

中国造·世界梦

45年锅炉制造史成就中国锅炉行业知名品牌



Grade-A Production Date from 1976

A级制造 始于1976

河南省太锅锅炉制造有限公司
Henan Taiguo Boiler Products Co., Ltd
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太锅锅炉电子书

河南省太锅锅炉制造有限公司
Henan Taiguo Boiler Products Co., Ltd
(原太康锅炉厂)



河南省太锅锅炉制造有限公司

河南省太锅锅炉制造有限公司(原河南省太康锅炉厂,始于1976年。)。位于辽阔的豫东平原,是国家定点的省一级锅炉、压力容器制造企业,是中国最大最早的燃油、燃气锅炉生产企业之一。公司以锅炉、压力容器制造为基础,建立了从产品开发、工程项目设计、设备制造到工程安装、系统调试及售前、售中、售后服务为一体的产业体系。

公司主要以生产循环流化床锅炉、立、卧式燃煤、燃气、燃油、电热锅炉,环保煤碳气化锅炉,煤气发生炉,垃圾焚烧炉,高、中温热风炉,有机热载体炉以及蒸压釜、灭菌锅等系列产品。

公司先后与军工713研究所、北京航天研究院、上海工业锅炉研究所、西安交通大学等多家科研院、所密切合作,相继承担了国家“七五”、“八五”火炬计划项目,填补了国内外多项空白。产品远销俄罗斯、蒙古、哈萨克斯坦、韩国、越南、缅甸、尼日利亚、南非等国家。

科技创新、诚实守信是银城人的企业理念,“优质、务实、高效”是银城人永久的承诺,公司全体员工竭诚与广大客户通力合作,共创美好的明天。

THE COMPANY INTRODUCES

Boiler Manufacturing Co., Ltd. Henan too pot (the original boiler plant is located in Henan Tai Hong vast Yudong plain, is the state designated the provincial boiler and pressure vessel manufacturing company, is the first of China's largest oil, gas boiler, one of the production . The company boiler, pressure vessel manufacturing-based, built from the product development, project design, equipment manufacturing to engineering, installation, system commissioning and pre-sale, sale, after-sales service as one of the industrial system.

Mainly the production of circulating fluidized bed boiler, vertical, horizontal coal, gas, oil, electric boiler, environmental protection, coal gasification boilers, gas furnace, incinerator, high, medium temperature hot air furnace, heat carrier furnace and autoclave, autoclaves and other products.

The company has with the military 713, Beijing Aerospace Research Institute, Shanghai Industrial Boiler Research Institute, Xi'an Jiaotong University and many scientific research institution, in close cooperation have assumed the state "Plan", "Eighth Five-Year" Torch Program to fill a number of gaps at home and abroad. Products exported to Russia, Mongolia, Kazakhstan, Korea, Vietnam, Myanmar, South Africa and other countries.

Technological innovation, honesty and trustworthiness is the Silver City's corporate philosophy, "quality, pragmatic and efficient" is the Silver City's permanent commitment to the company dedicated staff work together with our customers to create a better tomorrow.

太锅荣誉

TAI GUO HONOR

太锅 创新开拓 以品质成就未来



客户群体 Customer base



合作伙件 Cooperation partners



WNS型燃油(气)蒸汽锅炉

Wns Oli Gas Steam Boiler

适用行业

医药、化工、轻工、纺织、建材、养殖、食品饮料、塑料泡沫、印染洗涤、橡胶加工、造纸纸品、木材加工、宾馆酒店、制衣制革等。

特点

1、太锅锅炉专有技术

全湿背三回程，回燃室与后管板扳边对接，锅炉100%全对接焊，应力最低，质量更可靠。

2、大直径波纹炉胆

锅炉燃烧室由大直径全波纹炉胆组成，燃烧空间大，燃料燃烧完全，有效吸收热膨胀，辐射受热面大。

3、热力充足

锅炉受热面积按 $\geq 25\text{m}^2/\text{蒸吨}$ 设计配置，充分吸收有效热量，排烟温度低，热损失小，保证出力足，效率高。

4、蒸汽品质高

锅壳直径大，水容量大，对负荷变化适应能力强，出力稳定；蒸汽空间容积大，汽水界面与蒸汽出口净距离足够高，蒸汽湿度小。

5、安全降水时间足

锅炉的燃烧室低位布置，水位确定符合国家规程，同时严格按国际通用规范标准的水位波动时间要求，具有充足的安全降水空间，保证锅炉的运行安全。

6、多功能安全防爆装置

锅炉后面板上设有与炉膛连通的防爆装置，防止燃料在炉膛中发生剧烈爆燃时，泄放瞬间产生的高能量，能自动复位，同时具有观火视镜和检修通道的功能作用，利用运行中燃烧火焰的调整，炉膛检查、维护方便。

7、锅内检修方便

锅炉顶部设有人孔，锅炉前后端中下部分别设有独特的手孔装置，便于锅内装置及锅炉底部的检查、清理。

8、前后烟箱密封独特

烟箱采用双开式烟箱门，开启方便，多级迷宫式密封，密封材料特制，压缩性好，完全阻隔烟气的泄漏，可重复使用。



9、压力、水位保护可靠

锅炉压力、水位设置多重控制保护，以及超烟温保护，确保锅炉运行的安全。

10、自动控制水平领先

锅炉控制器采用西门子/德力西电气元件，性能可靠。控制器有三种形式：普通型、具有液晶显示的中英文菜单型、人机对话远程控制的触摸屏型。

Application industry

Medicine, chemical, light industry, textile, building material, cultivation, food and beverage, plastic foam, printing, dyeing and washing, rubber processing, paper products, wood processing, hotel, clothing and leather manufacture etc.

Feature

1.TaiGuo boiler proprietary technology

Full wet back reverse flame chamber structure, reverse flame chamber butt welding with rear tube plate side, this boiler is 100% completely butt welding, minimum stress and more reliable quality.

2.Large diameter corrugated furnace

Boiler combustion chamber is composed by large

diameter full corrugation furnace, has the features of big combustion space, entirely fuel burning, absorb thermal expansion in effective and large radiate heating surface.

3.Enough heating power

Design and equip boiler heating area as $\geq 25\text{m}^2/\text{ton}$, it can absorb effective heat sufficient, and low exhaust gas temperature, small heat loss, ensure enough heating power and high efficiency.

4.High steam quality

Boiler output is stable and strong adaptive capacity to change in load because of large diameter boiler shell and large water volume; small steam moisture due to large steam space volume and enough height of the net distance between steam water interface and steam outlet.

5.Enough time for safety precipitation

Arrange the boiler combustion chamber in low level, make sure water level according to state regulation, at the same time, strictly according to international general regulation standard's water level fluctuation time requirement, should have enough space for safety precipitation, ensure boiler's safety operation.

6.Muti-function safety

explosion proof equipment

Boiler rear panel is equipped with explosion proof equipment which connected with furnace, the equipment can prevent fuel occur deflagrate in furnace, discharge generated high energy at that moment, will automatic reset, at the same time, it has function of watch the fire sight glass and inspection gallery, in addition, can adjust the running combustion flame, it's easy to check the furnace and maintain.

7.It's convenient to maintenance boiler inside

There is a man hole on the top of the boiler, and there are some special hand hold device at middle and lower position of boiler front and back end, it's convenient for boiler inside installation, inspect and clean for the boiler bottom.

8.Unique seal of front and rear smoke box

The smoke box is double door, it's easy to open, multistage and labyrinth seal, the seal material is special, which has following features: good compressibility, entirely deaden the exhaust gas leakage and can reuse.

9.Pressure, water level

reliable safety protection

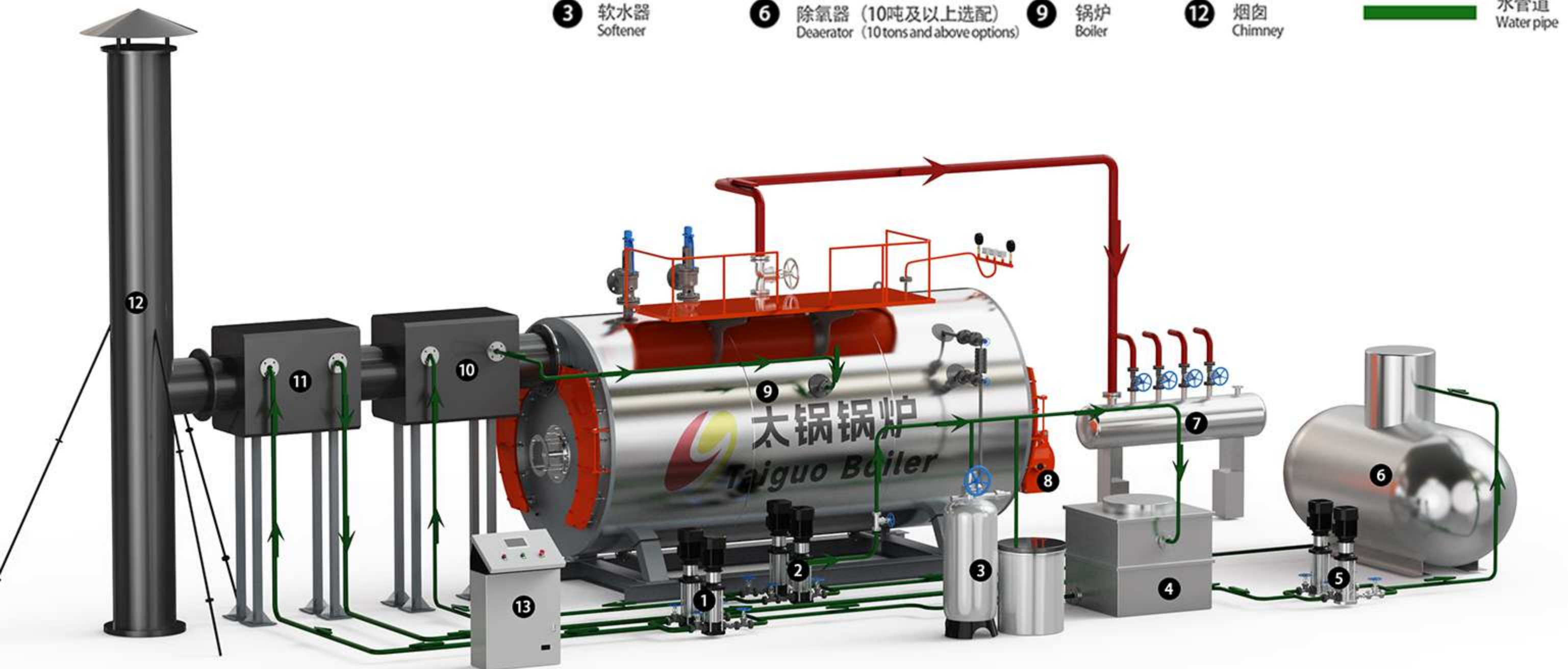
Boiler pressure and water level setting up multiple control protection, and over smoke temperature protection, which can ensure boiler can operate safety.

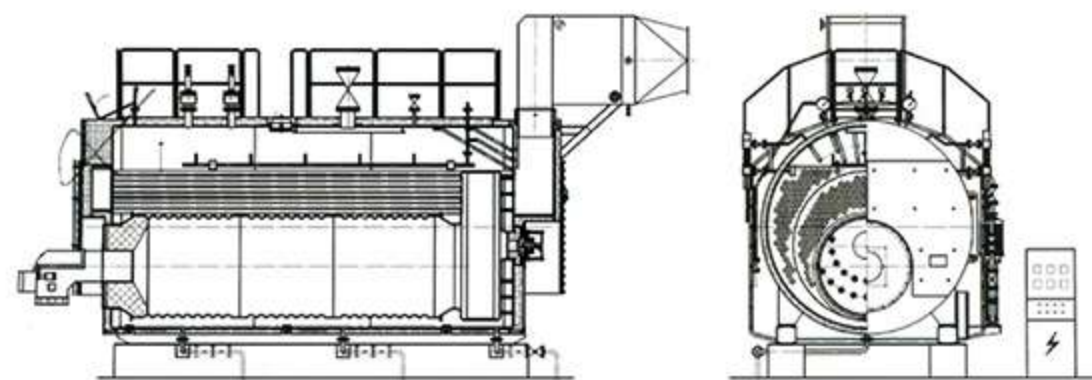
10.Advanced automatic control level

Boiler controller use Siemens/Delixi electrical element, reliable property. The controller has three types: general type, liquid crystal display (Chinese-English menu) type, man-machine conversation remote control touch screen type.



