

Coarse Reject Handling



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Sustainability: Worth from Waste

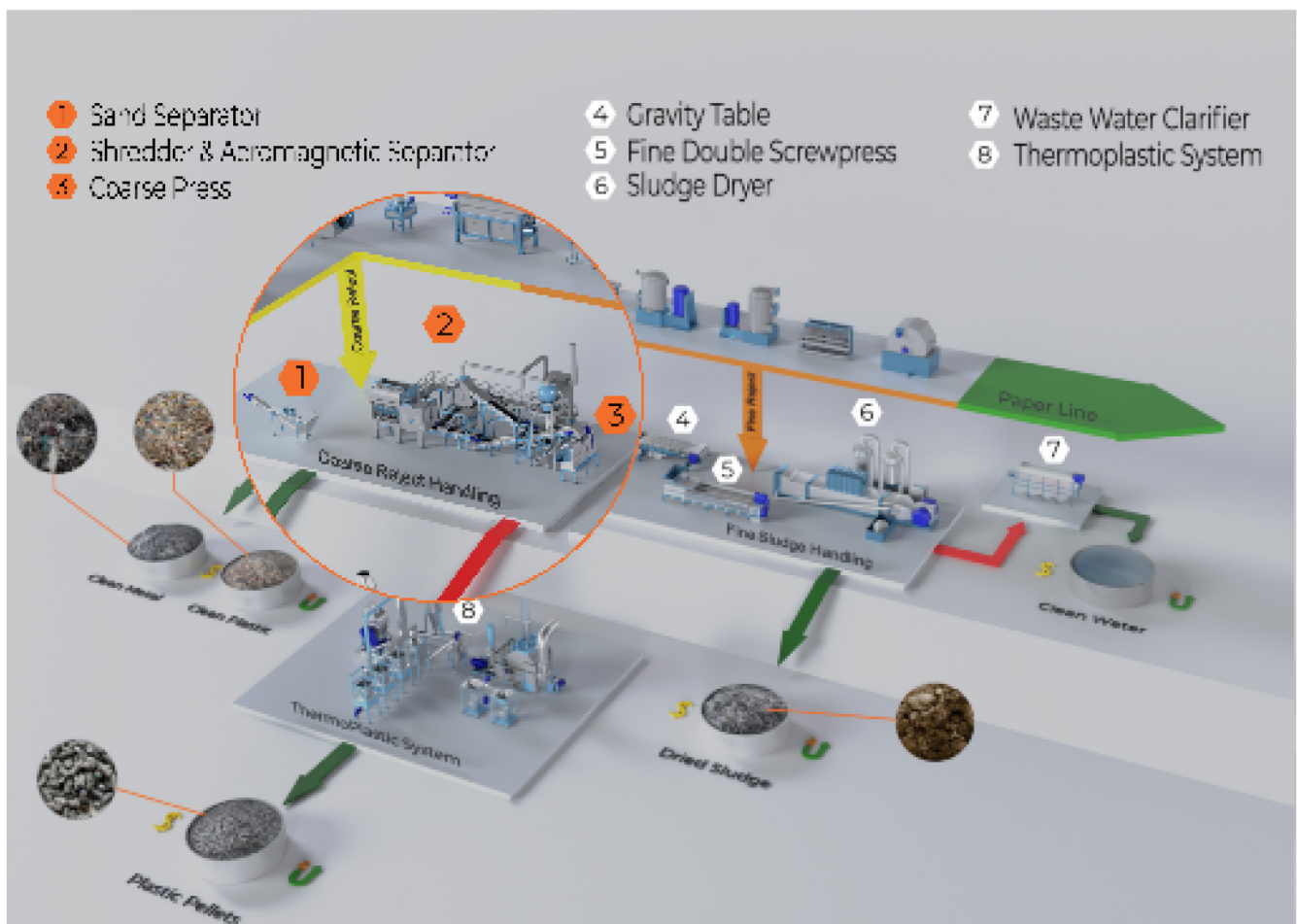
Kadant envisions a future where waste is transformed into valuable resources. Focused on that future, we have dedicated our research efforts, technological advancements, and product innovations toward that goal. In line with that commitment, we proudly introduce new comprehensive reject handling solutions proven to address the high cost of reject disposal in the pulp and paper industry.

Our ground breaking offering encompasses coarse reject handling, fine reject handling, wastewater management, and an integrating an advanced thermoplastic system.

