

Industrial Mixing and Fine Grinding Technology

Tradition and innovation since 1863

EIRICH stands worldwide for a comprehensive range of products and services in the field of preparation technology. Its particular focus is on mixing and fine grinding technology, with know-how developed over 150 years of close cooperation with industrial users, universities and research institutions.



Pursuing a corporate philosophy of operating internationally and thereby ensuring close proximity to every customer, the EIRICH Group has secured its place in all the key economic regions of the world.

The focus is on innovative technology for machinery and systems engineering designed to offer solutions for high-standard preparation tasks from a single source.

Applications and process technology with own test centers, a high vertical range of production and comprehensive after-sales service provide the ideal basis for the development of modern and economical processes for a multitude of industries.

Building materials – Ceramics – Glass – Carbon paste – Battery paste
Friction linings – Metallurgy – Foundries – Environmental protection

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NEW

EIRICH CleanLine Type C5

A wide range of applications
from laboratory use to small batch production



“One-pot Process Mixer” Realizing Mixing, Granulation and Suspending in A Single Mixing Pan

Excellent Mixing Principle

■ Rotating mixing pan and rotor

The rotating mixing pan thrusts raw materials toward the rotor continuously and efficiently. The rotating speed difference between the pan and the rotor generates strong shear force in the materials, enabling processing of any kinds of fluidity. (The shape and the rotating direction of the rotor can be changed according to each application.)

■ Fixed type scraper

The fixed type scraper is mounted at a position that allows intentional control of the flow generated by the rotating mixing pan and the rotor. It enhances movement of raw materials toward the rotor and thus raises the processing efficiency. The point of scraping action can be adjusted according to each application. It helps to reduce adhesion of raw materials to the mixing pan wall by scraping them off during the mixing motion.

■ The effect

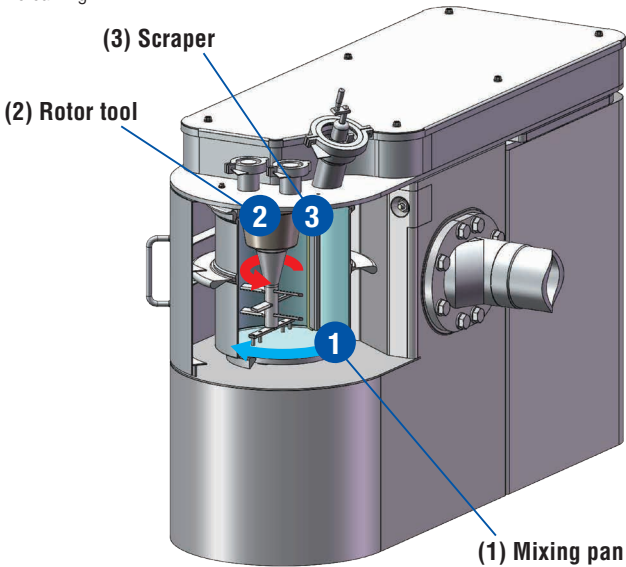
The separation between the mechanism of material movement and the mixing process allows for a wide range of rotor speeds and the power inputs into the mix.

Mixing System

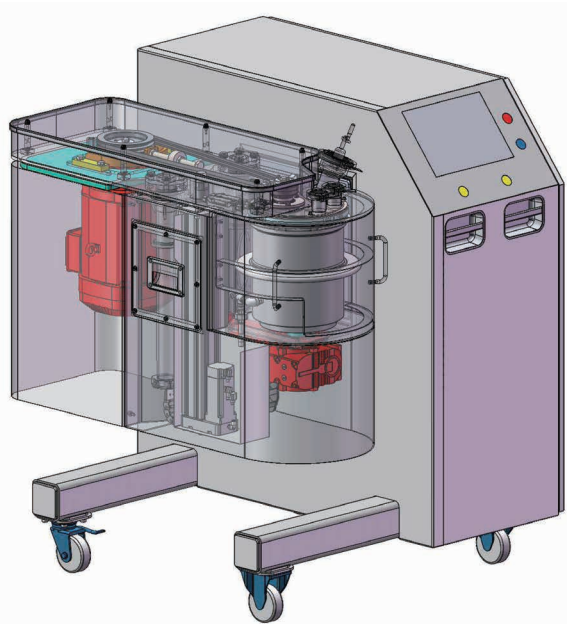
- The inclinable **rotating mixing pan (1)** and the eccentrically-positioned **rotor tool (2)** produce optimum results in a very short time. The **fixed scraper close to the mixing pan wall (3)** cleans the wall and enhances movement of the materials in the mixer.

