



SUSTAINABILITY TODAY

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energy | water | waste | recycling | sustainability

The building passport data quest

The EU-funded project iBRoad works on developing an Individual Building Renovation Roadmap for single-family houses and, with the innovative approach proposed, aims to become a real driver for deep renovation. The renovation roadmap is combined with a building logbook, a repository where all the building's related information can be stored and continuously updated.

The recently launched iBRoad report defines the scope and use of a buildings renovation logbook, setting the boundaries about which data can be accessed and used to design renovation plans while protecting confidentiality at the same time. As the new General Data Protection Regulation (GDPR) is set to generate

greater confidence among European consumers on the personal data processed by third entities, understanding which data will be in the logbook, its sources and how they will be used, is imperative.

The report provides guidance on how to set up a logbook: what data should be sought and why it should be collected, which stakeholders could provide or benefit from accessing that information, where the information is to be stored, who owns the data, and how it could be safely accessed and protected.

Designed for the building owners as main users, they will be able to interact with it and regularly upload data,

providing the opportunity to mapping and aggregating information on a specific building from various sources and monitor its evolution overtime. This approach allows a distinct identification and characterisation of each building, including past and planned interventions (eg. maintenance).

By providing comprehensive information about a specific building, the logbook can also be used to better plan for individual renovation, especially when paired with a building's renovation roadmap, tailored to achieve step-by-step deep renovation of single-family houses and to improve the overall quality of the residential building stock.



The full report can be found at: <https://ibroad-project.eu/news/the-logbook-data-quest/>
More information on the iBRoad project's storyline can be found in this video link at: <https://ibroad-project.eu/results/videos/>

This project has received funding from the European Union's HORIZON 2020 research and innovation programme under grant agreement No 754045



Evaporative cooling

Seeley International is proud to have all three Breezair models listed on The Energy Technology List (ETL), a government list of energy-saving products used by businesses. Breezair products are the first evaporative coolers to be listed on the UK's Carbon Trust Energy Technology List.

The ETL (or Energy Technology Product List, ETPL) is a government-managed list of energy-efficient plant and machinery, such as boilers, electric motors, air conditioning and refrigeration systems that qualify for full tax relief.

Seeley International was part of

the working committee to establish the new energy technology list criteria for evaporative air coolers, with the Carbon Trust and a number of different stakeholders in the industry.

The benefit that businesses can get from choosing a product from ETL is equivalent to approximately 5.5 times the benefit of standard tax relief in the year of purchase. Businesses that purchase products listed on the ETL can also make significant energy savings.

Considering embedding the ETL into procurement processes will reduce the time it takes the business to find good quality



products, and can deliver resource, energy and financial savings.

The specific Seeley International products that have listed on the ETL are as follows:

- ▼ Breezair TBS 580
- ▼ Breezair TBSI 580
- ▼ Breezair EXS 220

uksales@seeleyinternational.com
www.breezair.com/uk

Leading the way with BioSOLAR



Bauder is one of Europe's leading manufacturers of roofing materials. They provide solutions to make buildings watertight, thermally efficient and sustainable. They're also experts in photovoltaic installations for renewable energy generation and the creation of green roofs - providing spaces that support the environment, creating better

living spaces and work surroundings.

Within today's construction of buildings there's an ever increasing need to integrate green solutions. Bauder is impressing with their latest Bauder BioSOLAR photovoltaic (PV) renewable energy solutions designed to seamlessly integrate with a roofs current waterproofing solution whilst also allowing for a completely green space.

By raising the front edge of the PV panels 300mm above the substrate, vegetation has ample growth space with increased light and moisture levels without blocking the PV array. And the green credentials are further enhanced thanks to Bauder's use of 100% recycled HDPE base boards.

Key features and benefits include:

- ▼ Zero roof penetrations as green substrate acts as ballast.
- ▼ Green roof will naturally cool down the PV panel increasing output by up to 5%
- ▼ Retrofitting and installation on zero degree falls is possible on many roofs.
- ▼ Waterproofing guarantee is unaffected.

For more information on the products and services Bauder offer visit the website below or contact the expert friendly team today.

Contact
T 01473 257671
info@bauder.co.uk
www.bauder.co.uk

Energy, Efficiency & Power News

New PLSES 4500 motor for industrial refrigeration

Leroy-Somer is launching the new PLSES 4500, a high-speed drip-proof induction motor specifically designed for industrial refrigeration.

Meeting the demand of professionals in the refrigeration sector, particularly as regards reliability and energy efficiency, the PLSES 4500 can reduce power consumption and operating cost by up to 30%.



A refrigeration installation has a strong impact on the energy bill of a company. The cold compressor, at the heart of the system, remains the most energy-consuming element, and can represent up to 80% of total consumption. OEMs or integrators seek to reduce drastically the power consumption of their machines. The other fundamental requirement in this industry is fault-free operation, as any breakdown of the cold production system would cause significant losses.

With the PLSES 4500, a new IP23 high-efficiency and high-speed induction motor controlled by a frequency inverter, Leroy-Somer provides an appropriate response to the needs of the refrigeration industry.

Based on the IMfinity® platform, the PLSES 4500 motor combines tried-and-tested induction motor technology with Leroy-Somer's recognised drive systems expertise. These motors, cornerstones of the refrigeration system, whose robust design perfectly meets or even exceeds the industrial refrigeration requirements in terms of reliability, are compliant with the latest European standards.

Further information and related documentation can be found on <http://lsm.co/plses4500en>

Liverpool firm supports cab drivers under pressure to cut emissions



The Liverpool branch of a national transport union has enlisted the support of a city firm to help taxi drivers cut toxic fumes after testing of its products showed they could significantly reduce emissions.

