

Industrial and Aerospace Product Guide



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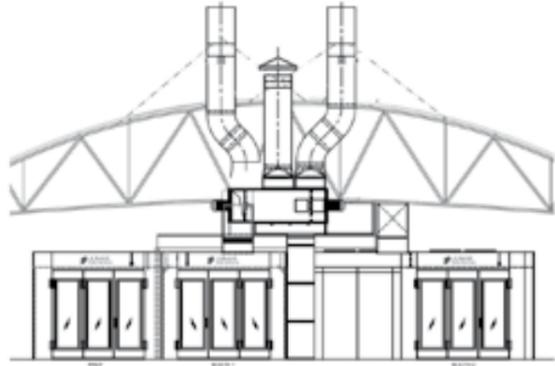
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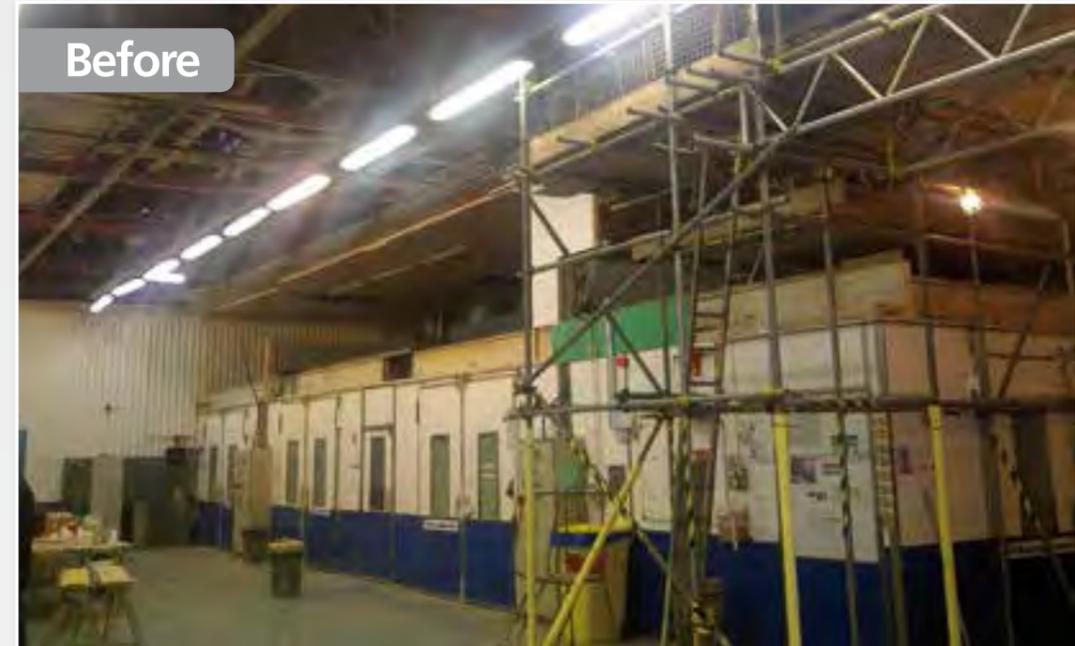
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Coordinated Projects

Our in-house design and engineering capabilities enable us to turn your concept into reality. Unlike companies who only supply off the shelf products, we take the time to understand your process and goals; from there we can design a solution that will offer multiple benefits and more importantly, exceed your expectations. With all projects undertaken we will look to enhance your productivity, maximise your available workspace and ensure the equipment is energy efficient.



We understand that either upgrading or replacing equipment can be disruptive and time consuming. With this in mind we offer full project management for all installations including building, mechanical and electrical works, creating a bespoke project package to suit your requirements.



Before

Transform your paint shop facility with Junair



After



Spraybooth Systems

The Junair name is synonymous with innovation in spraybooth development, providing solutions that deliver energy savings, higher productivity, enhanced performance and ultimately increased profitability for our customers. The inherent design, flexibility and in-house British manufacture allows any spraybooth to be tailored to suit specifications and performance requirements. Features across the range include:

High quality engineering

- All Junair spraybooths are designed for use with approved compliant coatings and comply with the latest environmental, Health & Safety and COSHH legislation
- Reliable and durable construction
- Designed for ease of maintenance
- Double skin insulated construction
- Energy saving
- Low noise levels
- Superb lighting levels
- Attractive aesthetic finish
- Anti-corrosion coating to extend the product life

Fully glazed doors

- Wide opening for easy loading / unloading
- Excellent vision into and out of the cabin
- Robust adjustable hinges

Energy saving, high output and high frequency lighting

- Flicker free start extends tube life
- Brilliant colour rendition
- Low maintenance cost

LED upgrade option with a 5 year warranty

Direct drive, backward curved centrifugal fans

- No drive belt costs or drive belt failures
- Efficient, powerful and reliable
- Large blade design for easy cleaning and maintenance
- Reduces noise pollution

Fully modulating natural gas or LPG burner

- Rapid controlled temperature rise
- Extremely close temperature control
- Low running cost
- Quality components for improved performance and reliability
- Excellent combustion means no fume smells or paint problems
- Indirect oil or electric options available

Environment controls

- All spraybooths can have temperature and humidity controls added to suit your specification

National engineering teams for after-sales support

- 3 year warranty subject to standard terms and conditions
- Economical maintenance
- Legislation compliance service



Dry Filter Spraybooths

Junair offer a full range of bespoke dry filter spraybooths to suit customer requirements. They are sized to suit the application, from batch production of small parts through to fully automated conveyor lines for high production volumes.

Our spraybooths can also be designed and manufactured to accommodate large complex structures such as a complete aircraft.

Our dry filter spraybooths provide the option of adding a heated air make-up unit or simply drawing in workshop air. Our in-house engineering design expertise, combined with our flexible modular construction, provides a solution that will improve your productivity and allow you to work more efficiently. All our dry filter spraybooths are built to be energy efficient enabling you to reduce your operating costs.

Standard Dry Filter Spraybooths

Junair standard dry filter spraybooths are designed for painting parts in low to medium volume. The airflow is extracted through a disposable dry filter wall.

Using either fibreglass / polyester filter for low paint volumes or concertina style paper filter for medium paint volumes, our standard spraybooths are designed to provide excellent overspray removal. The extract chambers are baffled to give a consistent airflow in the spraybooth. We offer both open fronted or fully enclosed spraybooths.

High quality lighting systems give excellent visibility for operatives during the painting process.



High Volume Dry Filter Spraybooths

A revolution for applying heavy paints or adhesives in large volumes Junair now offer an extra heavy duty pre-filter system that allows the application of up to 100kg of paint overspray to be collected per square metre of material.



This new innovation from Junair is designed for high volume paint applications. Our new heavy duty filters hold ten times the capacity of a standard filter resulting in filters being

changed less frequently. This saves labour costs, time spent changing the filters and the inconvenience of spraybooth down time during filter changes. The spraybooth also maintains airflow performance longer than it would using conventional filters.



Downdraught Dry Filter Spraybooth Ovens

Junair downdraught dry filter spraybooths are designed to give the best possible airflow for operators looking for the highest quality paint finish.

The highest quality airflow is achieved by combining a fully extracted and balanced floor with a full width, full length ceiling input plenum. For facilities where a gridded floor is not possible twin side extract still ensures a high quality airflow.

Junair downdraught spraybooths can be provided with a variety of air replacement systems. Generally these are supplied with a fully modulating heated system. However, they can also include humidification, chilling, dehumidification and enhanced filtration to provide the required air quality for the process. Junair spraybooth ovens are highly specified production units with every feature of the spraybooth being engineered to be the best in its class. Combined with energy saving and production enhancing equipment, the downdraught spraybooth oven delivers the highest quality paint finish at the lowest cost per unit.

