

Product Description

# Tubular Sterilizer



SHANGHAI QINGJI BEVERAGE MACHINERY CO.,LTD.

Focus on heat exchange for dairy and beverage



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SHANGHAI QINGJI BEVERAGE MACHINERY CO.,LTD

上海轻技饮料机械有限公司

Fruit / Dairy Processing Machinery

果蔬乳品加工设备

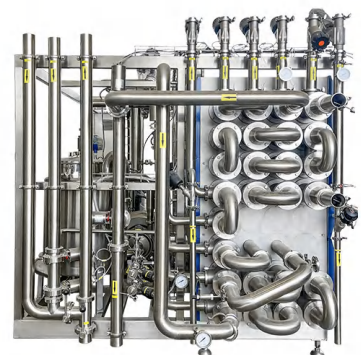
## ▶▶▶ Application:

A UHT (Ultra-High Temperature) sterilizer is a device used in the food and beverage industry to sterilize liquid products such as milk, juice, and other beverages. The UHT process involves heating the product to a temperature of 135–150°C (275–302°F) for a short period, typically 2 to 5 seconds, and then rapidly cooling it down. This process kills bacteria and other microorganisms, extending the product's shelf life without the need for refrigeration.



## ▶▶▶ Characteristic:

- Standardized structure for proper piping layout, which convenient site connection and food technology change
- Smooth welding to prevent dead angle for washing, less spare parts and low operation cost.
- Uniform heat treatment, high heat recovery over 90%, automatic control of hot water system
- Indirect heating, accurate control of flow and temperature
- With temperature record, to show continuous and real data stored
- Long continuous operation time around 10-12h/batch
- Full automatical control by LCD touch screen interface, with safety protect function, real-time display and alarm of valves and pumps,
- With fault handling system, can effectively eliminate the output of unqualified products
- With CIP self washing function, to meet food GMP standard
- Aseptic system to prolong the milk/juice shelf time (optional)

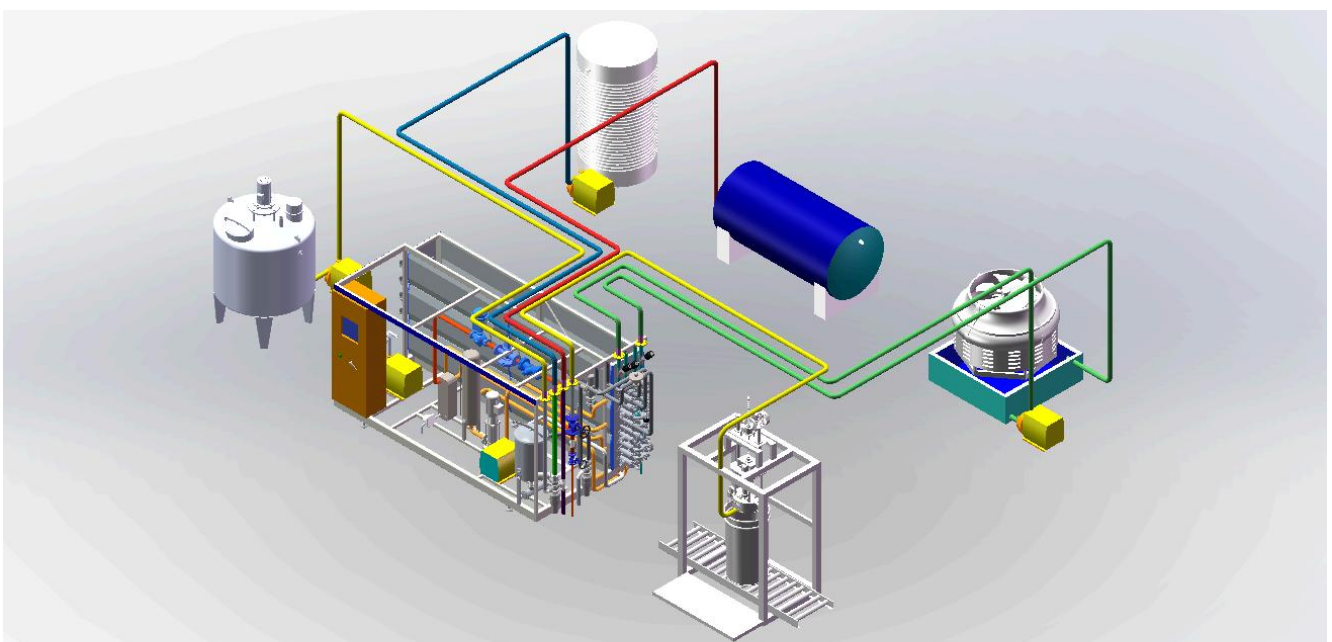


## ▶▶▶ Technical parameter:

Typical application	Mango pulp	Coconut water	UHT milk	Fruit juice
Flow(l/h)	1000l/h	3000l/h	5000l/h	8000l/h
Power(kw)	13	11	12	20
Temperature in(°C)	40	4	4	55
Sterilization temperature (°C)	108	80/ 140	137	125
Holding time(s)	120	90 /8	5	15
Temperature out(°C)	40	10/35	25	85
Note	The flow and temperature could tailor-made as per project demand from 500-20,000L/h			

