

THE ARCHITECT OF YOUR VISIONS

foundation
experience
sustainability
historic
guiding
success
quality
responsibility
vision
variety
innovation

global

Plant engineering

stable
success
high-quality
premium
strong

individual

unique
innovative

engineering

SUCCESS CAN BE PLANNED

Zeppelin Systems, the world leading plant manufacturer for high quality bulk material handling, has remarkably grown over the past 60 years. We cover the demands of a wide range of industries and supply all plant manufacturing services from one single source, whether basic engineering, in-house production of components, final assembly or comprehensive customer service. Thanks to our financial strength and our global network we have long been a reliable partner for our customers.

Every Zeppelin plant is developed according to the clients' specific requirements and realized thanks to our customized innovative processes and technologies.

The knowledge we have acquired over more than 60 years of plant manufacturing and the world's largest network for bulk material handling are the key to providing ideal solutions whatever the challenge. After all, your success is our goal.





THE STORY OF ZEPPELIN SYSTEMS' SUCCESS

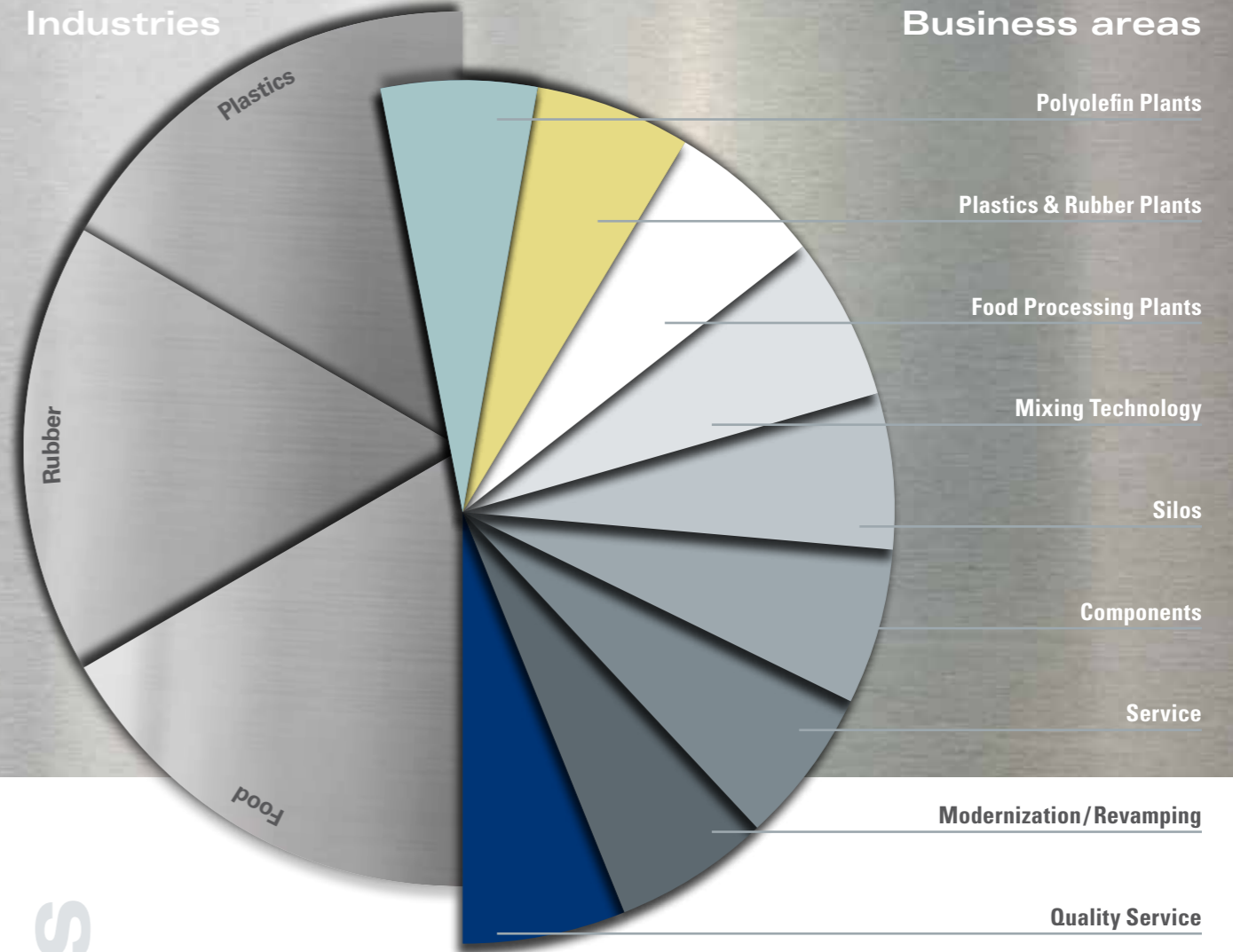
pioneering spirit
leading

From a local tank manufacturer to an international engineering company

Everyone knows the story about Count Zeppelin's airships that bore his name.

The historic flights, but also the Hindenburg tragedy will always remain in people's memories. The story of the great airship company is closely coupled with the story of Zeppelin Systems GmbH. The downfall of one was the beginning of the other.

In 1947 the allied military authorities ordered the destruction and forced liquidation of the airship company. Without production facilities, the end of the Zeppelin company seemed inevitable. But, giving up was not an option for the proud Zeppelin manufacturer. They looked back at the enormous know-how which was acquired through the production of airships. Mastery had been achieved, especially with aluminium welding technology. For this reason, Metallwerk Friedrichshafen GmbH was founded and ventured into a new beginning with the production of lightweight structures and large containers for the chemical industry.



foundation
courageous
historic
brave
worldwide
growth
robust
experience

Exploited opportunities for growth

It wasn't long before they were successful. Zeppelin silos had very quickly gained an excellent reputation on the market. Over the years the portfolio was expanded to include other key components for the bulk material industry. Over time, the company has developed into a specialist for storing, conveying, blending, dosing and weighing of premium bulk materials.



nottingham
 ludwigsburg
 freital
 moscow
 vadodara
 são paulo
 houston
 beijing
 freital
 moscow
 vadodara
 são paulo
 houston
 beijing
 milan
 shanghai
 tampere
 singapore
 al-jubail
 lyon
 seoul
 kassel
 genk

friedrichshafen

