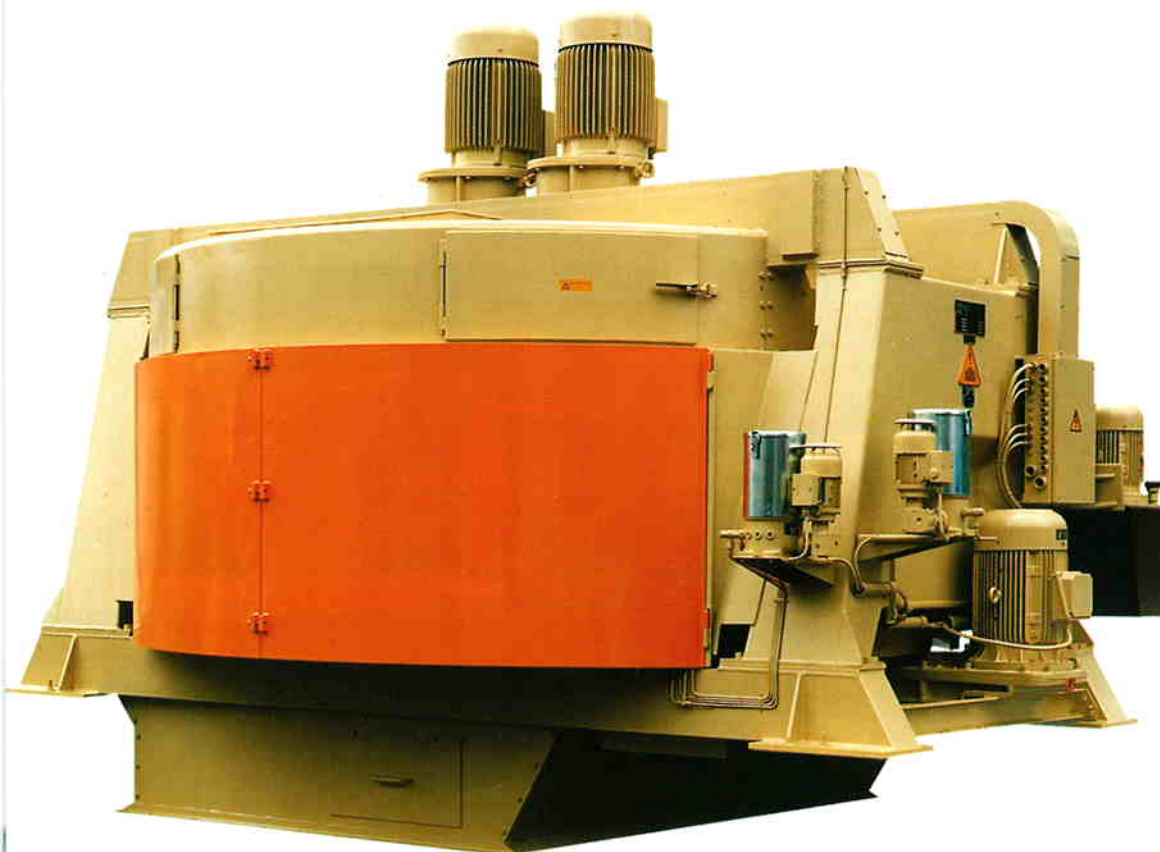


EIRICH Intensive-action Mixer Type D



-
- efficient
 - reliable
 - low maintenance
-



The advantages of a high-

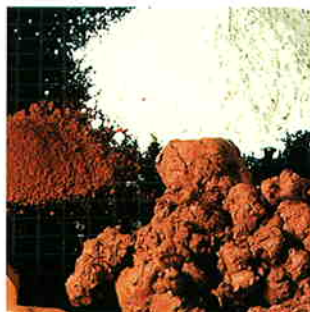
EIRICH intensive-action mixers of the Type D Series were developed for the most diverse jobs in the processing of raw materials, batches and compounds. Variable setting of machine components and the energy range ensure a high degree of efficiency.

