### DINNISSEN PROCESS TECHNOLOGY





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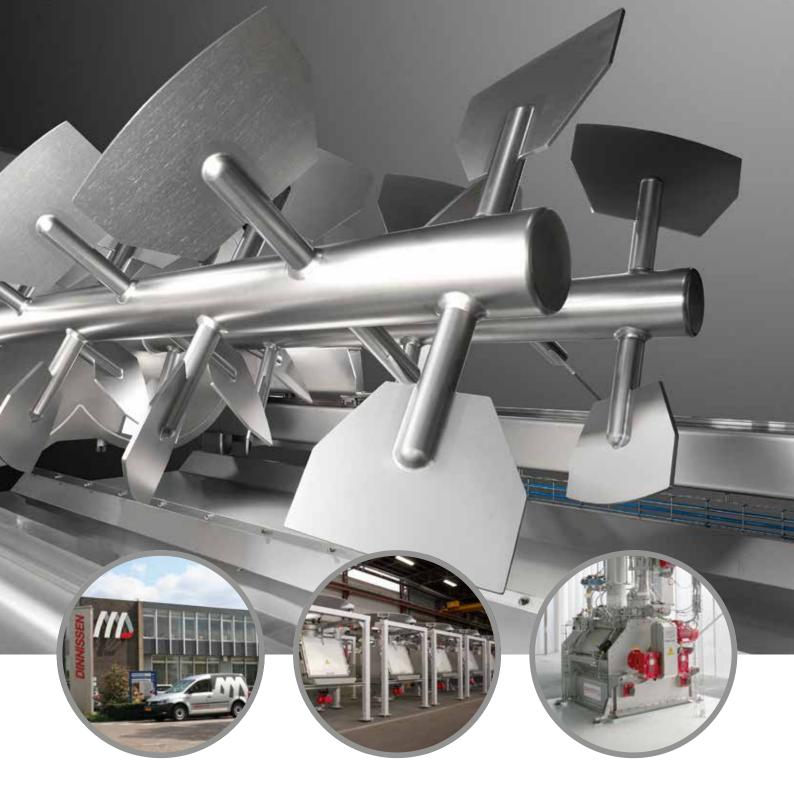
OF OUR DNA. FROM TAILOR-MADE COMPONENTS TO PLAYER IN PROCESS TECHNOLOGY IN THE WORLD OF FOOD, PET FOOD, FEED AND CHEMICALS. WE PROVIDE OUR CUSTOMERS WITH A VARIETY OF SOLUTIONS. THESE RANGE FROM STAND-ALONE MACHINES TO COMPLETE TURNKEY SYSTEMS, FROM PRE-ENGINEERING TO PROJECT MANAGEMENT AND FROM DESIGN THROUGH TO ASSEMBLY AND START-UP. OUR EXTENSIVE INTERNATIONAL NETWORK MEANS THAT WE CAN DELIVER OUR SOLUTIONS ALL AROUND THE WORLD.



SYSTEM INTEGRATOR WITH **MANUFACTURING** SKILLS

#### **History**

Dinnissen was founded in 1948 as a machine specialist for the compound feed industry in Sevenum, the Netherlands. Rapid regional growth and developments in our sectors have continuously challenged us to apply all our talent for innovation and expertise, resulting in Dinnissen becoming a specialist in handling bulk solids and powders. Today, with over 180 employees, we hold a leading position in the world of powders, particles and granules. We are proud to be known for our expertise, quality products and tailor-made solutions.



#### Value innovators by nature

By combining techniques from various industries, we are able to develop innovative solutions for even the most complex challenges. We achieve our solutions through working closely with our customers and by following market trends. In finding those solutions, we always keep safety, ergonomics, efficiency and hygiene high on the list. Our D-Innocenter® in-house testing facility allows us the opportunity to comprehensively and practically test our solutions. Extensive testing creates reliable solutions and facilitates precise measuring of actual results. Using these measurements, techniques and results can be refined and constantly improved.

