JOEST times

A product of the
JOEST® group

#01 | 2021

Plant for drying cereal and high-protein resources

A member of the

JOEST® group

Corporate Communications.

WORLDWIDE. Great communication begins with us – internally and externally.

What exactly is Corporate Communications? Corporate Communications is more than just marketing and includes all internal and external measures of communication throughout the entire JOEST group. To build trust and separate ourselves from our competitors, it takes a unified, explicit and global corporate identity and communication.

Implementing an explicit identity and communication result in a high level of recognition and branding effect for the JOEST group. The goal is to create one global corporate identity for the entire JOEST group, including all 10 subsidiaries and more than 850 employees. The consistent compliance as well as the strategic planning and positioning of the JOEST group will now be centrally managed by the department of Corporate Communications at the headquarters in Duelmen.

To ensure a unified visual appearance for the brand across all channels, a thought-through marketing mix is part of our daily work. Transmitting the broad product portfolio through a content-marketing-strategy that convinces each individual target group is another essential part of our work. Important elements of our strategy include text editing of press releases, newsletters, blog articles, and content creation for various online campaigns. The design, implementation and maintenance of our websites is also part of the concept. To keep well-trained and highly motivated employees and win over new ones, a targeted HR marketing is called for. All these instruments must be linked appropriately and spread as wide as possible.

This year was largely influenced by the optimization of a unified and global communication strategy to strengthen and expand the brand JOEST. During this project, we have developed new international logos, just in time for the new year. You can read more about this on the following pages. Now dive into the JOEST world and the past year of the JOEST group and find out more about the product portfolio and the client specific solutions surrounding the machine and plant manufacturer.

Have fun reading!
Sabina Homann & Rebecca Riedel

Contents

#JOESTeam

The Year 2021

Dear clients,
Dear employees,

We started into this year optimistically, trusting that an extensive vaccination campaign would help us confront the virus in unity and all our precautions would pay off.

However, the virus proved us wrong and the 4th wave has arrived. We hope that further restrictions and an increasing willingness to be vaccinated will help defeat this pandemic in the world none the less.

But there is still a long and tough road ahead of us. Perhaps even a compulsory vaccination cannot be averted. In addition to the pandemic, the supply chain situation has an increasing impact on our business. Often its only small parts, especially in the electronics sector, that delay the delivery of valuable and urgently needed machines.

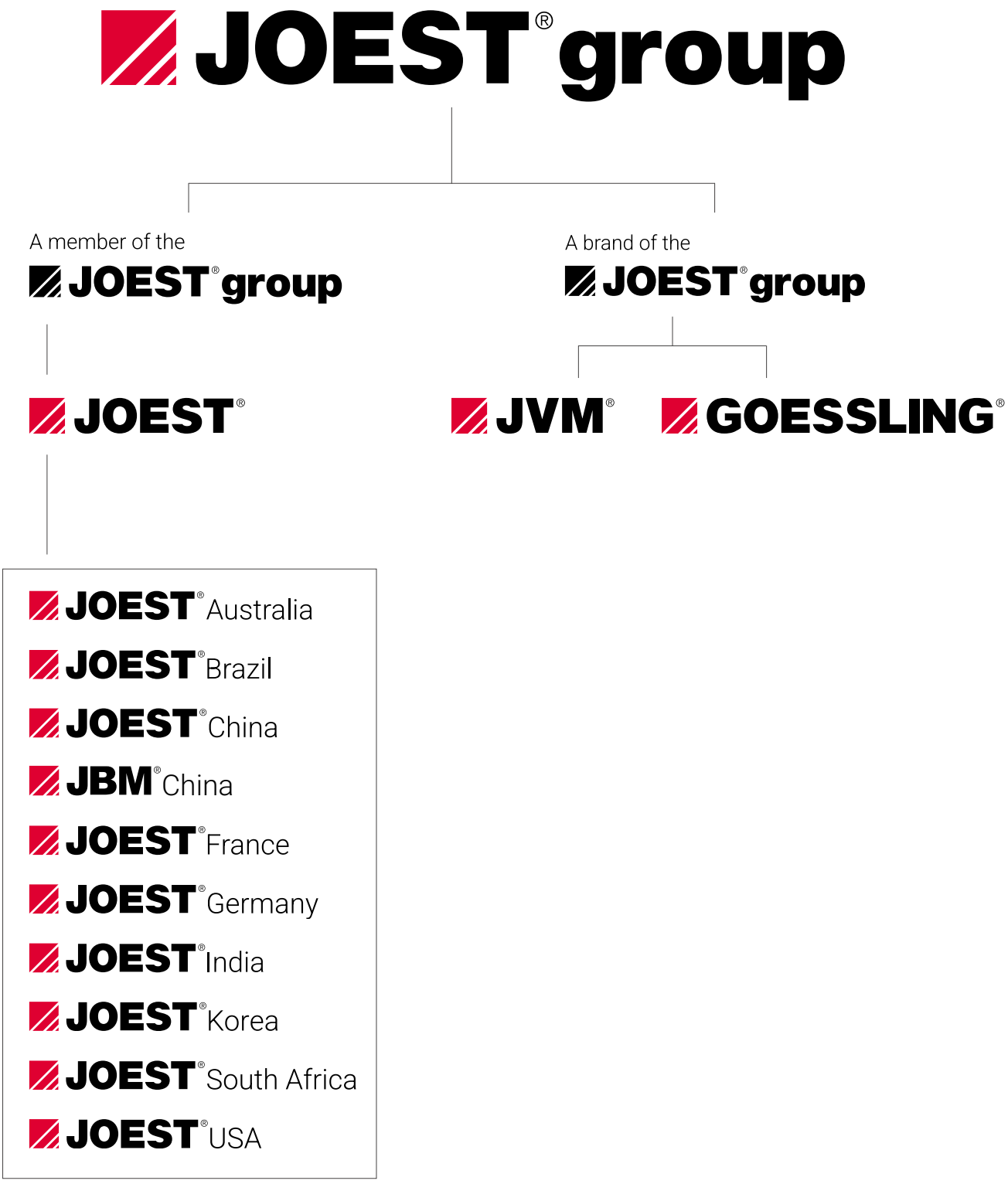
Shortages in containers and drastically elevated fuel costs as well as transportation costs in general will impact the expenses of our company too. Rising energy costs are another factor that is leaving a noticeable trace.

Although the political situation in the USA has calmed down considerably, we face new challenges in Asia. Rigid restrictions in China lead to four and five days respectively in September and October of this year where we were unable to manufacture because our power was cut without prior notice.

Therefore, regarding these challenging conditions, our special thanks go to all our employees in this once again extraordinary year. We thank our suppliers and clients for the constructive exchange and the close and flexible cooperation that is all the more important now in order to master this series of challenges. We are looking forward to continuing the successful cooperation next year.

Sincerely,
Dr. Hans Moormann,
Dr. Marcus Wirtz

We wish you
and your families
a Merry Christmas
and a Happy New Year
– stay safe.


JOEST® group
A member of the
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A brand of the
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JOEST®
JVM®
GOESSLING®
JOEST® Australia
JOEST® Brazil
JOEST® China
JBM® China
JOEST® France
JOEST® Germany
JOEST® India
JOEST® Korea
JOEST® South Africa
JOEST® USA

New logo and brand structure

WORLDWIDE. Rebranding and internationalizing the logos.

Just in time for the turn of the year, the logo-portfolio of the entire group receives a make-over: In addition to the internationalization of the logos, they were also slimmed down and unified.

The rebranding and the waiver of the claim below our name make the logos appear lighter, more open and clearer. This way they can be used universally and will work on all platforms. Especially in external communications, the logo plays an essential role and is the figurehead of the company. The unification strengthens the brand and the entire group.

JÖST becomes JOEST &
JÖST group becomes JOEST group
The JOEST group is the framework for presenting all subsidiaries and brands. From now on, JOEST will only have one logo. The Ö is replaced by OE and the claim is removed. In texts, JOEST will also be exclusively written with OE. The only exception is the corporate name JÖST GmbH + Co. KG. Here, the Ö is left in place. When presenting the entire JOEST group, the individual country is added after JOEST e.g., our locations on the global map.

