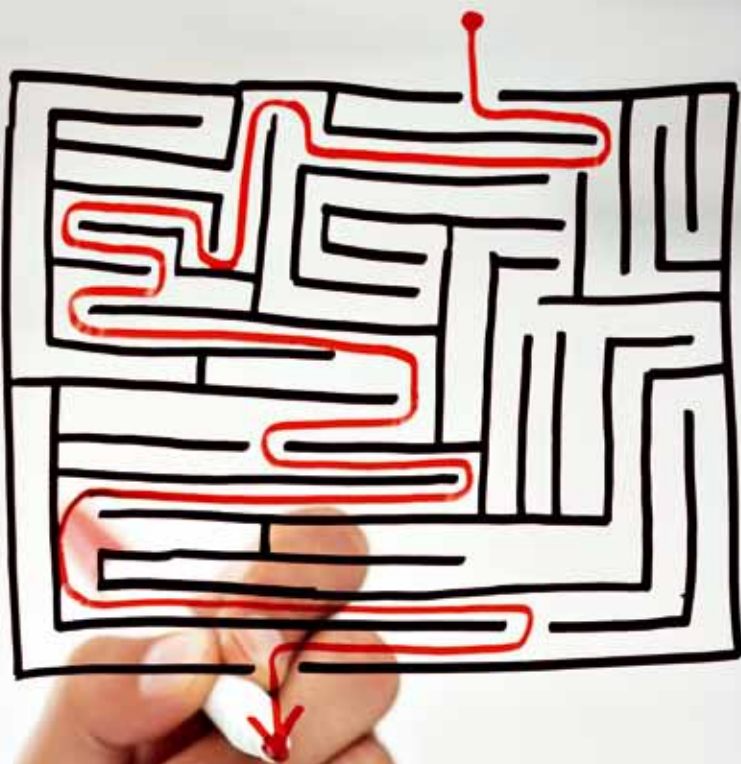


Food Technology from A to Z

Raw material logistics



Innovation Tradition



Zeppelin – our name stands for willpower, innovation, proven technology and the quest for new challenges. As Count Ferdinand von Zeppelin conquered the sky more than 100 years ago with his legendary airships, the enterprise displayed above all one thing: the conviction that excellence can only be achieved by allowing visions and uniting all forces.

Engineering your success

To master processes, develop systems and know exactly what the needs of the customers are: these are the requirements for an optimal design and manufacturing of plants. Our objective is to lead in every field of business we deal with by always exhibiting top performance. We are determined to meet your needs and expectations by developing technologically advanced and efficient systems.

This is why a product, a plant or a complex system designed by Zeppelin will always be one thing – engineered for your success.