Three components determine the characteristics of these mixers:

1. A rotating mixing pan.
2. Rotating mixing tools.
3. An adjustable multi-purpose wall-bottom scraper.

The advantages resulting for the user are considerable:

- **Optimum homogenization in processes designed for minimum material stress.**
- **Shortest mixing times.**
- **Little wear.**
- **Low-maintenance design.**
- **Excellent, constant quality of process material (permanently).**
- **Continuous or batchwise mode of operation.**



performance system.

The spectrum of applications covered by EIRICH intensive-action mixers is as varied as the range of industrial processing operations in the fields of production and environmental protection. Processing steps can be performed either singly or in combination in one machine.

They include:

mixing, reacting,
emulsifying, dispersing, dissolving,
slurrying, plasticizing, deaerating,
fiberizing, disintegrating, agglomerating,
disagglomerating, pelletizing, granulating,
kneading, moistening, drying, heating,
cooling, stripping, impregnating,
coating, waterproofing.



The mixer configuration of

EIRICH Type D intensive-action mixers can be set up for either counter-current or cross-current operation.

This design provides optimum performance in both single-charge and continuous operation, using state-of-the-art processing technology to meet today's special production requirements.

The Type D mixer's excellent processing efficiency is guaranteed by

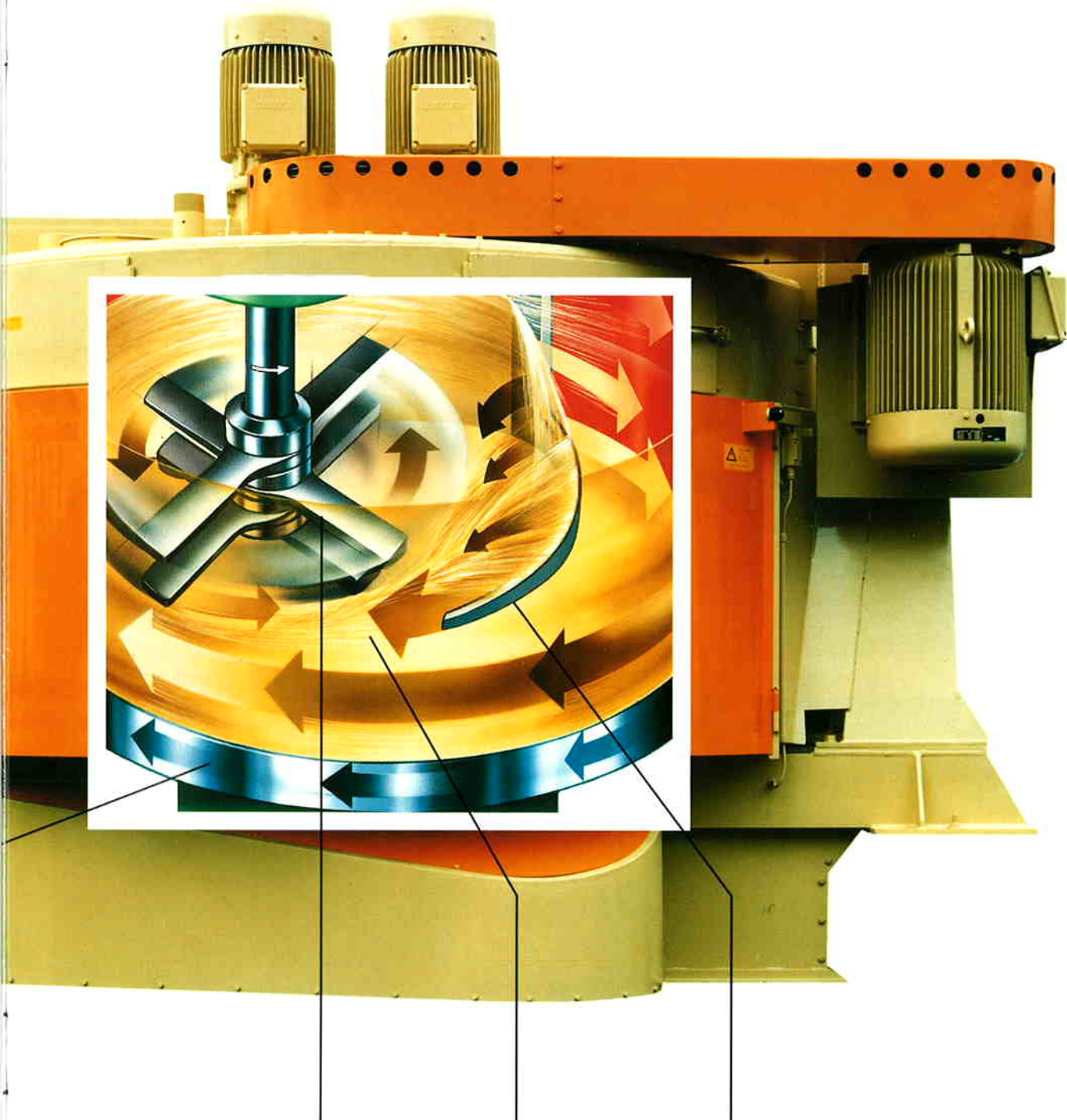
- a rotating mixing pan that continually transports the material to the rotating mixing tools, inducing counter-flowing currents of material with a high velocity differential.
- special, rotating mixing tools. The number of tools and their individual configurations are both selected to ensure optimal performance with your application.
- a multi-purpose wall-bottom scraper designed to maintain high vertical flow rates while simultaneously preventing residue accumulations on the walls and surfaces of the mixing pan. This unit also furnishes rapid evacuation of the mixing pan when the job is finished.