Unite the Union Liverpool taxi branch tested Cataclean's fuel additive in seven of the city's Hackney cabs collectively driving over 500,000 miles a year. Four separate tests were carried out between March and July 2018 to see how much deadly gas could be cut by adding it to the tank on a six-week basis.

End results showed levels of nitrogen oxide (NOx) had been reduced by 28%, while carbon monoxide (CO),

carbon dioxide (CO₂) and hydrocarbons were cut by up to 70%. This follows previous independent testing by the RAC, which reduced its fleet emissions by using Cataclean by up to 60%.

Crucially, after the taxi testing in Liverpool, drivers reported that their MPG had improved by 2-3p per mile, saving the average driver who is driving 4,000 miles a month around £850 per year.

The testing was commissioned to support the NHS-backed Let's Clear the Air Liverpool campaign, which aims to improve the city's air quality after it was branded one of five Clean Air Zones in the UK.

The 30% off discount, available to Unite the Union taxi drivers who buy Cataclean through Euro Car Parts with their union card, means drivers will be able to purchase Cataclean for just £9+VAT.

For more information, please visit www.cataclean.com. To see exactly how Cataclean with its patented formula works, please visit <https://vimeo.com/292692183>

#letsclreartheairliverpool

Exlabesa Extrusions invests seven figure sum in new plant machinery

Leading independent extrusion company Exlabesa Extrusions has just announced it has invested in a 35 MN extrusion press for its Doncaster factory. Fernando Quinta, Director at Exlabesa Extrusions Doncaster said: "This investment will enable us to upgrade our plant and continue to deliver the outstanding quality our growing customer base relies on."

Exlabesa Extrusions' new 35 MN extrusion press, which is from SMS group, will replace its existing 20 MN extrusion press. The new press will be used primarily to extrude profiles for automotive, architectural and industrial applications from aluminium billets with a diameter up to 254 millimetres and a maximum length of 1,400 millimetres.

The new extrusion press will enable Exlabesa Extrusions Doncaster to improve energy efficiency at its plant because it uses start-stop technology that enables average energy savings of 10% compared to modern presses without similar technology.

As well as improving energy efficiency, the press will also improve quality thanks to a feature that will lower the risk of air inclusions in the extruded profile. Fernando commented: "We pride ourselves on the quality of our extrusion and the new plant will enable us to take our quality to the next level."



Exlabesa Extrusions is one of the UK's leading independent extrusion companies producing aluminium applications for market sectors including electronic trunking, air conditioning ceiling systems, signage, construction, green houses and many others. Its production process capabilities include alloys. It also has an in-house paint plant, anodising, thermal break and CNC machining.

The company is expert in constructing bespoke solutions that are innovative in design and finished to the highest standards and believes in continual investment in its plant and people to enable it to do this. The investment in the new extrusion press is the latest example of this commitment in action.

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The future is sustainable for hot water



When combined with a backdrop of stringent emission-reduction targets, this has meant that operators of industrial and commercial property are under ever-increasing pressure for businesses from regulators to reduce their environmental impact. The impetus is to reduce their environmental footprint to avoid penalties, such as carbon taxes, hitting their profits.

For most people in the UK and across Europe, access to hot water is never too far away. This everyday comfort is often taken for granted. High power usage and associated greenhouse emissions put water boilers and immersion heaters at odds with the global drive for environmental protection and sustainability. Does this mean a world of cold showers is on the horizon?

Thankfully, no. Technology exists that provides building developers and managers with a solution that drives down costs and cuts emissions, while maintaining the same supplies of hot water that people expect today.

The Challenge

The UK's Committee on Climate Change revealed in June 2017 that commercial buildings alone are responsible for 3% of the UK's greenhouse gas emissions with hot water often a significant contributor.

Within the UK healthcare sector for instance – which spends up to £400 million each year on energy – the Carbon Trust identified hot water as an area that provided one of the biggest energy and cost saving opportunities in the sector. Meanwhile products that are widely used in heat pumps today, such as R410a, a refrigerant, carry a Global Warming Potential (GWP) of 2088.

Sustainable Solutions

The answer to addressing the impact of hot water in this context lies in technology, namely air-to-water heat pumps. These absorb heat from outdoor air and use compressed carbon dioxide to generate sanitary hot water without the need for an immersion heating element. This drastically reduces the overall Global Warming Potential (GWP) rating, while decreasing



the carbon footprint of a new building.

Mitsubishi Heavy Industries Air Conditioning's Q-ton system is an example of an air-to-water heat pump which uses CO₂ as a refrigerant. It achieves two goals in one, with dramatic savings in both CO₂ emissions and costs.

At the same time, the use of carbon dioxide as a refrigerant reduces the GWP of heat pumps, such as the Q-ton, to 1GWP and preserves the ozone layer with an Ozone Depletion Potential (ODP) of zero. As a result, the Q-ton also falls outside the F-gas regulations.

In Practice

Proof of this balance was seen in the Lancaster Hall Hotel in London, UK. Operating in a building where the demand for hot water was high – with 80 guest rooms and a total of 250 people on site – the Q-ton was put to the test to improve the building's environmental efficiency, and reduce running costs, without compromising the supply of hot water.

By connecting two Q-ton pumps to two 2,000 litre hot water storage tanks, the hotel was able to meet the demand of supplying 12,000 litres per day of domestic hot water at 65 degrees Celsius for guests and employees. This technology has resulted in the hotel saving up to 40% in running costs compared to their previous boiler and has delivered a reduction of 45% in carbon emissions.

