

产品手册

Product Manual



COMPANY INTRODUCTION

DYDTEC Group is specialized in combustion industry. Our products and services include industrial burner, combustion system, flame treatment system, air heater, heat exchanger, project renovation for combustion safety, energy saving and low nitrogen, maintenance of combustion system. We see us as a solution provider in the combustion industry and can satisfy the needs from customers.

Over 10 years expanding, DYDTEC has supplied thousand of combustion systems and air heaters. We have rich application experiences in various industries including automotive, environment protection, industrial drying, light industry and heavy industry.

Our product applies the European standard EN746 and American standard NFPA86.

DYDTEC entered overseas market in 2016, we have successfully exported our products to the areas including US, EU, Africa, Asia and Pacific.

With our motto of faith, DYDTEC is dedicated to be excellent, honest, diligent, responsible. We have become the industrial combustion market leader in China and we are ambitious to become an outstanding brand worldwide in the field of industrial combustion in the next decade.

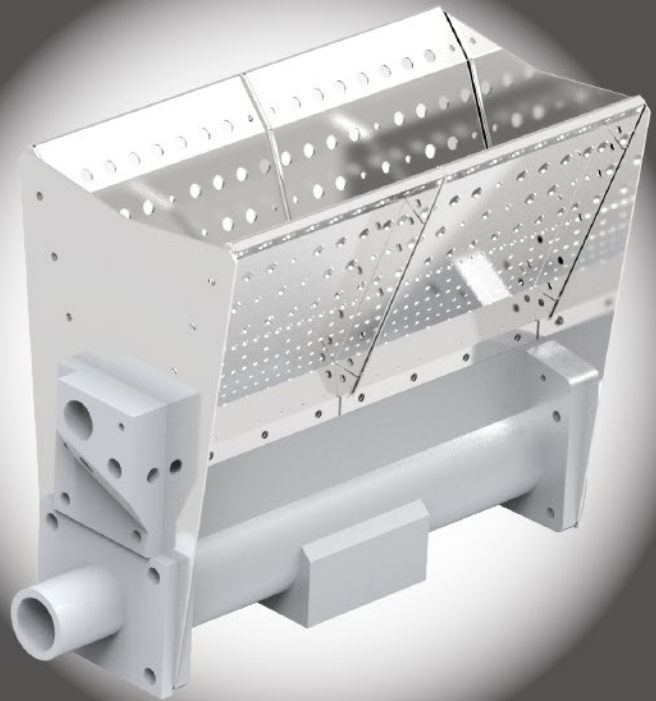
DUCT BURNER

MAKE THE COMBUSTION PERFECT AND SIMPLE



Linofire Direct-fired Heating Burner

Linofire serie burners are designed to heat fresh air, medium & low-temperature air (direct-fired). They are used for processes such as heating, drying or curing for the environment or objects in automotive, medical, food and chemical industries. The burners may also be installed at downstream or preheating section to ensure higher heating temperature.

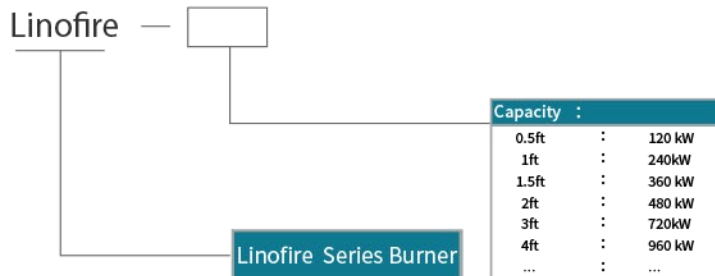


- Designed for direct-fired air heating and medium/low temperature drying
- Modular design (rated power: 240kW/ft)
- Short flame length (max. length: 700mm)
- ANSI/CSA standards
- Turndown 30:1



