POWDER & BULK SOLIDS INDIA 2016
EXHIBITION & CONFERENCE
October 13–15, 2016
Bombay Convention & Exhibition Centre, Mumbai, India

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MANUFACTURING WILL SEE SENSATIONAL PRODUCTIVITY GROWTH

This year's 6th edition of Powder & Bulk Solids India, from 13th - 15th October 2016 will be a gathering of academia and industry held at the BCEC.Its a unique platform of exhibition and knowledge transfer for powder and bulk solids material handling and processing.State-of-the art technology will be on display, so give your business the advantage of cutting edge technology by participating in the high quality conferences and specialised technical workshops.

The year is 2016 and the Indian manufacturing industry is on a growth trajectory. In order to sustain this tremendous growth, supply has to keep pace with demand. India has seen strong growth in the sectors of Food processing, Chemicals, Pharmaceuticals, Minerals and Power production. Indian manufacture caters not just to the domestic, but to international markets as well. An active government, effective policies and now the GST bill approved in Parliament has created an upbeat vibe in the industry. Manufacturing will see sensational growth in the near future.

The need of the hour here is expertise in modern processing technology in order to boost efficiency in manufacturing. Professionals in this sector would provide the know-how and guidance to manufacturers in order to solve many of the current problems. The Powder and Bulk Solids India Exhibition, Mumbai is just such a platform. From the 13th to the15th October 2016, industry experts and academicians from around the globe will come together to address and discuss innovations and best practises to improve manufacturing technology.

Conferences related to powder, bulk, solids processing and handling, alongside technical workshops to address local challenges will be conducted by experts and specialists in the field. A snapshot of the knowledge forum in the action packed three days:

- ***The workshop by Dr Agarwal, IIT Delhi on pneumatic conveying will review systems and components and achievable modes of flow. He will cover topics such as troubleshooting to maintain systems operating at maximum rate.***

See more on #2

From #2

- ***Professor Mark Jones, Director, TUNRA Bulk Solids, The University of Newcastle, Australia** will conduct a workshop on Hopper / Silo design. He will address issues related to Mass and Funnel Flow Overview, Flow Property Determination, Mass Flow Design, Funnel Flow Design. The workshop will provide insights into the myriad flow problems that arise when powders and bulk solids are put into silos, bins and hoppers.*
- *The Frankfurt based Association of Inter-continental Experts for Industrial Explosion Protection, INDEX will present a workshop on industrial explosion protection along with challenges and new findings from research. Industry stalwarts such as **Stefan Penno, President of INDEX** with his team of experts will conduct the workshop. They will also touch on latest updates and legislation in the EU which are setting standards all over the world.*
- ***Yutaka Tsuji, Professor Emeritus of Osaka University** will highlight how application of DEM has drastically increased by combining DEM with CFD.*
- ***Prof Craig Wheeler, TUNRA Bulk Solids Research Associates, The University of Newcastle, Australia** will present a workshop on Guidelines for Energy Efficient Belt Conveyor Design with a specific focus on energy efficiency and reducing the energy intensity of long overland belt conveyors.*
- ***Ulrich Hempen, WAGO** will present on Automation processes in the Powder and Bulk industry*

These and many more cutting edge insights into the modern world of Powder, Bulk, Solids will be on display at this year's PBSI, Mumbai, 13th to 15th October.

Overland coal conveyors

We hope you will participate in this intensive learning experience and look forward to seeing you at **Powder and Bulk Solids India 2016!**

EXPERST IN POWDER PROCESSING AND HANDLING

Food Processing Technologies is representing various internationals brands in powder processing and handing, as they are showcasing their technologies at PBSI 2016 in a discussion Sirjan Singh Kochhar talks about their offerings

Food Processing Technologies, provide simplified solutions to our customers various business needs, with strong Project Engineering Knowledge, Prompt After Sales Service and access to the latest Global Technology from across the world.

Mr. Sirjan Singh Kochhar
Business Manager
Food Processing Technologies

Addressing various technologies in poweder and bulk handling , they represent various international brands in India.Core to the Powder Handling Domain we partner with the best Lindor + Winkworth is well known in offering mixing of powders, slurries, dough's in the most optimum way for the food, chemical & pharmaceutical domain

We offer conveying conveying technologies, vibratory conveying, aero-mechanical conveying, bucket elevators, pneumatic vacuum conveying for food, chemical, manufacturing & logistics industry. Technologies are offered from companies like floveyor, Key Technology, Wiese and Volkmann

Floveyor feeding to Silo

Polem offers Storage Silos, Tanks & Customised Solutions in Glass Reinforced Polyester (GRP) are durable, lightweight, economical, anti-corrosive amongst other special properties for the food, chemical, construction, pulp & paper & waste industries

Kreyenborg has developed a system based on the use of infrared light. For the first time, food in bulk & powdered form can be treated by means of infrared light in such a way that the microbiological load is drastically reduced and even contaminants are partially dissolved and evaporated.

