The Recycled Fiber Systems unit of Andritz offers a complete range of process, equipment and technology for virtually all recycled applications. Our scope of supply ranges from single components for pulping, screening, cleaning, flotation, washing thickening, dispersion and bleaching to complete Engineer-Procure-Construct systems.

Our service organization is comprised of experienced personnel to address your parts, rebuild, and inventory requirements.

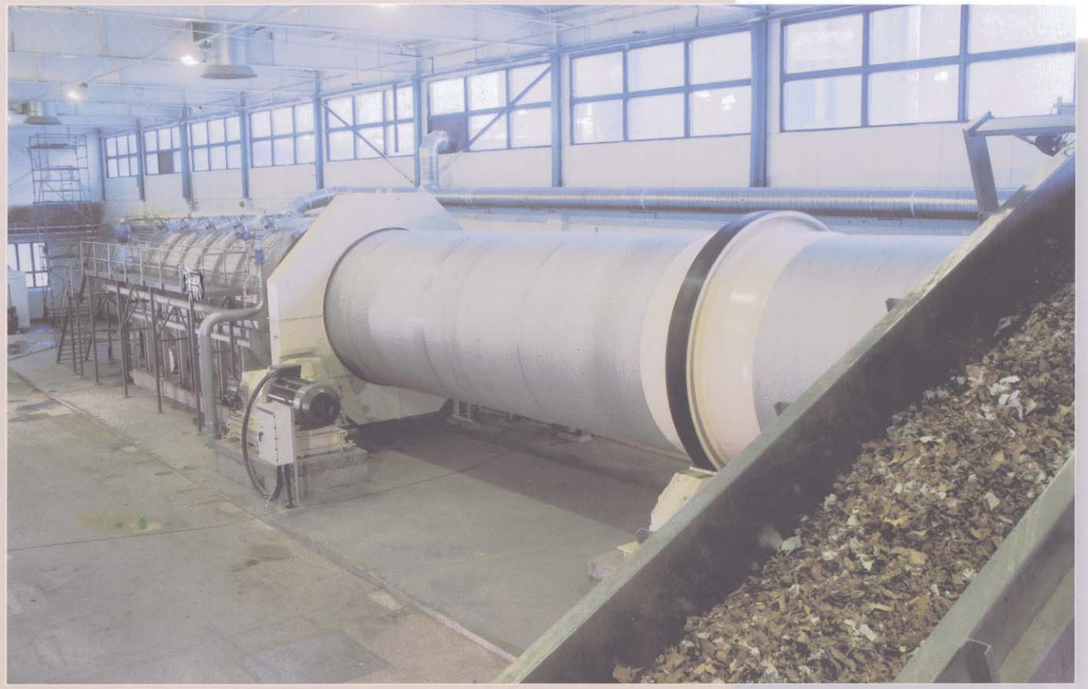
We are part of the worldwide Andritz group, a premier supplier of systems and services for fiber processing, chemical recovery and stock preparation in kraft pulp millls, recycled fiber mills and paper/board mills around the world.

Andritz Inc.
Fiber Preparation Systems

101 Ridge Street
Glens Falls, NY 12801
Phone: (518) 793-5111
Fax: (518) 745-2858

10745 Westside Parkway
Alpharetta, GA 30201
Phone: (770)640-2500
Fax: (770) 640-9454

FibreFlow® Drum



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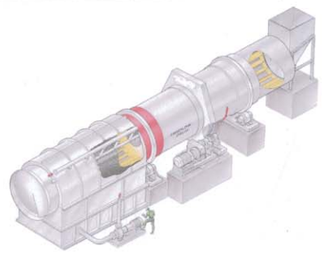


