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**ARJES**

Recycling Innovation

**RECYCLING  
STARTS WITH *ARJES***

[www.arjes.de](http://www.arjes.de)

# OUR EARTH *A HUGE WASTE PLANET*



## WHAT A WASTE!

There is a lot to discover in the boundless vastness of our earth – unfortunately, this includes a lot of waste. One of the decisive factors is the dynamic growth of population. More than eight billion people burden the earth permanently with gigantic piles of rubbish.

Additionally, unrestrained consuming behaviour of industrialized countries, mismanagement while handling existing resources as well as unprofessional waste management and illegal waste dumping in certain parts of the world result in serious consequences.

About 2 billion tonnes of domestic waste and further hardly measurable industrial and other types of waste are produced every year, which results in serious pollution of water, earth and air. Consequences are more violent natural disasters in combination with disease, poverty, and famine.



## WE ARE THE RE-GENERATION!

Of all natural resources of the earth, six are the most important: water, air, oil, gas, coal, and minerals. They form the basis of our existence – but they are not available endlessly. Within the last 50 years, humans consumed more resources than in their entire prehistory. We recklessly waste earth's natural resources, while every year, billions of tonnes of waste are dumped on landfills.

Maybe we cannot turn back time, but we can make a difference here and now. We belong to the generation that can make peace with nature. Despite all this great wastefulness, we should focus on the possibilities that result from that. Recycling is an essential part of our circular economy and contributes to preserving natural resources.

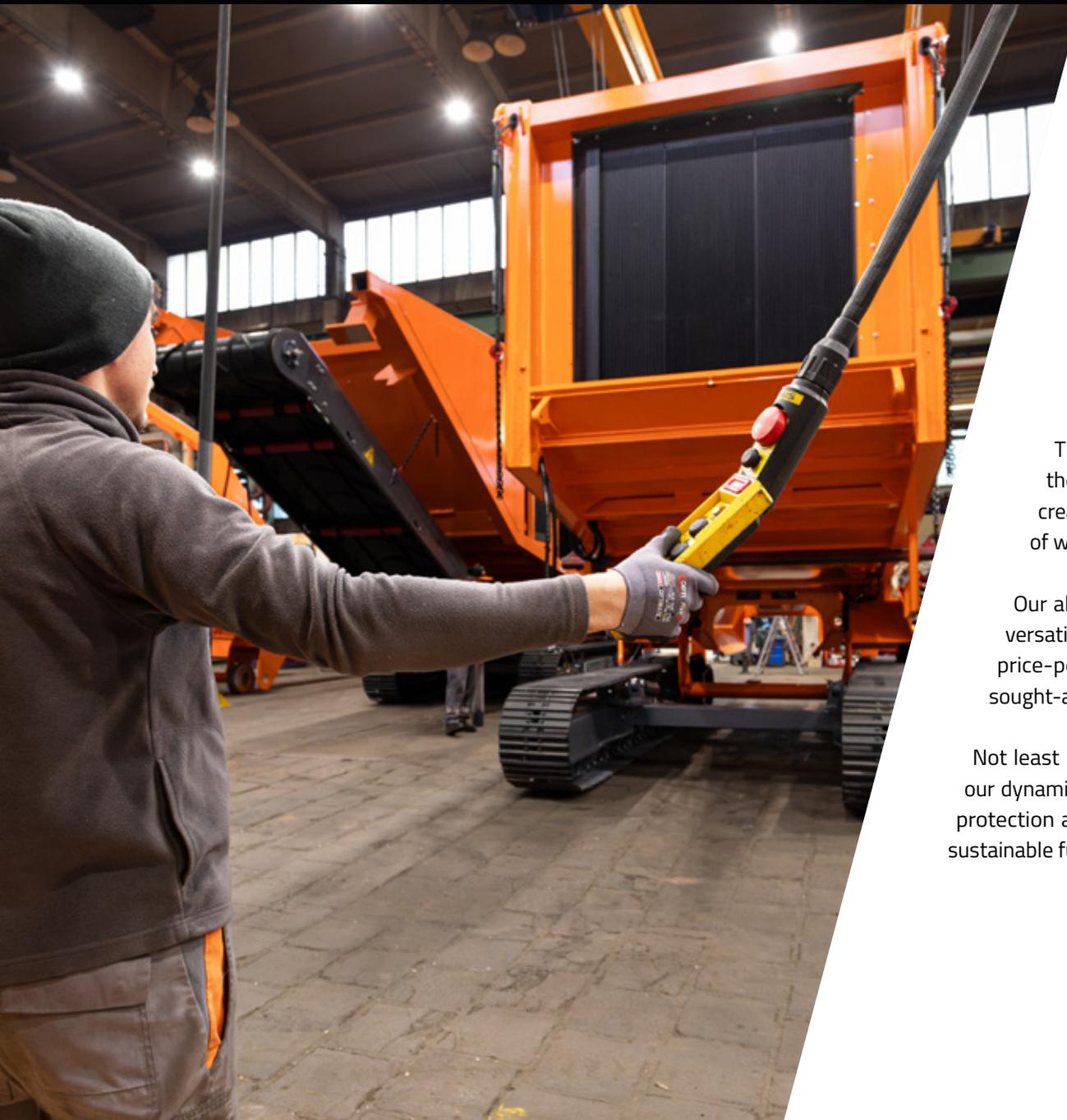
Every year, the so-called "seventh resource" saves more than 700 tons of carbon dioxide emissions and covers approx. 40 % of the worldwide demand for raw materials. According to prognoses, this amount will increase up to 1 billion tonnes until 2030. Moreover, the recycling industry provides a future-proof workplace to approx. 1.6 million people all around the world - with a rising trend.\*

\*Source: Study of the Bureau of International Recycling



*"Our solution  
is recycling –  
the seventh resource"*

# **OUR VISION** SUSTAINABLE SOLUTIONS FOR A CLEAN ENVIRONMENT



## **RECYCLING STARTS WITH A(RJES)**

The amount of waste existing on our planet is huge. We from ARJES address the challenges of growing piles of rubbish with our technical know-how and create innovative concepts for the processing of several materials in the spirit of waste treatment.

Our ability to solve problems, the mobility and flexibility of our machines, the versatile range of applications our shredders stand for, as well as a convincing price-performance ratio are plus points that make ARJES to one of the most sought-after manufacturers of reliable recycling machines.

Not least because of the innovative power of each single employee, the basis of our dynamic growth is formed. We are proud to be part of the global environmental protection and sustainability movement. Together, we create a cleaner and more sustainable future for coming generations.



## WHAT WE STAND FOR

- > *Superior-competitive range of applications*
- > *Best price-performance ratio of the recycling industry*
- > *Worldwide distribution and service network*

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

# OUR COMPANY STRONGLY POSITIONED ALL OVER THE WORLD

The name ARJES originates from the Latin word for "aries". It is a symbol of dynamic, energy, upswing, and power.

We are specialized in the development and manufacturing of high-performance recycling machines that are used to treat numerous types of waste. Since foundation in the year 2007, we stand for innovative product developments in the field of machine and plant engineering and a successful corporate strategy.

With taking over EuRec Environmental Technology GmbH inclusive all buildings and properties of the headquarters, since 2023 we manufacture and sell industrial shredding machines in Merkers, Thuringia.



## HEADQUARTERS



### ARJES GmbH

- Borntalstrasse 9
- 36460 Krayenberggemeinde
- Germany

## STEELWORK & PRE-ASSEMBLY

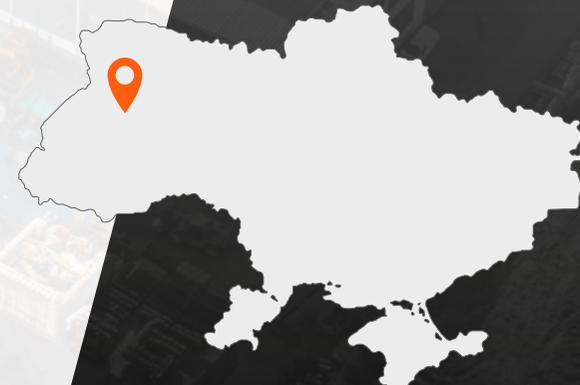
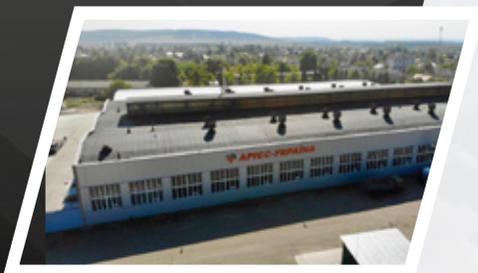


### ARJES Ukraine

- Shashkevycha St. 72
- 80530 Ogydiv
- Busk Region, Ukraine

### Stahlbau Ukraine

- Tekhnichna St. 3
- 80500 Busk
- Ukraine





**STAY INFORMED**

... latest news about us and our distribution partners



## Our partners

By help of a worldwide established distribution network, we provide shredders and recycling technology all around the globe. Our international distribution partners support you in case of questions regarding purchase, financing, transport, and service.

With our qualified and experienced specialist staff, we guarantee a conscientious execution of all services as well as availability at any time.

# **YOUR CHALLENGE** TURN WASTE INTO VALUED GOODS

## **Commercial waste**

Commercial waste covers a broad range of garbage coming from households, offices, shops, and other commercial facilities. That waste stream contains different types of material, e.g. organic components, packages, paper, plastics, glass, metals, and counting.

Even for the most demanding challenges like mattresses or fishing nets, our high-performance shredders provide the right solution to handle your problematic materials.

## **TREATMENT**

... to obtain secondary raw material

Reprocessing of recyclable materials

... to produce energy

Incineration of non-recyclable waste to produce heat or power



## **Good to know!**

The extreme variety of waste types constitutes great difficulties with regard to separation, disposal, and treatment. There are many countries throughout the world, where those issues are governed by laws and regulations. However, such regulations vary from country to country.

We take this challenge as motivation to put our two-shaft shredders even there into use, where others call it quits.



Scan the QR code to watch our shredders treating commercial waste



## Rubber and old tires

Rubber and tire waste is a specific waste flow coming from worn or no longer useable conveyor belts, hoses, car tires, etc. That kind of waste mainly arises from the abrasion of such rubber products.

Your challenge is to shred oversized tires from earth-moving or agricultural machines (EM / AS tires)? Our particularly powerful two-shaft shredders are ideally equipped to even handle exceptional applications like these.

## TREATMENT

... to recycle materials

Production of new tires, rubber products, sports field and playground surfaces

... for thermal utilization

Incineration in special plants for heat or power generation

## Good to know!

The proper disposal of rubber and tire waste is the most important part, as its size and material make it hard to decay. Improper disposal may lead to considerable environmental pollution.

In some countries, efforts have been made to set up programmes and institutions for the collection and recycling of old tires to promote their recycling and to reduce their negative environmental impacts.



Scan the QR code to watch our shredders treating rubber and old tires!



# **YOUR CHALLENGE** TURN WASTE INTO VALUED GOODS

## **Automotive and light scrap**

Automotive and light scrap means materials from non-recyclable cars, light metals and non-metallic scrap. That material stream contains components like aluminium, copper, brass, zinc, stainless steel, and electronic scrap. Compared with heavy metals like iron or steel, the car and light scrap material flow is of a lower density and mass.

From small cars to big SUV – our shredders downsized several types of cars so far.

## **TREATMENT**

... to produce secondary raw materials

In steel mills, foundries, for the production of new castings to be used in the automobile, aviation, construction and electronics industry



## **Good to know!**

Many types of scrap can be recycled an infinite number of times by make them available for scrap collection or bring them to recycling centres. The metals are melted and used for the generation of new products.

It is of great importance to dispose such waste properly in order to minimize our negative impacts on the environment and to make use of the recycling advantages.



Scan the QR code to watch our shredders treating automotive and light scrap!



## CFRP / GFRP waste

Carbon or glass fibre reinforced plastics consist of a combination of epoxy resins and embedded fibres (CFRP or GFRP). Because of their excellent strength and lightweight characteristics, such materials are often used for wind power stations, aircraft construction, shipbuilding, and the automobile industry. At the end of their lifespan, they have to be disposed and recycled carefully.

Have you ever shredded a 10 meters long rotor blade in one piece? With the machines of ARJES, almost everything is possible.

## TREATMENT

... for recycling of materials

Production of new composite materials in the automobile and aviation industry

... for energy production

Incineration in special plants to produce heat or power

## Good to know!

The correct disposal of CFRP and GFRP waste represents a demanding challenge. In some cases, it is thermally utilized in waste treatment plants. There are already measures to improve the recycling of CFRP and GFRP materials.

By conclusive disposal concepts, such types of waste can be shredded into industrially valuable granulate with subsequent use as secondary raw material.



Scan the QR code to watch our shredders treating CFRP and GFRP waste!



# **YOUR CHALLENGE** TURN WASTE INTO VALUED GOODS

## **Natural and waste wood**

Waste wood, green waste, and rootstocks are different types of biological waste, which originates from plant material. It is often collected from gardens, parks, construction sites and other sources. Such waste flows can be treated and recycled in different ways.

A particular challenge are palm or cultivated plants, which are interwoven with plastic mesh serving as growth support. Here again, the asynchronous drive system of our robust shredding shafts provide the right solution.



## **Good to know!**

The ways to dispose natural and waste wood are different in dependence on type and intended application. Some wood types can be recycled or reused otherwise, others are just to be utilized thermally.

However, there is one thing all disposal companies of the industry have in common: at first, they need a powerful shredder for volume reduction!

## **TREATMENT**

**... to produce secondary raw materials**

Production of chipboards, furniture, paper, and more

**... for thermal utilization**

Production of wood chips / wooden pellets as combustible for generation of energy

**... for composting**

Biomass to be processed in composting plants



Scan the QR code to watch our shredders treating natural and waste wood!



## Paper and cardboard

That type of waste stream is an important part of the recycling industry, as it belongs to the most widely used packaging and writing material. Paper fibres can be recycled repeatedly, and from a traditional point of view, they are the oldest recycling product with the highest recycling rate.

The greatest challenge in the field of industrial shredding is the densely compressed pulp bale, which is cut optimally by the asynchronous shredding power of our machines.

## TREATMENT

... for recycling of materials

Production of new paper products like newspapers, packages, writing materials, etc.

... for energy production

Incineration in special plants to generate heat or energy

## Good to know!

Waste paper and cardboards are outstandingly suitable to be recycled as part of our circular economy. They can be processed to new paper products or insulating material.

Recycling is a major contribution to reduce deforestation and thus minimize the negative consequences for the global climate. So it is of great importance to properly separate paper and cardboards.



Scan the QR code to watch our shredders treating paper and cardboard!



# **YOUR CHALLENGE** TURN WASTE INTO VALUED GOODS

## **Construction and demolition waste**

The construction industry uses a variety of materials like concrete, bricks, wood, metals, plaster, plastics, and others. A lot of waste types result from construction processes and the demolition of buildings, streets and other structures.

By professional sorting and shredding, several construction materials can be reused as secondary raw material to generate new products or for the renovation of existing structures.

## **TREATMENT**

... to produce secondary raw materials

Recycling as gravel, paving stones, concrete aggregates or filling material

... to generate energy

Incineration of non-recyclable waste to produce heat or power



## **Good to know!**

The construction industry is one of the most resource-intensive sectors worldwide. The number of existing buildings and infrastructures represents an important availability of resources made by human hand.

Today, up to 90% of the construction and demolition waste is processed to obtain secondary raw materials. Our shredders create the basis for such recycled building material which is used in road, earth or landfill construction.



Scan the QR code to watch our shredders treating construction and demolition waste!



## Shredding shafts

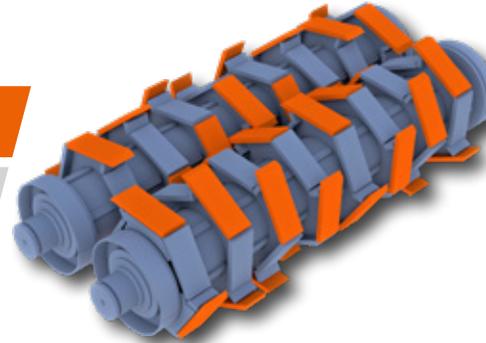
Our shredding shafts form the basis of every pre-shredding application case. They are made of high wear-resistant steel combined with an excellent surface. The versatility of use meets the requirements of the industry.

The different arrangement of shaft discs and knives decides upon the type of application. In case of wear, the proven ARJES quick change system allows an easy change of the shredding shafts.



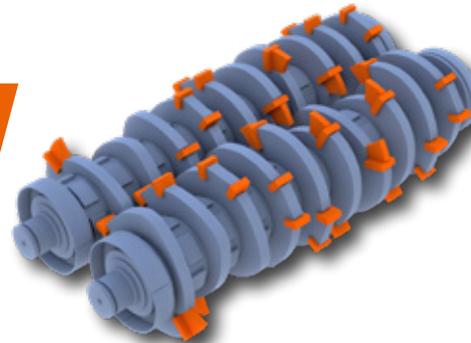
### PADDLE SHAFTS

The best choice for commercial waste, rubber and old tires, natural and waste wood as well as paper and cardboard packages.



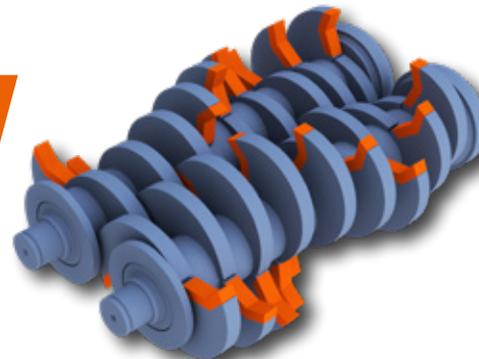
### METAL SHAFTS

These particularly resistant shredding shafts are mainly used in the field of automotive and light scrap treatment.



### CONCRETE SHAFTS

Crushing, not cutting. With this type of shafts, you are best equipped to handle your construction and demolition waste.



### SHAFT BODY

The shaft body is the basis structure of every shaft on which the shaft discs and the shredding tools are welded on.



### SHAFT DISCS

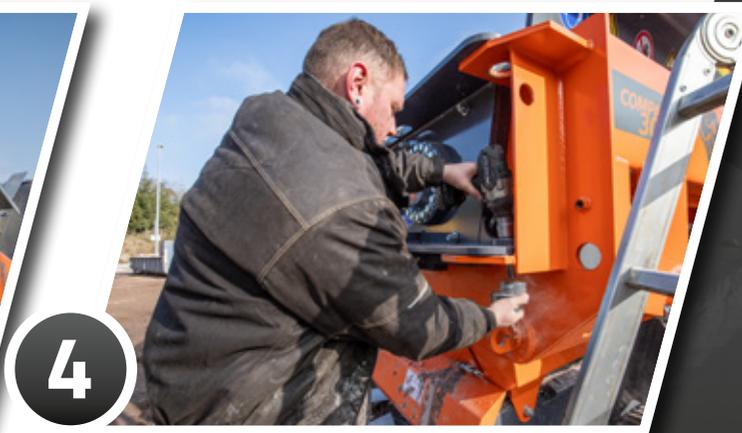
Shape and arrangement of the discs play a significant role in determining which type of material can be shredded.



### SHAFT KNIVES

Worn knives can be refurbished easily and inexpensively.

## OUR UNIQUENESS *SHAFT QUICK CHANGE SYSTEM*



### Four easy steps

1. Loosen the screw connections of the hopper rear wall, attach chain suspension for disassembly.

2. Loosen the main bolts of the cassette, fix the chain suspension there as well as at the opposite end of the shafts to lift out the cassette.

3. Install new or refurbished pair of shafts by inserting the T-shaped tool in the cloverleaf shaped coupling of the shredding unit.

4. Put the quick change cassette and hopper rear wall into position and screw down all bolts and screw connections.

## HOW IT WORKS

... watch our video tutorial for quick and easy explanation!



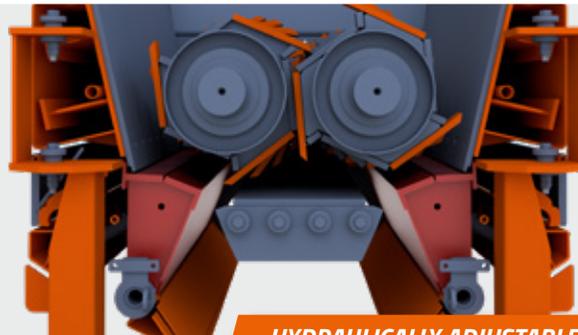
## Side combs

To regulate the final grain size, the side combs of the shredding chamber can be opened or closed mechanically or hydraulically in dependence on the type of machine.

In this way, the throughput of the shredder can be adjusted to the customer's requirements and the quality-assuring processing of the waste material.



MECHANICALLY ADJUSTABLE SIDE COMBS



HYDRAULICALLY ADJUSTABLE SIDE COMBS



HYDRAULICALLY DAMPED SIDE COMBS

*"We have  
the right solution for  
every kind of challenge"*

# OUR SOLUTIONS *POWERFUL TWO-SHAFT SHREDDERS*

## Mobile machines

Our mobile two-shaft shredders are equipped as standard with crawler track system, shaft quick change system, overbelt magnet for effective separation of ferrous metals, and a user-friendly SCU control.

### **COMPAKTOR 300**

**COMPACT CLASS**



### **EKOMAXX 800**

**INTERMEDIATE CLASS**



### **TITAN 900/950**

**HEAVY-DUTY CLASS**

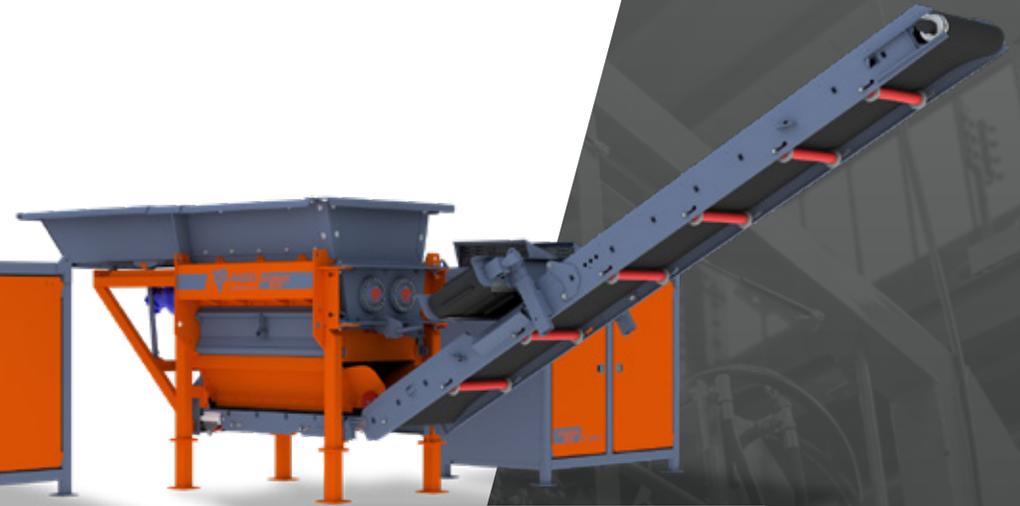
## Stationary machines

Our stationary two-shaft shredders are divided in a drive and a control unit. They can be included into your recycling plant or work independently as stand-alone machine.



**COMPAKTOR 300 e-pu**

**COMPACT CLASS**



**EKOMAXX 800 e-pu**

**INTERMEDIATE CLASS**



**TITAN 900/950 e-pu /d-pu**

**HEAVY-DUTY CLASS**



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Your local dealer

Disclaimer: We reserve the right to make technical changes, misprints and errors. All specifications refer to the standard version without features. Status: June 2024



## 5 CONVINCING ARGUMENTS FOR YOUR RECYCLING SOLUTIONS WITH ARJES

- 1 Superior-competitive range of applications**  
Processing of various types of waste material with the highest requirements
- 2 Best price-performance ratio in the industry**  
Maximum advantage for our dealers, customers and end users
- 3 Worldwide distribution and service network**  
Qualified and experienced experts all around the globe
- 4 Revolutionary shaft quick change system**  
Makes it easy to maintain, refurbish and change the shaft type with an almost interruption-free operation
- 5 The right solution for every challenge**  
Dedicated and competent employees with the permanent courage to push things forward