

FOR

REC

RECYCLING SYSTEMS

Taking Recovery Further.

Machines and complete plants for municipal
and industrial solid waste treatment.

Made in Italy

Smart solutions to preserve the environment.

Taking Recovery Further expresses the direction behind every project we develop: expanding the possibilities of resource recovery. We design technologies that process a wider range of materials, deliver higher-quality output fractions and make treatment processes more efficient.

We support our customers over time, building trusted partnerships and developing new solutions to meet evolving operational needs. This is how we take recovery further: by unlocking greater value from materials and creating new opportunities for industry.

The future of resources also depends on what technology makes possible today. Our role is to transform every treatment challenge into a technology capable of addressing it.

1.1

The role of FOR REC

What you recover tomorrow, FOR REC designs today.

Tyres, cables, refrigerators, metal scrap, photovoltaic panels. Different materials require different processes. FOR REC designs and manufactures customized machines and complete recycling plants to reduce volume and size, separate components and obtain cleaner fractions ready for recovery. From engineering to after-sales support, we follow every project throughout its lifecycle, improving logistics, increasing the quality of recovered materials and ensuring long-term plant performance.

1.2

Our direction

Expanding the boundaries of what can be recovered.

The future of resources also depends on what technology makes possible today. Our role is to transform every treatment challenge into a technology capable of addressing it.

We work towards an industry capable of recovering value even from materials and waste streams that are more difficult to process. An industry where evolving materials find answers through research, engineering expertise and the ability to create new recovery opportunities.

1.3

History and industrial structure

The ability to respond to complex challenges is built over time.

FOR REC was founded in 2007. Since then, we have continuously expanded our expertise and production capacity to meet increasingly demanding projects.



Our history



1.4

People and international presence

In-house expertise. Field experience. Mechanical designers, software engineers, production technicians, installation specialists and service engineers: different skills working together towards the same objective. The continuous dialogue between those who design, manufacture and maintain our plants brings practical operational experience directly into every project.

Growing expertise

FOR REC people connect design, engineering and manufacturing expertise to bring every project to life.

More than 60 countries

Our machines and plants operate worldwide, meeting different treatment requirements and adapting to a wide range of industrial environments.

A network that brings us closer

We operate internationally through a network of agents, distributors and sales offices, providing a direct point of contact to understand customer needs and develop new projects.

A network that allows us to gather operational insights from different markets and support every customer in defining the most suitable recycling solution.



Main application



Municipal and Industrial Solid Waste



End-of-Life Tyres



Electronic Waste



Plastic



Photovoltaic Panels



Electric Cables



Refrigerators



Boilers



Special and Hazardous Waste



Electric Motors



Aluminum

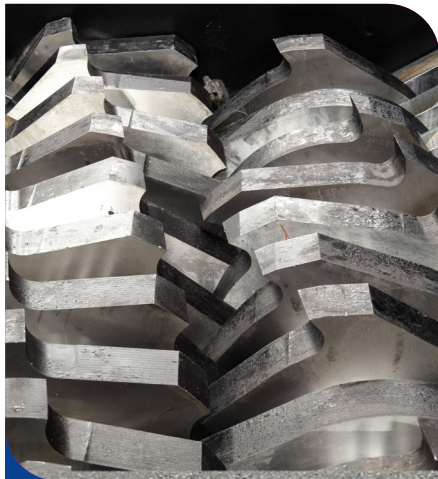


Metal Scraps

Double shaft shredders



Counter-rotating shaft shredders suitable for the volume reduction of solid waste with partial control over output particle size.



Special steel blades ensure long operating cycles while minimizing maintenance requirements.



High torque and low rotational speed maximize power, reliability, and energy efficiency.

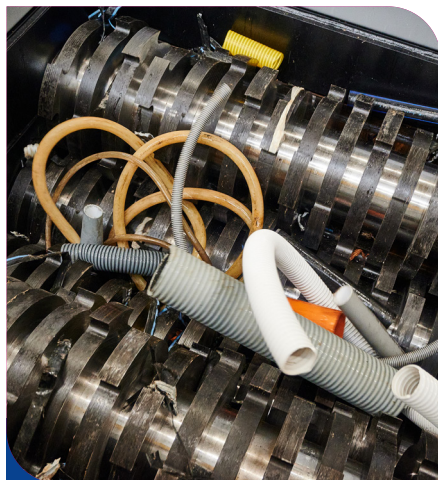
Model	Cutting chamber dimensions (MM.)	Power up to
TB500 (H)	410 × 500	5,5 kW
TB700 (H)	660 × 710	30 kW
TB1000 (H)	660 × 1020	30 kW
TB1300 (H/E)	960 × 1260	75 kW
TB1500 (H/E)	1100 × 1460	150 kW
TB1800 (H/E)	1100 × 1760	150 kW
TB2000 (H/E)	1300 × 1960	180 kW
TBS500 (E)	620 × 490	15 kW
TBS600 (E)	620 × 590	15 kW
TBS800 (H/E)	850 × 750	37 kW
TBS1000 (H/E)	850 × 1000	37 kW
TBS1300 (H/E)	850 × 1250	37 kW
TBS1800 (E)	970 × 1825	264 kW



Four-shaft shredders



Ideal for applications requiring controlled output size, even when processing light metals and bulky materials.



