

The Eirich- laboratory mixer series

Filling volumes from 0.3 liters to 10 liters*
for the highest demands in research,
development, and small-scale production



Eirich laboratory

mixer series



Modular und functional



EL1



EL5



EL10Ex



C5

	EL 1	EL5	EL10Ex	C5
Usable capacity*	0,3 - 1 liter	1,6 - 5 liter	3 - 10 liter	1,6 - 5 liter
Temperature measurement (PT100)	✓	✓	✓	✓
Integrated tilt adjustment	✓	✓	✗	✓
Process data acquisition	✓	✓	✓	✓
Double-jacket temperature	✗	✓	✗	✓
Hot air heating	✗	✓	✗	✗
Vacuum version	✗	✗	✗	✓
Explosion-proof version	✗	✗	✓	✓
FDA certification 3.1 certificates according to EN10204	✗	✗	✗	✓

* Depending on the product

Basic Touch Control - for manual operation:

- Setting and displaying the speed or level of agitator and container
- Agitator direction reversal
- Display of power and torque of agitator and container
- Temperature display
- Time-based process data recording

Premium Touch Control - for manual operation as well as automatic operation:

- Setting, displaying, and recording of agitator and container speed/velocities
- Agitator direction reversal
- Display and recording of power and torque of agitator and container
- Display and data capture of temperature
- Recipe and raw material management

- Automatic recipe execution
- Batch-specific process data recording and data export
- Time-based process data recording
- External access for recipe management, raw material management, and data analysis

	EL 1	EL5	EL10Ex	C5
Plug & play	✓	✓	✓	✓
Separate units for control and machine	✗	✓	✓	✓
Operation via touch display / tablet	✓	✓	✓	✓
Operation with push buttons	✗	✓	✓	✓
Display size / tablet size	4"	14"	15,6 "	10" oder 14"
Agitator speed	Infinitely variable	Infinitely variable	Variable in 2 speed ranges	Infinitely variable
Container speed	Two-stage	Single-stage	Infinitely variable	Infinitely variable
Basic touch control	✓ (without container performance display)	✓**	✗	✗
Premium touch control	✗	✓	✓	✓
Interfaces / data recording	Directly to USB	Machine's native WLAN or Ethernet	USB and Ethernet	Machine's native WLAN or Ethernet
Data export / data analysis	CSV file	Machine visualization or device connection to the machine's native WLAN	Batch-based data output	Device connection to the machine's native WLAN
Integration of external peripherals into the control system	✗	✓***	✗	✓***

** Control modularly expandable, up to the scope of Premium Touch Control

*** Only with Premium Touch Control

The Eirich Intensive Mixer

One machine - many possibilities



The EIRICH Mixing System

This special mixing system consists of three components that can be highly flexible and customized to meet process requirements.

Rotating Mixing Vessel

The rotating mixing vessel conveys the blend material into the mixing tool zone with continuously adjustable vessel speed.

Variable Mixing Tool

A one-piece welded or modularly constructed mixing tool, the design, rotation direction, and speed of which can be optimally adjusted for the respective task.

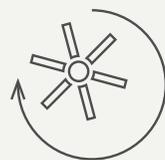
Scraper Blade

A bottom and wall-compatible, adjustable scraper blade prevents material from sticking, ensures additional blending, and directs the material towards the mixing tool.



One machine – many possibilities

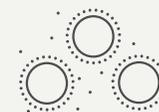
Don't overcrowd and overspend in your laboratory with a multitude of lab machines. Thanks to our unique mixing principle, a single machine can perform all process operations, including mixing, deagglomeration, dispersion, granulation, coating, kneading, drying, and many more.



Mixing



Granulating



Coating



Kneading



Dispersion



Drying

Type EL1

The flexible 1-liter mixer for processing high-value raw materials, development, and feasibility studies.

Basic Equipment:

- Mixing container: Polyamide
- Mixing tool: Star impeller made of stainless steel
- One-piece wall scraper: stainless steel

Filling and Discharging

The mixing container can be removed for filling and discharging.

