



TECHNICAL INFORMATION

LIME MILK PREPARATION PLANT

Our lime milk preparation plant constitutes a system for producing lime milk from hydrated lime and water. The plant can be configured for batchwise or continuous operation.

AREAS OF USE

1.1

Lime has a very broad spectrum of applications in the **environmental technology** sector:

- Flue gas cleaning
- Drinking water treatment
- Wastewater treatment

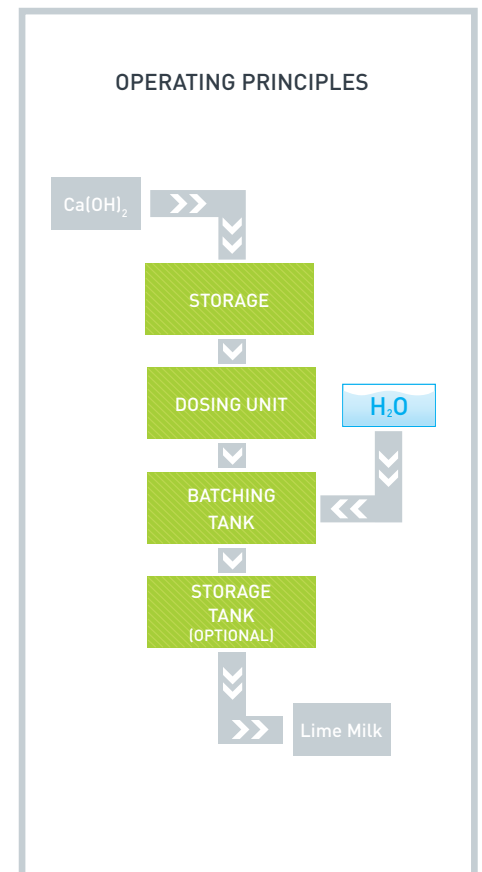
Lime is also used in a variety of **industrial applications**.

PROCEDURE

1.2

The hydrated lime $\text{Ca}(\text{OH})_2$ is conveyed from the silo into the lime milk batching tank by a combination of a cellular wheel sluice and a screw conveyor and mixed with water under constant agitation to produce lime milk.

The desired concentration of lime milk suspension is defined with dosing units for water and powdered hydrated lime.



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PLANT****PLANT DESIGN****1.3**

Lime milk preparation plants are used when the amount of lime consumed is 100–800 t/a. In case of higher quantities, a lime slaking plant based on quicklime (CaO) is recommended instead.

Configuration criteria for a lime milk preparation plant:	› Lime milk concentration
› Lime consumption	› Dosing accuracy
› Duration of storage of hydrated lime Ca(OH) ₂	› Duration of storage of lime milk / lime milk buffer volume
	› Redundancy requirement of the customer

MAIN ELEMENTS OF THE LIME MILK PREPARATION PLANT**2.0**

The main assemblies are as follows:	› Batching tank
› Storage	› Storage container (optional)
› Dosing unit	› Pump unit

STORAGE**2.1**

The dimensions of the hydrated lime silo depend on the requirements for the supply and the standby time and the replenishment capacity. The load capacity of the vehicle delivering the hydrated lime has

to be considered as well. Silo accessories such as the dust removal unit, level indicator, discharge assistance etc. are selected on a project-specific basis.

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DOSING UNIT

2.2

The dosing unit consists of a cellular wheel sluice and a downstream screw conveyor. The ratio of hydrated lime to water can be determined volumetrically or gravimetrically.

a) Volumetric dosing

In the case of volumetric dosing, the ratio of hydrated lime and water is controlled by the speed of the cellular wheel sluice and the current throughput of the batching water.

b) Gravimetric dosing

In the case of gravimetric dosing, only the quantity of water and subsequently hydrated lime required for the new batch is weighed into the batching tank. Preparation is done in batches. The produced lime milk with a precisely defined concentration is then drained into a storage container from which the ready-to-use lime milk is withdrawn continuously.

**THE ADVANTAGES OF GRAVIMETRIC
DOSING ARE THE EXACT DOSING
ACCURACY AND A CONSTANT,
EASILY ADJUSTABLE LIME MILK
CONCENTRATION.**

BATCHING TANK

2.3

To generate lime milk, water and powdered hydrated lime are prepared in the batching tank under constant agitation. Continuous

withdrawal of the ready-to-use lime milk is guaranteed. The plant works dust-free.

PUMP STATION

2.4

The pump station is designed according to customer requirements. It can be designed as a stub or ring circuit. Withdrawal points

from the ring circuit with dosing units for lime milk are configured individually and tailored to the downstream consumer.

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OUR RANGE OF SERVICES COMPRISES:

- > Plant engineering
- > Service and provision of spare parts
- > Consultancy and design
- > Restoration and modernisation
- > Engineering

**CERTIFIED QUALITY –
WE ARE CERTIFIED TO**



INTERESTED? GOT ANY OTHER QUESTIONS? JUST CALL OR SEND US AN E-MAIL.

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