Industrial Process Cooling & Heating Systems -

A full portfolio of solutions for industrial process applications



The industrial-grade design of the Withair® Air/Water-Cooled Water Chiller is ideal for both industrial and commercial markets, in applications such as office buildings, hospitals, schools, retail buildings, and industrial facilities. The latest advanced compressor, wide operating temperature range, advanced controls, electronic expansion valve, and high efficiencies mean that chiller is the perfect choice for tight temperature control in almost any application temperatures, and under widely varying loads.

Chiller systems are the best way to keep products and sensitive equipment cool and at optimal temperatures. Some industries, such as pharmaceuticals, food & beverage, tool & die cutting, plastics and chemical industries, require optimal performance and there is no margin for error.

Heat pumps have become increasingly important in the world as a technology to improve energy efficiency and reduce CO2 emissions. Industrial heat pumps (IHP) are active heat-recovery devices that increase the temperature of waste heat in an industrial process to a higher temperature to be used in the same process or another adjacent process or heat demand. In particular high temperature industrial heat pumps (IHPs) offer various opportunities to all types of manufacturing processes and operations. IHPs are using waste process heat as the heat source, deliver heat at higher temperature for use in industrial processes, heating or preheating, or for space heating and cooling in industry.

Outlet hot water temperature can set from 55℃~122℃ as user requirement, so it is widely using home radiator heating by 65℃, 75℃, 80℃, 90℃ and 122℃ hot water for industry heating use -- like a factory, textile, printing, and dying, military industry, steam line, ironing, explosive, medicine high-temperature sterilization line, oil drilling and so on. Suitable for high temperature hot water project and cold area heating project.

Maximize efficiency and savings, unmatched performance and Legendary Reliability

Industrial Process Cooling Systems

Capacity	Model & Description

8 to 280 kW
2 to 80 tons



Model W02C2-ML series
Refrigerant: R-410A, R-454B
Compressor: Hermetic Scroll
Power supply : 50 and 60 Hz
Ideal applications: Modern Manufacturing Industries
Unique features : BAS communications; Intellectualized control, simple operation; High precision of temperature control; Easy layout.
Factory-installed options: Hydraulic kit, BMS System, Heat Recovery, Anti-corrosion; Sound-reduction packages, etc.

Overview

Withair® **Air-Cooled Industrial Chillers** work just as they sound. They use ambient air to cool the refrigerant to help keep your industrial processes running strong. Air-cooled chillers are stand-alone units and do not require any additional equipment to function.

* Process-based cooling
* Uses ambient air to cool
* Stand-alone unit

116.3 to 3500 kW
33 to 1000 tons



Model W02C2-D series
Refrigerant: R-134a, R-513A, R-404A
Compressor: Semi-hermetic Twin-rotor Screw Compressor
Power supply : 50 and 60 Hz
Ideal applications: Modern Manufacturing Industries
Unique features : BAS communications; Intellectualized control, simple operation; High precision of temperature control; Easy layout.
Factory-installed options: Stepless Control, Economizer, BMS System, Heat Recovery, Anti-corrosion; Sound-reduction packages, etc.

Overview

Withair® **Water-Cooled Industrial Chillers** use water in the chilling process. They have a separate cooling tower to remove heat from the refrigerant. Water-cooled units often take up less space than air-cooled units. even with the tower, but require access to a continual water source.

* Process-based cooling
* Uses water to cool
* Takes up less space than air-cooled units.
* Requires access to a continual water source

Industrial Process Cooling Systems

Capacity	Model & Description

58.2 to 2261.6 kW
16.6 to 643 tons



Model W02C2-ML series
Refrigerant: R-134a, R-404A, R-513A
Compressor: Semi-hermetic Twin-rotor Screw Compressor
Power supply : 50 and 60 Hz
Ideal applications: Modern Manufacturing Industries
Unique features : BAS communications; Intellectualized control, simple operation; High precision of temperature control; Easy layout.
Factory-installed options: Stepless Control, Economizer, BMS System, Heat Recovery, Anti-corrosion; Sound-reduction packages, etc.

