Eirich
Intensive Mixer

Efficient preparation of raw materials, mixtures, and compounds.
Cost-effective, reliable, and low-maintenance.

EIRICH

The Pioneer in Material Processing®

Eirich Intensive Mixer

Wide range of applications for Eirich Intensive Mixers in industrial preparation processes and for laboratory applications.

Eirich Intensive Mixers are available as conventional mixers, which operate under standard pressure, or as EVACTHERM® Mixers for tasks that need to be performed under vacuum or for applications in which complex preparation processes need to be combined.

Process steps are:

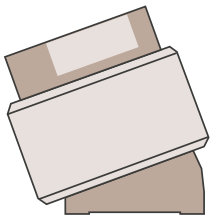
Mixing, reacting, dispersing, dissolving, slurry preparation, plasticizing, deaerating, defibrating, dispersing, agglomerating, disagglomerating, pelletizing, granulating, kneading, moistening, drying, heating, cooling, stripping, impregnating, coating, hydrophobing

Advantages for the user:

- Optimized homogenization of the process material
- Shortest mixing times
- Excellent, stable quality of the mixed product
- Low wear
- Low-maintenance design and construction
- Continuous or batched operating modes

Intensive mixer – our types

The all-rounder
Eirich R Series



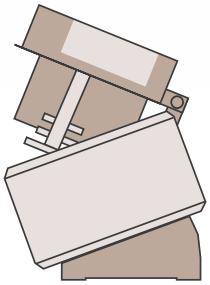
Eirich Mixer with an inclined arrangement of mixing pan

For mixing, granulating, plasticizing, kneading, and coating.

Applications

Concrete, refractory materials, ceramics, foundries, fertilizers, and many more

The flexible solution
Eirich W / T Series



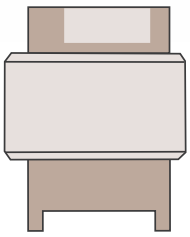
Eirich Mixer with openable pan cover (W) and tilting mixing pan (T)

For simple and efficient cleaning of the mixing pan interior and tools.

Applications

Lithium-ion compounds, fertilizers, welding powder, graphite compounds, concrete, and many more

The MixSolver®
Eirich L Series



Eirich MixSolver® with horizontally arranged mixing pan

For the manufacture of products that are liquid, having high levels of solids, or are paste-like or highly viscous.

Applications

Dispersing tasks, ceramic slips, slurries (e.g. Li-ion compounds), sealing compounds, ready-to-use plaster, and many more

The Eirich mixing principle: absolutely unique!

Eirich Intensive Mixers have been developed for a wide range of very different tasks, such as the preparation of raw materials, mixtures, and compounds.
Thanks to the variable setup options for the machine components and energy input range, these mixers always ensure that the optimum efficiency is achieved.

- Coating
- Dispersing
- Mixing
- Granulating
- Plasticizing / Kneading

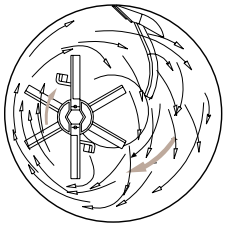
At the heart of an Eirich Mixer there are three core components, which can be adapted to the specific requirements of the relevant mixing task:

1 **An eccentrically positioned mixing tool** – the design, direction of rotation, and speed are adapted to each application.

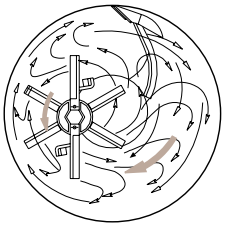
2 **Bottom/wall scraper**
Provides additional blending, prevents build-up of material on the wall and bottom, and aids the emptying process.

3 **The rotating mixing pan**, which moves the mix into the path of the mixing tool..

