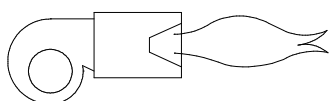


ICAM



TYPE AHP
INDIRECT FIRED
AIR HEATER

COMTHERM
PROCESS AIR HEATER



THE AHP AIR HEATER

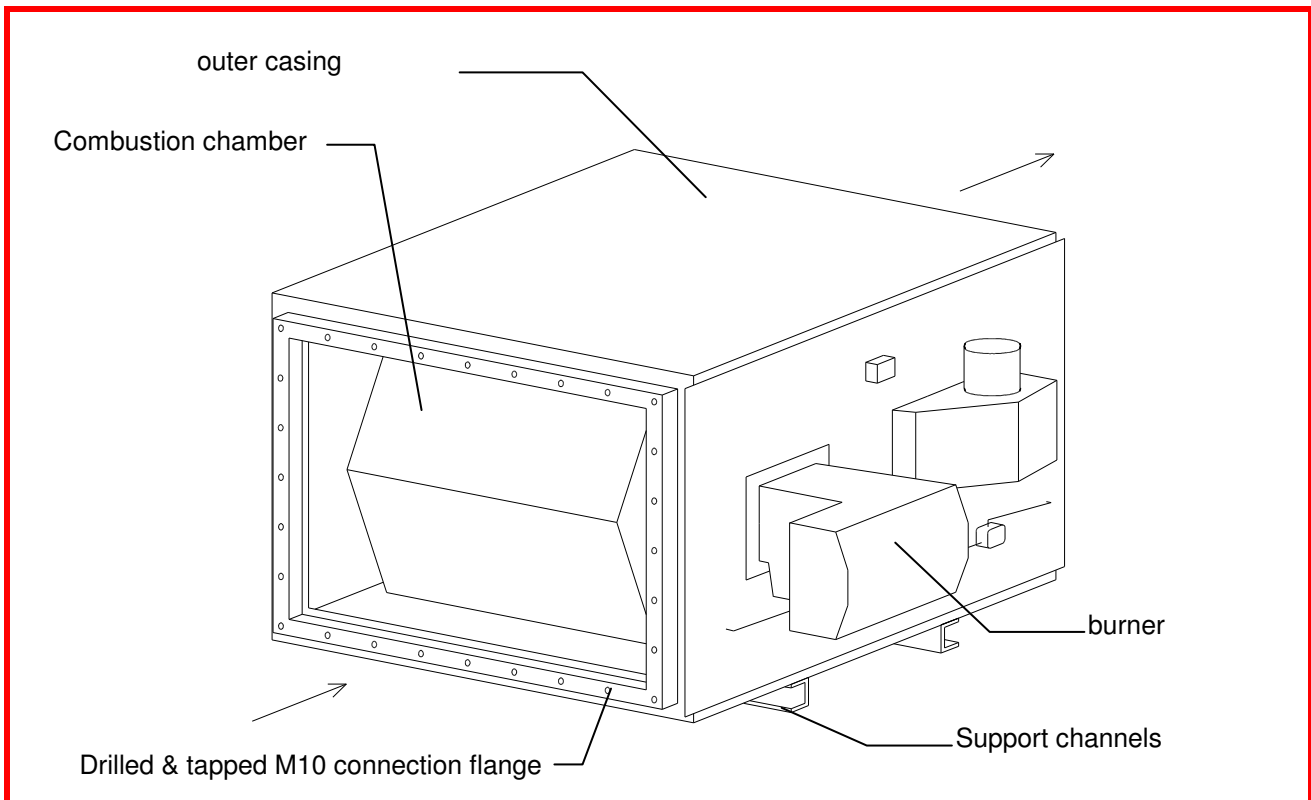
The 'AHP' series of indirect heat exchangers are designed for commercial air heating applications

The robust construction of the units make them an ideal heat source for shopping centres and commercial premises.

AHP heaters are usually fitted with a high temperature limit thermostat or thermocouple unit, in order to protect the heat exchanger from excessive overheat.

The outer casing of the AHP unit is manufactured from standard carbon steel and is of an uninsulated construction.

The complete inner assembly can be withdrawn on the frontplate for repair or servicing; the tube banks are fitted with an end inspection cover to facilitate cleaning.



Heater capacities of thermal outputs from 60kW to 1200kW are available.

The standard AHP heaters consist of a heat exchanger module with combustion chamber, primary tube bank and a two pass economiser section.

The heat exchanger section is generously rated for heat transfer surface area; a transfer rate of **12.62 kW. Per M³** has been used for the design

The combustion chamber and the tube banks are manufactured using high-grade stainless steels and both the chamber and tube bank assembly are independently mounted to cater for differential expansion.