*Fig.4.1:
Type D intensive-action mixer*

Rotating mixing pan

the future.



Durable tool designed for easy maintenance

Counter-flowing currents of material with a high velocity differential

Strong multi-purpose tool designed as material deflector and wall-bottom scraper

The design features.

EIRICH intensive-action mixers of type D are suitable for task definitions under atmospheric pressure. The mixers are subject to low wear and require minimum maintenance.

- The rotating mixing pan is enclosed by a static case or a permanently mounted protective hull.
- The seals of the moving parts do not come into contact with the process material.
- The mixing chamber is easy to reach through large service doors.



Various options are available for temperature-dependent process steps.

For example, temperature stabilization (heating / drying / cooling) of the process material can take place directly in the mixing chamber. It is possible for the mixer to be equipped with a heating system.

At the moment the series contains mixers with effective capacities ranging from 4,000 litres to 7,000 litres.

Drives

Power requirement, speed, direction of rotation and the type of power transmission are chosen in accordance with the particular application:

- Ring gear for the mixing pan.
- V-belt, gear head motor or standard motor with gear unit for the rotating mixing tools.

Motors

Motor rating and drive power are specially selected for the individual on-site conditions.

Mixing pan

Bottom, lid and side wall with smooth finished surfaces for easy cleaning.

Mixing tools

Rugged and minimum-maintenance design. Easy replacement of mixing blades. The shape and the number of the mixing blades resp. mixing paddles are coordinated with the process material.

Feeding and discharge

Individually designed according to the product parameters and the conditions of installation.