#### Quality

From innovative solutions for complete processes to system integrations or standard products: all of our products are realized in accordance with widely recognized standards and guidelines, including ATEX, GMP, CE, HACCP and EHEDG. Dinnissen is also ISO 9001:2015, 14001:2015, 27001:2013 and VCA certified. Our drive for quality combined with worldwide service and certified production ensures that Dinnissen is a partner you can rely on.

## THE DINNISSEN DNA









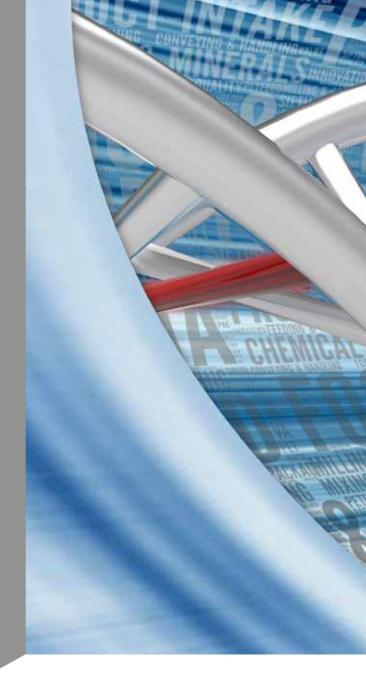






INNOVATION, ADDED VALUE AND QUALITY ARE ALL HOW, PRODUCTION AND IN-HOUSE TESTING FACILITIES. WE ARE ABLE TO OFFER A WORLDWIDE SERVICE IN

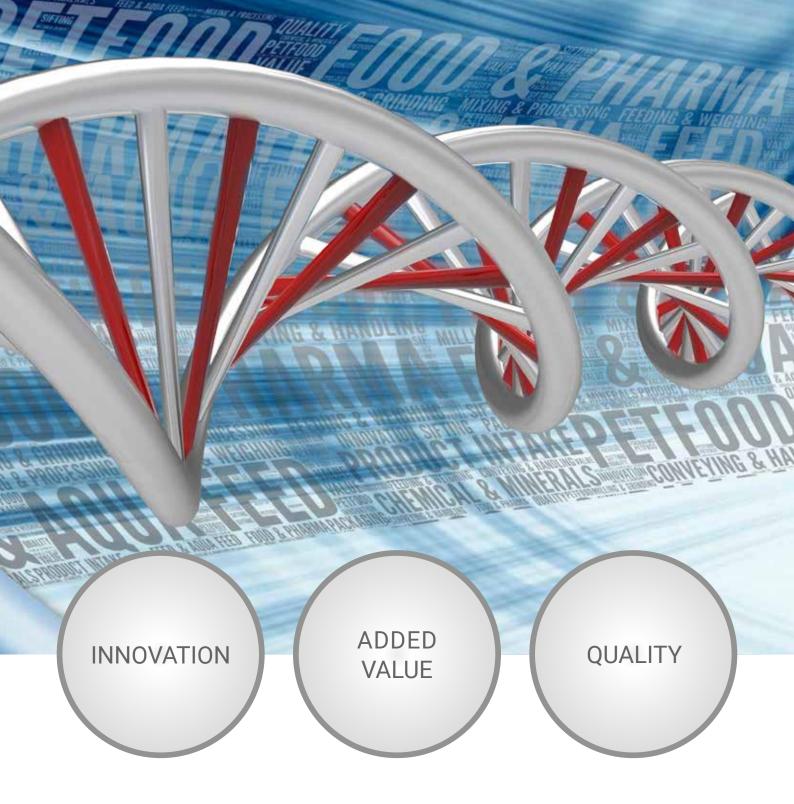
- 70 YEARS OF EXPERIENCE
- IN-HOUSE TESTING FACILITY
- IN-HOUSE DEVELOPMENT AND MANUFACTURING
- 3D PLUG & PLAY
- SYSTEM INTEGRATION
- SOLUTIONS TO COMPLEX CHALLENGES
- SKID MOUNTED PREFABRICATION
- VIRTUAL REALITY & PLANT SIMULATION
- INSTALLATION, CONTROL AND COMMISSIONING
- GLOBAL SERVICE





