

MUS-MAX®

demonstrates competence
in chopping machine construction.

Many patented
innovations

WOOD-TERMINATOR



wood chipping machinery range/edition 2017

High-tech mobile chopping machines



CRANE-FED, MOBILE WOOD CHIPPING MACHINES
The drum-type chopping machines process tree
trunks, treetops, processor waste material and
shrubby into high-quality wood chips.
Drive: tractors up to 530 HP,
Diesel engines and trucks up to 750 HP

The milestones of our corporate history



- 1859 The company originates from the market blacksmith's shop in Groß St. Florian, which Karl Gutjahr I founded in the year 1859.
- 1926 Aloisia Guß marries the master blacksmith Karl Steindl.
- 1932 Cäcilia Halbauer is adopted by the Steindl family. Hundreds of carts, ploughs and harrows are produced.
- 1952 Daughter Cäcilia marries the master blacksmith Erich Urch senior. The market blacksmith's shop gradually becomes an agricultural machinery and trading company.
- 1953 Daughter Karla is born and
- 1954 Son Erich is born.
- 1960 The former company Steindl and Urch had ten employees.
- 1967 Erich Urch senior purchases a commercial building from the parish prebend in Groß St. Florian and builds a workshop including a petrol station there in the subsequent years. This production hall was rented out after completion.
- 1968 Production hall I was rented out to the company Obendrauf und Kaiser. Hay blowers, manure mixers, drying systems, ski lifts and the first 100 "Rasant" engine mowers were produced.
- 1974 Erich Urch senior took over plant I himself. Production of the following was started: hay blowers, manure mixers and ski lifts.

- Helene and Erich Urch junior join the company. 18 employees.
- 1976 Maize mills and screw conveyors were developed and sold.
- 1977 In that year, the successful product Hydro silo rotary cutter was brought to market, and later thousands of them were produced.
- 1986 The first stainless steel silo rotary cutters with a diameter of 8 m were brought to market, staff: 30 employees.
- 1988 Ceremonial opening of a new production hall with 1,500 m² in plant I.
- 1990 The first Trumpf nibbling and bevelling machine was put to use.
- 1994 The first wood chopping machines are put into operation. The first sheet metal laser cutting machine is put to use too. Number of employees: 50.
- 1997 Market introduction: first WT 8 chopper with new Iveco diesel engine and Penz timber crane.
- 1999 The newly developed flat silo rotary cutter V15 is very well accepted especially on the German market.
- 2002 A new maize mill Giga 4 is put in operation: driving power of up to 600 HP possible, grinding power: approx. 50,000 ccm per hour.
- 2003 Ing. Robert Urch joins Mus-Max GmbH. At that time, the laser sheet metal cutting machine with pallet storage was also put into operation.

- 2006 Plant II: a new final assembly hall with 1,500 m² with an exhibition centre is built. Investment: 3 million Euro, total surface of business premises: approx. 5,000 m². Number of employees: 70.
- 2007 Success in exports to Ireland, Portugal, and Slovenia has been recorded, and there is strong sales growth in Poland, Hungary, and Croatia.
- 2008 Strong sales growth in Spain. New truck with 23 m crane.
- 2009 150 years- the "anniversary year". A new truck 416 and the third laser cutting system Trumpf 5030 are purchased.
- 2011 Hall reconstruction plant I, new lathes (Mori-Seiki, Doosan) were purchased.
- 2013 Plant III: Putting into operation of a new production hall for machining, investment including a new milling machine: over 2 million Euro.
- 2014 Investment in a new, large electronic balancing machine and a new MB truck, number of employees: 90.
- 2015 Purchase of a 4-reel single-roller machine (up to 25 mm sheet metal). A turbo cyclone for silo removal was developed.
- 2016 A new laser cutting machine with the latest chamfering technology was purchased. A Giga corn mill was developed for 500 hp tractors.
- 2017 Two new 5-axis milling machines and a CNC lathing machine (DMG-MORI) were commissioned in plant III. An 88 turbo hay mill with scraper floor was constructed. 100 employees



23 years of building hackers

How everything began ...



- 1994** Chopper no. 1 was a wood chopping machine of the type Wood-Terminator 7 (feed: w = 76 cm, h = 38 cm) set up on a trailer. It was driven by a PTO on a 260 HP truck. The first customer was Karl Kaufmann from St. Peter a.O./Styria.
- 1996** The newly developed chopper types WT 5 (w = 48, h = 37 cm) and WT 6 (w = 62, h = 38 cm) are added to the product range. Later these chopper types were renamed from WT 5 to WT 6 and from WT 6 to WT 7.
- 1998** Export of the tractor chopper WT 7 to Switzerland, Germany and the Netherlands is started. A WT 8 chopper with new Iveco diesel engine is delivered to Germany for the first time.
- 2000** Now the choppers are already produced in series. The first successful machine is the Wood-Terminator 8 Z. The customer Nassl from Germany gets the first tractor chopper WT 8 Z (w = 76 cm, h = 40 cm).
- 2002** Chopper production gains more and more momentum. The first WT 8 D chopper with conveyor belt discharge and lateral feeding was sold to the customer Hannes Schirrhofer/Styria. Franz Huber in Lower Austria buys the first WT 8 Z tractor chopper.
- 2004** The first WT 9 Z tractor chopper (feed: w = 90 cm, h = 45 cm) was sold to the customer Mauerhofer/Styria. We set up the first WT 9 D with a concrete conveyor belt on a used Iveco truck. Furthermore we acquired the new customers Reinisch (WT 9 Z) and Wührer with the tractor chopper WT 8 Z. The first MAN "Hack-Truck" WT 9 D (developed together with the company Lochner) is delivered to the customer Naßl.
- 2005** The later success model of a tractor chopper, WT 10 Z (w = 98 cm, h = 75 cm), is tested at the customer Reinisch and then improved and fully developed in line with the market requirements.
- 2006** Start of the sale of the full-fledged WT 10 Z – the first customer was Svensson/Sweden. Then the first CAT C18 diesel engine (700 HP) was installed on the WT 10 D chopper with a 3 m feed conveyor and discharge conveyor belt (w = 0.8 m; l = 7 m). The first customer for this type was: Gutsverwaltung Flick from Rottenmann/Styria. In that year, plant II with a 1,500 m² hall is built as well. The new export

countries Belgium, Lithuania and Latvia were added to our list.

- 2008** Final assembly in the new plant II was started up successfully. The tractor chopper WT 9 XL Z (feed: w = 82 cm, h = 70 cm) is developed. Then production of the chopper WT 8 XL Z was started. First customer: Vorobel Vilan/company Agropret, Slovakia. These chopper generations were exactly right for the tractor range from 200 to 300 HP.
- 2010** The export countries Slovenia (company Bijol), Finland (Powerforest) and Estonia (company Balmox) were added to our list. Greater quantities of the WT 9 XL Z went to Latvia immediately (distribution partner: company Powerforest). The prototype wood chopper WT 7 LZ (feed: w = 54 cm, h = 50 cm) is newly developed and the first is delivered to the company Ventura in Spain. Several WT 10 DLB chopping machines with discharge conveyor were also delivered to Sweden.
- 2012** An MAN hack-truck with the chopper WT 10 XL with discharge conveyor (w = 98 cm; h = 75 cm) was delivered to the company Kapaurer in South Tyrol. Via the company Lochner, the company Mayr in Bavaria purchased the first MAN hack-truck WT 11 540 HP with blower and conveyor belt (feed: w = 1.14 m; h = 0.75 m). The largest tractor wood chopping machine of the world – the WT 12 Z – is designed and delivered to the customer Mandl/Liezen, Styria (feed dimensions: w = 1.35 m; h = 0.9 m).
- 2014** The sale of wood choppers is an ongoing business. The export rate is currently approximately 80 percent. We got the first order from Japan for a hack-truck Mercedes 400 HP with the chopper WT 8 XL. The first chopping machine WT 10 XL DLK, driven by a CAT C18 diesel engine with 775 HP, is delivered to the British railways.
- 2015** The first WT 10 XL wood hackers were installed on Volvo trucks with 540, and 650 hp and the drive power was taken off directly via an RBV gearbox.
- 2016** The first WT 12 Z hacker was delivered to a Fendt 1050 (525 hp).
- 2017** The first Mercedes hacker truck, the WT 12 NMV (625 hp), was developed, produced, and presented at trade fairs.



Dear Reader, Success product - Wood Chipper "Wood Terminator"

Since the Paris UN climate change agreement (voted for by 197 countries!) was ratified in 2015, "renewable energy" now has a future. Each of us has noticed that there are more weather disturbances, storms, hurricanes, etc. Whole bergs are crumbling, and global warming is increasing.