As environmental regulations drive developers and operators to design more energy-efficient buildings, sustainable and efficient appliances that manage carbon emissions and reduce operating costs are an increasingly important consideration for



commercial developers. Heat pumps, which use carbon dioxide as the refrigerant, can significantly reduce the carbon footprint and increase the energy efficiency of commercial buildings without affecting hot water supply. They are the missing link between convenience and sustainability when it comes to designing energy efficient buildings.

To learn more about the latest trends, innovations, and leadership shaping industrial technology, visit www.spectra.mhi.com.

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For more information, please contact: mhi-pr@mhi.co.jp or visit www.mhiae.com

Water Management News

Lanes Utilities among first to achieve ISO 45001



Lanes Utilities, part of drainage specialist Lanes Group plc, has joined the first cohort of organisations to achieve ISO 45001:2018 accreditation. ISO 45001 is designed to be a significant

upgrade of the current OHSAS 18001 standard, setting a global benchmark for continuous improvement in health and safety.

New elements in the standard include a clear link between health and safety and business strategy, a stronger focus on the role of business leadership and management teams, and greater emphasis on worker engagement and participation. Lanes Utilities underwent a stringent external independent audit of its occupational health and safety management systems and processes before getting the news that it had achieved ISO 45001 accreditation.

Lanes Utilities is recognised in the utility industry for its innovative approach to health and safety. In partnership with Thames Water, it has been the first to introduce a 360-degree video theatre, so wastewater engineers can undergo sewer maintenance training in complete safety.

Lanes Utilities has won multiple health and safety awards. In 2018 it won the Water Industry Achievement Health and Safety Award and in October 2018 it was shortlisted for the Utility Week Health and Safety Award.

www.lanesfordrains.co.uk

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UK's largest recycling and waste management exhibition

Showcasing 500 leading exhibitors and accommodating 22,000 visitors, the RWM Show is the UK's Largest Recycling and Waste Management Exhibition.

Held at the Birmingham NEC on the 12th – 13th September 2018, the exhibition displayed the latest in recycling and waste management developments through 5 different sectors; data and technology services, energy from waste, handling and logistics, machinery and equipment, and recyclers and processors. There were 350 educational seminars delivering both accredited workshops and live demonstrations.

Some of the main themes focused on within the exhibition's live debates included global extended producer responsibility, plastic packaging and pollution, the future of EPR and deposit return systems. The planned debates were discussed by thought-leaders; one of the notable topics of discussion was the debate on the global responsibility for post-consumer waste.

The exhibition marketed an array of products ranging from zero waste cups to gum and graffiti removal



units. It also featured the Innovative Awards which acknowledged innovative products and services that are making a significant impact for the recycling and waste management industries. Reviewed by a panel of esteemed judges, the awards were titled across 4 sections; Product of the year, Circular Economy Award, SME Innovation Award and Energy from Waste Champion award. The RWM show will return on the 11th-12th of September 2019 at the Birmingham NEC.

This is our pick of the best exhibitors from this year's show. Further details can be found on this page and the next two pages.

www.rwmexhibition.com

Coral Products (Mouldings) Ltd



Following RWM and LARAC Coral Products (Mouldings) Ltd's plastic kerbside recycling and food waste products, created much conversation and interest we are an established "British Plastics Company With A Conscience." Celebrating 30 years in plastics manufacturing in 2019.

Our circular economy efficient business model and processes alongside our recent investment within our new in house recycling plant, based at our Haydock site (which will be

fully operational in January 2019.) creates an opportunity for councils, local authorities and businesses to recycle their waste polypropylene products closing the loop within the circular economy and improving financial costs.

The waste plastic collected will be reground within the recycling plant and used to create new recycling products, reducing waste going to landfill.

Our products range from a 5 litre food waste caddy to a 55 litre storage box, councils and local authorities discussed during the conference our 23 litre deluxe kerbside caddy for food waste, which is currently made from up to 85% recycled material.

If you would like to discuss further our products our sales team would be happy to discuss our products and product development with you.

T 01942 272882
sales@coralproducts.com
www.coralmouldingsltd.com

The Air Brake Specialists and how they can help you stay OCRS compliant

Dr Air Brake has over 35 years of experience within the air brakes industry. They are now one of the leading companies in trailer braking diagnostics with a number of highly rated type approved products such as their auto brake reverse systems, which they released 2 upgrades for at the RWM 2018 Exhibition.

Sonic Stop and Radar Stop can automatically apply the brakes if an object/person gets within a certain distance of the reversing vehicle. Both systems have been extensively trialled and are Type Approved for use in Europe, with both being designed and constructed in house by our own electrical engineers team. This application has been a big hit with companies looking to reduce risks to workers/pedestrians and damage to vehicles/property. To quote HSE "Nearly a quarter of all deaths involving vehicles at work occur during reversing".

The trailer braking diagnostics part of the company is renowned for manufacturing many award-winning products worldwide, from testing electrical and lighting circuits, air pressures on braking systems and reading fault codes from the braking ECU, we have a variety of products that can make



fixing your trailer and complying with the OCSR guidelines a much quicker and easier job to do.

If you would like to get in contact with Dr Air Brake to find out more about the products we have then be sure to get in contact using the details provided below.

T 08456 449309
sales@air-brake.com
www.air-brake.com

Clear Wheels



The ClearWheels System comprises of a chain with webbing strap at either end that the driver feeds behind the foreign object and back out again. The straps are then placed in front of the leading wheels, or behind the trailing ones, then either drives forward or reverses back depending on which set of wheels the debris is stuck between.

