



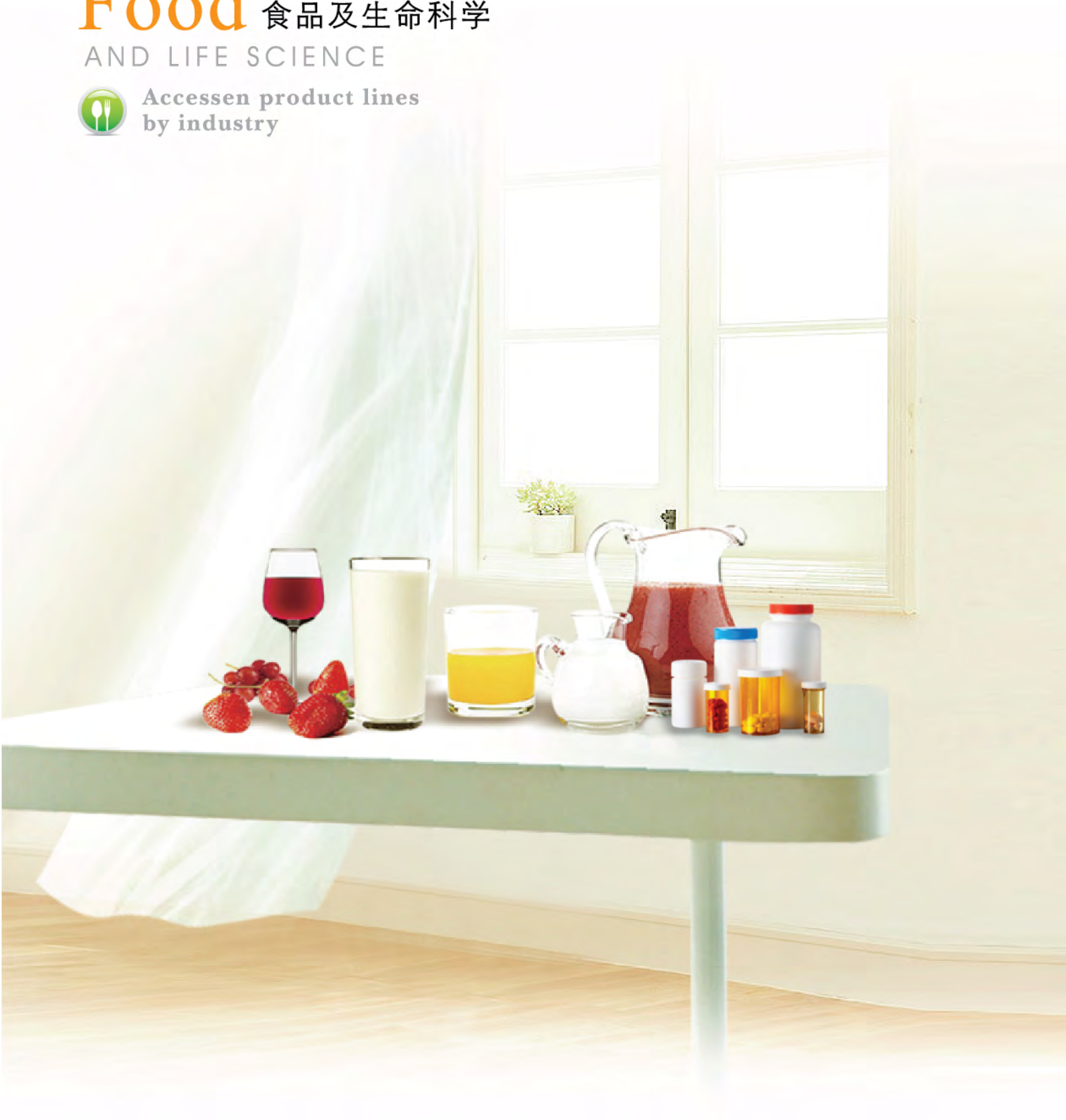
Accessen 艾克森
ACCESSEN GROUP

Food 食品及生命科学

AND LIFE SCIENCE



Accessen product lines
by industry



关于艾克森 / About Us

上海艾克森集团是专业从事换热设备研发、制造、销售及服务的中美合资企业,公司通过 ISO9001: 2000 质量体系认证、ISO14001: 2004 环境质量体系认证、OHSAS18001: 1999 职业健康安全体系认证。

至今,艾克森在中国已投资建立了 2 家公司,4 个制造工厂,遵照全球统一的 AS 标准生产包括板式换热器、板壳式换热器、全焊式换热器、蒸发器及冷凝器、板式换热机组、工艺水冷却系统、余热回收系统在内的全系列换热设备,同时也提供符合 ASME、PED、API、JIS、IEC、DNV、BV、CCS、GB 等国际规范和标准的产品。

上海艾克森新技术有限公司于 2002 年在上海成立,生产基地位于上海市嘉定区黄渡工业园。公司主要负责向亚太地区的暖通空调、制冷、能源电力、冶金、化工、食品、电子、船舶及环境处理等市场提供按需应变的换热解决方案和客户服务。公司直属的销售和服务网络覆盖国内 27 个主要省市,拥有 400 多个服务网点,2 个技术培训和产品中心,产品提供全国或全球联保服务,能就近为客户提供快速、高效的服务。赢得了包括 BAYER、BASF、DOW、HITACHI、TATA、COCACOLA、UNILEVER、WAHHAHA、统一等全球 500 强客户的信赖。为你的食品医药生产提供更安全、更可靠、更高级的产品和服务。

艾克森的按需应变换热解决方案,为企业提供专业的高品质换热设备与快捷、高效的换热服务。



Founded in 2002, Accessen is a Shanghai-based Sino-American joint venture company which specializes in designing, manufacturing and distributing heat exchanger units and systems. China's largest plate heat exchange manufacturer, we have two factories (and are building a third) and produce plate heat exchangers, shell heat exchangers, welded and semi-welded heat exchangers, evaporators and condensers, process water cooling systems, waste heat recovery systems and more. We are compliant with all relevant ISO and other standards and our products are consistent with ASME, PED, API, JIS, IEC, DNV, BV, CCS, GB and other international codes and standards.

