

PRESS RELEASE

"Mixing Possible": The CMQ container mixer sets new standards in safety and productivity

Friedrichshafen, January 27, 2022. Mixing of polymer powders, additives, pigments or flours in the plastics, chemical, masterbatch and food industries not only requires comprehensive know-how in process engineering, but also a fundamental understanding of the material properties. The plant manufacturer Zeppelin Systems has been a pioneer in this field for years and, with its CMQ container mixer, supplies a product that meets the requirements for mixing quality, dispersion, efficiency and, above all, safety. This is proven by the recently issued EU type examination certificate according to ATEX Directive 2014/34/EU, according to which the CMQ container mixer is approved for mixing bulk materials that require a design in equipment category 1/3 D (zone 20 inside, zone 22 outside).

Explosive substances do not always reveal their physical properties at first glance. For example, even everyday products such as plastics, additives or flour can lead to a dust explosion during mixing if they come into contact with an ignition source in a certain concentration as a dust-air mixture. This can be, for example, a static discharge or a hot surface that ignites the mixture. If such an event happens, it can cause a lot of damage to the plant. Therefore, it is important to avoid potential hazards in advance of the mixing process. The CMQ container mixer from Zeppelin Systems proves through its EU type examination certificate that it can meet the requirements of dust explosive substances. Thus, it not only offers the operator a high degree of safety, but also makes inerting obsolete. This allows the user to concentrate on the most important thing: the optimum mixing results.

Mixing made easy - with the patented wing tool

In addition to meeting high safety standards, the CMQ container mixer guarantees very high dispersion thanks to its innovative design. The airfoil mixing tool in combination with the winglets ensures good formation of the mixing stream, fast material movement and keeps mixing resistance low. This protects the products and can reduce the temperature rise to a minimum, for example by a maximum of 2 degrees Celsius per minute for a powder-coatings premix.

Furthermore, the airfoil shape causes a high suction effect on the material. This results in a high lifting force and a faster mixing. Thus, the customer obtains the desired mixing result within three to four minutes.

Another advantage of the mixing tool is the high distance to the bottom and wall of the mixing container. This causes hardly any material pressure and thus reduces deposits to a minimum.

Increase productivity: with smooth surfaces and easy cleaning

Compared to conventional container mixers, Zeppelin Systems has optimized the critical components to simplify the cleaning process many times over and save valuable time during cleaning. The entire mixing head, the mixing tool and the mixing container are considered critical. If

deposits accumulate here, cross-contamination can occur in following mixes, making the mixture unusable for further use. Therefore, Zeppelin Systems has designed its mixing head significantly different from conventional mixing heads. By replacing the usually trough-shaped mixing head with a polished, flat plate cleaning is much easier and faster. This is supported by the very large distance between the mixing tool and the mixer bottom, which really facilitates the accessibility. In addition, almost no deposits on the tool and mixing plate contribute to a fast cleaning process.

The shape and polished surface of the mixing tool of the CMQ container mixer also prevent deposits. In addition, the mixing tool is very light, weighing only 17 kilograms for a 1,000-liter mixer, so the user can disassemble and replace it very quick and easy. This saves valuable time when operating the mixer by reducing cleaning time by up to 80 percent. This not only increases productivity, but also machine availability, saving five-figure sums per year.

The CMQ container mixer, which has already been tested many times, not only combines efficiency, quality and safety in one product, but also offers operators a range of options to suit their needs on site - from different mixer sizes to automatic processes and predictable maintenance cycles.

More information on the CMQ container mixer at:

<https://www.zeppelin.com/de-en/systems/products-solutions/mixer/container-mixers/mischercmq>

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Captions:

CMQ Container Mixer: *Mixing with the CMQ container mixer takes place in almost all applications without inverting*

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About Zeppelin Systems

Zeppelin Systems is a global leader in plant engineering for handling high-quality bulk materials. With over 70 years of experience in the individual process steps and extensive know-how in handling the various raw materials, Zeppelin Systems offers reliable complete solutions. At 22 locations worldwide, the company supports its customers from plant design to implementation and provides all services from a single source. Here, innovative process concepts are just as important as smart automation solutions and a full range service that covers the entire life cycle of a plant.

Each Zeppelin plant meets the individual requirements of the customer from plastic, chemical, rubber and tire, as well as food industries. With the world's largest technology center network for bulk materials, Zeppelin enables its customers to carry out tests on an industrial scale in order to verify and optimize the plant design. In addition, Zeppelin Systems develops and manufactures its own components for key plant functions, which are also used in third-party plants. For more information, visit www.zeppelin-systems.com.

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About the Zeppelin Group

The Zeppelin Group offers solutions for the construction industry, drive systems and energy sectors as well as engineering and plant engineering; it is represented in 43 countries and regions around the world at more than 220 sites. The company's approximately 10,000 employees work together in a management holding company, six strategic business units and a strategic management center (= Zeppelin Digit): Construction Equipment Central Europe, Construction Equipment Nordics, Construction Equipment Eurasia (distribution and service of construction, mining, and agricultural machinery), Rental (rental and project solutions for construction and industry), Power Systems (drive, propulsion, traction, and energy systems), Plant Engineering (engineering and plant engineering) and Zeppelin Digit (IT and digitalization). All digital business is handled together within Zeppelin Digit. In the 2020 financial year, the Group generated sales of EUR 3.3 billion. Zeppelin GmbH is the Group holding company. It is legally domiciled in Friedrichshafen and has its head office in Garching near Munich. 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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