Airflow is the leading UK manufacturer of Industrial Ovens. The specification, design, manufacturing, installation and commissioning process is offered as a complete package. Airflow’s Industrial Ovens are ideally suited to a wide range of industrial uses and are available in many different sizes, types and temperature ranges. Our market sectors include Aerospace, Pharmaceutical, Composites, Electronics, Oil exploration and Product Finishing. Our standard range of Box Ovens are available sizes from 1m cube up to 6m cube on quick delivery. Special sizes are available to order from our modular construction system.
**OUR FULL PORTFOLIO OF INDUSTRIAL OVENS**

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<td></td>
</tr>
</tbody>
</table>

**OVERVIEW**

Airflow is the leading UK manufacturer of Industrial Ovens. The specification, design, manufacturing, installation and commissioning process is offered as a complete package. Airflow’s Industrial Ovens are ideally suited to a wide range of industrial uses and are available in many different sizes, types and temperature ranges. Our market sectors include Aerospace, Pharmaceutical, Composites, Electronics, Oil Exploration and Product Finishing.

Standard temperature ranges from 60°C to 425°C are available to proven standardised designs. Drum heating ovens, are available for internal or external locations with capacities of 2 to 40 drums as well as IBC’s and a temperature range of controlled ambient to 100°C. Acrylic sheet heating ovens, which are mainly used by the vacuum forming industries, are available in manual and automatic indexing versions. Airflow’s sheet ovens have unrivalled temperature uniformity for low reject mass production.

EExd and ATEX rated industrial ovens are available in all configurations, electrically or steam heated, to provide zoned compliance for use within the chemical and petrochemical oil industries. Conveyor ovens, are available in a full range of temperatures with either flatbed, roller, overhead monorail or chain on edge conveyors. Our expertise allows for our products to be manufacture and installed to the highest standards being ATEX, NAMAS and ISO system accredited.
## Industrial Ovens

### Airflow Microlab Laboratory Ovens
- Heating and Drying Ovens
- Vacuum Drying Ovens
- Environmental Simulation
- Constant Climate Chambers
- Sizes from 0.4m x 0.4m x 0.3m

### Airflow Premier Industrial Ovens
- Close Temperature Uniformity
- Extensive Standard Size Range
- Gas, Electric, Indirect or Steam
- Factory Tested & Data Logged
- Sizes from 1.5m x 1.5m x 2.0m

### Airflow Drum Heating Ovens
- Large Standard Size Range
- Steam, Electric or Gas
- Weatherproof Models Available
- Bunded Drum & IBC Racking
- Sizes from 2 to 72 Drum

### Airflow Project Industrial Ovens
- Non Standard Sizes
- Temperature 100°C to 500°C
- Batch, Shuttle or Conveyor Styles
- Manual or Powered Door Designs
- Sizes from 1.5m x 1.5m x 2.0m

### Airflow Modulus Industrial Ovens
- Entry Level Prices
- Modular On-Site Assembly
- Extensive Range of Sizes
- Gas and Electrically Heated Options
- Sizes from 1.5m x 1.5m x 2.0m

### Airflow AMS Industrial Ovens
- Temperature Uniformity to AMS2750
- Aerospace, Automotive, Marine
- Bespoke Windows Based HMI
- Bespoke Data Communications
- Sizes from 1.5m x 1.5m x 2.0m

### Airflow Challenger Industrial Ovens
- Competitive Pricing
- 21 Standard Sizes
- Pre-assembled and Tested
- Strong Structural Frame
- Sizes from 1.0m x 1.5m x 2.0m

### Airflow ATEX Industrial Ovens
- Category up to 2GD
- Temperature  T1 - T4
- Electric or Steam Heating
- Stainless/Aluminium Construction
- Sizes from 1.2m x 1.2m x 1.0m
Environmental simulation chambers ensure perfect test room conditions thanks to the responsive steam humidification system and the patented APT.line™ Airflow design.

A constant climate chamber from Airflow in any implementation is a one-stop solution to easily and reliably manage your stability test or stress test.

Vacuum drying ovens from Airflow dry samples completely without residues, scaling or oxidation, everything in overdrive.

Safety drying ovens from Airflow reliably dry up to 350°C and ensure the perfect test result of your solvent-based paints and coating materials.

A material test chamber from Airflow specializes in demanding heating profiles and shows its unique advantages all the more when handling complex tasks.

The wide temperature range of the Airflow heating ovens and heating chambers of 5°C above ambient temperature to 300°C allows short heating up times and large power reserves.
Environmental simulation chambers from Airflow ensure perfect test room conditions thanks to the responsive steam humidification system and the patented APT.line™ Airflow design. This guarantees exact measurements at any point even when the chamber is fully loaded.

CHAMBER FOR CYCLICAL TEMPERATURE
The ideal simulation chamber for all heat and cold testing in the traditional temperature range between -40°C and 180°C.

CHAMBER FOR COMPLEX ALTERNATING CLIMATE PROFILES
Well-suited for testing based on current test standards in the temperature range of -40°C to 180°C and 10% to 98% RH.

CHAMBER FOR COMPLEX TEMPERATURE PROFILES
This simulation chamber meets all requirements for extreme testing between -70°C and 180°C.

CHAMBER FOR LOW TEMPERATURE ALTERNATING CLIMATE PROFILES
Suitable for low temperature alternating climate profiles from -70°C to 180°C with humidity.

With a high level of standard equipment, the environmental simulation chambers from Airflow are perfectly suited for material testing from -70°C to 180°C. They are absolutely reliable and on the highest technical level.

At Airflow, you always get the perfect environmental simulation chamber, be it for cyclical temperature testing or for complex alternating climate profiles and temperature profiles.

Areas of application:
- Automotive
- Plastics Industry
- Electronics / Semiconductor Industry
- Air / Space Travel, Defence
- Metal Industry / Engineering

Advantages:
- State-of-the-Art Reliability
- User-Friendly Chamber Interior
- Comprehensive Standard Equipment
OvErvIEw

Specialists for temperature/humidity/light simulation. A constant climate chamber from Airflow in any implementation is a one-stop solution to easily and reliably manage your stability test or stress test.

The Airflow constant climate chambers of the KBF P series are ideal for norm compliance work according to ICH guidelines and work independent of water supply. Their special feature: climate and light tests can be performed at the same time in one chamber.

With the KMF, Airflow constant climate chambers offers you a broad temperature and humidity range - created for demanding stress testing.

Areas of application:
- Pharmaceuticals Industry
- Basic Research / Research Institutes
- Packaging Industry
- Cosmetics Industry
- Food / Beverage

Advantages:
- Long-Term Stable Test Conditions
- Independent of the Water Supply
- Temperature/Humidity/Light Simulation in One
OVERVIEW

Vacuum drying ovens from Airflow dry samples completely without residues, scaling or oxidation, everything in overdrive.

Thanks to the patented APT.line™ preheating chamber technology, the heat is distributed evenly throughout the electropolished inner chamber and the corrosion-resistant expansion shelf carrier made of stainless steel in the vacuum drying oven. This ensures even, gentle drying. The vacuum drying ovens of the VDL series with patented flame protection gasket, overpressure encapsulated instrument panel and controlled heating provide additional protection when working with flammable solvents.

Areas of application:
- Chemicals
- Electronics / Semiconductor Industry
- Plastics Industry
- Surface Technology
- Pharmaceuticals Industry

Advantages:
- Safe Work with One-of-a-Kind Safety Concept
- Fast, Condensation-Free Drying Processes
- Homogeneous Sample Drying in a Vacuum
SAFETY DRYING OVENS

SAFETY DRYING OVEN
The FDL safety drying oven with silicone-free and dust-free inner chamber and symmetric airflow provides the perfect environment for all specimens containing solvents.

SAFETY DRYING OVEN WITH EXPANDED TEMPERATURE RANGE
The MDL safety drying oven is suited for high-performance temperature testing in chemistry and surface technology thanks to high airflow at temperatures up to 350°C.

OVERVIEW

Safety drying ovens from Airflow reliably dry up to 350°C and ensure the perfect test result of your solvent-based paints and coating materials.

Whether drying coating material, car paint or paint: An Airflow safety drying oven ensures absolute temperature accuracy at a high air exchange rate, thus providing a basis for the best quality and reproducible testing results. With the FDL and MDL series, you get high-quality safety drying ovens that meet all EN 1539 requirements and provide maximum work safety with intelligent fresh air monitoring.

Areas of application:
- Chemicals
- Surface Technology

Advantages:
- Defined Solvent Quantity According to EN 1539
- Wide temperature range up to 350°C
A material test chamber from Airflow specialises in demanding heating profiles and shows its unique advantages all the more when handling complex tasks.

All Airflow material test chambers are extremely precise and have a wide temperature range and comprehensive programming options, including customised ramps, profiles and processes. With the FP and M series, Airflow offers you material test chambers with mechanical convection and individual programming for all material testing and aging testing tasks.

Areas of application:
- Metal Industry / Engineering
- Electronics / Semiconductor Industry
- Surface Technology
- Plastics Industry

Advantages:
- The Specialists for Demanding Heating Profiles
- Adjustable High Air Change Rate
- ‘Made in Europe’ Quality
OVERVIEW

Diversity for all types of thermal: An Airflow heating oven or heating chamber is up to any tasks thanks to its wide temperature range - whether efficient drying, long-term controlled elevated temperatures or sterilisation tasks for homogeneous temperature distribution.

The wide temperature range of the Airflow heating ovens and heating chambers of 5°C above ambient temperature to 300°C allows short heating up times and large power reserves. Whether by gravity or mechanical convection, the high standard of quality and process stability of our heating ovens and heating chambers goes without saying.

Areas of application:
- Basic Research / Research Institutes
- Electronics / Semiconductor Industry
- Plastics Industry
- Human / Veterinary Medicine

Advantages:
- Fast, Even Tempering
- Wide Temperature Range
- ‘Made in Europe’ Quality
The Airflow range of Drum Heating Ovens are available in a vast range of standard sizes from a single drum to 120 drum capacity. Suitable for all types of drum heating and IBC heating the ovens can be manufactured for internal or external location.

Drum storage in a drum heating oven removes the need for drum heating belts, drum heating bands or drum heating jackets. Heated by gas, electricity, steam or hot water, the range is available in standard or ATEX ratings. Specified features include, drum racks, IBC racks, bunded bases, forklift crash barriers and real time data logging. All Airflow products are backed by a comprehensive 12 month warranty.

