ISSUE A, MAY 2008

Hard Wired Damper Control Panels

Systems 10, 11, & 12

"Hard-Wired" Systems

Bespoke Systems Available

"Value Engineered" Solutions

Advanced Air

The Hard-Wired Control Panels

On a number of projects the installation of Fire/ Smoke dampers is only small or the control required is of a less complex nature. When this happens an addressable system may not be the best option. In these cases Advanced Air have developed a comprehensive range of hard wired control panels.

The general cut off point for using an addressable system or hard wired (electro-mechanical)l panels is around the 35-45 dampers. This would greatly depend on site conditions, installation cost, position of the panel and the complexity of the control.

Features

- Modular options available
- Bespoke systems to suit customer requirements.
- Value Engineered Options

Hard-wired Panel Range

System 12

The system 12 panel comes in modules of four and control and monitor up to 128 dampers from one panel. Unlike standard hard wired panels the system 12 does not have lamp indication, but has a LCD display showing the damper status in text form. The unique feature of this panel is that the panel screen can be duplicated to provide damper control and monitoring from a remote location. This is not a mimic panel but a copy of the panel screen connected via a 4 core cable only. This feature is especially useful when space in the area the panel is to be mounted is at a premium and appearance is an issue.

System 11

The system 11 panel is manufactured to control a number of Fire / smoke dampers which are individually wired back to the panel. Each damper can be individually monitored with both open and closed status . Test or override facilities can be either collective or individual depending on customers requirements.

The Advanced Air system 11 panels are bespoke manufactured to suit specific customer requirements. The use of this panel would greatly depend on the size of the project and space to install, as the more dampers the larger the panel.

System 10

A basic or entry level panel designed to control and monitor either 24v or 230v dampers manufactured in four sizes. 12, 24, 36 and 48 . Dampers are controlled and monitored in groups of 12 each group being controlled via an external fire zone or override. All dampers are individually indicated and show both open and closed status.

Each of the system 10 control panels provides a volt free contact to interface with a BMS, to show the panel is in alarm or fault condition.

Standards

The design of Advanced Air panels allows the relevant sections of the British Standards to control smoke in buildings if a fire occurs, to be addressed. The applicable parts of the British Standards for control panels are taken into account together with conformity to the current EMC regulations.

System Design

The system consists of the following main components:

- Main Control Panel(s)
- Motorised dampers

System Options

All Advanced Air Hard wired Damper Control Panels come with a variety of options which include but are not limited to:

- BMS monitoring
- Fan control
- Remote hard wire Firemans switches.

Further Technical Details

A full technical description of the system components and requirements is available separately.

Technical Advice

For further details and guidance on designing a system incorporating an Advanced Air hard-wired control panel, please contact the Projects Department.

Dimensions

Main Control Panel

Various size options are available to suit the individual project. Please contact us for more details

Smoke & Fire Damper Control System 12

Actively prevents the spread of smoke and fire through a ductwork system

Introduction

The System 12 control panel has been developed to provide a low cost alternative to standard hard-wired control panels. It has a short lead time for production and combines the need for hard-wiring to each damper with a liquid crystal display and push button operation on the control panel. With the added extras of being constructed in module form, with each module controlling four dampers, any System 12 panel can be expanded on site by the customer up to a maximum of 128 dampers at low cost. Further savings on wiring cost can be made with the control panel display and control unit being installed remotely from the main control panel (Optional).

Features

- Monitors and controls up to 128 dampers
- Unlimited fire zones-dependent on damper control requirements
- LCD display to show dampers in list form
- Panel display and control can be mounted remotely up to 500 m. from main control panel
- Push-buttons to control dampers on screen and connected to the control panel
- Dampers individually wired to the control panel
- Screen display/damper information via EPROM on the LCD module
- Building Management System (BMS) communication via volt-free contacts
- Fireman's override control/damper manual operation
- Flush or surface panel mounting
- 240 Vac./1 phase/50 Hz. supply to main panel as standard, other voltages on request
- Damper voltage to be confirmed by customer
- On-site commissioning (if required)

Standards

The design of Advanced Air control panels allows the relevant sections of BS5588, to control smoke in buildings if a fire occurs, to be addressed. The applicable parts of BS5839 are taken into account, together with conformity to EMC regulations (EN60204).