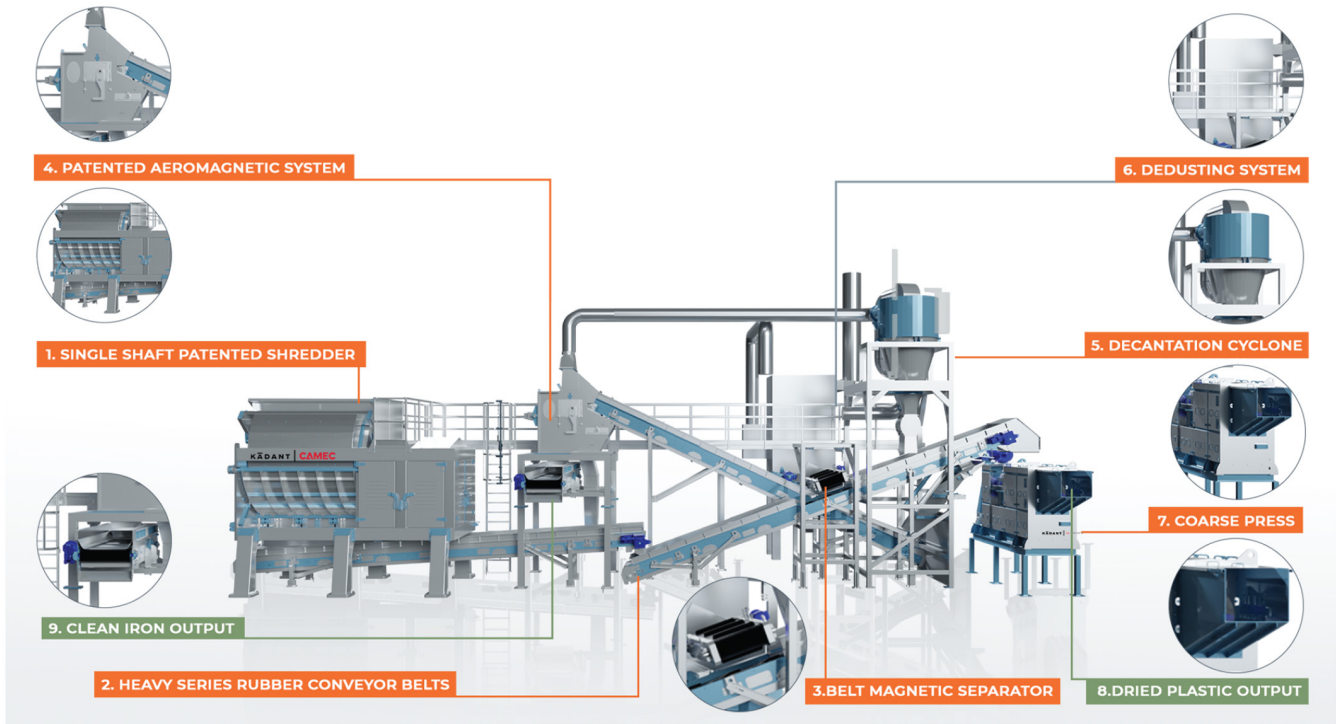
Coarse Reject Handling Overview

Kadant offers a comprehensive Coarse Reject Handling solution, equipped with state-of-the-art systems designed to manage waste materials effectively and efficiently. This platform comprises several advanced machines, including a shredder, aero-magnetic separator, coarse press, and sand separator. Each machine has a unique function in the coarse waste handling process, ensuring maximum efficiency and productivity. The resulting by-products are clean, dry metal and plastic as well clarified wastewater to be reused in the production process.

Coarse/Reject Handling



System Components: Aero-Magnetic Separator



Shredder & Aero-magnetic Separator with Coarse Press

- 1. SINGLE SHAFT PATENTED SHREDDER**
Heavy duty design for pulper reject and rag rope shredding
- 2. HEAVY SERIES RUBBER CONVEYOR BELTS**
Heavy duty design and compact engineered system
- 3. BELT MAGNETIC SEPARATOR**
First step of the ferrous cleaning
- 4. PATENTED AERO-MAGNETIC SYSTEM**
Iron cleaning system to ensure a high level of cleanness equipped with blowing fan and magnetic separator
- 5. DECANTATION CYCLONE**
Recovers fine plastic from the system
- 6. DE-DUSTING SYSTEM**
Collects dust from the main system
- 7. COARSE PRESS**
High dryness continuous dewatering for pulper and coarse screening rejected plastic

Benefits



Complete engineered system for separating ferrous material from nonferrous (plastic, stone, heavy rejects)



Specially designed to treat the pulper rag rope



High quality output that gives clean wire to be upcycled and high dryness plastic for further upcycling



Single compact solution for coarse rejects



Smart connected system



High quality, reliable, and robust system for heavy duty applications



A pioneer of the industry that provides a comprehensive solution

System Components: Single-Shaft Shredder



System Components

1. POLLUX ROTOR - PATENTED TECHNOLOGY

Interchangeable cutters, configurable blades, great flexibility, and easy maintenance.

