



ACOUSTIC APPLICATIONS

Industrial noise control systems
Solving your industrial noise problems

Introduction

I joined Acoustic Applications Ltd based in Wakefield, West Yorkshire in the summer of 1995 working as an engineer. In June 2001 I became the Engineering Director, working alongside Mr Stuart Lindsay who originally set up the company back in 1982 - which, if you can remember, was when the Commodore-64 was first released in the UK! Unfortunately, at a time when Stuart was looking to retire, we had to let the company go into voluntary liquidation due to the downfall of the banking sector and a number of bad debtors.

However, I was still very passionate about the work I did, and was reluctant to see such an experienced company, who could offer so much to our clients, disappear forever. Having approached many of our major clients, it was clear that they too did not want to lose the high quality bespoke solutions and level of service that they had previously enjoyed and remaining loyal, were happy & willing to work with me once again. From these dark days, and with the full support of my staff & workforce, Xtron Systems Limited was formed July 2009 and having purchased the goodwill of the former company, I decided to use the trading name of Acoustic Applications.

Acoustic Applications specialises in the provision of solving noise and environmental problems for an extensive range of applications worldwide. We have an enviable client list which includes blue chip companies as well as internationally known clients in a number of key sectors, from aerospace, to printing, to pharmaceuticals and beyond.

With a dedicated team from a variety of engineering backgrounds our innovative approach to achieving practical, cost effective solutions in the industrial noise control arena, has enabled us to provide total turnkey solutions for our customers. We can achieve this due to our fully ISO 9001:2008 approved, on site manufacturing facility

At Acoustic Applications we pride ourselves in being able to fully understand and deliver complete customer solutions from survey, to design, manufacture, installation and finally commissioning. This can only be achieved with an in depth, sound, engineering knowledge combined with experience over wide ranging industrial sectors and a first rate established quality product.

So please have a browse at the brochure and judge for yourself the quality and the customer service we provide here at Acoustic Applications.



Chris Foster - Managing Director

“ My mission for Acoustic Applications is to strive for excellence in everything we do, in providing cost-effective acoustic solutions to our customers in order to reduce harmful hearing damage or loss to their main asset - their employees. ”



Oil, Gas & Petroleum

Steel Manufacturing

Retail

Pharmaceuticals & Food

Reclamation & Recycling

Printers

Power & Energy

Aerospace

Packaging

General Engineering and Manufacturing

Acoustic Louvres

For integration with enclosure systems or banked to form complete units. This application can maximise the noise absorptive area whilst allowing uninterrupted air flow for ventilation.



Acoustic Enclosures

These can be designed to meet a variety of processes and applications from small individual units for motors, pumps and gearboxes to large structurally designed systems.



Screening

Absorptive screens can be used in applications where a full enclosure is impractical or unnecessary in achieving the desired result. Screens can also be married with existing structures to form enclosed areas.



Acoustic Doors

For access into acoustic enclosures or buildings designed to maintain acoustic integrity. Doors can be single or double sealing, and come with view ports or windows as required. Complete with heavy duty handles and hinges for the most demanding industrial environments



Rectangular and circular silencers

Designed specifically to meet air or gas flows, providing an absorptive area applicable to the attenuation requirement.



Integrated Systems

Here a turnkey solution can be provided which can include special requirements into the enclosure design such as: filtration, air conditioning and environmental control, power, lighting, alarms systems, fire detection and suppression, Internal lifting or craneage, platforms, structural steelwork, safety handrailing, stairs and access platforms.





Environmental Enclosures

Environmental Enclosures (acoustic or non acoustic) are thermally controlled to house a specific function or process and integrated with a purpose designed supply and extraction system. They accurately provide temperature control, humidity control, vapour control, noise control, light control and airlocked human interfaces. Each enclosure is specifically designed to accurately maintain a programmed temperature irrespective of external conditions.



Control Rooms and Noise Havens

These are usually situated within a noisy, hazardous environment, for housing process controls and operatives. It is a robust product maintaining an operator friendly approach for vision, safety and comfort amenities. They can be provided in single units or multi-section modules, floor or structure mounted for integration with associated plant. Facilities such as mess rooms, washrooms and kitchen facilities can also be incorporated.





Acoustic Enclosures for Balancing Machines

Design, manufacture and delivery of 2 off bespoke acoustic enclosures for Schenck HL4 balancing machines. Designed to be fit for purpose in providing a safe working environment whilst maintaining an aesthetically pleasing appearance.

Design Considerations/Special Requirements:

One double and one single telescopic sliding door/canopy to facilitate lifting of components directly into the enclosure.

Doors slide along extruded aluminium sections with rollers to ensure smooth running and robust quality, and are operated by two double acting pneumatic cylinders.

Panels include additional provision for projectile protection.

Profiled and angled to suit maximum work-piece diameter.

Designed and manufactured in two pieces for assembly on site.

Inclusive of electrical fitments and door interlocks.

Polycarbonate viewing panels.