General Wiring Arrangement
Advanced Air System 12 Hard Wired Damper Control Panel

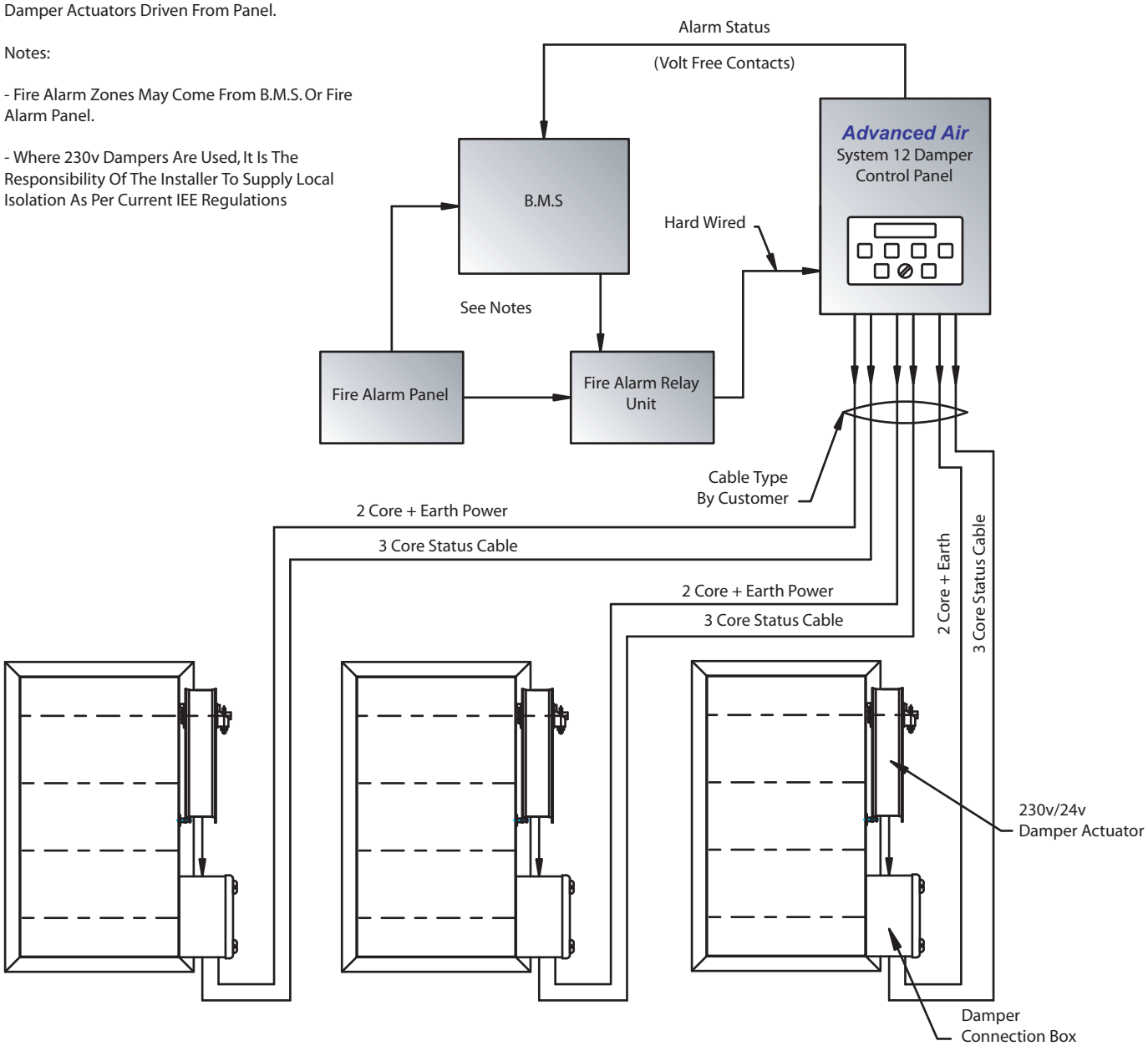
Information:

Max. No. Dampers : 128.
Damper Status : Standard.
Damper Control : Standard.
Fireman's Control : Standard.
Fire Alarm Zones : Unlimited.
Remote Control Panel : Optional.
Multi-remote Panels : Optional.
Panel / Damper Voltage : 230v Or 24v.
Damper Actuators Driven From Panel.

Notes:

- Fire Alarm Zones May Come From B.M.S. Or Fire Alarm Panel.

- Where 230v Dampers Are Used, It Is The Responsibility Of The Installer To Supply Local Isolation As Per Current IEE Regulations



Smoke & Fire Damper Control System 11

Actively prevents the spread of smoke and fire through a ductwork system

Introduction

The System 11 control panel is a basic damper control system, that controls and monitors Fire/Smoke dampers. The system is completely hard wired and in tailor made to each customers requirements. Expansion is usually limited to the amount of free space designed in at construction stage.