01

Model Definition



PARAMETERS

Basic Parameters					
Parameter Item	Parameter Values	Remarks			
Rated capacity (kW/ft)	240	For direct-fired air-condition applications, the selected power is 80% the rated			
Differential pressure of air accross the baffle (Pa)	75~250				
Regulation ratio	30:1				
Max. upstream temperature--cast aluminum (°C)	230	The temperature of fresh air after being pre-heated via the heat exchanger			
Max. upstream temperature--cast iron (°C)	325	The temperature of fresh air after being pre-heated via the heat exchanger			
Max. downstream temperature--cast aluminum (°C)	450				
Max. downstream temperature--cast iron (°C)	500				
Max. temperature rise (°C)	400				
Min.upstream oxygen content	21%	Linofire serie standard burners are only suitable for fresh air applications.			
Required pressure of natural gas (Pa)	700	Pressure in front of the inlet			
Maximum flame length (mm)	150~700				
Air flow rate (m/s)	11~20				
Suitable fuel	Natural gas, propane, butane	Gases must be clean			
Operating conditions of typical Linofire series burners					
Fuel type	Natural gas, propane, butane				
Fuel temperature (°C)	15				
Fuel heat value (kWh/Nm³)	10.9				
Fuel specific weight	0.6				
Combustion air temperature (°C)	15				
Oxygen content in combustion air	21%				
Combustion air humidity	≤50%				
Inlet pressure of pipeline	20~30				
Concentration of combustion products (harmful gases) of Linofire series burners under normal					
Fuel Type	Emissions Concentration/ppm				
	CO	Hydrocarbon	NO2	CH3CHO	CO2
Natural gas	3~4	1~2.5	0.1~0.35	0.05~0.14	480~2100
Liquefied gas	3~5	0.5~1	0.1~0.5	0.05~0.17	520~2550
allowable value*	50	/	5	2	5000

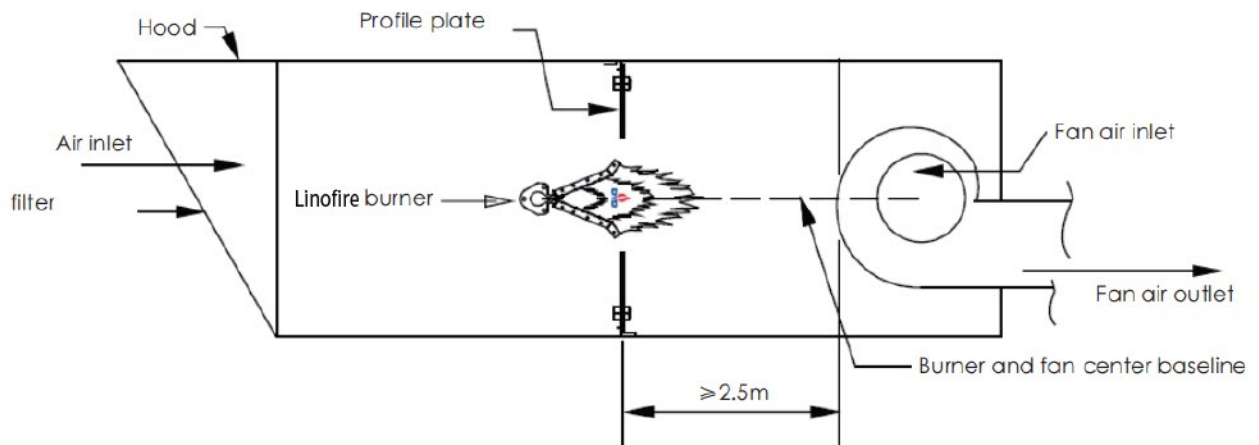
* The standard value is the allowable value required by "Industrial Ventilation" .

