

LSP

LAEMPE CORESAND PREPARATION

Systems for the preparation
and supply of sand

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IT'S ALL IN THE MIX: MODULAR SOLUTIONS FROM A SINGLE SOURCE

YOUR PERFECT CONCEPT IS AS INDIVIDUAL AS YOUR COMPANY

You need the best possible combination of suitable individual components - finely tailored to the specific requirements of your company. Do you need big bags or an external silo with a sand sender and sand sender line? Or perhaps several silos for different types of sand or binders for various processes? Would a classifier for heating, cooling, or removing dust make sense? Do you want to use one or more additives? What factors are of vital importance when it comes to setting up your sand transportation system?



Mass production with series quality

Laempe sand preparation systems have been used successfully around the world for many years. Thanks to their modular structure, you get the best of both worlds: Tailored solutions and the peace of mind that comes from knowing that our products have been tried and tested in practice hundreds of times.

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Mixing series by comparison

Feature	LM mixer	LVM mixer
Sand preparation	For all known processes	For all known processes
Mixing power (t/h)	1,5 / 3 / 4,2 / 5,5 / 7 / 11	2 / 5 / 7 / 9 / 15
Sand metering volume in litres	29 / 47 / 70 / 100 / 143 / 2x100	15 / 36 / 50 / 64 / 150
Mixer cycle time	approx. 80 sec.	approx. 36 sec.
Additive connection	2	2
Sand discharge positions	2	1
Cleaning	Self-cleaning	Easy to clean

(Guideline values - subject to technical changes)



LM HORIZONTAL MIXERS

The LM mixer series incorporates volumetric metering of sand, binders, and additives. It is suitable for supplying single and multiple machines. The system is self-cleaning and can mix different sand and binder systems alternately. Alternate discharge positions enable the direct filling of a core shooter or sand transportation system.

VERTICAL LVM MIXERS

The LVM mixer series incorporates volumetric metering of sand, binders, and additives. Even with small sand doses and low mixing quantities, this series ensures homogeneous mixing quality and is characterised by short mixing cycle times. With their low installation height, these mixers have minimum space requirements, and provide an all-round, extremely cost-effective solution.



◀ YOUR TAILORED SOLUTION

Mixing series by comparison

Feature	LM mixer	LVM mixer
Mixer housing	Steel	Plastic or wear-resistant steel
Agitator	Hard metal	Plastic or armoured steel
Recipe (binder, sand, additive)	Can be changed in cycles	Can be changed in cycles
Cleaning of mixer housing	Self-cleaning	Manual cleaning
Metering method	Volumetric or using scales	Volumetric or using scales
Metering precision for sand	± 1 %	± 1 %
Metering precision for binder	± 1 %	± 1 %

(Guideline values - subject to technical changes)

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ALL ASSEMBLIES ARE PERFECTLY TAILORED IN LINE WITH EACH OTHER

1) SAND SILO

The right silo for your requirements: Factory-welded, mobile, with a filling pipe, with support structure, pressure relief vent, or with a feed hopper for additives. Pneumatic filling can take place using a pumper truck or stationary systems. Dust collection, over-fill protection, and fill level measurement technology ensure transparency and safety.

2) SAND TRANSPORTER AND SAND PIPING LINE

The sand transporter ensures that the bulk material is blown through a pipe to its destination. The transporter is loaded with sand, sealed, and pressurized, blowing sand through the pipe to its destination.

