THE WORLD'S OBAIR

In the vast global innovation landscape, "Obair" shines like a brilliant star, leading the wave of technological innovation.
We are not just a company, but also advocates and practitioners of the global upgrade in quality of life.
In the world of Obair, technological innovation is not only a driving force but also the soul.
We firmly believe that "Obair" will resonate in every corner of the world, representing excellence, quality, and dreams.
We cross mountains and seas, connecting the five continents, adding a bright color to the global stage of life, becoming a synonym for beauty in the hearts of people around the world, and together writing a glorious chapter in human civilization.

The related products of Oubo have obtained the above certification and the specific product certification is detailed in the relevant product certification certificate

Haojin Oubo Technology Co.,Ltd

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Note: There may be discrepancies between all product descriptions, data, and actual products in this catalog. Please refer to the actual product. Changes will not be notified separately.

Official WeChat Public Account

OBAIR

HJWM | Hydraulic Kit

OBAIR Central air conditioning

Version NO.: OB-202502A
Haojin Oubo Technology CO., LTD

OBAIR
Haojin Oubo
Techno ogy CO., LTD

COMPANY PROFILE

Haojin Oubo Technology Co., Ltd. is a large-scale purification central air conditioning national high-tech enterprise integrating research and development, production, sales, and service.

Obair has always adhered to technological innovation, participated in the formulation of national and industry standards as a member unit of China's "Cold Standard Committee", and has obtained multiple invention patents and utility model patents. It has established industry-university-research bases with Nanchang University and Jiangxi University of Science and Technology. It is a key demonstration enterprise for deep integration of informatization and industrialization in Jiangxi Province, a demonstration enterprise for service-oriented manufacturing in Jiangxi Province, and the company has successively won honors such as Jiangxi Province Technology Center, Ganzhou City Industrial Design Center, Jiangxi Famous Brand Product, national green factory, and national specialized and innovative "little giant" enterprise.

Obair currently has two phases in Ganzhou, Jiangxi, using digital park management, with over 120 digital production equipment, achieving an annual production capacity of 100,000 units.

Obair currently has more than 1000 models of high-quality air conditioning products independently developed, and the products have obtained energy-saving certification, CRAA, EU CE certification, American AHRI certification and other authoritative institutions' testing and certification, widely used in hospitals, dust-free workshops, pharmaceutical factories, electronics, tobacco, painting, photovoltaic, new energy, semiconductor, laboratory and other industries, and has the industry reputation of "King of Cleanliness" and "King of Constant Temperature and Humidity Non-standard".

Obair strictly implements the ISO9001/ISO14001/ISO45001 management system, always practices the purpose of "willing to explain the price for a while, but not to apologize for the quality for a lifetime", proposes the "6-hour" on-site service concept for all customers and for all customers, and provides the most professional and high-quality technical support and after-sales service.

From the mission, born for purification!

Obair, your regret-free choice!

170,000 square meters of complete machine production base

70+ National Service Contact Points

1000+ employees

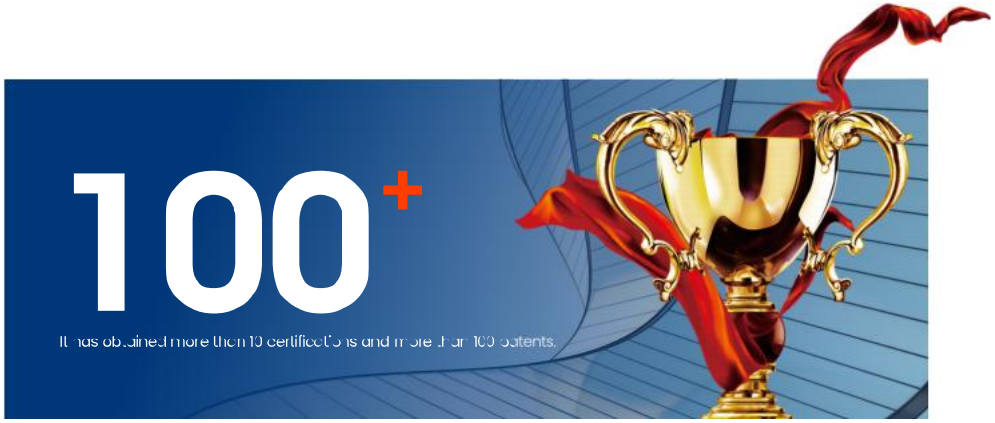
100,000 Pilot Project Air Conditioning Solutions