2. HOPPER

Customizable for different loading approaches and heavy-duty design.

3. SCREEN

Easily interchangeable sections that allow quick service with customizable screen holes.

4. SPECIAL SAFETY DEVICE FOR TRANSMISSION

A double-chain alignment coupling with easily replaceable breakaway screws (between the rotor and the gearbox) to protect the gearbox from un-shreddable materials.

5. GEARBOX AND HYDRAULIC COUPLING WITH SHOCK SENSOR

Heavy duty parallel axis gearbox and hydraulic coupling allowing soft start of the shredder. Shock sensor detects sudden deceleration of the rotor due to shocks, stopping the machine.

6. AUTOMATIC DOOR ACCESS SYSTEM FOR MAINTENANCE

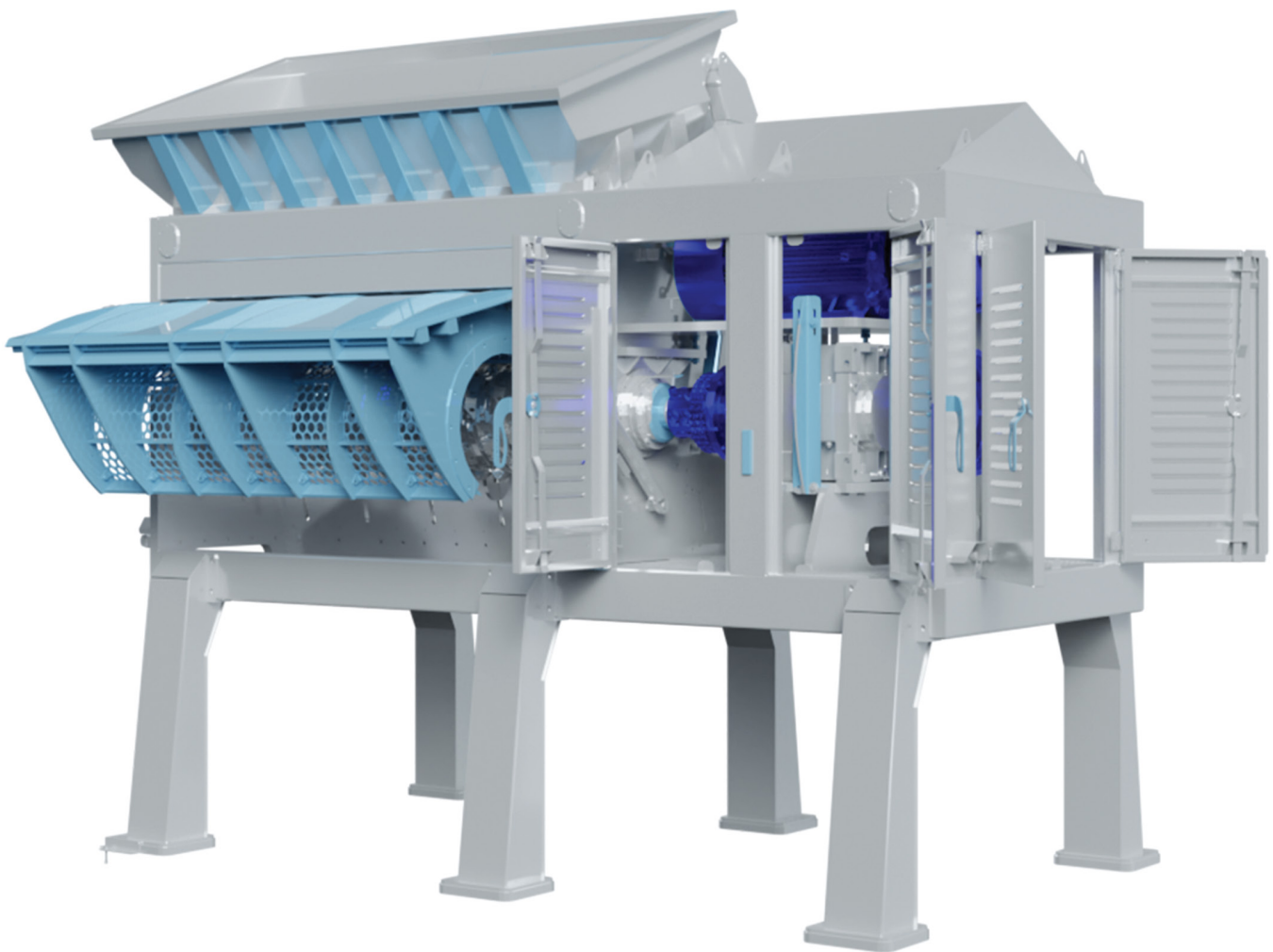
Easy and quick access to the rotor and the screen for inspection and maintenance.