Zeppelin plant engineering – business fields

Reimelt Food Technology

Plants for the food, confectionery and bakery industry

Polymer Plants

Plants for plastics producers and forwarders

Plastics Processing & Rubber Plants

Plants for the plastics processing and rubber industry

Henschel Mixing Technology

Mixers, extruders and compounders

Liquids Processing

Plants for the beverages and pharmaceuticals industry

Silos & Filters

Silo technology and filters

Components

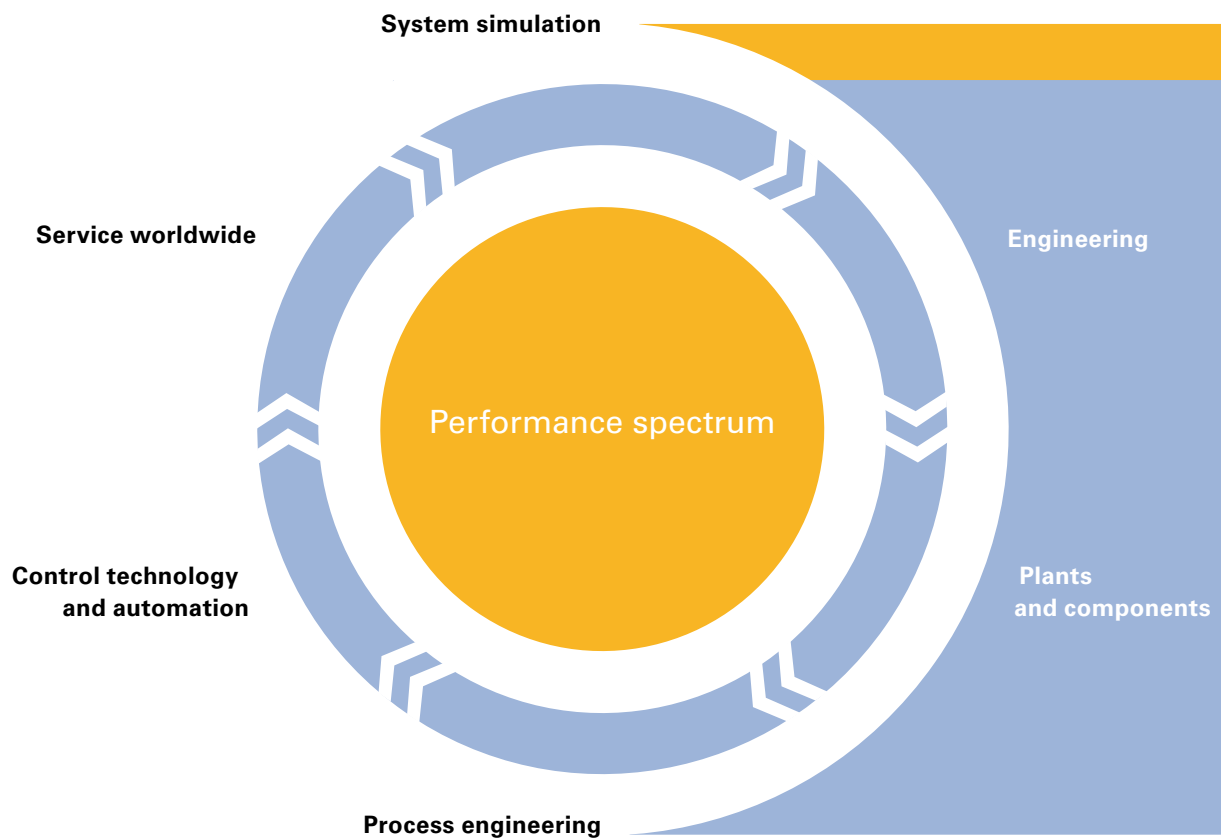
Diverter valves, rotary feeders, separators ...

Service

Assembly, maintenance and spare parts

We are passionate about food

Zeppelin Reimelt has, literally speaking,
grown with food.



There is no other enterprise with so many years of experience in the construction of modern food technology plants. Numerous innovations, total customer orientation and highly-qualified employees contributed to our success in becoming a global player in this sector.

Our clients in the food industry appreciate above all our comprehensive know-how in all fields of raw material handling. We master the process steps and process engineering from raw material receiving to processing, and develop integrated solutions designed to fit perfectly into the system – from one single source. Our scope naturally includes highly-developed system controls and a professional after-sales service.



The whole range of solutions –
from one single source

Raw material receiving, storage, discharge, conveying, processing, metering and mixing: we develop exceptional solutions in every field. We also design and manufacture all key components – some of them are even patented. The equipment's excellent build quality ensures continuous operation round-the-clock and its design allows easy cleaning and complies with the industry's high standards of hygiene. It is also naturally EHEDG certified.

All beginnings are easy

Even reception of raw material represents an important factor for a successful plant operation.

Therefore, it is advantageous to have a partner who knows what is important. We analyze, in advance, factors such as plant location and construction to ensure optimum dimensions of the system. Hygienic aspects, environmental conditions and industrial health and safety standards are taken into consideration. It is up to you to decide how product receiving shall be carried out. It can be outdoors or indoors, stationary or mobile, manual or fully automatic. Single types of raw materials can be dedicated to one or several stations or collected for processing at a single receiving point, etc.

We are also prepared to meet all your challenges in terms of raw material delivery.

- » In containers or tanks, standard design or special application with heating, insulation, agitator, etc.
- » In bags of up to 30 kg, with or without inner liner
- » In plastic Big-Bags of up to 2 tons, with or without inner liner, for single use or recyclable packaging
- » In tanker trucks of up to 25 tons, with gravimetric, pneumatic or pump discharge



Zeppelin is the world market leader in silo construction – for more than 20 years.

Product receiving stations should be able to handle various packaging types. Our customized systems can receive all types of raw materials and convey them to the storage area or directly into processing. Discharge is practically dust-free. Sifting of the bulk material ensures a reliable quality control. The raw materials are automatically entered into the recipe processing system. Solid or liquid – we can handle virtually all raw materials.

