

代理商 (Agents)



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TAILOR MADE ICE MACHINE
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TAILOR
MADE ICE MACHINE





片冰通常是一种小型不规则片式碎冰。广泛应用于水产冷却，肉类加工，以及一系列工业应用.....

Flake ice is small ice in plat pieces. It is widely used in seafood cooling.....



1

片冰机

Flake Ice Machine P 1

片冰是渔业应用最广泛的冷却介质。针对远洋捕捞来说，华冷泰科片冰机是最完美的解决方案.....

Fishing industry is the largest user of marine flake ice machines.....



2

海水片冰机

Marine Ice Machine P 9

华冷泰科在提供商业、工业冰工厂设计和制造上拥有大量成熟经验。公司能够根据客户要求.....

Fahrentec™ has rich experience in providing ice factory solutions.....



3

冰的运输和储存

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华冷泰科造雪系统继承国际先进造雪技术，并通过进一步研发及改进.....

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造雪系统

Snow Making system P17

COMPANY PROFILE

公司简介

华冷泰科制冷科技有限责任公司是一家专注于服务全球制冷行业，专业提供个性化定制方案的制冷系统供应商。自2009年，先后成立西安华冷泰科制冷科技有限责任公司及西安华冷泰科制冷科技有限责任公司东莞分公司。在长期的改革发展实践中，充分利用区位优势，将内地充沛和优质的科技人才资源与沿海成熟完善的制冷工业体系有效结合，形成了以西安总公司为营销中心，东莞分公司为生产基地的产销架构。

现公司产品主要包括个性化定制大型工业片冰机，船用制冰机，渔船冷冻系统，工业冷水机，人工造雪系统，冷库制冷系统，块冰机，管冰机，颗粒冰机等等，可以满足1吨/日至280吨/日的各类制冰造雪需求。尤其是FIF系列片冰机产品因其出色的能效比，极富竞争力的价格，最为成熟稳定的运行性能，而被海内外客户广为赞誉。

华冷泰科自初创伊始即踏上了“再设计，再生产”的践行之路。始终坚持“量身定做”制冰造雪系统为核心使命，精诚打造每个项目，始足于客户需求，止步于完美解决。十年风雨磨砺，现公司已发展成为全球最具专业的冰雪制冷系统提供者。运用国际最领先科技至臻优化产品每处细节，通过与客户高效、紧密的沟通，积极响应客户实际需求，为创新生产明确了方向。近年来华冷泰科成功转化在制冰、造雪领域大量实践经验，现已获得《破冰方式造雪》与《船用制冰机》共四项发明和实用新型专利。

在新时期国家“一带一路”的总号召下，公司紧密跟随全球化市场经济的步伐，提出了以“局域优势，世界眼光”为核心的发展战略，目前客户遍布全球20多个国家。华冷泰科制冷科技真诚期待在您发展的道路上，与您携手共赢。

Fahrentec Refrigeration Corporation limited is focused in serving global refrigeration industry as the most professional manufacturer for custom made cooling systems. Since 2009, it has established the Xi'an Fahrentec and Dongguan Fahrentec branch. They succeeded in combining of plentiful talented human resource of inland and sufficient refrigeration industrial system of coast, facilitated the highly competitive organization of Xi'an sales team and Dongguan production plant.

Now the product line includes tailor made large industrial flake ice machines, marine ice machines, fishing boat cooling systems, cold-room panels and cooling units, industrial water chillers, artificial snow making systems, block ice machines, tube ice machines, cube ice machines fulfilling the demands of ice and snow from 1ton/day to 280Ton/day. Especially the FIF series flake ice machines are highly recognized and appreciated by customers internationally due to its spectacular energy efficiency, competitive price and the most reliable performance in the industry.

Since the origin of its journey, Fahrentec® has started the practice of “Re-design and Re-manufacture”. Continuously disciplined to the core mission of “Tailor made ice and snow”, humbly worked for every project, It only departed from the customers' challenges; it only arrived to their problems to be solved. After decade of experience, now Fahrentec became one of the most professional ice and snow solution provider. Utilizing the world most leading technology to maximally optimizing every details of product, highly efficient communication, proactively responding clients' actual needs have indicated the direction of innovative production. Over this period of participating in vast number of ice and snow projects, Fahrentec successfully transformed its unique experiences into 4 patents in marine ice machines and snow making systems.

Under this new era, and the great call of “one belt and road initiative” of Chinese central government, Fahrentec closely follows the pace of globalization of economy, it chooses the strategy of “local strength and global vision”, the rapid growth in the international market is being realized by serving customers in more than 20 countries and distributors, agents in 4 countries.

Fahrentec sincerely looking forward to holding your hand and achieving win-win result in your way to great success.

INTERNATIONAL BUSINESS PARTNERS

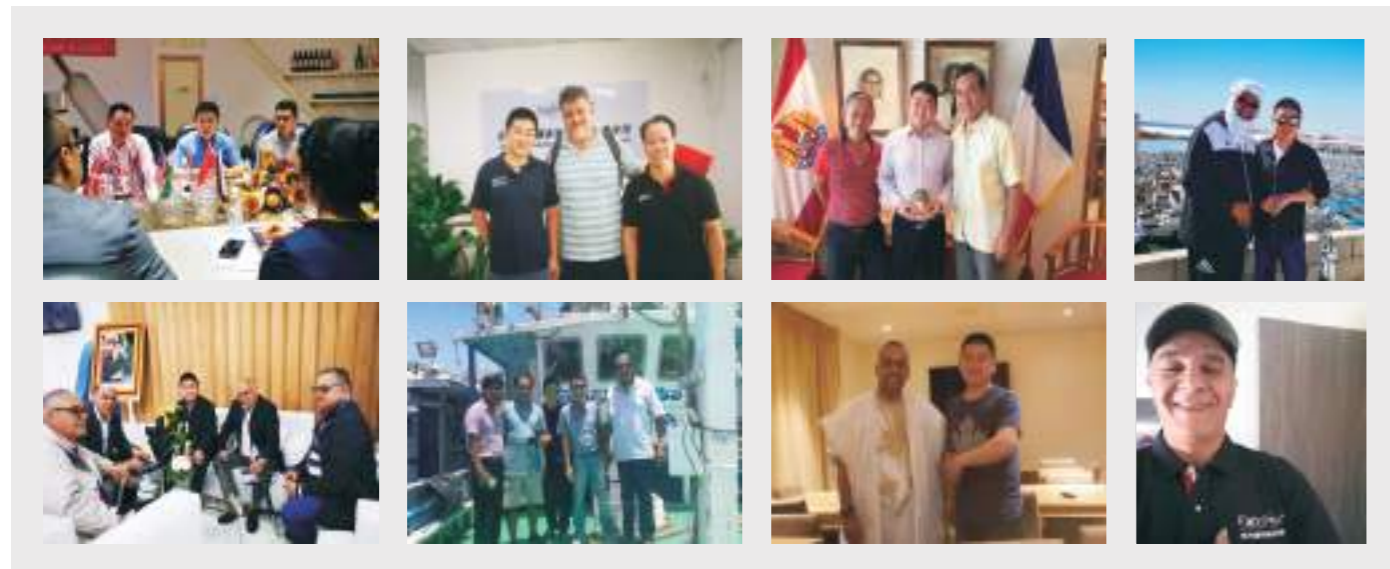
国际商业伙伴

华冷泰科产品成功销往全球20多个国家，并仍处于上升趋势。在这个过程中，分布于4大洲的摩洛哥，智利，法属波利尼西亚，德国以及毛里塔尼亚等多个授权经销商做出了至关重要的贡献。

通过他们在当地市场的不懈努力与活跃交流，华冷泰科可以更加顺利地满足客户需求，客户可以更加方便的通过他们得到有效的售后保障。我们期待能够在更多的国家与地区建立起更为完善与富有竞争性的销售与售后体系。我们真诚欢迎您的加入。

Fahrentec products have been successfully delivered to more than 20 countries in an increasing trend. In this period, our distributors in 4 continents including Morocco, Chile, French Polynesia, Germany and Mauritania have made essential contribution.

