OSR

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欧思瑞医疗

MEDICAL
TECHNOLOGY

目 录 Contents

志存高远　创新未来

Our motto are keeping faith, hardworking, be innovative, detail-oriented, swift.

To be a man simply and to do things seriously
简 单 做 人 ◆ 认 真 做 事

◎守信
遵守承诺 即使付出额外
的代价也要言出必行

◎勤奋
千里之行 始于足下
征途无涯勤为舟 成功源于全力以赴

◎创新
时时都有创新的机会
人人都是创新的主体
事事都是创新的平台

◎细致
事无巨细 业无大小
于细节处显志度 于微小处见人格

◎快捷
快捷响应客户要求
建立长效管理机制 提高执行力

OSRMEDICAL

张家港欧思瑞科技有限公司是集设计、制造、销售、服务于一体的高科技公司，是蒸汽灭菌设备专业制造商。公司位于美丽的长江之滨江苏省张家港市。公司拥有一批业务精湛的工程师、精干的营销团队，完善而专业的售后服务队伍。公司拥有强大的技术力量和最先进的生产设备，并具有一流的应用工艺和完备齐全的检测、化验仪器来确保产品的质量。欧思瑞人通过自身不懈的努力，公司事业领域迅速扩展，在医药、食品、化工、造纸、印染等行业的应用中获得巨大成功。

Zhangjiagang Ousirui Medical Technology Co., Ltd. is an integrated high-tech enterprise which includes the design, research and development, manufacturing, sales, trade and service. Main productions are sterilizers. The factory lies in Zhangjiagang city by side of Yangtze River, near to Shanghai. We own a group of excellent engineers which provide strong technology support, efficient businessmen, complete and professional after sale service team. We use advanced manufacture & inspection equipments and application technique. Above mentioned ensure productions quality steadily and effectively. After years of efforts, we have got certain influence which we deserved in these fields, such as medicine, food, chemical industry, paper making, printing and dyeing and so on.

OSA MEDICAL

C 公司资质
COMPANY CERTIFICATES

OSR MEDICAL

B Bowie-Dick测试
owie-Dick Test

■ 使用前	■ 正常	■ 异常

Bowie-Dick 测试程序是用于测试高压真空型灭菌装置对通气性物体进行灭菌处理效果的试验方法。美国医学器械协会（AAMI）也将其作为确认灭菌装置运行情况的标准方法。该试验是将 BD 测试包放置在灭菌装置内的规定位置，进行 134℃/3.5 分的灭菌循环后，取出测试包后观察测试卡上颜色的变化判断灭菌装备的性能。当发生真空泵故障、灭菌循环、控制不完全、灭菌室漏气等情况时，测试卡的变色不均匀，从而可以简单地发现灭菌设备的异常。

Bowie-dick test is a kind of test way to confirm that whether the operation of the autoclave steam sterilizing equipment is normal and whether it can sterilize completely.

Bowie-Dick Test Program is developed by J.H.Bowie and J.Dick from micrbion college of Edinburge Royal Hospital UK which is used for testing the sterilizing effects of ventilated articles which is sterilized by the high pressure vacumm sterilizing equipment .AAMI also used it as the standard method to confirm the running about sterilizer. At first, using the towel to pack the test cards as a test parcel and put it to the specified place in the chamber. After the sterilizing circle of 134 C/3.5min,take the parcel out and judge the performance of the sterilizing equipment through the color of the test card. If the vacumm pump broken, sterilizing circle, control incompletely, sterilizing chamber leak, the color of the testing card will not be equal. Then we can recognize the abnormity of the sterilizing equipment easily.

P 保压测试程序
ressure Maintaining Test Procedure

测试用于验证在真空状态下，漏入灭菌室的气体量不足以阻碍蒸汽渗透负载并且不会导致在干燥期间，负载受到再灭污染压力上升的速度不应超过 0.13kpa/min。

The test is used under the condition of vacuum to test that the air which is leaked into the inner chamber will not be enough to hinder the load about steam permeating. To test during the drying period the load will not be polluted again and the speed of pressure rising will not exceed 0.13kpa/min.

现场验证Site confirmation

三次热分布验证 Three times heat distribution confirmations
三次热穿透验证 Three times heat penetration confirmations
三次生物制剂验证 Three times biological confirmations

■ 探头分布图
Detectors scatter gram

■ 验证接口
Confirmation connector

■ 验证仪
Verification instrument

1)GB/T 150.1 ~ GB 150.4-2011《压力容器》

2)TSG 21-2016《固定式压力容器安全技术监察规程》

3)TSG 07-2019《特种设备生产和充装单位许可规则》

4)GB 8599-2008《大型蒸汽灭菌器技术要求自动控制型》

5)GB 4793.1-2007《测量，控制和实验室用电气设备的安全要求 第1部分：通用要求》

6)GB 4793.4-2019《测量，控制和实验室用电气设备的安全要求 第4部分：用于处理医用材料的灭菌器和清洗消毒器的特殊要求》

7)GB 1226-2017《一般压力表》

8)GB/T 9969-2008《工业产品使用说明书 总则》

9)GB/T 18268.1-2010《测量，控制和实验室用的电气设备 电磁兼容性要求 第1部分：通用要求》

10)GB/T 14710-2009《医用电器环境要求及试验方法》

11)GB/T 19974-2018《医疗保健产品灭菌 灭菌因子的特性及医疗器械灭菌过程的开发、确认和常规控制的通用要求》

12)GB/T 5226.1-2019《机械电气安全 机械电气设备 第1部分：通用技术条件》

13)GB 9706.1-2007《医用电气设备 第1部分：安全通用要求》

14)YY0505-2012《医用电气设备 第1-2部分：安全通用要求并列标准：电磁兼容 要求和试验》

15)YY/T 0158-2013《压力蒸汽灭菌设备用密封圈》

16)YY/T 0159-2005《压力蒸汽灭菌设备用疏水阀》

17)GB/T 191-2008《包装储运图示标志》

18) 中国药典 2020 版

19) 美国药典 USP-39

20) 欧洲药典 EP-5

21)FDA

22)cGMP

23) 中国 GMP

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- User Requirement Specification 用户需求
- Qualification Project Plan (QPP) 确认项目计划书
- Functional Specification (FS) 功能规范
- Design Specification (DS) 设计规范
- Manufacture schedule 制造进度计划
- Risk Analysis (RA) 风险分析
- Design Qualification (DQ) 设计确认
- Installation Qualification (IQ) 安装确认
- Operation Qualification (OQ) 运行确认
- Performance Qualification (PQ) 性能确认
- Factory Acceptance Test (FAT) 工厂验收测试
- Site Acceptance Test (SAT) 客户现场验收测试
- Installation Manual 安装手册
- Operation Manual 操作手册
- Maintenance Manual 维护手册
- Main Component List 主要部件清单
- Spare Parts List 备品备件清单
- Utilities List 公用工程清单
- Alarm List 报警清单
- Traceability Matrix (TM) 追溯矩阵
- Certificate of Approval 出厂合格证

用户需求 / 技术参数
1. 风险评估
2. 确认项目计划
3. 质量计划

功能规格书

设计规格书
1. 验证

安装确认

设备制造

设计确认
1. 标准操作程序

操作确认
1. 挑战性试验
2. 性能确认
3. 工厂验收测试
4. 客户现场验收测试
5. 培养实验
6. 追溯

提供客户书面文件

C 部分优质配件
COMPONENTS

为保证每一台欧思瑞灭菌设备安全可靠、运行稳定、低耗高效，我们精心选用下列世界知名品牌配件，使产品具备国际品质。

To make sure every OSR sterilizer safety and reliability, stable running, low investment and high profit, we carefully select the following components that are world-famous, which can make OSR possess international quality.

