

MHEA MATTERS



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WINTER 2021

A MESSAGE FROM OUR PRESIDENT.



As the Association enters its 83rd year, I would like to reflect on the MHEA during this past unprecedented year and I am pleased to convey that despite the country's difficulties, the Association remains in good health.

We have all seen that the 2020 pandemic has had a significant impact on our lives and in almost all aspects of the bulk industry we work in. However well businesses may have done, this has led us all toward some innovation in the way we conduct our businesses and our workplace practices. As traveling and so personal contact has limited many of our efforts, Information technology (IT) has played THE major role for communication during the year, and the MHEA has responded to these developments too. All our meetings have been on Zoom, we have updated our website with additions such as improved search facilities and a better and more vibrant news section. Our Members have been encouraged to take advantage of the

Associations website presence allowing their news and events to be added, and to also be shared on both our LinkedIn and Twitter platforms. We all know that the collective knowledge and expertise of all our Membership can be of benefit to the rest of us.

2020 also saw the relaunch of our technical manuals (The Bibles) and I am pleased to say the uptake of these tried and tested "go to" publications has been excellent.

Plans are now well underway for BulkEx 2021, although the 2nd proposed dates in April have now been revised back to 12th & 13th October this year. After a lot of discussion, the Executive Committee decided that by October, most of the UK will have had some sort of COVID-19 vaccination and hopefully venues will start to be opened again for gatherings. We are of course in the 'lap of the gods' with this, but we hope you will be able to join us, to get together & celebrate the outstanding achievements of colleagues from across the industry with a positive outlook for the future and so look forward to welcoming you all.

Roy Ball
President

The MHEA are delighted to confirm our Annual Conference, **BULKEX 2021** will be held on 12th & 13th October 2021 at Chesford Grange in Warwickshire.

THE MUST-ATTEND EVENT FOR ANYONE INVOLVED IN THE BULK MATERIALS HANDLING INDUSTRY

Subjects covered will appeal to professionals and organisations from across the bulk materials handling industry and if you feel that you could contribute by way of delivering a paper then please get in touch although there will be a 'Call for Papers' shortly.

Along with *not to be missed* Seminars, Gala Dinner and Awards Evening **BULKEX 2021** offers unparalleled networking opportunities, bringing together senior executives and colleagues from across the industry.

For more information then please see www.mhea.co.uk/bulkex21 or contact :

Tel: 01257 412635

Email: secretary@mhea.co.uk

MEMBER NEWS



3D scanning helps Greenbank deliver biomass contract

A large biomass-fuelled power plant is set to benefit from a host of additional safety features supplied and installed by the Greenbank Group.

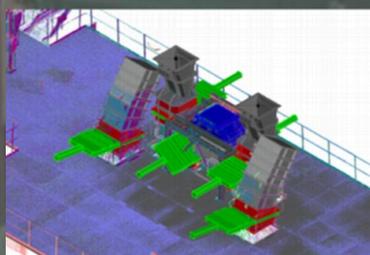
The Derbyshire-based firm has been awarded a major contract to retrofit the UK plant with quick shut valves, isolation valves and associated chute modifications.

The contract covers the design, manufacture and installation of the equipment and as part of the project Greenbank has carried out a comprehensive survey of the site using state-of-the-art 3D scanning technology.

Charles Conroy, Greenbank Managing Director, explained: "We used specialist 3D scanners to create an accurate representation of the existing plant and our design proposals were then overlaid onto

these 'virtual' plans, to show how they would look once installed.

"This technology, operated by our trained engineers using Greenbank's own laser scanning equipment and software, will continue to be used throughout the



installation process, generating graphic models of the components for review ahead of manufacture by Greenbank's in-house team."

The new chutes and valves are due to be delivered to the plant early in 2021 with installation taking place through the year, in line with the client's requirements. When operational, the new valves will be capable of containing any safety critical incident within the conveying/storage equipment, providing safe isolation of the plant during maintenance.

"The work will be carried out during a series of short outages at the plant to minimise the impact on the operating regime," Mr Conroy added.

NEW MEMBER



IEM Conveying Systems GmbH

The MHEA would like to welcome IEM Conveying Systems GmbH as a Corporate Member of the Association.

IEM Conveying Systems GmbH is an innovative partner in the field of material flow systems for both, bulk and piece goods handling. Located in Bavaria they offer consulting, engineering, manufacturing and commissioning of conveying systems from one source.

