

SHREDDING SCREENING SEPARATION

## STATIONARY MACHINES





## TECHNOLOGIEN

- » Composting
- » Fermentation
- » Biomass treatment
- » Mechanical and mechanicalbiological waste treatment
- » Treatment of refuse derived fuels
- » Waste wood treatment
- » Special applications for shredding and separation

#### EDITION WITH AUGMENTED REALITY CONTENT

Download the "Komptech LookBeyond!" app. Scan marked and numbered projects with the "LookBeyond! eye" to see additional information.





Komptech is a leading international technology supplier of machinery and systems for the mechanical and mechanicalbiological treatment of solid waste and for the treatment of biomass as a renewable energy source.

The product range includes over 30 different types of machines, that cover all key process steps in modern waste handling - shredding, screening, separation, and biological treatment.

By combining the right products from our own portfolio with proven components, we can deliver solutions to address complex challenges. The focus is always on innovative technology and solutions that ensure the maximum customer benefit.











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EFFICIENT SOLUTIONS

## FOR COMPLEX TASKS

## TECHNOLOGY

» Mechanical pre- and post-treatment for

- Composting plants
- Mechanical-biological treatment plants
- Refuse derived fuel production
- Wet and dry fermentation
- » Preparation technology for
  - Residual/Household waste
  - Commercial waste,
  - Waste wood,
  - Biomass
  - Tar paper etc.
- » Technology for Splitting and Recycling in general

Electrically powered machines are ideal for large plants, stationary facilities and wherever mobility is not required. Komptech offers an extensive range of stationary electricpowered shredding, screening and separating machines. Designed for continuous operation and precisely adapted to their task and site, these machines are often the key components in recycling systems and perform a wide range of functions.

With the right combination of our own products and market-proven components from established manufacturers where needed, we provide efficient all-in solutions that can accomplish complex tasks, such as prepping material for anaerobic fermentation or refuse-derived fuel production.





### Example Waste wood processing plant

This compact system can be used to prepare various classes of waste wood for thermal or material recovery.

#### Example RDF plant

In a refuse-derived fuel plant, various mixed or pre-sorted waste streams are shredded, screened and separated to generate refuse-derived fuels for all kinds of applications. Cement works and heating plants are the major users.

#### Example MBT plant

In a mechanical-biological treatment plant mixed waste streams are treated by mechanical means such as shredding, screening and separation, as well as by biological processes. The organic content is composted, while the remainder is prepared for material or energy recovery. FLEXIBLE SOLUTIONS THROUGHOUT THE

## COMPLETE PER-FORMANCE CHAIN

## SERVICES

- » Initial ideas
- » Flowcharts incl. material stream representation
- » Assistance with permitting
- » Engineering
- » Definition of interfaces between all process steps
- » In-house fabrication of key components
- » Project leader as contact for the customer
- » Complete installation with own construction supervision
- » Commissioning
- » Training of operating personnel

Turnkey waste processing technology requires solid expertise and resources along the entire performance chain. Our capabilities extend from the initial idea to professional handling including installation to user training.

We are your expert contact for all areas of stationary systems, and everything from individual machines to entire processing lines.



### From idea...

.....to layout with 3D rendering...



...to expert assembly and commissioning...

...to finished highperformance plant.





## TERMINATOR

## HIGHLIGHTS

- » Shredding of the most difficult materials
- » Rugged design as preshredder provides high degree of shredding
- » Variable particle size by adjusting cutting gap
- » Direct-drive with 2-speed transmission (Terminator direct) or hydraulic drive with constant power control

The Terminator is a slow speed, high torque single-shaft shredder for hard-to-shred waste. C&D, railroad ties, carpet, MSW and tires are no problem for the rugged teeth mounted on the shredding drum and opposing counter comb. The stepless cutting gap allows adjustment of the size of the output material.

green

fficiency

Power is delivered by an electric motor with minimal maintenance and transfered to the shredding drum either by a mechanical drive with optimum efficiency or by a hydraulic drive with constant power control. For the hydraulic system the separation of the drive unit from the shredding unit is provided as an option.



