



冰轮环境
MOON-TECH

智慧 / 绿能 / 生态
INTELLIGENT GREEN ENERGY ECOLOGY

PLATE HEAT EXCHANGER CHILLER UNIT

Ammonia Plate Heat Exchanger Chiller Unit

U-TURN Plate Heat Exchanger Chiller Unit

Single Plate Heat Exchanger Chiller Unit

Double Plate Heat Exchanger Chiller Unit



冰轮环境技术股份有限公司
MOON ENVIRONMENT TECHNOLOGY CO.,LTD.

With continuous technological and manage has promoted the continuous optimization of resource allocation and reconstruction of core competencies, Moon-TECH accelerated international expansion transformation. We have transformed from a traditional manufacturing enterprise to a modern service-oriented enterprise with strong competitiveness, large scale, wide coverage, complete business chain, and strong comprehensive research and development capabilities



Industrial Park in the US



Malaysian Industrial Park



Industrial Park in the UK



Vietnam Industrial Park



Baoding Industrial Park



Guxian Industrial Park



Laishan Industrial Park



Jinan Center

MOON-TECH

(Stock Code of 000811)



Low-temperature refrigeration



Central air-conditioning



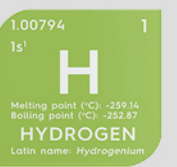
Environmentally friendly heating



Energy and chemical equipment



Precision Casting



Hydrogen Energy Development



Smart Services



Intelligent Packing Machinery and Warehouse Storage System

With devoting to improving the quality of human life as the enterprise mission, MOON-TECH continuously build and enhance competitive advantages in the field of comprehensive energy utilization and accelerate the process of globalization, taking the revitalization of national industry and achievement of customer value as its responsibility, continuously creates and improves its competitive advantage, striving to become an evergreen enterprise with core competitiveness, loved by employees and respected by industrial partners.

Founded in 1956, Moon Environment Technology Co., Ltd (Stock Code: 000811). is a diversified and international comprehensive equipment industrial enterprise. The main business covers low-temperature refrigeration, central air conditioning, environmental protection heating, energy and chemical equipment, precision castings, smart services, hydrogen energy development, etc. In recent years, MOON-TECH has successively won the titles of Top 30 Enterprises with Core Competitiveness in China's Machinery Industry, Top 100 Enterprises of National Machinery Industry, Meritorious Enterprise of Equipment in China, and Demonstration Enterprise for Ozone Layer Protection.

For a longtime, with continuous technological and manage has promoted the continuous optimization of resource allocation and reconstruction of core competencies, accelerated international expansion transformation. We have transformed from a traditional manufacturing enterprise to a modern service-oriented enterprise with strong competitiveness, large scale, wide coverage, complete business chain, and strong comprehensive research and development capabilities

With the synchronous development of refrigeration and heat treatment, and actively expanding energy-saving and environmental protection industry as developing strategy, MOON-TECH is engaged in the technical research and development of low-temperature environment, waste heat recovery, gas compression, industrial heat exchange, urban clean emission and other fields, as well as the production and sales of related complete sets of equipment, and specializes in food refrigeration, chemical process cooling, comfortable environment air conditioning, research temperature control, process gas compression, building aggregated cooling, comprehensive application of heat energy, permafrost drilling, waste treatment, tec. MOON-TECH has production bases, scientific research centers and marketing& service organizations in more than 40 countries around the world. With safe, environmentally friendly, energy-saving, intelligent and Butler-style system integration capabilities, MOON-TECH is providing products with entire product life cycle to users in more than 120 countries and regions around the world.

MOON-TECH has 6 national scientific and technological innovation platforms including the National-Recognized Enterprise Technology Center and 16 provincial scientific and technological innovation platforms including the Shandong Provincial Key Laboratory of Energy Saving and Environmental Protection of Refrigeration Equipment. MOON-TECH has been recognized as a key high-tech enterprise of the China Torch Program, with 326 national patented technologies, and has hosted and participated in the formulation of 25 national standards and 37 industry standards. MOON-TECH has won two national awards, the National Science & Technology Progress Award and the National Technology Invention Award, and has successively won 213 provincial and ministerial scientific and technological achievements awards such as the Special Prize for Scientific and Technological Progress of the Chinese Association of Refrigeration and the First Prize for Scientific and Technological Progress of Shandong Province.

Following the requirements of the environmental policy of harmonious coexistence between human and nature, MOON-TECH is committed to the innovation of artificial environment control technology and comprehensive energy utilization technology to promote a simple, moderate, green and low-carbon mode of social production and operating system, actively building an interconnected and complementary system, including refrigeration, heating, water, gas, electricity, sewage, waste within the -271°C -200°C temperature and 0-90Mpa pressure range, aiming to achieve an energy ecological link between industrial parks and living spaces, and become an intelligent green energy system solution service provider. MOON-TECH also dedicates to develop the utilizations of NH₃、CO₂、HC、He、H₂O and other environmentally friendly substances application technologies, striving to provide professional, high value-added intelligent energy comprehensive utilization solutions.

