

RECUPERMA
DEUTSCHLAND



RECUPERMA

RECUPERMA



Recuperma GmH Germany



Corporate Vision
Recuperma Germany
Your Partner No. 1 in terms of
Recycling!

Quality is our passion

Since 1996, RECUPERMA GmbH Germany is national, especially in the Ruhr Area, and International known for reliable Machinery Construction and Recycling Processes, as well as for professional services from one hand. As a medium sized, family-guided company, we are able to implement our customers wishes into individual technical solutions. Based on our huge experience, most requirements will come into force in a short time and are working reliable. The Guideline of the RECUPERMA-Team is always lead by the following characteristics:

- Reliability
- Flexibility
- Quality
- Responsiveness
- Qualification
- Efficiency

RECUPERMA in more details:

In addition to our headquarter in Castrop Rauxel, we have founded in 2014 a first own Branch in Magstadt, located in southern Germany, especially for our customers in South Europe.

The long-term target is, to act in shortest possible times close to our Customer, whenever needed, where ever in the World. All Customers of RECUPERMA benefit from our experienced Construction & Development Department in which our recycling machines constantly are developed as State of the Art. Beside Standard solutions, we are able to construct individual heavy machines for special requirements and Recycling Processes. Our Manufacturing & Assembly Department is, equipped with the newest technologies. Very high Production quality, based on regular staff-training, such as DVS IIW certified welding engineers, is the best guarantee for a good result. To close the loop to be a perfect Partner for our Customers, our Service Department has a Fast Lane Task Force, whose priority task is to help as quick as possible in the event of accidents and machine downtime. Our experienced Team of qualified employees has only one purpose in mind:

The Satisfaction of our customers.



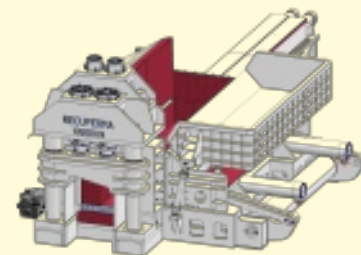


Scrap Shear RECUS



Especially for these input materials:

- Mixed scrap
- Circulation scrap
- Carrier
- Pipes
- Cupola
- etc.



