



FEED & BIOFUEL

WASTE PELLETING TECHNOLOGIES

TRANSFORMING WASTE INTO
VALUABLE ALTERNATIVE FUELS

ANDRITZ

ENGINEERED SUCCESS

Revolutionize waste and boost your business

Welcome to the world of waste pelleting with ANDRITZ. From forest to industrial waste, we offer efficient solutions for biomass and biofuel production. Our technology ensures high-quality pellets while reducing transport, storage and handling costs and emissions. Join us in building a greener future.

ADVANCED TECHNOLOGIES

We are strongly committed to excellent performance and the quality of our products, thus making us a strong partner for our customers.

CONVERTING TRASH TO TREASURE

Waste-to-energy (WTE) is the process of creating energy using waste as valuable fuel source. Due to changing environmental legislation and the need for alternative fuels, new designs for mechanical and biological treatment of municipal solid waste (MSW) and of commercial and industrial waste (C&I) are being developed all over the world.

Refuse-derived fuel (RDF) is an alternative fuel produced by shredding, sorting and dewatering the light fraction of solid waste. The objective of this concept is to obtain high-calorific and stable material. These fuels can replace fossil fuels in many applications, such as cement kiln plants, steel furnaces, or power plants.



ADVANCED PROCESSES & MACHINERY

- Unit machines
- Technical consultancy
- Aftermarket service and support

ABBREVIATIONS

WTE
Waste-to energy

MSW
Municipal Solid Waste

C&I
Commercial and Industrial Waste

RDF
Refuse-Derived Fuel (RDF) is a fuel produced from various types of waste such as Municipal Solid Waste (MSW), industrial waste or commercial waste.

SRF
Solid Recovered Fuels (SRF) is basically the same as RDF but has a much lower content of MSW ie higher Caloric Value than RDF also caused by lower moisture levels. The SRF is more valuable than RDF but can be used for the same incineration purposes.

Advanced waste-to-energy pelleting solutions

Waste by-products are highly valuable! A wide range of materials that are considered waste can be separated from general waste into valuable by-products. Among many other production processes, pelleting can further increase the value of these products. RDF and SRF, the high energy value fraction of waste, can be pelleted to further increase its value.

WHY PELLETIZE WASTE?

As a part of the pelleting process, loose materials are converted into compact pellets through the application of pressure and heat. Compressing the structure increases its density by a factor of 10. This increase provides advantages in handling and storage of waste, increases energy density and therefore reduces transportation cost.

WASTE PELLETS AS ALTERNATIVE ENERGY

By using alternative forms of energy, it is possible to reduce our dependency on fossil fuels. Waste material mixtures containing products of high calorific value, such as paper, plastic, wood and textiles result in a valuable type of alternative energy, filling a gap in our everyday energy mix required to create heat and electricity.

NEW PRODUCTS FROM WASTE PELLETS

Waste pellets made from pure waste material, such as by-products of another production process are suitable for many types of applications. Clean plastic pellets are used as an input material for molding new products and by-products of another production process, such as celluloses plastic, can be made suitable for many types of applications.

MATERIALS FOR WASTE PELLETING

- Plastic packaging, PE and PP
- Paper industry rejects, paper, sludge, cardboard
- High-calorific plastics
- Mixed waste - households, industry, & construction
- Wood waste
- Textile, rubber & synthetic material
- Some organic degradable material

ADVANTAGES OF PELLETING

- Defined product for easy material handling and storage.
- High bulk and energy density reduces transport cost
- Homogenous fuel meeting gasification and pyrolysis requirement for defined high density input material

