Technical Data Sheet

Industrial Heater

Model No BLH6000-54, 480V, 3Ph, 60Hz, 54kW

Note: Read and follow the Blastline Blast Machine Operations Manual and provide proper training for all users of the machine and related accessories in order to achieve a safe and effective blasting operation

Features

Industrial electric heaters provide clean, dry, hot temperatures for large-capacity industrial and other enclosed space applications. With one heater activated, the increase in temperature of the air leaving the heater will be approximately 14.4 °C above ambient. Each additional heater will increase the temperature by the same amount. Thus, the air exiting the unit could be 43°C higher than the ambient temperature. Please note, however, that this is the increase in the air temperature exiting the heating unit. We are not able to maintain the steel temperature at this value without appropriate insulation.

Applications

- Space Heating
- Maintain a comfortable and efficient workspace.
- Increase worker productivity
- Dehumidifying the space
- Paint Curing
- Food grain storage
- Fast paint drying
- Shutdown maintenance jobs

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Specifications

Volt.	480v
Power	54kw
Frequency	60hz
Air flow	**6000 m³ per hour**
Heaters	3*18kw=54kw
Heat transfer	61000 BTU
Amps	70A
Phase	3ph
Inlet	16inch
Outlet	16inch
CFM	3500
Blower motor specification	480v, 60hz, 4A, 3Ph, 4Amps
Rpm	3300
Outlet temperature	150 above
CFM	3500 CFM
Blower Specifications	
Volt	480V, 3Ph
Frequency	60 Hz
Amps	4 amps
RPM	3500 rpm

Workings

Our units are heaters, in which we have three sets of heaters, 18 kW each. There are three switches, and each can be turned on and off. Each of the heaters will increase 10 to 15 °C above ambient temperature. The second heater will increase 20 to 30 degrees Celsius above ambient temperature, and with all three heaters, the temperature will increase 30 to 45 degrees above ambient temperature.

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Likewise, the relative humidity also decreases 10 to 15% for each heater. You can see the table below as an example of a case study.

Heater #	Temperature			Relative Humidity	
	T1	T2	ΔT(T2-T1)	RH1	RH2
#1	23°C	37°C	14°C	47% RH	22% RH
#1+2	23°C	49°C	26°C	47% RH	22% RH
#1+2+3	23°C	60°C	37°C	47% RH	22% RH

The heater has a blower 440/3/60, 380/3/60, 220/1/60, or 220/1/60, or it can also be air-driven. The size of the mouth of the heater is 16 inches, and this blower will force draft 6000 CFM of air into the vessel/tank through the heater. The air will be blown into the vessel/tank as the heater blower needs to have a capacity of 2,3 or 4 times the volume of the tank/vessel for maximum air exchange per hour.

For surface preparation standard, Swedish Standard SA 2 .....2 air exchange

For surface preparation standard, Swedish Standard SA 2.5....3 air exchange

For surface preparation standard, Swedish Standard SA 3 .....4 air exchange

The blower can be designed according to the capacity of the tank. Likewise, the heater capacity can also be increased by adding more heating elements. The heaters can be worked with 380/3/60 or 440/3/60, depending upon the availability of the supply.

In areas of no electric supply, electrical generator sets can be used, and our requirement is 75 kVA gen sets. Electrical cables are not part of the supply, and they need to be supplied by the user, as we do not know the length of the cable required.

16-inch flexible ducts are used for the delivery of the heated air into the tank/vessel. This output air can be split into two or three smaller ducts.

The heater will be employed throughout the blasting and coating time

saving of curing and recoat interval.