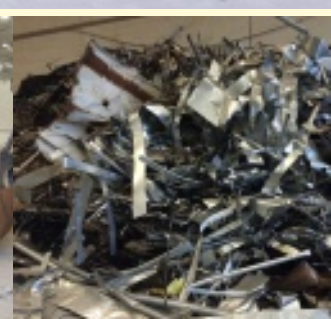
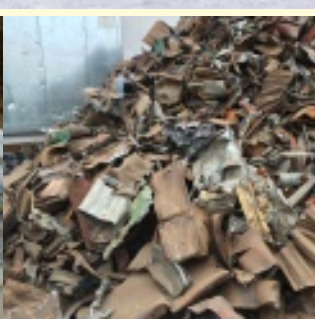
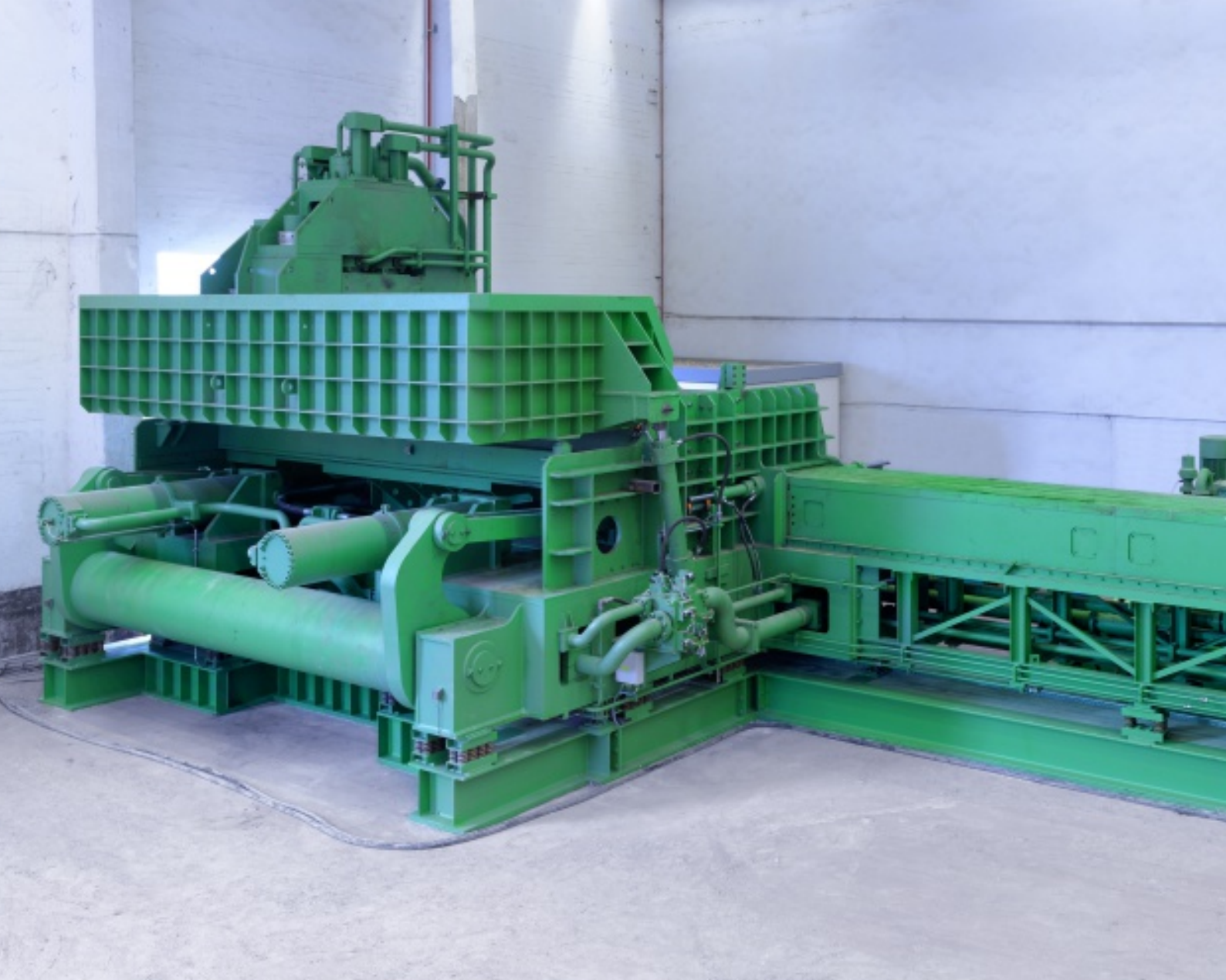
RECUS

We cut EVERYTHING

Recuperma's RECUS is the scrap shear for demanding tasks. The torsion welding and bolting fixing construction ensures that the Power flow of the Scrap Shear derives ideal alongside the machine into the foundation. The Column guide is robust and works powerful, effective and precise. This is exactly the reason, why for decades of years only pillar guided punches and presses are used in Automotive stamping plants. The 3-dimensional PrePressingSystem prepares the scrap perfect for the current shearing process. The efficiency is provided by the associated overstrike of the site press stamp into the cutting room. A lot of development research leads to a perfect work of the hydraulic pump system, which coordinates the complete cutting and loading process of the Shear in shortest times.

Model RECUS		RECUS 5500 kN	RECUS 6750 kN	RECUS 7900 kN	RECUS 11000 kN	RECUS 13500 kN
Cutting Force	[kN]	5500	6750	2 x 3950	2 x 5500	2 x 6750
Length of box	[mm]	5000	5000 / 6000	6000	7500	7500
Width of box	[mm]	2000	2000	2000	2500	2500
Height of box	[mm]	1500	1500	1500	1800	1800
Cutting width	[mm]	700	700 / 950	950	950	1250
Höhe Vorschub	[mm]	600	600	600	800	800
Height of pusher	[mm]	13000	13000 / 15000	15000	20000	20000
Total height	[mm]	4500	4600	5000	6700	6800
Total width	[mm]	7500	7500	7500	9000	9000
Force hold-down	[kN]	2000	2800	2800	2 x 2000	2 x 2800
Force pusher	[kN]	2000	2000	2000	2800	2800
Force side compr.	[kN]	2 x 1500	2 x 2000	2 x 2000	2 x 2800	2 x 2800
Force lid	[kN]	2 x 1500	2 x 2000	2 x 2000	2 x 2800	2 x 2800
Motor capacity	[kW]	3 x 90	4 x 90	4 x 90	5 x 90	7 x 90
Total weight	[t]	200	200 / 220	260	280	330

