

## Metso Recycling Equipment

### Our range:

Pre-Shredders  
Shredders  
Shredder Plants  
Metal Crushers

Scrap Shears  
Turnings Crushers  
Briquetting Presses  
Double Screw Presses  
Anode Crushers

Screen Drums  
Scrap Baling Presses  
Waste Fine Shredders  
Waste Pre Shredders

## Metso Recycling Services

### Uptime Services

Inspection Services  
Parts Services  
Repair and Refurbishment  
Troubleshooting Services

### Performance Services

Process Monitoring Services  
Optimization Services  
Upgrade Services  
Training Services

### Project and Engineering Services

Start-up Services  
Health, Safety and Environmental Services  
Engineering Services  
Plant Relocation Services

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[www.metso.com/recycling](http://www.metso.com/recycling)

We reserve the right to make changes and improvements without notice, „Lindemann Power@Cut Wing“, Metso Recycling, June 2012

# The flexible scrap shear from Metso Recycling Lindemann Power<sup>®</sup>Cut Wing



The flexible wing type shear

# The scrap shear for small and medium volumes

## Obtaining the title “global market leader” requires a lot of hard work

The first three hydraulic guillotine scrap shears in the world went to the USA in 1956. Since then, we have sold more than 1,500 scrap shears worldwide. Metso Recycling sets the international standard with outstanding technology and quality. Our machines are among the best in the market in terms of productivity, availability and service life. Our customers benefit from over 90 years' experience within the scrap business.

## 6 generations of craftsmanship and inventive talent has been our drive

The Lindemann Power®Cut Wing is the answer to the production requirements of up to 25 tons per hour; this is a scrap shear with excellent efficiency, good manufacturing quality and technology. Metso Recycling has incorporated most of the famous features from the EtaCut series in the Lindemann Power®Cut Wing – famous features in terms of mechanical, hydraulic and electrical components. Smaller does not mean less, as far as we are concerned.

## With Metso Recycling, you feel at home all over the world

Metso Recycling is represented all over the world. With more than 150 locations, our service teams are available at short notice, even in the most remote corners of the world.





LUGES



LUSEA



LUSOT



LU



EtaCut



Flexible to meet your needs

# Lindemann Power®Cut Wing because every scrap yard is different

## Ready for any task: Intelligent control systems for optimum process sequencing

Non-contact, path-measuring sensors integrated in the stamper and shearing cylinders, laser-controlled monitoring of the pusher cylinder, and rotary potentiometers on the lid and wing. The control system constantly monitors and optimizes the compacting and cutting process. Numerous programs for different types of scrap can be selected at the push of a button, for instance: full stroke, partial stroke, relative stroke.



## Ready for any task: Highly wear resistant materials and easy replacement of wear parts

All parts in the areas where wear is critical are made of highly wear resistant Lindur. This is exactly the same as the well proven technology of the EtaCut scrap shear: Prismatic guidance (V-guidance) of the blade slide for precise transfer of force. Wear on the external guides is compensated for by simple readjustment, consequently, optimum operation with minimum blade clearance is ensured.



### Technical data

Shearing force (t)	630 or 800
Blade width (mm)	800 or 1000
Stamper force (t)	160
Lid compression (middle) (t)	245
Wing compression (middle) (t)	200
Pusher force (t)	120
Feeding bed length (m)	6
Drive	Electric 2 or 3 x 90 kW
	Diesel 230 / 400 kW
Production capacity (t/h)	up to 25



**Ready for any task: Critical components are protected in a container**

The entire electrical control system, as well as the electric or diesel drive, are supplied pre-installed in a container. This makes a supplementary pump room redundant and accelerates the installation of the machine. Furthermore, these critical and sensitive components are protected both against the weather and mechanical damage.

**Ready for any task: The fastest scrap shear in its class**

Production capacity under full load conditions in normal operation with material: up to 25 tons per hour and 7 cuts per minute. Separate oil supply circuits for shear and stamper, so they can work at the same time instead of one after the other.

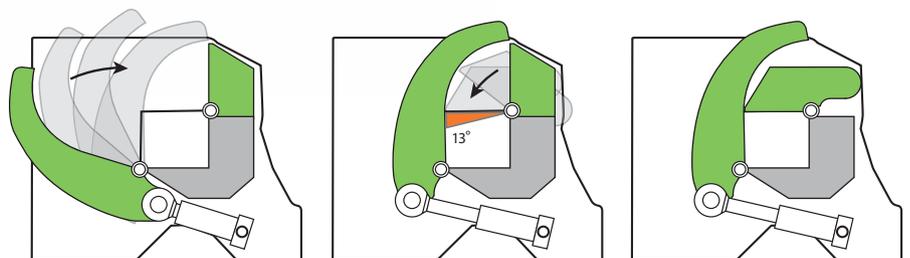


**Ready for any task: Highly stable and rigid construction**

A honeycomb structure of folded profiles in the press box, wing and lid offers maximum resistance to eccentrically applied forces during compaction. A high-strength pusher with folded profile cover ensures a straight run when baling and feeding. Despite a low installation height, the rigid closed design of the shear frame allows optimum absorption of the reaction forces when cutting.

