



State of the LindnerART.



RDF

Processing systems for alternative fuels.

*The ART of innovative
SHREDDING!*





Our intelligence belongs to us ... and our clients.

For over six decades, our family run business has been supplying clients from all over the world. As a traditional company, we have never lost sight of values such as sustainability, environmental protection, and family. On the one side, we have shredders, on the other, optimal systems for processing alternative fuels (RDF). Lindner systems are used in areas such as industrial and commercial waste, domestic waste, as well as in large-scale industries (cement and steel industry) and in power stations. LindnerPOWER for sustainable environmental protection. I put my name behind this entirely, and this is why we were awarded the "Global Fuels Award" in Toronto, Canada in 2009.

Instead of resting on our laurels, we are constantly developing further. Today, our company rests on three solid pillars: The Lindner-Recyclingtech GmbH as parent company, Lindner E-Tech (industrial automation technology in the field of shredder technology and installation engineering) and Lindner reSource (distribution and service company of Lindner-Recyclingtech GmbH, planning and implementing shredder plants for plastics and in the field of recycling).

Our creative heads keep turning in search for new technologies and solutions for our clients. We keep our promise: Our intelligence belongs to us ... and our clients.

Yours,

DI Manuel Lindner

Requirements:

Large scale energy users like the cement and steel industry and power generators often demand very stringent specifications for refuse derived fuel (RDF) manufactured from the commercial and industrial waste streams; with particle size requirements of e.g. 20 mm. For this purpose a multi-level shredding process is required.

The main criterion for the system is the effective pre-shredding of the input material to a defined granulate-size which is a precondition for a problem free separation of large foreign parts. The separation of this heavy fraction using the heavy fraction separator minimises wear costs, optimises product quality, increases availability and makes for economic processing.

System Components:

- Primary-shredding of the non-treated waste
- FE-separator
- Heavy fraction separator
- Secondary-shredding
- Conveyors

Application Areas:

- Commercial and industrial waste, municipal solid waste
- Plastics and textiles from the automotive industry (loose or in bales)
- Packaging material made of wood, paper and plastic film (loose, in bales or rolls)
- Waste products and lumps from the plastic industry (PP, PE, ABS, etc.)

Throughput Capacity:

Approximately 8 to 30 tons per hour, depending on the chosen shredder-size.

Workflow:

The supply of material to the Alternative Fuel Processing System can be done by drag chain conveyor, assuring continuous feeding of the JUPITER single-shaft pre-shredder, wheel loader, fork-lift truck or crane. The robust drive system of the pre-shredder (countershaft drive with safety clutch directly mounted on the rotor shaft) in combination with the massive monofix-knife-system optimally protects the shredder from damage caused by large foreign parts.

The JUPITER shreds the input material to a defined granulate-size. Homogeneous output-sizes allow optimum separation of large foreign parts by means of FE-separation and the heavy fraction separator. The separated material, free of large foreign parts, is transported to the downstream granulator POWER KOMET by belt conveyor. Fine granulation is now achieved by choosing screen sizes of approximately 15 – 50 mm. The finished RDF material is then discharged by means of conveyors or by the modular LINDNER chain-conveyor-system LIMATIC.



