

Plant Engineering Expertise

Your efficiency specialist

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**United for goals –
we are driven by
satisfied customers
and a concept
that supports you
in your success.**

We plan and realise your plant project individually and uncompromisingly according to your requirements. Whether new construction, expansion or modernisation – the concepts by OAS can be adjusted throughout the entire life of a plant.

OAS AG combines plant engineering for bulk materials and liquid media with process control technology and material logistics. We support you throughout the entire in-house process from the receipt of raw material to the consignment of goods. Based on our experience and expert knowledge gained in many years, we plan and deliver customised facilities. Whether standard system or individual solution – OAS AG is your reliable partner in plant engineering.

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Thomas Daszenies
Head of Plant Engineering
OAS AG



Long-time experience

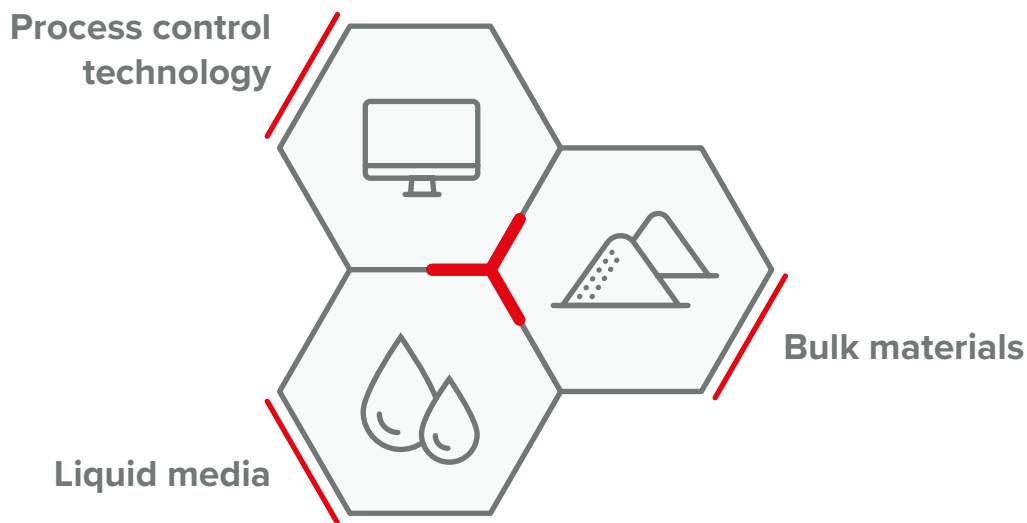
Over decades, we have gained experience with bulk materials, liquid media and automation in many projects that we led to success. We accompany you during the conceptual design, necessary approval procedures, installation and commissioning as well as after-sales service.

All-around support

We provide you with comprehensive project support: starting with the plant engineering through the process automation and ending up with the installation. In addition, we also coordinate other trades for you, such as architects and steel construction. This eliminates the time-consuming definition of interfaces and project coordination for you. Thanks to our comprehensive know-how there are much less interfaces required.

All depends on interaction

Plant engineering and process control technology – together, they are strong!



Seeing things differently

With our cross-industry knowledge of process engineering, we look at your processes from a holistic perspective. We will be pleased to discuss with you how to optimise your processes – upon request, also beyond your production facilities in the area of plant logistics (truck scales, yard management and self-service terminals).

A solid foundation

Our proven standard modules for storing and dosing silo goods, big bags, bagged goods, IBCs and barrels form the basis for our plant projects. Based on this, we adapt these solutions to your individual needs. This demands process reliability and reduces the engineering time. We are striving for an individual solution that meets your requirements.

Investment security

The plant is growing with its tasks. Modular or scalable solutions which can easily be expanded are in the focus of our engineering efforts. Our quality standards for all components and our service make your investment safe for the future.

Expansion of existing plants

In addition to new construction, we specialise in the expansion and modernisation of existing plants. With 3D processes, we find the best solution even under difficult space conditions whilst minimising downtimes in the existing plant.



Bulk materials

Building materials • Granules • Powders • Pigments • Metals • Sands

From the delivery and preparation, storage and conveying to the dosing, mixing and bagging of a wide variety of raw materials and products: we will work with you to create an optimal solution concept that is tailored to your products. Whether it is about the new construction, the expansion or the modernisation of

your plant, we will accompany you from the initial engineering through the selection of the appropriate units to the turnkey plant. Our standardised solutions and products for plant construction also offer you cost-saving, modular expansion options for your production.





Your benefits

■ Future-proof planning of new plants

Our plant concepts are based on tried-and-tested standard modules that allow the expansion of capacities at any time. This reduces the planning effort for your project and at the same time makes your investment reliable in planning.

■ Intelligent use of existing components

Many plants have grown in decades. With the aid of 3D processes, we determine your existing plant in order to subsequently adapt it in a targeted and effective manner to the requirements changed in terms of performance and product variety.

■ Process optimisation

Our equipment is equipped with state-of-the-art control systems. This allows you to continuously optimise processes with features, such as reverse batch tracing, reporting and energy transparency, and helps to save valuable raw materials.