- | | | | | |
|----------------------------------|---|----------------------------|----------------------|------------------------------------|
| 1 循环水泵
Circulating Water Pump | 4 软水箱
Soft Water Tank | 7 分汽缸
Steam Distributor | 10 节能器
Economizer | 13 电控柜
Electric Control Cabinet |
| 2 给水泵
Feedwater Pump | 5 除氧水泵
Deaerator Water Pump | 8 燃烧器
Burner | 11 冷凝器
Condenser | 蒸汽管道
Steam pipe |
| 3 软水器
Softener | 6 除氧器 (10吨及以上选配)
Deaerator (10 tons and above options) | 9 锅炉
Boiler | 12 烟囱
Chimney | 水管道
Water pipe |





WNS燃油气蒸汽锅炉线条图
WNS Oil Gas Steam Boiler

技术参数

Technical parameters

项目 Item	型号 Model	WNS1-1.25-Y(Q)	WNS2-1.25-Y(Q)	WNS3-1.25-Y(Q)	WNS4-1.25-Y(Q)	WNS5-1.25-Y(Q)	WNS6-1.25-Y(Q)	WNS8-1.25-Y(Q)	WNS10-1.25-Y(Q)	WNS12-1.25-Y(Q)	WNS15-1.25-Y(Q)	WNS20-1.25-Y(Q)	WNS25-1.25-Y(Q)	WNS30-1.25-Y(Q)	
额定蒸发量 Rated output	t/h	1	2	3	4	5	6	8	10	12	15	20	25	30	
额定工作压力 Rated working pressure	Mpa	1.0/1.25	1.25/1.6						1.25/1.6						
额定蒸汽温度 Rated steam temperature	℃	184/194	194/204						194/204						
给水温度 Feed water temperature	℃	20													
热效率 Efficiency(%)		96													
锅炉受热面积 Boilers heating area	m ²	30	53	77	107	127	198	212	272	315	358	448	575	640	
节能器受热面积 Economizer heating area	m ²	12	12	15	22	30	35	45	60	60	70	80	90	95	
适用燃料 Suitable fuel kind		重油 heavy oil/轻油 light oil、天然气 natural gas/液化石油气 lpg/城市煤气 city gas													
燃料 Fuel consumption	轻油 Light oil	kg/h	45-100	137.09	205.75	272.3	134-402	132-402	523.4	212-890	915.5	931.5	1380.33	1544	1892
	天然气 Natural gas	Nm ³ /h	18-100	165.97	249.6	329.5	80-500	80-500	631.5	150-1085	1090	1094.4	1598.44	1875	2250
设备电功率 Equipment power	燃轻油 Burn light oil	kw	1.5	2.2	7.5	9	17.2	15	26	26	26	/	/	/	/
	燃气 Burn gas	kw	1.5	3	7.5	7.5	15	15	22	22	22	/	/	/	/
锅炉最大运输重量 Transportation max. weight	t	6.8	8.2	9.9	12.7	14.2	17.5	21.3	22	27.2	35.5	45	55	62	
锅炉满水容积 Boiler water capacity	m ³	3.6	4.9	8.75	9.3	9.3	12.1	15.3	16.6	20.5	24.3	30	41	48	

说明: 1、表中燃料耗量,是以轻油低位发热值42700kJ/kg(10253kcal/kg)、天然气低位发热值35588kJ/Nm³(8500kcal/Nm³)计算的;

2、重油、液化石油气、城市煤气同样适合该炉型;

3、电源:三相380V 50Hz。

Notes: 1. The fuel consumption in this chart is calculated according to the following calorific value: Light oil low level calorific value is

42700kJ/kg(10253kcal/kg)、Natural gas low level calorific value is 35588kJ/Nm³(8500kcal/Nm³);

2. Heavy oil, lpg and city gas also can burn;

3. Power supply: three phase 380V 50Hz.

冷凝蒸汽锅炉

condensing steam boiler



冷凝锅炉就是利用高效的冷凝器与节能器来吸收锅炉排出的高温烟气中的显热和水蒸汽凝结所释放的潜热,以达到提高锅炉热效率的目的。

设置冷凝器原理

燃料中含有大量氢元素,燃烧产生大量水蒸汽。每1Nm³天然气燃烧后可以产生1.71kg水蒸汽,汽化潜热大约为4000KJ,占天然气的低位发热量的10%左右。在排烟温度较高时,水蒸汽冷凝放出热量,随烟气排放,热量浪费。同时,高温烟气也带走大量显热,排烟损失较大。加装冷凝器,利用温度较低的锅炉补水或热媒水冷却烟气,实现烟气温度的降低,烟气中水蒸汽冷凝,实现烟气显热释放和水蒸汽凝结潜热释放。同时换热器内的低温补水或热媒水吸热而被加热,实现热能回收,提高锅炉热效率。锅炉热效率的提高:1Nm³天然气燃烧产生理论烟气量约10.56Nm³(大约13.0kg)。以过量空气系数1.1为例,产生烟气11.52Nm³(大约14.3kg)。取烟气温度155℃降低至54℃,放出物理显热约1610KJ,水蒸汽冷凝率取23%,放出汽化潜热约938kJ,总计放热约2548kJ,约是天然气低位发热量的7.2%。若全部烟气进入冷凝回收装置,可以提高热能利用率7.2%以上,节省天然气燃料近10%。众所周知,锅炉热效率以燃料低位发热值计算所得,未考虑燃料高位

发热值中汽化潜热量的热损失,故冷凝锅炉热效率达105%是科学的。

锅炉特点

- 1、采用湿背结构,侧置炉膛,波纹炉胆,使受热面与强度大大提高。
- 2、锅炉受热面积大、升温升压快,操作简便。
- 3、结构合理、紧凑,负荷适应性强,燃烧完全,热效率高达105%。
- 4、冷凝器采用优质耐硫酸露点腐蚀钢09CrCuSb (ND钢)螺旋翅片管来制成,使用寿命长。
- 5、冷凝器安装在锅炉上部,无占地面积,传热面上的凝结水亦可自然排出。
- 6、本体安全附件齐全、确保安全、经济运行。
- 7、配高质量、高性能燃烧器,燃烧稳定、可靠。
- 8、自动化程度高,节省劳动力。
- 9、锅炉体积小、重量轻,占地面积小,基建投资省。

Condensing steam boiler takes the advantage of high efficiency condensator and economizer, to absorb the sensible heat in the high temperature flue gas that discharged from the boiler and the latent heat released from the vapour condensation, to achieve the purpose

of improving the boiler thermal efficiency.

Condenser principle

Fuel contains a lot of hydrogen, it will produce a large amount of water vapor after burning. 1.71kg water vapor can be produced after burning of per 1Nm³ natural gas, latent heat of vaporization about 4000KJ, occupy low calorific value of natural gas about 10%. when the exhaust gas temperature is higher, Water vapor condense and release heat, discharge follow the exhaust gas, heat waste. at the same time, High temperature flue gas also take a lot of sensible heat, big loss of Smoke exhaust. Installed with condenser, taking advantage of the lower temperature of boiler feeding water or hot media water cooling exhaust gas, To achieve the reduction of flue gas temperature, Water vapor in exhaust gas condense, to achieve sensible heat in exhaust gas and Water vapor condensation latent heat released, at the same time, Low temperature feed water in exchanger or hot media water Heat absorbing and heat, To achieve heat recovery, improve the boiler efficiency.

Improvement of boiler thermal efficiency: 1Nm³ natural gas combustion produces theoretical flue gas volume of about 10.56Nm³ (about 13.0kg). Taking excessive air coefficient 1.1 as an example, Produce flue gas 11.52Nm³ (about 14.3kg). Taking flue gas temperature 155°C to lower to 54°C , Release physical sensible heat 1610kJ, Water vapor condensation rate taking 23%, Release latent heat of vaporization 938kJ, Total heat release is about 2548kJ, about 7.2% of the low calorific value of natural gas. If all the flue gas enters the condensation recovery device, it can improve the heat utilization rate of more than 7.2%, Save gas fuel nearly 10%. As everyone knows, Boiler thermal efficiency to calculate the low calorific value of fuel,

Without considering Heat loss of latent heat in fuel high fever, so the thermal efficiency of condensing boiler is 105%, it is scientific.

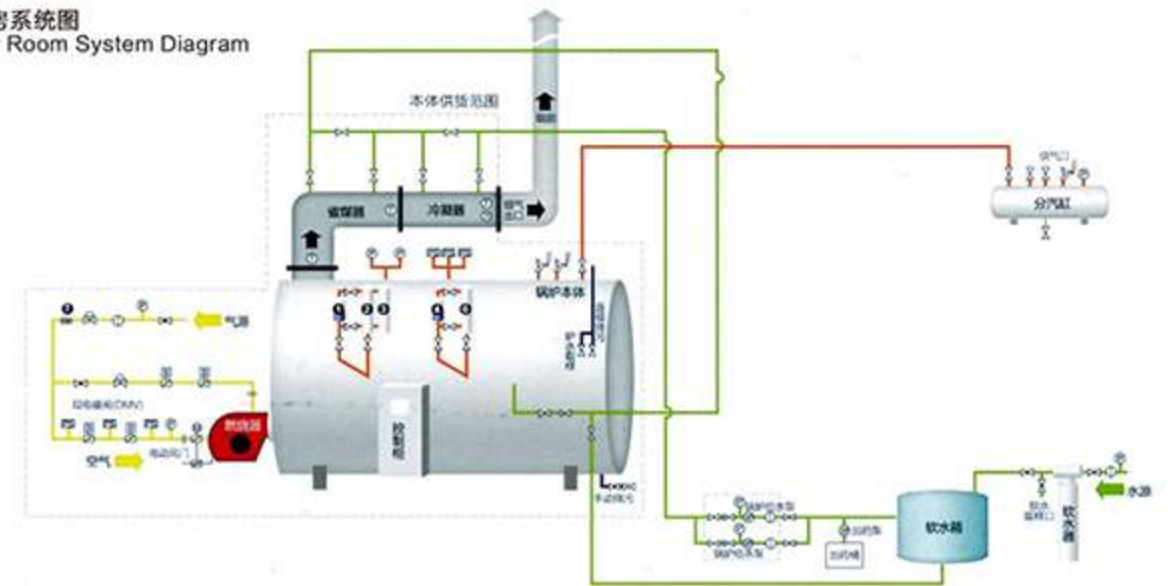
Boiler characteristics

1. Adopt Wet back structure, bias furnace, Corrugated furnace, greatly improved the heating surface and the strength.
2. Boiler with large heating area, Warming up and boosting fast, easy operation.
3. rational construction, compact, Load adaptability, burning completely, thermal efficiency can be reach 105%.
4. The condenser is made of high quality and corrosion resistant steel 09CrCuSb (NDsteel) Spiral finned tube, Long service life.
5. Condensator installed in the top of the boiler, without covering an area, condensation water on the conduction surface can also naturally discharge.
6. Body with complete Security accessories, Ensure safety, economical operation.
7. Equipped with high quality, high performance burner, stability and reliability burning.
8. High degree of automation, labour- saving.
9. Small size, light in weight, Small area occupied, saving capital outlays.