How many loads will your company lose this winter due to debris stuck between twin wheels?

The primary concern for firms with vehicles that operate off-road is the safety of their operatives, the ClearWheels device allows the driver to quickly and safely remove debris using the vehicles own weight as leverage saving companies time and money whilst protecting drivers and road users from potential injury.

Drivers only require a small amount of training to use the device, which is then kept in the vehicle at all times, enabling them to quickly and safely deal with any trapped debris and get back to the job in hand.

Lee Hayhow, associate at O'Donovan Waste disposal says: "ClearWheels offers a novel product that allows our drivers to safely remove debris from their wheels without putting themselves in harm's way. It is

quick and easy to use and can be stored in the vehicle. Our drivers have commented that it is 'absolutely genius, worth every penny' and 'the best thing since the wheel and sliced bread'

Andy Kane, MD of Kane Group, says: "Simple ideas are generally the best and, as a result, all Kane drivers have now been issued with a ClearWheels pack to be kept in the cab of their lorry. One use will pay for itself, save tyre damage and wasted time spent trying to remove bricks from between the wheels."

Contact
T 08007 720014
M 07523 309373
rachelle@clearwheels.co.uk



www.coralmouldingsltd.com

In-house recycling plant opening January 2019

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The Goupil G4

100% Electric, Zero Emissions
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The Goupil G4 is ideally suited to improve access into low emission zones, city and town centres. With 11 different body configurations there is Goupil to suit a vast array of applications.

Discover the Goupil range and visit www.bradshawev.com call 01780 782 621 or email sales@bradshawev.com

Bradshaw Electric Vehicles



Bradshaw, the UK's largest manufacturer of industrial vehicles exhibited a selection of electric vehicles dedicated to the collection and movement of waste at RWM.

On display was the PFB1500 pedestrian controlled high-tip waste collection vehicle featuring an aluminium high-tip skip body with a payload of 1500kg. Measuring 1116mm wide, the PFB1500 has an impressive turning circle and able to access confined areas. The Goupil G4 on display generated a tremendous amount of interest for those seeking an Electric, Zero Emission, Light Commercial Vehicle. The Goupil G4 is available in 11 body configurations, including pick-up, van body, high-tip Waste, electric leaf collector and electric high-pressure washer.

The G4 pick-up can accommodate 963kg with the lead-acid battery and 1,264kg with the lithium-ion battery, making it one of the best payloads for a 2.1-ton vehicle, electric or otherwise!

As well as reducing the carbon footprint, the Goupil's have a lower cost of ownership, users benefit from lower fuel and maintenance costs, and with a less complicated engine there are significant service, maintenance and wear and tear savings. With narrow dimensions, short turning radius it can negotiate narrow streets and street furniture making it more versatile than many vans on the market.

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www.bradshawelectricvehicles.co.uk

Hep Oils Ltd

Hep Oils Ltd. are purveyors of fresh cooking oils and are a licenced UCO (Used Cooking Oil) collector and processor with over 25 years' experience working nationally and around the Central and Greater London areas. We pride ourselves on the professional, reliable service with extremely competitive rates we provide. We have a trusted team, which constantly delivers a service second to none.

We provide a variety of cooking oils including, Long Life Vegetable Oils, Rapeseed Oil, Groundnut, Olive, Corn, Sunflower and Palm Oil. We can also supply more specialised oils on request. We bottle and pack our oils on site, reducing production/purchase costs to our customers. We constantly research our market prices to ensure we can provide fresh oil at very competitive rates. Prices are set on the condition that we are solely responsible for the collection of all the UCO (Used Cooking Oil). We also offer a used oil rebate.

We supply the containers required to collect the UCO and food waste. These come in a variety of



sizes that suit your requirements and are replaced with sterilised containers during the exchange. We supply a 120 litre purpose built Wheelie Bin manufactured by Fatboxx, which have a lockable lid preventing spillages and reducing odours.

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C.F. Nielsen



C.F. Nielsen is the leading manufacturer of briquetting presses. We supply briquetting solutions all over the world for production of industrial type of briquettes for use in big boilers at heating

plants etc. and log type briquettes to be used in fireplaces and ovens by private consumers. The raw material is agricultural waste, wood waste and other biomass products.

Our in-house specialists offer a wide range of services on everything from testing raw material to after sales advice. Our production facility uses the latest technology available and employs highly specialized people to make sure our machines are the best on the international market.

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Cable stripping made easy with Hassell's and Bronneberg recycling machines



metres per minute. The KAB X features a three-way cable stripping mechanism with a central input with a twin cutting blade arrangement to cut both top and bottom of the plastic or light armoured cabling. The KAB X is available in three or single phase



The KAB-W is a heavy-duty cable stripper for the processing of heavy PVC and armoured ground and grease cable. Due to the single suspension of the wheels, it's a relatively light weight machine that's able to strip even the toughest cable.

The infeed system and the special developed wheels ensure that cables can be stripped in one pass. The cable is guided over the adjustable knife for perfect cutting. 30-180mm cable can be easily

stripped through this machine.

E.H. Hassell and Sons are proud to be the UK dealer for Bronneberg Machinery

Call Hassell's for more information on 01782 644299

The simple process of cable stripping has been around since cables were invented back in the 1800's. Removing the outer covering has now got even easier with Bronneberg and the KAB range of products.