Features

- Simple structure
- Widely-adjustable rotor speeds (max: 30 m/s)
- For a wide range of applications, a single mixer is capable of various unit operations (such as mixing, granulation, coating, kneading and suspending) with adjustment of the rotating speeds of the rotor and the mixing pan.
- The mixing pan can be inclined or horizontally positioned according to the properties of raw materials.
- The removable mixing pan allows easy discharge of materials and easy cleaning



Structure



■ Mixer inclination mechanism

The mixer angle can be changed stepwise from 0° (horizontal) to 30° (max). Mixer angle adjustment during operation allows for a wider variety of kneading and granulation processes.

■ Waterproof and cleanable flat structure

The machine is washable owing to waterproof devices and the excellent sealing structure. The flat surface saves cleaning time.

■ Integrated control panel

The control panel is integrated into the machine. Equipped with large casters, the mixer can be relocated easily.

■ Weight

Overall: 600 kg
Mixer: 320 kg

■ Dimensions

Overall: 1,100D x 1,055W x 1,300H mm
Mixer: 1,100D x 400W x 750H mm

CleanLine C5 for Hygienic/Sanitary Application has All the Features and Advantages of the unique EIRICH mixing principle

EIRICH CleanLine C5

Developed based on EIRICH Hygienic Mixer R01HY for processing food/medicines and high-functionality materials, CleanLine C5 reflects Japan's original improvements and functions to flexibly suit the Japanese customers' applications. While fulfilling the EHEDG Guidelines requirements just as R01HY, CleanLine C5 is also pursuant to Food Sanitation Act and GMP of Japan, with much improved usability.

Application Areas /Examples

Application areas

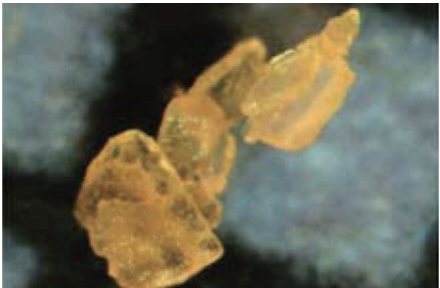
- Micro granulation, granulation and agglomeration
- Coating
- Kneading
- Dispersion
- Mixing

Examples of applications

- Granulation of soluble, fine-dispersed polysaccharides and hardly-dispersible biopolymers
- Mixing and dry dispersion of cosmetic raw materials (dispersion of pigments)
- Coating of flavoring agents
- Kneading of dental materials
- Functionalization of anode and cathode pastes



Food
Granulation of high-density or porous structure d=200 μm~5 mm e.g. instant beverage, soup powder



Functional component
Coating, protective layers/films e.g. sodium bicarbonate



Fine chemicals
Wet/dry dispersion e.g. cosmetic raw materials



Medical technology
Kneading of dental compounds



Pharmaceuticals
Micro granulation at submicron scale

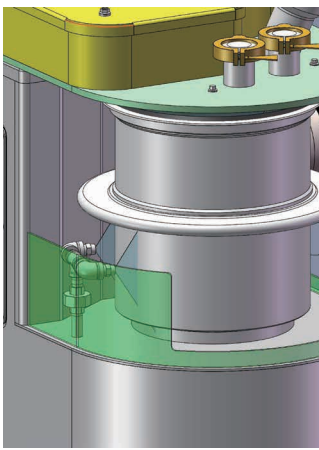
Standard Specifications and Options

Standard specifications

- Stainless steel structure (SUS304, etc.) Buff #300 finish on exterior surface
- Control panel with touch panel (with operation data logger)
- Mixer inclination mechanism
During operation: 0°, 10°, 20°, 30° (forward tilt)
For maintenance: -10° (backward tilt)
- Capacity: 3 to 5 L
- Star type rotor without anti-wear treatment
- Infinitely variable rotor tool speeds from 2 up to 30 m/s
- Rotor drive motor: 3.7 kW

Optional specifications

- Water spray cooling of mixing pan outer surface
- Rotor tool
-Pin-type
-Micro granulation
- Anti-wear treatment of star/pin type rotor tool
- Temperature sensor with built-in scraper
- High performance mixing pan sealing
- Special solvent sealant (Contact us for further details.)
- Rotor drive motor: up to 5.5 kW
- PC dedicated to data logging
- Filter
- Liquid injection nozzle
- GMP compliant
- EHEDG compliant



Water spray cooling device