This means that we have to stop using fossil energy. Countermeasures can only have an effect if the entire world participates. We are helping to consolidate the road to "renewable energy" with our chipper production. For the biomass processor, it is important that the chipper generate clean wood chips with a low amount of fines, be very efficient (i.e. low diesel consumption) and, in particular, produce many hours of chipping. New innovations are constantly being developed and implemented for the chippers. For example, there is now a hydraulic blower with a special vane, which enables the wood chips to gently reach the discharge outlet and trailer. And the first WT 12 chipper has been mounted on a 4-axle Mercedes truck - with a collection capacity of 1.35 m (width) and 0.9 m (height). Volvo trucks with up to 750 hp are new in the programme, whereby the WT 11 chipper is driven directly from the truck engine. Meanwhile we are one of the market leaders in Europe with our chippers. Our company's revenue is growing steadily, but we are not resting on our laurels; we want to continue growing. The number of employees has risen to 100, mainly due to the company's in-house training of apprentices. We are also proud to wear the state coat of arms for this excellent apprenticeship training. This year, it was very important for us to update the chipping process, so we have invested in 2 new CNC DMG-MORI 260/360 milling machines and a Mori NLX 2500/700 lathe. This increases manufacturing precision and product quality. A great deal of rationalisation has also been undertaken, since the 5-axle milling machines produce complicated parts much more quickly. We hope this will continue with our power team of employee. We are very proud of our motivated team. A heartfelt thanks to everyone who is contributing to our success.

Managing Director, Business Specialist Erich Urch

100 % MUS-MAX

It runs and runs - and it runs best with wood chipping machines built 100% by MUS-MAX. There are more "Wood Terminator" chopping machines every week, and they do the work we built them for every day. Reliable, strong, robust, technically current, and 100% produced by MUS-MAX. Our machines are not only at work in Europe, they are also used in Japan and Africa. We are very proud to be among the premium brands of chipper manufacturers in Europe, and with our great team we are constantly developing even better and new chippers, which the market needs and demands. It is clearly about recognising what the market needs, and to have this experience flow into developing the next generation of chippers. There are always new ideas, and they have to be put into practice and must satisfy the customer. We grew as company with tractor chippers, and these will always be our main sales product, but we have also now developed a perfect truck solution for our customers with the chipper trucks from Volvo and Mercedes. Customers are enthusiastic about the efficiency of this, and many regular customers have already ordered one or even two chipper trucks to successfully serve their customer base. The export market will continue to be our strength in the next few years - Europe, Africa, Japan and wherever our machines are needed. The market is developing step by step and is being managed together with our reliable partners. There are major technical challenges in the coming years. Industry 4.0 will also have its effect in our company and in our machines. Our reliable, loyal, and inquisitive staff ("The MUS-MAX Power Team") will also master this challenge, thus Mus-Max will also internally remain 100% Mus-Max in the future.



Managing Director Ing. Robert Urch

■ People and climate

In the past, people brought about mostly just local and regional changes through their interventions in nature. As a result of the artificial greenhouse effect, predominantly caused by the burning of gigantic quantities of fossil energy carriers, mankind globally alters the ecosystem of the Earth. The transition to renewable energy carriers seems to be the dictate of the moment.

■ What are the imminent risks?

- Temperature increase by 1.4 to 5.8 degrees Celsius.
- Rise of sea level by 9 to 88 cm.
- Increasing intensity of extreme meteorological events (e.g. heavy rains, storms).
- Partly clearly increased intensity of precipitations, partly more frequent draughts and aridity.
- Shifting of the winter snow cover upwards by 300 metres.
- Drastic decrease of the alpine glaciers
- Loss of the protective function of the alpine forests (avalanches, change in species composition, emigration and/or extinction of plant and animal species).
- Threat to people's health due to increased climatic stress, caused by extreme meteorological events and pathogens not encountered so far (e.g. Ebola).
- Increased immigration pressure from people from regions that are particularly hit by climate change (climate refugees).

■ Heating costs

Wood is the cheapest fuel! Currently you can save up to 50 % of the ongoing heating costs using wood fuels. Crude oil prices have doubled in the past years and the heating oil prices developed in parallel to that for the most part, and the natural gas prices as well with some delay. A development, which is guaranteed not to change considering the general conditions: fossil resources keep decreasing, the hunger for energy keeps growing, oil production in troubled regions is extremely unstable and vulnerable.



■ Wood chips

■ Energy from local forests

Timber chopped up with machines to sizes ranging from 1 mm to 10 cm is referred to as "wood chips". As a rule, these are less valuable wood types that are not used for further processing and are chopped up – undergrowth, wood from thinning out, treetops, waste wood from cut-down trees, by-products from sawmills, splint wood, end pieces and the like. However, short-rotation forests will become increasingly more important in the future as well.

■ Quality criteria ISO EN 172251-1-4 or ÖNORM C4005

In the first place, we differentiate based on the size of the wood chips (nominal length). For automatic heating boilers – and that is already standard with wood chip systems – mostly fine wood chips (P16S: ϕ 1–2.5 cm, max. length 8 cm) are relevant. The small nominal length guarantees that the fuel can easily be transported from the storage to the boiler via a screw conveyor.

As far as the quality of the wood chips is concerned, it is mainly the water content that is the decisive criterion. The dryer the wood chips, the higher the fuel value and the better for storage. In addition to that, the type of wood and the diameter of the wood chips also play an important part. The wood chip quality P31S (ϕ 2–4 cm,

max. length 12 cm) is ideally suited for small combined heat and power stations. Further quality classes are P45, P63, and P100 - for larger heating plants.

■ Convenient and easy to use

Wood has been used for heating in the world for thousands of years. Forests grow back. Many other forms of energy promote hunger in the world.

Now wood chips can be transported dust-free in the storage space by means of the screw conveyor and the ejector device. Wood chip blowers with electric motors or tractor-operated ones are used as well.

Wood chip systems are used for small systems (e.g. one-family homes) as well as for biomass thermal power stations that supply individual buildings or entire local and/or district heating grids.

The brand MUS-MAX is deemed the epitome of quality and reliability. The objective of innovation is to make our customers more successful with the product.

The important thing is that customers make money with the machines and are successful with their businesses.

For that reason, we integrate the customers' ideas when implementing improvements. In the field of research and development, many patents, innovations in the fields of electronics and hydraulics, materials, processing and painting technology ensure progress in production.

Handing over several choppers to Mus-Max customers who place their trust in us!



■ WT 12



■ WT 9 XL



■ WT 10 XL RBV



■ WT 11 NMV



■ WT 11 DLK



■ WT 11 Z



■ WT 11 Z



■ WT 11 NMV

PRODUCT INNOVATIONS

Wood-Terminator WT 9 XL and WT 10

1. Foot pedals

– Each desired function of the chopping machine can be controlled with the foot pedals, for example also the function of the wood splitter.



Foot pedals for choppers/wood splitters and the like

2. Top feed roller

– Large-dimensioned roller, internal hydraulic drive (planetary gear)
 – Aggressive feed claws like a crocodile
 – Interchangeable knives and tines



Crock System: Exchangeable knives and tines

3. Helical screws

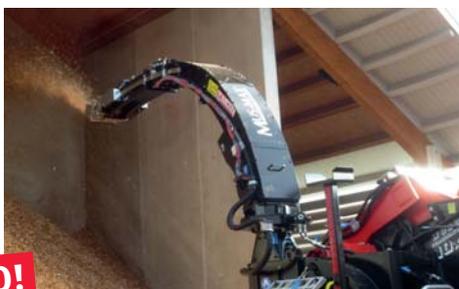
Extra-thick, thick-walled, wear-resistant helical screws with wood chip supply to the blower.

4. Wear plates

Novel wear plates in the blower and on the vane – made of a special material (Hardox) – last double the number of hours as before.

5. Larger Ejection with a perfect jet

– 80 cm – Adjustable in the radius, with an opening for cleaning, all wear plates can be replaced, headlights as standard.



Blowing upwards with ejector is possible

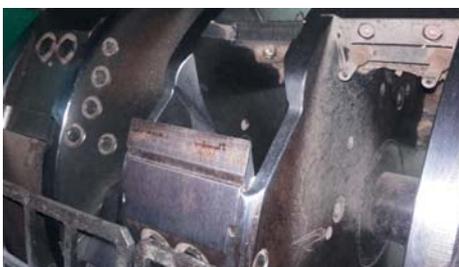
6. Chopping drum

– Small chopping drum speed
 – Neat, square wood chips with little fines.

7. "Multi-tool"-chopping rotor

PATENTED!

Robust chopping knives or blades can be used as standard on each chopping rotor.



"Multi-tool" chipper rotor

8. Chopping knives

– Knife cut across 30 mm advance enabled by chopping knives with a thickness of 20 mm. This produces neat, chunky wood chips with a neat structure (3 x 5 cm).

PATENTED!

9. Knife or blade change

– Easy knife change through changeable blocks with stop screws
 – Ideal foreign object protection – patented
 – A separate clamping part is used with change blades
 – The blades can be re-sharpened 7 times – extension plates are mounted, highly cost-efficient – this pays off!