锅炉系统:直接给水模式(常温20°C给水) Boiler System: Direct Feed Mode (Water feeding at normal temperature 20°C)



锅炉房系统图
Boiler Room System Diagram



阀门图例

① 过滤器	② 减压阀	③ 球阀	④ 蝶阀
⑤ 节流阀	⑥ 止回阀或单向阀	⑦ 截止阀或柱塞阀	⑧ 压力控制器
⑨ 气动蝶阀	⑩ 弹簧安全阀	⑪ 水泵	⑫ 排入大气
⑬ 电磁阀	⑭ 三通旋塞阀	⑮ 旋塞阀	
⑯ 电动蝶阀			

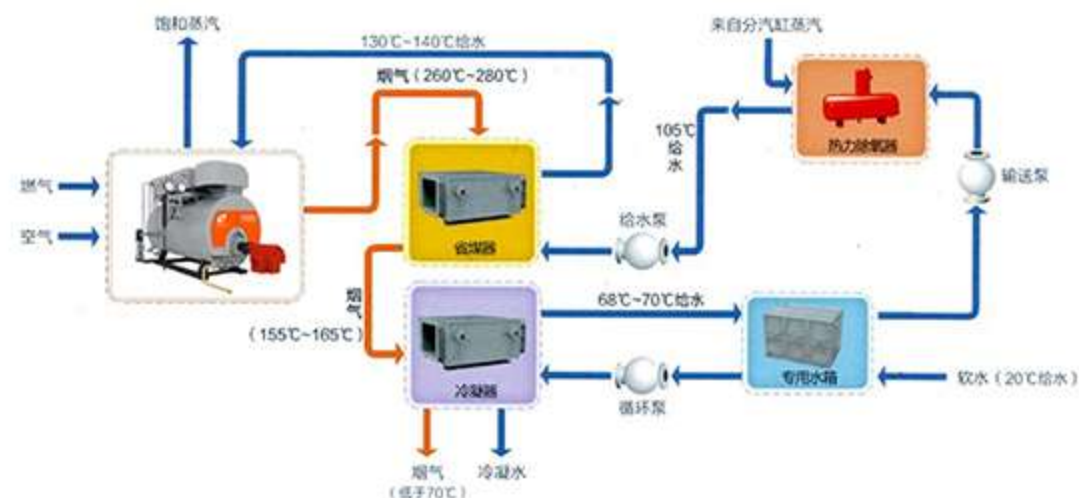
仪表标识说明

① 双色水位计	⑦ 波纹管
② 平衡筒	⑧ 压力表
③ 差压变送装置	⑨ 双金属温度计
④ 板式水位计	⑩ 温度变送器
⑤ 压力变送器	
⑥ 水位控制报警器	

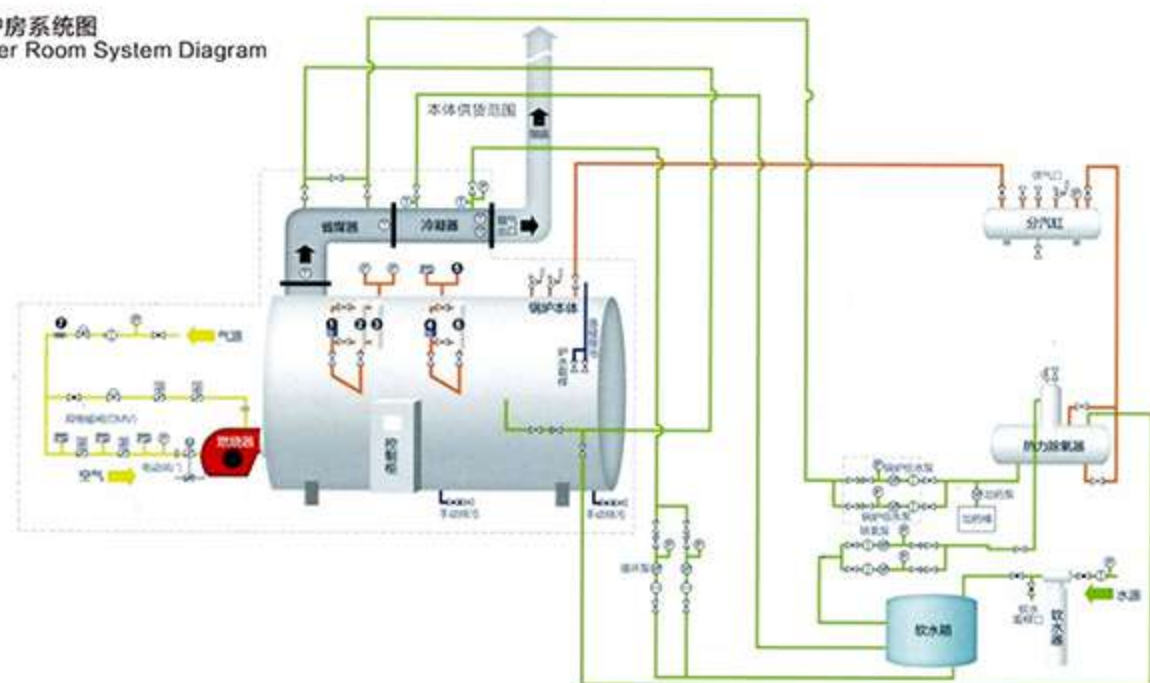
其它图例

—	天然气管线燃油管线
—	蒸汽管线
—	给水管线
—	排污、取样管线

锅炉系统:除氧给水模式(105℃给水)
Boiler System:Deaerating Feed Mode (Water feeding at 105℃)



锅炉房系统图
Boiler Room System Diagram



阀门图例

过滤器	减压阀	闸阀
节流阀	球阀	截止阀或柱塞阀
气动蝶阀	止回阀或单向阀	PS 压力控制器
电磁阀	弹簧安全阀	水泵
碟阀	三通旋塞阀	排入大气
电动蝶阀	旋塞阀	

仪表标识说明

① 双色水位计	⑦ 波纹管
② 平衡筒	⑧ 压力表
③ 差压变送装置	⑨ 双金属温度计
④ 板式水位计	⑩ 温度变送器
⑤ 压力变送器	
⑥ 水位控制报警器	

其它图例

—	天然气管线燃油管线
—	蒸汽管线
—	给水管线
—	排污、取样管线

备注: 除氧给水模式适用于蒸发量 ≥ 6T 锅炉

技术参数

Technical parameters

项目 Item		WNS2	WNS3	WNS4	WNS5	WNS6	WNS8	WNS10	WNS12	WNS15	WNS20	
		-1.25-Y(Q)										
额定蒸发量 Rated evaporation capacity	t/h	2	3	4	5	6	8	10	12	15	20	
额定工作压力 rated working pressure	Mpa	1.25										
额定蒸汽温度 rated steam temperature	℃	194										
给水温度 feed water temperature	℃	20										
热效率 thermal efficiency	%	≥ 105										
满水容量 full water capacity	L	5800	6800	8800	8900	10000	14000	15600	16500	18000	22100	
蒸汽出口 steam outlet	DN	65	80	100		125	150		200			
给水 feed water	DN	40		50			65		80			
排污 pollution discharge	DN	40					50 × 2					
天然气 natural gas	Nm ³ /h	142.5	213.6	285.6	356.5	427.8	574.4	713	855.6	1070	1426	
外形尺寸 outline dimension	长 Length	mm	4550	5050	5300	5600	6300	6900	7600	7800	8000	9000
	宽 Width	mm	2100	2150	2250	2350	2420	2650	2700	2950	3400	3500
	高 Height	mm	2350	2500	2850	3020	3300	3350	3450	3550	3600	3600
重量 weight	T	7.41	10.2	11.6	13.8	18.5	21.12	26.64	31.2	39.2	45.4	

说明: 1. 天然气热值: 8500Kcal/Nm³;

2. 表中数据及图片仅供参考, 产品以实物为准, 如因改型而变更恕不另行通知;

3. 预制、预留及锅炉房设计前请确认数据。

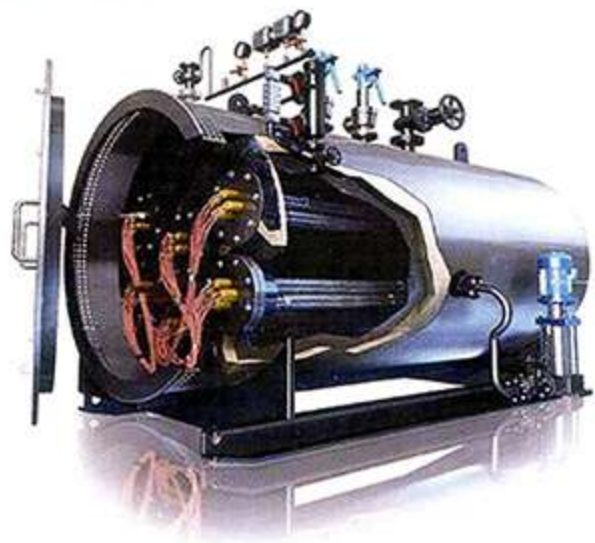
Notes: 1. Calorific value of natural gas: 8500Kcal/Nm³;

2. Data and picture in the table only for reference, the product takes real object as to allow, for giving not to go another circular such as the alteration because of remodel;

3. Prepare to make, reserve, and design of boiler building, please contact to confirm before relevant data.

电加热蒸汽锅炉

Electric Heating Steam Boiler



采用炉体电控制柜分离方式，避免了电气元件受热老化而影响使用寿命。电热管选用国内外优质产品、正常使用寿命约20000小时，热效率近99%，运行安静、清洁，符合环保的要求，不会向大气排放NOx(氮氧化物)。运行采用PLC控制系统，全免操作钮、全免指示灯、触摸屏面板、中英文显示、人机对话、操作授权、实时信息、自动翻页。

锅炉特点

- 1、所有电气元件具有CE和CCC认证标志以确保产品安全及使用寿命。
- 2、每组电热元件采用集中束型法兰连接，独立设置，具有结构简单，机械强度高，安全可靠，更换方便，使用寿命长等特点。
- 3、具有较大的蒸汽空间、蒸汽品质好。
- 4、机电分体安装，电控元件远离热源，有利散热。可单台或多台并联使用。
- 5、PLC微电脑可编程控制及显示屏;通过人机界面实现温度设定自动控制出水温度。显示屏可显示设备状态运行参数及故障报警。

This series boiler makes the electrical control cabinet separate from boiler body to avoid affecting the boiler's working life when the electrical elements become ageing. The electrical heated tube can be used for about 20000 hours; its thermal efficiency could almost be 99% and will not release NOx to the air, it is environmental. The control system is PLC, with LCD screen, auto indicators, Chinese and English display, etc.

Features

1. All the electrical elements have the CE and CCC certification to make sure the boiler safety and long live.
2. Each group electrical heating elements focus on type of flange connection to make the structure simple, safe and easy to repair.
3. With large steam space and good quality steam.
4. Electrical control cabinet separated from boiler body can make heat emission easily and many sets of parallel.
5. PLC control system control and display make the operation simple and safe. People can control water temperature. Screen can show equipment operation parameters and produce alarm in the fault.



技术参数

Technical parameters

名称/model	LDR0.1-0.4	LDR0.2-0.4	LDR0.3-0.4	LDR0.4-0.4	LDR0.5-0.4/0.7	LDR0.7-0.4/0.7	WDR1-0.7	WDR1.5-0.7	WDR2-0.7
额定蒸汽量(t/h) Rated steam	0.1	0.2	0.3	0.4	0.5	0.7	1	1.5	2
额定蒸汽压力(Mpa) Rated pressure	0.4	0.4	0.4	0.4	0.4/0.7	0.4/0.7	0.7	0.7	0.7
额定蒸汽温度(℃) Rated steam temperature	151	151	151	151	151/170	151/170	170	170	170
热效率(%) Heat Efficiency	99								
外形尺寸(mm) Size	900×2200	1000×2500	1100×2600	1200×3000	1200×3200	1300×3500	3000×1400×1650	3500×1600×1750	4000×1700×1950
参考重量(kg) Reference weight	615	750	920	1100	1350	1800	2100	2600	3100

图样列表

- 蒸汽管道 hot water
- 水管道 water pipe

设备名称

- ① 锅炉 Boiler
- ② 水箱 Water tank
- ③ 软水器 Softener
- ④ 给水泵 Feedwater pump
- ⑤ 分汽缸 Steam distributor
- ⑥ 控制柜 Electric control cabiner
- ⑦ 安全阀 Safety valve



燃油(气)真空热水锅炉 Fuel Oil (gas) vacuum Hot Water Boiler

工作原理

利用水在低压情况下沸点低的特性，快速加热密封的炉体内填充的热媒水，使热媒水沸腾蒸发高温水蒸汽，水蒸汽凝结在换热管上加热换热管内的冷水，达到供应热水的目的。

真空锅炉热量转换示意

油(天然气)→燃烧→热媒水→沸腾后的蒸汽冷凝换热(汽化→凝结→汽化)→换热器→热传导→水

优势

- 1、真空热水机组始终在负压状态下(正常工作温度低于90℃，真空度低于-30Kpa)，不存在膨胀、爆炸、破裂的危险。
- 2、一机多用，一台锅炉可以设计多个换热器，可同时提供取暖、生活热水、泳池加热等。
- 3、安全可靠，可放在地下室以及楼顶，国家有关部门不限制，免报批手续。
- 4、高效节能、运行低成本，热效率可达96%。
- 5、无结垢、腐蚀(换热器不锈钢设计)等现象，设计使用寿命在20年以上。
- 6、锅炉与换热器的一体化设计，节省空间，大大减少占地面积。
- 7、全自动控制系统，高度的自动化，无须专人值守。
- 8、进口燃烧器，高效燃烧，噪音、废气排放极低。
- 9、独特的脉冲水位检测电路结构，性能可靠。
- 10、主要用于民用，如酒店、住宅、办公楼、洗浴中心、学校、商场等地方。

Principle of operation

It is based on the characteristics of low water under the condition of low boiling point, rapid heating sealing furnace heat medium filled in water, hot water boiling and evaporate high temperature water vapor, water vapor condensation in the heat exchanger tube for heating cold water in the exchanger pipe, to achieve the goal of supplying hot water.