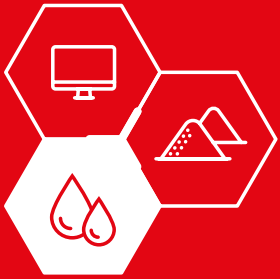
■ Increasing variety of raw materials and flexibility

Our standardised expansion solutions allow you to optimise space and simplify the handling of additional raw materials for your production in silos, big bags and sack chutes.

Scope of performances

- Turnkey production plants
- Modernisation and expansion of plants
- Silo systems
- Handling systems for big bags and bagged goods
- Dosing and weighing systems
- Pneumatic suction and pressure conveyors
- Mixers (batch and continuous mixers)
- Filling and loading equipment
- Process control technology





Liquid media

Chemicals • Paints • Lacquers • Food • Solvents

From the delivery and storage of liquid raw materials through conveying, dosing, mixing and dispersing to the provision of the finished product for filling: we will support you in developing a new concept for your plant as well as in the optimisation of existing production processes in your plant.

Whether new construction, expansion or modernisation – you set the task, we deliver the engineering know-how! Furthermore, our proven solutions and products for plant construction offer you cost-saving, modular expansion options for your production.





Your benefits

■ Process knowledge

Our process specialists are your contact persons for the targeted implementation of your requirements in the engineering of your plant. Our experts know the branch of industry and will actively support you in developing solutions.

■ Flexibility

We will make every effort to meet your requirements in a flexible and energetic manner. When implementing your project, we consistently pursue one goal: the optimum solution for your production.

■ Symbiosis

Most production processes use both, liquid media and bulk materials. Here, too, we have a distinct understanding of processes across all industries in order to provide you with the best advice.

■ All from a single source

We will be glad to carry out the (pre-)engineering of your plant. This way, there are no interfaces required for planning, delivery, installation and commissioning. Often such interfaces would increase costs and cause delays.

Scope of performances

- Ready-to-use tanking and mixing systems
- Modernisation and expansion of plants
- Dosing and weighing systems
- Conveying high- and low-viscosity media
- Mixing and dispersing
- IBC dosing systems
- Barrel dosing systems
- Filling and loading systems
- Plant design in accordance with AwSV, WHG, ATEX directives
- Process control systems





Process control technology

Together towards a Smart Factory

On the way to becoming a Smart Factory, our process control system **pronto** is the perfect tool for your production. From resource planning, production planning, manufacturing and quality assurance to energy management, maintenance and operations management, **pronto** continuously provides you with the

production-relevant database and controls your entire production in an efficient manner. At the same time, it is powerful and user-friendly and, thanks to its AI-supported detailed planning, enables smooth processes in your production.



Your benefits

■ Material management in production

Recipe management and order management (production planning), a performant and flexible batch control and comprehensive data logging (tracking & tracing) – these are integral parts of **pronto**.

■ Investment security

Optimal scalability – from a single-user system to a high-availability server application with over 100 workstations – increases the investment security of your project.

■ Integration

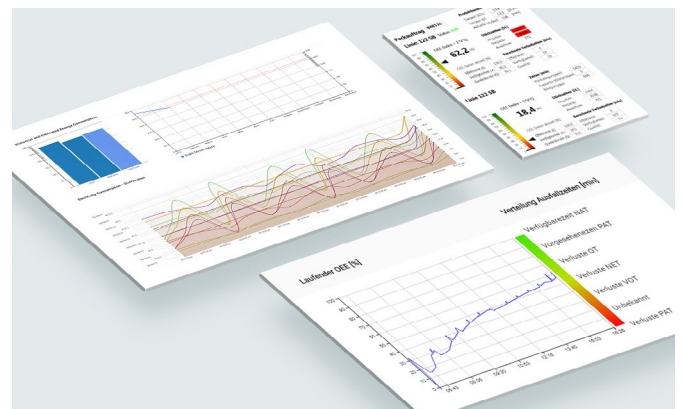
pronto allows the integration of laboratory workplaces, e.g. for correction recipes and test values; machine controls and the employee management of manual work steps are also possible without any problems. The plant logistics (receipt of goods and truck yard management) round off the system.

■ Energy transparency

The evaluation of central key figures for performance analysis (OEE) and energy management (EnPI) creates transparency for the management.

Scope of performances

- Project engineering according to ATEX and SIL
- MES consulting and preparation of performance specifications
- Delivery of the process control system (MES, SCADA)
- Featuring integrated automation (PLC)
- Integration into the ERP system
- Electrical engineering and switchboard construction
- Electrical installation
- 24/7 on call and remote maintenance service

