

PRESS RELEASE

Zeppelin Systems is presenting customized plastic recycling solutions at the Plastics Recycling Show Europe 2023

Friedrichshafen, April 20, 2023. For decades, Zeppelin Systems has been a reliable engineering partner and integrated solution provider in plant engineering and is a permanent fixture on the global markets. By establishing a new recycling division, the long-established Friedrichshafen-based company has further expanded its portfolio in the direction of creating even more sustainable technologies. At the Plastics Recycling Show Europe 2023 (PRSE 2023) in Amsterdam from May 10 to 11, 2023, Zeppelin Systems will present its innovative recycling solutions for the first time at a trade show.

As a foundation-owned company, the Zeppelin Group is committed to the infinity principle, which means that sustainable, responsible business practices and social engagement are a matter of course. For example, the company is constantly optimizing its energy savings, tapping into sustainable energy sources or increasingly electrifying its fleet. For Zeppelin Systems, it was therefore a logical step to expand the plant engineering portfolio with forward-looking, even more sustainable technologies. A key to overcoming challenging climate and environmental issues is the responsible use of resources, which includes plastic recycling. The more used plastic is recycled and reused, the better we can reduce the environmental impact. "Zeppelin stands for both innovation and sustainable action. It is therefore important to us to offer forward-looking technologies that make a special contribution to sustainable, circular business. We think long-term and invest in new business areas such as battery cell production and plastic recycling, always keeping the individual needs of our customers in mind," says Dr. Markus Vöge, CEO of Zeppelin Systems GmbH.

High-quality recyclates for a better circular economy

When discarded plastic is recycled, a granulate is produced – known as a recyclate – which is used to manufacture new plastic products. However, currently only around 15 percent of all new plastic products are made from recyclates. To boost the recycling rate of discarded plastics, the EU Packaging Directive stipulates that around 65 percent of all packaging (consisting of materials such as plastic, wood and metal) must be recycled by the end of 2025. By 2030, recyclates should make up 30 percent of new packaging produced. Meeting these targets will require increasing the quality of recyclates as well as the amount of reprocessed plastics available.

Deodorization

Zeppelin Systems has been working for years on new technologies that make production processes using recycled material more efficient. An essential aspect of increasing the quality of the recyclate is deodorization. Plastic recyclates may have an inherently unpleasant smell, which rules out their use for higher-value products. Zeppelin Systems is developing deodorization plants that degas recyclates by means of a physical thermal cleaning process, thus freeing them from unpleasant odors. In addition, compared to the rest of the industry, the Zeppelin Systems solution stands out with its outstanding energy efficiency. The Friedrichshafen-based plant engineering company

supplies all plant engineering services from a single source, from basic engineering to final assembly and comprehensive after-sales 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 throughput rates and quality requirements. We Create Solutions!

Homogenization

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

Processing of heterogeneous starting material from different origins

The quality of the recyclate is not only affected by deodorization and homogenization, it is also determined by the nature of the starting material. It is becoming increasingly difficult for producers to obtain good starting materials on the market. They therefore have to rely on different sources that provide them with starting materials in different shapes, sizes and bulk densities. For the production process, it is essential that they can actively control and manage material composition and mixing. "We know the challenges our customers face every day," says Josef Art, Vice President Food & Recycling Plants at Zeppelin Systems. "That's why we have very carefully thought through each process step in recyclate production. With our formulation and batch management software, NAMiQ recipe, we enable recycled material producers to control their production fully automatically and thus optimally mix the starting materials. This means the producer is always in control of the quality of their end product."

In a nutshell: As the world's leading plant engineering company for handling high-quality bulk materials, Zeppelin Systems has been a reliable partner for customers in the plastics, rubber and tires, chemicals, and food industries for decades. The company uses its many years of expertise in all areas of plant engineering to develop innovative recycling technologies and develops the right plant solution for every challenge customers may face. We Create Solutions!

Zeppelin Systems at PRSE in Amsterdam in Hall 12 at Stand 35

Find out directly on site how Zeppelin Systems can create solutions for your company. We look forward to welcoming many visitors! We Create Solutions! Further information on the topic of sustainability and corporate social responsibility in the Zeppelin Group can be found online at [Zeppelin.com – About us – Responsibility – Sustainability](https://www.zeppelin.com/en/about-us/responsibility/sustainability).

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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 1,700 employees worldwide, Zeppelin Systems provides daily solutions for customers in the plastics, chemicals, 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 a single source. Every Zeppelin plant is characterized by tailored 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 at more than 340 sites in 26 countries and regions worldwide. In the 2022 financial year, the Group workforce comprised over 10,000 employees and generated sales of EUR 3.8 billion. The Group organizes its activities into six strategic business units (Construction Equipment Central Europe, Construction Equipment Nordics, Construction Equipment Eurasia, Rental, Power Systems and Plant Engineering) and a strategic management center 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.

Zeppelin Systems GmbH
Graf-Zeppelin-Platz 1
88045 Friedrichshafen
Germany

Evelyn Müller
Head of Global Marketing & Communication
Tel.: +49 7541 202 1545
Fax: +49 7541 202 – 14 05
E-mail: evelyn.mueller@zeppelin.com
zeppelin-systems.com