



**CDS**

AIRTEK

ADVANCED THERMAL  
PROCESS SOLUTIONS

[WWW.CDS-AIRTEK.CO.UK](http://WWW.CDS-AIRTEK.CO.UK)

# CONTENTS

## THERMAL PROCESSING:

Curing Systems	2
Drying Systems	3
Heat treatment Systems	4
Manufacturing Facility	5

## AIR MANAGEMENT:

Dust Control	6
Fume Abatement	7

## CASE STUDIES:

Aerospace	8
Automotive	8
Defence	9
Hazardous Materials	9



# THE AIRTEK PROCESS

## DESIGN

Our expert in-house design engineers work with the Autocad 3d™ design software to test designs to their limit. Stress testing and other simulation methods provide an insight into how our systems function. This is perfect if you want to know how your system will work as well as look.



## MANUFACTURE

The latest Computer Aided Manufacture (CAM), Airtek ensure that what we design is manufactured accurately first time reducing the time required and waste material. We have strict controls and procedures in place for selecting suppliers and any bought in materials or components.



## INSTALLATION

We provide a complete service for the installation of solutions including the completion of all appropriate risk assessments for working on site and providing action plans to make sure you avoid any nasty surprises. Our relocation services also provide the knowledge & safe working practice for complete site moves.



## MAINTENANCE

We offer competitive maintenance contracts with all our products. Our expert knowledge ensures that your systems are always working at optimum condition throughout their life cycle. Also, we offer maintenance for existing systems where replacement is not a cost effective solution.





## CURING SYSTEMS

Designed, manufactured and installed by CDS Airtek, this range of ovens and autoclaves for curing glass fibre, carbon fibre and other composite materials is available in both batch and conveyorised configurations.

### TYPICAL APPLICATIONS

- Aerospace
- Carbon composites
- Curing of GRP
- Composites curing
- Ceramic core baking
- Epoxy curing
- Garment chemical curing
- Paint stoving
- Polymer curing
- Powder coating
- Printed circuits
- PTFE, rubber, silicone,
- Nylon curing
- Polymerisation
- Polyurethane foam curing
- Varnish baking

### SPECIFICATION OPTIONS

- All heating media
- Variable temperature
- Choice of construction materials
- Multi-ramp, multi dwell controllers
- Data logging and comms output
- Atomized spray nozzles or steam humidification
- Pressure (with autoclave)
- ATEX compliant

### FEATURES

- Batch or conveyor
- Temperature range to 750°C
- Uniform temperature distribution meets sector / product specific requirements
- High efficiency insulation
- Accurate temperature and humidity control
- Uniform air distribution
- Reduced cycle times
- Low noise levels < 74 dBa
- Reduced operating costs



## DRYING SYSTEMS

CDS Airtek are long-established leaders in the design, manufacture and commissioning of Drying Oven systems. A diverse range of companies and a multitude of complex applications rely on our products to perform efficiently, every day.

### TYPICAL APPLICATIONS

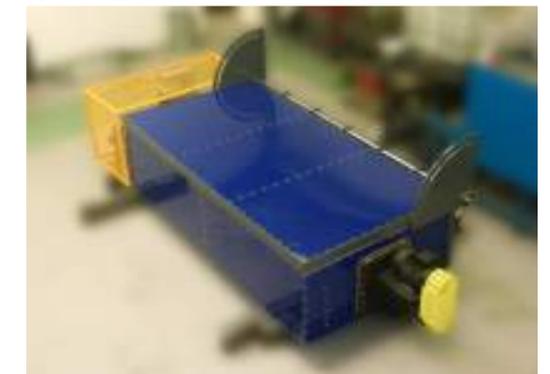
- Automotive battery plates
- Ceramic
- Fibre
- Food
- Mould drying
- Pyrotechnics and explosives
- Paint & coatings
- Polymer sheets
- Post-wash component drying
- Textiles

### SPECIFICATION OPTIONS

- All heating media
- Variable temperature
- Choice of construction materials
- Multi-ramp, multi dwell controllers
- Data logging and comms output
- Atomized spray nozzles or steam humidification
- ATEX compliant

### FEATURES

- Batch or conveyor
- Temperature range to 750°C
- Uniform temperature distribution meets sector / product specific requirements
- High efficiency insulation
- Accurate temperature and humidity control
- Uniform air distribution
- Reduced cycle times
- Low noise levels < 74 dBa
- Reduced operating costs





## HEAT TREATMENT SYSTEMS

Designed and constructed to our high standards, Airteks heat treatment ovens are used in a diverse range of industries, where close control of temperature and/or humidity is critical during the production process. As with all Airtek systems, the products provide many years productive service and give significant fuel savings over many other ovens available today.

### TYPICAL APPLICATIONS

- Aluminium ageing
- Burn-off ovens
- Carbonisation
- De-gassing
- Drum heating
- Glass annealing
- Metals ageing or annealing
- Pre-heating processes
- Pyrolysis
- Sintering
- Soldering
- Spring annealing
- Stress-relieving

### SPECIFICATION OPTIONS

- All heating media
- Variable temperature
- Choice of construction materials
- Multi-ramp, multi dwell controllers
- Data logging and comms output
- Atomized spray nozzles or steam humidification
- ATEX compliant

### FEATURES

- Batch or conveyor
- Temperature range to 1250°C
- Uniform temperature distribution meets sector / product specific requirements
- High efficiency insulation
- Accurate temperature and humidity control
- Uniform air distribution
- Reduced cycle times
- Low noise levels < 74 dBa
- Reduced operating costs



## MANUFACTURING FACILITIES

CDS Airtek now have the facilities to design, manufacture and install all in house, so as a company we can ensure that all individuals are communicating efficiently and effectively through the improved working environment. As a result, Airtek are better equipped to control raw materials and bought out components in terms of quality, lead times and documentation. At our new site we have approximately 934m2 of factory space for manufacturing and 466m2 of office space for our workforce. The site has been updated cosmetically to fit with our brand image and energy saving measures/equipment have been implemented.