With offices in 30 of China's major cities and over 400 service outlets, we have provided heat exchange solutions for the HVAC, cooling, power plant, metallurgy, chemical, food, electronics, marine and environmental industries. Our customers include SIEMENS, BAYER, BASF, DOW, BOSCH, 3M, HITACHI, TATA, COCACOLA, UNILEVER, INTERCONTINENTAL, EMERSON, HYUNDAI, SINOPEC, LAFARGE, FOXCOR and other Fortune 500 companies. In 2010, we were particularly proud to be the supplier for China's own Expo pavilion.



食品 / Food

随着人们对生活品质的要求提高,食品不仅仅满足人类的基本生活要求,更是人类文明进步的表现,新的生产工艺让食品变得越来越丰富和超越想象。先进的换热技术让食品更加安全和美味的同时,也让食品拥有更长的保存时间,能更充分的利用资源。

在食品加工中,非常重要的部分就是通过改变食品温度来达到延长货架期和保证食品安全的要求。在食品加工操作类型中,热加工、冷加工和脱水加工中都可以用到板式换热器。由于板与板之间的间隙小,物料可以高速通过薄层,受热时间短,不致有过热现象产生。

From buying fresh meat and canned goods in the supermarket, to eating out at restaurants, guaranteeing the safety of the food we eat is vital. For processed foods, strict quality control during the heating, cooling and dehydration processes is essential in order to preserve quality and extend shelf life. By using Accessen plate heat exchangers with only narrow gaps between plates, foodstuffs can quickly receive or transmit just the right amount of heat to avoid overheating.

生命科学 / Life Science

科技的进步不仅仅体现在生产过程中,更让人对未来充满遐想。对人类生命拥有更多的期待。医药生物领域作为生命科学的核心承担着同疾病做斗争的重任,越来越多的新生产工艺和研发让人类看到了更多的希望。板式换热器是生化制药系统必备的换热设备,确保生产工艺在最适宜的温度下进行。

During food production is indispensable for maintaining public health. For many cutting edge biology-based production techniques heat exchangers are necessary to maintain the proper temperature for bacteria growth and control. Accessen's proven reliability helps ensure we all stay healthy.

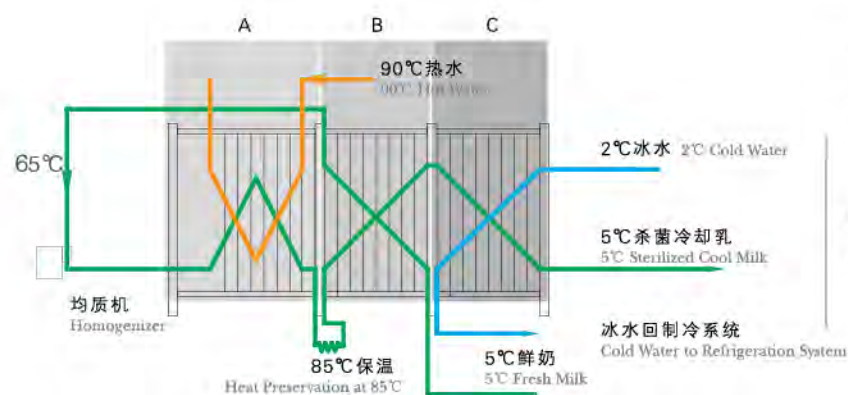




乳制品 / Dairy Products

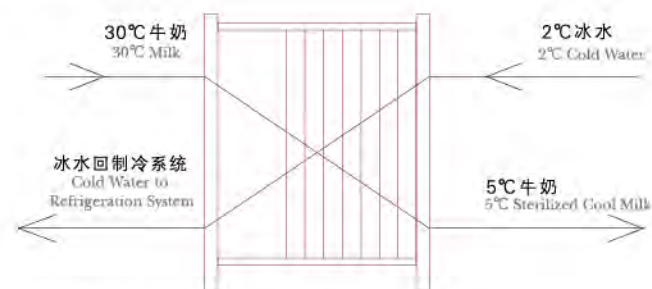
乳制品厂和畜牧场广泛使用板式换热器对牛奶进行巴氏杀菌及迅速冷却，以抑制乳制品中微生物的繁殖，保持乳制品的新鲜度能够较长时间的保存。例如在牛奶的超高温杀菌中，低温牛奶通过平衡罐，由物料泵进入板式换热器的预热回收段，将牛奶预热，进入均质机均质。均质后的牛奶再进入板式换热器的高温加热段 A，使牛奶温度升高到 35℃，经保温管保温 4 秒钟后，经板式换热器 B 段一次降温，再经过 C 段彻底降温。最后送到无菌包装机进行复膜纸盒包装，包装后的牛奶，可保存 3 ~ 6 个月。可用于直接降温保留更多营养成分，但会造成保质期缩短。

Dairy factories and livestock farms use plate heat exchangers for pasteurization and rapid cooling, to inhibit microbe growth, and to preserve freshness for longer periods. In this process, cold milk is pumped into the plate heat exchanger for pre-heating, then enters a homogenizer. From there the homogenized milk once again enters the plate heat exchanger and is heated to 35°C. After 4 seconds in an insulation pipe, it again enters the heat exchanger, this time for cooling, and this process is repeated twice. The milk is then pumped out of the system for packaging. Milk treated in this way is good for 3-6 months.