We have system design and installation experience with over 30 years know-how from our internal design and manufacturing teams; we have an unrivalled knowledge of these product groups and their application within the UK and worldwide via our vibrant export market. Our expertise within these areas allows for our products to be manufactured and installed to the highest standards offering ATEX and ISO systems accredited.
DRUM HEATING OVENS & DRUM HEATERS

DRUM HEATING Ovens Example Combinations

BACK
**OVERVIEW**

The new Modulus Industrial Oven range has been designed to meet the needs of customers looking for an entry level oven, with easy on site assembly and an improved return on investment.

The technology behind our ovens is built on over 25 years experience of design and manufacturing for a wide variety of industries.

**MODULUS INDUSTRIAL OVENS**

- Build on site and self-assembly for greater flexibility and low cost transportation
- Increased insulation for lower running costs
- Our modular system produces clear working widths of 1.5m to 4.0m, working depths of 1.5m to 6.0m and a choice of either 2.0m or 2.5m clear internal height
- All circulation ductwork runs within the oven shell to minimise energy losses
- Integrated door lock mechanism with positive sealing and internal safety release
- Continuous door seals to reduce heat losses
- Fully adjustable door hinges with replaceable wear parts
- Control options include process ramping and data recording
- Clear doorway threshold for ease of loading trolley access
- Low price with easy finance options and payments from £59 per week
### CHALLENGER INDUSTRIAL OVENS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unique high efficiency thermal design</td>
<td></td>
</tr>
<tr>
<td>Superior production results due to very uniform temperature</td>
<td></td>
</tr>
<tr>
<td>Unique high volume low pressure hot air circulation system</td>
<td></td>
</tr>
<tr>
<td>Unique ‘Twin Fan’ air circulation on all larger ovens</td>
<td></td>
</tr>
<tr>
<td>Airflow Ovens are specified by the world’s leading companies</td>
<td></td>
</tr>
<tr>
<td>Galvanised steel, alu-dip or stainless steel construction</td>
<td></td>
</tr>
<tr>
<td>Designed for rapid drying of a variety of products</td>
<td></td>
</tr>
<tr>
<td>Drying of ceramics, timber, powders, pharmaceuticals, feeds, sands &amp; soils</td>
<td></td>
</tr>
<tr>
<td>Pre-assembled, test run, data logged and certified before despatch</td>
<td></td>
</tr>
</tbody>
</table>

### OVERVIEW

**Airflow Challenger ovens are renowned throughout the process industry. Our Drying Ovens are available in a range of temperatures being pre-assembled, wired and tested prior to despatch.**

Heating by natural gas, LPG or electricity is available. All ovens are constructed from high quality components using our unique modular construction method. This system ensures repeatable performance coupled with short lead times.
Airflow Box Ovens and Batch Ovens are renowned throughout the process industry as the best ovens currently available.

Available in a range of temperatures up to 425°C our range of Box Ovens are all pre-assembled, wired and tested prior to despatch. Heating by natural gas, LPG, electricity, steam or oil is available. All ovens are constructed from high quality components using our unique modular construction method. This system ensures repeatable performance coupled with short lead times.
**BESPOKE INDUSTRIAL SOLUTIONS**

- 3D CAD design
- Software design
- Plc programming and development
- Scada industrial control systems
- Electrical system design
- Pneumatic system design
- Hydraulic system design (high and low pressure)
- Applied thermodynamics
- ATEX compliant mechanical, electrical and pneumatic design
- LEV & HVAC system design
- Structural engineering design
- Control panel design & construction
- Fabrication and welding of mild steel, stainless steel and aluminium
- Prototyping and off site construction of turnkey manufacturing solutions
- Delivery using our own specialised vehicles
- Qualified and accredited installation engineers
- Qualified and accredited commissioning engineers
- National and international product lifetime technical support teams
- Consumables, spare parts, same day and next day support
- PPM service contracts and breakdown cover plan

**Airflow offer project design and project management for critical industrial manufacturing applications. Our in-house experts will work with your company to develop the perfect engineered solution for each application. Once a specification has been agreed our expert team will design, present, manufacture, install, commission and train your personnel to derive the maximum benefit from the system.**
New and innovative turnkey solutions are often related to existing production processes. These areas can be improved and automated with relatively little expense. Typical examples include solutions which involve improvements to software processes. Payback times on many projects can be less than 12 months.

Airflow believe that turnkey solutions, by definition, must be able to be devised, developed and prototyped quickly. Modern manufacturing technology is a fast moving business and Airflow is familiar with responding to strict time constraints. An overall project may take several months to become fully operational but the initial concepts and deliverable objectives can often progress to contract formation within a matter of only a few weeks.

Environmental issues and energy efficiency are always considered as an integral and fundamental design criteria in every Airflow manufacturing solution. Airflow lead the way with energy efficient designs to provide highly efficient, low energy industrial process plant.

The ability to find turnkey solutions rests in our teams’ ability to see things from a non-traditional perspective. True innovation is delivered as a standard component of each and every solution. Often, looking at a problem through the lens of tradition and past precedence will not lead to a truly innovative solution.
Please contact our sales department with your requirement for an obligation free quotation. Many composite curing ovens have been supplied to the aerospace and automotive sectors. We are well versed in the required standards for our world class customer base. Our design engineers will project manage your installation and also provide specialist consultation for composite curing applications.

Airflow’s AMS 2750 E composite curing ovens are available for highly critical applications within automotive, aerospace and high technology based industries.

Airflow’s products have a number of AMS ovens in use across the world, as far as the USA and Thailand. We can recommend and supply an oven to suit any of your temperature uniformity requirements. Our ovens are built to your specifications.

AMS COMPOSITE CURING INDUSTRIAL OVENS

<table>
<thead>
<tr>
<th>Furnace Class I-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument Type A-E</td>
</tr>
<tr>
<td>Temperatures up to 425°C</td>
</tr>
<tr>
<td>Increased thermal efficiency, reducing running costs</td>
</tr>
<tr>
<td>Twin leaf or vertical rising door for minimum footprint</td>
</tr>
<tr>
<td>Optional stainless steel interior for durability</td>
</tr>
</tbody>
</table>

OVERVIEW

WHAT IS AMS?

INDUSTRIES USING AMS2750E

AMS2750E SPECIFICATIONS

AMS2750E CERTIFICATION & TEMPERATURE UNIFORMITY

THE COMPLETE AUTOMATION SOLUTION - PRODIGY
AMS or Aerospace Materials Specifications are a number of detailed specifications which cover materials, material tolerances and quality control procedures and processes predominantly within the Aerospace and defence industries.

AMS 2750 is now on its latest revision, revision “E” and this document relates to the industrial processing of high quality materials used in the Aerospace industry.

AMS 2750E specifically covers the pyrometric requirements for thermal processing equipment used for heat treatment. It covers temperature sensors, instrumentation, system accuracy tests and temperature uniformity surveys. All these features are necessary to ensure that parts or raw materials are heat treated in accordance with the applicable specifications being followed by the component manufacturer. Here at Airflow, we have a wealth of experience in the design of industrial ovens to be used in the Aerospace and composite industries. Our ovens are recognised to be the oven of choice for clients wanting to have the best both in terms of design and build quality along with the ability to meet the temperature uniformity requirements of AMS2750E.

The design of an Airflow AMS type industrial oven includes for special air delivery systems which provide exceptionally good temperature uniformity throughout the working envelope and at the temperatures specified by the client, along with bespoke control and data acquisition systems, the package as a whole is an industry leading design!
AMS2750E is predominantly designed for and used within the aerospace industries but the same standards and processing techniques can be used within any industry which requires excellent control of the thermal processing of raw materials and manufactured components. Within the Aerospace industry the standard extends through the thermal processing of all critical materials and can include for:

- Heat treatment and processing of raw materials
- Heat treatment and processing of finished components to specified design requirements
- Drying of paint materials and other coatings
- Composite curing of materials to form components with excellent structural properties along with high levels of dimensional and aesthetic excellence
- Any other thermal process which requires a close level of control to ensure that today’s modern materials offer many years of trouble-free service

Many other industries such as automotive, motor racing, sports science, rail, manufacturing and civil engineering can and do benefit from excellent thermal processing systems. Airflow offers solutions to any problem where a crossover exists between the superior needs of the aerospace industry and other up and coming industries wanting to employ similar techniques.
AMS2750E SPECIFICATIONS

There are two AMS2750E specification types relating to Airflow and its offering for industrial oven application; **AMS2750E furnace classes** and **AMS2750E instrumentation type**

AMS2750E is a complex document and for many clients who maybe new to the industry, some of the details and procedures may seem to be a little onerous when applied to everyday processes. The document contains a number of headings, most of which deal with the technical requirements of compliance such as:

- Temperature sensors
- Instrumentation
- Thermal processing equipment
- System accuracy tests (SATs)
- Temperature uniformity surveys (TUS)
- Laboratory furnaces and equipment
- Records and record keeping

There are also a small number of headings such as quality assurance provisions and the responsibility for inspections which are in place to support the system as a whole and ensure that the requirements of AMS2750E are being met.

Two of the main features within AMS2750E are the specifications relating to the instrumentation type and the furnace class of thermal processing equipment and Airflow has both the skills and experience to supply the equipment required to fulfil these specifications.
As can be seen below (left), when defining furnace class the definition is determined by the temperature uniformity required within the working zone.

<table>
<thead>
<tr>
<th>T CLASS</th>
<th>MAX SURF TEMP IN °C</th>
<th>FURNACE CLASS</th>
<th>TEMPERATURE UNIFORMITY °F</th>
<th>TEMPERATURE UNIFORMITY °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>450</td>
<td>1</td>
<td>±5</td>
<td>±3</td>
</tr>
<tr>
<td>T2</td>
<td>300</td>
<td>2</td>
<td>±10</td>
<td>±6</td>
</tr>
<tr>
<td>T3</td>
<td>200</td>
<td>3</td>
<td>±15</td>
<td>±8</td>
</tr>
<tr>
<td>T4</td>
<td>135</td>
<td>4</td>
<td>±20</td>
<td>±10</td>
</tr>
<tr>
<td>T5</td>
<td>100</td>
<td>5</td>
<td>±25</td>
<td>±14</td>
</tr>
<tr>
<td>T6</td>
<td>85</td>
<td>6</td>
<td>±50</td>
<td>±28</td>
</tr>
</tbody>
</table>

From the above (right) we can see that the most stringent furnace class is Class 1 which has a uniformity figure of +/- 3 °C. Intervals for system accuracy tests, temperature uniformity surveys and controlling, monitoring and recording instrument calibrations are based on the combined furnace class and instrument type. Instrument type requirements as shown below denote the number and type of sensor and the types range from A to E with A being the most involved in terms of monitoring.
Airflow is able to offer a solution to any AMS system requirement. Airflow can design and build you an oven to suit any of the six furnace types and use only the best control solutions to satisfy instrument type requirements with controllers and data/graphic recorders from Eurotherm or any manufacturer of your choice to suit your site standards.