"Floveyor aero-mechanical Hygienic and Industrial conveyors and Tanker Loaders offer ultra-efficient bulk handling solutions for granules and powders" ends kocchar.

> *Glatt at Booth A4 / Hall 5 @PBSI 2016, prospective clients can approach the specialists of Glatt India with questions that cover the entire bandwidth.*
>
> **Volker Budzinski, Sales Manager Process Technology Food, Feed & Fine Chemicals**

PIONEER IN FLUIDIZED BED

Glatt Ingenieurtechnik of Germany will showcase its newest products at the PBSI 2016. Spokesperson Volker Budzinski, Sales Manager Process Technology Food, Feed & Fine Chemicals, has given a detailed insight into its product line.

Could you give us some insight into the latest solutions exhibited by Glatt Ingenieurtechnik at this year's PBSI?

At PBSI 2016, Glatt Ingenieurtechnik will highlight state-of-the-art fluidized bed and spouted-bed technologies for customized food ingredients, feed additives and also fine chemicals applications. Augmented Reality presentations will give an insight into the process chambers where liquids can be spray granulated, powders can be agglomerated and sensitive substances can be encapsulated or coated. Alongside vivid animations, various product samples will be made available.

At booth A4 / Hall 5, prospective clients can approach the specialists of Glatt India with questions that cover the entire bandwidth - from feasibility studies to scaling-up processes as well as tailor-made production plants. Furthermore we offer our customers contract manufacturing.

How would you describe your company in brief along with your offerings to industry?

Glatt is known as a pioneer in fluidized bed. Fluidized bed processes offer manufacturers almost unlimited possibilities in terms of optimized particle design and the functionalization of ingredients. We are primarily a solution provider and offer a wide range of services from a single source which includes comprehensive engineering services as well as entire turnkey solutions. Our clients approach us with many different questions and requirements. Together with them we optimize processes for various applications and develop the most appropriate technological strategy for food, feed and fine chemicals processing as well as for the biotechnology and pharmaceutical sector. We accompany our clients from initial start-up to conclusion – whether it is a new application or a complete turnkey project.

Numerous projects around the world speak for our expertise, particularly for design in hygienic requirements and total containment solutions. Our long-term experience and holistic approach ensure safety standards on the one hand and commercially beneficial implementation on the other. Subsidiary in New Delhi was inaugurated as far back as 2008 and two more affiliated branch offices are located in Pune and Mumbai.

In recent years Glatt Ingenieurtechnik and Glatt India jointly realized several projects on the Indian subcontinent and also in Uzbekistan, Russia and Saudi Arabia. Glatt was entrusted, for example, with the facility design concept for ointments and dedicated API manufacturing modules for an Indian producer in the healthcare sector in the state of Punjab.

A supplier of homeopathy medicine commissioned the Indo-German specialists with the construction of a new facility for oral solid dosage forms in Uttar Pradesh with an annual production capacity of 1.4 billion tablets. The scope of the project included complete design services, process engineering and procurement support. Furthermore, Glatt was responsible for the project management, technology and building services and finally for qualification and validation of the entire plant as well as production process.

Kindly give us your views on the present industry status and on prospects for the coming year.

With regard to the food sector, the increasing complexity of functional foods is putting greater demands on established production processes. Manufacturers are faced with the challenge of ensuring ingredient stability throughout the entire shelf-life of the product. To ensure that ingredients possess the required functionalities for successful formulation, fluidized bed and spouted-bed technologies can play a key role in adjusting product attributes to achieve optimal results. When it comes to plant engineering, extensive experience in intercultural cooperation, local approval requirements and production conditions are essential for the success of an international technology transfer" ends Budzinski.

WORKSHOPS CONDUCTED BY INTERNATIONAL EXPERTS WILL FOCUS ON THE FOLLOWING TOPICS:

Pneumatic Conveying Systems
Prof. Dr. V.K.Agarwal, Indian Institute of Technology, Delhi

Hopper/Silo Geometry For Flow Of Fine Powders
Prof. Dr. Mark Jones, The University of Newcastle, Australia

Fundamentals of DEM and DEM
Prof. Yutaka Tsuji, Professor Emeritus at Osaka University, Japan

Guidelines for Energy Efficient Belt Conveyor Design
Prof. Dr.Craig Wheeler, The University of Newcastle, Australia