Stripping cable from 1mm to 90mm couldn't be any easier than on their KAB X. The KAB X can process cable at up to 50

MoistTech Corp



sensors provide continuous, reliable readings with zero maintenance and a one-time calibration with a non-drift optical design allowing operational personnel to confidently make immediate process adjustments based on real-time measurements. MoistTech has installations in almost every type of application including harsh applications and environments where other gauges could easily break down.

In waste-to-energy facilities, controlling the ash residue is a critical concern of plant operators. After combustion, the ash residue that is left is sprayed with water to reduce dust and odours which is then transported to landfills/moonfuls. However, too much or too little moisture can create several problems for waste-to-energy plants. By integrating MoistTech's IR3000 online NIR Moisture Sensor into the process, processors can monitor and control 100% of the ash.

Contact: Adrian Fordham, President
T 941 727 1800
info@moisttech.com

MoistTech Corp., a Sarasota FL based company, has quickly become the leader in Moisture Measurement and Control manufacturing a range of on-line sensors & at-line instruments for moisture measurement and real-time moisture process control. Utilizing Near-Infrared state-of-the-art technology to develop world class sensors and outstanding customer satisfaction, MoistTech Corp. exceeds expectations, increasing profits and productivity.

Insensitive to material variations such as particle size, material height & colour, MoistTech moisture

Imvelo

On the 13th September 2018, Tamma Carel of Imvelo Ltd delivered a seminar on 'ISO14001 and Sustainable Resource Consumption' as part of the RWM Conference & Exhibition 2018.



Imvelo Ltd is an environmental consultancy that provides environmental management and environmental legal advice. Tamma's passion is to facilitate industry to meet the growing demands of sustainable practices and drive sustainability for the future, by working with businesses in all sectors to ensure legal compliance, reduce business risk, prevent pollution and increase resource efficiency.

In her seminar, Tamma explained "Sustainable Resource Management (SRM), at an organisational level, is the principle of organisations taking responsibility and action for the selection, sourcing, usage and re-use of the materials they require for their products and services. This relates to both their direct operations and across their value-chain, including: suppliers; customers; and other interested parties."

Increasingly, organisations are recognising the benefits of moving from a linear to a circular economy, a system in which no materials are wasted. Products should be designed and built so that they are part of a value network where reuse and refurbishment assure continuous optimisation of materials.

For true Sustainability, we need to shift from optimising on lowest initial cost towards maximizing the total value, while at the same time taking the health and wellbeing of people into account.

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WasteMaster reduces, recycles & repurposes food waste, on site



WasteMaster from Green Eco Technologies reduces and converts food and other organic waste, on site, for recycling and re-use as green energy and other useful end products.

The WasteMaster system conserves essential resources and avoids greenhouse gas emissions associated with landfill, while also contributing significantly to cleaner and safer waste collection and storage. Food waste is simply loaded into the system and

converted into a compost-like high calorific-value residual material. The process doesn't need additives or water to work and reduces the volume of the waste by up to 80% in less than 24 hours.

WasteMaster reutilises food waste, turning it into a valuable resource, while providing a financially viable and environmentally viable solution for businesses and workplaces.

The WasteMaster range includes options for users with medium to high-volume food waste disposal requirements and the system can be easily installed on site as there is no requirement for piped water or sewerage services, just an electrical



connection and an air outlet.

WasteMaster is supplied as a managed service which includes installation, servicing, and 24-hour support.

To find out more, call 0800 634 8644 or email enquiries@greenecotec.com www.greenecotec.com

Donasonic



Donasonic provides cutting edge technology and develops bespoke solutions for all your waste processing needs. We specialise in the design and manufacture of shredding, granulating and crushing machinery, and with our strategic partners located globally, can provide solutions from single shredders for volume reduction through to full waste to energy plants, anywhere in the world.

Our aim is to extract the maximum value for our customers from all waste streams in the most economical and environmentally friendly way.

As a family run business, we have a close-knit team working together to share ideas and provide turnkey

solutions for our clients. In a world that doesn't stand still, our in-house design team are always looking to develop our machines to ensure we provide industry leading technology with reduced wear parts costs and efficient maintenance schedules.

We pride ourselves on after sales support and strive to develop long lasting relationships with all our clients. As we improve our technology, we want to share these updates with clients to ensure that they too remain at the forefront of the waste recycling industry.

If you have any waste recycling or volume reduction requirements, please get in contact to discuss these further.

T +44 (0)1302 247295
sales@donasonic.com
www.donasonic.com

Promoting and publicising the development of waterborne freight traffic



Earlier this year The RWM Exhibition returned to the NEC Birmingham on the 11th- 12th September, bringing local authority professionals, recycling and waste businesses and

exhibitors together for two days of networking and showcasing.

Amongst the show's top 20 exhibitors, The Commercial Boat Operators Association (CBOA) showcased their services. CBOA are a trade association that publicises and promotes the development of freight traffic on inland and estuarial waters.

Benefits from using barges include:

- Environmentally friendly as far less pollution

- than lorries – 75% reduction
- Avoiding trying to use congested roads
- More efficient use of fuel as less surface friction
- Labour bill savings - a 500 tonne capacity barge can replace 25 lorries carrying 20 tonnes
- Addressing capacity restraints on road and rail
- Can be cheaper

If you would like to get in touch with CBOA, their contact details are below. Alternatively, if you would like to view an extensive range of their membership services, make sure you check out their website.

Contact: John Dodwell
Marketing/Corporate and Public Affairs Director
M +44 (0)7802 961485
j.dodwell@cboa.org.uk
www.cboa.org.uk

PSV Transport



Fogmaker is a global market leader in the design, manufacture and supply of engine bay fire suppression systems. With over 120,000 installations worldwide and over 10,000 in the UK and Ireland, Fogmaker has a proven track record for reliability and performance across a wide range of applications and industries.

