
RECYCLING
RECOVER RAW MATERIALS AND MAINTAIN VALUE
ANDRITZ
ENGINEERED SUCCESS

Trend-setting recycling solutions

E-SCRAP / REFRIGERATORS

REJECTS FROM THE PAPER INDUSTRY

WASTE-TO-VALUE RDF PRODUCTION

METALS AND SPECIALS

ORGANIC WASTE

WOOD WASTE

AUTOMOTIVE PARTS

PLASTIC WASTE

TEXTILE WASTE

RECYCLING@ANDRITZ.COM
WWW.ANDRITZ.COM/RECYCLING

SEE US ON YOUTUBE

ENGINEERED SUCCESS

COMPANY

OUR COMMITMENT TO YOU 4
A STRONG PARTNERSHIP 6
MANUFACTURING NETWORK 9
ANDRITZ RECYCLING TECHNOLOGY CENTER 10

RECYCLING PLANTS

E-SCRAP AND REFRIGERATORS 12
CABLE SCRAP AND WIRES 14
METALS RECYCLING AND SPECIAL PROCESSING 16
AUTOMOTIVE PARTS, TIRES 18
WASTE-TO-VALUE, RDF PRODUCTION 20
PAPER MILL REJECTS 22
WOOD WASTE 24
ORGANIC WASTE 26
PLASTIC WASTE 28
TEXTILE WASTE 30

SERVICE

GLOBAL NETWORK, LOCAL SERVICE 33

DIGITALIZATION

FORESEE DIGITALLY WITH METRIS 34

Recover raw materials and maintain values

A major goal in any industry is to produce more and waste less. More product, with fewer waste streams, translates into higher margins. This same goal applies to communities and consumers as well. As a manufacturer of high-quality recycling technology, we take it as a responsibility and commitment to future generations to conserve resources and create a cleaner world. We are proud of the considerable economic, environmental, and social impact of what we do.

Our machinery, processes, and technologies recover so-called "waste" and convert it into valuable materials or energy sources. The fact that our technology works so dependably and with such high recovery rates sets us apart in the global market.

Our technology not only reduces the extraction of primary raw materials, but also frees up landfills and disposal sites to protect the environment. By separating and treating many different waste flows, we make raw materials usable again, either as a source of additional revenue or by reusing the materials within the production cycle.

We are more than equipment suppliers. We develop recycling solutions that pay off for our customers. Our knowledge and expertise are available to help customers truly optimize their operations. By fully understanding customer needs and future trends, we work as partners to arrive at future-oriented solutions to deal with new kinds of waste streams.

Our R&D programs focus on sustainability: conserving resources, improving the quality and yield of the secondary raw materials, and maximizing customer benefit. Our machinery and technologies contribute towards reducing environmental impact on the planet. Each of our employees is fully committed to continuing the ANDRITZ success story in recycling.

ANDRITZ: Your strong partner in recycling

ANDRITZ Recycling is a strong part of the ANDRITZ GROUP dedicated to converting waste streams into usable, valuable resources. Our rapid rise in the recycling world is the result of many strengths: 160+ years of industrial and engineering experience, adding the well-known capabilities of MeWa and Franssons to the Group, in-depth process knowledge, a well-established global network, financial strength, innovative people, and a comprehensive range of recycling solutions.

ANDRITZ Recycling combines the resources and capabilities of several key players in the industrial recycling arena.

The ANDRITZ GROUP has about 27,000 employees and over 280 production sites, service centers, and sales companies around the world. ANDRITZ has core competencies in environmental processes and energy generation. Certain segments of our business, such as reject treatment and solid/liquid separation technologies, were involved in recycling long before it became a global social focus.

When ANDRITZ acquired MeWa in 2013, the company greatly enhanced its capabilities for treating materials from different industrial processes and products, which helped it enter markets outside its traditional paper-making and wastewater treatment markets. MeWa began as a sales office for shredders to recycle E-scrap as well as household and industrial waste.

Since then, the company has developed its unique processing technologies, particularly for electrical/electronic scrap and refrigerator recycling, which have won international environmental awards.

The Franssons product line was added in 2017 to further extend our capabilities. Franssons began as a supplier to Sweden's timber industry. Its well-proven shredders with unique cutting technologies have progressed beyond wood waste to include household/industrial waste, municipal solid waste, and plastics.

With these combined capabilities, ANDRITZ Recycling offers a global service and sales network with access to state-of-the-art manufacturing centers. The synergy between recycling products and other equipment in our product portfolio allows these systems to be integrated into more complex plant configurations.

ANDRITZ's headquarters in Graz, Austria

Final inspection of the ADuro QZ shredder in the workshop

Manufacturing network ensures high quality

The ANDRITZ machinery is designed in a robust engineering process and then built according to the highest quality standards within our global manufacturing network. Material selection, manufacturing techniques, machine tools, and quality procedures are all state-of-the-art. Product enhancements are a normal part of the production process.

ANDRITZ's global manufacturing network primarily focuses on producing key components or proprietary technologies. The extensive in-house capabilities are supplemented by a global network of certified sub-suppliers, each of which is a specialist and proficient in supplying to ANDRITZ's exacting quality and delivery requirements. With a proven and tested make-or-buy strategy, the company maintains high levels of capacity utilization to ensure optimum use of its own manufacturing capacities.

All manufacturing locations participate in a continuous development program to offer customers the highest quality at a reasonable price. Internal investments target strategic expansion of manufacturing capacities in growth areas and modernization of existing locations in established markets.

Depending on the country where a machine is to be installed, ANDRITZ Recycling relies on manufacturing facilities in Europe or Asia. Each workshop has a complement of modern machining centers, assembly bays, and testing operations. Every facility adheres to the same level of our manufacturing quality standards, ensuring each customer consistently high quality everywhere.

The ANDRITZ headquarters and production site in Graz, Austria

ANDRITZ Recycling Technology Center

Discover the ART of Recycling. The ANDRITZ Recycling Technology Center – ART Center for short – is open to recycling customers from almost all industries as well as to research and development facilities.

On a total area of 3,600 m², the new ANDRITZ Recycling Technology Center in St. Michael, Austria, can conduct recycling tests with a wide variety of raw materials on state-of-the-art recycling machines of industrial size. The center is equipped with innovative shredding technology from the ADuro product line, which can be used for primary and secondary shredding as well as for fine granulation and dismantling of composite materials. This allows trials with a broad range of waste streams and simulation of complete recycling processes. Customers can run tests with their own material or with material provided by ANDRITZ, drawing on the expertise and knowledge of recycling experts. New recycling projects and investments can be planned easily, reducing investment risk to a minimum.

