

Air Knife Systems

Blower-driven solutions that increase production efficiencies and save significant running costs.



Overview:

If you are removing moisture, swarf or static charge from conveyed materials, or looking to evenly distribute coatings onto a product, ACI Air Knife Systems are the Total Solution. Powered by a centrifugal blower, an ACI Air Knife System is a low pressure, high volume air-delivery tool that is designed specifically to blow-off all surface liquid/moisture; clean web materials; and thoroughly dry all components and produce. Their ease of installation, and low energy consumption makes them an efficient, cost effective solution providing significant savings over alternative thermal and compressed-air systems.

Comparisons to Compressed-Air:

Blower-driven air produced by an air knife system will be:

- More cost effective to operate reducing running costs by up to 90%
- Quieter due to lower pressure operation, the expansion ratio and turbulence of the air produced is reduced significantly
- Cleaner blower-driven air is both dry and oil free, no additional filtration is required
- Safer compressed air operates at high pressures and always has the potential of being a danger to employee safety
- Compressed air is at its least efficient when used for discharging into free air. Blower-driven air can reduce energy usage by 50-75% for the most applications

Benefits of Air Knife Technology

By installing an ACI Air Knife System, companies will instantly:

- Increase productivity
- Increase product quality
- Improve the working environment
- Reduce running and maintenance costs
- Give fast payback returns on the initial investment









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System Solutions

Customers' applications, their products and environments will naturally vary. Because of this ACI has developed a number of System Solutions that will cater for the removal of most surface moisture/debris demands.

Air Knives:

- Available in anodised aluminium alloy AA25 or in either stainless steel 304 or 316
- Can all be customised for customer-specific requirements
- All stainless steel options can be supplied in a variety of shapes including chevrons, squares and multiple angles
- Various Air Knife mounting options are available

Reciprocating Nozzle Systems

- Recommended for applications/products that demand a more rigorous air-flow to remove surface water or debris.
- Reciprocating (up/down action) of the nozzles combined with a high volume air flow results in this more aggressive attack on the product
- Nozzles used are fabricated from a robust, hard-wearing but flexible material

Static Neutralisation Systems

- Fixing a de-ionisation bar to an air knife has the effect of creating an anti-static system which can be utlised in an assortment of surface cleaning and static neutralisation applications
- These systems are ideal for the removal of dust and static charges for cleaning components such as plastic mouldings, glass, and a variety of automotive parts.



Before providing a detailed quotation for an Air Knife System, a vital part of the process is to fully understand the customer's application. Information such as production line speed, product/conveyor sizes, product proximity and the level of drying, cooling or cleaning required helps us to determine the size, position and number of Air Knives and blowers required, as well as determining whether we need to provide a turnkey system tailored to your specific requirements. To assist this process, ACI offers (UK mainland only) free on-site demonstrations.

Alternatively, ACI also has a full product testing facility at our main Axminster factory. This service is offered to all customers, for all parts of the World. If you would like to take advantage of either, please contact us now and we can arrange this testing to take place.

If you require a visit, please call ACI on 01297 529 242, or email sales@aircontrolindustries.com

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