



Cellwood Machinery
FOR BETTER PULP AND PAPER

KRIMA Dispersing system

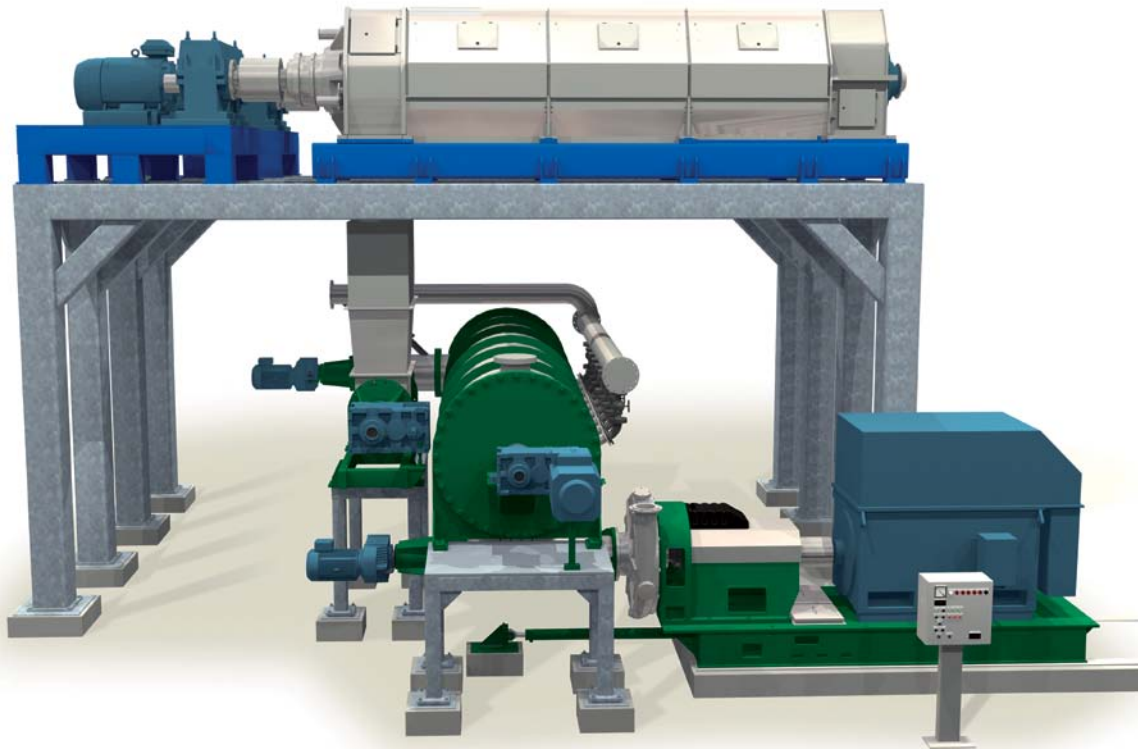


KRIMA

CELLWOOD
MACHINERY

KRIMA Dispersing System

THE MOST EFFECTIVE SYSTEM FOR DISPERSING OF WASTE PAPER



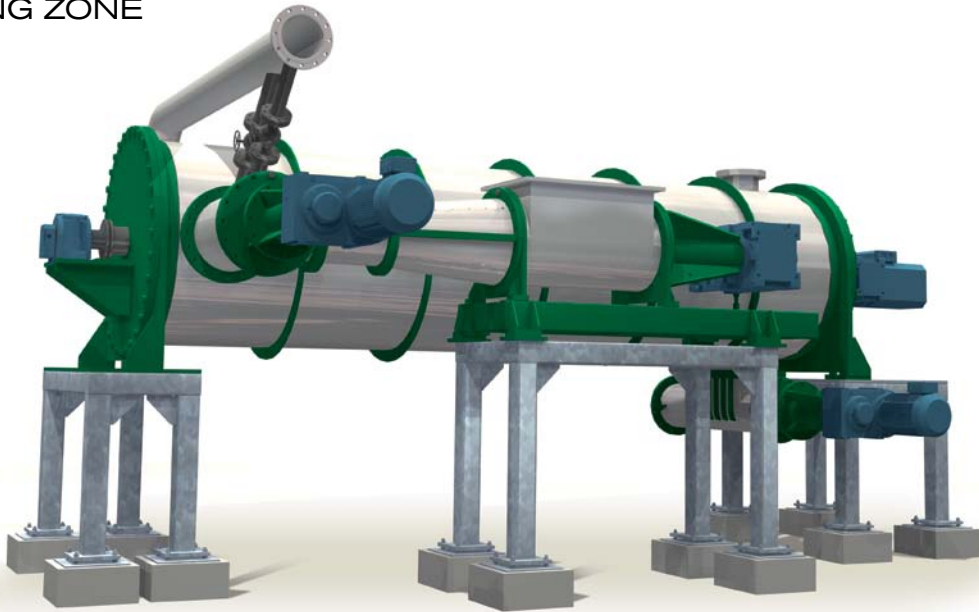
- KRIMA Dispersing systems are used in stock preparation systems for recycled paper, with the main target, to reduce the impurities to an invisible size.
- KRIMA Dispersion develops the properties of the fibers.
- KRIMA Dispersing system gives optimum treatment of all types of pulp mixtures in which waste paper is the basic raw material.
- KRIMA hot dispersing systems are pressurized and operate at up to +120°C (248°F).
- Exceptionally low energy consumption, less than 60 kWh/ton (3 hpd/ton), for a complete system.
- The system can be used as a highly efficient in-line bleaching stage.
- The combination of Performance, Economy and Flexibility will ensure maximum return on investment.
- Customized systems meeting customer requirements with flexible modules of Dewatering, Heating and Dispersion.