Vacuum boiler heat transformation

Oil (Natural gas)→burning → Hot media water→boiling steam condensating heat transfer (vaporization →con



→ densation → vaporization) → heat conduction → heat conduction → water

Advantage

- 1.Vacuum hot water unit is always under negative pressure (Normal working temperature less than 90℃, Vacuum degree lower -30Kpa). There is no danger of expansion, explosion or rupture.
- 2.one unit multi-uses, one set boiler can be designed several heat exchanger, it can provide heating, domestic hot water heating swimming pool ect.
- 3.On the safe side, it Can be placed in the basement and the roof, State departments are not limited, Free approval procedures.
- 4.energy-efficient, low cost running, thermal efficiency can be 96%.
- 5.No scaling and corrosion (Stainless steel design of exchanger)etc, Design service life of more than 20 years.
- 6.Integrated design of boiler and heat exchanger, saving space, Greatly reduce the floor area.
- 7.Fully automatic control system, High degree of automation, No need special person to guard.
- 8.Imported burner, high efficiency burning, lower discharge of exhaust gas.
- 9.Unique Pulse water level detection circuit structure, Reliable Performance.
- 10.Mainly for civil use, such as hotel, residence, office building, bath center, school, shopping arcade etc.

技术参数 Technical parameters

项目 Item	型号 Model										
额定功率 Rated power	-8600-Q										
额定工作压力 Rated working pressure	-0.02										
换热器工作压力 Heat exchanger	≤2.5										
额定出水温度 Rated outlet water temperature	85										
额定回水温度 Rated return water temperature	60										
热效率 Thermal efficiency	≥96										
水箱容量 water capacity	1340	2000	2600	3250	3660	4020	4920	5660	7430	8620	9660
进出口水口 water inlet and outlet	50	65	80	100	100	125	150	150	150	200	200
排污 pollution discharge	DN										
燃料消耗 Fuel consumption	轻油 light oil	32.4	43.2	64.7	97.1	129.5	162	194.2	259	324	369
	天然气 Natural gas	36.8	49	73.5	110.3	147	182.6	220.6	294.1	368	441.2
	城市燃气 city gas	83.4	111.1	166.7	250	333.3	416.7	500	666.7	833	1000
	长度 length	3650	3300	3560	4100	4200	4500	4600	4600	5100	5600
外形尺寸 outline dimension	宽度 width	1400	1400	1500	1600	1700	1800	2000	2150	2450	2400
	高度 height	1800	1800	1850	2000	2100	2200	2200	2650	2820	2820
重量 weight	2400	2550	3350	4000	4600	5660	6700	7900	10650	14000	15500

说明: 1、天然气热值: 8500Kcal/Nm³、轻油热值: 10300Kcal/Kg、城市燃气热值: 4000Kcal/Nm³;

2、表中数据及图片仅供参考, 产品以实物为准, 如因型号变更恕不另行通知;

3、规格、材质及锅炉设计请参照本数据。

Notes: 1、caloric value of natural gas: 8500Kcal/Nm³, light oil: 10300Kcal/Kg, city gas: 4000Kcal/Nm³;

2、Data and picture in the table only for reference, the product takes real object as to allow, for giving not to go another circular such as the alteration because of remodel;

3、prepare to make, reserve, and design of boiler building, please contact to confirm before relevant data.

燃油气有机热载体炉

oil and gas fired thermal organic heater

一、适用行业

化工、油脂、石化、纺织、印染、塑料、橡胶、纤维、碳素、建筑、水泥、沥青、金属、涂装、木材加工、造纸印刷、原子能工业等。

二、特点

1.大直径燃烧室

锅炉燃烧室由大直径盘管组成，燃料燃烧空间足，燃烧完全，热效率高。

2.最佳盘管设计

炉体内、外螺旋盘管采用多头、小管径钢管制成，盘管的热膨胀性能好、应力低、安全可靠。

3.最佳流程设计

烟气三回程，介质流经内、外盘管，流速均匀，运行安全、稳定。

4.出力充足

受热面布置合理，面积大、传热效果好，效率高，出力稳定、充足。

5.多功能安全防护装置

炉体尾部设有与炉膛连通的防爆装置，泄放燃料在炉膛中发生剧烈爆炸时，瞬间产生的高能量，能自动复位，同时具有观火视镜和检修通道的功能作用，利用运行中燃烧火焰的调整，炉膛检查、维护方便。

6.烟箱密封独特

炉盖采用整体结构，多级迷宫式密封，密封工艺和材料特制，压缩性好，完全阻隔烟气的泄漏，可重复使用。

7.自动控制措施完善

出油温度控制精确，介质温度、压力及超烟温设置多重控制保护，确保运行安全可靠。

8.自动控制水平领先

锅炉控制器采用西门子/德力西电气元件，性能可靠。控制器有三种形式：普通型、具有液晶显示的中英文菜单型、人机对话远程控制的触摸屏型。其中标配为普通型。

一、Application scopes

Chemical, oil, petrochemical, textile, printing, plastics, rubber, fiber, carbon, construction, cement, asphalt, metal, painting, wood processing, paper printing, nuclear industry, etc.

二、Features

1.The large diameter of the combustion chamber

The boiler combustion chamber is composed with large diameter coil, enough fuel combustion space, complete combustion, high thermal efficiency.

2.Optimal coil design

Inside the furnace, the outer spiral coil with multi-heads using small diameter steel Pipe, so the thermal expansion of the coil is good, low-stress, safe and reliable.

3.Best processing design

The flue gas three returns, the medium flows through the inner and outer of the coil, flow evenly, safe and reliable.

4.Enough output

Heating surface is reasonably arranged, large area, good heat transfer, and high efficiency, stable and adequate output.

5.Multifunction safety explosion-proof equipment

Furnace rear is equipped with explosion-proof equipments, which is connected with the boiler furnace. Once the bleed fuel is exploding in the furnace, discharging high energy at that moment, it will automatically reset, and have the function of the endoscopic view of fire and maintenance channel. Using the combustion adjustment in operation, it is easy for furnace inspection and maintenance.

6.Unique seal for the smoke box

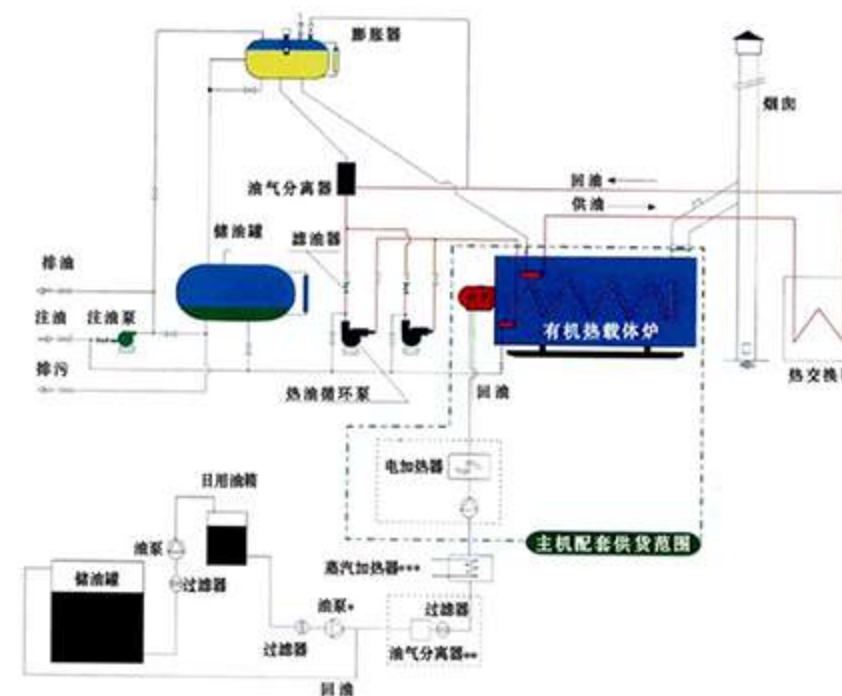
With the overall structure for the lid, the multi-stage labyrinth seal, the sealing process and special material, good compressibility, complete deadening flue gas leakage, can be reused.

7.Perfect automatic control measures

Precision oil temperature control, medium temperature, pressure, and temperature settings of multiple controls over smoke protection which are ensure the safe and reliable operation.

8.Leading automatic control level

Boiler controller is adopted Siemens/West German elements, reliable performance.The controller has three types: ordinary one, with Chinese and English menu LCD one, interactive touch-screen remote control one. The ordinary type is configured for the standard one.

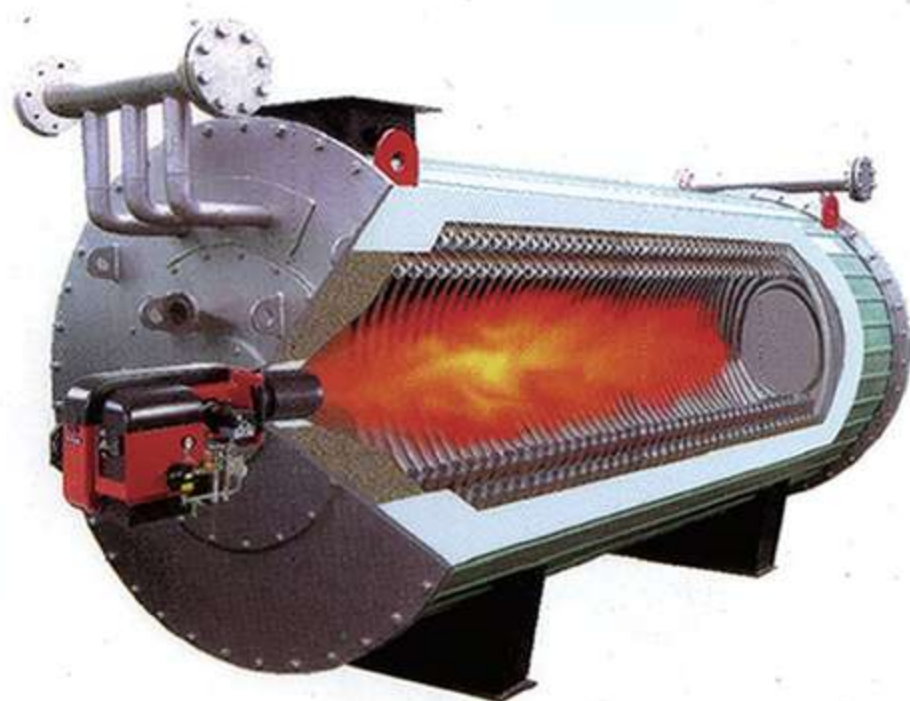


燃油气有机热载体炉系统图
oil fired thermal organic heater system drawing

燃油(气)有机热载体锅炉(卧式)

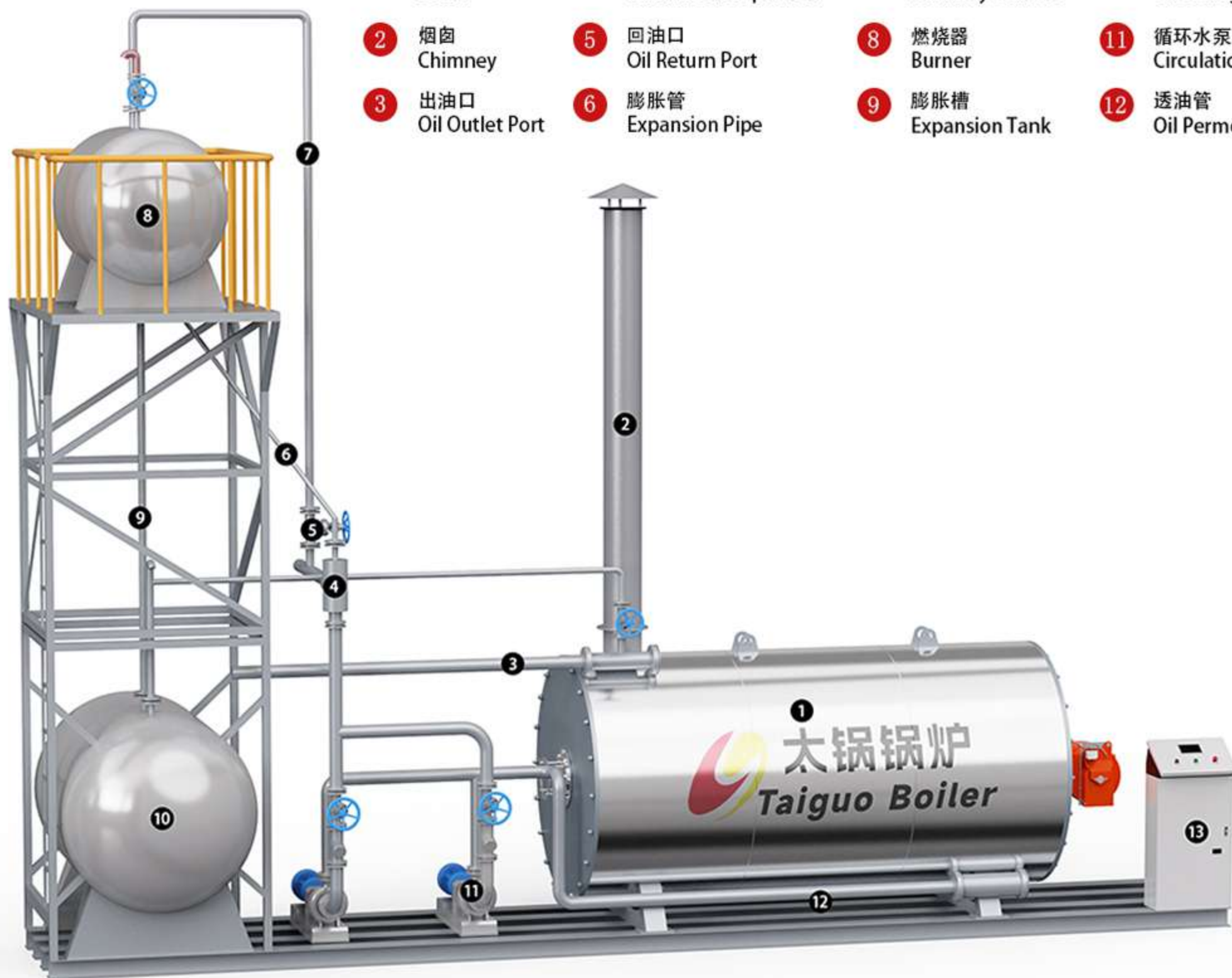
Oil (gas) organic heat carrier boiler (horizontal)