Explotion Protection
Mr. Stefan Penno, President, INDEX

CONFERENCE & WORKSHOP PROGRAMME 2016

DAY 1 : THURSDAY, 13TH OCTOBER 2016

9:30h	**Registration with Tea & Coffee**
	OPENING SESSION: HALL 1
10:00h	Welcome address by Sonia Prashar, MD, NuernbergMesse India Pvt. Ltd.
10:05h	Address by Petra Wolf, Executive Director International Division, NuernbergMesse GmbH
10:15h	Address by Vogel Business Media GmbH & Co. KG
10:25h	Address by Rajesh Nath, Managing Director, German Engineering Federation (VDMA)*
10:35h	Remarks of the industry by B.V. Sambashivan, Chairman of the Conference Board, PBSI 2016
10:50h	Vote of thanks by Vogel Business Media India Pvt. Ltd.
11:00h	Keynote speech by Industry Expert*
11:20h	**Panel Discussion:** "Achieving high performance for Powder and Bulk Solids in resonance with Nature"
12:00h	**Lunch & Visit to Exhibition**
	SESSIONS
13:30h	Strategy for improving performance of industrial mills by B. Pitchumani, IIT Delhi
14:00h	Agglomeration – Benefits and Challenges By Marc Jacobs, Hosokawa Micron India PVT. LTD.
14:30h	The Development, Operating, and Measurement Protocols for an Automated Uniaxial Tester by Tim Freeman, Katrina Brockbank, Yogin Chandorkar, Freeman Technology
15:00h	**Tea/Coffee break & Visit to Exhibition**
15:30h	Reducing uncertainty in Pipe conveyor Design with Belt Testing by Chinmoy Ray, Oriental Rubber and Sergio Zamorano, ZING, Chile
16:00h	Blending of coal in power stations by B.V. Sambashivan, Chairman of the Conference Board, PBSI 2016
16:30h	Challenges in Ash Handling Systems and expectations of the Industry from OEMs by Nilima, Tata Power
17:00h	Transportation and disposal of Ash in Thermal Power Station burning High Sulphur Coal by H. Ramakrishna, Tata Consulting Engineers Ltd.
17:30h	Intricacies of long distance troughed belt conveyors and challenges in their design by Sathees Kumar, NMDC (retired)
18:00h	**End of Day 1**

DAY 2 : FRIDAY, 14TH OCTOBER 2016

9:30h	**Morning Tea & Coffee**	
	Hall 1	**Hall 2**
10:00h	**Panel Discussion** on current trends and best practices with Manufacturers' and End Users	Scalable, modular and versatile filling systems for filling of bulk materials in valve bags, open mouth bags and jumbo bags by Siddharth Solanki, Haver Ibau India
10:30h	**Workshop I:** Guidelines for Energy Efficient Belt Conveyor Design by Prof. Dr. Craig Wheeler, The University of Newcastle, Australia	**Workshop II:** Hopper / Silo Geometry for flow of fine powders by Prof. Dr. Mark Jones, The University of Newcastle, Australia
12:30h	Anti-Collision System for Yard Machines by A. Bandyopadhyay, Tata Steel Limited	An Experimental Investigation on Pearl Millet with Wall Heated Fluidized Bed Dryer By D. Yogendrasasidhar and Y. Pydi Setty, Department of Chemical Engineering, NIT Warangal
13:00h	**Lunch & Visit to Exhibition**	

14:00h	**Workshop III:** Fundamentals of DEM and DEM-CFD by Prof. Yutaka Tsuji, Osaka University Japan	**Workshop IV:** Explosion Safety in the Bulk and Powder Industry by Stefan Penno and his team of experts, IN-DEX Association Germany
16:00h	**Tea/Coffee break & Visit to Exhibition**	
SESSIONS		
16:30h	Level Measurement by Markus Schalk, UWT GmbH	
17:00h	Maintenance free and wearless level measurement in bulk material by Frank Wengler, MBA Instruments	
18:00h	**Networking Reception**	