AMS2750E SPECIFICATIONS

<table>
<thead>
<tr>
<th>SENSOR(S) REQUIRED BY INSTRUMENT TYPE</th>
<th>INSTRUMENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>One control sensor per zone that controls and displays temperature.</td>
<td>A  B  C  D  E</td>
</tr>
<tr>
<td>The temperature indicated by the control sensor in each control zone shall be recorded by a recording instrument. Alternatively, the recording instrument may be connected to a second sensor contained in the same sheath or holder as the control sensor, and separated from the control sensor by no more than 10mm.</td>
<td>X  X  X  X  X</td>
</tr>
<tr>
<td>At least two additional recording sensors in each control zone shall be located to best represent the coldest and hottest temperatures based on the results from the most recent temperature uniformity survey. It is recognised that certain furnace designs/loading configurations can prevent the location of these sensors in the precise coldest and hottest locations, but these sensors should be located as close as practical.</td>
<td>X  X</td>
</tr>
<tr>
<td>At least one recording load sensor in each zone. During production in multi zone furnaces, empty zones do not require a load sensor. However, a notation must be made to the furnace load record that the zone was entirely empty.</td>
<td>X  X</td>
</tr>
<tr>
<td>Each control zone shall have over temperature protection. The sensor representing the hottest location may also be utilised as the over temperature protection sensor.</td>
<td>X  X  X  X  X</td>
</tr>
</tbody>
</table>
To ensure that compliance with AMS2750E is maintained, regular on site tests need to be carried out by a company such as Airflow who have the skills and experience to carefully assess the needs of each individual client and then respond with a tailored package to suit those needs.

Intervals for system accuracy tests, temperature uniformity surveys and calibrations for controlling, monitoring and recording instruments are based on the combination of furnace class and instrumentation type. For example, it should be made clear that there is a distinct difference between the system accuracy test (SAT) and the temperature uniformity survey (TUS) and AMS2750E lays out quite clearly the defined intervals for each to be carried out. Both the SAT and TUS also depend on whether the system is to process raw materials or parts/components.

Simply described, a SAT is a test of the control, monitoring and recording systems which is usually an onsite comparison of the instrument/lead wire/sensor readings or values, with the readings or values of a calibrated test instrument/lead wire/sensor to determine if the measured temperature deviations are within applicable requirements, and this is performed to assure the accuracy of the furnace/oven control and recorder system.
The TUS is a test or series of tests where calibrated field test instrumentation and sensors are used to measure the temperature variation within the qualified working zone, prior to and after thermal stabilisation. For example, for an oven to comply with furnace class 1 and instrument type A used for processing parts/components, the SAT interval would be biweekly, however at the other end of the scale, for an oven with furnace class 6 and instrument type E, again used for processing parts/components the SAT interval would be semi-annually.

From this we can see the importance in accurately assessing a client’s needs on an individual basis and Airflow has the skills to do this. Similarly, TUS regularity is also dependant on furnace class and instrument type and this can range from monthly for furnace class 1, instrument type A to quarterly for furnace class 6, instrument type E. These TUS intervals can however be extended substantially depending on the number of successful TUS carried out!

Airflow has a number of highly skilled and highly trained service/calibration engineers who are equipped with the latest calibrated testing equipment and is able to give you peace of mind knowing that your oven is not only manufactured by the leading supplier of AMS compliant products, but is also serviced, tested and calibrated correctly to ensure the quality of your produced items throughout the lifetime of the oven.
Choose Prodigy and you will be able to standardise on one software package to accommodate all of your requirements. From cost effective data logging through to comprehensive factory wide manufacturing execution system, Prodigy covers all your needs in one scalable and cost effective package. This saves time learning how to use several different software packages, which in turn saves money and makes it easier for you to integrate your business operations.

THE COMPLETE AUTOMATION SOLUTION - PRODIGY

THE PRODIGY SOFTWARE SYSTEM INCLUDES:

- Display Builder - Creates visually appealing and user friendly interfaces
- Trending Systems - A comprehensive trending facility for implementing intelligent recording strategies
- Alarm Functions - Sophisticated alarm functions that enable operators to react quickly to any faults/problems
- Mobile Reporting - Mobile access where alarms and reports can be sent through SMS and Email
- Sequence Language - (SLANG) that allows further development to tailor the software to any of your special needs
- Selective Licensing - So you only pay for what you need
Touch Screen Support - Larger button sizes, access to right click options and a pop-up numeric keypad are some of the options provided to help with touch screen systems.

Display Replay - Use DVD style controls to pause, rewind and replay the action from any display. This powerful tool can be used to aid fault diagnosis, perform post-mortem investigations or help with user training.

Pop Up Displays - can be used in several ways. They can provide multiple ‘floating’ views of your system for ease of use. They can also be linked into other displays to create a section of display which is shared between any number of other displays. By modifying just one ‘Pop Up’ your changes will propagate to all displays which share the same ‘Pop Up’. This will save you time and ensure consistency.

Toolbars - are used to provide access to the objects used in creating displays and also to tools that allow objects to be positioned relative to one another. All toolbars may be docked or floated over any part of the display.

Operator Interaction - Your own icons can be made into buttons. They can be configured to display forms, set signal values, switch displays, run reports or launch other programs. Prodigy also provides standard Windows buttons including check boxes and radio buttons.

Library - Prodigy Display Builder includes a comprehensive library of plant items that can simply be dropped onto your displays. The library can be extended by adding your own objects, created using Prodigy Display Builder. Library objects can be made into ‘Super Objects’. This means that they contain all of the information required to automatically create the signal database entries when they are placed on a display.

Graphics Support - Display Builder takes full advantage of the latest developments in graphics hardware. It offers true colour, unlimited screen resolution and support for dual-monitor displays. Powerful gradient fills, transparency effects and animation timers make it easy to produce professional displays very quickly.

Thermal Imaging - Prodigy provides extensive support for the capture of data from thermal line scanners and the representation of this data within Display Builder. This includes real time and historic false colour thermal images, thermographs, 3D waterfall displays and sector trends.
Airflow provides advice, design and manufacture of our full range of industrial ovens in ATEX format. Control panels can be oven mounted in ATEX enclosures or remotely sited in safe locations. Heating by hot water, steam or ATEX rated electric heater banks are common options. We are leaders in many industrial applications for the installation of ATEX Ovens.

All Airflow products are backed by a comprehensive 12 month warranty. After sales service and customer support is key to our business success. With our own trained GAS SAFE engineers and qualified electrical engineers covering the whole of the UK the continued optimum performance of your oven is assured. Overseas customers benefit from our dedicated export support team.

We have system design and installation experience with over 30 years know-how from our internal design and manufacturing teams; we have an unrivalled knowledge of these product groups and their application within the UK and worldwide via our vibrant export market. Our expertise within these areas allows for our products to be manufactured and installed to the highest standards being ATEX and ISO systems accredited.
WHY CHOOSE AN AIRFLOW ATEX DIRECTIVE OVEN?

- Internationally recognised as the leading manufacturer of ATEX ovens
- Unique high efficiency thermal design minimises energy usage
- Superior production results due to very uniform temperature distribution
- Unique high volume low pressure hot air circulation system
- Powerful 'Twin Fan' air circulation on all larger ovens
- Airflow Ovens are specified by the world’s leading companies
- ATEX, Rolls Royce RPS 953 Aerospace ovens regularly supplied
- Galvanised steel, alu-dip or stainless steel construction
- Designed for rapid heating of a wide variety of products & assemblies
- Heating composites, ceramics, resins, petrochemicals, metals, plastics & more
- Pre-assembled, Test Run, Data Logged and certified before despatch
The ATEX (ATmosphères EXplosibles) directive is a harmonised European directive which deals with equipment and protective systems intended for use in potentially explosive atmospheres. The directive is formed primarily of two directives, the first one which is 99/92/EC, also known as ATEX137 or the ATEX Workplace Directive. This directive primarily aims to improve the health and safety protection of workers potentially at risk from explosive atmospheres. More commonly referred to as the “use” directive, it is a directive which details that employers must classify hazardous areas where explosive atmospheres may occur. The classification given to a particular zone, and its size and location, depends on the likelihood of an explosive atmosphere occurring and its level of persistence when it does.

The second directive which is 94/9/EC is also known as ATEX95 or the Equipment Directive. This directive deals with the equipment and protective systems which are intended for use in potentially explosive atmospheres.

It is this directive which is important to Airflow when providing compliant systems to clients, as all equipment supplied must comply with 94/9/EC.

Even though 94/9/EC is still in force, it has recently changed and has been replaced with a new directive, 2014/34/EU and from 19th April 2016 this directive will replace 94/9/EC.
ATEX AREA CLASSIFICATIONS/ZONING DEFINITIONS

It is of upmost importance that any possible hazardous or potentially explosive atmosphere is identified correctly. In Great Britain, the requirements of the “Use” directive, 99/92/EC were put into effect through the Dangerous Substances And Explosive Atmospheres Regulations (DSEAR).

The requirements in DSEAR apply to most workplaces where potentially explosive atmospheres may occur. Some industry sectors are excluded as they are generally covered by other pieces of legislation.

DSEAR requires that employers eliminate or control the risks from dangerous substances and this is usually done by carrying out detailed and comprehensive risk assessments of all aspects of the working area, processes, materials, methods etc.

When a potentially explosive atmosphere is assessed the hazard could be comprised of flammable gasses/vapours, dusts or a combination of both. With reference to the descriptions shown below it can be seen that the definition of any particular zone is based on the frequency of exposure to the hazardous material.

ZONE CLASSIFICATIONS FOR GASES, VAPOURS & MISTS

ZONE 0 - A place in which an explosive atmosphere consisting of a mixture with air of dangerous substances in the form of gas, vapour or mist is present continuously or for long periods or frequently.
ZONE 1 - A place in which an explosive atmosphere consisting of a mixture with air of dangerous substances in the form of gas, vapour or mist is likely to occur in normal operation occasionally.
ZONE 2 - A place in which an explosive atmosphere consisting of a mixture with air of dangerous substances in the form of gas, vapour or mist is not likely to occur in normal operation but, if it does occur, will persist for a short period only.