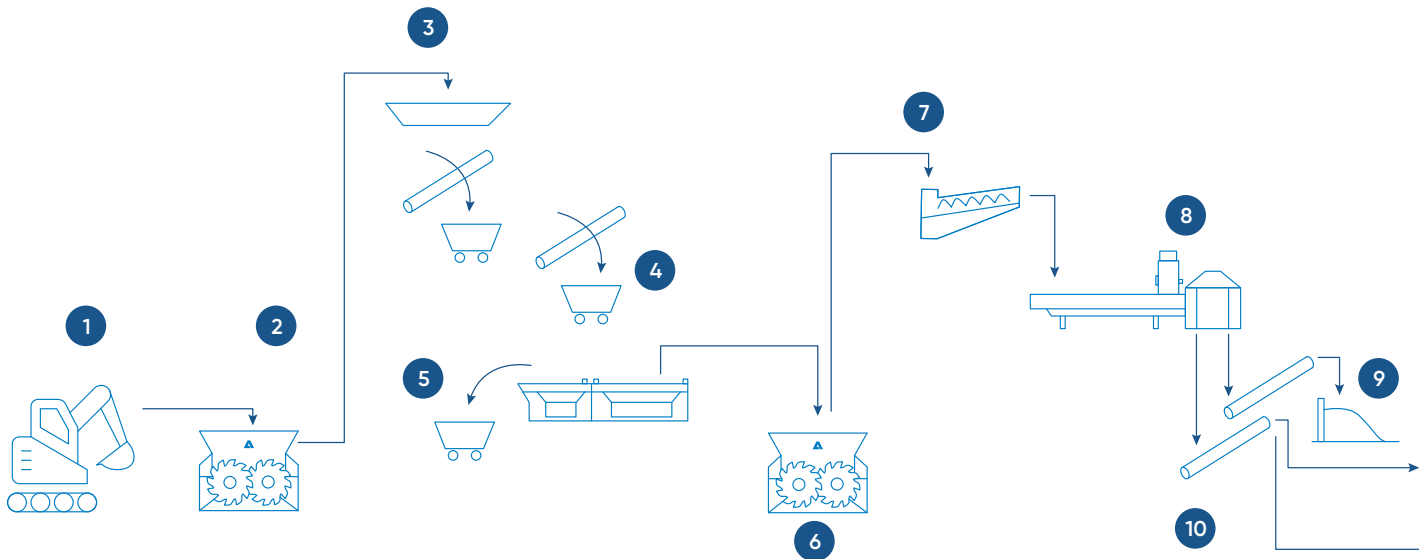
Paladin 2000W



Paladin 3000W



ANDRITZ KEY TECHNOLOGY for RDF & SRF PRODUCTION



1 WASTE LOADING

2 PRE-SHREDDING W/ DISCHARGE CONVEYOR

3 FE-REMOVAL

4 STONE TRAP OR WIND SHIFTER

5 SAND SEPARATION

6 FINE SHREDDING W/ DISCHARGE CONVEYOR

7 PRODUCT DISTRIBUTOR

8 PVC SEPERATOR

9 PVC SEPARATED

10 CLEANED PRODUCT

11 BELT DRYER

12 PELLETING

13 COOLING

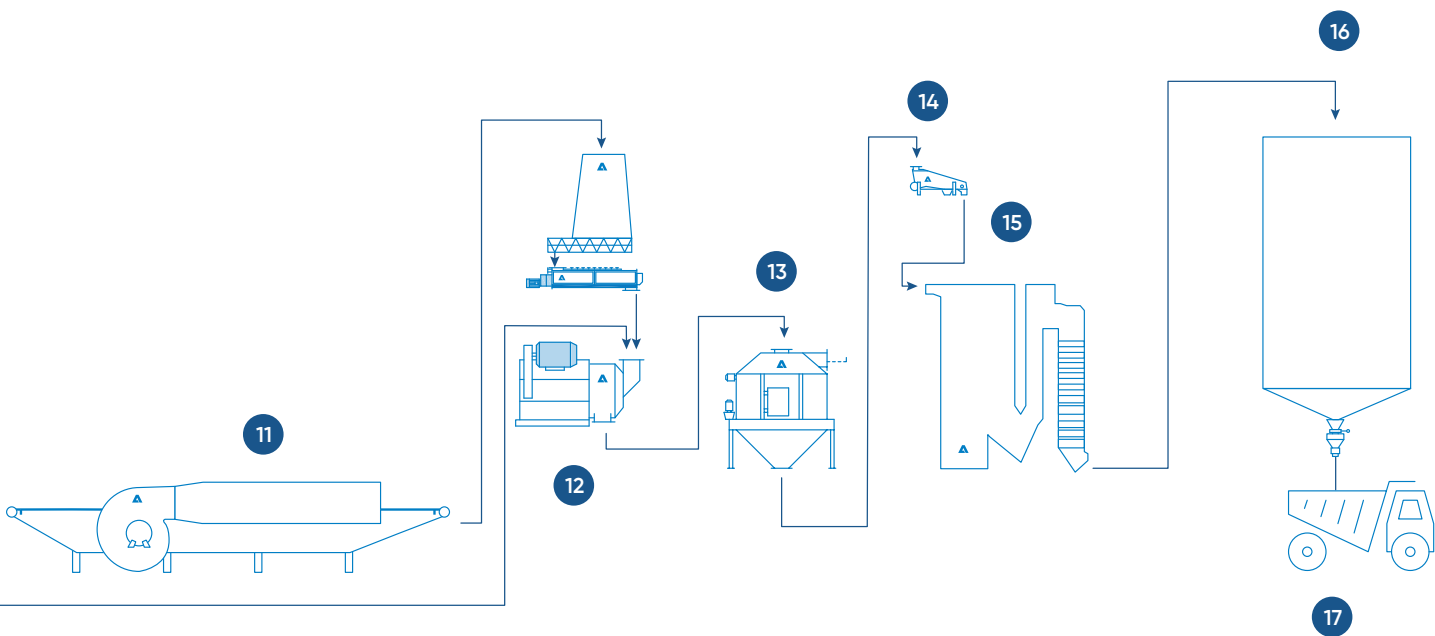
14 SIFTING

14 BOILING

16 SILO

17 OUTLOADING





DRYER

PELLETING

COOLING

SIFTING

BOILING

SILO /
OUTLOADING

PELLETING

ANDRITZ offers two types of waste pellet mills. Both ensure high output and effective control over pellet quality. The dimensions of these pellet mills have been fixed to withstand great force and come with replaceable wear parts. The level of process control obtained by using ANDRITZ pellet mills ensures high flexibility and optimum energy utilization.

COOLING

The intense friction applied in the die during the pelleting process causes additional heat to develop. Coolers are used to reduce critical temperatures before sifting, packing and storing pellets. ANDRITZ coolers utilize the surrounding