Options

- Mixing container: stainless steel
- Lid for covering the material, e.g., during transport
- Wall scraper with corner protection, polyamide or PTFE cutting edge
- Full stainless steel machine version

**+ Your entry
into the Eirich world**

- Temperature measurement as a handheld probe with value display on the control panel
- Tilt adjustment: 0°, 10°, 20°, and 30°
- Touch-screen operation with display of:
- Mixing tool speed, infinitely adjustable in both directions from 2 to 30 m/s
- 2 selectable speed levels for the mixing container (0.7 m/s or 1.4 m/s)
- Wide voltage range from 100 V to 240 V AC



- Pin-type agitator
- Z-type agitator
- Various wear protection options for mixing tools
- Funnel with valve for liquid addition
- Filter
- Accessory set with various components like powder funnel, measuring cup, etc.
- Transport case with trolley function and storage compartment for accessories
- Instruction and training at the Eirich Technology Center in Hardheim

Type		EL1
Capacity	liter	1
Weight	kg	46
Height (open)	mm	510 (675)
Length (open)	mm	565 (600)
Width	mm	410

Type EL5

The versatile 5-liter mixer for versatile processing in daily laboratory operations.

Filling and Discharging

The mixing container can be removed for filling and discharging.

Basic Equipment

- Mixing container: stainless steel, container speed of 0.6 m/s
- Mixing tool: modular construction, star impeller made of stainless steel, impeller speeds from 0.6 to 27 m/s

- Two-part wall scraper: stainless steel with interchangeable Ampco cutting edge
- Integrated tilt adjustment: 0°, 10°, 20°, and 30°
- Temperature measurement (PT100) in the wall scraper
- Maximum material temperature, depending on equipment, up to 180 °C
- Intuitive web-based tablet control Basic Touch for manual operation

+ Smart technology – smart price



Options

- Double-jacketed mixing container for product temperature control
- Interchangeable scraper blade made of PA6, PTFE, or carbide
- Additional stainless steel mixing tools: pin-type agitator, Z-type agitator
- Various wear protection options for mixing tools
- Stainless steel liquid funnel with hand valve
- Filter
- Hot air heating for heating the material through the container wall
- Premium Touch Tablet Control
- Integration of external Eirich peripherals
- Training and instruction at the Eirich
- Technology Center in Hardheim

Type EL10Ex

The versatile 10-liter mixer for demanding processing and processing in hazardous areas.

Basic Equipment

- Stainless steel mixing container
- One-piece welded star, pin, or Z-type agitator made of stainless steel
- Agitator speeds depending on application, ranging from 0.8 m/s to 14 m/s or 2.5 m/s to 44 m/s
- Container speed between 0.2 m/s and 0.6 m/s

- Material temperature: Depending on equipment, max. 120°C
- One-piece wall scraper: stainless steel
- Temperature sensor in the wall scraper
- External control cabinet with Premium Touch control for automatic or manual operation: includes user-level management, recipe management, process parameter display and documentation, USB port



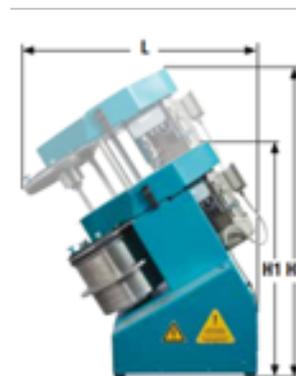
Filling and Discharging

The mixing container can be removed for filling and discharging. The mixer cover is raised electromotively for this purpose.

Options

- Manual inertization with display of the inert gas flow rate
- Exhaust duct with check valve for positioning a flexible exhaust pipe with intermittent pull
- Wall scraper with armored corner

- Additional agitator variants, including wear protection
- Liquid funnel with solenoid valve
- Stand for mixer inclination of 10° or 0°
- Table trolley with mixer tilt adjustment as a flexible base for mixer inclinations of 0°, 10°, 20°, 30°



Type		EL10Ex
Capacity	liter	8 – 10
Weight	max kg	12
Weight	kg	260
H1 / H2	mm	900/1200
Length	mm	1120
Width	mm	510



Type C5

The all-rounder for the most demanding needs with excellent cleanability, ergonomic, and easy handling.

Filling and Discharging

The container can be removed for filling and discharging. Alternatively, the container can be tilted out using a motor for emptying.



