

Ladies, Gentlemen, Valued Customers, Contractors and Dear Friends and Colleagues,

We are more than pleased to greet you as reader of this newly published JÖST-News and are happy to inform you about the new developments within our group. Within the last few months we were able to complete various steps to ensure a continuous growth and strengthen our market position:

■ We took over the activities of DIETERLE Automation a leading supplier of lift-tippers in January 2006. Facing a difficult market and proceeding international influence the medium sized company founded in 1946 will remain an independent company as part off the JÖST group. The manufacturing will however be moved from Ascheberg to Dülmen and will be integrated into our facilities.

Due to the close cooperation between DIETERLE and the other sister companies of the JÖST group we will be able to concentrate on any sales activities. Synergy effects are also expected for purchasing, manufacturing and administration. DIETERLE will be integrated into our worldwide operating sales and support network and at the same time remain an innovative and reliable partner for all customers. DIETERLE offers a wide range of material handling equipment, such as lift tipper, hydraulic tip-

ping machines and automation systems that complement the range of exciting JÖST products perfectly and add up to benefit our customers.

Bernd Peitz, an Engineer Graduate and proven expert for this type of technology, runs the company as a managing partner. Within the board of directors we will support his activities.

■ Also at the beginning of the year we took over the sorting technology from BÜCKMANN, Mönchengladbach, and transferred these activities to the JÖST Engineering GmbH. The range of this new JÖST product line is mainly based on air separators, some of these technologies are protected by patents. We are convinced that this technology is a perfect supplement to our screening machines and systems especially for all kind of environmental technology. Dipl.-Ing. Klaus Straetmans will continue to be a competent partner for our customers for all questions concerning the sorting technology as manager processing equipment. Various machines being equipped for industry standards are ready for testing in our modern product testing facilities.

■ Additionally we are now represented on the French market with our own company: JOEST Manutention par vibration. Our new French headquarter is situated in the Charente which is in the southwest of France. The new premises are equipped with every possibility to manufacture on the spot. An experienced team under the guidance of Claude Indaud our new managing partner in France is now able to monitor this important European Market and react directly.

■ We were delighted by the appraisal our company received from your side as a reaction to our customer-satisfaction analysis. We would like to thank again all participants and hope that our next analysis will see even more participants. We are now working on your points of criticism and hope you will soon be able to see the improvement. We, as managing partners, would like to thank you for supporting us along this successful path and through this time of transition and hope you will find our new news interesting.

Sincerely yours
Dr. Hans Moormann, Christian Fuchs

Trough-type Feeders for Salterns

JOST delivered eight heavy electromagnetic equipped bin dischargers to a salt mine in Bernburg, Sachsen Anhalt. The goal was to discharge 8 x 600 tons of rock salt from field bins. The vibratory feeders had to be continuously adjustable between 20 and 100 percent. A belt conveyor mounted by the customer transports the raw material to the beginning of the production. The package delivered by JÖST consisted of eight pre-finished systems. The systems enclosed bin discharger chutes, slide valves and trough type feeders Typ FEL 1600/-200 x 3000, hanger equipment and a switchboard cabinet with a complete control and regulation system for all eight systems. Due to the oversize of the fee-



ding body FEL-feeders were chosen. Because of their ruggedly, dependable design they are capable of working under difficult circumstances.

Additionally the machines are monitored via an electronic-vibrating-sensor (JSEN1) by the control unit JT. Spring guided trough-type feeders Typ FEL

were especially designed by JÖST to be used whenever free running, electromagnetic feeders can not be used for whatever technical reason.



Machines that no-one had even thought of

2005 two large Double Deck Screens were delivered to a new Coal Mining project in Shaanxi, China, to handle raw coal.

Recently JOEST Australia made its first export to China of two (2) large double deck vibrating screens to handle raw coal for a new coal mining project in Shaanxi Province, China.

The Chinese design Institute selected JOEST screens based on the need for very wide machines to suit the application, and the confidence in JOEST's advanced technology and reliability in designing machines of this size.

Whilst JOEST vibrating equipment has been manufactured in Australia under a licensed agreement for 17 years, JOEST Australia commenced their own operations in Australia in 2001 with the head office based in Welshpool, Western Australia. This has been ideal to service the fast growing mining industry in this

region, and November 2005 saw JOEST relocate to larger premises. The new factory facilities will enable JOEST to service the mining industry more effectively.

The screens now exported to China are 4.27 m wide by 7.32 m long (14'-0" x 24'-0") and are the largest built to date by JOEST weighing 32.2 tonnes excluding the isolation frame. Ian Laws, JOEST Australia's Managing Director, believes these are amongst the largest vibrating screens built anywhere in the world to date. The use of an isolation frame improves the isolation efficiency of the support system, thereby reducing the dynamic loads transmitted into the supporting superstructure.

Each vibrating screen will handle 1000 MTPH (dry) of Raw Coal < 400

mm in size and having a bulk density of 0.9 tonne per cubic meter and a moisture content of up to 10%. Selection of the screen media to handle this moist material was critical to the operation, and special 'flexible' polyurethane screen panels have been provided for the lower deck.

The multi-slope (Banana) deck surfaces are arranged with the first deck stage at 25° decline, and the second deck stage at 15° decline providing high material velocity at the first stage to achieve 'thin bed' screening. The selection of deck angles, stroke and frequency is based on imparting optimum vertical acceleration to the material to provide high capacity and efficient screening.