As a system provider for all aspects of conveyor technology, they develop technically high-quality, durable and economical solutions for new plants and refurbishments to meet specific requirements. IEM offers a wide range of different products and solutions for all kinds of power plants – especially waste incineration and coal fired plants. They also provide safe drum transport systems for nuclear decommissioning.

Whether conveying technology for waste to energy, sludge combustion or wastewater treatment plants are required, IEM Conveying Systems is one of the top providers in this field of expertise. They are also leaders in the field of mercury reduction in flue gas by means of precipitating agents and activated carbon based technologies. IEM was founded in 1969 and has currently 230 employees in the entire IEM Group

www.iem.eu



BULKEX

2021

Technical Conference • Awards Dinner • Exhibition

12 – 13 October 2021 Chesford Grange - Warwickshire



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MEMBER NEWS

If you find yourself in the market as a first-time buyer of an airswept mill, or even if you're an airswept mill 'veteran', chances are you will find yourself making the critical decision of choosing between a Single-Pass Airswept Mill System vs. a Recycled Air System. There are certainly projects where the specifications of the process dictate a clear-cut choice of one system over the other, but most fall into a grey area where the best solution can only be determined through a complete understanding of the process from raw material to end product.



Airswept mills are diverse machines engineered to handle a wide range of processes, materials, and specifications, and in a perfect world you would simply feed raw material in one end and collect the pulverized material out the other end as finished product. But in the real world, a multitude of factors require airswept mills to be supported by ancillary equipment configured as a system to regulate the milling process for maximum, long-term efficiencies in product output. These factors start with an understanding of the end-product's specifications, followed by an understanding of the physical properties of the raw material such as moisture level and temperature, and ultimately the economics of up-front costs vs. ongoing maintenance.

www.bradleypulverizer.co.uk

PORT AND TERMINAL OPERATIONS FOR BULK CARGOES 2021

8-12 March 2021

ONLINE DELIVERY

PORTS and TERMINALS OPERATIONS for BULK CARGOES 2021

The course is being delivered in association with ABTO: Association of Bulk Terminal Operators and is supported by the IMechE. Designed to take a look at the issues surrounding the safe handling and storage of bulk materials in ports and on the sea. It is designed to be interactive so delegates are given the chance to discuss real life issues and to determine best practice for future developments. The course will run on line over 4 sessions; each session will start at 12:00 hrs UK time; all sessions need to be attended to complete the course.

For more information:
[www.bulkterminals.org/
events.htm](http://www.bulkterminals.org/events.htm)

ATEX are very pleased to welcome Dr. Markus Roser to the ATEX Group.



Dr. Markus Roser was previously Technical Coordinator of the research department "Explosion Protection" at the FSA. There he led large-scale explosion tests for the testing

and certification of protective systems in accordance with ATEX manufacturer guidelines.

Dr. Roser is an active member of the working group for standardization within the "Technical Committee CEN/TC 305

'Explosive Atmospheres – Explosion Protection'" and has been dealing with the origin and course of dust and gas explosions for more than twenty years.

www.explosionhazards.co.uk



WE WANT YOUR NEWS

Make the most of your Membership by sending us any news, press releases, case studies for inclusion in this newsletter and website which is then shared with our contacts and social media.

Please send to: secretary@mhea.co.uk

MEMBER NEWS

4B IE-Node – Provides Sensor Data to PLC's and Automation Systems

4B Braine Components has introduced the Industrial Ethernet Node (IE-NODE) remote monitoring interface designed to provide sensor data to PLC's or other automation and control systems.



The IE-NODE is available in two versions, both with a total of 10 sensor inputs. Version 1 has eight contact or NTC temperature inputs, and two pulse or 4-20 mA (current loop) inputs. Version 2 has 10 inputs for 4-20 mA (current loop) sensors. Both units can be expanded to 16 sensor inputs with the installation of optional expansion boards.

The IE-NODE operates by reading its sensor inputs and sending processed data when requested by another system (e.g. PLC). The units are equipped with an RJ45 Ethernet socket and supports PROFINET, EtherNet/IP and Modbus TCP/IP protocols for easy integration with Siemens, Allen-Bradley Rockwell, Delta V, Modicon and other PLC's or automation devices.



