

DÜRR UNIVERSAL

DESIGN & MANUFACTURE OF ACOUSTIC AND
EMISSION TECHNOLOGIES



INTRODUCING UNIVERSAL

Universal Silencer, founded in 1959, is a total systems provider of acoustic and emission technology. Acquired by Nelson Industries in 1971 and then by Cummins in 1998, Universal Silencer re-emerged as an independent company in 2007 before becoming part of the Dürr organisation in October 2018.

We are proud to have worked with a diverse range of clients, each at the top of their fields, across a wide range of industries and many geographical locations.

Dürr Universal customers include:

- » Aggreko
- » CAT
- » Cummins Power Generation
- » Centrica
- » Engine Protection Equipment
- » MAN
- » Rolls Royce
- » Semco Maritime
- » Unipart Rail
- » Wärtsilä

Our products are suitable for a wide range of sectors such as:

- » Energy and environmental industries, including oil and gas, power generation, emissions control and wastewater treatment
- » Chemical and pharmaceutical industries, including chemical processing, manufacturing, petrochemical and refineries
- » Marine industries
- » Co-generation and CHP
- » Locomotive industries



EUROPEAN OFFICE

Our European office is based in the UK in Hinckley, Leicestershire. Hinckley was home to Nelson Burgess for over two decades, and is intrinsically linked with the history of Dürr Universal.

The office is ideally situated to coordinate projects, not only in the UK, but worldwide.

In our UK office you will find us:

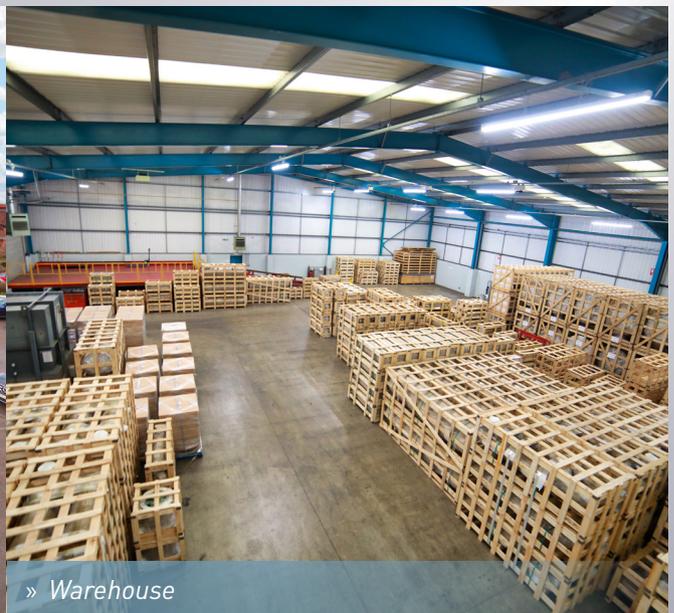
- » Project management of your enquiry from start to finish, using our wealth of experience in handling logistics on a global basis
- » Designing bespoke applications, specifically to your requirements, with the help of our in-house engineering department
- » Using our engineering expertise to design products which can be delivered in ISO containers, reducing shipping costs for our customers
- » Supporting the sales process, including account management and stock forecasting, with the assistance of our dedicated customer service team
- » Delivering goods throughout Europe from our 17,000 square foot distribution facility

As well as our UK office, we have a wide range of representatives on a global basis, including:

- » Spain
- » Germany
- » France
- » Italy
- » Denmark
- » Czech Republic
- » Netherlands
- » Poland
- » Slovakia
- » Australia
- » Mexico
- » US



» Office Outside



» Warehouse

ENGINEERING SERVICES

With safety and reliability at the forefront of our minds, we provide design consultation, supporting documentation, and design validation with our state of the art modelling and analysis software.

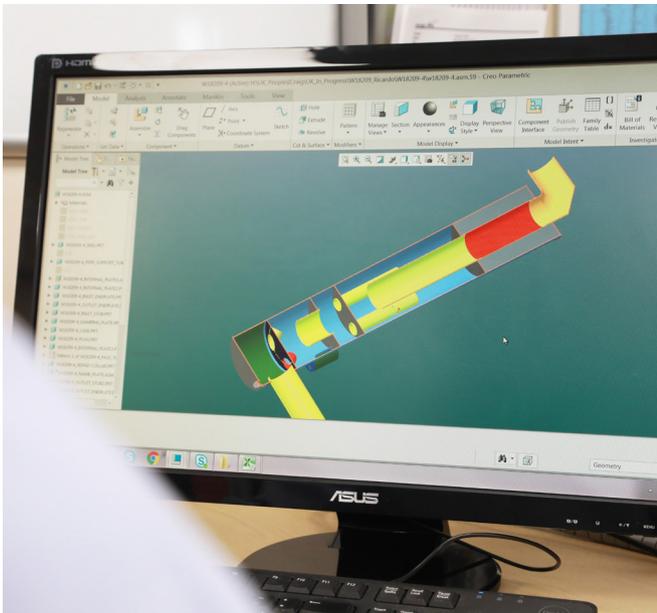
Dürr Universal provides the following services:

- » 3D design
- » Project Management
- » Structural analysis
- » Thermal analysis
- » Wind load & seismic
- » Computer fluid dynamics (CFD)
- » Acoustic and back pressure calculations
- » Site noise measurements

For more than half a century, OEMs, EPCs, packagers and end-users have relied on us to engineer acoustic and emission/filtration systems that meet their specific needs, and provide unparalleled support across the entire energy generation lifecycle.

Our comprehensive single-sourced solution:

- » Meets environmental, regulatory, and operational requirements
- » Helps operators reduce costs
- » Improves efficiency of equipment
- » Achieves safety and compliance targets



GLOBAL MANUFACTURING

Dürr Universal exports goods to over 25 countries, providing its customers with exceptional products and services through a global network of facilities and partners.

Our global manufacturing network allows us to reduce costs and lead times for our customers by building products locally to their final destinations. We have manufacturing locations in the UK, United States, Mexico and India.

We are quality audited by Caterpillar, Rolls Royce, Aggreko, Wärtsilä and MAN, as well as holding an ISO 9001 accreditation and ASME U and R certification.



Dürr Universal are proud to offer the following across our global network:

- » Low cost manufacture (without sacrificing quality)
- » Plant capacity of 100,000 square feet
- » Manufacturing of mild steel, stainless steel and weathering steel products
- » Cutting, forming and handling equipment
- » In-house blasting and painting booths
- » In-house aluminium metalizing
- » Internal lifting capacity of up to 25 metric tonnes
- » Non-destructive testing
- » Pressure testing (on request)
- » Global shipping of over 200 containers per year



PROJECTS

Dürr Universal is your ideal acoustic and emissions partner. We take pride in adapting our processes to suit the needs of a wide variety of applications. Our in-house technical centers coupled with a wealth of design and manufacturing experience have enabled us to engineer efficient, effective solutions for a wide range of global clients.

We provide bespoke intake to exhaust solutions to your exact requirements, adding value to your supply chain and helping to reduce your lead times and costs.

Drawing on over 50 years of industry knowledge, we have a proven track record of supplying optimal turnkey solutions on a global scale; with an extensive list of references for projects of all sizes and across a wide range industries.

We offer complete exhaust system integration which includes:

- » Exhaust Silencer & Stack
- » Exhaust Ducting
- » Expansion Joints
- » Ladders & Platforms
- » Structural Framing
- » Thermal Insulation

We understand that the needs of power generation can often vary, with design engineers, project managers and OEMs all having different requirements. Luckily, Dürr Universal has substantial experience in serving the unique needs of a diverse range of projects.



NOISE ABATEMENT

Dürr Universal Silencer designs and validates standard and custom noise control and air filtration solutions to meet the most challenging customer requirements. Our sound attenuation system design and development is supported by in-house acoustic, emission, and dynamic testing laboratories.

We provide a variety of Noise Abatement solutions, suitable for numerous different industries, including:

- » Blower Silencers - applied to blower applications such as industrial processing and wastewater treatment
- » Vacuum Pump Silencers - used to remove liquid from gas flow vacuum systems, for either liquid-sealed rotary positive blowers, or liquid ring vacuum pumps
- » Steam Vent Silencers - Applied to systems which utilise a pressure relief valve, which can create excessive noise when releasing gas to the atmosphere, often causing objection in surrounding areas
- » Locomotive Silencers - most applications will require inlet and outlet silencers to meet noise requirements
- » Intake Silencers - provide solutions for air induction noise



STANDARD PRODUCT RANGE

We have over 5 decades of experience in providing acoustic products for industrial, power generation and oil & gas facilities, which makes us uniquely qualified to deliver custom-engineered silencing solutions that meet safety, environmental, and efficiency goals.