A: 杀菌 Sterilization
B: 余热回收 Heat Recovery
C: 冷却包装 Packaging

(多段式换热器)
Multi-pass Plate Heat Exchanger



(单段式换热) Single-pass Plate Heat Exchanger



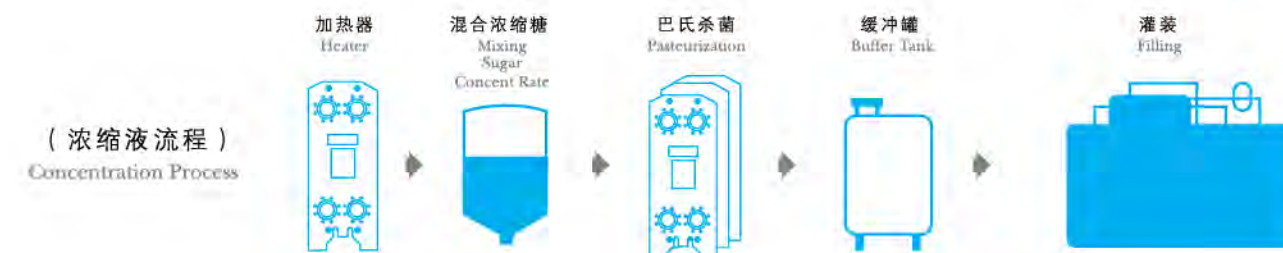
果汁软饮料 / Soft Drink

人们对生活品质的要求日趋提高，对食品的安全和质量也相对提升到更高的追求层面。以水果和蔬菜为原料经过物理方法如压榨、离心、萃取等得到的汁液产品，通过换热器和杀菌机，经过加热或冷却处理，能够达到良好的引用口感和安全的引用品质，受到越来越多的大众欢迎。

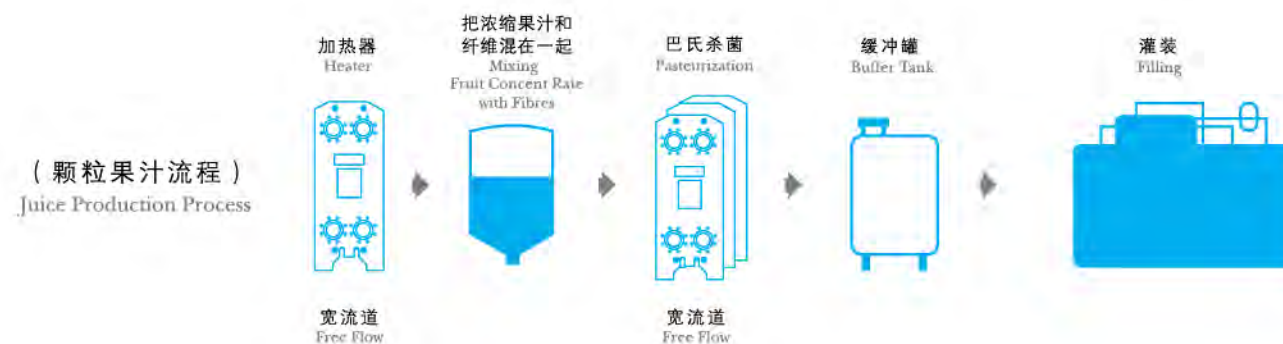
在调配果汁的过程中，我们会考虑不同原料对换热器的要求，分为浓缩型和颗粒型的换热设备。我们使用的先进换热器能够很精准的解决果汁或检验品质堵塞不当的问题。

The demand for safe and quality beverages increases every day. With methods such as squeezing, pitting, and extracting common in the industry, heat exchangers are necessary to kill bacteria and preserve the proper temperature for optimal taste and safety. Depending on the nature of the beverage being produced, concentrated or granular equipment may be necessary.

We have different type plate heat exchanger with process of juice produce. Free flow plate heat exchanger guarantee without stem because of the 6mm/12mm wide gaps between the plates.



(浓缩液流程)
Concentration Process



(颗粒果汁流程)
Juice Production Process

酒类 / Liquor

酒类饮料生产过程中，很多工艺需要板式换热器，如对麦汁进行预热或冷却，啤酒处理及巴氏杀菌以及冰水制取。冷冻水的制取通常采用氨液蒸发来吸收大量的水释放出来的热量，从而得到冰水。