The IE-NODE's network configurator software provides a visual view of all devices on the network. It allows for easy identification of each unit on the network and allows for network settings to be changed as needed.

The IE-NODE has in-built network support for Hazardmon.com connectivity. HazardMon is a secure cloud-based hazard monitoring solution providing status notifications and data logging for bucket elevators and conveyors. Live system

status, graphs and historical data can be viewed on any web-enabled device (smartphone, tablet PC, desktop or laptop computer).

www.go4b.com

Greenbank Group UK has successfully achieved certification for Occupational Health and Safety ISO 45001 2018, replacing its existing OHSAS 18001 certification.



By achieving ISO 45001, Greenbank Group UK continues to demonstrate its organisational resilience through proactive risk prevention, innovation, and continual improvement. By meeting the new requirements, Greenbank Group UK demonstrates its strengthened legal and regulatory compliance whilst achieving the highest safety standards.

The ISO 45001 standard also requires Greenbank Group UK to prove active employee engagement with health and safety and leadership commitment. This fantastic achievement confirms Greenbank's safety consciousness approach and confirms a safety culture that is embedded within business objectives and strategic aims.

ISO 45001 aligns with other key international standards Greenbank Group UK has achieved such as ISO 9001 and ISO 14001 for quality management and environmental management respectively.

www.greenbankgroup.com



The Wolfson Centre
for Bulk Solids Handling Technology

Courses are being delivered online throughout the year by the Wolfson Centre for Bulk Solids Handling Technology.

**Please click the link below for all courses
(Discount for MHEA Members)**

www.gre.ac.uk/engsci/research/groups/wolfsoncentre/coupro/sc

Email: c.j.chapman@gre.ac.uk

Tel: +44 20 833 8646

www.bulksolids.com

MEMBER NEWS



Fike launches its New Dual-Flap Explosion Isolation Valve – Fike DFI™

Since 2010 Fike has conducted substantial experimental research on the behaviour of dust flame propagation in industrial scale pipelines and passive explosion isolation systems. After earlier development of its ValvEx flap valves up to size DN400, Fike has now achieved safe passive explosion isolation up to DN800, thereby offering new attractive possibilities for safe powder and bulk dust handling process industries.

During a deflagration, DFI reliably isolates pressure and flames from interconnected equipment. Its unique, light-weight-dual-flap mechanism allows the device to close quicker than most single-flap valves, meaning it may be installed closer to a vessel, such as a dust collector.

“Fike’s experience with traditional single-flap designs showed that they do not scale efficiently to larger diameters,” said Andrew Tworek, Fike Senior Mechanical Engineer Team Leader. “Heavier and more robust flap, shaft and latch assemblies react slower to deflagrations and impart greater collision loads at the sealing interface.

A dual-flap design enables the assembly to be lighter weight, faster reacting, and ultimately a more reliable and cost-effective solution for large-diameter passive isolation.”

For more details, www.fike.co.uk



Contracts mark renewed partnership and further diversification

The Greenbank Group has strengthened its historic links with a former ‘sister’ company after securing a series of contracts.

The group’s highly skilled production facilities will be manufacturing two industrial Tornado Dryers on behalf of Blackburn-based Greenbank Technology. Both companies were once part of the same organisation but now operate as separate entities and Greenbank Group Managing Director, Charles Conroy, says he’s delighted they’ve renewed a close partnership.



“We’ve already completed contracts for a similar dryer and an industrial Pin Oven for Greenbank Technology, and a further Pin Oven is currently under construction at our Woodville facility in Derbyshire. This latest contract bodes well for a long and successful partnership between the two businesses.

To find out more, please follow:

www.greenbankgroup.com



Search Bar Facility



The MHEA website has for a long time needed a search bar facility due to the sheer size of the website. It allows quick access to the information but most importantly it allows potential customers to search the entire website for a supplier or specific equipment they are looking for. Therefore it is important to give us your company news for us to launch on our website.

www.mhea.co.uk

MEMBER NEWS



BRADLEY PULVERIZER LAUNCHES NEW WEBSITE Company Expands Internet Presence And USA Infrastructure

Pulverizer is pleased to announce the launch of a newly redesigned website and social media presence.

Since the acquisition of Bradley Pulverizer in January 2020, the company has developed a new digital strategy to support international operations and an expansion of its US sales force and engineering capabilities.

