

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



The Pioneer in Material Processing®

Eirich laboratory mixer series



Modular und functional



EL1



EL5



EL10Ex



C5

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

¹ Depending on the product

Basic Touch Control - for manual operation

- Setting and displaying the speed or level of rotor and vessel
- Change of rotor direction
- Display of power and torque of rotor and vessel
- Temperature display
- Time-based process data recording

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

- Setting, displaying and recording of rotor and vessel rpm / tip speed
- Change of rotor direction
- Display and recording of power and torque of rotor and vessel
- Display and data acquisition 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"
Rotor speed	Infinitely variable	Infinitely variable	Variable in 2 speed ranges	Infinitely variable
Vessel speed	Two-stage	Single-stage	Infinitely variable	Infinitely variable
Basic touch control	✓ (without vessel performance display)	✓ ²	✗	✗
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	✗	✓ ³	✗	✓ ³

² Control modularly expandable, up to the scope of Premium Touch Control

³ 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.

Variable Mixing Tool

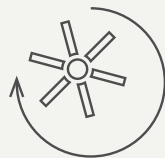
A one-piece welded or modularly constructed mixing tool, the design, rotation direction and speed of which can be optimally adjusted for the respective task.

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



Dispersing



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-type rotor made of stainless steel
- One-piece wall scraper: stainless steel

Filling and Discharging

The mixing vessel can be removed for filling and discharging.

Options

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

- 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 vessel (0.7 m/s or 1.4 m/s)
- Wide voltage range from 100 V to 240 V AC

- Additional stainless steel mixing tools: pin-type rotor, Z-type rotor
- Various wear protection options for mixing tools
- Funnel with ball 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 Test Center in Hardheim

**+ Your entry
into the Eirich world**



Typ		EL1
Capacity	liter	1
	kg	1,4
High (open state)	mm	510 (675)
Length (open state)	mm	565 (600)
Width	mm	410
Machine weight (depending on equipment)	kg	46

Type EL5

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

Filling and Discharging

The mixing vessel can be removed for filling and discharging.

Basic Equipment

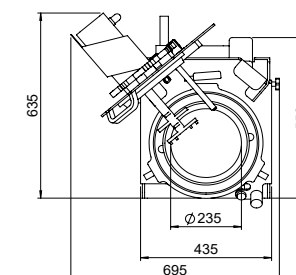
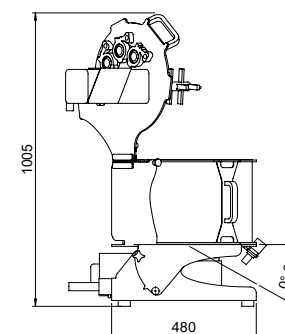
- Mixing vessel: stainless steel, vessel speed of 0.6 m/s
- Mixing tool: modular construction, star-type rotor made of stainless steel, tip speeds from 0.6 to 27 m/s



Smart technology – smart price

- 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

Type		EL5
Capacity	liter	3-5
	kg	8
Height (open state)	mm	800 (1005)
Length (open state)	mm	600 (650)
Width (open state)	mm	500 (695)
Machine weight (depending on equipment)	kg	95



Options

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

Type EL10Ex

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

Basic Equipment

- Stainless steel mixing vessel
- One-piece welded star, pin, or Z-type rotor made of stainless steel
- Rotor speeds depending on application, ranging from 0.8 m/s to 14 m/s or 2.5 m/s to 44 m/s

- Vessel speed between 0.2 m/s and 0.6 m/s
- Material temperature:
Depending on installed equipment, max. 120°C
- One-piece wall scraper: stainless steel
- Temperature sensor in 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 vessel can be removed for filling and discharging. The mixer cover is raised electromotively for this purpose.