Through their dedicated effort and active participation in local markets, Fahrentec is able to fulfil the customers' need in a smoother manner, also a better aftersales support is achieved. We expect to build a more comprehensive and competitive sales-aftersales service system. We sincerely welcome you to be part of this.



片冰 Flake Ice

片冰通常是一种小型不规则片式碎冰。广泛应用于水产冷却，肉类加工，以及一系列工业应用。具有单位重量最大的换热面积，提供最大的制冷量。

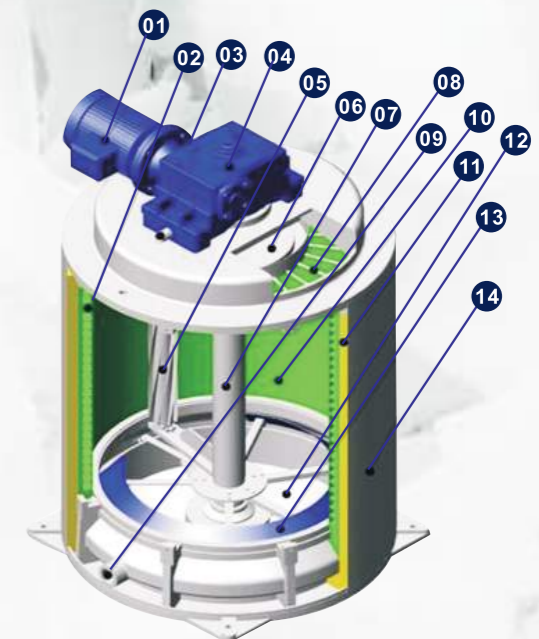
Flake ice is small ice in plat pieces. It is widely used in seafood cooling, meat processing and in a whole range of industrial processes. It gives highest conduction surface area per ton of ice, providing the largest refrigeration capacity than any other ice.

制冰原理 Ice Making Principle

如图所示，冰刀、洒水盘、主轴、接水盘在减速机的带动下，逆时针缓慢旋转。水从制冰机蒸发器的进水口进入分水盘，通过洒水管，将水均匀的洒在结冰面上，形成水膜。水膜与制冷剂流道中制冷剂进行热交换，温度迅速降低，在结冰面上形成一层薄冰，在冰刀的挤压下，碎裂成片冰，从落冰口掉进冰库。部分未结成冰的水通过接水盘从回水口回流至冷水箱内，通过冷水循环泵，循环使用。

Typical flake ice machine makes ice by water inlet introducing water onto the ice frozen surface of evaporator, which conducts with low temperature refrigerant in its refrigerant runner passages. Ice is formed due to the temperature decreasing, then is scraped off by the ice cutter driven by a gear reducer motor keeps it rotating around the principle axis. Then the ice falls off through the ice outlet, water which isn't frozen into ice will be collected in the water recycle pan and flows back to the water tank for reuse.

- 01 电机 Motor
- 02 制冷剂流道 Refrigerant runner
- 03 进水口 Water inlet
- 04 减速机 Reducer
- 05 冰刀 Ice cutter
- 06 洒水盘 Water sprinkling pan
- 07 主轴 Principle axis
- 08 洒水管 Water sprinkler
- 09 回水管 Water return pipe
- 10 结冰面 Ice frozen surface
- 11 保温层 Insulation lay
- 12 落冰口 Ice outlet
- 13 接水盘 Low water pan
- 14 不锈钢包板 Stainless steel wrapper sheet



片冰特点 Characteristic Of Flake Ice

- 不规则鳞状的冰片，大小约40*40mm，厚度约1.5-2.5mm之间。
- 冰较薄，可直接用于搅拌和混合被冷却物。
- 无尖锐棱角，不会损坏被冷却物的外表面。
- 接触面积大，降温速度快。
- 冰片易粉碎，可塑性强。
- Irregularly imbricated ice flakes with thickness around 1.5-2.5mm, approx. 40x40mm.
- The flake ice is thin enough and can be used for stirring and mixing frozen products directly.
- No sharp edge, less damage with refrigerated materials.
- It fills completely around the contact items and cools rapidly.
- Easy to shatter and re-shape.

设备特点 Equipment Features

- 内刮式冰刀，减少能耗，防止制冷剂泄漏。
- 不锈钢材料，采用先进的加工设备和热处理，保证最佳的传热效率。
- 大面积的接水盘设计，防止蒸发器底部滴水。
- 蒸发器底部直接安装光电开关，无需在冰库内安装。
- 直接供液，干式蒸发，控制简单安全可靠。
- 整体模块化设备，现场安装维护便捷。
- Inner-scraping rotating blade can reduce energy consumption and prevent refrigerant leakage.
- Stainless steel material, using advanced fabricating machinery and heat treatment process. High conduction efficiency.
- enlarged water collecting vessel, solves the water leakage at the bottom of the evaporator.
- Photoelectric switch is installed on the bottom of the evaporator, no need to place it in the ice storage room.
- Direct liquid feeding, dry evaporation. Simple, safe and reliable.
- Integrated modularization is utilized in design to provide fast convenient installation and maintenance.



FLAKE ICE MACHINE SPECIALIST

片冰机专家

商业片冰机技术参数 Technical Parameter For Commercial Flake Ice Machine

型号 Model	日产冰量 Daily Capacity	制冷剂 Refrigerant	运行电耗 Power Consumption	安装功率 Install Power	运行重量 Operating Weight	外形尺寸 (长*宽*高) Dimension (L*W*H)
FIF005	500kg	R22/R404	1.955Kw	2.0Kw	210kg	1200x740x550mm
FIF010	1000kg	R22/R404	2.255Kw	2.5kW	380kg	1200x740x780mm
FIF015	1500kg	R22/R404	5.865Kw	5.9Kw	450kg	1560x1200x880mm
FIF020	2000kg	R22/R404	6.780Kw	7.2Kw	480kg	1560x1200x960mm
FIF025	2500kg	R22/R404	7.960Kw	9.5Kw	550kg	1560x1200x1150mm
FIF030	3000kg	R22/R404	8.940Kw	10Kw	950kg	1700x900x1200mm
FIF050	5000kg	R22/R404	17.72Kw	21Kw	1250kg	2200x1050x1550mm



FIF200 20吨片冰机 20T/Day flake ice machine



FIF020 2吨片冰机 2T/Day flake ice machine



FIF030 3吨风冷分体片冰机 3T/D split type air-cooled ice maker

FLAKE ICE MACHINE SPECIALIST

片冰机专家

工业制冰机 Industrial Flake Ice Machine

型号 Model	日产冰量 Daily Capacity	制冷剂 Refrigerant	运行电耗 Power Consumption	安装功率 Install Power	运行重量 Operating Weight	外形尺寸 (长x宽x高) Dimension (L*W*H)
FIF080	8ton	R22/R404A	34.6Kw	36Kw	1800kg	2600x1550x1800mm
FIF100	10ton	R22/R404A	48.0Kw	54Kw	2500kg	2600x1800x1800mm
FIF120	12ton	R22/R404A	50.2Kw	60Kw	3000kg	2600x1800x1930mm
FIF150	15ton	R22/R404A	56.2Kw	65Kw	3200kg	2600x1850x2400mm
FIF200	20ton	R22/R404A	84.0Kw	90Kw	3500kg	3650x2200x2100mm
FIF250	25ton	R22/R404A	96.0Kw	106Kw	3600kg	3650x2200x2400mm
FIF300	30ton	R22/R404A	106.0Kw	115Kw	4500kg	4500x2030x2763mm