Recycled Fiber Systems

The FibreFlow® Drum Pulp

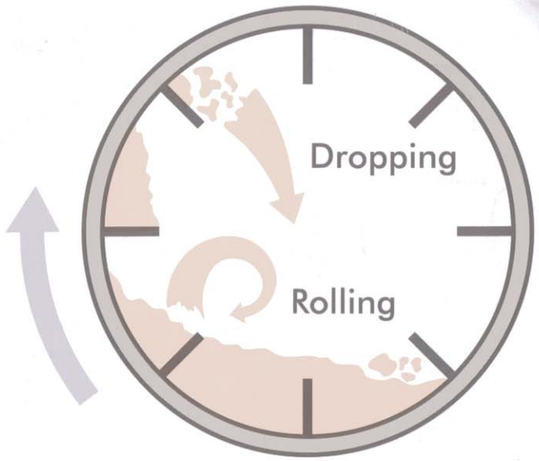
FibreFlow Drum Pulping:

Minimum breakdown of contaminants.

Maximum retention of fiber physical characteristics.

Lowest power consumption.

Minimum maintenance requirements.

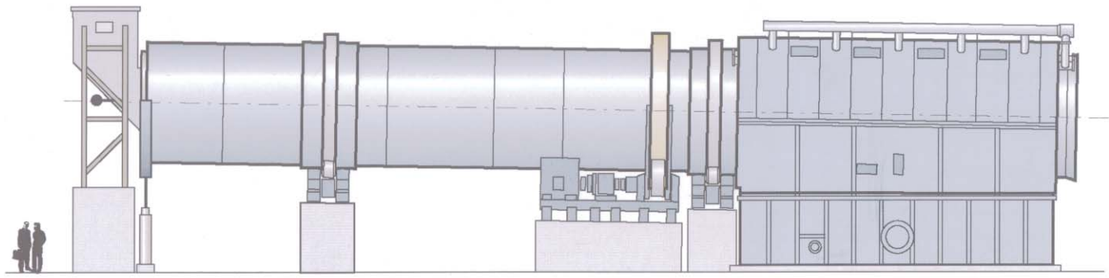


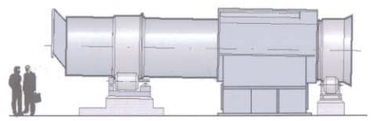
The FibreFlow system consists of a rotating steel drum assembly. One end of the drum is a high-consistency zone where chemical impregnation and defiberizing are done. Reject material is separated from the fibers in the adjoining screening zone, and then discharged from the other end of the drum.

When the recycled furnish is wetted and then repeatedly dropped on a hard surface, gentle but effective shearing forces are created which fiberize the paper without disintegrating the contaminants.

FibreFlow Drums for Any Tonnage

FFD 425, 1700 t/d





FFD 200, 60 t/d

Dimensions	FF200	FF225	FF250	FF275	FF300	FF325	FF350	FF375	FF400	FF425
Capacity (ADT/d), max	60	80	180	220	255	425	600	850	1200	1700
Installed power (kW)	55	75	132	160	250	400	500	800	1000	2x800
Diameter (m)	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25
Length (m)	10.5	12.3	13.6	16.6	17.9	22.7	24.7	28.2	29.7	32.2
Weight, empty (t)	12.1	14.1	20.5	27.9	33	53.5	65	82	95	149
Weight, full (t)	19.8	23.1	35.5	49.9	63	86.5	115	150	175	232
Specific power cons. kWh/t feed max cap. (ADT/d)	15 - 20									

Specific power consumption values are based on designed maximum capacity.