Fig.6.1: Current of process material

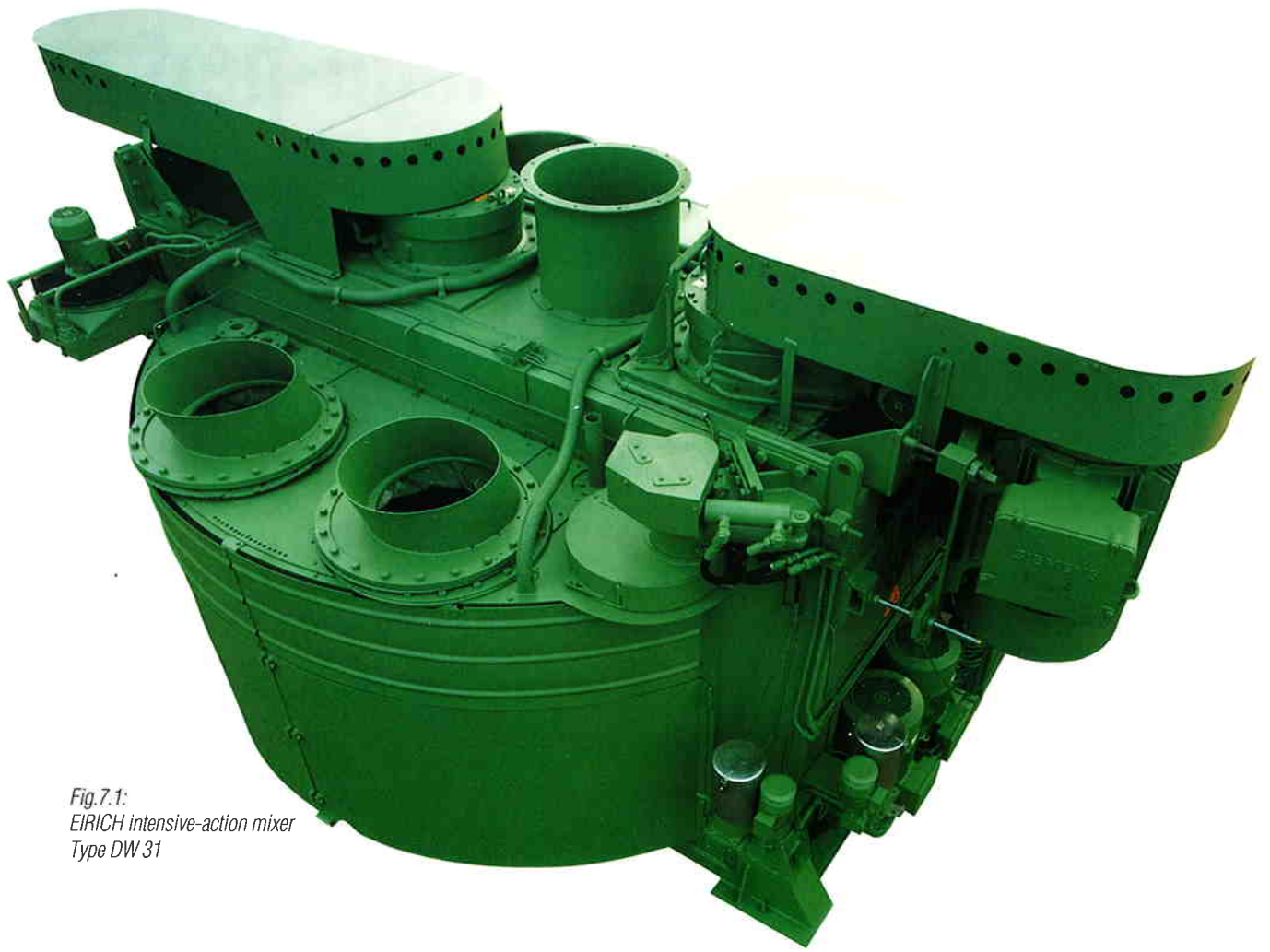


Fig.7.1:
EIRICH intensive-action mixer
Type DW 31

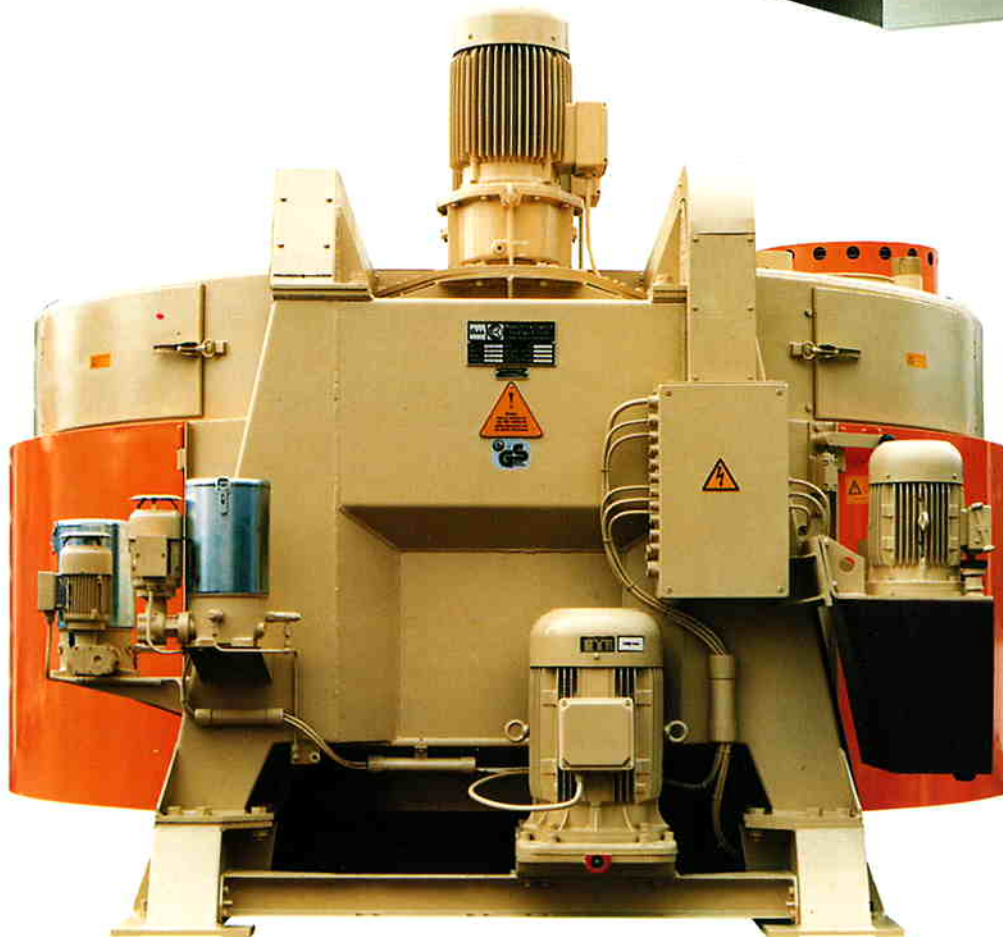


Fig.7.2: EIRICH intensive-action mixer Type D 29
with service doors open

The range of high-performan



*Fig.8.1:
EIRICH intensive-action mixer
Type D 29*



*Fig.8.2:
EIRICH intensive-action mixer
Type D 29*

ce types.