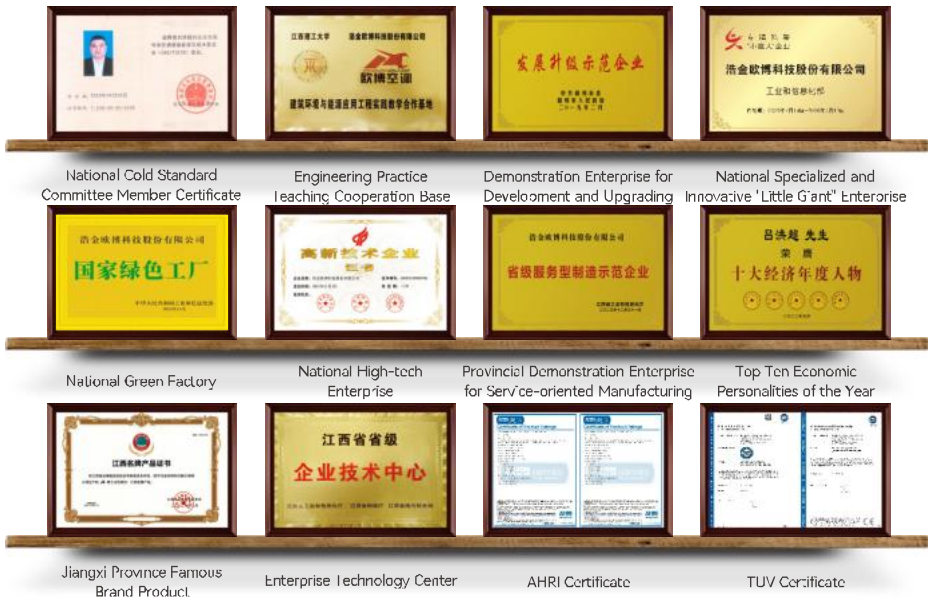
HONORARY QUALIFICATIONS

Advanced equipment, professional technology and strict management have created the high quality of "OBAIR" brand products.

It has successively won dozens of honors such as national high-tech enterprise, China's well-known brand, specialized and special new enterprise, cold standard committee enterprise, provincial service-oriented manufacturing demonstration enterprise, provincial enterprise technology center, Jiangxi famous brand product, etc.

"OBAIR" products are your reliable choice.





National Cold Standard Committee Member Certificate | Engineering Practice Teaching Cooperation Base | Demonstration Enterprise for Development and Upgrading | National Specialized and Innovative "Little Giant" Enterprise

National Green Factory | National High-tech Enterprise | Provincial Demonstration Enterprise for Service-oriented Manufacturing | Top Ten Economic Personalities of the Year

Jiangxi Province Famous Brand Product | Enterprise Technology Center | AHRI Certificate | TUV Certificate

HJWM | Hydraulic Kit

OBAIR
Tianjin Oubo Technology CO., LTD

Integrated Design
The hydraulic system employs a modular integration design, incorporating water pumps, valves, safety components, automatic water replenishment, system drainage components, and control into one unit.

Intelligent Management
It can be integrated with the host and indoor terminals for control and communication, allowing for real-time monitoring of the operation process and enhancing the overall system stability.

Low Noise
The pumps used are from top domestic manufacturers, which operate at faster speeds and produce low noise.

Convenient Installation
A single hydronic module unit is equivalent to the function of a whole machine room. It shortens the construction time of over two days for a machine room to just two hours for the unit installation, saving more than 70% of the construction time and material costs.

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Product Overview

A Hydraulic Kit is a system that integrates various components such as pump sets, valves, water filters, automatic water replenishment devices, safety components, drainage components, and control systems into a modular design. It can be placed outdoors as a whole. The hydraulic module is characterized by its compact structure, no need for a dedicated machine room, energy-saving and high efficiency, low noise, low vibration, and long service life. It is suitable for the circulation and transportation of air-conditioning water, cooling water, domestic hot water, and other water media in central air-conditioning water systems.

