



## Electric duct heaters

Electric duct heaters are used in air handling systems as primary or secondary heating source for business or industrial facilities. ALES manufactures electric duct heaters with a varying power ratings from 3 kW to 100 kW. They can also be manufactured by order of the customer's need with greater power ratings, custom dimensions or installation types. Our electric duct heaters are manufactured according to all applicable european standards and all of the incorporated components are manufactured by reputable domestic and european manufacturers.. Our types of manufactured electric duct heaters are the following:

- 1. Standard tubular duct heaters**
- 2. Finned tubular duct heaters**

## ADVANTAGES AND DISADVANTAGES

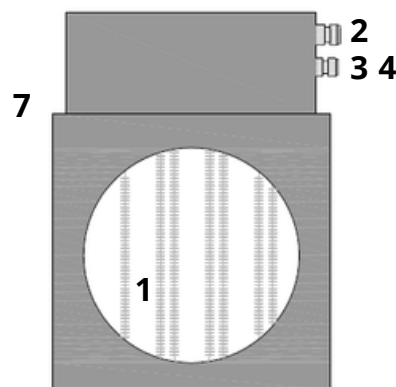
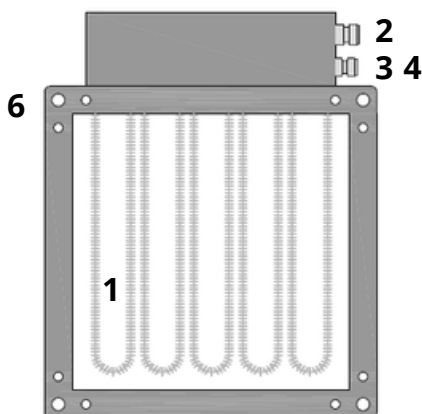
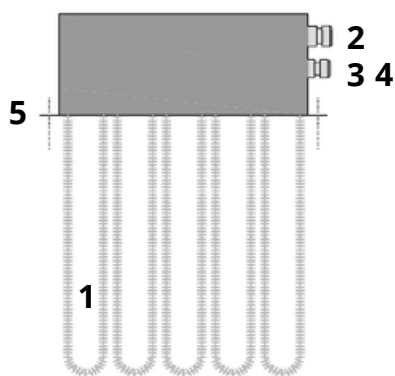
TYPE OF DUCT HEATER	ADVANTAGES	DISADVANTAGES
Standard tubular duct heater	<ul style="list-style-type: none"><li>- Less sensitive to humidity and dust</li><li>- Suited for demanding environments</li><li>- Excellent mechanical resistance</li><li>- Heating element is not in direct contact with air</li></ul>	<ul style="list-style-type: none"><li>- Increase in pressure drop</li><li>- Less heat dissipation</li></ul>
Finned tubular duct heater	<ul style="list-style-type: none"><li>- Good heat dissipation</li><li>- Less sensitive to humidity and dust</li><li>- Suited for demanding environments</li><li>- Excellent mechanical resistance</li><li>- Heating element is not in direct contact with air</li></ul>	<ul style="list-style-type: none"><li>- Increase in pressure drop</li></ul>



## Finned tubular duct heater

Finned tubular duct heaters are manufactured with power ratings from 3 kW to 100 kW, however we offer even higher power ratings according to customer's order. According to installation they can be manufactured as insert type, flanged or round type

### Components



- 1. El. heaters
- 2. Power cable inlet
- 3. Thermostat cable inlet
- 4. Inlet for series fan command cable

- 5. Insert type duct heater
- 6. Flanged type duct heater
- 7. Round type duct heater

**Note: Dimensions of duct heaters are according to customer's order**

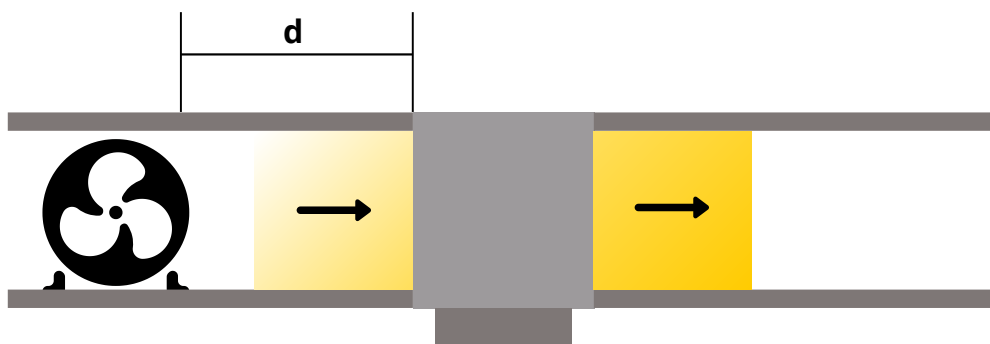




## Installation

1.