Junair downdraught spraybooths can be supplied as a combination spraybooth and oven. Our full range of energy saving and production enhancing equipment can reduce the energy consumption of the spraybooth by up to 70% compared to a standard spraybooth.

Junair QADs auxiliary air movement system accelerates flash off and cure times and can also be fitted with a static neutralisation system which reduces static charge on parts to be painted. The QADs system allows the oven to meet the requirements of NADCAP and AMS2750D providing excellent temperature distribution.



PIT EXTRACT



TWIN SIDE CHEST EXTRACT

EVAC and LEVAC Extracted Floor Options



EVAC FULLY GRIDDED AND FULLY BALANCED FLOOR



LEVAC FLOOR - EASY FILTER CHANGING



LEVAC LOW PROFILE RAISED BASE ONLY 140MM

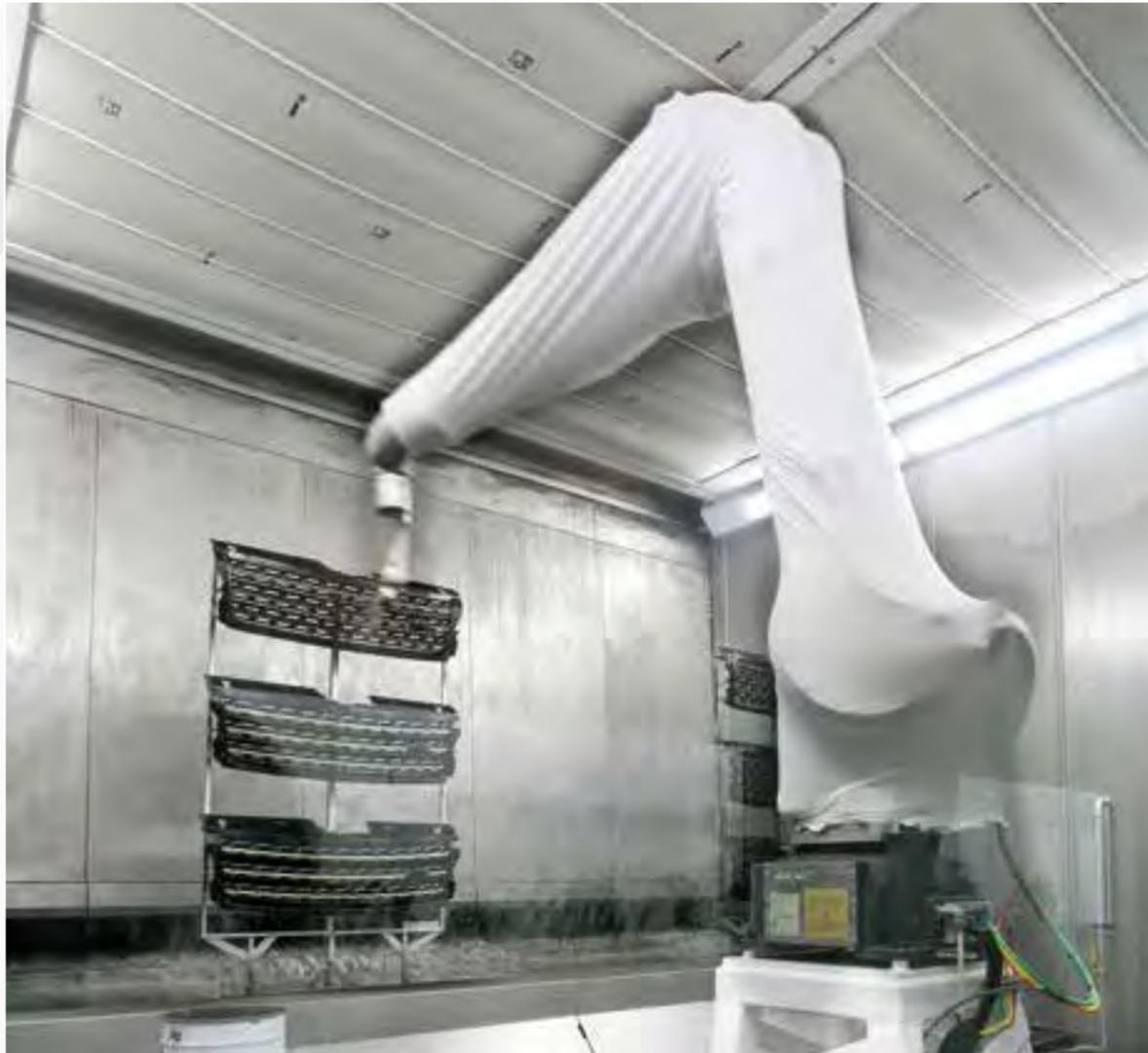
EVAC and LEVAC extracted floor designs are unique to Junair and have been developed to suit the specific needs of the paint spraying process.

The EVAC floor is designed to finish flush with the building's floor level. A recess in the building slab of 500mm is required for construction. This system is ideal for higher volume paint applications.

The LEVAC floor is a surface mounted design requiring no building excavation. Height from the building floor to the spraybooth floor is only 140mm and only a small unobtrusive ramp is required to access the cabin, making it easy to load and unload products. Removing the excavation element significantly reduces installation time / costs and the disruption associated with builders work.

FEATURES AND BENEFITS OF EVAC AND LEVAC DOWNDRAUGHT FLOORS INCLUDE:

- A fully extracted and balanced floor provides better air movement when painting small components. This floor also allows efficient fume extraction anywhere in the spraybooth, preventing contamination from overspray and speeds up the curing process.
- Mist clearance times are reduced, creating a safer environment for the operator.
- No excavation is required for the LEVAC floor which saves money and work disruption.



Waterwash Spraybooths

Junair offer a range of waterwash spraybooths to suit all manufacturing requirements. Waterwash spraybooths are ideal for high volume production processes incorporating highly efficient bin scrubbers with full flow spray nozzles.

Junair waterwash spraybooths are manufactured from stainless steel and supplied with large access panels to allow easy cleaning and maintenance. They can be designed to include an extended front tray to allow painting over water, or as a true draught spraybooth with floor excavation or raised base.

Standard spraybooths are supplied with recirculated water flow into a base tank for paint capture. For improved efficiency a sludge removal system can be incorporated into the design allowing a high capacity recirculated water flow, which increases flow to the scrubbing nozzles whilst minimising the volume of water in the system. This tried and test system ensures no paint drop-out in the spraybooth, minimising maintenance downtime and maximising spraybooth cleanliness.

BENEFITS OF JUNAIR WATERWASH SPRAYBOOTHS

- High efficiency scrubbing system
- Excellent maintenance access
- Minimal floor space required
- Reduced nozzle blockages



Scrubbing Systems

All Junair waterwash spraybooths include a three stage particulate capture system. The first stage is a high flow vertical water curtain, then the remaining overspray passes through high efficiency bin scrubbers and finally a two stage water / mist eliminator is used to remove excess moisture from the exhaust air stream.

Nozzles can be fitted on quick release couplings for ease of maintenance. Recirculated water passes through a filter to ensure nozzle cleanliness.





Sludge Removal Systems

This automated sludge removal system is designed to work in conjunction with our high efficiency waterwash spraybooths.

The sludge removal system consists of a water treatment tank which is remote from the spraybooth. The system takes paint laden water to the sludge removal tank where a chemical interaction promotes paint material to float to the surface. It is then automatically scraped off to a special sludge holding receptacle for further dewatering, resulting in paint sludge waste with minimal water content.

