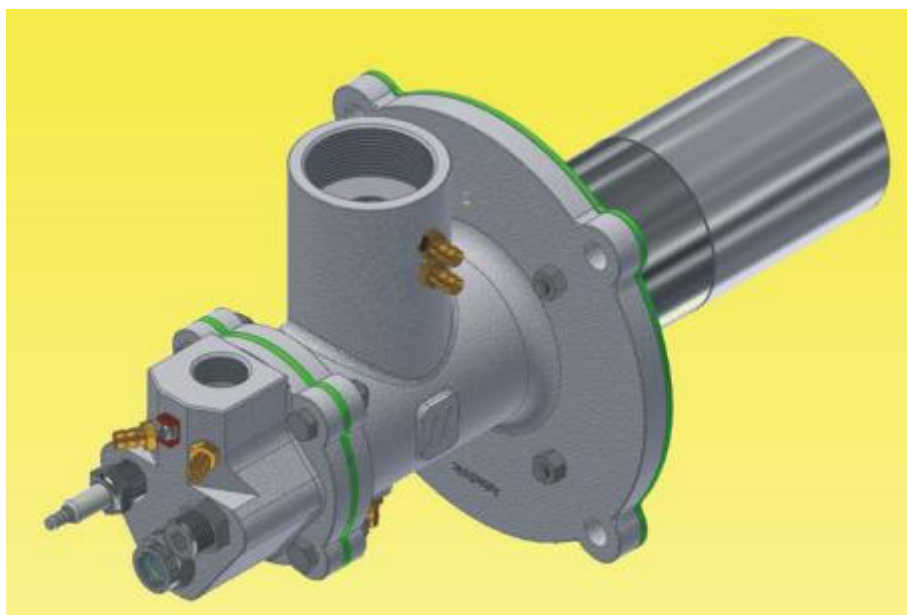




## **A-HMF Series**

### **High Momentum And Low Nitrogen Burner**



Foshan NUOE Combustion Control Technology Co., Ltd.

Tel: 4000-8397-18

Web: <http://www.astechnic.net>

E-mail: [Astechnic@163.com](mailto:Astechnic@163.com)

### **A-HMF Series High Momentum And Low Nitrogen Burner**

High momentum flame, large cycle ratio, large regulation ratio, low nitrogen emission

#### **Features**

A-HMF High Momentum and Low Nitrogen Burner can meet the working conditions of high speed, high load and open flame, and provide flame with ultra-low ammonia emission, high speed, large stirring capacity and furnace gas circulation rate. The high-speed jet leaves the burner at a higher speed to optimize the convective heat transfer.

A-HMF High Momentum and Low Nitrogen Burner adopts advanced aerodynamic flame stabilization technology, which can ensure flame stability and reliable ignition under the condition of serious deviation from theoretical air volume and low furnace temperature.

A-HMF High Momentum and Low Nitrogen Burner adopts multi-stage air, gas classification and regional combustion technology to greatly reduce NOx emissions.

A-HMF High Momentum and Low Nitrogen Burner high-speed and high-density flame jet has higher flame momentum, which can effectively promote furnace gas mixing and circulation, improve furnace temperature uniformity and achieve full heating homogenization.

A-HMF High Momentum And Low Nitrogen Burner has ultra-high flame stability and regulation ratio, and its load regulation range exceeds 1:20, which adapts to a variety of control modes and heating process requirements.

A-HMF High Momentum and Low Nitrogen Burner can automatically switch to flameless mode at high temperature, and even if the air temperature reaches 350°C, NOx formation can still be effectively suppressed.



#### **Applications**

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

#### **Product Description**

- |   |   |
|---|---|
| ● Air shell: Cast iron/45# steel                    | ● Maximum preheating air temperature: 350°C |
| ● Material of air inlet pipe: cast iron / 45# steel | ● Power: 108~540KW                          |
| ● Applied maximum furnace temperature: 950°C        | ● Air inlet pressure: 35mbar                |
| ● Fire pipe material: SUS 304                       | ● Gas inlet pressure: 51 mbar               |
| ● Combustion head: SUS 310S                         | ● Fuel: NG/LPG                              |
| ● Fixed flange: Q235                                | ● Adjustment ratio: 1: 20                   |

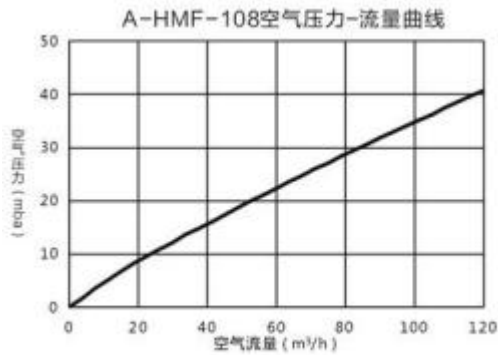
#### **Ignition and Flame Monitoring**

- The ignition of the burner can be achieved through the ignition electrode (model EN or WAND).
- UV ultraviolet can be used in flame detection.
- When the burner is used in the furnace where the temperature is lower than 750°C, it is recommended to install a flame detection system.

