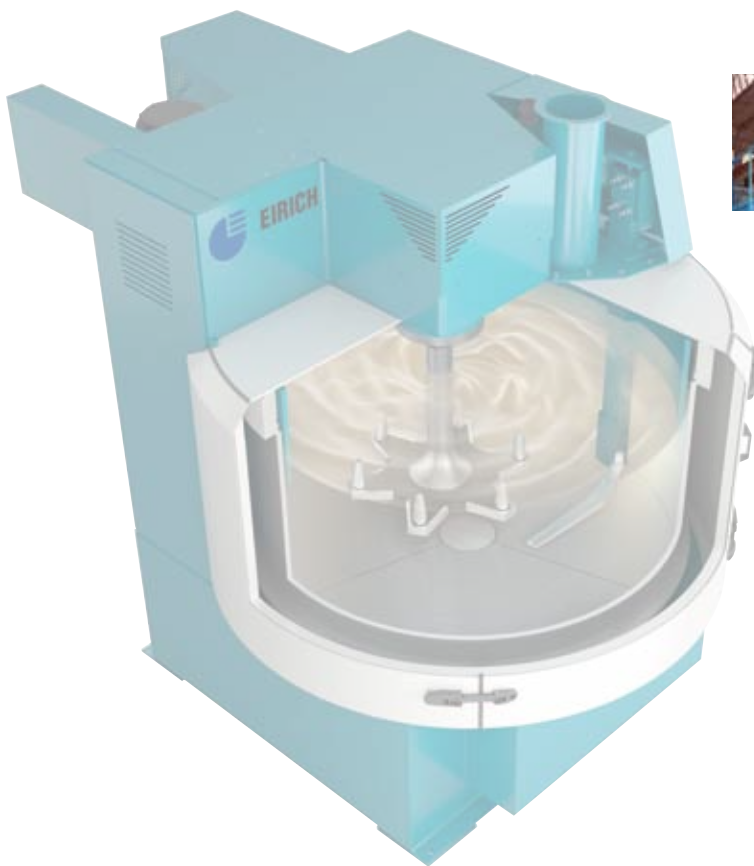


## Dispersing and dissolving in the EIRICH MixSolver®

for cost-efficient results  
batch-by-batch and continuously  
sparing use of money and energy



# EIRICH dispersing and dissolving systems

For many decades EIRICH has offered top technologies for the preparation of raw materials and bodies in the ceramic industry.

The preparation of bodies with a high solids content, pasty bodies and highly viscous bodies poses special requirements.

EIRICH dispersing systems were developed specially for this area of application and, thanks to some outstanding practical features, enable results which not only satisfy the task specifications but are also particularly cost-efficient.

## Applications in the ceramic industry

### Dispersing of

- silicate raw materials (e.g. clay, kaolin)
- filter cake
- recycling material (unfired)
- oxide and non-oxide raw materials (e.g. ferrites, SiC, SiN<sub>4</sub>, pigments)

### for the production of

- casting slurry and spray slurry (e.g. for tiles, sanitary ware, ceramic foils)

## General applications

### Dispersing of

- CWS (Coal-Water-Slurry)
- microsilica (e.g. for concrete production)
- coating pigments and fillers for the paper industry

### Dissolving of rubber

(e.g. sealing compounds)



# for cost-efficient results

The unique working principle of the EIRICH MixSolver® enables an extremely effective dispersing method such that cannot be performed with other machines. Its main characteristic is

a combination of mechanical friction and shear forces with material flow. The mechanical and flow-induced forces can be individually adjusted to suit the particular task.