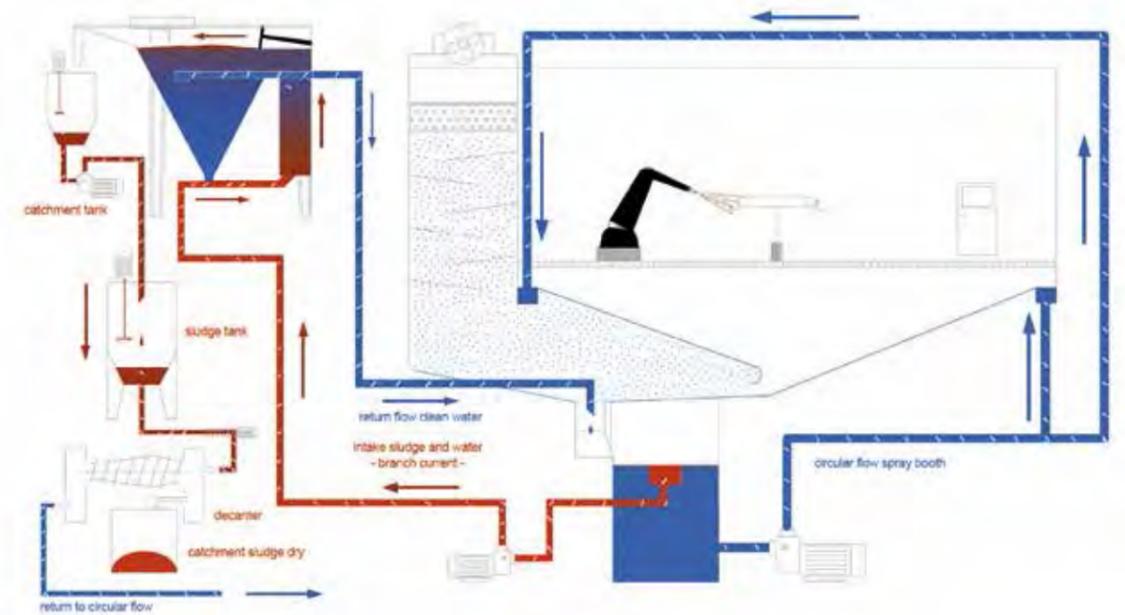
Clean, treated water returns to the spraybooth improving cleanliness and efficiency.

The sludge removal system works with both solvent and water-based coatings and can be retrofitted to existing spraybooth systems.

THE JUNAIR SLUDGE REMOVAL SYSTEM HAS THE FOLLOWING BENEFITS:

- Unique design to prevent paint drop-out within the sludge tank, providing a continuous regeneration of any settlement, with periodic back flushing.
- The system does not have any settlement within the tank meaning minimal maintenance.
- Local PLC control of the pneumatic scraper allows the skimming frequency to be tailored to customer needs.
- Small footprint.
- Reduced water volume in system.
- High quality stainless steel construction.
- Can be close coupled to the spraybooth or remotely mounted up to 50m from the spraybooth, meaning the 'dirty' sludge removal activity is remote from the 'clean' spraybooth operations.

Junair Sludge Removal Schematic





Preparation Equipment

To maintain cleanliness, preparation areas can be supplied with local on-tool extraction utilising the latest and most efficient turbine vacuum extraction systems. Extraction arms can be roof or side wall mounted. Junair also manufacture energy modules which can be suspended over the working areas incorporating dust extraction, compressed air and electrical sockets (415V, 240V, 110V and 24V), providing ease of use for the operator.

General extraction for the preparation areas is through the floor or side wall filter chests, incorporating a multi-stage high efficiency filter. Heated air replacement systems can be supplied. These are typically gas fired with modulating heat input.

Preparation Areas

Junair manufacture preparation areas to suit both 'dirty' and 'clean' applications. Whether used for trimming, sanding, masking or detail work, all our preparation areas and booths are custom designed and built to suit the customers' needs.

At Junair we take the time to understand your processes, enabling us to design a solution that improves workflow and ultimately increases productivity. With all system design we ensure that the equipment specified incorporates our energy saving technology. Preparation booths can be supplied with glazed viewing panels, integrated storage cupboards and leaf or roller shutter doors.

Junair preparation booths are constructed using high quality, durable, insulated, white panelling which improves lighting levels and enhances the aesthetic appearance. Junair Ultralux lighting provides excellent illumination and good colour rendition.

Features



INSIDE A TYPICAL PREPARATION BOOTH

- Bright, clean working environment
- Modular design
- Filtered airflow
- Temperature control option



LIGHTING AND VENTILATION

- Lighting to workshop areas and task-specific lighting
- Background heating and ventilation



DUST MODULE

- On-tool extraction
- Centralised dust collection
- Compressed air and electric power

COMPOSITE REPAIR BOOTHS

Junair manufacture a range of composite repair booths that are constructed to match the spraybooth cabins and share many of the shell components including lights and doors. Mechanical background ventilation is fitted as standard.

Available options include:

Fume extraction, electrical sockets, on-tool dust extraction, storage cupboards and a work bench.



CLEAN ROOMS

Modular clean rooms are constructed from our standard panel systems and include glazing and lighting. Airflow systems provide clean environments from ISO class 4-8 with optional temperature control.

- ISO class 4-8
- Modular construction
- Controlled air pressure zones



Spraybooth Control Panel Options



Each Junair spraybooth has the option of a conventional control panel or an advanced **i System PLC and colour touch screen.**



i System 2 has significant benefits for owners and operators. Pre-programmed bake cycles ensure that coatings are not under or over cured, saving time, energy and delivering consistently superb results. Operators select from a list of curing options shown on the touch screen and the PLC automatically runs the most efficient profile to suit the product.

i System 2 automatically balances the air pressure within the cabin with no operator input, ensuring that the airflow is maintained at the optimum level and compensating for filter loading.

DATA LOGGING (TO NADCAP STANDARD)

The system as standard will show the temperature in the spraybooth and display in a graphical format. The optional data logging package enables the operator and job number to be recorded. The system will then log information such as temperature and humidity every ten seconds for each individual process.

The data output can be via USB flash drive, local PC or customers network as a common data file.

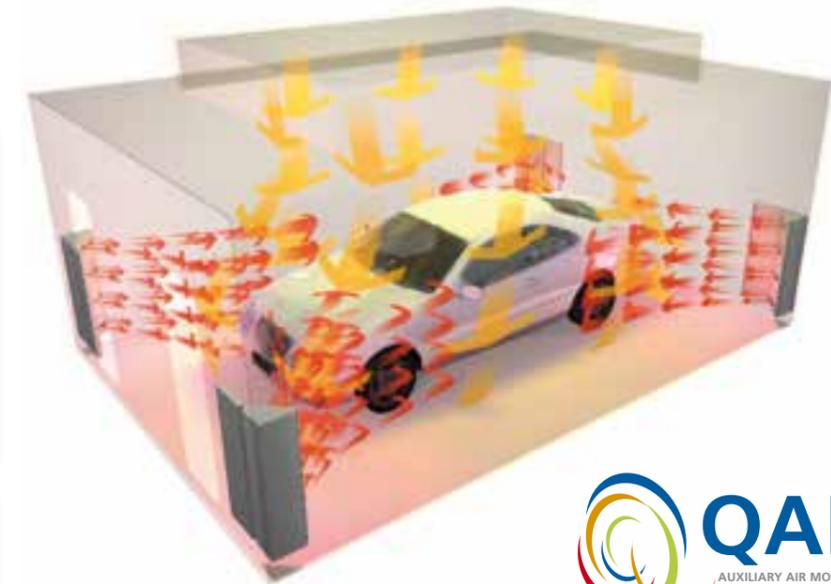


REMOTE DIAGNOSTIC UPGRADE

The PLC and touch screen have in-built web server functions that have been used to develop a remote diagnostic system. In the event of a fault occurring, Junair engineers can interrogate the control system on-line to diagnose the problem quickly and efficiently. Settings can be changed without an engineer needing to visit site.