Model Explanation

HJWM 023 S 28 J L

- L: Power Type: L-380V/3N/~50Hz; A-220V~/50Hz
- J: Control Method: J - Relay Control; V - Variable Frequency Control
- 28: The head of a water pump
- S: Number of water pumps: S - Single pump; D - Double pump; T - Triple pump
- 023: Rated Flow
- HJWM: Hydraulic Kit

Selection and Ordering

The standard unit includes a pump set (single pump), check valve, expansion tank, make-up water device, safety components, and water filter.

Select the corresponding hydraulic module model according to the required water flow and the rated head of the water pump.

The water flow, the rated head of the water pump, and the control system can be customized.

OBAIR Hydraulic Kit provide the following non-standard configuration options:

Customized Water Flow	Customized Rated Head	Inlet and Outlet Clamp Pipe Connection
Single Pump (Manual Control)	Single Pump (Automatic Control)	Single Pump (Variable Frequency Control)
Water Pump with One in Use and One on Standby (Manual Control)	Water Pump with One in Use and One on Standby (Automatic Control)	Water Pump with One in Use and One on Standby (Variable Frequency Control)
Two Pumps in Use and One on Standby (Manual Control)	Two Pumps in Use and One on Standby (Automatic Control)	Water Pump with Two in Use and One on Standby (Variable Frequency Control)
Centralized Control	Electronic Descaler	Make-up Water Pump
The Self-operated Pressure Differential Bypass Valve	Electric Pressure Differential Bypass Valve	Auxiliary Electric Heating
Water Flow Switch	Manual Make-up Water Valve	Cooling Fan Control

Non-standard customization of the control system

Without a control system (standard configuration)

The OBAIR Hydraulic Kit's power cabinet does not include a control system and is not equipped with a controller. The power cabinet has reserved connection points for the pump power supply and pump start/stop signals. Users only need to connect the pump power supply and integrate the pump start/stop signals into the central air conditioning system's main control system to achieve control over the hydraulic module.

Manual control system

The OBAIR Hydraulic Kit's single pump, one in use and one on standby, two in use and one on standby, and auxiliary electric heating configurations support manual control. The power cabinet is equipped with manual knob switches and power operation indicator lights, allowing for manual start-up and switching of pump operation, and the auxiliary electric heating can be manually activated as needed.

Automatic control system

The OBAIR Hydraulic Kit is equipped with a PLC controller and a high-definition LCD touch screen, which controls the operation of the water pump, the switching between one in use and one on standby / two in use and one on standby, the variable frequency of the water pump, the electronic descaler, the make-up water pump, etc. Through the RS485 communication interface, the operating signals, fault protection information, etc., can be fed back to the air conditioning host.

Centralized control system

The OBAIR Hydraulic Kit can easily achieve communication connection with the OB host series products. For example, if multiple OB air conditioning host products share one OB hydraulic module, through a simple communication connection, the hydraulic module can centrally monitor and manage the central air conditioning host, water pumps, and water system valves. The unit is equipped with a PLC controller and a high-definition LCD touch screen. Through the RS485 communication interface, it can exchange data with various building monitoring systems.

Application range

- It can be used in conjunction with any water-circulating central air conditioning unit, with a maximum water flow of up to 630m^3/h for a single unit.
- It is suitable for the circulation of air-conditioning water, cooling water, domestic hot water, and the transportation of other media in HVAC systems.

System Application

- **Air-cooled central air conditioning system:** One or more air-cooled central air conditioning host units combined with one hydraulic module. The hydraulic module completes the connection and power output between the host and the terminal devices. Depending on the requirements, you can choose a single-pump system, a one-in-use-and-one-on-standby system, or a two-in-use-and-one-on-standby system.
- **Water-cooled central air conditioning system:** One or more water-cooled central air conditioning host units combined with two hydraulic modules. The hydraulic module completes the connection and power output between the host and the terminal devices. On the cooling side, you can choose various forms such as cooling towers, ground sources, and water sources. Depending on the requirements, you can choose a single-pump system, a one-in-use-and-one-on-standby system, or a two-in-use-and-one-on-standby system.

