





PULP BALE HANDLING

PULPER FEEDING SYSTEMS













Pulp

Paper

Energy Recycling

Chipboard Other industries

Main objectives



High efficiency

Best material preparation

High plant capacities (230 bales/h=1400 tons/day)

Personnel independent quality control

Minimum employment of staff

Safety for personnel

Safety for stock preparation





FMW solutions









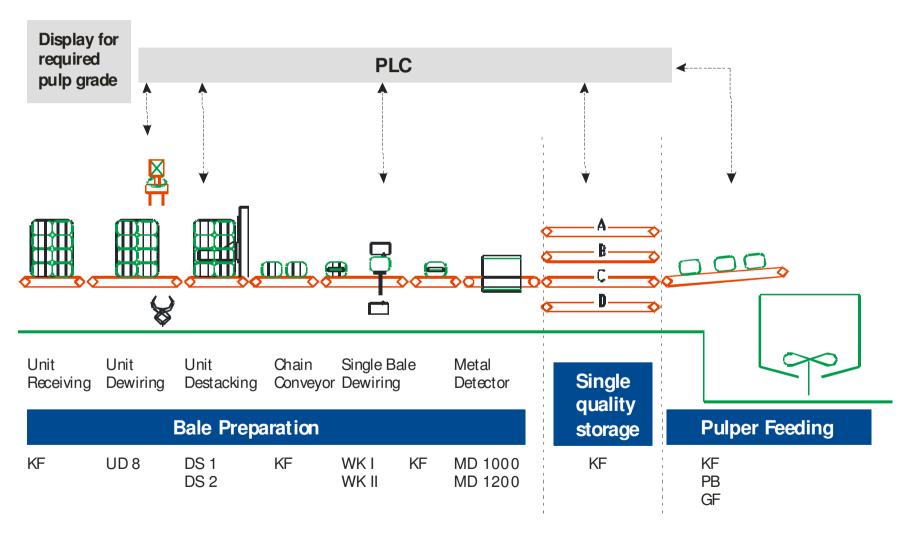


- Automatic Unit-Dewiring
- Automatic Unit-Destacking
- Automatic Single Bale Dewiring
- o Grade storage, remote controlled
- Pulper feeding
- PLC system



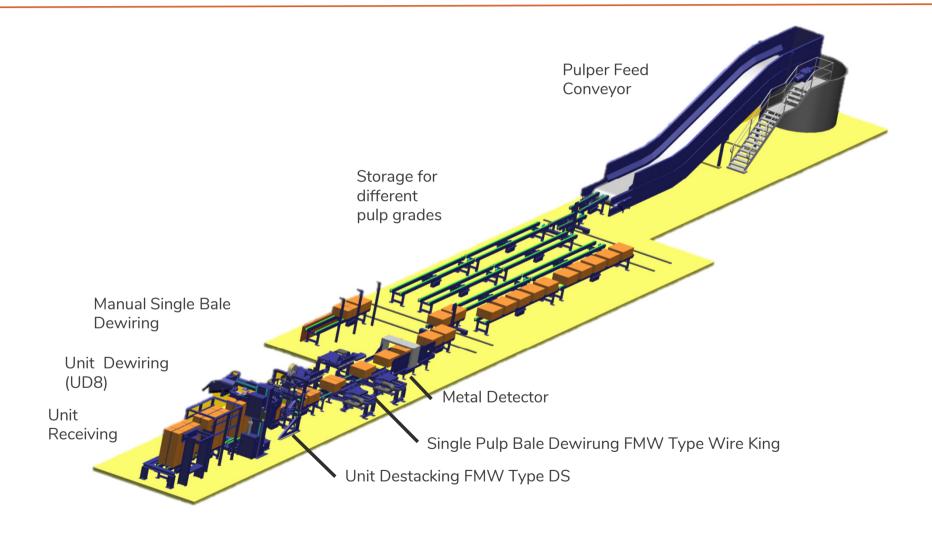
Automatic pulper feeding with pulp bales





Typical layout





Type UD-8





Main requirements







Highest efficiency

Best material preparation

High plant capacities (units/h=2000 tons/day)

