



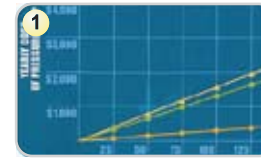
Filter on Control Line

1. The filter on control line prevents the failure in control devices and helps the tower switching-over solenoid valve work stably.

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4 Deliquescent Air Dryer PBD model



Low Operating Cost

1. Low capital and operating cost as the absorbent desiccant material is consumed in proportion to the inlet volume of compressed air.



Pressure Gauge

1. With pressure gauge you can check the internal pressure inside the dryer.



Absorbent Desiccant DOL (Dry-O-Lite)

1. With environment-friendly absorbent desiccant DOL (Non-toxic tested by IPC analysis), ionization prevention of deliquescent material and maintaining solid condition, it is free from corrosion and dust.



Low Installation Cost

1. With no power required for operation, the deliquescent dryer can be applied with confidence in various locations. There is no noise. Installation is simple.



Hatch

1. With the hatch user can replace deliquescent material easily.



Sight Glass

1. You can check the consumption of absorbent desiccant material through the sight glass on the side of both vessels. Besides filling 2 times a year no more maintenance is required.



Safety Valve

1. For safety of user, if the pressure rises over a certain level, the over-pressurized compressed air is released into the atmosphere through the safety valve.



Thermometer

1. With the thermometer you can check the inlet compressed air temperature and maintain the dryer more easily.



Epoxy Interior Coating

1. Corrosion resistant with epoxy interior coating inside vessel.

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5 Membrane Air Dryer PMD model



Easy Maintenance

1. Proper maintenance of filters guarantees a stable performance without any other maintenance.
2. You need to install oil filter (0.1ppm) and particulate filter (5 μ m) before membrane dryer.



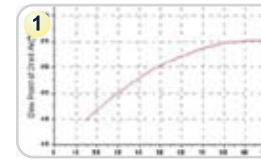
Variety of Applications

1. Painting
2. Food and pharmaceutical
3. Precision and measuring instruments
4. Explosion proof hazardous environments
5. Dental offices and



No Power, No Noise, Eco-Friendly

1. With no power required for operation, the membrane dryer can be applied economically in various locations. Eco-friendly without producing toxic byproducts. The differential pressure is extremely low.



High Quality Air

1. You can get high quality compressed air by installing this membrane dryer at the end of the compressed air line.



Silencer

1. GSA's standard membrane dryer is supplied together with a silencer in order to reduce purge air noise.



High Class Exterior

1. With aluminum anodizing the exterior is beautiful.
2. Anodizing is an electrolytic passivation process used to increase the thickness (over 10 μ m) of the natural oxide layer on the surface of metal parts. Anodizing increases corrosion resistance and wear resistance, and provides better adhesion for paint primers and glues than does bare metal.



Easy Installation

1. With bracket you can install this dryer regardless of locations.



Membrane Module

1. Membrane module is the high molecular compound limiting the mass follow selectively. It highly performs in accordance with solubility and transmittance of contact gas.

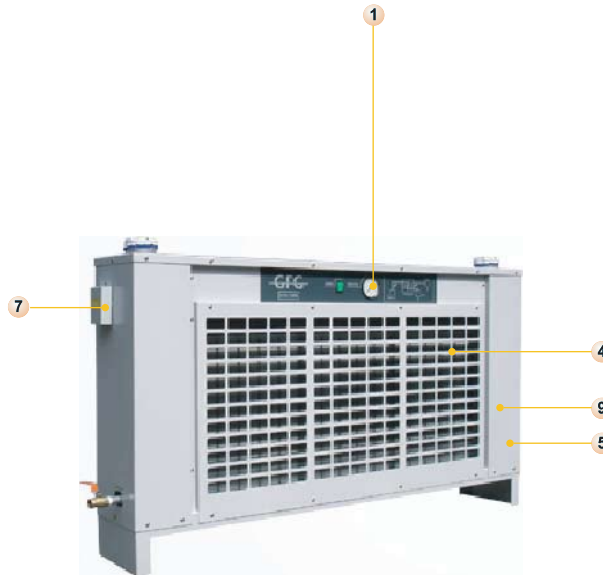


Purge Adjusting Valve

1. With the purge adjusting needle valve on the outlet cap you can adjust purge air volume according to your consumption volume and application.

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6 After-Cooler HYA model



Pressure Gauge

1. With the pressure gauge displaying the outlet pressure of after-cooler you can understand the operating condition of after-cooler easily.



Overload Relay

1. The overload relay for protecting from electrical overload guarantees stable and dependable operation.



Magnetic Contactor

1. ON/OFF control of after-cooler with magnet makes the contact output and other control much easier.
 2. Magnetic contactor is applied on HYA-80A and above.



Fan Motor

1. Water & dust proof IP54 class fan motor increased condenser efficiency with axial fan.



Multi Pass

1. Maximized the cooler's efficiency by repeating heat exchanging through condenser.



Powder Coated Painting

1. Powder coat painting is very excellent for preventing corrosion. Painting with epoxy or polyethylene powder by means of electrostatic coating is vastly superior to solvent painting in terms of anti-corrosion and adhesiveness.
 2. Power coat painting is more endurable at acidity, alkali and impact than solvent painting.
 3. Excellent waterproofing. It is free from air pollution by solvent evaporation. It is free from fire-risk because it is nonvolatile.