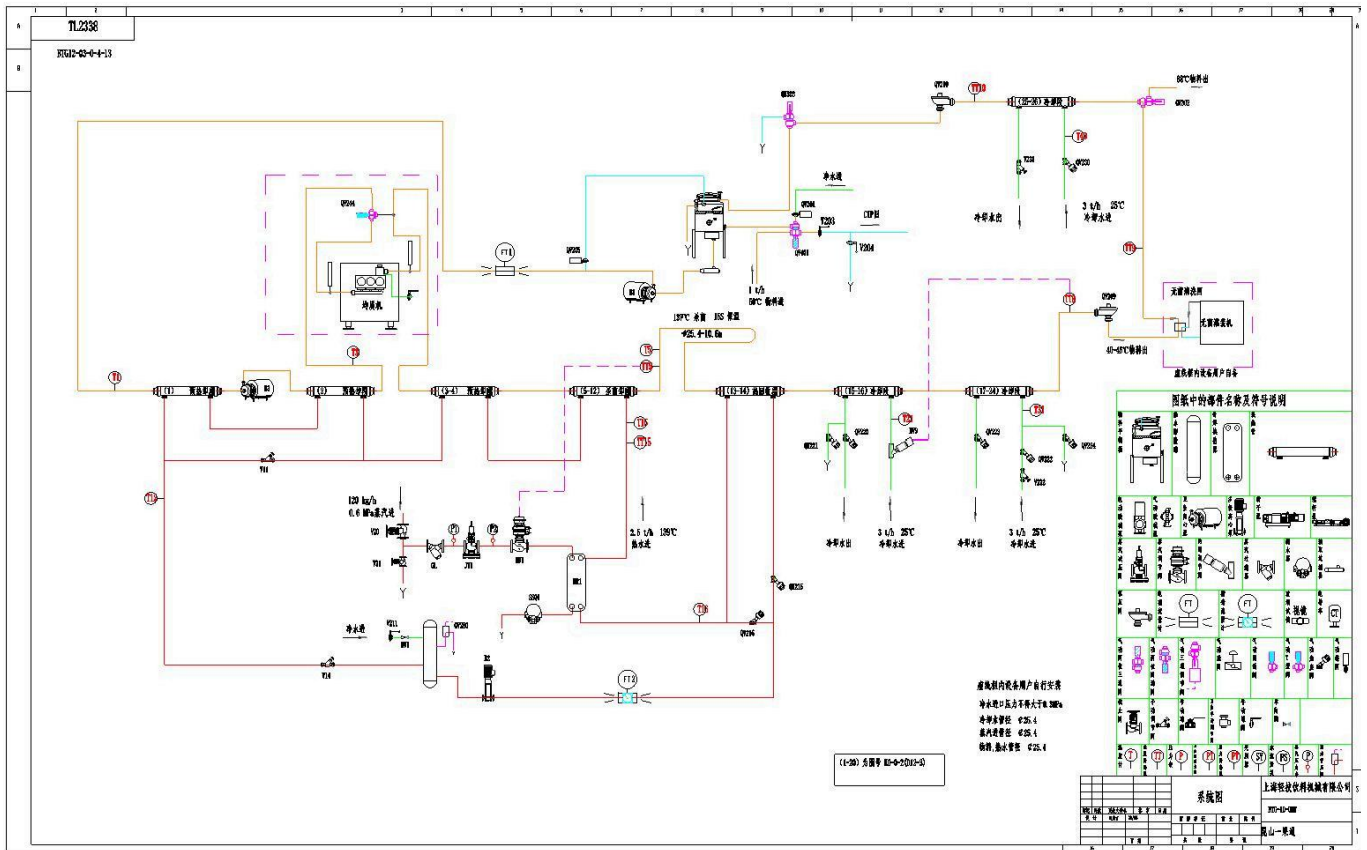
Auxiliary equipment	Steam pressure	> 80kg/h,0.6mpa
	Air compressor	>0.4m <sup>3</sup> /min,6kgs
	Cooling water	>2 times product flow