Energy Saving Technology

JUNAIR QADs AUXILIARY AIR MOVEMENT SYSTEM



**35%
Faster**
Process Times

**Saves up to
40%**
of Energy Costs



QADs TOWER



EXTRA HEIGHT QADs



STATIC NEUTRALISATION

Save time, energy and money on paint drying and curing. Process more products and generate more revenue.

QADs is an advanced auxiliary air movement system that supplies airflow from the corners of the cabin. Developed and patented by Junair, the system is designed for use with coatings that comply with current legislation. The system is also available for retrofit installation into any make of spraybooth oven.

QADs SN (Static Neutralisation)

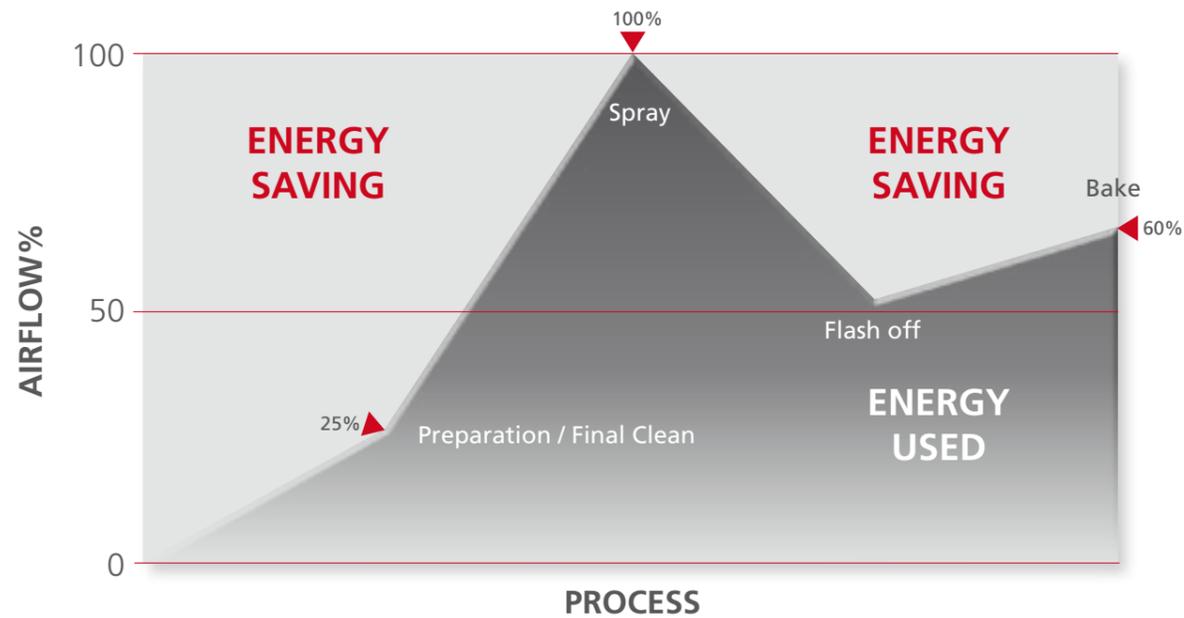
The SN System is an addition to our QADs auxiliary air movement system, designed to reduce the static charge produced during the finishing process. The static neutralisation system operates during cleaning, flash off and curing cycles. Reducing the static charge on the item to be painted improves cleanliness and reduces metallic distortion, which aids colour matching.

FEATURES AND BENEFITS OF QADs INCLUDE:

- Saves up to 40% of energy costs
- Ideal for multi-coat applications
- Faster flash off for waterborne base-coats
- Faster through curing of low VOC top coats
- Even temperature distribution suitable for NADCAP and AMS2750D
- Overall paint process is around 35% faster using QADs
- Automatic in operation and therefore delivers consistently superb results
- Clean in operation, air is filtered to just 10 microns
- QADs can ease the common paint shop bottleneck – the spraybooth
- Cover the whole product in one operation

VARIABLE AIRFLOW TECHNOLOGY

A substantial increase in energy costs has forced paint shops to look closely at whole life operating costs. Spraybooth energy costs can vary massively depending on the type of air handling plant installed. Junair have developed a range of energy efficient air handling plants that will deliver the lowest energy cost per job on a like for like basis.



The use of variable speed drives on spraybooth fan motors is nothing new. However, Junair have developed a unique system that varies the airflow volume to suit the process.

The system is fully automatic, requiring no operator selection so the energy savings are guaranteed.

Reducing the airflow through the cabin means lower fuel and electricity costs. You don't need 100% airflow when the spraybooth is standing idle, for instance, or when products are being loaded and unloaded. That would be like sitting in your car at traffic lights with your foot hard on the accelerator.

**Saves up to
65%
Energy Costs**

Load, unload, cleaning, idle
= Low airflow, reduced by 75%

Flash off base-coat
= Medium airflow, reduced by 50%

Spray application
= High airflow, 100% air volume used on spray cycle

Bake Cycle
= Medium airflow, reduced by 40%

When combined with QADs, variable airflow technology can save 65% of spraybooth energy costs

FUEL SAVER MODE



Further energy savings are delivered when fuel saver mode is added to the spraybooth air handling plant.

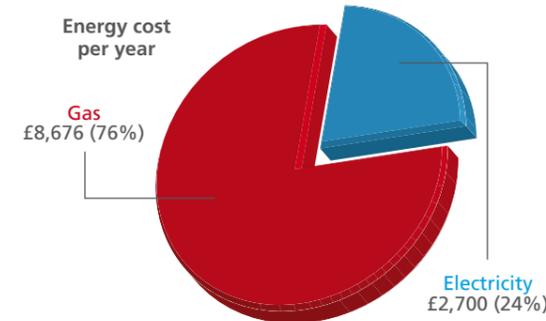
Most of the energy used by a spraybooth goes on heating up the external air to meet the required condition inside the cabin, normally 22°C for spraying.

Fuel saver mode automatically changes the air handling plant to recirculation during idle and flash off modes. The system requires no operator input and therefore the savings are guaranteed. Safety interlocks ensure that the system is safe to operate.

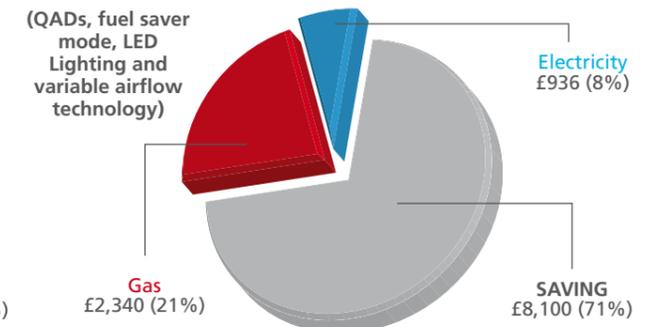
QADs, variable airflow technology, LED lighting and fuel saver mode combined, can save over 70% of a spraybooth's energy cost.

Fuel saver mode as a single item installed will reduce energy costs by approximately 22%.

Spraybooth WITH NO Technology



Spraybooth WITH Junair Technology



Example of savings over 5 year period

Figures based on; airflow volume 25,000m³/h; motor combined load 15kW; average external air temperature 12.4°C; cost of natural gas including climate levy £0.032 per kW-h; cost of electricity including climate levy £0.095 per kW-h; completing 25 jobs a week.

