

BIGGEST VIBRATION AIR SEPARATOR "AIRVIBE" FOR UK

ENGLAND. Handling of mixed packaging waste with the largest vibrating separator worldwide.

In spring 2018 JOEST delivered the largest AirVibe ever built to England. With a width of 2400 mm and a length of 3700 mm, it has a capacity of 20 t/h. The AirVibe is equipped with a support frame and recirculation mode so that it can be operated in octave.

This separator processes packaging waste consisting of bottle glass, foils, plastic, caps and paper. The AirVibe is used for pre-cleaning the bottle glass and removes the light impurities.

The AirVibe is vibrating with a linear stroke using 2 unbalanced motors. This motion is important for the transport, fluidization and even distribution of the infeed material. An adjustable air knife, positioned at the end of the impact area blows through the material stream. Light material particles like paper, plastic and card board are blown into the expansion room of the AirVibe and discharged at the light material fraction of the end of the separator. The medium weight particles which were not separated in the first separation stage based on size and shape hit an adjustable separation plate. Especially light particles with a larger surface area and those with a higher grip will be moved over the separation plate due to the linear stoke of the machine and added to the light material fraction.

The vibrating separator AirVibe has a fixed place in the JOEST product range for many years and is a worldwide success story.





JVM[®] WEBSITE RELAUNCH



Vistit us at our booth - we are happy to welcome you!



SOLIDS (Dortmund) November 07 - 08, 2018 Hall 4 Booth D13-4

JOEST-RECOVERMAX®

USA. GERMANY. Maximum metal recovery from ASR fines or incinerator bottom ash with a purity of 98%.

ASR (Auto Shredder Residue) fines, as is referred to in the US or "Shredder-heavy fraction/shredder-light fraction", in Europe, is the starting material thanks to which previously unattainable recovery rates can be achieved. The remarkable success story of the recovery of non-ferrous metals (<12 mm) in the treatment of shredded cars continues further.

What emerged in late 2015 from the cooperation of the leading manufacturer of recycling technologies JOEST GmbH + Co. KG and its American partner Best Process Solutions, Inc. (BPS), continues with the production of complete treatment plants at many other locations in North America. In the US states of Ohio, Pennsylvania, Texas and Illinois, four plants with production capacities of 2 to 10 tons per hour are already in operation and four more are planned for commissioning in 2018. A key factor here was the systematic, worldwide patent-pending interaction of the system components for the JOEST long-particle separators, flip-flow screens, sifters and separation tables. This is optimally combined with the RecoverMax[®] Separator from BPS for the separation of mineral components.

System design, which manages with confined space

Only the efficient system design results in a very high treatment rate of recyclable fine metal. The recycling process starts with the concentration of long copper cables through the JOEST Long Part Separator. This is followed by the screening of the fraction 0-12 mm with approx. 4 mm in the JOEST Flip-Flow Screen TOPCILLA.

Both the fraction 0-4 mm and the fraction of 4-12 mm are each fed to a JOEST K-Sifter. As seen from the side. the sifter has the shape of the letter "K" due to its design, which gave it its name. Its position is located above the aspiration hood of the separation table and serves for the pre-separation of very light particles in the feed material. This allows for a higher separation efficiency and throughput capacity, increases the flowability of the bulk material and the setting process. The K-Sifter, combination of sifter and separation table, is compact and uses the same process air, thanks to which the exhaust air volumes are considerably reduced. Its separation result corresponds to the values achieved in separate systems. The adaptation of the air flow ensures that the materials to be separated are highly variable. Thanks to the construction with relatively small dimensions, this module combination fits perfectly in systems with confined spaces. In the meantime, the K-Sifters can be used in working widths of 450 mm, 900 mm and 1200 mm, making them compatible with the integrated separation tables.

ultralight material is sucked off, whereas the heavy material passes to the separation table and is fed to a new separation process according to density. Subsequently, the separation of the remaining organic components and the plastic takes place at the separation table. The heavy material fraction, consisting of mineral and metal, is fed from the separation table into the RecoverMax® Separator from BPS. The worldwide patent pending process separates the mineral components from the heavy fraction. This system, developed and tested over several years together with the JOEST treatment technologies, ensures the high quality standard in ASR recycling. The high standards ensure market leadership in the USA. In an interview with Recycling Today on the occasion of the start-up of the first Recover Max plant in Ohio, the Mill Iron & Metal president, Grant Mill iron senior, said: "We are very satisfied with the metal extraction. The end product exactly meets my expectations ever since the commissioning."

