

PRESS RELEASE

Zeppelin Systems presents recycling solutions for plastics at IFAT 2024 as a co-exhibitor of Zeppelin Baumaschinen GmbH

Friedrichshafen, April 19, 2024. As a reliable engineering partner and integrated solution provider in plant engineering, Zeppelin Systems will be presenting its plastics recycling solutions for the first time at the international IFAT trade fair in Munich, the largest trade fair for environmental technologies. As a co-exhibitor at Zeppelin Baumaschinen GmbH's 500 square meter stand in Hall C5 at Stand C139/238, interested visitors will find out more about innovative recycling solutions for the processing of waste plastic at Zeppelin Systems from May 13 - 17, 2024. We Create Solutions!

A key to overcoming challenging climate and environmental issues is the responsible use of resources. Plastic recycling plays an increasingly important role here. The more used plastic is recycled and reused, the fewer new goods have to be produced with intensive use of resources. At the same time, the environment can be protected. "Zeppelin stands for innovation and sustainability. As a foundation-owned company, we are committed to the infinity principle. As a global system builder, we are committed to developing sustainable solutions and processes for our customers," explains Dr. Markus Vöge, CEO of Zeppelin Systems GmbH.

Fresh-Tec deodorization

Zeppelin Systems is developing deodorization plants that degas plastic recycled materials by means of a physical thermal cleaning process, thus freeing them from unpleasant odors. The Zeppelin Systems solution is impressive due to its energy recovery and integration of process waste heat. And even more so thanks to its outstanding energy efficiency when compared with other companies! The Friedrichshafen-based plant engineering company supplies all plant engineering services from a single source, from basic engineering to automation to final assembly and comprehensive aftersales service, and supports every phase of the project itself. Zeppelin Systems takes individual customer requests and needs into account in its system planning, especially with regard to achieving quality thresholds. We Create Solutions!



Homogenization

Another factor influencing the production of high-quality plastic recycled materials is homogenization, that is, the uniform mixing of the plastic particles. In contrast to other solutions available on the market, Zeppelin Systems' technology relies on gentle and stable homogenization, which preserves the structure of the material and prevents the generation of dust and noise. As a full-service provider, Zeppelin Systems provides customers with tailor-made solutions from plant planning to silo production and ensures that they can produce their goods under consistent and uniform conditions.

Fluff-Tec processing of heterogeneous starting material

The quality of the recycled material is affected by deodorization and homogenization as well as by the nature of the starting material. If "fluffy materials" made from foils, fleeces or fibers are added, recycling processes need to be rethought. And there's more: In some cases, new system components need to be developed for this. While there are now good recycling solutions for hard coarse material made of PE, PP, ABS or PS, the reuse of fluffy materials is still in the early stages. What is required are systems that can reliably process large product mass flows and still remain flexible with regard to changes in the input flows. Aspects of energy efficiency also play a major role. The declared goal is that – similar to other plastic waste – there is also a closed recycling cycle for fluffy materials. This is where Zeppelin Systems comes in: "We are able to actively control and manage the composition and mixing of the waste plastic material," explains Dr. Julian König, Head of Recycling Plants at Zeppelin Systems. "Whether it's process-reliable silo storage, the processing of (fluffy) plastic waste or sorting – we have the right plant engineering solution," König adds. If desired, this can also be done fully automatically with the "NAMiQ recipe" formulation and batch management software. This means that the customer is always able to control the quality of their end product with regard to economic aspects. We Create Solutions!

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About Zeppelin Plant Engineering

Zeppelin Systems specializes in the design, construction, and technological upgrading of industrial plants for storing, conveying, mixing, dosing, and weighing high-quality bulk materials and raw materials. With around 1,900 employees worldwide, Zeppelin Systems provides daily solutions for customers in the plastics, chemical, rubber, and tire industries. Customers in the food industry also value Zeppelin Systems' many years of technological know-how and experience in delivering turnkey solutions. From plant planning and project implementation to after-sales service including process optimization – Zeppelin Systems is an integrated solutions provider, delivering complete solutions from one source. Every Zeppelin plant is characterized by customized features to meet specific customer requirements, smart automation solutions, and comprehensive service. We refer to this as the embodiment of engineering art, and we apply it to the entire life cycle of a system. With roots in Germany and global operations at more than 20 sites around the world, Zeppelin Systems makes industrial-scale testing available to its customers, thereby facilitating the assessment and sustainable optimization of their plant design. Zeppelin Systems also develops and manufactures mechanical and plant engineering



components that can be seamlessly integrated into third-party systems. We create solutions for our customers every day. We Create Solutions! For more information, visit www.zeppelin-systems.com.

About the Zeppelin Group

The Zeppelin Group offers solutions in the construction industry, drive and energy systems, engineering and plant engineering. The Group provides customers with expertise in a number of areas, from the distribution and service of construction, mining, forestry and agricultural machinery, through rental and project solutions for the construction sector and industry as a whole, to drive and energy systems as well as engineering and plant engineering, and enhances its offering with digital capabilities in all areas. Zeppelin is represented in 26 countries worldwide. In the 2023 financial year, the Group workforce comprised over 10,000 employees and generated sales of EUR 3.9 billion. The Group organizes its activities into five strategic business units (Construction Equipment Germany/Austria, Construction Equipment International, Rental, Power Systems, and Plant Engineering) and the Strategic Management Center for Group IT Services. Zeppelin GmbH is the Group holding company. It is legally domiciled in Friedrichshafen and has its head office in Garching bei München. The Zeppelin Group is a foundation-owned company. Its roots can be traced back to the establishment of the Zeppelin Foundation by Graf Ferdinand von Zeppelin in 1908. For more information, visit zeppelin.com.

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