#### **Innovation**

At Dinnissen, we aim to provide our customers with high quality, innovative concepts that add value to their processes. Our engineers are always working towards the optimization of every aspect of the production cycle. In addition, we perform physical tests in laboratory set-ups at our D-Innocenter® testing facility. This gives you the benefit of tried and tested technology and thanks to modern techniques such as virtual reality and simulation software, we can give you a preview of a new installation, even during the design phase. Potential problems surface before construction even starts.



#### Added value

By applying innovative methods, we create sustainable added value in every project. Because every project requires a tailormade approach, we can only achieve good results by listening to our customers. Working closely with our customers enables us to better understand the situation and work towards optimal solutions. Our process specialists are experts in developing solutions for virtually every application. In consultation with you, we are even able to pre-build and test your complete mixing plant at our factory in Sevenum, the Netherlands.

#### Quality

Our unsurpassed quality results from our experience and in-house techniques, but primarily from our employees - each and every one a specialist in their field. Their craftsmanship in making every single machine a tailor-made solution, ensures you of the highest quality products, as you would expect from us. The design of our products minimizes the amount of service required and provides you with a perfectly functioning process installation and a solid and reliable machine. The quality of our products and service is appreciated by our customers all over the world. Underlining that appreciation are the multiple awards that we have won.

## YOUR ENTIRE PROCESS

WE OFFER FLEXIBLE PRODUCTION LINES THAT CAN
BE USED FOR ALL TYPES OF PRODUCTS IN DIVERSE
INDUSTRIES, ENABLING YOU TO ALWAYS RUN YOUR
PRODUCTION PROCESSES WITH FOCUS ON COSTEFFICIENCY AND WITH THE STANDARD OF QUALITY
AND HYGIENE DESIRED BY YOUR CUSTOMER. WE OFFER
MULTIFUNCTIONAL, FLEXIBLE, COMPLETE SYSTEMS OR,
WHEN PREFERRED, THE INTEGRATION OF INDIVIDUAL
PROCESS STEPS THAT ARE CUSTOMIZED TO YOUR
SPECIFIC PRODUCTION REQUIREMENTS. SINCE WE
STILL PRODUCE ALMOST EVERY SINGLE COMPONENT
IN OUR PROPRIETARY MANUFACTURING PLANT IN
SEVENUM IN THE SOUTH OF THE NETHERLANDS, WE
ARE ABLE TO OPERATE INDEPENDENTLY OF THIRDPARTY SUPPLIERS. THIS RESULTS IN FASTER AND HIGH
QUALITY SOLUTIONS FOR YOU AS OUR CUSTOMER.