借鉴水产和滑雪行业的成功经验，华冷泰科为国内外客户开发出一系列大型片冰机制冷系统，经过不断地生产工艺改良与再设计，20T-40吨/日片冰机赢得了客户的广泛好评。华冷泰科大型片冰机的优势在于：

- 蒸发器经过热处理，酸洗，镀铬等多项先进工艺，且提供8年质保。
- 压缩机匹配经济器达到最优化制冷效率，厂家提供3年质保。
- 所有制冷原件均采用丹弗斯，艾默生等国际一线品牌，强大售后支持。
- 匹配大型蒸发冷凝器进一步提高冷凝效率并通过PLC控制，稳定可靠。
- 使用施耐德，西门子电控原件，超长寿命，高灵敏度。
- 整机框架经过喷砂打磨防锈漆以及热镀锌工艺处理，坚固耐用。
- 出厂前72小时高强度测试，确保产品质量100%符合CE标准。



FIF150 15吨片冰机 15T/day flake ice machines



2台FIF250 25吨片冰机 twin units of 25T/D flake ice machines



FIF350 35吨水冷片冰机 35T/day water cooling flake ice machine

Thanks to the active involvement and successful experience in seafood industry and snow making projects, Fahrentec™ developed a series of industrial flake ice machine for the customers domestic and overseas. Through constant technology improvement and redesign, Fahrentec™ 20-40 ton daily flake ice machines win great customers' satisfaction. The technical advantages are listed as below:

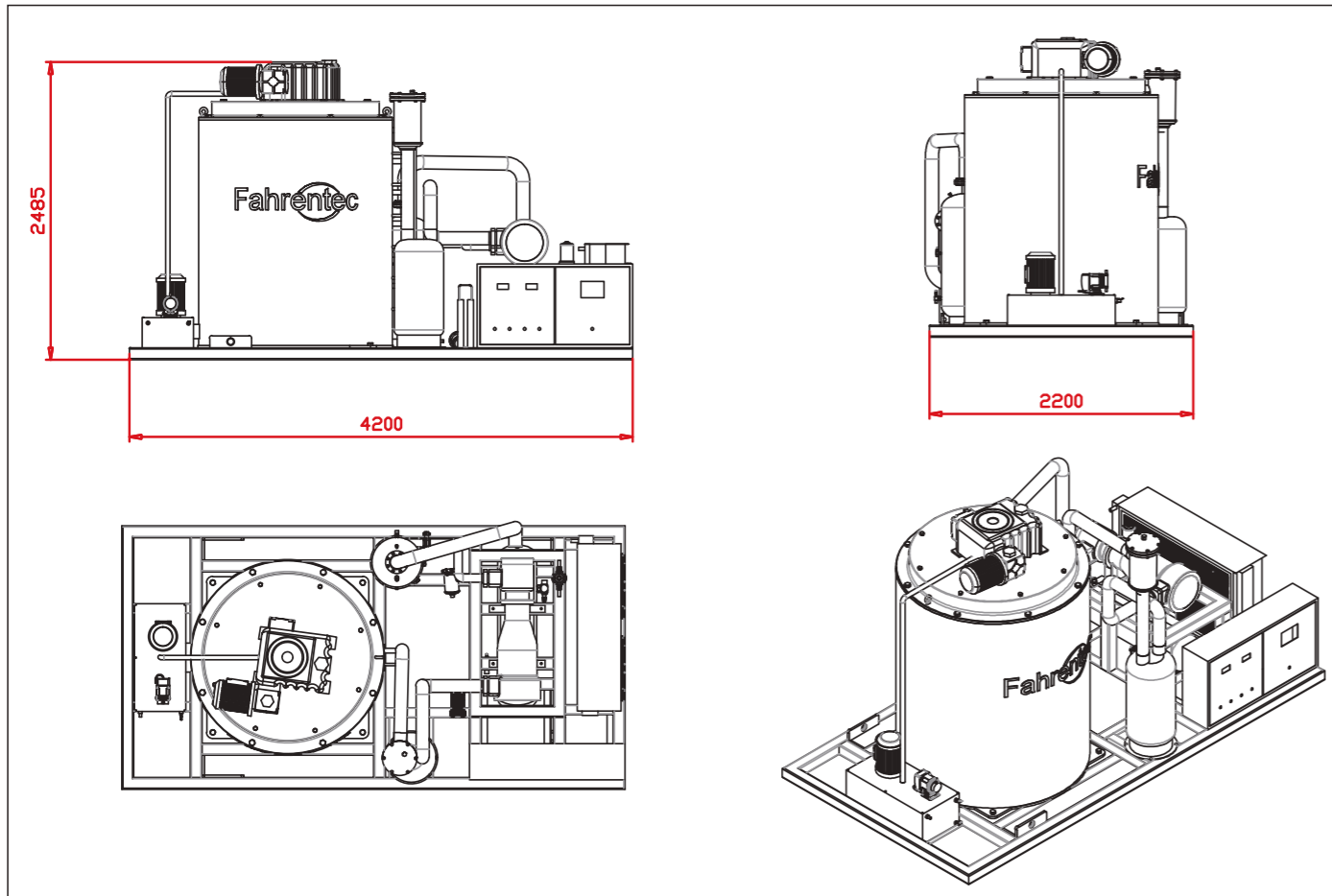
- The evaporators have been heat-treated, acid washed, chrome plated etc, and come with 8 years warranty.
- The economizer aligned with the compressor can achieve high refrigeration efficiency and running with 3 years guarantee.
- All the refrigeration components are selected from the world renowned brands, such as Danfoss, Emerson etc which provide sufficient after-sales support.
- Evaporative condenser can enhance the condensing efficiency.
- Schneider, Siemens electronic control system with ultra-long life cycle and high sensitivity.
- Metal frame are processed with sandblasting and hot galvanizing.
- 72 hours heavy duty quality test before shipment, ensuring 100% compliance with CE quality standard.




FIF300 30Ton/day is tested in genset rental yard



焊接20吨片冰蒸发器流道 Welding refrigerant runway of 20T flake ice evaporator



Project Name:	25T/day water-cooled ice maker	
Model No.	FIF250-100	Submitted By: Peter Zhu
Scale:		Approved By: Harry He
Page 1	Of 1	
Client Name:	Fahrentec Refrigeration Corporation Limited	
Unit E, 3/F, Wing Tat Commercial Building, 97 Bonham Strand East, Sheung Wan, HongKong		
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Email:	info@fahrentec-corp.com © 2010-2017 All Copyrights Reserved.	

FLAKE ICE MACHINE SPECIALIST

片冰机专家

食品加工 Food Processing

- 肉香肠加工 Meat and sausage
- 酸奶及酒制品加工 Yogurt & wine manufacturing
- 冰淇淋加工 Ice cream making
- 面包店 Bakery
- 屠宰厂 Butcher shop
- 果蔬保鲜与运输 Vegetable & fruit fresh keeping and transportation

渔业 Fish Industry

- 远洋捕捞 Offshore fishing
- 水产冷库 Aquaculture cold room
- 海鲜加工 Seafood processing
- 水产保鲜 Fish fresh keeping
- 鱼饵储存 Bait storage



工业 Industrial

- 禽类加工 Poultry processing
- 染料化工 Dye chemistry
- 混凝土冷却 Concrete cooling
- 矿井降温 Mine cooling
- 生物科技 & 医疗 Bio-technology & medical care
- 滑雪场滑冰场 Skiing-resort & ice rink



MARINE ICE MAKING MACHINE

船用片冰机

船用片冰机 Marine Ice Machine

片冰是渔业应用最广泛的冷却介质。针对远洋捕捞来说，华冷泰科船用片冰机是最完美的解决方案，它们可以使用真空抽取的海水连续不断的制冰。

The fishing industry is the largest user of marine flake ice machines. Fahrentec™ marine type ice machine is the perfect solution for off-shore fishing fleets, it can produce ice directly from the seawater.