HERWEG becomes JOEST
This long-standing brand is also completely merged into JOEST.

DIETERLE becomes JOEST
Carried as a brand for years, the product segment of DIETERLE is now completely transferred to JOEST and thus sees off the previous DIETERLE logo and the brand logo MUCKI. Starting next year, all products run under the segment of JOEST lifting, tipping and feeding technology. The email addresses and telephone numbers will also be adapted to JOEST.

Dr. Gössling becomes GOESSLING
Through the accretion of the Dr. Ing. Gössling Maschinenfabrik GmbH to JOEST, Dr. Gössling will no longer be an independent corporation as of 2022. The new brand logo receives the red square, the Dr. is removed and the Ö becomes OE. This ensures an optimal integration into the JOEST-world. For all employees transferring to Duelmen, the email addresses and telephone numbers will be adapted to JOEST as well.

JVM
The brand JVM stays the way it is. For a unified look, the logo now also implements the red JOEST-square.

Continuous flow cooling of **truck engine blocks**

GERMANY. JOEST delivers Casting Cooler to motor block and cylinder head foundry.

42 METERS

The Casting Cooler cools these motor blocks from 400 °C down to 100 °C. A radiation pyrometer measures the temperature of the parts.

This year, JOEST manufactured a 42-meter-long Casting Cooler for a client. The cooler was designed as a mass compensated resonance machine for the shock-free cooling of truck motor blocks in a continuous production flow. It is located after a green sand molding plant that produces 60 parts an hour with a weight of up to 550 kg per piece. The Casting Cooler cools these motor blocks from 400 °C down to 100 °C. A radiation pyrometer measures the temperature of the parts.

From a machine dynamics standpoint, the Casting Cooler is equipped with active, synchronized vibration dampers. They are sub resonantly harmonized and feature an eccentric slider-crank drive. Open at the feed and discharge ends, the machine has a near airtight hood that forms an ideal flow channel. The air injection nozzle creates a strong air flow through this channel. The counter flow principle enables a direct convective heat exchange between the casting parts and the cooling air, resulting in a shock-free cooling process. The preheated air that has already passed by several parts reaches the hottest casting parts at the hot feed end of the cooler. Pulse-width modulated water injectors regulate the moisture of the processing air.

JOEST designed the optimal solution for this client by considering the entire process including an air-cooling system and planning the machine accordingly. The design was tested for its operational safety using a precise calculating tool. This enabled our engineers to achieve the best possible level of efficiency. Furthermore, the machine is equipped with very reliable modules such as the damper stations and only transfers small residual forces into the foundation. Natural flexural frequencies do not occur within the system and the massive steel design lacks concrete fillings, which ensures an outstanding durability. The modular design also allows the machine to be divided into sections for easy transportation.

watch me

Automatic feed systems for welding studs and flange nuts

GERMANY. JOEST delivers feeding technology to screw technology manufacturer.

JOEST manufactured two automatic feed systems to convey, sort and feed welding studs and flange nuts. The systems are built up of an overhead conveyor with a link chain, a storage container, a linear feeder and a workpiece recirculation.

The workpieces are provided manually in a storage container with an effective volume of 320 liters. The container has a steel design and is lined with PU plates. It also features a filling level indicator. The parts are presorted by workpiece specific carrier rails, conveyed upwards and fed into a linear feeder.

The linear feeder is equipped with two parallel sorting feeders. On these feeders, alignment mechanisms force the workpieces into the correct orientation. Excess or falsely orientated parts are

rejected by the linear feeder and are recirculated to the storage container. The sorting feeders are equipped with pneumatic deflectors to prevent the magazine from overflowing and to control the feeding lane in case a screw is left out.

At the end of the linear feeder, the workpieces are fed into the existing processing machines in a defined position. The welding studs are discharged to the left and the flange nuts to the right.

After development and manufacturing, the feeding systems were delivered in the fourth quarter of this year. The project was completed to the full satisfaction of all parties and JOEST is looking forward to new exciting projects.

Feeding an in-house **recycling plant**

NETHERLANDS. JOEST Lifting and Tipping Device for Dutch foil manufacturer.

For a client in the Netherlands, JOEST delivered a Standard Lifting and Tipping Device from the MD series that will feed an in-house recycling plant. All of the included accessories were customized to the client's requests and the company's factory regulations.

Production waste is delivered to the client in large garbage containers and is transported and fed into a shredder. The garbage containers on wheels are manually pushed inside a Lifting and Tipping Device and then emptied into the shredder. JOEST designed a Lifting and Tipping Device MD-8 with accessories customized to the client. The device features a traction free lead, a central lubrication and a locking bolt safeguard. Furthermore, a light barrier secures the loading zone, and the machine is equipped with a fail proof control unit. The traction free lead enables the load handling attachment to be set on the ground, making it easy to place the garbage container inside. The side handles lock in automatically when the container is placed inside the load handling attachment.

The machine was delivered in June of this year and has been operating to the full satisfaction of all parties.


DIETERLE

Complete system solution: Standard products combined with custom built machines

GERMANY. Dosed feeding and refilling of a phosphatizing system for German automotive company.

For a client building a phosphatizing plant as a general contractor for a German automotive company, JOEST designed, manufactured and delivered a large system solution this year, to feed and refill the plant.

The project started in 2019 but was temporarily set on hold due to the Covid-Pandemic. It was later picked up again and went into production this year. The task was to dose forging parts into baskets provided by the client, based on the demanded formula. The parts are supplied in two different steel containers. The filled baskets are fed into the phosphatizing bath. After the phosphatizing process, the containers are removed and emptied.

In advance, several compacting tests were performed in the JOEST Test Center: This ensured that no parts stick up over the edge of the basket, eliminating a manual task. The containers are fed into the system by a Lifting- and Tipping Device from the series MDS. The Lifting- and Tipping Device empties the container onto a Trough-Type-Feeder which is followed by a Dosing Feeder. Both feeders are mounted on load cells. The baskets are then filled according to the


