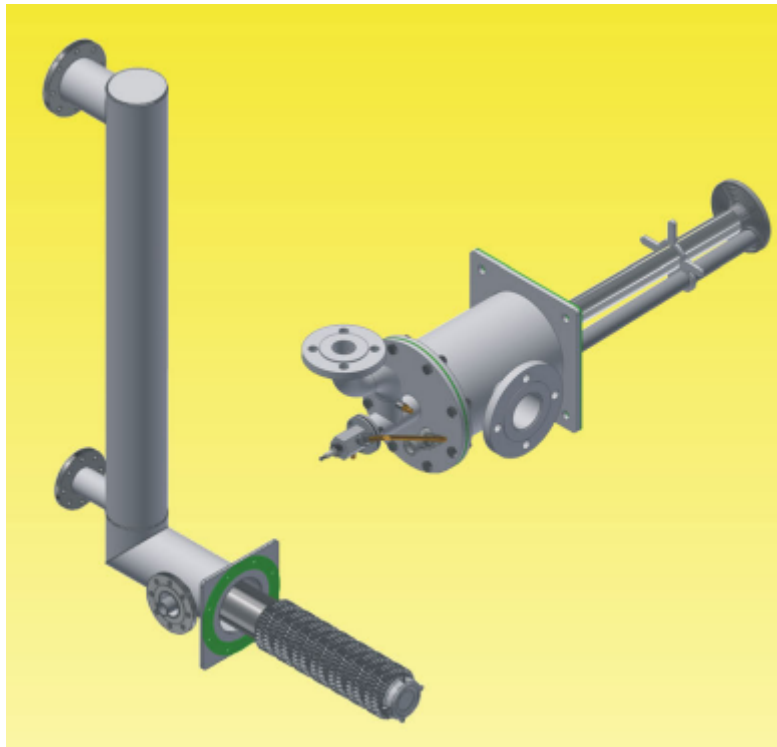




A-U

Radiation Tube Burner Series



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A-U Radiation Tube Burner Series

U / W radiation tube has uniform temperature and low nitrogen emission heat recovery

Features

- The length of the flame can reach five meters, and the temperature is more uniform.
- Efficient preheating recovery. When the furnace temperature is 950 °C, the exhaust gas temperature can be reduced to 450C, which is more energy-saving.
- Flue gas circulation, lower emissions.
- The heat exchanger can choose the shape structure, which is suitable for many kinds of heat treatment furnaces.
- Optional rated power is 90KW and 180KW

Applications

It is suitable for all kinds of heat treatment furnaces using U-shaped and W-shaped radiation tubes for indirect heating, such as retreating line, galvanized line, silicon steel wire and other occasions where flue gas heating is needed.

- Metal Heat Treatment Furnace
- Non-Ferrous Metal Melting Furnace
- Heating Furnace
- Tunnel Kiln
- Shuttle Kiln
- Ceramic Fiber Furnace

Product Description

- | | |
|---|---------------------------|
| ● Air shell: | Low carbon steel |
| ● Material material for air inlet pipe: | Low carbon steel |
| ● Applied maximum furnace temperature: | 950° C |
| ● Fire pipe material: | SUS 304 |
| ● Combustion head: | SUS 310S |
| ● Fixed flange: | Q235 |
| ● Heat exchanger fin tube: | Heat resistant cast steel |
| ● Preheat the air: | Normal temperature |
| ● Adjustment ratio: | 1:3 |
| ● Power: | 90~180KW |
| ● Fuel: | NG/LPG |
| ● Gas Pressure: | 50mbar |
| ● Air Pressure: | 90mbar |

Ignition and Flame Monitoring

- Flame detection can choose UV ultraviolet, ultraviolet probe has a protective device.