Blades with extension plates

10. Process-Box/CAN-BUS-System

– Colour display
 – Fast, electronic switching processes for Danfoss hydraulic feed system
 – Feed rollers – shut-off and reverse control – pressure monitoring
 – Operating hours counter for up to 10 customers per day
 – Feed conveyor speed in % shown on the display
 – Fine wood chips – coarse wood chips – hard wood- softwood mode manually adaptable/adjustable
 – Maintenance intervals easy to see
 – Operating temperature display monitoring
 – Oil fill level monitoring
 – NEW: central lubrication: grease fill level, malfunction diagnostics



Process box and emergency stop for crane

The series in detail

Tractor choppers:

WOOD-TERMINATOR 7 L Z Page 07

Feed opening (w x h): max. 64 x 50 cm
 Chopping output: up to 60 loose cubic metres/hour

WOOD-TERMINATOR 8 XL Z Page 11

Feed opening (w x h): max. 64 x 60 cm
 Chopping output: up to 100 loose cubic metres/hour

WOOD-TERMINATOR 9 XL Z Page 13

Feed opening (w x h): max. 82 x 70 cm
 Chopping output: up to 130 loose cubic metres/hour

WOOD-TERMINATOR 10 XL Z Page 17

Feed opening (w x h): max. 98 x 75 cm
 Chopping output: up to 180 loose cubic metres/hour

WOOD-TERMINATOR 11 Z Page 19

Feed opening (w x h): max. 114 x 75 cm
 Chopping output: up to 200 loose cubic metres/hour

WOOD-TERMINATOR 12 Z Page 21

Feed opening (w x h): max. 135 x 90 cm
 Chopping output: up to 300 loose cubic metres/hour

Hack-Truck:

WOOD-TERMINATOR 8 XL Hack-Truck Page 25

Feed opening (w x h): max. 64 x 60 cm
 Chopping output: up to 120 loose cubic metres/hour

WOOD-TERMINATOR 9 XL Hack-Truck Page 25

Feed opening (w x h): max. 82 x 70 cm
 Chopping output: up to 130 loose cubic metres/hour

WOOD-TERMINATOR 10 XL Hack-Truck Page 25

Feed opening (w x h): max. 98 x 75 cm
 Chopping output: up to 180 loose cubic metres/hour

WOOD-TERMINATOR 11 Hack-Truck Page 25

Feed opening (w x h): max. 114 x 75 cm
 Chopping output: up to 200 loose cubic metres/hour

WOOD-TERMINATOR 12 Hack-Truck Page 29

Feed opening (w x h): max. 135 x 90 cm
 Chopping output: up to 300 loose cubic metres/hour

Trucks and trailers:

WOOD-TERMINATOR 9 XL DLK Page 34

Feed opening (w x h): max. 82 x 70 cm
 Chopping output: up to 160 loose cubic metres/hour

WOOD-TERMINATOR 10 XL DLK Page 35

Feed opening (w x h): max. 98 x 75 cm
 Chopping output: up to 240 loose cubic metres/hour

WOOD-TERMINATOR 11 DLK Page 37

Feed opening (w x h): max. 114 x 75 cm
 Chopping output: up to 280 loose cubic metres/hour

WOOD-TERMINATOR 10 XL DLB Page 38

Feed opening (w x h): max. 98 x 75 cm
 Chopping output (coarse wood chips): up to 300 loose cubic metres/hour

SPECIAL MACHINERY

We make more out of your mobile chopper!

Mus-Max – the manufacturer for the pros among wood choppers! We answer our customers' wishes!

As a result of its close collaboration with the users, MUS-MAX is able to satisfy the complex requirements of each individual customer unlike any other manufacturer. The range of application of a machine is extended considerably by means of a va-

riety of additional pieces of equipment and special machine variants in the process. Special attention is paid to a maximum of convenience for the operation of the chopping machine.

Allow yourself to be convinced of the flexibility and performance of MUS-MAX and the many decisive benefits of the MUS-MAX drum-type choppers and the optimum price-performance ratio!



Hack-Truck with WT 7 L NMV Mercedes truck with 400 HP



WT 8 XL with 245 HP John Deere engine on underframe



WT 9 XL DS on trailers with a 380 hp Mercedes diesel engine



WT 9 XL DS with ascending screw and conveyor belt on MAN truck, driven by 450 HP John-Deere diesel engine



WT 10 XL DLK. WT 10 on underframe with diesel engine CAT C18 700 PS, chopping machine with slewing ring



Hack truck WT 9 XL RBV with transmission from the main drive



WT 11 on 4-axle truck MAN TGS 41/440 CAT diesel engine 775 HP



WT 10 XL on truck with diesel engine John Deere 600 HP, chopping machine with slewing ring and 3-m feed conveyor

FURTHER PIECES OF SPECIAL EQUIPMENT:

- Hinged conveyor for all types**
2.10 m; 2.40 m or 2.70 m
- Inclined conveyor WT 8 XL, 9 XL, 10 XL**
- Horizontal conveyor WT 9 XL**
With length 3.1 m and trough 1.2 m
- For WT 10 XL diesel engine chopper:**
Conveyor length 3.60 m and 1.5 m trough
- WT 11 Z**
Conveyor with a length of 2.7 m, discharge conveyor
- Feed nozzle with feed rollers**
- Radio control – chopping functions**
- Radio control – ejector**
- Swivel drawbar**
- Underframe with steering axles**
- Transfer truck with chopper set-up and many more**



WT 10 XL DLB. Longitudinal machine CAT diesel engine 775 HP (conveyor belt discharge)



WT 11 DS set up on truck, with 500 HP diesel engine and discharge conveyor belt



WT 11 for tractor with ascending conveyor and discharge conveyor



Tractor chopper WT 7 L Z

The budget-priced model for beginners!

This small tractor chopper (for manual and crane operation) is ideally suited for tractors with 90-170 HP and is particularly characterised by easy operation, quick maintenance and smooth operation.

Chopping output: up to 60 loose
cubic metres/hour

Feed opening (w x h): 64 x 50 cm
Tree diameter: max. 50 cm



The model for beginners



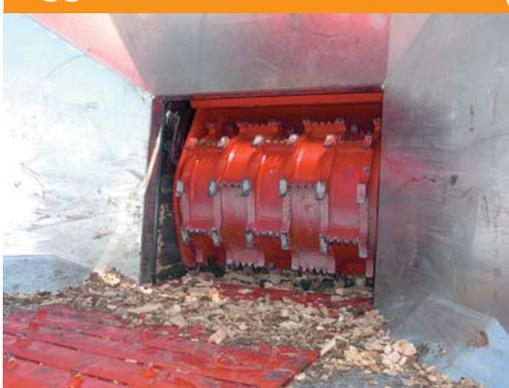
The chopping rotor of the "new" WT 7 L Z has a larger rotor diameter than the former "old" WT 7. As a result of that, the chopping machine can also be used to chop up trunks with a thickness of 50 cm. The large flywheel mass of the "multi-tool" rotor guarantees smooth chopping with less powerful tractors with minor power requirements. The larger screen surface ensures the production

of neat wood chips. Robust chopping knives can be used for hardwood, or quick-change blades can be used for softwood and shrubbery. A patented foreign-object protection device with compressible chopping knife stop blocks and the over-dimensioned rotor bearing prevent major damage to the rotor resulting from foreign object impact.

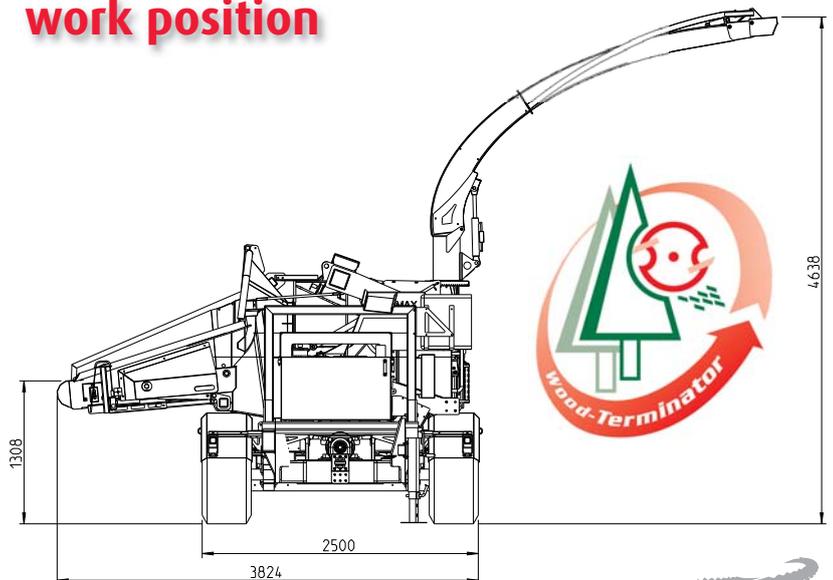
Control panel process box



Aggressive feed roller



Dimensions in work position



Feed "like a crocodile"

A large-dimensioned, aggressive top feed roller with a feed conveyor with a length of 2.2 m with a roller ensures reliable "swallowing" of the chopping material. The large feed opening (w = 64 cm; h = 50 cm) ensures trouble-free, fully automatic chopping – even with waste wood from tree cutting, shrubbery and treetops. The machine can also be used to chop up tree trunks and hardwood with a diameter of up to 50 cm.

Separate on-board hydraulic unit

Each WT 7 L Z-tractor chopper has a closed hydraulic unit. Separate geared pumps support the feed, the roller lifting, the nozzle lifting and the tower functions. Solid reduction gears and planetary gears are driven by powerful oil engines. Reliable Danfoss PVG valves control the feed steplessly. The hydraulic unit is designed for continuous operation in summer.



Carefully targeted jet

Neatly arranged hydraulic unit



Easy maintenance



Cable shut-off devices Manual operation



Road transport position

Quick switch to crane operation



Easy screen change



WT 7 L Z with latest safety standard

When a cable shut-off device on the feed nozzle is activated, this ensures a very quick stopping of the feed belt in manual operation, and there is a hand switch for "belt on - stop - reverse". For crane operation, the cable shut-off unit is pushed back with a few movements and taken out of operation. During crane operation, however, a seat switch has to be used to stop the feed belt. The remote control (process box) can be used to control all important functions from the tractor cab ergonomically during crane operation. In addition, emergency stop switches are installed on both sides of the feed nozzle.