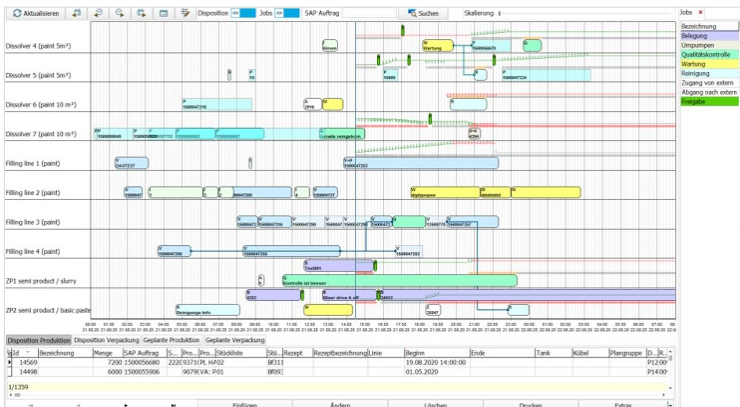




Artificial intelligence for high efficiency in production planning

Production planning with **pronto** gets done using genetic algorithms to optimize production time, resources and storage capacities in a fully automated procedure. AI determines promptly the optimized production schedule and allows to use production lines in the most efficient way. Should there happen any unexpected shortage in raw material availability or modifications in work order priorities, then a new production

sequence can be calculated “at the push of a button” within seconds. Provided **pronto** is connected to the company’s ERP system, any material bookings and modified work order sequences will be available instantly in the ERP software. Production manager take benefit from flexible production scenarios that also include the required capacity of staff considering its individual qualifications.



These customers trust in OAS

We are striving for the highest satisfaction of our customers! For us, working together in partnership means always acting in a solution-oriented and flexible manner. We are proud of our long-term partnerships. Customers

from a wide range of industries rely on our extensive know-how and the quality of our plant engineering concepts.



We create chemistry

Peter Sigmund
Project Engineer
BASF

„Our demand: BASF wants to be the globally leading chemicals company for our customers. One important element in this context are state-of-the-art production lines. With our new power handling line by OAS, we are now able to make our production process even more precise and efficient.“

„The high quality of the consulting service and the professional execution of OAS have convinced us. We value the long-standing partnership at eye level. Since the construction of our plant by OAS, we have successfully implemented numerous further expansion stages together and have already planned new projects for the future.“

BauMineral
KraftWerkstoffe

Christoph Maibaum
Head of Plant Engineering
BauMineral GmbH

Stricker & Weiken
KRAFTWERKSTOFFE

Dr. Burkhard Ebeling
Head of Distribution
Stricker & Weiken GmbH & Co KG

„The excellent cooperation with OAS enabled us to offer today an even larger range of grain sizes and with our computer-controlled dosing systems, we are able to always deliver high-quality and exact batches what allows us to fulfil almost every customer request.“

„We were particularly impressed by the flexibility of OAS. OAS was able to manage all the trades for us, not just their own, and to bring them together into one big whole. Thanks to the outstanding efforts of OAS, we now have a state-of-the-art paint production facility.“

VPL
Packaging Coatings

Marc Konersmann
Managing Partner
VPL Coatings GmbH & Co KG

Proven solutions and products for plant construction

With our proven solutions and products for plant construction, we offer you cost-efficient, standardised concepts for the uncomplicated expansion of your raw material handling. From the big bag station to the patent-pending silo module system with integrated

small and medium component station, we have developed standardised expansion solutions for many requirements. For you, this means more output for your production with less expenditure of cost and time.

Storing and dosing

- Site silo
- Big bag filling station (mobile, verifiable)
- Big bag discharging station
- Dosing station for standardised and individual exchangeable containers
- Barrel dosing
- IBC dosing station
- Small and medium component station
- Sack chute
- Silo module plant with integrated small and medium component station (patent pending)

Mixing

- Plough-share mixer

Hygiene and safety

- ANA system featuring a stop valve
- Hygiene module DK for disinfection and preservation
- Air treatment system



Utility patent no. 20 2022 101 963
Patent pending

Silo module plant equipped with integrated unit
for components of small and middle quantities

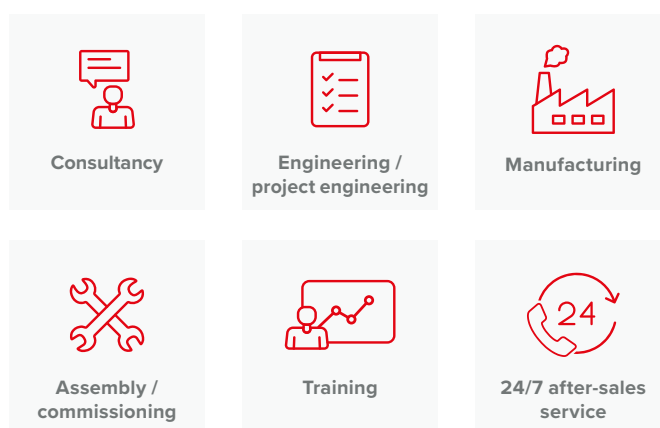
Industries

- Building materials / construction chemicals
- Cement / lime / plaster
- Chemicals
- Disposal & recycling
- Foodstuff and luxury food
- Metallurgy
- Paints & varnishes
- Synthetic materials

Range of services

- Automation
- Business software solutions
- Fabrication control system
- IT infrastructure
- Plant engineering
- Truck and track scales
- Weighing and dosing technology
- Yard management

Scope of performances



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