

INGETEC CSA

Mixer / Granulator

- Proven technology
- Designed for harsh process conditions
- Very high availability



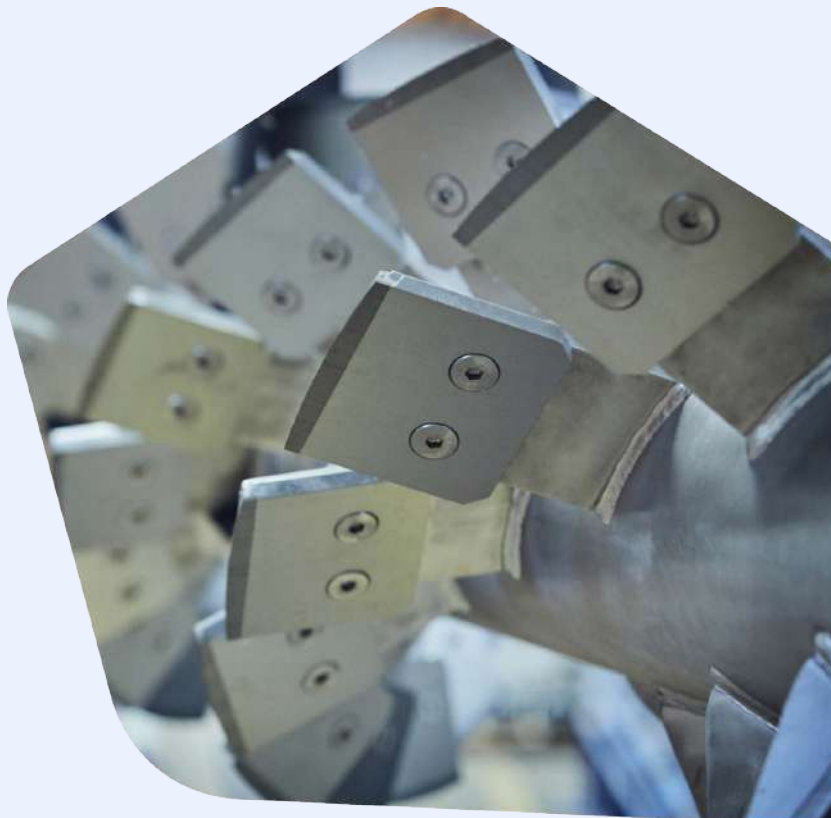
The twin shaft mixer from INGETECSA is in its element when mixing, reaction and/or granulation are needed under demanding conditions. Its design has been subjected to harsh process situations and has proven to be a winner.

The robustness and flexibility of its design results in very high availabilities. Cleaning and maintenance intervals can be further stretched than ever to coincide with plant maintenance.

The mixer allows for heating or cooling of the product, for powder dosing, for liquid spraying, and for process reactions. Or even a combination.

Talking about flexibility!

- ➔ Capable of processing, reacting, solidifying products that are sticky, erosive, and corrosive
- ➔ Designed to stretch cleaning and maintenance intervals
- ➔ For flows up to 240 m³/h and residence times up to 30 minutes. Granulation up to ~3½ mm.



Advantages



Tougher than tough

Designed to operate under very demanding conditions.
Proven availability and reliability



Risk free

With a solid track record of references, the INGETECSA Mixer comes with a promise it will work perfectly.
Day in, day out