Precisely cut, neat wood chips

The chopper can be operated flexibly with chopping knives or change blades. Replaceable laser-cut Hardox screen plates with square holes help to produce quality wood chips P16S, and the chopping length can be set to 2, 3, 4 or 5 cm. Under the screen, 3 large-dimensioned screw conveyors ensure a continuous wood chip supply to the blower. The powerful blower performance can be adjusted to the tractor power by means of replaceable wear plates on the vane. In this feed size class (w = 64 cm; h = 50 cm), the mobile chopper WT 7 L Z is far ahead of its time. With the modern electronic and load-controlled control, this machine was designed for smooth and powerful operation. A long useful life is guaranteed. All wear parts in the blower and the ejector can be replaced very easily. The Wood-Terminator 7 L Z is quite simply the superior tractor chopper of its performance class!

Arguments that carry conviction:

- User-friendly
- Screen change – very easy
- Easy maintenance
- Reliable
- Robust design
- Long useful life
- Perfect wood chips
- Low diesel consumption



Technical data WT 7 L Z

Feed opening (w x h)	cm	64 x 50
Tree diameter max.	cm	50
Chopping output up to max.	loose cubic metres/hour	60
Chopping knives or blades	pcs.	8
Screen surface	m ²	0.95
Ejection height max.	m	4.64
Throw width max. approx.	m	8
Machine dimensions (l/w/h)	m	5.45 / 2.50 / 3.21
Own weight from	t	7-7.5
Feed chain with roller	m	1.2 or 2.2
Power requirement tractor	HP	90-170
PTO speed	1/min	750 or 1000
Axles	pcs.	1 or 2
Attachment		top or bottom
Cable remote control	load-controlled, electronic feed belt shut-off with operating hours counter and daily hours counter for 10 customers	

Easy screen change: Only unscrew two screws and lift the cover (secured with gas spring).

Top wood chips: uniform chunks, little fines – chopping knives or change blades can be used.





Tractor chopper WT 8 XL Z

The successful model for pros!

Equipped with a high-tech electronic system, the WT 8 XL Z once more confirms the advantage of MUS-MAX technology for the 200 HP tractor class.

Chopping output: approx.
100 loose cubic metres/hour

Feed opening (w x h): 64 x 60 cm
Tree diameter: max. 60 cm



Developed for users who rely on cost-efficient technology!



The state-of-the-art CANBUS electronic unit and the load-controlled feed conveyor control confirm the success of this development.

You can switch immediately from coarse to fine wood chips at the touch of a button.

Another advantage of the CANBUS electronic unit is that that board is installed vibration-proof and takes up little space in the control box. In addition, a very thin, weather-resistant cable with steel plaiting and a small, handy ergonomic process box are used.



Arguments that carry conviction

- Top feed:**
A decisive advantage of this machine is the large rotor diameter and the large-dimensioned feed (w = 64 cm, h = 60 cm).
- Top advance:**
The greatest chopping knife advance and the largest screen surface of this chopper series convince our customers.
- Top maintenance:**
As there are only eight chopping knives, they are easy to replace and/or quick to sharpen. A large-dimensioned, thick-walled discharge screw and a blower equipped with easy-to-replace wear plates confirm the maintenance-friendliness of this unit.
- Top wood chips:**
Best wood chip quality, therefore: neat, square wood chips without fines – and low diesel consumption.
- Top protection: **PATENTED!****
The patented foreign-object protection for the chopping knives (against steel parts, stones, ...) has been tried and tested and prevents major damage to the chopping drum.

Technical data **WT 8 XL Z**

Feed opening (w x h)	cm	64 x 60
Tree diameter max.	cm	60
Chopping output up to max.	loose cubic metres/h	100
Chopping knives	pcs.	8
Screen surface	m ²	1.15
Ejection height max.	m	4.6
Throw width max.	m	10
Machine length	m	5.6
Machine width	m	2.5
Own weight (w/o crane) appr.	t	8.7
Own weight (with crane) appr.	t	10.3
Feed chain/roller length	m	2.4
Power requirement tractor	HP	130-220
Axles		2
Wheels		445/45-R19.5
Drawbar design	top/bottom attachment with/without crane panel	



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Tractor chopper WT 9 XL Z

Emergence into a new dimension of performance!

The WT 9 XL Z shows proof of its power in an impressive way in all applications requiring maximum performance. Ideally suited for tractors with approx. 250 HP.

Chopping output:
max. 130 loose cubic metres/hour

Feed opening (w x h): 82 x 70 cm
Tree diameter: max. 70 cm





This powerful tractor chopping machine WT 9 XL Z is the optimum solution for the medium HP class from 180 to 300 HP – wear-resistant – robust – cost-efficient!

This machine enables the filling of 25 to 30 m² trailers within a short period of time so that tractors and trailers already available on farms can be used. Quick knife changes (10 pieces) and even quicker screen changes enable the production of quality wood chips (P16S and P 31S). The aggressive roller feed ensures an extremely high throughput even with shrubbery and treetops. The large rotor diameter ensures neat wood chips and high efficiency with low diesel consumption.



Chop better, drive more confidently and more safely with drive and steering axle:
The WT 9 XL Z can do it!
Tailor-made for mountainous terrain.



A superlative chopper for high mountain regions!

The tractor chopping machine WT 9 XL Z was designed according to the special requests of our customer Pupp and built especially for the mountainous region of South Tyrol. In order to enable him to perform chopping work everywhere, the chopper with the tractor must be able to navigate very steep mountain roads with narrow curve radiuses. For that reason, a drive axle and a steering axle were installed in the underframe. The following special features were also integrated in this chopping machine:

- Hydraulic drawbar suspension
- Hydraulic drive axle at the front (technical design of drive axle for up to 60 km/h, up to 9 km/h hydraulically engaging driving power up to 45 kW, infinitely adjustable, with traction aid for starting up on mountains)
- Hydraulic trailing steering axle at the rear – lockable
- Timber crane with lifting cab on the right (thus ensuring a better view of the nozzle of the chopper) – incl. air conditioning and heating/great comfort for the operator
- Ejection tower hydraulically bendable to the side (space for crane cab)
- Central lubrication: electronic fill level monitoring and malfunction indication on the display
- Hydraulically driven generating set (knives can be sharpened on site)
- Wood splitter Westech L 920 – foldable and easy to remove

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Even more cost-efficient!

Thanks to a large-dimensioned rotor (diameter 900 mm) and the latest electronic feed unit, whole trees with a diameter of up to 700 mm can be processed smoothly into quality wood chips with tractors with approx. 200 HP for the first time.

The wood chips are hurled through the screen with only one turn of the rotor. The WT 9 XL Z has the largest screen surface of all chopping machines of this feed width class! The result are neat, chunky wood chips with little fines.



Arguments that carry conviction

- **Top chopping knife rebound system:**
Prevents major damage to the rotor
- **Top wood chips according to quality standard:**
ÖNORM M7 133, ÖNORM C4005, EN/TSS 14961 or. ISO EN 172251 1-4
- **Top efficiency:**
Low diesel consumption with 200 HP, high throughput.
- **Top feed:**
Large upper roller with splitting tools, bottom roller robust design. Aggressive on shrubbery and waste from tree cutting.
- **Top chopper sealed all around:**
Machine loses no wood chips.
- **Top screw drive:**
Hydraulic, over-dimensioned, maintenance-free.
- **Top "multi-tool" rotor: PATENTED!**
10 staggered chopping knives or change blades can be replaced quickly.
- **Top screen change:**
Laser screen easy to replace, in 5 min. from P16S to P31S.

Technical data WT 9 XL Z

Feed opening (w x h)	cm	82 x 70
Tree diameter max.	cm	70
Offcut diameter	cm	70
Chopping output up to max.	loose cubic metres/h	130
Chopping knives	pcs.	10
Screen surface	m ²	1.40
Ejection height max.	m	4.8
Throw width max.	m	12
Machine length	m	5.80
Machine width	m	2.5
Own weight	t	9.20
Feed chain/roller length	m	1.1 or 2.7
Power requirement tractor	HP	180-300
Axles		2





Tractor chopper WT 10 XL Z

For wage enterprises with approx. 350 HP on the tractor

The drum-type wood chipping machine Wood-Terminator 10 XL Z automatically chops up whole trees to produce neat wood chips.

Chopping output:
up to 180 loose cubic metres/hour

Feed opening (w x h): 98 x 75 cm
Tree diameter: max. 75 cm



The robust design and easy operation are convincing arguments!

The feed has a larger and more aggressive feed roller than the WT 10. A load-controlled electronic unit stops the feed conveyor in no time, goes into reverse on its own and ensures a trouble-free chopping operation. The feed conveyor does not slow down, and the result are neat, chunky wood chips. The wide feed (1 m) is ideally suited for shrubbery and has greatly

proven itself with tree trunks. The high contract pressure of the top roller helps to produce a good wood chip quality even with waste wood from tree cutting. Thanks to the fully automatic, safe operation of the chopping machine, the crane operator can fully focus on feeding the chopper, which is why a throughput of up to 180 loose cubic metres can be reached.



