

## Ordering

Please have the following information ready when ordering:

- 1 TYPE OF HEATER REQUIRED: CIRCULAR, DUCT MOUNTED OR STAB-IN
- 2 AIR VOLUME (m<sup>3</sup>/s)
- 3 kW LOADING
- 4 SUPPLY – SINGLE PHASE (220 – 240V) OR THREE PHASE (380 – 415V)
- 5 DUCT SIZE – WIDTH X HEIGHT OR DIAMETER
- 6 HEATER ORIENTATION (HORIZONTAL OR VERTICAL)
- 7 ANY SPECIAL REQUIREMENTS

## Quality

Test procedures including flash testing of elements and mechanical testing are carried out on all products and together with constant training will keep AAH's quality high and up to date with our customers requirements. Records are kept of all units in order that any replacement parts can be supplied.

Test certificates are available on request.

## Accessories

We can supply a range of spare parts and extras as needed.

Some of the options available are:

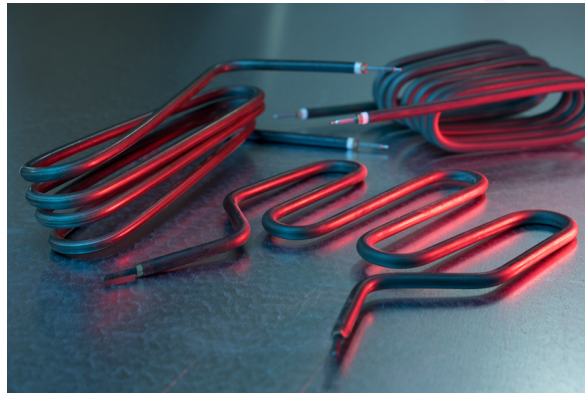
- Programmable room thermostat
- Mez flanges
- Drilled sheet metal flange



# ALL AROUND HEATING PRODUCTS LTD.

DUCT HEATERS · ELECTRIC HEATER BATTERIES

☎ 02380 234206 ☎ 0844 800 8857



**AAH manufacture a range of electric duct heaters which provide a reliable and cost effective source of heating.**

**We have also developed a new, more energy efficient controller using the latest technology.**

We aim to supply standard size circular duct heaters in 48 hours using our online service. Heaters can be supplied with or without our energy efficient controller which uses a self-tuning algorithm which minimises the energy required to maintain the required temperature. If the heater is used in conjunction with a room temperature sensor, the system achieves the maximum possible efficiency in maintaining the required room temperature.

## Heater Selection

AAH heaters are designed for a minimum air velocity of 1.5m/s and a maximum of 6m/s and a maximum output of 60C.

**VELOCITY (m/s)** = Air Volume (m<sup>3</sup>/s) / Duct area (m<sup>2</sup>)

**LOADING (kW)** = m<sup>3</sup>/s x Temp rise °C x 1.23

**CURRENT (AMPS)** = kW x 4.35 - Single Phase, kW x 1.44 - Three Phase

## Product Range

AAH manufacture three main types of heater battery:

### CIRCULAR



Manufactured from 0.9mm galvanised sheet steel to match specified spiral ductwork requirements. Available from 100mm to 500mm diameter.

### STAB-IN



Manufactured from 1.2mm galvanised steel and designed to be mounted for installation into existing ductwork.

### DUCT MOUNTED



Manufactured from 1.2mm galvanised steel with plain (standard) or mez flanges. The duct section is designed to enable the terminal box and element bank to be easily removed for inspection and maintenance.

## RELIABLE & COST EFFECTIVE SOURCE OF HEATING

## Features

BMS 0-10 volt heaters can be supplied in either single or three phase supply and can be mounted in either a horizontal or vertical position.

The new AAH controller and heater package allows for inbuilt controls from 3kW – 135kW three phase (max. 9kW single phase) and comes complete with airflow pressure switch and duct temperature sensor allowing the customer just to run his power cables to the terminals to be up and running. The board also allows for a 7 day timeclock / on/off switch, room sensor and optional fan control.

Our controller can allow customers to remotely switch on and off and can also be supplied with a 7 day timeclock and room thermostat. The LED display on the controller reads the duct temperature when no room sensor is used but will display room temperature when a room sensor is in use.

Optional fan terminals are also provided on our control board to run single phase fans up to 650W or with the addition of a 3 phase contact or run a much larger fan with the same control.

The controller has an LED read out giving error codes therefore allowing the customer to find any fault quickly. Controls designed to meet current EU regulations for EMC.

## Safety

All heaters are fitted as standard with a manual thermal cut-out which cuts out the heater in the event of an airflow failure. It is important to ensure that the cut-out remains operational.

All systems should have an isolator switch which can be locked in an off position. Care must be taken to position the heater to prevent any damage or overheating of any other piece of equipment in or near the system.

All installation and maintenance should be carried out as prescribed by the current I.E.E. regulations.

## Important

It is ultimately the responsibility of the final installer or the person commissioning the project to ensure that all safety control interlocks are functioning correctly and ensure that all systems shut down as they are designed to do.

## Construction

The heaters are constructed from pre-galvanised steel with 20mm knock-out conduit holes and an earth stud. Elements consist of nichrome spiral resistance wire surrounded by magnesium oxide powder and sheathed in stainless steel. The elements are evenly distributed over the area of the duct to ensure even heat distribution.

The surface temperature of the elements is designed to be 400°C at an air velocity of 2.5m/s. Where multiple elements are required they shall be linked by copper bus bar or terminated with electrical connectors.