



RECYCLING OF FERROUS AND NON-FERROUS SCRAP METALS

## HYDRAULIC SCRAP SHEARS

**LIDEX**

**REFLEX**

**S-WING**

[www.copex.com](http://www.copex.com)

# LIDEX SERIES

Lidex scrap shears are ideal for **processing heavy and bulky metal scrap or when high production volumes are required**. They are the only side compression machines to offer a true **fully automatic cycle** that includes the discharging of scrap materials from the preload table into the compression box, the closing of the box and the complete cutting cycle.



### PATENTED HIGH COMPACTION EFFECTIVENESS

Copex offers the Lidex as the only machine having a **fully automatic and extremely fast closing cycle of the compression box**, particularly through two major patented innovations. Firstly, due to the **kinematics of the preload table** with its offset axis, the falling scrap is directed directly to the pusher area exactly below the lid. In addition, the **high amplitude lid covering 80% of the box** in closed position, has a large lever arm making it very powerful. **The preload table is loaded in hidden time** during the box closing and shearing cycles, which further reduces cycle times.



### OPERATION CONTROL

The **intuitive touch screen** displaying all production parameters and operating data can be used to carry out preventive tests and manage alarms. An additional portable screen can be positioned in the loading crane. Remote maintenance allows Copex to take actions remotely at the operator's request.



### A FAST SHEAR

The shear makes **7 cuts per minute** thanks to the simultaneous movements of the shear and the hold-down. **Equipped with a rail breaker**, it processes the hardest scrap. A hydraulic balancing valve system regulates the downward movement of the shear using maximum power while controlling the movement perfectly. In case of sudden material breakage, a counter-pressure compensates the own load of the blade slide block while its extended guide system **reduces the clearance between the blades and guarantees constant cutting performance**.



### ENERGY EFFICIENCY

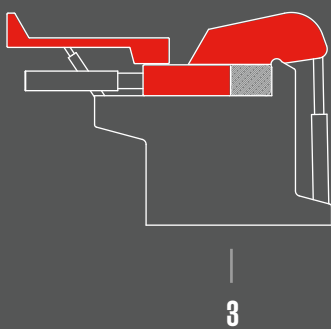
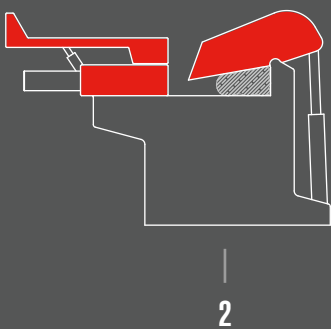
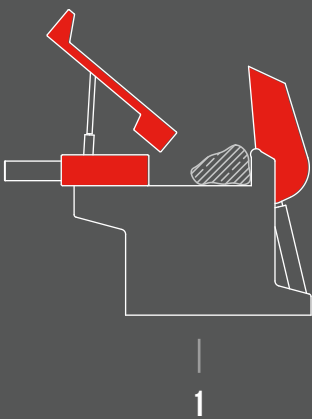
High cutting speeds are made possible by the simultaneous automatic movements of the hold-down, the shear, the side-press, the lid and the preload table. The speed of the movements is increased by the transfer of oil between the cylinders and the **use of new generation high pressure pumps**. While cycle times are optimized, **energy consumption is reduced by 17%** in comparison to previous generations of scrap shears. In addition, the proportional design of the hydraulic pumps means increased energy efficiency during certain operating phases.

### EASE OF MAINTENANCE AND OPTIMIZED COSTS

The machine is delivered with an **ideal ergonomic maintenance platform** and special tools for quick and safe blade changes. Through the **screwless lower blade tightening system** specifically developed by Copex, the time required to replace blades is only 2 hours with 2 operators.



Cutting Force t		1000	1300	1700	2000
Compression box	L (mm)	8000	8000 / 10 000	8000 / 10 000	10 000
	W (mm)	2000	2600	2600	2600
Cutting width	mm	600	800	1000	1500
		800	1000	1500	
		1000	1350		
Electric power unit	kW	4/5 x 110	5/6 x 110	6/8 x 110	8/10 x 110
Capacity up to	t/h	55	80	110	130



To find out more, scan the QR code or watch the video online at <https://bookbeo.com/CopexMovie1>

Electric or diesel version, hydraulic unit in container, extreme climate adaptation: Feel free to consult us for your specific requirements.