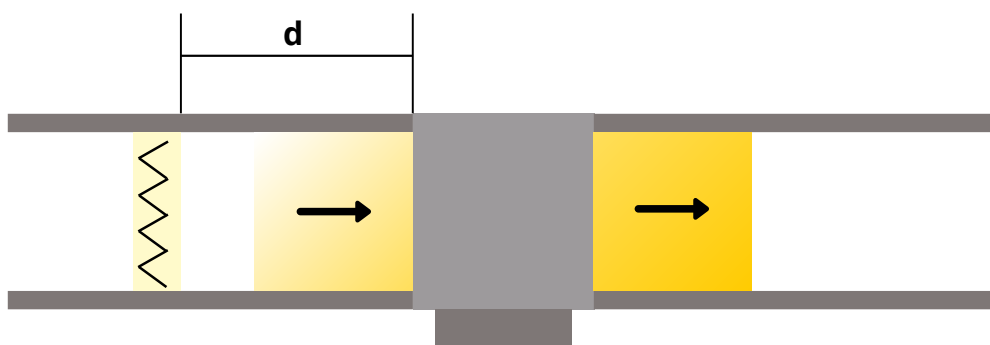
Fan



$d = 3 \times \text{duct diameter}$

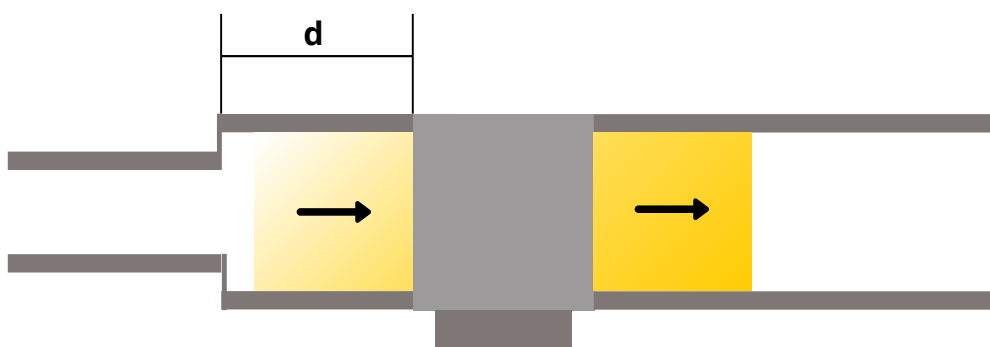
2.

Filter



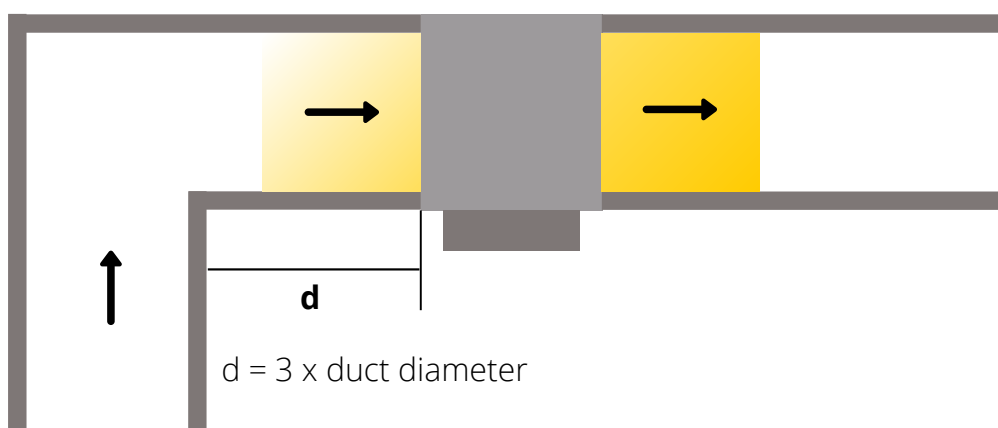
$d = 3 \times \text{duct diameter}$

3.




$d = 3 \times \text{duct diameter}$

4.





$d = 3 \times \text{duct diameter}$



 Nikola Parapunov 3a/33

 [contact@ales.com.mk](mailto:contact@ales.com.mk)

 +389 2 3079 286

 [www.ales.com.mk](http://www.ales.com.mk)

## Technical specification

Power	3-100 kW
Voltage	230 V AC/380 V AC, 50 Hz
Safety thermostat at 70 °C (automatic reset)	
Safety thermostat at 110 °C (manual reset)	
Safety thermostat at 140 °C in case of a sticky contactor (manual reset)	
Thermostat command contact	
Series fan command contact	
Differential pressure detector(optional)	
Minimum distance from duct obstacle: 3 x duct diameter before & after duct heater	