Absorptive Silencers

ADS Series

- » Recommended for internal combustion exhaust and air vacuum discharges
- » Utilises absorptive exhaust pulse noise with negligible restriction to exhaust gases
- » Ideal for use as a secondary unit on systems using reactive silencers

Reactive Silencers

OPS Series

- » Recommended for industrial and marine applications dominated by low frequency noise
- » Consists of a series of expansion chambers with interconnecting tubes

Combination Silencers

BSE, DSA & DDA Series

- » Recommended for optimum silencing applications
- » Combines absorptive and reactive sections to treat both high and low frequencies efficiently

Spark Arrestors

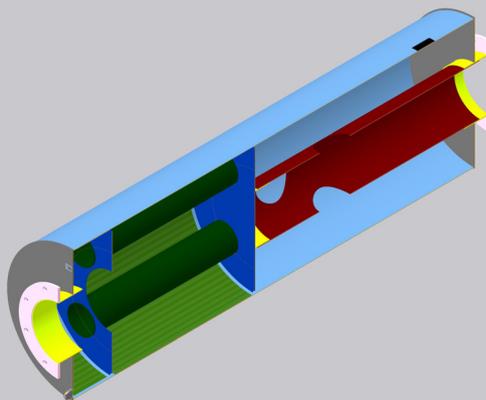
BSA, OPA & SPA Series

- » Recommended for industrial and marine applications where a spark arrestor is required

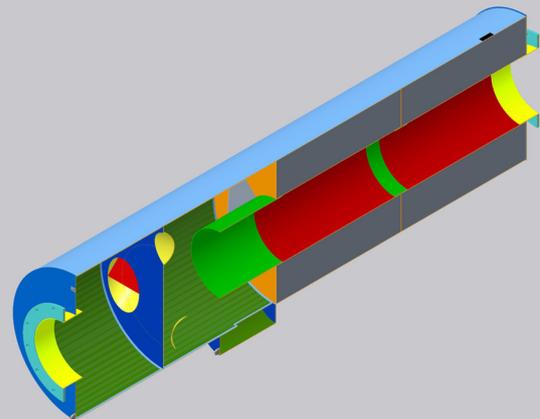
High Performance Silencers

QUIETSHIELD Series

- » Flagship range of silencers
- » Provides better acoustic performance with significantly smaller dimensions



» *Reactive Silencer*



» *Combination Silencer*

EMISSIONS

Dürr Universal provides Diesel Oxidation Catalysts (DOCs) to reduce engine emissions.

The features of Dürr Universal's Diesel Oxidation Catalysts include:

- » A single-stage device which promotes oxidation of hydrocarbons (HC), carbon monoxide (CO), and particulate matter (PM), in the exhaust gas entering the DOC

- » As well as converting CO and hydrocarbons to carbon dioxide and water, our DOCs oxidise much of the soluble organic fraction (SOF)
- » Available in catalyst-only housing, as well as in combination catalyst & silencer systems
- » Permanent or serviceable

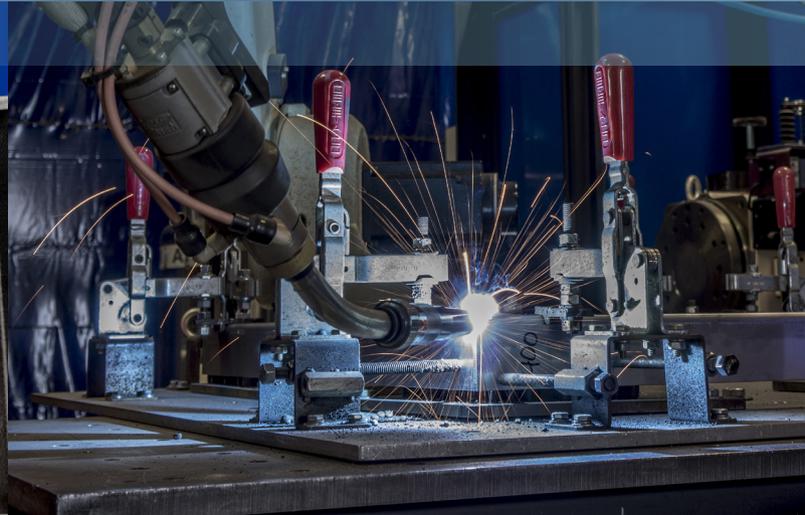


Filtration

We offer a wide range of filter elements for use on various industrial applications, to enable effective and efficient filtration at high airflow levels, with a minimal amount of pressure drop.

Media types include:

- » Pleated paper
- » Polyester
- » Galvanized steel wire mesh



Other Products

We also supply Exhaust Expansion Joints, designed to absorb heat induced expansion and contraction of pipe and exhaust systems.

HOW TO FIND US

Address

Dürr Universal Europe Ltd.
Barleyfield, Hinckley
Leicestershire
LE10 1YE
United Kingdom

Road

Hinckley is based in the heart of the Midlands in Leicestershire. Our office is within a few minutes drive from the A5 and M69 (following the Rugby Road), with easy connections and transfers from the M6 and M1. If using a Sat Nav, use our postcode (LE10 1YE) as a reference.