Performance

A-U Radiation Tube Burner Series

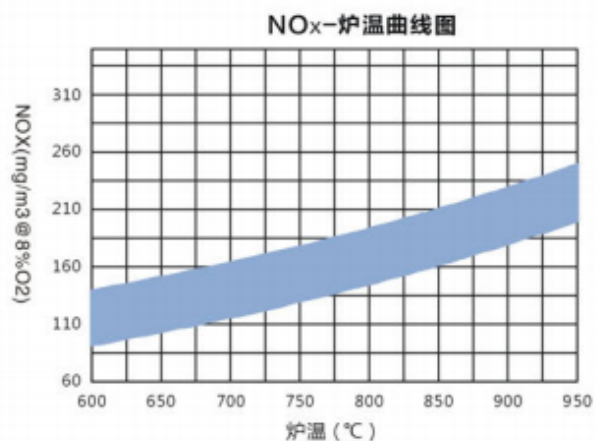
B-Furnace temperature curve of NO_x emission

NO_x-Furnace temperature curve

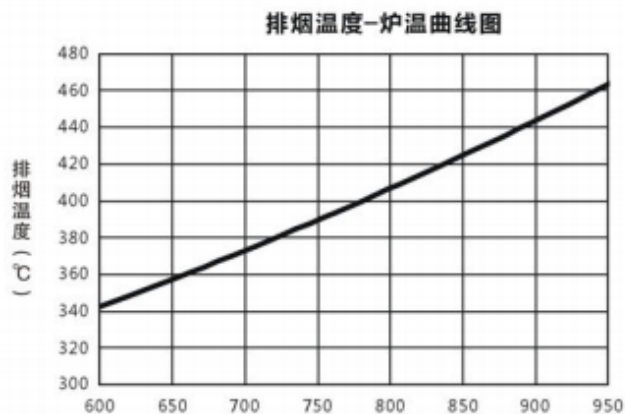
B-exhaust temperature-Furnace temperature curve

Exhaust temperature-Furnace temperature curve

氮氧化物排放炉温曲线图



排烟温度—炉温曲线图



Type selection

Type selection of Burner

Model		A-UB	180	N	-545	
Power 90 180						
Type of gas: N: Natural gas; C: Coke oven gas; G: Liquefied gas						
Length 445 495 445+50*n						
Note						

Example: A-U B180N-445

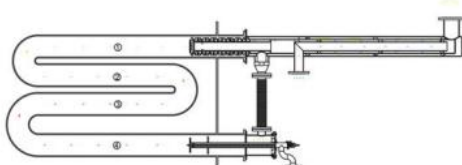
Type selection of heat exchanger

Model	EI	170	-455	
Heat exchanger type E: primary heat exchanger; EI: type-I secondary heat exchanger EL: Type-L two-stage heat exchanger				
Inner diameter of radiation tube: 150: 156~168 170: 178~186				
Length of heat exchanger: 445 495 445+ 50*n				
Note				

Example: EI170-445

Temperature uniformity of AU radiation tube

In the test method, thermocouples are arranged on the radiation tube according to the following figure, and the temperature is recorded with the change of furnace temperature.



Thermocouple arrangement position



Radiation tube for testing

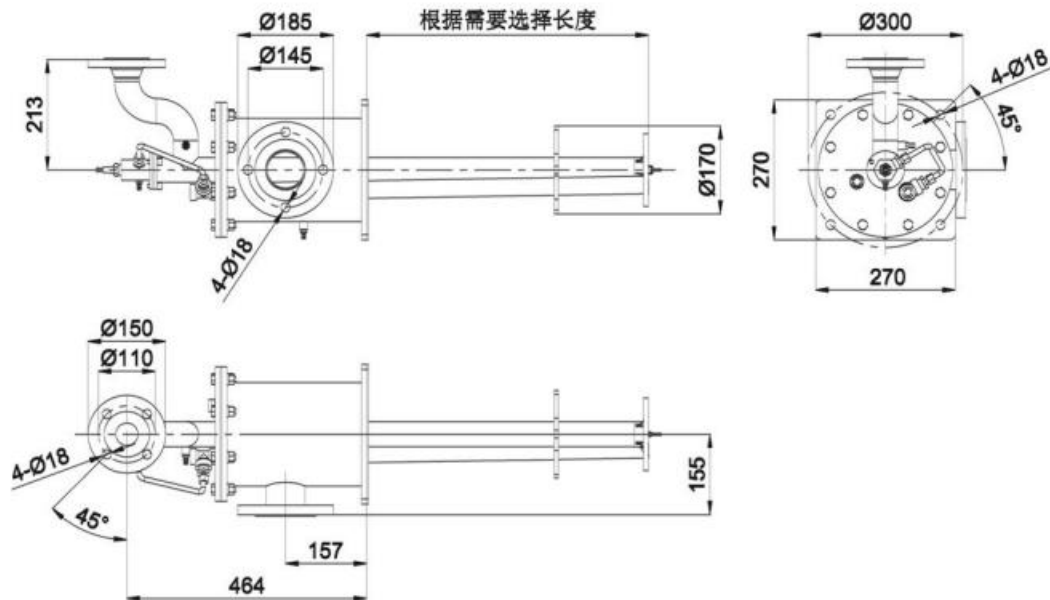
Test results:

Furnace temperature	Temperature measuring point(1)	Temperature measuring point(2)	Temperature measuring point(3)	Temperature measuring point(4)	Maximum temperature difference
940	945	948	973	983	38
920	928	926	948	959	33
900	911	907	926	935	28
880	895	888	905	913	25
860	877	868	884	890	22
840	857	848	863	868	20
820	838	828	842	847	19
800	820	810	822	824	14
780	801	790	801	802	12
760	781	770	780	781	11
740	762	752	759	759	10
720	743	732	740	739	11
700	724	713	720	717	11

B-Installation

Installation Dimensions of A-U B180N-X Burner

Select the length as needed



Dimensions of A-U burner core burner

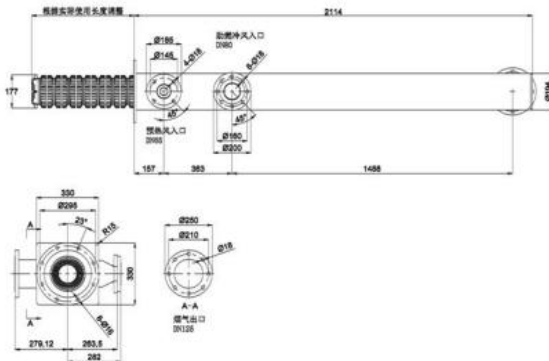
A-U Radiation Tube Burner Series

Conditions for use of A-U burners:

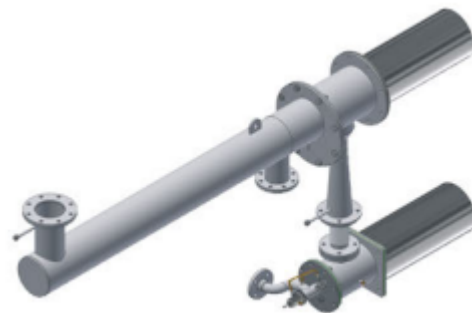
The smoke exhaust port provides negative pressure 2KPA.

The orifice plate device or other flow monitoring device on the combustion air and gas pipeline.

The wind pressure in front of the mouth is not lower than 8KPA.



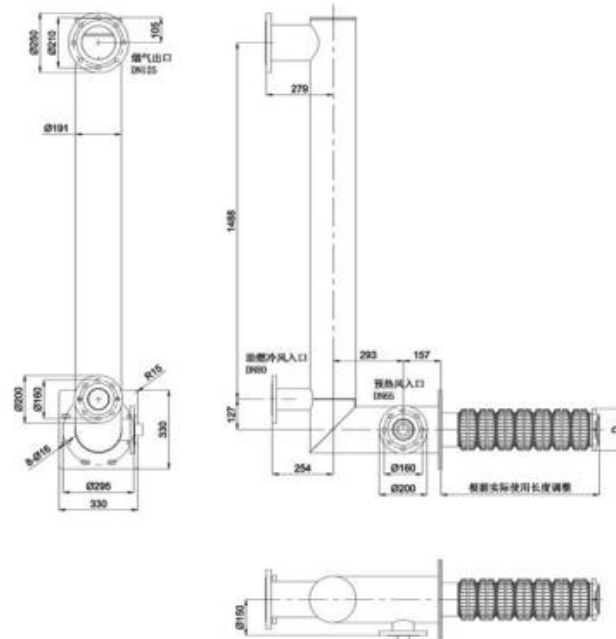
Dimensions of type-I heat exchangers



Type-I heat exchangers



L-shaped heat exchanger



Dimensions of L-shaped heat exchanger