7. SMART CONNECTED CONTROL PANEL SYSTEM

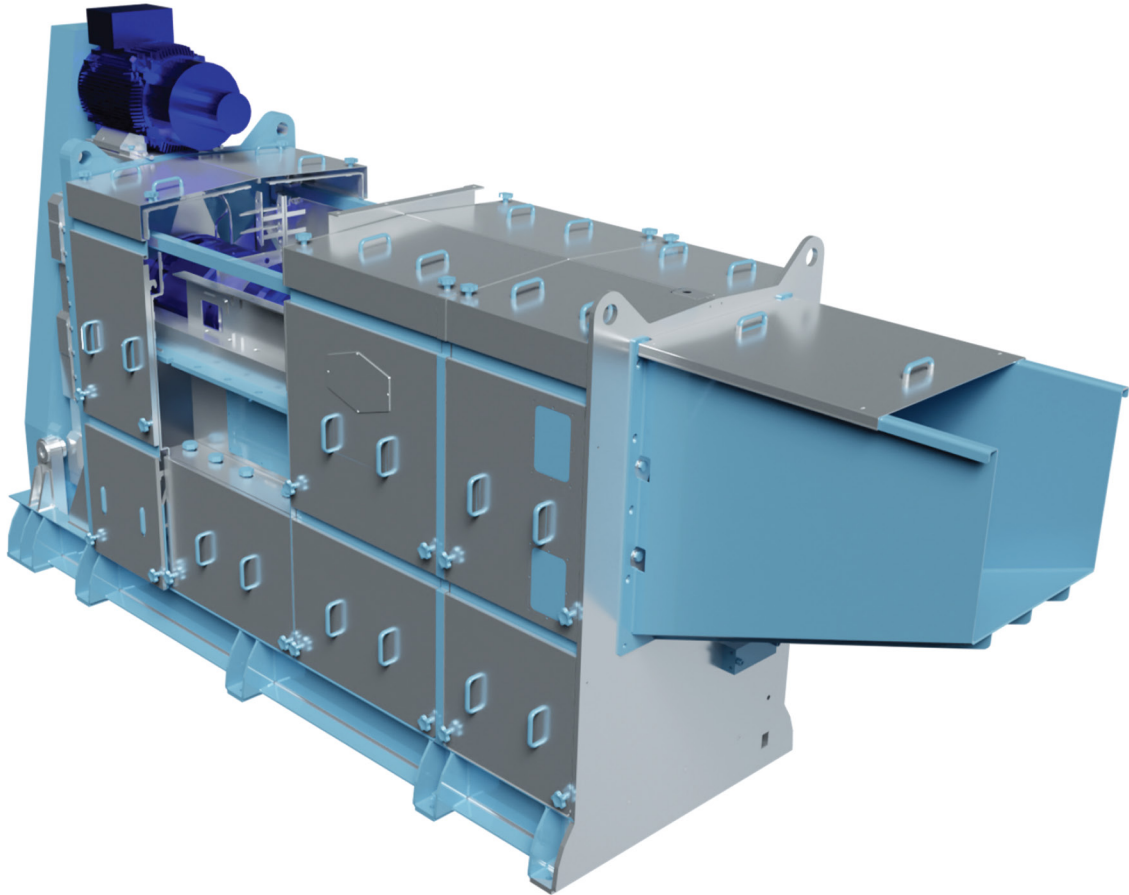
Router connected to the PLC/HMI for VPN remote connection by our service team.

Technical Features: Single-Shaft Shredder

MODEL NO.	OVERALL DIMENSIONS (mm)	CUTTING CHAMBER (mm)	ROTOR DIAMETER (mm)	WEIGHT (kg)	MOTOR (kw)	BLADES	CUTTER DIMENSIONS (mm)
GS650/17	4400 X 2400 X H 2300	1700 X 1400	650	18500	132	CUTTERS	60 X 60 X 30
GS650/21	4900 X 2400 X H 2300	2100 X 1400	650	21500	160	CUTTERS	80 X 80 X 30
GS650/25	5400 X 2400 X H 2300	2580 X 1400	650	23500	200	CUTTERS	80 X 80 X 30
GS650/30	5900 X 2400 X H 2300	3080 X 1400	650	25000	250	CUTTERS	80 X 80 X 30
GS900/30	6000 X 2420 X H 2420	3000 X 1570	900	32500	315 (OR 2X200)	CUTTERS	80 X 80 X 30
GS900/35	6500 X 2420 X H 2420	3500 X 1570	900	34000	315 (OR 2 X 200 OR 2 X 250)	CUTTERS	80 X 80 X 30



System Components: Coarse Press



The Coarse press is designed for the paper industry for compressing and dewatering the pulping and coarse screening rejects but thanks to its versatility it can be used in a variety of other industries.