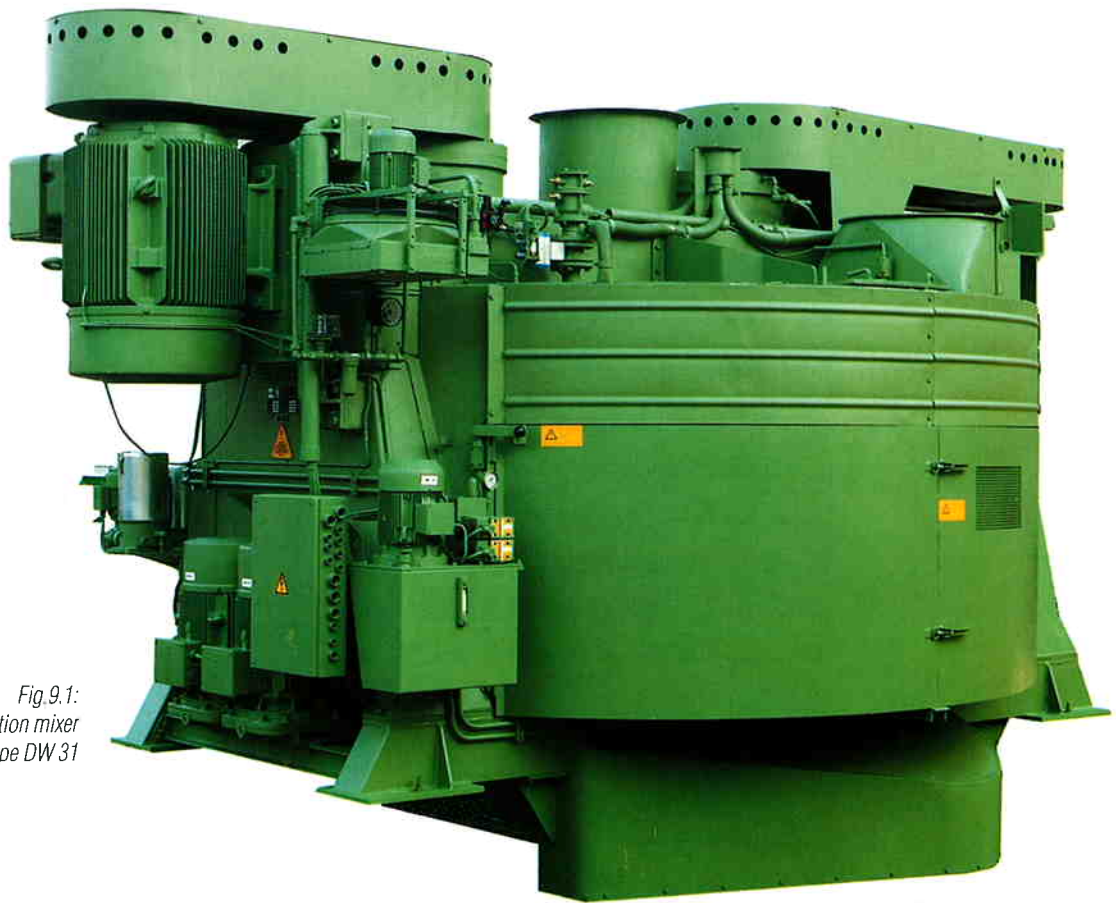


Fig.9.1:
EIRICH intensive-action mixer
Type DW 31

Type ¹⁾	Capacity ²⁾		Working principle	
	litres max.	kg max.	batch	continuous
DZV29	4000	6400	■	■
DEV29	4000	6400	■	■
DW29/4	4000	6400	■	■
DW29/5	5000	8000	■	■
DW29/6	6000	9600	■	■
DZ31/5	5000	8000	■	■
DW31/7	7000	11200	■	■

1) All models can be designed to operate at temperatures up to 180°C, with higher metering temperatures possible for individual mixture components.

2) Product-specific.

Individual accessories for

You can also select from among a range of proven supplementary components for your system. These accessories let you optimize your technology with special machine components and extensive automation.

Protection against wear

The materials and coatings used to manufacture those components that come into contact with abrasive substances are specifically selected for each individual application. The standard EIRICH range lets you choose from among a number of proven materials for inhibiting wear.

- High quality steels as base material,
- Bonded rubber seals and special synthetics,
- Armor coatings,
- Hard metal plating,
- Stainless steel,
- Non-ferrous metals,
- Ceramic tiles,
- Seals made of PTFE, Viton, etc.



Fig.10.1: Replaceable mixing blades



Fig.10.2: Hard metal plating



Fig.10.3: Ceramic tile lining on all surfaces

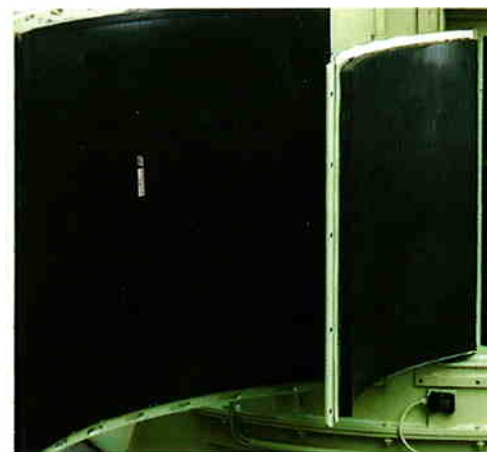


Fig.10.4: Mixing pan with rubber covering

specific applications.