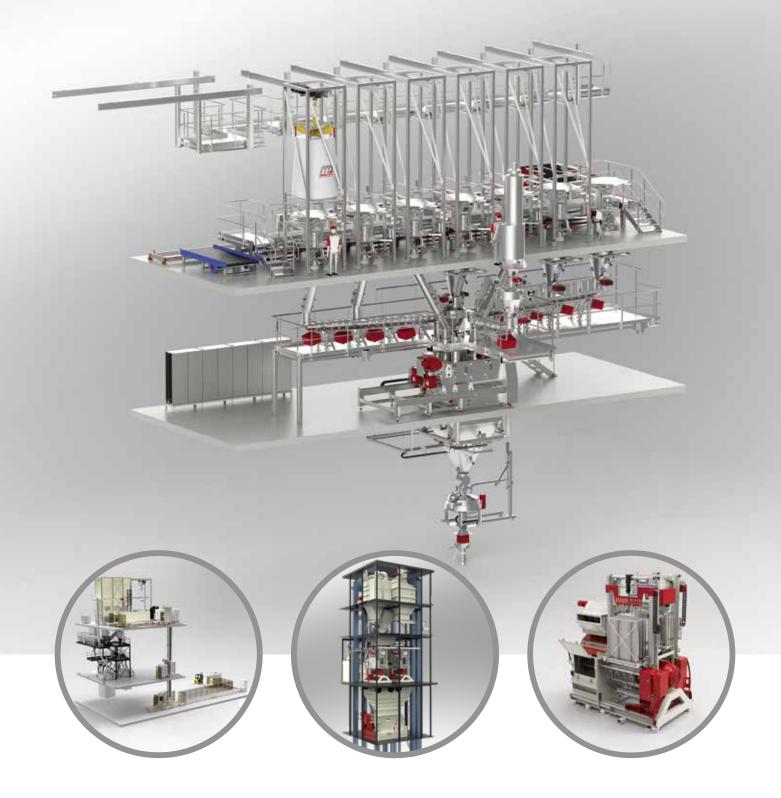


#### **Product intake**

When it comes to unloading or emptying sacks, drums, Big-Bags, tank cars and silos, no job is too challenging for us. We have considerable experience in this area and are used to executing such jobs safely, hygienically, efficiently, completely automatically or manually and in any case, down to the very last particle.

#### **Conveying & Handling**

We offer a complete range of pneumatic, mechanical and aero-mechanical conveying systems. Standardized or fully customized in order to meet your demands in terms of speed, capacity, energy consumption, durability and hygiene.



#### **Feeding & Weighing**

When it comes to fast and accurate registration of volumes and weights, we offer various solutions for weighing and continuous or batch-based dosing (gravimetric or volumetric) processes.

#### **Mixing & Processing**

Our systems for mixing a wide range of materials and for injecting and spraying liquids have proven themselves in various industries. Our starting point is always the quality required for the mixed product. Mixing has to be done quickly and carefully in order to prevent damage, while still saving time and money.

#### Milling & Grinding

We grind until the exact particle structure required is attained, as homogeneously and as flexibly as possible, in order to prevent product loss and contamination.

#### Sifting

Our systems sift powders, particles and granules quickly and reliably for maximum control and optimum results.

#### **Packaging**

Packaging is done efficiently and hygienically and in accordance with international guidelines in order to ensure optimum logistics.

## FOOD & PHARMA

















ROLE IN OUR SOCIETY: THEY HAVE AN IMPACT ON OUR HEALTH. THE SAYING GOES: "WE ARE WHAT WE EAT" AND IT ENCOURAGES PEOPLE TO BE MORE THE PREVENTION OF CROSS-CONTAMINATION SINGLE MACHINE OR AN ENTIRE PROCESS.



PROVEN AND *IMPROVED* **TECHNOLOGY** 

#### Lean mixing concept

Our 'lean mixing by Dinnissen'-concept is known throughout the world. It complies with the latest technologies in hygiene and rapid cleaning. In this concept, we follow the entire process and keep it simple by eliminating everything that has zero added value. Literally: 'less is more'. By doing this, we save energy and the product quality remains high. An example of this is our lean gravity mixing concept. Instead of transporting products horizontally, we make use of gravity and construct the entire process vertically.



#### Hygiene

Manufacturers who produce recipes for vulnerable consumer groups, such as babies and the elderly, require especially strong hygiene protocols. In addition, our customers in the food and pharmaceutical sectors often successively produce their extensive product range in a single process line. No residue may remain in the system. Therefore every component of the entire process has to be flexible, easily accessible and easy to clean. This way, cross-contamination is prevented and products can be produced without concern.

#### Improved technology

Proven and improved technology. At Dinnissen, in general and particularly in our food and pharma departments, we go through every step together with our customers. The production process of the machine or entire process line is closely monitored. With our in-house engineering, in-house machine production, proprietary testing facility, innovative nature and advanced reviews of 3D layouts, we are able to offer a totally tailor-made concept, build a solid relationship and guide the customer through to a satisfying end result.