Our experienced team is ready to support waste recyclers, research and development facilities and all other companies serving the recycling industry, with top-quality conditions for testing and R&D.

ART Center near the ANDRITZ headquarters in Graz, Austria

ADuro shredders for primary and secondary shredding as well as for fine granulation and dismantling

OUR CAPABILITIES IN FOCUS

CUSTOMER TESTS

- Individual machine demonstrations with different materials and operating parameters
- Demonstration of recycling processes
- Proof of capacity and output quality of processed materials
- Basic sample analysis
- Preparation of raw materials for further testing

RESEARCH & DEVELOPMENT

- Processing of new materials and development of new recycling solutions
- Testing of new machine settings and configurations for different applications
- Optimization of recycling machines
- Testing of new prototypes
- Networking with other test centers and laboratories

Analysis of output material

JOIN US ON A TOUR THROUGH THE ART CENTER

WEEE and refrigerators

With the proliferation of electrical and electronic devices, e-scrap has become one of the fastest growing waste streams in the world.
With the potentially hazardous materials found in electronics, it is a challenge to break down and safely recycle components, but a challenge that ANDRITZ has successfully conquered.

A technical innovation from ANDRITZ Recycling – the ADuro QZ shredder – has made a big impact on successful e-scrap recycling operations.

No cutting tools are employed in the shredder. The machine breaks down different composite materials quickly and gently using rotating chains so that the individual fractions (like iron, plastic, printed circuit boards, cables, and copper coils) are exposed and can be easily separated from one another in downstream processes.

Components that contain hazardous substances, such as batteries and capacitors, remain intact and can be disposed of without any negative impact on the environment.

INPUT

- Refrigerators (CFCs/pentane)
- White goods
- Electrical household appliances
- Consumer electronics
- E-scrap

OUTPUT

- Printed circuit boards
- Transformers
- Aluminum
- Copper
- Iron
- Stainless steel
- Plastics
- Batteries
- Compressors
- Polyurethane
- CFCs/pentane

Electrical appliances

Refrigerators

Printed circuit boards

Aluminum and copper

BENEFITS:

- Technology complies with WEEELABEX/CENELEC requirements
- No sharp cutting of potentially hazardous components
- Reduced internal wear due to rotating chain technology
- Easy access to the valuable component fractions
- Separation of housing and batteries without damaging them
- Compatible with manual or fully automatic sorting
- High recovery rates for valuable materials and CFCs/pentane
- Efficient single-stage process

A LEADING-EDGE SOLUTION FOR RECYCLING REFRIGERATORS

The fully encapsulated, single-stage system for processing refrigerators recovers environmentally harmful greenhouse gases from CFC and pentane appliances without any risk of fire.

Refrigerator plant

1 Material feed 2 Cooling agent/oil degassing plant 3 ADuro QZ shredder
4 PU screen 5 Matrix degassing 6 PU material silo 7 Fe/NFe separation 8 PU wind sifter 9 Cryo condensation
10 Nitrogen storage tank 11 Ferrous fraction 12 Non-ferrous fraction 13 Separation of heavy parts 14 Plastic fraction

Cable scrap and wires

Cable recycling not only preserves and conserves valuable resources, it also significantly reduces energy consumption. Recycling the metals in cables and wire requires only a fraction of the energy that must be expended to initially mine and extract ore.

There are many different types of cables and a variety of different material compounds: flexible wire cables, household cables, power cables, underground cables, copper and aluminum cables, and high-voltage cables with V-PE sheaths. Inherently, the strands in the core are valuable as a secondary raw material due to the high metal content. In most cases, the individual materials in the cable or flexible wire adhere very closely to one another. To expose and process these fractions requires recycling technology that produces small grain sizes for optimum separation.

ANDRITZ Recycling supplies complete processing lines for all types of cable and wire waste and has many years of experience in doing this. Individual metal fractions are recovered with nearly 100% purity due to the technology employed for pre-shredding, granulating, sorting, and separating.

INPUT

- Household cables
- Power cables
- Underground cables
- Copper/aluminum cables
- High-voltage cables

OUTPUT

- Copper
- Aluminum
- Iron
- Lead
- Plastics

Wire cable

Copper cable

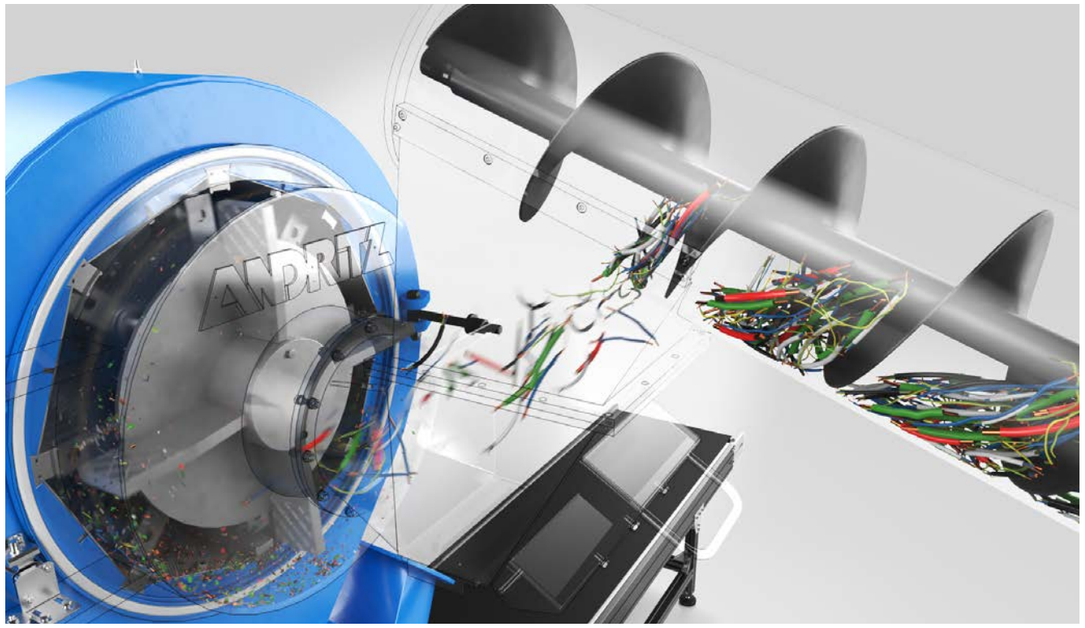
Plastics

Copper

BENEFITS:

- Configurable for all types of cables and wires
- Extremely high purity levels and recovery rates
- High capacity and throughput (approx. 2–6 t/h)
- Output fractions to desired grain size
- Modular configurations adaptable to upstream/ downstream processes
- Easy separation into individual fractions

ADuro F shredder for efficent fine-shredding of cable scrap



Metals recycling and special processes

There are hundreds of different metal compounds containing components and materials that require specific processing technologies and methods to maximize their value and minimize environmental impact.

