



RECYCLING

REJECT COMPACTOR ReCo

DEWATERING OF REJECTS
TO HIGHEST DRYNESS

ANDRITZ

ENGINEERED SUCCESS

The challenge: Efficient dewatering of rejects from recycled fiber lines

TYPES OF REJECTS

The rejects from any recycled fiber processing line can be split into two major categories: coarse and fine rejects. The coarse rejects mainly come from the pulping process – drum or conventional pulping, including detrasching. The fine components originate from the cleaning and screening stages.

TYPICAL COARSE REJECTS:

- Pieces of plastic and plastic films
- Undissolved paper, wood, textiles
- Stones, pieces of metal

TYPICAL FINE REJECTS:

- Fibers, stickies, wax
- Sand, glass, small pieces of metal

WHY COMPACTING?

The material is quite wet when it leaves the pulping process, with a lot of free water and water stored in the fibrous material. While free water is relatively easy to remove, the water in the fibers is more critical. Strong forces are needed to bring the material to an acceptable dry content.

Nevertheless, putting effort into mechanical dewatering always pays off because it still requires much less energy compared to thermal drying. Higher reject consistencies help save on drying and disposal costs.

THE ANDRITZ SOLUTION

The ANDRITZ Reject Compactor ReCo is a particularly robust screw press and is best suited for rejects of various particle sizes also containing significant amounts of fibers.



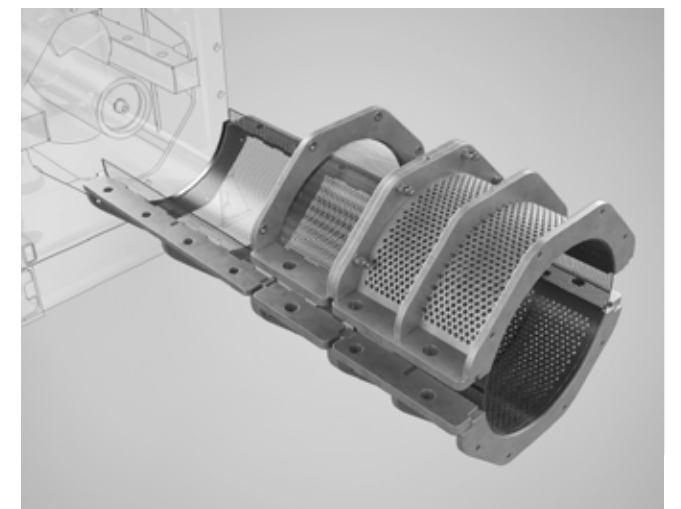
Typical coarse rejects from recycled fiber processing



Fine rejects output from the ANDRITZ Reject Compactor

The reject material is fed to the compactor, then conveyed by a rotating screw and compressed against two hydraulically actuated pressure hatches inside a counter-pressure unit. Wear-resistant, heavy-duty baskets retain the solids, while the water flows through the holes and is collected in a filtrate tray. The control philosophy of the press is based both on the counter-pressure and on the rotational speed of the screw for highest operational safety.

The achievable dry content depends on the counter-pressure selected and the fiber content of the reject material – the lower the fiber content, the higher the final dry content. Depending on type of reject and fiber content, different types of Reject Compactor are used. Both models, ReCo-C and ReCo-F, can achieve final drynesses of up to 70%.



Easy access allows for optimized maintenance and quick exchange of screen baskets

ANDRITZ Reject Compactor ReCo



REJECT COMPACTOR TYPES

The Reject Compactor ReCo is available in three models:

- **ReCo-C:** for coarse pulping rejects with higher consistencies (typically 10-45%)
- **ReCo-F:** for rejects with higher fiber content and lower consistencies (down to 7%)
- **ReCo-L:** light design for small capacities and/or very low consistencies (as low as 0.8%)

MAIN DIMENSIONS

	ReCo50C ReCo50F	ReCo60C ReCo60F	ReCo70C ReCo70F
Length [mm]	3,600	4,300	4,900
Height [mm]	1,500	1,700	1,800
Width during operation [mm]	1,400	1,500	1,650
Width with counter pressure device open [mm]	1,850	2,000	2,200



WATCH THE ReCo-C
IN ACTION!



