



**KOMPTECH<sup>®</sup>**

Technology for a better environment

# CRAMBO

Universal shredder for green waste and wood



# CRAMBO - Universal shredder for green waste and wood



## INTRODUCTION

The CRAMBO is capable of processing very difficult and contaminated wood in all its forms. The CRAMBO has the ability to produce a determined particle size with easily changeable screen baskets.

The slow shaft speed minimizes dust and noise. Hydraulic drive with load-dependent speed control gives maximum efficiency.

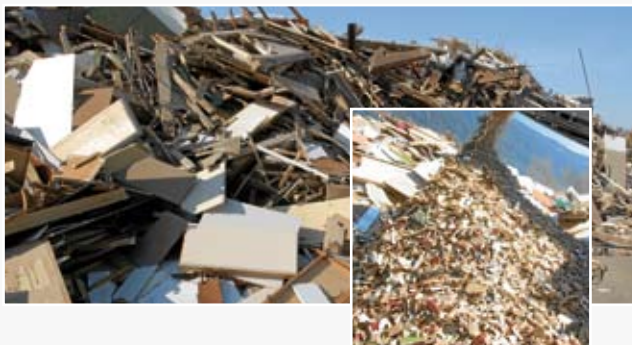
- high throughputs up to 110 tons/hour
- aggressive feed with 9 feet, 3 inch long, counter-rotating shredding shafts
- low speed shredding produces less fines
- very consistent particle size output
- low fuel consumption



# APPLICATION

## Bulky Wood Waste

When shredding waste wood, the wear-resistant hard faced teeth provide a high level of resistance to contaminants. Slow-moving shafts produce less dust and no flying debris.



## Green Waste

A high throughput of bulky vegetation is made possible with an extremely large hopper, capable of holding 15 yds. of material. Blockages from wet material and high grass content are practically impossible. Teeth clear the screen baskets on every revolution.



## Logs / Land Clearing Debris

Even larger trunks measuring up to 6 feet in diameter can be processed effortlessly. Coarse pre-crushing or defined shredding – the choice depends on the screen basket used. Programmable reverse cycles keep material moving in the shredding area and prevent round objects from getting caught up in the cycle.



## Stumps / Dirty Wood Residue

Root balls containing large embedded stones and high dirt content are easily processed with the high torque and low speed offered by the hydraulic drive system.



## Special Applications

The innovative shredding concept provides a wide range of application possibilities. Established applications are the shredding of bio-waste for composting, the shredding of market waste and food/kitchen waste for a fermentation process and the pre-shredding of roofing shingles for further treatment.



# CRAMBO - Universal shredder for green waste and wood



## Engine

- modern CAT®-Diesel engine
- completely enclosed engine compartment
- efficient cooling system



## Hydraulic drive

- load dependent speed regulation for the highest throughput
- overload protection prevents damage to the tool elements



## Operator console

- logical layout for simple operation
- control electronics for monitoring of operational status

The Komptech brand is synonymous with quality, reliability and stability in product value. This means that only premier quality sourced components are used alongside components manufactured in-house. The CRAMBO has a modern Caterpillar® engine as power source (complies to EPA TIER III). The complete muffling of the engine compartment reduces noise emissions to a minimum.

With load-dependent rotation speed regulation (constant power control), the hydraulic drum drive ensures full advantage is taken of the motor performance. Overload protection prevents unshreddable contaminants from damaging the tool elements. The clearly laid out function keys make operation simple and reliable. Control electronics circuitry continually monitors the operational status of the machine and intervenes to protect the machine should a breakdown occur.



high performance  
Caterpillar® diesel engine

flap and fold system  
for filling hopper

user-friendly operator console with  
on-board computer

# MACHINE WALKABOUT

The CRAMBO can be tailored perfectly to the application using a range of equipment options. For example, central lubrication simplifies servicing. The CRAMBO responds to the press of a button when using the convenient radio remote control function from the cab of the wheeled loader. The hook and trailer combination, controllable via remote control, together with the hook, provide the perfect degree of mobility on site. Effective separation of metallic contaminants is carried out by a hydraulically rotated overhead magnet (or, alternatively, by a magnetic roller on the discharge belt). For input material with fine fractions, a star screen deck in the discharge duct and a second discharge belt separate fine parts from the usable fraction. Configured with the specialist forestry equipment, the CRAMBO is transformed into the perfect forestry worker - mounted on a semi-trailer, rotated using the slewing ring and with its own loading crane.