Features

- Controls and monitors unlimited number of dampers
- Unlimited fire zones-dependent on damper control requirements
- LED damper “open and closed” indication
- Cabinet to suit number of dampers
- Individual damper control if required
- Each damper individually wired back to the panel via a 5 core + earth cable.
- Fireman's override control
- Surface mounted cabinet as standard (Flush mount optional extra)
- 240 volt AC supply to main panel as standard
- Damper actuator voltage to be confirmed by the customer
- Fan control (option)
- Building Management System (BMS) fault volt free contacts optional extra
- On-site commissioning (if required)

Standards

The design of Advanced Air control panels allows the relevant sections of BS5588, to control smoke in buildings if a fire occurs, to be addressed. The applicable parts of BS5839 are taken into account, together with conformity to EMC regulations (EN60204).

General Wiring Arrangement
Advanced Air System 11 Hard Wired Damper Control Panel

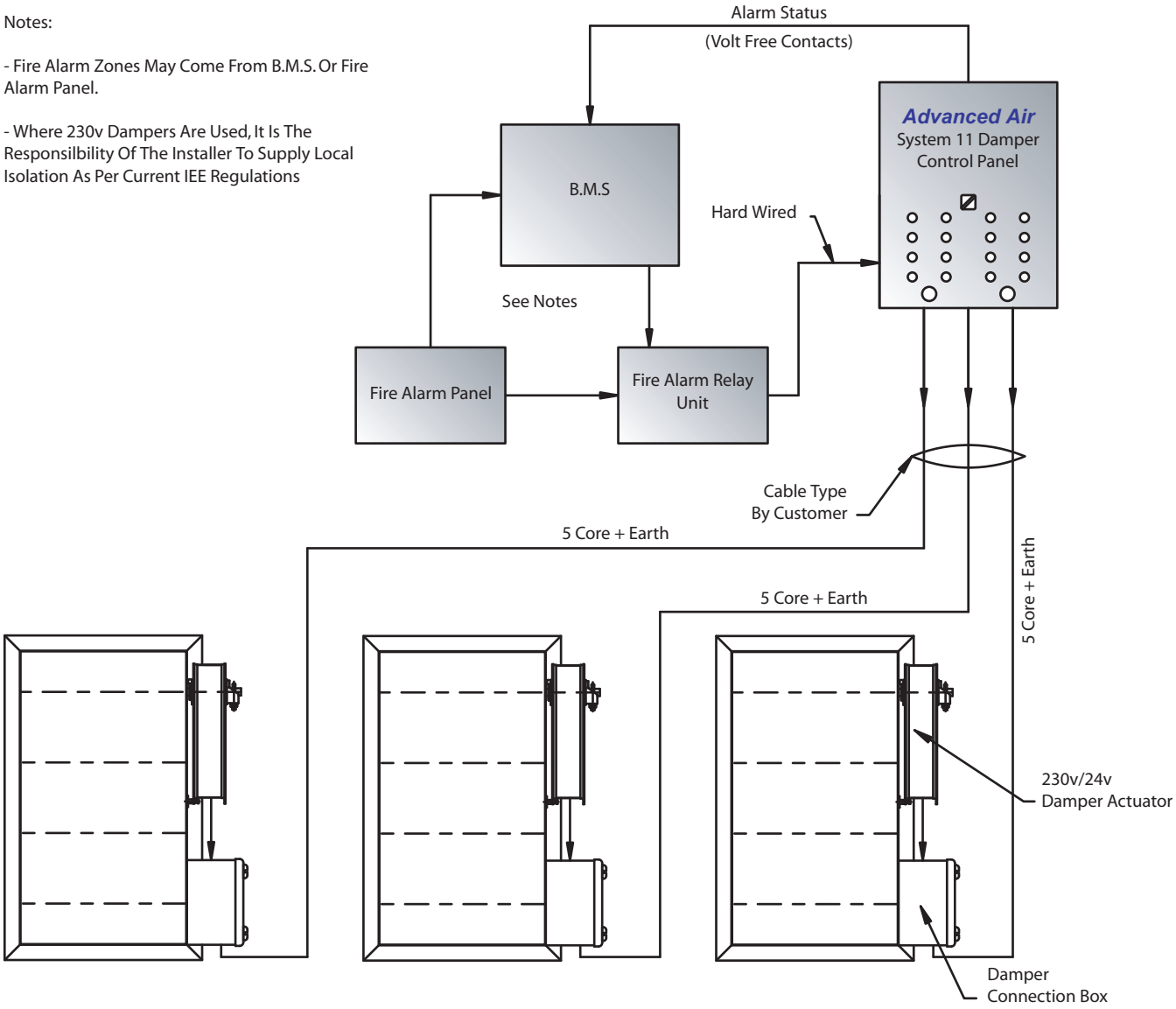
Information:

Max. No. Dampers : Unlimited.
Damper Status : Standard.
Fireman's Override : Standard.
Individual Damper Control : Optional.
Fire Alarm Zones : Unlimited.
Panel / Damper Voltage : 230v Or 24v.
Damper Actuators Driven From Panel.