Valuable metal compounds include ferrous fraction, aluminum, copper, or zinc - materials that can be sold as secondary raw materials and recycled mutiple times without loss of quality.

No matter whether it is a battery, circuit board, solar panel, can, aerosol container, mattress, aluminum profile, scrap metal sheet or textile bale, or perhaps metal turnings, slag or wastepaper – ANDRITZ Recycling has already successfully recycled it.

In the course of executing all these projects, we have often worked with customers collaboratively to arrive at tailored solutions: testing the incoming waste material at our technology center and then innovating or adapting its machinery to achieve the desired results.

INPUT

- Batteries
- Printed circuit boards
- Solar panels
- Cans
- Aerosol cans
- Aluminum profiles
- Metal turnings
- Slag
- Fiber-reinforced plastics

OUTPUT

- Iron
- Copper
- Aluminum
- Tin
- Plastics

Aerosol cans

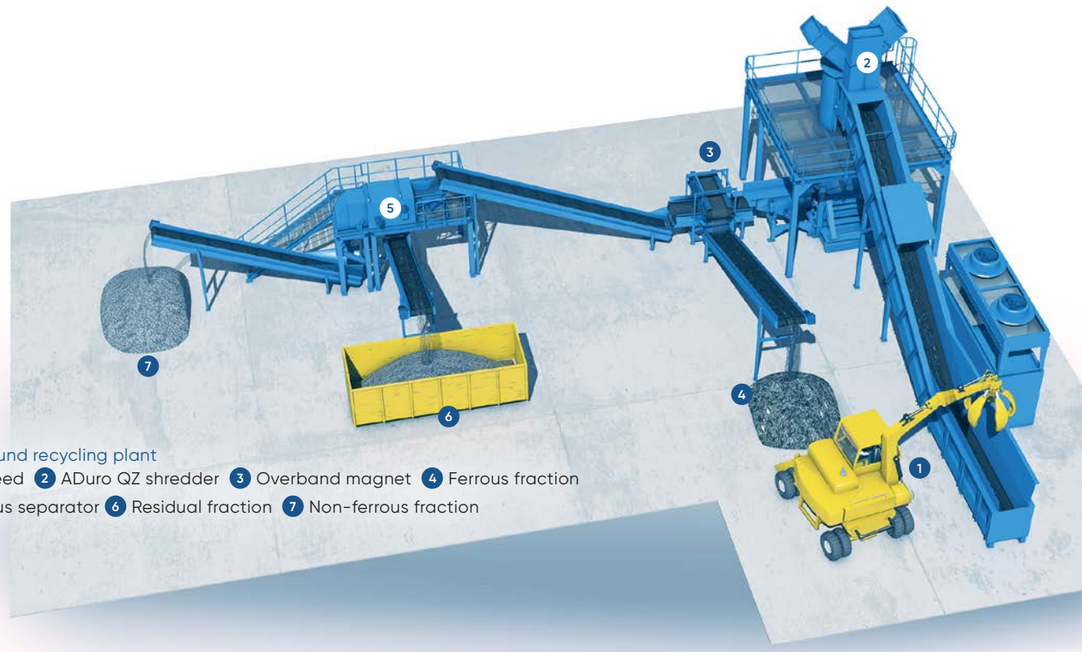
Fiber-reinforced plastics

Aluminum

Cans

BENEFITS:

- Decades of experience in developing tailored plants and solutions
- Flexibility to handle a wide range of materials
- Tailored processing and machinery according to input/output requirements
- High throughput
- High purity levels
- High recovery rates
- Gentle, environmentally friendly handling of potentially harmful substances
- Almost 100% purity of output fraction possible



Metal compound recycling plant
1 Material feed 2 ADuro QZ shredder 3 Overband magnet 4 Ferrous fraction
5 Non-ferrous separator 6 Residual fraction 7 Non-ferrous fraction

Automotive parts, tires

Even at the end of their useful life, many of the components in an automobile or other vehicle contain valuable raw materials. Whether it is the metal in oil filters and precious metals in catalytic converters, the aluminum in wheel rims and engine blocks, or the pure rubber in used tires – ANDRITZ has the process technology and expertise to extract and reuse it.

The main task in recycling end-of-life vehicles and tires is to break them down into their individual components in such a way that the valuable materials can be recovered and effectively processed.

For tires, this means breaking the used tire down into its main building blocks – rubber, steel wire, and textiles – so that these components can be recovered with highest purity in a three-stage process.

Used oil filters from vehicles are considered to be hazardous waste, yet they contain around 60% metal, making recycling cost-effective. With its special tooling, the ADuro G shredder shreds the oil filter in a single-stage process. Then the individual fractions – ferrous, aluminum, paper, rubber, and oil – can be separated easily.

More recently, recycling technology has been developed for the growing number of lithium-ion batteries in electric cars.

INPUT

- Used tires
- Oil filters
- Catalytic converters
- Batteries
- Engine blocks
- Aluminum rims
- Shredder light fraction (SLF)
- Shredder heavy fraction (SHF)
- Automotive shredder residues (ASR)
- Car parts

