

## **PRESS RELEASE**

### **Zeppelin Systems presents comprehensive plastics recycling solutions at PRSE 2024 in Amsterdam**

**Friedrichshafen, June 18, 2024. A new EU directive has set a requirement that, by the end of 2025, around 65% by weight of all packaging waste in Europe must be recycled. And by 2030 at the latest, this level will go up to at least 70% by weight. With its considerable experience in plant engineering, Zeppelin Systems is well aware of the challenges this involves, especially in the handling of “fluffy” materials – i.e. films, fleeces and textiles. The company will be at the prestigious PRSE trade fair which is taking place in Amsterdam on June 19 and 20, where it will exhibit its innovative plastics recycling solutions for the processing of waste plastic in Hall 11 at Stand Q35. We Create Solutions!**

Managing resources responsibly is crucial to tackling today’s climate and environmental challenges, and the recovery and reprocessing of plastics is an increasingly important part of this mission. Innovative recycling solutions can reduce the need for resource-intensive virgin materials and protect the environment. “Zeppelin is known for innovation and sustainability. As a foundation-owned company, we are committed to the principle of sustainability. As a global system builder, our goal is to develop sustainable solutions and processes for our customers”, explains Dr Markus Vöge, CEO of Zeppelin Systems GmbH.

#### **Fresh-Tec deodorization**

Zeppelin Systems has developed deodorization plants which use a thermophysical cleaning process to degas plastic recycled materials, thereby removing any unpleasant odors from them. This solution makes impressive use of energy recuperation and the integration of process waste heat, which means particularly high energy-efficiency by industry standards. 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 after-sales service – and supports every phase of the project itself. Zeppelin Systems incorporates individual customer requests and requirements at the system planning stage, especially those relevant to achieving quality thresholds.

## **Homogenization**

Another important factor in producing high-quality plastic recyclate is homogenization – that is, the uniform mixing of the plastic particles. Unlike other solutions on the market, the technology from Zeppelin Systems relies on gentle, static homogenization, which preserves the structure of the material and prevents the generation of dust and noise with no maintenance required. As a full-service provider, Zeppelin Systems supplies tailor-made solutions from plant planning to silo production, and ensures that products can be manufactured under stable conditions.

## **Fluff-Tec processing of heterogeneous starting material**

The quality of recyclate produced is dependent not only on deodorization and homogenization, but also the nature of the starting material. Specific challenges arise with “fluffy materials” made from foils, fleeces or fibers, for which new recycling processes and plant components have to be developed. While there are already good recycling solutions for hard coarse materials made from polyurethane, polypropylene, acrylonitrile butadiene styrene (ABS) and polystyrene, solutions for fluffy materials are still in the early stages. What is needed is systems that can reliably process large material flows and react flexibly to changes in the input flows; energy efficiency is also a key priority. With Fluff-Tec, Zeppelin Systems is delivering on exactly these requirements. “We have full influence over the composition and mixing of the waste plastic material and can monitor and manage it directly”, explains Bert Theuwissen, Managing Director of Zeppelin Systems Benelux NV, adding: “As an experienced plant engineer and system provider, Zeppelin Systems can offer all these steps with process reliability, from silo storage to the processing of (fluffy) waste plastic and sorting”. If desired, this can even take place automatically, assisted by the “NAMiQ recipe” formulation and batch management software which allows the customer to economically control the quality of their end product at any time. 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. For more information, visit [www.zeppelin-systems.com](http://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](http://zeppelin.com).

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