特点

- Fahrentec™海水片冰机为客户提供高质量、干燥的片冰，即使是在高海况，高腐蚀的工作条件下。
- 整机包括蒸发器，电控箱，机器底座和连接件均采用食品级不锈钢SUS316。
- 采用橡胶弹簧减震装置阻隔压缩机振动。
- 瑞典SKF聚四氟乙烯轴承是冰刀的标准配件。无需润滑，超耐腐蚀，一次性排除所有隐患。
- 镍白铜海水冷凝器，高效可靠。
- 可定制分体结构，蒸发器和制冷机组在船上独立安装，可选装定制版蒸发器铝罩。

Features

- Fahrentec™ marine ice machine is patented for its unique structure in aim of providing high quality, dry flake ice in critical sea conditions.
- Complete unit includes evaporator, electric box and skid-frame are made of food-grade SUS316.
- Rubber spring suspension to absorb the vibration of compressor.
- SKF Sweden Telfon bearings are the standard solution for marine ice cutters. It is self-lubricating and anti-corrosive.
- Silver-copper marine condenser, efficient & durable.
- Split structure enables installation of the refrigeration unit and evaporator separated on the boat. Customized aluminum cover is optional choice.



海水片冰机技术参数表 Technical Parameter For Seawater Flake Ice Machine

型号 Model	日产冰量 Daily Capacity	制冷剂 Refrigerant	运行电耗 Power Consumption	安装功率 Install Power	运行重量 Operating Weight	外形尺寸 (长x宽x高) Dimension (L*W*H)
FIF010M	1000kg	R22/R404A	5.70Kw	7.00Kw	350kg	1400x1050x1180mm
FIF020M	2000kg	R22/R404A	9.20Kw	10.0Kw	380kg	1520x1420x1400mm
FIF030M	3000kg	R22/R404A	11.60Kw	14.50Kw	720kg	1590x1200x1017mm
FIF050M	5000kg	R22/R404A	17.28Kw	22.0Kw	860kg	1830x1650x1520mm



满液式冷水箱 Submerged water tank to prevent water spillage into fishroom



专业船用制冰机设计 Professional designed marine ice machine



Model: FIF010M

Explosive drawing of seawater flake ice machine evaporator:

- Taiwan Gongji Speed reducer, long service life and ensure no leakage
- SUS316 upper and lower evaporator cap
- SUS316 evaporator top cover
- SUS316 ice cutter & principal axis
- SUS316 evaporator ice frozen inner wall
- SUS316 water fender
- SUS316 bottom base
- Anti-corrosive marine pump
- SUS316 water tank

MARINE FLAKE ICE MACHINE

船用片冰机



Split type FIF030M marine ice machine



Compressor unit installed inside engine room

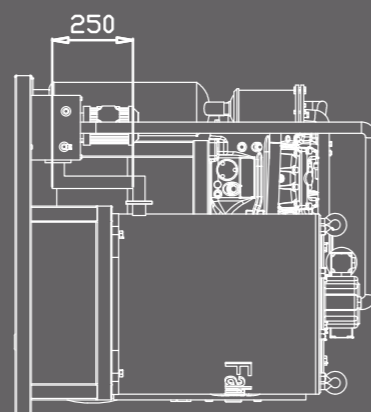
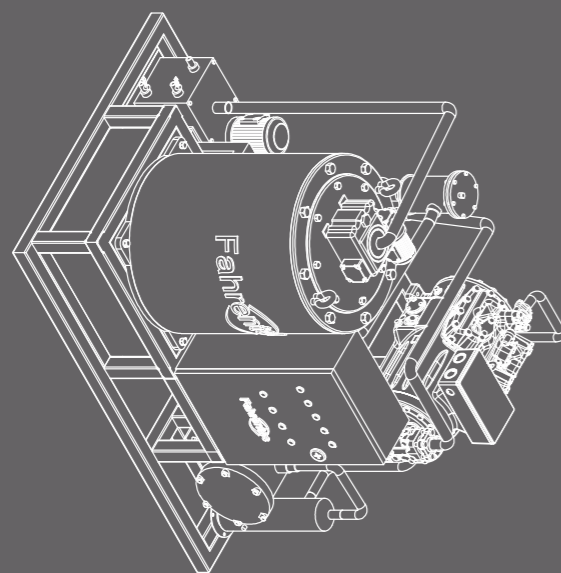
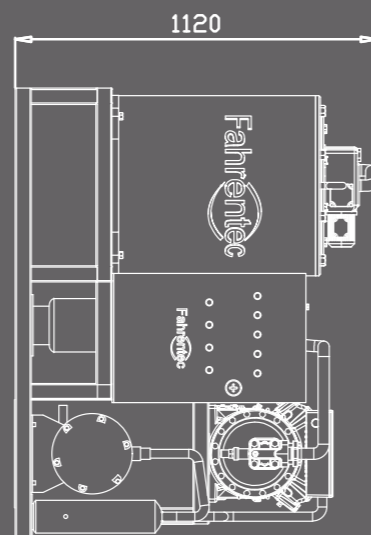
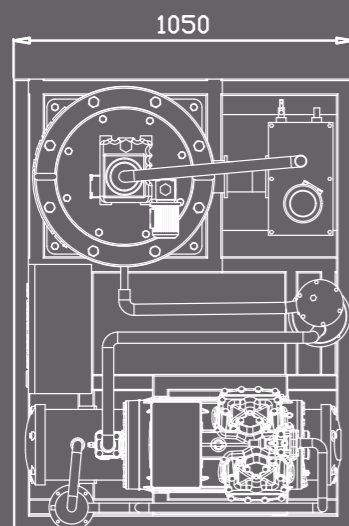


Over-deck ice making drum with Alloy cover

经过5年的合作努力，华冷泰科海水制冰机在法属波利尼西亚得到广泛应用，成为当地销量第一的制冰机品牌，该市场1/2的渔船均配备华冷泰科专业船用制冰机，同时得到了大量船主的认可和满意。这是一个标志性的客商合作成功案例，它展示了华冷泰科基于客户建议进行再设计、再生产的创新能力，同时深度推进中法两国贸易友谊。

Fahrentec™ marine ice machines are the best-selling brand in French Polynesia after 5 years' cooperation. 1/2 fishing boats are equipped with Fahrentec™ products, achieved great words of mouths among fishermen. It is a typical example of business cooperation between customers and supplier which it shows the possibility of re-design and re-manufacture according to clients' feedbacks; it also profoundly promoted the friendship between China and French Polynesia.