1. 安装方便灵活, 只要将锅炉就位与其基础上即可
 2. 受热面采用密排圆盘管, 受热面布置充足, 降低管子表面热负荷, 使导热油使用更安全
 3. 炉膛尺寸与燃烧火焰相匹配, 采用了正压燃烧, 辐射换热效率高
 4. 锅炉结构紧凑, 节约了锅炉房的占地面积
 5. 锅炉尾部设置空气预热器, 可提高锅炉效率
1. Easy and flexible installation, as long as the boiler can be positioned on its foundation
 2. The heating surface adopts dense rows of circular disc tubes, the heating surface is arranged sufficiently, which reduces the heat load on the surface of the tubes and makes the use of heat transfer oil safer
 3. The size of the furnace chamber matches the combustion flame, and it adopts the positive-pressure combustion, which has a high efficiency of radiant heat transfer
 4. The structure of the boiler is compact, which saves the floor space of boiler room
 5. The air preheater is set at the tail end of the boiler, which improves the efficiency of the boiler



数据 Data	型号 Model	YY(Q)L(W) -3500Y(Q)	YY(Q)L(W) -4600Y(Q)	YY(Q)L(W) -6000Y(Q)	YY(Q)L(W) -7000Y(Q)	YY(Q)L(W) -8200Y(Q)	YY(Q)L(W) -9400Y(Q)	YY(Q)L(W) -10500Y(Q)	YY(Q)L(W) -12000Y(Q)	YY(Q)L(W) -14000Y(Q)
供热量×10 ⁴ Kcal/h Heat supply×10 ⁴ kcal/h		300	400	500	600	700	800	900	1000	1200
系统热效率% Heat efficiency of system %		≥92	≥92	≥92	≥92	≥92	≥92	≥92	≥92	≥92
设计压力MPa Designed pressure MPa		1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1
最高工作温度℃ Maximum operating temperature °C		340	340	340	340	340	340	340	340	340
介质循环量m ³ /h Circulated volume of medium m ³ /h		200	260	300	350	400	520	520	600	680
主管口径DN Diameter of main pipe DN		150	200	250	250	250	300	300	300	350
适用燃料 Suitable fuel		油, 气 Oil, gas								

- | | | | | |
|--------------------------|----------------------------------|-----------------------------|------------------------------|------------------------------------|
| 1 锅炉
Boiler | 4 油气分离器
Oil and Gas Separator | 7 辅助排气
Auxiliary Exhaust | 10 储油槽
Oil Storage Tank | 13 电控柜
Electric Control Cabinet |
| 2 烟囱
Chimney | 5 回油口
Oil Return Port | 8 燃烧器
Burner | 11 循环水泵
Circulation Pump | |
| 3 出油口
Oil Outlet Port | 6 膨胀管
Expansion Pipe | 9 膨胀槽
Expansion Tank | 12 透油管
Oil Permeable Pipe | |



立式燃气导热油炉

Vertical Gas-fired Thermal Oil Boiler



立式燃气导热油炉

Vertical Gas-fired Thermal Oil Boiler



后再胀接的先进工艺,既防止了管间被腐蚀,又增强了焊接强度;采用高传热系数的螺纹烟管,强化对流传热效果,降低排烟温度,提高锅炉的热效率。

- 5、对称活动铰接前、后烟门:开启方便,便于检修、清理。
- 6、锅炉采用湿背式结构,全扳边对接焊缝,可靠性能高,维修费用低。
- 7、后视装置的设计,便于观察燃烧状况。
- 8、设计超温、超压、缺水、检漏、熄火等多种保护功能,锅炉运行安全可靠。

Product introduction

SZS fuel oil (gas) saturation steam water tube boiler with double drum longitudinal type D layout design, boiler pressure stress of ontology in good condition, compression of drum, and other important components are not directly affected by high temperature flame radiation and scour, pressure parts retractile, thermal stress is small, higher safety margin.

SZS fuel oil (gas) saturation steam water tube boiler Modular design

Boiler as a whole is divided into noumenon and economizer and other accessories, ontology is composed of a stove or furnace and single loop convection heating surface, economizer bulk shipment, realize the whole factory, ensure the quality of the biller. The micro positive pressure combustion, smoke wind resistance is small. Boiler smoke only furnish blower, wind system, furnace in the micro positive pressure, reduce the air leakage boiler, improve the efficiency of the boiler.

safety

Using membrane type water wall, improve furnace and flue rigidity, improve the antiknock ability of boiler furnace wall; In explosive place Settings explosion door, prevent explosion damage to the wall.

Good configuration of combustion system Selects the superior performance of brand burner, efficient combustion, reducing the loss of mechanical incomplete combustion, chemical incomplete combustion loss and achieve low oxygen combustion, reducing excess air, reduce exhaust temperature as much as possible, reduce exhaust smoke heat loss, improve the boiler thermal efficiency, maximum limit save operating cost.

Powerful automatic control system

Company has the best automatic control boiler industry technical ability, adopt the automatic combustion proportional control, three impulse water supply automatic control system, program start-stop, fully automatic operation and other advanced technology, and has high and low water level alarm and low water level, high steam pressure, remove from heat, gas leakage, such as automatic protection function, to ensure the safe and stable operation of the boiler equipment.

Product advantage

1. scientific design, reasonable structure. Using membrane type water wall, improve furnace and flue rigidity, improve the antiknock ability of boiler furnace wall; In explosive place Settings explosion door, prevent explosion damage to the wall. The main weld for docking structure, adopt submerged arc welding automatic welding.
2. complete processing equipment, advanced production technology. The company has interational advanced large span steel structure production workshop, daylighting is good, rational layout. Form a complete set of production equipment, well-equipped, has all kinds of equipment more than 1100 sets, more than 400 kva and other kinds of flaw detection equipment

and Production USES the advanced numerical control cutting, milling, automatic submerged arc welding and argon arc welding, smoke tube plate welding, etc. New technology, new craft, guarantee the quality of products.

3. a high degree of automation, equipment operation and reliable. Using electromechanical integration control equipment and programmable logic controller (PLC) control mode. With advanced programmable logic controller (PLC) as the control system of the "central processing unit (CPU)". Operated by touch screen control system, the boiler automatic control level and operation reliability is greatly increased, operating more simple and intuitive.

4. long life, high output, efficiency. Scientific product design, advanced processing technology, strict quality control, all the factory production of boiler equipment, continuous operation life are as high as more than 10 years. As a whole corugated furnace, boiler heating surface radiation convection heating surface USES the threaded pipe, heating surface is big, the boiler can generate heat output, thermal efficiency is as high as more than 92%, higher than the provisions of the state.

5. fuel, energy conservation and environmental protection. Boiler combustion chamber design is reasonable, it ADAPTS to the city gas, natural gas, light diesel oil, heavy oil and other fuels, fuel micro positive pressure inside the chamber of a stove or furnace burning, complete combustion, flue gas pollutants, biler blackness, soot blackness, concentration, noise and other technical indicators are better than national first class standard.

6. supporting parts, international brands. Burner weishaupt in Germany, Finland olin, riello, black and

other international famous brand burner. Supporting key valves, instrument adopts famous brand high-quality domestic and international famous brands, such as Germany's Siemens, France schneider, omron Japan, guarantee the safe operation of the boiler.

Product structure

1. membrane type water wall sealing structure, reliable sealing wall, and to prevent gas leakage. A lightweight wall at the same time, reliable running, small heat loss, thermal inertia small, easy to achieve rapid start-up.
2. design of safe water cycle: steam boiler with natural circulation loop water circulation, water cycle flow resistance is small, there will be no stagnation, back and free surface water circulation condition deteriorated phenomenon, effective to prevent pipe explosion accidents. Hot water boiler water circulation adopts forced circulation loop, ensure the safety of the water cycle.
3. corrugated furnace, combustion chamber adopts whole corrugated furnace structure, not only strengthened the flue gas disturbance, and increase the radiation heat transfer area; Both increase the stiffness of the furnace, and effectively reduced the expansion stress of the furnace; Both enhanced heat transfer effect, and promoted the fuel in the combustion chamber of a stove or furnace.
4. unique smoke tube to tubesheet welding process: the first expansion and then full welding, and then expanding advanced craft, between both prevent the pipe corrosion, and to enhance the welding strength; Use high heat transfer coefficient of the threaded pipe, to strengthen the effect of convection heat transfer, reduce exhaust temperature, increase the thermal efficiency of boiler.

- 5. symmetric hinged door before and after smoke: open convenient, easy to maintenance and cleaning.
- 6. boiler, adopting the wet back structure all pull butt weld, reliable performance, high maintenance costs.
- 7. rear view device design, easy to burn.

- 8. design overtemperature and overpressure, lack of water, leak detection, remove from heat and various protective functions, safety and reliability of the operation of the boiler.

技术参数

Technical parameters

规格型号	SZS 4-1.25-Y(Q)	SZS 6-1.25-Y(Q)	SZS 8-1.6-Y(Q)	SZS 10-1.6-Y(Q)
额定蒸发量(t/h)	4	6	8	10
额定工作压力(mpa)	1.25	1.25	1.6	1.6
蒸汽出口温度(℃)	193.4	193.4	204	204
锅炉给水温度(℃)	20	20	20	20
锅炉热效率(%)	96	96	96	96
轻油耗量(kg/h)	200	300	400	500
天然气耗量(Nm ³ /h)	280	420	560	700
煤气耗量(Nm ³ /h)	640	960	1280	1600
产品长度(mm)	5600	6200	6400	7000
产品宽度(mm)	2600	2700	2700	3000
产品高度(mm)	3440	3400	3400	3450
产品重量(t)	26.3	30.5	33.3	36.6

规格型号	SHXF10-1.25-A	SHXF15-1.25-A	SHXF20-1.25-A	SHXF25-1.6-A	SHXF35-1.6-A
额定蒸发量(t/h)	10	15	20	25	35
额定蒸汽压力(mpa)	1.25	1.25	1.25	1.6	1.6
给水温度(℃)	193.4	193.4	193.4	204.3	204.3
额定进水温度(℃)	105	105	105	105	105
设计热效率(η)	83	83.5	84.6	85	85.4
适应煤种	烟煤、无烟煤、贫煤、劣质煤				
耗煤量(标煤)(kg/h)	881.4	1321.8	1770	2136	3012
受热面积(m ²)	446.6	670	1145.7	1514	1826
锅炉最大运输重量(t)	3.8	4.7	6.9	7.7	7.8