## Options

- overhead conveyor magnet or magnet drum
- central lubrication
- radio remote control



## Separation of fine parts

- for the separation of fine parts from the usable fraction
- useful for shredding of root stocks and woodland residues



## CRAMBO Forest

- all-in-one unit for the treatment of woodland residues

# CRAMBO - Universal shredder for green waste and wood



## SHREDDING UNIT

In the generously dimensioned shredding area, two counter-rotating shafts measuring 9 feet, 3 inches in length provide active feed. The teeth grab the material and press it in a cutting/splitting action against the cutting edge and screen baskets located underneath. Slow turning (rotation speeds up to 40 rpm) results in a coarse cut product.

The material does not exit the shredding area until the particle size matches the hole size of the screen basket used, enabling the quantity of shredded material in the desired particle size to be maximised.

There is no additional generation of fine fractions and overlengths are reduced to a minimum.

Additional plus points of this shredding technique are the teeth have a high degree of resistance to damage caused by contaminants and low noise and dust emissions.

- extremely large hopper measuring approx. 6 feet, 7 inches wide and 9 feet, 2 inches long
- active feed using two counter-rotating shredding shafts with aggressive tool elements
- slow-running shafts produce no fine fractions
- variable particle size spectrum by selecting the right screen basket
- quick-change system for screen basket and teeth
- slow-running operation creates resistance to contaminants and minimises noise and dust emissions



# SHREDDING UNIT

## Tool elements

With their optimal profile, the cost-effective, drop-forged wear teeth guarantee prolonged service life while retaining consistent functionality.

Teeth used:

**Sickle teeth** - general purpose use, aggressive feed

**Hook teeth** - armoured, for waste wood

**Planing teeth** - for wet waste, with a long service life

To exchange a tooth, undo the central securing screw, remove the tooth from the seating, replace and retighten the screw.



## Screen baskets

Screen baskets are tailored to the cutter and are available in sizes most commonly used in practical applications.

To replace, activate the button to swivel the screen basket cartridge out hydraulically. Remove the screen basket halves from the cartridge (e.g. with a forklift) and replace with another screen basket.

Swivel in again to continue working.



## Cutters

### General purpose cutter

The cutter with a wide range of applications: With its high degree of resilience, this cutter is an impressive solution for shredding for composting or for coarse pre-crushing of contaminated waste wood.

Tool elements	sickle tooth, planing tooth hook tooth for treated waste wood
Screen baskets	universal, hole size 3 - 12 inches



### Bio-cutter

This cutter prepares woody biomass perfectly for energy recovery. Opposing teeth inserted near the central cutting edge ensure an efficient cutting process, meaning a high degree of shredding and ideal output consistency.

Tool elements	sickle teeth on the shafts, bio-teeth (exchangeable without use of tools)
Screen baskets	bio, hole size 3 - 10 inches



# CRAMBO - Mobile version



## MOBILE

## ADVANTAGES

Mobile technology – moving quickly from point A to B. But also quickly ready for operation on site: Unload, open up, power on – then start working. Komptech has mastered the art of building mobile high-performance machinery, with a unique ability to adhere completely to precise dimensional, weight and emission tolerances.

The CRAMBO offers a selection of hook lift, trailer chassis or steel tracked versions.

The self-propelled steel tracks, with extra wide three-bar baseplates, allow access even to unstable terrain.