Tailor Made Ice Machine



www.fahrentec-corp.com

WORKING CONDITION

Air Temperature	35°C
Water Temperature	28°C
Power Supply	380V/50Hz/3P
Specification Table	
Condensing Temp.	35°C
Evaporating Temp.	-30°C
Refrigerant Type	R404A
Refrigerant Volume	10Kg
Compressor Refrigerating Capacity	8.47Kw
Running Power	5.7Kw
Running Current	11A
Install Power	7Kw
Condensing Capacity	13.67Kw
Daily Capacity	1000Kg
Equipment Dimension	1400*1050*1180(L*W*Hmm)
Operating Weight	350Kg

Project Name	1T/day Seawater Ice Machine
Model No.	FIF010M
Scale	Submitted By: Peter Zhu
Page 1	Approved By: Hany He
Client Name:	Fahrentec™
Fahrentec Refrigeration Cooperation Limited	
Hongkong Office: Unit D, 18/F, One Central Plaza, 18 Lansd Rd, Wanchoi, Hongkong	
China Office: 1602, Block C, Yan Meitopos, Yexiang Rd, Xian, China 710000	
Phone:	+86 8885 6461
Website:	www.fahrentec.com
Date:	February 7 2017
Email:	Info@fahrentec-corp.com
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Specification Drawing For FIF010M Marine Ice Machine

TURN-KEY ICE FACTORY SOLUTION

交钥匙冰工厂方案

特点 Features

- 凭借多年的经验和科学的设计，华冷泰科将为客户订制出最佳制冰方案。
- 工程安装费用低，周期短。
- 模块化设计，维护简单。
- Years of engineering practice and professional design realize the best tailor made ice making solution.
- Low cost and short time installation.
- Modular design, convenient maintenance.

系统结构图

System structure



Container Type	Available Volume	Max Capacity	Operating Weight	Operating Temp.
20 foot GP	20CBM	10Ton/ flake ice	13.4Ton	-24C
40 foot HQ	46CBM	20Ton/ flake ice	27.3Ton	-24C

TURN-KEY ICE FACTORY SOLUTION

交钥匙冰工厂方案

冰工厂方案 Ice Factory Solution

华冷泰科在提供商业、工业冰工厂设计和制造上拥有大量成熟经验。公司能够根据客户要求，从产能、冰种、工况、包装等提供整套A-Z的生产线。

Fahrentec™ has rich experience in providing ice factory solutions for either commercial or industrial application. According to clients' actual needs including daily capacity, ice types, working condition, package requirement. We will be able to custom design a seamless complete production line from A to Z.

集装箱式储冰库在冰工厂生产环节中扮演关键角色，因为整套生产工艺都整合其中。

Containerized ice storage plays an important role as the entire production line is integrated and contained within it.

20T flake ice machine with 40 feet refrigerator container

- 01 Water cooling tower
- 02 Water pump
- 03 Refrigeration unit (cold room)
- 04 Evaporator unit (cold room)
- 05 20T flake ice machine
- 06 40 feet refrigerator container



以上是华冷泰科为客户定制的整套冰工厂方案，仅需两名工人操作制冰，储冰，称重，打包日产能20吨的片冰。安装便捷，即插即用

For example, the above shows the complete design for a tailor made ice factory for a South American client. It required only two personnel to operate the ice making, ice storage, ice weighing, ice packing for 20 ton flake ice per day. It is fully automatic, takes only one day to set up, plug and play.

TURN-KEY ICE FACTORY SOLUTION

交钥匙制冰厂方案

冰库 Ice Storage

华冷泰科采用高品质隔热聚氨酯夹芯板来做各种容量的储冰库。

Fahrentec™ utilizes the high quality insulated sandwich panel for its vast range of ice storage rooms.

储冰柜特点 Ice storage bin features

- 储冰量1000千克以下采用食品级SUS304不锈钢
- 储冰量超过1000千克采用冷库板拼装而成,无最大储量限制。
- 用聚氨酯泡沫以42kg/CBM的标准来填充中间保温夹层。
- Food grade SUS304 stainless steel ice bin for volume of under 1000Kg.
- Utilize zinc-rich colour panel for assembling ice storage room over volume of 1000Kg, no capacity limit.
- PU foam of 42Kg/CBM filled in the mid-layer for insulation.



1000kg food grade SUS304 stainless steel ice bin



5T sandwich panel assembling ice bin, 48hours max storage period

适用范围 Application Fields

华冷泰科生产的储冰柜广泛应用于生物、工业、军事、水产、花卉、畜牧、医药、物流、饭店、宾馆、饭店、食品加工等行业物品保鲜及冷藏。

Fahrentec™ ice bin is widely applied in the bio-technology, engineering, military, aquaculture, florist, live stock, pharmaceutical, logistic, hotel, catering service and food processing.

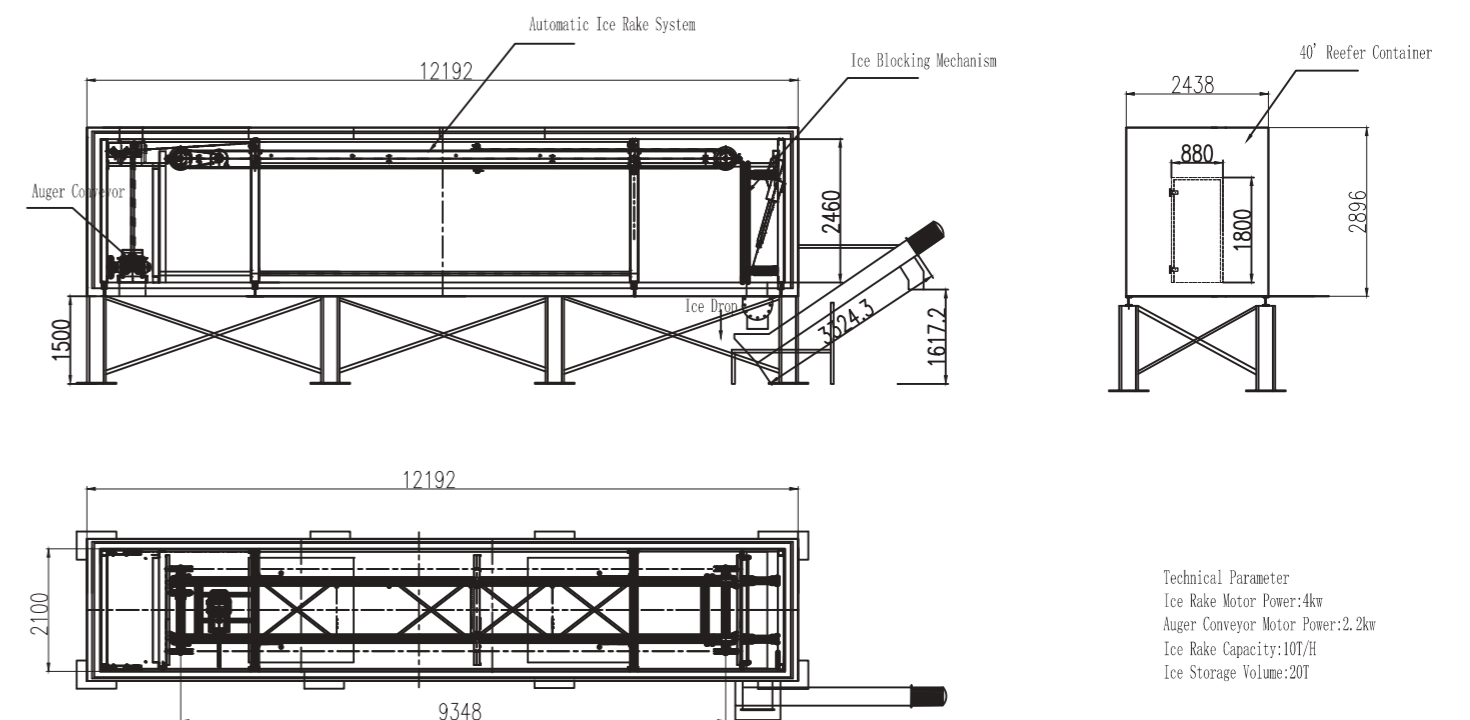


500Kg food grade ice bin



螺旋输送 Auger Conveyor

- 随着Fahrentec™制冰技术的发展和实践，公司在制冰机配件应用上积累了丰富的经验。
- 根据客户的体验和反馈，Fahrentec™ Tm对产品进行了开发和改进同时提供了一系列高价值的制冰机配件产品。
- 尤其是和板材工厂的合作，在这条产品线上，工厂能提供SUS304一系列配件，像不锈钢储冰库，碎冰机，片冰螺旋输送系统。
- 凭借精湛的AutoCAD操作技能，Fahrentec™能够根据客户的任意需求定制设计和生产制冰配件。
- Along with the development and practice of Fahrentec™ ice making technologies, it has accumulated decent knowledge of ice machine accessories.
- Developed and improved according to customers' feedbacks, Fahrentec™ presents a fabulous line of high value ice machine accessory products.
- Especially since the cooperation with panel shop, in this product line, we are able to supply SUS304 accessories, like ice storage room, ice crusher, ice auger conveyor, etc.
- Rely on the proficient AutoCAD operating skills, Fahrentec™ can custom design and manufacture the accessories upon customers' any requirements.