Due diligence in the further recycling process

In the following recycling process, a drum magnet removes residual magnetic components from the metal fraction. Another screening machine classifies the remaining fraction into three sizes. Each size of the material stream then passes to a JOEST Three-Way Separation Table to separate the remaining, digested light particles. Here, the different material sizes are treated in parallel in the three chambers, with two imbalance motors providing the necessary oscillation of the chambers. The air speed and each air flush flap are individually adjustable.

Best rates in recycling, energy consumption and wear Metal purities of more than 98 percent are possible with JOEST and BPS system. Thanks to an additional optical sorting device, heavy metals such as Copper and light metals such as Aluminum can still be separated in case of fraction >3mm.

Thanks to the development of the RecoverMax[®] Separator, the complete system requires only a minimum of energy and wear costs in comparison with other systems



le, hammer mills. The operating and investment costs are thus significantly lower according to the manufacturer.

There are many reasons for this success

Dr. Marcus Wirtz, Managing Director of JOEST, extends the information sheet of the JOEST / BPS partnership for market success even further: *"Among other things, our machines are characterized by their relatively short construction and therefore are perfectly suited for confined spaces. In addition, the inner walls are perfectly protected against aggressive damage, as is the case with the RecoverMax*[®] *Separator. Less wear and tear with high energy efficiency and best recycling rates is the result of the JOEST and BPS partnership in scrap car recycling."*

An important feature in material feeding is the JOEST Vibrating Feeders, which distribute the product across the entire width of the separator. Rubber screens counteract the inflow of additional air into the air sifter. With the entry into the sifter zone, the separation of light and heavy material takes place by means of the cross-flow and counter current sifting process. At the aspiration flange, the that work with shredding technology such as, for examp-







Visit our new website >>> www.recovermax-joest.com





GERMANY.

New patented system presented in Munich.

Mid-May 2018 you could visit us again at the IFAT in Munich. Also this year, we presented a new development at the leading trade fair for recycling - the RecoverMax[®]. The patented system for metal recovery from ASR fines or incinerator bottom ash was a special visitor magnet.

From the large JOEST product range, visitors were also able to discover a zig-zag separator. The functioning of the vibration air separator AirVibe and the combination screen TOPCILLA were explained on scale models.

The variety of exhibits presented by JOEST at the IFAT, shows the wide range of machines. Whether screening, sifting, sorting, drying or cooling - JOEST offers the right solution for every task.



Thank you for your visit!

EFFICIENT SCREENING OF LIMESTONE

AUSTRIA. Austrian customer receives JOEST GRIZZLY screen.

In March 2018, JOEST has delivered a heavy duty GRIZZLY screen for limestone to an Austrian customer.

The screen has a size of 1800 mm x 4000 mm and a capacity of up to 800 t/hr. The feeding material varies between 0-800 mm and has an edge length of up to 1200 mm. To absorb the enormous impact energy of the extreme grain size, JÖST used a 120 mm rubber in the feed tray as protection. For this machine, the proven exciter was used, which is perfect for heavy duty applications.

Limestone tends to stick and blind the screendeck. Even with these difficult product properties JOEST Grizzly screens shows its real performance. In principle, GRIZZLY screens are used as a primary separator for the coarse separation of material in front of jaw crushers.

This project proves again that JOEST is able to offer the right solution for every customer and application.







HEXION EXCITED FROM JOEST QUALITY

GERMANY. Great teamwork – satisfied customer.



