LINDNER



SYSTEM SOLUTIONS

ONLY LINDNER CLIENTS CAN TRULY SAY: FROM MINIMISING MATERIALS TO MAXIMISING YOUR POSSIBILITIES.

LINDNER

95 DH



Nehlse

Adrian Reichardt Operations Manager Karl Nehlsen GmbH & Co. Kr Germany

#WASTETRANSFORMER

MAKE THE **MOST OF** WASTE.

SHREDDING TECHNOLOGY AND SYSTEMS ENGINEERING FOR THE RECYCLING INDUSTRY OF TOMORROW.

We believe in transforming waste into precious materials. That's why we invest all our knowledge and innovative power in shredding machines and system solutions that are highly efficient, robust, reliable and easy to maintain. So our clients can transform waste into a valuable and reusable resource - efficiently and reliably.

In-house research and development

Production on state-of-the-art machines, using the latest robotics & automation technology

In-house electrical engineering department

Consulting, engineering & system construction



Worldwide service network

Export countries



>350

INNOVATION AS A PRINCIPLE – QUALITY PROMISED AND DELIVERED

Josef Lindner founded our family business in 1948. He started by planning and producing machines and systems for the wood industry. Today, more than 70 years later, the company is still familyowned, employs over 350 people worldwide and exports to more than 90 countries.

Production still takes place in Austria. In 2022, we moved into our new home of recycling, the new company headquarters in Spittal an der Drau in Carinthia, Austria. We manufacture in line with trailblazing production standards on 14,000 m² using the latest robotics & automation systems. This way, we are able to manufacture the majority of components in-house, guaranteeing our proven Lindner quality and the rapid availability of machines, systems and spare parts.





AS DIVERSE AS LIFE ITSELF.

LINDNER'S MOBILE SHREDDING AND PROCESSING SOLUTIONS

Diversity is what counts when it's about Lindner's mobile system solutions.

They are the product of powerful drives and mighty technology. Where dedicated specialists encounter universal geniuses. And they all have one thing in common, that's just so Lindner: the robustness and quality of the components and the welded cutting system for maximum reliability with minimum maintenance.

1 URRACO 75 D | DK | E

Compact yet incredibly strong: A robust design with powerful diesel engines or electric motors, Lindner's Urraco 75 shreds even difficult materials with its two 1500 mm long shafts. Depending on the mobility required, it is available with a wheel axle and drawbar, heavy crawlertracked chassis or as a stationary version.

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2 URRACO 4000 E | EK | D | DK | DS

INER

Ingeniously flexible & electric: This twin-shaft shredder impresses with a shaft length of 2000 mm, its innovative FX fast exchange system, and the optionally available plug & play e-drive. The Urraco 4000 is highly flexible thanks to its trailer set-up or, in the case of the tracked model, its own independent unit for quick and easy transport to the site of operation.

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3 URRACO 95 DK

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Endlessly powerful: Thanks to its extremely powerful engine, a shaft length of 2500 mm and its aggressive intake, Lindner's Urraco 95 DK twin-shaft shredder makes short work of any material. Enjoy an incredibly reliable machine with low wear and tear, easy maintenance and low energy consumption per shredded tonne.

ZETA STAR 75 FZ 4

4 ZETA STAR 75 | 4000 | 95

Extremely precise: This winning combination of triedand-tested shredding technology and incredibly flexible screening equipment make Lindner's Zeta Star screens the ideal companion for every mobile Urraco shredder. Together, they are a turn-key, highly efficient system solution for turning waste wood into a strictly standardised end product.

VOLUME DOWN, MUEUP

SINGLE-STAGE WASTE WOOD PROCESSING

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THE FIRST STEP TOWARDS HIGH PROFIT MARGINS

Transporting waste wood over long distances to the recovery site is not economically viable without volume reduction. It makes perfect sense to shred the material on site at the collection centre to significantly reduce the number of required containers. An overbelt magnet fitted right after the shredder is also able to directly remove metals such as nails or screws from the shredded material. The resulting fraction can then be recovered directly, for example, depending on the combined heat and power plant's design. Alternatively, it can be processed further with less effort, as the first process step has already been completed.

