

comessa
we dry harder



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We dry harder

COMESSA - A COMPANY WITH A NAME AND A STORY

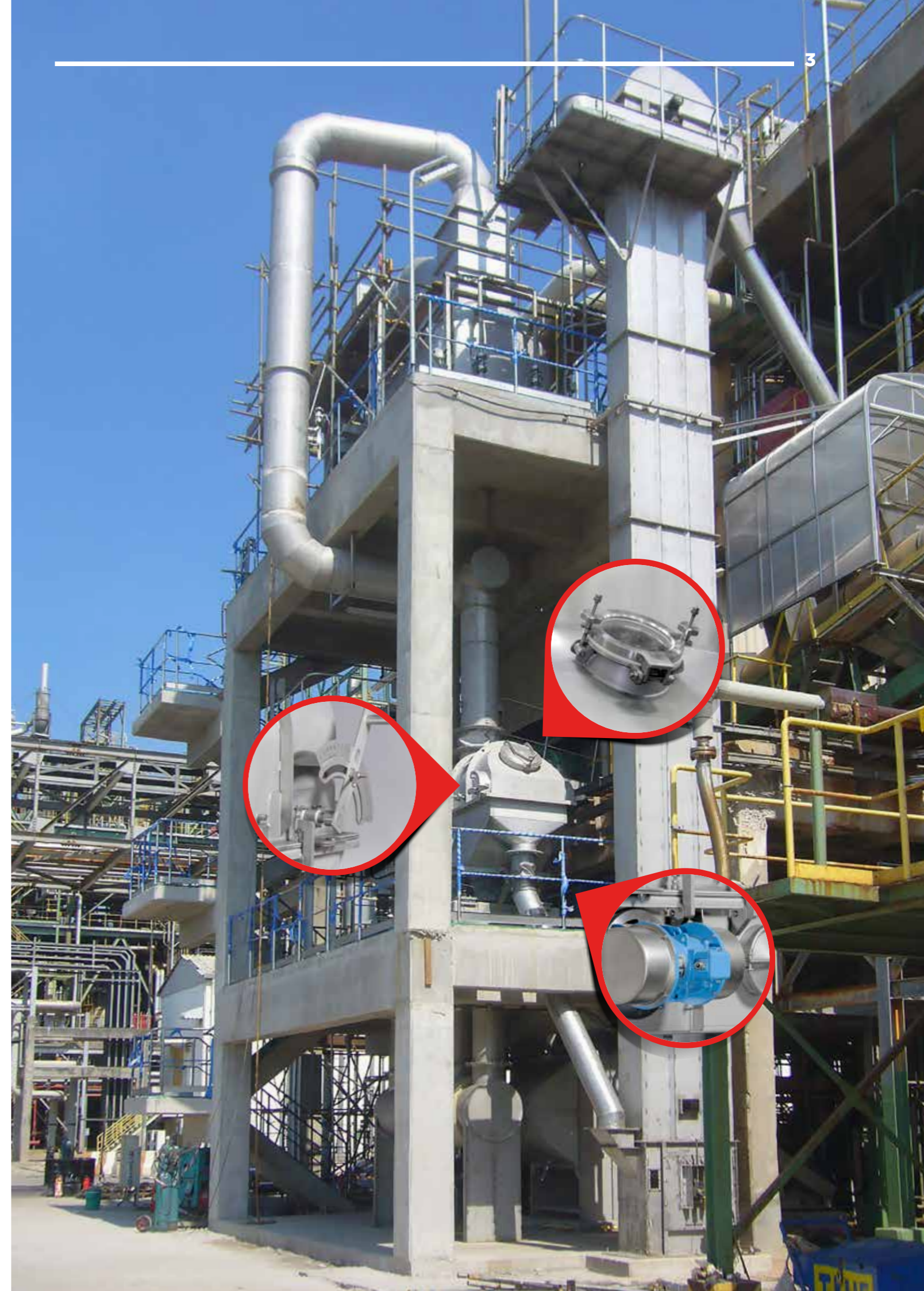
COMESSA – “Société des **CO**nstructions **ME**caniques de Schiltigheim-**Str**asbourg” in full – was created in 1920. Initially, it concentrated on producing machinery for the textile industry; its current area of specialisation has been developed since 1945.

COMESSA is an independent company with a strong presence in Europe, North Africa, the Middle East, and Asia and currently offers more than 1500 references in 80 different countries.

COMESSA is appreciated internationally for the quality of its equipment and service in the chemical, food and mineral industries, and for decades has been a leading player in the **thermal processing of divided solids**, particularly in the fields of industrial Drying, Calcining, and gas-solid Reactions. COMESSA designs and supplies industrial equipment combining thermal, aeraulic, mechanical and hydraulic processes.

On the basis of our extensive experiences and tests carried out in our test center, we are able to offer you solutions that are always adapted to your requirements and meet your specifications.

The structure of the company is based on a team of engineers and technicians who are experts in both chemical and mechanical engineering; they are active from the stage of defining the processes right up to the moment of commissioning the plants and providing after-sales service.