Overview

Withair® **Medium/Low Temperature Water-Cooled Screw Chiller** is a highly effective, energy saving and environment protecting fifth generation chiller designed and developed by this company. The application of advanced technology promotes the product to an international leading status. The equipment can provide -45℃~0℃ medium and low temperatures and a secondary refrigerant that may be applied to any place where there is a demand for varieties of medium and low temperature cold sources. This can assist with the production process of any industry, pharmaceutical, chemistry, metallurgy, electronic and food, etc., and act as the cold source mainframe of large size refrigerators and ice stadiums. The heat recovery products can keep water at 50℃~60℃ and play a role of saving energy.

116.3 to 1626.4 kW
33 to 462 tons



Model W02C2-D series
Refrigerant: R-134a, R-404A, R-513A
Compressor: Semi-hermetic Twin-rotor Screw Compressor
Power supply : 50 and 60 Hz
Ideal applications: Modern Manufacturing Industries
Unique features : BAS communications; Intellectualized control, simple operation; High precision of temperature control; Easy layout.
Factory-installed options: Stepless Control, Economizer, BMS System, Heat Recovery, Anti-corrosion; Sound-reduction packages, etc.

Overview

Withair® **Duplex Status Water Cooled Screw Chiller** is are equipped with newly-developed semi-hermetic screw compressors and use dry type or flooded type evaporator, which result in lower noise and lower vibration, reliable long period operation, and installation feasibility on any floor of the building. The units are provide cooing capacity by air conditioning working condition and ice-storage working condition during day and night. Optimized system design and enhanced heat exchange efficiency makes the unit working best under both full load and partial load. Every chiller is fully factory tested and gas charged in the factory before dispatch. It' s good choice for hotel, shopping mall, hospital, factory, cinema and other civil architecture air conditioning system. Besides, it is widely used in plastic industry, electroplating industry, food processing, chemical industry and other process cooling applications of modern manufacturing industries which needs a lot of chilled water.

Industrial Process Heating Systems

Capacity	Model & Description

21 to 81 kW
6 to 23 tons



Model W01R1-IHT series
Refrigerant: R-410A, R-134a
Compressor: Inverter Scroll
Power supply: 50 and 60 Hz
Ideal applications: Food/drinks processing industry; Hospital; Electroplating dyeing industry, Textile printing and dyeing industry, Drying industry; Sterilization line; Oil drilling; military industry etc.
Unique features: Smart control; BAS communications; Easy layout; Easy serviceability; Great flexibility; Robust reliability; Service isolation valves; Ease of installation; Multiple protection functions; Shell & tube/ Brazed plate heat-exchanger; Compact design and smaller footprint.
Factory-installed options: Hydronic pump kit; Extreme low-ambient kit to -35℃ (-31°F); High ambient kit to 55℃ (131°F); Flow switch; Brazed plate heat-exchanger; Metallic filter; Expansion tank; Anti-corrosion; Sound-reduction packages; etc.

Overview

Withair® **High Temperature (Up to 90℃) DC Inverter Heat Pump Water Heater** with double compressors to producing hot water by two stage cascading operation. Best combination between the R410A excellent low-temperature characteristics and R134a high temperature properties. Outlet hot water temperature can set from 55℃~90℃ as user requirement, so it is widely using home radiator heating by 65℃, 75℃,85℃ or 90℃ hot water for industry heating use.

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72 to 105 kW
20 to 30 tons



Model W01R1-H series
Refrigerant: R-515B
Compressor: Hermetic Scroll
Power supply: 50 and 60 Hz
Ideal applications: Comfort and Industrial process heating
Unique features: Smart control; BAS communications; Easy layout; Easy serviceability; Great flexibility; Robust reliability; Service isolation valves; Ease of installation; Multiple protection functions; Shell & tube/ Brazed plate heat-exchanger; Compact design and smaller footprint.

Overview

Withair's high temperature heat pump, using the principle of the heat pump, draws heat from the ambient air or low temperature water through the thermodynamic cycle, then transfers the heat to the condenser through the compressor, and finally recurrently heats the water of the water tank to the required temperature. During the operation of the unit, there is no gas emission, it is environment-friendly and energy-saving. It can not only completely achieve water and electricity separation but eliminate the dangers like flammable, explosive, electric shock, poisoning, etc. that a traditional water heater may have. It adopts modular design, has flexible combination and strong expansion, and can heat all day long, the temperature of the water can be adjusted freely. Commercial hot water heater can be widely applied in the central heat supply of guesthouses, hotels, hospitals, schools, bathing centers and district and the factory hot water.