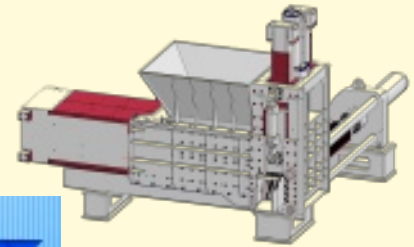
Flow Peaks are avoided by an intelligent control system, so that high pressure surges and the typical "popping" belongs to the past. The hydraulic oil is 2 times filtered by the RECUPERMA Shears. In general, the entire amount of oil is transported continuously through a return filter. In addition, an amount of about 10% 20% is permanently filtered in a secondary flow stream. This two independent filter processes will reduce the contamination of the oil significantly and the lifetime of the individual hydraulic power units, such as pumps, are substantially increasing. All cylinders are equipped with an internal displacement measurement and a special sealing system of the newest state of the art. This increase piston speeds and lifetime services to a maximum. New standards for best operation are defined by RECUPERMA. The complete working process can easily be controlled and effectively operated intuitive by a color display, which is direct located to the Operator's special ergonomic chair. (As Option: an operation by remote control is also possible). In case of technical control question, which are not able be solved on site, a special remote service team in RECUPERMA's Headquarter can be called and saves by this way time and money to find solutions for running the Shear again.





Especially for these input materials:

- Punching waste (steel, aluminum, etc.)
- Sheet metal waste
- virgin metal sheets
- etc.