02

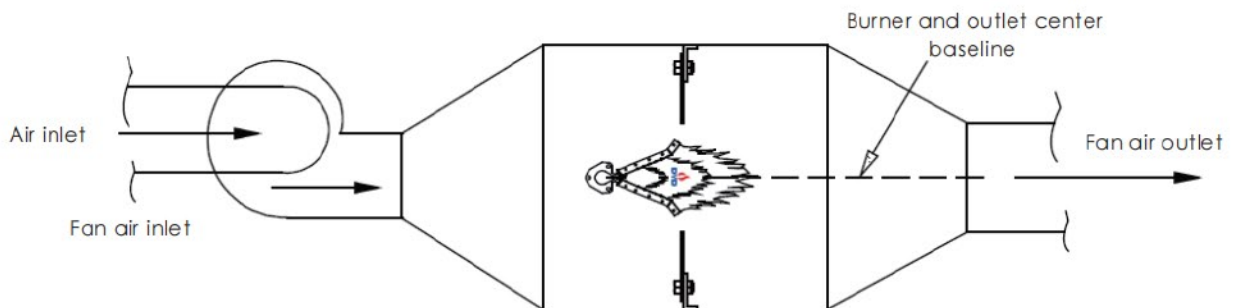
Application 

Typical low-temperature applications include AC heating for painting process, AC heating for general buildings, AC heating for central-station AC heaters, channel heaters, grain drying, malt drying etc. Typical air heating applications for the high-temperature process include the air dryer, chemical dryer, fresh air heating cabinet, bake & curing, metal part modeling, and all applications that heat fresh air to 500°C. Combination methods for burners can be selected based on site conditions for the applications listed above. Typical combinations are described as follows.

EXHAUST SYSTEM



BLOWING SYSTEM

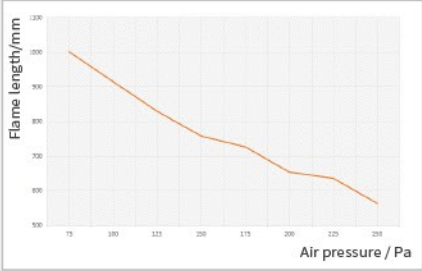


NOTES

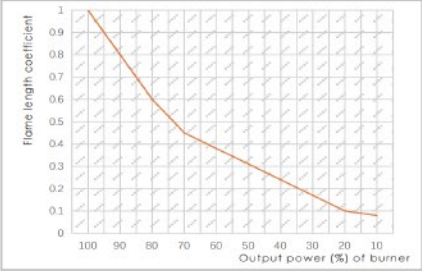
- The design power of direct-fired AC is 200kW/ft. The power of other applications is 240kW/ft;
- The oxygen content in the fresh air 21%;
- The deviation of the flow of fresh air: $\pm 15\%$;
- The rated power of the linear type is 240kW; the rated power of type T is 360kW. Various powers can be obtained by combining them as required;
- Two structures are designed for the unit module: 1) gas enters from the side; 2) gas enters from the back. The structures can be selected based on operation conditions.

03 Data curve

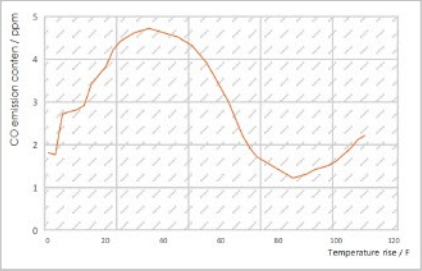
Flame length of burner at 240kW/f



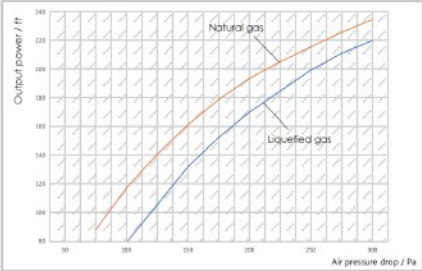
Burner capacity and flame length



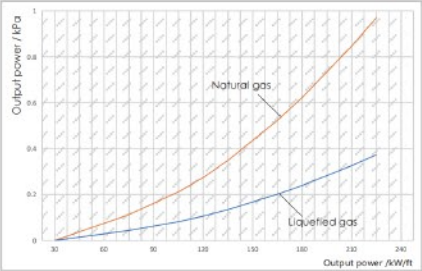
CO emission concentration of burner at 240kW/ft, 250Pa



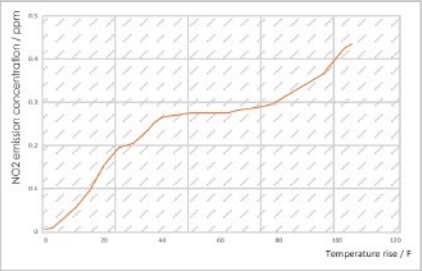
Relationship between burner output power and air pressure drop