SZS系列低氮冷凝式燃气(油)锅炉

SZS SERIES LOWNITROGENCONDENSING GAS (OIL)FIREDBOILER

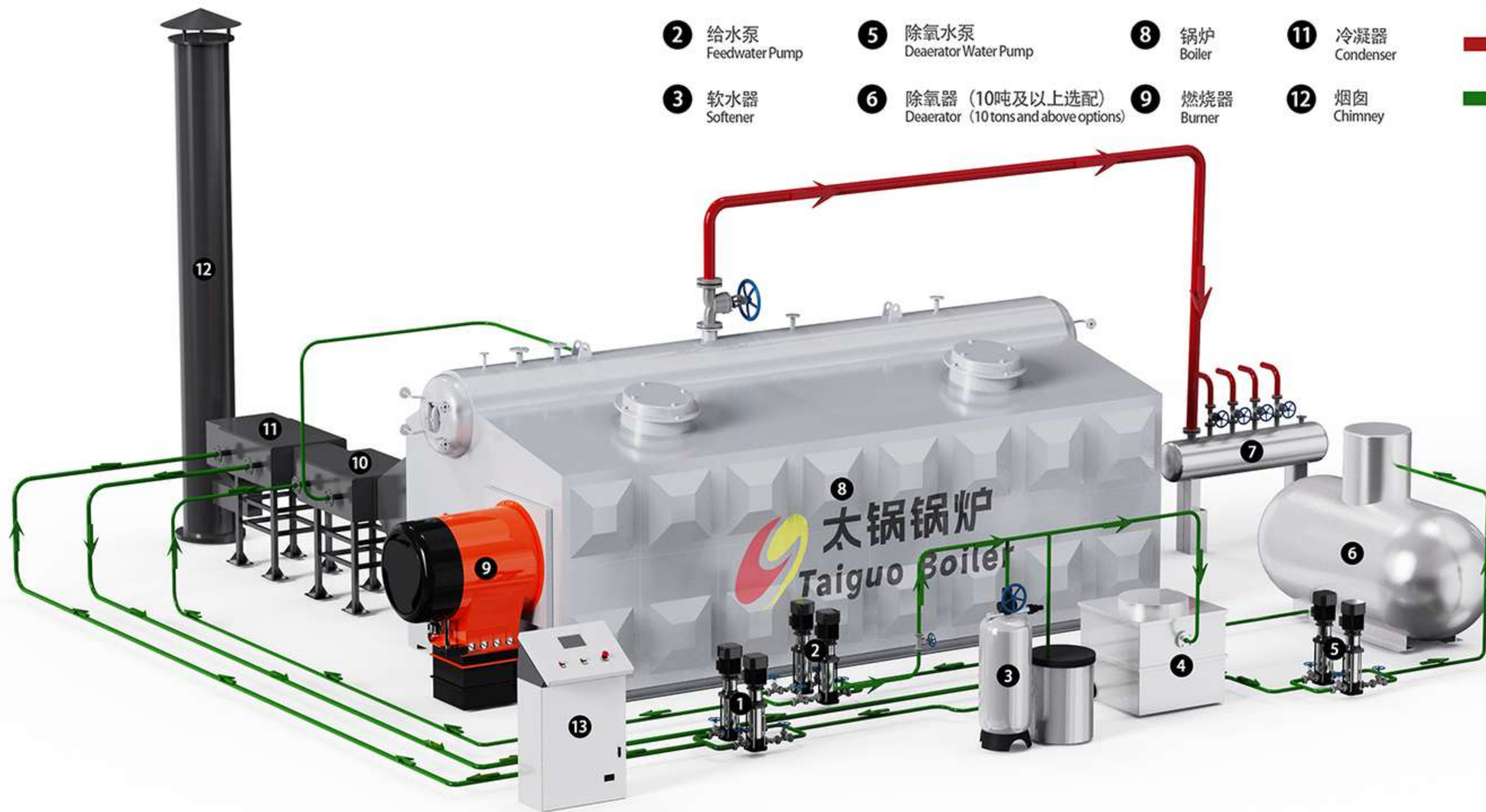
SZS系列锅炉本体为双锅筒、纵置式、室燃D型布置结构,右侧为炉膛,左侧为对流管束;通过下锅筒中间和两端的的活动支座固定在本体底盘上,并保证锅炉整体向两端膨胀。炉膛四周为窄间距管膜式水冷壁,炉膛左侧的膜式水冷壁将炉膛与对流管束完全密封隔开,对流管束区后部为拉稀的错列结构,前部为顺列结构,炉膛燃烧产生的烟气从炉膛尾部的出烟口进入燃烬室、对流管束区,然后从锅炉左侧前部转向进入螺旋翅片管节能器和冷凝器,最后进入烟道入烟囱排向大气。



- | | | | | |
|----------------------------------|---|----------------------------|----------------------|------------------------------------|
| 1 循环水泵
Circulating Water Pump | 4 软水箱
Soft Water Tank | 7 分汽缸
Steam Distributor | 10 节能器
Economizer | 13 电控柜
Electric Control Cabinet |
| 2 给水泵
Feedwater Pump | 5 除氧水泵
Deaerator Water Pump | 8 锅炉
Boiler | 11 冷凝器
Condenser | |
| 3 软水器
Softener | 6 除氧器 (10吨及以上选配)
Deaerator (10 tons and above options) | 9 燃烧器
Burner | 12 烟囱
Chimney | |

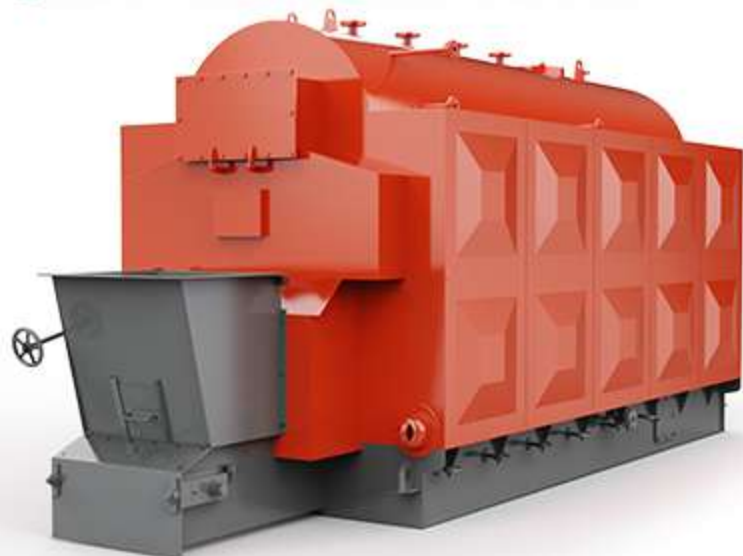
蒸汽管道
Steam pipe

水管道
Water pipe



DZL系列生物质链条炉排蒸汽锅炉介绍

Dzl series chain grate biomass steam boiler introduction



一、适用燃料

本产品采用链条炉排，适用燃料为成型颗粒燃料，可加少量木条、木块，也可与煤混烧。

二、结构特点

- (1) 采用拱型管板与螺纹烟管组成锅筒，使锅筒由准刚性体变为准弹性体结构，取消了管板区的拉撑件，减少了应力。管板内烟管由两回程改为单回程，解决了管板裂纹的难题。
- (2) 锅筒下部由于布置了上升管排，消除了锅筒底部的死水区，使泥渣不易沉积，锅筒高温区能得到良好的冷却，预防了锅筒下部鼓包。
- (3) 采用高效传热螺纹烟管，获得了强化传热效果，达到锅炉升温、升压快的特点，提高了锅炉的热效率。
- (4) 结构紧凑，与同类型锅炉比较，外形尺寸小，节省锅炉房基建投资。
- (5) 运行稳定、调整方便、出力足。
- (6) 采用螺纹烟管强化传热，提高了传热系数和热效率，由于烟气在管内有扰动作用，烟管内不易积灰，起到自清扫的作用。
- (7) 炉膛内的八字墙、出口烟窗部分均有一定除尘作用。使锅炉的原始排尘浓度控制在标准以下，保证了锅炉烟尘排放达到国家环保规定的指标。

(8) 独特的双层二次风设计，改善了生物质燃料着火条件，采用了独立风室，达到了合理布风，使炉膛内形成一个有利于燃烧的空气动力场，使得燃烧温度高、燃烧效率高。

三、性能特点

- (1) 可实现模拟控速燃烧，不会产生爆燃；
- (2) 通过调整控速二次风量，可控制燃烧引燃速度；
- (3) 前后拱布置二次风，保证颗粒分解后的飞灰二次燃烧，燃烧效率高；
- (4) 采用鳞片式链条炉排，机械化进料。进料均匀，燃烧稳定，控制方便，具备不宜回火、机械清灰方便的特点。

一、Available fuel

This boiler adopt chain grate, suitable for molding pellet fuel, can add a small amount of wood, wood block, also can burn with coal.

二、Structural features

- (1) The drum is consist of arched tube plate and thread smoke tube, so the drum is changed from the rigid body to quasi- elastic body. Canceled the braced pieces of tube plate area, reducing the stress. Smoke tube in tube plate become single backhaul from two return, this solve

the problem of tube sheet cracks.

(2) Due to the layout of riser tube row in lower part of the drum, it eliminate dead water zones at the bottom, so that is not easy to deposit sludge, the drum high temperature zone can get good cooling, prevents the swell in the drum lower part.

(3) Adopt high heat transfer threaded pipe, obtained the strengthening heat transfer effect, achieve the characteristics of fast heating and fast boosting, improves

the thermal efficiency of boiler.

(4) Compact structure, compared with the same type boiler, small appearance size and save boiler room infrastructure investment.

(5) Running stably, convenient adjustment, high output.

(6) Use the threaded smoke pipe to enhance heat transfer, improved heat transfer coefficient and thermal efficiency, due to there are disturbances in the flue pipe, smoke tube is not easy to fouling, it play a role of self-cleaning.

(7) The chamber aliform wall and export smokestack parts play a role of filing the dust. It control the original dust emission concentration below the standard. to

ensure the boiler soot can reach the indexes of national environmental protection regulations.

(8) The unique double secondary air design improved the ignition conditions of biomass fuel, adopt the independent wind chamber to achieve the reasonable ventilation, and form a air dynamic field which is beneficial to burn in the chamber of stove, achieve the higher combustion temperature and higher combustion efficiency.

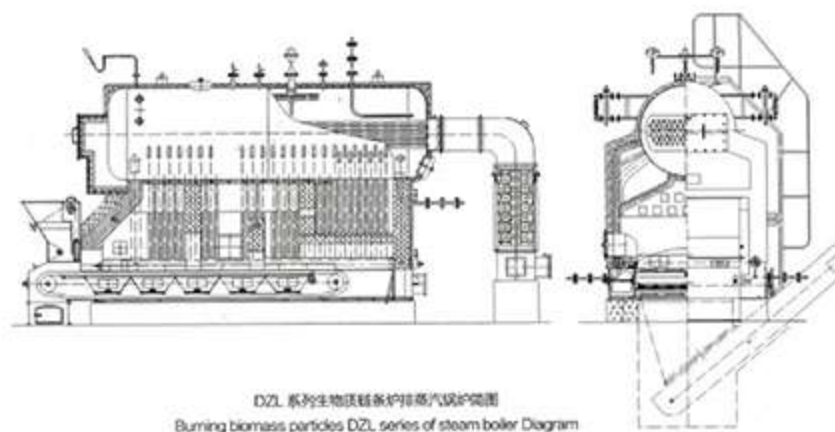
三、Performance characteristics

(1) Can achieve the simulation speed combustion, won't produce explosion; easy to temper, easy to cleaning.

(2) By adjusting the secondary speed air volume, control the speed of combustion ignition;

(3) The arch before and after arrange the secondary air, ensure secondary combustion of the fly ash after the particles decomposed, improve the combustion efficiency;

(4) Adopt scale chain grate to achieve mechanized feed. feed uniformly, combustion stability, easy to control, not easy to temper, easy to cleaning.