Notes:

- Fire Alarm Zones May Come From B.M.S. Or Fire Alarm Panel.

- Where 230v Dampers Are Used, It Is The Responsilbility Of The Installer To Supply Local Isolation As Per Current IEE Regulations



Smoke & Fire Damper Control System 10

Actively prevents the spread of smoke and fire through a ductwork system

Introduction

The system 10 range of control panels has been introduced to provide a low cost alternative to standard bespoke hard-wired control panels. The panels are available in 4 sizes, which can control and monitor 12, 24, 36 or 48 dampers. A further option in each size is that the panels come with or without a manual override switch.

Features

- System 10 panels are standard manufactured
- Manual override/ test switch (Optional)
- Wall mounted cabinet to IP56
- Power painted finish to RAL 7035
- Open/closed LED indication
- Building Management System (BMS) volt free fault/alarm indication
- Mains isolator
- Lamp test
- Power 'ON' LED
- 230vac mains supply
- 230v or 24v damper voltage
- Battery backup (Optional)
- Top or bottom cable entry - TBC on place of order
- Dampers controlled by alarm input(s)
- On site commissioning (if required)

Standards

The design of Advanced Air control panels allows the relevant sections of BS5588, to control smoke in buildings if a fire occurs, to be addressed. The applicable parts of BS5839 are taken into account together with conformity to EMC regulations (EN60204)

General Wiring Arrangement
Advanced Air System 10 Hard Wired Damper Control Panel

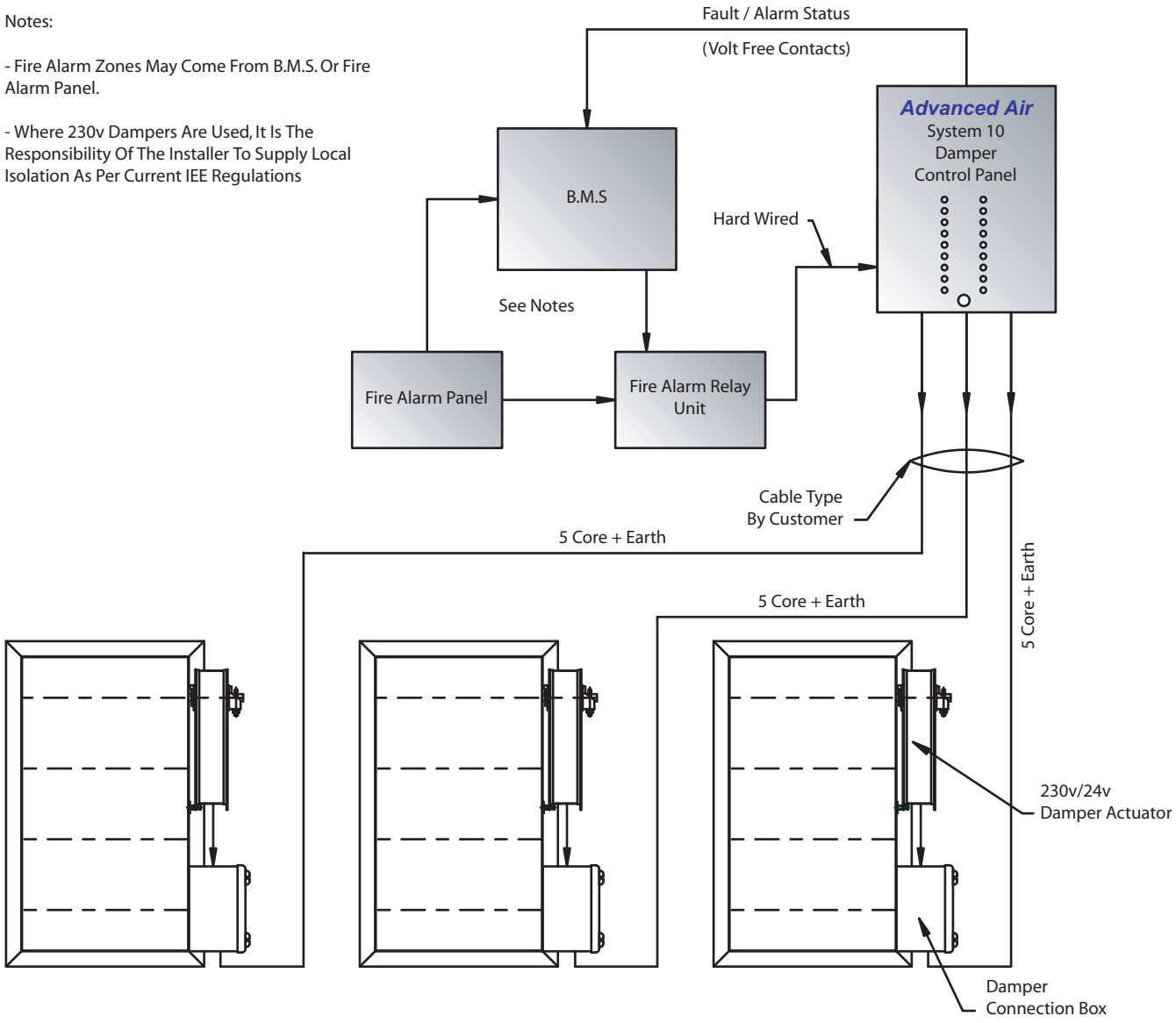
Information:

Max. No. Dampers : 12, 24, 36 or 48.
Damper Status : Standard.
Damper Control : Auto.
Fireman's Control : Optional
Fire Alarm Zones : 1 to 4.
Panel / Damper Voltage : 230v Or 24v.
Damper Actuators Driven From Panel.

Notes:

- Fire Alarm Zones May Come From B.M.S. Or Fire Alarm Panel.

- Where 230v Dampers Are Used, It Is The Responsibility Of The Installer To Supply Local Isolation As Per Current IEE Regulations



Other Products From Advanced Air

Air Control Products

We offer a range of Low leakage fire smoke dampers, tested to BS ISO 10294, which are used to prevent the spread of fire and smoke in a ventilation system. Our range also includes smoke and high temperature smoke dampers, which can be used up to 300^{O}C for 120 mins. The Advanced Air curtain fire dampers provide a wide range of models suitable for most applications.

A variety of control dampers from value solutions to a low leakage, low pressure drop, airfoil blade type can be supplied with a variety of control options, including motorised and manual control.

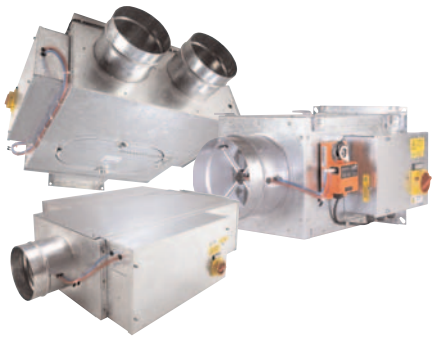
Fan Coil Units

Advanced Air and Nailor Industries have over 10 years experience in manufacturing bespoke and project specific fan coil units. As a result Advanced Air have invested in the development of the latest range of Energy Efficient and versatile Fan Coil Units in accordance with today's building regulations.

Advanced Air's energy efficient EPIC range of fan coil units offer infinite volume control and pressure independence and the CLASSIC range can be supplied with brush-less dc (EC), AC external rotor motor or fan deck options.

VAV Terminal Units

Advanced Air offers a variety of Single Duct and Dual Duct units for different types of variable air volume systems. We also manufacture Fan Powered VAV units that use advance brushless dc motors to give lower energy consumption and simpler commissioning.



Air Distribution Equipment

We manufacture an extensive range of grilles and diffusers including louvre face diffusers, linear slot diffusers, linear bar grilles, eggcrate grilles and door transfer grilles. All are supplied in a variety of finishes, powder coated to RAL9010 as standard, with other colours available.

In addition, we manufacture floor swirl diffusers which supply a low velocity, helical discharge air pattern, and also the "Twister" ceiling swirl diffuser. Also available is a range of external weather louvers that compliment the building design and are suitable for most wall configurations.

For more information on these products,
Please contact Advanced Air Sales on + 44 (0) 1842 855545

Advanced Air

A Member of the Nailor Industries International Group

Fan Coil Units - Air Distribution Equipment - VAV Terminal Units
Air Control Products - Damper Control Panels - Electric Duct Heaters - Access Doors

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