



Bogie Hearth Furnaces

Air Circulating Chamber Furnaces



Bogie Hearth Furnaces



1. Model

RTL3-80-10 Bogie hearth electric resistance furnace

2. Main Technical Parameter

Furnace inside Dimensions	LxWxH = 1100x900x800
Heating Mode	Electrical Heating
Maximum Working Temperature	1000°C
Power for Heating	0 ~ 80 KW
Power of Driver Motor of Bogie	1.1 KW
Power of Jacking Motor of Fire Door	0.55 KW
Temperature evenness	±7 °C
Accuracy of Temperature Control	±1 °C

3. Equipment Construction

Bogie hearth electric resistance furnace consists of furnace body, furnace lining, electric heating element, electric lifting fire door, electric trolley, hearth plate, and control cabinet.

◆ Furnace body steel construction

Take high quality Q235 steel plate as furnace casing steel plate. Dispose the furnace casing according the industrial plant equipment criterion.

◆ Furnace lining

Adopt anti-high temp., good holding, and energy saving multilayer aluminum silicate ceramic fiber furnace lining.

◆ Construction method adopts tile and folding composite construction

steel plate 30mm tile layer, outside is 220mm in width. Spray solid high temperature glue on the surface to avoid fiber flying. Add a layer of asbestos calcium silicon plate on the inner surface of the furnace casing to insulate heat and protect the inner surface off vapor erosion

◆ Electric heating element

Adopt spiral curve or resistance band electric heating element. The electric heating elements are disposed on the side wall and trolley hearth.

◆ Installation method of the side wall electric heating

First, put the spiral curve on the ceramic tube, weld the heat-resisting steel bracket on the furnace body steel plate, and then fix the ceramic tube with spiral curve electric heating element on the bracket. If use resistance band heating elements, please adopt the installation method of ceramic fixing and hanging.

◆ Installation method of trolley hearth heating element

Dispose it on the fire proof layer of hearth.

◆ Fire door

Electric lifting fire door driven by gear box adopts mosaic structure. When the fire door descends, the thermal insulation bag is inlaid in the fire hole under the effect of guiding groove, thus through the mechanical impact method, it can guarantee the good seal of fire door.

◆ Electric trolley

Adopt the frame construction welded by shaped steel and steel plate as the frame body. On the bottom of the frame fixed the running wheel components. The electric running machine adopts the electric gear box as the power source.

The model of chain drive to drive the wheel rolling carried out the bogie moving. Travel mechanism is fixed on the front of frame. The trolley bears the heating furnace and seals the furnace bottom. Adopt the fire-resisting and holding material to place the hearth on the trolley and preserve the installation place for heating element.

◆ Hearth plate

The hearth plate is made of anti-high temperature cast steel which can bear the weight of the heating components, and protect fire-resisting material and heating components on hearth plate. The fire-resisting bricks place the bottom part of the furnace plate.

◆ Control system

The furnace temperature is controlled in district 1 as per power. The temperature control system adopts the intelligence digital display programmable temperature control instrument of Eurothem in Britain as the main control instrument, and adopts the high-power module three phase thyristor as the temperature controlling action element. The measure value and showing value of the main temperature controlling instrument are independent double quaternion. The temperature value can be set by customer. Actuator choose advanced high-power module, and automatically control the furnace temperature through intelligence temperature controlling instrument. The instrument has the fuzzy PID self-setting function. The customers can choose the alarm limit of temperature, alarm method, the upper and lower limits of temperature in according with actual condition of polytechnic.

The recording instrument adopts the 6 points recording instrument imported from YOKOGAWA, which can record 6 temperature curves.

The elements adopt Siemens, Schneider products.

Thermocouple adopts the double thermocouple made in famous manufacturer in China.

This system have the following function: thermocouple break-off protection, over-temperature protection, over-load protection, sound & light alarm, which can guarantee safe and reliable operation.

The trolley running, fire door lifting and furnace temperature control should be linked regarding to the safe running.

4. Technical documents for clients with equipment

Equipment basic drawing, heating components drawing, control system principle drawing, control panel connection table, equipment operation manual, stochastic fitting list, etc.

Air Circulating Chamber Furnaces



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1. Model

RXH-65-7 Heated air circulation heating furnace

2. Main Technical Parameter

Furnace inside Dimensions	LxWxH = 1100x900x800
Heating Mode	Electrical Heating
Maximum Working Temperature	700°C
Power for Heating	0 ~ 65 KW
Power of Driver Motor of Bogie	1.1 KW
Power of recalculating fan	4 KW
Temperature evenness	±5 °C

3. Equipment Construction

Heated air circulation heating furnace consists of furnace body steel construction, insulation furnace lining, heated air circulation blower, electric heating element, fire door, electric cabinet.

◆ Furnace body steel construction

Adopt high-quality Q235 steel plate as the furnace casing steel plate. Dispose the furnace casing according the industrial plant equipment criterion.

◆ Fire resisting furnace lining

Adopt anti-high temp., good holding, and energy saving multilayer aluminum silicate ceramic fiber furnace lining.

◆ Furnace construction

Adopt heat resisting stainless steel plate.

◆ Air deflector

Wind scooper is composed by air deflectors on top and two sides, welded by stainless steel plate. The air deflectors on each side adopt the fabricated structure

◆ Electric heating element

Adopt spiral curve or resistance band electric heating element.

◆ Circulating blower

The blower adopt centrifugal impeller structure. The impeller and shaft are made of heating resisting stainless steel. The shaft and bearing adopt water cooling structure

◆ Fire door

Adopt the manual bisect fire door. The lining is S.S plate.

◆ Control system

The furnace temperature is controlled in district 1 as per power. The temperature control system adopts the intelligence digital display programmable temperature control instrument of Eurothem in Britain as the main control instrument, and adopts the high-power module three phase thyristor as the temperature controlling action element. The measure value and showing value of the main temperature controlling instrument are independent double quaternion. The temperature value can be set by customer. Actuator choose advanced high-power module, and automatically control the furnace temperature through intelligence temperature controlling instrument. The instrument has the fuzzy PID self-setting function. The customers can choose the alarm limit of temperature, alarm method, the upper and lower limits of temperature in according with actual condition of polytechnic.

The recording instrument adopts the 6 points recording instrument imported from YOKOGAWA, which can record 6 temperature curves.

The elements adopt Siemens, Schneider products.

Thermocouple adopts the double thermocouple made in famous manufacturer in China.

This system have the following function: thermocouple break-off protection、over-temperature protection, overload protection, sound & light alarm, which can guarantee safe and reliable operation.

The trolley running, fire door lifting and furnace temperature control should be linked regarding to the safe running.

4. Technical documents for clients with equipment

Equipment basic drawing, heating components drawing, control system principle drawing, control panel connection table, equipment operation manual, stochastic fitting list, etc.



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