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ARJES
Recycling Innovation

RECYCLING

THE ORIGINAL
ARJES GmbH
SINCE 2007

STARTS WITH ARJES

Two decades of reliable recycling technology and long-term partnerships

CONTENT

Recycling.
The 7th Resource

Our planet faces a growing challenge. With over 8 billion people, enormous amounts of waste are generated every year. Strong consumer behavior, inefficient resource use and inadequate waste management exacerbate the situation, burdening our environment, climate and living conditions worldwide.

The future begins in the cycle

Essential raw materials such as water, air, oil, gas, coal, and minerals are limited. Recycling is therefore becoming increasingly important. It returns valuable materials to the cycle, reduces emissions and conserves resources. As the so-called “Seventh Resource,” it makes a decisive contribution to a sustainable future – a future that we at ARJES actively help shape.

ARJES GmbH

Our Company

At ARJES, we address the challenges of growing volumes of waste with technical expertise and well-designed processing concepts. Our machines stand for mobility, flexibility and a wide range of applications. Developed to efficiently shred, classify and recover valuable resources from a wide variety of waste materials.

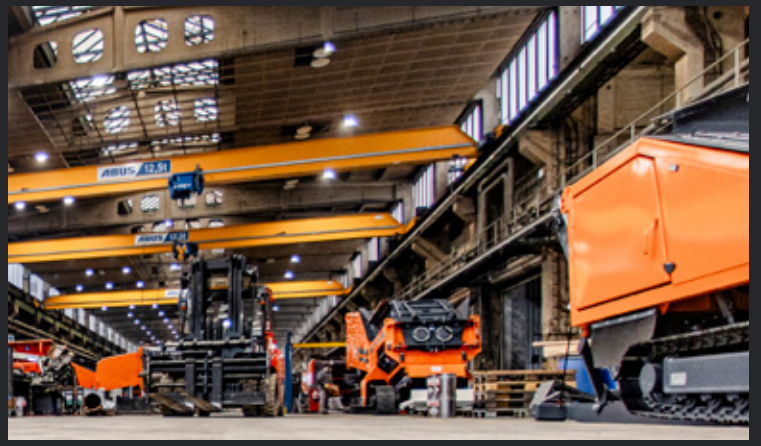
Our outstanding price-performance ratio makes ARJES GmbH one of the most sought-after manufacturers worldwide. Driven by the innovative strength of our employees and strong system partners within the **RBG Group**, we develop solutions that optimize recycling processes and actively advance sustainable resource management.

Powerful technology from Thuringia. The original since 2007

Since our founding in 2007, ARJES GmbH has been synonymous with innovative recycling technology, reliable machinery and practical processing solutions. As the **original ARJES brand** – protected by the registration of the brand at the German Patent and Trade Mark Office – we have been developing technologies for two decades that are used by recycling companies, waste management firms and processing plants worldwide. Customers and sales partners all over the world place their trust in our experience, our products and our service.

Our machines are now manufactured in the Krayenberggemeinde in Thuringia, where we have been manufacturing since 2023 and are continuously expanding our site. The district of Merkers forms the heart of ARJES GmbH as the central production and company headquarters.

„We are specialized in the **development and manufacturing** of powerful **recycling machines**"



What we stand for

Competitively superior range of applications

Best price-performance ratio in the recycling industry

Global network of exclusive sales and service partners

Sales & Service Partner

INTERNATIONAL WELL-ESTABLISHED

ARJES GmbH stands for innovative recycling technologies and robust two-shaft shredders.

However, our success is based not only on the quality and performance of our products, but also on a strong network of qualified sales and service partners. By choosing the ARJES brand, you gain access to international experts who provide you with the best local advice and support.

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Expert Global Consulting

Our contract partners represent the ARJES brand in your region

From Europe to South Africa, from North America to Australia – ARJES is represented in nearly 100 countries with a broad sales and service network. Our partners are trained experts who will help you on site to find the ideal shredder for your recycling challenges.

Find a dealer

Your Benefits from our Dealer Network

- **Close to our customers**
- **Expertise**
- **Fast response times**
- **Flexibility**


Challenges
TURNING WASTE INTO VALUE
OUR SOLUTIONS
YOUR CHALLENGES

Commercial Waste Recycling

Shredding of industrial and commercial waste

Commercial waste includes a wide range of materials, including paper, plastics, wood waste, metals and packaging materials. However, this extreme variety poses major challenges for recycling plants. All of this waste is generated by companies across a wide range of industries and requires professional processing to recover valuable raw materials and reduce landfill volume.

Our shredders have proven themselves many times in practice for efficiently shredding commercial waste and ensuring subsequent separation of the waste streams.