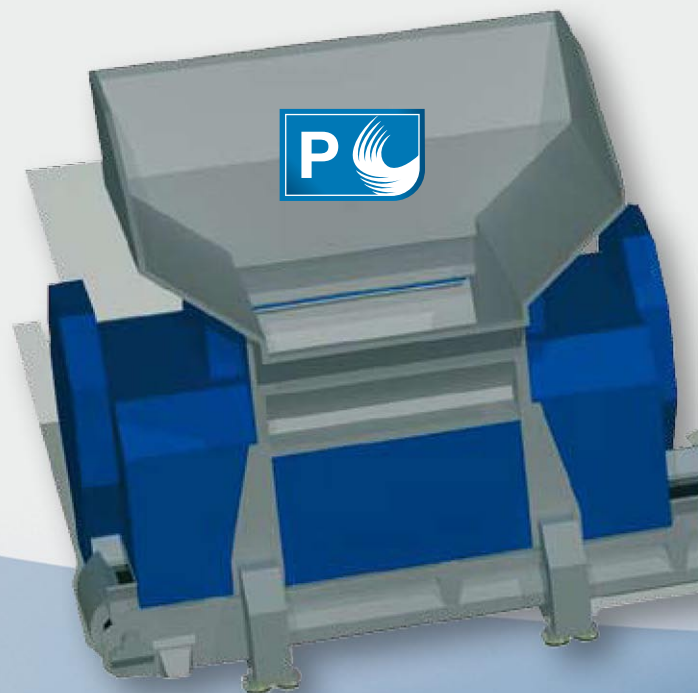
Pre-shredder JUPITER

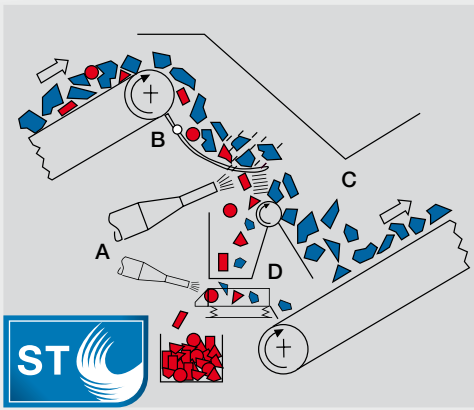


FE-separation



Granulator POWER KOMET





Heavy fraction separator

Separation of heavy and light parts by means of air injection and flexible element

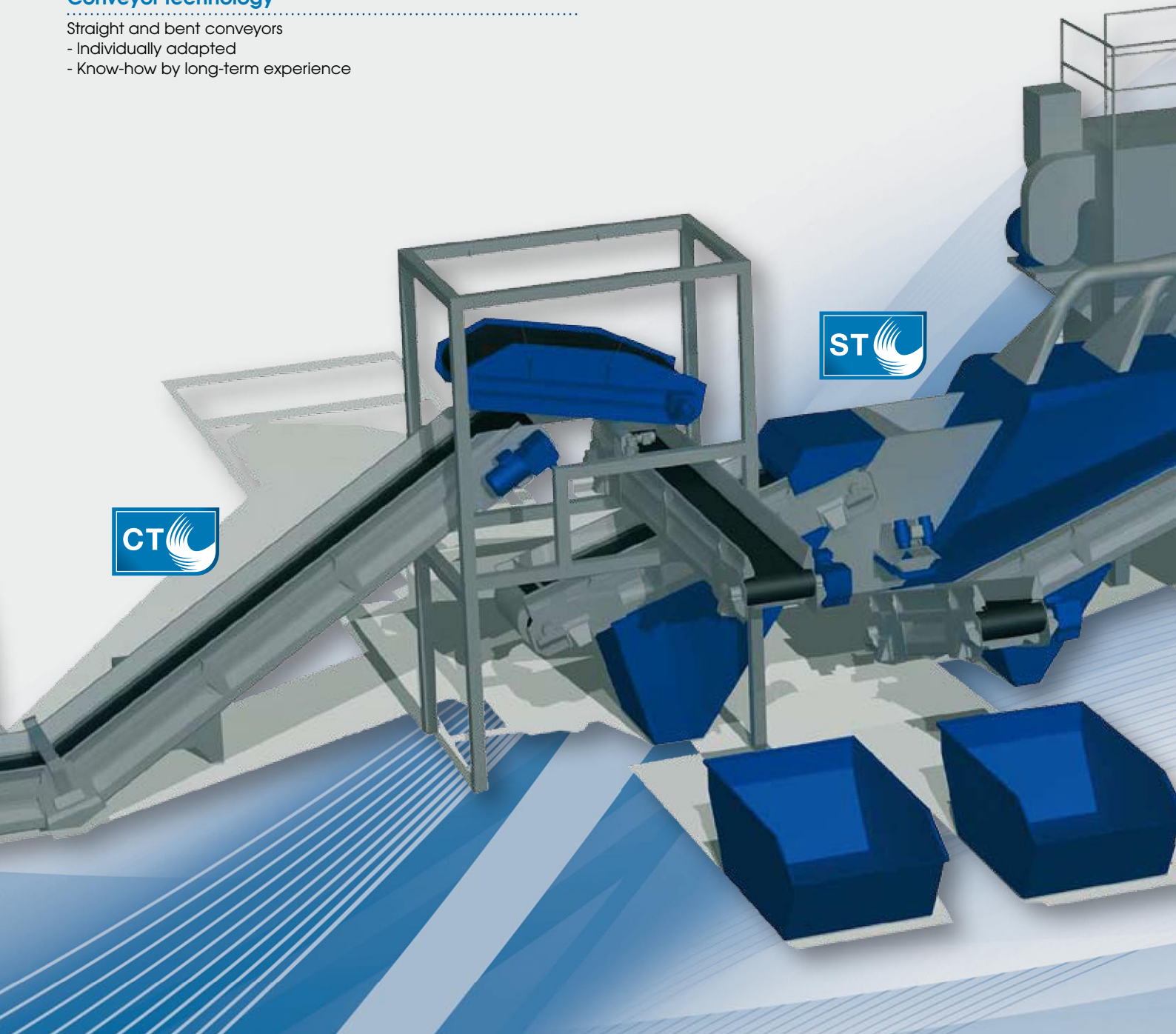
- A Air injection
- B Flexible element
- C Expansion chamber
- D Vibrating chute