Fig.11.1: Retractable moisture sensor

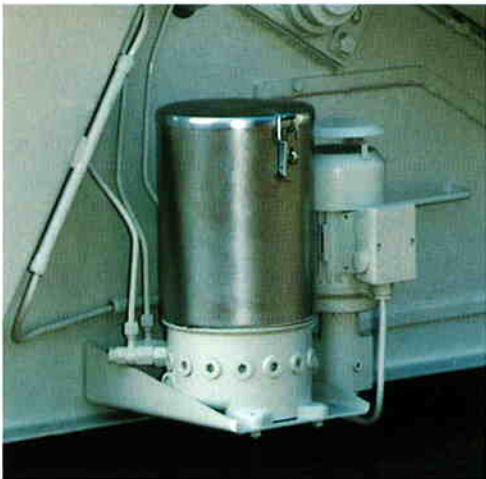


Fig.11.2: Automatic central lubrication

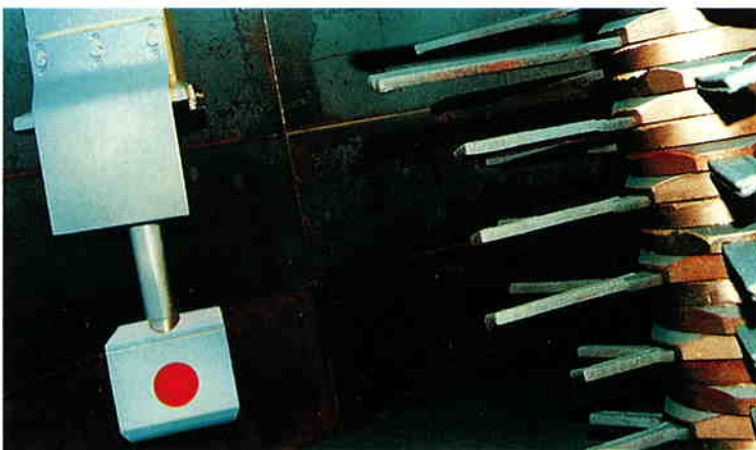


Fig.11.3: Stationary load sensor

Automation

Open and closed-loop control is based on reliable systems for monitoring the parameters mix quality and machine technology. You can benefit from the experience that EIRICH has gathered in designing countless solutions for special applications - experience that pays off in the form of thoroughly reliable systems.

- Load monitoring based on ultrasonic sensors, motor performance, electro-mechanical sensors and force monitors,
- Temperature sensors,
- Moisture sensors,
- Mixing pan cleaning equipment (dry and wet),
- Rotation monitors for mixing tools,
- Central lubrication system,
- Tooth flank spray unit.

Unified peripherals for every

Special systems are also available for incorporating the EIRICH intensive-action mixer into the larger production process. These systems are precisely matched to machine size to provide optimum performance and ensure complete utilization of the mixer's full potential.



- Formulas must be strictly observed if product quality is to be maintained.

This means that all of the components have to be added in precisely the right sequence and quantities.

- The product should display maximum consistency when it leaves the mixing pan on its way to subsequent processing operations.

EIRICH offers a complete range of products for storing, transporting, weighing, metering and controlling the entire process.

- Storage containers for granular substances and for fluids.
- Conveyors based on belt, screw, vibration and pneumatic technology; bucket elevators.
- Electro-mechanical weigh-scales.
- Metering units featuring electro-pneumatic control systems
- Measuring devices, open and closed-loop control and process data technology, including self-regulating CIM-compatible systems.

Fig.12.1: Metering unit for granular-flow materials

mixer.



Fig. 13.1: Control room featuring CAQ system



Fig. 13.3: Complete scale assembly with additives scale, water scale and metering units

