# Low NOx flat flame burner SFFF





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### CHARACTERISTICS

- Burner SFFF: flat flame, high radiation temperature, no air scouring when burning, the maximum preheating air temperature up to 600 °C.
- The burner burns quickly to obtain better radiation. In addition, uniform flame temperature distribution thanks to the secondary air structure, reduces the generation of NOx.
- 4 specifications are available within the capacity of 250~800 kW; the recommended furnace temperature is 850~1300 °C.
- Turn down ratio: 1:3.
- Fuel: natural gas, LPG, town gas and other fuel gases.

### APPLICATIONS

SFFF series flat burners are mostly used for the furnace with direct/radiant heating and centralized air heat exchanger, such as trolley furnace, chamber furnace or ring furnace and other directly heated industrial furnace.



### CONFIGURATION

- The burner is composed of a burner insert, an air housing and a burner block.
- A double-flange orifice plate is required in the gas pipeline for gas pressure measurement.
- The air inlet is equipped with a double-flange orifice plate by default.
- The SFFF burner is ignited by a pilot burner and adopts UV detection, or only detect the flame signal of pilot burner and without detecting the main burner.

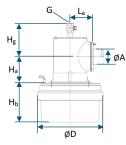
### SPECIFICATION

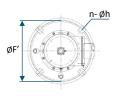
### Type table

Туре				SFFF	500	Ν	-350
Rated capacity	200 30	0 500					
Fuel	N: natural g	gas P: LPG	T: town gas				
Block thickness	350: 350mr	n					

Please contact us for other rated capacity.

#### Dimensions





Unit: mm

Туре	Rated capacity /kW	A	G	La	Hg	Ha	H⊾	D	F'	n	h
200	200	89	$Rp1^{1}/_{4}$ "	206	523	230	345	585	540	4	18
300	300	89	$Rp1^{1}/_{4}$ "	206	558	230	345	585	540	4	18
500	500	114	$Rp1^{1/2}$ "	206	558	230	345	585	540	4	18

## SOLUTIONS

 Usually used in double-cross limit flow control, or direct on/off pulse control. Can also be used in continuous control system with an actuator and an air/gas proportional valve.

### INSTALLATION

- When installing, the end of burner block and furnace inner wall must be purged, or the inner wall of the furnace wall must be fixed with a gentle excess area according to the angle of burner block. Hanging rings for hanging installation.
- In order to measure a stable pressure, a straight pipe segment with 5\*DN without any other resistance elements is required in front of the air and gas inlet.

Access	Pressure/mbar			
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Main burner air	50			
Main burner gas	50			
Pilot burner air	60			
Pilot burner gas	50			

 The pipeline must be purged before connected to the burner to prevent welding slag or other wastes from

entering the burner. If a pipe welding is required after installing the burner, ensure that no slag or fuses falls into the pipe or burner during welding.

### OPERATION

#### Attention

- During start-up, keep the heating rate below 100°C/hour, no holds required. When the furnace temperature is lower than 750°C, a large excess air coefficient greater than 1.5 is required.
- If the burner needs to be shut off, the air flow rate must be maintained about 20 m<sup>3</sup>/h to maintain a positive pressure inside the burner to prevent burner from being damaged by furnace chamber hot gas backflow.

#### Maintenance

 Maintenance: SiC ceramic tubes, spark insert, flame state and others. At least once every six months. Increase the times of maintenance, as appropriate.