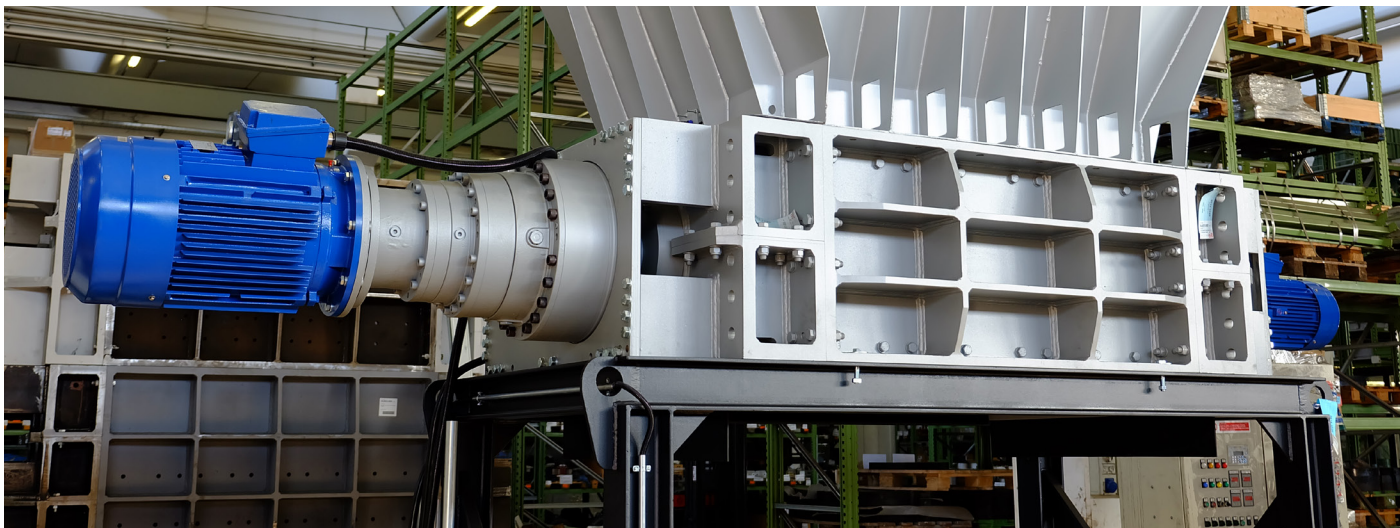
Special steel blades guarantee long service life and reduced maintenance requirements. Interchangeable shafts and a dedicated sizing screen ensure precise output control.



High torque and low speed maximize power, reliability, and reduced energy consumption.

Model	Cutting chamber dimensions (MM.)	Power up to
TQ1000 (E)	865 × 1000	74 kW
TQ1300 (H/E)	1260 × 1320	134 kW
TQ1800 (H/E)	1700 × 1760	260 kW
TQB1800 (H)	1720 × 1640	370 kW

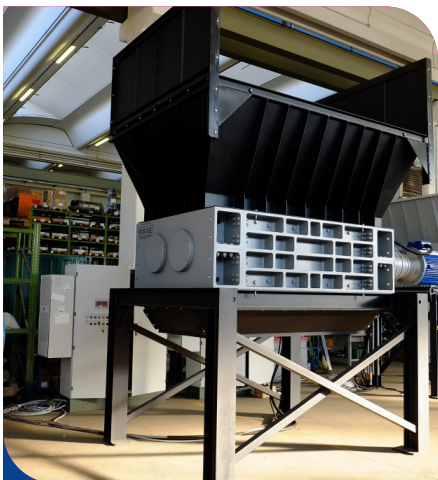
Bag openers



Twin-shaft shredders designed for processing heterogeneous waste, ideal for opening bags and releasing their contents.



Special blades open bags without cutting the material inside, facilitating subsequent manual or automated sorting processes.



Independent motors and gearboxes drive shafts at variable speeds, using high torque, low speeds, and fully customizable wear-resistant blades to optimize performance.

Model	Cutting chamber dimensions (MM.)	Power up to
LS1000 (E)	960 × 1260	45 kW
LS1500 (E)	1100 × 1460	52 kW
LS1800 (E)	1100 × 1760	77 kW
LS2000 (E)	1300 × 1960	77 kW

LC

Opener shears



Twin-shaft shredders designed to process high material flows. They are primarily used in WEEE treatment and the opening of baled materials.



A special blade configuration opens the material without cutting it, facilitating subsequent manual or automated sorting operations.