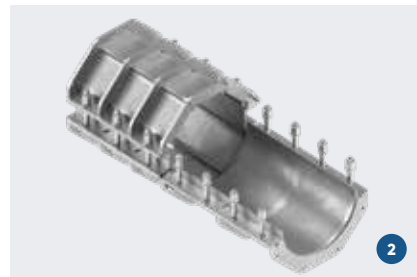
WATCH THE ReCo-F
IN ACTION!

The solution: A robust screw press designed to achieve highest dryness levels



SCREW

- Sturdy two-flight screw for even distribution of forces
- Wear-resistant hard facing
- Double flight thickness in high-pressure section



SCREEN BASKET

- Modular heavy-duty screen baskets with replaceable screen plates
- High wear resistance
- Octagonal design prevents material from rotating with the screw
- Screen hole size adapted to the type of reject



COUNTER-PRESSURE DEVICE

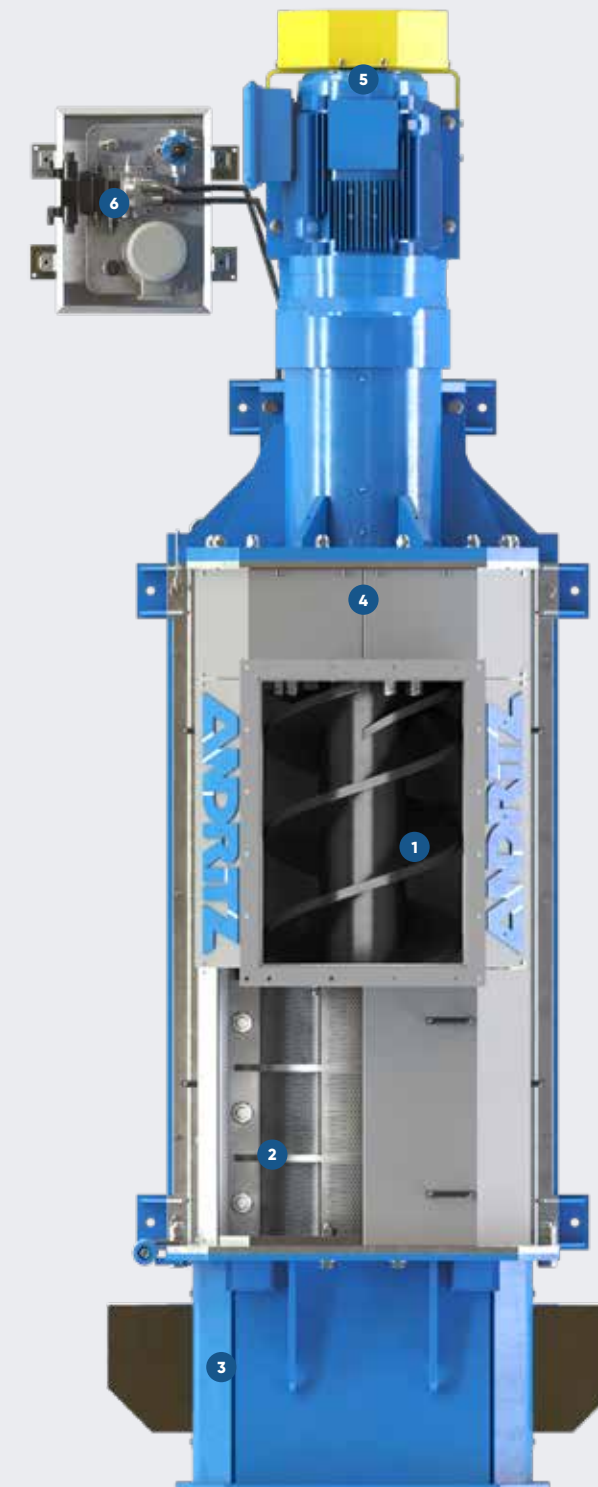
- Pressure hatches are opened or closed to optimize the compression level
- Fast reaction time to avoid machine plugging
- Can be swung out of the way completely for easy maintenance