JUMO

SIEMENS

GEMÜ

B+B SENSORS

YOKOGAWA

亚德客 AirTAC

speck pumpen

spirax sarco

PALL

SIEMENS

Spraying Systems Co.

NASH

wilo

GRUNDFOS

ALFA LAVAL

FESTO

burkert

Danfoss

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A. 自动管焊机

德国全进口自动管焊机，一次焊接双面成形，内部焊接处圆滑过渡，不存在滞留死角或没焊透的现象，符合欧洲 GMP 和美国 FDA 标准。

Automatic welding machine

Germany imported automatic welding machine, a welding-double-side molding, internal weld smooth transition, there is no stranded dead or no incomplete penetration phenomenon, in line with the European GMP and American FDA standard.

B. 锯管机

德国全进口锯管机，与自动管焊机配套使用，焊接效果更佳。

Pipe cutting machine

Germany imported pipe cutting machine, with automatic welding machine, better welding effect.

C. 自动弯管机

确保管路转弯更平滑，无死角。

Automatic bending machine

To ensure that the pipeline is turning more smooth, no dead angle.

D. 摇臂钻床

用于各种型材、棒材、管材的打孔，打孔精度高。

Radial drilling machine

Suitable for punching various profiles, bars, pipes, punch precision.

E. 自动焊机

保证产品主要受压元件的焊接质量，焊接成型好。

Automatic arc welding machine

To ensure the welding quality of main pressure components, better welding molding.

F. 激光切割机

用于各种型材、棒材、管材的切割，避免由于高温对材料特性的改变。

Sawing machine

Suitable for cutting various profiles, bars, pipes, cutting by saponification liquid cooling, avoid because of high temperature on material properties change.

G. 半自动等离子切割机

8mm 以上不锈钢板材均采用等离子切割后经金加工而成，保证了金加工件的精度。

Semi-automatic plasma cutting machine

8mm stainless steel plate by plasma cutting after gold processing, ensure the machining parts precision.

H. 数控折弯机、剪板机

保证钣金件的加工精度。

CNC bending machine, shearing machine

Ensure the machining precision sheet metal parts.

OSR MEDICAL

C 质量控制
QUALITY CONTROL

采购控制：严格筛选供应商，质检部在物品进行进库前进行抽检，杜绝不合格原材料、配件入库；

过程控制：生产流程各个质量控制点严格按设计、工艺要求把关，决不允许不合格半成品流入下一道工序；

出厂控制：整机运行调试严格按出厂标准进行，绝不允许存在缺陷的产品出厂。

产品设计		上道工序	环节检验	下道工序
原料检验	原料入库	产品制造		成品检验
重新采购				成品入库	发货

不合格　合格　合格　不合格　不合格　合格
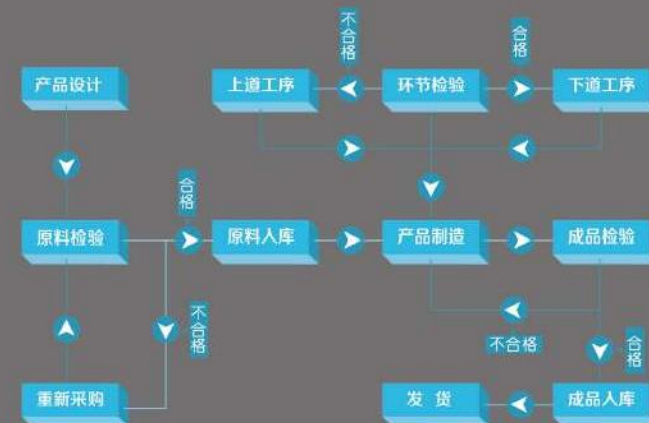
Purchasing control:

Strictly select suppliers. QC will detect the raw and processed materials before taking them to the storage.

Manufacturing control:

strictly control the quality according to the design and industry requirements during the all course.

Delivery control:

Debugging the products before the product leaves the factory. The products without defects will be allowed to leave the company.

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检验设备
NSPECTION EQUIPMENTS

超声波测厚仪： Ultrasonic wave thickness meter
板材和管材厚度的检测。To inspect thickness of pipe and plate.

粗糙度仪： Roughmeter
内胆抛光后光洁度的检测和管道光洁度的检测。
To inspect smoothness of inner chamber and pipeline.

噪音计： Noise meter
整机运行的噪音，特别是真空泵运行时的噪音检测。
To inspect noise when the equipment is running,
especially for vacuum pump.

测温仪： Thermo detector
保温层外壁温度的检测。
To inspect temperature of outer wall.

管道内窥镜检测仪： Endoscope detector used for pipes
卫生级管路的焊接质量检测。
To inspect welding situation of sanitary grade pipeline.

光谱分析仪： Spectrum analyzer
检测每批材料的材质。
To inspect material quality of raw material.

OSA MEDICAL

MD 脉动真空灭菌柜
Pulsation Vacuum Sterilizer

机动门系列脉动真空灭菌柜是我公司根据国家 GMP 规范对灭菌设备的要求而设计、生产的。该系列产品广泛应用于生物工程、医疗卫生、实验生物、制药等行业，主要用于生物制品、器皿、无菌衣、医疗器械、医用敷料等物品的灭菌处理。

This series of pulsation vacuum sterilizers is designed and manufactured by our company according to national GMP specification of sterilization equipments, conforming to GMP requirements. It is broadly applied into the field of bioengineering, health and sanitary, laboratory biology and pharmaceutical industry etc. It mainly is used for the sterilization of articles, such as biological products, utensils, sterile gowns, medical appliances and medical dressings etc.

蒸汽压力Steam pressure:0.3~0.5Mpa	设计压力Design pressure:0.3Mpa
水源压力Water pressure:0.15~0.3Mpa	工作压力Working pressure:0.25Mpa
压缩空气压力Compressed air pressure:0.5~0.7Mpa	工作温度Working temperature:139℃

结构/性能/特点 Structure and features

● 主体由内外二层组成，内胆为优质304不锈钢，自动焊接一次成形；夹套采用Q345R优质压力容器专用钢板 。全不锈钢拉丝板装饰外罩。具有标准GMP验证接口，方便用户随时进行设备验证。
● 密封门采用电动升降，操作简单、安全可靠。密封条采用优质硅橡胶制成，耐高温，使用寿命长。
● 控制系统采用PLC、触摸屏加微型打印机配置。控制系统稳定，控制精确。
● 具有完善的数据记录、打印、保存功能，打印温度、时间、压力曲线图。
● 配置双通道纪录仪。
● 管路系统采用德国GEMU气动阀和纳西姆真空泵等最优化配置。

● The main body is composed of inner layer and outer layer. The inner chamber is made of high quality acid-proof 304 stainless steel. Automatic welding, once forming. The Jacket is made of Q345R material special for pressure vessel. Stainless steel wiring-drawing plate for decoration case. There is GMP confirmation access for the users to confirm the equipment.
● It adopts motor-driven sealing door. Operation easily and safely. The sealing strips adopt excellent heat-resistant silicon rubber with long service life.
● The control system adopts touch screen, PLC, mini-printer to ensure running steadily and inspecting temperature correctly.
● Complete functions of date record, printing and storing. Temperature, time and pressure graph may be printed.
● Two ways recorders.
● Pipeline system adopts the most excellent accessories in the trade, such as GEMU air-operated valve from Germany and NASH vacuum pump and so on.