Pulping of All Existing Recovered Paper Grades

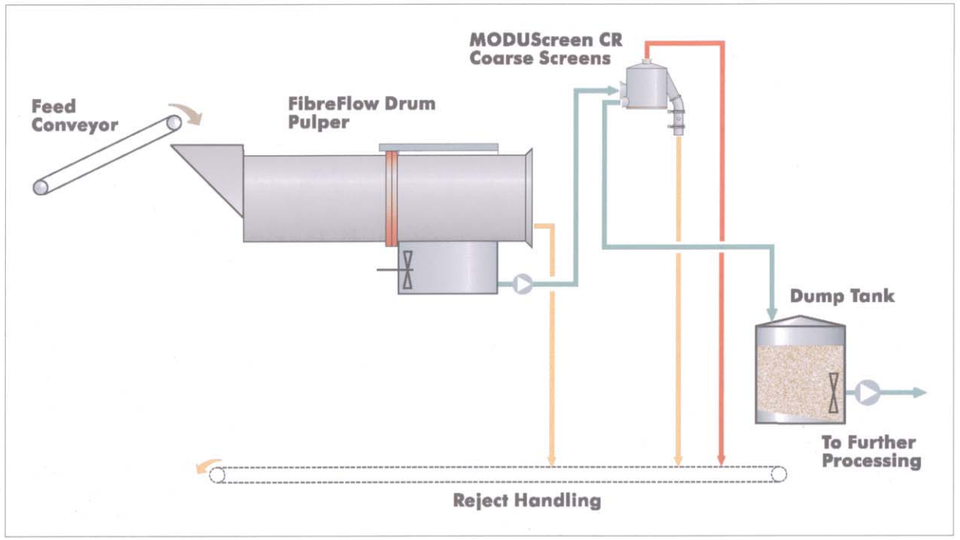
ONP+OMG

German Super Market Waste Paper

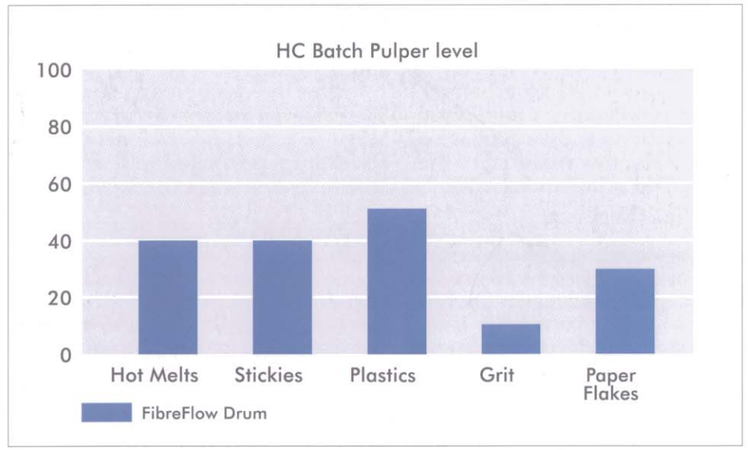
Mixed Waste Paper

Liquid Packaging Board

Minimum Number of Equipment for Pulping and Coarse Screening.