Hexion GmbH, one of the world's leading specialty chemicals companies, ordered a JOEST cooling conveyor to cool duroplastic molding compound.

The machine has now been mounted on site and put into operation. Hexion is very satisfied with the JOEST cooler, especially with the cooling performance, even in hot weather. The dust content in the exhaust air is also significantly lower than expected.

The entire project planning and execution, but also the customer service and the competent installation ran smoothly and were top from A to Z.

A big compliment from a satisfied customer – JOEST is very happy about that.



RAW-MATERIAL PROCESSING SEMINAR

AUSTRIA. Progress in the treatment of primary and secondary raw materials.

Machines, processes, products - these were the main features of the treatment-technical seminar 2018 in Leoben. The "Bergmaennischer Verband Oesterreichs" invited to the Montanuniversität from 25 to 26 January. For two days leading machine manufacturers and plant buliders presented themselves in an exhibition combined with special technical presentations. All participants had the opportunity for an intensive knowledge and experience exchange. JOEST was also represented by HAGI GmbH, JOEST long term partner in Austria.

FOUNDRY SYMPOSI-UM AND TECHNICAL CONFERENCE 2018

AUSTRIA. Specialists met in Salzburg.

The Great Foundry Technical Conference took place from 26.-27. April 2018 in Salzburg. The Austrian, Swiss and German foundry associations had invited to this important trade event. This meeting provided foundries, foundry users and the supply industry with a forum for the exchange of information and experience. Especially interesting were the technical lectures on general trends, but also subject-specific topics in the iron and non-ferrous sector as well as in production technology. Accompanying this there was a trade exhibition where JOEST, together with its Austrian representative HAGI GmbH, presented their own product range for the foundry industry. More than 800 participants made the conference a big success.





ISRI

USA. JOEST successfully represented in Las Vegas.

JOEST US participated in this year's ISRI Show in Las Vegas, Nevada. The booth featured the new Zig Zag model which drew a lot of attention. It was a great tool to physically show the unique features of JOEST's innovative design. The booth generated a lot of awareness of JOEST's complete line of solutions for the scrap and recycling industries. Attendees that thought we only made Zig Zag Separators were impressed that we also manufacture feeders, screens, density tables and conveyors.



A FURTHER JOEST TRADEMARK

Dear Customers,

We would like to notify you that Mr. Bernd Peitz retired as Managing Director of DIETERLE GmbH & Co. KG as of 31 December 2017. His shares were taken over by to JÖST GmbH + Co. KG as of 1 January 2018. We would like to thank Mr. Peitz for his extra successful work and loyal collaboration, and wish him all the very best for the future.

However Mr Peitz will continue to be available for the JOEST group as a consultant. Dr. Stephany joined management of JOEST GmbH + Co. KG at the beginning of the year and will be responsible for managing the DIETERLE® business unit.

DIETERLE GmbH & Co. KG was merged with JOEST GmbH + Co. KG as of 2 January 2018 and is therefore no longer an independent company. In addition to HERWEG® and JVM®, DIETERLE® is now another important trademark and business unit of the JOEST group. Please note the new bank account information and the new turnover tax identification number which have changed as a result of the restructuring.

All other personnel and contact information stay the same. We are delighted to continue to support you and your company as a long term and competent partner for lifting and tipping technologies.

Best regards Dr. Hans Moormann Dr. Marcus Wirtz Dr. Christoph Stephany (picture, right)

POWTECH **EXHIBITION SUCESS:** LIFTING AND **TIPPING DEVICE** FOR CHINESE **CUSTOMER**

CHINA. DIETERLE[®] builds low-dust special version for a sewage sludge drying plant in Ningbo, China.

During the POWTECH 2016 in Nuremberg, the DIETERLE® brand received a customer request for the transportation of sewage sludge. The customer had high demands on the lifting and tipping device. Due to the very sticky material, the technical requirements were very high.