It is an extremely sturdy machine, rated for continuous heavy duty use and incorporating design details to reduce and simplify maintenance as much as practical.

The automatic PLC based control system makes the machine completely autonomous and readily interfaces with the other machines in your plant. Further customization is possible for any installation according to your needs by adding, for instance, chutes, belts and other conveying systems.

Benefits



Special wear-resistant materials for long lasting performance



Maximum production level up to 4T/h with 65% dry substance content at the outlet



Sustainable performance with reduced power consumption to max 50 Kw/h



Robust design for extreme operating conditions

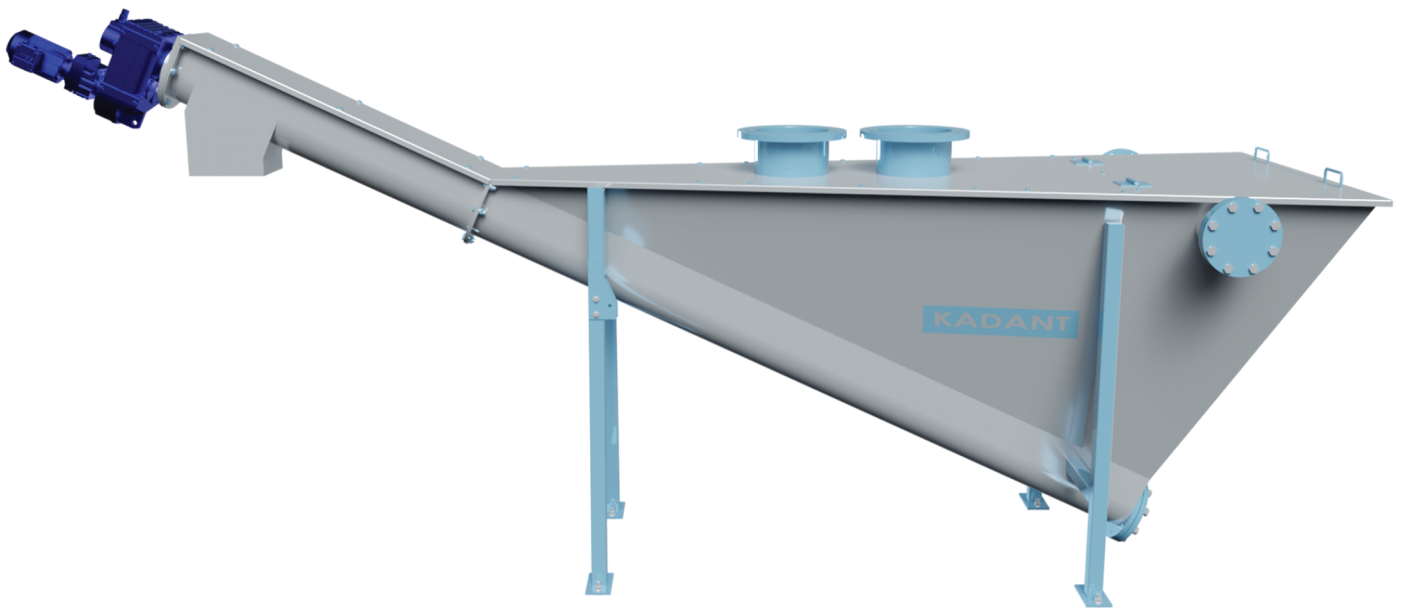


Intuitive touch-screen integrated into the drive panel

Technical Features: Coarse Press

		MIC6	MIC8
MODEL	Dimensions	1.3 X 5.38 X 2.55	2.2 X 6.5 X 2.2
	Machine's body weight	10800 KG	15500 Kg
Performances	Capacity	3/5 tbd/h depending on the type of the product	10/15 tbd/h depending on the type of the product
	Dry Substance	65-78% depending on the type of the product and the amount of fiber	60-75% depending on the type of the product and the amount of fiber
Press Screw	Revolutions	Variable (approx 6-10 rpm)	Variable (approx 6-10 rpm)
	Diameter	600 mm	800 mm
Drive Group	Motor	ABB	ABB
	Power	45 kW	110 kW
	Revolutions	1500rpm	1500rpm
	Frequency Changer	ABB	ABB
	Tension	400 VAC 50 HZ	400 VAC 50 HZ
	Gearbox	SEW EURODRIVE	SEW EURODRIVE
	Type	Parallel shafts	Parallel shafts
Reduction Ratio	39.25	39.25	
Corrosion protection	Structure		Sandblasted and painted
	Inlet chute		Aisi 304
	Reduction group		Sandblasted and painted
	Drives		Painted
	Water collecting trough		Aisi 304
	Filtering plates		Duplex and Creusabro
Press screws		Wear resistant hard facing on the working side	
Hydraulic system	Type		Oil-pressure
	Power		5.5 kW
Local box for power supply and management	Type		In cabinet
	Tension		400 VAC 50HZ
	Operator panel Interfaceability		with SIEMENS PLC Various for DC

