



河南永兴锅炉集团有限公司
HENAN YONGXING BOILER GROUP CO., LTD.



WNS型超低氮燃气锅炉

WNS ULTRA-LOW-NITROGEN GAS FIRED BOILER

产品简介 Product Introduction

永兴的WNS型超低氮燃油燃气锅炉是采用先进工艺生产的锅壳式三回程湿背燃油燃气锅炉，由锅炉本体、连接烟道、除氧泵、除氧器、燃烧器、汽水系统、仪表、节能器、冷凝器等组成。与旧式锅炉相比，它最突出的特点是低氮（锅炉的运行过程中，氮氧化物排放量大大减少，最低可达 $18\text{mg}/\text{m}^3$ ，符合国家的政策要求）。再加上此锅炉具有结构紧凑，外形美观，操作简单、运行安全可靠等特点，现已被广泛的应用于各行各业。

WNS型超低氮燃油燃气锅炉采用全湿背结构，高温烟气都被水包围，解决了回烟室的冷却及密封问题，改善了锅炉的运行环境。冷凝器（采用翅片管制作）的增设，使锅炉的效率提高到98%以上，节省了运行成本。同时，该锅炉设有漏电保护功能，一旦控制系统检测到电热元件漏电，锅炉将自动切断电源，以此来保证工人和锅炉的安全，提高锅炉的使用寿命。

WNS ultra-low nitrogen gas fired boiler is three-returns wet-back steam boiler. It consists of boiler body, connecting flue, deaerator pump, deaerator, burner, steam-water system, instruments, economizer, Condenser, etc. The most prominent feature of this boiler is low nitrogen which compared with other boilers. (nitrogen oxide emissions below to $18\text{mg}/\text{m}^3$). In addition, the boiler has the characteristics of compact structure, beautiful outlook, simple operation, safe and reliable operation, So that it has been widely used in many industries.

WNS ultra-low-nitrogen oil&gas boiler adopts full-wet back structure, and the high-temperature smoke is surrounded by water, which can solve the problem of cooling and sealing of the recirculation chamber and improve the operating environment of the boiler. The addition of condenser (made by finned tube) increases the efficiency more than 98%, so that saving operating costs. At the same time, boiler has leakage protection function. Once detecting any leakage of the electric heating element, it will cut off the power supply automatically to ensure the safety of the workers and the boiler. It improves boiler usage life.

性能特点 Performance Characteristics

- 保护功能完善，具有缺水保护和泄压保护，确保锅炉安全高效的运行
- 外包装采用不锈钢制作，使得抗腐蚀性性能大大增加
- 锅炉的前后烟箱盖是活动的，大大降低了检修的难度，提高了检修效率
- 后视装置的设计，便于工人观察燃烧状况
- 冷凝器采用的是“耐硫酸低露点腐蚀”专用钢材，提高了锅炉的使用寿命
- 内部烟管采用螺纹结构，提高了传热效率，强化了传热效果
- 受热面布置良好，使水循环和热循环得到保障，使传热效果大大提高，达到了最佳状态
- 控制系统根据炉水温度控制循环泵的启停，炉水温度达到设定上限时，热水循环泵启动，低于设定下限水温时，热水循环泵停止
- 锅炉尾部有冷凝器，利用尾部排出的余热来提高锅炉的进水温度，降低排烟温度，使锅炉热效率达到100%以上，节省运行成本
- 燃烧、水位、温度和蒸汽压力均可以自动调节，自动控制，既方便了工人的操作，也提高了安全性

- Perfect protection function, Water shortage protection and pressure relief protection to ensure safe and efficient operation of the boiler.
- The outer packaging is made of stainless steel, which greatly increases the corrosion resistance.
- The front and rear smoke box are active, which greatly reduces maintenance difficulty and improves maintenance efficiency.
- The design of the rear view device is convenient for workers to observe the burning condition.
- The condenser adopts special steel material which called 'corrosion of Sulfuric acid resistance and Low dew point', it can improve boiler usage life.
- The internal pipe adopts thread structure, which improves the heat transfer efficiency and enhances the heat transfer.
- Well arranged of heat area to guarantee the water and thermal circulation, and greatly improve heat transfer.
- The control system controls the start and stop of the circulating pump as the temperature of the furnace water. Hot water circulation pump starts when the temperature of the furnace water reaches to the setting upper limit. And stops when reach to the setting lower temperature.
- The condenser at the end of the boiler to increase the inlet water temperature and reduce the exhaust gas temperature by waste heat which discharge from boiler, so that the thermal efficiency of the boiler reaches more than 100%, saving operating costs.
- The combustion, water level, temperature and steam pressure can be automatically adjusted and control, which not only convenient for the operation of workers but also improving boiler safety.