The problem: The disposal costs for wet sewage sludge is very high. To avoid this, the customer decided to dry the material in his own drying plant and transport it off site with trucks. However, dried sewage sludge is emitting a lot of dust during transport and tipping. The dust emission should be kept to a minimum.

The solution: The customer fills and dries the wet product into uniform containers and transfers it into trucks using the DIETERLE®-solution. The technology is the lifting and tipping device MDS-8 in ATEX execution. Forklift trucks place the full containers in the load handler and lift the container to a height of about 5m, which is dumped into the truck.

This process is usually very dusty, but DIETERLE® has the perfect solution for that. After the special containers are loaded into the lift tipper, two separate doors and lids lids seal the container airtight and empty the container at a tilt angle of up to 180° above the truck. In order to reduce the amount of dust required for unloading, it is possible to lower the load suspension device and the container by up to 300 mm to reduce the drop height. After that the lids will be opened to discharge.

The stainless steel lifting and tipping device in ATEX 21 execution can carry up to 1.2 tons. In addition, due to the close proximity to the open sea, a special coating with corrosion protection class C4 is applied to ensure a long service life. As the built-in load-bearing device made of stainless steel is one of the largest designs ever built, the geared motor with a power of 9.2 kW helps ensure maximum efficiency. This creation helps move the enormous weight of the heavy and robust design of the receiving device without causing additional problems.









DIETERLE® TIPS LIQUIDS

GERMANY. In 2017 DIETERLE[®] built a lifting and tipping machine for tipping liquid materials with solids.

For the first time in many years, DIETERLE[®] has taken the challenge of dumping liquid material from barrels into a mixer. A special device was specifically designed for this application and put into operation successfully. This is done with a tipping speed that has been precisely adapted to the application and the material. The load suspension device is made of stainless steel 1.4571 and can be installed in a difficult environment especially to customer requirements. For DIETERLE[®] it is no problem to lift or tip other liquid materials as well.







USA MEETS GERMANY USA. GERMANY. Internship at JOEST.

Hello, my name is Joe Semany from USA and I go to school at Baylor University in Texas. I'm 19 years old and majoring in marketing and entrepreneurship. Throughout the summer, I took two summer classes, Business Communications and Entrepreneurship in Europe, where I was travelling to ten different cities to learn the similarities and differences between how business operates in the U.S. versus Europe. After school, I was given the opportunity to intern at JOEST.

My internship had me working in the service, finance, and marketing departments. Among others I had the chance to file invoices, organize income statements, balance financial accounts, and complete the work schedule for fellow employees. This was my first time working for a company and this gave me the glimpse of what I would have to do in the future working with other corporations.

Interning for JOEST gave me insight on how engineering and business can be integrated effectively in the real world. A big thank you to my co-workers for teaching me as much as they could.









A TRUELY INTEGRATED COMPANY

AUSTRALIA. GERMANY. USA.

One Team working seamlessly to provide consistent solutions around the world.

What are the signs of a truly integrated company working together on a global scale? Is it regular and open communications? Shared design standards? Common goals and methods to achieve them?

One physical sign is the ability of a company to quickly and efficiently design and manufacture similar equipment anywhere in the world. To be able to keep the fundamentals of a proven design while slightly adapting it, if necessary, to local standards and desires. By leveraging local manufacturing to reduce shipping costs and maintaining a lowered carbon footprint. Well that is exactly what JOEST showed when supplying a hopper feeder to a gold mining operation in North Carolina USA that was currently being used in Australia.

Some may call this mass customization. JOEST calls it good engineering practice and customer service. It starts with creating a customer base that appreciates the need for repeating proven designs around the world. While every engineering-based company likes to reinvent the wheel, that is not always necessary and/or in the best interest of the customer. Repeat designs mean common spares, reduced training needs and known performance. But an exactly identical machine may not meet local standards and adds shipping costs. In comes JOEST and its global network of design and manufacturing centers. As opposed to other company's sales-only offices, each local JOEST design and manufacturing center is deeply imbedded into understanding local preferences, design standards and practices through hands-on involvement.