- machine can be moved from the transport position into the working position immediately
- mobility also possible on site with towing or automatic feed device (option)
- the right chassis for every surface and application (hook, trailer, track)



hook



trailer



track

## CRAMBO - Stationary version



# STATIONARY ADVANTAGES

If mobility is not required, electric drive is the best solution from the viewpoint of operational efficiency. Given their energy efficiency, virtually maintenance-free operation and control-related benefits, electrical drives are the solution of choice – especially for large-scale plants with long machine operating times.

A stationary CRAMBO can be tailored perfectly to conditions on-site. Besides the standard stationary frame, isolation of the drive unit from the shredding unit can also be specified as an option.

This way the drive unit can be protected from dust and be installed easily and accessibly in containers or in a plant room. The compact shredding unit can be integrated into the process flow without taking up too much space.

The shredder can be filled from all sides.

- electric drive for high efficiency and minimal maintenance
- perfect integration into the process flow
- optional isolated design:
  - protection of drive unit (dust protected, better cooling)
  - space-saving integration of compact shredding unit



station



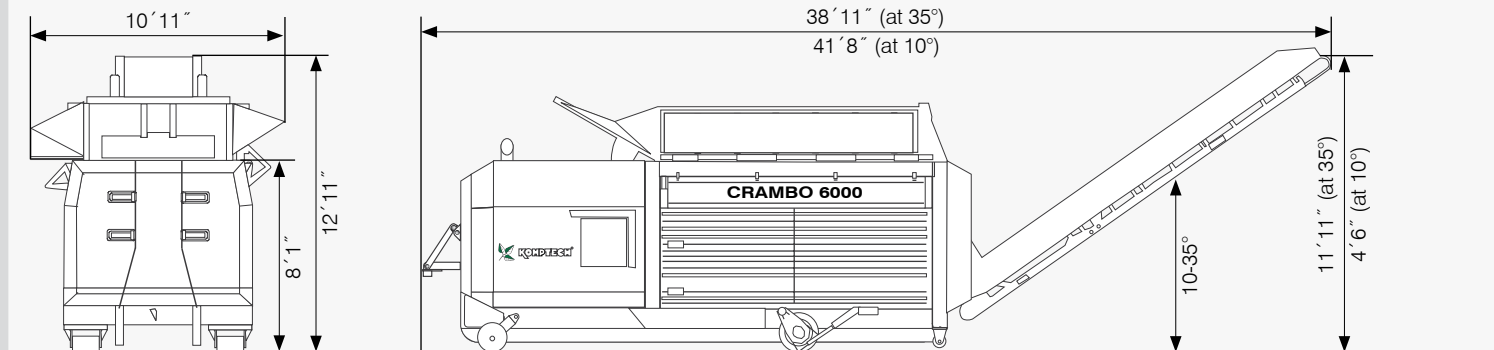
option isolated design

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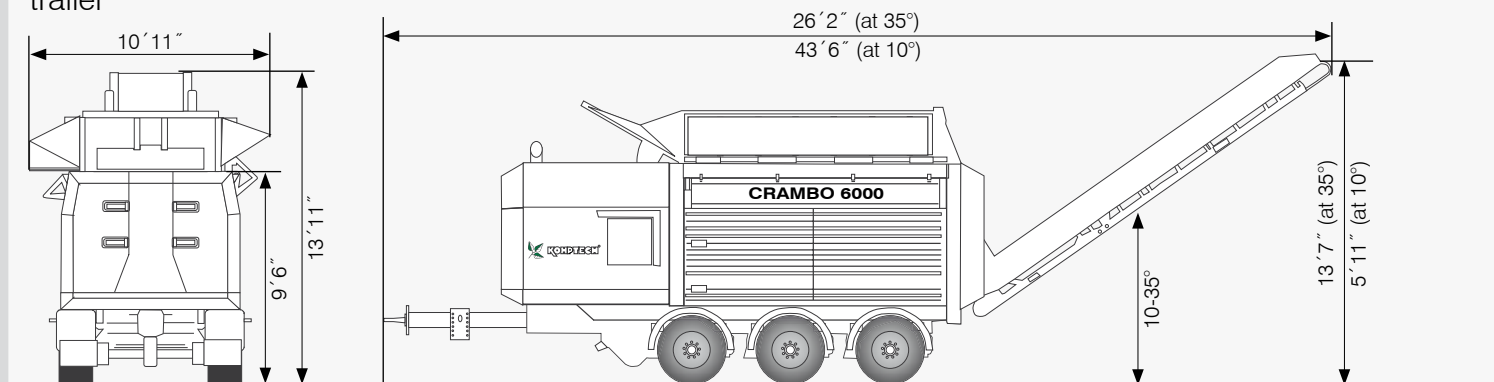
CRAMBO	3400	5000	6000
<b>Motor</b>			
Diesel engine			
Type:	Caterpillar® C9	Caterpillar® C13	Caterpillar® C18
Number of cylinders:	6	6	6
Power:	242 kW/330 HP	328 kW/446 HP	429 kW/583 HP