Dry materials

- » Ascorbic acid
- » Baking agents
- » Cacao
- » Cacao beans
- » Casein
- » Chocolate flakes
- » Coffee creamer
- » Coffee powder
- » Corn starch
- » Crystal sugar
- » Dextrose
- » Diatomaceous earth
- » Egg powder
- » Emulsifier
- » Fillers
- » Flour
- » Gelatin
- » Kaolin
- » Lactose
- » Milk powder
- » Mustard seeds
- » Nuts
- » Potato flakes
- » Potato starch
- » Powdered sugar
- » Rolled oats
- » Salt
- » Semolina
- » Shredded coconut
- » Soy flour
- » Spices
- » Wheat powder
- » Wheat starch
- » Whey powder
- » etc.

Liquids

- » Butter
- » Cacao butter
- » Cacao mass
- » Chocolate mass
- » Condensed milk
- » Honey
- » Hot soaked grain
- » Invert sugar
- » Lecithin
- » Liquid egg
- » Liquid fat
- » Liquid sponge
- » Liquid sugar
- » Liquid yeast
- » Oil
- » Salt solution
- » Sirups



Minor ingredients system



Liquid sponge plant

- » Soaked grain
- » Sourdough
- » etc.

“First in – first out”

Storage of raw materials is a decisive factor for the quality of the final product. Therefore, Zeppelin Reimelt relies on the „first in – first out“ principle to ensure particularly gentle handling of powdery and liquid raw materials. We develop individual storage solutions depending on the product properties, as they may require cooling, insulation, blanketing with dried air, discharge devices to avoid the forming of lumps and explosion protection according to ATEX directive for explosive materials. Our silos and storage tanks are designed to ensure optimum conditions for cleaning, oxidation-free storage and appropriate temperature regulation.



Gentle conveying from A to B

Raw materials should be handled as carefully as possible when conveyed to the various processing stations.

To do so, we use conventional and pneumatic conveying methods that range from dilute-phase (vacuum and pressure) conveying systems to pneumatic systems utilizing an inert gas. For conveying liquid raw materials, various pump systems, e.g. centrifugal pumps, rotary piston pumps or piston metering pumps, are used.

One of Zeppelin Reimelt's developments is the secondary air conveying system which enables the drastic reduction in the conveying speed. This ensures gentle handling of the product during conveying: the product does not fly through the conveying line but instead forms into bullets that are pushed through the conveying line. Secondary air is blown in throughout the conveying process to fluidize the bullets.

What matters is what you make of it

Proper processing of raw materials
is a key component in the entire process.

Even the smallest inaccuracy during drying, grinding, sifting, humidifying, temperature regulation, mixing or re-crystallization may cause severe damage to the quality of the final product. This is why Zeppelin Reimelt has paid particular attention to this process step and created so many innovative solutions.

Our patented recrystallization process for powdered sugar, for example, prevents the formation of lumps during storage without the addition of separating agents. Our PneumoTherm fluidized zone – heat transfer unit ensures optimum raw material temperature regulation for a constant dough quality. Our technology in the fermentation process guarantees the production of excellent liquid sponges and sourdoughs.

Our rotary sifters ensure continuous quality control of raw materials, which in turn protects all downstream processing machines. The special screen fabrics are permanently monitored by the electronic SCREEN-D-TECT system.



Rotary sifters



Weighed and approved

If nitpicking was a profession, our specialists for weighing and metering would make a fortune – because nobody knows accuracy better. Whether batch-wise or continuous operation: Zeppelin Reimelt provides the complete process technology from a single source – from the components for batch scaling to differential-metering scales, including controls. We also have the right solutions for the handling of liquids. Volumetric systems such as metering pumps and volumetric flow meters, or gravimetric components such as liquid scales and mass flow meters are all features that can be integrated into the complete system, depending on the different product characteristics or required metering accuracies.

Recorded metering of manually added ingredients



Horizontal mixer



Always the right mix

According to tradition, Zeppelin Reimelt remains at the cutting edge of mixing technology. We constantly provide our clients with innovations that will ensure their competitive advantage.