air to lower the temperature of the pellets, resulting in a pellet temperature of 5 to 10°C above room temperature. The diameter of pellets and the holding time in the cooler are crucial in determining the size of the cooler needed.

ANDRITZ Recycling Technology Center

The ANDRITZ Recycling Technology Center – ART Center for short – near the ANDRITZ headquarters in Austria is a dedicated pilot plant for recycling offering a broad range of services

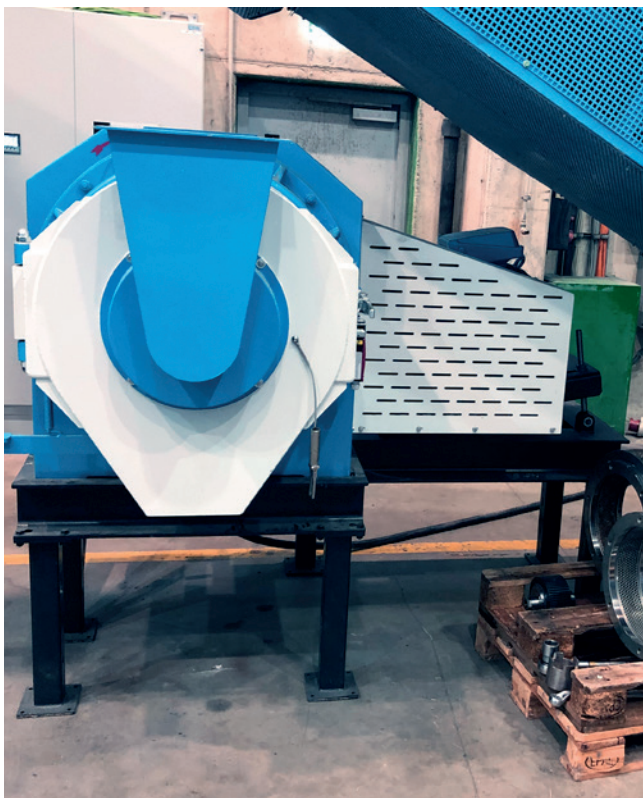
With a total area of 3,600 m², the new ANDRITZ Recycling Technology Center located in St. Michael, Austria, offers the ability to test a wide variety of raw materials on state-of-the-art, industrial sized recycling machines.

The new recycling test center is equipped with innovative shredding, drying, and pelleting technology, enabling trials under real plant conditions.

In the new technology center, customers can run tests with their own material or with material provided by ANDRITZ, drawing on the expertise and knowledge of recycling experts. This means that customers can easily plan new recycling projects and investments and also reduce investment risks to a minimum.