Asynchronous motor			
Power:	1 x 160 kW	1 x 200 kW	2 x 160 kW
<b>Loading heights</b>			
Fill height:			
<i>hook</i>	8'1"	8'1"	8'1"
<i>trailer</i>	9'6"	9'6"	9'6"
<i>track</i>	9'7"	9'7"	9'7"
Discharge height:			
<i>hook</i>	4'6" - 11'11"	4'6" - 11'11"	4'6" - 11'11"
<i>trailer</i>	5'11" - 13'7"	5'11" - 13'7"	5'11" - 13'7"
<i>track</i>	6' - 13'7"	6' - 13'7"	6' - 13'7"
<b>Weight</b>			
<i>hook</i>	~ 42,200 lbs	~ 44,600 lbs	~ 46,700 lbs
<i>trailer</i>	~ 47,200 lbs	~ 49,400 lbs	~ 51,600 lbs
<i>track</i>	~ 54,200 lbs	~ 56,700 lbs	~ 58,600 lbs
<b>Transport position</b>			
L x W x H <i>hook</i>	22'5" x 8'1" x 8'8"	22'5" x 8'1" x 8'8"	22'5" x 8'1" x 8'8"
L x W x H <i>trailer</i>	26'2" x 8'4" x 10'7"	26'2" x 8'4" x 10'7"	26'2" x 8'4" x 10'7"
L x W x H <i>track</i>	21'7" x 9'4" x 10'4"	21'7" x 9'4" x 10'4"	21'7" x 9'4" x 10'4"
<b>Working position</b>			
L x W x H <i>hook</i>	38'11" x 10'11" x 12'11"	38'11" x 10'11" x 12'11"	38'11" x 10'11" x 12'11"
L x W x H <i>trailer</i>	40'9" x 10'11" x 13'11"	40'9" x 10'11" x 13'11"	40'9" x 10'11" x 13'11"
L x W x H <i>track</i>	35'8" x 10'11" x 10'4"	35'8" x 10'11" x 10'4"	35'8" x 10'11" x 10'4"
<b>Shredding tools</b>			
Number of screws:	2	2	2
Length:	9'3"	9'3"	9'3"
Diameter:	2'	2'	2'
rpm:	<max. 38	<max. 36	<max. 41
Cutting elements:	134	134	134
Screen basket hole size	3', 4', 5', 6', 7', 10', 12'	3', 4', 5', 6', 7', 10', 12'	3', 4', 5', 6', 7', 10', 12'
<b>Throughput</b> (dependent on material)	to 50 t/h	to 65 t/h	to 110 t/h
<b>Additional equipment</b>	Radio remote control, central lubrication, overhead conveyor magnet with swinging arm, towing unit ( <i>hook</i> ), automatic feed device ( <i>hook, trailer</i> ), watering device, bio-cutting unit, magnet drum etc.		