Product Features

OBAIR's hydraulic kit unit has solved the drawbacks of traditional units, such as large floor space, unattractive appearance, high noise, long construction period, and difficulty in controlling construction quality. It provides customers with a compact, beautiful, and low - noise machine room environment.

- Integrated design, easy to maintain. It adopts the modular integration design scheme of hydraulic system, which integrates water pump, valve, safety component, automatic water replenishment, system sewage component and control into one. It abandons the original complex machine room and cumbersome control system, reduces the damage to the equipment caused by human and environmental factors, and increases the service life of the equipment. At the same time, it reduces the cost of maintenance and repair.
- Quick installation, cost - saving. One hydraulic module unit is equivalent to the function of a machine room. It shortens the machine room construction of more than two days to two hours of unit installation, saving more than 70% of the construction time and material cost. It has the characteristics of energy saving and environmental protection, saving time and investment, improving project quality, as well as flexible application and quick installation.
- Intelligent management, efficient configuration. The hydraulic module system can communicate and be controlled in conjunction with the main unit and indoor terminals, and the operation process can be monitored in real time, which improves the stability of the whole system operation. It uses water pumps from first - class domestic manufacturers, which run faster and have low noise; The motor has F - class insulation, which increases the maximum allowable temperature rise of the motor, has high overload capacity, strong endurance, and is safe, reliable, and has a long service life; IP55 fully enclosed structure, dust - proof and water - proof.

High - Efficiency Easy - Disassembly Water Pump

The unit uses water pumps from well - known domestic brands, and is equipped with standard high - efficiency motors. Through the optimization of hydraulics and structure, combined with industrial design and reliability testing, it has the characteristics of high efficiency and energy - saving, stable performance, low noise, no overload, high flow rate, wide high - efficiency range, and attractive appearance.

High - Efficiency Bladder Expansion Tank

The unit uses a bladder expansion tank. The internal bladder structure of the tank ensures that water does not come into contact with the tank wall. As a result, there is no rust inside the tank wall and no condensation on the outside. The flange joint is made of 304 stainless steel, which does not rust, greatly extending its service life.

Automatic Water Replenishment Valve

The unit uses a vertically - scaled automatic water replenishment valve that has received a national patent, ensuring constant pressure throughout the system.

- Pressure - reducing and stabilizing device. The pressure value can be adjusted in conjunction with a pressure gauge or according to the valve's scale, and the system pressure after adjustment is automatically maintained. When the system pressure drops, it automatically fills with water, and when the set pressure is reached, it automatically closes to prevent high water pressure from damaging system equipment.
- Check function. It prevents backflow when the water replenishment water pressure drops or stops.
- Manual shut - off valve function. The water replenishment source can be closed by screwing in the plastic knob.

High - Quality Structural Shell

The unit's casing is made of high - quality steel plates and 304 stainless steel bolts. The entire unit can be placed directly outdoors. It has the advantages of strong corrosion resistance, attractive appearance, and good heat resistance.