**That's a saving of
£40,500 over a
5 year period**

Spraybooth Optional Equipment

The following items are available as options on all Junair spraybooths

MIST CLEARANCE INDICATOR

This automatic system indicates when it is unsafe to enter the spraybooth because harmful overspray is likely to be present in the cabin. Large red LED light arrays are positioned adjacent to each personnel door to clearly identify the safe and unsafe condition.



MODE INDICATOR LIGHTS

The mode indicator provides operators and managers with information about the spraybooth's operating mode at a glance. Forward planning of product movements will reduce spraybooth non-productive time and improve workflow. Different coloured lights indicate: **Idle, Spray, Flash Off, Bake and Job Complete**



FIRE ALARM STROBE

A red fire alarm strobe light is integrated into the lighting frame inside the spraybooth cabin, with connections available for the customer's specialist fire alarm contractor to connect to.

VIEWING WINDOWS

Large and medium size windows can be specified for spraybooths, paint mixing rooms and partition walls. Windows can improve the working environment and enhance the appearance of the installed equipment.



EMERGENCY LIGHTING

Non-maintained, battery back-up lights installed adjacent to each personnel door inside the spraybooth cabin. The lights will operate for 30 minutes when power is removed from the lighting system during normal operation.



SLIDING AND CORNER DOOR ACCESS

Where access to the spraybooth is tight, a corner or sliding door option can make a paint shop more efficient and even create more usable working space. Single or twin sliding corner doors open up the spraybooth front / side to create easy loading and unloading of products.



EXTERNAL SPRAYBOOTHS

Junair manufacture and install spraybooths suitable for external applications. Roof options include pitched roof with steel profile sheeting and high level side cladding or a flat roof with one piece rubberised coating. Both types of construction have a ten year warranty as standard. Walls and roof can be finished in a range of colours to suit existing structures.



COMPRESSED AIR FILTER REGULATOR

Three stage compressed air filter regulators are used to provide the best quality of compressed air for spraying and breathing.

- Stage 1** Liquid centrifuge and porous bronze filter removes particles to 5µm
- Stage 2** Coalescer removes the smallest amounts of liquids and solids down to 0.01µm
- Stage 3** Activated carbon removes oil mist carry-over to 0.003 ppm



RECESSED CABINET FOR FILTER REGULATOR

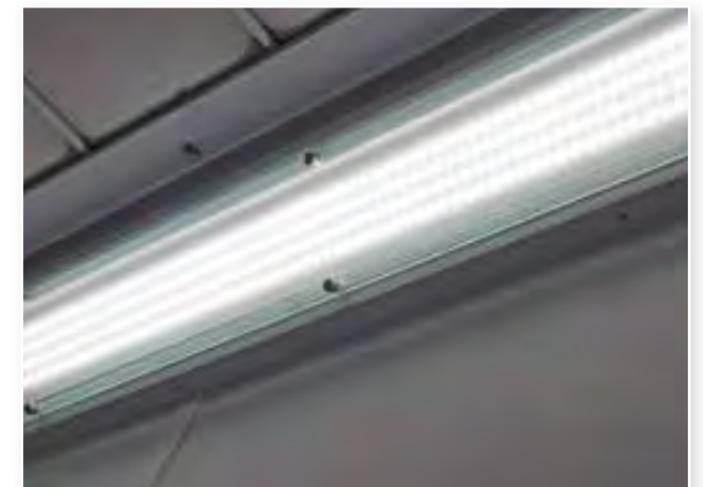
White steel cabinet with hinged door to house the filter regulator is recessed into the spraybooth wall. Enclosing the filter regulator helps to keep it clean and free from overspray contamination.

SPRAYBOOTH LED LIGHTING

Quality of light within the spraybooth is one of the most important features to consider when choosing between suppliers. Traditionally spraybooths use standard fluorescent light sources; these have a tendency to deteriorate in colour and brightness as the tubes age.

Junair has been at the forefront of lighting improvements to spraybooths for a number of years and now we have the latest innovation for spraybooth lighting with LED. For over two years Junair have been developing a specific LED light unit for use in spraybooths which creates a bright, clean light that replicates natural daylight. The LED lighting can be installed in new spraybooths or retrofitted to existing facilities.

- 60% saving in operating costs
- Increase in LUX levels
- 5 year guarantee
- Crisp and clear illumination
- Flicker free lighting
- 10-20 year life span
- Sustained uniformity of light and colour





Paint Mixing Rooms and Paint Stores

Paint mixing rooms and paint stores are available in a range of sizes and specifications. The construction uses a robust double skin steel panel, finished in white to match our spraybooths. We can supply economy alternatives which are constructed using single skin steel wall panels.

Non-standard sizes can be manufactured to suit a specific area.

Effective cross flow ventilation is provided from floor and bench level and connections for gun cleaners can be incorporated into the ventilation system. Air input is filtered to keep the mixing room free from contamination and a slam shut fire damper is fitted as standard to meet HSE requirements. Standard internal finish is in white; however, customers can specify half height or full height brushed stainless steel finish.

MIXING BENCHES

Stainless steel mixing benches are manufactured to order. Dimensions can be tailored to suit the space available. Options include rear splash back, high level cupboards and low level cupboards.



HEATER

Paint Mixing Room

ATEX approved "EX" rated 1.5kW electric heater with thermostat control used to protect paint products from damage during cold conditions. Normally set to stop the mixing room air temperature dropping below 10°C.



GRIDDED FLOOR

Paint Mixing Room

Galvanised grids set in steel trays to provide an anti-slip floor which will contain any spillages and help maintain a clean environment. Solid inverted trays are used under immovable equipment allowing grids to be lifted for maintenance purposes.



VENTILATED MIXING BENCH

The most efficient way to ventilate a paint mixing room is to capture fumes at source. The stainless steel bench is connected to the paint mixing room ventilation system and provides mixing operatives with the most efficient fume control system.

Bench dimensions

1,250mm (L) x 560mm (D) x 900mm (H)



STAINLESS STEEL LINING

Paint Mixing Room

For easier cleaning the internal walls of paint mixing and gun cleaning rooms can be lined in stainless steel.



GUN CLEANERS

Junair supply and install gun cleaners sourced from high quality manufacturers including Redashe and UNIC. Fully automatic and manual options can be specified for water and solvent cleaning machines. Junair only supply equipment that has national service and spares support.





Ovens

Junair have developed a comprehensive range of ovens which can be designed to suit every process in the surface finishing industry. Manufactured to a high standard, they provide an energy efficient drying and curing system.

In the design phase we take the time to understand your processes, which enables us to develop the best cost effective solution using the most appropriate technology.

High temperature ovens are constructed with aluminised steel for durability and include a dense mineral fibre insulation to prevent heat loss. Low temperature ovens can be fitted with Junair QADs system for improved temperature distribution.

All our ovens are fitted with microprocessor digital controllers with dual display showing set point and actual temperature as standard.



BOX OVEN

Standalone cure oven for wet and powder batch production coatings. Sized to suit the customer application. Product access is via hinged or sliding doors.

- Operating temperature range 40°C – 300°C
- Heating via direct gas, indirect gas or electric elements with thyristor control
- Fully balanced airflow, with filtered airflow options



DEHUMIDIFYING OVEN

Dehumidifying ovens are formed as either box or tunnel ovens; they operate at very low relative humidity, typically less than 10% to achieve rapid curing for water-based coatings.

- Less than 10% RH operating humidity
- Excellent for sensitive timber products
- Rapid drying



CONVEYOR OVEN

Tunnel ovens allow overhead and floor conveyors to pass through. Access is via close silhouetted openings fitted with efficient air seals designed to minimise heat loss. Automatic sliding door options available. Can be supplied as high turbulent dry off ovens.