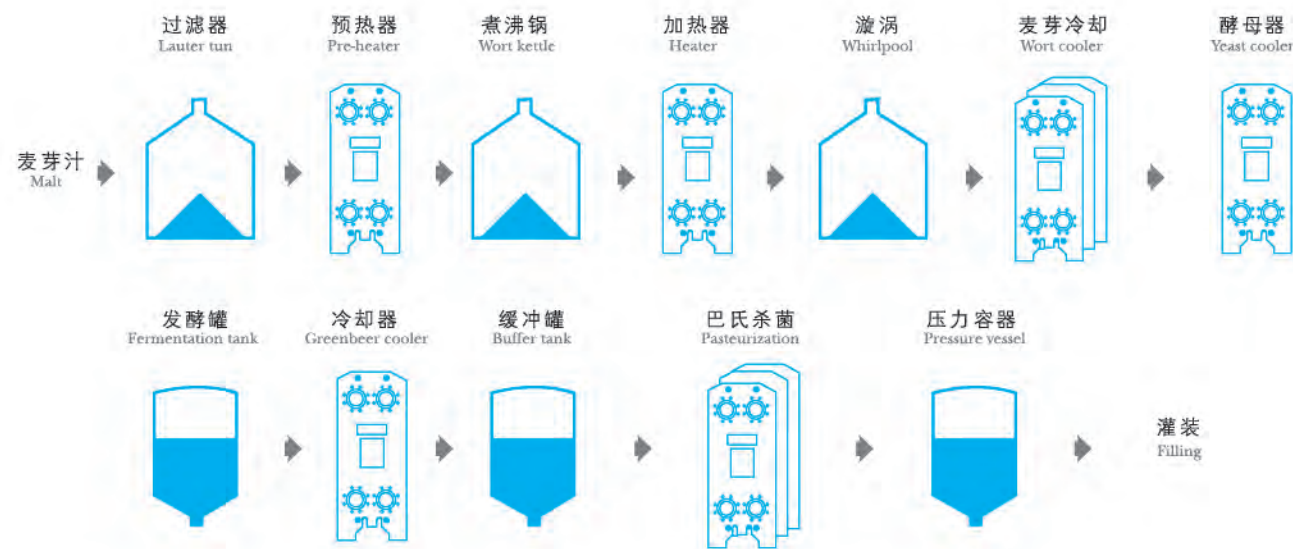
也可以用冰水、乙二醇、盐水溶液等作为冷却液。

During the liquor production process, plate heat exchangers perform many functions, from preheating or cooling barley to sterilization. To cool liquids during this process, ammonia solution is often evaporated, allowing it to absorb heat and cool water. During the process of gradually cooling the wort, water can be used to preheat the brew. Cold water, glycol, and saline solution can also be used to begin the production process.



(啤酒工艺流程图)

Beer Production Process Flow Chart



植物油 / Edible Oil

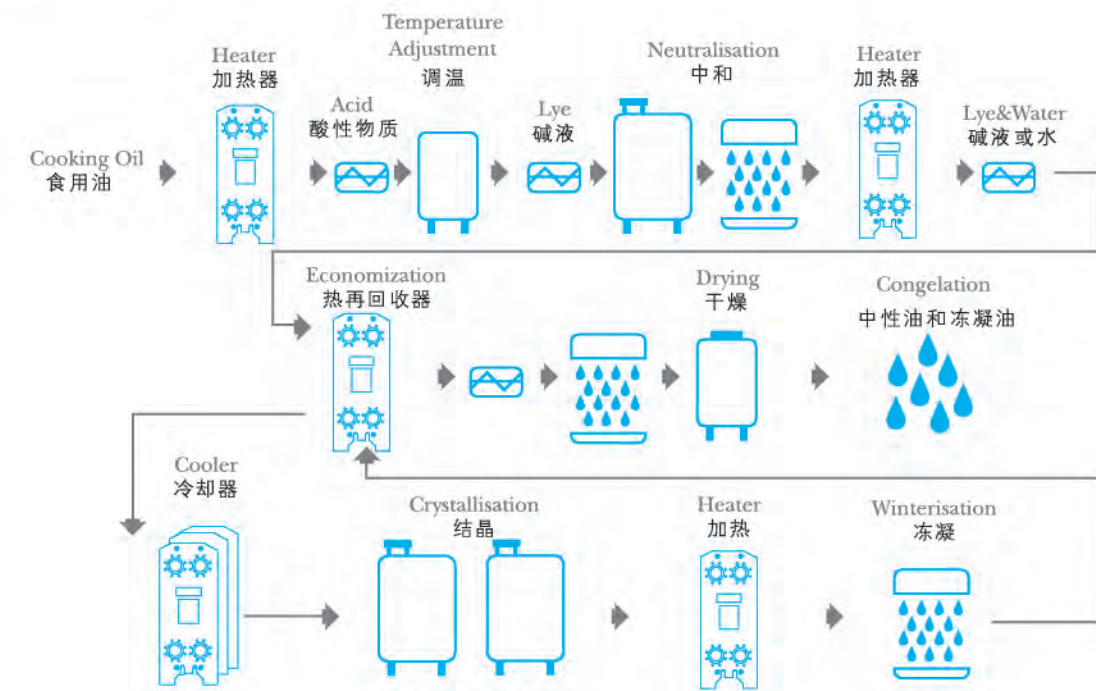
在植物油生产过程中，从毛油预热至中和油冷却到精炼油换热。经过热处理后的植物油不仅品质得到提升，通过热回收和预热等工艺，还节约了大量能源。

During the vegetable oil production process, plate heat exchangers play an important role. From preheating unrefined oil to heat transfer for the finished product, Accessen's PHE's save energy and reduce manufacturing time.