Fully automatic

Highest dewiring efficiency of 99%

Safety for personnel

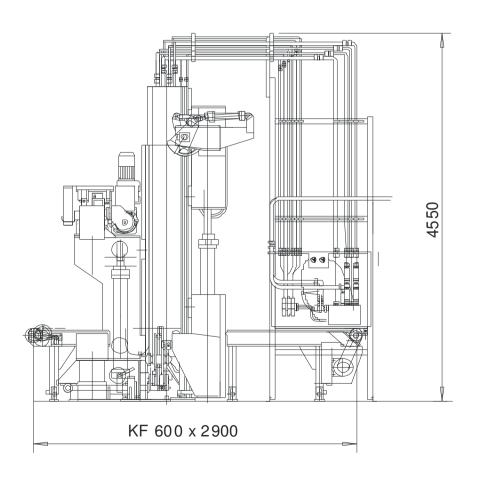
Working Principle



 Exact positioning • Lifting of half pulp unit Cutting of wires • Draw-off and coiling of unit wires CONTAINER • Wire discharge into container (2) • Reset of half pulp unit • Transportation to Automatic Unit De-stacker DS

Machine design



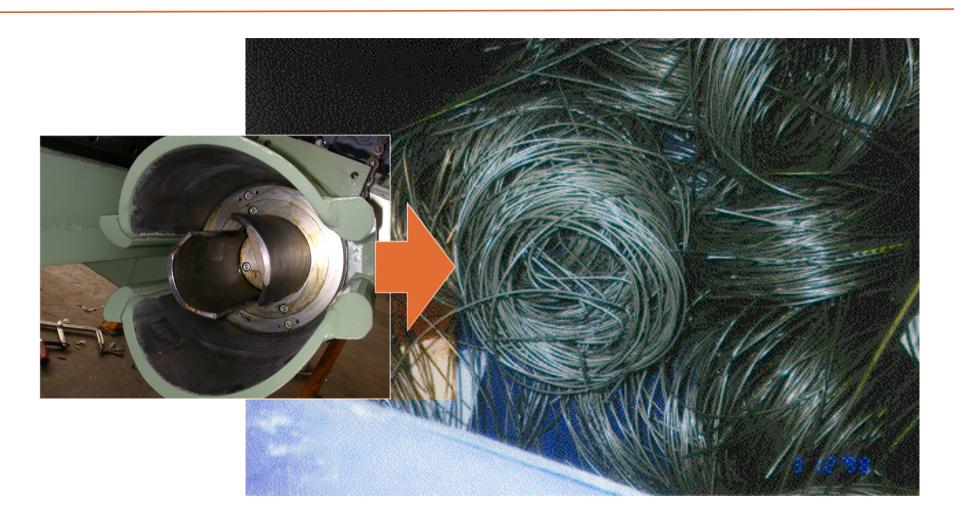






Coils after dewiring





Type DS







Type DS





- Highest efficiency
- o Best material preparation
- High plant capacities (30 units/h = 240 bales/h)
- Safety for personnel

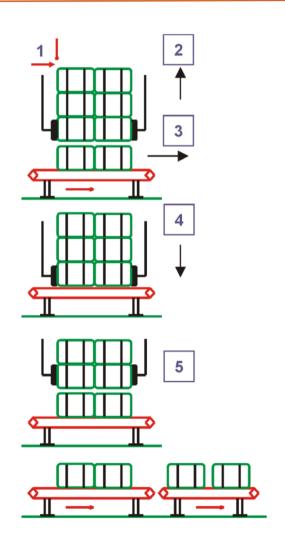


Working principle



Depending on capacity and half/entire Unit-Destacking

Exact positioning
Lifting all pulp bales from 2nd row
Conveying of remaining single bales on chain conveyor
Reset of all remaining pulp bales on chain conveyor
Repetition of lifting procedure with top bale



Machine design

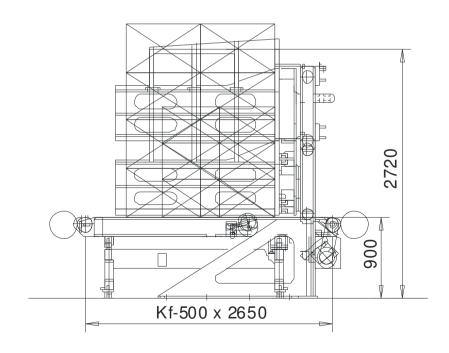


DS 1:

 For continuous de-stacking of a half de-wired unit (1 stack) // 80 – approx. 120 bales/h

DS 2:

 for continuous de-stacking of an entire de-wired unit (2 stacks) // approx. 240 bales/h





