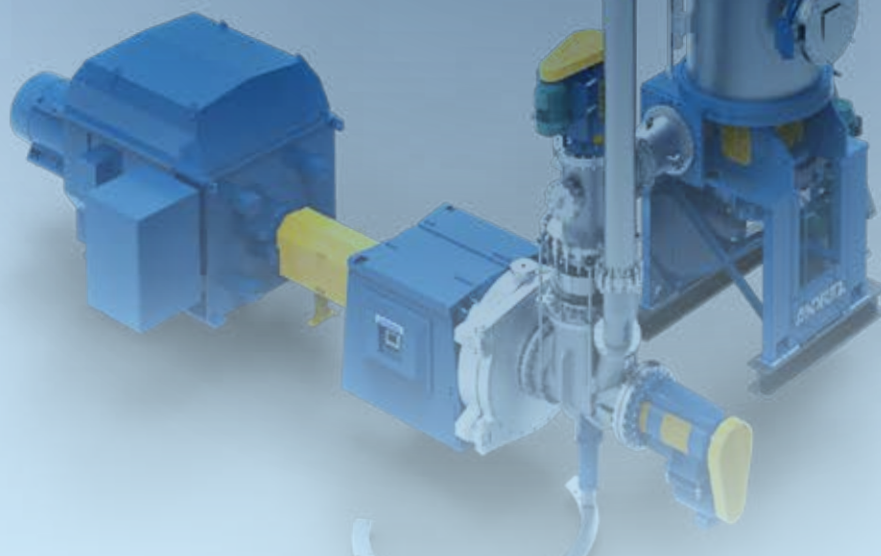




PANELBOARD

# ADVANCED WEAR PROTECTION SOLUTIONS FOR YOUR REFINING SYSTEM

BOOST AVAILABILITY AND  
REDUCE MAINTENANCE COSTS



**ANDRITZ**

ENGINEERED SUCCESS

# Many solutions for advanced wear protection



**Due to rough operating conditions, all refining systems of MDF plants are subject to high wear, that constantly demands time consuming and expensive maintenance work. For that reason ANDRITZ has developed new and innovative concepts for additional wear protection at the most critical areas. These solutions are designed to extend both service life and life duration of components, and also to help you with an easy and economical maintenance.**

# CONTENT



## PLUG SCREW FEEDER ①

- AdvaProtect 70 – for plug screw
- AdvaProtect segments – for compression housing
- AdvaProtect liner – for compression housing
- AdvaProtect spool Insert – for dewatering unit and AdvaDrain



## DISCHARGER ②

- Plus bushing – for agitator
- Agitator blade low drag design with premium bushing – for agitator
- AdvaProtect 70 – for discharge screw
- Discharger bottom of new design – for digester
- Zero flow mechanical seal – for agitator and discharge screw (drive side)
- ANDRITZ alloy with plus or premium bushings – for discharge screw (non-drive side)
- Discharge screw housing with liner design – for discharge screw



## RIBBON FEEDER ③

- AdvaProtect 70 – for ribbon feeder



## REFINER ④

- Refiner Wear Kit – for refiner
- Premium scrapers, rotor blades and fan rings – for rotor disc
- Dove tail premium scrapers, rotor blades and fan rings of new design – for rotor disc
- Finger blow line with crash box – for refiner
- Ceramic sleeve – for finger blow line



# Plug screw feeder

Plug screw feeders are transporting raw materials from atmospheric conditions to the pressurized zone in the process. ANDRITZ offers rebuilds, spare and wear parts, upgrades, and on-site services for the complete equipment.



## **AdvaProtect 70 – for plug screw**

A new generation of hardfacing for a longer service life

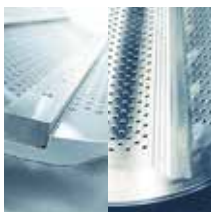
- Hard facing for high wear resistance
- Low operating costs
- Longer lifetime of the screw thanks to unique alloy and application process



## **AdvaProtect segments – for compression housing**

Innovative solution for on-site refurbishment with exchangeable wear segments

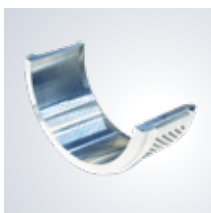
- Extremely wear resistant material with excellent price-performance ratio
- Fast replacement on site
- Longer lifetime of the housing thanks to refurbishment without welding



## **AdvaProtect liner – for compression housing**

Innovative solution for on-site refurbishment with exchangeable wear liner

- Flexible and cost-efficient system due to customized holes for dewatering purposes
- Fast replacement on site
- Longer lifetime of the housing thanks to refurbishment without welding
- Different anti-rotation designs (flutes or bars)



## **AdvaProtect spool insert – for dewatering unit and AdvaDrain**

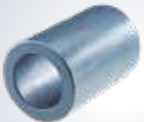
Innovative solution for on-site refurbishment with exchangeable wear sleeve

- Flexible and cost-efficient system due to customized holes for dewatering purposes
- Fast replacement on site
- Longer lifetime of the housing thanks to refurbishment without welding



# Discharger

The raw material is transported from the vessel with a discharger system which meters the feedstock according to the throughput capacity to the pressurized refiner.