For hazardous areas involving dusts then the above classifications are prefixed with a “2”, so zone I for dusts becomes zone 21, as below:

ZONE 20 - A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is present continuously, or for long periods or frequently.
ZONE 21 - A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is likely to occur in normal operation occasionally.
ZONE 22 - A place in which an explosive atmosphere in the form or a cloud of combustible dust in air is not likely to occur in normal operation but, if it does occur, will persist for a short period only.

EQUIPMENT GROUPS

Hazardous areas can usually be classified into three groups, I, II and III.

Group I - is typically reserved for underground applications such as mines.
Group II - is the most common group and deals with most surface applications.
Group III - is related to electrical equipment intended for used in places with an explosive dust atmosphere other than mines.
ATEX AREA CLASSIFICATIONS/ZONING DEFINITIONS

DEFINITION OF ATEX CATEGORIES

ATEX categories are categories which are used to define equipment to be used in the various zones as detailed on the previous page.

<table>
<thead>
<tr>
<th>ATEX CATEGORY</th>
<th>TYPICAL ZONE COMPATIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1G</td>
<td>EQUIPMENT SUITABLE FOR ZONE 0</td>
</tr>
<tr>
<td>1D</td>
<td>EQUIPMENT SUITABLE FOR ZONE 20</td>
</tr>
<tr>
<td>2G</td>
<td>EQUIPMENT SUITABLE FOR ZONE 1</td>
</tr>
<tr>
<td>2D</td>
<td>EQUIPMENT SUITABLE FOR ZONE 21</td>
</tr>
<tr>
<td>3G</td>
<td>EQUIPMENT SUITABLE FOR ZONE 2</td>
</tr>
<tr>
<td>3D</td>
<td>EQUIPMENT SUITABLE FOR ZONE 22</td>
</tr>
</tbody>
</table>

From this we can see that if an oven is to be used in a zone 1 application then equipment suitable for use in category 2 will need to be used.

Another important aspect of correct classification is the determination of a correct “T Rating”. The “T Rating” determines the maximum allowable surface temperature of any item within the potentially explosive area.

T RATING

The determination of the “T Rating” is related to the flammable or potentially explosive material being processed and is often related to the auto ignition temperature of the material in question. For example, if the “T Rating” of the system as a whole is determined to be T3, this means that no item in the potential explosive atmosphere can ever be hotter than 200°C and the system and its controls will need to be designed to ensure this compliance.

<table>
<thead>
<tr>
<th>T CLASS</th>
<th>MAX SURFACE TEMP IN °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>450</td>
</tr>
<tr>
<td>T2</td>
<td>300</td>
</tr>
<tr>
<td>T3</td>
<td>200</td>
</tr>
<tr>
<td>T4</td>
<td>135</td>
</tr>
<tr>
<td>T5</td>
<td>100</td>
</tr>
<tr>
<td>T6</td>
<td>85</td>
</tr>
</tbody>
</table>
ATEX AREA CLASSIFICATIONS/ZONING DEFINITIONS

GAS & DUST GROUPS

<table>
<thead>
<tr>
<th>AS GROUPS</th>
<th>DUST GROUPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IIA PROPANE</td>
<td>IIAA COMBUSTABLE FLYINGS</td>
</tr>
<tr>
<td>IIB ETHYLENE</td>
<td>IIIB NON CONDUCTIVE DUST</td>
</tr>
<tr>
<td>IIC HYDROGEN/ACETYLENE</td>
<td>IIIC CONDUCTIVE DUST</td>
</tr>
</tbody>
</table>

From the table above, it can be seen that potentially explosive materials are grouped together and for example, most paint drying/solvent evaporation applications would be classified as Gas Group IIB. In order to make sense of all the information detailed above, we must now briefly describe the various protection concepts commonly used to ensure that the equipment to be used in the potentially explosive is compliant with the ATEX classification determined by the employer relative to ATEX137 or 99/92/EC. The protection concepts are as follows:

<table>
<thead>
<tr>
<th>Ex i - Intrinsic safety</th>
<th>Ex p - Pressurised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex d - Flameproof</td>
<td>Ex m - Encapsulation</td>
</tr>
<tr>
<td>Ex e - Increased safety</td>
<td>Ex o - Oil immersion</td>
</tr>
<tr>
<td>Ex n - Non sparking</td>
<td>Ex q - Powder fill</td>
</tr>
</tbody>
</table>

Airflow has vast experience of supplying bespoke systems for use within hazardous and potentially explosive atmospheres. The protection concepts employed are usually a combination of Ex d equipment such as flameproof fan motors etc and intrinsically safe equipment. The Ex i concept includes for devices mounted in the main control panel in the safe area. These devices called barriers are used to limit the electrical energy supplied to devices in the hazardous area such as pressure switches, thermocouples, etc. Using all the information above, we can now make sense of a typical ATEX classification as shown here. This classification is for an EC (ATEX) compliant system for surface equipment that has an equipment category of 2 (Zone 1) and is for gasses as opposed to dusts. The protection concept is “d” which is flameproof, the gas group is IIC and the maximum allowable temperature is 200°C.
ATEX CAPABILITIES

Airflow as a company has vast experience of providing industrial heating solutions into ATEX determined areas. We are the leading manufacturer of industrial ovens in a number of fields and the engineering expertise that Airflow has relating to the difficulties sometimes posed by ATEX applications is second to none.

When an Airflow oven is designed for an ATEX application, not only do we consider the mechanical design and aesthetic aspects of the oven but we have a team of specialist systems engineers and control panel building experts who have the ability to specify, design and build ATEX compliant control systems for any application. We only use high quality components and assemblies which in turn lead to reliable and accurate control systems. Please see the list of equipment supplied below:

<table>
<thead>
<tr>
<th>ATEX Certified Fans</th>
<th>Control Panel Hardware</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Switches</td>
<td>I.S. Barriers</td>
</tr>
<tr>
<td>Control Panels</td>
<td>Controllers/Graphics Recording</td>
</tr>
</tbody>
</table>

All control panels are built in house to ensure a top quality product such as you would expect from such a specialist ISO registered company. All control panels built by Airflow are designed for safe area with connection to the oven/hazardous area via suitable cables and ATEX glands. Airflow is able to provide company contacts for assistance with the assessment and determination of a potentially explosive atmosphere due to the fact that this must be driven by the employer/end customer who should produce the appropriate risk assessments which in turn should be carried out on site relative to products and processes.

Once the ATEX classification has been determined and supplied to Airflow, we will be able to advise the best way forward with recommendations on oven design, materials of construction, control philosophy, suitable fuels etc.

Generally, most ATEX compliant ovens are heated by electricity as by its nature it is very easy to control temperatures accurately, however ATEX ovens could be supplied as steam, hot water or hot oil and Airflow has the expertise and experience to help in all applications.
ATEX INDUSTRIAL APPLICATIONS

As the leading supplier of ATEX compliant heating systems and ovens, our products are used in many industries which both want and need the best possible capital plant with which to build their businesses and support growth.

Airflow excel at design, customer support and partnership and has provided ovens into many ATEX applications including:

- Component drying
- Powder drying and consolidation
- Solvent evaporation
- Raw material/bulk heating
- Composites
- Aerospace components processing
- Lubricants processing plants
- Glue drying
- Spraying/painting plants (wet & powder)
- MOD based suppliers

This is not an exhaustive list and Airflow can and will design around your bespoke needs and applications. Many industries have challenges to overcome, many are unsure about the need for ATEX compliance and others have much experience of safe management of potentially hazardous areas, whichever type of organisation you belong to, Airflow can help as we are without doubt the number one in the field.
Airflow is a modern, technically advanced company, which after three decades is now at the forefront of its field. The company is dedicated to providing unrivalled finishing solutions. Airflow’s products include a comprehensive range of pre-treatment plant, dry filter and water wash spray booths, spray rooms, powder coating plants, batch ovens, conveyor ovens and complete turnkey product finishing solutions.
The safe and environmentally responsible application of powders, wet paints or lacquers are all covered within the Airflow range of spray booths and powder coating booths. Modular components extend the versatility of the dry filter and water wash spray booths enabling them to be incorporated into controlled environment enclosures or spray rooms as they are more traditionally referred to. Heated air replacement units complete the controlled environment picture, providing clean, dry heated air for the benefit of both the product and the operator.

Airflow are able to supply a complete range of application equipment ranging from a simple HVLP (High Volume Low Pressure) hand held wet paint spray gun through fully automated recalculating online paint systems to automatic reciprocators with multiple powder guns and automatic product sensing. All application equipment supplied by Airflow is backed by local service support on a worldwide scale.

Completing the finishing picture are our world-renowned batch ovens and conveyor ovens. Standard proven ranges of box ovens are ideally suited to wet paint or lacquer finishing applications whilst our new range of HVLP powder ovens lead the market in unrivalled temperature control whilst preventing the blow off of electro-statically applied coatings prior to the curing taking place.

The complete Airflow finishing solution includes mechanical handling equipment, conveyors, paint mixing rooms, product stands, racks, jigs, turntables and a complete range of consumable items including, filters, spares, commissioning, certification, accreditation, planned preventative maintenance, and 24 hour service back up.