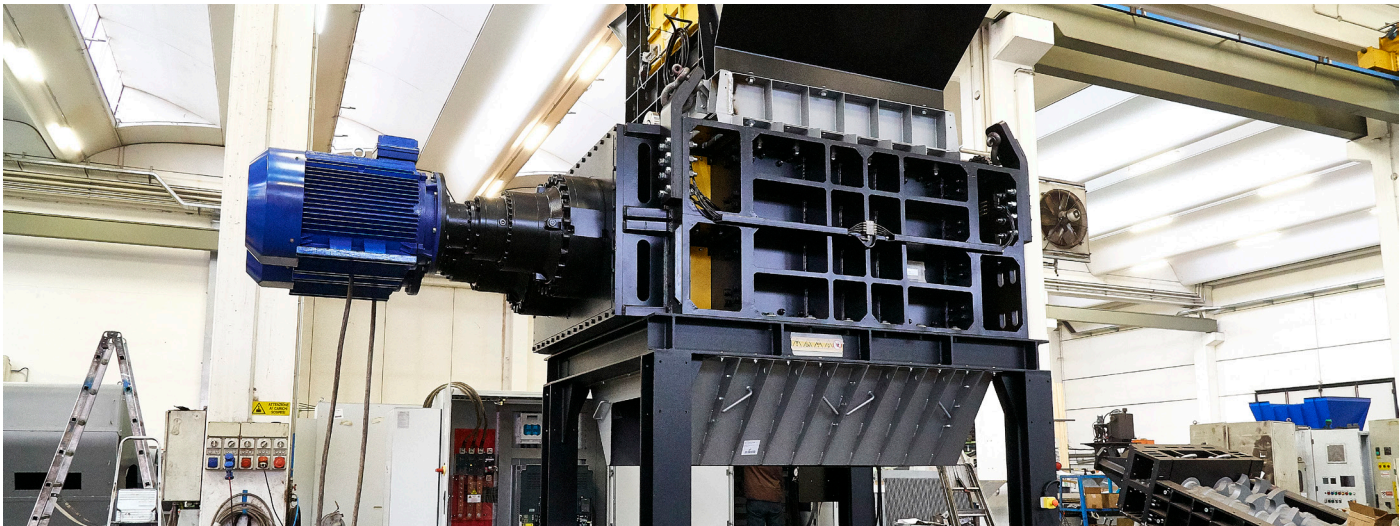


Each shaft is independently driven and operates at a different rotation speed. High torque, low speed, and rebuildable wear-resistant blades ensure reliable performance.

Model	Cutting chamber dimensions (MM.)	Power up to
LC1300 (E)	960 × 1260	45 kW
LC1500 (E)	1100 × 1460	52 kW
LC1800 (E)	1100 × 1760	77 kW
LC2000 (E)	1300 × 1960	77 kW

TX

Tire shredders



The TX series recycles end-of-life tires with high throughput and clean cuts, producing a calibrated 50 × 80 mm output size, typically alongside screening systems.



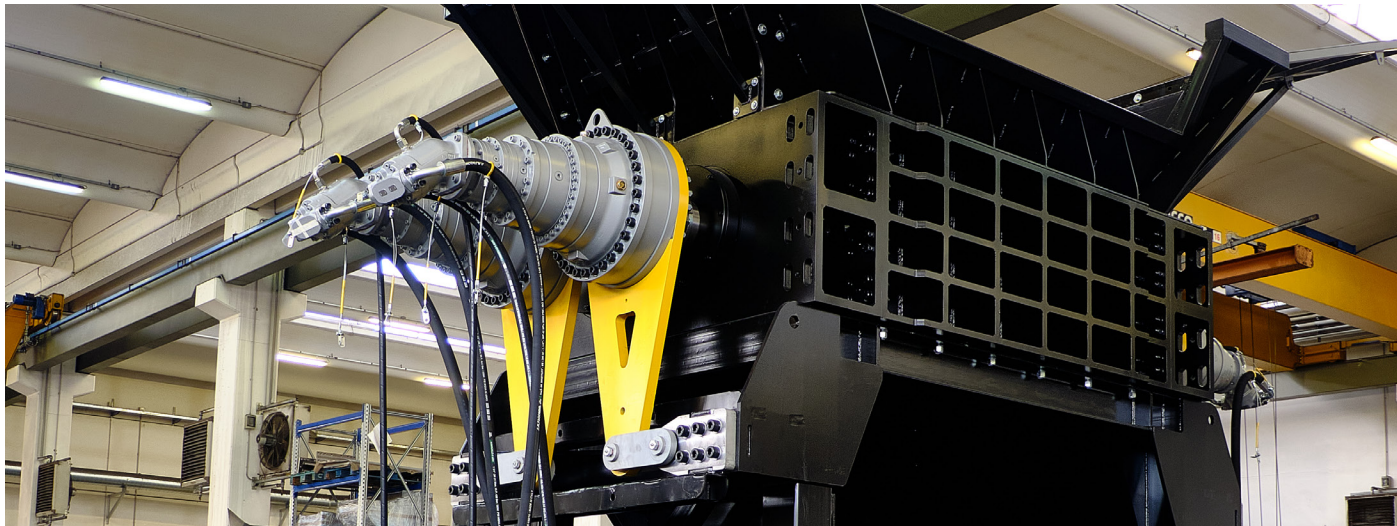
Blades are interchangeable and mechanically locked to ensure optimal cutting quality. Two feeding shafts in the hopper facilitate material intake.



High torque and low rotational speed maximize power, reliability, and energy efficiency. Each shaft is independently driven.