OUTPUT

1. VEHICLES

- Ferrous fraction
- Non-ferrous metal
- Paper
- Oil
- Plastics

2. TIRES

- Tire chips
- Rubber granulate
- Rubber powder
- Steel wire
- Textile fluff


Engine blocks


Used tires


Oil, ferrous fraction, rubber


Rubber powder

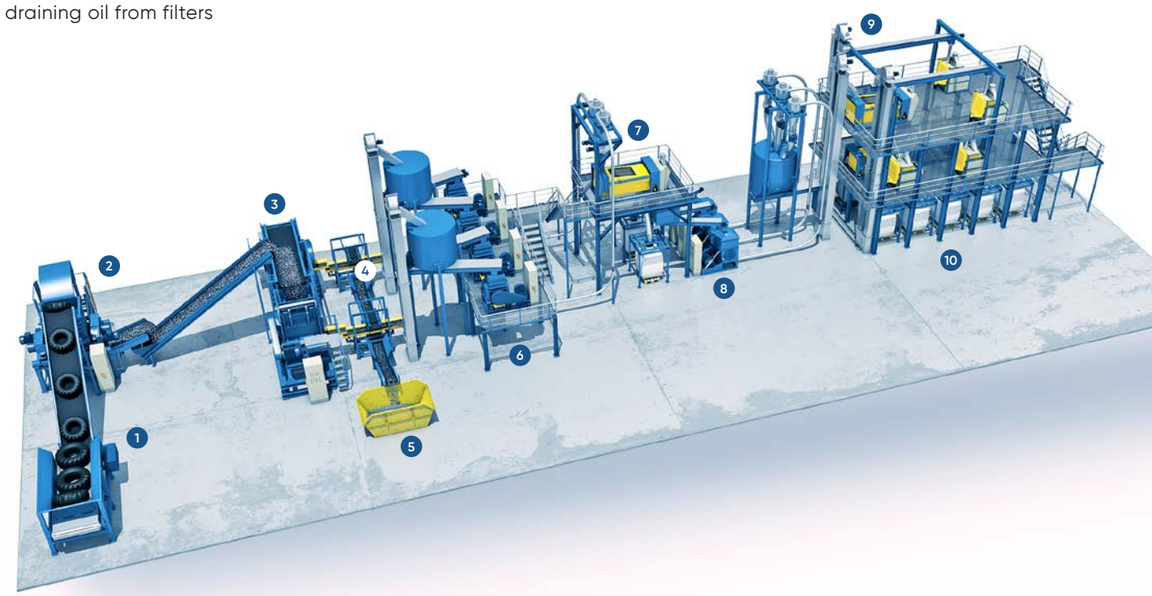
BENEFITS:

1. VEHICLE PARTS

- Flexibility in handling a variety of input materials
- Cutting or chain technology tailored to the material
- Optimum separation of individual materials and fractions
- Very high purity levels
- Environmentally friendly, integrated solutions for draining oil from filters

2. TIRES

- Variable throughput depending on requirements
- Purity of rubber granulate > 99.9%
- Granulating, grinding, and powdering to < 1 mm
- Processing line can be easily expanded due to modular design



Tire recycling plant
1 Material feed 2 ADuro C shredder 3 ADuro G shredder 4 Ferrous separators 5 Ferrous fraction 6 ADuro G shredder
7 Separation/cleaning process 8 ADuro M shredder 9 Separation/cleaning process 10 Output: Rubber granules, rubber powder

Waste-to-value, RDF production

Refuse-derived fuel (RDF) is a valuable substitute for primary materials such as gas, oil and coal. ANDRITZ offers modern and efficient processing technologies for the production of RDF.

Municipal solid waste (MSW) as well as commercial and industrial (C&I) waste contain many different materials that need to be separated mechanically into a high- and a low-calorific fraction.

This process involves shredding, screening and classifying of the material. Metals, inerts and organics are removed; light fractions with high-calorific value (e.g. plastics, textile and paper) remain. The high-quality ADuro P and ADuro S shredders are used for primary and secondary shredding. Quickly exchangeable screens allow many different output sizes.

Additionally, the metal fraction from the ferrous metal separator, often with plastics or textiles still adhering to it, can be cleaned. Composite materials can be broken down with the ADuro QZ shredder. In the end, the steel scrap and non-ferrous metals can be recovered with a superior purity of 98% – perfect for use in the steel industry or re-processing in foundries.

INPUT

- Household waste
- Industrial waste
- Bulky waste
- Production residues

OUTPUT

- Plastics
- Textiles
- Paper
- PVC
- Ferrous fraction
- Non-ferrous fraction

Household and industrial waste

Plastics

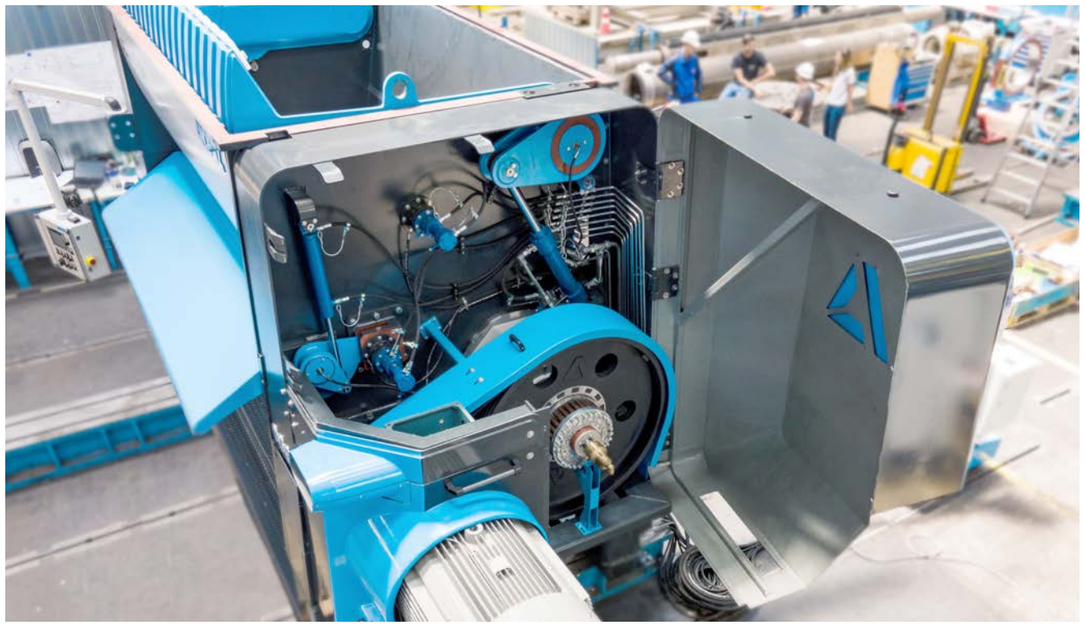
Refuse-derived fuels

Non-ferrous fraction

BENEFITS:

- Powerful and reliable pre-shredding with the ADuro P
- Fast removal of the metal fraction
- Secondary shredding with the ADuro S and tailored screen sizes
- Separation after each shredding stage
- High-quality substitute fuel fraction
- Metal fraction can be further cleaned with the ADuro QZ shredder

ADuro S shredder for RDF production



Paper mill rejects

With very high recovery rates, wastepaper has become a very important raw material as a substitute for virgin fiber in the paper industry. However, the contaminants it contains (inks, glues, plastics, etc.) as well as metals and tying wires in the bales themselves must be removed and processed.

The ANDRITZ Recycling portfolio includes innovative technologies for the processing of paper mill sludges and rejects, materials separation and recovery, and the generation of alternative energy sources to reduce a mill's dependency on landfill sites, fossil fuels, and purchased power.