Options

- Manual inertization with display of inert gas flow rate
- Exhaust nozzle with non-return flap
- Wall scraper with armored corner
- Additional stainless steel mixing tools: pin-type rotor, Z-type rotor
- Various wear protection options for mixing tools
- 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
	kg	12
Height (open state)	mm	900(1200)
Length (open state)	mm	1120
Width (open state)	mm	510
Machine weight (depending on equipment)	kg	260



Type C5

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

Filling and Discharging

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

+ Hygienic
and modular

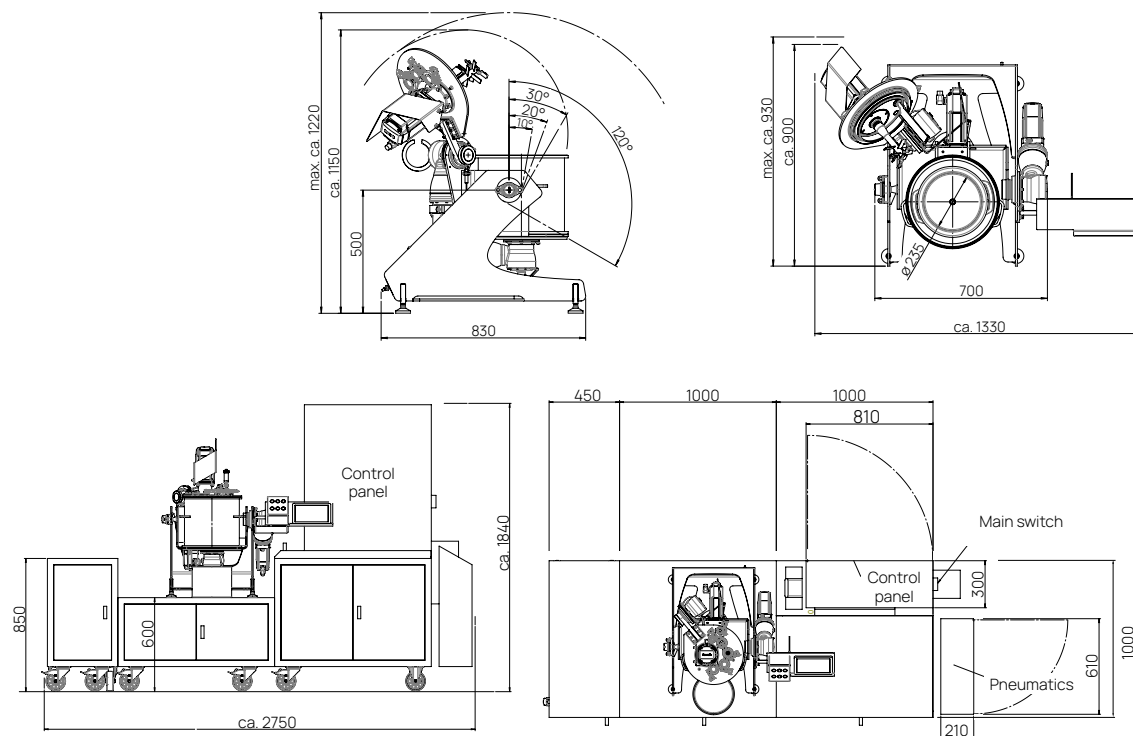


Basic Equipment

- One-piece welded star rotor with tool speeds from 0.6 m/s to 27 m/s
- Removable mixing vessel for ergonomic work and easy cleaning, vessel 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

Type		C5
Capacity	liter	1,6 - 5
	kg	8
Height (open state)	mm	1060 (1220)
Length (open state)	mm	830 (930)
Width (open state)	mm	700 (1330)
Machine weight (depending on equipment)	kg	195



Options

- Jacketed mixing vessel for product temperature control
- Ex-capable version
- Vacuum version and vacuum peripherals (degassing, vacuum evaporation cooling, vacuum drying)
- Temperature measurement (PT100) in the wall scraper
- Interchangeable scraper blade made of PTFE

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

- Inertization
- Non-product-contacting surfaces also in Ra < 0.8 µm
- FDA certificates and 3.1 certificates according to EN10204
- Integration of external Eirich peripherals
- Training and instruction at the Eirich Test Center in Hardheim
- Laboratory tables for ergonomic working



The Eirich Group, with Maschinenfabrik Gustav Eirich as its strategic center in Hardheim, is a supplier of machinery, systems, and services for industrial mixing, granulating/pelletizing, drying, and fine grinding. Our core expertise is in the field of processes and techniques used for the preparation of pourable materials, slurries, and sludges.

We are a family-run company that operates 16 sites around the world.

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