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 Ca(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.

**OPERATING PRINCIPLES**

- Ca(OH)₂
- Storage
- Dosing unit
- H₂O
- Batching tank
- Storage tank (optional)
- Lime Milk
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 consumption
- Duration of storage of hydrated lime \( \text{Ca(OH)}_2 \)
- Lime milk concentration
- Dosing accuracy
- 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:
- Storage
- Dosing unit
- Batching tank
- Storage container (optional)
- Pump unit
- Silo accessories such as the dust removal unit, level indicator, discharge assistance etc. are selected on a project-specific basis.

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.
DOSSING 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.

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.
OUR RANGE OF SERVICES COMPRISES:

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

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

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