+ Hygienic
and modular



Basic Equipment

- One-piece welded star impeller with tool speeds from 0.6 m/s to 27 m/s
- Removable mixing container for ergonomic work and easy cleaning, container speed from 0.1 to 1.3 m/s
- Wall scraper can be configured in a wiping manner to avoid product adhesion, with interchangeable PE cutting edge
- Stainless steel construction, product-contacting surfaces $Ra < 0.8 \mu m$
- All product-contacting parts made of 1.4404 stainless steel
- Integrated motorized tilt adjustment: 0°, 10°, 20°, and 30°
- Maximum material temperature, depending on equipment, up to 150°C
- Web-based tablet control Premium Touch for manual and automatic operation

Technical data for your planning

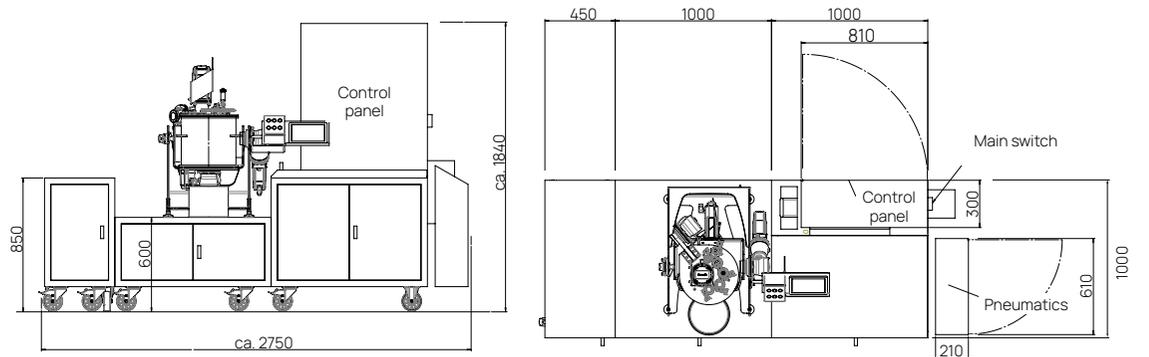
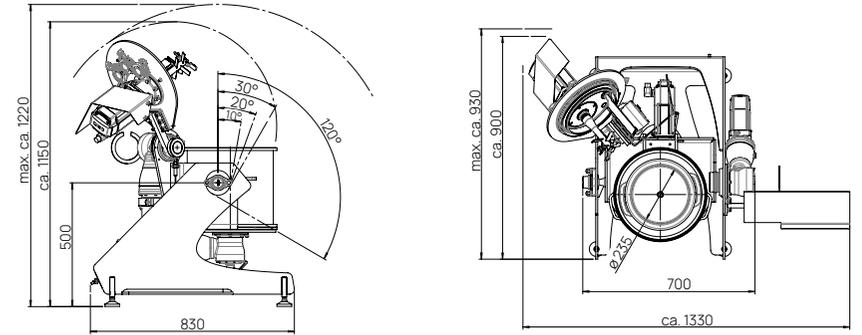
Capacity & Weight

Mixing container	Usable capacity	1,6 – 5,0 l*
Machine weight	Empty weight	~175 – 195 kg**

* Depending on the process
** Depending on the equipment

Performance Data

Mixing container	Peripheral speed	0,6 – 27 m/s
Mixing tool	Peripheral speed	0,1 – 1,3 m/s



Options

- Double-jacketed mixing container for product temperature control
- ATEX version
- Vacuum version and vacuum peripherals (for degassing, vacuum evaporation cooling, vacuum drying)
- Temperature measurement (PT100) in the wall scraper
- Interchangeable scraper blade made of PTFE

- Additional mixing tools: pin-type agitator, Z-type agitator
- Wear-protected variants of the mixing tools
- Stainless steel liquid funnel for permanent installation, with hand valve
- Stainless steel liquid funnel for permanent installation, without hand valve
- Accessories (filter, pressure sensor, camera and lighting source, laboratory tables)

- Non-product-contacting surfaces also in Ra < 0.8 µm
- FDA certificates and 3.1 certificates according to EN10204
- Integration of external Eirich peripherals into the machine control
- Training and instruction at the Eirich Technology Center in Hardheim



The Eirich Group, with the machine factory Gustav Eirich as its strategic center in Hardheim, is a provider of machinery, systems, and services for mixing technology, granulation/ pelletization, drying, and fine grinding. Our core competence lies in processes and procedures for the processing of bulk materials, slurries, and pastes. We are a family-owned company with a presence in 16 locations worldwide.

You can find more information at:
www.eirich.com