Easy Wiring

1. Wiring is easy because the terminal block is exposed outwards.



Aluminum Fin

1. GSA uses the aluminum fin superior for heat exchanging.



Cooper Tube Header

1. The cooper tube header prevents corrosion and increases efficiency.

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7 Air Filter HYF model



Pressure Gauge

1. It is easy to check the filter contamination level by indicating the compressed air pressure of filter inlet and outlet.



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 2. Powder coat painting is more durable at acidity, alkali and impact than solvent painting.
 3. Excellent waterproofing. It is free from air pollution by solvent evaporation. It is free from fire-risk because it is nonvolatile. (On HYF-50A and below)



Automatic Drain

1. In case of air filter HYF-25A model and above, the valve-built-in automatic drain is provided.
 2. It is easy to repair and clean the automatic drain because valve is built in.



Differential Pressure Gauge

1. It informs you the timing of filter replacement by detecting the differential pressure gauge between inlet and outlet of air filter.



Easy Replacement of Filter Element

1. It is easy to replace filter element because housing and head are easily disassembled.



Stainless Steel Bolt

1. Corrosion resisting with stainless steel bolt. You can replace the filter element more easily. (Upon request)



Vent Cock

1. Vent cock below filter housing is easily removed. You can check easily float defects and capability of condensate removing.



Epoxy Interior Coating

1. Prevented corrosion inside the vessel with epoxy interior coating. (On HYF-50A and above)



High Pressure Filter Upon Request

1. High pressure filter is produced upon request and supplied after exhaustive pressure test.

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8 Filter Element HYE model



Six-Fold Structure

1. Six-fold structure element which can treat oil vapor and particles.
 - 1st layer : Porous resin coalescing filter
 - 2nd layer : Microfiber filter for removing oil vapor
 - 3rd layer : main filter (superfine micro filter) removing oil and water vapor in the compressed air or gas. Choose among three of 1/0.1/0.01 μ m.
 - 4th layer : Water-repellent drain layer
 - 5th layer : Porous plastic coalescing filter
 - 6th layer : Water-repellent drain & protective cover



Interior Synthetic Resin Core

1. Resin core free from corrosion improves the capability of filter protection and oil/water separation.



Top of The Particulate Filter Element

1. The particles and heavy water vapor can be effectively separated by cyclone method on upper module plate.



Particulate Filter Element

1. The resin filter (40/5 μ m) having excellent filtering capability has chemical resistance and excellent collection capability. Long life and economically feasible.



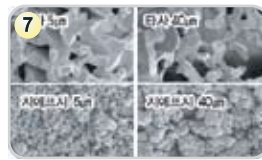
Bottom of Particulate Filter

1. Employing anti-vibration guide bar, we prevent the stagnant condensate from carrying over.



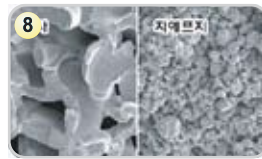
Combination Filter

1. Multi-layer can remove oil vapor and particles at the same time.



Particulate Filter

1. GSA'S 40 μ m and 5 μ m particulate filters are clearly distinguished unlike competitors' products.



Equalized Granularity

1. GSA uses the filter element which has densely equalized granularity, approved as a food wrapping material by the FDA.



Oil-Vapor Removing

1. 5 μ m filter element can remove oil vapor.

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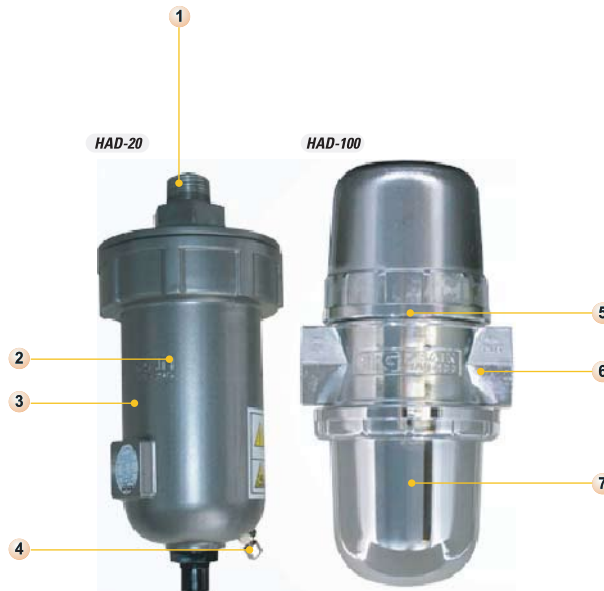
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9 Automatic Drain HAD model



Screen

1. The performance is reinforced with two interior resin filters in upper and lower parts.



Large Discharge Capacity

1. Excellent condensate discharge capability and larger discharge capacity per hour.



Die-Casting

1. Heavy-duty die-casting aluminum strong against freeze-up and external shock. Excellent internal acid treatment and beautiful appearance.



Patent Drain Design

1. Excellent performance with patent condensate drain design.



Screen

1. Lengthen the span of float life with internal resin screen capable of filtering.



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Vent Cock

1. Very safe when replacing or repairing automatic drain as you can vent the compressed air by air vent cock below filter housing.



Teflon

1. The Teflon pad on the top of disk minimizes the drain working noise.



Adjustable Air Valve

1. Possible to adjust condensate discharge volume through adjustable air valve.