MODEL USED ACCORDING TO TYPE OF REJECTS

	ReCo-C	ReCo-F	ReCo-L
Drum pulping rejects	•		
Fiber wash drum rejects	•		
Coarse screening light rejects		•	
Fine screening rejects		•	•
LC cleaner rejects		○	•

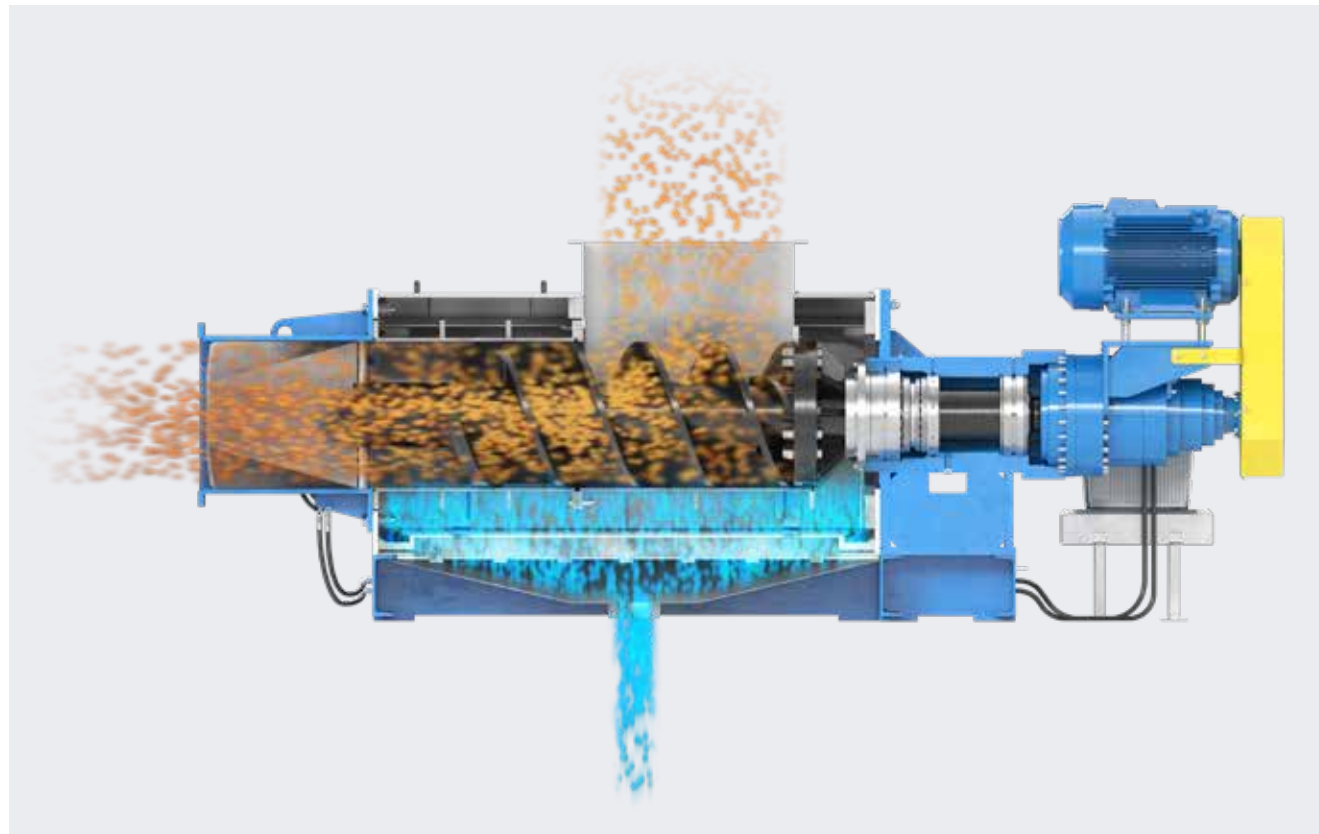
• best suited ○ also possible

MAIN COMPONENTS OF THE ANDRITZ REJECT COMPACTOR



- 1 Screw
- 2 Screen basket
- 3 Counter-pressure device
- 4 Inlet chamber
- 5 Main motor and planetary gear
- 6 Hydraulic unit

Material and filtrate flow in the ANDRITZ Reject Compactor



Three parallel Reject Compactor ReCo-C units



REJECT COMPACTOR ReCo-L

The little sister of the two heavy-duty machine types ReCo-C and ReCo-F is best suited for dewatering fibrous rejects at quite low feed consistencies, typically from fine screening or from low-consistency cleaners. The unit is even more compact than its bigger sisters.

The material to be dewatered is fed into the hopper at the top. It is compressed by being conveyed against an innovative, self-adjusting back-pressure unit. A very simple, but efficient spring steel membrane forms a material plug. This allows efficient compacting, also for materials that are difficult to dewater.

TECHNICAL DETAILS

A slotted basket allows very low feed consistencies without any pre-thickening being required and yields superior filtrate quality.

Inlet consistency: 0.8-6%
 Discharge consistency: up to 35%
 Capacity range: 100-600 kg/hour

MAIN DIMENSIONS

	ReCo25LX
Length [mm]	2,240
Height [mm]	2,760
Width [mm]	980
Weight [kg]	545



ANDRITZ Reject Compactor ReCo-L





OUR ENVIRONMENT IS A TREASURE TO BE PRESERVED