Conveyor technology

Straight and bent conveyors

- Individually adapted
- Know-how by long-term experience



LindnerPOWER for your alternative fuel processing needs!



JUPITER

- Slow running, efficient single shaft shredder
- Cutting system delivers defined output sizes
- Application: domestic-, commercial-, and industrial waste, bulky waste, hard-to-reduce problem-materials with large foreign parts
- Capacity: Throughput rate up to 50 t/h (household waste with sickle screen) or up to 15 t/h (industrial and commercial waste with hexagonal screen 130 mm)
- Granulate size: approx. 100 – 300 mm (household waste with sickle screen) or approx. 50 – 120 mm (industrial- and commercial waste with hexagonal screen)
- Technical data:
Rotor length: 1800 mm / 2200 mm / 3200 mm
Drive Power: 1 x 200 kW / 2 x 110 kW / 2 x 132 kW / 2 x 160 kW
Knife size: 87 x 87 mm (point-knives) / 116 x 116 mm (step-knives) / 145 x 145 mm (point-knives) / 116 x 116 mm (point-knives)
Total weight: approx. 26,000 kg – approx. 39,000 kg

POWER KOMET

- High speed single shaft shredder
- Cutting system delivers defined output sizes
- Application: Pre-shredded plastics, paper, rubber, pre-shredded domestic-, industrial- and commercial waste, etc.
- Capacity: Throughput rate up to 15 t/h (e.g. mixed plastics with 30 mm screen)
- Granulate size: approx. 10 – 100 mm (mixed plastics with screen)
- Technical data:
Rotor length: 2200 mm / 2800 mm
Drive Power: 2 x 132 kW / 2 x 160 kW
Knife system: Rib knife
Total weight: approx. 26,000 kg – approx. 29,000 kg

Modular construction system

In order to facilitate flexibility in the length of a conveyor system at planning or later adaptation of the system, Lindner constructions have a modular design. The different modules have lengths from 750 mm to 3000 mm. In addition, the tensioning station, the drive station, and the hinged module are designed screwable. This is aimed to facilitate modification of the conveyor system, or converting a straight system into a bent one.






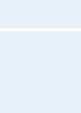
Even if the requirements call for a more complex system, Lindner-Recyclingtech GmbH remains your competent partner, and will work out an optimal solution in cooperation with well-known partners in plant engineering.