**Ready for any task: Over stroke, only from Lindemann in this class**

As in the case of the Eta®Cut, the press lid has an over stroke of more than 13 degrees. Thereby the scrap log is over compressed, so that wear is minimized when feeding to the shear frame.





Efficiency begins with performance

## In its class the Lindemann Power®Cut Wing is the fastest shear

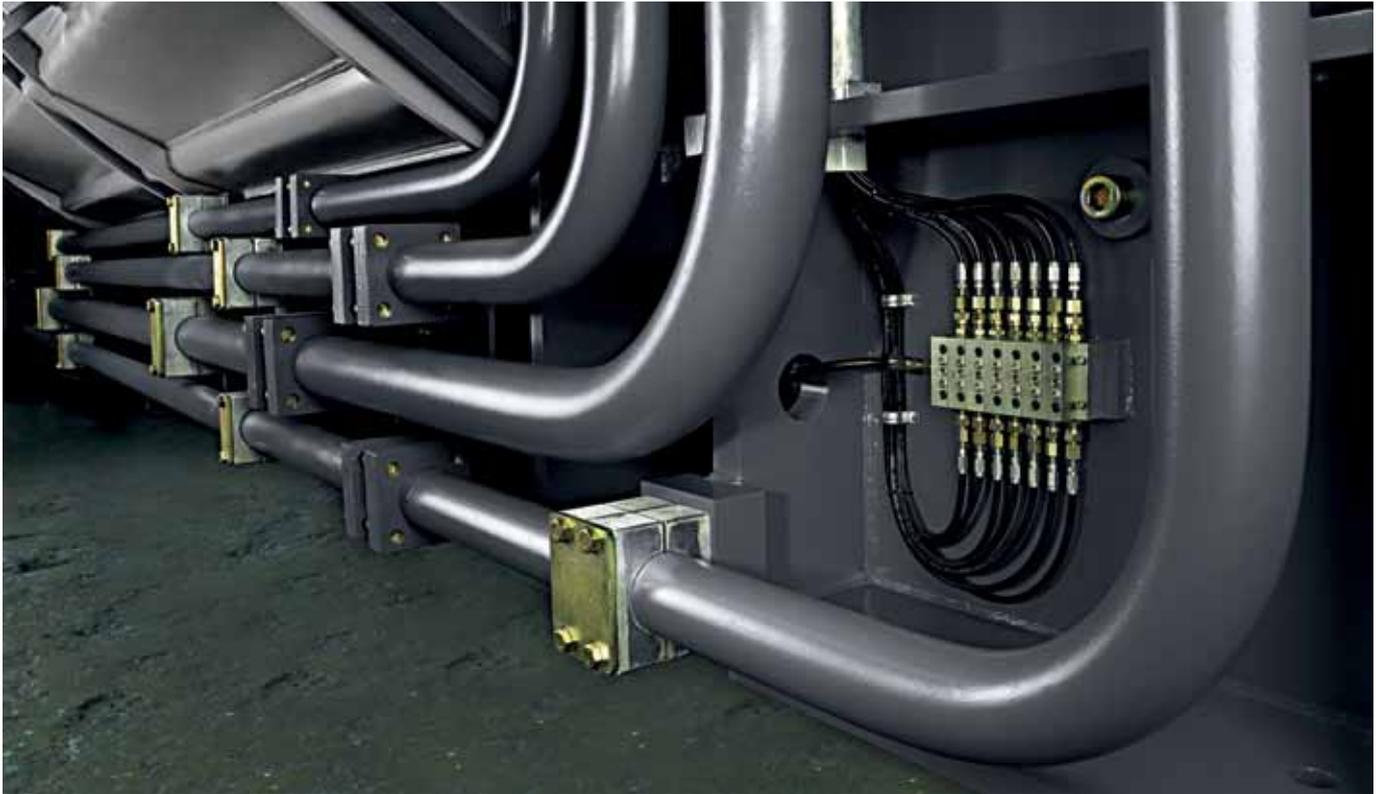
### **No scrap shear for small and medium-sized volumes is more productive**

The production capacity is up to 25 tons per hour and up to 7 cuts per minute. The values were measured under load in normal operation with material. This performance is achieved both with semi-mobile and stationary versions. The oil supply circuits for shear and stamper are separate so that they can operate simultaneously, instead of one after the other. The bent high pressure lines are in one piece and not welded-together shaped sections. This sophisticated technology causes less capacity losses and prevents leakages. The pipelines and control blocks are generously dimensioned.