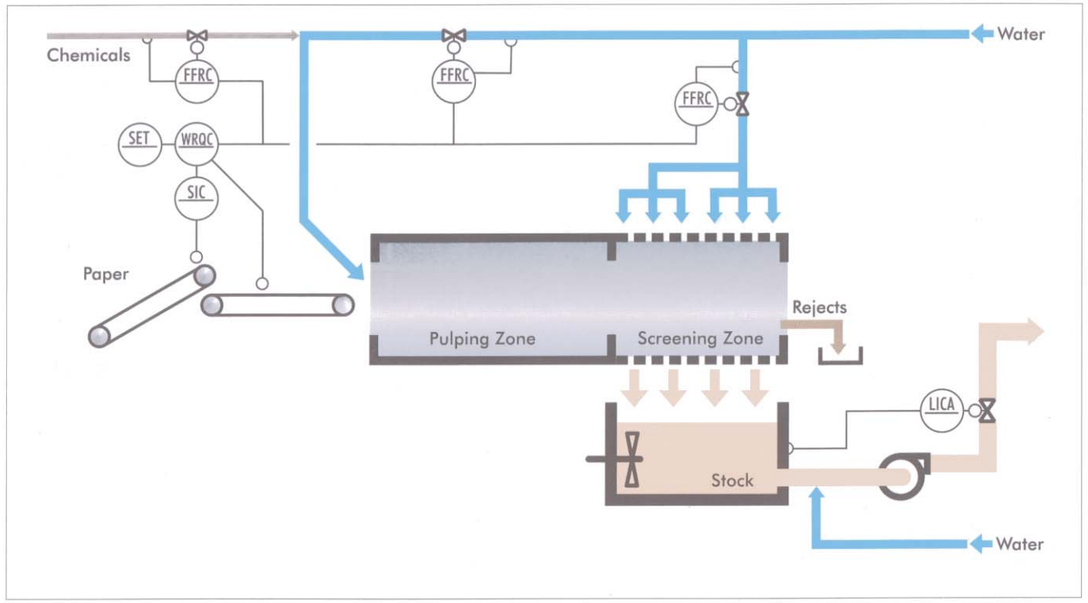


Superior Accept Quality



Mill results where FibreFlow Drum and Batch Pulper are running parallel with the same raw materials.

FibreFlow Drum Process



Recycled paper is loaded onto a variable speed storage conveyor. The speed of this conveyor is controlled by a weighing device located on the following constant speed drum feed conveyor to give even mass flow of the raw material to the drum. The water and chemicals feed is controlled by scales as well.

The incoming paper is wetted to a consistency of 14-18 % with water and chemicals in the first part of the drum, the high consistency defiberizing zone, which operates as a plugflow reactor. Due to a slight inclination of the drum, the furnish moves slowly towards the reject end while the drum is rotating. The patented transfer scoop at the end of the high consistency zone assures a constant retention time in the drum, regardless of the feed rate.

After the defiberizing zone, the material enters the second stage, ie screening zone, where the drum is perforated with small holes. At this stage the stock is diluted to 3-4 % consistency by a shower pipe located above the drum.

Dilution water is added at the top from outside the drum through the perforations, so that the fibers that may tend to plug the holes are flushed back into the drum.

The screening process effectively separates defiberized stock and rejects. Drum screening allows use of high reject content raw material without sacrificing accept stock quality.

The screened stock accumulating in the agitated bottom vat under the drum is clean, as only very small particles, such as sand, can pass through with the accept fibers, and these contaminants are easily removed in the following process stages. The rejects clean of fibers are discharged from the end of the screening zone to a reject conveyor or pit for removal from the mill. The reject can be pressed for easy handling and disposal.

ing System

A rubbing effect is added when a rolling motion is applied between the impacts. Ink, size, laminates, and hot melt substances are effectively loosened from the fibers.

The stock collected in the bottom vat has been screened and only very small particles, such as sand, can pass with the accept fibers. These contaminants can easily be removed later in the process.

EXCELLENT QUALITY STOCK

Various contaminants, such as plastics, foils and hot melts are separated and rejected in large pieces due to the efficient screening action and absence of cutting.

GREAT SAVINGS IN ENERGY

The FibreFlow Drum uses only 15 – 20 kWh of energy per ton of stock. No energy is wasted for extra agitation or cutting of fibers and foreign particles. Energy is required only for keeping the drum rotating.

SAVINGS IN RECYCLED PAPER QUALITY

It is feasible to defiberize a lower grade recycled paper at a high consistency without sacrificing yield. Unsorted waste paper can be processed and the time usually required for sorting is saved.

CONTINUOUS OPERATING RELIABLE SYSTEM

The simple and rugged construction with a minimum number of wearing parts results in a low spare parts requirement and guarantees a reliable process with a minimum of downtime. Further, cleaning is reduced to a minimum due to efficient rejects removal.

REDUCED OVERALL EQUIPMENT COSTS

The FibreFlow Drum Pulper has efficiently combined the functions of a pulper and coarse contaminant removal resulting in a reduction of the contaminants load in the downstream process line.