Relationship between burner output power and fuel gas pressure drop



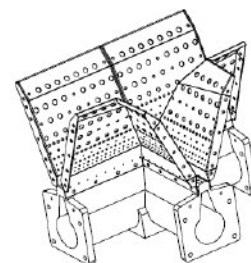
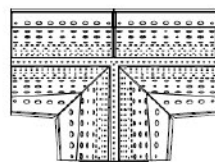
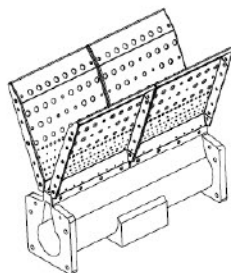
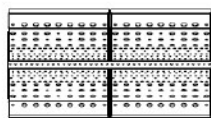
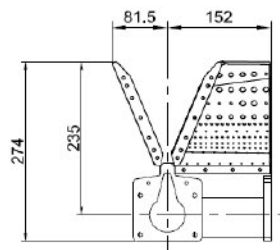
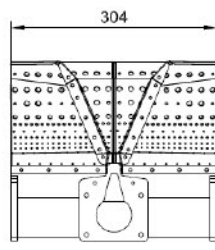
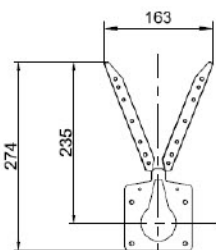
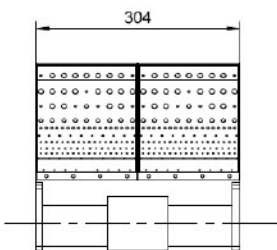
NO2 emission concentration of burner at 240kW/ft, 250Pa



04 Overall

LINEAR TYPE 1FT

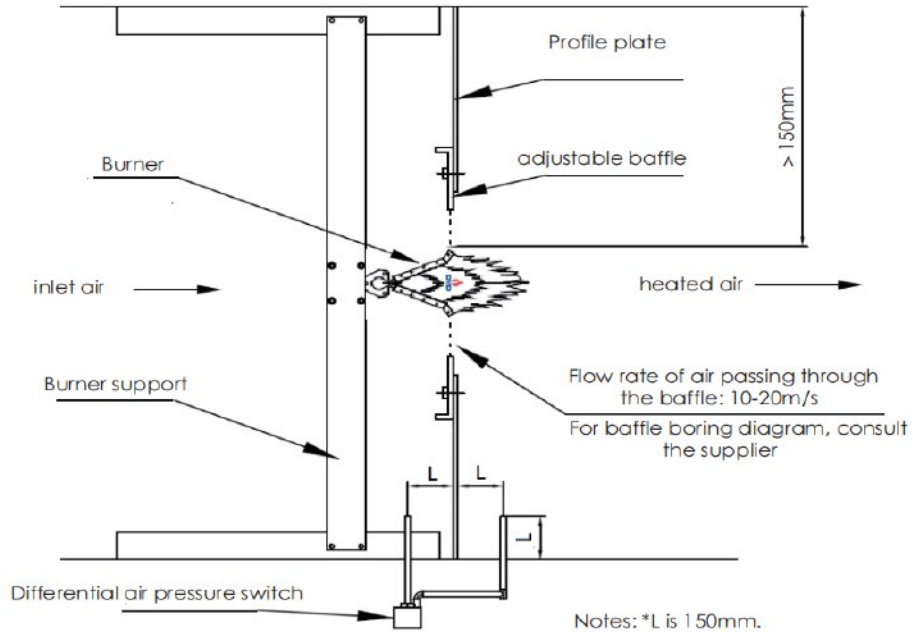
T TYPE 1.5FT



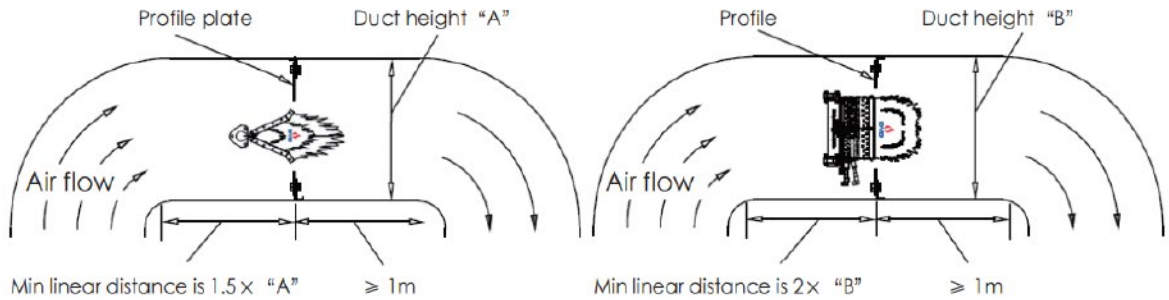
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Installation