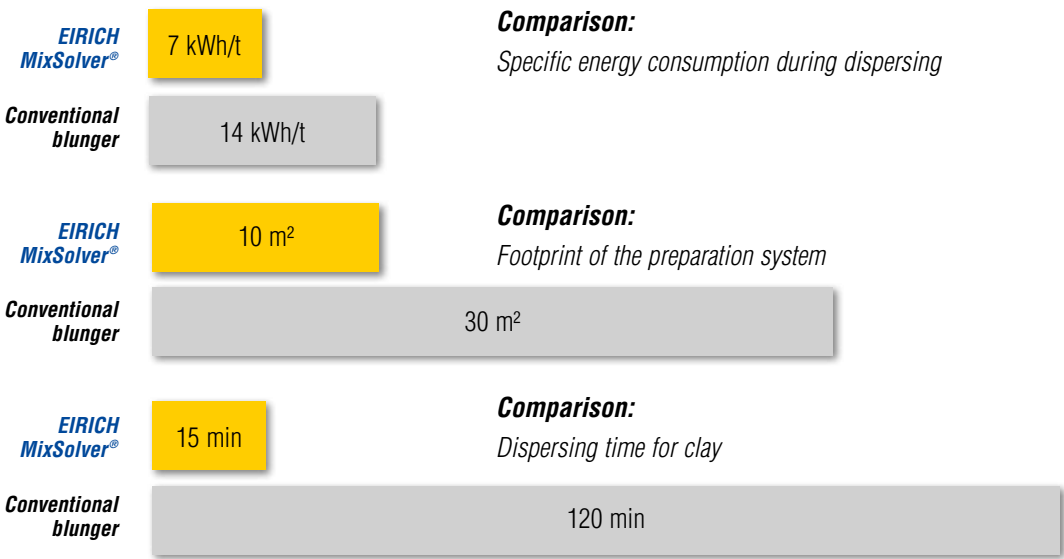
### Workflow of an EIRICH dispersing system:

- **feeding in all the solid materials**
- **feeding in liquid 1**  
only 40-50 % of the total liquid required
- **plasticizing**  
Forming a plastic body. The high input of energy possible at this point is particularly helpful in dispersing agglomerates.
- **feeding in liquid 2**  
Once the body is homogeneous, the remaining quantity of liquid is added. Mixing in the liquid takes very little time.
- **adjusting the weight per liter or solids concentration**

### What users of the EIRICH MixSolver® have to report

- extremely effective dispersion of solids
- notable energy savings
- very short batch processing times
- small footprint
- high operational availability

## The advantages at a glance



# The unique working principle of the EIRICH MixSolver®

**The EIRICH MixSolver® is powerful, service-friendly, low-wearing and operationally reliable:**

- materials are selected to suit the task (e.g. rustproof versions)
- even a fully loaded MixSolver® can easily be restarted
- drives and gear units are positioned outside the dissolving pan
- access to the inside of the machine for maintenance work is easy
- wearing parts are easy to replace