## A-HMF Series High Momentum And Low Nitrogen Burner

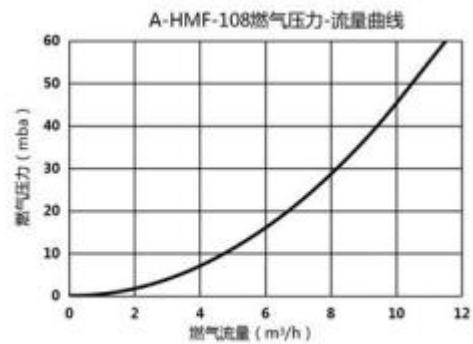
Air pressure and flow characteristics

A-HMF-108 Air pressure flow curve



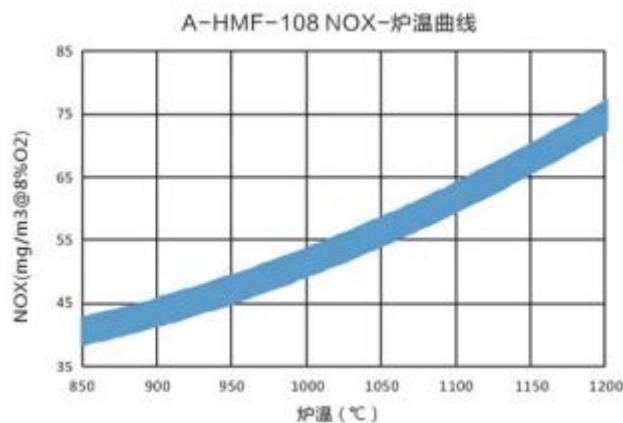
Air pressure and flow characteristics

A-HMF-108 Gas Pressure-Flow Curve



## Emission

A-HMF-108 NOX-Furnace Temperature Curve



A-HMF-108 test data(test condition: air excess coefficient 1.05, Air temperature: 25°C)

## Installation

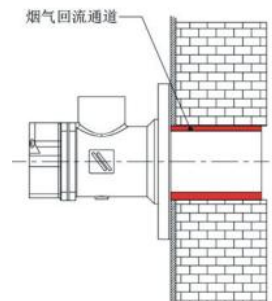
The A-HMF burner adopts carbon steel flange. Horizontal installation is recommended. If vertical installation is required, it may cause water vapor condensation and ignition problems on the electrodes.

A-HMF burners can be used in furnaces with refractory fiber lining, refractory brick or refractory castable masonry.

Specific installation requirements:

The diameter of the burner installation hole reserved in the furnace wall should be larger than the burner metal flame tube diameter 10mm.

In principle, the metal flame tube of the burner is required to be the same as the inner wall of the furnace wall, and there are no special requirements for installation holes.



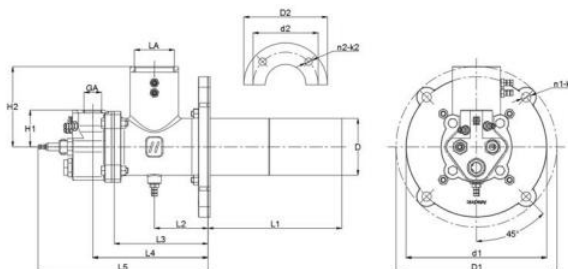
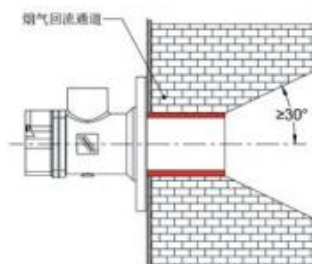
### A-HMF Series High Momentum And Low Nitrogen Burner

When the thickness of the furnace wall is greater than the length of the metal flame tube, the installation hole of the burner should be made of hard refractory, and an expansion should be made in the flame outlet channel, and the expansion angle is more than 30 °, so as to prevent the flame from directly scouring the masonry.

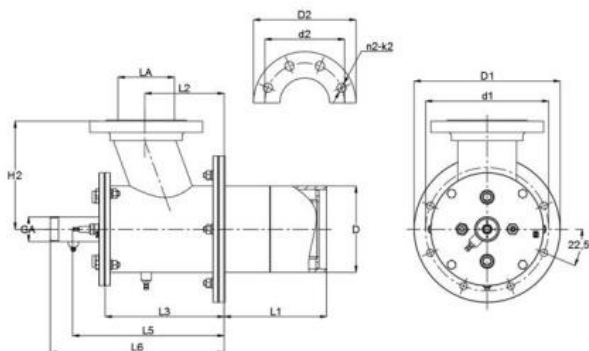
The connection direction of air and gas inlet can be adjusted by 90 ° according to on-site conditions.

The air / gas pipe connected to the burner is at least twice the diameter of the burner inlet to ensure a reliable air supply pressure in front of the burner.

If the thickness of the furnace wall exceeds the length of the burner sleeve, the flame outlet of the installation hole should be expanded by more than 30 °.



Model	Maximum Power /KW	Dimension/mm																	
		D	GA	LA	H1	H2	L1	L2	L3	L4	L5	D1	d1	k1	n1	D2	k2	n2	d2
A-HMF-108	108	85	Rp 3/4	Rp 2	55	112	The length of fire pipe can be customized according to customer requirements.	90	140	172	254	240	210	14	-	-	-	-	-
A-HMF-160	160	102	Rp 1	Rp 2	60	100		103	153	185	266	240	200	14	4	-	-	-	-
A-HMF-225	225	127	Rp 1 1/2	DN65	73	135		120	212	250	337	270	240	14	4	185	18	4	145



Model	Maximum Power /KW	Dimension/mm																	
		D	GA	LA	H2	L1	L2	L3	L5	L6	D1	d1	k1	n1	D2	k2	n2	d2	
A-HMF-450	450	168	Rp11/2	DN100	213	The length of fire pipe can be customized according to customer requirements.	152	232	296	339	284	240	14	4	220	18	8	180	
A-HMF-720	720	194	Rp 2	DN150	232		220	340	404	448	330	295	22	8	285	22	8	240	