



FROM TURN-KEY SOLUTIONS TO COMPLETE SERVICE

Enterprise profile

企业简介 ■■■



DTS, focusing on planning of complete sterilizing equipment lines that are based on retorts, is a one-stop supplier of intelligent non-standard production lines and is also a high-tech company involved in raw materials supply, product R&D, process design, manufacturing, finished products testing, engineering transportation, and after-sales services.

Adhering to the enterprise core values of “respect for customers, people-oriented, market prevail and innovation as the soul” all the time, DTS has established a strong market-oriented sales mechanism and a perfect after-sales service system. So far DTS equipment has spread 27 countries and adopted by a number of famous domestic and overseas food and beverage companies, and we have established good partnership with them.

Focusing on the future and persistent innovation, DTS is supplying customers with energy-saving, environment-friendly and low-carbon solutions as the core of development to meet and lead the needs of industry development and to build DTS as an ecology-oriented enterprise.



Enterprise qualification

企业资质



DTS is the retort manufacturer authorized by the American Society of Mechanical Engineers (ASME) for retort manufacture in accordance with the applicable rules of the **ASME Boiler and Pressure Vessel Code**.

—Our retort is designed and manufactured in accordance with the **GB150–2011 Standard for the Manufacture of Steel Pressure Vessels**.

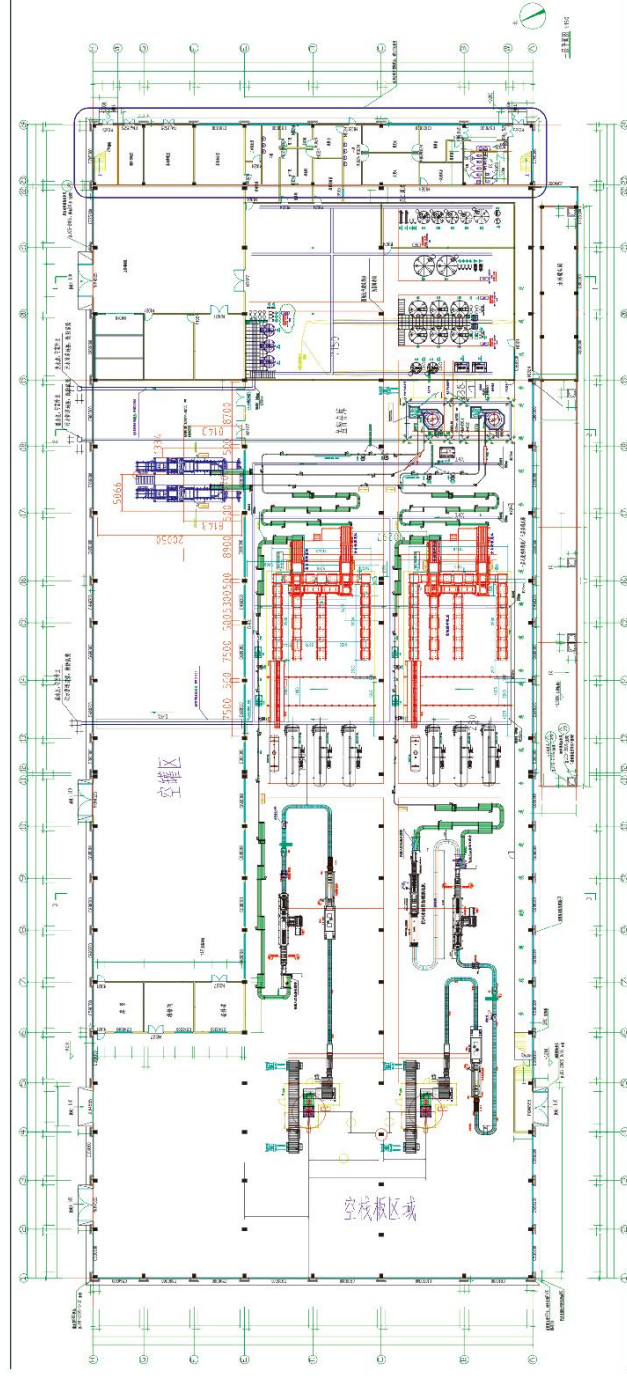
—Our retort complies with FDA/USDA standard requirements(**FDA21CFR113 and 21CFR111**)

—Design principles: according to the engineering situation and requirements, in accordance with the requirements of national relevant standards on food production and processing, we design our machines based on the principles of efficiency, energy saving, advanced technology, security and reliability in order to ensure that the whole production line can run and operate smoothly with good configuration, and that the heat distribution is in line with national and industrial related regulations and standards stipulated.