(植物油生产流程图)

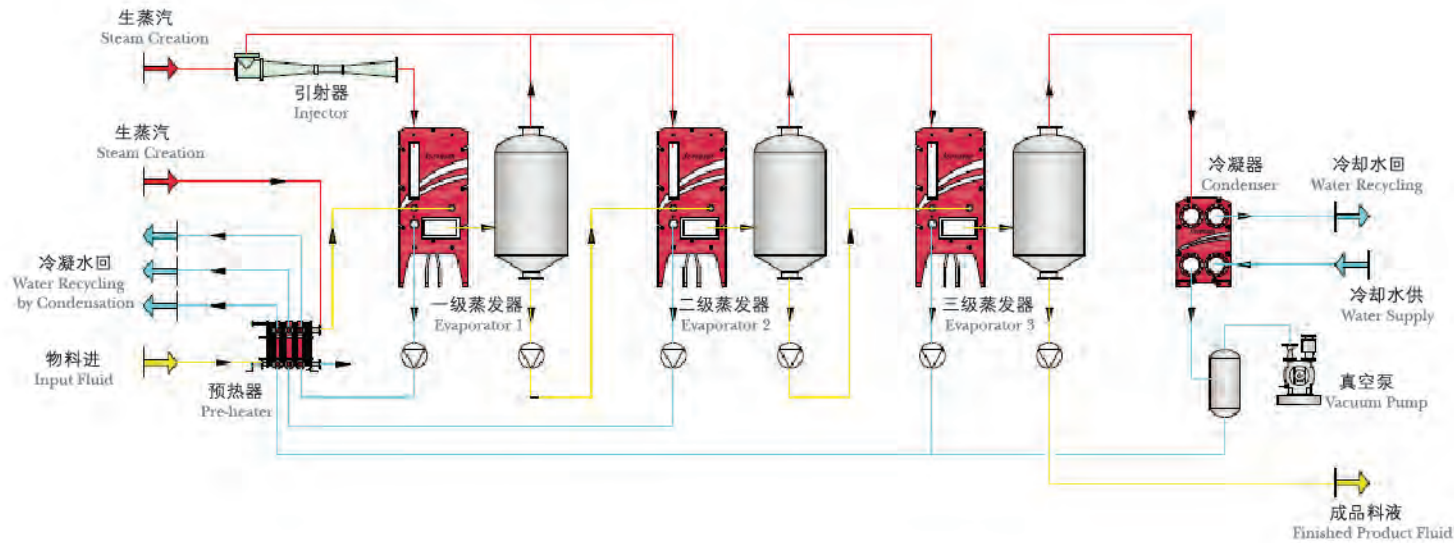
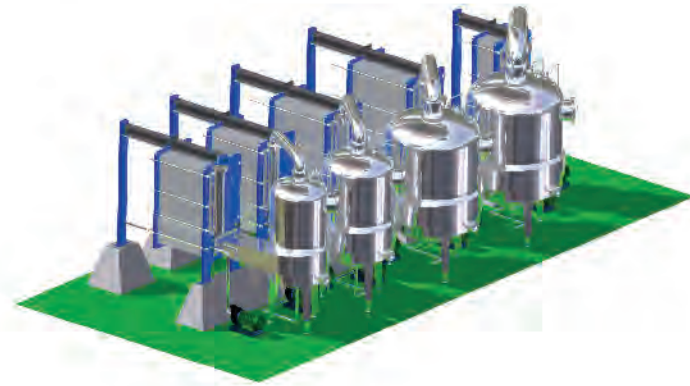
Edible oil production flow chart



食品浓缩蒸发 / Evaporators for Food

食品工业中物料浓缩是很重要的一个方面,浓缩过程中板式蒸发器得到广泛应用。它具有传热性能好、物料经过时间短、无需汁液循环、卫生条件好、容易控制管理和占地面积与高度小等多种优点。蒸发系统都是多效串联使用的,前一效物料蒸发出的蒸汽进入下一效作为下效物料蒸发的热源。这样可以节约大量蒸汽。蒸发器末效蒸发出的低温蒸汽通过冷凝器冷凝,可以用于其他工艺水的加热使用。

Evaporating water from food in order to increase concentration is an important part of food processing. During this process, a plate evaporator plays a key role. With a high heat transfer capacity, only a single loop is needed, decreasing the exposure period for the food. In addition, the process is easy to control, takes up little space, and saves energy by recycling heat; as water is evaporated out from foodstuffs in the first cycle, this steam is recovered and used as the heat source for the next batch of food.