Technical Parameters

Model HJWM		012	018	023	035	050	060	080	094	110	150
Power Supply		380V/3N~50Hz (Three - phase five - wire system)									
Water Flow Rate	m^3/h	12	18	23	35	50	60	80	94	110	150
Recommended Cooling Capacity Range	kW	50~75	76~100	101~150	151~200	201~300	301~350	351~450	451~550	551~650	651~850
Rated Head Range	m	12~50	15~50	12~52	12~52	13~47	30~70	17~52	27~52	11~52	11~48
Pump Insulation Class		Class F									
Pump Motor Type		Fixed Frequency									
Connection Method		Flange									
Pipe Connection Dimensions		DN50	DN65	DN80	DN80	DN100	DN100	DN100	DN125	DN125	DN150
Make - up Water Pipe Dimensions		DN15	DN15	DN15	DN15	DN15	DN15	DN15	DN15	DN15	DN15
Expansion Tank Capacity	L	19	25	36	60	80	100	150	150	200	200
Operating Medium		Water									
Protection Functions		Short - circuit Protection, Overload Protection									
Single - pump System Overall Dimensions	L mm	1500	1600	1600	1800	1800	1800	2300	2300	2300	2600
	W mm	800	900	1000	1000	1000	1000	1300	1300	1300	1500
	H mm	900	1000	1000	1400	1400	1400	1700	1700	1700	2200
Unit Weight	kg	250	300	370	450	500	560	780	810	850	1080
Operating Weight	kg	265	315	385	465	515	575	795	825	865	1095
One - in - use and one - in - reserve System Overall Dimensions	L mm	1500	1800	1900	2200	2200	2200	2500	2500	2500	3000
	W mm	1000	1200	1300	1400	1400	1400	1600	1600	1600	2000
	H mm	900	1000	1000	1400	1400	1400	1700	1700	1700	2200
Unit Weight	kg	380	460	530	820	880	940	1160	1360	1420	1810
Operating Weight	kg	400	480	550	840	900	960	1180	1380	1440	1830

Note:

1. The hydraulic module water system is designed for a pressure of 1.0Mpa, and the maximum working pressure must not exceed 1.0Mpa;
2. Select the corresponding hydraulic module model according to the required water flow rate and the rated head of the water pump;
3. For projects with high water flow, if a single hydraulic module unit does not meet the requirements, you can choose to use multiple units of the same specification in parallel, with the number of parallel units not exceeding 4 pumps;
4. Parameters such as the input power and weight of the unit depend on the required head of the unit;
5. The electrical distribution and wiring at the unit installation site should be based on the unit's nameplate or installation manual.

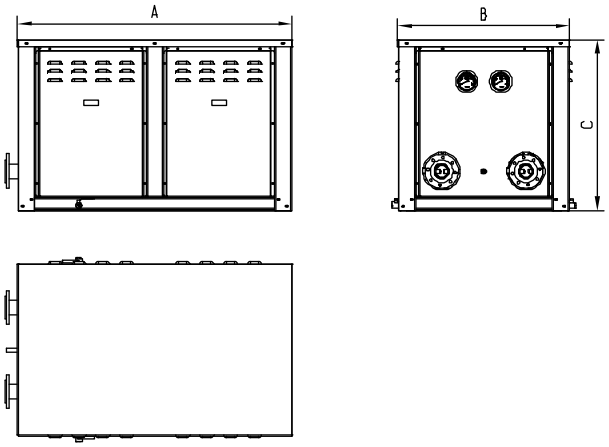
Technical Parameters

Model HJWM		180	200	240	280	320	400	430	500	520	630
Power Supply		380V/3N~50Hz (Three - phase five - wire system)									
Water Flow Rate	m^3/h	180	200	240	280	320	400	430	500	520	630
Recommended Cooling Capacity Range	kW	851~1050	1051~1150	1151~1400	1401~1650	1651~1850	1851~2300	2301~2500	2501~2900	2901~3000	3001~3700
Rated Head Range	m	13~50	13~50	16~53	16~53	13~50	13~50	16~56	16~56	13~50	13~50
Pump Insulation Class		Class F									
Pump Motor Type		Fixed Frequency									
Connection Method		Flange									
Pipe Connection Dimensions		DN150	DN200	DN200	DN200	DN250	DN250	DN250	DN250	DN300	DN300
Make - up Water Pipe Dimensions		DN15	DN15	DN15	DN15	DN15	DN15	DN15	DN15	DN15	DN15
Expansion Tank Capacity	L	300	300	300	500	500	600	600	800	800	800
Operating Medium		Water									
Protection Functions		Short - circuit Protection, Overload Protection									
Single - pump System Overall Dimensions	L mm	2600	2600	2600	3200	3200	3200	3200	3600	3600	3600
	W mm	1500	1500	1500	1800	1800	1800	1800	2600	2600	2600
	H mm	2200	2200	2200	2300	2300	2300	2300	2500	2500	2500
Unit Weight	kg	1380	1580	1630	1980	2120	2220	2420	2670	2820	2970
Operating Weight	kg	1395	1600	1650	2000	2135	2235	2440	2690	2835	2985
One - in - use and one - in - reserve System Overall Dimensions	L mm	3000	3000	3000	3400	3400	3400	3400	4400	4400	4400
	W mm	2000	2000	2000	2500	2500	2500	2500	2800	2800	2800
	H mm	2200	2200	2200	2300	2300	2300	2300	2500	2500	2500
Unit Weight	kg	2110	2830	2930	3280	3420	3520	4220	4770	5020	5130
Operating Weight	kg	2140	2860	2960	3310	3450	3550	4250	4800	5050	5160

Note:

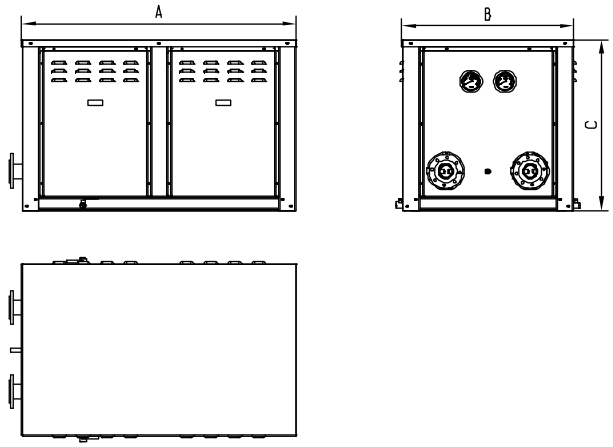
1. The hydraulic module water system is designed for a pressure of 1.0Mpa, and the maximum working pressure must not exceed 1.0Mpa;
2. Select the corresponding hydraulic module model according to the required water flow rate and the rated head of the water pump;
3. For projects with high water flow, if a single hydraulic module unit does not meet the requirements, you can choose to use multiple units of the same specification in parallel, with the number of parallel units not exceeding 4 pumps;
4. Parameters such as the input power and weight of the unit depend on the required head of the unit;
5. The electrical distribution and wiring at the unit installation site should be based on the unit's nameplate or installation manual.

Outline Drawing (Single - pump System)



Model	A (mm)	B (mm)	C (mm)
HJWM012S28JL	1500	800	900
HJWM018S28JL	1600	900	1000
HJWM023S28JL	1600	1000	1000
HJWM035S30JL	1800	1000	1400
HJWM050S29JL	1800	1000	1400
HJWM060S30JL	1800	1000	1400
HJWM080S34JL	2300	1300	1700
HJWM094S34JL	2300	1300	1700
HJWM110S28JL	2300	1300	1700
HJWM150S28JL	2600	1500	2200
HJWM180S34JL	2600	1500	2200
HJWM200S34JL	2600	1500	2200
HJWM240S32JL	2600	1500	2200
HJWM280S32JL	3200	1800	2300
HJWM320S32JL	3200	1800	2300
HJWM400S32JL	3200	1800	2300
HJWM430S29JL	3200	1800	2300
HJWM500S29JL	3600	2600	2500
HJWM520S32JL	3600	2600	2500
HJWM630S32JL	3600	2600	2500

Outline Drawing (One - in - use and one - in - reserve System)



Model	A (mm)	B (mm)	C (mm)
HJWM012D28JL	1500	1000	900
HJWM018D28JL	1800	1200	1000
HJWM023D28JL	1900	1300	1000
HJWM035D30JL	2200	1400	1400
HJWM050D29JL	2200	1400	1400
HJWM060D30JL	2200	1400	1400
HJWM080D34JL	2500	1600	1700
HJWM094D34JL	2500	1600	1700
HJWM110D28JL	2500	1600	1700
HJWM150D28JL	3000	2000	2200
HJWM180D34JL	3000	2000	2200
HJWM200D34JL	3000	2000	2200
HJWM240D32JL	3000	2000	2200
HJWM280D32JL	3400	2500	2300
HJWM320D32JL	3400	2500	2300
HJWM400D32JL	3400	2500	2300
HJWM430D29JL	3400	2500	2300
HJWM500D29JL	4400	2800	2500
HJWM520D32JL	4400	2800	2500
HJWM630D32JL	4400	2800	2500

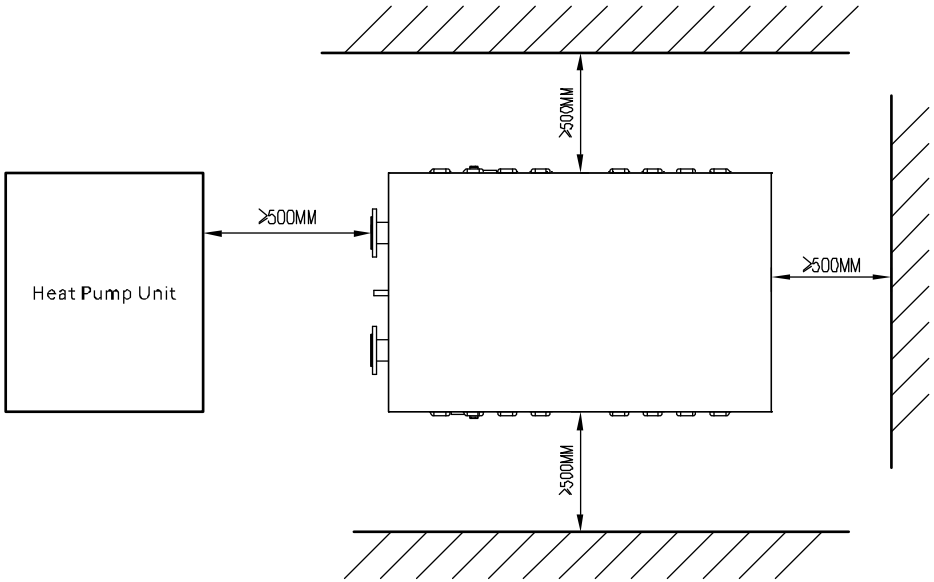
Installation Instructions

Forklift Handling

During the handling of the unit, the unit must not be damaged, especially the components of the system, pipelines, and framework panels should not be damaged.

Installation Environment

- The unit can be installed in well - ventilated areas such as rooftops and ground.
- The installation location of the unit should have enough space around for operation and maintenance purposes. It is also necessary to ensure that the installation location of the unit must have a suitable ambient temperature and good ventilation conditions to ensure smooth airflow. For details on the installation space, please refer to the operation manual.
- There should be drainage measures with sufficient discharge capacity near the unit, so as to discharge the water in the system when the system stops running or is under maintenance.



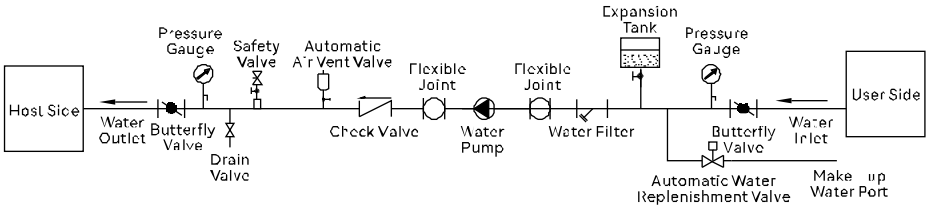
Installation Requirements

- The unit should be installed on a solid, sturdy, and flat concrete foundation or metal steel frame. The installation platform must be strong enough to bear the weight of the unit. If the strength is not sufficient, it is very likely to cause vibration and noise.
- The surface of the concrete foundation is generally leveled with plaster and needs to be waterproofed. Drainage ditches should be set around the foundation, with a slope greater than 0.5%, sloping towards the drain.
- In order to make the equipment run quietly and avoid affecting the floors below the unit due to the transmission of vibration and noise, the unit base and the foundation should be isolated with shock absorbers. When installing the unit, it is necessary to maintain the levelness, and if necessary, consider adding a shock - proof base.
- To avoid possible displacement caused by earthquakes, typhoons, or long - term operation of the equipment, which may cause the pipes to twist and break, proper fixing measures should be taken for the unit.

System Piping Installation

Hydraulic Module System Piping

This schematic diagram is just a basic illustration of the system piping. For specific applications, please refine it according to the system requirements.

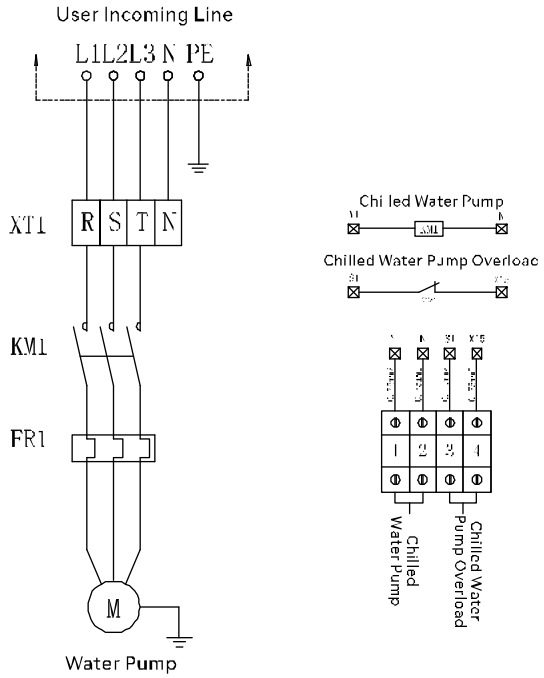


Schematic Diagram of the Hydraulic Kit Unit System Piping

Supplementary Notes:

- Vibration - absorbing hoses or rubber joints should be installed at the water pipe inlets and outlets to reduce the transmission of vibration and noise from the unit. At the same time, the water pipes should be fixed, and their weight should not be borne by the unit.
- Insulation measures should be taken for the unit's water inlet and outlet pipes and valves to prevent heat loss and condensation on the water pipes.
- Water quality requirements: Attention should be paid to the water quality used in the system, as scale and debris can greatly affect the normal operation of the system. In the early stage of system operation, the Y - type filter mesh on the geothermal side inlet pipe must be cleaned several times at intervals.
- Customers need to provide their own expansion tank.

Electrical Wiring



- The working power frequency of the unit should be maintained within ±2% of the rated value, and the voltage should be maintained within ±10% of the rated value.
- The wiring should be in accordance with the three - phase five - wire system, and only copper conductors are allowed. The wiring specifications should comply with the requirements of IEC 60364 - 5 - 523. Shielded wires should be used for the unit's communication wiring, and strong and weak electrical wires should be separated and run through pipes to prevent electromagnetic interference.
- Electrical design and construction must comply with local and national regulations, and grounding protection must be reliable to prevent electrical safety accidents.

Instructions for Use and Maintenance

Winter Operation and Frost Protection of the Unit

- For units that are not used or not operated for a long time in winter, the water inside the unit should be completely drained to prevent the water from freezing and damaging the unit;
- The operating ambient temperature of the unit must not exceed the safe operating range of the unit;
- For other operational matters, please refer to the operation manual and the unit label instructions.

Unit Maintenance

- The maintenance of the unit requires irregular cleaning of the water tank and filter according to the usage rate and water quality to prevent clogging. It is also necessary to irregularly check the automatic water replenishment device, and it is strictly forbidden for the unit to operate without water;
- Before the unit is put into use, the external pipes of the system should be cleaned to remove impurities in the pipeline to avoid blocking the unit. For specific cleaning steps, please refer to the operation manual and the unit label instructions;
- When the unit is not operating in winter, the water should be drained in time to prevent the pipeline from freezing.

For the specific operation of unit installation, use and maintenance, please refer to the "Installation and Use Instructions" and "Electrical Operation Instructions" that come with the unit.

Note: Since OBAIR products will be continuously improved and innovated, if there are any changes in the product models, specifications and parameters shown in this document, we will not notify you separately. Thank you for your understanding.

For specific operations regarding the installation, use, and maintenance of the unit, please refer to the **Installation and Operation Manual** and **Electrical Operation Instructions** provided with the unit.

Note: Since OBAIR products are subject to continuous improvement and innovation, any changes to the product models, specifications, and parameters shown in this material will not be notified separately.
Your understanding is appreciated.