Arguments that carry conviction

- **Top feed:**
 Length of feed conveyor 2.7 m; reinforced design; long useful life.
- **Top drive:**
 Feed conveyor and bottom roller driven by separate hydraulic motors; powerful feed.
- **Top chopping drum: PATENTED!**
 The "multi-tool" rotor (diameter 940 mm) is a novel structure where different chopping knives or blades can be changed flexibly depending on the material to be processed; blades can be re-sharpened seven times.
- **Top crash protection: PATENTED!**
 In case there is a foreign object, the chopping knife destroys a replaceable metal object and this prevents major damage to the chopping drum.
- **Top screen change:**
 The screen cage is divided and can be replaced quickly by one person in a couple of minutes.
- **Top blower:**
 New winnowing fans with replaceable Hardox wear plates – increased blower ejection power.
- **Top ejector:**
 Jet of wood chips carefully targeted and blowing upwards possible.

Technical data **WT 10 XL Z**

Feed opening (w x h)	cm	98 x 75
Tree diameter max.	cm	75
Chopping output up to max.	loose cubic metres/h	180
Chopping knives	pcs.	5/10/12
Screen surface	m ²	1.70
Ejection height max.	m	5.2
Throw width max.	m	15
Machine length	m	6
Machine width	m	2.5
Own weight w/o crane from	t	12.5
Own weight with crane from	t	15
Feed chain/roller length	m	2.7
Power requirement tractor	HP	270–400
Underframe with 2 axles	4 wheels, w 445/h 900	



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Tractor chopper WT 11 Z

For ambitious pros!

The WT 11 Z is simply unbeatable when it comes to chopping quality and throughput for tractors up to 400 HP, equipped with "multi-tool" rotor for chopping knives and change blades.

Chopping output:
max. 200 loose cubic metres/h

Feed opening (w x h): 98 x 75 cm
Tree diameter: max. 75 cm



Welcome to the professionals among wood chip producers!

The aggressive feed and the fast-response electronic unit enable trouble-free operation. Whole trees with a diameter of up to 75 cm are pulled in without the crane operator having to lift the feed roller. The CANBUS process control never lets the feed conveyor get slower so that wood chips of the desired chopping length are cut, and neat, chunky, rather square wood chips are produced. The large feed width (1.14 m) provides for great benefits with shrubbery and treetops in particu-

lar. The high hydraulic contract pressure of the solid top feed roller helps to produce neat, uniform wood chips (P16S or P31S as well as P45S and P63 according ISO EN 17225 1-4) even with waste wood from tree cutting. As a result of the fully automatic, safe operation of the chopping machine, the crane operator can fully focus on the feeding work with the crane. This enables the trouble-free processing of up to 200 loose cubic metres of wood chips per hour.



Technical data WT 11 Z

Feed opening (w x h)	cm	114 x 75
Tree diameter max.	cm	75
Chopping output up to max.	loose cubic metres/h	200
Chopping knives	pcs.	5/10/14
Screen surface	m ²	1.95
Ejection height max.	m	5.2
Throw width (WT-12 blower) max.	m	18
Machine length	m	6.3
Machine width	m	2.5
Own weight (w/o crane) appr.	t	12.9
Own weight (with crane) appr.	t	15.3
Feed chain/roller length	m	2.7
Power requirement tractor	HP	300-420
Axles		2
Wheels		445/45-R19.5 or 435/50-R22.5
Drawbar design		top/bottom attachment with/without crane panel



▲ New! Control panel with colour display



▲ Top throw width = neat, chunky wood chips

Arguments that carry conviction

- **Top feed conveyor:**
In contrast to competitors' products, the feed conveyor of this chipper is 2.7 m long, which is why the 4-m tree trunks stay on the conveyor during crane feeding and do not fall on the ground.
- **Top drive:**
This machine has maintenance-free hydraulic drive engines.
- **Top efficiency:**
The smooth operation of the chopping drum and the modern electronic unit of the feed control go easy on the tractor and ensure an efficiency that is unmatched so far.
- **Top protection:** **PATENTED!**
The patented foreign-object protection for the chopping knives (against steel parts, stones, ...) has been tried and tested and prevents major damage to the chopping drum.
- **Top screen change:**
The screen cage is divided up, is lightweight and can easily be replaced by one person in only a couple of minutes.
- **Top radio control:**
The haulage contractor can quite easily operate the radio control for the ejection functions himself and he can completely fill up the trailer, which eases the chopper crane operator's workload.
- **Top blower WT 12 for the WT 11:**
Improved discharge power, less fines, less wear, reduced diesel consumption, nicer wood chips.



Top chopping knife setting gauge: quick blade change





Tractor chopper WT 12 Z

Mega machine with unique technological concept

**The largest tractor wood chopping machine in the world is really a high performer!
It ensures an unrivalled maximum output in the tractor class from 350 to 600 HP.**

Chopping output: max. 300 m³/h

**Feed opening (w x h): 135 x 90 cm
Tree diameter: max. 90 cm**



“The better is the enemy of the good” – this is the motto based on which we outdid ourselves with the new WT 12 Z. For this tractor wood chopping machine has a large rotor diameter of 1.2 m. With the chopping rotor weight of 3 tons and a low rotor speed, the inertia torque provides for a tremendous “terminator-like” power for the processing of thick, round timber. The heavy flywheel mass is directly transmitted to the extra-strong chopping knives and ensures a maximum wood chip throughput. With a screen surface of 2.2 m², it beats all tractor choppers on the market. The advantage of this screen size is that chopped material is not chopped up again – and this is why the WT 12 chopper produces wood chips with less fines than others.



The power feed has a grasp like “a crocodile”!



With an aggressive, heavy, large feed roller and an enormous feed width, optimum supplying of the machine presents a great challenge for the crane operator. Only a suitable, fast crane

equipped with a suitable crane gripper and a motivated crane operator are able to deliver the large quantity of waste wood to the tractor chopper WT 12.

Everything designed as convenient as possible for the user!

The modern, load-controlled shut-off device of the feed works miracles when tree trunks are processed. You do not have to worry about the chopper because it processes the wood fully automatically. So the operator can fully focus on crane feeding and ejection. The display continuously indicates all important functions. Switching the electronic unit of the chopper from softwood to hardwood, for example, or changing the conveyor speed can be done in only a few seconds!

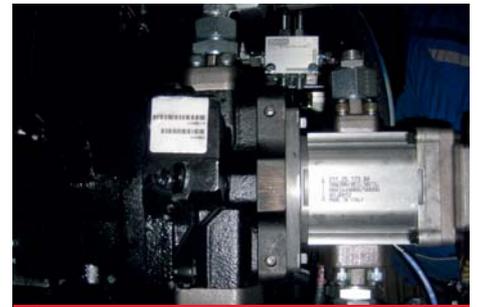


Control panel: colour display CAN bus system



Neat wood chips – little fines





Top axial piston hydraulic pump



Top radial piston hydraulic motor

MUS-MAX tractor chopper

Revolutionary further development: Load-sensing hydraulic system – as standard!

Modern hydraulic management requires an adjustable Danfoss axial piston pump in combination with several Danfoss PVG valves. With this load-sensing hydraulic system, nothing is heated up, which means that the oil flow is assigned on a performance-oriented basis by means of a control line. Based on this valve technology, the feed conveyor speed can also be read off elec-

tronically in percent on the control panel. Furthermore the feed conveyor is driven by a powerful radial piston hydraulic motor without gear. This high-tech hydraulic system of the Wood-Terminator 12 is otherwise only used for excavators, etc. Consequently the new WT 12 chopper has the most powerful feed of this performance class.



Top extension panel, hinged – feed length: 3.15 m



Top rotor cover – can be lifted hydraulically



Top screen change – divided screens

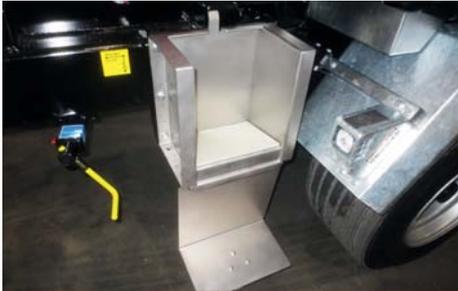
Erich Urch, general manager of Mux-Max: "This machine processes entire trees with a diameter of up to 90 cm!"



90 cm diameter: cool!

Very fast screen change – neat solution

The rotor cover is lifted hydraulically via onboard electric hydraulics. The divided screens are exchanged in a few minutes, and thus customer requirements regarding the hack quality (from P16S to P31S, P45S, P63 and P100 [ISO EN 17225 1-4]) do not create costs for the operator.



NEW: Top Niro-knife storage box



Technology far ahead of its time!

- You can work on farmland around the clock – because no tachograph is necessary (on weekends as well).
- You do not get stuck with this tractor on any terrain anymore because it has four same-sized wheels that can be fitted with snow chains, for example Claas-Xerion – furthermore there is a rotating “air-conditioned free-visibility cab”. These tractors have engines with a larger engine displacement and are suited for continuous operation. The chopper can also be equipped with a special anti-skid tyre tread.
- The feed conveyor can be “tilted up and down” hydraulically without the operator having to get off the tractor, which enables him to the next chopping station quickly.
- The radio control on the ejector eases the workload of the crane operator because the trailer operator controls the movements of the ejector.
- The perfect jet produced by the ejector enables well-targeted filing of trailers until the last nook is filled.
- Its flexibility regarding chopping applications, its efficiency, useful life, easy maintenance, ergonomic handling and convenience for the operator – only the tractor chopper WT 12 Z provides for all that.
- **NEW:** The knife blades can be re-sharpened seven times! These new quick-change blades are extended to their original dimensions with a laser-cut sheet after sharpening. Currently no other competitor product achieves this kind of cost-efficiency!