- Global presence with approximately 500 KRIMA Dispersing systems installed, treating more than 100 000 tons of pulp every day.
- Unique and highly developed competence after 40 years of experience.
- A complete dispersing system comprises three process stages namely: Dewatering, Heating and Dispersion.

DEWATERING ZONE



- One stage Screwpress dewatering thickens the pulp from as low as 3 % to over 30 % consistency.
- High consistency is crucial for a fast and economic heating in the Heating zone and to achieve optimum dispersion result.
- Atmospheric discharge from the screw press allows for easy sampling and flexible installation.

HEATING ZONE

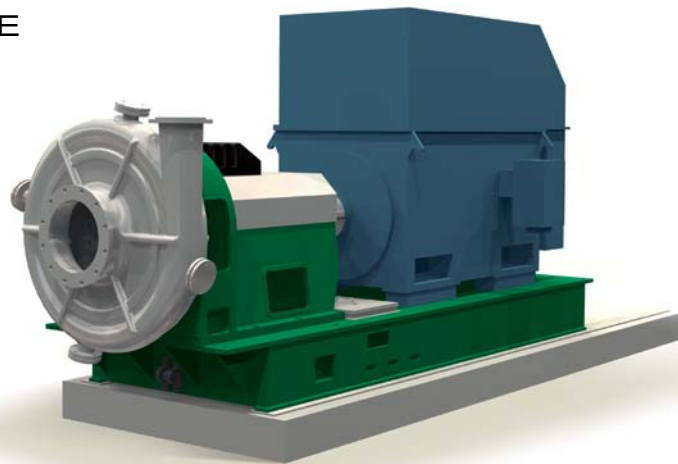


- The heating zone with its closed pressurized design is sealed by a Plugscrew to achieve low steam consumption and flexible operating temperatures of up to +120°C (248°F).
- Shear forces introduced by the plug screw creates a pre-dispersing effect.
- A Shredder finely divides the pulp plug to enable an effective and uniform heating. This will ensure

that all fibres and contaminants reach the required temperature needed for dispersion.