# TECHNICAL SPECIFICATIONS

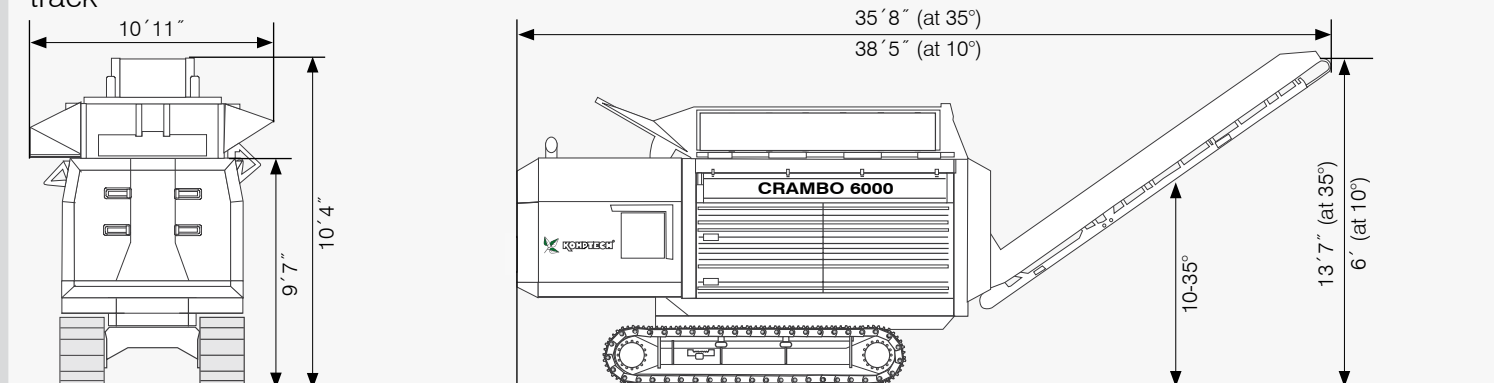
## hook



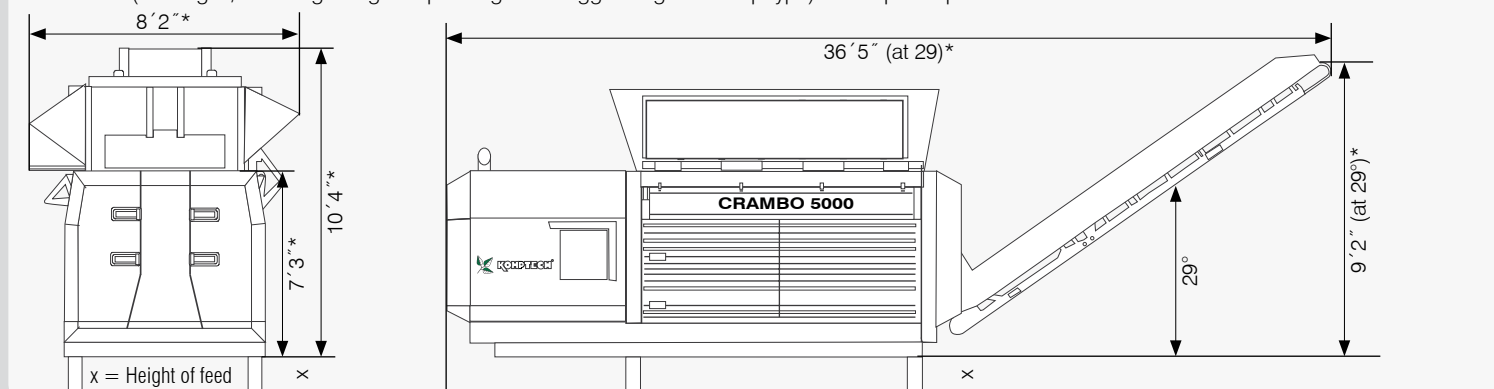
## trailer



## track



## station (Fill height / discharge height depending on outrigger height and flap type) \*or plant specific



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