3) SAND DELIVERY SYSTEMS

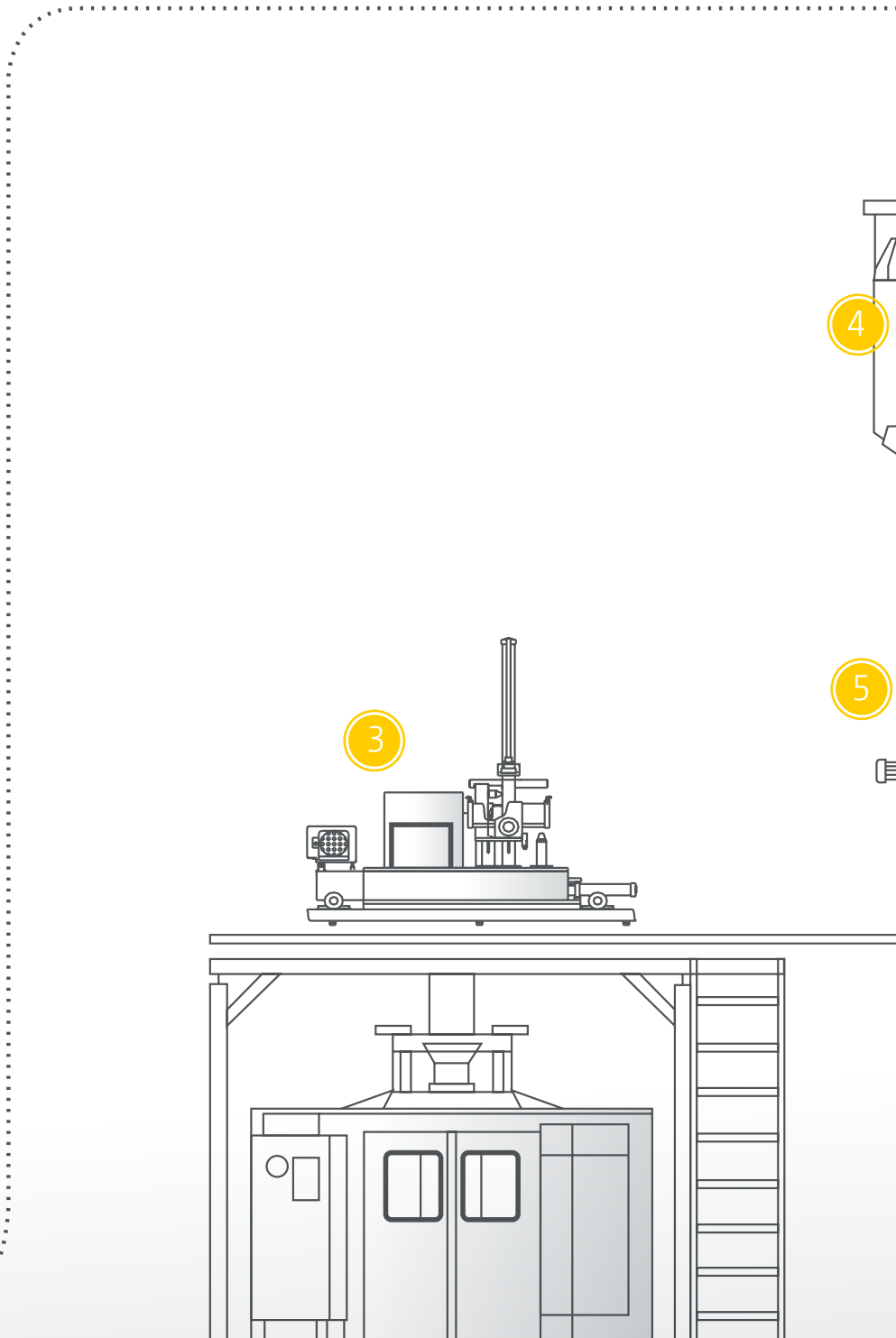
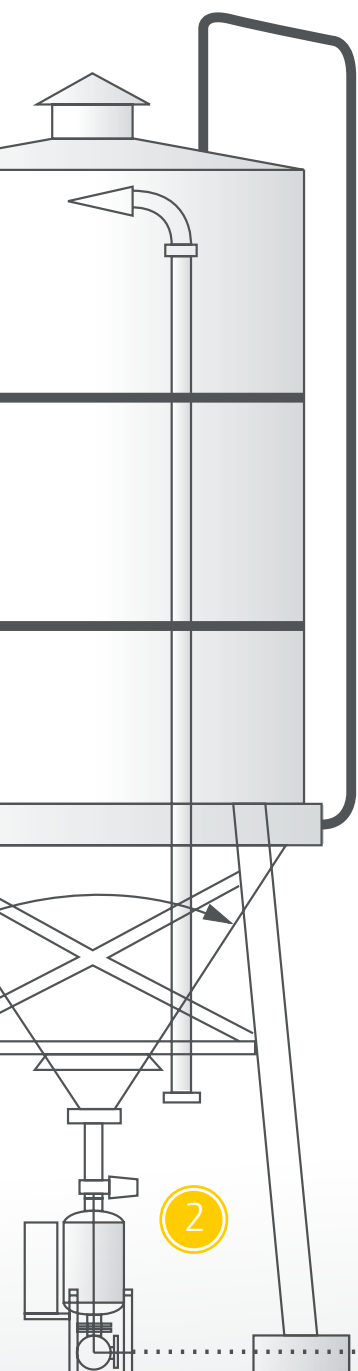
There are various technical options available for transporting the sand:

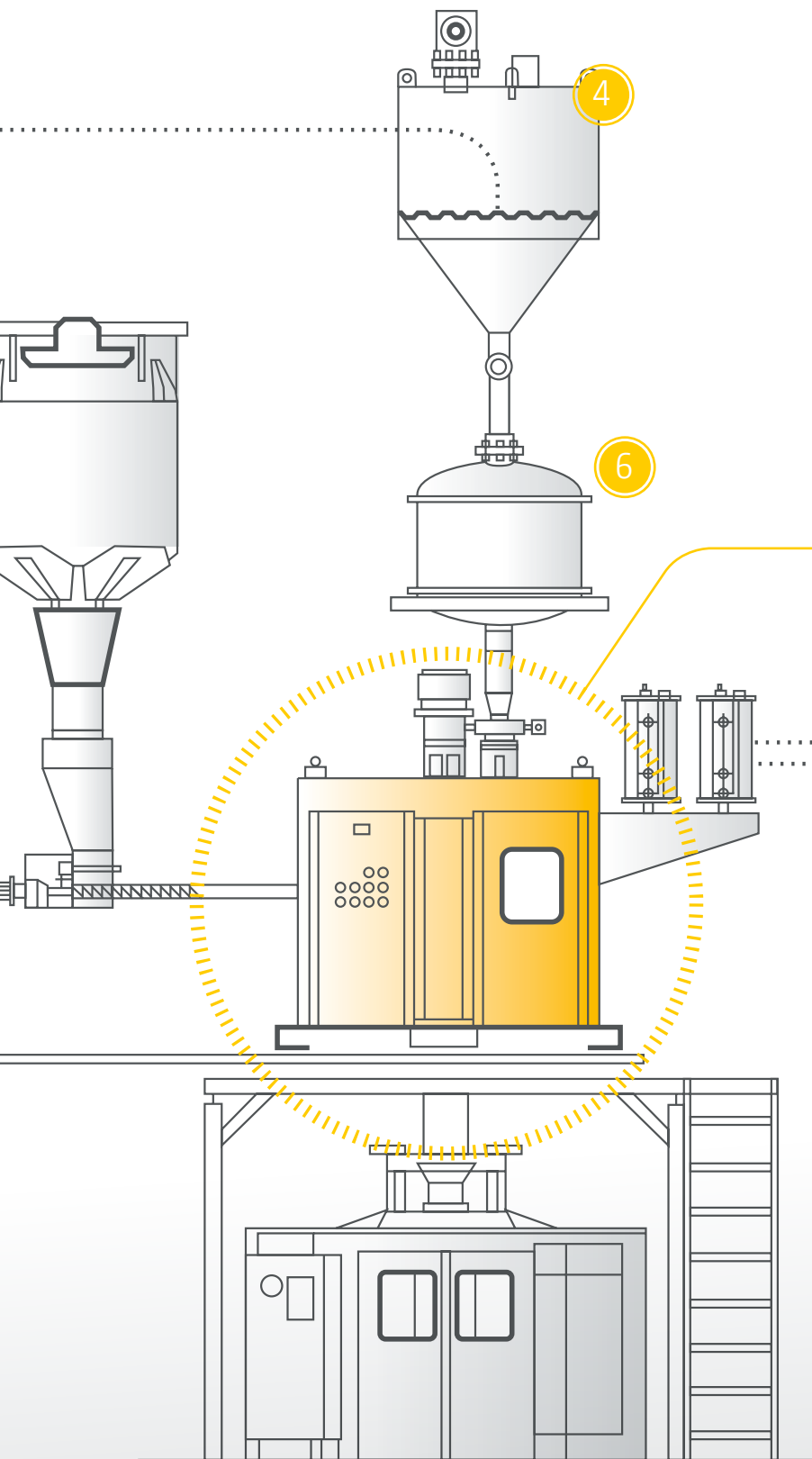
- **Sand conveyor belt** for supplying multiple machines.
- **Suspended transport hopper with double undercut gates** on a monorail.
- **Sand transport hopper with double undercut gates on rails**, characterised by its low installation height.
- **Sand transport trolley on rails, self-cleaning**. This solution is recommended if different recipes are used.

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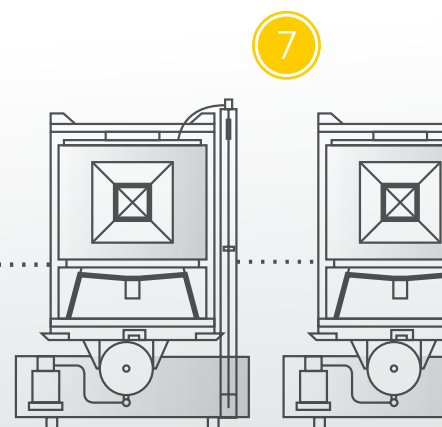
TH OTHER TO ENSURE PERFECT PRODUCTION QUALITY





MIXER

Laempe offers sand preparation systems for all known processes with appropriate metering of the components. Even the combination of several processes in one mixer is possible with Laempe mixing systems.