### **A Metso Recycling shear comes with sophisticated technology**

The position measuring system has been developed to be infinitely variable in order to precisely determine the speed and control.

Non-contact sensors in the stamper and shearing cylinders and lasers at the pusher cylinder prevent interruptions to production due to soiling of the proximity switches, or damage through pieces of scrap. The shock relief damper has been optimized and logic blocks implemented to support faster, but nevertheless smoother work cycles without pressure shocks. Special pump combinations for the low and the high pressure range and optimum switch-off and switch-on points result in faster work cycles with reduced installed power.



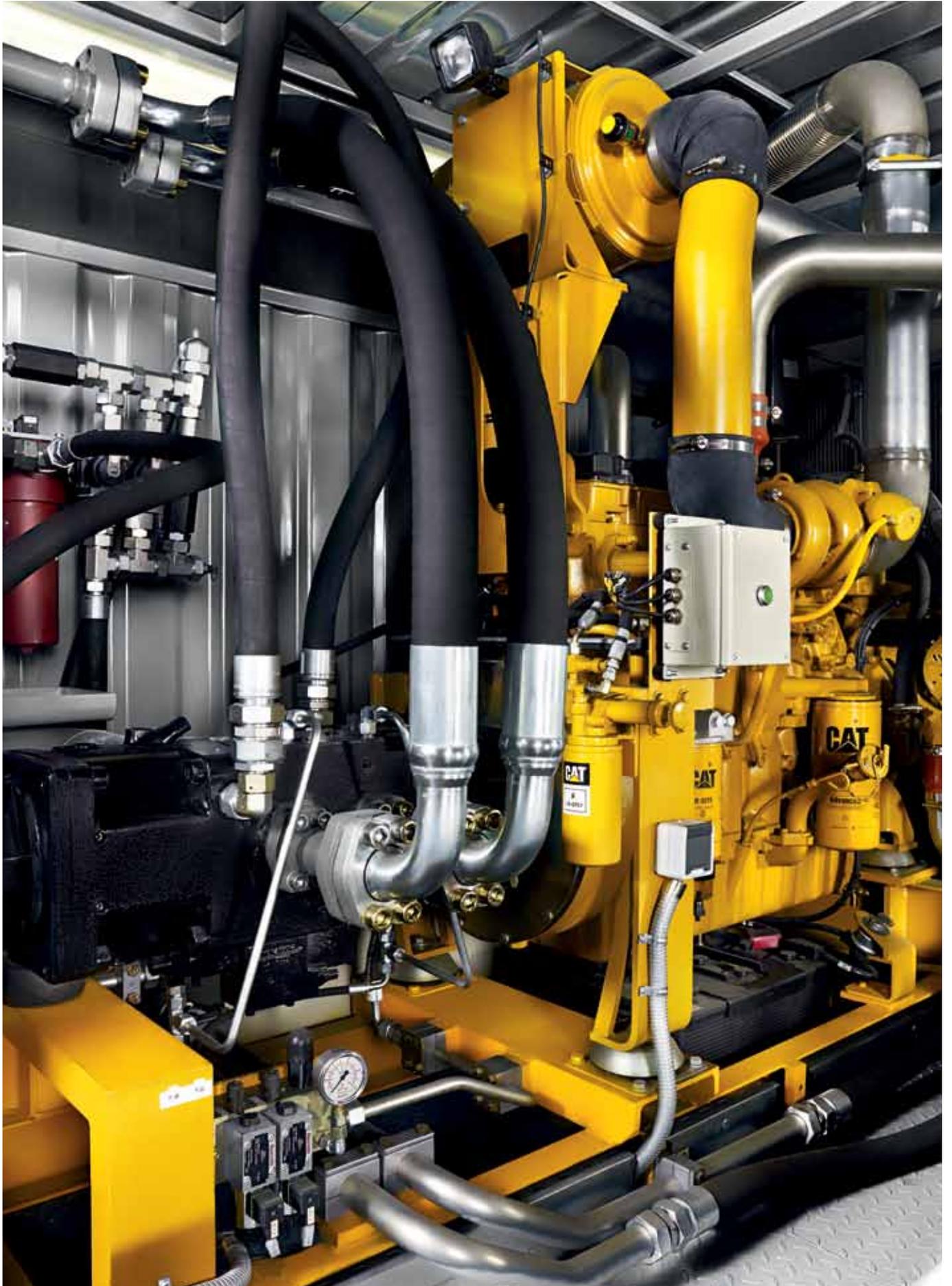
Up to 3 x 90 kW installed driving power



Up to 25 tons/hour and up to 7 cuts/minute



Infinitely variable and non-contact path-measuring system



If power is too expensive or difficult to procure

## With powerful diesel drive the shear is self-sufficient

### Performance, even if the next power connection is miles away

The optionally available turbo-diesel motor delivers 230 kW or 400 kW installed driving power. With this power the machine delivers a production output of up to 23 tons per hour and 6 cuts per minute. The values were measured under full load in normal operation with material. The braking points can be optimally controlled by means of volumetric flow control of the hydraulic system. The axial piston pumps are driven directly and are both output and volume controlled.





Protected against falling pieces of scrap, wind and weather

# The hydraulic and electronic components of a Metso Recycling shear are protected in a container

## Valuable parts housed safely

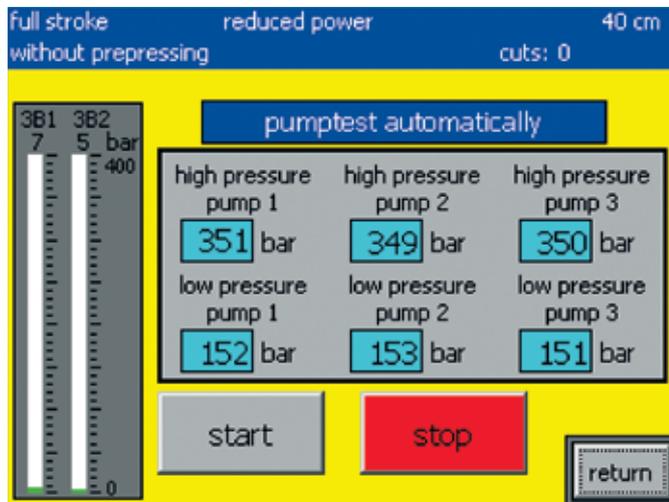