We have set up subsidiaries in all major industry locations worldwide to satisfy the needs of our customers. Strategic alliances and acquisitions contributed to a significant expansion in our business fields at the turn of the millennium. Polyolefin Plants, Plastics & Rubber Plants and Food Processing Plants operate in the industries in which we are at home.

The company's economic strength is due to its business structure: a foundation established by Count Zeppelin in 1908. This provides us with financial staying power and is the basis for long-term partnerships with our customers.

Worldwide leader

Meanwhile Zeppelin Systems is the world's leading FEED engineering company in the handling of premium bulk materials. We provide all plant manufacturing services from one single source, from basic engineering, in-house production of components, to final assembly and comprehensive customer service.

This is why Zeppelin considers itself an architect of the overall system: all processes are seamlessly connected; all components, modules and machines are optimally attuned to one another. This is how a customized plant design with utmost efficiency in daily operations is created. From the first briefing to system configuration through to production and commissioning – just like architects, we manage complex systems and coordinate the complete plant construction.

turn-key
 from one single source
advantage
 success
 from logistics to production
 variety
 transfer
 knowledge
know-how
 systems
special
big

EVERYTHING FROM ONE SOURCE, THE SPECIALISTS FOR BULK MATERIAL PLANTS

You can rely on Zeppelin quality, from basic FEED engineering and in-house production of components to assembly and comprehensive customer service. Your contact persons are all from one company, so they know your project. This eliminates interfaces and ensures smooth project work flow.

Applying knowledge across industries

Zeppelin is at home in several industries. We know the chemical, food, and plastics producing and processing industries, we provide systems for the rubber and tire industry and are experts in mixing. We use our knowledge accumulated over the years for the benefit of our customers, across all industries.

A conveying system which is used in the food industry can therefore be used for the handling of sensitive raw materials for the rubber/carbon black industry as well.

We cross technologies that have been used in one area for a long time into other areas where they are considered innovations. It is always our customers who benefit from this complex know-how.





The references speak for themselves

Zeppelin is the worldwide market leader in the bulk material handling markets. Years of experience and a reference list with all major and renowned producers, forwarders, contractors and licensors in the plastics industry, patented processes, the global Zeppelin network, and fast application-oriented implementation stand for the success of our technologies.

We support you in every phase of bulk material handling within the scope of your complex and long-term projects in the plastics industry.