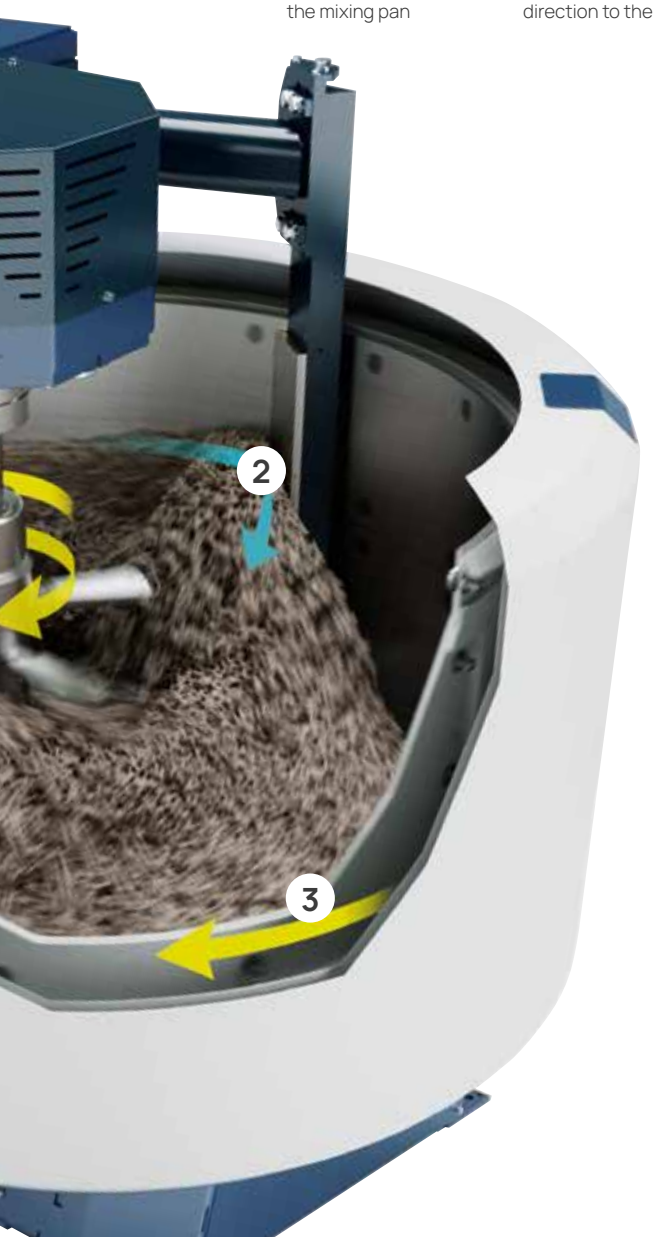
Eirich Intensive Mixers can be designed based on two different flow principles. The tool can either run in the same direction as the rotation of the mixing pan, or it can counter-rotate. This degree of design freedom guarantees optimum mixing results and efficient preparation.



Flow pattern: Tool rotating in the same direction as the mixing pan



Flow pattern: Tool counter-rotating in the opposite direction to the mixing pan



Advantages of the Eirich mixing principle

- Fast mixing times and highest mix homogeneity
- 100% material agitation with every rotation of the mixing pan
- No demixing, even if ingredients with different densities are used
- Hybrid mixing processes thanks to adjustable drives for the rotor and mixing pan
- Cost-effective operation and high mixing efficiency leads to low energy consumption and is therefore eco-friendly, and it also minimizes component wear.
- Reliable reproducibility in terms of product quality and batch times

+ Globally unique mixing principle

Wide range of equipment features for a multi-functional processing unit

With smart equipment options, sensitive processes can be regulated to achieve both an open-loop or a closed-loop control setup. Based on the application, Eirich Mixers are individually tailored to the requirements of the task in hand. Available upgrades and expansions include e.g.:

EvacTherm®
Vacuum-tight design for expanded process management options (degassing, vacuum evaporation cooling, vacuum drying).

Drives
IIndividual design of the drive type and drive performance for maximum efficiency. From standard motors to the latest generation of high torque motors.

ATEX design
For safe processing of potentially explosive dust or gas products.

Temperature control
For targeted management of the product temperature throughout all process steps by means of a double-walled mixing pan for cooling and heating.