Model	Cutting chamber dimensions (MM.)	Power up to
TX1600 (E)	1500 × 1600	264 kW

Rotary shears



Four-shaft shredders with four motors, designed for the volume reduction of ferrous and non-ferrous scrap, including baled materials, as well as large-size tires.



High torque and low-speed operation enable the processing of the most challenging materials. Special steel blades ensure long service life and high operating standards.



The patented interlocking replaceable sector blade system allows individual blade segments to be replaced, reducing maintenance time and costs.

Model	Cutting chamber dimensions (MM.)	Power up to
FX5000 (H)	1500 × 2000	4 × 90 kW
FX8000 (H/E)	1850 × 2300	4 × 110 kW
FX8000S (H)	1850 × 2300	4 × 200 kW

Multi-crushers



Primary shredders for municipal, bulky, and industrial waste, whether loose or baled. Dedicated software independently controls shaft rotation to maximize versatility and productivity.



In the FR series, the counter knife facilitates cutting and defines output size. It is easily replaceable and available in different configurations.

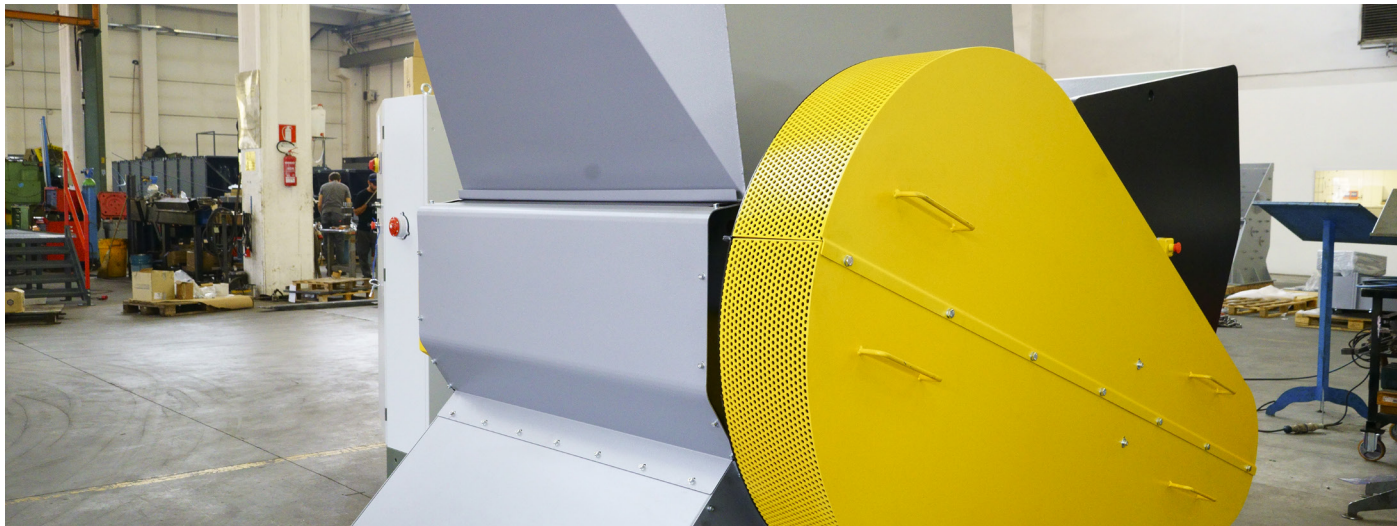


Wear-resistant cutting shafts can be rebuilt and configured according to the application.

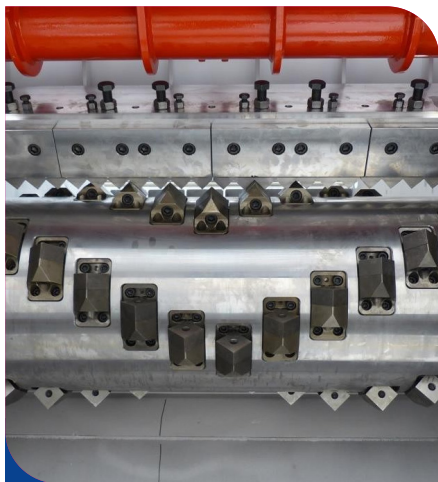
Model	Cutting chamber dimensions (MM.)	Power up to
FR1000 (H)	964 × 1000	30 kW
FR1300 (H)	964 × 1260	45 kW
FR1800 (H)	1045 × 1690	160 kW
FR2000 (H)	1245 × 1890	250 kW
FR5000 (H)	1100 × 2500	160 kW
FRS5000 (H)	1695 × 2500	315 kW

AE - EK

Compact grinders



The AE and EK series are ideal for processing lightweight materials such as plastics and wood, as well as applications requiring a homogeneous and fine output size.



The interchangeable blade system reduces maintenance time and machine downtime. Screens are also easily replaceable.