技术参数Parameters&Utilities&Size

型号 Model	内室尺寸 Inner chamber size（L×W×H）mm	外形尺寸Overall size（L×W×H）mm 单/双座Single/double door	净重 Net weight kg	蒸汽耗量 Steam consumption kg/cycle	控制电源 Control Power AC220/50Hz/kw	动力电源 Power Supply 3-AC380/50Hz/kw	耗水量 Water Consumption kg/cycle
OSR-MD-0.24	670×600×600	950×1430×1800	600	20	0.5	1.5	50
		1010×1430×1800	700				
OSR-MD-0.24S		1010×1430×1900					
OSR-MD-0.36	1000×600×600	1280×1430×1800	700	25	0.5	1.5	60
		1340×1430×1800	800				
OSR-MD-0.36S		1340×1430×1900					
OSR-MD-0.6	1170×610×910	1450×1430×1900	1100	30	0.5	2.4	70
		1510×1430×1900	1250				
OSR-MD-0.6S	1670×600×600	2010×1430×1900					
OSR-MD-0.8	1450×610×910	1730×1430×1900	1250	30	0.5	2.4	70
		1790×1430×1900	1400				
OSR-MD-1.0	1250×680×1180	1530×1500×2000	1400	40	0.5	3.0	80
		1590×1500×2000	1550				
OSR-MD-1.2	1500×680×1180	1780×1500×2000	1700	40	0.5	3.0	80
		1840×1500×2000	1950				
OSR-MD-1.5	1870×680×1180	2150×1500×2000	1900	50	0.5	4.0	90
		2210×1500×2000	2150				
OSR-MD-2.0	1700×1000×1200	2040×1850×2000	2400	70	0.5	4.0	100
OSR-MD-2.5	1700×1000×1500	2040×1850×2200	2700	80	0.5	4.0	100
OSR-MD-3.0	2000×1000×1500	2340×1850×2200	2950	100	0.5	5.5	120
OSR-MD-4.0	2670×1000×1500	3010×1850×2200	3600	120	0.5	5.5	120
OSR-MD-5.0	3340×1000×1500	3680×1850×2200	4900	150	0.5	7.5	140
OSR-MD-6.0	4000×1000×1500	4340×1850×2200	5600	180	0.5	11	140

注：参数表格内，型号后S代表升降门。Note: In parameters, S after model means lifting door.

MD-PIII 实验室用灭菌柜
Laboratory Sterilizer

该系列灭菌柜是我公司为解决灭菌初期带毒排放的水和空气进行集中后灭菌处理而进行设计、研发、生产的，该系列灭菌柜主要用于生物实验室，对易产生环境危害的废液和空气进行二次处理，最终达到无菌排放。

This series of laboratory sterilizers is designed and manufactured by our company in order to solve centralized sterilization of water and air with toxic emissions at the beginning of sterilization. This series sterilizer is mainly used in biology laboratory, to do two times treatment of waste water and air which has easily environment hazard, finally reach the sterile emission.
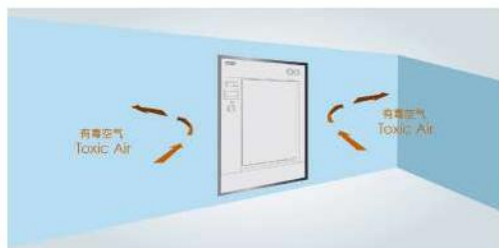
有毒空气 Toxic Air

蒸汽压力 Steam pressure:0.3–0.5Mpa	设计压力 Design pressure:0.3Mpa
水源压力 Water pressure:0.15–0.3Mpa	工作压力 Working pressure:0.25Mpa
压缩空气压力 Compressed air pressure:0.5–0.7Mpa	工作温度 Working temperature:139℃

结构/性能/特点 Structure and features

● 内胆为优质304或316L不锈钢，夹套采用Q345R压力容器专用钢板或304材质。全不锈钢拉丝装饰外罩。具有标准GMP验证接口，方便用户随时进行设备验证。
● 密封门采用电动升降，操作简单、安全可靠。密封条采用优质硅橡胶制成，耐高温，使用寿命长。
● 控制系统采用PLC、触摸屏加微型打印机配置。控制系统稳定，控制精确。
● 具有完善的数据记录、打印、保存功能，打印温度、时间、压力曲线图。
● 配置双通道记录仪。
● 内室镜面抛光。
● 有严格的管理操作权限。分为管理人员、工艺人员、操作人员。

● The inner chamber is made of 316L or 304 stainless steel. The jacket is made of Q345R material special for pressure vessel. Stainless steel wiring-drawing plate for decoration case. There is GMP confirmation access for the users to confirm the equipment.
● It adopts motor-driven sealing door. Operation easily and safely. The sealing strips adopt excellent heat-resistant silicon rubber with long service life.
● The control system adopts touch screen, PLC, mini-printer to ensure running steadily and inspecting temperature correctly.
● Complete functions of recording, printing and storing. Temperature, time and pressure graph can be printed.
● Two ways recorders.
● Inner chamber mirror polishing.
● Strictly operational permission set for administrative staff and technologist and operators.

技术参数 Parameters&Utilities&Size

型号 Model	内室尺寸 Inner chamber size (L×W×H) mm	外形尺寸 Overall size (L×W×H) mm 单/双座 Single/double door	净重 Net weight kg	蒸汽耗量 Steam consumption kg/cycle	控制电源 Control Power AC220/50Hz/kw	动力电源 Power Supply 3-AC380/50Hz/kw	耗水量 Water Consumption kg/cycle
OSR-MD-PIII-0.24	670×600×600	950×1430×1800	600	20	0.5	1.5	50
		1010×1430×1800	700				
OSR-MD-PIII-0.36	1000×600×600	1280×1430×1800	700	25	0.5	1.5	60
		1340×1430×1800	800				
OSR-MD-PIII-0.6	1170×610×910	1450×1430×1900	1100	30	0.5	2.4	70
		1510×1430×1900	1250				
OSR-MD-PIII-0.8	1450×610×910	1730×1430×1900	1250	30	0.5	2.4	70
		1790×1430×1900	1400				
OSR-MD-PIII-1.0	1250×680×1180	1530×1500×2000	1400	40	0.5	3.0	80
		1590×1500×2000	1550				
OSR-MD-PIII-1.2	1500×680×1180	1780×1500×2000	1700	40	0.5	3.0	80
		1840×1500×2000	1950				
OSR-MD-PIII-1.5	1870×680×1180	2150×1500×2000	1900	50	0.5	4.0	90
		2210×1500×2000	2150				
OSR-MD-PIII-2.0	1700×1000×1200	2040×2050×2000	2400	70	0.5	4.0	100
OSR-MD-PIII-2.5	1700×1000×1500	2040×2050×2200	2700	80	0.5	4.0	100
OSR-MD-PIII-3.0	2000×1000×1500	2340×2050×2200	2950	100	0.5	5.5	120
OSR-MD-PIII-4.0	2670×1000×1500	3010×2050×2200	3600	120	0.5	5.5	120
OSR-MD-PIII-5.0	3340×1000×1500	3680×2050×2200	4900	150	0.5	7.5	140
OSR-MD-PIII-6.0	4000×1000×1500	4340×2050×2200	5600	180	0.5	11	140

DW 动物灭菌柜
Animal Carcass Sterilizer

OSR DW-0.6 动物灭菌柜

该系列灭菌柜是我公司为解决在处理动物尸体灭菌过程中易产生油污的问题进行设计、研发、生产的，该系列灭菌柜主要用于动物尸体的灭菌处理，有效的解决了油污对排放管道的污染和堵塞问题，并具有灭菌柜内清洗功能。

This series of animal carcass sterilizers is designed and manufactured by our company in order to solve the problems of easily produce oil pollution at the sterilization process. This series sterilizer is mainly used in sterilization of animal carcass ,It can effectively solve the problem of pollution and blockage of the discharge pipe, and has the function of cleaning.