- Operating temperature range 40°C – 300°C
- Fully filtered airflow available
- Balanced airflow with Datapaq analysis to achieve excellent temperature distribution



INFRA-RED CURE OVEN

Using gas catalytic infra-red cure technology, our infra-red ovens can cure paints typically 50-70% faster than a conventional oven. Full PLC multi-zone control allows specific heat profiles to be set within the oven.

- Full cure ovens and pre-gel sections prior to a conventional oven
- Energy savings up to 50% compared to conventional systems
- Electric infra-red and UV cure ovens available



Process Lines and Conveyors

Junair specialises in the design and manufacture of complete process lines to suit most paint finishing requirements, from a small powder coating system through to a complex robotic, multiple coat paint system. We can encompass the full range of manual and automatic paint finishing processes.

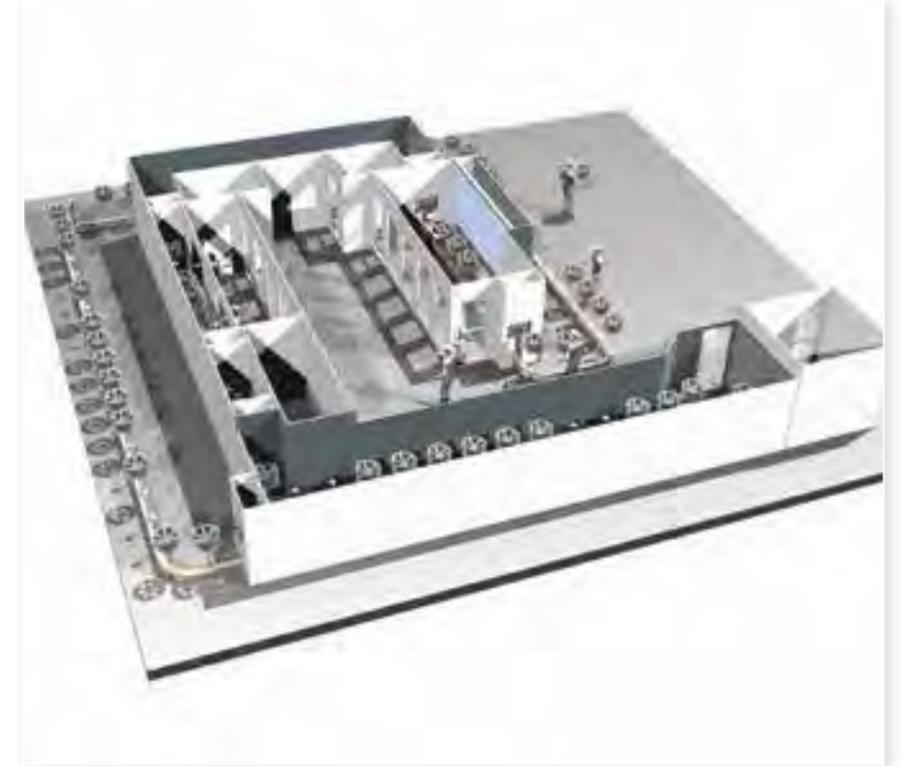
Working with the industry's leading suppliers for automation, paint application and materials handling, we can provide the exact solution to meet your requirements.

Junair offer an innovative design to each individual project following careful analysis of customer processes, creating a solution that improves workflow and productivity and incorporates our latest energy efficient technology. We have a dedicated Design and Contracts team to support your project throughout the installation and commissioning process.

SYSTEM DESIGN

We have extensive experience of the full spectrum of product finishing systems. Our design team brings innovative solutions to system design. We work from basic principles and develop them with the latest 3D modelling software to enable a complete digitally engineered solution, allowing you to fully visualise the project before committing to manufacture. This approach reduces risk and allows more complex projects to proceed with confidence.

- 3D modelling software to include lighting
- CNC manufacture
- In-house control panel design and manufacture



LEAN MANUFACTURING

We understand the drive to reduce costs in all areas of business, not least for product finishing. Our solutions include energy efficient process lines designed to improve plant efficiency, increase productivity and improve product quality. Every element of our design is intended to add value and eliminate waste. This principle underlines everything we do, from a small, basic system through to complex process lines. Our systems are designed to:

- Eliminate non-value added work
- Make best use of people in the process, for example by reducing operator burden
- Create a consistent process, for example by automating control systems



Overhead Conveyors

We offer an extensive range of overhead conveyor systems ranging from simple, powered, single line (mono rail) conveyors which are manually operated through to complex power and free systems. We can offer specialist systems which have been developed for unit load weights from a few grams to 10,000kg.

All the conveyors have been developed for the extremes of the surface finishing industry and are designed for operating at high efficiencies with minimum maintenance.



- Single line powered system or inverted 'clean-line' for reduced risk of contamination
- Power and free 'fixed grip' to allow manual and powered sections of track
- Power and free light, medium and heavy duty for the most flexible solution including accumulation, diversions and lift stations

Manual Conveyors

This is a simple and reliable solution to your handling problems. With our flexible, modular standard systems we offer customised solutions such as powered sections in the manual conveyor circuit, vertical drop and lift sections and switching / turning gates.

- Improves ergonomics at loading points where heavy goods or work-pieces are handled
- Can be used as a buffer zone or a storage facility between different steps in the production flow
- Minimises manual handling, with load capacities from a few grams to 10,000kg



Floor Conveyors

We offer a range of inverted floor conveyors to provide handling solutions which eliminate overhead contamination. These range from simple single line through to complex power and free systems.

All our conveyor systems operate at an optimal level, handling the extremes of the surface finishing industry, requiring minimal maintenance.

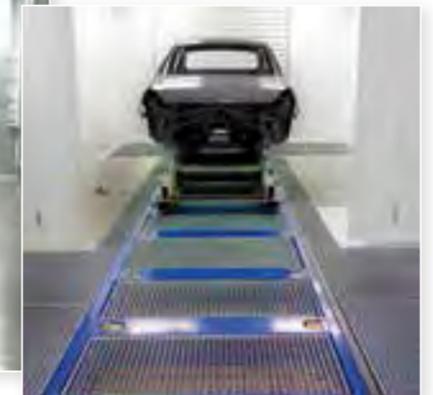
- Single line, light duty
- Single line, heavy duty for continuous operation and movement
- Power and free to include compact 90 degrees accumulation zones, diversions and accelerated transfer systems



Specialist Conveyors

Junair can provide a handling solution to meet the most demanding of needs. Whether that be for a high temperature or heavy duty environment, or in an automotive production facility.

- Skid conveyors
- Slat conveyors
- Roller systems





Robotics and Automation

All our automation systems can be integrated into a new or existing plant which can include a spraybooth and conveyor system. Working with the leading suppliers of fluid handling systems, Junair can provide a range of solutions to meet the customers' needs, including:



- Pressure feed systems
- Pumped low pressure systems
- Pumped high pressure feed systems
- 1K single component feed systems
- 2K plural component automatic feed systems

Fluid Handling Systems

If you are looking to integrate a paint delivery and fluid handling system into your new project or existing facility, Junair provide independent and expert advice. Using our in-depth knowledge and experience we can assist in selecting the best system for your needs, providing detailed drawings showing how this can be fully integrated into your facility. We work with the leading fluid handling systems providers including Graco, ITW Binks, Wagner and Devilbiss. Junair can undertake and provide systems ranging from simple conventional cup guns for small air spray applications through to fully recirculated pumped systems for advanced plural component 2K applications, including robotic installation. We can supply single and plural component airless spray systems for the timber and metal finishing industries or air assisted systems where appropriate. Whether your requirement is for a simple pressure pot or a fast colour change piggable system, we can assist with your needs.