Rejects mainly result from the pulping process of a waste paper recycling line and need to be handled carefully in terms of the individual pulping system applied. As an example, the so-called "pulper rags" are potentially a source of valuable raw material with their high proportion of steel wires. The ADuro P shredder processes the waste input material in only one step. In order to meet different requirements, a two-stage process can be applied: An ADuro C shredder pre-shreds the stringy material, and an ADuro P is used for post-shredding. The metal is then easily cleaned and recovered.

INPUT

- Wastepaper baling materials
- Rejects from wastepaper processing plants (including pulper rags)

OUTPUT

- Ferrous metals
- Non-ferrous metals
- Plastics
- RDF (refuse-derived fuels)

Pulper rags

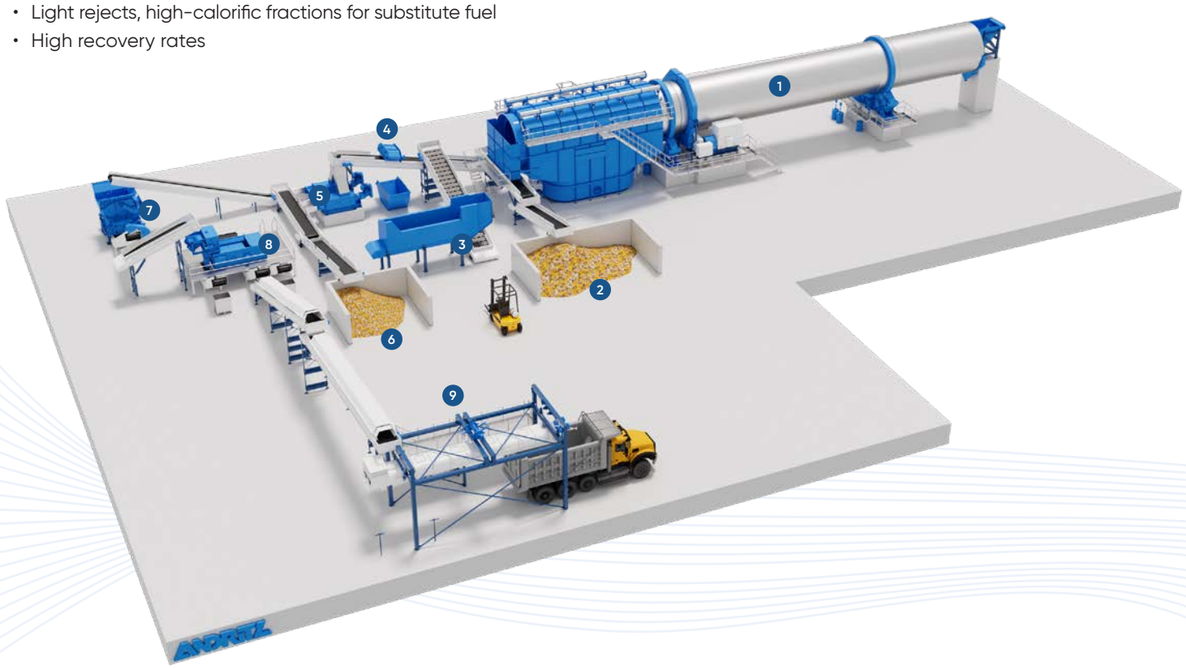
Rejects

Steel fraction

Substitute fuels

BENEFITS:

- Extensive experience in wastepaper recycling
- Well-proven machinery for processing pulper rags and rejects
- Durable, stable equipment resistant to contaminants
- Powerful and energy-saving pre-shredding
- Efficient fine/post-shredding to required particle sizes down to < 40 mm
- Pure metal fractions
- Light rejects, high-calorific fractions for substitute fuel
- High recovery rates



Reject treatment system with drum pulper

1 FibreFlow drum pulper 2 Emergency bunker (wet material) 3 Infeed bunker 4 Overband magnet 5 Dewatering press 6 Emergency bunker (dry material) 7 ADuro P shredder 8 Metal separation (ferrous, non-ferrous) 9 Truck loading station

Wood waste

Potential wood waste markets include feedstock for composite materials, fuel for energy generation, animal bedding, and soil amendments. Due to its bulk, the recycled material is generally processed locally so that it does not have to be transported over long distances. The ADuro P and ADuro U shredders are superior multi-talents at work and handle bulky wood waste inputs easily.

Wood waste such as offcuts, veneers, and boards from demolition projects, construction sites, and timber processing operations can be effectively processed with ANDRITZ shredding technology.

The slowly rotating ADuro P and ADuro U shredders can process large quantities of wood and even huge logs into manageable sizes (10 to 200 mm). The output size is determined by the screen choice.

A hydraulic pusher feeds the wood waste to a special knife geometry that is easily optimized for the type of input material. The rugged shredder technology provides perfect continuous cutting and high throughputs of up to 50 t/h.

The ADuro F shredder can be used to mill down the pre-cut wood further, to just a few millimeters in size.

INPUT

- Offcuts
- Veneers
- Boards
- Panelboard
- Saw mill waste
- Demolition/ construction wood

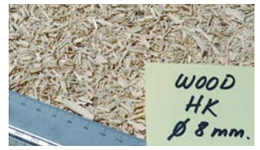
OUTPUT

- Wood particles of defined size (10 to 200 mm) for composites, fuels, etc.