1 给水泵
Feedwater Pump

2 软水器
Softener

3 软水箱
Soft Water Tank

4 除氧水泵
Deaerator Water Pump

5 除氧器 (10吨及以上选配)
Deaerator (10 tons and above options)

6 分汽缸
Steam Distributor

7 锅炉
Boiler

8 鼓风机
Forced Draft Fan

9 省煤器
Economizer

10 除尘器
Dust Collector

11 引风机
Induced Draft Fan

12 烟囱
Chimney

13 电控柜
Electric Control Cabinet

蒸汽管道
Steam pipe

水管道
Water pipe



技术参数

Technical parameters

型号Model	DZL1-0.7-T DZL1-1.0-T DZL2-1.25-T	DZL2-0.7-T DZL2-1.0-T DZL2-1.25-T	DZL4-1.25-T DZL4-1.6-T	DZL6-1.25-T DZL6-1.6-T	DZL8-1.25-T DZL8-1.6-T	DZL10-1.25-T DZL10-1.6-T (上下组装)	
额定蒸发量(t/h) Rated evaporation capacity	1	2	4	6	8	10	
额定蒸汽压力 (Mpa) Rated pressure	0.7/1.0/1.25	0.7/1.0/1.25	1.25/1.6	1.25/1.6	1.25/1.6	1.25/1.6	
额定蒸汽温度 (°C) Rated steam temperature	170/184/194	170/184/194	194/204	194/204	194/204	194/204	
额定给水温度 (°C) Feed water temperature	20	20	20	20	20	20	
受热面积 (m ²) Heating area	本体Body	~33	~50	~100	~170	~200	~250
	省煤器Economizer	10.56/10.56/20.7	27.6	52.48/33.12	87.2	98	174
炉排有效面积 (m ²) Effective area of grate	2.22	4.1	5.85	7.95	9.75	10.77	
燃料种类 Fuel type	生物质颗粒成型燃料 Biomass pellet fuel						
锅炉燃料消耗量 (kg/h) Fuel consumption	~200	~400	~800	~1200	~1600	~2010	
排烟温度 (°C) Flue gas temperature	~150	~150	~150	~150	~150	~150	
锅炉热效率 (%) Thermal efficiency	~82	~82	~82	~82	~82	~82	
最大运输重量(t) Weight of biggest part for transportation	17	23	25	35	45	33(上部) Upside 28(下部) Underpart	
最大运输件尺寸长×宽×高(m) Overall dimension of biggest part for transportation	5.1×2.2×3	5.5×2.3×3.3	6.6×2.6×3.6	8.2×2.9×3.8	8.1×3.1×3.8	7.7×3.2×3.6 8.6×3.0×2.6	

注:参数仅供参考,若有变动以实际图纸为准。
Notes: Parameter is for reference only; if any changes should follow Actual drawings.

蒸压釜 Still kettle

蒸压釜又称蒸养釜、压蒸釜,是一种体积庞大、重量较重的大型压力容器。蒸压釜用途十分广泛,大量应用于加气混凝土砌块、混凝土管桩、灰砂砖、煤灰砖、微孔硅酸钙板、新型轻质墙体材料、保温石棉板、高强度石膏等建筑材料的蒸压养护,在釜内完成 $\text{CaO}-\text{SiO}_2-\text{H}_2\text{O}$ 的水热反应。同时还广泛用于橡胶制品、木材干燥和防腐处理、重金属冶炼、耐火砖浸油渗煤、符合玻璃蒸养、化纤产品高压处理、食品罐头高温高压处理、纸浆蒸煮、电缆硫化、渔网定型以及化工、医药、航空航天工业、保温材料、纺织、军工等需压力容器蒸养生产工艺过程的生产项目。

Autoclave, also known as autoclave and autoclave, is a large pressure vessel with large volume and heavy weight. Autoclave is widely used for autoclaved curing of building materials such as aerated concrete block, concrete pipe pile, lime sand brick, ash brick, microporous calcium silicate board, new lightweight wall material, insulation asbestos board and high strength gypsum. The hydrothermal reaction of $\text{CaO SiO}_2 \text{H}_2\text{O}$



is completed in the kettle. At the same time, it is also widely used in rubber products, wood drying and anti-corrosion treatment, heavy metal smelting, oil and coal infiltration of refractory bricks, glass steaming, high-pressure treatment of chemical fiber products, high-temperature and high-pressure treatment of food cans, pulp steaming, cable vulcanization, fishing net finalization and pressure steaming production processes of chemical industry, medicine, aerospace industry, thermal insulation materials, textile industry, military industry, etc. Production projects.



循环流化床锅炉

Circulating fluidized bed boiler

循环流化床锅炉是一种新型有发展前途的高效洁净燃烧的燃煤锅炉。本锅炉公司是专业循环流化床锅炉厂家，提供外循环流化床锅炉，循环流化床锅炉安装，循环流化床锅炉维修，循环流化床锅炉改造服务。本公司生产的循环流化床锅炉，高效节能、运行稳定、出力足、热效率高，是您理想的选择。

产品简介

SHXF 循环流化床锅炉是一种新型、高效、低污染的清洁燃煤技术锅炉，其主要特点是锅炉炉膛内含有大量的物料，在燃烧过程中大量的物料被烟气携带到炉膛上部，经过布置在炉膛出口的分选器，将物料与烟气分开，并经过非机械式回送阀将物料回送至床内，多次循环燃烧。由于物料浓度高，具有很大的热容量和良好的物料混合，一般每公斤烟气可携带若干公斤的物料，这些循环物料带来了高传热系数，使锅炉热负荷调节范围广，对燃料的适应性强。循环流化床锅炉采用比鼓泡床更高的流化速度，而不像鼓泡床有一个明显的界面，由于床内强烈的湍流和物料循环，增加了燃料在炉膛内的停留时间，因此比鼓泡床具有更高的燃烧效率，在低负荷下能稳定运行，而无需增加辅助燃料。

产品用途

该产品适用于：煤矿、电厂、水泥厂、化工等。

产品优势

1. 燃料适应性强，可满足多种燃料的燃烧。
2. 自动化程度较高，可长期保持锅炉安全、经济运行。
3. 锅炉燃烧效率高达 95%~99%，燃料利用率高，锅炉热效率高达 87% 以上，节能、高效。
4. 采用上排气高温旋风分离装置，床料的收集率高，炉膛传热系数高，超负荷能力强。
5. 锅炉负荷调整范围大，可在 110%~30% 范围内调整，特别适合于锅炉负荷波动范围大的场合。
6. 床料中可添加石灰石，燃烧过程中与烟气中的 SO_2 反应生成硫酸盐，脱硫效果满足环保要求，同时炉膛燃烧温度较低，可抑制 NO_x 的生成，真正做到环保燃烧。

Circulating fluidized bed boiler is a new kind of promising efficient clean combustion of coal boiler. Our company is a professional manufacturer of circulating fluidized bed



boiler and boiler provides external circulating fluidized bed boiler, circulating fluidized bed boiler installation, and maintenance of circulating fluidized bed boiler, circulating fluidized bed boiler renovation services. This company produces the circulating fluidized bed boiler, high efficiency and energy saving, stable operation and output full, high thermal efficiency, is your ideal choice.

Product introduction

SHXF circulating fluidized bed boiler is a new type of high efficiency and low pollution clean coal-fired boiler technology, its main characteristic is the boiler furnace contains a lot of material, a large amount of material in the combustion process was carried to the upper chamber of a stove or furnace flue gas, through the arrangement of the separator in furnace exit, the material is separated from the flue gas, and the mechanical echo valve will be sent to bed material, circulation combustion for many times. Because the material concentration is high, has a large heat capacity and good material mixing, general gas can carry several kilograms of material per kilogram, these circulation materials have brought high coefficient of heat transfer, the boiler heat load adjusting range is extensive, strong adaptability to fuel. Circulating fluidized bed boiler with higher than bubbling bed fluidization velocity, and not like a bubbling bed has a clear interface, due to the strong turbulence and in bed



material circulation, increase the retention period of the fuel in the furnace, therefore has higher efficiency than bubbling on the bed, can stable operation under low load, without increasing the auxiliary fuel.

Product use

This product is applicable to: the coal mines, power plants, cement plants, chemical industry, etc.

Product advantage

1. The fuel adaptability is strong, can meet a variety of fuel combustion.
2. High degree of automation, can keep the boiler safe and economic operation in long time.
3. The boiler combustion efficiency is as high as 95% ~ 99%, fuel efficiency is high, the boiler thermal efficiency

技术参数

Technical parameters

锅炉型号	SHXF10-1.25-A	SHXF15-1.25-A	SHXF20-1.25-A	SHXF25-1.6-A	SHXF35-1.6-A
额定蒸发量 (t/h)	10	15	20	25	35
额定蒸汽压力 (MPa)	1.25	1.25	1.25	1.6	1.6
给水温度 (°C)	193.4	193.4	193.4	204.3	204.3
额定进水温度 (°C)	105	105	105	105	105
设计热效率 (η)	83	83.5	84.6	85	85.4
适应煤种	烟煤、无烟煤、贫煤、劣质煤				
耗煤量 (标煤) (Kg/h)	881.4	1321.8	1770	2136	3012
受热面积 (m ²)	446.6	670	1145.7	1514	1826
锅炉最大运输重量 (t)	3.8	4.7	6.9	7.7	7.8

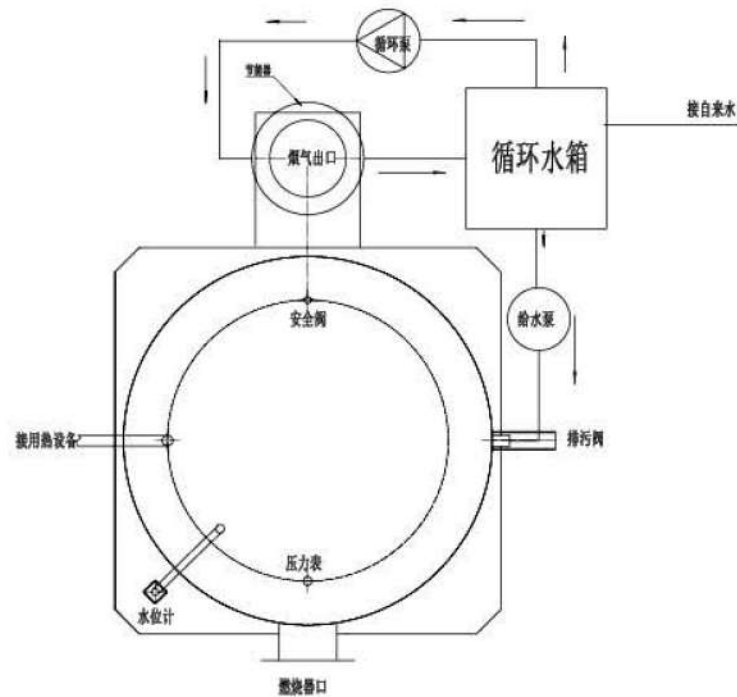


can reach above 87%, energy saving, high efficiency.

4. Using the exhaust temperature cyclone separating device, bed material high collection rate, furnace heat transfer coefficient is high, the overload ability.
5. The boiler load adjustment range is big, can be adjusted within the scope of 110% ~ 30%, particularly suitable for large range of boiler load fluctuations.
6. The bed material can be added in the limestone, combustion reaction with SO_2 in flue gas generated in the process of sulfate, the desulfurization effect meet the requirements of environmental protection, at the same time chamber of a stove or furnace combustion temperature is low, can inhibit the formation of NO_x , truly green burning.

ZFQ立式燃油燃气蒸汽发生器

ZFQ Vertical Fuel Gas Steam Generator



产品特点:

- 1、ZFQ型燃油（燃气）蒸汽发生器无需报批免去传统锅炉的复杂使用手续。
- 2、蒸汽发生器整机安装调试完毕出厂，通电通水，供应燃料即可正常运行，安全，方便，节能，稳定。
- 3、蒸汽发生器可快速产生蒸汽，停机后再次启动，3分钟可正常供汽，具有常规蒸汽锅炉无法比拟的优势！
- 4、采用智能触摸屏锅炉控制器，一键启动无需专人看管，具有自动给水、自动调节负荷、故障报警、多重联锁保护报警等功能。
- 5、配备原装燃烧设备，工作稳定可靠，内部结构列管组合式设计，受热面积大、受热均匀、蒸汽品质好、蒸汽纯净温度高，应用范围广。

Product features:

1. ZFQ oil-fired (gas-fired) steam generator does not need to apply for approval to avoid the complicated use procedures of traditional boilers.
2. After the installation and commissioning of the whole steam generator, it leaves the factory. After it is powered on and supplied with water, it can operate normally. It is safe, convenient, energy-saving and stable.
3. The steam generator can generate steam quickly, restart after shutdown, and supply gas normally for 3 minutes, which has advantages that conventional steam boilers can't match!
4. Intelligent touch screen boiler controller is adopted. One-button start does not require special person to watch. It has functions of automatic water supply, automatic load regulation, fault alarm, multiple interlock protection alarm, etc.
5. It is equipped with original combustion equipment, which works stably and reliably. The internal structure is designed in combination with tubes. It has large heating area, uniform heating, good steam quality, high steam purity temperature and wide application range.