Shredder	Urraco 95 DK
Engine	Diesel hydraulic
Cutting system	Synchronous fine SF 12.10
Screen	

Waste wood A1-A4
Up to 65 t/h
90% < 200 mm





TABOUTORIA

DUAL-STAGE WASTE WOOD PROCESSING

LINDNER HUBBACO 4000 HI

STANDARDISED AND ALSO ELECTRIC GUARANTEED

For a proper energy recovery from waste wood in power plants, the particles need to be homogenous and defined, since conveying and combustion equipment is always designed with specific particle sizes in mind. The widely used P63 F5 classification is a required fuel specification according to EN ISO17225-1, which specifies that the bulk of the particles must be smaller than 63 mm. It also states that only up to 10% of the oversized particles may be larger than 100 mm and fine particles smaller than 3.15 mm cannot constitute more than 5% of the final output. To achieve this, the perfectly matched star screen from the Zeta Star series is installed after the shredder, which can produce the coarser P100 particles without any problems thanks to Lindner's patented cutting unit, resulting in only the finest materials for recovery without oversized particles.

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APPLICATION NOTE:

Screen	
Screen	Zota Star 1000 E
Cutting system	Synchronous fine SF 10.8
Drive	Electric
Schredder	Urraco 4000 EK

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ZETA STAR 4 00 E

Material	Waste wood A1-A3
Throughput	Up to 35 t/h
Final output	P63 (EN ISO17225-1)

'Our customers want clean P63 particles. With Lindner's solution, we produce this in a costsaving manner without expensive secondary shredding.'

Christoph Kottmann Head of Production Steil Entsorgung GmbH Germany



HARD CURRENCY.

CONTAMINATED WASTE WOOD PROCESSING

'The fact that the shredder operates for 900 hours without having to maintain the shredding unit – even with the hard materials we process – made it a winner.'

Oskar Preinig CEO Gojer, Kärntner Entsorgungsdienst GmbH Austria

IF IT'S ROUGH AND TOUGH

When it comes to rough and tough waste wood recovery, hardly anything beats the processing of railway sleepers or electricity poles. The heavily treated and very hard types of wood do not break as easily as conventional waste wood and therefore require machines with sufficient power reserves. The input material may also contain foreign particles such as heavy iron fittings or massive screws. Although these can be separated from the waste wood fraction using a magnet, they are particularly tough on the cutting unit. To recover these materials efficiently, it is important that the shredding equipment is robust and the cutting unit is premium quality.

Shredder	Urraco 95 DK
Engine	Diesel hydraulic
Cutting system	Synchronous rough SR 8.10 wood
Screen	
Material	Railway sleepers
Throughput	Up to 100 t/h
Final output	90% < 300 mm





EXPERSE RCBREAE <u>HESOURG</u>

COMMERCIAL & INDUSTRIAL WASTE PROCESSIN

THAT'S HOW TO RECOVER

When recovering municipal, commercial and industrial waste, it is important to first shred it coarsely. Reducing the volume and directly removing ferromagnetic metals makes material handling much easier and reduces the transport costs incurred between decentralised recycling collection centres to larger SRF processing and materials recycling facilities. Shredding the material makes further separation possible, which is always much easier with coarser particles and loose, i.e. not bagged material. In addition, it is important to keep the fine particles content as low as possible, as these are very difficult or impossible to sort.

Shredder	Urraco 95 DK
Engine	Diesel hydraulic
Cutting system	Synchronous rough SR 8.10
Screen	
Material	Bulky waste, MSW, C&I waste
Throughput	Up to 80 t/h
Final output	90% < 300 mm



BRILLIANT PERFOR-MANGE

ALUMINIUM SCRAP PROCESSING

95 DK

AND-

URRACO

NEAT YIELD

When recycling scrap metal, the first step in the process is to reduce the volume. This leads to an increased bulk density and thus to better yields in the next step. Lindner's mobile shredders cut and crush the materials at the same time with their twin-shaft cutting systems, which additionally break up mixed materials such as aluminium-iron or aluminium-plastic compounds to obtain the ideal particle size for subsequent sorting. This is an essential step because the source material's purity is crucial for subsequent recycling.