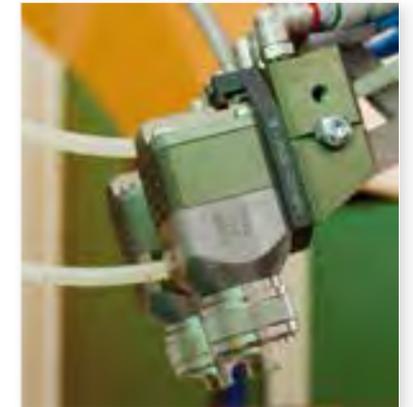
The Junair philosophy when supplying fluid handling systems is to maximise the return on investment whilst maintaining the highest quality finish. This approach mirrors our innovation and cutting edge technology supplied with our spraybooths providing market leading efficiency with the highest possible quality.

In addition to the supply and support for fluid handling systems, Junair offer a range of paint mixing rooms, paint storage facilities, compressors, dryers, compressed air pipe systems, gun cleaning machines and solvent recovery systems to ensure you and your equipment can operate in the safest and most cost effective way possible.

MANUAL SPRAY APPLICATIONS

Our manual spray systems range from basic single colour hand spray through to more complex plural component systems. Our experience allows us to assist you in selecting the most appropriate system, whether that be a decorative finish on a small, high value component part or high volume protective coatings for more rigorous environments.

- Water and solvent based coating systems
- Single components and plural (2K) systems
- Fast colour change manifolds
- Low pressure and high pressure systems



RECIPROCATOR AND FIXED SPRAY APPLICATIONS

Fixed spray and reciprocators are used extensively on high volume wet and powder systems. They provide a cost effective solution for repetitive coating applications. Our reciprocators have electronic controls for smooth and precise operation. These can be supplied with automatic product detection to allow efficient operation with the ability to track different width products.

- Powder application
- Wet paint application, with spray or rotary atomiser



ROBOTIC SYSTEMS

For the most demanding and complex components, we can supply a fully automated finishing system. We work with principal manufacturers to install systems which provide increased productivity and repeatability to achieve the best possible quality.

- Painting, De-ionisation, CO₂ cleaning
- Precision control of spray patterns, fluid flow rates and application
- Advanced off-line programming and visualisation software
- Full integration with conveyor systems



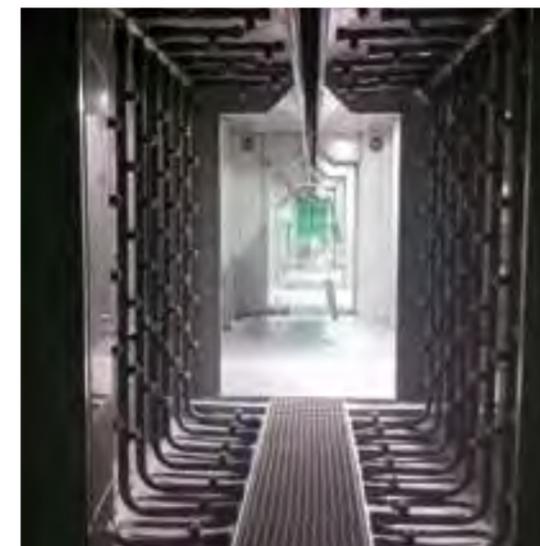
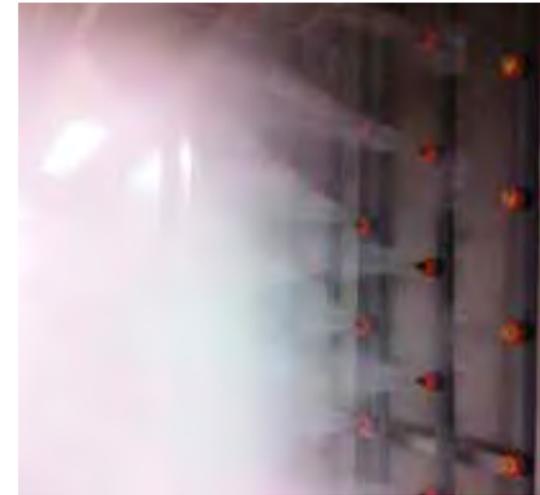


Metal and Plastic Pre-treatment Systems

We lean on our extensive experience and expertise to offer guidance and recommendations when planning either a new pre-treatment plant or refurbishing an existing plant.

In the design and planning of your facility, careful consideration is taken to ensure all your requirements are met and that the proposed design maximises your facility's resources.

We invest heavily in the development of our technology, this commitment allows us to offer a range of pre-treatment plants and paint finishing equipment which is designed and manufactured to improve energy efficiency and productivity.



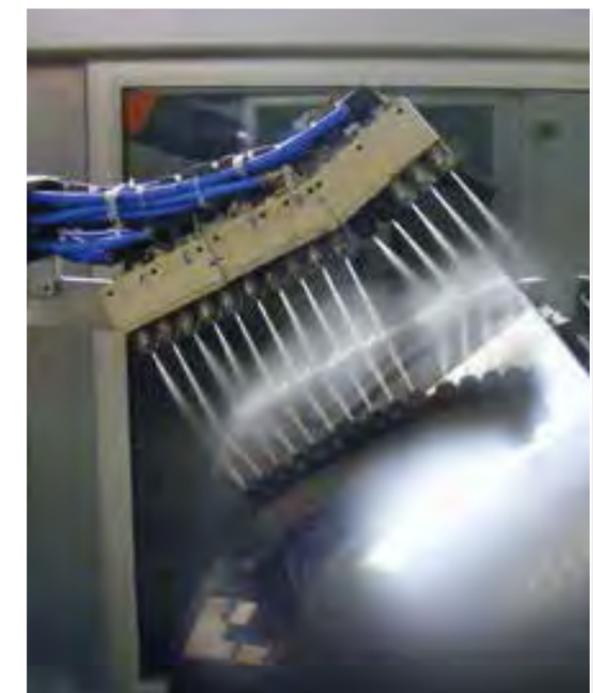
CO₂ SNOW CLEANING

Designed specifically for plastic parts prior to painting. Snow cleaning is an advanced cleaning technology with reduced operating costs, reduced process times and a smaller footprint. Junair work with manufacturer approved systems to provide the most technically advanced cleaning technology for plastic parts. The technology we offer does not cause any surface defects on the part to be painted.

- Faster process times
- Cost effective
- Energy efficient

Options include:

- Spray and dip immersion
- On-line spray
- Static spray with multi-stage treatment in a singular spray chamber
- De-rust systems
- Passive additions
- Detergent wash for cleaning and degreasing
- Plastics wash for cleaning, degreasing and adhesion promotion
- Acidic etch and chrome free conversion coatings for aluminium systems
- Phosphate system – either conventional iron phosphate or zirconium phosphate





Shot Blasting Equipment

Our range of shot blast equipment incorporates market leading energy saving technology, providing the lowest life cycle costs for equipment whilst maintaining the fastest process times.

Junair offer a range of shot blast systems designed and specified to suit customer requirements. These can be integrated to suit a range of surface finishing requirements.

Working in conjunction with the leading suppliers, Junair can offer systems that include automated blast, manual blast, rotary systems and wheel machines for a complete range of metals and composites. We can supply blast pots, hoses and the required PPE.

We provide shot blast booths sized to suit the customer's process, with integrated material handling systems which can include overhead rails and floor tracks. Our shot blast booths are rubber lined. Acoustic attenuation is available if required.

Junair can also supply dust extraction systems for internal and external locations and can provide a range of recovery systems, from basic vacuum units, elevators and scraper floors through to complete screw recovery systems.