技术参数 (Technical parameters)

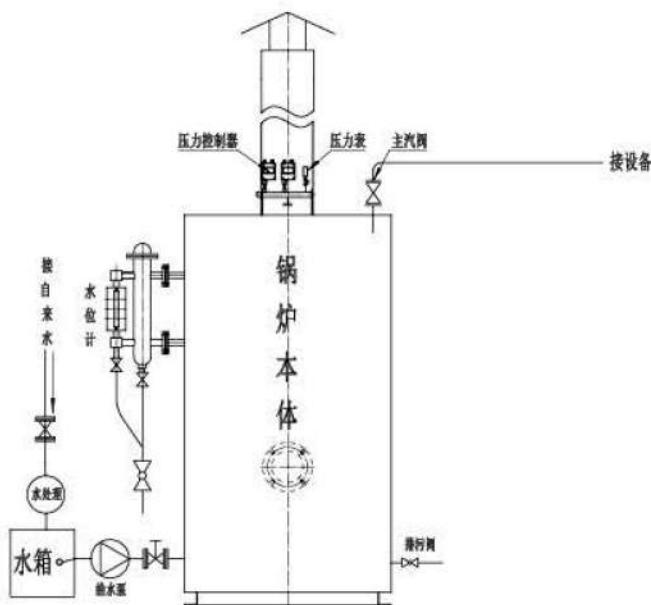
项目 project	型号 model	ZFQ0.2-0.09-YQ	ZFQ0.3-0.09-YQ	ZFQ0.5-0.09-YQ	ZFQ0.7-0.09-YQ	ZFQ1.0-0.09-YQ	ZFQ1.5-0.09-YQ	ZFQ2.0-0.09-YQ
额定蒸汽压力 (MPa) Rated steam pressure		0.09	0.09	0.09	0.09	0.09	0.09	0.09
额定蒸汽温度 (°C) Rated steam temperature		118	118	118	118	118	118	118
给水温度 (°C) Feedwater temperature		20	20	20	20	20	20	20
热效率 (%) thermal efficiency		93	93	93	93	93	93	93
燃料消耗量 Fuel consumption	天然气 (m³/h) natural gas	16.4	24.6	41.1	57.5	82.1	123.2	164.3
	液化气 (m³/h) liquid gas	13.1	19.7	32.9	46.0	65.7	98.6	131.4
	城市煤气 (m³/h) City gas	34.5	51.8	86.3	120.8	172.5	258.8	345.0
	轻柴油 (Kg/h) Light diesel	13.5	20.3	33.8	47.4	67.6	101.5	135.3
	重油 (Kg/h) heavy oil	13.8	20.7	34.5	48.3	69.0	103.5	138.0
供气压力 (KPa) Air supply pressure		2-5	5-8	5-8	6-10	8-12	8-12	8-12
耗电功率 (KW) Power consumption		2.3	2.3	2.3	2.5	3.6	4.5	4.5
电源电压 (V) supply voltage		220	220	220	380	380	380	380
运输参考重量 (T) Transport reference weight		0.85	1.1	1.6	2	2.5	3.5	5.5
运输参考尺寸 (MM) Transport reference dimension	长 long	1350	1600	1900	2100	2200	2400	2700
	宽 wide	1050	1300	1500	1700	1800	2000	2200
	高 high	2000	2500	2600	2700	2700	2900	2900

★ 上述所有值，是以天然气低位发热值 8,400Kcal/Nm³、液化气低位发热值 10,500Kcal/Nm³、城市煤气低位发热值 4,000kcal/Nm³、轻油低位发热值 10,200Kcal/Kg、重油低位发热值 10,000Kcal/Kg 为标准计算。
All the above values are calculated based on the low level heating value of natural gas 8,400Kcal/Nm³, low level heating value of liquefied gas 10,500Kcal/Nm³, low level heating value of city gas 4,000kcal/Nm³, low level heating value of light oil 10,200Kcal/Kg, and low level heating value of heavy oil 10,000Kcal/Kg.

★ 因技术革新变更参数，出厂参数以实际图纸为准！
The parameters are changed due to technical innovation, and the factory parameters are subject to the actual drawings!

LHS立式燃油燃气蒸汽发生器

LHS Vertical Fuel Gas Steam Generator



产品特点:

- 1、LHS型燃油（气）蒸汽发生器属蒸汽、开水兼用炉型，具有产蒸汽快、蒸汽品质好、燃料利用率高、操作简便等特点，同时又满足了既要烧开水、又要使用蒸汽的需求。
- 2、采用智能控制器，自动化程度高，运行有异常时自动停机并显示故障，检修方便，同时运行成本低，是节能减排的首选环保产品。
- 3、运行稳定，具有压力报警、缺水报警、超温报警、安全阀等多重保护装置，保障安全。

Product features:

1. LHS oil-fired (gas-fired) steam generator is a boiler type for both steam and boiling water. It has the characteristics of fast steam production, good steam quality, high fuel utilization rate, and easy operation. At the same time, it meets the needs of both boiling water and steam.
2. With intelligent controller, high automation degree, automatic shutdown and fault display in case of abnormal operation, convenient maintenance and low operation cost, it is the preferred environmental protection product for energy conservation and emission reduction.
3. Stable operation, with pressure alarm, water shortage alarm, overtemperature alarm, safety valve and other multiple protection devices to ensure safety.

技术参数 (Technical parameters)

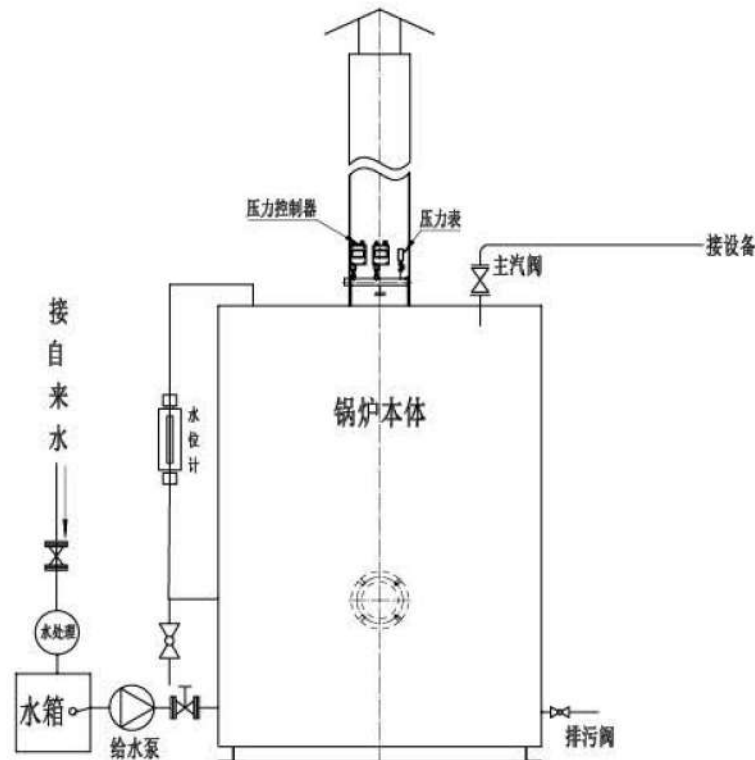
项目 project		型号 model	LHS0.1-0.09-YQ	LHS0.2-0.09-YQ	LHS0.3-0.09-YQ	LHS0.5-0.09-YQ	LHS0.7-0.09-YQ	LHS1.0-0.09-YQ
额定蒸汽压力 (MPa) Rated steam pressure			0.09	0.09	0.09	0.09	0.09	0.09
额定蒸汽温度 (°C) Rated steam temperature			118	118	118	118	118	118
给水温度 (°C) Feedwater temperature			20	20	20	20	20	20
热效率 (%) thermal efficiency			93	93	93	93	93	93
燃料消耗 Fuel consumption	天然气 (m³/h) natural gas		9.3	18.6	27.9	46.4	65.0	92.9
	液化气 (m³/h) liquid gas		7.4	14.9	22.3	37.1	52.0	74.3
	城市煤气 (m³/h) City gas		19.5	39.0	58.5	97.5	136.5	195.0
	轻柴油 (Kg/h) Light diesel		7.6	15.3	22.9	38.2	53.5	76.5
	重油 (Kg/h) heavy oil		7.8	15.6	23.4	39.0	54.6	78.0
供气压力 (KPa) Air supply pressure			2-5	2-5	3-5	4-6	5-10	5-12
耗电功率 (KW) Power consumption			0.75	0.9	0.96	1.2	1.5	2.2
电源电压 (V) supply voltage			220	220	220	220	380	380
运输参考重量 (T) Transport reference weight			0.59	0.68	0.83	1.07	1.45	1.78
运输参考尺寸 (MM) Transport reference dimension	长 long		800	900	1000	1100	1300	1500
	宽 wide		750	850	950	1050	1250	1400
	高 high		1900	2200	2250	2400	2600	2700

★上述所有值，是以天然气低位发热值 8,400Kcal/Nm³、液化气低位发热值 10,500Kcal/Nm³、城市煤气低位发热值 4,000kcal/Nm³、轻油低位发热值 10,200Kcal/Kg、重油低位发热值 10,000Kcal/Kg 为标准计算。
All the above values are calculated based on the low level heating value of natural gas 8,400Kcal/Nm³, low level heating value of liquefied gas 10,500Kcal/Nm³, low level heating value of city gas 4,000kcal/Nm³, low level heating value of light oil 10,200Kcal/Kg, and low level heating value of heavy oil 10,000Kcal/Kg.

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LSS立式燃油气蒸汽发生器

LSS Vertical Fuel Gas Steam Generator



产品特点:

1. LSS型立式全自动免报检蒸汽发生器属贯流式结构, 整机控制工艺简单精准, 热效率高, 预热时间短, 采用圆弧形排管结构, 使得冷热交换均匀, 更高速地达到设定的压力。
2. 开机后几分钟内蒸汽压力即可达到设计压力, 一键启动式按钮控制, 设备配有自动加水, 压力控制, 缺水保护及报警, 极低水位自动停炉, 超压保护, 过压安全阀等多项保护措施。
3. 内置汽水分离输出装置, 保证输出的蒸汽质量。冷水状态下5-10分钟即可稳定输出蒸汽, 热水状态下立即可稳定供应蒸汽。配备补水缓冲器, 使得在补水过程中也不会有明显的压力波动。缩短了工作时间, 提高了工作效率。

Product features:

1. LSS type vertical full-automatic inspection free steam generator is of tubular structure, with simple and accurate overall control process, high thermal efficiency, short preheating time, and arc shaped tube arrangement structure, which makes the cold and heat exchange even and achieves the set pressure at a higher speed.
2. The steam pressure can reach the design pressure within a few minutes after startup. The device is controlled by a one button start button. The device is equipped with automatic water filling, pressure control, water shortage protection and alarm, automatic boiler shutdown at very low water level, overpressure protection, overpressure safety valve and other protective measures.
3. Built in steam water separation output device to ensure the quality of output steam. Stable steam output can be achieved in 5-10 minutes under cold water condition, and stable steam supply can be achieved immediately under hot water condition. Water replenishing buffer is equipped to avoid obvious pressure fluctuation during water replenishing. The working time is shortened and the working efficiency is improved.

技术参数 (Technical parameters)

项目 project		型号 model	LSS0.05-0.09-YQ	LSS0.1-0.09-YQ	LSS0.2-0.09-YQ	LSS0.3-0.09-YQ
额定蒸汽压力 (MPa) Rated steam pressure			0.09	0.09	0.09	0.09
额定蒸汽温度 (°C) Rated steam temperature			118	118	118	118
给水温度 (°C) Feedwater temperature			20	20	20	20
热效率 (%) thermal efficiency			93.5	93.5	93.5	93.5
燃料耗量 Fuel consumption	天然气 (m³/h) natural gas		4.6	9.3	18.6	27.9
	液化气 (m³/h) liquid gas		3.7	7.4	14.9	22.3
	城市煤气 (m³/h) City gas		9.7	19.5	39.0	58.5
	轻柴油 (Kg/h) Light diesel		3.8	7.6	15.3	22.9
	重油 (Kg/h) heavy oil		3.9	7.8	15.6	23.4
供气压力 (KPa) Air supply pressure			1.5-3	2-3	2-4	2-5
耗电功率 (KW) Power consumption			0.75	0.9	0.96	1.5
运输参考重量 (T) Transport reference weight			0.28	0.34	0.46	0.81
运输参考尺寸 (MM) Transport reference dimension	长 long		700	800	900	1000
	宽 wide		650	750	850	950
	高 high		1350	1450	1450	1800

★上述所有值, 是以天然气低位发热值 8,400Kcal/Nm³、液化气低位发热值 10,500Kcal/Nm³、城市煤气低位发热值 4,000kcal/Nm³、轻油低位发热值 10,200Kcal/Kg、重油低位发热值 10,000Kcal/Kg 为标准计算。
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