Wood offcuts


Wood waste

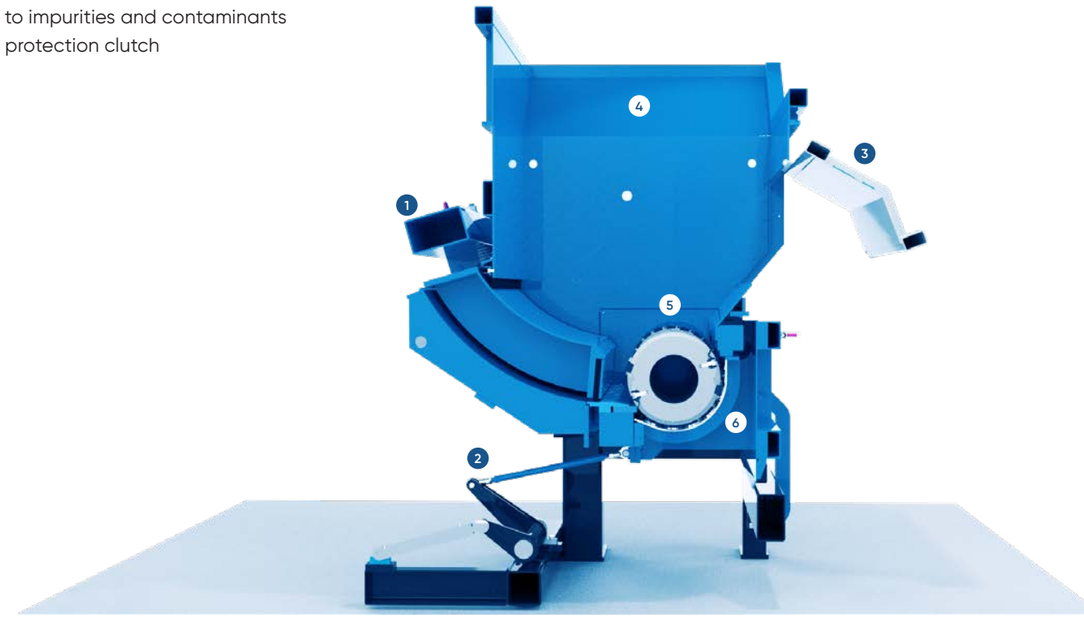
Wood particles



Wood particles for substitute fuels

BENEFITS:

- Heavy-duty construction for reliability and availability
- High-capacity throughput (up to 50 t/h)
- Large inlet hopper
- Feed and pusher system avoids material extraction
- Dependable, innovative continuous cutting system
- Knife geometry easily adjusted for various input materials
- Quick and easy access for maintenance
- Reject hatch makes cleaning of the cutting area easy
- Automatic security lockout
- Insensitive to impurities and contaminants
- Optimized protection clutch



Drawing of the ADuro U shredder

1 Pusher 2 Automatic hydraulic mechanism 3 Service door 4 Inlet hopper 5 Cutting unit 6 Screen basket

Organic waste

ANDRITZ has developed a special ADuro QZ system to prepare packaged foods, organic waste, and energy crops for optimum fermenting conditions in biogas plants.

The ADuro QZ shredder breaks down the cell structure of input waste materials (e.g. organic waste, corn and whole crop silage, grass silage, farmyard manure, restaurant and kitchen waste, and packaged foods) to maximize the contact surface area for fermentation bacteria to perform their magic. Biogas formation begins measurably faster and more intensely, which can reduce the duration of the fermentation process substantially. This, in combination with significant yield improvement, boosts the cost-effectiveness of a biogas plant.

A major advantage of the ADuro QZ is its ability to separate organic materials from food packaging by crushing and stirring the material in one process. The output is unwrapped organic waste, suitable for pumping. After the organic materials have been removed, the packaging and other inorganic components can be easily separated out.

INPUT

- Organic/bio-waste
- Restaurant/kitchen waste
- Packaged food
- Corn and whole crop silage
- Animal manure
- Grass silage

OUTPUT

- Removed packaging waste
- Unwrapped organic waste material suitable for pumping

Packaged food

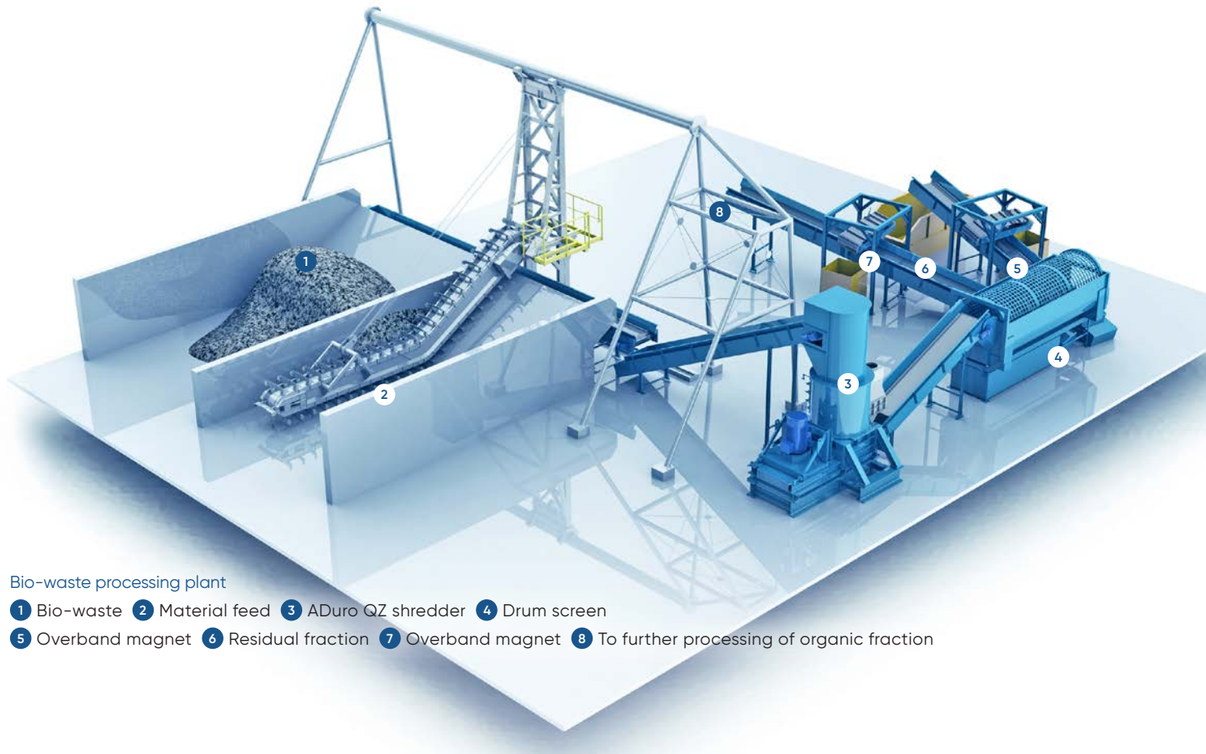
Corn silage

Packaging waste

Corn silage

BENEFITS:

- High-capacity throughput
- Adaptable to a wide range of organic materials
- Excellent gas formation and high gas yield
- Excellent separation of packaging from organic materials
- Stable and sustained operation
- Suitable for pumping of homogeneous substrates
- Quick dissolving of scum layers
- Easy to install or retrofit in existing plants



Bio-waste processing plant

1 Bio-waste 2 Material feed 3 ADuro QZ shredder 4 Drum screen
5 Overband magnet 6 Residual fraction 7 Overband magnet 8 To further processing of organic fraction

Plastic waste

In order to meet the growing needs of the plastics recycling sector, ANDRITZ has developed a very compact recycling system to save transportation and disposal costs and eliminate the damage to the environment caused by burning of plastic waste.

