

# WE ARE

**Practical**  
**Professional**  
**Independent**  
**Impartial**

• We reduce your energy usage to protect the future and save you money.

## ABOUT

For over 35 years Air Technology have been at the cutting edge of efficiency within compressed air and sewerage treatment. Originally focused on industrial compressed air, Air Technology were asked to look into the creation and use of air within wastewater over 20 years ago. Since then, we have gone on to save our customers millions of pounds in energy and process efficiency improvements. Viewed as the UK's leading institution for testing and understanding blower performance, aeration control and process optimisation.

# Air Technology are trusted across the industry with providing insight and solutions.



## HOLISTIC KNOWLEDGE

Air Technology's understanding of the complete wastewater process is based upon over 35 years of blower control and distribution insights. When combined with over 20 years of wastewater biological process, optimisation and control system experience.

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**Air Technology possess a unique understanding of how the complete sewerage treatment process works.**

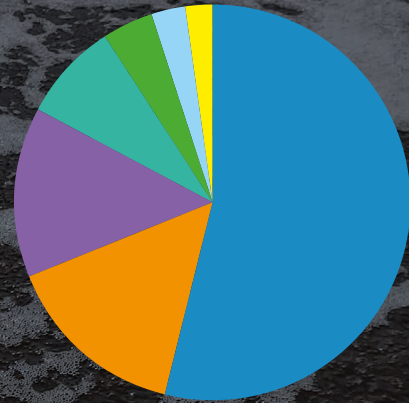
## BLOWER TESTING

Air Technology purposefully measures air flow directly whilst testing blowers and compressors to ensure full compliance with the international standards of ISO1217, ASME PTC10 and ISO5389. **This method is far superior to the thermodynamic testing method which is sometimes used** that not only fails to meet any of these standards - and as such is not recognised by any blower manufacturer- but also provides spurious inaccurate results under certain conditions.

## REAL TIME CONTROL

Air Technology have expert knowledge of developing numerous ASP Real-Time control systems from simple DO control to the most advanced ammonia mass flow systems - capable of savings in excess of 40% of absorbed power.

Produced to work on the sites existing PLC these systems are vastly cheaper, more attainable and customer friendly than the stand-alone black box's common within the industry. As a proudly independent company, we can work within your existing frameworks of suppliers to create a system that saves energy, is more resilient to unexpected loading and provides numerous fall-back positions to ensure compliance is always achieved.



Aeration 54%   Pumping 15%   Anaerobic Digestion 14%  
 Lights and Buildings 8%   Belt Press 4%  
 Clarifiers 3%   Other 2%



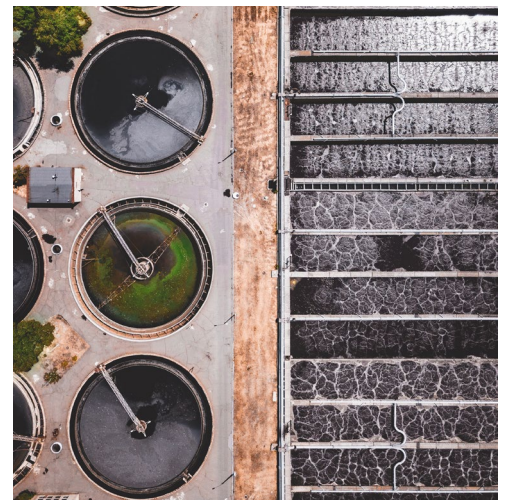
## DIFFUCLEAR

For years the only solution on ASP's to fouled diffusers and their reduced performance was to drain the lane and either jet wash or replace the diffuser heads. With many sites unable to do so for cost or capacity reasons Air Technology introduced its diffuCLEAR diffuser remediation technology. Using our custom equipment and over a decade of experience, we can safely return performance to your ASP with minimal impact on the operation of the plant and no need to take the lane out of operation. Additional benefits include Improving oxygen transfer, reduced blower power consumption and improved blower and diffuser lifespans.

## THE TURNKEY SOLUTION

Air Technology's independence and complete understanding of blowers, control and the ASP process means we are uniquely positioned to ensure the smooth installation and commissioning of your new ASP infrastructure project. From initial design specifications and supplier evaluation right through to the supply, installation and commissioning of a new aeration and control system.

**Air Technology will ensure the whole project runs smoothly from start to finish.**



## CASE STUDY

Tests carried out on four 90kW variable speed positive displacement blowers identified that the output and efficiencies were well below the rated figures. Further analysis identified a number of problems including lifting relief valves, worn rotors and incorrect belt alignment. The annual energy savings achieved from rectifying the blowers were £14,900.

**£14,900**  
IN ANNUAL  
ENERGY  
SAVINGS

**99kW**

AVERAGE  
POWER  
CONSUMPTION  
REDUCTION

## CASE STUDY

Tests carried out on a medium sized wastewater treatment works identified that the surface aeration system was no longer suitable. Diffused aeration with an Air Technology developed advanced dynamic DO set point control system was installed. Peak power consumption was reduced from 192kW to 58kW, with an average reduction of 99kW.

**Ready to dive in? Contact us today for your free consultation.**



+44 (0)1509 264900



[sales@airtechnology.co.uk](mailto:sales@airtechnology.co.uk)



[www.airtechnology.co.uk](http://www.airtechnology.co.uk)