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Shredder	Urraco 95 DK
Engine	Diesel hydraulic
Cutting system	Synchronous rough SR 10.10 scrap
Screen	
Material	Aluminium profiles and sheets
Throughput	Up to 35 t/h
Final output	90% < 300 mm





THE RIGHT **SOLUTION.**

	URRACO E-MODELLE	URRACO 75	URRACO 4000	URRACO 95	ZETA-STAR
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Drive power:	200 – 250 kW electric drive	257 kW diesel drive	340 kW diesel drive	566 kW diesel drive	56 – 140 kW ele diesel drive
Mobility:	Hook lift / base frame, tracked chassis	Hook lift, tracked chassis	Base frame, tracked chassis, semi-trailer	Tracked chassis	Hook lift, tracke
Shaft	2 × 1500 mm / 2 × 2000 mm	2 x 1500 mm	2 x 2000 mm	2 x 2500 mm	

Fields of application:







Fire extinguishing system in engine compartment

Extended wear protection





Water sprinkling system



KNOWS NO COMPROMISES.





URRACO 75 E Electric drive power kW 200 Mobility Hook lift* Shaft length mm 2 x 1500 Weight t 18,5 Dimensions (LxWxH) mm 6800 x 2500 x 3000 Discharge heigth, conveyor (30°) 4400 mm

** depending on the machine configuration

* with optional heavy-duty axle

Mobile shredding solutions 20

URRACO E-MODELS

URRACO 4000 E	URRACO 4000 EK
250	250
Base frame**	Tracked chassis + independent power unit
2 x 2000	2 x 2000
25 – 28**	28 – 31**
8000 x 2550 x 3200	8000 x 2550 x 3200
3700 / 4500***	3700 / 4500***

*** optional

WINS HANDS DOWN.

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URRACO 75 D

Diesel drive power	kW	257	257
Exhaust gas standard		EU Stage V / USTier 4f / EU Stage IIIA	EU Stage V / US Tier 4f / EU Stage IIIA
Mobility		Hook lift*	Tracked chassis
Shaft length	mm	2 x 1500	2 x 1500
Weight	t	18,5	22
Dimensions (LxWxH)	mm	7000 x 2530 x 2800	7000 x 2530 x 2800
Discharge heigth, conveyor (30°)	mm	4550	4600

* with optional heavy-duty axle

URRACO 75

Gives you all the advantages of mobile shredding while being extremely compact:

Robustly engineered and equipped with a powerful engine, the Lindner Urraco 75 shreds even difficult materials. Depending on the degree of mobility needed, the machine is available in two chassis versions: either with a wheel axle and tow bar, suitable for hook-lift transport and easy placing on the ground, or with a heavy tracked chassis for full mobility on site. Enjoy powerful shredding in an extremely compact form.





URRACO 75 DK

KNOWS NO COMPROMISES.





		URRACO 4000 D	URRACO 4000 DK	URRACO 4000 DS
Diesel drive power	kW	340	340	340
Exhaust gas standard			EU Stage V / US Tier 4f / EU S	Stage IIIA
Mobility		Base frame*	Tracked chassis	Semi-trailer
Shaft length	mm	2 x 2000	2 x 2000	2 x 2000
Weight	t	25 – 28**	28 – 31**	28 - 31**
Dimensions (LxWxH)	mm	8000 x 2550 x 3200	8000 x 2550 x 3200	8000 x 2550 x 3700
Discharge heigth, conveyor (30°)	mm	3700 / 4500***	3700 / 4500***	3700 / 4500***

* with optional heavy-duty axle ** depending on the machine configuration

URRACO 4000

*** optional

THE MOST POWERFUL ON SITE.





		URRACO 95 DK
Diesel drive power	kW	566
Exhaust gas standard		EU Stage V / USTier 4f / EU Stage IIIA
Mobility		Tracked chassis
Shaft length	mm	2 x 2500
Weight	t	42
Dimensions (LxWxH)	mm	9300 x 3000 x 3300
Discharge heigth, conveyor (30°)	mm	5300

URRACO 95

Takes mobile shredding to the extreme: maximum output, full mobility.

Thanks to its extremely powerful engine, long shaft length and aggressive intake, the twin-shaft Urraco 95DK shredder makes short work of all materials. Extremely efficient and reliable with low wear and tear, this machine is easy to maintain and has a low rate of energy consumption per tonne of shredded material.





INCREDIBLY RELIABLE.

High-end star screening technology

1.