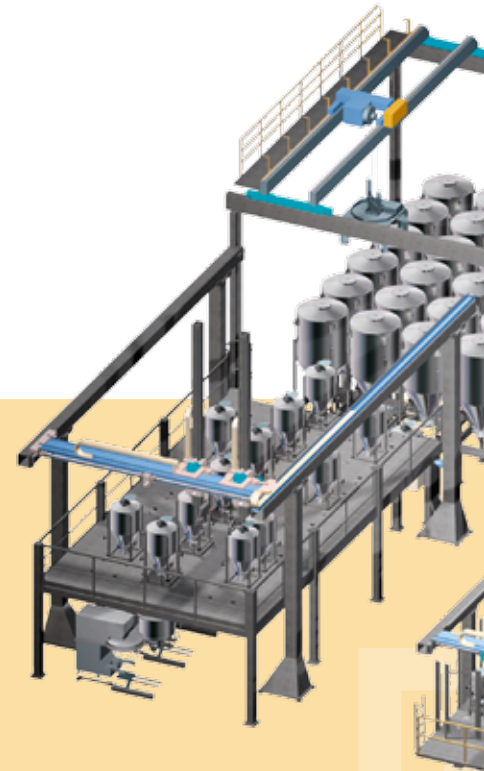
We analyze the trends in the food sector at an early stage and react accordingly. Because of an increasing number of food allergies and intolerance, we have developed the ReciPure®System that will prevent cross-contamination. Instead of pipes installed in conventional systems, we use mobile batch containers on automated guided vehicles.

Fully automatic and continuous production is another market requirement for which we have already supplied the solution. Thanks to our continuous kneading and mixing system Codos®, the production of 16,000 pretzels per hour, 1.3 million rolls per day or 3.2 tons of cookie dough per hour is now a mere child's play.



Perfect solutions programmed to succeed

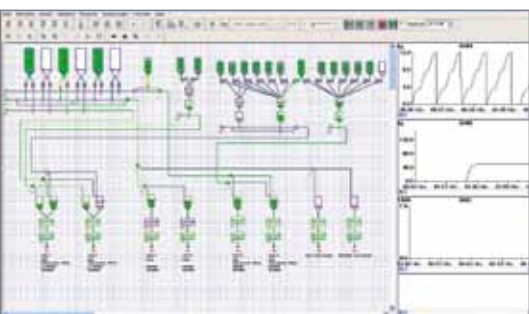
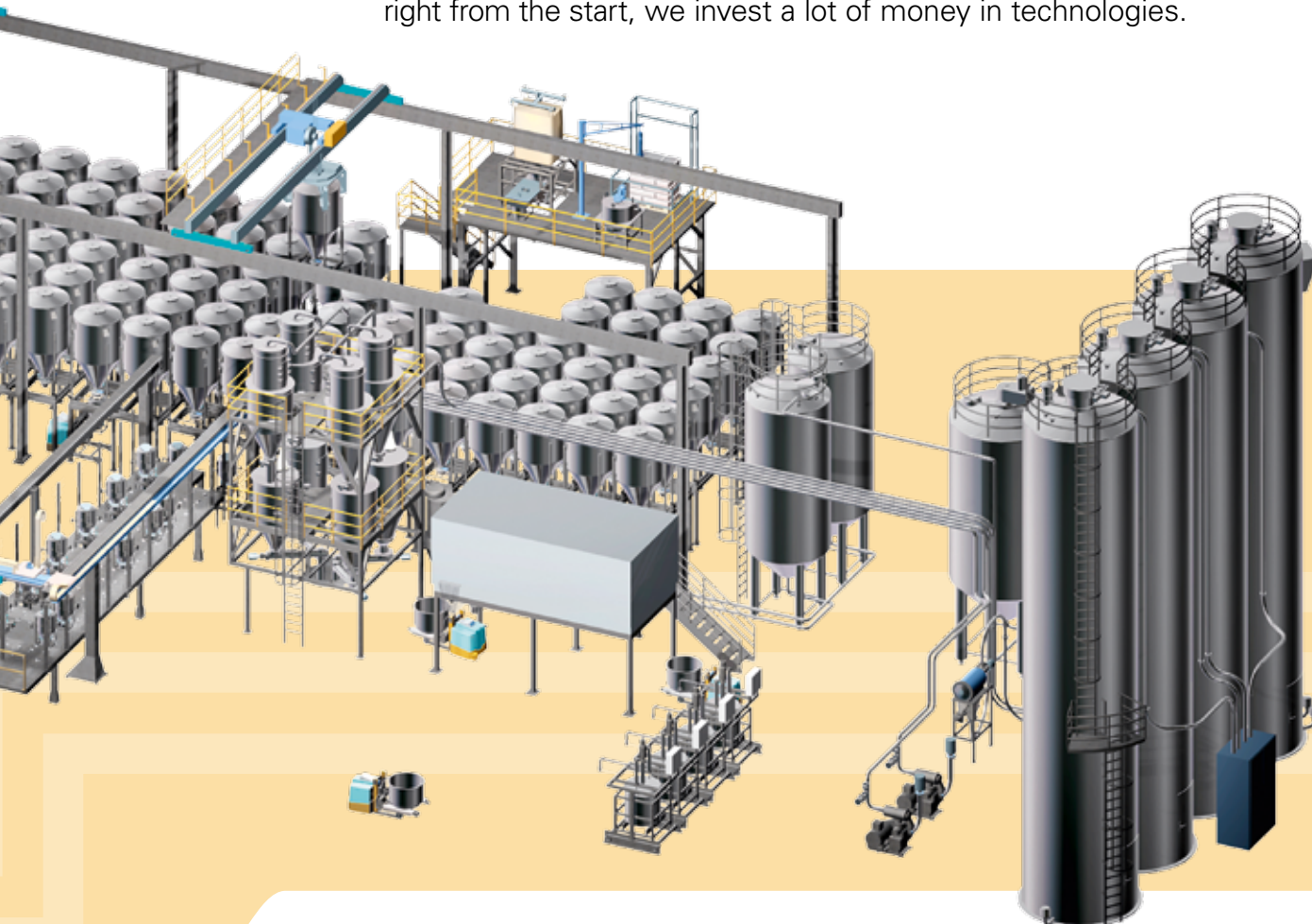
Which company is best positioned to develop perfect plant controls and automation? Surely the one that builds the plant itself. At Zeppelin Reimelt, engineers and IT experts sit next to each other – so the left hand always knows what the right hand is doing and can react accordingly.