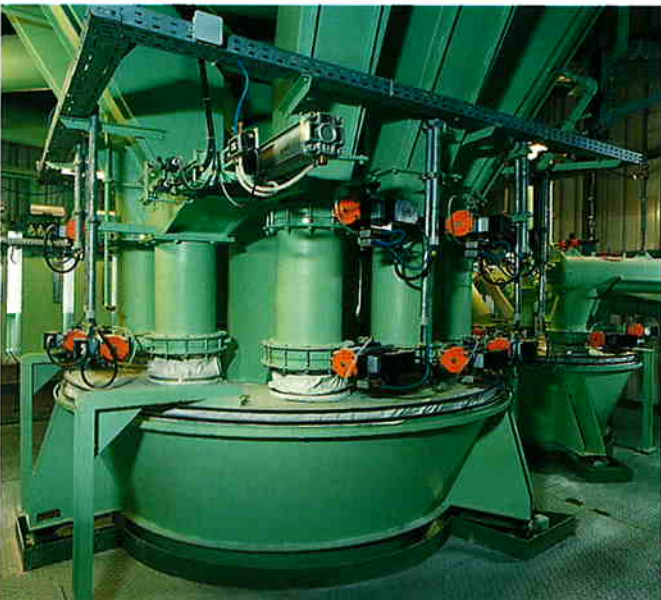


Fig. 13.2: Scale assembly with metering units

Investment without risk.



*Fig.14.1:
Material analysis in
the EIRICH Test Center*



*Fig.14.2: Modern process data technology
in the EIRICH Test Center*

Machinery and equipment are available to test actual material response characteristics under a wide range of processing conditions. The effective capacities are designed for accurate simulation to ensure trouble-free full-scale operation. We can also provide units for materials that require explosion protection or need to be processed under vacuum.

A very special feature: We can supply a fully-automated control system capable of maintaining optimum process conditions - automatically. The system can also record the trials for graphic display. These features reduce both the effort and the risk involved in designing your production facilities.

From advice to production. Everything from one source.

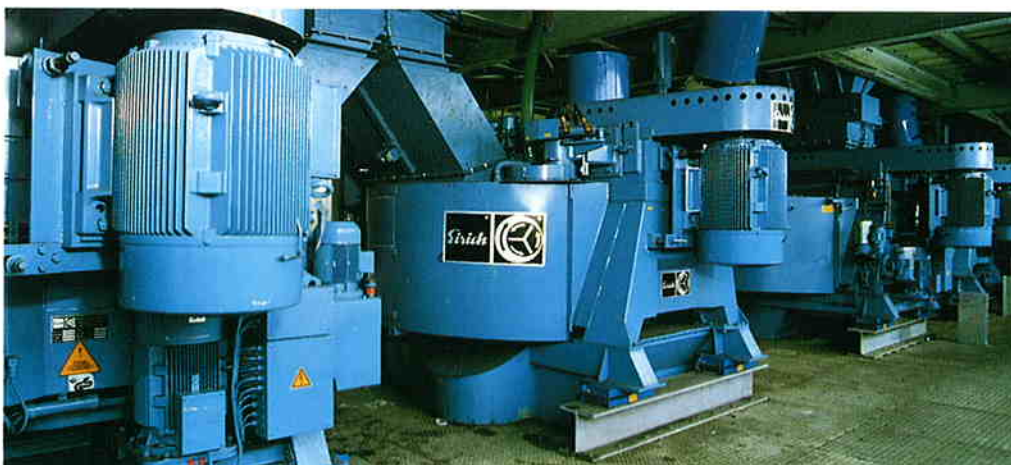
EIRICH offers you a comprehensive range of services, from initial consultations and trials to system design, measurement and control technology, transport, assembly and training. We can even help you when you start production. Our Customer Service ensures reliable access to replacement parts, around the globe. Modern, computer-assisted procedures help us find the most economical solution for you.



Fig.15.1: Computer-based systems are used to design EIRICH machinery and plants



Fig.15.2



*Fig.15.2/3
Examples of turn-key systems supplied by EIRICH*

Fig.15.3

EIRICH – Individual processing technology for production and environmental protection.

EIRICH designs, manufactures and supplies batch and continuous machinery and systems for the processing of raw materials, compounds, waste and residues in the following fields: Ceramics, glass, building materials, chemicals, molding sand, technical products, metallurgy, agricultural chemicals, food and drink, and environmental protection.

Through close cooperation with our Test Centers we draw directly on the practical experience and theoretical know-how being gathered in all parts of the world. This know-how is put to innovative use in our products in the interest of greater efficiency and better environmental compatibility.

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