系统图 System Diagram



设备名称 Equipment Name

- | | | | | |
|-----------------------|-----------------|----------------------|------------------------|----------------------------|
| 1 锅炉 Boiler | 2 水箱 Water Tank | 3 软水器 Water Softener | 4 循环泵 Circulation Pump | 5 除氧泵 Deoxygenization Pump |
| 6 给水泵 Feed Water Pump | 7 燃烧器 Burner | 8 冷凝器 Condenser | 9 分汽缸 Steam Header | 10 除氧器 Deaerator |

技术参数 Technical Parameters

• 蒸汽锅炉 Steam Boiler

型号规格 Model And Specification Unit	额定蒸发量 Rated Steam Capacity (T/h)	额定工作压力 Rated Working Pressure (MPa)	饱和蒸汽温度 Saturated Steam Temperature (℃)	氮氧化物 Nitrogen Oxides (Mg/m³)	设计燃料 Design Fuel	最大运输重量 Max Transport Weight (KG)	最大运输尺寸 Max Transport Dimension(LxWxH) (MM)
WNS1-1.25-YQ	1	1.0	184	18-30	天然气 轻油 重油等 Natural Gas, Light Oil, Heavy Oil, Etc.	4800	3200x1800x2000
WNS2-1.25-YQ	2					7200	3800x1900x2200
WNS3-1.25-YQ	3					10000	4100x2000x2400
WNS4-1.25-YQ	4					12400	4400x2300x2600
WNS6-1.25-YQ	6	1.25	194	18-30	天然气 轻油 重油等 Natural Gas, Light Oil, Heavy Oil, Etc.	16000	5300x2400x2700
WNS8-1.25-YQ	8	1.6	204			21500	6800x2600x3000
WNS10-1.25-YQ	10	2.5	225			26000	6300x2700x3200
WNS12-1.25-YQ	12	2.5	225			31000	6700x2700x3200
WNS15-1.25-YQ	15					40000	8700x3700x3500
WNS20-1.25-YQ	20					48600	8050x3750x3950

• 承压热水锅炉 Pressure Bearing Hot Water Boiler

型号规格 Model And Specification Unit	额定热功率 Rated Heat Power (MW)	额定工作压力 Rated Working Pressure (MPa)	额定出/回水温度 Rated Outlet/Return Temp (°C)	氮氧化物 Nitrogen Oxides (Mg/m³)	设计燃料 Design Fuel	最大运输重量 Max Transport Weight (KG)	最大外型尺寸 Max Dimension (MM)
WNS0.7-0.7/95/70-YQ	0.7	0.7	95/70	18-30	天然气 轻油 重油等 Natural Gas, Light Oil, Heavy Oil, Etc.	4800	3200x1800x2000
WNS1.4-0.7/95/70-YQ	1.4					7200	3800x1900x2200
WNS2.1-1.0/95/70-YQ	2.1					10000	4100x2000x2400
WNS2.8-1.0/95/70-YQ	2.8					12400	4400x2300x2600
WNS3.5-1.0/95/70-YQ	3.5	1.0	115/70	18-30	天然气 轻油 重油等 Natural Gas, Light Oil, Heavy Oil, Etc.	14900	5300x2400x2700
WNS4.2-1.0/95/70-YQ	4.2					16000	5600x2500x2800
WNS5.6-1.0/95/70-YQ	5.6					21500	6800x2600x3000
WNS7-1.0/95/70-YQ	7					26000	6300x2700x3200
WNS10.5-1.0/95/70-YQ	10.5	1.0	115/70	18-30	天然气 轻油 重油等 Natural Gas, Light Oil, Heavy Oil, Etc.	40000	8700x3700x3500
WNS14-1.0/95/70-YQ	14					48600	8050x3750x3950

• 常压热水锅炉 Atmospheric Pressure Hot Water Boiler

型号规格 Model And Specification Unit	额定热功率 Rated Heat Power (MW)	额定工作压力 Rated Working Pressure (MPa)	额定出/回水温度 Rated Outlet/Return Temp (℃)	氮氧化物 Nitrogen Oxides (Mg/m³)	设计燃料 Design Fuel	最大运输重量 Max Transport Weight (KG)	最大外型尺寸 Max Dimension (MM)
CWNS0.7-95/70-YQ	0.7	0	85/60 95/70	18-30	天然气 轻油 重油等 Natural Gas, Light Oil, Heavy Oil, Etc.	4320	3200x1800x2000
CWNS1.4-95/70-YQ	1.4					6300	3800x1900x2200
CWNS2.1-95/70-YQ	2.1					8900	4100x2000x2400
CWNS2.8-95/70-YQ	2.8					11200	4400x2300x2600
CWNS3.5-95/70-YQ	3.5					13200	5300x2400x2700
CWNS4.2-95/70-YQ	4.2					14300	5600x2500x2800
CWNS5.6-95/70-YQ	5.6					19200	6800x2600x3000
CWNS7-95/70-YQ	7					23000	6300x2700x3200
CWNS10.5-95/70-YQ	10.5					35500	8700x3700x3500
CWNS14-95/70-YQ	14					42600	8050x3750x3950

相关案例 Related Project



2018.10 陕西煤矿两台4吨超低氮燃气热水锅炉

2018.10 2 sets of 4t/h ultralow nitrogen gas fired hot water boilers in Shanxi coal mine



2017.05 江苏淮安泰邦节能建材有限公司15吨超低氮燃气蒸汽锅炉

2017.05 15t/h ultralow nitrogen gas fired steam boiler in Jiangsu Huai'an Taibang Energy-saving Building Materials Co., Ltd



2017.02 湖北武汉中州大酒店4台4吨燃气热水锅炉

2017.02 4 sets of 4t/h gas fired hot water boilers in Hubei Zhongzhou hotel



2016.11 河南永城人民医院2台4吨低氮30mg蒸汽锅炉

2016.11 2 sets of 4t/h ultralow nitrogen steam boilers in Henan Yongcheng Civil Hospital

聚永兴 创共赢

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