This allows each local office to take an existing design and only modify it in so much as necessary to meet these local needs.

A good example of this is replicating a hopper feeder originally designed and built in Australia for use at a gold operation in North Carolina. It started with a request made to JOEST Australia that is now JOEST's center of excellence for mining equipment and processes. They researched the best and most efficient means to do this. That involved talking with JOEST US and discussing both the specific application needs as well as the details of the equipment's design approach to meeting them.

After consultation it was decided that JOEST US will build the feeder using JOEST Australia's original design but make minor adjustment to meet local codes and site needs. This proved to be the most cost-effective solution for the customer and the most efficient production method by JOEST. The end result is a win-win situation for everyone. A solution with proven performance meeting local needs by a company capable of doing it cost effectively throughout the world – JOEST.







WORLDWIDE WIDEST JOEST SCREEN EVER BUILT IN AUSTRALIA

AUSTRALIA. The next step in large vibrating screens.



Following extensive design effort using JOEST Australia FEA methods, JOEST has commenced construction of a single deck screen 4.88 m wide, 9.76 m long (screening area 47m²).

The screen weighing 36 t will be installed in a Pilbara Iron Ore process plant in July this year. To date, this will be the widest screen built by a company in the JOEST group, and the design has been based on successful developments over the years to meet the demands for larger machines in the mining industry.

www.joest.com.au

JOEST AUSTRALIA GROW THEIR MANUFACTURING FACILITIES

AUSTRALIA. More space for great machines.

Following an increase in equipment sales, JOEST Australia has secured an additional work-



shop facility to enable machines to be built to meet client schedules.

Managing Director Ian Laws said "The home base in Sheffield Road has been bursting at the seams over the past year, and a solution was needed to allow continued growth, and to meet the delivery demands of our valued customers".

Approx. 5 km away from the Sheffield Road base, the 2,000 m² factory facility has cranes and a large outside hard stand area.

This move demonstrates the confidence JOEST management has in the Australian market, with many projects emerging in lithium, gold and iron ore sectors.

TECHNICAL MANAGEMENT MEETING 2018

WORLDWIDE. Traditional meeting of technical managers in Duelmen.

Spring is traditionally the time to meet the technical managers of the worldwide JOEST subsidiaries for the Technical Management Meeting. Once again this year, all those representatives met to discuss innovations and news in the field of design and engineering. This meeting is a great opportunity to strengthen the international cooperation of the subsidiaries. Until next year!



TWELVE NEW APPRENTICES START TO WOR-KING LIFE

GERMANY. JOEST welcomes the young colleagues to the team.

On 1 August JOEST welcomed the new apprentices. Twelve new trainees will learn to become industrial clerks, technical product designers and design mechanics. During their apprenticeship, the young colleagues go through different departments and thus gain deep insights into the JOEST group.

After a short welcome, an introduction to general business processes and a safety briefing, the first day of work began in the individual departments.

JOEST wishes all trainees a successful start into their professional life.



AGENTS MEETING 2018

EUROPE. European representatives network met in Dülmen.

At the end of February all European representatives of JOEST GmbH + Co. KG met in Duelmen for an agents meeting.

This meeting was all about the different experiences and approaches in sales and service and to learn in detail about all the new technologies and solutions JOEST developed. However, as our network of agents has grown rapidly in recent years, it has also been a great opportunity to get to know each other and to exchange experiences in different countries.

All participants agreed that it had been successful and interesting days in the "Muensterland" and the cooperation and exchange between the different countries got even stronger.



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Linked in。XING ^X	You <mark>Tube</mark>	Dr. Marcus Wirtz Dr. Christoph Stephany	Gewerbestraße 28-32 Fax: +49 2590 98-101 48249 Dülmen info@joest.com
⊠J ÚST°group		JOEST International	
同次之間		JØST [®] Germany	JBM [®] China
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