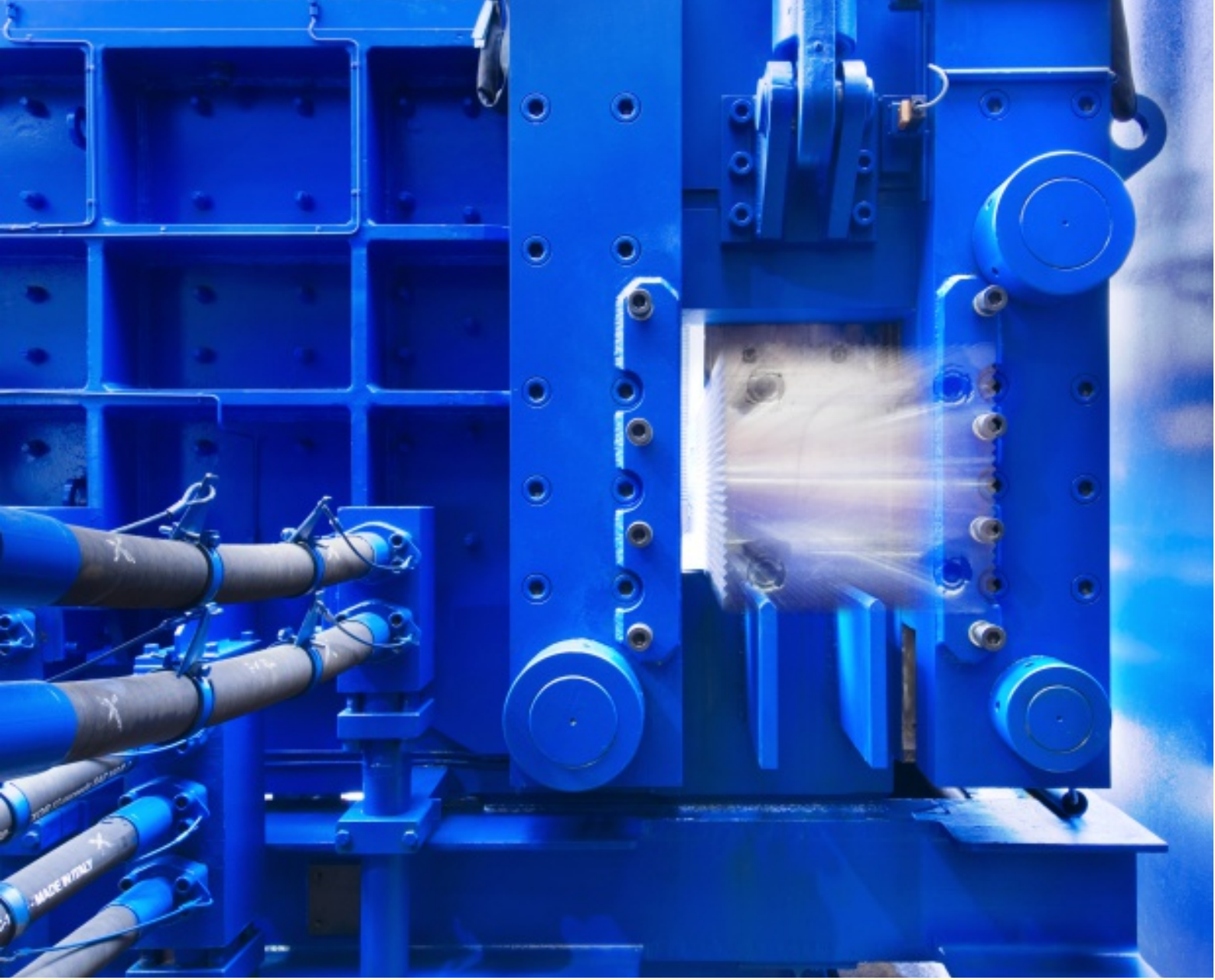
Professionals in presses

Model RECU S		200	300		400	500	600	
Bale dimension	[mm]	200	300		400	500	600	
1st compression	[kN]	1250	1140	1140	1850	2400	3050	3560
2nd compression	[kN]	1250	1200	1500	2400	3400	4800	6870
3rd compression	[kN]	2600	1850	2400	3400	5400	7500	9890
Length of baler	[mm]	5500	5000	5000	7100	8500	12000	14000
Width of baler	[mm]	5700	6300	6300	8200	9000	10000	10000
Height of baler	[mm]	3750	3600	3600	5400	5600	6500	6000
Length of compr. box	[mm]	1570	2250	2250	2750	3500	4500	5300
Width of compr. box	[mm]	800	1000	1000	1500	1800	2000	1800
Height of compr. box	[mm]	600	800	800	1300	1400	1600	1500
Motor capacity	[kW]	1 x 90	1 x 90	1 x 110	2 x 90	3 x 90	3 x 90	4 x 90
Length of input box	[mm]	1100	1700	1700	1950	2400	3350	4000
Width of input box	[mm]	720	920	920	1420	1720	1920	1760

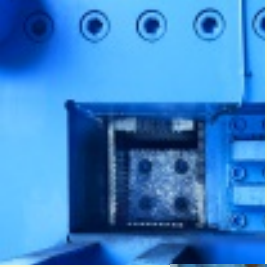
Recuperma's RECU 3 scrap metal baler is especially known for its tough torsion welding construction. All modules of the baler are screwed together during the erection. By the constructive control of the power flow alongside the machine into the foundation, an exact press process and a maximum of lifetime of the machine can be guaranteed. All wear plates (at least HB500) are profiled and milled in our own production. The effect is that press stops, caused by material, are avoided to a possible maximum. The hydraulic pump system of the RECU 3 is optimally adapted to the requirements of the adjusted pressing operations and their coordinated movements. Peak currents are avoided, so that shocks in the hydraulic system belong to the past.

Clean hydraulic oil increases the process reliability and the expected lifetime of the individual hydraulic power units, such as pumps and valves. Therefore, the hydraulic system of RECU 3 will be delivered as standard with a return filter, which cleans the entire quantity of oil. In addition an independent secondary flow filtration, for about 10% 20% of the whole quantity of oil, ensures cleanest oil quality. The hydraulic cylinders of RECUPERMA presses are equipped with internal displacement measurement and a special sealing system. This increases the piston speed and ensures higher lifetime of the sealing system, compared with normal Seals / Presses. The machine concept of RECU 3 is completed by an intuitive color display on which all machine processes can be followed anytime during the machinery operation. The central lubrication with progressive distribution at each camp provides an effective, automatic lubrication. In addition, the RECU 3 is equipped with a remote control. The ability for a remote control, to access and assist directly from a service team from RECUPERMA in CastropRauxel, will save time and money for our customers.