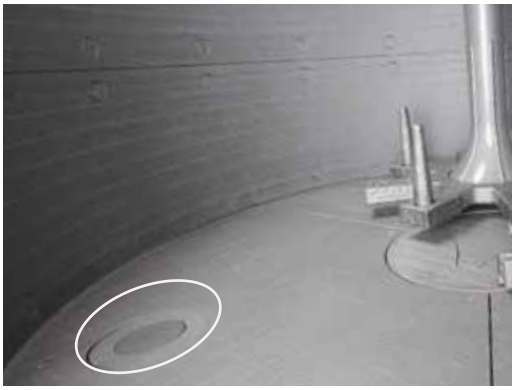
Heating
Different heating units are available for rapid heating of the mix: from hot air to high-efficiency induction heating systems.

EvacTherm® Mixer
Type R02VAC for 1-5 liters

Degassing lid
EL10

Mixer with infrared heating
Type R05T for up to 40 liters

EvacTherm® Mixer
Type RV32VAC for up to 7,000 liters



Moisture measuring probe

Wet cleaning

Accessories
Optimize your process and your product.

Sensor technology:
- Motor characteristics or electro-mechanical probes and force transducers
- Temperature measuring probes
- Visual process monitoring
- Moisture measuring probes
- Rheological measurement

Equipment:
- Sampler for manual mix analysis
- Funnel
- Adjustable inclination
- Degassing lid

Cleaning:
- Wet cleaning with high-pressure rotation nozzles for 360° cleaning of the machine interior and of the emptying area.
- Blow-out unit for cleaning with compressed air after dry preparation.

Our powerful range of units

Type	Capacity1		Mode of operation		Operating modes	
	Liters	kg max.	Batch operation	Continuous	Standard atmospheric pressure	Under vacuum
EL1nano	0,1	0,16	•		•	
EL1	1	1,6	•		•	
CleanLine C5[3]	3 - 5	8	•		•	•
EL5 Eco	3 - 5	8	•		•	
EL5 Profi	3 - 5	8	•		•	
EL5 Profi Plus	3 - 5	8	•		•	
EL10 Profi	8 - 10	12	•		•	
EL10 Profi Plus	8 - 10	12	•		•	
R02 VAC	3 - 5	8	•		•	•
R02 VAC VR	1	1,6	•		•	•
R05T	15 - 40	65	•		•	
RL05T	15 - 40	65	•		•	
R08	75	120	•		•	
R08W	75	120	•		•	
R08 VAC	75	120	•		•	•
R09	150	240	•		•	
R09W	150	240	•		•	
R09T	150	240	•		•	


EL1


C5


R05T

Type	Capacity1		Mode of operation		Operating modes	
	Liters	kg max.	Batch operation	Continuous	Standard atmospheric pressure	Under vacuum
R11 VAC	250	400	•		•	•
RV11 VAC	375	600	•		•	•
R12	250	400	•	•	•	
RV12	400 / 500 [2]	800	•	•	•	
R12W	250	400	•		•	
RV12W	400 / 500 [2]	650	•		•	
RLV12W	400 / 500 [2]	650	•		•	
RLV12W VAC	400 / 500 [2]	650	•		•	•
R15 VAC	500	800	•		•	•
RV15 VAC	750	1 200	•		•	•
R16	600	960	•	•	•	
RV16	900	1 440	•	•	•	
R16W	600	960	•		•	
RV16W	900	1 440	•		•	
RLV16	900	1 440	•		•	
R19	1 125	1 800	•	•	•	
RV19	1 500	2 400	•	•	•	
D23	1 500 - 3 000	2 400 - 4 800	•		•	
RV23 VAC	3 000	4 800	•		•	•
R24	2 250	3 600	•	•	•	
RV24	3 000	4 800	•	•	•	
RLV24	3 000	4 800	•		•	
R28	4 000 - 5 500	6 400 - 8 800	•	•	•	
R32 VAC	5 250	8 400	•		•	•
RV32 VAC	7 000	11 200	•		•	•
R33	6 000 - 8 000	9 600 - 12 800	•	•	•	
DW40	12 000	19 200		•	•	

[1] Subject to technical changes – errors excepted. [2] Depends on the product [3] Hygienic design

R12W

R28

DW40

Practical protection against wear and abrasion

Mixing pan with multi-layer armor plates

Well-engineered wear protection options are available for optimizing the mechanical elements of your mixer.