# S-WING SERIES

The latest Copex scrap shears type S-Wing are the response to the sustained demand for machines with pre-compression by wings for processing **light to medium-heavy bulky scrap**. These machines have a reinforced compression box and optimal cylinder protection. The compression box allows for high compaction performance due to the overstroke of the press wings. S-Wing machines have an extended blade slide block guide system and the same clever device as the heavy-duty scrap shears with side compression for quick blade replacement. **The S-Wing machine series is a concentrate of Copex know-how.**



### DURABILITY AND LONGEVITY

The pusher cylinder rod is covered along its entire length for optimal protection. The wear plates of the pusher piston and the bottom of the compression box, as well as those of the hold-down chamber, are grooved, preventing any scrap metal from passing through. All hydraulic connections, electrical wiring and sensitive components such as magnetostrictive and laser sensors are **protected against shocks and scrap**.



### HIGH COMPRESSION EFFICIENCY

The reinforced press wings box is covered with easily replaceable anti-abrasion wear plates. To increase compaction power and reduce cycle times, the press wings have a **specific kinematics** for **optimal "wrapping"** during the compression phase. The outer press wing has a large overstroke to reduce the wear of the plates during the forward movement of the pusher, contributing to improve the compaction efficiency. **The preload table increases production** as scrap materials are loaded in hidden time.



### OPERATING COMFORT

Through the display screen of the radio control, the operator visualizes all operating data at a single glance. Through the additional screen on the switch cabinet the operator manages operating data and anticipates maintenance. **The electrical and hydraulic units, placed in a soundproof container**, are easily accessible for maintenance. S-Wing machines also have their **own maintenance platform and special tools** for safe and easy replacement of the cutting blades.

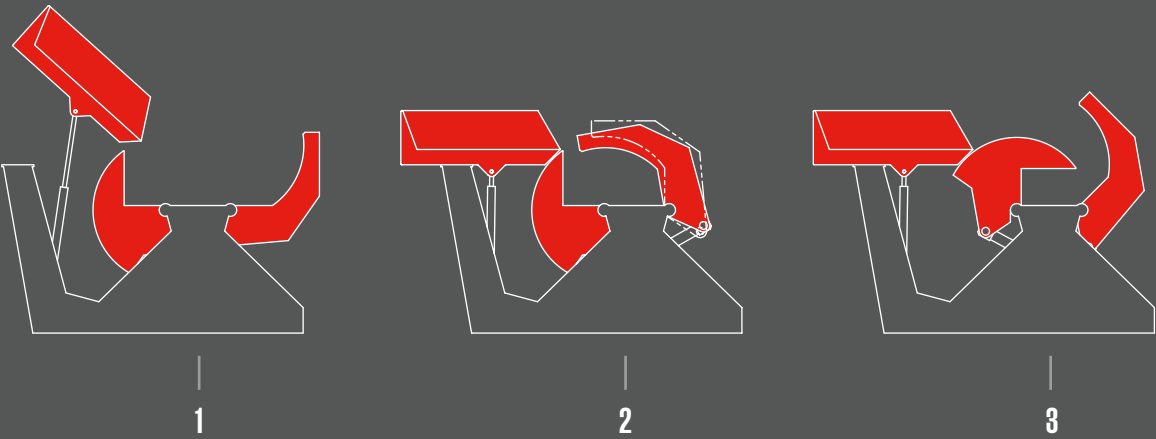


### A HIGH-PERFORMANCE SHEAR

Through the simultaneous movements of the shear and the hold-down, the machine **achieves very high cutting speeds**. The 1000t cutting force version is equipped with a rail breaker for processing the hardest scrap. The extra-long slide block guiding design ensures consistent cutting performance under heavy use. The blade clearance adjustment device helps to increase the service life of the machine and reduce energy consumption.

Cutting force	t	800	1000
Cutting width	mm	810	910
Hold-down force	t	120	200
Compression box	L (mm)	6500	7500
Wing forces	t	2 x 400	2 x 570
Electric power unit	kW	355 3 x 110	3 x 110 4 x 110
Diesel power unit	hp	650	650

Cutting force (t)	800	1000
Production of bales	✓	✓
Rail breaking mode	-	✓
Full automatic greasing	✓	✓
Hydraulic blade locking system	✓	✓
Pusher ram with integral skirt	✓	✓
Preload table	✓	✓
Soundproof container	✓	✓



Feel free to contact us for your specific requirements.