Technical Parameter
 Ice Rake Motor Power:4kw
 Auger Conveyor Motor Power:2.2kw
 Ice Rake Capacity:10T/H
 Ice Storage Volume:20T

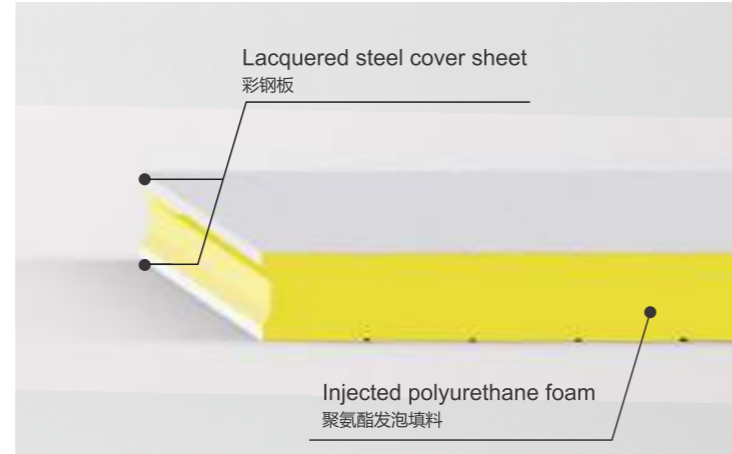
COLD ROOM PANEL

冷库板产品

彩钢聚氨酯夹芯板 Sandwich Panel

华冷泰科为客户定制冷库板系统，可根据需求尺寸生产高品质保温板。产品采用双面彩钢夹芯高密度聚氨酯发泡，配合钢结构可以实现大跨度体量。

Fahrentec™ provides custom made cold room system with high quality insulation panel which is composed of two layers of colour steel panels and the high density injected Polyurethane foam in the middle, reinforced by steel structure enabling large scale volume.



技术参数 Parameters

model number	Total thickness	weight per squremeter	thickness of cover sheet	material of cover sheet	width of panel	Heat transfer coefficient	fire proof grade
型号	总厚度	平方米重量Kg	包板厚度	包板材料	宽度	传热系数U/(W/M^2K)	防火等级
PUP050-32-C	50mm	9.12	0.32mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.4	B
PUP050-42-C	50mm	10.7	0.42mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.4	B
PUP080-32-C	80mm	10.38	0.32mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.26	B
PUP080-42-C	80mm	11.96	0.42mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.26	B
PUP100-32-C	100mm	11.22	0.32mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.2	B
PUP100-42-C	100mm	12.8	0.42mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.2	B
PUP120-32-C	120mm	12.06	0.32mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.18	B
PUP120-42-C	120mm	13.64	0.42mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.18	B
PUP150-32-C	150mm	13.32	0.32mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.14	B
PUP150-42-C	150mm	14.9	0.42mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.14	B
PUP180-32-C	180mm	14.58	0.32mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.12	B
PUP180-42-C	180mm	16.16	0.42mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.12	B
PUP200-32-C	200mm	15.42	0.32mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.11	B
PUP200-42-C	200mm	17	0.42mm	Zinc-rich color panel/富锌彩钢板	1100mm	0.11	B

COLD ROOM PANEL

冷库板产品



富士白漆面彩钢
 Lacquered to Fuji white
 可根据客户需求提供彩钢板压纹处理或平整处理
 Finished in ribbed or smooth according to client's requirement
 在两层彩钢板之间核心注射发泡，更加均匀，无空腔
 Core injected between two steel plates, no hollow space
 导热系数：0.023w/M.K.
 Thermal conductivity:0.023w/M.K.
 聚氨酯发泡密度：40~44千克/立方米
 PU foam density: 40~44Kg/M^3
 工作温度：-40C~ +45C
 Working temperature: -40C~ +45C
 可根据客户需求提供4米到12米任意长度
 Custom-made option for length available from 4M upto 12M
 公母对锁组装系统
 Male female assembly system
 可按客户要求附加Logo定制保护膜
 Clients' Logo printed protection membrane available upon request

PATENTED SNOW MAKING SYSTEM

专利造雪系统



造雪系统原理 Snow Making System Principal

F30E造雪系统为即插即用型，只需接入水和电即可正常生产!

如何所示，完整的华冷泰科造雪系统包含制冰机、储冰送冰系统以及造雪机。水由制冰机转换成片冰，进入储冰室，再通过螺旋输送机将成冰送入造雪机转化为雪并均匀喷射于25-40米半径以内的雪道区域。

F30E snow making system is plug and play, simply connect water and power it will be ready to go!

As it shows, Fahrentec™ complete snow making system consists of flake ice machine, ice storage, ice conveyor and snow blower. The water is converted into flake ice by the ice machine. Then reserved in the ice storage room, fed into the snow blower to be sprayed onto the ski-slope within 25-40M radius.

华冷泰科造雪系统构成组件 Composing Parts

比泽尔压缩机 Bitzer Compressor

拥有在压缩机领域里超过75年的丰富和创新的生产经验，比泽尔压缩机的高制冷效率和稳定的性能使其值得信赖。华冷泰科向客户承诺低维修成本和长使用寿命。

With over 75 years of engineering expertise in the compressor field, Bitzer compressor is trustworthy with its high refrigeration capacity and stable performance. We Fahrentec™ promise low maintenance cost and long usage life to customers.

西门子可编程控制器 Siemens PLC

使用西门子的可编程控制器的华冷泰科制冰系统，为客户提供了卓越出众的稳定性和可靠性。

Fahrentec™ snow making system with Siemens PLC provides the excellent stability and reliability to users.

ABB 电动机 ABB Electro-motor

ABB集团位列全球500强企业，全球领先的电机制造商，百年声誉以及卓越的性能更为华冷泰科F30E造雪机保障强大、可靠的动力！

ABB Group is the Fortune 500 company as the world's most leading electric-motor manufacturer. The long history reputation and exceptional capability guaranteed the powerful and reliable Fahrentec™ snow making machine.

比泽尔压缩机 Bitzer Compressor ABB 电动机 ABB Electro-motor 施耐德电控 Schneider Electric Control



PATENTED SNOW MAKING SYSTEM

专利造雪系统

F30造雪机 F30 Snow Making Machine

华冷泰科造雪系统继承澳大利亚先进造雪技术，并通过进一步研发及改进在保持了其稳定、雪质好的基础上大幅增加了扬程。

造雪机通过动力部分驱动特殊设计的吹雪核心机，提前制备的优质片冰通过变频输送机送入核心机内，在高压、高转的环境下被充分粉碎并通过风送到达雪道之上。

Fahrentec™ patented snow making system is adapted from Australian advanced technology, through further development and modification the system stability is largely improved whereas the premium snow quality is maintained.