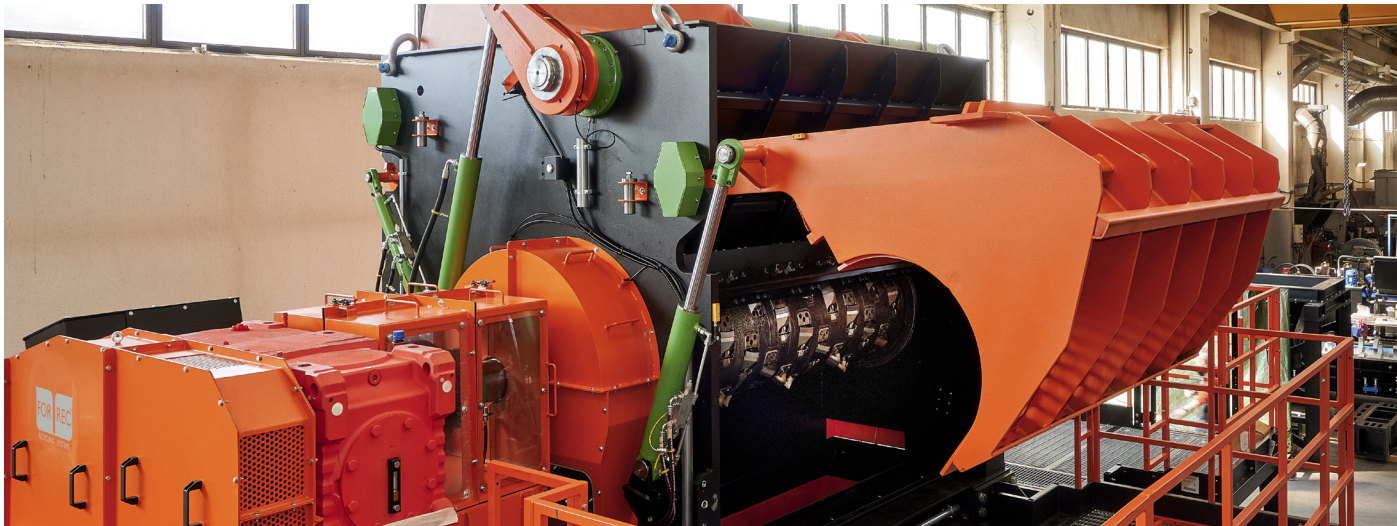


All AE and EK models are electrically driven, ensuring excellent productivity, low energy consumption, and reduced operating costs.

Model	Rotor dimensions (MM.)	Power up to
AE600 (E)	215 × 625	15 kW
AE600R (E)	215 × 625	30 kW
AE1200R (E)	350 × 1225	75 kW
SR1000 (E)	300 × 1000	22 kW
SR1500 (E)	300 × 1500	37 kW
EK1300 (E)	450 × 1250	75 kW
EK1900 (E)	450 × 1900	160 kW

XM

Heavy-duty grinders



The XM series ensures high productivity in the processing of industrial waste and residues, making it ideal for plastics, wood, paper, cardboard, and MSW.



The interchangeable blade system minimizes maintenance time and downtime. Screens are easily replaceable.

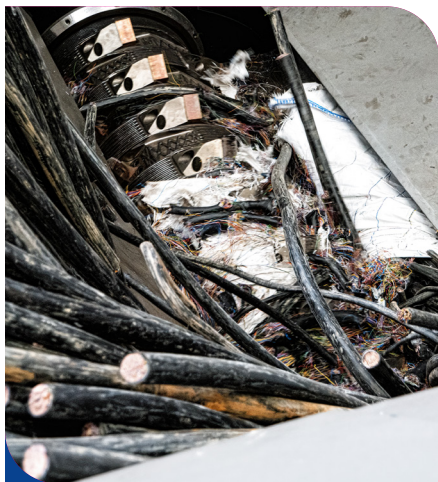


The electric XM series delivers high productivity with low energy and operating costs, featuring a robust build for reliable, continuous heavy-duty operation.

Model	Rotor dimensions (MM.)	Power up to
X2000M (E)	800 × 2000	250 kW
X2400M (E)	800 × 2400	320 kW
X3200M (E)	800 × 3200	500 kW

XH – XHW

Single-shaft shredders (Hydro)



These primary shredders come in two versions: the XH series for processing metals and the XHW series for reducing bulky, municipal, and industrial waste.



Replaceable and configurable wear plates are supported by a shock-absorbing bearing system, reducing breakage and enabling faster maintenance operations. Screens are also easy to replace.

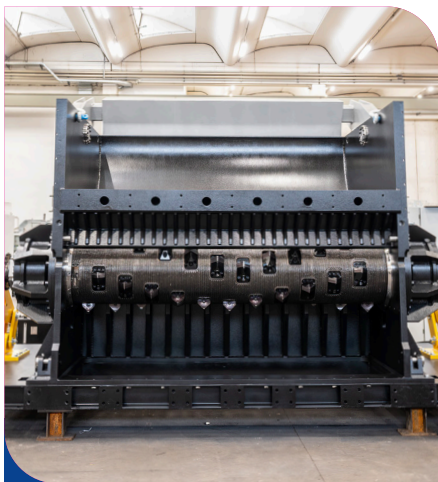


Low-speed hydraulic drive, combined with automatic and programmable reverse operation and a heavy-duty structure, makes this series powerful and versatile.