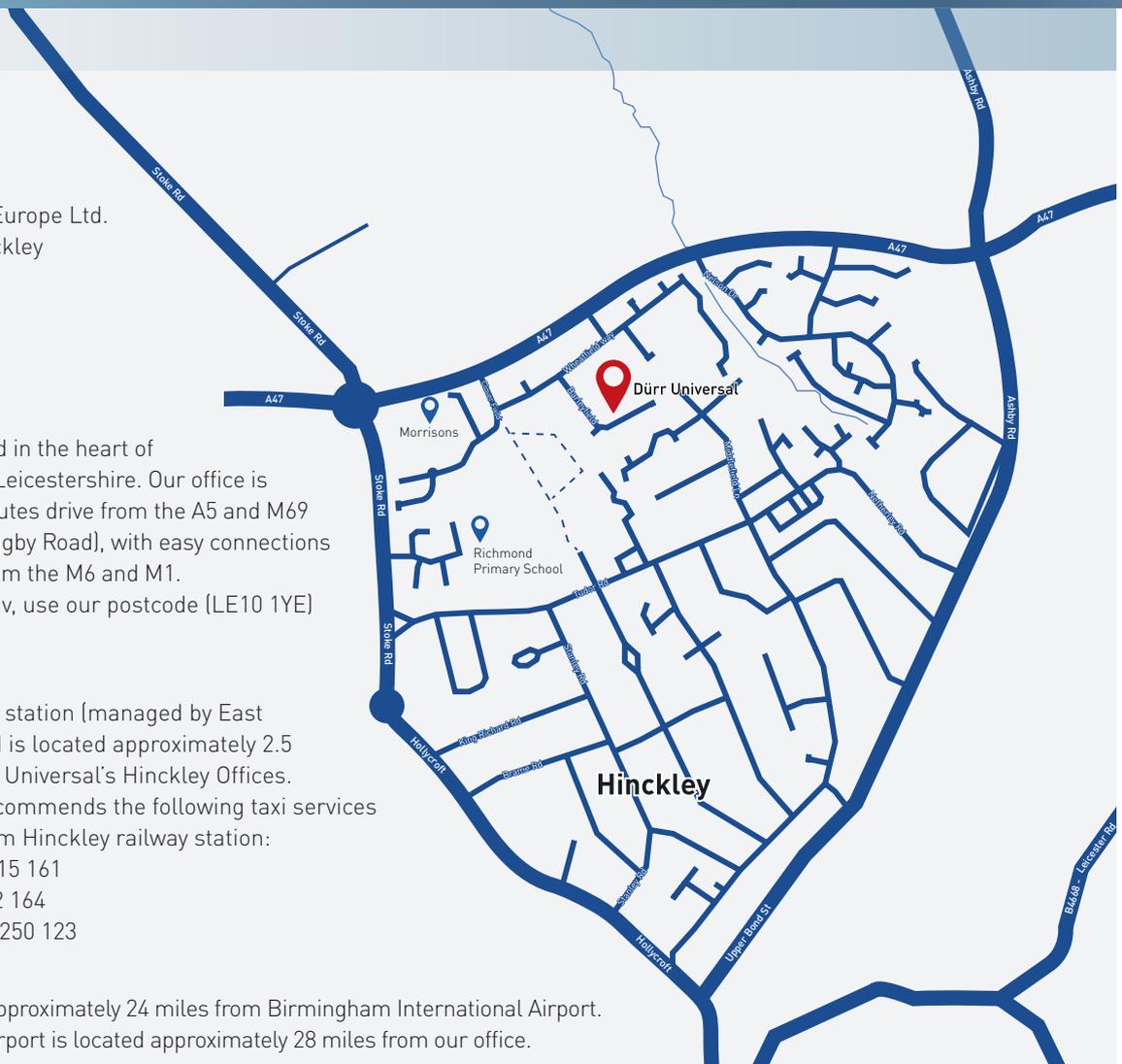
Rail

Hinckley railway station (managed by East Midlands Trains) is located approximately 2.5 miles from Dürr Universal's Hinckley Offices. National Rail recommends the following taxi services for transfers from Hinckley railway station:

Station: 01455 615 161
Orion: 01455 612 164
Hinckley: 01455 250 123

Air

We are located approximately 24 miles from Birmingham International Airport. East Midlands Airport is located approximately 28 miles from our office.



Dürr – Leading in Production Efficiency

Five divisions, one goal: maximum production efficiency for our customers

- » **Paint and Final Assembly Systems:** paint shops and final assembly systems for the automotive industry
- » **Application Technology:** robot technologies for the automatic application of paint as well as sealants and adhesives
- » **Clean Technology Systems:** air pollution control systems and noise abatement systems
- » **Measuring and Process Systems:** balancing systems as well as assembly, testing and filling technology
- » **Woodworking Machinery and Systems:** machinery and systems for the woodworking industry

Dürr Universal Europe Ltd.
Barleyfield, Hinckley
Leicestershire
LE10 1YE
United Kingdom
Phone: +44 1455-894488