蒸汽压力Steam pressure:0.3-0.5Mpa	设计压力Design pressure:0.3Mpa
水源压力Water pressure:0.15-0.3Mpa	工作压力Working pressure:0.25Mpa
压缩空气压力Compressed air pressure:0.5-0.7Mpa	工作温度Working temperature:139℃

结构/性能/特点 Structure and features

● 主体由内外二层组成，内胆为优质304不锈钢、自动焊接一次成形；夹套采用Q345R压力容器专用钢板。全不锈钢拉丝装饰外罩。具有标准GMP验证接口，方便使用户随时进行设备验证。
● 密封门采用电动升降，操作简单、安全可靠。密封条采用优质硅橡胶制成，耐高温，使用寿命长。
● 控制系统采用PLC、触摸屏加微型打印机配置。控制系统稳定，控制精确。
● 具有完善的数据记录、打印、保存功能，打印温度、时间、压力曲线图。
● 内室圆弧大于40°。
● 内室镜面抛光。

● The main body is composed of inner layer and outer layer. The inner chamber is made of high quality acid-proof 304 stainless steel. Automatic welding, once forming. The jacket is made of Q345R material special for pressure vessel. Stainless steel wiring-drawing plate for decoration case. There is GMP confirmation access for the users to confirm the equipment.
● It adopts motor-driven sealing door. Operation easily and safely. The sealing strips adopt excellent heat-resistant silicon rubber with long service life.
● The control system adopts touch screen, PLC, mini-printer to ensure running steadily and inspecting temperature correctly.
● Complete functions of recording, printing and storing. Temperature, time and pressure graph can be printed.
● Inner chamber circular arc≥40°.
● Inner chamber mirror polishing.

技术参数Parameters&Utilities&Size

型号 Model	内室尺寸 Inner chamber size （L×W×H）mm	外形尺寸Overall size （L×W×H）mm 单/双扉Single/double door	净重 Net weight kg	蒸汽耗量 Steam consumption kg/cycle	控制电源 Control Power AC220/50Hz/kw	动力电源 Power Supply 3-AC380/50Hz/kw	耗水量 Water Consumption kg/cycle
OSR-DW-0.24	670×600×600	950×1430×1800	600	20	0.5	1.5	50
		1010×1430×1800	700				
OSR-DW-0.36	1000×600×600	1280×1430×1800	700	25	0.5	1.5	60
		1340×1430×1800	800				
OSR-DW-0.6	1170×610×910	1450×1430×1900	1100	30	0.5	2.4	70
		1510×1430×1900	1250				
OSR-DW-0.8	1450×610×910	1730×1430×1900	1250	30	0.5	2.4	70
		1790×1430×1900	1400				
OSR-DW-1.0	1250×680×1180	1530×1500×2000	1400	40	0.5	3.0	80
		1590×1500×2000	1550				
OSR-DW-1.2	1500×680×1180	1780×1500×2000	1700	40	0.5	3.0	80
		1840×1500×2000	1950				
OSR-DW-1.5	1870×680×1180	2150×1500×2000	1900	50	0.5	4.0	90
		2210×1500×2000	2150				
OSR-DW-2.0	1700×1000×1200	2040×2050×2000	2400	70	0.5	4.0	100
OSR-DW-2.5	1700×1000×1500	2040×2050×2200	2700	80	0.5	4.0	100
OSR-DW-3.0	2000×1000×1500	2340×2050×2200	2950	100	0.5	5.5	120
OSR-DW-4.0	2670×1000×1500	3010×2050×2200	3600	120	0.5	5.5	120
OSR-DW-5.0	3340×1000×1500	3680×2050×2200	4900	150	0.5	7.5	140
OSR-DW-6.0	4000×1000×1500	4340×2050×2200	5600	180	0.5	11	140

WSQ 卫生级灭菌柜
Sanitary Grade Pure Steam Sterilizer

本系列设备严格按欧盟 GMP、FDA 相关标准进行设计和制造，主要对百级洁净区域的无菌衣、灌装容器具以及其它一些要求无热源的物品进行湿热灭菌。

This series is strictly designed and manufactured conforming to EU, GMP and FDA standards. It is used for treatment of biological products, utensils, sterile gown, medical appliance, medical dressing and other articles without heat source in hundred-grade clean range on the basis of moist heat sterilization.

蒸汽压力Steam pressure:0.3–0.5Mpa	设计压力Design pressure:0.3Mpa
水源压力Water pressure:0.15–0.3Mpa	工作压力Working pressure:0.25Mpa
压缩空气压力Compressed air pressure:0.5–0.7Mpa	工作温度Working temperature:139℃

结构/性能/特点 Structure and features

● 主体采用卧式矩形结构，内胆为优质卫生级316L不锈钢，夹套采用304材质，完全符合GMP和FDA相关标准。全不锈钢拉丝装饰外罩。具有标准GMP验证接口，方便用户随时进行设备验证。

● 双路进汽，内层进纯蒸汽，管路和阀门为316L材质；夹层进工业蒸汽，304不锈钢管路。

● 控制系统采用PLC、触摸屏、微型打印机。控制系统稳定，控制精确。

● 具有完善的数据记录、打印、保存功能，可打印温度、时间、压力曲线图。

● 配置双通道纪录仪，与打印机同时实时肌瘤灭菌柜内的温度和压力。

● 空气过滤器可在线灭菌，预留完整性测试接口。

● 生产过程及程序控制具有较高的可追溯性。

● 设备上采用的配置均符合GMP和FDA相关标准。

● 设备的整个制造过程均有纪录可追溯。

● 内室圆弧大于40°

● 内室表面抛光处理，粗糙度Ra≤0.4um

● 有严格的操作管理权限，实行三级密码控制，分别为操作人员、工艺人员和管理人员。

● The main body adopts horizontal rectangle structure. The inner chamber is made of sanitary grade 316L stainless steel, the jacket is made of 304 material.Conforming to GMP and FDA standards totally. Stainless steel wiring-drawing plate for decoration case. There is a standard GMP certification joint for the users to certificate the equipment at any time.

● Steam enters the sterilizer via two pipelines, the inner chamber is fed with pure steam, whose pipelines, valves and instruments are made of 316L material. The jacket is fed with industrial steam, whose pipelines are made of 304 stainless steel.

● The control system adopts touch screen, PLC, mini-printer to ensure running steadily and inspecting temperature correctly.

● Complete functions of date record, printing and storing. Temperature, time and pressure graph may be printed.

● Equipping multichannel recorders, to record temperature and pressure of inner with mini-printer together at the same time.

技术参数Parameters&Utilities&Size

型号 Model	内室尺寸 Inner chamber size (L×W×H) mm	外形尺寸Overall size (L×W×H) mm 单/双座Single/double door	净重 Net weight kg	锅炉蒸汽耗量 Boiler Steam consumption kg/cycle	纯蒸汽耗量 Pure Steam consumption kg/cycle	控制电源 Control Power AC220/50Hz/kw	动力电源 Power Supply 3-AC380/50Hz/kw	耗水量 Water Consumption kg/cycle
OSR–WSQ–0.24	670×600×600	950×1580×1800	750	15	10	0.5	1.5	50
		1010×1580×1800	800					
OSR–WSQ–0.36	1000×600×600	1280×1580×1800	850	18	15	0.5	1.5	60
		1340×1580×1800	900					
OSR–WSQ–0.6	1170×610×910	1450×1580×1900	1250	25	20	0.5	2.4	70
		1510×1580×1900	1350					
OSR–WSQ–0.8	1450×610×910	1730×1580×1900	1450	27	23	0.5	2.4	70
		1790×1580×1900	1500					
OSR–WSQ–1.0	1250×680×1180	1530×1650×2000	1500	30	25	0.5	3.0	80
		1590×1650×2000	1650					
OSR–WSQ–1.2	1500×680×1180	1780×1650×2000	1800	35	30	0.5	3.0	80
		1840×1650×2000	2050					
OSR–WSQ–1.5	1870×680×1180	2150×1650×2000	2000	40	35	0.5	4.0	90
		2210×1650×2000	2200					
OSR–WSQ–2.0	1700×1000×1200	2040×2050×2000	2550	50	40	0.5	4.0	100
OSR–WSQ–2.5	1700×1000×1500	2040×2050×2200	2850	60	45	0.5	4.0	100
OSR–WSQ–3.0	2000×1000×1500	2340×2050×2200	3100	70	50	0.5	5.5	120
OSR–WSQ–4.0	2670×1000×1500	3010×2050×2200	3750	85	55	0.5	5.5	120
OSR–WSQ–5.0	3340×1000×1500	3680×2050×2200	4900	100	60	0.5	7.5	140
OSR–WSQ–6.0	4000×1000×1500	4340×2050×2200	5600	115	65	0.5	11	140