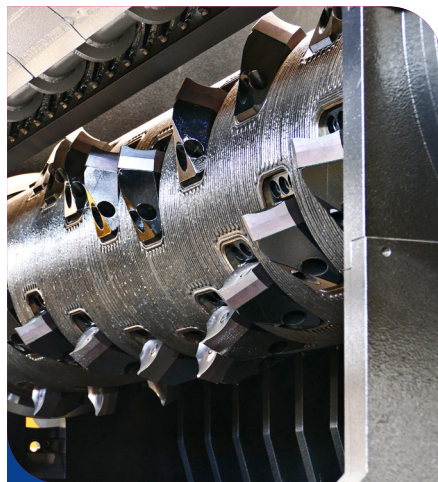
Model	Rotor dimensions (MM.)	Power up to
X2000H (H)	600 × 2000	320 kW
X3000H (H)	600 × 3000	400 kW
X2000HW (H)	600 × 2000	220 kW
X3000HW (H)	600 × 3000	320 kW

XTW

Single-shaft shredders (Syncro)



The XTW series is designed for calibrated volume reduction of virtually any type of solid waste. It stands out for its versatility and high productivity.



Heavy-duty replaceable wear plates ensure reliability and faster maintenance procedures. Screens are also easily replaceable.



The Torque drive system provides high torque at different rotational speeds. Quiet, responsive, and powerful, it represents the highest performance level within the FOR REC single-shaft shredder range.

Model	Rotor dimensions (MM.)	Power up to
X3000TW (Torque)	700 × 3000	420 kW

XRF

Refiners



The XRF series is designed for refining pre-treated solid waste, producing up to 15 t/h of homogeneous material with a particle size below 30 mm.



The interchangeable blade system ensures high cutting capacity while allowing quick maintenance and replacement operations. Screens can also be replaced rapidly.

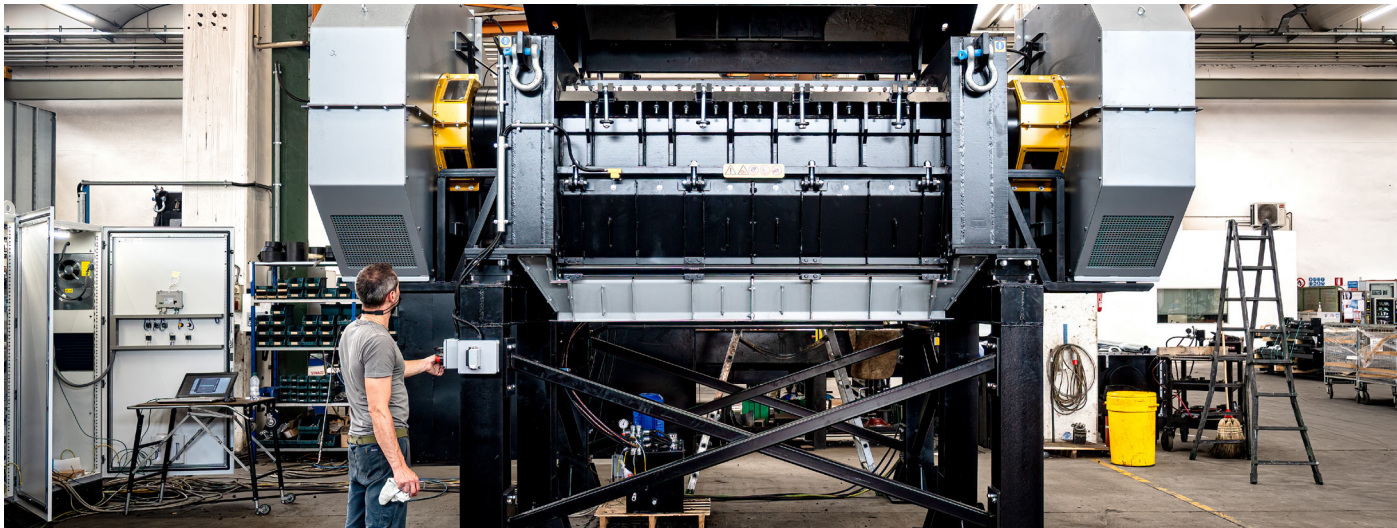


The enlarged rotor increases the grinding surface and processing capacity. Electric drive and a high-speed transmission system ensure excellent productivity performances.

Model	Rotor dimensions (MM.)	Power up to
X2000RF (E)	800 × 2000	250 kW
X2400RF (E)	800 × 2400	320 kW
X3200RF (E)	800 × 3200	500 kW

MR

Special grinders



The MR series is designed to process high-density materials, particularly tires and electrical cables, achieving output sizes below 25 mm.