DEMAG
DEMAG


watch me

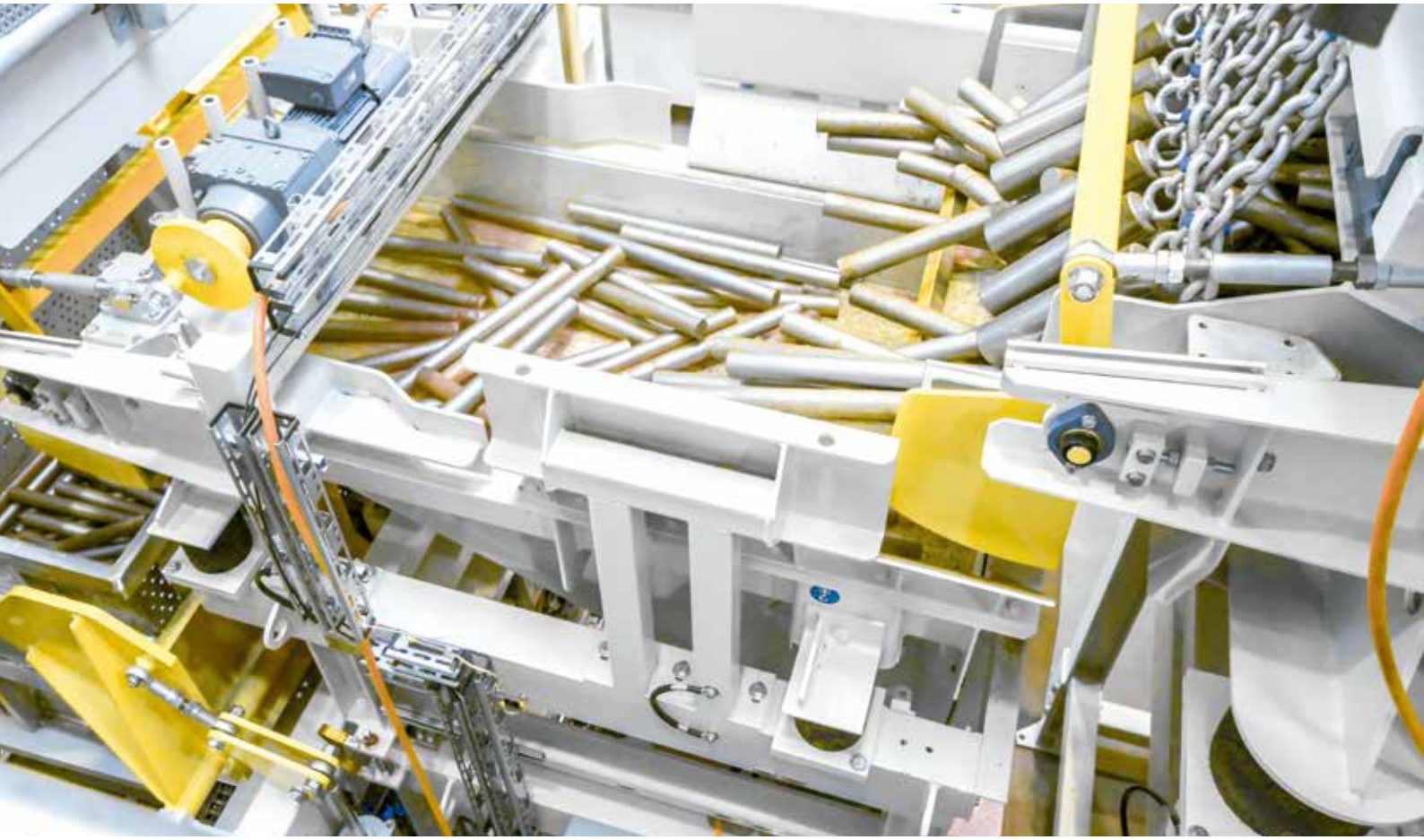
“With this solution, JOEST has designed a customized system using standard products from its Lifting- and Tipping Technology and Dosing Technology, featuring the latest magnetic drives.”

demanded formula. During the filling process, the container stands on a vibrating table, resulting in an even parts distribution throughout the basket. Next, chain conveyors, corner transfer conveyors and roller conveyors transport the containers to a lifting station, which feeds the parts into the phosphatizing plant. In return, the lifting station removes a basket that is done.

The finished parts are emptied onto another Trough-Type-Feeder by a second Lifting- and Tipping Device. The Dosing Feeder that follows the Trough-Type-Feeder doses the parts back into their transporting containers. The entire process of feeding and refilling is enclosed in a soundproof cabin.

With this solution, JOEST has designed a customized system using standard products from its Lifting- and Tipping Technology and Dosing Technology, featuring the latest magnetic drives. The entire conveying equipment including chain- and roller conveyors was specifically designed to meet the client's factory standard.

All feeders are equipped with the latest magnetic drives and feature HB400 wear liners. Furthermore, the feeders are mounted on a total of four load



The chain- and roller conveyors use a central grease lubrication and the entire system operates without hydraulics.

cells. The chain- and roller conveyors use a central grease lubrication and the entire system operates without hydraulics.

Programming and factory acceptance testing by the final customer went without complications and were completed successfully. Commissioning on-site is scheduled for the second fiscal quarter of 2022 and is performed by the general contractor. JOEST will assist in the process.

From first contact to delivery, the project had a duration of three years, partially due to the pandemic. A custom solution was developed in close cooperation, creating a valued partnership with the client. If you are also interested in a client specific solution, please contact us. With our large product portfolio, we will find the ideal solution for every client application.

Feeding annealing ovens with a reduced drop height

GERMANY. Modernization and automation of a pusher-type furnace.

In this year's spring, JOEST delivered Lifting and Tipping Technology in the form of a Lift and Swivel Column to Leinefelde. The client requested a solution to automatically load and unload annealing ovens with Heson stackable containers.

All the equipment was to be placed in a single cell and enclosed by a safety fence. JOEST designed and manufactured an ideal client solution using Lifting- and Tipping Technology as well as Magnetic- and Trough-Type-Feeders.

The stacking containers are fed into the system on one side by the client. On the other side, the container filled with tempered parts can be removed. The entire loading and unloading process of the oven is fully automated. The container is docked to the load handling attachment of the Lift and Swivel Column, type MSH.

The machine lifts the container over a JOEST Trough-Type-Feeder, turns by 180 °C and dips into the feeder as far as possible. Until the machine reaches its final position, the parts are held back by a hydraulic flap. Once the flap has opened, the machine slowly retreats, and a small unbalances motor helps with the residual discharge.

The Trough-Type Feeder then feeds the parts into annealing baskets provided by the client. In a future upgrade, this

process, which is currently performed manually, will also be automated using load cells. The loaded baskets are then pushed into the oven.

After the annealing process, the treated parts exit the oven on the other side at a temperature of up to 400 °C. The filled annealing basket is transported laterally into a hydraulic Tipping Device from the series MDD, which feeds the parts onto a heat resistant JOEST Magnetic Feeder. This feeder doses the parts into a stacking container. During the feed period, the container is tilted towards the feeder by a mechanism, recusing the drop height.

Reducing the drop heights of the parts was a major focus throughout the entire system's design. This was made possible by a hydraulic double flap, a PU liner

in the feeders, individually programmed SPS formulations for different parts and the “dipping” motion into the feeder. Furthermore, the JOEST Feeders are equipped with the latest JM-8 Magnetic Drive which stands out due to its low noise emissions and optimal dosing performance.

400
DEGREES

Clean transfer of toxic bulk material

GERMANY. Two Lifting and Tipping Devices of the MD series with specially designed load handling devices.

JOEST delivered two Lifting and Tipping Devices from the MD series with specially designed load handling attachments to a client in Germany.

The machines run on rail tracks so they can easily change between different feeding points. This customized solution that is tailored to the client's needs, meets highest standards in quality and reliability.

The client was searching for a solution to empty 200-liter steel barrels filled toxic bulk material of various grain sizes into a ball mill and a mixer. The main criterion was for the process to run as dust-free as possible. JOEST's solution was to equip two Lifting and Tipping Devices from the series MD-6 with specially developed load handling attachments. The new design prevents most of the toxic dust from escaping the system. The entire load handling attachment is in a dust-tight enclosure and features a stainless-steel funnel with a pneumatic cover flap.

In the upper position where the barrel is emptied, and in the lower position where the barrel is exchanged, the machine is automatically connected to a dust extraction system.

The barrel is fixed to the system and an inflatable seal seals the barrel around the mantel. At the funnel exit and the feed points, there are automatic shut-off flaps and seals to prevent the material from leaving the system. Further-

more, the drive has a frequency control to adjust the speed of the machine. A shaker helps with the residual discharge.

The low dust design of the load handling attachment provides operational safety in the workshop. Additionally, it prevents expensive loss of material. The angled head enables precise docking and a safe material transfer to following machines. Finally, multiple feed points are connected to the system via rail tracks.

Oil recovery up to 95 % with the Washing Centrifuge by GOESSLING

GERMANY. De-oiling, washing, cleaning and drying in a single machine.

In the fall of last year, the GOESSLING, a subsidiary of the JOEST group, delivered the Washing Centrifuge WZ550 to the client baier & michels GmbH & Co. KG. The company based near Frankfurt with over 400 employees is a specialist for the development and production of innovative joining parts and c-part management for the automotive industry.

The patented process of de-oiling and cleaning mass production components enables the inline cleaning machine to achieve an oil recovery of up to 95 %. Three identical drums are mounted to a rotating frame, in which the process steps de-oiling, washing, cleaning and drying are performed in sequence. It is therefor not necessary to empty the drums in-between steps. The lids, which vary from step to step are fixed.

The existing machine is charged by a Hinged Belt Conveyor with an integrated scale, which is also part of the Goessling product portfolio. The majority of the oil is separated in the first step by centrifuging the parts at up to 1.000 RPM. The oil is collected and then either stored in containers or directly fed into a new process.