## Plus bushing – for agitator

New high wear resistant bushing

- Interchangeable with previous graphite bushing
- Latest generation bushing materials
- Longer service life



## Agitator blade low drag design with premium bushing – for agitator

Latest agitator blade concept for improved process and reduced wear

- Less agitator shaft movement thanks to new agitator blade design
- Wear is minimized thanks to new hardfaced wear sleeve and latest generation bushing materials
- Longer service life of agitator sealing (stuffing box or mechanical seal)



## Discharger bottom of new design – for digester

Rebuild of existing digester with new flat bottom

- Optimized access to discharger bottom for easier and safer maintenance activities
- Upgrade of digester with exchangeable wear liner for easy replacement
- Even discharge of chips, especially for the upgrade from old twin to new single screw discharger (size 74")



## Zero flow mechanical seal – for agitator and discharge screw (drive side)

- Elimination of stuffing boxes
- Safe and clean system without water into the process
- Less maintenance activities and costs



## ANDRITZ alloy with plus or premium bushings – for discharge screw (non-drive side)

- Elimination of stuffing boxes
- Wear is minimized thanks to new flushing system and latest generation bushing materials
- Less maintenance activities and costs



## AdvaProtect 70 – for discharge screw

A new generation of hardfacing for a longer service life

- Additional wear protection for screw flights
- Hard facing for longer service life
- Low operating costs



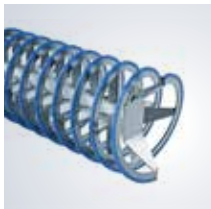
## Discharge screw housing with liner design – for discharge screw

New improved design for refurbishment with exchangeable wear liner

- Fast replacement on site of liner with integrated anti-rotation bars
- No welding on pressure vessel
- Longer lifetime of the housing thanks to refurbishment without welding

# Ribbon feeder

The ribbon feeder moves the raw material continuously to the refiner while allowing the heat in the refiner-produced steam to flow against the feeding direction of the material back to the digester system.



## **AdvaProtect 70 – for ribbon feeder**

A new generation of hardfacing for a longer service life

- Additional wear protection for screw flights
- Hardfacing for longer service life
- Low operating costs

# Refiner

The pressurized refiner is the heart of the fiber preparation process. ANDRITZ service is designed to ensure high machine availability and maximum performance throughout the long life of your pressurized refining system.



## Refiner Wear Kit – for refiner

Innovative design concept for refurbishment with exchangeable wear sleeve and liner

- New door design with exchangeable sleeve
- New casing design with exchangeable outlet
- Cost-effective, professional on-site refurbishment solutions by simple exchange of parts



## Premium scrapers, rotor blades and fan rings of new design – for rotor disc

Wear parts with longer service life

- Interchangeable with conventional designs
- New high wear resistant materials
- Longer service life



## Dove tail premium scrapers, rotor blades and fan rings of new design – for rotor disc

Wear parts with longer service life and additional protection

- New aerodynamic designs for new manufacturing or upgrade of existing components
- New high wear resistant materials and additional wear protection for rotor disc
- Longer service life for wear parts and longer lifetime for main components



## Finger blow line with crash box – for refiner

Blow valve with new smart design and easy exchange of wear parts

- Additional wear protection thanks to new valve construction
- No risk of jamming of moveable components thanks to finger on the blow line side
- Maximized availability and longer service life



## Ceramic sleeve – for finger blow line

Wear part with longer service life

- Interchangeable with conventional sleeve design
- New high wear resistant materials
- Longer service life



## **TO DISCOVER THE BEST SOLUTIONS FOR YOUR NEEDS, PLEASE CONTACT YOUR RESPONSIBLE KEY ACCOUNT**

We also want to take up your challenges! For more information about ANDRITZ's services, please visit [andritz.com/refiner-service](https://andritz.com/refiner-service) for details.

### **EUROPE**

ANDRITZ AG  
Vienna, Austria  
p: +43 50805-0

### **SOUTH AMERICA**

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

### **NORTH AMERICA**

ANDRITZ Ltd.  
Brantford, Canada  
p: +1 519 754-4590

### **CHINA**

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

**[ANDRITZ.COM/REFINER-SERVICE](https://andritz.com/refiner-service)**



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 GROUP 2021. 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. BR.PES.MDF\_AdvancedWearProtection.EN.0721