DAY 3 : SATURDAY, 15TH OCTOBER 2016		
9:30h	**Morning Tea & Coffee**	
SESSIONS		
	Hall 1	**Hall 2**
10:00h	Safety and Fugitive Material Losses during Conveying by Bill Shukla, Martin Engineering	Why keep plugging the dike? A study by UWA on how Anval's RFS Technology combats Leak & Wear by Charlie Martella, Anval International
10:30h	Ambient Air Quality Monitoring Systems by Harish Wadhwa, Chemtrols Industries Ltd.	Flow and Segregation of Granular Materials in Quasi Two - Dimensional System by Dr. Sandip H. Gharat, Dept. of Chemical Engineering, Gharda Institute of Technology
11:00h	Better Particles with Best Instruments by Dr. Ulrich Kesten, Sympatec GmbH	Rotary drum dryers and fluid bed dryers by Fred Breuer, MOZER Process Technology
11:30h	High End Sizer and Tumbler Screening Solutions by Fred Breuer, Allgaier Process Technology	Strategic selection of new material handling technology for cement plant design by Kapil Kukreja, National council for Cement & building material
12:00h	Agglomeration - A Basic Introduction by Mike White, Bepex International LL	Recent Trends in Nanoceramic Coatings by Prof.S. Balasubramanian, CChem FRSC and E.Ramanathan, Department of Inorganic Chemistry, University Chennai
12:30h	**Lunch & Visit to Exhibition**	
SESSIONS		**WORKSHOP**
14:00h	Creating Colours to coat: Processing Pigments on Jet Mills by Thomas Anlauf, Hosokawa ALPINE	**Workshop V:** Pneumatic Conveying Systems by Prof. Dr. V.K. Agarwal, Indian Institute of Technology, Delhi
14:30h	Aramid-reinforced conveyor belts: A superior performance for challenging applications by Sandeep Kohale, Teijin Aramid	
15:00h	Lean materials handling using IBCs for Food & Pharmaceutical manufacturing by Kathryn Perry, Matcon Limited	
15:30h	GRP Composites suitable for all types of Hazardous Zone application by Amartya Modi, INTERTEC Instrumentation	
16:00h	**End of Day 3**	

Fluidized bed and spouted-bed technologies help to functionalize granules and pellets.

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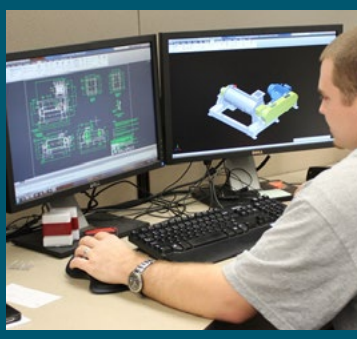
Glatt's Fluidized Bed and Spouted-Bed Technologies

Glatt Ingenieurtechnik engineers, designs and implements international projects, from the expansion or modernization of existing production sites to the construction of an entire new plant. In such activities we combine professional engineering with in-depth technology expertise. Glatt´s core business is based on two interdisciplinary competences: i) Process and Plant Engineering ii) Process Technology Food, Feed, Fine Chemicals. When it comes to fluidized bed technology, Glatt assumed a pioneering role early on and is the worldwide leader in integrated process solutions. Glatt offers a unique expertise and product spectrum along with comprehensive supporting services for pharmaceutical, food, feed and fine chemical industries dealing with powder processing. These supporting services start with product development and go far beyond the required process technologies. If necessary Glatt would even undertake the planning and installation of the plant required for the mentioned technologies. Glatt uses its own propriety fluidized and spouted-bed technologies to design, improve and enhance the production of granules and pellets made out of fluids and powders. Both technologies can be used to spray granulate, agglomerate, coat and dry ingredients for high quality products. Overall both technologies help to protect volatile substances and enhance handling and dosing.

For further information please visit: www.glatt.com

Technology Update in Process Equipments and Systems

Bepex International LLC is a leader in the supply of process equipment and systems for the chemical, food and polymer markets. Their technologies include mixing, size reduction, size enlargement or agglomeration, thermal processing, liquid and solid separation.



They offers continuous paddle mixers, the Turbulizer and FlexTurbulizer. These are designed for adding small amounts of liquids into solids or small amounts of solids into liquids. Both use high speed rotors with adjustable paddles. The Turbulizer allows for heating or cooling and the FlexTurbulizer offers self-cleaning, flexible chamber walls. Bepex offers two options for industrial drying; direct or indirect. Indirect dryers include hollow screw, paddle and hollow disc type options. These are known by their trade names Thermascrew, Solidaire and Torus Disc. In these dryers, the material being processed is isolated from the heat transfer fluid, ensuring they are excellent for drying volatile materials. Indirect dryers include flash dryers, dispersion flash dryers, milling flash dryers and fluid beds. These are designed for applications where water is removed.

For agglomeration, Bepex offers low pressure extrusion, mixing for granule growth and high pressure compaction and briquetting. These options enables to specify the best system to create the final product qualities required.

For size reduction, Bepex offers multiple systems for producing different final particle sizes. Coarse crushing grinders, like the Bepex Extructor or Rubber Chopper crush large blocks of material. For medium sized products, Bepex offers the Disintegrator, either industrial, food grade, or in-line slurry grinding designs. Fine grinding is accomplished with the Bepex Pulvocron.

The Bepex S-Press is well suited for separation of liquids from Fruits and vegetables. This device is used extensively in the coconut industry.

To learn more about what Bepex technology can offer your industrial process contact us today at www.bepex.com

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