For an optimal result, the mostly de-oiled material is washed with warm suds of up to 80 °C. This also acts as

Read now the article about the Washing Centrifuge!

a corrosion prevention. Before the material enters the last step, it is centrifuged once again to remove the washing suds.

In the last step, the material is rinsed to get rid of any remaining suds. It is then dried with hot air of up to 350 °C. The drum is completely emptied into a container. After each step, the frame mounting the drums is rotated by 120 °C to move the parts to their next processing station. This is done fully automatic, and the timing can be adjusted based on the amount material.

The centrifuged suds and water are separated and processed for reuse in the processing station that is located next to the machine. The station also servs as an unobstructed provider of water and suds as well as an oil separator. The oil contained in the water and suds is separated and stored in an additional container. Since most of the oil is already recovered during the first step, a carry-over of oil is prevented and a total recovery rate of up to 95 % can be achieved.

The Washing Centrifuge WZ550 has a maximum throughput of 1.000 kg per hour when filled evenly and depending on the parts' apparent weight. Small and Large parts with various geometries and weights of up to 230 g each

can be cleaned. The very clean result and the minimal carry-over of suds, water and oil enable the reusability of the oil and drastically reduce oil disposal fees when compared to other machines.

This way the Washing Centrifuge also helps meet the increasingly strict demands of the environmental certification ISO 14001. Another key feature is its compact form factor: the necessary surface area is only 10 m².

In its wide product spectrum, GOESSLING also offers mere de-oiling centrifuges that are used for oil recovery too, as well as numerous conveyors. This is complemented by the broad product portfolio of the JOEST group, which GOESSLING is a part of since 2019.


Walzöl
watch me

Disposing stamping scrap for the automotive industry

MEXICO. One of the largest automotive suppliers relies on GOESSLING-Quality.

Once again, GOESSLING delivers its well proven conveying technology to Mexico for a client that already has multiple conveyors in operation around the world. For the disposal and separation of stamping scrap from manufacturing car bodies, the client relies on the quality and good experience with GOESSLING again.

The objective here was to sort and dispose aluminum and steel scrap from a total of six steel presses. GOESSLING designed and manufactured eight Hinged Belt Conveyors with a combined length of 130 meters, a partition of 125 mm and an effective width of 1,025 mm. The sidewalls are specially designed for sheet metal scrap.

The precision sidewalls of the steel hinged belt and the machined steel bar on the belt frame create a hermetical seal around the circulating curbs and drive chains of the conveyor. Additionally, the material is kept within the effective conveying width and material jams are prevented. The Hinged Belt Conveyor is equipped with robust, low maintenance technology.

The conveyor started running in June, this year. During this project, GOESSLING was able to strengthen the good relationship to the client and is looking forward to exciting future projects.

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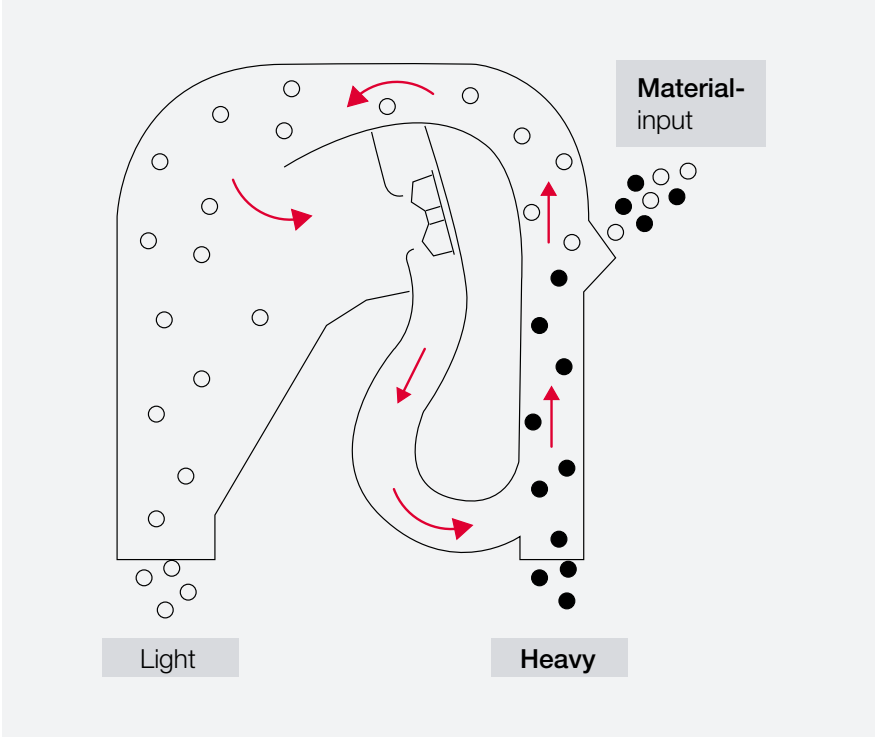
J-Flow Air Separator from JOEST

GERMANY. The new compact class for metal recycling.



What do you need to achieve higher precision and purity in metal recycling? With the innovation of the J-Flow by JOEST, the answer is simple: Not a lot. The new compact Air Separator proves that for simple applications, machine size and investment costs can be significantly reduced – increasing simplicity and efficiency in the process.

As a gravity separator, the J-Flow separates heavy parts from lightweight ones in an air stream. It is used for subsequent cleaning of metal fractions (ASR processing) to separate foils, fab-rics, lint, foam, Styrofoam and other light materials without losing to much metal. The operational grain sizes for the process are between 10 and 120 mm and long parts up to 300 mm.

Compact and inexpensive

One outstanding feature of this gravity separator is its small formfactor. The machine resembles a container that occupies a relatively small space. For comparison: A Zig-Zag Air Separator takes up 20 times the space of a J-Flow Air Separator at equal throughput rates. The J-Flow can therefore be easily integrated into existing plants. Installation and commissioning as well as opera-

watch me

tion control and cleaning are very simple. This lowers the costs from investment to operation.

"We set out to develop a compact Air Separator for simple applications, exemplary for a client of ours, one of the largest metal recycling companies in the US. To achieve this, we analyzed the entire process, as well as all critical parameters such as the air flow and pressure to develop intelligent new features.", says Klaus Straetmanns, department manager of sorting technology in the JOEST group.

Development tailored to the operator

The sales department, head of engineering and the technical design team of JOEST in Duelmen used detailed demand profiles of operators, analyses and market studies to create a precise image of the status quo. In close collaboration with the JOEST colleagues in the US, they identified potential for optimization. The fans, the wear of machine components and the relation of air volume to pressure, which largely influences the sorting speed, were part of the team's focus.

A focus on air flow – radial fans as a solution

A key feature of the new J-Flow: It uses parallel radial fans instead of a crossflow fan like the ones used in most previous gravity separators. The advantage: More power to separate lightweight parts with a lower air volume – at a consistent separation result even for fluctuating amounts and sizes of material. The air volume can be continuously adjusted with a frequency converter depending on the amount of material.

“We set out to develop a compact Air Separator for simple applications, exemplary for a client of ours, one of the largest metal recycling companies in the US.”