We can even offer you our extensive knowledge and experience in one of the first project phases (FEED). Providing you with the expertise and professionally competent groundwork at the beginning of a project.

Our own core components for the handling of various bulk materials ensure the success of your plant. Whether it is engineering, a single component, a single conveying system, a silo, a blender or a complex system or even service during plant operation. With Zeppelin you always have the right partner for the task at hand.

One advantage for you is that we offer individually tailored and optimized solutions which can be perfectly integrated into your system. Innovative conveying systems, process silos, or even turn-key solutions – with Zeppelin you always have a competent partner.

Professional project management, a global network, service support during operation, staff training and manufacturing facilities in the most important economic regions ensure your success.

- Zeppelin Value Engineering
- Process silos, mixers
- Storage silos and silo technology
- Conveying technology
- Components for silo and conveying technology
- Automation technology
- Turn-key applications such as extrusion, loading and packaging technologies as well as infrastructure (civil engineering and warehouse technology)





An art in itself

Feeding several different, difficult to process raw materials into the manufacturing process, very gently and in a predetermined order, precisely timed and dosed: this is the biggest challenge when designing engineering solutions for plastics processing.

Zeppelin is a technology leader in the demanding industry for PVC processing plants, compounding plants and plants for the production of crosslinkable cables (VPE) in the cable industry and with technical plastics.

These complex tasks require extensive know-how to develop optimal solutions. This is where we are in our element.

We solve the problem of different container types and material qualities in raw material deliveries with flexible and reliable raw material management. Innovative conveying processes guarantee material friendly and trouble-free bulk material transport. Dosing and weighing is performed accurately and free from contamination. Material feed into the process is carried out without material loss. We have developed innovative manual and automated solutions especially for weighing small components.

We also develop completely new methods for processing and manufacturing sensitive raw material for and with our customers.

In addition to this we have our global network with subsidiaries in the most important economic regions. This enables us to ensure our customers personal on-site consultation for the expansion or modernization of their production facilities abroad.

- Material receiving
- Silo technology
- Conveying technology
- Weighing and dosing technology
- Small component systems
- Liquid systems
- Material management
- Automation technology





Knowledge pays off

In the rubber and tire industry Zeppelin uses its own first-class technology. More than 500 plants worldwide as well as a reference list with all the major companies in the industry speaks for itself.

Innovations, such as a patented conveying method for material friendly transport of carbon black and silica, are considered trend-setting in the industry and stand for the excellent reputation that Zeppelin enjoys in the worldwide rubber industry.

Our engineering expertise is required in advance of investment decisions. We develop planning processes time and cost-efficiently, and provide for optimum project management. During the quotation phase we stand out by using our system expertise and the use of modern tools like PDMS 3D design and COMOS PT.

We integrate complete mixing systems in existing buildings and develop concept studies for greenfields. Here, we cooperate closely with all companies involved in the planning and implementation process, such as mixer manufacturers or building planners, and we coordinate other interfaces such as fire protection planning, ex-protection certification, etc.

Our systems are geared towards the individual needs of our customers in the industrial rubber and tire industry. Here, complex recipes, the flexible integration of various additives, fillers and liquids play an increasingly important role.

The integration of technical oils, plasticizers, waxes, silanes, non-self-lubricating liquids, or liquid rubber is growing in importance. Here, Zeppelin stands out with open and closed liquid systems or complete multi-dosing systems for the precise contamination-free and exactly mixed supply of temperature-controlled fluids at the right time.

- Material receiving
- Silo technology
- Conveying technology
- Weighing and dosing technology
- Small component systems
- Liquid systems
- Material management
- Automation technology





We are passionate about food

There should be no compromises, especially with the demanding tasks in the food, confectionery and bakery industries. So let your system be designed and built by the leading experts in the industry: Zeppelin.

No other company has so much experience in the construction of modern food technology systems. The food industry customers especially appreciate our extensive know-how in liquid and bulk material handling as well as in dough production. Receiving, storage, discharge, transport, treatment, dosing and mixing of raw material: we develop something extraordinary in all areas. All components are from our own development and production and some are patented. The excellent equipment quality is designed for continuous operation around the clock. It meets the industry's strict hygiene standards and is designed to be easy to clean. Of course it is EHEDG certified.