All components of Zeppelin Reimelt's automation concepts are designed to fit perfectly into the system. Most of our process and automation technologies have been developed in-house and offer decisive advantages compared to standard systems. Optimized process control is also based on our own software solutions and offers everything from single scaling to fully automatic production with connection to the Internet.

Be the first to know what's going on

Our clients invest a lot of money in their plant, so they want to be sure that everything will function exactly as they imagined. In order to provide them with the necessary investment security right from the start, we invest a lot of money in technologies.



Computer simulation ensures, among others, the efficiency of production processes and optimal dimensioning. Several hours or days of production may be observed in real time or time lapse to identify possible blockages and bottlenecks, and reveal simplification potentials, etc. By optimizing the results, investment costs can be reduced by as much as 10%. Our simulation software – developed in cooperation with a renowned university – has already convinced many of our clients.

Furthermore, we can put theory into practice. Our technology center provides the possibility to test among others the conveying capacity, metering capacity, metering accuracy and also mixing applications with your raw materials. We develop individual processes for raw material handling together with our customers and can test the specific requirements on site.

Everything for the benefit of our customers



You can rely on Zeppelin Reimelt's
first-class service.

Our job doesn't end with the design of your plant; we also carry out the assembly and commissioning – all over the world. You can rely on us whether for employee trainings, professional instruction in production processes, proper maintenance, safe operation of the controls or the development of safety standards.

Naturally, we also provide maintenance, carry out inspections and repairs and offer a spare parts service.

Second to none technology The people at Zeppelin



Whether partner, supplier or entrepreneur – it's the people that make a difference. Zeppelin values teamwork within the global network, in collaboration with our customers or in one of the many project groups that actively contribute to our common success.

Because we know that outstanding technology alone does not make you successful internationally. For that, you also need employees that are able to meet the local requirements and make use of our worldwide expertise.

That's why you will find Zeppelin in every corner of the world where functionality and reliable operation are highly valued.



Global presence

- » Belgium
- » Brazil
- » China
- » France
- » Germany
- » Italy
- » India
- » Korea
- » Russia
- » Saudi Arabia
- » Singapore
- » United Kingdom
- » USA

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