Airflow has more than 30,000 ft² of modern manufacturing space; using the latest 3D design software and process simulations we are able to design the perfect solution for your requirements. Using precision CNC machinery and quality control to ISO 9001 excellence is a standard feature of every Airflow product.
Hundreds of existing satisfied customers choose Airflow Finishing equipment to apply the all-important perfect finish to their products. Every perfect finish starts with meticulous preparation and a spray pre-treatment line or dip pre-treatment plant provides all the benefits of a correctly applied conversion coating. Utilising iron phosphate, zinc phosphate or our highly energy efficient zirconium coatings, excellent adhesion and corrosion resistance are guaranteed. Our full portfolio of product finishing options include the following:

**PRODUCT FINISHING - STANDARD RANGE 2.2-6.6m**

- Airflow Flowclean pre-treatment plant
- 2.2m to 6.6m Airflow Easybuild dry filter spray booths
- 2.2m to 6.6m Airflow Highflow water wash spray booths
- 1.1m deep canopy to chosen width from our range
- 1.1m deep extract chamber to chosen width from our range
- Airflow cartridge fan, with 3 phase, 415v, 50Hz, non-flameproof motor
- Telemecanique non-flameproof DOL (direct on line) starter
- First fill of filter standard concertina filter paper
- Supplied flat pack and palletised
- Full and detailed assembly, installation and maintenance instructions

**Additionally costed elements include:**

- Lighting - Both canopy roof or side panels is available
- Forward canopy - Extension & canopy dividers
- Filter media options - Including high efficiency paper or open weave
- Motor options - Include 240v single phase, non-flameproof or 415v, 3 phase flameproof motors as alternatives to standard
- Ducting kits - A range of options are available for wall or roof extract, please see below for more details

**OVERVIEW**

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**PRE TREATMENT PLANT & EQUIPMENT**

**DRY FILTER SPRAY BOOTHS**

**WATER WASH SPRAY BOOTHS**

**POWDER SPRAY BOOTHS**

**SPRAY ROOMS**

**AUTOMOTIVE SPRAY ROOMS**
PRE-TREATMENT PLANT & EQUIPMENT

The latest generation of pre-treatment systems available
All stainless steel construction including tanks and pumps
Superior cleaning at lower temperatures
Reduced energy consumption means increased profits
Optimised plant operation and improved finished product quality
Improved operator environment
Ease of use for operators
Improved conversion coatings on multi-metal substrates
Improved ROI (return on investment)
Reduced servicing
Equipment longevity
Controlled and predictable energy costs

OVERVIEW

Any finish, no matter how expertly applied is wasted unless applied to a clean, pre-treated surface. Our pre treatment and cleaning products are designed around the latest environmentally friendly aqueous based solutions. Our extensive range of three and five tank dip systems provides a perfect upgrade from a vapour degreaser, combining superior cleaning with phosphated finish.

Multistage conveyerised spray pre treatment lines have been manufactured by Airflow for many years. Our wealth of experience combined with the latest chemicals and plant design results in our ability to supply the very best high volume, multistage plants. Our plants will run on zinc phosphate, iron phosphate or zirconium phosphate providing conversion coatings on steel, aluminium or zinc. Whatever your pre treatment requirements, you should be discussing them with one of our engineers.

We can also provide complete eco-system designs and installs. With 30 plus years experience in the industrial oven marketplace our know-how is unrivalled. Our knowledge of these booths and their application in the UK and within our vibrant export market gives Airflow the authority to advise from position of experience. You can be assured that our products will be manufactured and installed to the highest standards being ATEX and ISO 9001 accredited.
**OVERVIEW**

Strength, durability and engineering quality, feature in every single Airflow dry filter spray booth. Modular design and CNC manufacture ensures strictly competitive pricing. The patented Airflow cartridge fan ensures that fan-motor and drive components are sealed away from the exhaust air stream, for a long trouble free life. Booths can be supplied with a choice of standard or ATEX fans.

To compliment your dry filter spray booth Airflow has over 30 years system design and installation experience. Our internal design and manufacturing teams have been developing solutions for the worlds top companies since 1985 and now offer unparalleled expertise within the finishing industry. Airflow has unrivalled knowledge of oven applications within your market. Our expertise within these areas allows us to knowledgeably advise on the correct ‘lifetime solution’ for your particular process.

All Airflow dry filter spray booths are designed to meet the latest European regulations and comply with HSG 178 - “The spraying of flammable liquids” and they carry the benefit of the CE mark if supply for usage within the UK and the European Union.
DRY FILTER SPRAY BOOTHS - DUCTING OPTIONS

Ducting options include a range of through roof and through wall configurations. This allows for total flexibility to ensure extraction using a combination of straight ducting, flanges, bend flanges and brackets to allow for exhaust to ventilate into the atmosphere.

We recommend the application of peelable coating to the inner face of the Booth canopy to simplify maintenance, reduce fire risk and, prolong the life of the Booth. Consideration should be given for replacement air which, in volume should equal that being ventilated whilst fans are in operation. We can advise standard Airflow options for your installation and project.

Due to Airflow World Group’s buying prowess we are delighted to offer for a limited period only our best-selling “3.3m Dry Filter Spray Booths with a Type A Ducting Kit (Ex Works)” at the amazing low price of £1,999.00 (EX VAT). Call 01142 327788.

Offer correct as of Sep 2016. Please check with operator offer is still available.
OvErvIEw

Airflow Water Wash Spray Booths have a unique modular design. Featuring a triple scrubbing action providing very high efficiency particulate removal. The patented Airflow cartridge fan ensures that fan-motor and drive components are sealed away from the exhaust air stream, for a long trouble free life. The standard booth is supplied pre-assembled at no extra cost and is available with a choice of motors.

Airflow recognise the pressures on businesses to be increasingly competitive and to find savings within competitive industries. The solution to this problem is not to choose an inferior spraybooth in order to reduce initial price, risking costly unreliability, but to specify an Airflow Spraybooth and optimise performance in terms of both reliability and long-term production costs.

Water Wash Spraybooths from Airflow - giving you, the customer the best quality Spraybooths at the most economic price. Airflow has developed the range of Water Wash Spraybooths that have all the quality and benefits expected from an Airflow Booth, but have been designed for easy installation to reduce costs.
WATER WASH SPRAY BOOTHs - QUALITY

Airflow Water Wash Spray Booths are designed to give the highest standards of quality and operating reliability. Airflow only uses the highest quality heavy-duty 1.2mm galvanised sheets which are formed with 50mm returns to give individual panels and the overall booth strength and rigidity. This is achieved by an industry unique overlapping panel construction design. Each panel is individually designed and CNC punched to +/- 0.1mm accuracy which means the water wash booth fits together solidly, quickly and accurately with the minimum of fixings required. The Airflow Booth is solid and free-standing with smooth internal faces which assist cleaning. Airflow supply as standard the highest quality lock formed ducting in kit form for ease of installation. Airflow Booths have a quality look and finish which complements any factory environment. A water wash spray booth includes:

- 1.1m deep canopy to chosen width
- 1.15m washing chamber to chosen width
- Airflow patented cartridge fan, with 3-phase, 415V, 50Hz, non-flameproof motor
- Telemecanique non-flameproof DOL starters
- Washing chamber supplied fully assembled
- Full and detailed installation and maintenance instructions
**WATER WASH - ADDITIONAL COST OPTIONS**

- Lighting - for both canopy roof or side panels is available
- Forward canopy extension - to increase the effective working depth by 1.1 metre increments
- Canopy Divider to create multiple work stations within one booth
- Ducting Kits - a range of options are available for wall or roof extract, please see schedule for details

**WATER WASH SPRAY BOOTH LEGISLATION**

Airflow Booths provide an air velocity through the booth that meets and surpasses the requirement of HSGI78. Airflow fans are legal and comply with the machinery directive (89/392/EEC). Technical files and risk assessments are held at Airflow to ensure our and your compliance with legislation. To complement your water wash spray booth, Airflow has over 35 years system design and installation experience. Our internal design and manufacturing teams have been developing solutions for the world’s best companies since 1985 and now offer unparalleled expertise within the finishing industry. We also have an unrivalled knowledge of oven applications within your market. Our expertise within these areas allows us to knowledgeably advise on the correct ‘lifetime solution’ for your particular process.
Complete, functional, fast colour change package
Tested and prequalified manufacturing quality
Can be seen in Nordsons Erkrath demonstration centre
To be sold exclusively with Nordson powder spray systems
Spray system and gun mover packages ordered directly from Nordson
Installation by experienced engineers

OVERVIEW
Airflow offers a comprehensive solution for the rapid powder coating and product finishing of a wide range of manufactured finished goods, parts and components. The fast colour change powder spray system is optimised for efficient, repeatable powder application. Numerous features minimise powder in process and aid in system cleaning providing you with a fast, contamination free colour change.

SYSTEM SPECIFICATIONS (& SIZES)

DOUBLE SKIN PVC UPPER STRUCTURE

BOOTH BASE

MONO-CYCLONE POWDER RECOVERY WITH SIEVE

AFTER FILTER

OPTIONS / EXTRAS

SAMPLE SYSTEM DRAWING

BACK
FAST COLOUR CHANGE POWDER SPRAY BOOTH

SYSTEM SPECIFICATIONS (& SIZES)

Up to 12 automatic and 2 manual spray systems
Up to 3 automatic gun slots per booth side
Double skin PVC upper structure
Single skin PVC roof
PVC Floor (20 mm)
Stainless steel manual platform floor
Single extraction slot in the middle of the booth
Automatic floor blow-off
Standard product opening sizes

<table>
<thead>
<tr>
<th>BOOTH SIZE (HxW)</th>
<th>AFTERFILTER SIZE m³/hr</th>
<th>MOTOR</th>
<th>FILTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1300 x 700</td>
<td>12,500 to 14,000</td>
<td>2 x 11 kW</td>
<td>15</td>
</tr>
<tr>
<td>1300 x 1000</td>
<td>16,000 to 18,000</td>
<td>2 x 15 kW</td>
<td>18</td>
</tr>
<tr>
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<tr>
<td>2400 x 1000</td>
<td>20,000 to 23,000</td>
<td>2 x 18.5 kW</td>
<td>21</td>
</tr>
</tbody>
</table>
### FAST COLOUR CHANGE POWDER SPRAY BOOTH

#### DOUBLE SKIN PVC UPPER STRUCTURE

- 3 auto slots per side
- One 2 m blow-off lance
- Sandwich wall construction
- Single-skin, 10 mm roof
- 100 mm conveyor opening (can be cut wider onsite if necessary)
- 3 roof support brackets
- 2 cut-outs for convenient manual gun placement
- 6 lights – both auto and manual sections of the booth
- Auto gun slots spacing – 300 mm

### BOOTH BASE

- Single-slot extraction
- Automatic floor blow-off
- Metal structure painted blue smooth finish
- Base covered with cover plates
- Floor – 20 mm PVC in dark grey
- Manual platforms with steps and hand rails
- Stainless surface on manual stations
- Base covers on manual platforms
# Fast Colour Change Powder Spray Booth

## Mono-Cyclone Powder Recovery with Sieve

Mono cyclone design with tested 96% efficiency  
Integrated vibratory sieve – 500 µm screen mesh  
Two handed safe pneumatic open/closing of the surge hopper for cleaning  
Nordson HDLV high capacity pump station for powder transfer with manual controls for operation and cleaning

## Afterfilter

Various sizes  
Waste buckets for powder removal  
Ductwork from the afterfilter to the booth and feed centre  
2 explosion vents supplied as standard venting upward  
(A safety zone around the unit is required and communicated to the end user)  
Reverse pulse filter cleaning  
STS fire detection and suppression system to be sourced locally if required

<table>
<thead>
<tr>
<th>Booth Size (HxW)</th>
<th>Afterfilter Size m³/hr</th>
<th>Motor kW</th>
<th>Filters</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>
FAST COLOUR CHANGE POWDER SPRAY BOOTH

OPTOINAL POWDER FEED SYSTEM AND HOPPER

- Ventilated enclosure connected to the afterfilter for safe and clean operating
- Powder feed from fluidised hopper for consistent delivery rates and easy powder addition
- Pneumatically operated, easy to clean pick-up tubes
- Automatic internal spray system purge
- Convenient inlet for recycled powder return to the hopper
- Easy to operate controls
- Integrated dust-proof lights
- Includes one powder feed hopper
- Solid-plate pick-up tubes facilitate cleaning during colour change

OPTIONAL EXTERNAL GUN CLEANING

- External gun blow-off nozzles

The cleaning process is activated via a switch on the main control panel and the guns are manually extracted by pulling the gun mover on its guide rails.
For high quality paint spray facilities we provide an initial audit on all controlled environment enclosures within your operation. We have many examples of installations providing complete solutions of product finishing outputs and quality control.

