



PATENT
PENDING

ANDRITZ ClearFlow

Advanced refiner plate technology
for zero plugging performance

CHALLENGE

Many refining applications demand finer plate patterns to achieve optimal fiber development, strength, and energy efficiency. Yet mills are often forced to compromise - running

coarser grooves than ideal - simply to avoid plugging caused by oversized fiber bundles. **This leads to frequent downtime, costly plate cleaning, and unstable operation.**

SOLUTION

ClearFlow is a patent-pending low-consistency refiner plate technology designed to eliminate these constraints entirely.

ANDRITZ

ANDRITZ ClearFlow

Advanced refiner plate technology for zero plugging performance

ClearFlow features a smart groove geometry with flared bars and optimized chamfers that actively prevents oversized particles from entering and blocking the groove system. Instead of allowing debris to plug the grooves, the design redirects these particles to the bar tops, where they are safely broken down before entering the refining zone. This keeps grooves open, stabilizes refining efficiency, and allows mills to run the finer patterns their fiber actually requires - without risk of plugging.

Mills report improved energy efficiency, higher throughput, better fiber and sheet quality, and - most importantly - the elimination of unplanned downtime for plate cleaning. ClearFlow removes the constraints that have held refining back.

AVAILABILITY

Available for discs, cones, and cylinders across a wide range of pattern sizes, ClearFlow has already been proven in OCC, TMP, and NSSC applications but it can be beneficial in most applications.



BENEFITS

- **Zero plugging:**
Smart groove geometry prevents oversized particles from blocking the plate, eliminating unplanned shutdowns for cleaning
- **Finer patterns, better fiber:**
Run the optimal groove width your application actually requires, without compromising for plugging risk
- **Patent-pending technology:**
Flared bars and chamfers redirect debris to bar tops for controlled reduction
- **Lower energy consumption:**
Improved refining efficiency reduces net specific energy per ton
- **Higher throughput:**
Open grooves and stable flow allow increased production capacity
- **Reduced maintenance:**
Fewer cleaning stops, less manual handling, and extended plate life
- **Broad compatibility:**
Available for discs, cones, and cylinders in a wide range of pattern sizes

EUROPE

ANDRITZ Fiedler GmbH
Ratisbona, Germany
p: +49 941 64010

NORTH AMERICA

ANDRITZ Inc.
MUNCY, USA
p: +1 570 546 8211

SOUTH AMERICA

ANDRITZ Brasil Ltda.
Curitiba, Brazil
p: +55 41 2103-7601

CHINA

ANDRITZ (China) Ltd.
Foshan, China
p: +86 757 8296 9222

[ANDRITZ.COM/CLEARFLOW](https://www.andritz.com/clearflow)



All data, information, statements, photographs and graphic illustrations in this leaflet brochure 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 Group 2026. 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. 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](https://www.andritz.com/privacy). ANDRITZ AG, Stattegger Strasse 18, 8045 Graz, Austria.