—The whole production line is equipped with automatic program control to guarantee the accuracy and the availability of detection and control ;

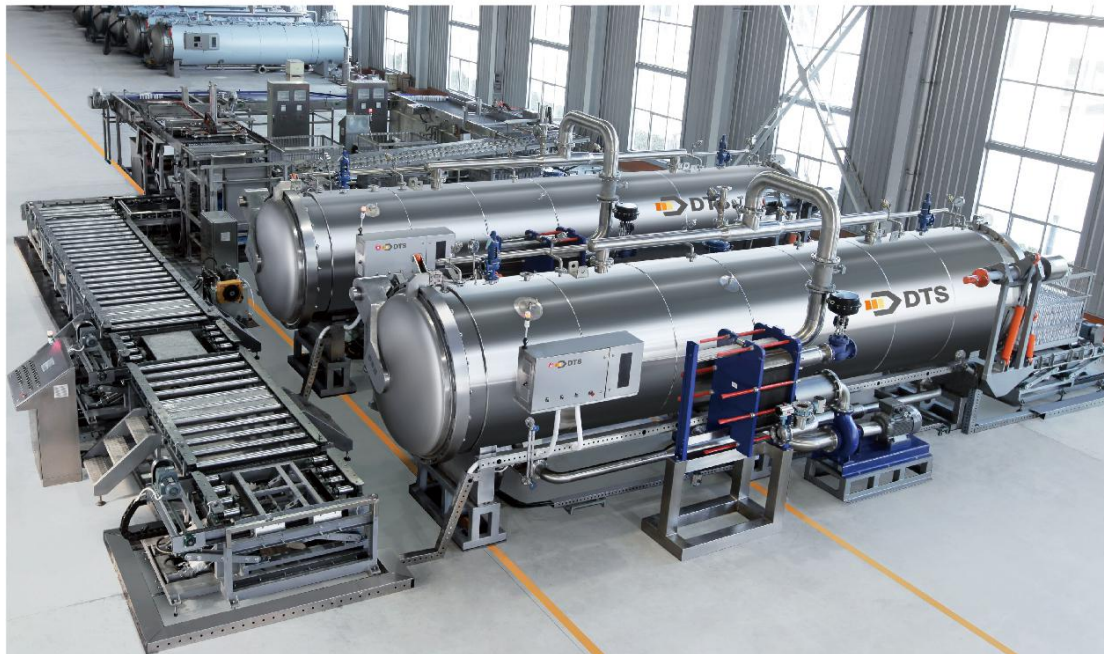
—Engineering installation design meets the requirements of the national food factory. The material delivery pipeline and pipe fittings are sanitary class, the cable bridge is installed overhead, and the wire box and the bridge frame are made of rust resistant materials.

Beverage ■■■ Production Line Layout



Project overall solution





Horizontal continuous sterilization line

Horizontal continuous sterilization line is fully compliant with GMP standards and FDA requirements, and can realize continuous and efficient work of the poststerilization system.

The system consists of basket loading machine&unloading machine, basket conveyor lines, basket transfer machine, hydraulic lifter and retort(with conveying device in retort)etc. Filled products move into the basket loading machine by conveying line, and then are loaded automatically into basket in order. After this, full baskets are automatically conveyed into retort. The sterilized products are transported by conveying line to the basket unloading machine where products are automatically removed from basket and sent out to packaging equipment by the conveyor line for testing and packaging.

Compared with batch retort, the features for horizontal continuous retort production line are:

- Save 40% of space compare with other equipments of our company.
- Highly automatic, one-man operation;
- Large capacity, uniform sterilization effect;
- The key parts of equipment adopt high quality brands to ensure stable operation of the equipment.





Sterilization Retort Series

Automatic steam & air retort

Equipment Features

1. Save energy without the need for heating while sterilizing.
2. Well mixing steam and air to provide good sterilization effect and free of cold spot in retort.
3. Rapid come-up and short sterilization time.
4. Simple structure and easy installation.
5. Good heat distribution and heat penetration.
6. High-level automation.