So are the raw materials contained in your waste products. Let us help you utilize them to best advantage. ANDRITZ Recycling is actively demonstrating its commitment to conserving valuable resources by offering a wide range of capabilities in the recycling industry. Our technologies cover solutions for processing rejects from the paper industry, e-scrap, metal and special waste, organic waste, end-of-life vehicles, wood, plastic and textile waste as well as applications for generating energy from various waste products.

ANDRITZ Recycling Service develops recycling solutions that pay off for the customer for the complete lifecycle of your mill or equipment. From the supply of spare parts, routine work during a scheduled shutdown, to quick response during a disruption or the implementation of our latest IIoT solutions, we are available to keep operations running smoothly.

AUSTRIA

ANDRITZ AG, Graz
p: +43 316 6902 0

AUSTRIA

ANDRITZ AG, Vienna
p: +43 50805 5

RECYCLING@ANDRITZ.COM
ANDRITZ.COM/RECYCLING

CLICK HERE
to get to know our
locations worldwide



All data, information, statements, photographs and graphic illustrations in this leaflet are without any obligation and raise no liabilities to or form part of any sales contracts of ANDRITZ AG or any affiliates for equipment and/or systems referred to herein. © ANDRITZ AG 2023. All rights reserved. No part of this copyrighted work may be reproduced, modified or distributed in any form or by any means, or stored in any database or retrieval system, without the prior written permission of ANDRITZ AG or its affiliates. Any such unauthorized use for any purpose is a violation of the relevant copyright laws. ANDRITZ AG, Stattegger Strasse 18, 8045 Graz, Austria. Due to legal requirements, we must inform you that ANDRITZ AG processes your data for the purposes informing you about the ANDRITZ GROUP and its activities. Find out more details about our data privacy declaration and your rights under the data protection legislation on our website: andritz.com/privacy. RR_Compactor_3/04/2024 EN