Recuperma's RECU 3 provides a maximum of process reliability, is easy to use and is effective in operation by a high lifetime.



Tire Wire Baler



Especially for these input materials:

- Tire Wire
- Metal shavings
- Aluminium
- Copper

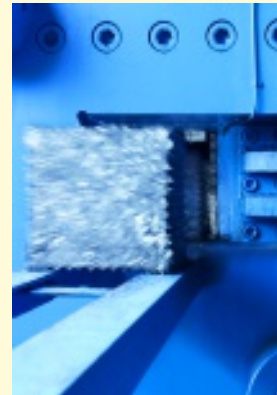


Frizzy set into measure

Recuperma's tire wire baler is due to the extremely high pressing force in the final density of approximately $6,400 \text{ N / cm}^2$, ideal for crimping flexible and unruly material, such as e.g. tyre wire, or metal shavings.

Settings in the PLC (via display selectable) allows the operator to choose between special pressing parameters for handling the different materials in the pressing process. This leads to best pressed metal packages for the Smelting process.

The technical data of the tire wire press are in principal according to the RECU 3/200.



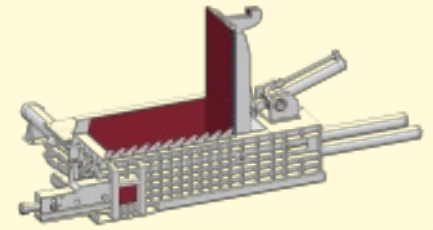


Lid Baler RECU D

RECU D

Especially for these input materials:

- Bulky, large materials
- car bodies
- etc.



Plenty room for big things

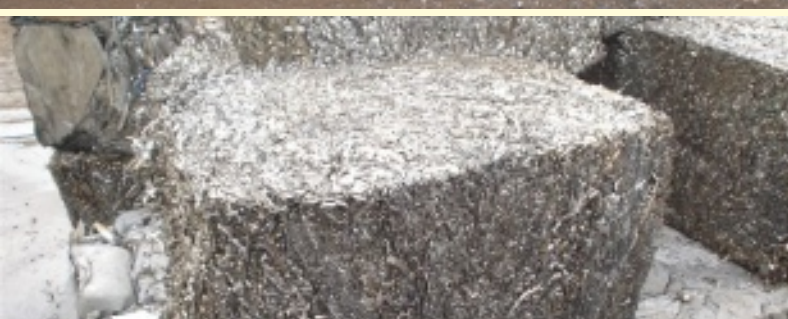
Recuperma's RECU D can be used as a press for very large and bulky materials. Caused by the large input feeding, the material can be placed directly into the machine bed. The cover plate is not hindering, because it can be completely vertical opened, for putting in the input material by a crane. This is ideal for example for car bodies, etc.

Alongside the complete scope of the RECU D knives are fixed, so that superior input material is able to be directly cut, when the cover plate closes the press cut. This prevents any stops by jam. The design of the wear plates depends on the specific application and according to the different input material. The plates can be performed as follows:

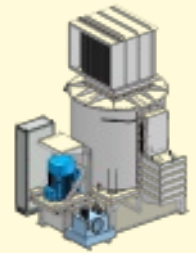
- smooth, without profiling
- with profiling, such as trapeze- or washboard-profile
- with patch strips

The machine technology, such as the hydraulic pump system, is analogous to the RECU 3 layout and according to this, also designed as newest state of the art.





Universalzerkleinerer RECU UZ



RECU UZ



Especially for these input materials:

- every kind of material compounds
- Cast iron housing with inclusions (for example, threads)
- Small electric motors
- Pump housing made of plastic
- Electronic scrap (WEEE-materials)
- Slag
- etc.