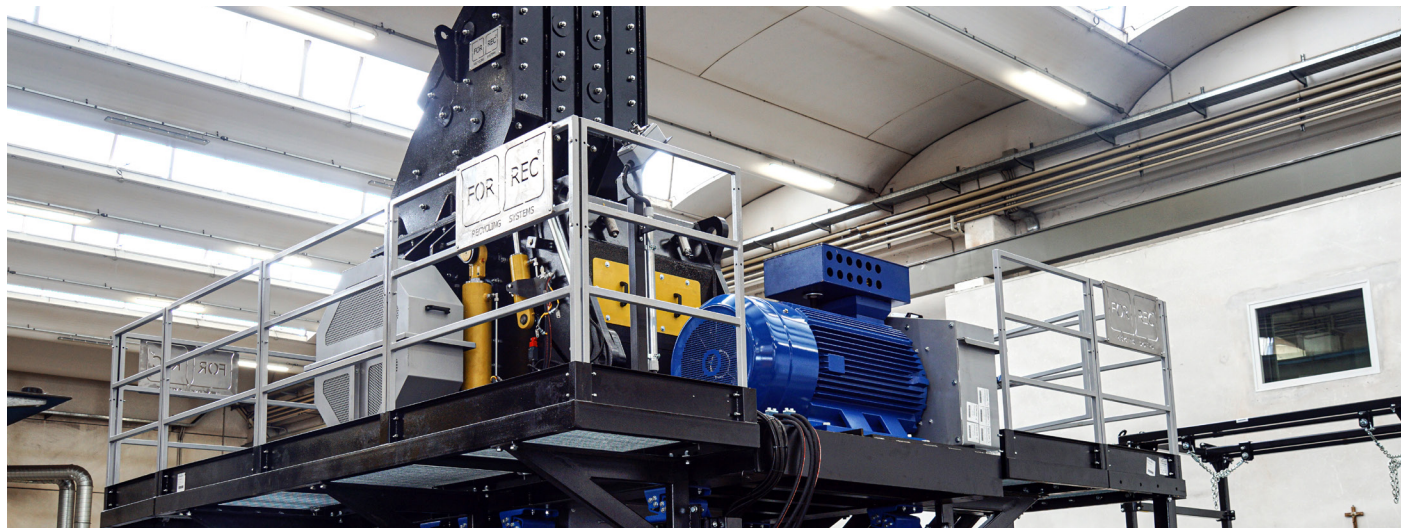
The interchangeable blade system minimizes maintenance time and downtime. Screens are also easily replaceable.



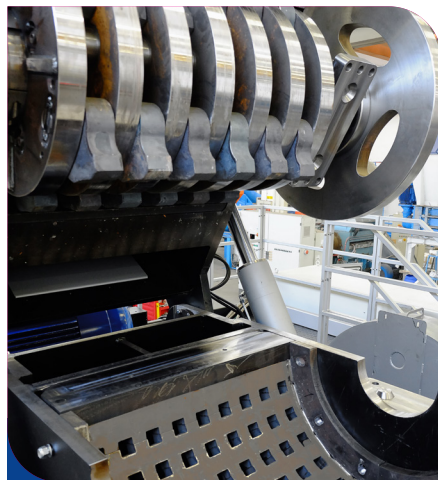
The electric MR series delivers high throughput with low energy and running costs, featuring a heavy-duty frame and vibration control for reliable, continuous heavy-duty operation.

Model	Rotor dimensions (MM.)	Power up to
MR1500 (E)	600 × 1500	200 kW
MR2000 (E)	600 × 2000	264 kW

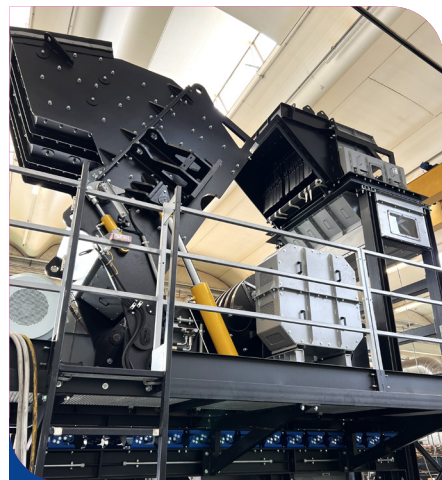
Hammer mills



The Z series handles electric motors and metal scrap, offering high versatility for both primary reduction and refining through customizable screens and speeds.



Customizable hammer options lower operating costs while boosting productivity, supported by a heavy-duty structure and vibration control for reliable, continuous operation.



Hydraulic opening of the grinding chamber and rotor lifting simplify maintenance procedures. The foreign object discharge door protects the machine structure and preserves long-term reliability.

Model	Rotor dimensions (MM.)	Power up to
Z14-700 (E)	600 × 712	132 kW
Z15-1000 (E)	900 × 1018	250 kW
Z16-1500 (E)	1100 × 1495	450 kW

Granulators



These blade granulators produce precise particle sizes from plastics, cables, and rubber, acting as key finishing units in advanced recycling systems.



The interchangeable blade system of the FM series provides high cutting capacity while reducing maintenance and replacement times. Screens are also easily interchangeable.