- Material receiving
- Storage technology
- Discharge technology
- Conveying technology
- Weighing and dosing technology
- Treatment and finishing technology
- Mixing and kneading technology for batch and continuous operation
- Process control technology
- Automation technology





Setting standards

It's the right mixture that counts. It must always have the same high quality, require low energy consumption, be reproducible and tailored to the customers' requirements. Because quality arises from this process step, we develop, build and integrate these sophisticated machines ourselves.

In addition to plastics processing, our mixers are also used in the chemicals, food, dyes, paints, pigments and cosmetics industries. We master the handling and processing of sensitive materials whatever the sector.

Our standard machines and processes can master all mixing tasks: homogenization, dispersing, agglomeration, coating, heating, cooling or drying. Moreover, our special machines can be tailored to our customers' more specific needs and requirements.

- Container mixer
- Intensive mixer
- Heating/cooling mixer combination
- Cooling mixer (vertical/horizontal)
- Universal mixer (vertical/horizontal)
- Laboratory mixer
- Process mixer
- Continuous turbo mixer



SILOS & COMPONENTS



Unique bulk material components

Only the best: More than 60 years of experience with premium bulk material; the expertise of one of the world's leading plant manufacturers; the assurance of fully documented quality through in-house production; passionate employees who can technically implement our customers' needs and requirements with maximum functionality and excellence.

The whole works for all applications

- Storage silos, blending silos, process silos
- Rotary feeders
- Diverter valves
- Rotary sifters
- Vibratory bottoms and cones
- Filters
- Vacuum hoppers
- Product cleaning
- Fluidized beds
- Discharge and dosing units
- Dosing and feeding screws
- Samplers

Whether for the food or rubber industries, for plastics producers or processors – high-quality components play a crucial role. We know that and this is why we supply components 100% handcrafted by Zeppelin.