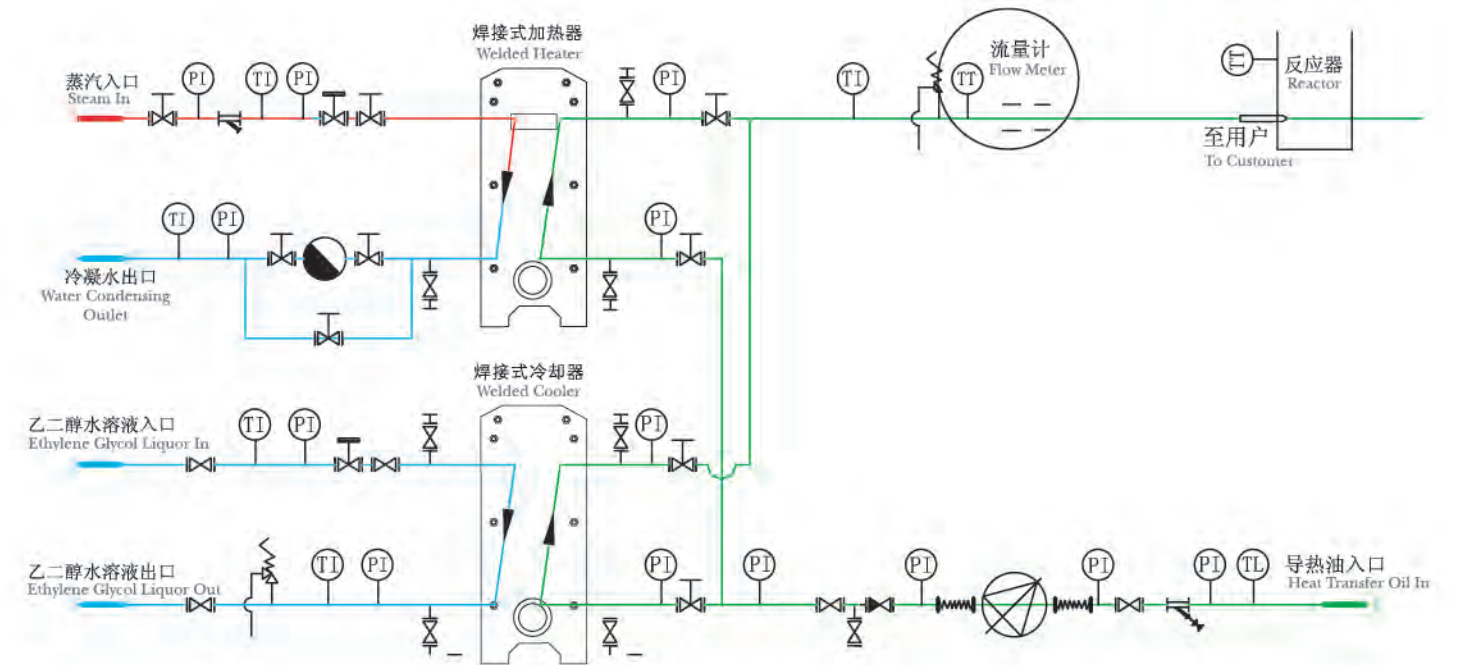


制药反应釜恒温加热与冷却 / Pharmaceutical Temperature Control

在医药领域,特别是原料药行业,由于介质是酮、醚、醛、酯等对所有橡胶垫片有溶胀作用的有机原料或是在高温高压下对药液进行保温加热或冷却的工艺,而不能使用普通可拆式换热器,在这种情况下采用焊接式换热器就可以满足要求。全焊接换热器由于不使用弹性垫片,可以在较高温度和压力下使用,并且可处理腐蚀性介质。焊接式换热器根据使用温度和压力的不同又可分为板框式和板壳式换热器。板框式换热器保持了可拆式换热器的外观,而板壳式换热器则把可拆板式换热器的高效换热和管壳式换热器的耐高温高压结合在一起。

Much of the production in the pharmaceutical industry involves working with substances which are corrosive or have a high temperature or pressure. In such cases, traditional plate heat exchangers which can be disassembled and removed must be replaced by welded plate heat exchangers. The fixed nature of these heat exchangers then allows them to be used under high corrosion, temperature and pressure conditions.

Welded plate heat exchangers can be divided into two kinds: plate and frame heat exchangers, and shell and plate heat exchangers. Plate and frame heat exchangers appear virtually identical to traditional heat exchangers, while plate and shell heat exchangers combine the high heat exchange performance of traditional heat exchangers with the ability to withstand the high temperature and pressure of shell and tube heat exchangers.



(药液维温工艺系统图)
Temperature Control System Diagram

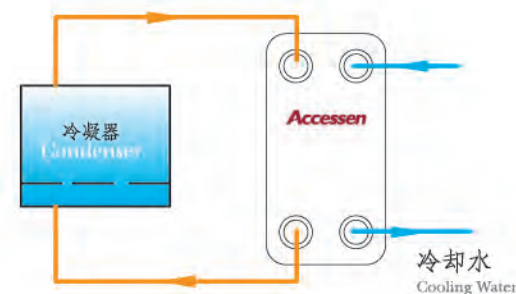
医药用小型钎焊式换热器 / Small Medical Brazed Heat Exchanger

医药行业中由于对产品外观的特殊要求，且物料流量的间断性和小流量循环性，使得药液的加热和冷却需要特殊形式的换热器。大流量的换热系统可以采用全焊接换热器，而小流量的工况就可以用更紧凑传热效率更高的钎焊式换热器来完成。薄板片和高湍流使得钎焊式换热器传热系数非常高，同样容量钎焊式换热器所需面积只是管壳式换热器的十分之一，同时降低了安装成本。高湍流降低了污垢传热系数。从而减少了清洗次数。

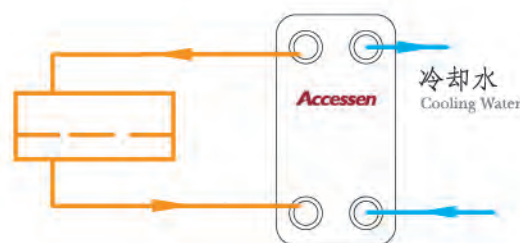
Because of unique design demands, the small fluid flow rate, and fluid discontinuity, medicine production requires special heat exchangers. For large flow rates, the fully welded Plate Heat Exchanger can be used. For small flow rates, the compact Brazed Plate Heat Exchanger is used. Thin plates and a high turbulence make the Brazed Plate Heat Exchanger quite small—about 1/10th the size of Shell-Tube Heat Exchangers for similar performance. The installation cost of BPHE's is also much lower.