The construction of screens of this

size has only been possible due to the advancement in sophisticated design tools like Finite Element Analysis (FEA) technologies now available to the engineers. The use of the latest 'Finite Element Analysis' (FEA) methods has enabled JOEST engineers in Germany to step forward confidently to design very large vibrating screens, by being able to accurately model the stress levels in critical components of the vibrating screen. This better understanding of the stress levels and natural frequencies of the machine enable JOEST engineers to stretch the boundaries where the design of machines this large was not previously possible.

The screens were manufactured in Perth, Western Australia and fully assembled for factory acceptance testing in accordance with JOEST's standard protocols. Being the first built of this size, the lead engineer in the design team (Thomas Hypki) visited Australia to witness the factory testing and collect vibration recordings for analysis and correlation to the FEA model in the head office engineering department.

Shipping vibrating screens of this size presents many challenges as the oversize transport dimensions were 5.29 m wide x 8.95 m long x 4.1 m high. Special transport beams were designed and supplied to support the machines during road transport and whilst on the ship. The vibrating screens were 'shrink wrapped' to protect them from the elements whilst in transit.

Follow up orders for vibrating machines have been received, and JOEST hopes to further the development market share in China through established supply lines.

Presentation on China Coal - contacts in Asia

The last China Coal & Mining Expo in October 2005, Asia's leading trade fair for the mining sector gave all exhibitors a good opportunity to establish new contacts. JOEST took the opportunity to extend its good contacts on the Asian market. We were happy to present to our customers and other interested visitors our sophisticated solutions and special machines. Especially the big screens, the flip-flow screen TRAMPOLIN, GRECCO screens and the pre-separator with a high range of performance met the visitors interest. At the same time our solutions for drying coal and coal slush and for bed ash cooling in fluidised bed combustion plants were another highlight. Some of the interesting discussions and meetings will surely lead to further contact and seem to be a promising start into this growing market.



Export Manager Andreas Kleimann on the stand with a chinese customer.



How did the spiral cooler get into the foundry?

A foundry specialized in the production of brake discs decided a while ago to set up a new form line on their premises. Due to the lack of space they decided to install two parallel spiral elevators to cool the brake discs. JÖST won the order for both spiral elevators.

JÖST has a lot of experience with spiral elevators, nevertheless the design, manufacturing, shipment and assembly was a big challenge. To minimize any risk the spiral elevators were designed using the FEA-Analysis. A flow simulation helped to design the air

engineering. A wide range of innovations is hidden in these new spiral elevators. Now a utility model of the flow track exists. At the same time the pneumatic connected outlet and many other details should find the deserved attention. The air engineering was completely hidden on the inside of the cooler.

The designers were also forced to consider that the spiral elevators were too big to be transported on the street. Therefore the spiral elevators were divided vertically. Even these halves of the elevators were too big for the gates of the

workshop. They had to be taken out through an opening in the roof by a truck-mounted crane. Designed with 3D-CAD, calculated with FEA, laser welded plates made to fit and many highly motivated colleagues - that's all we needed to construct these master pieces.

Whoever visits the foundry today and sees the enormous spiral elevators asks how they got there. The JÖST-assembly team knows how.

60 meters to convey product of a top brand

JÖST managed a considerable order for a worldwide known top brand name from the food industry. In November 2005 we could start a mass-compensated resonance conveyor Typ FSM for this company that prefers to remain anonymous. The total length of this conveyor was almost 60 meters.

JÖST was able to cope with the task set by the customer: to convey grains over such a long distance with only one vibrating conveyor. Over the whole length you will not find a decline, a step or a changeover. The very gentle treatment of the product is guaranteed.

The forces on the foundation are kept low by special vibration absorbers and enabled the conveyor to hang down from the ceiling where it was fastened. The modular design eased the assembly.

The space below the conveyor is now free to separate the product stream. The stream is regulated by a pneumatically activated flap-system integrated into the trough. From there, the product is transported towards the packaging facilities with an integrated load system.



JÖST supports mining academy Freiberg

JÖST is one of fourteen mid-sized manufacturers in the German bulk-handling industry who founded in Freiberg a circle of friends and sponsors for the institute of bulk-handling machines at the TU Bergakademie Freiberg. Prof. Dr. Georg Unland presides this circle. Most of the members of this new circle of sponsors are members of the VDMA (Association of Germany's Manufacturers of machines and systems). One Charter member during the festivities claimed "They organised this circle in order to support the institute during difficult times. Public funds get tighter and the university background is changing constantly."

At the same time companies put more emphasis on a close denticulation between theoretical background and on-the-job training. New employees could be trained at the institute in order to get a better insight into the bulk-handling industry.



JÖST employees discussing with visitors on the JÖST-stand

Presenting the complete product range on the POWTECH

The JÖST group presented a profile of our wide product range including vibrating machines, systems for bulk handling, single aggregates, systems for the thermal treatment of bulk, weighing technology and the proven vibra-

ting drives on the POWTECH 2005 in Nuremberg.

On the stand we presented a high temperature fluidised bed dryer, a spiral elevator and a small screen. JVM Antriebe GmbH + Co. KG presented the range of vibrating

drives like magnetic -, unbalanced-, and dosing drives.

With a dosing belt scale we presented the weighing technology manufactured by JÖST and supplementing our product range.



JÖST Australia moved to new premises

Our Australian subsidiary moved to new premises. The new buildings are also situated in Welshpool. They are however more up-to-date and - most important - provide more space

for the workshop. The additional space became necessary due to the positive business development in Australia. The new address is: JOEST Australia Pty. Ltd.

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