Klaus Straetmans, Technical Sales

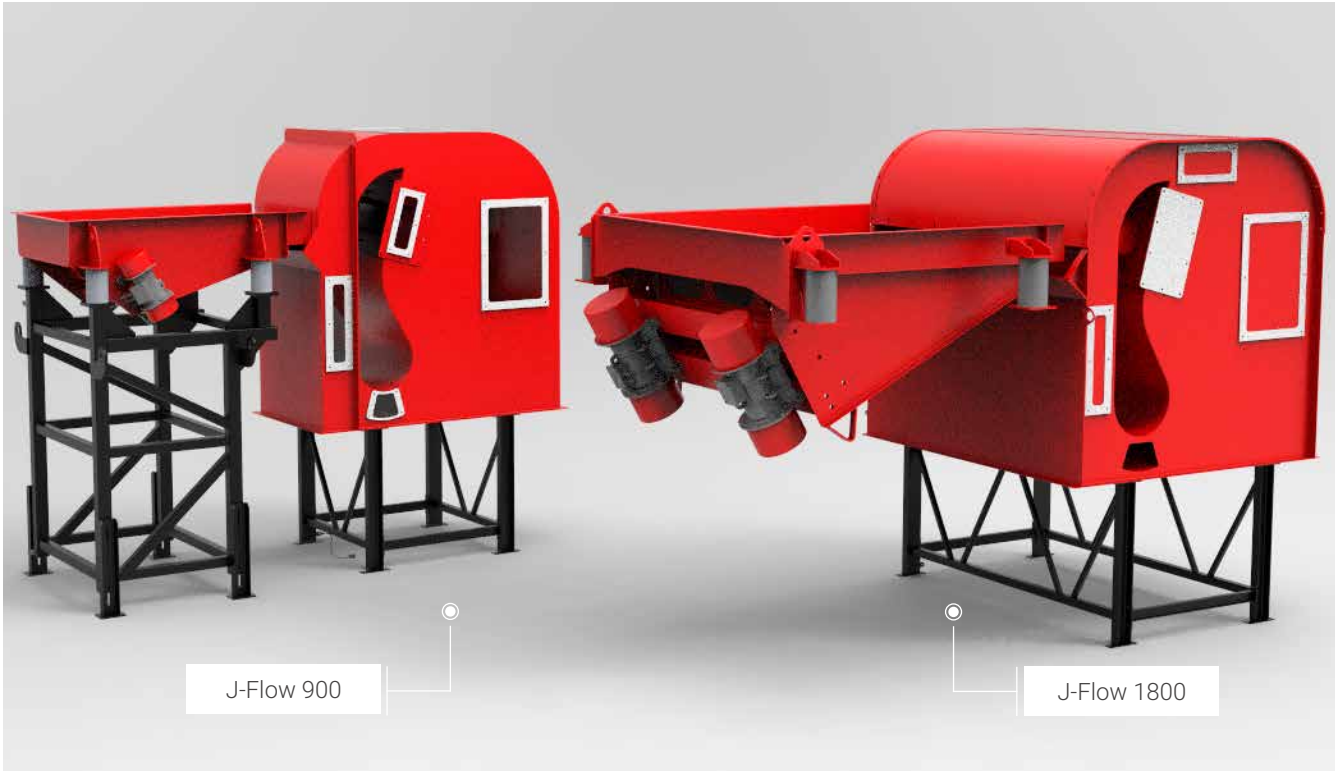
The new air separator offers precise performance!

Air flow simulations, readings and product tests in-house enabled further optimizations. For example, precisely aimed currents lead to less material accumulation, less wear and an improved precision, especially in the feed area. An adjustment of the air recirculation at the discharge end increases the availability of the machine. Furthermore, the J-Flow features many Airows that allow for better accessibility and insight into the process.

The new generation of Air Separators

The J-Flow is turnkey ready for operation. As a compact class, it will initially be available in effective widths of 900 mm with two fans and 1800 mm with four fans for different throughput rates. Additional sizes are planned for the future.

The new Air Separator offers pinpoint performance for simple applications in metal recycling. It achieves 70 % of a JOEST Zig-Zag Air Separator's precision at 50 % of its price – advantages that enable new applications for the J-Flow, such as alternative fuels.




AL scrap heavy

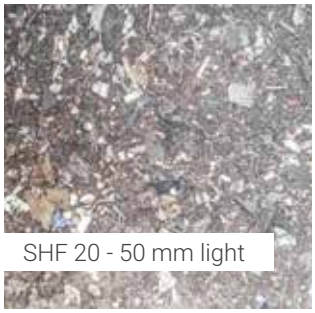

AL scrap light


8 - 20 mm light


8 - 20 mm heavy


ICW heavy


8 - 20 mm light


SHF 20 - 50 mm light


SHF 20 - 50 mm heavy

A global player from Westphalia

GERMANY. 50 years Dr. Ing. Gössling Maschinenfabrik GmbH.

When the production lines start running at one of the world's largest automobile suppliers in Mexico, a company from Schermbeck in Westphalia plays an important role: the Dr. Ing. Gössling Maschinenfabrik GmbH, a designated expert for conveying and processing technology.

The company with 70 employees is part of the JOEST group and works for clients of various industries around the globe automobile manufacturers and suppliers as well as the fastener, electronics, recycling and foundry industry. Their conveying systems charge, and discharge machines used in stamping, chipping, hot- and cold form-ing or heat treatment. The expertise is accordingly wide ranged: starting with design, planning, engineering and manufacturing, to installation, commissioning, service and repairs, the company supports its industry clients throughout the entire process. And it has been for half a century.

A specialist with 50 years of experience

In 1971, Dr. Ing. Manfred Goessling founded the company in Muelheim/Ruhr, starting off as an engineering office in the field of conveying technology for drop forges and foundries. Soon manufacturing and assemblies are added. In 1974, the company moves to Schermbeck. Here, there is room for expansion – and the company will need it. The conveying and processing specialist establishes more and more industries and client groups. Especially in the early days, the company is growing fast, and the client base expands beyond borders

– in 1990 Goessling USA, Inc. is founded in Tennessee.

Up to now, new workshops have been built nearly every 10 years, the last one in 2015. A steel manufacturing line is added in 2006. Now the base frames for the developed plants are also produced in-house. In 2008, Dr. Ing. Gössling takes another step towards offering complete system solutions: with the automation department of Aug. Winkhaus GmbH & Co. KG, they take over a specialist in this area. An expansion that opens additional client opportunities.

In the course of age-related succession considerations in 2019, JÖST GmbH + Co. KG in Duelmen takes over the Dr. Ing. Gössling Maschinenfabrik GmbH. A new painting booth was finalized at the end of 2020. Two independent spray-painting booths measuring 5 meters in width and height with a length of almost 9 meters offer new opportunities.

Milestones: from 1200 m long magnetic conveying systems to inline fastener washing machines

The biggest contract in Dr. Ing. Gössling's history was signed five years ago: the delivery of a magnetic conveying system for a completely new factory of an automobile supplier in Weil am Rhein. A project that exceeds all previous dimensions: several hundred seperate machines with a combined length of 1200 m and more than two years of installation with Dr. Gössling service employees on site.

In the course of age-related succession considerations in 2019, JÖST GmbH + Co. KG in Duelmen takes over GOESSLING.

A milestone from last year: the development of the Washing Centrifuge WZ550 for one of the big German suppliers of fasteners for the automobile industry. Following a patented process, it de-oils, washes, cleans and dries screws and small parts of various sizes - inline, in a single machine, at maximal throughput. The gentle handling of parts and especially the oil recovery of up to 95 %, as well as the ability to recycle the oil within the production line are groundbreaking, also in regard to green technology and product quality.

With these projects, Dr. Ing. Goessling proves what distinguishes the JOEST group as a whole: consistent client orientation and a distinct service concept. 24-hour availability, 7 days a week, for clients all around the world is only natural for the company from Schermbeck. "Quality, reliability, longevity and service – that is the promise the JOEST group makes to its clients. At GOESSLING this has been an active business culture for 50 years.", says Dr. Marcus Wirtz, Managing Partner of the JOEST group.

The future is international

Plants are becoming increasingly complex and specialized. Flexible complete system solutions that are individually designed are the future. To meet these demands, the JOEST group interlinks its know-how from various business areas even further. The result is not only the development a more intelligent material handling and optimized intralogistics, but also a unique product portfolio. Establishing it on the international market and increasing the export business through the infrastructure and presence of the worldwide JOEST group is the future strategy of the entire company – to the next 50 years.

Logo ab 2022:

GOESSLING®

Right on time for **the anniversary**, JOEST Australia gets a new home

AUSTRALIA. 20 Years of successful company history.

JOEST Australia was founded in January 2001, and since this time where JOEST operated from a leased office space in Kewdale, growth has seen that larger facilities were needed to build big machines for the mining industry sector.