Instead, the system recovers plastics as a valuable secondary raw material featuring high purity. The recovered plastic can be used for gray or colored plastic to make new products.

ANDRITZ has combined the ADuro U shredder with an all-in-one solution for separating, washing and dewatering – the CENSOR ACZ decanter centrifuge. This powerful pair is perfect for processing various types of plastic waste, especially from household waste collection.

First step: High-tech shredding
The raw material collected is fed into an ADuro U shredder, an innovative single-shaft shredder that enables one-step processing of hard and soft plastics.

Second step: Highly efficient separation
The CENSOR ACZ, the core unit of the process, is a sorting centrifuge that separates, washes, and dewaters the raw material all at the same time. The centrifuge is partly filled with a separation liquid (normally water), which forms a liquid ring due to high-speed rotation. Intense turbulence within the machine results in deagglomeration of the individual plastic particles and largely frees them from any adhering dirt.

INPUT

- Pre-consumer plastic waste
- Plastic from household waste collection
- Industrial plastic waste
- Special materials like diapers, plastics films,, etc.

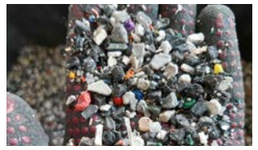
OUTPUT

- Plastic fraction with defined particle size

Plastic films

Plastic waste from household waste collection

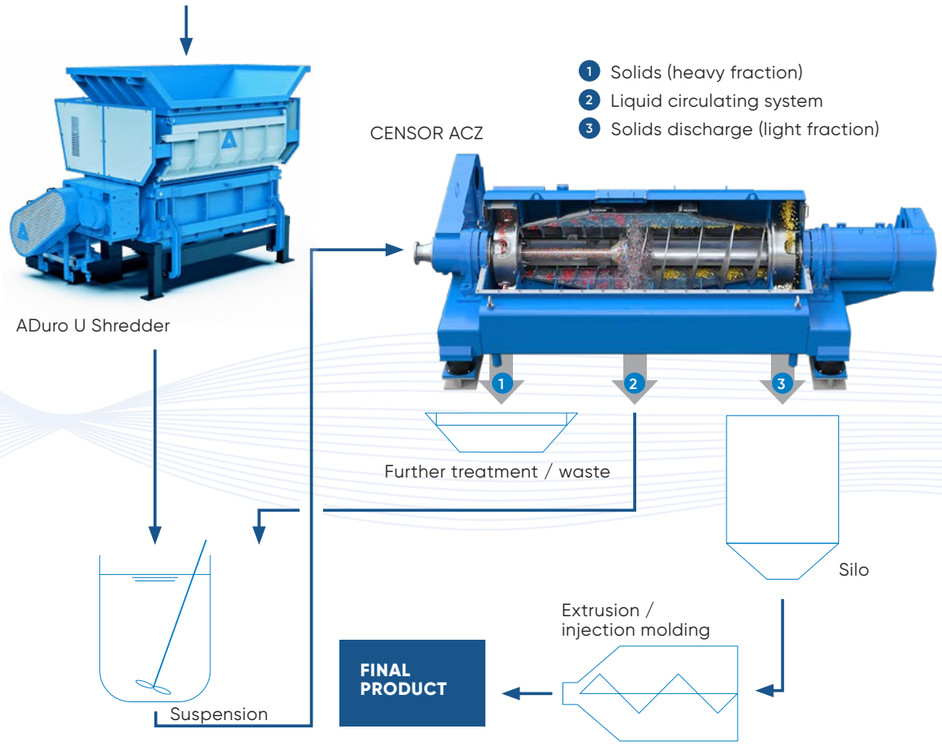
Plastic fraction - films



Plastic fraction – industrial waste

BENEFITS:

- Compact system with just two machines:
  1. Shredding to a particle size < 10 mm in one step
  2. Separation, washing and dewatering in one unit
- Very high purity of output fraction
- High throughput with low manpower
- Low valuable product losses in shredding and in the centrifuge



Textile waste

Textile recycling is a vital frontier for a more sustainable world. Clothing alone accounts for around 10 percent of greenhouse gas emissions from human activity, and much of the pre- and post-consumer waste generated by the textile industry ends up incinerated or in landfill.

Technology can change this: ANDRITZ is at the core of the movement to provide industrially and economically viable solutions that bring circularity to the world of natural and synthetic fibers.

ANDRITZ has a diversity of solutions and cooperating partners covering the value chain, from recovery of fibers to production of yarn for new textiles.

ANDRITZ Recycling focuses on the conditioning of textile waste by means of shredding and separation, which lays the foundation for the subsequent textile recycling process steps, regardless of whether they are based on mechanical, chemical, combined or any other customer-specific form of treatment.

Numerous parameters influencing the choice of technology include the type and origin (input material) of the waste, feeding technique, particle size required, cleanliness, impurities such as zippers and ornaments, capacity, and all the needs of downstream processing. ANDRITZ Recycling offers single equipment and complete conditioning systems comprising the following process steps: material feeding, shredding, conveying, separation, fine grinding, and storage of the finally conditioned material.

INPUT

- Commercial textile waste
- Clothing
- Special materials like carpets
- White/colored textile waste

OUTPUT

- Finally conditioned textile material
- Ferrous metal fraction (e.g. wires from textile bales)
- Non-ferrous metal fraction (e.g. zippers)