Technical data WT 12 Z

Feed opening (w/h)	cm	135 x 90
Tree diameter max.	cm	softwood up to 90 hardwood up to 75
Feed conveyor/roller	m	3.15
Chopping output up to max.	m ³ /h	300
Chopping knives/blades	pcs.	14
Screen surface	m ²	2.20
Driving power	kW	from 310 (420 HP) to 440 (600 HP)
“Multi-tool” rotor	mm	1200
(w/o crane)	mm	w = 4680
Work position:	mm	h = 6000
Transport position	mm	l = 6550
Transport position	mm	l = 6550
	mm	w = 2750 (tires)
	mm	w = 2550 (chopper)
Weight (with crane)	kg	approx. 20,000
Ejection: increased	mm ø	280
Ejection radius	m	4.5–5.3 (adjustable)
Blower throw width	m	up to 18



Chopping knives – extra-strong



Blades quickly replaceable



Chipping knife with stop block



Blade extension





Hack-Truck High-tech mobile chopper

A trend-setting concept.

**Simply unbeatable with regard to chopping output,
wood chip quality, cost-efficiency and mobility.**

**For the chopping types WT 8 XL, WT 9 XL, WT 10 XL and WT 11.
Chopping output: max. 200 loose cubic metres/hour**



HACK-TRUCK: the innovative concept in conjunction with Mercedes**Benefits:**

As a result of the narrow turning radius of the hack-truck, you are very flexible in the terrain and you can go from one chopping station to the other very quickly. The driver stays in the air-conditioned truck cab when going from one place to the next – which is extremely convenient.

The biggest advantage of the truck is the driving speed of 80 km/h. The hack-truck is suitable for driving on motorways and lets you get to your customers as quickly as possible. That saves you time – and saving time again saves you money.



Wood chip discharge with conveyor belt



Wood chip discharge with blower

NEW: easy switching from conveyor to blower discharge mode

The truck's engine power can be directly utilised from the NMV drive or RBV "Rögelberg" intermediate gear box.



Hack Truck Mercedes WT 10 XL (520 hp) with NMV drive



Hack Truck Volvo WT 10XL and WT 11 (up to 750 hp) with RBV intermediate gearbox

The cockpit provides for great visibility all around and many convenient features for the driver



The sound-insulated driver's cab XL was totally re-designed on the passenger side. A large-scale safety glazing ensures good visibility of the working area of the wood chopper and the stacked timber material. A special, elevated ergonomic swivel seat with integrated joysticks for crane operation in the arm rests ensures extraordinary convenience and good visibility for the operator. The control panel of the chopper was also designed ergonomically in such a way that the driver can reach everything from any sitting position. The belt speed and other functions can always be read, and the discharge tower can be precisely adjusted using a joystick. There are also positive effects on the operator's health – there is less dust and less noise. And the truck's air conditioning system ensures cooling in summer and pleasant working conditions in winter.



**Hack-Truck WT 9 XL:
lifting crane cab –
great visibility**

There is an air-conditioned lifting crane cab for special customers who have to chop wood that is stacked up very high. In addition to the ergonomic seat, this version offers the operator the greatest and best visibility all around. As far as the truck is concerned, the small, cost-efficient M-cab can be used. This version is also an interesting alternative from a financial point of view.

**Hack-Truck WT 10 XL: chopping machine
with vertical conveyor and discharge conveyor**

This chopper has a vertical screw conveyor unit for vertical conveying of the wood chips. A large-dimensioned screw conveyor transports the chopped-up material vertically up in the air in a take-apart conveyor pipe. A sophisticated system makes sure that the wood chips get on the conveyor belt without any problems. This slatted conveyor belt has a movable ejector flap at the end. The throw width for the wood chips can be set with an adjustable conveyor speed and using the adjustable ejector flap. This vertical conveying technology works perfectly and the wood chips are neat with very little fines. The chopper requires very little maintenance, and all wear plates and helical conveying units can be replaced quickly and easily.



First hack-truck for the Japanese market: WT 8 XL!



Central lubrication – fill level indicator on the process box

This Mercedes hack-truck was specially designed for Japan, and many customer requirements were considered in the process. The country has narrow mountain roads with narrow curve radiuses. As a result, we opted for a vehicle with a short design. The dimensions of the Japanese hack-truck are: l = 7.2 m; w = 2.5 m; h = 3.8 m. The cab of the Mercedes AROCS (422 HP) was equipped with a right-hand drive (in Japan, they drive on the left). The truck engine provides 2500 Nm to the chopper directly via the NMV PTO. A Palfinger Epsilon timber crane with a radius of 9.4 m completes this hack-truck. Another novelty is the grease level monitoring device for the central lubrication system, which also includes malfunction messages.



Another novelty is the grease level monitoring device for the central lubrication system, which also includes malfunction messages.

BENEFITS:

- Short structure, versatile, flexible
- Neat wood chips produced by the wood chopping machine WT 8 XL
- Fast feeding by the timber crane Epsilon C70L
- Quick change of chopping station with Mercedes Arocs all-wheel truck with small weight

Top arguments

- Convincing mobility
- Quick drive from one chopping station to the next
- Good view of the chopping station for feeding
- Best efficiency for transmission from the truck engine directly to the chopper
- High degree of flexibility (80 km/h) – suitable for motorways
- Very versatile / narrow curve radius for mountainous terrain
- Many conveniences in the truck cab for the operator: less dust, less noise, good climate, optimum visibility all around for the driver
- Top wood chips with little fines
- AD-Blue (Euro VI) – environmentally friendly according to new exhaust standard

Technical data		WT 8 XL	WT 9 XL	WT 10 XL	WT 11
Feed opening (w x h)	cm	64 x 60	82 x 70	98 x 75	114 x 75
Tree diameter max.	cm	60	70	75	75
Chopping output up to max.	Lcm/h	120	130	180	200
Chopping knives or blades	pcs.	8	10	12	14
Machine dimensions (l/w/h) approx.	m	8,5/2,5/3,85	8,8/2,5/3,95	9/2,5/3,95	9,2/2,5/3,95
Hack-truck weight approx.	t	20	24	26	28
Volvo	HP		400	550	650
Mercedes type Actros	HP	380	380-510	550	to 625



Hack Truck High-Tech Mobile Hacker, 625 hp



Wood Terminator 12 NMV Hack Truck

chopping output: Feed opening (W x H): 135 x 90 cm
max. 300 Srm/h Tree diameter: max. 90 cm



Croc system: quick exchange of knives and tines

The power feed engages "like a crocodile"!

The sound-proof XL cab has been completely rebuilt on the passenger side. A large safety glazing provides a good clear view of the wood hacker working area and of the stacked wood material. A specially designed higher comfort swivel seat featuring integrated joysticks for crane operation in the armrests, provides the operator with an exceptionally good overview. The hacker's control panel in the cockpit has also been ergonomically adapted, ensuring that everything can be reached in any seating si-

uation. The belt and blower speed can be read at all times. The ejection tower can be precisely adjusted with a joystick on the control console. The operator's health also benefits from less dust and noise, as well as from the ergonomic seating quality. And the truck's climate control system ensures pleasant working conditions in summer and winter



A future-oriented concept for wood chip production.

Simply unbeatable in terms of hacking performance, wood chip quality, wear resistance, profitability, and mobility.

MUS-MAX Wood-Terminator 12 NMV Hack Truck Mercedes



A screen and toolbox swivel makes service work easier



Vehicle data and dimensions:

Vehicle data and dimensions:

Truck type:	Arocs 3263 LK 8x4
Diesel engine:	Mercedes 460 kW/625 PS Displacement 15.6 litres
Drive:	8 x 4/4
Transmission:	Automatic/torque converter
Rear axle:	Steerable/unloadable
Wheelbase:	3.9 m
Turning radius:	20 m
Tyres:	First and last axle 385/65/R 22.5 Average 2 axles 315/80/R 22.5

Vehicle dimensions:

Truck	Length: 9235 mm
	Width: 2550 mm
	Height: 3990 mm

Total weight:	32 t
Tank capacity:	780 litres of diesel



Wood crane:	Epsilon Palfinger Type Q 130/L 104
Coverage:	10.4 m
Lifting force:	1.3 t (extended)

Technical specs WT 12 NMV Hack Truck

Feed opening (B/H)	cm	135 x 90
Tree diameter	Max. cm	Softwood up to 90 Hardwood up to 75
Feed belt/roller	m/length	3.15
Chopping output up to max.	Srm/h	300
Screen area (2 screens)	m ²	2.20
"Multi-tool" rotor ø approx.	mm	1200
Hack knives/blades	pcs.	12
Ejection tower diameter	mm ø	280 (extendable)
Blower casting distance	m	up to 18
Ejection: increased	m	4.5-5.3 (displaceable)

Advantages

WT 12 NMV Hack truck Mercedes 625 hp

1. Mercedes truck NMV auxiliary drive 3000 N torque
2. New reversing transmission, higher efficiency
3. Low diesel consumption (low engine speed)
4. Enlarged, externally-built truck engine water cooler
5. Temperature and level monitoring for diesel engine and hacker hydraulics
6. Enlarged and easily accessible air filter
7. Driver's cab: Panoramic view, air-conditioned, comfort seat, LED
8. Steerable rear axis, narrower curve radius
9. WT 12 - Feed: 90 cm high, 135 cm wide
10. Upper feed roller: replaceable blades and tines
11. Screen holder can be swivelled - easier screen change
12. Combi-rotor for chipping knives or blades
13. Low rotor speed, excellent wood chips that meet standards
14. New twin-screw discharge to the feed blower
15. New hydraulic feed blower, gentle discharge, adjustable speed, clean wood chips
16. E-Box: Digital print display for operational function

Hydraulic blower system "Swinging fan"

The market demands high-quality chips with a small amount of fines, which is why a feed blower has been developed whose speed can be adjusted infinitely from 400 to 1000 revolutions. The operator can adjust the blowing distance by up to 20 m.