The drying of solvent based paints benefits from good and controlled air circulation, which can be achieved by a dedicated flash off room. The flash off room incorporates a low level of air circulation and extraction that both assists the drying process and exhausts the hazardous solvent fumes safely. Additional benefits of a dedicated flash off room are that it frees up the spray area for further production. It also enables a quality finish to be achieved in a reduced time frame.

Certain paints and lacquers need or benefit from being dried/cured at fixed temperatures so as to achieve the film-flow effect that ensures complete and even coverage of the surface. Batch finishing production times can be substantially reduced by drying the products in a dedicated room as opposed to letting them dry under the ambient conditions that exist in the work place. Controlled drying, ensures the optimum surface finish and greatly reduces the risk of ‘blooming’ and ‘crazing’.

**PAINT SPRAY ROOMS**

| Modular design allowing for all types of spraying application |
| Patented ‘Cartridge Fan’ ensures reliable, uninterrupted production |
| Huge stocks of component parts ensure rapid lead times |
| Superior overspray collection maximises environmental compliance |
| Designed and manufactured for harsh industrial environments |
| Galvanised steel or stainless steel construction available |
| Designed for rapid filter changes and minimum maintenance downtime |
| Securely site assembled using our unique time saving designs |
| CNC production with assembly alignment to within 0.1mm |

**OVERVIEW**

**PAINT SPRAY ROOM TYPES**

**SAMPLE SYSTEM DRAWING**

**BACK**
PAINT SPRAY ROOM TYPES

- Extraction Chambers
- Dry Filer Spray Rooms
- Water Wash Spray Rooms
- Powder Coating Rooms
- Conveyor Spraying Rooms
- Modular Spraying Rooms

AirFlow can produce and provide either a simple room from its extensive range of standard product modules or tailor-make a drying facility to suit your particular requirements. Should heating be required, then this can be achieved either by the use of direct or indirect fired gas or LPG, with electrical heating or indirect oil firing as options for the above types of industrial spray room.

To compliment your spray room Airflow has over 35 years system design and installation experience. Our internal design and manufacturing teams have been developing solutions for the world’s leading companies since 1985 and now offer unparalleled expertise within the finishing industry. We also have an unrivalled knowledge of oven applications within many markets. Our expertise within these areas allows us to knowledgeably advise on the correct ‘lifetime solution’ for any particular process.

Our Airflow paint spray room solutions can also include mechanical handling equipment, conveyors, paint mixing rooms, product stands, racks, jigs, turntables and a complete range of consumable items including, filters, spares, commissioning, certification, accreditation, planned preventative maintenance, and 24 hour service back up.
**OLYMPIAN**

- Budget Rear Extraction
- Low to Mid Throughput
- 14,000m³/hr
- 3.5 Air Changes per Minute
- Single Air Input Plenum (7.5m²)
- 3.0kW Bifurcated Axial Fans
- Variable Speed Drive Motor Control
- 110kW Direct Fired Gas (300,000btu’s)
- High/Low Two Stage Temperature Control
- 1000 lux High Level T5 Lighting
- Twin Leaf Main Doors
- Standard Push Button Control Panel

**SPARTAN**

- Premium Rear Extraction or Downdraught
- Mid to High Throughput
- 20,000m³/hr
- 5 Air Changes per Minute
- Twin Air Input Plenum (15m²)
- 4.0kW Aerofoil Centrifugal Fans
- Variable Speed Drive Motor Control
- 170kW Direct Fired Gas (300,000btu’s)
- High/Low Two Stage Temperature Control
- 1700 lux High Level LED Lighting
- Three Leaf Concertina Main Doors
- PLC Push Button Control Panel

**POSEIDON**

- High Specification Full Downdraught
- High Throughput
- 30,000m³/hr
- 7 Air Changes per Minute
- Full Air Input Plenum (32m²)
- 7.5kW Aerofoil Centrifugal Fans
- Variable Speed Drive Motor Control
- 220kW Direct Fired Gas (600,000btu’s)
- Modulating Temperature Control
- Automatic Cabin Pressure Regulation
- 1700 Lux High Level LED Lighting
- Three Leaf Concertina Main Doors
- Hydracure™ Water Based Curing System
- Energy Save Idle Mode
- PLC Control Panel with Colour Touchscreen
AUTOMOTIVE SPRAY SERIES - OLYMPIAN 1000 SERIES

Budget Rear Extraction
Low to Mid Throughput
14,000m³/hr
3.5 Air Changes per Minute
Single Air Input Plenum (7.5m²)
3.0kW Bifurcated Axial Fans
Variable Speed Drive Motor Control
110kW Direct Fired Gas (300,000btu’s)
High/Low Two Stage Temperature Control
1000 lux High Level T5 Lighting
Twin Leaf Main Doors
Standard Push Button Control Panel

The Todd Engineering Olympian 1000 series spray booth sets high standards in price and performance for the budget entry level, new start-up and low throughput markets. The spray booth is compatible for waterborne paints and the Olympian’s low cost and streamline installation makes it a competitive and far less risky option against the purchase of a second hand spray booth. Contrary to its low cost, the Olympian’s cabin is to full specification in terms of size, construction & finish. The air handling plant is designed to be compact & to be accessible for easy routine maintenance. The airflow design provides for a good throughflow of air for the removal of paint overspray & vapours without the need for excavation, floor grids, etc. This makes installation very quick and easy.
The spray both cabin is constructed using double skinned insulated panels with white polyester front and doors, white polyester internal finishes, the remainder of the cabin is finished in galvanised steel.

The booth is a rear extraction type spray booth that requires no additional ground works prior to installation. The machine is simply constructed on a smooth, flat concrete base with an extraction chest at the rear and plant work situated on top.

This provides a front to rear, diagonally flowing tunnel of air which moves across the entire vehicle to carry away overspray and fumes.

The plant work is fitted with two 3.0kW direct drive axial fans to achieve the design airflow rate of 14,000m³/hr. This provides a rate of 3.5 air changes per minute within the cabin, with extracted air being exhausted to atmosphere. The extraction system is fitted with two-stage filtration using 50mm EU2 green paint stop and EU3 blue pre-filters, this ensures that emissions meet EPA requirements. The input system uses high quality EU5 filter media to ensure incoming air is free of contaminants.

The interior cabin is well lit with high level corner mounted light pods which are angled to reduce glare and shadowing, these pods are outfitted with an energy efficient T5 lighting system that gives illumination in excess of 1000 lux levels.

Fresh air is drawn from atmosphere & is heated to the required temperature. It then passes through EU5 ceiling filters into the booth & over the vehicle carrying away paint overspray & vapours. The air is extracted via a twin dry filter system & exhausted to atmosphere. By using recommended filters with regular changes, 99% of pollutants can be captured.

Fresh air is drawn from atmosphere & is heated to the required temperature. It then passes through EU5 ceiling filters into the booth & over the vehicle carrying away paint overspray & vapours. The air is extracted via a twin dry filter system & exhausted to atmosphere. By using recommended filters with regular changes, 99% of pollutants can be captured.
NOISE LEVELS

Comfortable working cabin levels of between 70–75 dB, variable speed motors contribute to 50% lower dB outbreak levels.

DOORS

The main vehicle entry doors are constructed from double skinned white polyester steel. They are insulated with white steel trims and hung with white aluminium hinges. They are constructed in a twin-leaf format, with a central locking mechanism complete with toughened window glass. A rubber compression seal within the door frame ensures a secure seal when the doors are closed.

It is a legal requirement to have a secondary means of escape. A personnel door may be fitted in any wall panel, generally to the rear of the cabin to provide a safe fire escape route. The door construction is similar to the single leaf of the main door (30 minutes fire resistance), fitted with door closer, catches & full length window. The door is fitted with compression seals and opens outwards.

CONTROL PANEL

The control panel, which is fitted with variable speed drives to electronically balance the cabin pressure, provides operating cycle selection for spray & bake modes, automatic bake timing with cool-down facility, lighting control, dual temperature controller readout for spray and bake cycles, magnehelic pressure monitoring with positive pressure alarm and emergency pressure alarm and shutdown. The standard power requirements are three phase 32A, 400 volt, 50Hz + Neutral. This booth will also operate on single phase.
OLYMPIAN - TECHNICAL DATA

HYDRACURE™

The Hydracure™ water based curing system can improve curing times of water based paints by up to 40% compared to conventional booths without the system. Hydracure™ uses adjustable high pressure nozzles mounted down the side walls of the spraybooth cabin to focus heated jets of air at the painted surface, this air ‘agitation’ effect allows the water content to be ‘pushed’ from the paint. The system uses two 1.1kW centrifugal fans to draw heated air from the ‘clean zone’ within the cabin, this air is then filtered to ensure clean operation to 10 microns. The Hydracure™ system comes complete with a dedicated control panel and is available as an optional extra.