(原料药酯类冷凝器)
Ether Condenser



(原料药醇类冷却器)
Alcohol Condenser



PHT巴氏板式杀菌成套设备85℃ / Plate Pasteurization Equipment 85℃

板式巴氏杀菌成套设备是利用病原体不是很耐热的特点，用适当的温度和保温时间处理，将其全部杀灭。经巴氏杀菌后，仍保留了小部分无害或有益、较耐热的细菌或细菌芽孢，因此杀菌后仍然要在4℃左右的温度下保存，保存期最多16天。热回收效率达94%以上。

Pasteurization equipment heats a liquid to a suitable temperature in order to kill most bacteria. A small amount of harmless or helpful bacteria may remain after the process, and to prevent expansion and re-growth, pasteurized liquid should be stored at a maximum temperature of 4°C for no longer than 16 days. The heat return rate is 94% or higher from this process.

适用于 Application

- 巴氏鲜奶 Pasteurized Milk
- 花式奶 Fancy Milk
- 茶饮料 Tea
- 酸奶 Yogurt
- 葡萄酒 Wine
- 啤酒 Beer
- 冰激淋 Ice Cream
- 果汁饮料 Juice
- 浓缩汁 Concentrated Juice
- 软饮料 Soft Drinks

酒类等热敏性液体的加热、杀菌、保温和冷却等工艺要求。
Heating, sterilizing, heat preservation and cooling requirements for alcohol and other heat-sensitive drinks.



技术参数 · Technical Data

名称 Name	型号(Model) 单位 (Unit)	ACS-PHT-5 ACS-PHT-10 ACS-PHT-20 ACS-PHT-30 ACS-PHT-40 ACS-PHT-50 ACS-PHT-100						
		ACS-PHT-5	ACS-PHT-10	ACS-PHT-20	ACS-PHT-30	ACS-PHT-40	ACS-PHT-50	ACS-PHT-100
生产能力 Heating Capability	T/h	0.5	1	2	3	4	5	10
换热面积 Heat Exchanging Area	m ²	8	12	15	20	25	28	52
物料进口温度 Fluid Inlet Temperature	°C	5	5	5	5	5	5	5
物料出口温度 Fluid Outlet Temperature	°C	5	5	5	5	5	5	5
杀菌温度 UHT Temperature	°C	85-95	85-95	85-95	85-95	85-95	85-95	85-95
保温时间 Heat Preservation Time	S	15-25	15-25	15-25	15-25	15-25	15-25	15-25
冰水温度 Cold Water Temperature	°C	1	1	1	1	1	1	1
冰水耗量 Cold Water needed	multiple	1.5	3	6	9	12	15	30
接口尺寸 Connection Size	mm	φ25	φ38	φ38	φ38	φ38	φ51	φ51或(或) φ63
设备重量 Weight	Kg	720	928	985	1050	1200	1350	1800

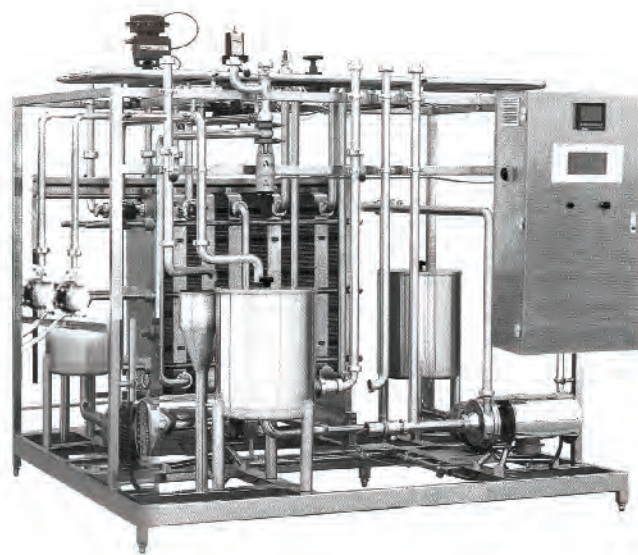
HTST高温巴氏杀菌成套设备120°C / High Temperature Pasteurization 120°C

物料在被加热到120度高于巴氏杀菌温度下，经过短时停留，杀灭更多细菌，保存期延长，而营养不遭破坏。在4°C左右的温度下保存，保存期最多30天。热回收效率达92%以上。

The pasteurization process incorporates pauses in the heating process in order to kill more bacteria, which lengthens the preservation period and reduces nutrition loss. It is efficient with a heat recovery rate of 92%. Finished product should be stored at no higher than 4°C for no more than 30 days.