BURNER ASSEMBLIES

Each AHP unit is supplied with a pre-packaged and prewired burner assembly which would include all of the necessary burner fuel safety valves, pressure switches and automatic ignition and flame safety equipment.

Burners supplied are usually of the modulation type however burners built to special specifications depending on application and country of installation can be fitted.

Burners packages are fully tested and the operation of all components checked before despatch from the factory.

FUEL SUPPLY

Burners can be fitted for operation with natural gas; LP gases or light fuel oils.

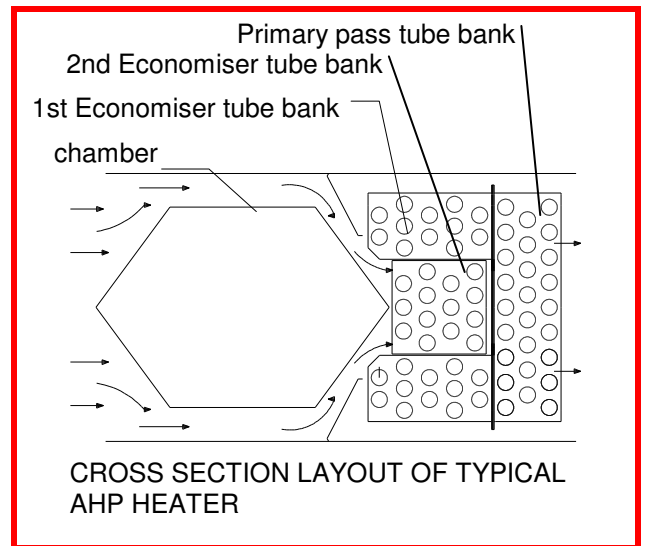
All gas burners are sized to suit an inlet gas pressure of 17.5mbar (natural gas) or 30mbar (LP gases) unless otherwise specified. Burners can be supplied to suit other fuel types and supply pressures.

DIRECTION OF AIR FLOW

Standard AHP heaters are arranged to fire horizontal in the direction of airflow from left to right. (SF)

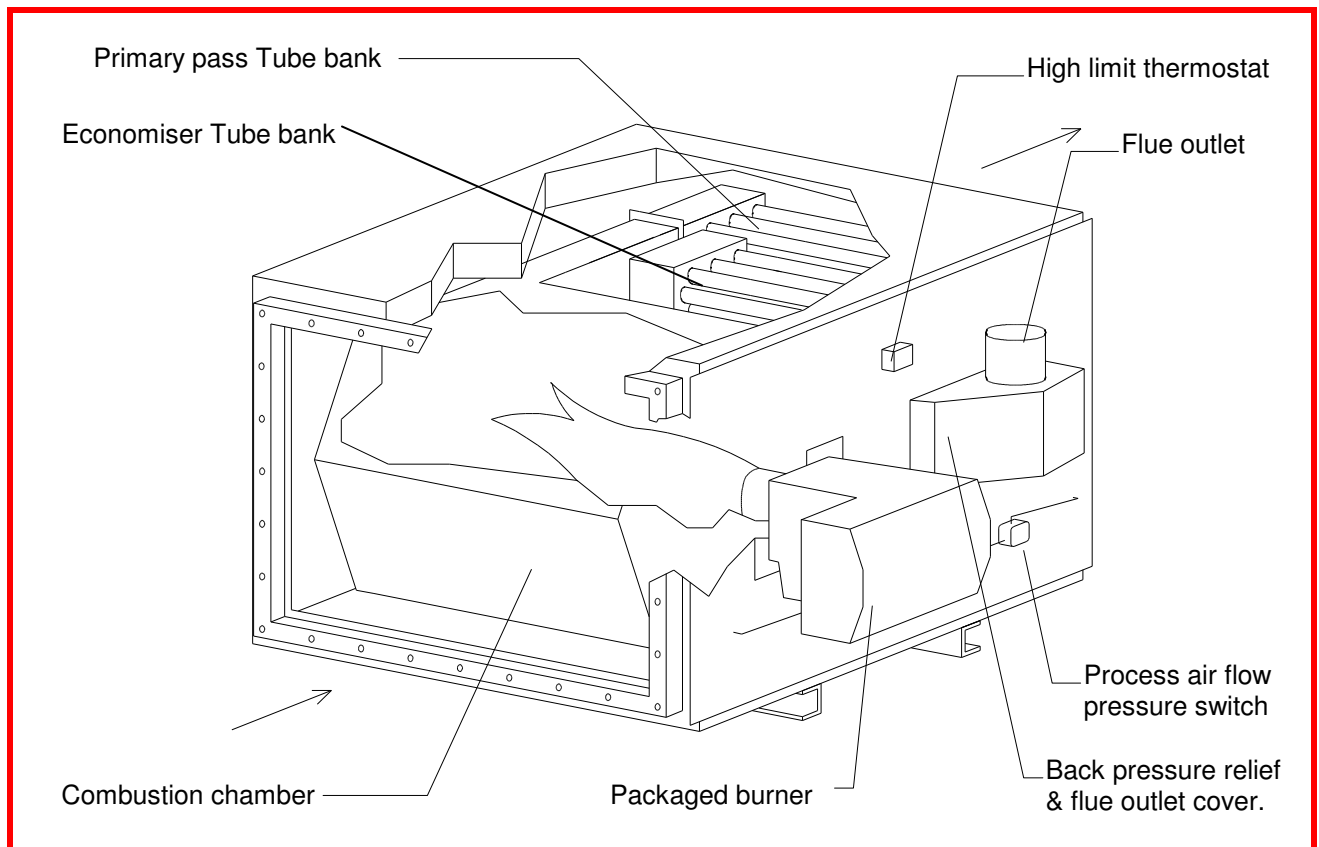
Heater units can be supplied for firing into duct systems with vertical upward or downward flow.