With over 130 years of serving the minerals industry, Bradley provides access to its deep technical and application expertise through its new digital offerings. As specialists in the design, manufacture, and commissioning of pulverizing and classifying systems, the company is committed to providing industry-relevant content easily accessible through its new website.

The new user-friendly website serves as the gateway to product information, videos, news, and solutions related to the company's line of pendulum roller mills, classifiers, and services.

The new website has a clean and uncluttered mobile responsive design with new content and improved functionality. Additional new features include a newsletter and blog showcasing grinding and classifying applications and solutions.

www.bradleypulverizer.com

MHEA EXCELLENCE AWARDS 2021

An evening awards ceremony celebrating the best in materials handling will take place on the of Tuesday 12th October 2021

The categories are:

- **Apprentice of the Year**
- **Innovation Award**
- **Harold Wright Lifetime Achievement Award**
- **Supplier of the Year**
- **Project of the Year**
- **Engineer of the Year**

If you would like to submit a nomination in any of the above categories, please contact : secretary@mhea.co.uk

INTERESTED IN EXHIBITING?

Take advantage of this unique platform to showcase your expertise and services to key contacts across the bulk materials handling industry.



Book a 3m X 2m stand and enjoy the following exhibitor benefits:

- Publicity in all **BULKEX 2021** marketing materials
- Inclusion in the full colour exhibitor brochure
- Media coverage and online marketing
- Inclusion in industry wide e-newsletters
- A proactive social media campaign
- Advertising in exhibition brochure
- Stand cost includes 1 Fully Inclusive Delegate



SAVE the DATE 12th & 13th
OCTOBER 2021 — **BULKEX 21**

Member Spotlight - ATEX EXPLOSION HAZARDS LTD



ATEX Explosion Hazards Ltd closing on 50 years experience in explosion protection and at its helm is Managing Director Declan Barry. Declan, aged 59 and married to Deidre for over 35 years have 2 grown children and resides in Dublin. With close to 35 years' experience within the industry his expertise is renowned and well respected within his field.



Declan started as a Mechanical Engineer in Ireland in 1978, he completed further education with the Institute of Industrial Management and Product Development 1984 to 87. This got Declan into a career developing Explosion Protection services with Mercury Explosion Protection Limited in 1987, finishing as General Manager 1997. His primary task was

testing and installing Pressure Hot Water Explosion Suppression Systems for the Dairy industry. Declan bought Explosion Hazards in 1998 and rebuilt the company from the floor up and three years later Explosion Hazards UK joined forces with "ATEX Germany" concentrating on his specialised hot water system which was aimed at large scale plant. This foresight and new direction allowed ATEX Explosion Hazards UK & Ireland to grow from strength to strength in the coming years. ATEX currently employs 5 engineers along with an Office Manager and of course Declan himself.



Speaking with Declan, we asked how the company was getting to grips with Brexit and the Covid-19 pandemic so far? He commented that the pandemic has been stressful but they'd continued to win new contracts and it's fair to say that the pandemic hasn't hindered their progress. Brexit on the other hand has been tricky, firstly with the uncertainty it created and then getting to grips with the new paperwork, but like many companies they are getting there and it certainly isn't having a detrimental effect.

Declan is Member of the Institute of Engineers in Ireland, European Safety Management Group, the EU's Safetynet programme, National Standards Association of Ireland representative to CEN TC305 and BSI EXL/023 standards representative and is also member of MHEA and on the council of SHAPA.

If you wish to be featured as our Member Spotlight Company then please contact us

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Member Spotlight - ATEX EXPLOSION HAZARDS LTD cont.

We asked Declan what he considered was his most memorable project and without hesitation he told us about a 3 year project involving their first pressure hot water explosion suppression installation for the Dairy industry.

"We really had to learn on the job with that one, the inventor had no doubts about it working however there was several learning curves and unforeseen challenges throughout the 3 years before the system was up and running".

We then went on to ask him about the company's biggest challenges and without doubt it has been product approval and testing to make sure that equipment was up to the job. *"When you only have one shot to get it right you can't afford not scrutinise everything to the nth degree"*



Looking forward, Declan's goal is to get all the ATEX engineers to a position where they can take on new and more demanding roles within the company. He explained he wasn't getting any younger and it was time to train all of his engineers to a standard that will allow them to run their own projects from design to final handover and aftersales support. The Covid19 pandemic has allowed time to engage in more training to reach this goal and he is confident that this can be completed in 2021.