Case study of Hempel APCS 2 A

At 12 °C, the curing time is 72 hours

At 30 °C, the curing time is 13 hours

At 50 °C, the curing time is 4 hours

At 60 °C, the curing time is 2 hours

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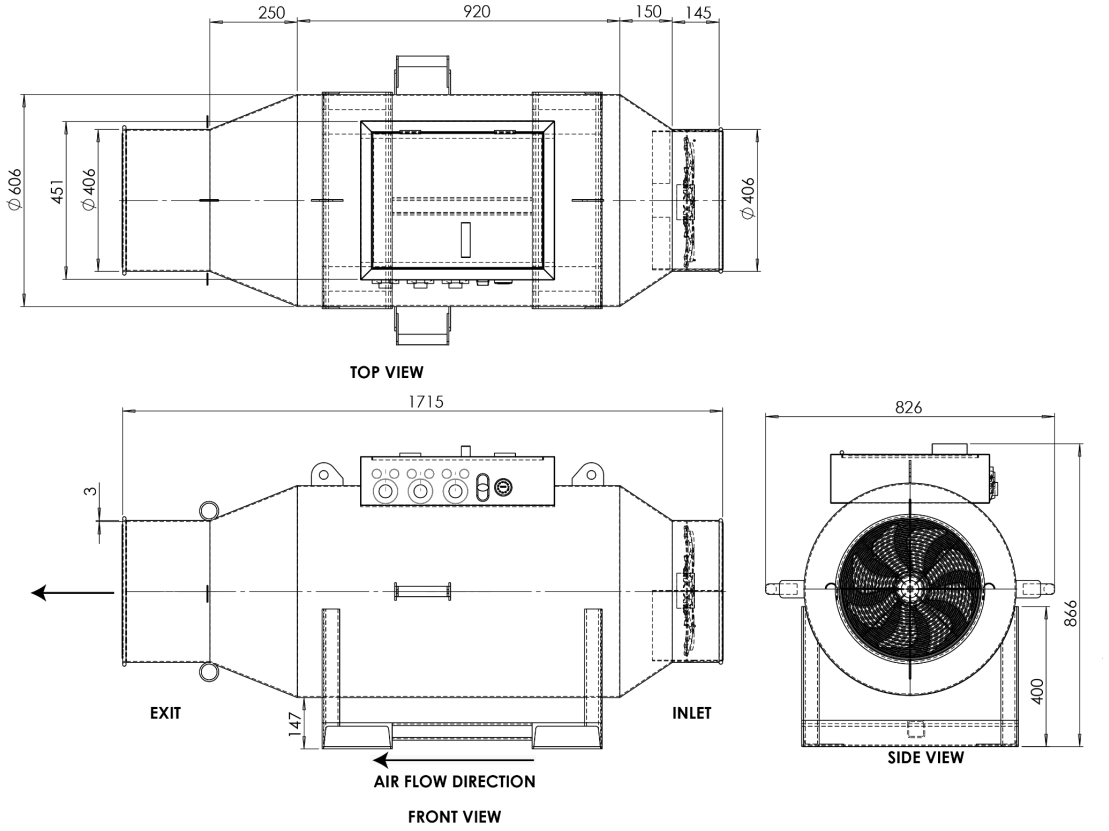
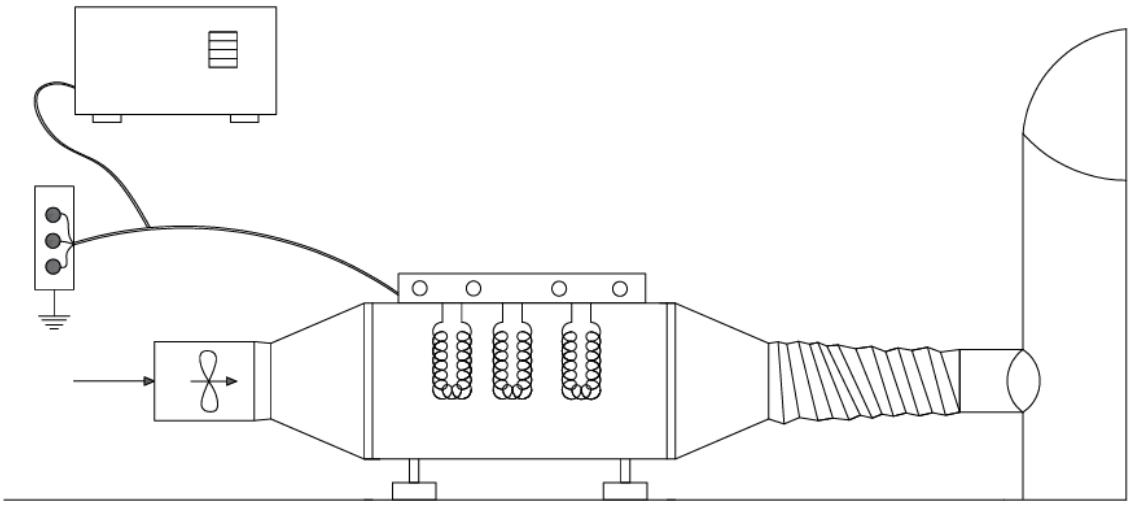
Construction



Industrial Heater Set-up



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