Material recovery

Recovery of recyclable materials for the manufacture of new products

Thermal recovery

Incineration of non-recyclable waste for the generation of heat or electricity

Facts about commercial waste recycling

In Germany, millions of tonnes of commercial waste are generated every year. Many materials, such as plastics, metals and paper, can be recycled. Every tonne of recycled plastic saves one tonne of CO_2 compared with petroleum-based plastic. Non-recyclable waste is used as a substitute fuel, thereby saving fossil fuel.

Our machines in action

Tire Recycling

Shredding rubber and waste tires

Around 70–80% of the world's waste tires are processed and largely recycled today. Discarded car tires often come from workshops, car dealerships, or collection points and must be disposed in an environmentally friendly manner. They usually consist of synthetic rubber, textile cord inserts, steel wires and other materials that are sorted and processed in specialized recycling plants.

By recycling rubber waste, we not only contribute to the conservation of natural resources but also to the reduction of environmental pollution and the promotion of a circular economy.

Facts about tire recycling

In the EU, end-of-life tires are primarily recycled as raw materials. Whilst thermal recovery has declined steadily in recent years, the proportion of materials being recycled has risen continuously. Recycled rubber is versatile, durable and a successful example of a well-functioning circular economy.

Material recovery

Processing into granulates for the production of new tires, rubber products, sports and playground surfaces.

Thermal recovery

Incineration in specialized plants for the generation of heat or electricity.

Our machines in action

Scrap Metal Recycling

Shredding of automotive and light scrap

The professional disposal and processing of scrap metal and metal waste are of great importance for the steel industry and metalworking companies. Recycling old metal not only saves valuable resources but also significant amounts of energy. Stainless steel and aluminum account for the largest share of recycled metal. However, materials such as copper, brass, zinc, and even electronic scrap, which usually needs to be disposed of and processed separately, are also included in this waste stream.

Material recovery

Production of new castings for the automotive, aerospace, construction and electronics industries

Thermal recovery

Incineration of non-metallic components for energy recovery

Facts about metal recycling

In Germany, around 20 million tonnes of scrap metal are recycled annually. Recycling reduces energy consumption in the manufacture of new products by up to 50 %. Many metals can be recycled almost indefinitely, which is why automotive and light scrap are among the most important recyclable materials in our circular economy.

CFRP/GFRP Recycling

Shredding of fiber-reinforced plastics

With the increasing use of CFRP (carbon fiber reinforced plastics) and GFRP (glass fiber reinforced plastics) in various industries – from aerospace, vehicle and ship building to wind turbines – the volume of CFRP/GFRP waste has been rising steadily for several years. Due to their special material properties and the complex composition of the composite materials, the proper and harmless recovery of these waste streams is becoming increasingly important.

Our powerful two-shaft shredders are capable of effectively dismantling these particularly demanding waste materials. Ever shredded a 10-meter-long rotor blade in one piece? With ARJES machines, almost anything is possible.

Material recovery

Recovery of recyclable materials for the manufacture of new products

Thermal recovery

Use as an alternative fuel in the cement industry

Facts about the recycling of fiber-reinforced plastics

The disposal of CFRP/GFRP waste in landfill is ruled out due to its long-term stability and the associated potential environmental risks. Although research into effective recycling methods is still at the beginning, it holds great potential for conserving natural resources and promoting the circular economy.

Our machines in action

Wood Recycling

Shredding of biomass and waste wood

Wood, a renewable raw material, is considered a climate-neutral energy source. To effectively utilize the potential of this resource, the professional processing of biomass and waste wood is essential. Wood waste often originates from gardens, parks, construction sites and other sources and must be recycled.

Through the professional processing and recycling of biomass and waste wood, we make a significant contribution to environmental protection and the sustainable use of wood as a resource. Our shredding and sorting technologies enable efficient and environmentally friendly processing of wood waste, thereby recycling valuable materials and strengthening the circular economy.

Material recovery

Production of chipboard, pallets and more

Composting

Shredding green waste and roots into biomass in composting plants

Thermal recovery

Wood is shredded and used as fuel for energy generation

Facts about the recycling of waste wood

The disposal options for biomass and waste wood vary depending on the type and intended use. Whilst untreated wood can be recycled as a material, pre-treated wood waste can only be recovered thermally. Proper waste management is crucial to making sensible use of these valuable resources and minimising environmental impact.

Our machines in action

Paper Recycling

Shredding of paper, cardboard and packaging

Traditionally, paper is not only the oldest recycled product, but still a key component of today's modern circular economy. With a recycling rate of around 80%, the reuse of waste paper makes a decisive contribution to conserving resources and minimizing environmental impact. Paper fibers can be recycled five to six times before they lose quality.

The waste paper recycling process comprises several steps: from sorting, screening, shredding and pressing through to bleaching, drying and smoothing the finished paper product. To efficiently recycle waste paper such as newspapers, brochures, books, stationery, paper packaging, etc., our shredding machines are the ideal solution.

Material recovery

Production of new paper products such as newspapers, packaging, stationery and much more

Thermal recovery

Refuse-derived fuel in cement plants reduces the use of fossil fuels

Our machines in action

Facts about recycling of paper waste

In Germany, waste paper is one of the most commonly recycled materials. Whilst the manufacture of new paper requires lots of wood, energy and water, the production of recycled paper uses only around 50 % of the energy and 33 % of the water and can be used almost anywhere.

Construction Waste Recycling

Crushing of demolition waste

During construction as well as the demolition of buildings, roads and other structures, large quantities of mineral waste and various mixed construction waste streams are generated. The proper processing of construction and demolition waste not only reduces waste volume but also promotes resource conservation and supports the circular economy in the construction sector. Due to their material properties, mineral construction waste can often be recycled or reused, making it a valuable resource.

By using magnetic separators, ferrous components are removed after pre-shredding, significantly simplifying further processing.

Material recovery

Reuse gravel, paving stones, concrete aggregates or filling material

Facts about recycling of construction waste

The construction industry is one of the most resource-intensive sectors in the world. Up to 90 % of construction and demolition waste is now processed to recover secondary raw materials. Our shredders form the basis for these recycled construction materials, which are used in road construction, earthworks or landfill applications

Our machines in action

Technology

SLOW-SPEED TWO-SHAFT SHREDDING

Our shredding shafts form the basis for all areas of pre-shredding applications. They are made of highly wear-resistant steel with excellent surface hardening and are as versatile as the requirements of the industry demand. In the event of wear, the ARJES quick-change system ensures an easy replacement of the pair of shafts.

The different arrangement of the shaft discs and blades on the shaft body is decisive for the respective areas of application. Each shredding shaft consists of the following three main components:

Shaft body

The base body of each shaft is made of solid material in the COMPAKTOR and EKOMAXX product classes and of tubular material in the TITAN product class.

Shaft discs

The shape and arrangement of the discs play a key role in determining which material can be shredded.

Shaft blades

Worn blades can be refurbished easily and cost-effectively in the event of wear.

FOUR EASY STEPS FOUR EASY STEPS FOUR EASY STEPS FOUR EASY STEPS FOUR EASY STEPS FOUR EASY STEPS FOUR EASY STEPS

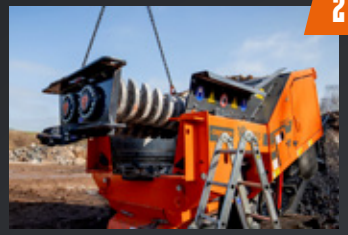
ARJES Shaft Quick-Change System

Standard equipment in all ARJES shredders

1

Loosen the screw connections

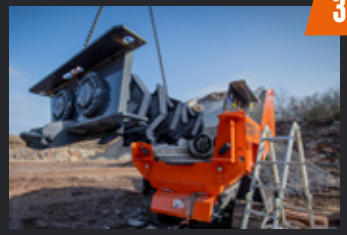
of the hopper rear wall and attach the chain suspension for disassembly..



2

Loosen the main bolts

on the cassette and attach the chain suspension both there and at the opposite end of the shafts for lifting out.



3

Install new or refurbished pair of shafts

by inserting the T-shaped tool in the cloverleaf shaped coupling of the shredding unit.

4

Position the cassette and hopper rear wall

as before and screw back in all loosened bolts and screw connections.

Watch the video tutorial

Corporate Values

ENGINEERING WITH ATTITUDE

Our mountains of waste are growing, worldwide and every day.

We design and manufacture machines that turn this waste back into valuable raw materials. Our recycling machines process a wide range of materials: from biomass to construction and commercial waste, right through to scrap and metals. In this way, waste is transformed into a valuable resource for modern recycling, which conserves resources and operates on a sustainable, circular basis.

As market leaders in the field of slow-speed two-shaft shredders, we combine innovative recycling technology with excellent price-performance ratios. At the same time, we offer secure jobs and genuine development opportunities for our staff. Because at ARJES, it's not just high-performance machines that count, it's more alle the dedicated people behind them.

Our Approach
Our Commitment

Whether in our production, administration, sales, service or logistics departments:

Our growth is based on the innovative spirit, commitment and sense of responsibility of each and every one of us. Together, we develop sustainable solutions that make a real difference.

Appreciation
We ensure that we show appreciation and tolerance towards our staff, customers and partners.

Innovation
We aim for continuous improvement and are open to innovation

Trust
We rely on trust as the foundation for successful collaboration and long-term relationships.

Responsibility
We take social and environmental responsibility for our behaviour and our environment.

ARJES
Recycling Innovation

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MEMBER OF RBG
Recycling Beyond Generations

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