System Components: **Sand Separator**



Sand Separator

The Sand separator is a high-performing dewatering machine designed to remove sand, grit, and other contaminants from secondary fibre reject streams. It is a fully enclosed system that optimizes dewatering and transport capabilities in a compact design, requiring minimal maintenance.



Benefits



Fully enclosed with bolted lids and an easily opened inspection lid for convenience.



Conveyor trough houses shaftless spiral screw, eliminating the need for bearings and seals below water level.



The conveyor's design optimizes dewatering and transport capabilities in limited space, and the single bearing is located at the top to avoid contamination.



Requires minimal maintenance due to its direct-coupled gear-motor drive, integral drive shaft bearing, and lack of centre shaft.



Showers in the separator eliminate crust formation inside the unit.

What We Offer: Level 1



Benefits



High dryness (up to 70%)



Simple, compact and reliable

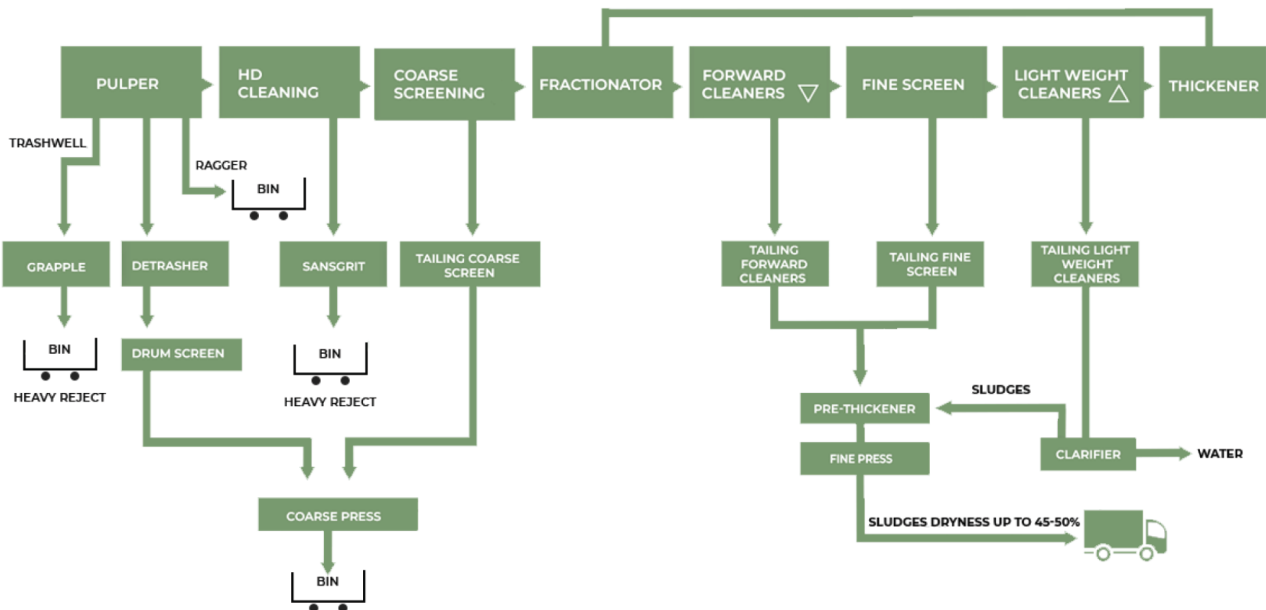


First step of a modular solution

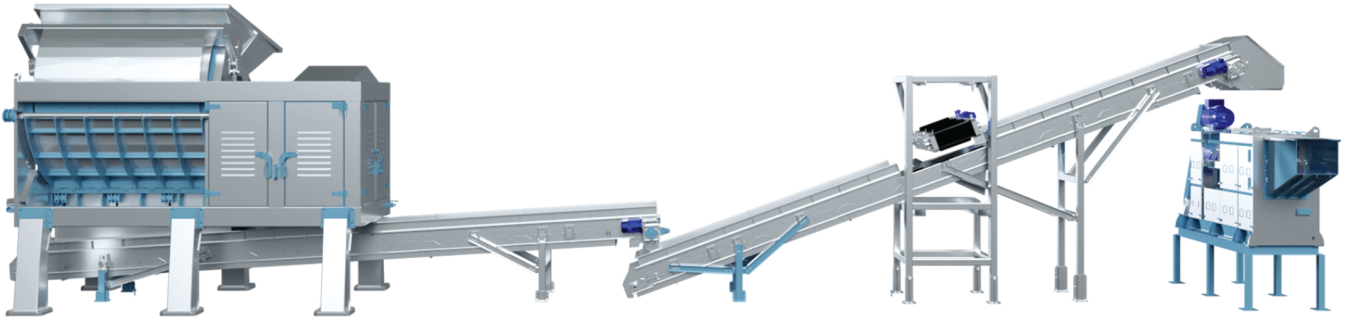
Scope of Supply:

1. Feeding conveyor belt
2. Coarse Press (with or without Magnetic Overband)

Level 1








What We Offer: Level 2



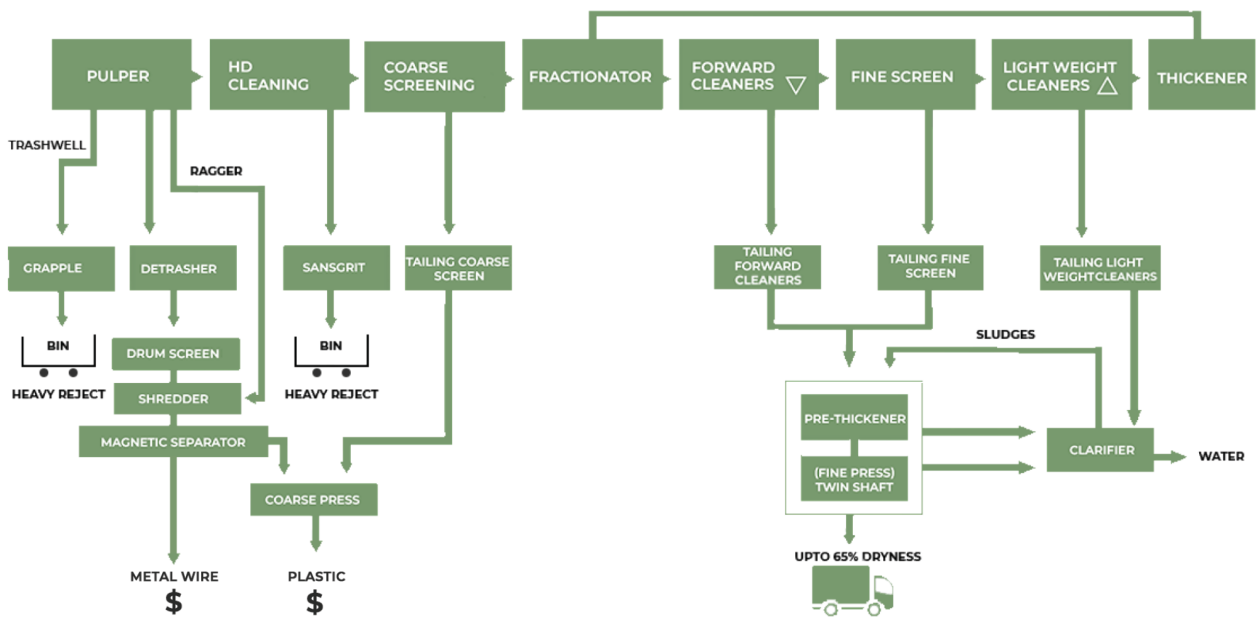
Scope of Supply:

1. Shredder
2. Conveyor belts
3. Magnetic overbelt
4. Coarse press

Benefits

-  A complete system for shredding, de-ironing, and pressing
-  High dryness (up to 75%)
-  Separated iron is a sellable by-product, rather than waste
-  Reduce plastic size (50 mm) for RDF
-  Remove ferrous material for RDF