High pressure water mist is unique in the fact that it fills the entire fire-protected area and is proven to be a superior firefighting agent due to excellent cooling



performance and oxygen displacement.

The water mist's ability to quickly extinguish the fire limits the amount of damage in the engine compartment and stops lethal smoke development. With our hydro pneumatic fire detection the suppression system works with the same effect even when the electricity supply is disconnected. The system is also position independent (if the machine is laying on the side or up-side-down).

Fogmaker holds an impressive list of approvals and accreditations from leading fire safety standards around the World giving operators peace of mind that they equipment is fully protected. Re-setting a released suppression system is often simpler, easier, faster and much cheaper compared with powder or foam suppression systems. Normally our service organisation guarantee a complete re-set within 24 hours.

T+44 (0)1992 479950
www.psv-transport-systems.co.uk

Energy News



Evaluating the structural integrity of assets within the Wind Energy, Infrastructure and Oil & Gas Sectors

MISTRAS is a leading "one source" global provider of technology-enabled asset protection solutions used to evaluate the structural integrity of critical energy, industrial and public infrastructure. Our services and solutions provide customers the ability to comply with government safety requirements, meet environmental regulations, enhance risk management operational decisions and extend the useful life of their assets whilst improving productivity and profitability.

www.mistrasgroup.co.uk

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Case Studies



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Vapogant digestate evaporator

Our system processes digestate from a biogas plant to produce a usable, concentrated by-product (fertiliser) and reduces water content of the liquid fraction, thereby reducing the volume of the residual digestate.



The system utilises available waste heat to thicken and reduce the total volume of the digestates produced in the biogas plant. Water is removed from the digestate through vacuum evaporation utilising waste heat from the CHP's.

At the same time, volatile nitrogen is bound so that any emissions during storage and spreading will be minimised, making the nitrogen available as ammonium sulphate solution (ASS).

Up to 70% of water content can be reduced through a very high evaporation rate of 2.5 litres per kilowatt of thermal output. Typically a 500 kW plant provides enough heat to reduce the liquid volume by about 10,000 m³ per year. The plant is scalable to suit and is available in a module sizes of 400 kW or 500 kW.

Please visit our website at www.biogastechnik-sued.de for more information on this and our full range of products for feeding, mixing and process components.

For further information please email info.uk@biogastechnik-seud.de or qke@flamelilyenvironmental.co.uk

Put your energy in safe hands

The average SME's energy use in the UK is around 50,000 kWh per annum, with large businesses often using considerably more, so it is important that its management is in safe hands. Energy Account Management (EAM) is FEC Energy's solution to take care of a business's energy needs so that staff can concentrate on running the business. FEC Energy's EAM is one tidy package that covers all of business requirements such as:

- ▼ Negotiate the best electricity contract
- ▼ Get the best price for any generation, FEC Energy currently manage a portfolio of electricity generators with an annual income of over £20 million in export sales
- ▼ Check energy purchases or sales to make sure a business receives exactly what it's contract entitles it to
- ▼ Manage all of your Government incentives
- ▼ Ensure that businesses don't fall foul of compliance

As an example, one of FEC Energy's larger EAM clients has 30 MW of natural gas on-site



generation and a total electricity import contract totalling 100 GWh. In addition, they export in the region of 100 GWh and FEC Energy has been successfully arranging their import and export contracts to get them the best possible price, ensuring their compliance with both mandatory and voluntary schemes along the way, offering them expert advice and reporting all under one simple agreement.

The best bit about it is that FEC Energy charge transparent fees for their services, either as a fixed up-front cost or via commission if preferred. Call FEC Energy on **024 7669 8885** to find out how you can benefit from being an EAM customer.

www.fec-energy.co.uk

PROTEGO®

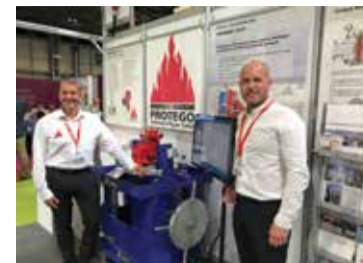


PROTEGO® have participated at the UK AD and World Biogas show for many years

showcasing state of the art products for the protection of Biogas plants and associated systems.

The 2018 show held at the NEC in Birmingham was a great success. PROTEGO® introduced PROTEGO® PARC Services, (PROTEGO® Authorised Repair Centres) and performed live demonstrations of Pressure Vacuum Relief Valve (PVRV) servicing and calibration. Delegates were given the opportunity witness the importance of correctly set and maintained valves and discussed the benefits this would have on their process.

PROTEGO® PARC's can perform a full range of on-site servicing and certification of PVRV's, PSV's and Flame Arresters to ensure a plant remains safe, compliant to relevant industry standards and



also efficient.

At the UK AD and World Biogas show 2018 the main points raised by delegates who visited the PROTEGO® booth were; leaking PVRV's, PVRV instability or 'chattering' and the potential of clogged flame arrester when installed beneath a PVRV on a digester.

A PROTEGO® PARC can identify issues which can lead to valve instability and leakage, then engineer a practical solution which eradicates valve instability and the necessity to install flame arresters onto digestors by correct product selection and sizing.

T +44 (0)1543 420660
uk-office@protego.com

Recycling & Waste Management News

Retran® complies with new government environmental legislation

In the October budget, Chancellor Philip Hammond announced the introduction of a tax on plastic packaging that uses less than 30% recycled content. The new Retran® product supplied by Bell has a 70% recycled content which more than satisfies the planned legislation. This material is used to produce Retran® tubing, PET folding cartons, clampacks and formed inserts.