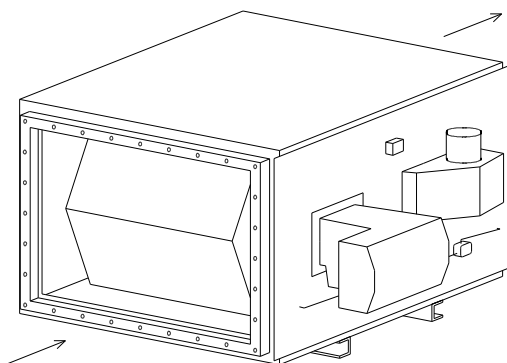
Airflow should be uniform across the air duct, both upstream and downstream of the heater.



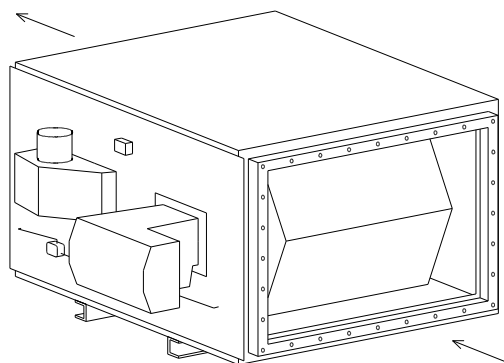
ELECTRICAL SUPPLY

The AHP units can be supplied fitted with burners to suit almost all types of electrical supply; including all common industrial three phase (50 or 60Hz) power supplies and with 110/120v or 220/240v control circuits. Burners to suit other electrical supply voltages can be supplied specially to suit a specific application requirements.



SF

STANDARD AIR FLOW DIRECTION

OF

OPPOSITE AIR FLOW DIRECTION

USEFUL FACTS TO ASSIST IN BURNER SELECTION.

HEAT & PRESSURE DATA :-

1KW = 3412 Btu.hr = 859Kcal.hr = 3.6MJ.hr.

1mbar = 0.4" w.c. = 10mm w.c. = 100Pa.

AIR DATA :-

1 C.M. = 35.315 Ft³ = 1.293 Kg at 0°C

1 C.M.sec = 2119 cfm

WHEN ORDERING HEATERS PLEASE SPECIFY THE FOLLOWING INFORMATION:-

Type of fuel and supply pressure to burner.

Process air duct pressure

Weight of air at heater inlet Kg.Hr.

Temperature of air at heater inlet deg. C.

Temperature rise required over heater - deg. C

Electric supply data:

Burner motor voltage (1 or 3 phase)

Control circuit voltage (1 phase)

Type of control signal to be used.

Valve and burner specification required.

Direction of firing (SF, OF or vertical)

INSTALLATION, COMMISSIONING AND MAINTENANCE :-

If required a complete delivery, installation and commissioning service can be supplied, including the manufacture and installation of associated steel fabrications and ductwork.

For commissioning and service purposes, units installed above ground level should be supplied with an access platform which should be part of the support steelwork; the platform should be sized for withdrawal of the inner assembly.

An installation and maintenance manual is supplied for all heaters; commissioning must be carried out by competent engineers in accordance with the instructions in the manual.

Maintenance and service contracts are available - this normally includes scheduled site visits by our engineer and the free of charge supply of burner consumables such as ignition electrode and flame rectification electrode.

As these units are built to specific requirements general arrangement drawings are not always available, please contact ICAM for guide sizes

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