Textile waste

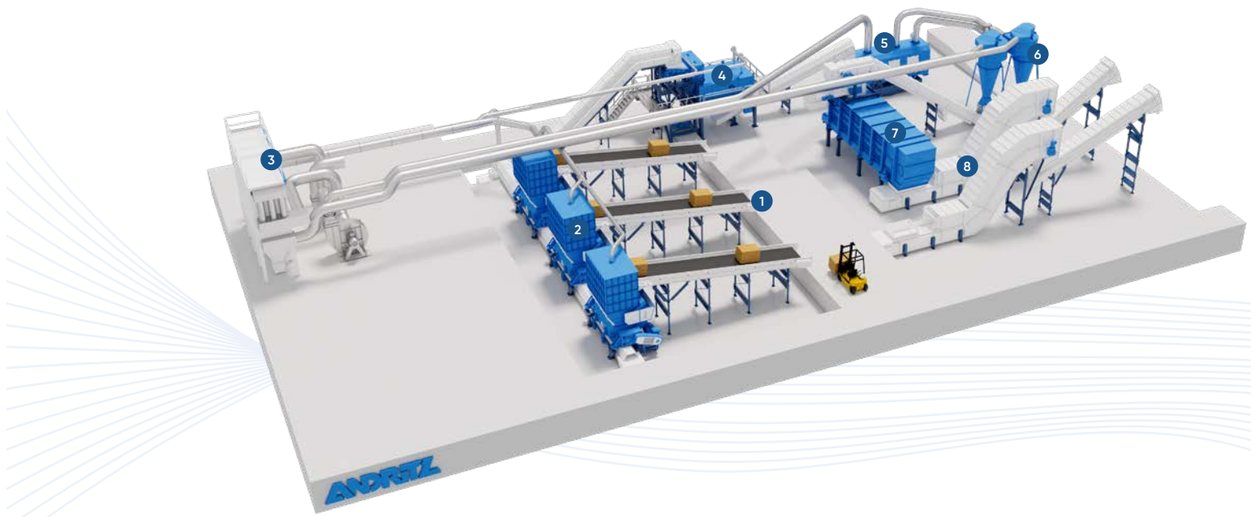
Carpets

Finely ground output material

Impurities from denim

BENEFITS:

- Perfectly suited to any kind of downstream process (mechanical, chemical, combined or customer-specific)
- Capable of handling large volumes – up to 200 t/d
- Trouble-free processing of demanding feed material, such as denim
- No damaging of fibers, thus enabling the best possible subsequent treatment
- Optimized shredding of feed material to the defined particle size
- Tailor-made separation of shredded textile and heavy items (e.g. zippers and buttons)
- Utmost purity of output material
- Different shredder rotor-types available to accommodate the different kinds of textile waste



Textile waste treatment system

1 Material feed 2 ADuro U shredder 3 Aspiration system 4 Metal separation 5 Heavy particle separation 6 Pneumatic transport system 7 Bunker system 8 Dosing system

Global network, local service

As a part of the international ANDRITZ GROUP, ANDRITZ Recycling has the support and strength of an extensive global network of service specialists, machining centers, rebuild shops, and service locations. These centers are strategically located close to customers – around the globe.

Customers appreciate having an ANDRITZ Recycling expert on site to help them diagnose process or equipment problems and offer solutions to improve reliability and performance. That is why we maintain local service experts in key locations, backed by the global network of a leading technology supplier.

Skilled technicians and engineers have access to certified workshops to provide a quick response for repairs, rebuilds, and upgrades. While there are other local companies in the service business, none understand the machinery and processes as well as ANDRITZ. Each local organization is backed by ANDRITZ's worldwide service organization, giving them access to experts in the recycling industry for those special problems or situations that cannot be handled locally.

From routine work during a scheduled shutdown to quick response during a disruption, ANDRITZ service specialists work side-by-side with the customer's team to diagnose, offer training or recommendations, provide replacement parts, or perform repair services as needed to keep operations running smoothly.

BENEFITS:
SERVICE APPROACH

- Decades of experience with recycling machines and plants
- Global expertise, local contacts
- Replacement parts
- Wear components
- Rebuilds and retrofits
- Field services, audits, inspections
- Shutdown and start-up assistance
- Service agreements/contracts
- Operator/maintenance training

ANDRITZ Recycling offers comprehensive solutions for the full life cycle of complete plants or single machines.

Foresee digitally with Metris

Industrial IoT, Industry 4.0, digitalization – current buzzwords that industries use when seeking to improve their performance and equip themselves for the future of industry.

ANDRITZ DIGITAL SOLUTIONS

As a technology leader with extensive and long-term experience in supplying industrial measurement, control, and optimization solutions for various industries, ANDRITZ is combining process and equipment expertise with the latest enhancements in the digital era. The result of this powerful combination is Metris: a portfolio of ANDRITZ Digital Solutions.

METRIS OPP

One of the flagship capabilities of Metris is its ability to optimize industrial processes, known as Metris OPP, which forms a key component of the SYNERGY DYNAMIC PLUS package. It combines powerful analytical and data mining software with the knowledge of the world's top process experts to deliver a smart service initiative for customers.

A CONSTANTLY GROWING PORTFOLIO

The depth and effectiveness of the Metris portfolio continues to improve thanks to ongoing R&D, collaboration with key customers and institutions, and venture activities. Portfolio options all rely on the three strategic focus areas of the Metris brand: industrial IoT technologies, smart service concepts, and venture activities. The main technological advancements integrated into individual Metris products are derived from big data analytics, smart sensor technologies, and augmented reality solutions. The Metris UX digitalization platform providing full support throughout the entire lifecycle of a plant is the most recent of our IoT developments. With Metris, customers foresee digitally due to the continuously improved portfolio and its performance – and to ANDRITZ providing tailored and fully integrated digital solutions from a single source.

Benefits

INDUSTRIAL IoT

- IIoT solutions across business segments
- Combined know-how from ten years' experience with Metris OPP
- Using the latest smart sensor technologies
- Big data analysis with tried-and-tested models for deviation analysis
- Providing information locally with augmented reality
- Extensive solution and process engineering knowledge
- Cybersecurity solution to safeguard data on the network

GLOBAL TECHNOLOGY – LOCAL SERVICE

ANDRITZ Recycling is more than an equipment supplier. We develop recycling solutions that pay off for our customers. Our knowledge and expertise are available to help customers truly optimize their operations. As a part of the international ANDRITZ GROUP, we are backed by the strength of an extensive global network of service specialists, machining centers, rebuild shops, and service locations. From the supply of spare parts, routine work during a scheduled shutdown, to quick response during a disruption, we are available to keep operations running smoothly.

AUSTRIA
ANDRITZ AG
Graz and Vienna
p: +43 316 6902 0

GERMANY
ANDRITZ MeWa GmbH
Gechingen and Freiberg
p: +49 7056 925 0

SWEDEN
ANDRITZ AB
p: +46 660 29 53 34

FINLAND
ANDRITZ OY
p: +358 0 20 450 5555

RUSSIA
LCC ANDRITZ
p: +7 812 315 0863

CHINA
ANDRITZ (CHINA) Ltd.
p: +86 757 8296 9222

JAPAN
ANDRITZ K.K.
p: +81 3 3536 9700

INDIA
ANDRITZ Technologies PVT Ltd.
p: +91 11 49372900

BRAZIL
ANDRITZ Brasil Ltda.
p: +55 41 2103 7601

USA
ANDRITZ Inc.
p: +1 518 683 5793

CANADA
ANDRITZ Ltd.
p: +1 514 631 7700

SEE PLANTS IN ACTION

RECYCLING@ANDRITZ.COM
ANDRITZ.COM/RECYCLING