Customer tests can be conducted on individual machines with diverse materials and operation parameters to determine proof of capacity and output quality for processed materials. And basic sample analysis can help with the preparation of raw materials for further testing.

The ART Center features our high- performing Pellet mill.





**JOIN US ON THE TOUR
THROUGH THE ART CENTER**



YOUR BENEFITS AT A GLANCE

- Fully automated center providing real mill conditions
- Testing of numerous different waste streams
- ANDRITZ technology with latest IIoT features
- Simulation of pre- and secondary shredding, fine granulation and dismantling
- Collaboration with a renowned local university focusing on R&D



COMPREHENSIVE TESTING CAPABILITIES

The ART Center is equipped with advanced key machinery for waste pelleting and cooling, including dryers and shredders for the processing of wet waste prior to the pelleting process.

By converting waste into compressed waste pellets, density can be substantially increased which generates significant savings on transport, storage, and handling, as well as a variety of other environmental advantages.



GLOBAL SUPPLIER – LOCAL PRESENCE

ANDRITZ Feed & Biofuel is truly a global organization – with local presence. We are represented all over the world. The global market is served from five main locations: Denmark, China, Netherlands, USA, and Slovakia.

In addition, ANDRITZ Feed & Biofuel operates from several strategic regional sales, engineering, and service locations in Australia, Bangladesh, Brazil, Canada, Chile, Dubai, France, Germany, India, Italy, Mexico, Poland, South Africa, Thailand, Turkey, the UK and Vietnam – and is also represented locally by agents and distributors in many other markets.

AUSTRALIA

ANDRITZ Feed & Biofuel
p: +61 3 8773 4888
andritz-fb.au@andritz.com

CHINA

ANDRITZ Feed & Biofuel
p: +86 21 5774 5781
andritz-fb.cn@andritz.com

ITALY

ANDRITZ Feed & Biofuel
p: +39 025 743 01 30
andritz-fb.it@andritz.com

THAILAND

ANDRITZ Feed & Biofuel
p: +66 2258 5528
andritz-fb.dk@andritz.com

BANGLADESH

ANDRITZ Feed & Biofuel
p: +880 22 222 64 800
andritz-fb.bd@andritz.com

DUBAI

ANDRITZ Feed & Biofuel
p: +971 4 214 6546
andritz-fb.uae@andritz.com

MEXICO

ANDRITZ Feed & Biofuel
p: +52 229 178 38 45
andritz-fb.mx@andritz.com

TURKEY

ANDRITZ Feed & Biofuel
p: +90 232 570 38 00
andritz-fb.tr@andritz.com

BRAZIL

ANDRITZ Feed & Biofuel
p: +55 47 3387 9146
andritz-fb.br@andritz.com

FRANCE

ANDRITZ Feed & Biofuel
p: +33 24 75 06 364
andritz-fb.fr@andritz.com

NETHERLANDS

ANDRITZ Feed & Biofuel
p: +31 40 262 7777
andritz-fb.nl@andritz.com

UK

ANDRITZ Feed & Biofuel
p: +44 1482 825 119
andritz-fb.uk@andritz.com

CANADA

ANDRITZ Feed & Biofuel
p: +1 519 676 7057
anbosales@andritz.com

GERMANY

ANDRITZ Feed & Biofuel
p: +49 2104 91970
andritz-fb.de@andritz.com

POLAND

ANDRITZ Feed & Biofuel
p: +48 60 906 1037
andritz-fb.pl@andritz.com

USA

ANDRITZ Feed & Biofuel
p: +1 570 546 1253
andritz-fb.us@andritz.com

CHILE

ANDRITZ Feed & Biofuel
p: +56 2 2246 24 600
andritz-fb.cl@andritz.com

INDIA

ANDRITZ Feed & Biofuel
p: +91 87544 15287
andritz-fb.india@andritz.com

SOUTH AFRICA

ANDRITZ Feed & Biofuel
p: +27 82 781 0808
andritz-fb.dk@andritz.com

VIETNAM

ANDRITZ Feed & Biofuel
p: +84 28 6253 9434
andritz-fb.vi@andritz.com

ANDRITZ.COM/FT

ANDRITZ Feed & Biofuel A/S

Glentevej 5–7
6705 Esbjerg, Denmark
p: +45 72 160 300
andritz-fb.dk@andritz.com



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 2024. 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.