CK 口服液、针剂检漏灭菌柜
Leakage Detection Sterilizer of Oral Liquid and Injection Solution

结构/性能/特点 Structure and features

- 主体采用卧式矩形结构，内胆为优质304不锈钢，全不锈钢拉丝装饰外罩。
- 具有标准GMP验证接口，方便用户随时进行设备验证。
- 密封门采用电动升降结构，操作简单。门密封条采用优质硅橡胶制成，密封性能好、耐高温、使用寿命长。
- 采用广角、雾状喷淋，确保柜内无死角，提高温度的均匀性。
- 采用德国GEMU气动阀、威乐水泵等最优化配置。

- The main body adopts horizontal rectangle structure. The inner chamber is made of 304 stainless steel. Stainless steel wiring-drawing plate for decoration case.
  There is GMP confirmation access for the users to confirm the equipment at any time.
- It adopts motor-driven sealing door which is operated simply and safety. The sealing strips adopt excellent heat-resistant silicon rubber with long service life.
- It sprays mist by wide-angle. To ensure no dead angle in cabinet and raise uniformity of temperature.
- It uses the most excellent accessories in trade, such as GEMU air-operated valve and WILO water pump.

被灭菌物的搬运方式 The Convey of the Sterilizing Articles
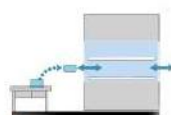
A 搁板方式
灭菌室有可装卸的搁板，被灭菌物装入室内放在搁板上。

B 搬运车及框架车方式
运送载放被灭菌物的框架车出入灭菌室时使用搬运车。
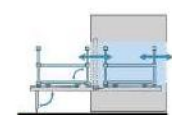
C 折叠导轨及框架车方式
框架车载放被灭菌物出入灭菌室，用于将框架拉出灭菌室导轨是折叠导轨。
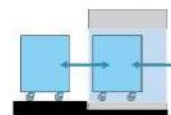
D 地面装填手推车方式
通过装置的安装，作业室地板和装置灭菌室外底面同高时，被灭菌物装在地面手推车中收纳入灭菌室或自灭菌室取出。
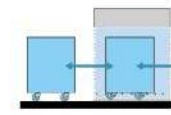
E 半地面装填手推车方式
根据装置的安装方法，作业室地板和装置灭菌室底面有一定落差时，被灭菌。

本系列设备主要用于安瓿、西林瓶针剂和口服液的灭菌、检漏、清洗。分为真空和色水两种检漏方式，保证废品检出率为100%，最后用纯化水清洗灭菌物品，保证灭菌物品表面的洁净。

The series is mainly used for sterilization, leakage detection and cleaning of such preparations as ampoule, oral liquid and injection solution in penicillin bottle. The device conducts leakage detection with vacuum or vacuum plus colorful water, ensuring 100% detection rate of wastes. At last, it uses clean water to clean sterilized products, ensuring no pollution in outer wall of the bottle.

蒸汽压力Steam pressure:0.3~0.5Mpa	设计压力Design pressure:0.17~0.3Mpa
水源压力Water pressure:0.2~0.4Mpa	工作压力Working pressure:0.15~0.27Mpa
压缩空气压力Compressed air pressure:0.5~0.7Mpa	工作温度Working temperature:134℃

技术参数 Parameters&Utilities&Size

型号 Model	内室尺寸 Inner chamber size (L×W×H) mm	外形尺寸Overall size (L×W×H) mm 单/双扇Single/double door	净重 Net weight kg	蒸汽耗量 Steam consumption kg/cycle	控制电源 Control Power AC220/50Hz/kw	动力电源 Power Supply 3-AC380/50Hz/kw	耗水量 Water Consumption kg/cycle
OSR-CK-1.2	1500X680X1180	1840X1500X2000	1950	90	0.5	4	550
OSR-CK-1.5	1870X680X1180	2210X1500X2000	2100	110	0.5	4	680
OSR-CK-2.0	1700X1000X1200	2040X1850X2000	2500	150	0.5	6	920
OSR-CK-2.5	2100X1000X1200	2440X1850X2000	2800	190	0.5	6	920
OSR-CK-3.0	2500X1000X1200	2840X1850X2000	3200	230	0.5	6	1000
OSR-CK-4.0	3340X1000X1200	3680X1850X2000	3750	300	0.5	8	1400
OSR-CK-5.0	3340X1000X1500	3680X1850X2200	4400	380	0.5	10	1800
OSR-CK-6.0	4000X1000X1500	4340X1850X2000	5000	460	0.5	12.5	2100

KL 快速冷却灭菌柜
Rapid Cooling Sterilizer

快速冷却灭菌柜具有预真空、高温快速灭菌及灭菌后快速冷却等先进功能，加上独特的反压保护措施，能对各种耐温热的散装、瓶装、罐装和软包装物品进行可靠的灭菌操作。

This series takes advanced functions of pre-vacuum, quick sterilization with high temperature, quick cooling after sterilization, and unique anti-pressure protection device. It may reliably sterilize all kinds of damp-heat resisting products in bulk, bottle, can and soft package.

蒸汽压力Steam pressure:0.3~0.5Mpa	设计压力Design pressure:0.17~0.3Mpa
水源压力Water pressure:0.2~0.4Mpa	工作压力Working pressure:0.15~0.27Mpa
压缩空气压力Compressed air pressure:0.5~0.7Mpa	工作温度Working temperature:134℃

结构/性能/特点 Structure and features

● 严格按《钢制压力容器》设计制造验收的箱体。
● 独特的耐高温硅胶橡胶燕尾型嵌入式设计，确保门的密保性。
● 主控制系统微电脑PLC+触摸屏+DCS远程后台监控系统。
● 保温材料采用硅酸铝，保温外层采用不锈钢拉丝板。
● 设备附有标准的GMP验证接口。
● 效果极佳的快速冷却装置。

● The box is designed, produced and tested strictly according to 《Steel pressure vessel 》
● The unique design of embedded dove-tail shape with heat-resisting silicone rubber ensures the seal tightness of the door.
● The main control system adopts micro-computer PLC and touch screen and DCS long distance tiring-room monitoring system.
● Insulation adopts aluminum silicate materials. Elegant stainless steel decorates cover.
● Standard GMP certification joint.
● Excellent rapid cooling device

