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and we will provide **solutions**
for your air movement problems



fans and blowers
for extraction,
cooling,
ventilation,
vacuum,
aeration and
drying

At ACI we can offer customers a complete **design and manufacturing service** – we analyse the application, and select or design the air movement product with the right materials, performance and environmental characteristics to provide the most cost effective solution.

Key Features:

- ATEX Approved Fans and Blowers
- Volume and specialised bespoke
- Wide range of motor specifications & accessories
- Full design and testing facilities, including airflow and noise testing
- ebm-Papst UK Distributor for special applications

Find out more at:

www.aircontrolindustries.com

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Air Control Industries

ELECTRICAL EQUIPMENT & DESIGN

Turn fans down to reduce emissions

If just half of Britain's electric motors were reduced in speed by 10%, it would have the net effect of mitigating for the carbon emissions of 9.8 million cars every year

While this fact might not enthuse Jeremy Clarkson, it has a far more serious message and that is that governments subscribing to the Kyoto Protocol, and its greenhouse gas emissions reduction targets, continue to ignore the low hanging fruit that electric motor control presents.

According to GAMBICA, the UK's body representing the automation and control manufacturers, the simple control of electric motors has been overlooked as a significant energy conservation measure. While energy efficiency attention has tended to focus on building fabric, lighting and heating, motors have been largely ignored. By doing as GAMBICA suggests and controlling motors, a populace equivalent to nearly four million households would be rendered carbon neutral – at an average of 6.5 tonnes of emissions per household.

Similarly, long term consideration is given to reducing car exhaust emissions by both vehicle design and discouraging car use, yet the

expedient of controlling electric motors in buildings and industry will achieve a greater net effect in the short term.

Likewise in electricity generation, where exploration of renewable and green energy continues apace while controlling electric motors would save the entire output of Drax, the UK's largest coal fired power station, every year. The reason the savings are so great, explains Steve Brambley of GAMBICA, is that electric motors consume huge amounts of electricity – about two-thirds of industrial energy use and about one quarter of total UK consumption. A simple electric motor costing a few hundreds of pounds can be expected to consume many tens of thousands of pounds worth of electricity over its useful lifetime.

The laws of physics concerning fans means that for every 10% reduction in speed, in accordance with the cube law of fans, there is subsequent saving of three times that in electricity consumed.

www.gambica.uk.org

AC speed controller for Rittal fans and filters

Rittal's new SK3120.200 is an electronic speed control for 2-pole single-phase AC motors which replaces the older controllers SK3120.000 and SK3120.115. The new device has a supply range from 100V to 230V 50/60Hz in one unit and is a simple snap fit onto standard

35mm support rails, which makes it easier to position within the enclosure.

Supplied with a temperature sensor that can be positioned within the enclosure to monitor particular hot spots, the device controls the fan speed based on a manually adjusted set point P1 to ensure optimum cooling and noise reduction is given at all times. A minimum speed set point P2 allows full control over cooling within the enclosure.

A visual LED and an alarm relay will give indication of either over temperature, fan fail, sensor fail or short circuit and interruption to the supply cable or fan cable.

www.rittal.co.uk



Cabinet coolers run on compressed air supply

Exair's new CE compliant Cabinet Coolers are the low cost way to purge and cool electrical control panels. The cold air is circulated through the enclosure to eliminate heat damage and control shutdown. Independent laboratory testing certifies that Cabinet Coolers meet the appropriate CE safety requirements that now make them suitable for a wide range of enclosure cooling applications.

The compact Cabinet Coolers can be installed in minutes through a standard electrical knockout hole. They convert an ordinary supply of compressed air to cold -6°C air without refrigerants or CFCs. Cabinet Cooler systems include a compressed air filter to assure no moisture or dust is introduced inside the panel.

Optional thermostat control minimises compressed air use. Cooling capacities up to 5,600 Btu/hr. are available. Cabinet Coolers



are UL Listed and maintain NEMA 14, 4 and 4X rating of the electrical enclosure. There are no moving parts to wear out and no maintenance is required. Applications include cooling PLCs, microprocessors, variable frequency drives, industrial computers and robotics. The Cabinet Coolers are available in the UK from Good Hand. www.goodhanduk.co.uk

Low-smoke, zero-halogen cable available from Aerco

Alpha Wire's low-smoke, zero-halogen communication and control cable (LSZH) is now available from Aerco. When standard cable and wire burns the insulating materials emit smoke, gas and acid that can be highly toxic. The Alpha Wire range of high performance cable reduces the smoke and totally eliminates the halogen emitted without compromising on mechanical and electrical performance.

The Alpha Wire LSZH cable has corrosion resistant, tinned copper conductors, stranded conductors for

installation flexibility and is available in multipair and multiconductor configurations and in versions that are foil shielded for EMI protection and improved signal integrity. They also have colour-coded conductor insulation for clear, positive identification. Alpha Wire LSZH communication and control cables are invaluable in applications such as rapid transit and any industrial and commercial applications where fire in confined space would create a health hazard and possibly endanger life.

www.aerco.co.uk

Just dry it...

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ACI Airknife Drying Solutions are the efficient and cost effective method for surface drying applications.

ACI is a leading manufacturer of industrial air movement products and Airknives are a proven tool wherever elimination of surface water is required. For a FREE ON-SITE demonstration, or payback analysis please contact us.

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