RDF

LindnerPOWER for alternative fuel processing systems

HOTSPOTS

Machine	Type = Rotor length in mm	Category	Application	Dimensions L x B x H in mm	Total weight in kg	Drive	Shredding area in mm	Throughput capacity*
JUPITER	1800		Non pre-treated domestic waste, commercial and industrial waste, bulky waste, waste wood, mixed construction waste, mixed plastics, paper, cardboard, files, containers, rubber, leather, textiles, floorings, cables, computer scraps	4,900 x 4,000 x 4,900	26,000	200 kW	1,790 x 1,750	Up to 15 t/h
	2200			5,300 x 3,900 x 4,900	30,000	2 x 110 kW 2 x 132 kW**	2,135 x 1,750	Up to 30 t/h
	3200			6,300 x 3,900 x 4,900	39,000	2 x 160 kW	3,190 x 1,750	Up to 50 t/h
POWER KOMET	2200		Mixed plastics, paper, cardboard, files, plastics, foam plastics, containers, rubber, leather, textiles, floorings, wood, Pre-shredded mixed	5,375 x 3,640 x 4,560	26,000	2 x 132 kW	2,135 x 1,265	Up to 8 t/h
	2800			6,065 x 3,640 x 4,560	29,000	2 x 160 kW	2,825 x 1,265	Up to 15 t/h
KOMET	1100		Mixed plastics, paper, cardboard, files, plastics, foam plastics, containers, rubber, leather, textiles, floorings, wood, Pre-shredded mixed	4,285 x 2,900 x 4,540	14,500	132 kW	1,080 x 1,265	Up to 4 t/h
	1800			4,975 x 2,900 x 4,540	17,500	200 kW	1,770 x 1,265	Up to 6 t/h
	2200			5,815 x 2,900 x 4,540	22,000	2 x 132 kW	2,135 x 1,265	Up to 8 t/h
	2800			6,505 x 2,900 x 4,540	28,000	2 x 160 kW	2,825 x 1,265	Up to 15 t/h
UNIVERSO	2200		Mixed plastics, packaging material, paper, plastic film, leather, rubber, pallets, cable drums, cardboard, files, plastics, foam plastics, cables, containers, textiles, floorings, computer scrap, wood	6,000 x 2,900 x 3,950** 6,200 x 2,900 x 3,950	18,000** 21,000	132 kW** 2 x 110 kW	2,135 x 1,525	Up to 7 t/h
	2800			7,000 x 2,900 x 3,950	27,200	2 x 110 kW** 2 x 132 kW	2,825 x 1,525	Up to 10 t/h
MICRO-MAT	1500		Mixed plastics, paper, cardboard, files, plastics, foam plastics, containers, rubber, leather, textiles, floorings, cables, computer scraps, wood	3,767 x 2,660 x 3,010	9,300	75 kW	1,530 x 1,600	Up to 1,5 t/h
	2000			4,590 x 3,000 x 3,350	11,000	90 kW 110 kW**	2,030 x 1,650	Up to 2,5 t/h
VEGA	S 600		Mixed plastics, paper, cardboard, files, plastics, foam plastics, containers, rubber, leather, textiles, floorings, cables, computer scraps, wood	1,430 x 2,350 x 2,800	2,800	11 kW	540 x 1,690	Up to 400 kg/h
	S 1100			1,970 x 2,350 x 2,800 1,970 x 2,350 x 3,580**	4,200 4,800**	22 kW	1,100 x 1,700	Up to 700 kg/h
	L 1100			2,720 x 2,300 x 2,810 2,720 x 2,300 x 3,100**	5,400 6,000**	37 kW 45 kW**	1,100 x 1,800	Up to 1 t/h
	L 1650			2,940 x 2,950 x 2,810 2,940 x 2,950 x 3,100** 2,940 x 2,950 x 3,720**	8,100 8,600**	55 kW 75 kW**	1,600 x 1,800	Up to 1,5 t/h

P = Primary Shredder, S = Secondary Shredder, U = Universal Shredder, HDL = Heavy Duty Line, IL = Industrial Line, EL = Eco Line



Lindner-Recyclingtech GmbH
Villacher Straße 48 | A 9800 Spittal/Drau
T +43 4762 2742-0 E office@l-rt.com
F +43 4762 2742-32 W www.l-rt.com

we reduce it. waste. costs. problems.

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conception: mp creations / design: Roland Karner / photo: Johannes Puch, Hannes Kohlmeier / print: Ploetz high quality printing