Cleaning and maintenance requirement

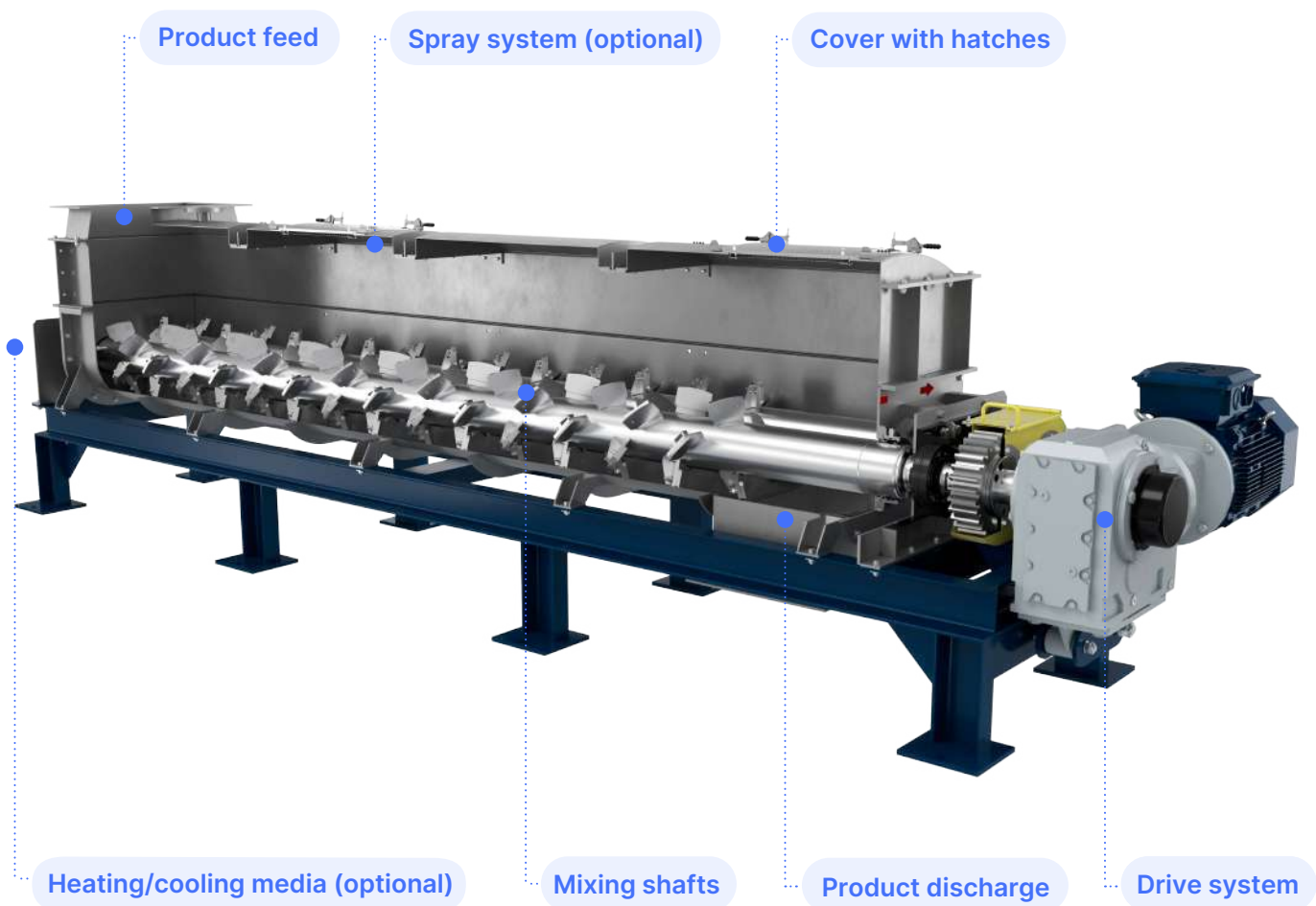
The design allows for stretched maintenance intervals and offers full access inside and outside for cleaning and inspection. A comforting thought



Operational flexibility

A combination of several process conditions can be applied to achieve different temperatures, blends or process reactions

“Designed to operate under very demanding conditions.”



Working principle

Product is fed at the cover top inlet flange and discharges at the opposite bottom flange; the product works its way through the unit in a plug flow pattern.

The jacket, shafts and cover can be heated or cooled. Where needed, accurate spraying of a reagent is optional for reaction or granulation purposes or blending in of (multiple) powders to achieve optimal mixing results. A vapour extraction point is present for reaction processes.

The paddles are self-cleaning and adjustable in angle to accommodate mixing or transport needs. A choice of wear-resistant knives are available to fit on the paddles and can be inspected or replaced if needed during a normal maintenance stop.

In order to deal with the erosive and corrosive environments, a great variety of construction materials are at hand to choose from. Products that are sticky or become more solid due to the reaction that occurs, are common for this unit.

For when it's going to be tough

The capacity of transferring high torque and power are primary design criteria.

The INGETECSA Mixer is designed to operate during long, uninterrupted production cycles. Rigid frames and heavy designed shafts absorb the vibrations as a resulting from the shear forces. The short, reinforced mixing paddles can be made casted, forged or welded, depending on the application and the requirements. Large hatches give easy access to the product side of the mixer.

A pilot unit is available to test or demonstrate a new process or to improve a current one.



“Sticky products and high torque demanding processes are common conditions for this unit.”

Typical applications



Chemical Industry



Minerals & Metals

EXAMPLES

- Pulps and fibres
- Intermediate and basic chemicals
- Polymers
- Fertilisers
- Detergents
- Minerals

➔ Bulk flow products

➔ Demanding process conditions

➔ Processes that require maximum availability and reliability



Let's test together ↘

INGETECSA's pilot plant and R&D centre, located in Barcelona, is available to our customers to simulate and optimise production processes, test our technology and define the ideal configuration of the customers' required industrial equipment.

Apart from the continuous tests with the pilot units, INGETECSA also has a laboratory where it is possible to analyse the results obtained and carry out small-scale simulations.

Test rigs are also available for test work at the client's premises in the event that longer

duration tests are required, or if the product can't be transported to our test centre. Our engineers assemble the equipment, conduct the tests or instruct the client's personnel on the correct operation of the machine.



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