适用于 Aypical Application

保鲜奶	Processed Milk
酸奶	Yogurt
豆奶	Soy Milk
茶饮料	Tea
果汁	Juice
软饮料	Soft Drinks



技术参数 · Technical Data

名称 Name	型号(Model)						
	单位 (Unit)	ACS-HTST-10	ACS-HTST-20	ACS-HTST-30	ACS-HTST-40	ACS-HTST-50	ACS-HTST-100
生产能力 Heating Capability	T/h	1	2	3	4	5	10
换热面积 Heat Exchanging Area	m ²	12	20	28	36	48	65
物料进口温度 Fluid Inlet Temperature	°C	5	5	5	5	5	5
物料出口温度 Fluid Outlet Temperature	°C	5或(or)43	5或(or)43	5或(or)43	5或(or)43	5或(or)43	5或(or)43
杀菌温度 UHT Temperature	°C	125或(or)95	125或(or)95	125或(or)95	125或(or)95	125或(or)95	125或(or)43
保温时间 Heat Preservation Time	S	15或(or)300	15或(or)300	15或(or)300	15或(or)300	15或(or)300	15或(or)300
冰水温度 Cold Water Temperature	°C	1	1	1	1	1	1
冰水耗量 Cold Water needed	multiple	2	4	6	8	10	20
接口尺寸 Connection Size	mm	φ25	φ38	φ38	φ38	φ38或(or)φ51	φ63
设备重量 Weight	Kg	960	1050	1150	1280	1580	1850

UHT超高温杀菌成套设备137°C / Ultra-high Temperature Pasteurization 137°C

物料被迅速加热到高于137度杀菌温度，并在此前后保持约3秒，其中的微生物及酶类很快被杀灭，而物料的营养成分几乎不被破坏。在4°C左右的温度下保存，保存期最多180天。热回收效率达90%以上。

Foodstuffs are heated to and maintained at temperatures above 137degrees Celsius for 3 seconds. Bacteria and enzymes are killed immediately, while the nutritional content of the food is largely unaffected. The food should then be stored at a temperature of no more than 4 degrees Celsius for no more than 180 days.

适用于 Aypical Application

保鲜奶	Processed Milk
豆奶	Soy Milk
牛奶	Milk
马奶	Horse Milk
酸性果汁	Acidic Juices
茶饮料高温灌装	Tea Filling
软饮料	Soft Drinks



技术参数 · Technical Data

名称 Name	型号(Model)					
	单位 (Unit)	ACS1-UHT-10	ACS1-UHT-20	ACS1-UHT-30	ACS1-UHT-40	ACS1-UHT-50
生产能力 Heating Capability	T/h	1	2	3	4	5
换热面积 Heat Exchanging Area	m ²	16	26	38	28	56
物料进口温度 Fluid Inlet Temperature	°C	5	5	5	5	5
物料出口温度 Fluid Outlet Temperature	°C	5	5	5	5	5
杀菌温度 UHT Temperature	°C	137-140	137-140	137-140	137-140	137-140
保温时间 Heat Preservation Time	S	4	4	4	4	4
冰水温度 Cold Water Temperature	°C	1	1	1	1	1
冰水耗量 Cold Water needed	multiple	2	2	6	8	30
接口尺寸 Connection Size	mm	φ25	φ38	φ38	φ38	φ51
设备重量 Weight	Kg	980	1080	1160	1350	1680

CIP清洗系统 / CIP System

就地清洗系统 (Clean In Place) 无需拆开或移动装置, 采用不同形式的洗净液, 对设备装置加以强力作用, 就可以把与物料相接触的表面清洗干净。就地清洗系统 (Clean In Place) 设备一般由清洗液储罐、送液泵、管路及管件、清洗头、回液泵、程序控制装置连同待清洗的设备组成一个清洗循环系统。

就地清洗系统 (Clean In Place) 具有工作效率高、清洗效果可靠、操作过程均在密闭的管路内进行, 复合卫生要求, 操作方便、降低工人的劳动强度等。

CIP (Clean in Place) does not require disassembly, so equipment which can use CIP tends to be stronger and more firmly fixed. CIP cleans surfaces that come in contact with the medium. CIP systems usually employ a liquid storage tank, a pump, pipes, and a cleaning head.

CIP is relatively efficient and reliable and is usually done in sealed pipe. It is sanitary, convenient, and does not require much labor.

适用于 Typical Application

- 乳制品 Dairy
- 饮料 Beverages
- 啤酒 Beer
- 设备及管路班前清洗消毒
- 设备及管路班后清洗消毒
- Machinery and Piping Cleaning and Disinfecting



技术参数 • Technical Data

型号 Model	CIP-A	CIP-B	CIP-C
控制方式 Control Method	PLC控制/PLC	电器控制/E.C	手动控制/M.C
温度控制及 加热方式 Temp control & Heating	自动控制双重加热 Auto. Dual	自动控制双重加热 Auto. Dual	人工控制 Manual
浓度控制及 添加方式 Concentration control & Accession	自动控制自动添加 Auto. Auto	自动控制自动添加 Auto. Auto	人工控制 Manual
清洗程序 Rinsing Process	自动控制 Auto	人工控制 Manual	人工控制 Manual
结构形式 Construction (M ³)	分体式 Separated	分体式 Separated	连体式 Manual
规格说明 Description	0.5~6 温度、浓度自动高精度控制 0.5~6 High Precise Control of Temperature and Concentration	0.5~6 温度、浓度自动高精度控制 0.5~6 High Precise Control of Temperature and Concentration	0.5~2 温度自动高精度控制 0.5~2 High Precise Control of Temperature
	清洗时间等触摸屏PLC自动控制 Rinsing time etc. Touch screen. Auto PIC	清洗时间人工控制 Manual control of rinsing time.	浓度清洗时间人工控制 Concentration cleaning time manually

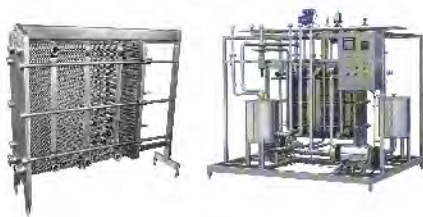
典型业绩 / Case Stories



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