Automatic Single Bale Dewiring

Type: Wire King

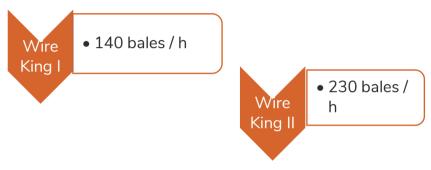




Machine Design



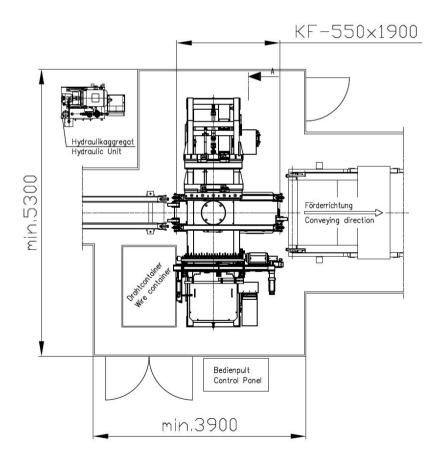
Modular design for installation of 1 or 2 units, depending on capacity:



- Positioning of each single bale
- Wires are cut on one site, drawn and coiled on the opposite site
- 90 ° rotation of bale
- Repetition of dewiring procedure

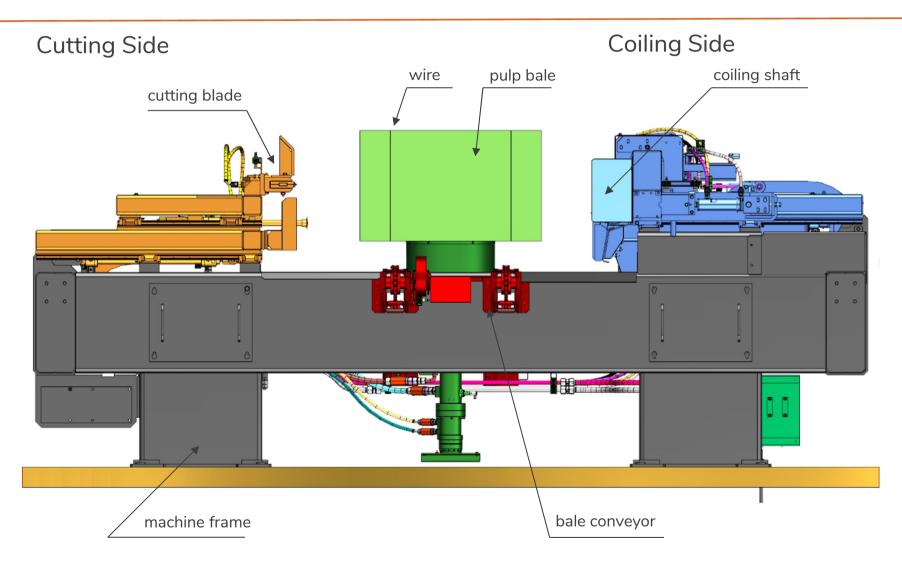






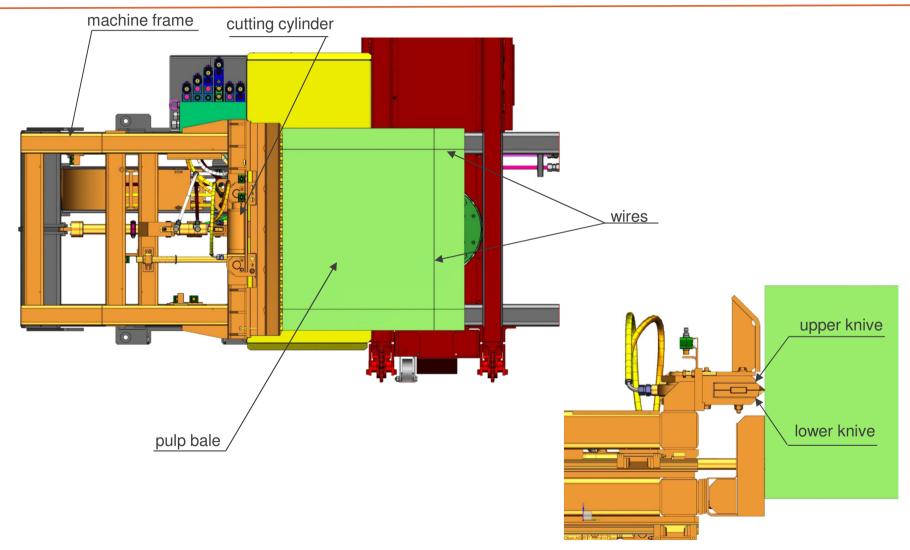
Machine Design





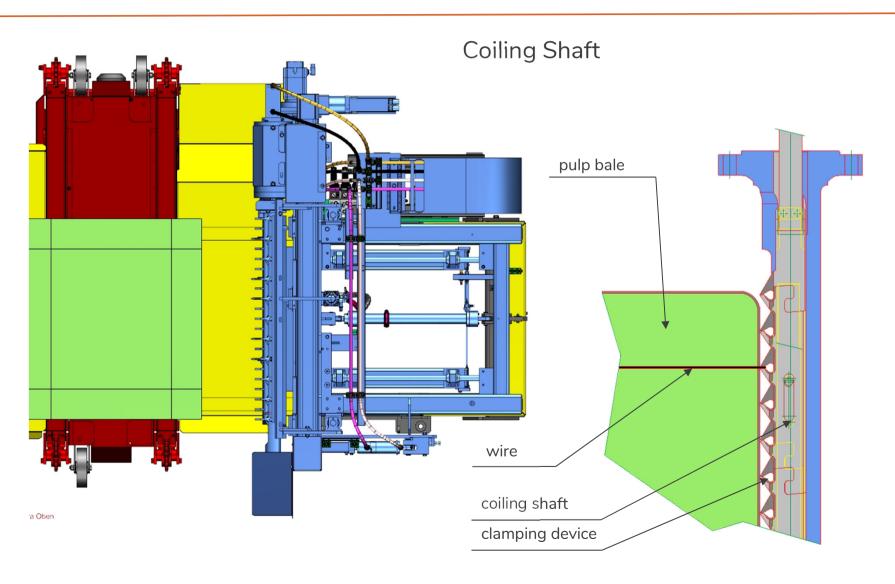
Cutting





Coiling









Cutting device



Coiling shaft with clamping device



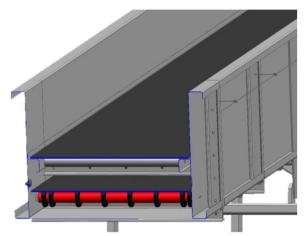
Coils after discharge into container

Conveyors for Pulp Bale



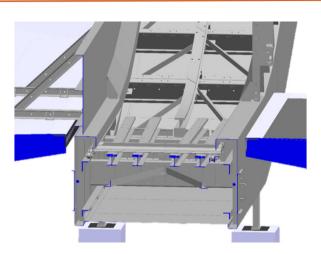
Apron Conveyor, FMW-Type PB:

- heavy duty design
- pulp bales
- o steep inclination (max. 25°)



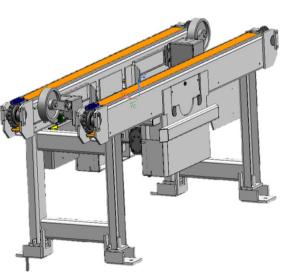
Belt Conveyor, FMW-Type GF:

- heavy duty design
- o pulp bales
- long distance transport
- o flat inclination, (max. 15°)



Chain Conveyor, FMW-Type KF:

- heavy duty design
- pulp bales