A new, patented spreader blade (swing-tool) transports the wood chip very carefully from the blower, which means that the wood chips are not crushed afterwards.

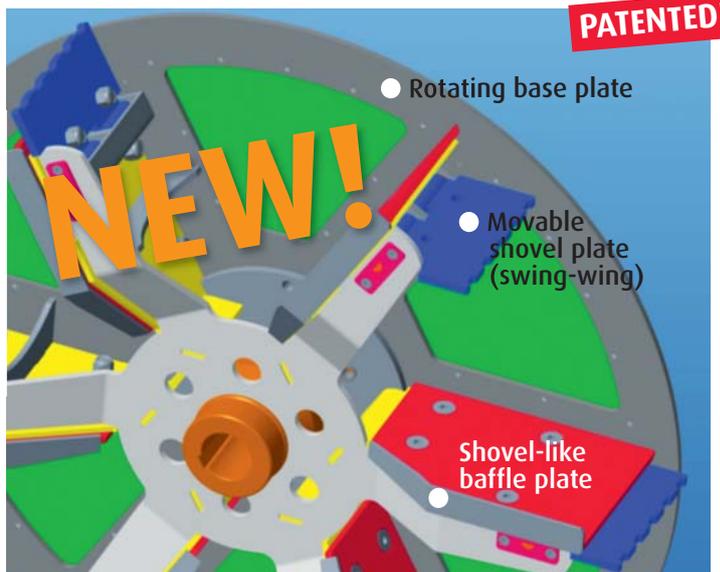


A hydraulic variable displacement pump, which drives a constant oil engine, provides the infinitely variable speed adjustment of the spreader blade.



In the cockpit on the control panel, the spreader blade speed is always visible on the display. The speed can be adjusted with a movement of the hand in a few seconds.

The modern, enlarged colour display can be read easily in any weather. Easy adjustment from fine chips to coarse chips, as well as of speed mode. And the feed belt speed, hydraulic oil level, hydraulic pressure, hydraulic oil temperature, important monitoring functions of the diesel engine, and much more can also be read.



The perfect wood chip spreader blade (swing-wing) reduces the fine parts of the wood chips (can be delivered on request).

- A continuously rotating wing plate prevents friction and secondary crushing of the wood chips opposite the housing.
- A movable blade deflects foreign bodies and prevents blockages during start-up (patented)
- A scoop-like baffle ensures less fine parts in the wood chips (and prevents friction) opposite the front panel.



Chopper with separately driven Cat diesel engine, set up on trucks with 3 or 4 axles, transfer trucks or trailers with two axles, is really up and coming!

Concentrated power – directly for the chopper drive

Our wood chopping machines WT 9 XL – WT 12 DS can be delivered with CAT diesel engines with special cooler and Clean-Fix reversible fan. Mercedes, MAN, Scania, Renault or Volvo trucks can be used, for example. The driver's cab of the truck was re-designed in order to give the chopper operator a

good view of the chopping area. A new timber crane series from Epsilon – the Q-series – has a range of 10.40 m and achieves an even higher chopping output at the chopping station. A timber crane with lifting crane cab can be used as well. These choppers are very versatile, and you can

just move on a couple of metres at the chopping station because no PTO has to be disengaged or engaged. You can easily go from one chopping customer to the next with this chopping machine because the truck reaches 80 km/h.



Wood chopper WT 10 XL DLK - powered by a built-in 600 hp John Deere diesel engine.



This built-in chopper has great advantages when chopping at many heating plants. The chopper can be swivelled 45° to the left and right with a turntable. The overview at the hacking spot is optimal thanks to the ramp-up crane cab. Since the truck can manage 80 km/h, you will be with the next customer very quickly.

Wood Chopper WT 9 XL DLK – On crawler tracks ...



Wood Terminator 9 XL DLK wood chopper on a crawler chassis for Japan. Operation from the excavator by radio control.

Technical data **WT 9 XL DLK**

Feed opening (w x h)	cm	82 x 70
Tree diameter max.	cm	70
Chopping output up to appr.	loose cubic metres/h	160
Chopping knives	pcs.	10
Ejection height max.	m	5.1
Throw width max.	m	12
Machine length	m	6.6
Machine width	m	2.5
Own weight (w/o crane) appr.	t	12
Own weight (with crane) appr.	t	18
Feed chain/roller length	m	3
Engine 6090	HP	405 (298 kW)
Axles		2
Tyres		445/45 R 19.5
Drawbar design		towing drawbar, swivel
On request		drawbar, semi-trailer



Hacker on saddle vehicle, can be swivelled left and right, with built-up wood splitter



A CAT C9.3 Acert engine with 405 HP drives the chopper and the timber crane. This compact design with a 3-m long feed conveyor and a 1.5-m nozzle extension is ideally suited for long treetops, processor waste and splint wood, etc.



Diesel engine chopper WT 10 XL DLK and WT 11 DLK

A maximum of power and performance!

The WT 10 XL DLK & WT 11 DLK will impress you with many technical highlights that are decisive for a Wood Terminator.

Chopping output:

WT 10 XL DLK: up to 240 loose cubic metres/hour

WT 11 DLK: up to 280 loose cubic metres/hour

Feed opening (w x h): WT 10 XL DLK: 98 x 75 cm

Feed opening (w x h): WT 11 DLK: 114 x 75 cm

Tree diameter: max. 75 cm



The top longitudinal chopping machine with ejection blower and ejector that is telescopeable by 80 cm in the radius



Top wood chips P16S-P31S.

The WT 10 XL DLK longitudinal chopping machines have a feed conveyor with a length of 3.1 m and a hinged extension nozzle with a length of 1.1 m. The total length of the feed conveyor and the extension nozzle is 4.2 m, and it provides for great advantages for the feeding of long timber and treetops.

The chopper and the diesel engine are set up on a separate frame. The chopping unit can be swivelled by 170° with a slewing hydraulically driven by a planetary gear.

Either a CAT diesel engine C 15 with 580 HP (15.2-litre displacement) or a CAT engine with 775 HP (18-litre displacement) is used to drive the chopper. Z- or L-timber cranes of the type Epsilon with a range of 10.1 m can be set up.



The lifting crane cab provides for excellent visibility at the chopping site.



The chopper WT 10 XL DLK can also be set up on a trailer. This trailer has robust, hydraulic support feet. The chopping vehicle can be towed with a tractor or a truck.

Lifting crane cab. For chopping sites where wood is stored stacked up high!

A comfortable, safe and neatly arranged workplace!

The WT 10 XL DLK starts to work where others already have to give up. Whole trees with a diameter of up to 75 cm are pulled in and chopped up without any problems. The machine can quickly be switched from P16S fine wood chips to P31S and P63 coarse wood chips for thermal power stations. As a result of the enormous continuous throughput, the wood chips have to be removed in containers and/or on large trailers or chopping has to be carried out on large conical heaps or on roofed storage yards. Trees with a diameter of 1 m are split easily with the folding wood splitter. Splitting power: 27 t.



Technical data WT 10 XL & 11 DLK

Feed opening (w x h)	cm	98 x 75	114 x 75
Tree diameter max.	cm	75	75
Chopping output up to max.	Srm/h	240	280
Chopping knives	Stk.	5/10/12	5/10/14
Ejection height max.	m	6,3	6,5
Throw width max.	m	15	18
Machine length	m	6,6	6,8
Machine width	m	2,5	2,5
Own weight w/o crane from t		13	14
Own weight with crane from t		16	17
Feed chain/roller length	m	2,7/3	2,7/3
Power require. diesel engine PS		400-600	500-750
Underframe with 2 axles		4 Räder, B 445/H 900	600/50/22,5
Truck setup		fixed (DS side feeder)	or with swivel crane (DLK)

WT 10 XL and 11 DLK

(longitudinal machines/3-m feed conveyor)

Are delivered with swivel slewing ring in most cases (WT 10 XL and 11 DLK). The chopping machine can be tilted by 90° to the left and to the right and consequently is very versatile to use. The 750 HP CAT C-18 engine ensures optimum throughput and little consumption.



Arguments that carry conviction:

- Top performance:**
 Up to 280 m³ of wood chips P31S (G50)/hour, large screen surface – maximum throughput.
- “Multi-tool” rotor:**
 12 staggered, robust knives – smooth operation, easy and quick to replace (winter-proof). Replacement blades that can be re-sharpened seven times can also be used.
- Top steel:**
 Shaft material from aviation technology.
- Top efficiency:**
 Unrivalled m³/h wood chip output with low rate of diesel consumption.
- Top maintenance:**
 Central lubrication, less knife screws, wear parts can be replaced quickly.
- Top ejection: increased**
 Extendable lengthwise in the radius by 80 cm like a telescope, optimum container filling.
- Top hydraulic blower:**
 stepless speed, gentle discharge, clean wood chips.
- Top hacker WT 11:**
 longitudinal machine on a truck with swivel and a 3 m long intake belt, a 750 hp Cat engine, a hydro-drive 4x4 vehicle with a rear steering axle.