Terminator direct	1700	2200	3400	3400 S	5000 S	6000 S
Drive						
Power (kW):	1 x 75	1 x 132	1 x 160	2 x 75	2 x 110	2 x 160
Shredding unit						
Drum length (mm):	3000					
Drum diameter (mm):			105	C		
Drum rpm:	14/10	17/13	19/14	14/10	20/14	28/20
Weight (t)						
	~ 13.6	~ 13.6	~ 14.0	~ 15.0	~ 15.3	~ 15.8
Throughput (dependent on material)						
Throughput performance (t/h):	up to 15	up to 20	up to 30	up to 35	up to 55	up to 75

Terminator	2200	3400	3400 S	5000	5000 S	6000 S
Drive						
Power (kW):	1 x 132	1 x 160	1 x 160	1 x 200	1 x 200	2 x 160
Shredding unit						
Drum length (mm):			300	00		
Drum diameter (mm):			105	50		
Drum rpm:	max. 29	max. 29	max. 27	max. 29	max. 29	max. 38
Weight (t)						
Assembled unit	~ 15.1	~ 15.5	~ 16.5	~ 15.8	~ 16.8	~ 17.1
Throughput (dependent on material)						
Throughput performance (t/h):	up to 30	up to 45	up to 50	up to 60	up to 80	up to 100



- » High throughputs with general-purpose use
- » Aggressive feed with 2820 mm long, counterrotating shredding drums
- » Quick-change system for screen basket and tools – change particle size in minutes
- » Direct drive with automatic
  2-speed transmission
  (Crambo direct) or hydraulic
  drive with constant power
  control

The stationary Crambo shreds all types of wood and green waste to a set particle size. Slow-running screws with shredding tools minimize fine particle and noise/dust emissions, and build up resistance to contamination. The particle size is adjustable by simply exchanging screen baskets.

The drum drive offers a choice between highly efficient mechanical drum drive with automatic transmission (Crambo direct) or the familiar hydraulic drive with load-dependent speed regulation. For the hydraulic system the separation of the drive unit from the shredding unit is provided as an option.



	3400	5000	6000	4200 direct	5200 direct	6200 direct
Drive						
Power (kW):	1 x 160	1 x 200	2 x 160	1 x 160	1 x 200	1 x 280
Shredding unit						
Number of screws:	2	2	2	2	2	2
Drum rpm:	max. 32	max. 32	max. 40	18 /28	23/34	29/44
Drum length (mm):	2820	2820	2820	2820	2820	2820
Drum diameter (mm):	610	610	610	610	610	610
Cutting elements:	134	134	134	134	134	134
Weight (t)						
Assembled unit	~ 16.0	~ 16.8	~ 17.1	~ 17.7	~ 18.0	~ 18.2
Throughput (dependent on material)						
Throughput performance (t/h):	up to 45	up to 60	up to 100	up to 55	up to 80	up to 120



- » Designed for continuous use, trouble-free drum operation and reliable cleaning
- » Variable configuration for perfect adaptation to application and site
- » Optiones:
  - Screen segment drum for changing segments without removing the drum
  - Special drum with anti-dirt strips for screening residual waste
  - Three-fraction screening by using different screen drum hole sizes

With stationary drum screens, a corresponding screening machine is available for every system size. Directly driven heavy-duty supporting wheels (1845/2055: DRUMGRIP-drive) provide quiet drum operation and top efficiency with reduced energy consumption and noise emissions.

A high throughput performance is guaranteed by feed screws welded on the inner side of the drum. Variable configuration of sub-structure, servicing accessibility, enclosure and drive simplify adaptation to on-site conditions.



	1845	2055	2255	2278	2290	2590	25120
Drive							
Power (kW):	2 x 5.5	4 × 4.0	2 x 9.2	2 x 11	2 x 11	4 x 7.5	4 x 9.2
System:	drum grip	direct drive					
Screening drum							
Diameter (mm):	1800	2000	2200	2200	2200	2500	2500
Length (mm):	4500	5500	5500	7800	9000	9000	12000
Effective screening area (m²):	22.5	30	32	48	56.5	62.5	86
Drum shell area (m²):	25.5	35	38	54	62	71	94
Dimensions (without walkways)							
Length (mm):	6250	7650	7500	9800	11100	11100	14100
Width (mm):	2280	2480	3100	3100	3100	3400	3400
Height (mm):	2980	2980	3600	3600	3600	4000	4000
Throughput (dependent on material)							
Throughput performance (m³/h):	up to 120	up to 160	up to 190	up to 250	up to 250	up to 275	up to 300

supporting wheels and drive in one unit

Electric direct drive

Variable design of fundament and service platforms



- » Separation into two, three or four fractions, wind sifting, magnet-separation in one compact machine
- » Patented Cleanstar-cleaning system for high throughput and precise selectivity – even with moist materials
- » Simple speed control at the screen deck to change particle size in seconds
- » Flexibly tailored solutions for specialist customer applications

Multistar star screens are not only among the most powerful screening machines, they are also unparalleled in operating efficiency. Compost, bark and biomass are separated extremely reliably and quietly. The core of the star screens consists of one or more screen decks, depending on the model.