**Globally unique EIRICH working principle**

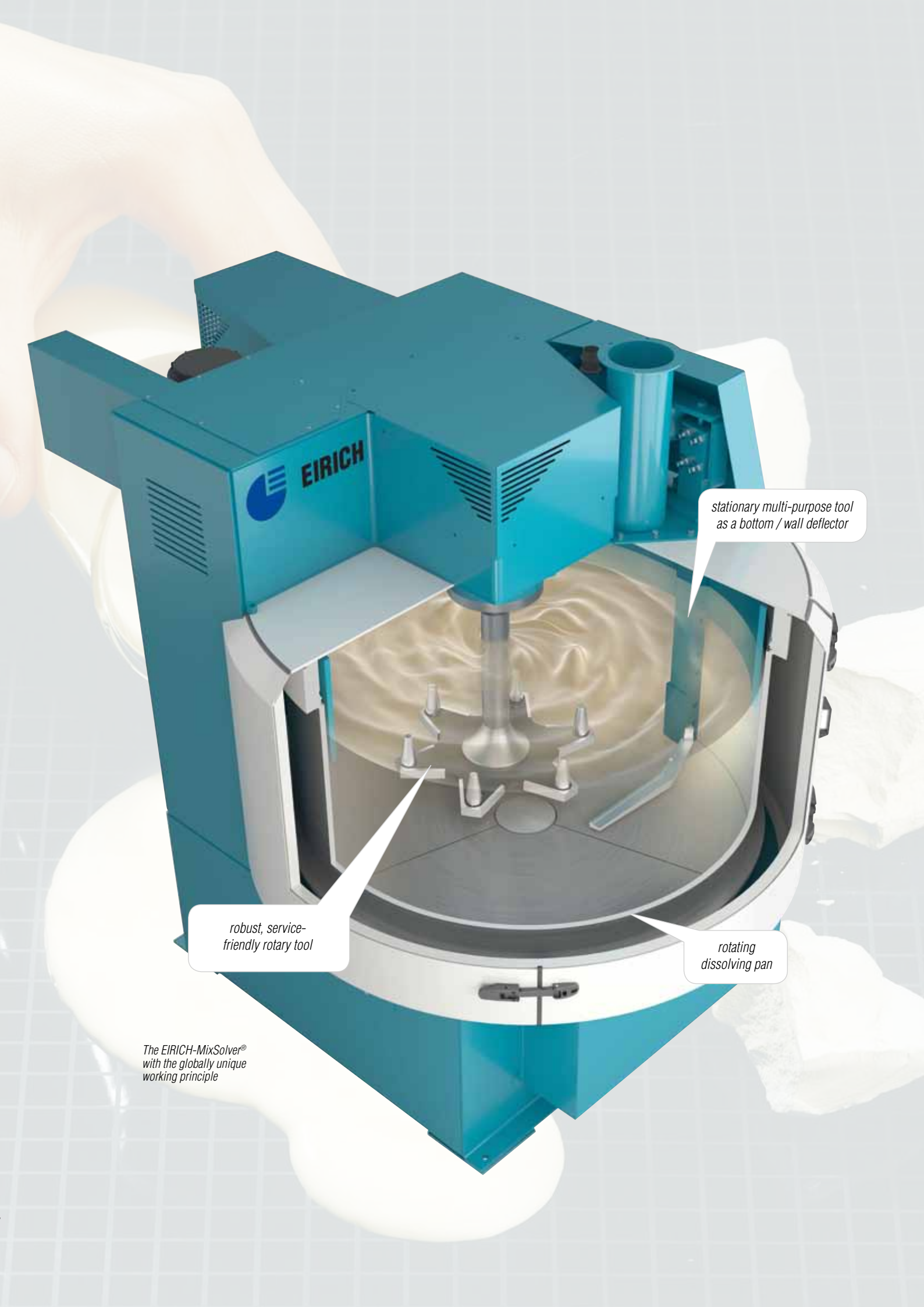
- a rotating dissolving pan
- a stationary bottom / wall deflector
- a rotary tool in eccentric position relative to the center of the pan

**The advantages of the EIRICH working principle**

- The speed of the rotary tool can be varied from slow to quick depending on the requirements (2 m/s to 40 m/s). Selective control of the power input into the mix is thus possible
- By adjusting the energy input and the tool geometry it is possible to selectively influence the product's properties such as its viscosity, morphology and rheology and to optimize the results in line with requirements
- agglomerates are fully disintegrated
- solids are fully dispersed or dissolved
- primary particles are fully enveloped in liquid
- no limit to adjusting the weight per liter
- no low-flow zones in the dissolving pan
- high energy density
- short processing times
- possibility of pressure below ambient pressure / vacuum for slurry degasification

*The inside of an  
EIRICH MixSolver®  
Parts touching the product  
are made of stainless steel  
Dispersing clay in  
the EIRICH MixSolver®*





*stationary multi-purpose tool  
as a bottom / wall deflector*

*robust, service-  
friendly rotary tool*

*rotating  
dissolving pan*

*The EIRICH-MixSolver®  
with the globally unique  
working principle*



# The EIRICH MixSolver® series

The EIRICH MixSolver® is characterized by its outstanding performance and flexibility. For many years, leading producers have relied on the service-proven solutions from EIRICH.

The range of the EIRICH MixSolver® dissolver-mixers covers a large spectrum of sizes, which meet user-specific requirements with great efficiency.

## Excerpt from the range of MixSolver® dissolver-mixers

Type	RL08	RL09	RL12	RL16	RL19	RL24	RL28	RL33
Volume approx. (l)	75	150	400	900	1500	3000	4000	7000



*EIRICH MixSolver® for mineral raw materials*



*Combined preparation system:  
the EIRICH MixSolver® with the  
EIRICH agitated media mill MaxxMill®*



## 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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The Pioneer in Material Processing®