Another project going forward for ATEX is its Sister company **INBUREX UK**.

The industrial and commercial incidents that have occurred in the past have given the safety aspect special significance. Accidents not only cause considerable personal, environmental and material damage, but inevitably lead to an international loss of image of the industry and to higher legal requirements under pressure from the public and authorities.

INBUREX has been active in the field of plant safety for many years on behalf of planners, operators and authorities. Based on a team of experts with international technical know-how, general and special security problems are worked on and brought to a customer-specific solution. The holistic approach to the aspects of plant safety, personnel safety and environmental protection is ensured through interdisciplinary cooperation between the consultants and their specialist areas and combined with our research in our large scale testing facilities.

ATEX Explosion Hazards Ltd: www.explosionhazards.co.uk Inburex UK Ltd : www.inburex.co.uk

Email: info@explosionhazards.com

Phone: +44 1925 755 153

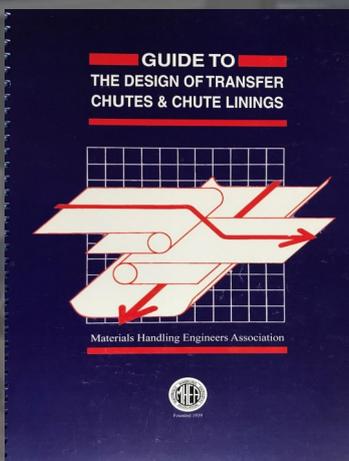
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20% DISCOUNT ON ANY TECHNICAL PUBLICATION

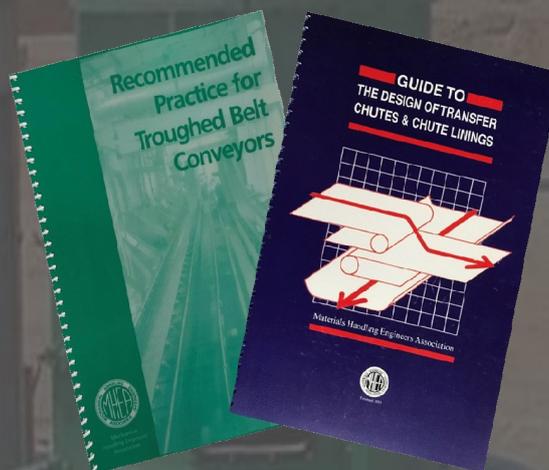


GUIDE TO THE DESIGN TRANSFER CHUTES AND CHUTE LININGS

The Materials Handling Engineers' Association manual 'Recommended Practice for Troughed Belt Conveyors' has been established for many years as an internationally recognised reference work covering the art of handling loose bulk materials on belt conveyor systems. This companion study examines in greater detail the requirement for chutes and their linings as a means of transfer for loose bulk between the individual belt conveyor flights within a system of belt conveyors.

The cliché that 'there is no substitute for experience' is very applicable to these manuals and is hoped that these 2 publications will provide some of the background information against which the designer will enhance his understanding of the subject by critical examination of existing installations.

£55.00 UK PURCHASES
£77.00 NON-UK PURCHASES



COMPLETE TWO BUNDLE PACKAGE

It would be fair to say that each of these publications are equally valued as guides for the industry and with this in mind you can purchase both guides as a bundle for a greatly reduced cost.

**FOR MORE INFORMATION
EITHER VISIT OUR WEBSITE AT
www.mhea.co.uk/publications/**

or contact us at

secretary@mhea.co.uk

or telephone

Landline: 01257 412635

Mobile: 07771 581285

£100.00 UK PURCHASES

£130.00 NON-UK PURCHASES

RECOMMENDED PRACTICE FOR TROUGHED BELT CONVEYORS

Editions spanning over half a century have established 'Recommended Practice for Troughed Belt Conveyors' as the definitive reference work, internationally for all involved in the mechanical handling of loose bulk materials: designers, manufacturers, consultants, contractors, plant operators, maintenance engineers and students alike.

This edition benefits from the pooled knowledge and experience of the Technical Committee of the MHEA and was completely re-written by 2 eminent mechanical handling engineers, both at the peak of their professional experience and made it more of a text book, properly deriving and explaining their arguments while retaining those familiar qualities that make it so sought after as a work of reference.

£68.00 UK PURCHASES

£90.00 NON-UK PURCHASES