Smooth dismantling by a tornado

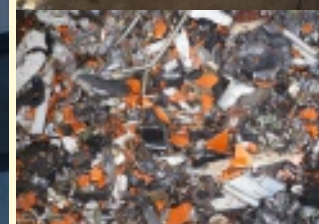
Recuperma's RECU UZ dismantles very smoothly a wide range of compound materials by changing converting kinetic energy into potential energy. The working principle acts like a Tornado. Inside the working room the compound material is set into rotation and strikes against each other. Caused by the different density of the compound material, lots of impacts are dismantling the input compound into its different kind of components. Therefore, the RECU UZ, called „Universal Dismantler“, makes its name all honor. The advantage of this dismantling process compared to a cutting process is obvious. A "smear" of the different components of the compound is largely avoided. After the Tornado runs over the compound, the dismantled clean components are now perfect prepared for any individual afterwards separation process. The machine can be operated continuously or in batch mode. Flexible adjustments of the door opening, as well as changing the speed of the rotation tools, allows the operator to define the degree of the dismantling and thus defining the grain size of the output material completely free.

The RECU UZ opens the operator a new level of recycling and offers in the age of rising secondary raw material prices, especially that one for precious metals, a lucrative opportunity to attract resources and to increase the value of the input material significantly.

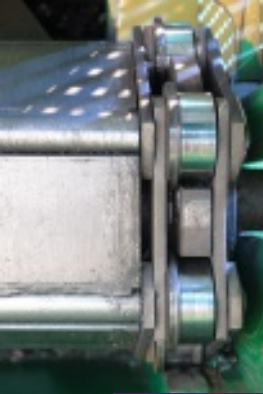
Model RECU UZ		1000	1200	1600	2000
Diameter of reactor	[mm]	1000	1200	1600	2000
Length of UZ	[mm]	2100	2400	2900	3260
Width of UZ	[mm]	1350	1400	2700	3200
Height of UZ	[mm]	2300	2500	2900	3200
Motor capacity	[kW]	55 / 75	75 / 90	110 / 132	132 / 160

RECUPERMA's Electrical Control and Programming Department programmed in details a lot of possibilities to operate the UZ. It is possible to define to every compound an own program, which is saved directly in the PLC.

The specialized and effective monitoring software measures the motor current and provides an ideal utilization of RECU UZ. The mechanical modular key system ensures constantly the necessary security, while operating and maintaining the machine. Recuperma is able to be a general contractor for the entire machinery including the control technology, as well as to be a supplier of the key component RECU UZ implementing into customers plants. Our sales team will be happy to advise you to the market opportunities and the investment potential of the RECU UZ.



Steel plate conveyors RECU STPB



RECU
STPB



Especially suitable for:

- heavy, bulky materials
- Cutting Scrap
- Kupol Scrap
- DSD-Material
- etc.

Transportation what's possible

Recuperma's RECU STPB steel plate belt for heavy materials, is characterized by its high operational reliability. The modular hinge system connects the individual plates of different width and offers a maximum of security and flexibility in operation as well as in its maintenance. The modular design provides a flexible range of application, because the length, width and height can be varied free. The efficient and sustainable construction makes the conveyor robust, low in maintenance & repair and offers long lifetime for operating. The transportation chains are equipped with the hinge plates and are driving via large bearing pulleys. The conveyor belt is driven via a drive shaft to the plugged gear motor, as desired with hydrodynamic coupling. The various designs make the RECU STPB flexible and usable for each application. Here are some possible variations:

- Horizontal design
 - L-Ausführung
 - Z-Ausführung
 - Bunker conveyor
 - waving conveyor
- (Optional with baffle station.)

Our Sales Engineers are ready to work out for your application a perfect transportation solution.