Lining with ceramic tiles

Wear protection
The materials for components that come into contact with to abrasive mixes are selected on an individual basis. Eirich offers a tried-and-tested range of materials for preventative protection against wear:

- High-quality steels as a structural design material
- Vulcanized rubber coatings and special plastics
- Seals made of PU, EPDM, NBR, FKM (fluororubber), etc.
- Armor plating
- Carbide plates
- Stainless steels
- NF metals
- Ceramic tiles
- Multi-layer armor plates
- and many more …

Mixing pan with rubber coating

Mixing blades with armor plating and carbide with/without end pieces

Easy access
for maintenance and cleaning

As far as possible, the design of our low-wearing and service-friendly Eirich Intensive Mixers is based on the needs of the operating personnel. Designed for carefree production – day in, day out.

- Easy accessibility for cleaning, inspection, and tool changes thanks to the large service doors
- Small number of tools to be cleaned
- Optional automatic cleaning equipment – available wet or dry
- Adjustable service positions of mixing pan for optimized access
- Robust design and construction guarantee excellent service life and high availability

Mixer type R16W
With accessible tools

Mixer type R12
Access door with one-handed quick-release fastener

Extra-smooth surfaces for reduced caking of material and faster cleaning

Mixer type R28
Easy access thanks to large service doors

Tailor-made production systems

To help you integrate your Eirich Intensive Mixer in your plant, we have systems available that are perfectly tailored to the relevant machine size. These will ensure that you can take full advantage of the complete performance potential of the mixer.

- Precise adherence to the specified recipe is one of the most important factors for ensuring product quality.
- To do this, all the ingredients need to be added in the required order and quantity.
- The finished mix must then reach the downstream processes in unchanged quality.

Eirich offers first class solutions for stocking, transport, weighing and dosing, and controlling of the entire process:

- Storage tanks for pourable and liquid substances
- Belt conveyors, screw conveyors, pneumatic conveyors, and skip hoists
- Electro-mechanical scales
- Electro-pneumatically controlled feeding units
- Instrumentation, control, and process data equipment – up to and including self-optimizing CIM-capable systems

Plant for the preparation of concrete for railway sleepers

Eirich Digital

We develop and manufacture the machine controllers and process control technology for our systems in-house. All components are configured to match the demands of your needs as an user.

This approach delivers individually tailored solutions ranging from simple machine controllers to computerized batch controllers with recipe management tools. Special software packages round off the control hardware. These include e.g.:

- **ProView** process data visualization system
- **ECD online** documentation tool with integrated webshop and **MyEirich** ticket system for spare parts and wearing parts
- **Condition Monitoring** system for predictive planning of maintenance and service measures
- **Teleservice** remote maintenance system

We would love to tell you more.
Please get in touch!

Your product
in the Eirich Test Center

The Eirich Test Center is an experimental laboratory for testing, trialing, and development. We can offer a wide range of test facilities and pilot plants for preparation of your original materials under real-life production conditions.

No matter what you ask us for, rest assured that we will always offer personal advice with no obligations on your part, and that the advice we offer will be tailored to your individual needs – every time.

Our process engineering experts at Eirich will support you at every step of the way – right up to when you successfully start production and beyond.

In the process, it goes without saying that all our dealings will be kept strictly confidential – this is standard practice for us. The tests and trials are logged and documented graphically.

This makes the process of designing your production facility so much easier, and also provides you with the necessary data to back up your decisions.

The satisfaction of our end users is what drives us.

Testing and optimizing

Everything from a single source for the entire service life of your mixer

Eirich will offer you a level of service that covers everything from the initial consultation meeting through VR & AR support, system planning, measurement / instrumentation / control systems, delivery, installation, training, and on to commissioning and maintenance services.

In addition, our customer service team will also provide you with access to reliable spare part supplies worldwide. State-of-the-art equipment and tools will help you to develop the most cost-effective solution for your individual application..

EIRICH

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.

For more information please visit:
www.eirich.com

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