## ▶▶▶ Pipe connection :



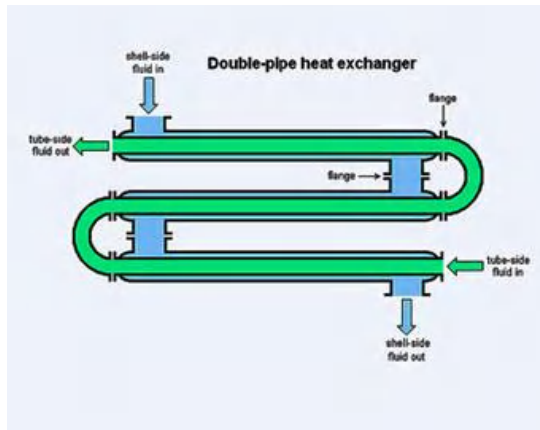
# ▶▶▶ Flow Chart:

- **UHT sterile packaging:**  
5°C → 65°C (homogenizer) → 137°C (3-5S) → 20°C-25 °C
- **High temperature filling:**  
35°C → 65°C (homogenizer) → 115°C/125°C (5-15S) → 88°C-90°C
- **Low temperature filling:**  
20°C → 95°C/30s → 5°C

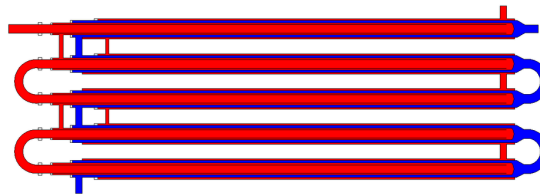


# ▶▶▶ Different Types:

1. **Tube in shell exchanger:** A shell heat exchanger is a heat exchanger composed of an inner tube and an outer tube, forming a space for the heat exchange medium to circulate between them. Heat is transferred to the heat exchange medium through one side of the inner tube, and then to another medium through one side of the outer tube. Because there is space between the inner tube and the outer tube, the heat exchange efficiency is relatively high. Suitable for high temperature and high pressure heat exchange processes, like uht milk, cream, fruit juice, beverage ect product.



2. **Tube in tube heat exchanger:** A tube in tube heat exchanger is a heat exchanger composed of many tubes (tubes). The medium flows inside and outside the tubes to achieve heat transfer. The tube heat exchanger has a large heat exchange area and can be used for thick and low flow liquid, like tomato paste, mango pulp, fruit dice etc. Higher energy transfer.



## ▶▶▶ Technical Data:

<b>Steam heating system</b>	1 set	Diaphragm type steam pressure reducing valve	Spirax Sarco
	1 set	Automatic steam temperature control valve	Spirax Sarco
	1 set	Steam traps	Spirax Sarco
	1 set	Steam filter	Factory
	1 set	Steam blowdown valve	Factory

Hot water system	1 set	Closed type water heater	Factory
	1 set	Multi-stage centrifugal pump	Nanfang
	1 set	Closed type water tank	Factory
	1 set	Pneumatic back pressure valve	Factory

Material system	2	Product pump	Twin screw pump
	1	Material balance tank	Level control
	4	Pneumatic valve: - Product discharge valve - Clean water in valve - Drain water valve - CIP valve	ABO/INOXPA
	1	Material level control(automatic)	Mechanical balance
	3	Temperature sensor, PT100	Japan
	4	Diaphragm pressure gauges	0-16bar
	1	Heat exchange tubular	SUS316L

Cooling system	1	Pneumatic Angle seat valve	For cold water in
	1	Stop valve	For cold water out

CIP	1	Diaphragm pump	American
	2	Acid/alkali valve	QINGJI
	1	Conductivity	Jumo

Control system	1set	PLC programmable controller Colorful touch screen : SIMENS or Omron No paper temperature record Electricity Element : Schneider Air filter: Airtac Solenoid valve: Airtac	QJ design
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# ▶▶▶ Company Profile:

Shanghai QingJi Beverage Machinery Co., Ltd. established in 2006, is a professional technology developing enterprise which mainly engaged in food&beverage machinery fields. Combined with research and development, craft flow chart design service, turnkey project, equipment manufacturing, installation, commissioning and training, our company is specialized in

## 1. Key machine

- (1)UHT Sterilizer (2)Plate Pasteurizer (3)CIP system and kinds of tanks
- (4)aseptic or non-aseptic filling machine etc.

## 2. Whole production line of dairy milk, beverage juice, fruit and vegetable processing, food sauce etc.

Adhering to the business principle of mutual benefits, we have had a reliable reputation among our customers because of our professional services, quality products and competitive prices. We warmly welcome customers from at home and abroad to cooperate with us for common success.