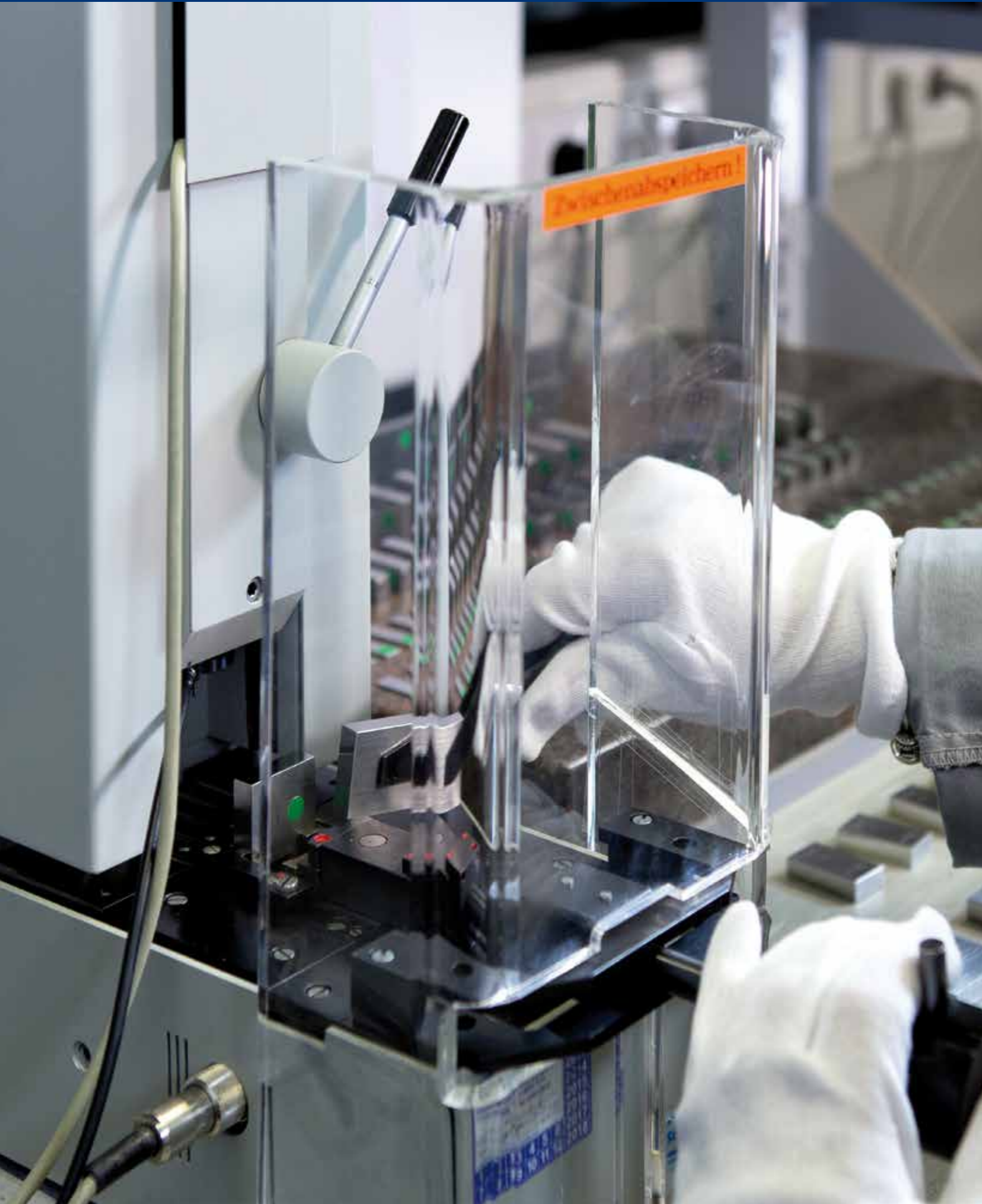


First-class systems

Our dedicated and competent service team is always present to ensure your full competitiveness. Our wide range of services guarantees the development of comprehensive and customized service solutions. Thanks to our global network, our service is available to you at all times. This provides you with the assurance that your plant meets all your requirements.

- Site management
 - Planning and coordination of site operations
 - Assembly and commissioning, modernization and revamping of production and processing plants
 - Site management and supervision of assembly
 - Manufacturing of silos and vessels on site
- Original spare parts
 - Standardized maintenance kits
 - Individual offers for spare parts
 - Individual supply with in-stock spare parts
- Comprehensive service concept
 - Consulting for plant optimization and spare parts stocking
 - Inspection contracts
 - Maintenance contracts
 - Repairs
 - Worldwide customer service points
- Training of customer's staff
 - Basics
 - Commissioning of Zeppelin plants and components
 - Maintenance and inspections
 - Control technology and E/I&C
 - Operator training at regular intervals
 - Customized training
 - In-house training
- Plant optimization
 - Modification of existing plants
 - Revamping
 - Debottlenecking
 - Modernization of existing plants





Managing quality

We provide our esteemed Zeppelin quality to external companies as well and offer our know-how and the use of our modern equipment. Our customer base also includes renowned companies in the aviation and aerospace industries as well as small and medium-sized companies.

Our big advantage is our employees' multiple qualification and process competence, which ensure quick connections and fast solutions.

Whether in the aviation, aerospace or automotive industry, for mechanical, plant, railway or medical engineering, or even for mold making – we provide you with first-class quality thanks to our wide range of services.

We develop appropriate QM systems for our customers and guide them to certification. We place the highest value on practical relevance. From the actual condition analysis through the organization of workshops and internal audits, assistance in the creation of documentation and employee training to certification, we are a professional partner.

- Quality management consulting and setup
- Personnel training and instruction
- Aerospace manufacturing and maintenance operations
- Pickling according to aviation standards
- Destructive and non-destructive testing procedures
- Welding technology
- Measurement technology
- Calibration service