BOOTH DIMENSIONS

2500 MODEL

<table>
<thead>
<tr>
<th>Interior Height</th>
<th>2600mm</th>
<th>Overall Height</th>
<th>3000mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior Width</td>
<td>4000mm</td>
<td>Overall Width</td>
<td>4100mm</td>
</tr>
<tr>
<td>Interior Length</td>
<td>6900mm</td>
<td>Overall Length</td>
<td>7910mm</td>
</tr>
</tbody>
</table>

2900 MODEL

<table>
<thead>
<tr>
<th>Interior Height</th>
<th>3000mm</th>
<th>Overall Height</th>
<th>3400mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior Width</td>
<td>4000mm</td>
<td>Overall Width</td>
<td>4100mm</td>
</tr>
<tr>
<td>Interior Length</td>
<td>7900mm</td>
<td>Overall Length</td>
<td>8910mm</td>
</tr>
</tbody>
</table>
The Todd Engineering Spartan 2000 series spray booth is a premium rear extract type spray booth offering high levels of performance at an affordable price, ideally suited to applications with a medium to high throughput, the Spartan can be the workhorse of any bodyshop. The Spartan boasts a 20,000m³/hr airflow rate resulting in 5 air changes per minute, this is achieved using a highly efficient fan design and plant configuration, combined with energy efficient technology such as variable speed drives ensures that the unit is very economical to run.
The spray booth cabin is constructed using double skinned insulated panels with white polyester finish internally and externally.

The booth is a rear extraction type spray booth that requires no additional ground works prior to installation. The machine is simply constructed on a smooth, flat concrete base with an extraction chest at the rear and plant work situated on top. This provides a front to rear, diagonally flowing tunnel of air which moves across the entire vehicle to carry away over-spray and fumes.

The plant work is fitted with two 4.0kW direct drive aerofoil, backwards curved centrifugal fans to achieve the design airflow rate of 20,000m³/hr. This provides a rate of 5 air changes per minute within the cabin, with extracted air being exhausted to atmosphere. The extraction system is fitted with two-stage filtration using 50mm EU2 green paint stop and EU3 blue pre-filters, this ensures that emissions meet EPA requirements. The input system uses high quality EU5 filter media to ensure incoming air is free of contaminants down to 10 microns.

The interior cabin is well lit with high level corner mounted light pods which are angled to reduce glare and shadowing, these pods are outfitted with an energy efficient T5 lighting system that gives illumination in excess of 1500 lux levels.

Fresh air is drawn from atmosphere & is heated to the required temperature. It then passes through EU5 ceiling filters into the booth & over the vehicle carrying away paint over-spray & vapours. The air is extracted via a twin dry filter system & exhausted to atmosphere. By using recommended filters with regular changes, 99% of pollutants can be captured.

The spray booth is fitted with a direct fired natural gas/LPG burner with an output of 90–110kW or 300,000 Btu's/hr; this allows recirculated air to be rapidly heated to the preset temperature on the control panel. Alternatively, an indirect fired oil burner can be fitted.
NOISE LEVELS

Comfortable working cabin levels of between 70-75 dB, variable speed motors contribute to 50% lower dB outbreak levels.

DOORS

The main vehicle entry doors are constructed from double skinned white polyester steel, insulated with white steel trims and hung with white aluminium hinges. Constructed in a three-leaf format they open in a concertina fashion to minimise the opening distance. Two individual locking mechanisms allow one single leaf door to be used as an additional personnel door. Doors are fitted with a full length window to maximise visibility. A rubber compression seal within the frame ensures a secure seal when the doors are closed.

It is a legal requirement to have a secondary means of escape. A personnel door may be fitted in any wall panel, generally to the rear of the cabin to provide a safe fire escape route. The door construction is similar to the single leaf of the main door (30 minutes fire resistance), fitted with door closer, catches & full length window. The door is fitted with compression seals and opens outwards.

CONTROL PANEL

The state-of-the-art control panel, which is fitted with variable speed drives to electronically balance the cabin pressure, provides operating push button selection for spray & bake modes, automatic bake timing with readout & cooldown facility, lighting control, temperature controller readout for spray and bake cycles, clearance time safety interlocks, magnehelic pressure monitoring with positive pressure alarm, emergency pressure alarm and shutdown. The standard power requirements are three phase 32A, 400 volt, 50Hz + Neutral.
SPARTAN - TECHNICAL DATA

HYDRACURE™

The Hydracure™ water based curing system can improve curing times of water based paints by up to 40% compared to conventional booths without the system. Hydracure™ uses adjustable high pressure nozzles mounted down the side walls of the spraybooth cabin to focus heated jets of air at the painted surface, this air ‘agitation’ effect allows the water content to be ‘pushed’ from the paint. The system uses two 1.1kW centrifugal fans to draw heated air from the ‘clean zone’ within the cabin, this air is then filtered to ensure clean operation to 10 microns. The Hydracure™ system comes complete with a dedicated control panel and is available as an optional extra.

BOOTH DIMENSIONS

2600 MODEL

<table>
<thead>
<tr>
<th>Interior Height</th>
<th>2600mm</th>
<th>Overall Height</th>
<th>3000mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior Width</td>
<td>3900mm</td>
<td>Overall Width</td>
<td>4000mm</td>
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<tr>
<td>Interior Length</td>
<td>6750mm</td>
<td>Overall Length</td>
<td>8475mm</td>
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3000 MODEL

<table>
<thead>
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<th>3000mm</th>
<th>Overall Height</th>
<th>3400mm</th>
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<tbody>
<tr>
<td>Interior Width</td>
<td>3900mm</td>
<td>Overall Width</td>
<td>4000mm</td>
</tr>
<tr>
<td>Interior Length</td>
<td>7900mm</td>
<td>Overall Length</td>
<td>9625mm</td>
</tr>
<tr>
<td>AUTOMOTIVE SPRAY SERIES - POSEIDON 4000 SERIES</td>
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<tr>
<td>------------------------------------------------</td>
<td></td>
<td></td>
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<tr>
<td>High Specification Full Downdraught (Fully Extracted filtered floor 32m³)</td>
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<td></td>
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</tr>
<tr>
<td>High Throughput</td>
<td></td>
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</tr>
<tr>
<td>30,000m³/hr</td>
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<td></td>
<td></td>
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<tr>
<td>7 Air Changes per Minute</td>
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<td></td>
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<tr>
<td>Full Air Input Plenum (32m³)</td>
<td></td>
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<tr>
<td>7.5kW Aerofoil Backwards Curved Centrifugal Fans</td>
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<td></td>
</tr>
<tr>
<td>Variable Speed Drive Motor Control</td>
<td></td>
<td></td>
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<tr>
<td>220kW Direct Fired Gas (600,000btu’s)</td>
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<tr>
<td>Modulating Temperature Control</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Automatic Cabin Pressure Regulation</td>
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<td></td>
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<tr>
<td>1700 Lux High Level LED Lighting</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Three Leaf Concertina Main Doors</td>
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<tr>
<td>Hydracure™ Water Based Curing System</td>
<td></td>
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<tr>
<td>Energy Save Idle Mode</td>
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<tr>
<td>PLC Control Panel with 3.5” Full Colour TFT Touchscreen Display</td>
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</table>

The Poseidon 4000 Series Spray booths are a high specification, high performance range of machines designed to fulfil the needs of the most demanding bodyshops. The Poseidon utilises the latest technology available to achieve rapid and efficient process times, featuring Todd Engineering’s Hydracure water based curing system as standard. The Poseidon’s intelligent control system automatically regulates internal cabin temperature and pressure, this is coupled with a wealth of energy saving features that makes the Poseidon both economical and efficient to run.
CONSTRUCTION

The spray booth cabin is constructed using double skinned insulated panels with white polyester finish internally and externally.

FLOOR ARRANGEMENT - LAYOUT

The ‘Poseidon’ is a downdraught type spray booth which features extraction at floor level, through a fully filtered raised floor arrangement. The downdraught design ensures all over-spray and dirt is pulled immediately to floor level and held there during the spraying process, this eliminates over-spray contaminating other areas of the paintwork and ensures a perfect finish. The full size ceiling air input plenum helps facilitate this design by producing an even through flow of heated air that completely envelops the vehicle, meaning all areas of the car including sills are heated to the required panel temperature evenly for rapid curing.

AIR FILTRATION

The spray booth plant work is fitted with two 7.5kW direct drive aerofoil, backwards bladed centrifugal fans to achieve the design airflow rate of 35000m³/hr. This provides a rate of 7 air changes per minute within the cabin, with extracted air being exhausted to atmosphere. The extraction system is fitted with two stage filtration incorporating 50mm EU2 green paintstop and EU3 blue pre-filter; this ensures that emissions meet EPA requirements.

LIGHTING

The interior cabin is well lit with high and low level light pods which are angled to reduce glare and shadowing, these pods are outfitted with an energy efficient T5 lighting system that gives illumination in excess of 2000 lux levels.

SPRAYING CYCLE

Fresh air is drawn from atmosphere & is heated to the required temperature. It then passes through EU5 ceiling filters into the booth & over the vehicle carrying away paint over-spray & vapours. The air is extracted via a twin dry filter system & exhausted to atmosphere. By using recommended filters with regular changes, 99% of pollutants can be captured.

HEATING - BAKE CYCLE

The spray booth is fitted with a direct fired modulating natural gas/LPG burner with an output of 220kW or 600,000 Btu’s/hr; this allows re-circulated air to be rapidly heated to the preset temperature on the control panel. Alternatively, an indirect fired oil burner can be fitted.
NOISE LEVELS

Comfortable working cabin levels of between 70-75 dB, variable speed motors contribute to 50% lower dB outbreak levels.

DOORS

The main vehicle entry doors are constructed from double skinned white polyester steel, insulated with white steel trims and hung with white aluminium hinges. They are constructed in a three-leaf format, opening in a concertina fashion to minimise the opening distance, two individual locking mechanisms allow one single leaf door to be used as an additional personnel door. Each door is fitted with a full length window to maximise visibility. A rubber compression seal within the door frame ensures a secure seal when the doors are closed.

It is a legal requirement to have a secondary means of escape. A personnel door may be fitted in any wall panel, generally to the rear of the cabin to provide a safe fire escape route. The door construction is similar to the single leaf of the main door (30 minutes fire resistance), fitted with door closer, catches & full length window. The door is fitted with compression seals and opens outwards.

CONTROL PANEL

A state-of-the-art control panel fitted with variable speed drives to electronically balance the cabin pressure. Operating push button selection for spray, hydracure & bake modes, automatic bake timing with readout & cool-down facility, lighting control, temperature controller readout for spray, hydracure and bake cycles, clearance time safety interlocks, magnehelic pressure monitoring with positive pressure alarm, emergency pressure alarm and shutdown. Standard power requirements are three phase 63A, 400 volt, 50Hz + Neutral.
The Hydracure™ water based curing system can improve curing times of water based paints by up to 40% compared to conventional booths without the system. Hydracure™ uses adjustable high pressure nozzels mounted down the side walls of the spraybooth cabin to focus heated jets of air at the painted surface, this air ‘agitation’ effect allows the water content to be ‘pushed’ from the paint. The system uses two 1.1kW centrifugal fans to draw heated air from the ‘clean zone’ within the cabin, this air is then filtered to ensure clean operation to 10 microns. The Hydracure™ system comes complete with a dedicated control panel and is available as an optional extra.