WT 10 XL DLB Diesel motor chipper with belt discharge: The chipper that likes to chip it rougher!

Ideal operation via radio control!

Extra-wide, extra-long, extra-powerful – an ideal stationary unit for large thermal power stations. Little wear and tear, great performance. The WT 10 XL DLB (longitudinal machine/discharge conveyor) produces rather coarse wood chips (P16S, P31S, P63 and P100). When it is retrofitted accordingly, extremely fine wood chips (for pellet production) can be produced as well. The radio control enables feedings by means of truck crane, excavator or wheel excavator and the like.



Ideal wood chips for larger thermal power stations



Arguments that carry conviction

- Discharge with extra-wide discharge conveyor with a length of 8 m.
- Discharge conveyor with hitching slats (for coarse wood chips).
- Long useful life, little wear.
- Less fines in the wood chips – no repeated chopping.
- CAT-C18 diesel engine with increased cooling power.
- Chopping output in permanent operation: up to 300 m³ of wood chips per hour.
- Electric diesel cooler.
- Starter cartridge: automatically produces ether in case of a cold start.
- Automatic fire extinguishing systems on request.
- Extension sheet for feed conveyor, advantage for long timber feeding.
- Radio control: all CAT diesel engine start-stop functions on the control panel of the chopper as well.
- Radio control enables flexible loading of wood trucks, wheel loaders and the like.



Technical data WT 10 XL DLB

Feed opening (w x h)	cm	98 x 75
Tree diameter max.	cm	75
Chopping output up to max.	loose cubic metres/hour	300
Chopping knives	pcs.	12
Ejection height conveyor max.	m	5.3
Machine length	m	10.3
Machine width	m	2.5
Own weight (w/o crane) from t		20.1
Feed chain/roller length	m	3.6
Additional panel	m	1.5
Power require. diesel engine	HP	up to 750
Underframe with 2 axles		4 wheels, w 445/h 900



Our visions and objectives

The guiding principles of the company MUS-MAX:

The MUS-MAX family business has been a reliable partner of agricultural businesses for over 150 years. Our customers can rely on the guaranteed quality of our products, and we are driven by a great innovative spirit. For MUS-MAX, closeness to our customers is not just a word, but we practise it actively in all of our business relations. The success of our customers with our machines is our goal. We want to make work easier for our customers and consequently improve their quality of living. We create this benefit with units for wood processing and silage as well as farm mechanisation and the services offered in that connection.

Environmental awareness – energy

As a family business, MUS-MAX takes its responsibility vis-à-vis future generations and the environment very seriously. It is our task to develop “agricultural machinery” running on renewable energies. We want to promote agriculture and its ecological, economic and social aspects.

The customers take centre stage for MUS-MAX. Their starring role guarantees the most exacting requirements for the development of new products.

Our employees are the best from the region. As many of our employees come from agricultural businesses themselves, they are aware of the challenges of the future. This know-how of our staff is integrated to find practically oriented solutions for the future. Our apprentices and employees complete practically oriented further training and qualification measures on a regular basis in order for us to reach the current goals.

Due to their personalities, our executive personnel have the strength to achieve goals and keep delivery dates on an obligatory basis. Our employees reach their goals by way of teamwork and they keep thinking for themselves at work in order to assure the quality of our products. They are also responsible for ensuring that operational procedures and cost minimisation are improved on a regular basis. Employees who contribute improvements are appreciated for that. Our corporate culture is characterised by openness and a sense of togetherness – and we respect our staff’s wishes as well.

We work with a high quality standard. Final inspections of machinery and the handing over of machines are recorded in writing. For transparency creates motivation, identification and productivity! Our approach to dealing with mistakes – we call it “mistake tolerance” – is also part of the quality system of our company. However, they can only be tolerated when new ideas are implemented in a creative manner. That results in more quality awareness too! We implemented the new welding standard EN1090.

“Unless you try to do something beyond what you have already mastered, you will never grow!”
(Ralph Waldo Emerson)

We consider change an obligation to innovate – we

look ahead. Nothing is as consistent as change. As a consequence, it is always time to make changes because today there is nothing that we could not make better tomorrow. The ongoing further development of each employee as well as of our entire company is based on this idea.

“Unless you get moving – nothing will happen!”

We are environmentally aware

Being careful with nature is extremely important for us. For that reason, we try to find a well-balanced relationship between ecology and economy in our company. For us, that means in the first place to avoid unnecessary packaging, to use environmentally friendly cleaners and paints too and to install extraction systems for the protection of our staff. The new assembly hall is heated with a 200-kW wood chip oven, the main operations are connected up to the local heat supply system of the municipality. Our chopping machines are used there as well. In general, the sensible use of energy is not only important for us because of cost concerns, but because:

others can ever ask of you.”

However, goals are also an important energetic factor for each of us in the team because reaching them constitutes our greatest field of force. The quality of our goals determines the quality of our future!

We make profit and continue to grow

Positive operating results give us financial independence and corporate growth in accordance with our corporate goals. In addition, they guarantee the safety of our staff and their families and the creation of new jobs for the economy. Expansion makes us attractive, strengthens our competitive position and helps us to find the best employees and apprentices and to retain them too. It keeps providing new stimuli for our company organisation.

Growth as a motivator is pure oxygen and therefore an absolute necessity for all of us. It creates an atmosphere in our company where vitality and enthusiasm reign.

Our skilled workers see real opportunities for their own development. For that reason, growth is and will remain the most important driving force for us!

We believe in our company

Our customers, employees and suppliers profit from our performance to an ex-

traordinary extent. Our friendliness, quality and professionalism helped to establish the company MUS-MAX as one of the leading agricultural engineering businesses in the European region. We strengthened our strong market position with many patents. In that way, we also made sure that our company has an exemplary reputation. We are always able to cope with the reasonably great expectations of our customers and dealers. We rather regard them as a minimum and are happy about the new challenges we get to face on a daily basis. Competition is that extra something for us! Our youthfulness gives us the dynamism and wit it takes to fit this profile without compromise.

What makes us so successful? Our way of living! A good atmosphere in the company is more important as a basis than know-how and capital. Only people who think positive radiate enthusiasm and competence. In our homeland – with forests, fields and wine – we live in one of the best regions of Austria from an economic and culinary point of view. We can be very satisfied with the products developed by us so far – but we do not want to content ourselves with that! – We still have grand plans!

Sowing innovation– harvesting success.

The secret of our success?

Quality and speed!



**■ General Manager
Erich Urch,
Councillor of Commerce**

Our values

There are good prospects for traditional values when they are re-defined!

- More personal responsibility
- Dealing with others honestly and respectfully
- Joint efforts to find solutions
- Regard change as a chance, Drive positive change
- Reaching fixed goals, planned success

- which means assigning more responsibility and competencies to the staff
- staying close to customers, focussing on good products
- move from the solitary perspective to a sense of togetherness; promote teamwork
- go with the times, keep it rolling; implement streamlining measures
- be successful with foresight

Our focussed employees live for these values and demonstrate strength and confidence! I would like to thank all of you for that from the bottom of my heart!

The Mus-Max family business is a partner you can count on: committed, innovative and offering high-quality products.

“We did not inherit the earth from our parents, but borrowed it from our children!”

Our actions are unobjectionable from an ethical point of view

We are very much aware of the fact that we live in the 3rd millennium in a unifying Europe. From that, we get to an attitude of limitless openness towards all peoples, cultures and their people as their representatives. The agricultural engineering industry is utterly human. All our employees are on cordial terms with our customers, but especially with each other in the team as well. When dealing with conflict, we try to transform tension into positive energy as the basis for new creativity for the benefit of everyone. Our attitude proves that performance is based on the principles of decency and humaneness vis-à-vis society and our staff. Our code of ethics clearly defines the values of integrity, honesty, reliability and loyalty!

We aim high

As a matter of principle, we define our corporate goals in a joint effort – this is the only way for us to reach them together too. We derive our goals from our ideas and pursue them with an active approach. We keep adapting them in order to keep it rolling at all times. They always present a challenge for us, but they do not demand too much of us.

Here our motto is: “Always ask more of yourself than

Today MUS-MAX is one of the leading manufacturers of innovative high-tech mobile choppers in Europe. The corporate philosophy is characterised by the constant quest for even better solutions because the state of the art is just not satisfactory for the MUS-MAX POWER TEAM.



Several purchasing criteria:

- What kind of material do you want to chop up?
- What trunk diameters do you intend to chop up?
- What is the planned annual volume (loose cubic metres)?
- What dimensions are necessary for the chopping machine?
- Where is the chopping machine supposed to be used (in the forest, in the mountain forest, on chopping sites)?
- What off-road capability is necessary for the chopping machine?
- What kind of wood chips do my customers want – based on quality: P16S/small heating systems or P31S/P63 thermal power stations?
- How many kilometres do I have to travel to get to my customers?



All our equipment and machinery are tested and further developed at regular intervals. We reserve the right to alter technical details and specifications without notice.

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Printed by: "Koralendruckerei" Ges.m.b.H., Deutschlandsberg



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