- A sealed heating zone makes it possible to connect different dewatering systems.
- The heating zone can be used as a bleaching reactor due to high temperature or only as a chemical mixer.

DISPERSION ZONE



- KRIMA Dispenser is a disc type Dispenser for superior performance and easy maintenance.
- Unique design guarantees gentle treatment of the fibres at high consistency.
- Energy consumption is as low as 35 kWh/ton (1,75 hpd/ton).

- Dispensing discs are available in different “devil-tooth” patterns to give the best optimum result.
- Adjustment of the disc gap on-line with an accuracy of 0.01 mm.
- Flexible discharge consistency from 3 – 35 %.

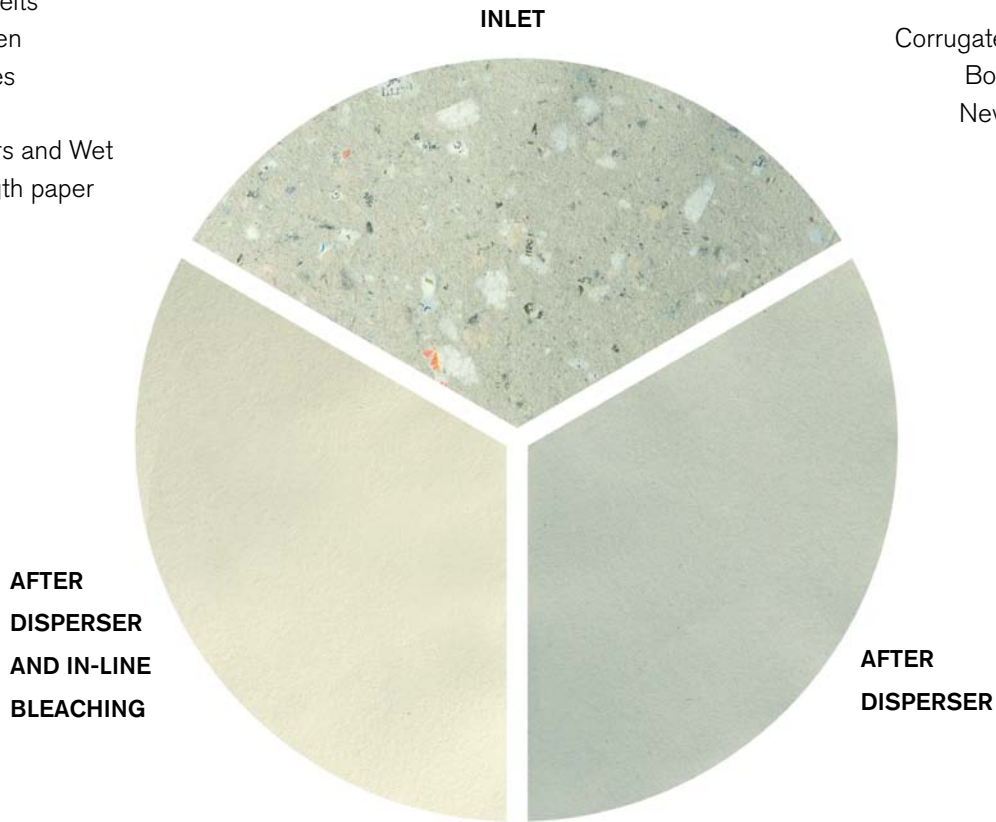
KRIMA DISPERSING SYSTEM

Designed to disperse impurities such as:

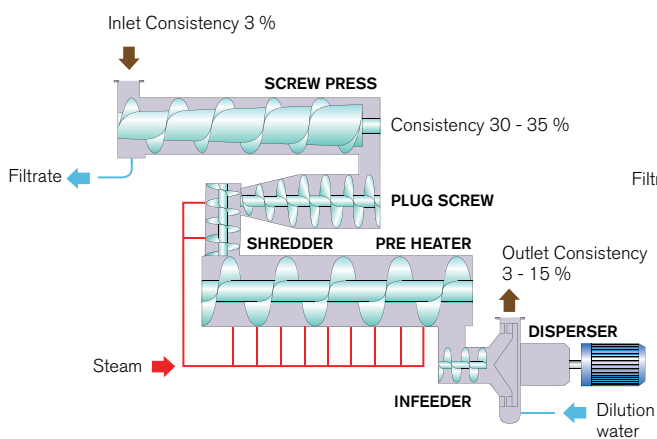
- Wax
- Hot-melts
- Bitumen
- Stickies
- Ink
- Colours and Wet strength paper

Cellwood have supplied the system to a large range of products like:

- Linerboard,
- Corrugated medium,
- Board, Tissue,
- Newsprint and
- Fine paper.

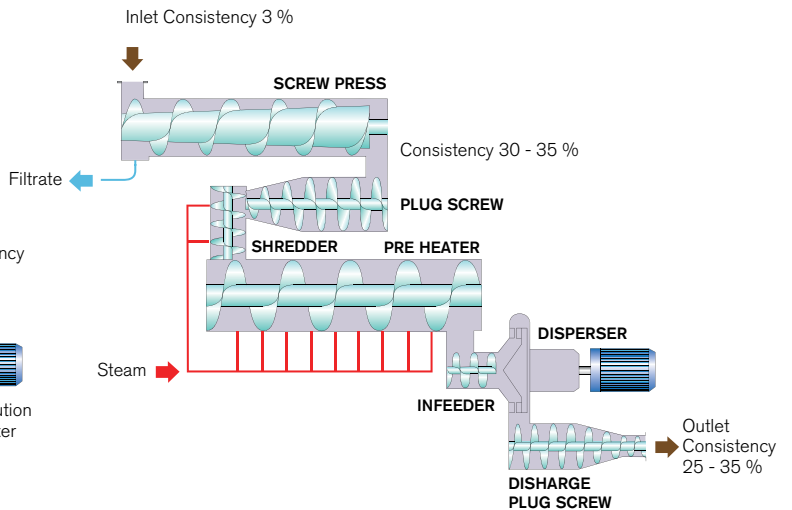


KRIMA DISPERSING SYSTEM PRINCIPAL FLOWSHEET WITH ALTERNATIVE DISCHARGES



ALTERNATIVE 1

Krima Dispersing system with a screw press of min 3 % inlet consistency, heating zone and with low/medium discharge consistency from disperser.



ALTERNATIVE 2

Krima Dispersing system with a screw press of min 3 % inlet consistency, heating zone and with high discharge consistency from disperser.

KRIMA DISPERSING SYSTEM A
RESULT OF 40 YEARS' EXPERIENCE AND
CONTINUOUS DEVELOPMENT



Krima Dispersing system of 500 tpd.

KEY EXPERIENCES FROM USING THE
KRIMA DISPERSING SYSTEM

- Improved end product quality.
- Ability to use a wider selection of raw material.
- Increase of yield.
- Low energy consumption.
- Develop fibre properties.
- Decreased need for refining.
- Inline bleaching with lower chemical consumption.
- Reduction of bacterial spores.
- Improved runability on PM.

CELLWOOD MACHINERY

World Leader of Dispersing & Pulping Technology



Cellwood Machinery AB develops, manufactures and supplies machinery and systems for the pulp and paper industry. Our aim is constant development, leading to cost-effective machinery and energy savings for our customers. Cellwood Machinery always provides an operational guarantee and undertakes everything from engineering and drawing documentation to complete installations.

Cellwood Machinery is a world leader in pulper design and dispersing systems. We are represented in all countries by our own personnel or agents. For further information, visit our website www.cellwood.se.

Cellwood Machinery is part of the Swedish family-owned industrial group The Cellwood Group, which has around 350 employees.



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