技术参数Parameters&Utilities&Size

型号 Model	内室尺寸 Inner chamber size （L×W×H）mm	外形尺寸Overall size （L×W×H）mm 单/双座Single/double door	净重 Net weight kg	蒸汽耗量 Steam consumption kg/cycle	控制电源 Control Power AC220/50Hz/kw	动力电源 Power Supply 3-AC380/50Hz/kw	耗水量 Water Consumption kg/cycle
OSR-KL-1.2	1500×680×1180	1840×1500×2000	1950	90	0.5	4	550
OSR-KL-2.5	1700×1000×1500	2040×1850×2000	2800	190	0.5	6	920
OSR-KL-3.0	2000×1000×1500	2340×1850×2200	3200	230	0.5	6	1000
OSR-KL-5.0	3340×1000×1500	3680×1850×2200	4400	380	0.5	10	1800
OSR-KL-8.0	5400×1000×1500	5740×1850×2200	7500	550	0.5	13	2400
OSR-KL-10	6700×1000×1500	7040×1850×2200	9800	700	0.5	16	3100

CKS 水浴式口服液、针剂检漏灭菌柜
Water-bath Type Leakage Detection
Sterilizer of Oral Liquid and Injection Solution

该系列水浴式检漏灭菌柜利用高温循环水作为灭菌介质，主要用于安瓿、西林瓶等针剂、口服液产品进行水淋式灭菌操作和检漏清洗处理。用纯化水通过水泵循环，板式换热器加热，对物品进行水淋式灭菌操作。该设备温度均匀性好，温度调控范围宽（80-126℃），同时避免了工作过程中的二次污染。真空与色水相结合的检漏方式，保证了100%的废品检出率。

Water-bath type ampoule leakage detection sterilizer uses high temperature circulating water as sterilization medium. It is mainly used in water-bathing type sterilizing operation and leakage detection washing treatment of injection, oral liquid and other products. After pure water circulated by water pump and heated by plate heat exchanger, it performs sterilizing program in the manner of spraying. This equipment takes advantages of good temperature evenness, wide temperature adjustment range (80-126℃). At the same time, it avoids the second pollution in the work process. The injection of combining vacuum with colorful water ensures the complete inspection result.

蒸汽压力Steam pressure:0.4~0.6Mpa	设计压力Design pressure:0.3Mpa
水源压力Water pressure:0.2~0.4Mpa	工作压力Working pressure:0.25Mpa
压缩空气压力Compressed air pressure:0.5~0.7Mpa	工作温度Working temperature:139℃

结构/性能/特点 Structure and features

● 卧式矩形结构，优质耐酸不锈钢304内胆，全不锈钢拉丝板外罩。设备具有标准GMP验证接口，方便用户随时进行设备验证。
● 密封门可选平移门、机动门。
● 可选计算机控制或PLC+触摸屏系统。F0值与温度，压力曲线双重保证灭菌效果，也可采用单个参数控制。该系统测控温精确，运行稳定，并具有完善的灭菌档案记录。
● 管路系统主要部件有Alfalaval不锈钢板式换热器、Grundfos循环水泵、Burkert防水锤阀及高温气动阀，NASH真空泵、Spraying喷淋系统等。
● 产品的设计压力、工作压力是依据被灭菌物品的特性来进行选择的。

● The main body adopts horizontal rectangle structure. High quality acid-proof stainless steel 304 inner liner, stainless steel wiring-drawing plate for decoration case. It has standard GMP Certification joint for user to certificate the equipment freely.
● It adopts double-door-leaf auto-moving door or mechanical door.
● It adopts computer-control or PLC+ touching screen system. F0 value ensures the sterilizing results together with the curve of temperature and pressure. The system inspects temperature correctly and runs steadily, keeping complete sterilizing record.
● It adopts the excellent system in the trade. The main components contain Alfalaval stainless steel baffle heat exchanger, Grundfos cycle water pump, Burkert water-resistance valve and high temperature air-operated valve, NASH vacuum pump and spraying system and so on.
● The pressure of design and running is selected according to characters of articles sterilized.

技术参数 Parameters&Utilities&Size

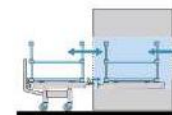| 型号 Model	内室尺寸 Inner chamber size （L×W×H）mm	外形尺寸Overall size （L×W×H）mm 单/双座Single/double door	净重 Net weight kg	蒸汽耗量 Steam consumption kg/cycle	控制电源 Control Power AC220/50Hz/kw	动力电源 Power Supply 3-AC380/50Hz/kw	耗水量 Water Consumption kg/cycle
OSR-CKS-1.2	1500X680X1180	1840X2100X2000	2100	120	0.5	5.5	730
OSR-CKS-1.5	1870X680X1180	2210X2100X2000	2300	150	0.5	7	910
OSR-CKS-2.0	1700X1000X1200	2040X2600X2000	2700	190	0.5	8.5	1220
OSR-CKS-2.5	2100X1000X1200	2440X2600X2000	3000	240	0.5	9.5	1220
OSR-CKS-3.0	2500X1000X1200	2840X2600X2000	3600	290	0.5	11.5	1440
OSR-CKS-4.0	3340X1000X1200	3680X2600X2000	4200	380	0.5	13	1920
OSR-CKS-5.0	3340X1000X1500	3680X2600X2200	4900	480	0.5	15.5	2400
OSR-CKS-6.0	4000X1000X1500	4340X2600X2000	5700	580	0.5	16	2880

DKS 水浴式大输液灭菌柜
Water-bath Type Infusion Bottle Sterilizer

该系列水浴式灭菌柜严格按照 GMP 标准设计制作，利用高温循环水作为灭菌介质，对物品进行水淋式升温、灭菌、冷却操作。整个工作过程中，灭菌介质运行于封闭的循环系统，有效防止了二次污染。该设备具有热效高、温度调控范围宽、温度均匀性好等一系列优点。辅以反压和对压保护措施，广泛用于制药行业对玻璃装、塑料瓶装、软袋等大输液产品的灭菌操作。

This series adopts high temperature circulating water as sterilization medium, and carry out water-pouring sterilizing operation for articles via warming up, sterilizing and cooling. The equipment takes advantages of good temperature evenness, wide temperature adjustment range. The sterilization medium works in a relatively closed circulation system, to avoid the secondary pollution in the work process. It is widely used for sterilization of infusion products, such as glass bottles, plastic bottles, soft bags and so on.

蒸汽压力Steam pressure:0.4~0.6Mpa	设计压力Design pressure:0.17~0.30Mpa
水浴压力Water pressure:0.2~0.4Mpa	工作压力Working pressure:0.15~0.27Mpa
压缩空气压力Compressed air pressure:0.5~0.7Mpa	工作温度Working temperature:126℃

结构/性能/特点 Structure and features

● 主体采用卧式圆形结构，受力均匀。优质耐酸不锈钢304内胆，机械镜面抛光，美观、耐腐蚀。设备具有标准GMP验证接口，方便用户随时进行设备检验。
● 自动进行出柜装置，减轻工人劳动强度。
● 密封门为平移门，操作简单。
● 采用计算机进行全过程监控，各种参数实时记录及打印输出，极大地提高了整机的可靠性和智能化。可准确地运用PID温控技术，实时精确地监控压力情况。
● 产品的设计压力、工作压力是依据被灭菌物品的特性来进行选择的。

● The main body of horizontal round cylinder structure, high-quality acid-proof stainless steel 304 inner chamber. Machinery mirror polishing. Standard GMP certification joint for user to certificate the equipments freely.
● The devices of getting in and out automatically. Operation simply and low labor intensity.
● It adopts sliding door, operation simply.
● Inspecting entire process by computer, kinds of parameters may be printed at any time. PID temperature control technology can be used for monitoring the pressure situation.
● Design and working pressure is selected according to characters of sterilized articles.