Wear plates manufacturing



Wear
plates

Especially suitable for:

- Scrap presses (profiled / non-profiled)
- Scrap Shears
- Shredder
- Cutters
- General: to protect the machine material



Wear costs?! We set new standards

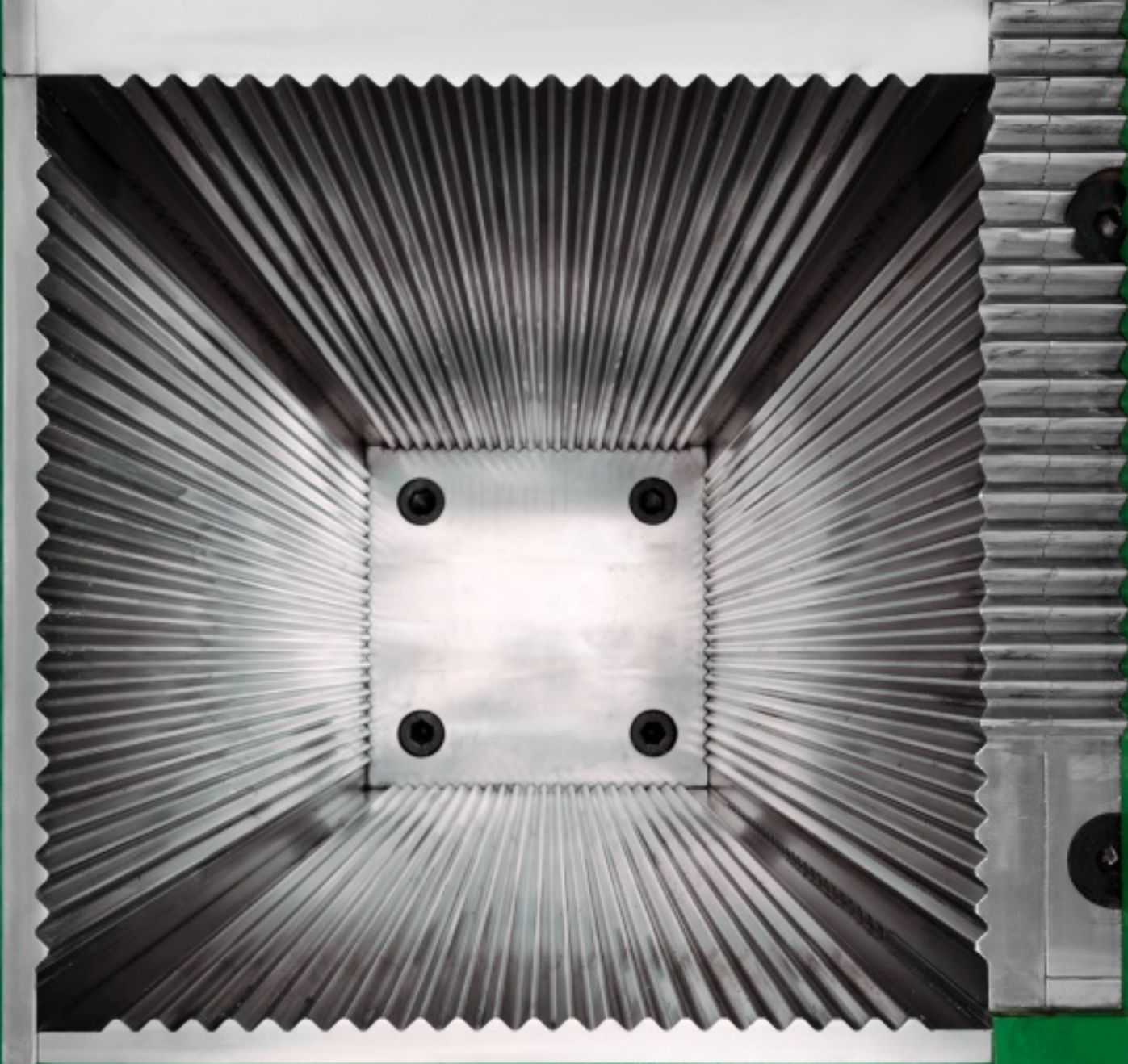
Recuperma's wear plates are produced on top modern CNC milling machines. The intensive cooperation directly with the manufacturers of wear-resistant raw materials ensures a high material quality for all wear parts. Only German, respectively Scandinavian quality steels with material certificate are processed by RECUPERMA.

Together with our Construction Department and the experience of our industrial mechanics in the production, we are able to find out a perfect high wear resistant material for your application.

Brinell hardness up to HB 600 can be handled by our machining centers, to guarantee a significant increase of the lifetime of the wear parts. We provide you with wear plates for all standard equipment of all machine types, which can be bought on the market.