**BOOTH DIMENSIONS**

**2600 MODEL**

<table>
<thead>
<tr>
<th>Description</th>
<th>2600mm</th>
<th>Overall Height</th>
<th>3300mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior Height</td>
<td>2600mm</td>
<td>Overall Width</td>
<td>4000mm</td>
</tr>
<tr>
<td>Interior Width</td>
<td>3900mm</td>
<td>Overall Length</td>
<td>9500mm</td>
</tr>
<tr>
<td>Interior Length</td>
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</table>

**3000 MODEL**

<table>
<thead>
<tr>
<th>Description</th>
<th>3000mm</th>
<th>Overall Height</th>
<th>3700mm</th>
</tr>
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<td>Interior Width</td>
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<td>9500mm</td>
</tr>
<tr>
<td>Interior Length</td>
<td>7900mm</td>
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</tr>
</tbody>
</table>
Airflow designs and manufactures a range of solutions to control the impact of industry both on the environment and on employees. Our comprehensive range of controlled environments include Clean Rooms, Spray Rooms, Sound Attenuated Enclosures, UV, NDT Detection Booths and Rooms, Heated Environments, Chilled Environments and Controlled Extraction and ventilation of your existing areas.

Airflow Controlled Environments accurately provide, humidity control, temperature control, particulate control, vapour control, noise control, light control and air locked human interfaces. All our Environmental solutions ensure that any emissions to atmosphere are kept to an absolute minimum and always within regulatory limits. Airflow’s experts are available to advise on current and future legislation. A Nationwide team of highly trained technical support engineers are on hand to maintain calibrate and certify your installations for HSE and insurance compliance.
CONTROLLED ENVIRONMENT ENCLOSURES

- Clean rooms
- Controlled extraction and ventilation of existing areas
- EPA compliance (Environmental Protection Act)
- Filtered air inlet units
- Humidity controlled environments
- NDT and product inspection environments
- Sound attenuated environments
- Temperature controlled environments

WHY CHOOSE AN AIRFLOW CLEAN ROOM?

- All regulated parameters are controlled and recorded by our sophisticated systems.
- Dedicated ‘Air Handling Units’ provide specified volumes of air within specific dedicated criteria.
- In addition to manufactured products, Airflow Environmental provides advice and practical assistance on environmental issues that affect your business, such as process emissions, waste water treatment, process chemical disposal, spray booth waste management and general industrial EPA compliance.

FULLY CONTROLLED ENVIRONMENT

- Stockholding of standard assemblies, means we can respond quickly to meet your requirements. Project management is the key to our installation success. We only employ expert personnel who appreciate the importance of installing environmental plant, precisely and to schedule.

SOUND ATTENUATED ENVIRONMENTS

- We have system design and installation experience with 30 plus years know-how from our internal design and manufacturing teams, we have an unrivalled knowledge of these product groups and their application in the UK and our vibrant export market. Our expertise within these areas allows for our products to be manufacture and installed to the highest standards offering ATEX and ISO systems accredited.
Airflow has over 35 years of experience in the design and installation of high specification industrial clean rooms. Drawing from our vast stocks of component modules, we are able to supply the perfect environment for your process. Rooms of all sizes can be quickly installed with full control of the above criteria.

Airflow clean rooms can simultaneously control many different criteria including humidity control, temperature control, particulate control, vapour control, and light control. Airflow clean rooms include air locked human interfaces with changing facilities if required. All our environmental solutions ensure that any emissions to atmosphere are kept to an absolute minimum and always within regulatory limits. Airflow’s experts are available to advise on current and future legislation. A nationwide team of highly trained technical support engineers are on hand to maintain calibrate and certify your installations for HSE and insurance compliance.
OUR FULL CONTROLLED ENVIRONMENT PORTFOLIO

Clean rooms
Controlled extraction and ventilation of existing areas
EPA compliance (Environmental Protection Act)
Filtered air inlet units
Humidity controlled environments
NDT and product inspection environments
Sound attenuated environments
Temperature controlled environments

OVERVIEW

All regulated parameters are controlled and recorded by our sophisticated systems. Dedicated ‘Air Handling Units’ provide specified volumes of air within specific dedicated criteria. Airflow Environmental also provides advice and assistance on environmental issues that affect your business, such as process emissions, waste water treatment, process chemical disposal, spray booth waste management and general industrial EPA compliance.

Stockholding of standard assemblies, means we can respond quickly to meet your requirements. Project management is the key to our installation success. We only employ expert personnel who appreciate the importance of installing environmental plant, precisely and to schedule.

We have system design and installation experience with 30 plus years know-how from our internal design and manufacturing teams, we have an unrivalled knowledge of these product groups and their application in the UK and our vibrant export market. Our expertise within these areas allows for our products to be manufactured and installed to the highest standards including ATEX and ISO system accredited products.
SOUND ATTENUATED ENVIRONMENTS

Clean rooms  
Sound attenuated environments  
Temperature controlled environments  
Humidity controlled environments  
NDT and product inspection environments  
Controlled extraction and ventilation of existing areas  
Filtered air inlet units  
EPA compliance (Environmental Protection Act)

Airflow designs and manufactures a comprehensive range of sound attenuated enclosures. The enclosures can be designed to contain and isolate an individual noise source or to provide a quiet working environment within a generally noisy environment. Other polluting elements can also be isolated and eliminated within the design of the enclosure to protect staff and maximise accuracy and productivity.

Airflow Sound Attenuated Environments can simultaneously provide the control of other criteria including humidity control, temperature control, particulate control, vapour control, light control and include air locked human interfaces. All our environmental solutions ensure that any emissions to atmosphere are kept to an absolute minimum and always within regulatory limits.

Our resident experts are available to advise on current and future legislation. A nationwide team of highly trained technical support engineers are on hand to maintain calibrate and certify your installations for HSE and insurance compliance.

All regulated parameters are controlled and recorded by our sophisticated systems. Dedicated ‘Air Handling Units’ provide specified volumes of air within specific dedicated criteria. Airflow Environmental also provides advice and practical assistance on environmental issues that affect your business, such as process emissions, waste water treatment, process chemical disposal, spray booth waste management and general industrial EPA compliance.

Stockholding of standard assemblies, means we can respond quickly to meet your requirements. Project management is the key to our installation success. We only employ expert personnel who appreciate the importance of installing environmental plant, precisely and to schedule.
As the UK leaders in the supply and installation of industrial ovens and finishing equipment we have the knowledge and expertise to keep your production plant in production. Airflow specialise in industrial spray booth and industrial oven servicing and can test, calibrate and certify your equipment. to ensure that your equipment operates at optimum efficiency. Statutory HSE and insurance compliance, minimised downtime and maximisation of OEE (Overall Equipment Effectiveness). Our highly skilled team of engineers can service all makes of oven.
Airflow have a huge spares stock, not just for current models but also for all our previous products. A network of service engineers covers the whole of the UK and Ireland. Daily deliveries to all areas of the UK and tracked worldwide deliveries ensure that your replacement parts are on site, on time.

Airflow has the technical expertise to test calibrate and certify your industrial ovens and finishing equipment. Airflow also provide energy efficiency reports on both current and older equipment. Airflow has system design and installation experience with 35 plus years know-how from our internal design and manufacturing teams. Airflow have an unrivalled knowledge of oven applications within your market. Our expertise within these areas allows us to knowledgeably advise on the correct ‘lifetime solution’ for your particular process.
INDUSTRIAL OVEN SERVICE & SUPPORT

Unrivalled expertise in the industrial oven and finishing markets
Our highly trained engineers operate only in this sector
Tailored service packages with 12 to 60 month discounted contracts
Contracted response times tailored to your production
Discounted replacement parts for contracted partners
Comprehensive Van Stock with central UK storage in Sheffield, England
IEE 17th Edition and GAS SAFE accredited engineers
Modern test equipment with NAMAS certification
Comprehensive test reports for proven statutory compliance
Energy efficiency surveys to enable grant funded improvements

Airflow are UK leaders in the supply and installation of Industrial Ovens. Airflow also specialise in industrial oven servicing and industrial oven testing and certification to ensure that you operate at optimum efficiency with minimal downtime and reduction of OEE (Overall Equipment Effectiveness). Airflow’s highly skilled team of engineers can service all makes of oven.

Airflow’s team pride themself on their customer service and support. Airflow have a huge spares stock, not just for current models but also for all our previous products. A network of service engineers covers the whole of the UK and Ireland. Daily deliveries to all areas of the UK and worldwide ensure that your replacement parts are on site, on time. Airflow has the technical expertise to test calibrate and certify your industrial ovens. Airflow also provide energy efficiency reports on both current and older equipment.
Unrivalled expertise in the industrial spray booth and finishing markets
Our highly trained engineers operate only in this sector
Tailored service packages with 12 to 60 month discounted contracts
Contracted response times tailored to your production
Discounted replacement parts for contracted partners
Comprehensive van stock with central stores in Sheffield, England
IEE 17th Edition and GAS SAFE accredited engineers
Modern test equipment with NAMAS certification
Energy efficiency surveys to enable grant funded improvements

**Airflow are UK leaders in the supply and installation of industrial spray booths. Airflow also specialise in Industrial Spray Booth Servicing to ensure that your booths operate at optimum efficiency with minimal downtime. Legislative compliance and optimum performance is maintained and traceable.**

Airflow is a customer-focused company. Airflow’s team pride themselves on maintaining the highest standards of customer service and customer support. Airflow have a huge spares stock, not just for current models but also for all previous products. A network of service engineers covers the whole of the UK and Ireland. Daily deliveries to all areas of the UK and worldwide ensure that your replacement parts are on site, on time.
Our LEV test service is undertaken by skilled and experienced engineers who are operational throughout the UK, and are experienced in all types of LEV installations. With each inspection you can expect an accurate service, and because our personnel operate within a reputable ventilation company, we are also able to assist in the design and build of new extraction systems.

**REGULATION 9**

Of the COSHH regulations requires that any control measure taken to comply with Regulation 7 must be maintained in an efficient state, in efficient working order and in good repair.

Also specifies that records shall be kept of the results of the tests including details of any repairs carried out as a result of the examinations and tests. These records have to be kept for a minimum of 5 years.