### **PET FOOD**















DINNISSEN TO DEVELOP OUTSTANDING PET FOOD FOR THE PRODUCTION OF ECONOMIC, PREMIUM OR SUPER PREMIUM PET FOODS ARE OFTEN NECESSARY. OF HYGIENE ARE GAINING IMPORTANCE IN THE PET FOOD INDUSTRY. THIS FLEXIBILITY ENABLES OUR CLIENTS TO RUN VARIOUS PRODUCTION PROCESSES WITH A FOCUS ON THE END CONSUMER ALONG WITH COST-EFFICIENCY AND QUALITY.



### INVENTOR OF VACUUM CORE COATING

#### Improving quality

We are constantly working to meet the highest requirements of our customers and their pets and to improve the quality of pet food. We are able to do this by using our innovative concepts, such as our Pegasus® paddle mixer with double shaft, which offers a variety of possibilities. This machine creates a unique, fluidized zone that is extremely suitable for homogeneous spraying of both large and small quantities of liquids, as well as homogeneously mixing powders. This will guarantee high quality pet food that cats and dogs around the world eat every day.



#### Hygienic design

Hygiene is becoming more and more important in the pet food industry in order to ensure that pets and their owners are free from becoming infected with germs, bacteria and the like. Current pet food guidelines make the criteria for the production of pet food increasingly comparable to that of the food industry. The experience we have gathered in both sectors regarding hygiene, cleaning and the prevention of contamination, enables us to supply to the highest standards in hygienic design in the pet food sector. This makes Dinnissen the reliable partner for your pet food processing.

#### **Product diversity**

The diversity of products for pets is changing radically. Premium pet foods with the best palatability, high meat content or lean recipes, require new methods of production. Following these trends, the production requires changes too. Dinnissen can suggest various innovations on these topics. Flexibility in production, hygiene and sanitation are important factors that we provide with our concepts. We guarantee high quality and safe food for all cats and dogs.

## FEED & AQUA FEED















AQUACULTURE IS THE MOST ENVIRONMENTALLY SUSTAINABLE WAY OF FEEDING THE EARTHS' BOOMING POPULATION. NEVERTHELESS, BECOMES INCREASINGLY RELEVANT. EVERY YEAR, NEW PRODUCTS ARE LAUNCHED. TO PROPERLY PROCESS ALL THESE NEW PRODUCTS, YOU NEED TO HAVE RELIABLE AND FLEXIBLE SYSTEMS.



IN-HOUSE TESTING, **DEVELOPMENT AND MANUFACTURING** 

#### **Efficiency**

Minimizing energy consumption is a hot topic in the world of feed and aqua feed. By striving for low-energy solutions, we reduce the costs of production processes, while simultaneously minimizing the carbon footprint of these processes. Our drive to innovate and our extensive experience enable us to produce efficient and accurate machines and process lines that allow you to make an important step forward in efficiency.



#### Reliability

In modern farming, animals need high quality nutrition daily in order to perform well. Reliable aqua feed and compound feed production is essential to deliver that quality nutrition. Dinnissen is the right partner for machines and complete process lines for efficient, hygienic and reliable feed production. In many aqua feed and compound feed factories, the grinding, mixing and vacuum coating systems of Dinnissen form the heart of the installation. Dinnissen machines contribute to the reliable production of the best feed all around the world on a daily basis.

#### Hygiene

Every step of the process in the food chain plays an important role in delivering quality end results. In relation to hygiene and safety, our approach to the food industry is replicated in the development of our latest generation feed and aqua feed machinery. Easy-toclean equipment meets the highest standards of hygiene and is available for the production of your compound feed and aqua feed.