Friedrichshafen technology center
for powder and pellets



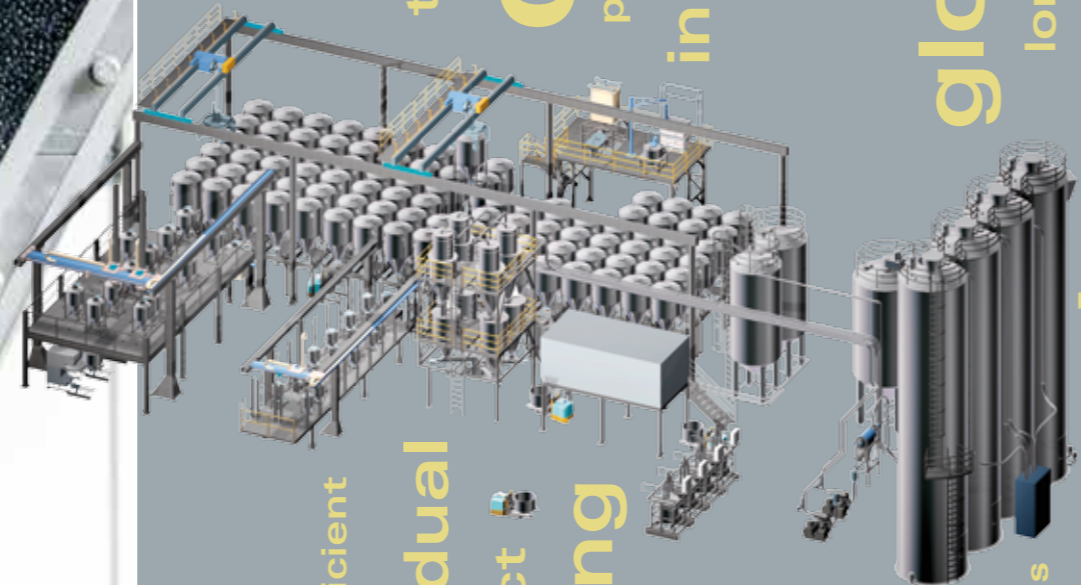
Rödermark technology center
for food



Kassel technology center
for mixing



São Paulo technology center for the plastics,
mineral and cement industries



trend-setting
clever
 patented
 innovative
 global modern
 long ranging
advantage
 accurate
 excellent
 solutions
 efficient
 individual
 perfect
 sparing
reliable
 technological leadership
safe
 advice

INNOVATION IS OUR DAILY BUSINESS

So that every system is unique

Every Zeppelin plant is developed according to the clients' specific requirements. You can imagine that there are many challenges to deal with. But our technicians and engineers work with the famous Swabian perfectionist spirit of invention until the system really runs perfectly. Constant improvements and new developments are standard, even if it is only about the details. A new type of seal, the angle of the flanges changed by a few degrees, a modified outlet, etc. It is often little things, but the sum of our innovations provides greater efficiency and economy in daily plant operations. To make further significant improvements to our customers' products it is not always enough to adapt machinery details to production parameters. We always also develop completely new methods for processing and manufacturing sensitive raw materials for and with our customers.

Maintain the advantage

Technological leadership is associated with a lot of research and development work. That is why we have the world's largest network for bulk materials.

fast
networked
competent
international
customer focused

qualified
close worldwide
passionate flexible



ROOTED IN THE REGION; AT HOME AROUND THE WORLD

What Silicon Valley is to the IT industry, the Lake Constance region is to the investment goods industry.

Companies such as EADS, ZF Friedrichshafen AG, Rolls-Royce Power Systems AG (MTU) are located in this technology capital. Here, there is a huge concentration of skilled technicians and engineers, who constantly use their know-how to develop innovations respected around the world. At Zeppelin Systems there are more than 1,300 employees worldwide, many of whom are engineers and process engineers for innovative and economical system design. They work with passion on solutions that delight our customers.

The strong heartbeat that emits from our headquarters in Friedrichshafen is felt around the world. With production facilities in Germany, Brazil, USA and China as well as offices and representatives around the world we can service all markets quickly, flexibly and be extremely close to the customer.

OVERVIEW OF THE ZEPPELIN GROUP

The Zeppelin Group has 190 sites in 30 countries. The company provides solutions for the following areas: construction and agricultural equipment, rental equipment, construction logistics, drives and energy, engineering, and plant engineering. In the 2015 fiscal year, Zeppelin achieved a sales volume of EUR 2.33b, with 7,800 employees (including trainees) having contributed to this success.

Our promise to customers is "We Create Solutions". Zeppelin employees see challenges as a springboard for developing solutions with innovative products and services from a single source.

Group-wide collaboration at Zeppelin revolves around a Management holding company and six strategic business units: Construction Equipment EU, Construction Equipment CIS, Rental, Power Systems, Plant Engineering and Digital Services and Solutions. This structure makes it possible to centralize operations and gear the business models to the different markets and customers.

The Group's Management holding company is Zeppelin GmbH. The company is legally domiciled in Friedrichshafen, with its headquarters located 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 Count Zeppelin in 1908. Today the Zeppelin Foundation continues to own a stake in Zeppelin GmbH via Luftschiffbau Zeppelin GmbH.

value
mission

vision
power
!ntegrative



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For the complete Zeppelin Systems range please visit our website at
www.zeppelin-systems.com

Global presence

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