### WHY US

- 5s Implemented
- Large capacity workshop
- Mobile engineers
- Delivery service
- Fast & reliable

### TYPICAL WORK

- Industrial Ovens & Furnaces
- Dust / Fume Control
- Fabricated structures
- Production runs
- Conveyors





## DUST CONTROL

## FUME ABATEMENT

CDS Airtek offers a complete service for the design, manufacture, installation and commissioning of an extensive range of ducted systems for the capture and removal of hazardous dust and fumes. All systems are selected and designed to achieve conformity to the relevant COSHH and EPA regulations and current HSE guidance. Whatever the particular application, Airtek has the solution. CDS Airtek can offer the full range of dust collectors, filtration systems and other supporting technology as required.

CDS Airtek offer a full design and installation service of complete fume abatement systems, working in partnership with the best specialist manufacturers of abatement plants.

### SYSTEMS CAN INCORPORATE

- Capture at source (flexible arms) extraction booths.
- Portable or fixed filter units.
- Bag filters.
- Cartridge filters.
- Automatic reverse jet, self cleaning filtration - efficiency up to EU13.
- Wet collectors.
- Particulate scrubbers.
- Explosion relief.
- ATEX compliance.

### CONSTRUCTION MATERIALS

#### DUCTWORK

- Galvanised mild steel
- Stainless steel
- Various synthetic materials

#### FILTER UNITS

- Epoxy coated mild steel
- Stainless steel
- Various synthetic materials

### ENERGY EFFICIENCY

Dust filters with HEPA quality filter media provide 99.997% filter efficiency enabling the cleaned air to be returned to the work area thus reducing winter heating costs. In summer the extracted air can be exhausted to atmosphere thus providing ventilation.

### TYPICAL APPLICATIONS

- Acid and alkaline
- Adhesives
- Blending
- Brazing
- Cleaning
- Coating
- De-greasing
- Drying
- Food Processing

- Foundries
- Galvanising
- Mixing
- Odour control
- Pickling
- Printing
- Soldering
- Welding

### TYPICAL METHOD

- Chemical scrubbing
- Catalytic thermal oxidation
- Concentrator wheel
- Carbon absorption



# CASE STUDIES

## Automated Production Line - Aerospace Manufacturer

A large scale conveyed oven system with robotic automation was required for an aerospace based company, After defining the requirements for the client we begun the journey creating the ideal.

CDS Airtek's bespoke fully automated solution, includes heating and cooling sections, as well as extraction through a mezzanine walkway. Each section allows for independant operation, meaning additional heating or cooling can be applied should it be required.

The robotic automation also allows for better control to ensure that operation produces consistent high quality product whilst reducing the man power required to run the line.



## Replacement Oven System - Automotive Manufacturer

Airtek were approached to provide a solution for an inefficient and unreliable oven system. The previous oven was deemed inefficient and unreliable, costing a lot to run, causing long downtime and needing a large amount of factory floor to house it.

CDS Airtek's solution replaced the existing, unreliable oven with a smaller, smarter, energy efficient oven. We were also approached again by the same company to supply a compact, energy efficient & maintenance friendly oven for a new production line which will provide safer working conditions whilst resulting in reduced running costs and downtime.

Airtek's provided two modern products which are cost effective and will provide safe and efficient operation.



## Bespoke Coating Drying Oven - Defence Manufacturer

CDS Airtek were contacted by a leading manufacturer in the defence industry. The company required a large batch oven for paint drying of components with strict temperature requirements.

Airtek provided a bespoke system to meet the customers needs. The system supplied maintains strict temperature conformity and provides consistent air flow which was a necessity for product uniformity during production runs. Airtek also provided a shelving system within the oven to allow products to be suspended during the curing process. The system has a rapid ramp up process to fit in with the companies existing production process. The company have since returned for further work.



## Ventilation System - Managing Hazardous Substances

CDS Airtek designed, manufactured & are to install a ventilation system to service aerosol and solvent adhesive sections of a warehouse facility for a distribution company.

Airtek's proposed a forced ventilation system which draws air from the adjacent heated warehouse and distributes it into the aerosol and solvent adhesive sections. A series of low & high level louvres on the opposite wall of the warehouse provide egress of the air from the warehouse thereby achieving the desired ventilation rates. This was in accordance with COMAH and other relevant regulations. Airtek provided a cost effective solution that ensures the correct method for removing hazardous substances.



# CDS

# GROUP



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Scan this QR code with your smart device to visit our website.



4010974

**CDS AIRTEK**  
Scotia Road Business Park  
Tunstall  
Stoke-on-Trent  
ST6 4HG

**TELEPHONE**  
44 (0) 1782 820960

**FAX**  
44 (0) 1782 820961

**WEB**  
[WWW.CDS-AIRTEK.CO.UK](http://WWW.CDS-AIRTEK.CO.UK)  
[WWW.CDS-GROUP.CO.UK](http://WWW.CDS-GROUP.CO.UK)