

Plaster and Mortar Plants --- and Product technology



Lahti Precision

your partner in the dry mortar business

Lahti Precision (formerly Raute Precision), has 100 years experience in delivering high-precision weighing and dosing systems and components. Today, Lahti Precision is one of the world's leading experts in supplying plaster and mortar plants providing high efficiency, precision and flexibility in production.

LAHTI PRECISION STANDS FOR HIGH QUALITY

Lahti Precision, the expert in weighing and dosing, handling of bulk materials, and in related automation, is a forerunner in the dry mix business. Lahti Precision has delivered plants for the industrial production of plasters, mortars and other dry mix products all over the world. The company supplies total plant projects and related services from engineering to commissioning.

Lahti Precision also has long experience and extensive know-how of dry mix product technology for various climate conditions. Experienced personnel and own laboratories ensure good quality and costcompetitive product recipes. Proven plant and

product technology, expertise in project management and versatile after sales services make Lahti Precision a reliable partner in the dry mix business

A COMPLETE PACKAGE FOR YOUR DRY MORTAR BUSINESS

Lahti Precision provides a complete package for the plaster and mortar business. The company's knowhow covers the whole business chain from market evaluation and design of suitable product range to the marketing of the final dry mix products. Lahti Precision works closely with the customers to design the production plant to meet the customer's requirements.



OUR DELIVERY PROGRAM INCLUDES

- Market evaluation
- Raw material analysis and development of competitive products
- Turnkey plaster and mortar plants
- Fluidisation systems
- Dosing and weighing systems and components
- Control systems and components
- Plant modernisations and control system upgrades
- Wide range of services:
 - engineering
 - supervision and coordination
 - start-up and training of service personnel
 - spare parts
 - Pre-Inspection services
 - laboratory and quality control services
 - assistance in marketing





High accuracy and capacity in dosing, weighing and mixing

COMPACT GRAVITY-BASED PLANTS

Lahti Precision's dry mix plant design is based on its own patented silo discharge and dosing system which makes it possible to construct gravity-based plants.

The dried sand and other raw materials are brought up to the top of the mixing tower, and thereafter, all the material transfer takes place by gravity. The key factor is a patented silo discharge and



dosing system based on fluidization technology. In most cases this eliminates the need for screw conveyors, which guarantees high accuracy at high capacity as well as less maintenance. The plant layout is therefore extremely compact.

Optimum silo discharge is obtained for fine dry raw materials such as fine sand, limestone powders, cements, burnt lime and various dry powder chemicals.



OPTIMUM SILO DISCHARGE

Lahti Precision's patented fluidization system is an economical discharging method which requires only a minor amount of dried, compressed air. Efficient fluidization is achieved by air flowing in small quantities, through the specially designed fluidization elements in the conical section of the silo.

To complement the specially designed fluidization elements, Lahti Precision has developed a double flap dosing valve to ensure an accurate fine feed of additives, where an additional, smaller built-in valve for fine feeding is placed inside of the main valve.

A further application of Lahti Precision's fluidization technology is a patented fluid hose, typically used to transfer dry powders. In this system, the powder material is fluidized along the full length of a special rubber hose. The fluid hose has significant advantages: high capacity, space savings and flexibility.

Lahti Precision also has special dosing systems for light-weight aggregates and fibres, commonly used in the production of plasters.

Advanced control system for operational flexibility and accurate quality control

COMPLETE PROCESS CONTROL

Lahti Precision's modular automation system consists of a Human-Machine Interface (HMI), Batch Controllers or Weighing Transmitters, PLCs, PCbased operator terminals, portable terminals with wireless connectivity according to the customer's needs. The system is fitted to operate seamlessly together with the other SCADA stations in the factory.

One of Lahti Precision's latest software products is the Batch Information Management System (BIMS) providing very extensive reporting, alarm & event monitoring, preventive maintenance and production efficiency monitoring tools. Together with the new digital WA weighing controller concept it forms modern, safe and reliable system architecture.



Experts at your service

to improve your production performance and reliability

WIDE RANGE OF SERVICES FOR THE GLASS INDUSTRY

Engineering

- plant layout design
- static calculation and load data
- basic and detailed design of silos and building
- assembly and installation drawings and part lists
- electrification and control system
- process control software

Installation and commissioning

- project and site operations
- mechanical erection of the plant and machinery
- control system and electrification

Start-up

- process machinery
- testing and calibration
- setting up and testing of the control system and instrumentation

Training

- maintenance and service personnel as well as operators

Spare parts

- spare part recommendations, supplies and support

Upgrading and modernisation

- extension and capacity increase of plants
- upgrading of control systems

Pre-Inspection Service

- regular inspection of all batch plant machinery to improve production performance and reliability
- detailed inspection report with recommendations for instant repairs and spare parts

Product technology services

- specifications for local raw materials
- testing of raw material samples
- laboratory work needed for the development of product recipes
- personnel training
- proposals for quality control system and laboratory equipment





Experience that weighs

Lahti Precision started manufacturing scales in 1914. Today our company is an expert in dosing, weighing and mixing applications supplying batching plants for glass industry, drymix plants and services globally. Our vast experience in core technology guarantees excellent dosing accuracy and consistent mixing quality. We help our customers to succeed in their own production by working closely together, finding the best solutions for the actual need. This ensures our customers the lowest cost of ownership.



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