The specially designed snow blowing mechanism is driven by either diesel or electric motor, early prepared high quality flake ice is delivered to the snow blowing mechanism through inverter controlled auger conveyor, given high rotation and perfect impact then thoroughly break up into fine snow to be injected to the ski-slope.



简单稳定 Simple & Stable

不同于传统碎冰+罗茨增压风机系统，华冷泰科造雪机成功的将粉碎与喷射机构合二为一，不会对成雪加热，无堵塞。将传动机构减少到最少，结构紧凑，极大的降低了设备故障率，非常易于维护。亦不同于飘雪型造雪机，华冷泰科造雪机无需考虑环境湿度因素。也不会像传统飘雪系统一样因为增加了环境湿度而只能间歇性工作，以及随之带来的除霜问题。整个制冰、储冰、送冰和造雪流程完全处于独立闭环系统，从而最大限度的达到了雪质均衡、持续。

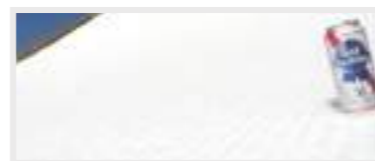
In compare with the conventional crushed ice + Roots blower system, Fahrentec™ snow blower has successfully integrated the crushing and injection into one mechanism, prevented heat up and clog problems where they are often occurred in the Roots systems. Simplify the mechanism to minimum, compact structure, these all helped to reduce the failure rate tremendously, also easy for maintenance. In addition, the F30E system neither have any requirement for ambient humidity nor need to be frequently stopped when the humidity is increased like snow falling system, defrost problem also can be cancelled from the list. The entire ice making, ice storing, ice conveying and snow blowing are built in a closed circle system, this factor maximally maintains the snow quality at a high, constant level.



雪质优异 High Quality Snow

继承了其国外版本的真雪雪质特点，所制成雪干燥、松软、粉末度好，并且容重极高，无需压雪车压实，即造即滑。因其独特设计的造雪核心机为粉碎及吹送一体化，无明显对成雪加热效应，亦不会明显增加成雪湿度或环境湿度。

Fahrentec™ adapted the real snow quality characteristics from its early overseas versions, the snow made are dry, soft, powdered, high density, no grooming needed, and can ski immediately. Because the smart structure of crushing and injection at one motion, this does not add any heat or humidity to the snow.



高产高效 Powerful & Efficient

每小时可以制备高达60立方的优质真雪。该性能暂时为行业内最领先水平。可轻松满足短时间内需要大量鲜雪的临时需求。制冰系统采用独有的余水再循环并预冷技术达到了水的0浪费。全封闭保温的储冰库以及联动式的送冰及造雪设计达到了冰的0浪费。将耗水量100%转化为造雪量。F30造雪系统最多可以达到30天不间断运行。

成功的系统设计可以将造雪能耗降至≈40千瓦时/立方米。

Produce up to 60CBM high quality artificial snow every hour. This capacity is currently ranking at the top of industry. It can easily fulfill the temporary need of large volume of fresh snow. The refrigeration system performed with water pre-cooling and recycling features, these helped to achieve 0 water waste. Fully hermetical ice storage and seamless ice conveyor helped to achieve 0 ice waste. 100% of water to be transformed to snow. F30E snow making system is able to operate up to 30 days non-stop.

Successful system design can decrease the snow making energy consumption down to 40Kwh/CBM.



全天候多功能 All Condition & Multifunction

完全摆脱温度及湿度等限制，可以在任何时间、任何工况下正常生产。该系统在国内外广泛应于室外及室内的景观、商业、戏雪、赛事等临时活动，可以无缝满足客户的多元需求。F30E系统及其国外版本拥有以下应用的成功经验：1988年布里斯班世界博览会瑞士馆室内造雪、澳大利亚黄金海岸企鹅馆造雪、加州滑雪赛事造雪、布里斯班夏季室外戏雪乐园、红牛零上飘雪排队等。

Totally independence from restriction of humidity and temperature, it can operate under any condition any time, it can meet even more clients' needs than ever. F30E and its overseas versions are broadly used in the world for indoor and outdoor snow making, events, competition etc. some of the successful cases are listed below: 1998 Brisbane World EXPO Swiss Pavilion snow making, penguin enclosure at Sea world Gold Coast Australia, Air& Style ski-ramp at California etc.



低成本 Low Cost

F30造雪系统比较飘雪系统，整体设备投入更低，每平米设备投入低于200元。生产成本仅为每吨成雪40度电。后期设备维护仅限于部分轴承及滤芯，冷冻油等。造雪原理简单易懂，容易操作，故障率低。并且设备出厂即带免费18个月质保服务。

Fahrentec™ F30E is cheaper than snow falling to purchase and operate, overall equipment investment is less than 30USD/SQM, production cost is only 40Kwh/CBM of fresh snow. After-sales service is limited within few bearings, filters, and refrigeration oil. The snow making concept is simple to understand, easy to operate, only short training is required. The complete system comes out of factory with 18 months full warranty.



系统独立 Independent System

Fahrentec™ F30E system is independent working system. It produces high quality snow constantly without be affected by other factors, plug and play, only water and power connection is required, does not rely on pre-cooled water, compressed air, or any coolant from other systems.

华冷泰科F30E造雪系统为独立工作系统，不受旁系统干扰，成雪优质，系统稳定。即插即用，整个生产过程只需要接入水、电。无需依赖其他系统提供冷水、载冷介质以及高压气体。



PATENTED SNOW MAKING SYSTEM

专利造雪系统

造雪机产品参数 Snow Machine Product Parameters

电动型造雪机 Model F30E

型号/ Model	F30E
功率/ Power	30Kw
电流/ Current	53A
运行重量/ Weight	830Kg
电机/ Motor	ABB 4P L
产能/ Capacity	60m ³ /hour
电制/ Power supply	380V/50Hz/3P
扬程/ Range	20M-30M
噪音/ Noise	72Db@3M
尺寸/ Dimension	2800*1200*1050mm



柴油型造雪机 Model F30D

型号/ Model	F30D
功率/ Power	80Kw
转速/ RPM	2200
运行重量/ Weight	1300Kg
引擎/ Engine	Diesel R series
尺寸/ Dimension	2750×950×1450mm
产能/ Capacity	130M ³ /H
燃油编号/ Fuel	0#
进气/ Air intake	增压型/turbo charged
扬程/ Range	30-40M



PATENTED SNOW MAKING SYSTEM

专利造雪系统

制冰系统 Model FIF250-200

型号/ Model	FIF250-200
环境温度/ Ambient temp.	30 °C
产冰量/ Daily capacity	25T
配置/ Configuration	风冷/ Air cooling
电制/ Power supply	380V/50Hz/3P
安装功率/ Install power	115 KW
制冷剂/ Refrigerant	R404A
额定电流/ Rated current	180A
冷凝温度/ Condensing temp.	40 °C
蒸发温度/ Evaporating temp.	-22 °C
机组外形尺寸/ Dimension	3800*2050*2465mm
重量/ Weight	4.2 T



螺旋输送机 Model FAC20T Screw Conveyor

型号/ Model	FAC20T
产量/ Capacity	20T/小时 (hour)
材质/ Material	不锈钢/ SUS304
变频器/ Inverter	西门子/ Siemens
电机功率/ Motor power	2.2 Kw
输送方式/ Conveyor	齿轮式减速机传送/Gear reducer





PATENTED SNOW MAKING SYSTEM

专利造雪系统

室内应用 Indoor application

华冷泰科造雪系统可以无缝的与室内滑雪场进行对接。与传统的碎冰设备不同，F30所生产的成雪细腻与真雪无异，而非冰渣或冰粒。其60立方/小时的强大产能意味着10小时连续工作即可布雪2500平米，并且达到20厘米的可滑厚度，无需压雪。

Fahrentec™ snow making system is seamlessly integrated into the indoor ski facility. The final product is powdered as fine as natural snow. Distinguished from the large ice particles from conventional ice crushing system. Its ultra-high capacity of 60CBM/H indicates completing snow making for 2500SQM ski-slope in only 10 hours continuous operation. No grooming is needed.