It wasn't long until in 2002, with some success in the mining sector in WA & NSW, JOEST decided to lease a larger factory area to enable the new subsidiary to assemble and test machines in house. A 500 m² workshop in Moriarty Road, Welshpool was leased.

In 2006 JOEST moved to a new facility in Sheffield Road with approximately 1200 m² of factory space serviced by 2 x 10 tonne overhead cranes. Each relocation enabled JOEST Australia to take more orders and build a team to service the growing population of JOEST vibrating machines in the Australian market. In the following years with the increase in order volume, and size of the vibrating screens, it became clear JOEST Australia needed larger purpose-built facilities. Major projects with the tier one iron ore producers located in the Pilbara region of Western Australia fuelled the growth. High quality engineered products with a customer focused team brought more work to JOEST.

A side effect of the continuous success was an increasing lack of space to store parts and build machines. This led to inefficiencies and congested workspaces. Leasing additional space was a solution for the JOESTeam, however brought with it efficiency challenges

and a segregation of the workforce, duplication of tooling and more.

In order to solve these issues, Managing Director - Ian Laws engaged with architects Brooking Design Architects (BDA) in 2018. The goal was to define the key features needed in a bespoke facility to meet the current and future needs. Several potential land options were investigated, finally arriving at a new industrial estate "Row Highway Logistics Park", a mere 1.5 km from the Sheffield Road headquarters. The 10,800 m² property offers plenty of room for the new, future-proof facility.

Proposals and budget project costs were presented to Dr. Moormann, Managing Partner of the JOEST group, in early 2019. With support and approval, the design phase began. Major design focus was on workshop spaces that enable an efficient and logical workflow. LEAN manufacturing techniques were to be a feature of the final layout.

As a result, three assembly bays now span 4000 m² of production surface. Two 50 tonne cranes and four additional 10 tonne cranes provide ample lifting power. The workshop features a special clean room including a 5 tonne crane for drive assemblies. There is also a large 10 m x 12 m surface treatment spraying booth with extraction fans as well as a specially designed vibration isolated test bed for Factory Acceptance Testing of large vibrating machines. Once a JOEST machine has been assembled and tested successfully, the new drive thru loading space

20
YEARS


JOEST


JOST


JOST

First JOEST subsidiary looks back on a successful 20-year company history!

access and departure. In addition to the well-thought-out workshop, office space with modern open plan workspaces provide great opportunity for communication. Also, well-designed meeting zones allow for team collaboration.

First team members relocated to Coldwell from the satellite 'Bellows Road' workshop, with the Sheffield team joining some two weeks later along with the office team. Since November 2020, JOEST Australia's Perth based team members work 'reunited' at the new facility on Coldwell Road. The development is a step change to JOEST Australia's ability to service Australian customers and provide innovative solutions. It provides the ability for JOEST to grow it's footprint in the Australian market not only in machines for mining, but also in the growing recycling and processing sectors. The new facility also provides the JOESTeam members a modern, comfortable working environment, making JOEST a great place to work.

Today JOEST is considered amongst the world leaders in vibrating technologies, servicing the world's largest mining companies, major contractors, as well as the local private operators. This latest expansion displays once again how the JOEST group is always thinking ahead and is prepared to provide its clients with an optimal service. Now, and in the future.

■

New construction in the USA

USA. JOEST USA Completes Expansion of Product Lines and Production Capacity.

We had been looking for several years to expand our production capacity in the USA, but it's been hard to find existing buildings with the right height, length and crane capacity to meet our slightly unusual production space requirements"

Steve Rowland
General Manager, JOEST USA

JOEST USA just completed the merger of production capabilities with GOESSLING USA in the fall of 2021, which followed the commercial integration of the two companies in the spring of this year. What started in 2006 with a single, 500 square foot office in the Chicago Area, has now grown to become one of North America's largest designers and manufacturers of non-belt conveying, screening, air separating and tipping equipment.

In November 2021, JOEST completed an over 15,000 square foot expansion of the production facility in Piney Flats, TN. This expansion more than doubled the production floor space as well as increased the production height and crane capacity to build even larger screens and longer conveyors in the US.

The production floor is designed with a custom-built isolation pad that allows large conveyors and screens to be tested without transmitting destructive vibration to the frame of the building. While the intent was to build a space larger than the current needs, JOEST's continued growth in new and existing markets has quickly filled up almost all the new capacity.

"We had been looking for several years to expand our production capacity in the US, but it's been hard to find existing buildings with the right height, length and crane capacity to meet our slightly unusual production space requirements" commented Steve Rowland, General Manager of JOEST USA. "So we built the space to meet our exact needs."

The space also leverages the growing work force and access to transportation routes that have been part of Northeastern Tennessee's rapid growth over the last few years. With the expansion has come the need to increase the number of engineers and production personnel as well. It also significantly increased our warehouse capacity so that we can stock even more spare parts and drives close to where our customers need them.

To complete the seamless integration of the two companies, the EPR and communications systems will also be integrated by the end of the year. Then customers will have just one number to call and one place to go for all their material handling needs.

JOEST Shakeout
with electronically adjustable oscillation parameters

GERMANY. Cast-/Sand-Shakeout after green sand forming line.

For a client from the foundry industry based in Croatia, JOEST designed and manufactured a Shakeout. Its frequency and oscillation angle can be adjusted electronically, and this design includes a downstream feeder with dual-lane discharge.

The machines were delivered to Croatia during the second fiscal quarter of 2021. Commissioning is performed and overseen by JOEST and is planned for this summer.

The client 's demand was to provide a reliable Shakeout that could handle a large spectrum of parts whilst maintaining a small form factor due to space limitations on site. The machine should separate as much sand as possible without damaging the casts made of gray cast iron and spheroidal graphite iron. The client's molding plant type HWS EFA-SD 5 with molding boxes of 1000x920x650 mm produces a maximum of 80 molds per hour. Roughly 2000 different parts are produced, the heaviest weighing 300 kg. The temperature of the casts is around 500 °C when they reach the shakeout.

The individually designed Shakeout measuring 1500 x 5400 mm is fitted with manganese steel trapezoid grates with zero overlap and four discrete drive cells. It also features sump-lubricated bearings and a triple seal. All side walls are completely free of welding seams, the beams are riveted or bolted. The oscillation angle of the JOEST Shakeout lies between 50-85° with an oscillation frequency of 16-25 Hz. The de-

manded oscillation parameters are binarily transferred from the shift register of the molding plant, located at the discharger, to the S7 control unit of the Shakeout.

The JOEST Shakeout is followed by a feeder with dual-lane discharge. The feeder prevents damages to the casts due to its design with a low acceleration and gentle conveying movements. It also features minimized noise emissions, an ergonomic cast handling as well as special low frequency drives. The design is environmentally friendly and ergonomic for the employees.

The advantages are a bolted/riveted design with weld-free side walls as well as the special grate geometry that prevents blockage and enables a high sand discharge capacity. The reliable drives with multiple seals and thought-out heat management in addition to the adjustable oscillation parameters according to the molds were another reason for choosing JOEST. The controls and drives with Siemens standard parts, standard motors and without incremental or absolute encoders that are prone to failures, were able to convince.

Plant for drying cereal and high-protein resources

NETHERLANDS. JOEST delivers drying system to Extruded Cereal Products B.V in Helmond.

After several vigorous meetings with the client from the Netherlands, JOEST was given the order to manufacture a large drying system. Extruded Cereal Products B.V. is a large producer of extruded cereal and protein products for the food- and animal feed industries.

The client was looking for a plant to dry wheat-based extrudates which vary in size and shape, composition, moisture and temperature. The existing factory offered very little room for the plant.

As a solution, JOEST delivered an extremely compact plant that was based on previous deliveries and optimizations in 2004 and 2014. The system covers four levels of the factory and uses a sophisticated pipeline layout to make the most of the available space.

Its main components are a JOEST Fluidized Bed Dryer, a downstream screen, the required processing technology, ventilation equipment and the electronic control featuring a process visualization. The ventilation equipment includes fans, a steam air heater, cyclones, pipelines and an exhaust air heat exchanger.