The electrical drive of the star shafts with electric motors and frequency converters gives efficient and economical operation.With its modular design, screen decks, feed metering container, wind sifter and stone/magnet separation are tailored perfectly to the job at hand, generating up to 4 fractions in one operation.



	MULTISTAR 2-SE	MULTISTAR 3-SE
Drive		
Power (kW):	22 (Fine screen) or 12 (Coarse screen)	40
Screen unit		
Length x width (mm) / area (m²):	5996 x 1250 / 7.5 (Fine screen) or 5863 x 1200 / 7.0 (Coarse screen)	5863 x 1250 / 7.3 (Fine screen) and 3998 x 1200 / 4.8 (Coarse screen)
Feed hopper		
Hopper volume (m³):	-	20
Screen sections		
Fine (mm):	8 20 10 25	8 20 Standard: 10 25
Coarse (mm):	30 60 60 90 90 120 120 150	30 60 Standard: 60 90 90 120 120 150
Throughput (dependent on material)		
Throughput performance (m³/h):	up to 180	up to 250

with robust rubber stars

electric motors with frequency converter

elastic stars and cleaning elements

Variable design of fundament and service platforms



- » Designed for separation of oversized particles from commercial waste, bulky waste, household waste and fresh bio-waste
- » High throughput, low energy expenditure
- » Sturdy design allows smooth, low-wear operation
- Modular design for flexible configuration in stationary systems

The Flowerdisc represents a further technology for the screening of pre-shredded commercial, bulky and biowaste, a technology which combines high throughput, selectivity and resistance to contamination.

Material is transported by shafts with rugged steel discs working on the disc screen principle. Movable jacketed pipes positioned between the discs prevent seizures and blockages by contraries.



Drive (standard design)	
Power (kW):	11
Screening unit	
Coarse screen width (mm):	1200
Coarse screen length (mm):	4560 / 6080
Coarse screen area (m²):	5.5 / 7.3
Screening sections	
Fine fraction (mm):	< 80100
Coarse fraction (mm)	> 80100
Throughput (dependent on material)	
Throughput performance (m³/h):	up to 100



- » Wide range of applications – from municipal waste (household waste, commercial waste) to potential recyclables and building material waste
- » High degree of selectivity with setting of separation limit
- » Efficient drive design with low power requirement
- » Rugged design with long service life and low operating costs

The Ballistor is used to separate out usable fractions from waste and potential recyclables. By combining ballistic separation with screening, separation is performed in one operation in accordance with the criteria 3/2-dimensional, rolling-cubic-rigid/flat-soft-narrow, or undersized/oversized particles. A drive system using an electric motor, crankshaft, and elastic connecting link provides long service life.

Automatic lubrication options combined with electronic monitoring make the machine dependable even under heavyduty operation. With four sizes and many options, the Ballistor separator can be configured to suit the application.



	4300	6300	8300	10300
Drive				
Power (kW):	5.5	5.5	11.0	11.0
Screening elements				
Number of fractions:	3	3	3	3
Number of screening elements:	4	6	8	10
Length screening elements (mm):	5600	5600	5600	5600
Screening area (m <sup>2</sup> ):	9.6	14.4	19.2	23.9
Dimensions (mm)				
Length:	7475	7475	7475	7475
Width:	2400	3250	4100	4960
Height without inlet cap (mm):	1930	1930	1930	1930
Transport width (mm): (pre-assembled unit)	2150	3000	3940	4800
Weight (t):	5.75	7.0	8.5	9.75
Throughput (dependent on material)				
Throughput performance (m³/h):	up to 60	up to 100	up to 130	up to 160

# TECHNOLOGY FOR A BETTER **ENVIRONMENT**



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