Industrial Process Heating Systems

Capacity	Model & Description

16 to 1516 kW
5 to 431 tons



Model W01R1-IHT series
Refrigerant: R-134a, R-513A, R-1234ze
Compressor: Hermetic Inverter Scroll & Semi-hermetic Screw
Power supply : 50 and 60 Hz
Ideal applications: Modern Manufacturing Industries
Unique features : BAS communications; Intellectualized control, simple operation; High precision of temperature control; Easy layout.
Factory-installed options: Stepless Control, Economizer, BMS System, Heat Recovery, Anti-corrosion; Sound-reduction packages, etc.

Overview

Withair® **High Temperature Industrial Air Source Heat Pumps** with ultra-high temperature compressor to producing hot water. Best combination between the R410A excellent low-temperature characteristics and R134a high temperature properties. The outlet hot water temperature can set from 55℃~90℃ as user requirement, so it is widely using home radiator heating by 65℃, 75℃,85℃ or 90℃ hot water for industry heating use --like a factory, textile, printing, and dying, military industry, steam line, ironing, explosive, medicine high-temperature sterilization line, oil drilling and so on. Suitable for high temperature hot water project and cold area heating project.

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197 to 2000 kW
56 to 568 tons



Model W01R2-U series
Refrigerant: R-134a, R-513A, R-245fa, R-1234ze
Compressor: Semi-hermetic Twin-rotor Screw Compressor
Power supply : 50 and 60 Hz
Ideal applications: Modern Manufacturing Industries
Unique features : BAS communications; Intellectualized control, simple operation; High precision of temperature control; Easy layout.
Factory-installed options: Stepless Control, Economizer, BMS System, Heat Recovery, Anti-corrosion; Sound-reduction packages, etc.

Overview

Withair® **Ultra-high Temperature Water to Water Heat Pump** can produce high-temperature hot water at 45~122℃ while cooling, and realize the dual-temperature and double-effect application of waste heat recovery. The fuel boiler and refrigeration/chiller unit equipment can fully meet the energy demand of the production process. The ultra-high temperature heat pump consumes a small amount of electricity, and while completing the task of the refrigeration/chiller unit, it can obtain free to the heat generated by the fuel boiler. The heating COP can reach above 3.5, the cooling COP can reach above 4, and the overall efficiency can reach above 7.5. that consumes 1,000 Watts of electricity can get 7,500 watts of energy (heat + cooling), which can save more than 40% of energy compared to traditional equipment, giving full play to its maximum energy efficiency advantage. There is no combustion process in operation, no soot emission, no waste generation.

Benefits At A Glance

The industrial-grade design of the Withair® Industrial Process Cooling and Heating System is ideal for the small to big size buildings, in applications such as office buildings, hospitals, schools, retail buildings, and industrial facilities. The latest advanced compressor, wide operating temperature range, advanced controls, electronic expansion valve, and high efficiencies mean that unit is the perfect choice for tight temperature control in almost any application temperatures, and under widely varying loads.

For Building Owners and Managers

- Quiet operation
- Easy to maintain
- Reliable operation
- Reduces operating expenses
- Environmentally sound refrigerant
- Building automation system compatible

For Consulting Engineers

- HFC refrigerants
- High-efficiency optimization
- Ideal for replacement projects
- Compliant local code requirements
- Quick response technical support services

For Contractors

- Compact footprint
- Diagnostic controls
- Easy to break down
- Ideal for replacement
- Reliable performance
- Reduces installation expenses

Withair®

Premium manufacturer in HVACR products
for Heating,Cooling and Indoor Air Quality.

Learn more at www.withairgroup.com
or follow us info@withairgroup.com

About Withair ®

Withair® is the premium manufacturer in sustainable energy solutions supplying HVACR products & services for heating, cooling, hot water, indoor air quality, industrial refrigeration, and heat recovery that reflect today's demand for sustainable construction, comfortable indoor climate and industrial cooling & heating process application.

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