		ZETA STAR 75 D DK	ZETA STAR 4000 E DK	ZETASTAR 95 DK
Drive power	kW	75 (Diesel)	56 (Electric) 140 (Diesel)	140 (Diesel)
Exhaust gas standard		EU Stage V / US Tier 4f	EU Stage V / US Tier 4f	EU Stage V / US Tier 4f
Mobility		Hook lift, tracked chassis	Base frame, tracked chassis	Tracked chassis
HOPPER				
Feeding height	mm	2890	3000	3000
Dimensions	mm	1100 x 2250	1400 x 3700	1400 x 3700
Capacity	m ³	3	5	5
SCREEN DECK				
Dimensions	mm	1200 x 4660	1200 x 6800	1700 x 6800
Area	m²	5,6	8,2	11,6
Final output	mm	0 – 100	0 – 100	0 – 150

		ZETA STAR 75 D DK	ZETA STAR 4000 E DK	ZETASTAR 95 DK
CONVEYOR				
Discharge height, oversized particles (30°)	mm	3715	3535	3585
Discharge height, final output (21°)	mm	2610	2685	2570
DIMENSIONS				
Weight	t	10,5	15	22
Dimensions (LxWxH)	mm	8300 x 2430 x 3040	11835 x 2560 x 4100	11925 x 2995 x 4080
Transport dimensions	mm	7980 x 2490 x 2765	12390 x 2550 x 3500	12000 x 3000 x 3150

* Urraco 4000 E | EK models ** Zeta Star 4000 E model

ZETA STAR 75 | 4000 | 95

Smart combo – that's how to recover new energy from old wood:

This perfect match of tried-and-tested shredding technology and incredibly flexible screening equipment make the combination of an Urraco and a Zeta Star screen a compact, turn-key system solution – for every Urraco model there is a perfectly matched Zeta Star model. That's how the ideal waste wood processing system for energy recovery works à la Lindner: robust, powerful and

TA STAD 4000 E I DK

ZETASTAD 95 DK

THE PERFECT CUT.



The many advantages of urraco's twin-shaft cutting system:





URRACO 75 / 4000 / 95

With the welded cutting systems of the Urraco series, even shredding of bulky and high-volume materials is a breeze. Low in maintenance, as no knives need to be re-tightened, the robust cutting system ensures high operational and low downtimes. Whether waste wood, commercial waste, or light scrap, the universal applicability of the 2-shaft cutting system is up to any task.

Scrapes

FROM BIG TO SMALL: THE CUTTING SYSTEMS OF THE URRACO SERIES.



CUTTING SYSTEM WASTE WOOD FINE

Final output: 150 – 250 mm

- Patented cutting system with a combination of cutting and crushing
- Cutting action for homogenous output
- Crushing action for fewer superfine particles
- High throughput thanks to an aggressive automatic intake

Perfect for:

- Waste wood A1 A2Biomass, green cuttings,
- rootstocks
 Further application possibilities: paper rolls, tar paper, plastics, etc.



CUTTING SYSTEM WASTE WOOD ROUGH

Final output: 250 – 350 mm

- System with crushing action for coarse primary waste wood shredding
- Resistant to non-shreddables such as iron fittings, screws, etc.

Perfect for:

- Waste wood A1 A2
 Biomass, green cuttings, rootstocks
- Further application possibilities: paper rolls, tar paper, plastics, etc.







CUTTING SYSTEM LIGHT SCRAP

Final output: 250 – 350 mm

- Optimised, particularly sturdy geometry for metal shredding
- Reinforced knife holders for harder materials such as metal sheets, aluminium profiles, cooking utensils etc.



URRACO 75 / 4000 / 95

CUTTING SYSTEM MSW, C&I

Final output: 200 – 350 mm

- Aggressive material intake in both directions of rotation thanks to special combination rippers
- Optimised geometry for self-cleaning of the cutting unit





SERVICE FOCUS.



- Original Lindner spare parts made in Austria for that extra level of quality

smoothly:

- Qualified shaft reconditioning & hardfacing in line with the highest international standards

Lindner's service – simply offering more.

Commitment and professionalism coupled with extensive expertise and original Lindner spare parts made in Austria ensure top quality service and highest machine availability. Individual service solutions mean maximum flexibility and the least downtimes - any day, every day.

Service à la Lindner:

- Available 24/7 worldwide
- In-house shaft hardfacing service
- Remote assistance fast help with remote maintenance
- High availability of spare parts thanks to extensive in-house production

Maintenance - to keep everything running

- Flexible maintenance offers for high machine availability
- Spare part packages for every application

Lindner-Recyclingtech GmbH