- long distance transport
- o flat inclination, (max. 10°)

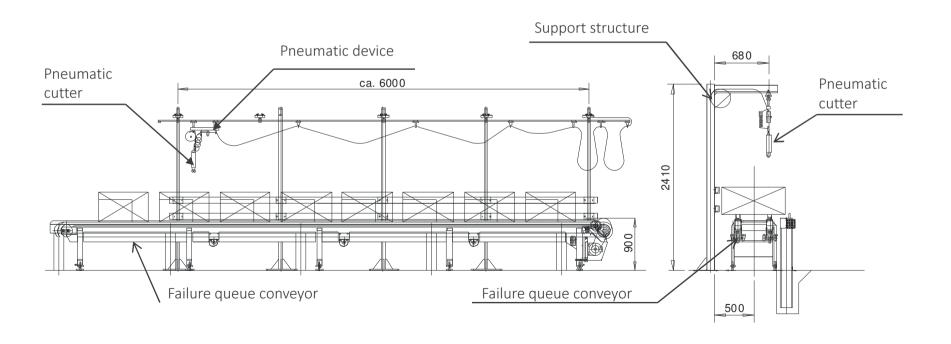


Manual Single Bale Dewiring



for manual wire cutting of non-dewired pulp bales

manual dewiring for low production capacities



Manual Single Bale Dewiring







Different Type of Conveyors



Bale lifting

For vertical bale transfer between different floor levels



Shuttle Conveyor

For charging and blending of different grades For charging of rejected bales to failure queue conveyor



Different Type of Conveyors



Rotating Conveyor

To serve 90° angle take over



Metal Detector

For dedecting of broken wires or metal impurities



Different Type of Conveyors



Bale turning device

To rotate bales for 180° for manual uncovering



FMW Pulp Bale Handling

Benefits



To strengthen returns by reducing operating costs through automation and production efficiencies.

To improve furnish preparation in order to enhance product quality.

To improve the working environment by increasing personnel safety.



Thank you for your attention!













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