通常雪道面积8000平米以下的室内雪场只需配备一台F30E型造雪机，即可满足所有造雪、补雪任务。根据以往经验，该造雪系统可以在21天内完成雪场的初次造雪，并可以每周1-2小时循序渐进完成补雪工作。整个系统运行及投入成本低。每平米造雪成本仅为6-8元。设备总投入也仅为国外设备的二分之一。

Normally only one unit of F30E snow maker is equipped to fulfill all snow making and top up needs for ski-slope under 8000 square meters. According to our previous experiences, such system is able to complete initial snow pave in 21 days, then it can complete top up in 1-2 hours every week. The investment and operation cost of entire system is low. Approximately 1USD every square meter. The equipment investment is only less than half of similar product of foreign brands.



华冷泰科可根据客户需求提供与F30E相匹配的定制全自动制雪系统，日产量从25吨扩展至100吨不等。

Fahrentec™ supplies tailor made fully automatic snow making system according to client's requirement, daily capacity ranges from 25Ton to 100Ton.

为提升自动化水平，造雪系统采用螺旋输送机将储冰从冰库中运送至造雪机，该流程极大减少了人员成本，仅需数名工作人员使用工具或机械设备将冰送入螺旋输送机进料斗中。

To enhance the automatic controlling level, the snow making system adopts screw conveyor to deliver the flake ice to storage room and snow blower. This process greatly reduces the labor cost, only needs several workers to feed the ice to the screw conveyor or use machinery to push the ice into the conveyor hopper.



PATENTED SNOW MAKING SYSTEM

专利造雪系统

户外滑雪场应用 Application For Outdoor Ski Resort

华冷泰科全天候造雪系统是行业内现有唯一先进、可靠的室外雪场保障性系统。其出色的工况适应性，可以完全摆脱温度及湿度的影响，预先造冰并且储存至冰库中，在雪场需要补雪且雪炮无法运作之时迅速完成补雪。保障雪场不间断运营，充分延长雪场雪季时间。

Fahrentec™ all time snow making system is the only advanced and reliable snow secure system in the industry. Its exceptional ability of adapt to all condition, complete independence from restrictions of temperature and humidity, preserved ice is ready to make instant snow when conventional snow cannons are incapable, secured the ski-resort to non-stop operating, extended the season.

合理设计的冰库及送冰系统可以为雪道提供2000-3000平米的应急储雪，并可以在10小时内完成补雪。客户亦可以根据实际运营情况调整雪道面积。有效的将造雪成本合理的进行储备，在旺季之时迅速投放，节约造雪的每一分电费。

The optimized design of cold room and ice delivery system is capable to supply instant snow for 2000-3000 square meters ski-slope, the process can be done within 10 hours. On the other hand, the client can also adjust the operation area of snow according to market response. Effectively reserve the snow, quickly deploy when the season is on, save every dollar of snow making.

根据统计，我公司设备在单个项目全冬季平均可以完成1500吨以上的补雪供给。为多个雪场出色的完成了保驾护航任务。

According to statistics, Fahrentec™ snow making machine on average supplied over 1500 tons of snow in single project per season and successfully supported the operation of many ski resorts.

华冷泰科工程师在该领域拥有丰富的实践经验，可以根据每个项目的共同点及个体差异为雪场量身定做最合理的储冰及输送流程。

Our engineers have years of experiences in this field, we can tailor make the most suitable snow storage and snow delivery process according to individual's background in every project.

PATENTED SNOW MAKING SYSTEM

专利造雪系统

华冷泰科造雪系统如何保障造雪事例讲解 How To Build A Fahrentec Snow Making System

- 选场地，确认铺雪厚度；
- 总雪量核算；总融化量核算（2CM/天，5摄氏度）
- 根据具体项目需求规划制冰造雪周期。（建议14天）
- 根据以上数据计算所需制冰设备以及配套造雪机数量。

- Choose site and confirm the thickness of the snow.
- Calculate the total snow consumption and snow melt. (2cm/day, 5°C).
- Work out the ice and snow production period according to the specific projects. (Suggest 14 days).
- Confirm the capacity of flake ice machine and snow making machine.



PATENTED SNOW MAKING SYSTEM

专利造雪系统



造雪服务&雪地公园 Snow Making Events & Snow Park

解决方案合作 Solution Partner

“雪桥”计划是华冷泰科基于多年来项目实践中积累的大量一手数据以及专业技术而发起的一个共享与创新的开放架构，通过雪桥我们与各类厂商、设计院、设备商等组成战略合作关系。其提供包括规划、设计、制冷、保温、设备、器材以及运营管理等多个方面产品与服务，是一条完整的解决方案价值链。

“Snow Bridge” project is an open source and innovative framework launched based on the first hand statistics of Fahrentec™'s years of practice and expertise. Through this bridge we established the strategic business partnership with the leaders of refrigeration equipment, construction, institutes... provide products and services in multiple phases include planning, design, refrigeration system, insulation construction, skiwear, administration. It is a value chain which provides one stop solution for ski-business.



PATENTED SNOW MAKING SYSTEM

专利造雪系统

成功案例 Successful Cases

- 2013年陕西西安翠华山室外滑雪场保障造雪系统。
Cuihuashan outdoor ski resort in Xi'an, Shaanxi 2013.
- 2014年湖南浏阳大围山室外滑雪场保障造雪系统。
Daweishan outdoor ski resort in Liuyang, Hunan 2014.
- 2015年9月杭州奔驰smart新闻发布会商业活动造雪。
Snow making for Smart great launch event in Hangzhou 2015.
- 2015年湖南长沙三只熊室内滑雪场9000平米造雪系统。
Three Bears 9000m² indoor ski resort in Hunan, 2015.
- 2015年浙江温州天鹅堡室内滑雪场8100平米吨造雪系统。
The Swan Castle indoor 8100m² ski center in Wenzhou, Zhejiang 2015.
- 2015年河南洛阳奥斯陆室外滑雪场保障造雪系统。
Oslo outdoor snow ski in Luoyang, Henan 2015.
- 2015年陕西秦岭四季室内滑雪场7200平米造雪系统。
Qinling 7200m² indoor ski resort in Shaanxi 2015.
- 2016 湖南常德桃花雪缘四季滑雪场 7200平米造雪系统。
Changde 7200m² ski resort in Hunan 2016.
- 2016 贵州遵义国际商贸城室内滑雪场12000平米造雪系统。
Zunyi International Trade City indoor 12,000m² in Guizhou.
- 2017 湖南郴州五盖山野外滑雪场380米³/日高温造雪系统。
380M³/day high temperature snow making system for Mt. Wugai Chenzhou, Hunan in 2017.
- 2017 江苏常州龙凤谷7000平米野外滑雪场造雪系统。
Longfeng Valley ski-resort 7000m² snow making in 2017.
- 2017 重庆万盛奥陶纪滑雪场300米³/日造雪系统。
300m³/day snow making system for Aotaoji ski-resort Chongqing 2017.
- 2017 陕西白鹿原滑雪场1370平米地排管制冷系统。
1370m² ground coil pipe refrigeration system for Bailuyuan ski-resort Shaanxi 2017.
- 2018 宁德虎贝12000平米高温造雪系统。
High temperature snow making system for 12000SQM outdoor ski slope at Ningde city Fujian 2018.