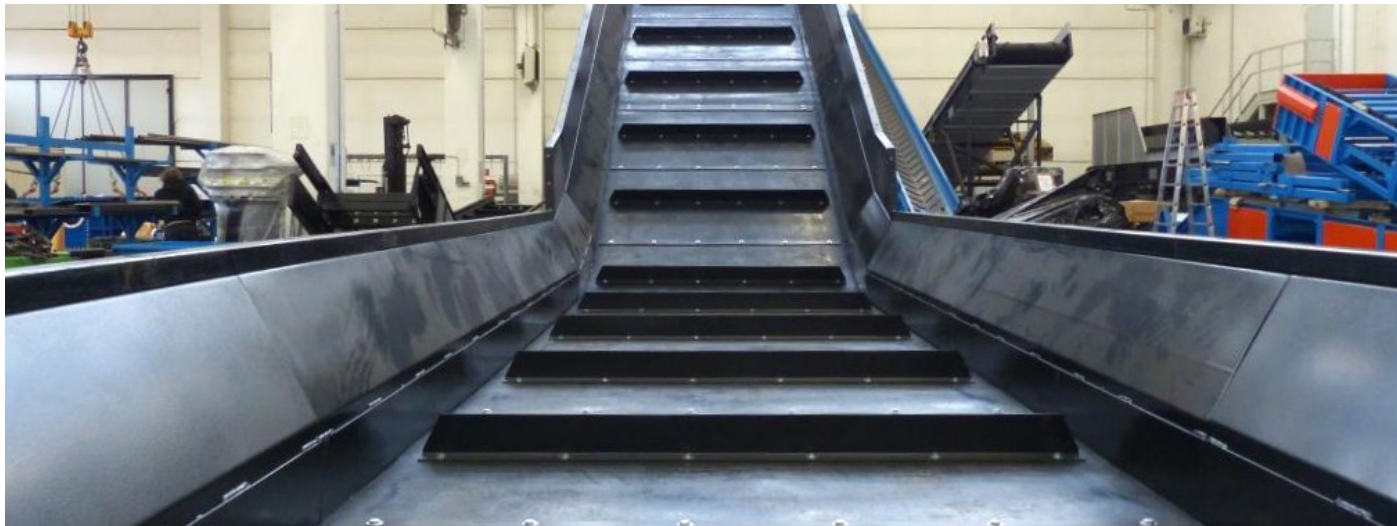
Electric drive and high-speed transmission systems ensure outstanding productivity and consistent performance.

Model	Rotor dimensions (MM.)	Power up to
FMS100-70 (E)	700 × 1000	90 kW
FMS150-70 (E)	700 × 1500	110 kW
FMS200-70 (E)	700 × 2000	200 kW

Customized complete installations

NG - NTM - NTMG - NTMS - SC

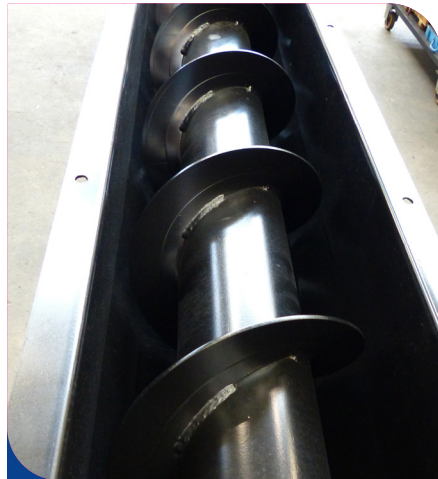
Conveying systems



Metal apron conveyors, also available with rubber-covered plates and reinforced sidewalls, are designed to transport materials throughout the processing line.



Rubber or PVC belt conveyors can be equipped with cleats, anti-drift guides, and containment sidewalls to ensure controlled material handling.



Heavy-duty screw conveyors are ideal for transporting lightweight materials in small fractions from the grinder to subsequent processing stages or directly into big bags.

Model	Features
NG	Rubber belt conveyor
NTM	Apron conveyor with metal slats
NTMG	Belt conveyor with metal slats and rubber cover
NTMS	Apron conveyor with overlapping slats
SC	Screw conveyor

Case history

Municipal and industrial solid waste



RDF production plant



Primary multi-crusher
FR2000

End-of-Life tires



Chip production plant
(20 × 20 mm)



Tyre shred production
plant (50 × 80 mm)



Granule production
plant (< 4 mm)

Electronic waste



Household WEEE R4
treatment plant



Double shaft shredder
TB2000H

Refrigerators



R1 treatment plant
(120 units/hour)



R1 treatment plant
(60 units/hour)

Boilers



Boiler treatment plant



Boiler treatment plant



R1 treatment plant
(90 units/hour)



R1 treatment plant
(90 units/hour)

Plastic



Rigid plastic grinding plant



Bulky plastic grinding plant

Aluminum



Aluminum Scrap Treatment Plant



Automatic Grinding and Separation Plant

Electric motors



Automatic shredding and separation plant



Hammer Mill
Z15



Single-Shaft Shredder (Hydro)
X2000H



Single-Shaft Shredder (Hydro)
X3000H

Electrical cables



Compact Grinder
AE1200



Automatic grinding and separation plant

Photovoltaic Panels



Automatic grinding and separation plant



Automatic grinding and separation plant



Automatic grinding and separation plant



Automatic grinding and separation plant



Opener Shear
LC1500



Automatic grinding and separation plant

Metal Scrap



Proler production plant



Rotary Shear
FX5000



Rotary Shear
FX5000



Rotary Shear
FX5000



FOR REC S.p.A.

Viale dell'Artigianato, 24
35010 Santa Giustina in Colle
Padova, Italy

T +39 049 0990015
F +39 0490990490
forrec.eu