技术参数Parameters&Utilities&Size

型号 Model	内室尺寸 Inner chamber size （L×Φ）mm	外形尺寸Overall size （L×W×H）mm 单/双层Single/double door	净重 Net weight kg	蒸汽消耗量 Total Steam consumption kg/cycle	控制电源 Control Power AC220/50 50/Hz	动力电源 Power Supply 5-4/380/50Hz/kw	纯化水消耗量 Water consumption kg/cycle	冷却水消耗量 Cooling water consumption kg/cycle	压缩空气消耗量 Compressed air consumption m³/cycle
OSR-DKS-10	3160×Φ2000	3680×4100×2600	7000	650	0.5	15	1000	8000	12
OSR-DKS-14	4260×Φ2000	4780×4100×2600	8000	800	0.5	15	1300	12000	17
OSR-DKS-17	5260×Φ2000	5780×4100×2600	9000	1000	0.5	19	1600	15000	20
OSR-DKS-22	6790×Φ2000	7310×4100×2600	11000	1200	0.5	22	2000	20000	25
OSR-DKS-31	9860×Φ2000	10380×4100×2600	14500	1700	0.5	40	3000	28000	34
OSR-DKS-35	10980×Φ2000	11500×4100×2600	16000	1850	0.5	45	3300	32000	39
OSR-DKS-40	8360×Φ2500	8900×5200×3200	19000	2100	0.5	60	3500	38000	45

TF 通风式灭菌柜
Air and Steam Mixture Sterilizer

结构/性能/特点 **Structure and features**

- 主体由内胆和夹套二层组成，均为优质304不锈钢。全不锈钢拉丝板外罩。
- 密封门采用电动升降或平移门两种形式，操作简单、安全可靠。密封条采用优质硅橡胶材质，耐高温，使用寿命长。
- 具有标准GMP验证接口，方便用户随时进行设备验证。
- 控制系统采用PLC、平板电脑配置。控制系统稳定，控制精确。
- 具有完善的数据记录、打印、保存功能，打印温度、时间、压力曲线图。
- 配置双通道纪录仪。
- 管路系统采用德国GEMU气动阀和纳西姆真空泵等最优化配置。
- 机械密封采用德国品牌，确保运行稳定、安全。

- The main body is composed of inner layer and outer layer. The inner chamber is made of high quality acid-proof 304 stainless steel. Automatic welding.
- It adopts motor-driven sealing door. Operation easily and safely. The sealing strips adopt excellent heat-resistant silicon rubber with long service life.
- The control system adopts computer panel, PLC to ensure running steadily and inspecting temperature correctly.
- Complete functions of date record, printing and storing. Temperature, time and pressure graph may be printed.
- Two ways recorders.
- Pipeline system adopts the most excellent accessories in the trade, such as GEMU air-operated valve from Germany and NASH vacuum pump and so on.
- Mechanical seal adopts the German brand to ensure the operation is stable and safe.

通风式灭菌柜采用空气和蒸汽的混合气体作为灭菌介质进行灭菌，通过风机将空气和蒸汽充分混合，并在灭菌柜内按特定路线进行循环。在有效提供良好的热传递的同时，确保了温度的均匀性，并且干燥效果更好。工作时通过控制压力和温度的相互关系，避免灭菌产品发生起泡、变形、爆塞等现象。

Air and steam mixture sterilizer adopts air and steam mixed as sterilizing medium to do sterilization, air and steam are fully mixed through fan, and circulate in a sterilizer according to a specific route. At the same time, good heat transfer is provided to ensure the uniformity of temperature, and the drying effect is better. By controlling the relationship between pressure and temperature, the phenomenon of sterilizing products such as foaming, deforming and plugs are avoided.

蒸汽压力Steam pressure:0.3-0.5Mpa	设计压力Design pressure:0.3Mpa
水源压力Water pressure:0.15-0.3Mpa	工作压力Working pressure:0.25Mpa
压缩空气压力Compressed air pressure:0.5-0.7Mpa	工作温度Working temperature:139℃

技术参数 **Parameters&Utilities&Size**

型号 Model	内室尺寸 Inner chamber size （L×W×H）mm	外形尺寸Overall size （L×W×H）mm 单/双座Single/double door	净重 Net weight kg	蒸汽耗量 Steam consumption kg/cycle	控制电源 Control Power AC220/50Hz/kw	动力电源 Power Supply 3-AC380/50Hz/kw	耗水量 Water Consumption kg/cycle
OSR-TF-1.2	1500×680×1180	1840×1600×2000	2300	40	0.5	5.0	80
OSR-TF-1.5	1870×680×1180	2210×1600×2000	2500	50	0.5	6.5	90
OSR-TF-2.0	1700×1000×1200	2040×2000×2000	2800	70	0.5	9.0	100
OSR-TF-2.5	1700×1000×1500	2040×2000×2200	3300	80	0.5	11.0	100
OSR-TF-3.0	2000×1000×1500	2340×2000×2200	3600	100	0.5	14.0	120
OSR-TF-4.0	2670×1000×1500	3010×2000×2200	4300	120	0.5	16.0	120
OSR-TF-5.0	3340×1000×1500	3680×2000×2200	5800	140	0.5	20.0	140

ZYF 中药灭菌柜
Chinese Traditional Medicine Sterilizer

● 主体由内外二层组成，内胆为优质304不锈钢，夹套采用Q345R优质压力容器专用钢板，自动焊接一次成形。全不锈钢拉丝可板装饰外罩。具有标准GMP验证接口，方便用户随时进行设备验证。
● 密封门采用电动升降，操作简单、安全可靠。密封条采用优质硅橡胶制成，耐高温，使用寿命长。
● 保温采用硅酸铝棉，保温性能好。
● 独特的冷凝水控制技术。

● The main body is composed of inner layer and outer layer. The inner chamber is made of high quality acid-proof 304 stainless steel. Automatic welding, once forming. The jacket is made of Q345R material special for pressure vessel. Stainless steel wiring-drawing plate for decoration case. There is GMP confirmation access for the users to confirm the equipment.
● It adopts motor-driven sealing door. Operation easily and safely. The sealing strips adopt excellent heat-resistant silicon rubber with long service life.
● It uses aluminum silicate cotton to moisturize, taking advantages of good heat-insulating property
● Unique condensate water control skill

该系列设备适用于对中药、谷类、茶叶香辛料及其他粉末的灭菌。先利用夹套预热，然后利用饱和蒸汽作为灭菌介质进行灭菌，最后再用夹套加热，内室真空进行干燥。该设备有独特的进汽方式，减少冷凝水，可有效解决中药粉结块现象。

This series is used to sterilize Chinese traditional medicine, corniness, tea, spice and other things like powder. During the whole working process, the jacket is first used to pre-heat the device, saturated steam is applied as sterilization medium for sterilization, followed by pre-heating again via the jacket, and finally inner chamber is dried with vacuum. It adopts special gas admission style to reduce condensate water. And it prevents Chinese traditional medicine from lumping.