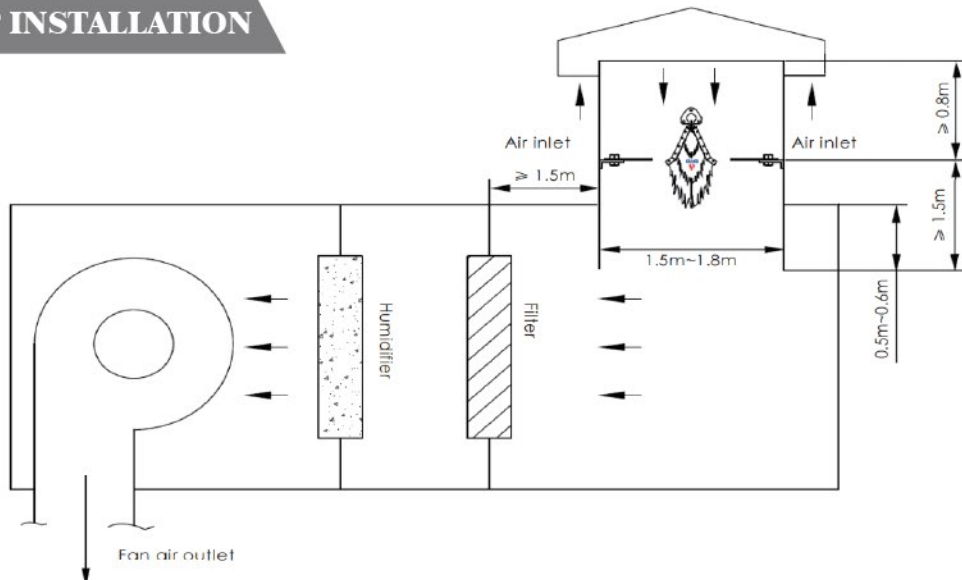
GENERAL REQUIREMENTS



INSTALLATION OF ARC DUCTS



TOP INSTALLATION



INSTALLATION NOTES

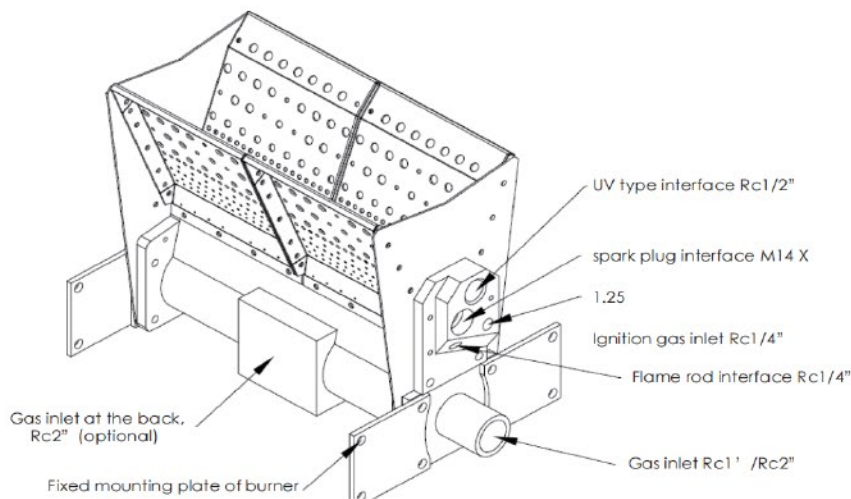
- When arrange burners based on customer needs, make sure the maximum number of modules connected at each air inlet meets the requirements listed below to ensure even distribution of combustible gases.

Gas Inlet Position	Gas Inlet Size	Allowable Max. Number of Module
gas enters from the side	1"	≤1.5ft
gas enters from the side	2"	≤4ft
gas enters from the back	2"	≤5ft



06

Accessories

BURNER ACCESSORIES



- **Notes: Unused interfaces on the plate at the ignition side must be sealed using plugs.**

NO.	Name	Type	Applicable Burner	Photo
1	Flame rod	RP-FE-1/4-150-5	Linofire Series	
2	Spark plug	RP-SE-L	Linofire Series	



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