4) BIG BAGS OR DAY BIN

One- or two-cell bins (heated/unheated) or big bags can be used to store the sand/additive.

5) ADDITIVE SUPPLY

The additive supply system is attached to the mixer in a modular fashion and is filled from big bags or sacks. The additive is supplied to the mixer via a feed screw. The control unit can be used to set the volume or weight as required.

6) SEPARATORS

Sand heater/cooler/classifier can be used to keep the sand temperature constant in order to optimise core quality. In addition, dust is removed, which minimises binder consumption and improves gas throughput.

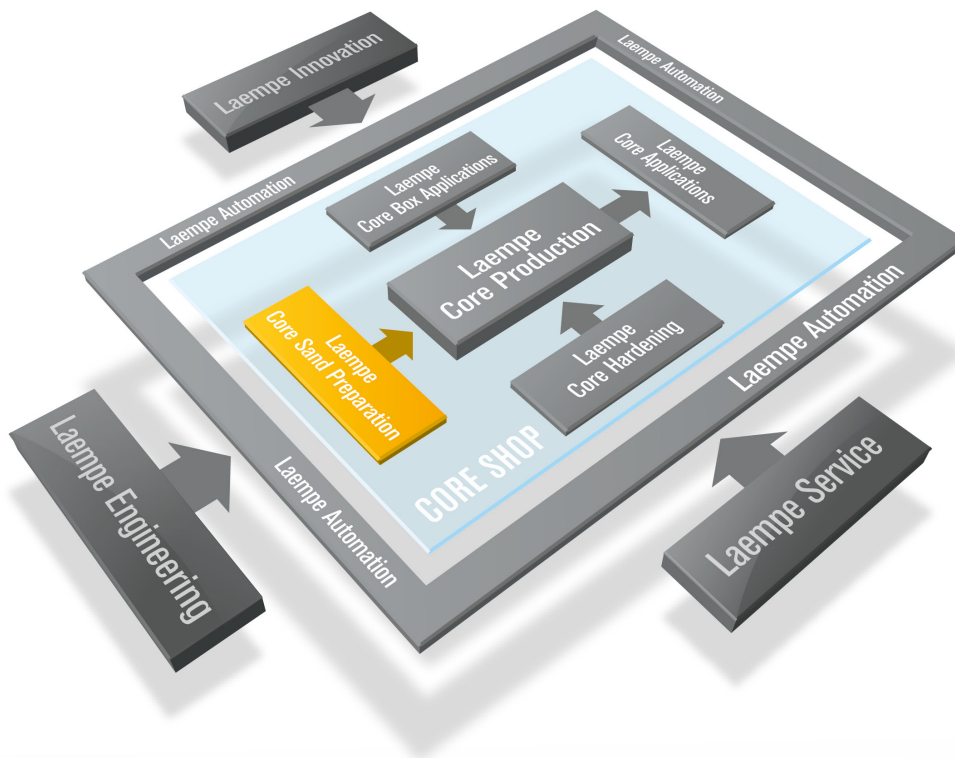
7) BINDER SUPPLY

The binder supply system comprises various components that can be pieced together in a modular fashion: from a simple suction lance which comes straight out of the binder drum to a central supply for multiple mixers. The central binder supply system consists of the following components:

- Central container/drum storage with buffer tank and pump system
- Intermediate tanks (heated/unheated)
- Pipe system (heated/unheated)
- Control unit with display (separate or integrated)



LAEMPE CORESAND PREPARATION - LET US TELL YOU ABOUT THE BEST SOLUTIONS FOR YOUR INDIVIDUAL REQUIREMENTS


LAEMPE TURNKEY SOLUTIONS
FOR THE INNOVATIVE CORE SHOP

**Innovative solutions for extra cost-effectiveness
and the highest possible quality requirements**

The **Laempe CoreApplications** division with its peripheral systems is an integral part of our highly modern core production facilities. It complements the **Laempe CoreProduction** division with its automatic core shooters, **Laempe CoreSand Preparation** division with its sand preparation and supply applications, and **Laempe Automation** division with its automation systems. Our efficient service offering ensures high machine availability during daily production.

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Solution expertise from a strong partner

Laempe Mössner Sinto GmbH is a global leader in core shop technology for the casting industry. As an innovative developer of complete solutions from Germany we offer a comprehensive range of core shooters, gassing devices, sand mixers, sand preparation systems, and subsequent core treatment solutions in addition to solutions for the automation, networking, and intelligent control of core shops. The strategic partnership with the Japanese Sinto group, together with our sales offices and representatives worldwide, create our global network. Especially our customers benefit from this unique constellation: Industry-leading expertise in the core shop with a worldwide presence and extensive know-how in the entire foundry process make Laempe Mössner Sinto the ideal partner at your side.

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