Model	Dia. (mm)	Effective L.(mm)	Overall L.(mm)	Overall W.(mm)	Overall H.(mm)	Volume (mm)	Steam consumption(kg)	Power (kw)	Trays (set)	Design temp. (°C)	Design P.(Mpa)	Test P.(Mpa)
DTS/FJ1200-4K	1200	3600	5300	2100	2200	4.5	120	15	4	147	0.35	0.44
DTS/FJ1200-4K	1200	4000	5700	2100	2200	4.9	130	15	4	147	0.35	0.44

Automatic spray retort

Equipment Features

1. Retort is fitted with a heat exchanger, and a low amount of process water stored in the bottom of the retort is heated through the heat exchanger, so steam and cooling water without contact with the products, that greatly minimize the consumption of steam and water.
2. Siemens PLC is reliable, flexible and safe for automatic control and can store 100 recipes for different sterilization of various products. Once any physical fault occurs, the system will automatically alarm for immediately attention and fast reaction.
3. Alternative heating solution using direct steam injection.
4. Vertically or horizontally opening door.



Various spraying types are provided to meet different needs



Model	Dia. (mm)	Effective L.(mm)	Overall L.(mm)	Overall W.(mm)	Overall H.(mm)	Volume (mm)	Steam consumption(kg)	Power (kw)	Trays (set)	Basket (pcs)	Design temp. (°C)	Design P.(Mpa)	Test P.(Mpa)
DTS/CP1200-4P	1200	3600	6000	1800	2700	4.46	155	12	4	—	147	0.35	0.44
DTS/CP1200-5P	1200	4000	6400	1800	2700	5.8	175	12	5	—			
DTS/QP1200-4K	1200	3600	6000	1800	2700	4.46	170	12	—	4			
DTS/QP1200-5K	1200	4000	6400	1800	2700	5.8	185	12	—	5			
DTS/DL1200-4K	1200	3600	4450	2150	2700	4.46	180	6.5	—	4			
DTS/DL1200-5K	1200	4000	4850	2350	2900	5.8	200	6.5	—	5			



Sterilization Retort Series

Automatic water immersion retort

Equipment Features

1. Preheat process water in the top water tank for rapid come-up.
2. Process water can be recycled to save steam & water from continuous production.
3. Temperature and pressure control guarantee product quality.
4. Smooth, gentle and rapid cooling avoids thermal shocks.
5. Static or rotary. Rotation is suitable for products with high viscosities.



Model	Dia. (mm)	Effective L.(mm)	Overall L.(mm)	Overall W.(mm)	Overall H.(mm)	Volume (mm)	Steam consumption(kg)	Power (kw)	Trays (set)	Design temp. (°C)	Design P.(Mpa)	Test P.(Mpa)
DTS/SY700-1P	700	1200	3050	1300	2400	0.55	25	3.6	1	147	0.35	0.44
DTS/SY900-2P	900	1800	3500	1800	2700	1.32	45	5.5	2			
DTS/SY1000-3P	1000	2400	4350	1900	2900	2.12	95	8	3			
DTS/SY1200-3P	1200	3000	5150	2150	3600	3.45	165	14	3			
DTS/SY1200-4P	1200	3600	5750	2150	3600	4.46	195	14	4			
DTS/SY1200-5P	1200	4000	6150	2150	3600	5.48	215	14	5			
DTS/SY1500-4P	1500	4000	6350	2500	4300	7.82	335	31	4			

Automatic pilot retort

Scope of application

Glass jars, metal cans, plastic bottles, retort pouches

Equipment Features

This retort has two ways of heating, by steam or by electricity. It is specially for laboratory or food manufacturers to develop new products and sterilization formula for new products. It can simulate the sterilization environment of actual product sterilization formula, reduce product loss in experiment and raise the yield of mass production.

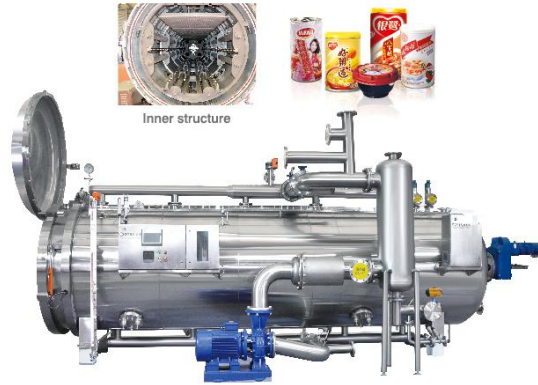


Model	Dia. (mm)	Effective L.(mm)	Overall L.(mm)	Overall W.(mm)	Overall H.(mm)	Volume (mm)	Steam consumption(kg)	Power (kw)	Basket (pcs)	Design temp. (°C)	Design P.(Mpa)	Test P.(Mpa)
DTS/SYF700	700	500	1850	1200	1850	0.28	15	2.1	1	147	0.35	0.44
DTS/SYF900	900	600	2200	1700	2100	0.56	25	4	1			

Automatic water spray rotary retort

Equipment Features

1. Excellent homogeneity inside the machine and a gentle product treatment.
2. Unaltered product organoleptic properties.
3. Fixed jets of water rain distributed on the upper part of the retort.
4. Rotating jets of water rain distributed on the crate's walls of the retort.
5. Independent wheels to support the rotor.
6. Process control safety, great dimension filter.
7. Maximum flexibility, minimum consumption, rotational system, new generation of rotor integrated with fixed and rotating nozzles, adjustable rotary speed.
8. Reduce maintenance cost, new generation rotating system.
- 9.Reduction of total sterilization time.