Performance: Designed to provide a noise reduction circa 25-28dB(A). Whilst also providing operator safety from flying debris



Acoustic Enclosure for Punch Press

Design, manufacture and installation of Acoustic Enclosure for punch press.

Design Considerations/Special Requirements:

Enclosure designed around existing punch press production line.

Acoustic panels of sufficient density and thickness to contain low frequency noise and prevent breakout.

Material exit wall to be completely removable without loss of structural integrity.

3 Access doors, two hinged and one sliding, as well as vertical sliding windows at the scrap entry and discharge points.

Performance: Designed for an overall noise reduction of 26dB(A).

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We cannot rate this company highly enough, from their site survey/ quotation through to the completion of the construction of the enclosure everything was done to the highest standards and professionalism.

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Acoustic Enclosure for PSA Unit

Design, manufacture and delivery of acoustic enclosure for nitrogen PSA plant. The PSA plant has a recorded operational noise level of 95dB(A) at 1 metre. Due to proximity of residential buildings the noise level had to be reduced to below 50dB(A) at the site boundary, approximately 50 metres away.

Design Considerations/Special Requirements:

Pre-fabricated 'drop over' acoustic enclosure, including lifting points to facilitate crane lift.

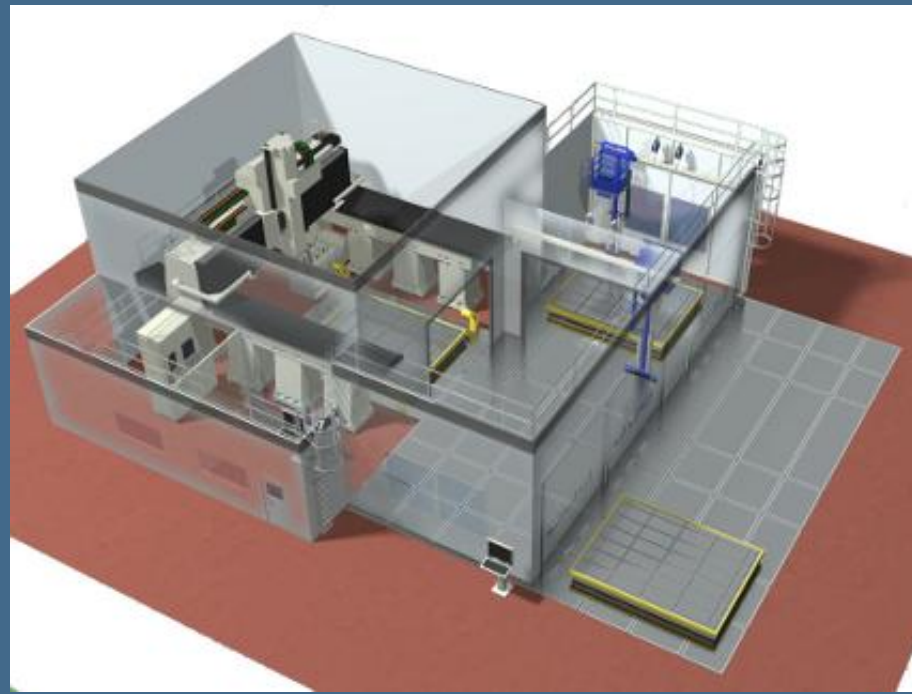
Large double sealing double leaf access doors for general maintenance along with removable side panels for major maintenance.

Pitched roof for water run off.

Free flow ventilation system comprising of two low level inlets and one high level outlet, all fitted with weather louvres and attenuator pads.

Enclosure also incorporated an Internal runway beam for heavy lifting.

Performance: The enclosure provided a noise reduction circa 25dB(A) at 1 metre, which corresponded to a noise level well below 50dB(A) at 40 metres and therefore exceeded the customers specifications.



FOG Machine 1940 Enclosure System

Design, manufacture and installation of FOG Machine 1940 Enclosure. A turnkey package for an environmentally controlled enclosure system for integration with high accuracy machining technology and associated measuring facilities for the aerospace industry.

Design Consideration/Special Requirements:

Enclosure comprised of four integrated areas to accommodate various stages of the machining process.

Enclosure to provide a strictly temperature controlled environment of $20 \pm 1^\circ\text{C}$ using a fully integrated air conditioning system.

The FOG machine area incorporates an oil mist supply, collection and re-circulating system with all associated hood and internal ductwork, filters, fans, platforms and silencers.

Enclosure inclusive of chip protection partitions complete with windows and doors, pneumatic sliding door, work access doors, tool change door and cage, gridded flooring, raised service gangways, electrical wiring, controls and flume plates, pneumatic wall man platforms, water wash system with rinse lances, dividing curtains and false ceiling.

Performance: The enclosure provided a strictly controlled environment with an overall noise reduction circa 25-28dB(A), ensuring full interchangeability of production components anywhere in the world, which met all of the customers expectations.



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Acoustic Applications is a trading name of Xtron Systems Limited