Retran® is ideally suited to present giftware, confectionery, stationary and DIY products and for direct food applications the Retran® is

produced in a BRC accredited facility.

Bell are working on exciting new developments for Retran® which includes increased recycled content and material identification so the public knows the product can be recycled, and local councils can identify the product through normal kerb collection channels.

Retran® can be supplied plain or printed using flexographic, rotogravure or the traditional hot foil or screen processes. Retran® is available in a standard range so great prices with no tooling

or origination costs. Many of the standard sizes are kept in stock so delivery times are really quick.

Bell is one of Europe's leading suppliers of Retail promotional and presentation packaging. Exporting to over 20 countries Bell is based in Luton where they provide a free design and consultancy service.

For samples and information please contact the Bell offices on +44 (0)1582 459292 or visit our website at www.bellpackaging.com.



Waste rubber! Waste plastics!



Manufacturers and recyclers sit up!

A solution at last that truly gives you a plethora of Eco Friendly, Profitable products. Dena Nano-wood Ltd has developed a nano process which reacts with the surface of waste tyre powder to produce a wood replacement material. These materials have hundreds of applications from furniture to construction.

The colour and finishes are wide ranging, and these materials can be laminated, painted, sawn, nailed, and screwed. They are fire resistant, highly insulative, thermally and acoustically, and according to joiners they are an absolute pleasure to work with.

Manufacturing without producing any emissions and totally recyclable again up to 50 times, the return on investment is usually under 2 years.

www.dena.co.uk

EnviroHub has increased capacity

Leaffield Environmental has increased the capacity of its popular EnviroHub by an extra 20 litres. The hub comprises two new 43 litre Enviropods, attached to a 100 litre Envirobin 100 with a capability to handle up to four discrete waste streams.

Suitable for internal use the Envirobin Hub is available with variety of lid apertures, all WRAP compliant colour coded, to improve the accuracy of 'segregation at source' and so increase the value of the segregated waste materials.

A4 signage kits are also offered to further assist the user in selecting the correct waste stream.

There are no less than ten lid options for the Envirobin 100 alone and with a further four lid options for the side Enviropods the available combinations make the Envirobin Hub the most flexible recycling solution in the Leaffield range.

Manufactured from easy to



clean, durable, UV stabilised polyethylene, the EnviroHub is designed with smooth edges and large radii to minimise potential dirt traps.

Internal sack retention fitments ensure that the bag skirt is hidden and tidy.

For organisations able to segregate recycling waste at source, the Envirobin Hub would make a significant contribution to the overall effectiveness of the scheme.

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Demarec Multi Quick Processors to suit 13t-60t

Introducing one of the world's best sources of rented productivity solutions



Founded in 1873 in Stockholm, Sweden, Atlas Copco has more than 145 years of experience of innovating for sustainable productivity. Their innovative products and services include compressors, vacuum solutions, generators, pumps, power tools and assembly systems. Atlas Copco's global reach spans about 180 countries with customers all over the world. To them, it is a local company, but at the same time, the Atlas Copco Group is a global enterprise with worldwide resources.

The company's name is known all over the world, however it isn't general knowledge that the Atlas Copco Rental Division also rents their specialised equipment.

The Rental UK department, with offices in Newcastle and Dundee, has a vast client base that covers industries such as offshore, energy, chemicals and manufacturing. The latter being the most varied, including everything from glass to food & beverage, pulp & paper, metals and more.

Despite the apparent differences between these many sects, practically every manufacturing company depends upon some form of reliable utility, such as compressed air, which can be used in hammers, drills, wrenches and other such power tools.

With everything from oil-free to nitrogen, air, power, steam and even offshore equipment available, clients can be assured that no matter the project or emergency, they can get the equipment they need when they need it.

We spoke to Rental UK Sales & Business Development Manager Alistair Harper about their unrivalled rental service, to which he explained, "Whether it's for compressed air, power, steam or nitrogen rental equipment, each rental comes with exceptional services to meet client needs. We can do everything from designing custom-made solutions to handling

emergency situations, offering support during planned maintenances or temporary projects. Better yet, as our service and logistics network stretches into every corner of the continents, there is always a fleet and team of local staff at hand to support you, following the regional and most recent legislations. We think along with our customers so that they can focus on their core business and reach their goals, now and in the future.

Our machines are specifically designed for Atlas Copco Rental, meaning that they are engineered to withstand rough and multiple transportations whilst ensuring sustainable production.

While our competitors rent machines from different suppliers, we only work with in house technology. Therefore being a part of the Atlas Copco Group, we benefit from the highest levels of synergy when it comes to products, experience and knowledge." One of Atlas Copco Rental's most highly sought after products is their oil-free compressor which is where the company truly excels. Oil-free compressed air has



been booming in demand in recent decades, particularly within the chemical and process engineering sectors. Oil-free air has a range of benefits including providing you with



the highest quality of air. Even the smallest amount of oil or oil vapour could comprise an air compressor system, resulting in defects, increased maintenance needs and a reduction in longevity.

Their industry leading Oil-Free solutions come in an array of shapes and sizes, with all of them ISO 8573-1 Class Zero certified by TÜV. The majority of compressor technology suppliers only offer Technical Oil-Free Air,

the most efficient and oil-free screw element possible. Boasting a wide variety of different machines, the P-range can be used in a whole host of different applications.