# ▶▶▶ Certificates obtained:

 <p><b>Certificate</b>          Certificate No.: USA14Q23797          This is to certify that the Quality Management System of  <b>SHANGHAI QINGJI DRINK MACHINERY CO., Ltd.</b>          Unified Social Credit Code: 913101177878137983          Registered Address: Room 111, 1F, Building 7, No. 655, Caijia Road, Dengfeng Town, Songjiang District, Shanghai, China          Production Office Address: No.100, Shiyi Road (E), Baoshan District, Shanghai, China          Has been audited to conform to the following Quality Management System standard:  <b>ISO 9001:2008</b>          This Quality Management System is valid for the  <b>Manufacture of drink machinery</b></p> <p>Initial issued date: Oct. 09, 2011          Date of issue: Sep. 02, 2015          Revision date: Jul. 23, 2016          Date of expiry: Sep. 02, 2017</p> <p>Issued by: <b>Wu Fengyu</b>          Beijing East Approach Certification Center C</p> <p>Logos: EACC, IAF, ANAB, CONFORMING</p>	 <p><b>CERTIFICATE</b>  <b>ATTESTATION</b>  <b>CERTIFICATE OF MACHINERY AND LOW VOLTAGE DIRECTIVES</b>          Technical file of the company mentioned below has been reviewed and audit has been completed successfully. 2006/42/EC Machinery Directive and 2014/35/EU Low Voltage Directive have been taken as references for these processes.          any Name: <b>Kunshan YCF Imp.&amp;Exp. Co., Ltd.</b></p> <p>any Address: <b>Rm 110, Building 2, No.1255, Shangyin Road, Huangjiao Town, Kunshan, Jiangsu, China</b></p> <p>d Directives and Annex: <b>Low Voltage Directive 2014/35/EU Machinery Directive 2006/42/EC</b></p> <p>d Standards: <b>EN ISO 12100:2010; EN 60204-1:2018</b></p> <p>Model Name: <b>Pasteurization</b></p> <p>No and Date: <b>YCF-2020/A01</b></p> <p>Brand/Model/Type: <b>YCF-LP1, YCF-LP2, YCF-LP3, YCF-LP4, YCF-LP5, YCF-SYS-1000, YCF-SYS-2000, YCF-SYS-3000, YCF-SYS-5000</b></p> <p>Model Number: <b>M: 2020B, 206, C0088</b>          assessment Date: <b>10.12.2020</b>          issue Date: <b>10.12.2020</b>          Date/No: <b>09.12.2025</b>          Date: <b>09.12.2025</b></p> <p>Auditing: <b>Intertek Certification</b>          and Trade Inc. Co.</p> <p>Logos: CE, UDEM</p>	 <p><b>Alibaba.com</b> <b>intertek</b>          Verified Supplier  <b>Verified</b>          Assessment Report Presented to  <b>Qingji Beverage Machinery</b>  <b>上海轻技饮料机械有限公司</b></p> <p>Assessment Report</p> <table border="1"> <tr> <td>Q2715_P+T</td> <td>Assessment Type</td> <td>Product</td> </tr> <tr> <td>37-26</td> <td>Assessor's Name</td> <td>Zad Zhan</td> </tr> <tr> <td>37-27 - 2024-07-26</td> <td>Reviewed by</td> <td>Mack Lor</td> </tr> </table> <p>www.intertek.com.cn/ASV          e/Home/IndexCN</p>	Q2715_P+T	Assessment Type	Product	37-26	Assessor's Name	Zad Zhan	37-27 - 2024-07-26	Reviewed by	Mack Lor	 <p>14773382号  <b>实用新型专利证书</b></p> <p>名称: 一种杀菌机          人: 杨真敏          号: ZL 2020 2 1994470.1          日: 2020年09月11日          人: 上海轻技饮料机械有限公司          址: 201908 上海市宝山区市一路199号1楼1076A          日: 2021年11月19日 授权公告号: CN 214758970 U</p> <p>知识产权局依照中华人民共和国专利法经初步审查, 决定授予专利权, 并在专利登记簿上予以登记。专利权自授权公告之日起生效。专利权自公告之日起算。          书记载专利权登记时的法律状况。专利权的转移、质押、无效、终止、无效名称、国籍、地址变更等事项记载在专利登记簿上。</p> <p>2021年11月19日</p>
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37-26	Assessor's Name	Zad Zhan										
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## ▶▶▶ Cooperating Customers:

## ▶▶▶ Project cases:




Project	Milk process	Tomato paste process	Beverage process	Coconur water process
Client	Guangming Dairy Co., Ltd	SUNBULA FOR FOOD PRODUCTION	FORTUNE MULTI AGRO LTD	PT RIAU SAKTI UNITED PLANTATIONS
Live picture				



## ▶▶▶ Auxiliary Equipment:

Homogenizer	Centrifugal machine	Filling machine
		

## ▶▶▶ Related Accessories:

O-Ring	Valve and Pump	Sensor
		

## ▶▶▶ Service Process:

