

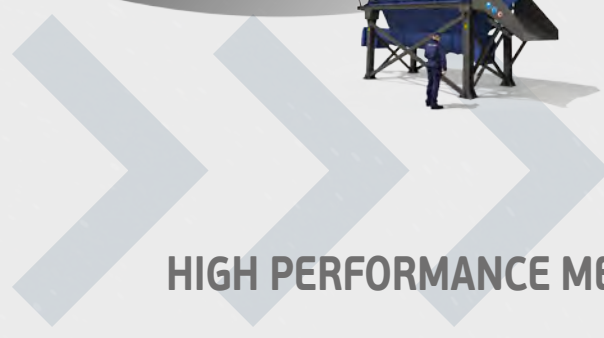


# ATM

ARNOLD Technology  
**RECYCLINGSYSTEMS**



- BRIQUETTING**
- BALING**
- BREAKING**
- CUTTING**
- SHREDDING**
- SORTING**



**HIGH PERFORMANCE METAL RECYCLING TECHNOLOGY**



It is a well-known fact: productivity is not just productivity. Metal recycling is, above all, about enhancing the value of secondary raw materials through first-class technology, with outstanding reliability and productivity.

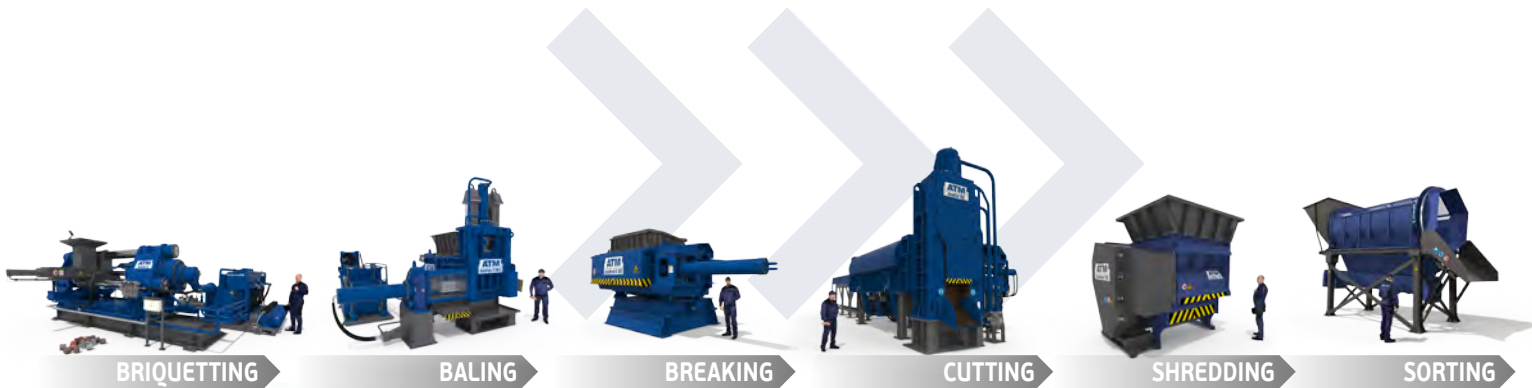
We are experts in this field. Like no other company we specialize in optimized metal recycling technology, based on the well-proven ARNOLD technology. Excellent quality and

reliability form the basis for long-term partnership with our customers.

More than 80 years of experience in the field of metal processing and more than 1,300 machines and equipment installed in 90 countries by ATM – these facts speak for themselves: Absolute Technology Masters.

Our systems are tailored to meet the special requirements of waste management, recycling companies and the metal industry, as well as aerospace, agriculture, automotive and manufacturing companies.

## ONE COMPANY, ONE TEAM, ONE FOCUS: HIGH PERFORMANCE METAL RECYCLING



Founding of the Arnold Company  
by Franz Arnold in Vienna Ottakring



1926

First Baling Press Type SP 100



1953

First Briquetting Press Type HSB 10 AV



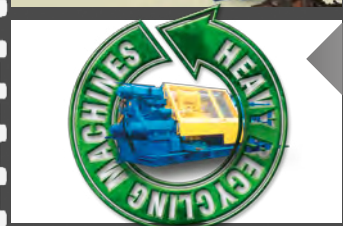
1964

First Scrap Shear Type HS 600



1970

Takeover by ATM Maschinenbau GmbH & Co. KG



2002

New production site and  
company headquarters in Fohnsdorf



2007

Arno®Press K 600



2011

ArnoShred 2100



2012

ArnoCut 1300



2013

ArnoBrik 22  
More Innovation to come



2015





# High Performance Metal Recycling Technology

We deliver solutions for the recycling industry.



**ATM** ArnoSort

**ATM** ArnoBreak C

**ATM** ArnoShred

> 4

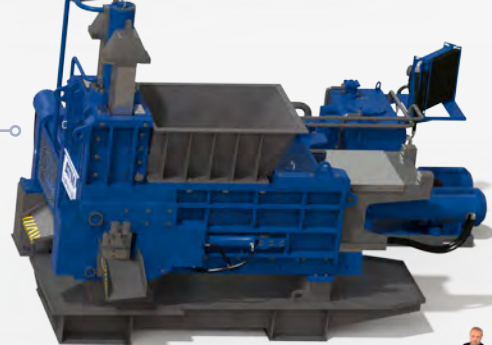


**ATM** ArnoBrik

## Contents



**ATM** ArnóPress D



**ATM** ArnóPress K



**ATM** ArnóCut

RECYCLING SYSTEMS	6
<b>BRIQUETTING</b>	<b>8</b>
<b>BALING</b>	<b>12</b>
<b>CRUSHING</b>	<b>18</b>
<b>CUTTING</b>	<b>22</b>
<b>SHREDDING</b>	<b>24</b>
<b>SORTING</b>	<b>26</b>
SERVICE	28
MATERIALS	30
RELIABILITY	31

# High Performance Metal Recycling Systems – Made by ATM

We at ATM are proud to create machines our way  
– The ATM Way!

## Sales & Marketing

Our experienced engineers help you to identify the best possible solution.

## Research & Development

At ATM Recyclingsystems, we are constantly open for new ideas.

## Engineering

Every detail is important. At ATM, we turn high power into smart solutions for you.

## Production

Made in Austria – for us this means a high level of manufacturing and quality.

## Quality assurance

Our passion is to develop, produce and service solid, reliable machines and systems for heavy-duty metal recycling.

## Research & Development

We at ATM realize the importance of recycling and protection of our environment.

We wish to process not only standard metals, but materials that otherwise would need to be discarded at high costs, thereby polluting the environment.

These problematic materials, such as grinding slurry, can be turned into valuable secondary raw materials with the help of equipment made by ATM Recyclingsystems!

A high level of Research & Development and extensive experience gained during more than 80 years make this possible!

At ATM Recyclingsystems, we are constantly open to new ideas and have intensive cooperation with other pioneers, such as the Universities of Leoben and Graz.

It is our aim to develop even more productive machines that save energy and protect the environment.







### Examples of our Research Activities:

- Selection of preparation processes to design "tailored" material characteristics, suitable for briquetting
- Use of agglomerated secondary materials in melting metallurgy
- Oxidation behavior of recycled aluminium swarf or briquettes
- Comparison of aluminium melting behavior: briquettes / loose swarf
- Slag recycling
- Ash recycling
- Grinding slurry recycling
- Drilling slurry recycling

### Your Requirements

ATM offers system solutions for every need in metal recycling. We concentrate on your needs to find the perfect solution for you.

Due to the vast variety of secondary raw materials we offer in-house test briquetting, for instance. There we can optimize factors such as strength, oil contents and briquette density, and also test different binding substances.

A complete briquetting press with all necessary supply and transport equipment is available for these tests.

The ATM research and development team is your ideal contact partner for any development projects and new ideas.

Our aim is to:

- Develop existing products and services
- Identify new products and business ideas
- Evaluate and prioritize new ideas and developments

We are looking forward to learning from you – every idea can be valuable!

### Production and assembly

Made in Austria – for us this means a high level of manufacturing depth – ensuring high quality and long lifetime of our machines and systems.

High-precision welding and machining are the backbone of our tailor-made machines and systems.

Only top quality components can handle high loads reliably over many years.

Each unit has to pass a thorough quality inspection before we are happy to hand it over to our customers.





## Briquetting Press

# ATM ArnoBrik®

ArnoBrik Series Briquetting Presses create high-density briquettes out of loose swarf or metal chips, dust and grinding slurry.

The solid welded design with two or three columns allow the machines to be used for continuous heavy duty.

A graphic operator panel with visualisation of all process sequences supports manual or automatic machine operation. All machines can be integrated easily into automated production lines. Remote maintenance and system adjustments are, of course, standard.

### Transport and storage savings

In contrast to loose swarf, briquettes offer huge cost savings. Simpler and smaller deposit areas can be used.

### Raw material recycling

The compressed briquettes can be melted more easily and safely than loose swarf.

Due to higher material density, less frequent charging of the furnace is necessary - saving energy. In the case of aluminium, the risk of premature swarf ignition during charging the furnace is dramatically reduced.

### Compressible materials

Steel, cast iron, stainless steel, aluminium, magnesium, brass, copper, titanium, special alloys in powder form, slag compounds, battery waste and grinding slurry from a wide variety of materials, as well as tyre wires and mill scales. Also mixed briquettes from diverse materials.

### Auxiliary equipment

Depending on arrangement and use, bunker systems and screw conveyors, dosing systems or weighing systems can also be supplied.

### High-density briquettes

The high briquette density ensures their suitability for transport and guarantees best melting results.

### Moving tool carriage

The optimum system to balance the relative motion during the compression stage guarantees huge wear reduction

### Filling valve at the pressing cylinder

ATM presses set the industry standard: More than 30% of drive energy can be saved by the filling valve technology.

### 3-columns technology

No other design principle diverts pressing forces as effectively as the 3-columns technology. Columns with patented clamping nuts process millions of compacting cycles at full load.

### Hydraulic tank

The twin chamber system guarantees supply of filtered and cooled oil to the performance-controlled hydraulic pumps.

### PZT Pump activation technology

The oil flow technology regulates the required quantity of oil per cylinder, minimizing the drive energy.



ATM QR-Code

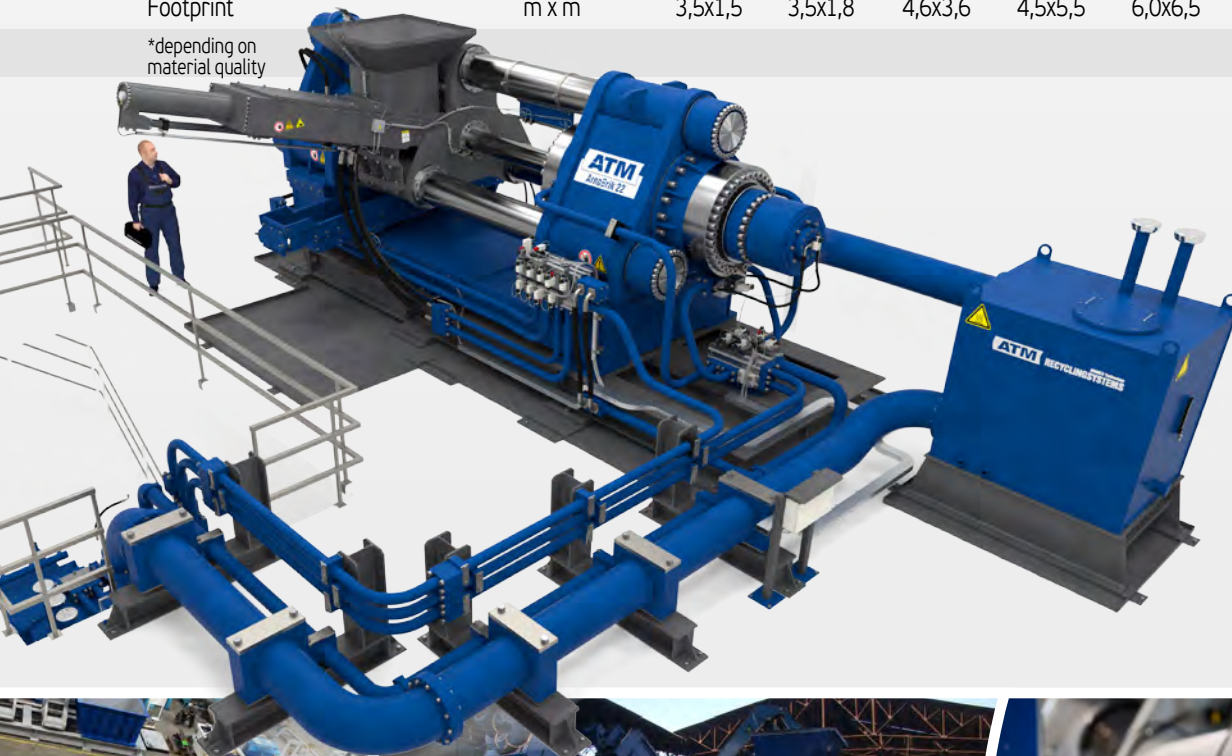






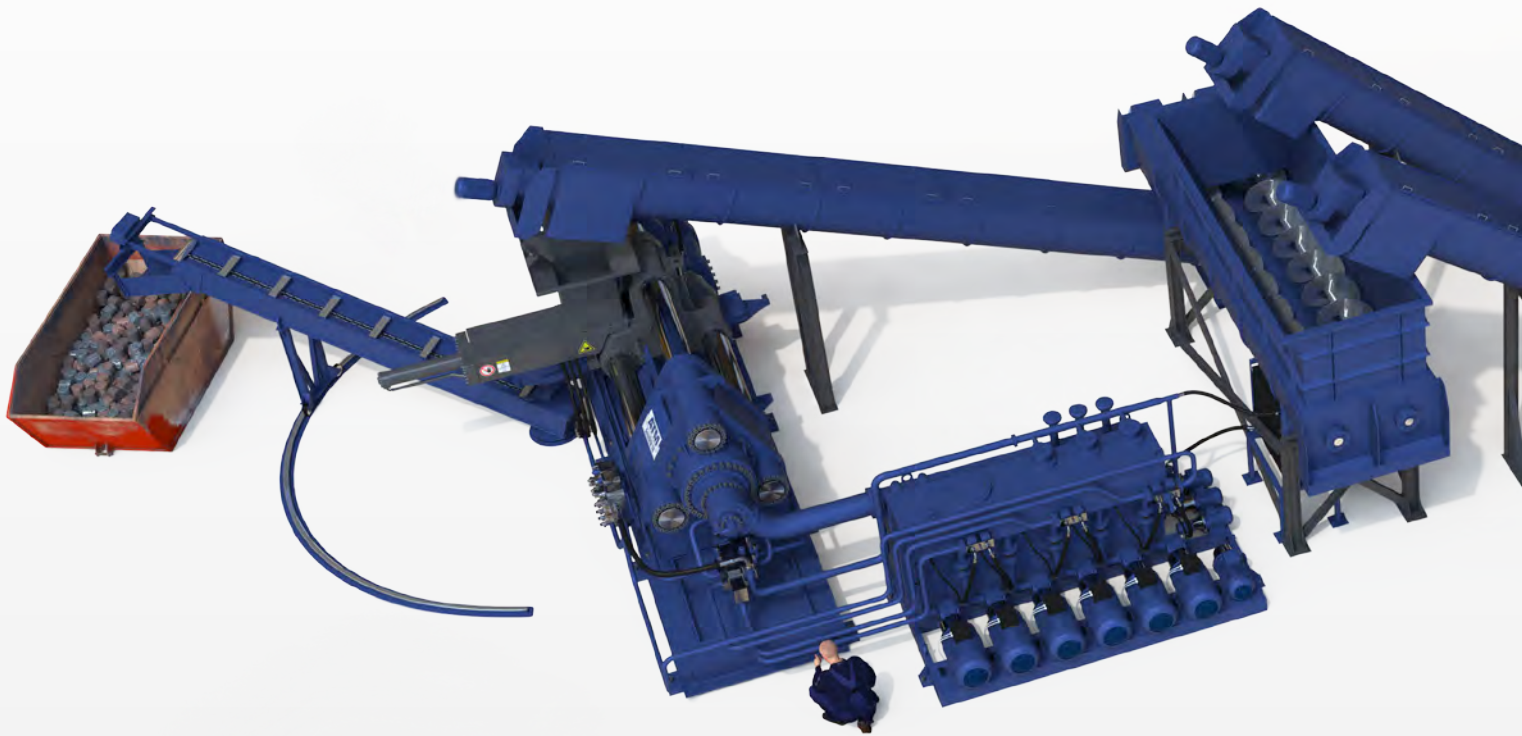
	Technical Data	2 Columns			3 Columns			
		Arno® Brik	5	7	10	12	15	18
Briquetting diameter	mm	50-70	50-90	105-135	125-140	140-150	180-195	220-240
Power main cylinder	kN	760	1.400	2.900	4.200	5.200	8.500	12.500
Capacity steel, cast iron* max.	t/h	0,3	0,5	1,5	2,5	4,5	7,5	15,0
Capacity aluminium* max.	t/h	0,15	0,25	0,6	1,1	2,2	3,5	6,0
Capacity bronze, copper* max.	t/h	0,4	0,6	2,0	3,0	5,0	8,0	17,0
Briquette density steel, cast iron* max.	t/h	5,5	5,5	5,5	5,5	5,5	5,5	5,5
Briquette density aluminium* max.	t/h	2,4	2,4	2,4	2,4	2,4	2,4	2,4
Briquette density bronze, copper* max.	t/h	7,0	7,0	7,0	7,0	7,0	7,0	7,0
Driving power standard	kW	15	22	60	90	120	180	300
Footprint	m x m	3,5x1,5	3,5x1,8	4,6x3,6	4,5x5,5	6,0x6,5	6,5x8,5	7,5x9,0

\*depending on material quality



# Recycling System of Swarf Briquetting

From secondary raw materials to reusable briquettes.



## Special Solutions

### Grinding Slurry Briquetting

The most profitable aspect of briquette forming! During the briquetting process more than 90% of the oil and water components are pressed out. The extruded lubricants and cutting oils can be reused. Due to lower disposal costs (no landfill charges) the investment in an ATM briquetting press is recovered within just a few months.

### Risk Material

Stored titanium and magnesium swarf are highly inflammable. Their importance as lightweight construction material in the automotive industry is continuously increasing. Due to fire hazard particular caution must be exercised when handling these materials.

These risks are minimised, however, by the use of an ATM briquetting press.

### Aluminium Dross

During the production and refinement of aluminium the so-called dross is formed on the melt. This dross not only contains aluminium and aluminium oxide but also various combustion products and dissolved residues of the refractory lining. Parts of the dross can be reused and are processed and then pressed with special ATM die materials.

>10







### Special Alloys

The press agglomeration of special alloys is gaining importance and has proved successful through the use of the small machine series ArnoBrik 5 and 7 ensuring a high level of applied compressive force and flexible process management.

### Melting Behaviour of Aluminium

In cooperation with the University of Leoben investigations on the combustion behaviour of swarf and briquettes during the melting process of secondary raw materials were carried out.

These experiments resulted in a higher output from aluminium briquettes and a higher efficiency in recycling.





## Baling Press

# ATM ArnoPress-K

The ArnoPress K Series Baling Presses compact metals in 2 or 3 compactor steps.

Five sizes are available. Models 100-2 to 600-2 compact in two steps, while models 100-3 to 350-3 compact the material in three dimensions.

The solid welded design allows the machines to be used for heavy continuous operation.

Visualisation of all process sequences allows the systems to be integrated into fully automated production lines and maintained via modem.

### Transport and storage savings

Up to 30% of logistics costs can be saved on the handling and transport of bales.

### Applications

3-ram presses are mainly used in pressing and stamping operation in industries, where large quantities are pressed into highly compact, easily transportable bales with side lengths of 300 or 400 mm.

### Raw material recovery

Unlike loose sheets, compressed bales are easier to load and smelt. The bales are also free from contamination, resulting in significantly higher attainable prices.

### Compressible materials

Steel, stainless steel, aluminium, brass, copper, lead and, in particular, body sheet metal from the automotive industry.

### Auxiliary equipment

Various conveying plants such as scrape conveyors and strap hinge conveyors as well as skip weighers and bale loading systems.

### Wear plates

Depending on purpose we offer wear plates made of Hardox with square-, trapezoid- and wave-shaped profiles in various material qualities.

### Bale carriage

A patented bale carriage allows for buffering or continuous transportation.

### Feedstock metering

Through weighing and pre dosing via charging hoppers, the productive capacity of the press is optimized.

### Hydraulic tank

The twin chamber system guarantees the supply of filtered and cooled oil to the performance-controlled hydraulic pumps.

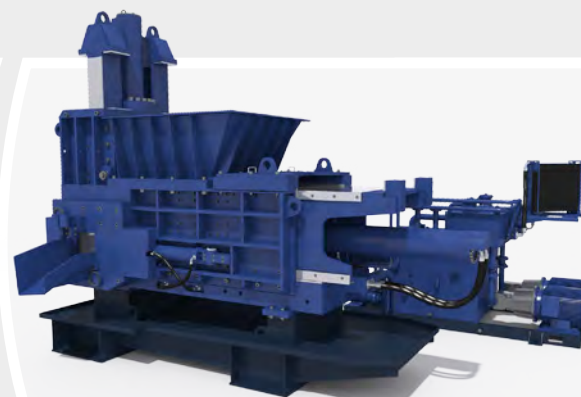
### PZT Pump activation technology

The oil flow technology regulates the required quantity of oil per cylinder, minimizing the drive energy.



ATM QR-Code

>12

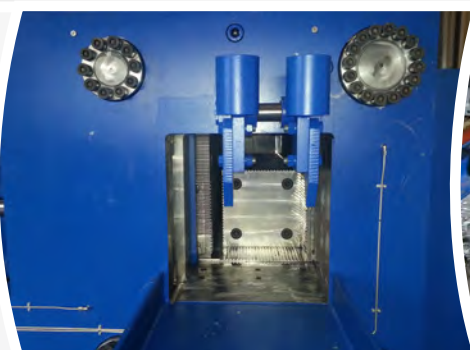






	Technical Data	Arno® Press K	2 Rams			3 Rams		
			100-2	150-2	600-2	100-3	200-3	350-3
Standard bale size	mm		300x300	400x400	1000x1000	300x300	300x300	400x400
Optional bale size	mm		400x400	-	-	400x400	400x400	300x300
Power main cylinder	kN		1,000	1,500	6,000	1,000	2,000	3,500
Bale density steel	kg/dm <sup>3</sup>		<3.0	<3.0	<1.5	<3.0	<3.5	<3.5
Bale density aluminium	kg/dm <sup>3</sup>		<1.2	<1.2	<1.0	<1.2	<1.2	<1.5
Bale density copper	kg/dm <sup>3</sup>		<3.5	<3.5	<1.5	<3.5	<4.0	<4.0
Capacity* steel	t/h		<5.0	<10.0	<60	<7.0	<14.0	<30.0
Capacity* aluminium	t/h		<2.5	<6.0	<40	<4.5	<7.0	<12.0
Capacity* copper	t/h		<7.5	<17.0	<60	<8.5	<16.0	<35.0
Cycle time	s		45	45	100	40	25	29
Driving power standard	kW		37	74	180	45	110	180
Driving power increased	kW		45	90	220	60	150	220
Footprint	m x m		6.0x3.8	7.0x5.0	10.7x8.1	4.0x3.8	5.5x7.0	8.2x7.6

\*depends on material





## Baling Press

# ATM ArnoPress-D

The ArnoPress D Series Baling Press is available in five sizes. Models 80-2 and 100-2 compact on two levels, and models 100-3 to 300-3 compact the material in three dimensions. The first compression is carried out using a cutting head, which reduces the size of bulky parts and achieves pre-compaction. All parts in contact with scrap are lined with high-strength wear plates with a special trapeze-shaped profile. Each machine can be controlled manually or automatically.

### Functional criteria

The machine's rapid processing of bulky, light and medium scrap is a particular advantage. The cubic shape of the packages means that transport and storage capacity can be optimally used.

### Raw material recycling

Unlike loose sheets, compressed bales are easier to load and smelt. Another advantage of these presses is that even small quantities of entirely different materials such as copper guttering, aluminium wire or various sheet metal wastes can be quickly and separately compressed.

### Applications

The ArnoPress D Series Presses are primarily used at scrap yards and in nonferrous metal operations in which large, bulky parts are compressed.

### Compressible materials

Steel, stainless steel, aluminium, brass, copper, lead, light and medium scrap as well as car bodies.

### Auxiliary equipment

Loading rig and power unit for the mobile version of the press up to size ArnoPress D 150. For the larger systems, a pre-filling bench is available for rapid car body processing.

### Wear plates

Depending on the purpose of the press we offer wear plates with special square-, trapezoid- and wave-shaped profiles in various material qualities.

### Container

When the press is installed outdoors electrical and hydraulic components can be placed in containers, which also offer additional noise protection.

### Mobility

Smaller presses can be equipped with a chassis. Mobility can be further increased by adding loading cranes.

### Hydraulic tank

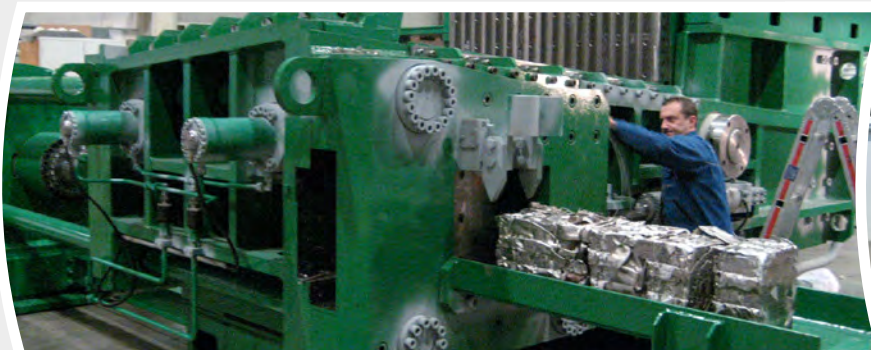
The twin chamber system guarantees the supply of filtered and cooled oil to the performance-controlled hydraulic pumps.

### PZT Pump activation technology

The oil flow technology regulates the required quantity of oil per cylinder, minimizing the drive energy.



ATM QR-Code







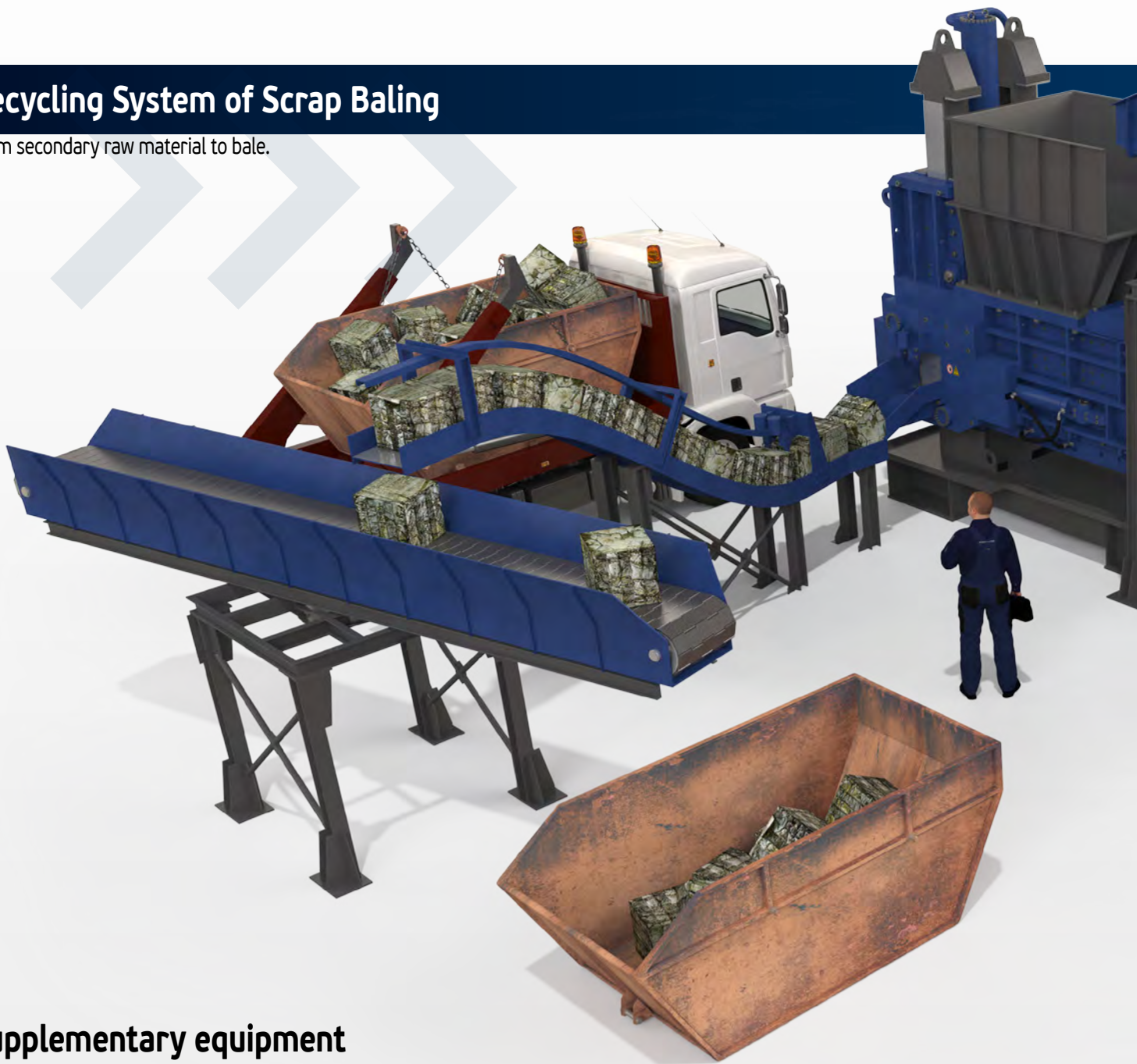
Technical data	Arno <sup>®</sup> Press D	2 Rams		3 Rams		
		80-2	100-2	100-3	150-3	300-3
Standard bale size	mm	400x300	600x200	300x300	400x400	600x400
Optional bale size	mm	-	600x400	400x400	600x400	400x400
Power main cylinder	kN	800	1,000	1,000	1,500	3,000
Bale density steel	kg/dm <sup>3</sup>	<2.0	<2.5	<3.0	<3.0	<3.0
Bale density aluminium	kg/dm <sup>3</sup>	<1.0	<1.0	<1.2	<1.2	<1.2
Bale density copper	kg/dm <sup>3</sup>	<3.0	<3.0	<3.5	<3.5	<3.5
Capacity* steel	t/h	<2.0	<4.0	<5.0	<10.0	<30.0
Capacity* aluminium	t/h	<0.8	<1.2	<2.4	<4.0	<11.0
Capacity* copper	t/h	<2.5	<4.5	<6.0	<12.0	<35.0
Cycle time	s	45	45	50	50	55
Driving power standard	kW	22	22	30	90	120
Driving power increased	kW	-	-	37	110	150
Footprint	m x m	4.0x1.6	5.0x1.6	6.2x3.8	7.0x5.0	7.0x8.0

\*depends on material



# Recycling System of Scrap Baling

From secondary raw material to bale.



## Supplementary equipment

### Tilting skip weighing scale

To guarantee controlled filling of the baling chamber a tilting skip weighing scale is employed to weigh the scrap.

### Scrap charge with emergency discharge

Charging the scrap onto the press is carried out via conveyors. In case of service works on the press the scrap can be guided through an emergency discharge shaft.

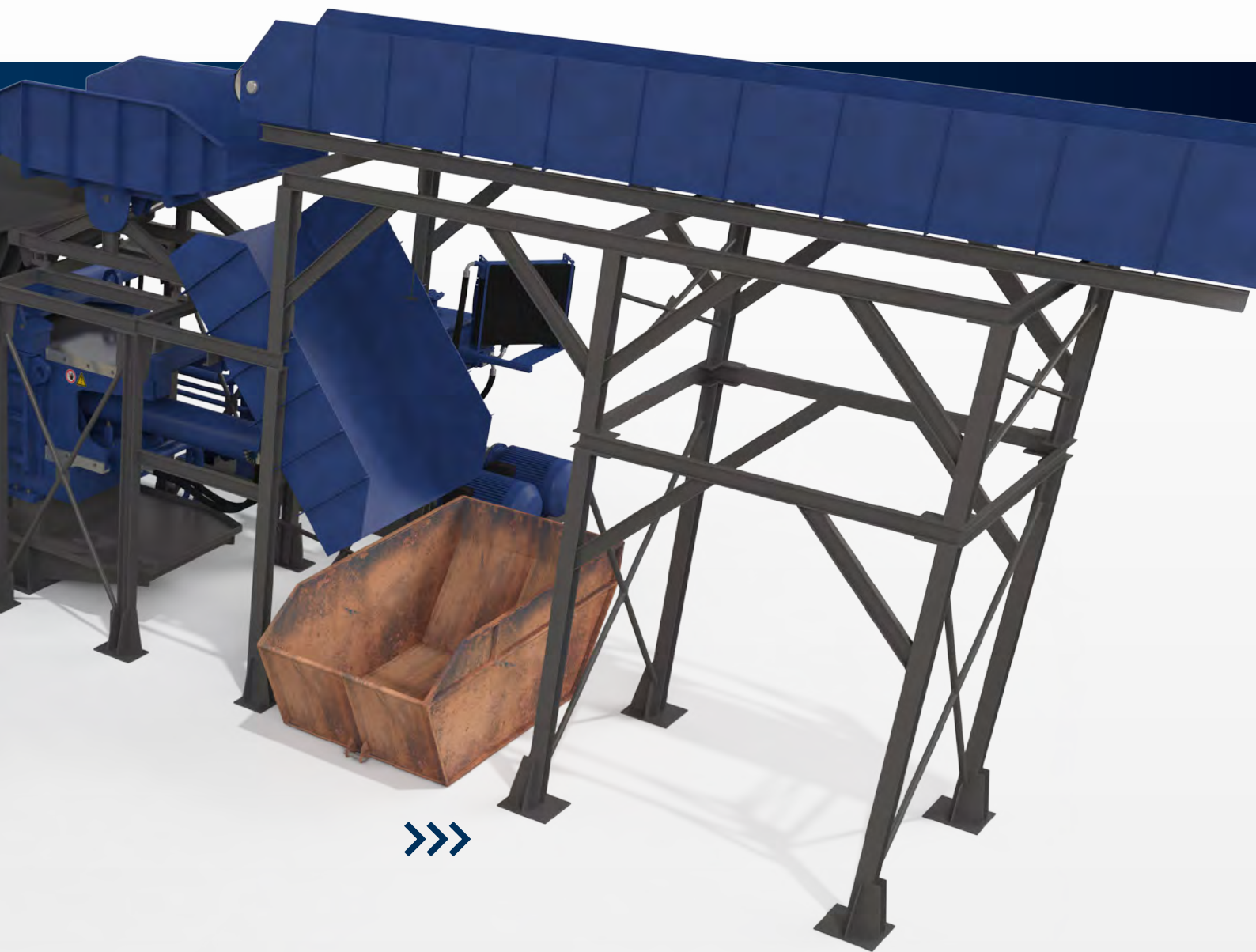
### Strap hinge conveyor

For heavy-duty use, highly robust hinge plate conveyors are used. Special attention is paid to a soft and targeted bale transfer at the various transfer points.

>16







### **Bale carriage**

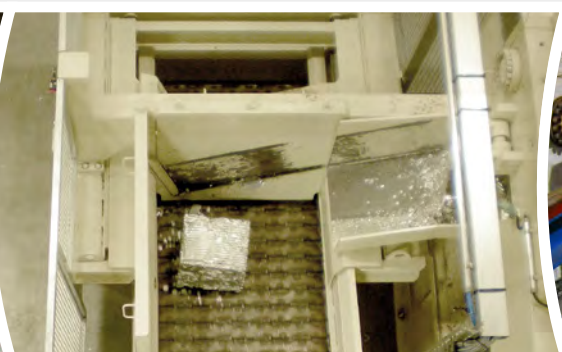
To guarantee soft transfer of bales, ATM has designed special bale carriages.

### **Manipulator**

For further transport to the user, the bales can be loaded into various containers or railroad freight cars either with bale carriages or with a manipulator.

### **Your requirements**

As a provider of system solutions for metal recycling ATM offers tailored solutions to your particular requirements. We will gladly carry out tests based on your specific needs.





## Cast Iron Breaker

# ATM ArnoBreak C

Cast iron breakers are available in two different sizes for the efficient processing of gear housings, engine blocks and other cast iron scrap. The ArnoBreak C 400 is used mainly for small parts of scrap.

The shear movement of the serrated breaking arm generates high breaking power, producing optimal part sizes for melting. Unlike cutting, the breaking process works without knives.

### Raw material recycling

ATM Cast iron breakers create regular part sizes, very important for shipping, handling and melting.

### Applications

Cast iron breakers are mainly used in foundries or large scrap yards.

### Breakable materials

Brittle cast iron parts such as gear housings or engine blocks, moulds, cast iron pipes, etc.

### Auxiliary equipment

Remote control, air conditioned cab, loading rig, power unit and conveying systems can be offered as auxiliary equipment.

### Technical data

	Arno <sup>®</sup> Break C	120/400	200/600
Breaking force min.	kN	1,200	2,000
Breaking force max.	kN	4,000	6,000
Part length max.	mm	2,000	3,000
Part size ejection max.	mm	<300	<300
Capacity* cast iron	t/h	10	16
Cycle time	s	60	60
Driving power standard	kW	22	44
Driving power increased	kW	30	60
Footprint	m x m	5,3x2,5	7,1x3,3

\*depends on material



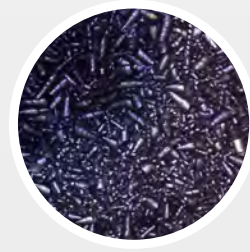
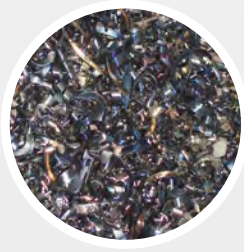
ATM QR-Code

>18





## Your Requirements





## Car Crusher

# ATM ArnoPress A

Increasing quantities of high-cost materials and electronic components are installed in cars. The efficient recovery of the complex car scrap can be accomplished by careful disassembly or by an optimized shredding and sorting process.

For the efficient transport to shredder plants, it is necessary to gently flatten the car bodies - the best way to win back these valuable components without destroying them.

### Technical data

	Arno <sup>®</sup> Press A	220
Press force	kN	2x 1,100
Loading area	mm x mm	5,500 x 2,200
Box closed	mm x mm x mm	4,500 x 2,200 x 350
Capacity	cars per hour	<30
Driving power	kW	45
Footprint	m x m	9.5 x 3



ATM QR-Code

>20







## Rail Breaker

# ATM ArnoBreak R

The ArnoBreak R rail breaker is designed to break railway rails more effectively than by cutting. Two variants are available: The stationary design permits processing of up to 120 m long rails. A magazine is used for feeding the rails into the breaker.

The mobile version for use directly on the track is fitted with a diesel power unit and loading rig. It can efficiently break rails of around 24 m in length into 300 to 1000 mm short sections.

A special notching and breaking process ensures that the rails are broken with minimum tool wear.

### Applications

Railway rails represent high-value scrap for foundries. Rails are broken up immediately after disassembly (mobile ArnoBreak) in order to avoid the need for special transport.

### Breakable materials

Brittle railway rails with the highest possible alloy proportion. Soft tram rails, however, are not breakable.

### Twin rail breaking arrangement

Two rails can be broken simultaneously with a special notching blade geometry, dramatically increasing the machines performance.

### Auxiliary equipment

Remote control, air-con cab, loading crane, power unit and rail magazine (for stationary rail breakers). In the case of the mobile rail breaker, the control, the crane and the power unit are fitted on an extendable semi-trailer.

### Technical data

		Arno <sup>®</sup> Break R 125 S	125 M
Breaking force	kN	1,250	1,250
Notching / suppression force	kN	1,250	1,250
Break length min.	mm	300	300
Break length max.	mm	1,000	1,000
Capacity, Single Rail, 300mm	t/h	<6	<6
Capacity, Single Rail, 1.000mm	t/h	<18	<8
Capacity, Single Rail, 1.500mm	t/h	<30	-
Cycle time	s	>7	>7
Driving power	kW	22	22
Driving power increased	kW	30	30
Footprint	m x m	2,5x15,0	2,5x15,0



ATM QR-Code





## Scrap Shear

# ATM ArnoCut®

The ArnoCut Series Scrap Shear is produced in five sizes from 4,000 to 13,000 kN shear force. All compacting chamber wear plates are made of Hardox 450 up to Hardox 600 and guarantee the highest quality and a long useful life.

Cutting cycles are optimised by linear transducer systems in the cylinders. Monobloc construction eliminates the need for an elaborate foundation. A centralized lubrication system, various clogging indicators and fault analysis guarantee simple maintenance.

Comfortable operation with two joysticks and a multifunctional display in a soundproofed, air-conditioned cab, make the scrap shear a workplace with the highest level of productivity.

### Applications

The scrap shear is one of the most important pieces of equipment within the recycling industry. It is used for cutting, baling, creating logs, rail breaking, cast crushing and cutting to specific lengths for mill preparation.

Equipment capacity is usually crucial in environments of this type, since a large proportion of the scrap is processed using shears.

### Processible materials

Depending on machine size, steel constructions or car bodies can be cut. With the optional rail breaking head, railway rails can be notched and broken without knife damage.

### Functional criteria

Scrap shears must be able to process the most varied types of scrap economically. Cutting heavy or cupola scrap or vehicle body parts, our many years of experience ensures we can achieve the optimum combination of our variably deliverable side compactors with suppression force and shear force.

### Auxiliary equipment

Hydraulic knife tension, remote control and a fully air-conditioned cab make daily work easier. A rail breaking function, a loading rig and suitable conveyors are optionally available.

### Wear plates

Depending on the purpose of the shear we offer straight wear plates as well as wear plates with special square or trapezoid-shaped profiles in various material qualities.

### Ergonomic workplace

An operator seat with 2 joysticks, visualisation and video surveillance situated in an air-conditioned cabin set new standards in workplace design.

### Traversing lateral compressor

Two separate side cylinders make it possible to traverse the side stamp up to 15° in order to pre-compress bulky constructions and materials.

### Hydraulic tank

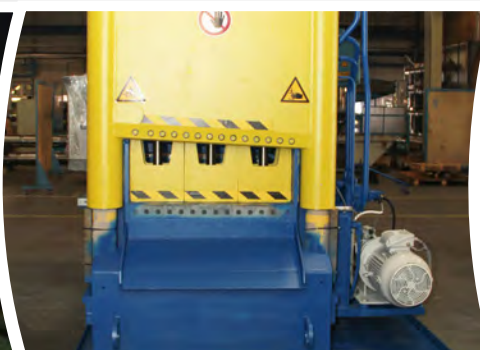
The two-chamber system guarantees supply of filtered and cooled oil to the performance controlled hydraulic pumps.

### PZT Pump activation technology

The oil flow technology regulates the required quantity of oil per cylinder, minimizing the drive energy.



ATM QR-Code







	Technical data	Arno® Cut	add. baling function					
			400	600	700	850	1000	1300
Shear force	kN		4,000	6,000	7,000	8,500	10,000	13,500
Down holder force	kN		1,850	1,850	1,850	2,500	3,050	3,200
Lid force	kN		2,000	2,000	2,000	2,000	2,800	2,800
Side-stamp force	kN		2,500	2,500	2,800	2,800	3,600	3,600
Feeding force	kN		1,500	1,500	1,000	1,000	1,200	1,200
Cutting width	mm		420	640	<800	<1,000	<1,000	<1,200
Filling bed height	mm		520	600	600	700	800	1,000
Filling length	m		4,1	6,5	6	<7	<8	<10
Capacity*:	t/h		<10	<15	<20	<30	<40	<50
Number of cuts	per min		<5	<6	<6	<6	<6	<6
Driving power standard	kW		110	180	180	330	360	450
Driving power increased	kW		165	220	270	360	440	550
Footprint	m x m		6x15	6x18	7x18	7x20	7x22	9x24
Bale size	mm		400	600				
Baling force total	kN		6,000	6,000				

\*depends on material





## Shredder

# ATM ArnoShred

Arno®Shred machines are designed for metals to resist the extreme conditions on scrap yards.

All surfaces are covered with high resistance Har-dox wear plates. Knives and screens in different materials are available.

Suitable for

**ferrous and non-ferrous metal-swarf, like:**

- Steel
- Stainless steel
- Aluminium
- Copper
- etc.

**and other waste materials:**

- Electronic devices (WEEE)
- Plastics / foil
- Bulky waste
- Tyre wire, cables
- etc.

### Single Shaft Shredder

The compact single shaft machine cuts with the proven rotor-stator principle. For optimized performance, the shredder can be equipped with material-specific cutting discs.

Application: mainly crushing of metal chips.

### Double Shaft Shredder

The powerful and efficient rotary shear - a double shaft shredder - is often used in pre-crushing metal sheets, tires, e-waste or plastic. The cutting discs shred the input material in longitudinal direction. With additional fitted transverse blades, the material is crushed to defined particle sizes.

With special granulator blades and screen baskets, the double shaft shredder can also be used for fine crushing. For high throughput chips shredding, the ArnoShred DS is designed with double rotor and both-sided stator blades.

### Quad Shaft Shredder

The four-shaft shredder is suitable for large-volume materials, containers and garbage. Depending on material and bulk density, precisely defined particle sizes and also bulky material can be crushed efficiently with different blade geometries. A combination of rotary shear and four-shaft shredding ensures maximum process reliability and economical operation.

### Single Shaft Shredder / Ejection

Arno®Shred SSE, the shredder with automatic tramp metal discharge, has been developed specially for metal and tire wire shredding, and other materials with extraneous parts. The material is pushed against the reversible blades rotor by a hydraulically powered feed.

### Energy Saving System

Due to the patented extraneous material ejection and the friction clutch less energy for cutting is needed.

### Patented Feed System

For optimal distribution to the shafts, there are up to 3 feeders.

### Friction Clutch

ArnoShred SSE is equipped with a friction clutch to avoid axle damage.

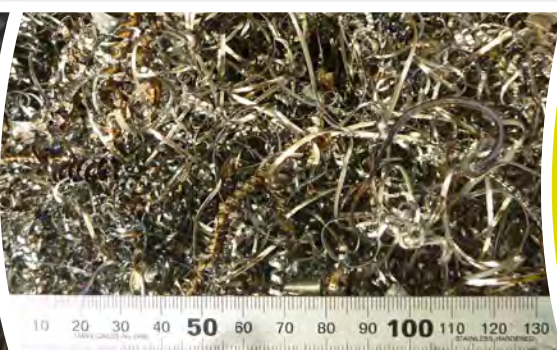
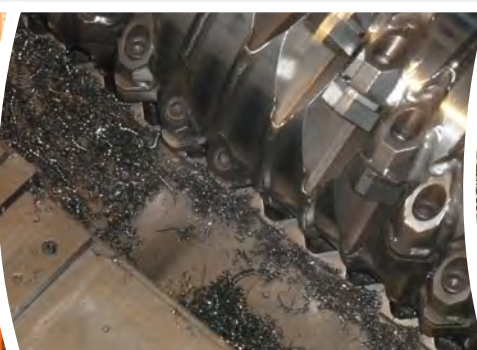
### Tramp Metal Discharge

If needed, hard metal pieces can be ejected into a separate container, to guarantee clean material for the following processes.



ATM QR-Code

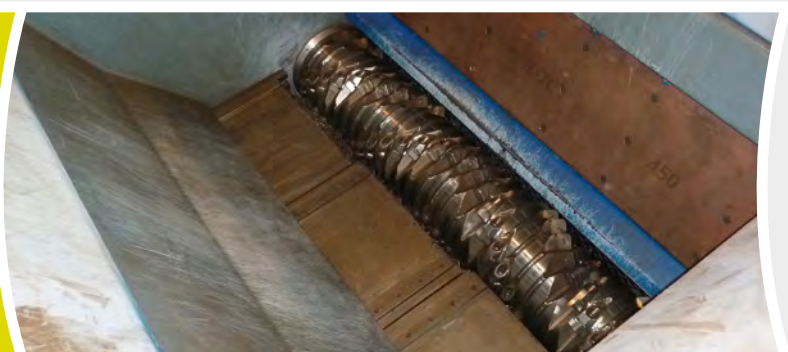
>24







	Technical data				
	Arno® Shred	SS single shaft	DS double shaft	QS quad shaft	SSE single shaft ejection
Length	mm	1,100-1,800	1,250-4,800	1,250-2,600	2,450
Width	mm	280-500	450-1,000	450-950	1,500-3,200
Height	mm	330-500	330-620	600-1,100	2,400-3,100
Rotor, length	mm	420	950	900/600*	700-2,100
Rotor, blade-diameter	mm	115-200	115-480	175-340	450
Rotor, knives, max.	qty.	32	193	96/193	27-87
Screen size	mm	5-50	5-50	5-50	20-50
Drive power	kW	11	110/2x90	2x55/2x45*	30-132
Rotor speed	rpm	11-72	11-72	11-72	60-140
Options					
Quick in/out system		x	x	x	
Gear drive			x	x	
Various screens		x	x	x	x





## Screen Drum

**ATM** ArnoSort®

The value added to the recycling process comes from a fine-tuned sorting technology. To reduce the energy-intensive shredder process to a minimum, efficient preparation and sorting is needed. The Screen Drum or Trommel is the perfect machine for this purpose.

Additionally, wear costs caused by extraneous material parts are reduced. The resulting improved briquette quality and de-oiling increase the value of the briquettes even more.

### **Wear Plates**

Wear plates in various material qualities and with different punching.

### **Vibration equipment**

Fine screening by an additional vibrating sieve with longitudinal deflectors.

### **Sorting line**

Optimal coordination with shredder and centrifuge.





Technical data

	Arno® Sort	1500	2000
Sieve drum diameter inside	[mm]	1,200	1,900
Sieve length	[mm]	3,200	6,000
Hopper opening	[mm]	1,500 x 1,500	2,400 x 2,300
Punching diameter	[mm]	30/40	45
Turnings (adjustable)	[rpm]	<16	<10
Driving power	[kW]	5,5	7,5
Footprint	[m]	5,3 x 1,7	9,0 x 2,5



ATM QR-Code





## Service

# ATM Service

### Product Range

ATM Recyclingsystems supplies parts for all scrap shears and presses on the market. Pressing tools, knives, guide rails and wear plates are made of highly specialized steel with high strength and high cut resistance with a very long service life. Furthermore, ATM can offer wear parts such as knife distance plates, pass pieces, knife holders, screws, nuts, sockets etc., for all machines.

Even for the very first Arnold Press from 1953 we can supply spare and wear parts.

### Experience

Knowledge and experience makes ATM Recyclingsystems a reliable partner in the industry. Our program includes overhaul, repairs, maintenance, service and consulting.

### Contact

For any questions please do not hesitate to contact one of our members of the sales or service staff.

### Quality assurance

Our passion is to develop, produce and service solid and reliable machines and systems for heavy-duty metal recycling.

### Tools

Tools for briquetting presses.

### Wear plates

Wear plates for all presses and scrap shears.

### Knives

Knives for scrap shears, baling-presses and rail breakers.

### Additional

Different HARDOX 400 to 500 type wear plates and cover plates for all machines in the scrap yard.



ATM QR-Code







# Worldwide!



# BRIQUETTING



Titan



Copper



Aluminium



Tyre wire



Steel



Stainless steel



Grinding slurry



Circuit boards

# BALING



Titan



Copper



Aluminium



Steel



Tyre wire



Stainless steel

# BREAKING



Rails



Engine blocks

# CUTTING



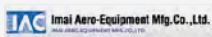
Shear scrap



# ATM Reliability

Whenever you need assistance, our specialists are at your disposal almost around the clock. Flexible and experienced ATM customer service engineers and extensive spare parts and service management characterize the customer focus of all ATM employees. Our team of motivated, qualified and responsible employees handles the tasks and needs of our customers. We are pleased to meet the challenge of taking on your tasks.

Our satisfied customers are proof of this! - Worldwide!





**ATM Recyclingsystems GmbH**

Josef-Ressel-Gasse 8  
8753 Fohnsdorf  
AUSTRIA

phone: +43 (0) 3573 / 27 5 27-0  
fax: +43 (0) 3573 / 27 5 27-390  
office@atm-recyclingsystems.com



your partner at ATM

Layout, Design & 3D-Visualization: [www.traussnigg.net](http://www.traussnigg.net)  
We reserve the right to errors of  
publication and technical modifications!



**[www.atm-recyclingsystems.com](http://www.atm-recyclingsystems.com)**