# REFLEX SERIES

Reflex mobile and portable scrap shears have been designed to **process light bulky scrap metal**. These machines are very easy to move and install. They are available either with road approved chassis in true mobile version, or portable with hydraulic support legs. They can also be fitted on a metallic frame. Through **the extended slide block guide system on the cutting head**, Reflex machines offer **unequalled qualities of robustness and durability for this category of machine**.



### PORTABLE VERSION

Reflex scrap shears can be supplied in a portable version with or without hydraulic support legs, making it possible to load them onto a low bed trailer.



### WHEEL PROTECTION SYSTEM

The wheel protection system consists of high-strength steel plates and is a real advantage for mobile shears. During transport, the plates are in the raised position for safe movement of the machine. On the scrap yard, they are folded down to protect the road axles from falling scrap.



### SHEAR FRAME: ROBUSTNESS AND DURABILITY

The Reflex is the first mobile shear in the market to feature the same techniques as those used on heavy-duty shears. The innovative shear guiding system ensures a balanced distribution of the cutting forces. The first advantage is the extremely long service life of the shear frame. An additional asset is the reduced wear of the consumables that makes it possible to maintain a high cutting performance over time with a **frequency of interventions divided by 3**.



### HIGH EASE OF OPERATION

Reflex machines have **excellent soundproofing** thanks to the use of high quality insulating materials covering the engine casing and large acoustic louvres that considerably reduce the engine noise level. Accessibility to parts and control elements is optimised by large removable panels and a platform designed to facilitate the operator's movements.



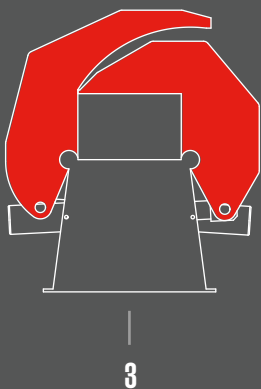
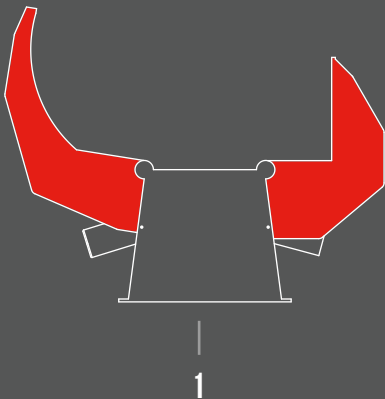
### COMPRESSION EFFICIENCY

The **innovative kinematics of the press wings** developed by Copex maximises the forces at the end of the box closing, where it is most necessary, while the design of the press wings offers optimal wrapping of the scrap material during the pressing phase. As a result, cycles times are significantly reduced. The Reflex 900 has the most powerful box closing force of any other machine of this class.



Cutting force	t	650	900
Hold-down force	t	120	200
Compression box	L (mm)	6000	7000
Diesel power unit	hp	350	500
	kW	257	368
Electric power unit	kW	210	370
	axles	4	6

Cutting force (t)	650	900
Semi-mobile version / Portable version	✓	✓
Production of bales	✓	✓
Hydraulic blade locking system	✓	✓
Cabin	✓	✓
Pre-load table	✓	✓



To find out more, scan the QR code or watch the video online at <https://bookbeo.com/CopexMovie2>

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“ **T**his year Copex celebrates its 75th anniversary. We are proud of our long history.

We have always manufactured our machines in our factory in France, where about a hundred people work. This strategic choice is the best guarantee for the high quality of manufacturing and finishing of our machines.

In recent years, we have invested massively in research and development. This has enabled us to make a decisive technological shift that has led us to renew all our ranges of machines.

These innovations that we are sometimes the only ones to offer improve the performance and ease of operation of our machines.

Our scrap shears attract new customers and those who already use them are loyal to us. That is the reason why being attentive to the users of our machines and providing them with high quality service will always be our top priorities: our customers are and will continue to be our best partners in this great adventure... ”

Frédéric Malin,  
Chairman & C.E.O.



**+75** YEARS  
OF EXPERIENCE



**+900** MACHINES  
IN THE WORLD



**+100**  
WORKERS



**+40**  
COUNTRIES



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