The Fluidized Bed Dryer is more than six meters long and features two drying and one cooling zone. The machine has an electronic oscillation-angle control which enables material retention times to be adjusted during full operation. This way the dryer can be set to optimally match each product. The settings can be saved in the recipe database of the individual product.

The air ventilation system incorporates a partial exhaust air recirculation. The preheated air from the cooling zone and the drying zone are reused for the drying process after being tempered. Additionally, the required fresh air is pre-heated by the warm exhaust air in

Part of CRESPEL & DEITERS GROUP

a heat exchanger. This design results in an energy efficient operation whilst maintaining as much flexibility as possible for different product types. A screen following the dryer separates the material stream into three grain sizes. Furthermore, the entire equipment is noise and heat isolated.

Installation was performed by JOEST in October this year and the cold and warm start-up is scheduled for the end of 2021. Having started in 2004 with the old plant, the partnership and cooperation was expanded throughout this project. Everything worked out to the full satisfaction of the client.


JOST

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This way the dryer can be set to optimally match each product. The settings can be saved in the recipe database of the individual product.

Alloy Plant
for pan dosing

GERMANY. Aggregate dosing with utmost precision.

In June this year, JOEST delivered a customized solution for casted pan dosing to a German client. This specially designed alloy plant features a remarkable dosing precision for aggregates.

The client's demand was to achieve the best precision possible when dosing the two components manganese-iron and silicon-iron. The two hoppers are loaded with the aggregates by the client. Dosing feeders then feed the two container wagons.

The wagons are pre-dosed to roughly 20 kg to speed up the actual dosing process. The downstream feeder, which can pivot by 90°, then feeds the material directly into the pouring stream. Depending on the aggregate, the system is designed to dose between 5 and 10 kg and each scale reaches a precision of up to 50 grams.


10
JOST
watch me

Large plant for cooling and screening of EPDM-granulates

GERMANY. Third order in a row for JOEST.

"Our Cable Compounds and Customer Solutions are processed worldwide in a wide variety of cable applications, for example in houses, cars, trains, aircraft and household appliances. Consistency in product properties is the key factor here. Product properties is crucial. Cooling our compounds after extrusion is a fundamental process step to ensure this quality. Process step to ensure this quality. We have placed our trust in JOEST for this in the third generation. The project work and handling was excellent."

Markus Dieckmann,
Project Engineer, Melos GmbH

Last year, JOEST got the order for the third cooling line of the Melos GmbH in Osnabrueck, a manufacturer of EPDM-granulates and cable compounds. The first order of this sequel was placed back in 2016.

Melos is a leading manufacturer of plastics for sport- and playground surfaces. They use their know-how to develop custom solutions for various plastic applications including the cable industry and many more. The core of the plant is a JOEST Fluidized Bed Dryer, a processing and exhaust air system including pipelines, and a JOEST Feeder. For the demanded cooling of EPDM- and EVA-granulates as well as PE-compounds, JOEST designed and manufactured a Fluidized Bed Dryer that is tailored to the application. The feeder has an airflow surface of 6,3 m^2 and is based on a vibrating feeder with a conical air distribution chamber.

The system also includes a machine-mounted hood and a support frame with a single sided walkway. The requi-

red processing air system incorporates a suction-filter/silencer combination and a processing air fan. An automatic cleaning control is integrated into the air filter of the exhaust system.

Due to spacial constraints on site, the process- and exhaust air system was placed away from the Fluidized Bed Dryer and connected by pipelines. The pipeline layout that even runs through existing production plants was designed by JOEST using a 3D-Scan. The Vibrating Fluidized Bed Dryer is followed by a JOEST Screen which screens the granulates. The upper deck separates agglomerates at roughly 10 mm, depending on the product. The screen deck is designed as a screening trough which is easy to swap. In the lower deck, fine particles are screened at roughly 2 mm. The screening deck here is designed as a suspended perforated plate.

The machine's hood is made up of multiple segments, some of which are plexiglass. One segment can be opened to take samples of the material.

As with the first two projects, we worked in close cooperation with the client and both sides were fully satisfied with the course and outcome of the project. JOEST is looking forward to new and exciting projects in the field of thermal processing technology.

melos

Customer of the Year

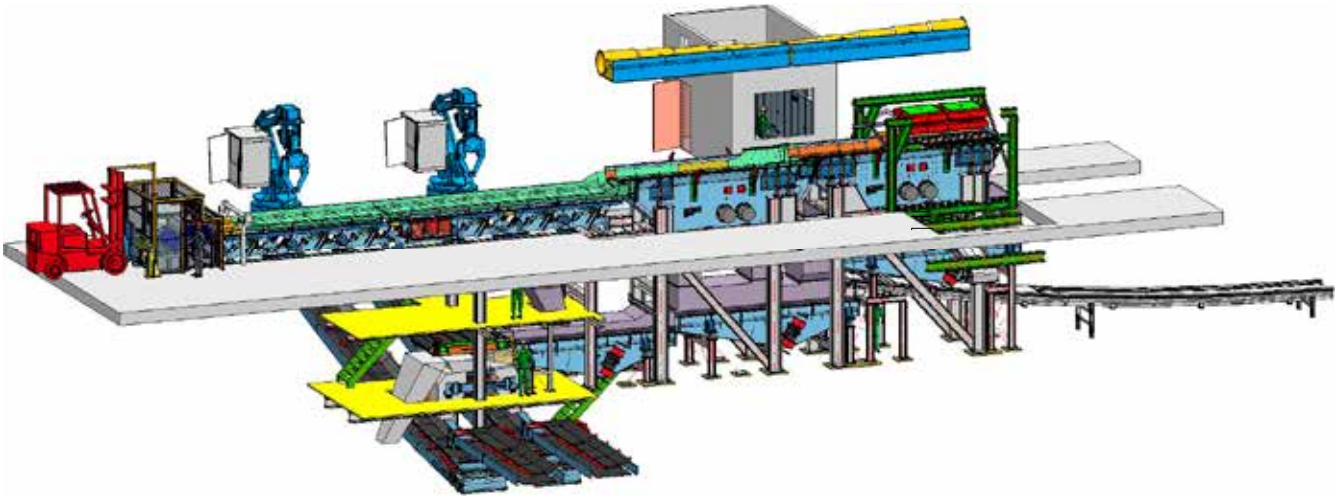
TURKEY. The Company ATIK has been working with JOEST machines successfully for years.

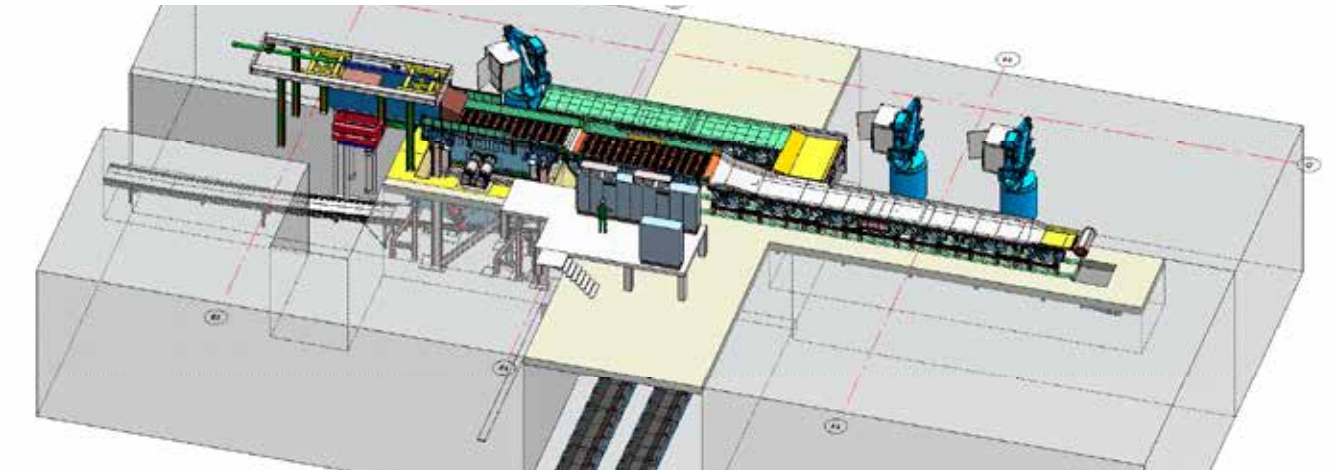
Atik Metal, one of the largest and most modern foundries in Turkey, producing mainly for export, makes a new investment. The Project includes two new HWS molding plants, the according Eirich sand processing with vacuum mixers and two custom shakeouts followed by manipulator supported cast processing technology.