Level 2




What We Offer: Level 3



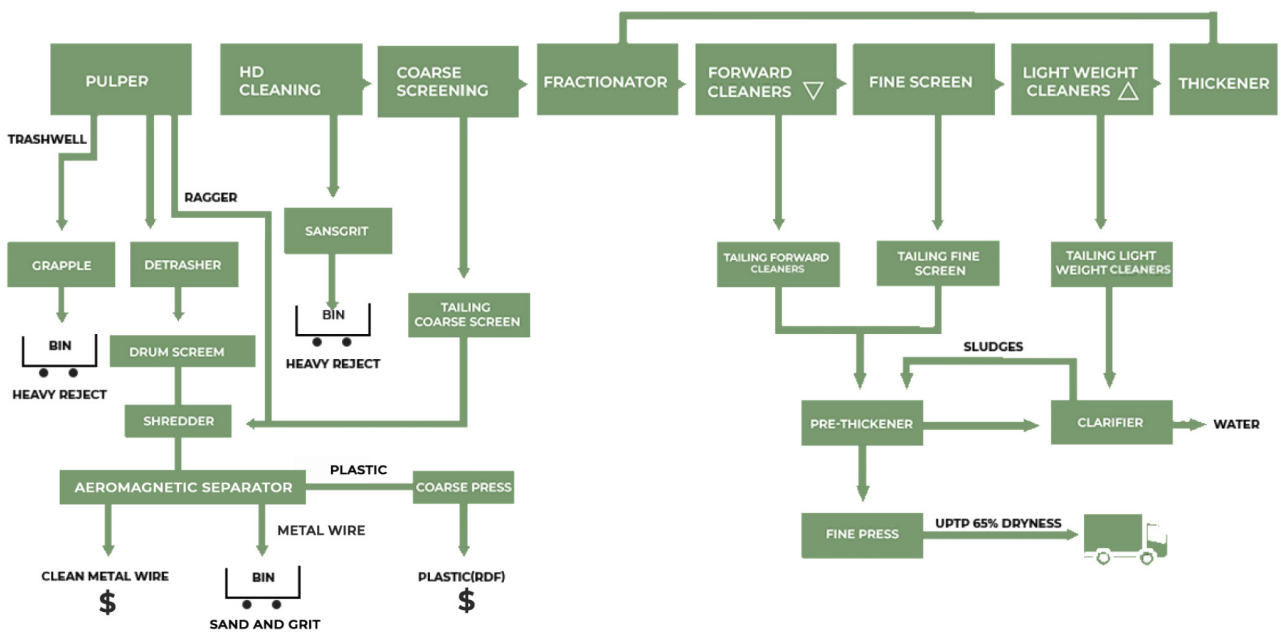
Scope of Supply:

1. Shredder
2. Conveyor belts
3. Magnetic overbelt
- Aero-Magnetic System
(3 Reject Streams)
5. Coarse press

Benefits

-  High dryness (up to 75%)
-  Simple, compact and reliable
-  First step of a modular solution
-  Reduce plastic size (50 mm) for RDF
-  Remove ferrous material for RDF
-  Metal wire cleaning system

Level 3



Expertise to Empower You

Our team is there for you at every step. We help you select the right options to best meet your specific needs. We have generations of experience, a history of innovation, and a proven record of success across the globe.

Get You Running, Keep You Running

Our technical service and support teams are ready. We provide superior guidance in the planning, design, engineering, installation, and start-up of your systems. Our products and expertise cover the full range of stock preparation and pulping. We understand what it takes to remain competitive, protect your investment, and extend the life of your assets. To that goal, we offer:

- Field services, inspections, and audits
- Rebuilds and retrofits
- Upgrades and modernizations
- Maintenance and service contracts
- Process control solutions
- Replacement upgrades and spare parts

Certified Parts and Service 24 Hour Hotline:
1-800-448-5422

Trusted Partners

We have the know-how and tools to elevate the efficiency of your production. The Kadant team can help monitor, maintain, and upgrade your line, providing process improvements, replacement parts, rebuilds, and comprehensive maintenance plans. Strong partnerships within the reject handling industry fortify our solutions with additional expertise and technology.

CAMEC

30 years experience in the design and manufacture of systems for shredding, recycling, and waste processing

BABBINI

160 years of experience in dewatering and the design and manufacturing of continuous screw presses.

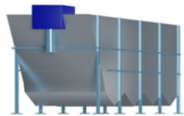
SCOLARI

Over 70 years experience in the design and manufacture of industrial dryers and complete systems for composting, roasting, and cooling

The Kadant **Foundations** product line offers a full range of fibre processing equipment and services.

Foundations

Reject Handling



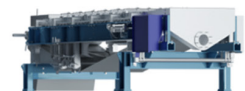
Waste Water Clarifier



Coarse Press



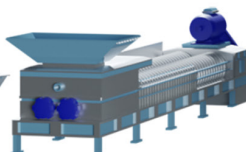
Thermoplastic System



Gravity Table



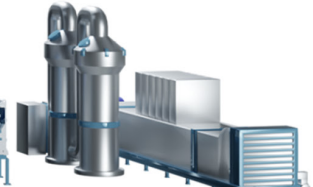
Sand Separator



Fine Double Screw Press



Aeromagnetic Separator and Coarse Reject Shredder



Sludge Dryer

For patent information about this and other Kadant products visit <https://kadant.com/en/patents>

KADANT

fiberprocessing.kadant.com

Kadant is a global supplier of high-value, critical components and engineered systems used in process industries worldwide.

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