## CHEMICALS & MINERALS















DINNISSEN HAS BEEN ACTIVE IN THE CHEMICAL INDUSTRY FOR MANY YEARS. THE DEMANDS OF OUR CUSTOMERS IN THE CHEMICAL INDUSTRY HAVE BECOME INCREASINGLY COMPLEX OVER TO MEET THESE REQUIREMENTS, WE DEVELOP MACHINES AND PROCESS LINES IN ACCORDANCE KEEPING THEIR DESIRED SPECIFICATIONS IN MIND.





#### Applying our know-how and experience

You will find our equipment, ranging from unloading, mixing, milling and grinding to pneumatic transport and packaging units in diverse segments of the chemical markets. These range from fine chemicals all the way up to off-shore applications. Thanks to our experience and references, we are able to add value to every project in the chemical sector. We combine our know-how of various processes into one comprehensive solution.



#### Specialised in hazardous environments

Resulting from our knowledge of the subject and our equipment, we have realized numerous projects in and around hazardous environments, varying from an ATEX environment through to working with insanitary and hazardous products. We specialise in analysing situations and adapting equipment design to meet the requirements of the chemical sector. After a systematic evaluation of the process, our project team takes action to minimise risks and integrates preventive safety measures. Because design and fabrication take place at the same location, Dinnissen is extremely flexible and can respond instantaneously when needed. As a result, we can realise complex projects in a short time, offering you a safe and reliable installation.

#### Intake

The intake of (toxic) ores and other raw materials such as nickel, zinc and arsenic compounds from Big-Bags, barrels or sacks is one of our specialties in the chemical sector. We can crush, sift, mix, coat, impregnate or agglomerate these materials in accordance with the strictest emission guidelines, resulting in a premix. By controlling the process we are able to prevent contamination and most importantly, create a safe and friendly environment to work in.

### **SERVICE**















EXPERIENCE HAS TAUGHT US THAT A PROJECT STARTS WELL BEFORE THE ACTUAL PRODUCTION AND DOES NOT END WHEN THE PRODUCTION IS COMPLETE. NEED TO AND CERTAINLY WANT TO START DEVISING SOLUTIONS WITH YOU LONG BEFORE OUR ENGINEERS AND MAINTENANCE PLANS, ON-SITE PROJECT MANAGEMENT ALONG WITH (AFTER SALES) SERVICES.



INTEGRATED **APPROACH** FOR DEALING WITH COMPLEX **CHALLENGES** 

#### D-Innocenter® in-house test facility

Products often behave in unexpected ways. To test product behaviour, we have created our in-house Dinnissen Innovation Centre (D-Innocenter®). This test department is equipped for testing new techniques before actually putting them into production. We are able to analyse product behaviour at an early stage and use the results to optimise the process design. We test your products using our existing techniques and are able to minimize the process risks during start-up. This ultimately results in a well-functioning process installation.



#### Installation, automation and commissioning

After the engineering and production phases, we focus on installation of equipment. All of our products are installed by our own team of experts. This enables us to guarantee quality and provide on-site assistance, which is always needed during the installation of our machinery. Our qualified commissioning engineers make sure that the equipment is up and running in the shortest possible timeframe by integrating our tailor-made control system, based on Siemens or Allen Bradley, in your factory. As a final step, we complete the installation process by teaching your employees how our machinery operates.

#### Worldwide service

We live in a society today, where every minute counts in the production process. Our skilled service team is always on-call to rapidly respond and resolve any issues that may occur, before and during installation. Following installation, our specialized After Sales service team is ready to answer your questions. It goes without saying that we continuously strive to minimize the occurrence of these kinds of situations by employing our extensive expertise and quality maintenance. Our experienced experts travel around the world performing inspections and preventive maintenance work, ensuring a reliable result.

### **CONTACT US**















SUPPLY COMPLETE PROCESSES AND INTEGRATED SYSTEMS AS WELL AS STANDARD PRODUCTS SERVING YOU. PLEASE VISIT US AT ONE OF THE MANY TRADE FAIRS WE ATTEND OR JUST CALL US. OUR SPECIALISTS WILL BE PLEASED TO HELP YOU.















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