The implemented shakeouts are 2x2 shakeouts with electronically adjustable oscillation parameters. Sensitive casting parts that are not suited for shakeouts can be transferred to a parallel soft-handling line using the manipulators. This prevents Surface damages. On the following separating and sorting feeder, manipulators separate circulating material from the casts, which are then transferred to a hanging sand blasting plant.

All shakeouts are designed with a decline angle and weld-free side walls. Each casting conveyor is manipulator proof with solid, bolted spring beams. Additionally, JOEST is supplying six laterally displaceable charging vehicles with 12 tons of capacity each. They will feed the new induction furnaces.

JOEST is thankful for the many years of good cooperation and thanks Mr. Atik for the trust he places in JOEST. As a special thanks and sign of appreciation, Mr. Atik was awarded the title “Customer of the Year” in December.





Final project of mechanical technicians

GERMANY. Developing, designing and manufacturing a semi-automated assembly device for the manufacturing of belts.

„We want to say thank you for being given the chance to complete our project here. During a time like this, that is not a matter of course.“

As part of their further training, a group of mechanical technicians from the Pictorius Berufskolleg in Coesfeld successfully completed their final project at JOEST.

„We want to say thank you for being given the chance to complete our project here. During a time like this, that is not a matter of course. “ The project team including our employee Julian Muddemann designed a semi-automated assembly device for the manufacturing of hinged belts.

The mechanical technicians were responsible for the concept and design as well as the manufacturing of the system. The partial automation is based on a polygon conveyor by GOESSLING, which is part of the JOEST group.

The semi-automation stands out due to its simple operation: The machine is operated from a single position at the control panel. The system now performs all of the steps that used to be done by hand. This increases the productivity of the manufacturing process by up to 350 %.

JOEST congratulates the participants of this remarkably successful project in the name of the entire #JOESTeam and says thank you for the personal effort and performance.

Welcome to the #JOESTeam

GERMANY. JOEST group welcomes new apprentices.

On August 2nd, 2021 JOEST welcomed the new training year. After a short welcome by the owner, a guided tour of the factory premises and an introduction to the operational processes as well as a safety briefing, the first working day started in the specific departments.

Over the next few months, the soon-to-be industrial clerks, technical product designers and design mechanics will pass through the various divisions of the JOEST group. These insights into the various company divisions provide the trainees with the best possible training as competent and committed employees are the basis for success. That is the motto at the JOEST group.

JOEST wishes all trainees a successful start to their professional lives!

My career at JOEST

GERMANY. Six years of JOEST - from trainee to junior sales manager.

I am Hannah Brüggenbrock, I am 26 years old and have been working at JOEST since 2015. My career started with a traineeship as an Industrial Clerk.

During that time, I was able to gain a good insight into all areas of an industrial company.

The focus was on the commercial areas of course, but an insight into the industrial areas was also included. JOEST sets value on its trainees getting a good overview and understanding the portfolio in order to better identify themselves with the company.

I prepared my final report in purchasing, where I was offered a permanent employment in early 2018 after completing the 2,5-year traineeship. Having gained some first experience, I changed to technical sales in mid 2019. Since then, I have been working on Key Account Management in Recycling and Resources. I enjoy assisting our key clients because of the close cooperation as partners and the potential of optimizing client processes.

Within a short period of time, I was able to learn a lot of technical know-how, make use of the skills I learned during my traineeship and improve them as well. This was thanks mostly to the experience I was given in the field and the assistance of the colleagues within the department. I am looking forward to visiting the clients on site, once that is possible again, in order to maintain and build the business relations and contacts.

2 Relays – 1 Marathon – 1 Team

GERMANY. #JOESTeam participates in the 19th Volksbank-Muenster-Marathon.

On Sunday September 12th 2021 the Volksbank-Muenster-Marathon took place for the 19th time. 7.500 runners participated with 5.000 of which were running as a relay. Due to the pandemic the Marathon was cancelled last year which made this year a very special event.

JOEST was represented at the marathon by a total of nine runners, so two relay teams and one full marathon runner. The colleagues work in several different departments. Design engineers, sales workers, apprentices, commercial workers and managing partner were part of the #JOESTeam.

Your best time was the motto of this year's marathon and every JOEST-runner crossed the finish line good-humored. The complete marathon was finished by our colleague in 03:26:01. The first relay finished after 03:44:41 and the second relay crossed the finish line after 03:49:01.

For many people running is an individual sport but it´s even more fun in a team. The two relays show how important team spirit is and how motivated our colleagues represented the #JOESTeam in Muenster.

My internship at JOEST

GERMANY. Two weeks in the marketing department.

Hello!

My name is Nike Sauerwald, I am 14 years old and am currently in 9th grade at the Marien-Realschule in Duelmen. From 03.15 to 03.26.2021, I performed an internship at JOEST.

The internship in Marketing was exciting and I had a lot of fun learning new things. I also visited the areas sales and accounting, in which I was able to discover lots about the job as an Industrial Clerk. It was a great alternation from my school routine.

I got the idea of completing my two-week internship at JOEST, because I had never been in an office during my prior internship days. The Internship was very good for gaining new experience and preparing for my professional life. Sitting a lot was tiring at first – but I got used to that pretty quickly.

The tasks I was given were well-manageable and never boring, since they varied a lot and were challenging enough. My tasks included e.g., helping to design a new website and creating a flyer for the recruitment of new trainees. My time at JOEST was very nice and helped me get closer to my goal: Finding the right job.

O’zapft is:
First #JOESTeam day

GERMANY. JOEST celebrates small „Octoberfest“.

On the occasion of the first #JOESTeam day, the two managing directors Dr. Hans Moormann and Dr. Marcus Wirtz personally said THANK YOU with pretzels, veal sausage, Leberkase and non alcoholic wheat beer for the commitment, dedication and team spirit of the employees and their understanding during these challenging times.

Modern, customer-oriented and user-friendly. The new website of GOESSLING!

GERMANY. With a fresh and completely new design, a revised content and a new structure, you can find out everything about us and our solutions in conveying and processing technology.

Website:

We are very pleased to present you our new website. After the relaunch, our website presents itself in a modern and new look. In addition to the changes in the design, we have also worked on fresh new content.

Whether you are a customer, partner or interested person, you will find an improved overview of our core competencies and solutions with which we can support our partners.

We hope you enjoy exploring the site and look forward to receiving your feedback.

www.dr-goessling.com

Mona Neubaur visits JOEST

GERMANY. The representative of the Buendnis 90/Die Gruenen for the state of NRW, Mona Neubaur together with other representatives of the party visited the JOEST group in Duelmen.

After several conversations with managing partners Dr. Hans Moormann and Dr. Marcus Wirtz Mona Neubaur was surprised how international this family business is.

"I wish there was more interest by the governing politicians regarding the challenges in the industry" she said after visiting several industry businesses in NRW. One cannot just demand sustainability and reduction of CO2 usage, one has to engage with the involved parties. This is the only way to achieve acceptance, Neubaur said.

With great interest Neubaur learned about the numerous applications of the vibrating machines the world market leader produces in Duelmen and other locations around the world. Those include the recycling of scrap, paper and glass as well as the mining of Lithium in Australia for electro mobility.

The managing partners assured that for future projects a special focus on sustainability and reduction of CO2 usage will be set even more so than already today.


WE WISH YOU A
Merry Christmas
&
A HAPPY NEW YEAR

Publisher

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