Model	Dia. (mm)	Effective L.(mm)	Overall L.(mm)	Overall W.(mm)	Overall H.(mm)	Volume (mm)	Steam consumption(kg)	Power (kw)	Basket (pcs)	Design temp. (°C)	Design P.(Mpa)	Test P.(Mpa)
DTS/QZX1500-4K	1500	4500	6500	2600	3300	8.7	300	15	4	147	0.35	0.44
DTS/QZX1800-4K	1800	5400	7500	3500	4200	15	350	24	4			
DTS/QZX1800-5K	1800	6500	8500	3500	4200	17.8	420	27	5			
DTS/QZX1800-6K	1800	7600	9600	3500	4200	20.6	500	30	6			

DTS steam rotary retort

Equipment Features

1. After being welded and assembled, the inner rotation cage is one-time molded in machining center, so as to ensure the concentricity between the rotation cage and the axis of the rotation cage in rotating.
2. Baskets are compressed separately by cylinders which are made of alloy. It solves the problem of inaccuracy reset of the cylinders with spring and the problems of seal deformation, air leak and other defects under the condition of high temperature and high pressure.
3. Rotational speed adopts frequency converting control, which allows users to adjust the rotational speed of the rotating body according to the viscosity of the product at any time so as to ensure product is not hierarchical and sedimentary.



Model	Dia. (mm)	Effective L.(mm)	Overall L.(mm)	Overall W.(mm)	Overall H.(mm)	Volume (mm)	Steam consumption(kg)	Power (kw)	Basket (pcs)	Design temp. (°C)	Design P.(Mpa)	Test P.(Mpa)
DTS/SZX1500-4K	1500	4500	6000	2500	2500	8.3	300	12	4	147	0.35	0.44
DTS/SZX1800-4K	1800	5100	6800	3000	3100	13.6	350	15	4			
DTS/SZX1800-5K	1800	6300	8000	3000	3100	16.7	420	20	5			
DTS/SZX1800-6K	1800	7300	9000	3000	3100	19.2	500	24	6			



Loader and unloader system

Equipment Features

Manual loader and unloader system is designed to balance the speed and cost. It's suitable for most production lines that are lower than speed of 200cpm with round containers such as cans and jars. The operator is assisted by various devices to decrease filling time and reduce fatigue caused by repetitive bending.

- Up to 2 layers per minute with 2 trained operators
- For rectangular Layer-in-Divider crates with false bottom
- Lifting jack driven by hydraulic cylinder
- Manual divider placement
- Built in stainless steel or carbon steel
- Accepts standard-size baskets for diameter 1200-1400mm static retorts and diameter 1200 - 1800mm rotary retorts.



Our service



Site planning & proposal design

To provide targeted, energy-efficiency technology solutions according to the request of client, and to plan the supporting facilities of sterilization equipment in details based on customer site.



Turnkey service

From technical scheme design to project implementation and commissioning, sterilization equipment specialists provide technical services in the whole process, providing you hassle-free and one-stop engineering experience.



Periodic testing and maintenance of key equipment

Reduce equipment failure and abnormal shutdown and improve reliability, professional services for emergency, extend equipment lifetime and reduce overall operating costs.



Focusing on the future, DTS company continues to create new energy-saving, environmental-friendly, low-carbon solutions to help our customers win the competition in the future. At the same time, we are also convinced that we will be full of enthusiasm for the service of customers, pay attention to your needs, exceed your expectations, to achieve your brilliant career with our efforts. We are young, and we appreciate the trust and favor from any customer; we are willing to explore the new idea and new trends together with customers to meet the needs of industry development and promote common development.

SGS

EAD



Add: DTS Industrial Park, Zhucheng, Shandong, China
Overseas Tel: 0086-536-6549353
E-mail: sales@dtszb.com
Web: www.dtszb.cn

 <https://www.youtube.com/user/dtszb>
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