In recent years, MOON-TECH actively actualized the green and low-carbon developing concept, accelerating the transformation of traditional industries around the dual-carbon goal and energy revolution, promoting the upgrading of the industrial structure to a low-carbon and high-quality level, and set six goals of "low-carbon industry, low-carbon technology, low-carbon manufacturing, low-carbon chain, low-carbon services, low-carbon culture", so as to ultimately realize the industrial structure of high-end, low-carbon consumption of energy, utilization of resources recycling, cleanliness of the production process, and to contribute to the realization of dual-carbon target.



The plate heat exchanger chiller unit is a unit with removable plate heat exchanger as evaporator, including ammonia refrigeration plate heat exchanger chiller unit, U-turn plate heat exchanger chiller unit, single plate heat exchanger chiller unit, double plate heat exchanger chiller unit.

Using eco-friendly ammonia as refrigerant, stainless steel heat exchanger, no pollution to the fluid, high cleanliness.



Ammonia Plate Heat Exchanger Chiller Unit



U-TURN Plate Heat Exchanger Chiller Unit

Plate Heat Exchanger Chiller Unit



Single Plate Heat Exchanger Chiller Unit

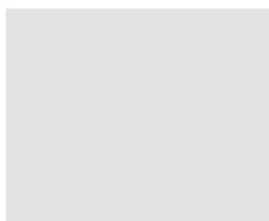


Double Plate Heat Exchanger Chiller unit



Application

Applicable for the cooling process of beer, dairy, beverage, sugar production industry, pre-cooling of livestock and poultry meat, aquatic products and workshop air conditioning, as well as the cooling process of chemical and pharmaceutical industries.



The Medium to be Cooled

water, alcohol water, beer, glycol aqueous solution, etc



Range of Application

Item	Secondary Refrigerant	Outlet Temperature (°C)
Secondary Refrigerant	Water	10~2
	Ethylene Glycol	0~20



Ammonia Plate Heat Exchanger Chiller Unit

Ammonia Refrigeration Plate Heat Exchanger Chiller Unit is a complete set of evaporation device composed of gas-liquid separator, plate heat exchanger, bracket, control box, various automatic control components, valves, connecting pipelines. When installing on site, it only needs to connect the high-pressure liquid supply pipeline, low-pressure suction pipeline, water circuit and electrical connection of refrigeration system, which is easy to install and convenient to use.



U-TURN Plate Heat Exchanger Chiller Unit

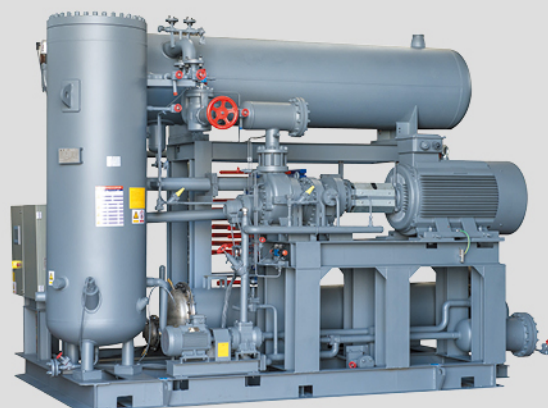
U-Turn Plate Heat Exchanger Chiller Unit is a complete set of evaporation equipment composed of U-turn (gas separation), plate heat exchanger, control box, various automatic control components, valves, connecting pipelines. Compared with the ammonia refrigeration plate heat exchanger water chiller unit, U-turn plate heat exchanger water chiller unit has smaller volume of charge with simpler structure and smaller floor area.



U-TURN Separator

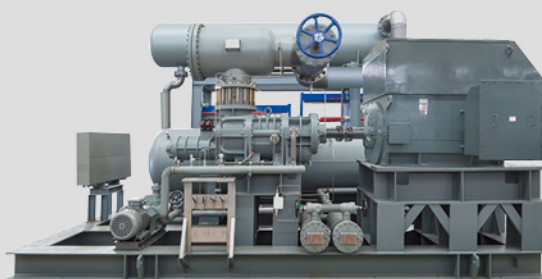
Single Plate Heat Exchanger Chiller Unit

Single Plate Heat Exchanger Chiller Unit is a complete chiller composed of screw refrigeration compressor unit, gas-liquid separator, plate heat exchanger, common base, liquid reservoir (siphon tank), control box, various automatic control elements, valves, connecting pipelines. The condenser is evaporative condenser (installed separately), and for installation, it only needs to connect the discharge pipe group and the pipeline, water circuit and electrical connection from evaporative condenser to the liquid reservoir, which is easy to install and convenient to use.



Double Plate Heat Exchanger Chiller Unit

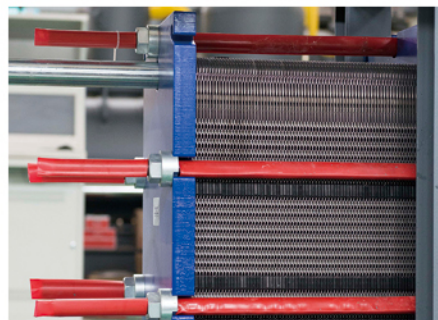
Double Plate Heat Exchanger Chiller Unit is a complete chiller composed of screw refrigeration compressor unit, gas-liquid separator, evaporator (plate heat exchanger), condenser (plate heat exchanger), common base, control box, various automatic control elements, valves, connecting pipelines. When installing on site, it only needs to connect the water circuit and electrical connection, which is easy to install and convenient to use. Compared with single plate heat exchanger water chiller unit, volume of charge is smaller.



Product Feature

High Heat Transfer Coefficient

The design of the plate corrugation aims at a high film transmission coefficient. The special flow channel formed by the plate corrugation enables the fluid to generate a strong disturbance flow under extremely low displacement, and the disturbance flow has a self-cleaning effect to prevent the generation of dirt.



Less Heat Loss, High Evaporation Temperature

High heat transfer efficiency, heat transfer temperature difference between the two medium can be reduced to 3°C , which can improve the ammonia evaporating temperature, thus to improve the efficiency of the compressor.



Small Volume of Charge

Plate heat exchanger has compact structure and high heat transfer efficiency. Under the condition of equal heat transfer, the area of plate heat exchanger is only $1/2 \sim 1/3$ of that of shell and tube heat exchanger, and its volume of charge is obviously less than that of shell and tube heat exchanger.



High Reliability

The automatic control components of the unit are all imported components with high reliability and excellent control accuracy, which can reach the control accuracy of $\pm 0.5^{\circ}\text{C}$ of the set value. Through the optimal combination of the automatic control components, the automatic control of the whole operation process can be realized. Such components are featured with anti freezing function, which can effectively prevent the water side of the evaporator from freezing.



Model Table

Single Suction	EFF-L	Evaporating Temperature°C / Condensing Temperature 40°C – Refrigeration Capacity							
	mm	10	5	0	-1	-5	-10	-15	-20
AUBZ200	3530	700	650	600	590	550	510	450	385
AUBZ300	3860	1410	1250	1125	1098	990	850	752	655
AUBZ300L	5060	1650	1500	1400	1376	1280	1165	1022	880
AUBZ400	4805	2240	2010	1780	1740	1580	1380	1210	1040
AUBZ400L	6435	2800	2650	2450	2395	2175	1900	1665	1430

Double Suction	EFF-L	Evaporating Temperature°C / Condensing Temperature 40°C – Refrigeration Capacity							
	mm	10	5	0	-1	-5	-10	-15	-20
AUBZ200	3430	700	650	600	588	540	480	420	360
AUBZ300	3660	1250	1125	1000	976	880	760	670	580
AUBZ300L	4860	1650	1500	1350	1320	1200	1050	925	800
AUBZ400	4425	2000	1800	1600	1565	1425	1250	1090	930
AUBZ400L	6055	2800	2525	2250	2200	2000	1750	1525	1300

Model	L	Evaporating Temperature°C / Condensing Temperature 40°C – Refrigeration Capacity							
	mm	10	5	0	-1	-5	-10	-15	-20
AFBZ600	3000	1280	1150	1020	1000	905	790	695	600
AFBZ900	3000	2000	1795	1590	1550	1410	1230	1075	920
AFBZ900L	5000	3900	3500	3100	3030	2750	2400	2100	1800

Single Plate Heat Exchanger Unit Model	LS16MBZA	LS20MBZA	LS25MBZA	LS25LBZA
Double Plate Heat Exchanger Unit model	LS16MBBA	LS20MBBA	LS25MBBA	LS25LBBA
Refrigeration Capacity (-1/+40) kW	550	1048	2184	2720



MOON-TECH advocates the use of ODP=0, low-GWP environmentally-friendly working medium, independently research and develop green and efficient compressor products, and actively promotes the process of working medium substitution. Due to the limited space, the sample book cannot list detailed compressor performance parameters, outline drawings of unit, work flow charts and foundation drawings, etc. If necessary, please contact our staff.



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