蒸汽压力Steam pressure:0.3-0.5Mpa	设计压力Design pressure:0.3Mpa
水源压力Water pressure:0.15-0.3Mpa	工作压力Working pressure:0.25Mpa
压缩空气压力Compressed air pressure:0.5-0.7Mpa	工作温度Working temperature:139℃

技术参数Parameters&Utilities&Size

型号 Model	内室尺寸 Inner chamber size（L×W×H）mm	外形尺寸 Overall size（L×W×H）mm 单/双座Single/double door	净重 Net weight kg	蒸汽耗量 Steam consumption kg/cycle	控制电源 Control Power AC220/50Hz/kw	动力电源 Power Supply 3-AC380/50Hz/kw	耗水量 Water Consumption kg/cycle
OSR-ZYF-0.6	1170×610×910	1450×1430×1900	1100	30	0.5	2.4	70
		1510×1430×1900	1250				
OSR-ZYF-0.8	1450×610×910	1730×1430×1900	1250	30	0.5	2.4	70
		1790×1430×1900	1400				
OSR-ZYF-1.0	1250×680×1180	1530×1500×2000	1400	40	0.5	3.0	80
		1590×1500×2000	1550				
OSR-ZYF-1.2	1500×680×1180	1780×1500×2000	1700	40	0.5	3.0	80
		1840×1500×2000	1950				
OSR-ZYF-1.5	1870×680×1180	2150×1500×2000	1900	50	0.5	4.0	90
		2210×1500×2000	2150				
OSR-ZYF-2.0	1700×1000×1200	2040×1850×2200	2400	70	0.5	4.0	100
OSR-ZYF-2.5	1700×1000×1500	2040×1850×2200	2700	80	0.5	4.0	100
OSR-ZYF-3.0	2000×1000×1500	2340×1850×2200	2950	100	0.5	5.5	120
OSR-ZYF-4.0	2670×1000×1500	3010×1850×2200	3600	120	0.5	5.5	120
OSR-ZYF-5.0	3340×1000×1500	3680×1850×2200	4900	150	0.5	7.5	140
OSR-ZYF-6.0	4000×1000×1500	4340×1850×2200	5600	180	0.5	11	140

XZ 旋转式灭菌柜
Rotary Sterilizer

目前，随着制药、食品等行业的发展，需要旋转式灭菌柜的用户越来越多。这种形式的灭菌仍然是建立在常规的灭菌原理上（饱和蒸汽灭菌），但装载灭菌物品的灭菌车是以一个可调整的速度不断地正反旋转的，这个动力通过一个磁力驱动装置来完成。

At present, with development of such industries as pharmacy and food, more and more users need rotary sterilizers .This kind of sterilization is still based on general sterilization principle (sterilization with saturated steam), but sterilization vehicle continues backward and forward rotation at an adjustable speed via magnetic drive unit inside of equipment .The power of rotation is from unique driving device invented by our company.

蒸汽压力Steam pressure:0.4-0.6Mpa	设计压力Design pressure:0.17-0.30Mpa
水源压力Water pressure:0.2-0.4Mpa	工作压力Working pressure:0.15-0.27Mpa
压缩空气压力Compressed air pressure:0.5-0.7Mpa	工作温度Working temperature:134℃

结构/性能/特点 Structure and features

- 严格按《钢制压力容器》设计制造验收的箱体。
- 操作简单、灵活轻捷的电动平衡门。
- 独特的耐高温硅橡胶燕尾型嵌入式设计，确保门的密封性。
- 主控制系统微电脑PLC+触摸屏+DCS远程后台监控系统。
- 精美的不锈钢装饰外罩。
- 设备附有标准的GMP验证接口。
- 灭菌滚笼无级变频调速。

- The box is designed, produced and tested strictly according to《Steel Pressure Vessel》.
- Electrically balance door, flexible and easy to operate.
- The unique design of embedded dove-tail shape with heat – resisting silicone rubber ensures the seal tightness of the door.
- The main control system adopts micro-computer PLC and touch screen and DCS long distance tiring – room monitoring system.
- Stainless steel wiring-drawing plate for decoration case.
- Standard GMP certification joint.
- Stepless variable - frequency speed control.
- Design and working pressure is selected according to character of sterilized articles.

技术参数Parameters&Utilities&Size

型号 Model	内室尺寸 Inner chamber size （L×Φ）mm	外形尺寸Overall size （L×W×H）mm 单/双扉Single/double door	净重 Net weight kg	蒸汽量 Boiler Steam 消耗量 kg/cycle	控制电源 Control Power AC220/50Hz/kw	动力电源 Power Supply 3-AC380/50Hz/kw	纯化水用量 Pure water consumption kg/cycle	冷却水用量 Cooling water consumption kg/cycle	压缩空气用量 Compressed air consumption m³/cycle
OSR-XZ-0.6	Φ1100×1580	1825×1905×1850	2200	90	0.5	4.5	300	800	5
OSR-XZ-1.2	Φ1250×2300	3460×1980×2000	3500	170	0.5	5.5	600	1800	8
OSR-XZ-2.5	Φ1400×3080	3200×2130×2120	5800	300	0.5	7.5	1000	3500	12
OSR-XZ-5.0	Φ2000×3100	3500×2800×2800	7500	580	0.5	12.5	1600	7000	16
OSR-XZ-8.0	Φ2000×4850	5250×2800×2800	9700	700	0.5	16.0	2000	11000	20
OSR-XZ-10	Φ2500×4100	4600×3200×3300	12000	850	0.5	20	2300	14000	25
OSR-XZ-12	Φ2500×4800	5300×3200×3300	13500	1000	0.5	22	2500	19000	31

A 全自动配液系统
utomatic solution preparation systems

欧思瑞致力于制药工艺系统的研发和服务,为制药企业提供先进的解决方案,提供制药行业所需的制药流体工艺系统,如制药用水系统、药液配置系统、CIP/SIP 系统等。我们熟悉国内外最先进的设计理念及技术,并结合公司多年的建造经验,提供客户最专业的工程设计。

Ousirul dedicated to the pharmaceutical process system development and services, to provide advanced solutions for pharmaceutical companies, to provide pharmaceutical fluid process system for pharmaceutical industry, such as pharmaceutical water system, medicine liquid configuration system and CIP/SIP system. We are familiar with the most advanced design concepts and technologies domestic and foreign, and provide the most professional engineering design with the company's years of construction experience.

应用领域 Application area

生物制药
(单抗、胰岛素、白蛋白、疫苗、血制品等)
bio-pharmaceuticals
(monoclonal antibodies, insulin, albumin, vaccines, blood products, etc.)
培养基及缓冲液配制系统
medium and buffer solution preparation system
生物反应器、发酵系统
bioreactor and fermentation system
生物工程下游系统
downstream system of bioengineering

制药(制剂、原料药等)
pharmaceutical(biologics, API, etc)
无菌配液系统aseptic dispensing system
洁净管道系统clean pipeline system
CIP工作站CIP Workstation
卫生级设备sanitary grade equipment

其他行业 Other industries
非标工艺模块工程non standard process module engineering
卫生级管道工程sanitary grade pipeline engineering
特种材料设备管道工程special material equipment pipeline engineering

P 产品车间
PRODUCT WORKSHOP

C 工程案例
CONSTRUCTION PROJECT

OSA MEDICAL

A 售后服务
AFTER SALE SERVICE

终身免费提供程序升级服务

每年不定期回访1次

先服务后收费

整机保修 1 年
One year warranty of the sterilizer.

免费培训 1 次
Providing training service once for free.

免费现场验证服务 1 次
Providing site validation service once for free.

■ 如需到用户现场排除设备故障，我们承诺国内、二线城市在24小时内到达，偏远地区最迟在72小时内到达客户现场。

■ 如设备出现确实需要我公司售后服务人员到现场处理的故障，我们会按承诺时限到达现场进行排除，然后与客户起分析引起故障的原因。如由于是用户使用不当而造成的设备故障，我们在收取交通费、

■ 人工费和材料成本费之外，不再另行收取其他费用。

● Visiting domestic customer spot and get feedback.

● If the domestic customer does need us to go to the site to exclude equipment failure, we promise that we will arrive within 24hours, if the site lies on the first-line cities or second-tier cities, otherwise we will arrive within 72hours if the site lies on the remote areas.

● If the domestic customer does need us to go to the site to exclude the equipment failures, firstly we will arrive within the agreed time and solve the problems, secondly we will analyze the fault causes together with the customer if the equipment faliures was caused by improper use of user, the expense of transport and labor and material will be bore by the customers according to cost.

OSA MEDICAL