The PTS 800 (pressure of 10.3 barg and flow of 22.5 m³/min) and PTS 1600 (pressure of 10.3 barg and flow of 45.7 m³/min), both Stage IV/Tier 4, feature the cleanest diesel engine possible by using AdBlue® to ensure a clean exhaust complying to the latest Tier 4 legislation.

Another diesel driven compressor includes the PNS 1250 which also doubles as a Stage IV/Tier 4 machine, and is capable of handling immense pressures of up to 24barg and a flow up to 34.5 m³/min. It is ideal for use in high-risk conditions such as refineries and offshore platforms and other high-pressure applications. The PTE 1500 version is electric-driven and of course oil-free as well, supplying 100% oil-free compressed air at a similar rate to the PTS 1600.

Due to the highly unique and advanced solutions Atlas Copco can provide, they have catapulted to the top of the industry, and with over a hundred years of experience at their back, it is easy to see why their Rental division is one of the most trusted providers of specialist rented equipment.

In 2016, Atlas Copco had achieved revenues of BSEK 101 (BEUR 11) and had amassed a staggering 45,000 employees worldwide.

In December 2017, the company also acquired Location Thermique Service (LTS), a French steam boiler rental company and as such were able to add steam boilers, feedwater tanks, steam superheaters and more to their fleet.

If you would like to get in contact with Atlas Copco Rental and find out how you can get your hands on the rentable products in their fleet, such as their exemplary Oil Free compressors, then be sure to get in contact today. Alternatively, more information can be found on their website listed below.

Contact
T 0191 456 4990
www.atlascopco.com/en-uk
www.facebook.com/atlascopco
www.instagram.com/atlascopcogroup

whilst Atlas Copco strictly offer only 100% Oil-Free compressors. Alistair explained the important difference, "Both compressors deliver oil-free compressed air, but let us compare the differences between Class Zero oil-free and Technical oil-free solution. Technical oil-free means oil injected in the air and removed afterwards using a filtration process, while Class Zero or 100% oil-free means absolutely no oil in the air.

"When you inject oil to remove it afterwards, you will need an oil-separator in the compressor, coalescing filters to remove most liquid oil, and active carbon filters to remove oil vapours. During this filtration process, failures can happen: separators can break, filters can be saturated and product lifetime will drastically reduce at high temperatures. By opting for 100% oil-free air, you will have peace of mind, plus minimal energy waste, no need for condensate treatment, and reduced maintenance interventions."

One of their most impressive innovations in Oil-Free technology includes the Portable oil-free compressors, Atlas Copco's flagship compressor. Designed with outdoor use in mind, the P-range was specially created using



Providing equipment and personnel for the Offshore Industry



For this issue of Industrial Process News, we are pleased to present Oceanscan Ltd with our Equipment Rental and Personnel Supplier Company of the Month profile, chosen in light of their unrivalled ability to provide world leading rental and recruitment services.

Oceanscan was first set up in 1989 by Ken Hunter and has since progressed to become a multi-million pound name in the rentals sector with a specialisation in subsea, ROV and hydrographic survey. With a vast rental pool, the company can offer subsea electronic scanning sonars, subsea lights and cameras, leak detection systems, topside laser scanners, acoustic navigation devices and a range of equipment to support the offshore construction, metocean and subsea/renewables sectors. In addition, the company is also known for their world class provision of offshore personnel. With a global database of over 7,000 qualified freelance personnel, the company can guarantee to provide the most skilled personnel for the job.

Oceanscan have two main locations in the UK, a head rental office in Aberdeen, Scotland and a personnel office based in Lowestoft, England. Additionally, they also have an office in Houston, Texas which supports the North American market.

The Oceanscan Group have diversified in recent years with the acquisition of two companies; Sercal NDT, offering non-destructive testing (NDT) equipment and Geoforce Technology Services, providing specialist offshore geotechnical services to the renewables and cables markets. Oceanscan's diversity has been key to their success allowing them to operate within oil and gas, defence, aerospace, automotive, petrochemical, renewables (offshore windfarms) and the nuclear industry.

Specialist equipment rental is a major part of Oceanscan's supply scope, covering the Subsea and NDT sectors. As part of this feature, we spoke to Subsea Sales Manager Adil Ali, Adil stated, "Our NDT and subsea equipment is used all over the world, on both offshore and onshore facilities including inspection equipment for asset integrity, covering flaw and leak detection, thickness gauges, flooded member detection for both diver and ROV deployment. The recent acquisition of an observation-class ROV (Remotely Operated Vehicle) has further enabled Oceanscan to provide more advanced mobile visual inspection services to its subsea customers."



Oceanscan's recruitment and personnel provision is well known throughout the offshore industry providing qualified staff to support major offshore projects. Experienced party-chiefs, surveyors, data-processors, geophysicists, geotechnical engineers, rigging and deck crew, ROV supervisors/pilot techs, project managers, dive supervisors and even superintendents can be sourced from Oceanscan's large contact database.

With a large team of co-ordinators at the helm, Oceanscan can source suitable individuals, and teams alike. All contractors are vetted and cross-referenced to log books, have valid certification and recent appraisals/references, ensuring the client has all relevant certified paperwork and peace of mind.

Oceanscan's success has been historically based on technical expertise, 24-hour support, outstanding customer service, a large pool of well-maintained state-of-the-art equipment and its complementary Personnel services and more recently its Geotechnical and NDT calibration services.

Oceanscan routinely exhibit at a number of high

profile tradeshows throughout the year, such as Oceanology International, Subsea UK and BINDT Engineering.

To contact them, or for more information on the company, please see the following details.

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Lighting & Electrical News

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