A VARIETY OF PROCESSES

- Drying
- Cooling
- Calcining
- Pyrolysis
- Gas-solid reactions
- Granulation
- Coating
- Cooking
- Toasting
- Dehydration
- Bacterial decontamination
- Fines removal / De-fining
- Desolvation
- Shake out

A FULL RANGE OF EQUIPMENT TO MEET YOUR REQUIREMENTS

- Static fluid beds (with or without exchangers)
- Vibrating fluid beds
- High-temperature fluid beds
- Rotary tubes with direct heating
- Rotary tubes with indirect heating
- Band dryers
- Flash dryers / Rapid dryers

A HIGH LEVEL OF SERVICE

- Test laboratory
- Design and Engineering
- Assistance for erection and commissioning
- Mechanical, process and energy audits
- Plant revamping, after-sales service

Acknowledged expertise for optimised solutions



» Chemicals



» Food



» Minerals



» Fertilizers



» Sugar



» Environment

A full range of tailor-made equipment

With our extensive range of equipment and solutions, we are able to meet all your requirements involving thermal processing of divided solids.



High-temperature fluid bed

Fluid beds

Fluidization confers on a solid mass properties similar to those of a liquid.

By bringing a solid into contact with a gas, the process makes it possible to obtain very high levels of mass and heat transfer rates.

The technique is therefore used in very many thermal processes, including Drying, Cooling, Calcining, and more generally all gas-solid Reactions.

We offer all types of fluid bed:

- Static fluid beds, with direct contact or with exchangers
- Fluid beds with exchangers (vertical type)
- Vibrating fluid beds
- High-temperature fluid beds (up to 950°C)



Vibrating fluid bed



Fluid bed with exchangers



Rotary tube dryer



Rotary tubes

The advantage of rotary tubes is that they are able to handle large quantities and products with a very wide particle size distribution. They can be used as dryers, coolers, calciners, granulators, coaters and rotary shake out drums.

We offer all types of rotary tube:

- Direct rotary tubes (cascade or louvre type)
- Combined rotary tubes (dryers-coolers)
- Indirect rotary tubes (with on-board heat exchanger or heated through the shell)



Rotary tube granulator



Indirect rotary tube heated through the shell



Indirect rotary tube with on-board heat exchanger



Combined rotary dryer-cooler

Band dryers

For many products that are difficult to dry, fragile, or sticky, the band dryer is particularly suitable:

- High energy yield
- Very homogeneous treatment
- Processing of paste-like products
- Possibility of turning product over during processing



Gas-heated oven

Flash dryers

The flash dryer works on the principle of pneumatic transport using hot air. The process is particularly suitable for fine, lightweight products.



Flash dryer

TECHNICAL ASSISTANCE

ERECTION, COMMISSIONING, TRAINING

We offer assistance with erection and commissioning of the equipment we supply; our services may also include training modules for users, so that the equipment can be used properly.

AUDITS, AFTER-SALES SERVICE, SPARE PARTS

As experts in the drying field, we are able to carry out on-site technical audits in order to:

- Check and assess the state of the plants
- Optimise process and mechanical performances
- Improve energy performance and propose solutions for heat recovery
- Debottleneck and refurbish plants
- Propose preventive maintenance actions

DESIGN AND ENGINEERING

TECHNICAL EXPERIENCE

With more than 95 years' experience in design, engineering and project management, there is no doubt that COMESSA's strength lies in its technical scope and its workforce.

A team of specialists with experience in fields as varied as thermal processes, aerodynamics, mechanics, hydraulics, electricity and automation. This wide range of competencies enables us to supply highly technical industrial plants.

Optimised equipment design, making sensible use of cutting-edge tools and software (3D modelling, Computational Fluid Dynamics simulations, Finite Elements Analysis, etc.), in compliance with international construction codes and other standards currently in force.

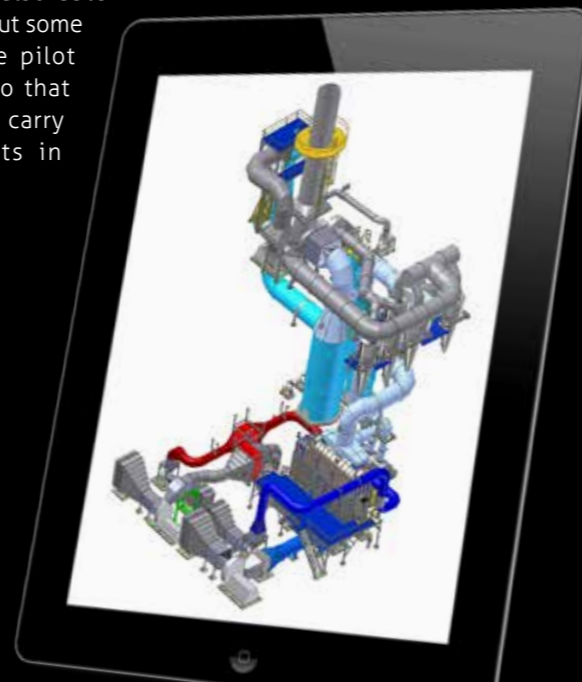
We are also able to offer you plants compliant with ATEX regulations.

OUR TEST LABORATORY

PROCESS DEFINITION AND VALIDATION

COMESSA has its own test laboratory covering more than 1200 m² and is able to offer you the possibility of carrying out feasibility tests and semi-industrial tests for all the equipment the company markets.

We are also able to rent out some of these pilot plants so that you can carry out tests in situ.



TAILOR-MADE PLANTS

FLEXIBILITY AND ADAPTABILITY

The scope of our services ranges from the supply of individual dryers to entire drying plants for autonomous operations.

These plants may include:

- Process air preparation assemblies
- Dedusting and exhaust air assemblies
- Instrumentation and automation
- Handling the product up- and downstream the main equipment



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