MANUAL BLAST FACILITY



AUTOMATIC BLAST SYSTEMS



RECOVERY SYSTEMS



MANUAL HAND BLAST CABINS

Options include:

- Blast rooms, fully rubber lined
- Dust extraction systems, internal and external locations
- Recovery systems to include vacuum recovery, sweep in elevator recovery, full scraper floor and screw floor recovery



Powder Coating Systems

Junair offer a range of powder coating equipment designed and specified to suit the process and component being painted. Combining superior performance and energy efficiency, our versatile equipment features innovative technology that has been developed to save our customers time and money.

The powder coating equipment we provide is ATEX rated and is a popular choice for manufacturers looking to increase productivity, energy efficiency and the quality of their protective and cosmetic paint finishing solutions.

Our in-house expertise with industrial powder coating equipment enables us to incorporate LEAN manufacturing principles optimising productivity and minimising cost.



AUTOMATIC RECIPROCATOR APPLICATION



POWDER RECOVERY SYSTEM



CONVEYOR HANDLING OF PARTS



ADVANCED PLC CONTROLS

Options include:

- Manual powder spraybooth
- Standalone powder spraybooth
- Automatic powder spraybooth
- Reverse jet cartridge filters
- Cyclone and after-filter powder recovery systems
- Powder application equipment

Mechanical And Electrical Services

Junair have developed a Mechanical and Electrical Services package to simplify the installation process for customers. Junair design the M&E system to suit equipment requirements, co-ordinate the installation with the rest of the project activities and ensure that there are no omissions from the specification and no clashes with other services on site.

COMPRESSED AIR

Compressed air systems can be installed using conventional galvanised steel pipework, or our preferred option, an advanced high efficiency aluminium system which has many benefits, including:

- Total absence of corrosion allowing constant clean compressed air
- Free flow system has a low friction loss which saves energy
- Quick to install
- Easily modified or relocated



BUILDERS WORK

Junair offer a comprehensive building services solution including:

- Construction of spraybooth extraction pits
- External spraybooth bases
- Wall openings / roller shutter door installation
- Erection of new steel buildings such as storage areas
- Cutting and sealing roof / wall holes for spraybooth ductwork



SERVICES TRAY

Junair's high level services tray is a cost effective, flexible and attractive way of installing mechanical and electrical services within the paint shop. The tray section is manufactured from white pre-coated galvanised steel. This is suspended at high level and carries compressed air, dust extraction and electrical wiring.



NATURAL GAS AND LPG DISTRIBUTION PIPEWORK

Junair engineers installing new or working on existing gas distribution pipework have Gas Safe training and certification. Natural gas or propane installations are carried out to strict working standards and are fully tested and certified on completion.



ELECTRICAL INSTALLATION

From local connections to full building installations, Junair design and install electrical distribution systems to provide customers with a complete project package. Junair take the responsibility of providing the correct power distribution to each item of equipment. Electrical installations are tested and certified on completion.



PAINT SHOP LIGHTING

Junair have developed and produced the first lighting system specifically designed to meet the needs of the paint finishing industry. This new and innovative lighting product combines outstanding performance with flexibility and money-saving energy efficiency.

- Excellent colour rendition
- Uniform lighting across the working area, no harsh spot lighting
- Cost effective to install and maintain
- Easily modified, extended or relocated
- Modern, attractive continuous reflector design

Junair's standard lighting system is extremely energy efficient in comparison to older lighting systems. The energy efficient add on package will dramatically reduce energy costs even further.

LED Paint Shop Lighting Upgrade

- 60% saving in operating costs
- Increase in LUX levels
- 5 year guarantee
- Crisp and clear illumination
- Flicker free lighting
- 10-20 year life span
- Sustained uniformity of light and colour



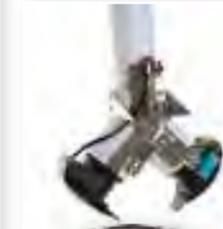
DUST EXTRACTION SYSTEMS

Tailored to suit the customer's requirements, engineered and installed to exacting standards. Junair dust extraction systems deliver the performance and quality required by progressive refinishers.

The TD range of turbine vacuums are compact in design, extremely powerful and quiet in operation. Maintenance costs are low and automatic filter cleaning is fitted as standard. Auto start / stop controls are included on each turbine vacuum model.

Extraction point options include simple Y pipes or integrated energy modules complete with a choice of electrical sockets and regulated compressed air.

- Designed for use with any make of extraction tool, including Festool
- Powerful suction with turbine technology
- Auto start / stop and filter cleaning
- Low noise level
- Low maintenance cost
- Auto shut off available as an optional extra



Purpose built vacuum for aluminium repair, suitable for all makes of tools including Festool. Built with a robust construction. ▶

COMPRESSORS

Junair specialise in HPC compressor packages. The equipment is of the highest quality and extremely reliable in use.

Features include:

- Excellent service and spares back up
- Integral dryers reduce floor space required
- Variable speed drive technology can reduce running costs by 35%
- Quiet in operation



PARTITIONING

Junair design and install insulated steel partitioning incorporating windows, doors, ventilation and lighting to create offices, storage areas and clean rooms. The partitioning is quick to install and can be easily modified.



HEATING

Heating systems are designed and installed to suit the building layout and work process. Radiant tube heating is favoured for paint shops because it is economical to run and meets COSHH regulations. Other systems include warm air heating where radiant tubes are not practical and electric heating for small areas with no gas available.



FLOOR PAINTING

High quality 2 pack epoxy floor coating available in a choice of colours with bay marking in white. Floor preparation is included in the process and a water vapour barrier is used where humidity levels are high, such as new concrete.

A high quality floor finish makes a huge difference to the appearance of the paint shop.



Spraybooth Service and Maintenance



AGM Services – part of the Junair Group – provide a complete service and support package for all makes of spraybooth ovens and ancillary equipment such as preparation areas, paint mixing rooms and dust extraction systems.



AGM have engineering centres based nationally to provide customers with economical maintenance and fast response to breakdown situations. Site staff are highly qualified electrical / mechanical engineers who have a wealth of experience. We have engineers service centres currently located in:

South West, South East, London, East of England, East Midlands, West Midlands, North West, Yorkshire, North East and Scotland

The quality of customer care is underlined by ISO9001:2008 accreditation and the quality of workmanship is reflected in a continually growing list of customers throughout the UK.



PAS

All AGM customers receive calibration certificates for the spraybooth service suitable for PAS and other quality audit systems.

SPRAYBOOTH LEGISLATION TESTING

AGM carry out specialist testing to ensure customers comply with Health & Safety and environmental legislation. Testing includes:

- Breathing air quality testing for spraybooth compressed air supply
- Spraybooth mist clearance testing
- Local Exhaust Ventilation (LEV) testing for spraybooth, paint mixing room, dust extraction system, welding fume extraction and exhaust extraction



SPRAYBOOTH FILTERS

AGM supply a comprehensive range of spraybooth filter media for immediate despatch. Manufactured from the finest most resilient materials to achieve the highest levels of efficiency.

- Input / ceiling filter
- Primary extract filter
- Secondary extract filter
- Pre filter
- Bag filters
- Next day delivery



NEXT DAY DELIVERY

SPRAYBOOTH SPARE PARTS

As a group, Junair carry a huge range of spare parts for spraybooths and other paint shop equipment. Our manufacturing base in Lancashire has a large storage facility dedicated to spares. Non stock items can normally be obtained within 24 hours and our large purchasing volume means that we can pass on discounts to customers.

Contact details:

- @ sales@agm-services.co.uk
- www.agm-services.co.uk
- 01706 363585



JUNAIR
SPRAYBOOTHS

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