According to the application, the wear plates can be produced profiled (washboard, trapez, etc.) or flat.









Production

RECUPERMA
DEUTSCHLAND

Production

Recuperma's Production consist of multiple milling and lathes being on a modern manufacturing state of the art.

Our staff implement all requirements of complex welded structures. They are trained constantly internally as well as externally.

Our DVS IIW certified welding engineers are responsible to keep the high standard of training the RECUPERMA staff.

Quality has a name:
RECUPERMA GmbH Germany.

- Made in Germany -



Maintenance / Repair / Service



Maintenance / Repair / Services for:

- Presses*
- Shears*
- Shredders*
- Cutting Mills*
- etc.

* Also for all other manufacturers (Regardless of the manufacturer)



Recuperma Germany GmbH offers a TASK FORCE TEAM for its customers. In affairs of wrecked machines or other overhauls, maintenance and repair work, the special team can be there as soon as possible, to look for a quick restart of the customers production. This team works close to the fabrication plant, for getting the right wear and spare parts just intime.

This performance is an efficient and excellent benefit for the RECUPERMA customers. The team consists of mechanics and electricians with many years of experience, continuous further educated specialists such as hydraulics, programmers, etc.



**downtime
does NOT
make Money!**





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Recuperma GmbH - worldwide



Europe

Germany

Benelux Countries

Netherlands

Belgium

Luxembourg

France

Spain

Portugal

Germany

Head office / production
Germany / Castrop-Rauxel

Office
Germany / Magstadt

Eastern Europe / Asia

Kasachstan

Azerbaijan

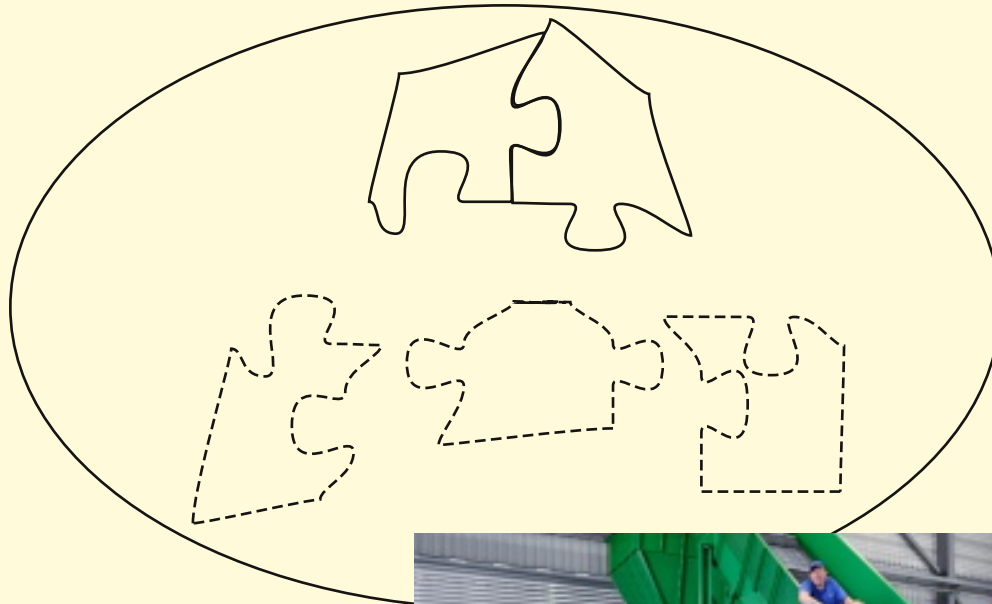
Turkmenistan

Uzbekistan

Tajikistan

Kyrgyzstan

China



Product range and performances



Product range

- Scrap shears
- Scrap metal balers
- Tire wire balers
- Balers for turning
- Lid balers
- Universalzerkleinerer
- Steel plate conveyors
- Special purpose machines

Performance

- Maintenance
- Repairs
- Service
- Spare parts (independent from manufacturer)
- Steel construction
- Wear plates production
- Chipping production
- Thermal production
- DVS® IIW certified welding engineer
- Construction engineers
- Certified (tube-) welder
- Certified Geprüfte steel construction fitter
- Programmer
- Electrical engineers

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