Lindemann Power®Cut Wing is very robust and solid, therefore the most sensitive and valuable components of a scrap shear, such as the hydraulic and electronic elements, are installed in a standard size container. It's eliminates the need to build a pump house. Consequently, time and costs are saved when setting up and the space requirement is reduced to a minimum. Strong outer walls protect against damage from pieces of scrap falling, e.g., from trucks or cranes. If required, the Lindemann Power®Cut Wing can be equipped for winter operation in temperatures down to - 40°C.

## Well thought-out down to the last detail

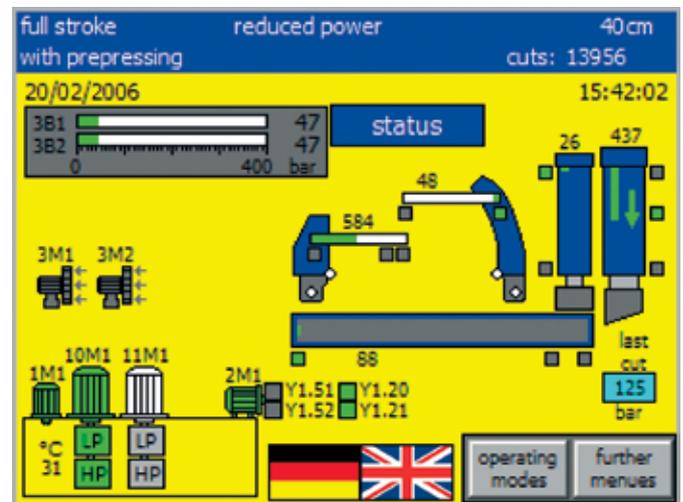
The control cabin can be fully air-conditioned if required. Labor-saving: The standard remote control enables the excavator driver to operate the shear entirely from the driver's seat.

It is easy to plan maintenance of the shear in advance

# Detecting problems before damage occurs



Automatic pump test



Touchscreen control panel

## Our intelligent control system minimizes downtimes

An automatic pump test program can be run via the control system. It detects any damage at an early stage and reports this to the operating terminal. Maintenance can be planned in good time and performed in a time-saving way.

Our optional remote diagnosis via tele service allows quick and low-cost assistance in case of problems. Faults are analyzed without being on the spot and the visit of a service technician can be better planned or even superfluous.

## User guides save labor as well as time

A context-dependent user guidance developed by Metso Recycling displays only the operating elements relevant for the concrete operating sequence, which simplifies operation and prevents errors. The user guidance is available in any language and allows visualization of the pertinent process data. A series of selectable automatic programs adjusts the Lindemann Power®Cut Wing to different types of scrap and increases productivity.