

KOMPTECH

magazine 2/2014



PRACTICE
THE NEW CRAMBO AT THE LIMIT

INNOVATION
NO FEAR OF DRUM DAMAGE

PRACTICE
BEAT RISI AND HIS CHIPPOS



The Biomass-Pros.



green
efficiency



NEW

**Shredding and chipping
made easy: the Axtor**
Universal shredder



green
efficiency



NEW

Drum-roll: the Cribus
Drum screen



green
efficiency



NEW

**Less fuel, more power:
the Crambo direct**
Dual-shaft shredder



**The end of the stone age:
the Stonefex**
Stone separator



Screening with a star: the Multistar
Star screen



Nicer chipping: the Chippo
Drum chipper

Of course we're not the only people helping to make the world a greener place. But we're still very proud of our solutions for handling waste and biomass!



KOMPTECH
TECHNOLOGY FOR A BETTER ENVIRONMENT

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Title picture: Beat Risi with his new Chippo 5010 Cdt.

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green efficiency® by Komptech

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THREE QUESTIONS FOR JOSEF HEISSENBERGER



*Josef Heissenberger,
CEO and owner of the
Komptech group*

How important is the biomass processing industry for Komptech, and what do you expect from Interforst?

Interforst is the leading international trade fair for forestry and forestry equipment. After waste treatment, biomass processing has become our second most important category, and it continues to grow. Exhibiting at this fair is thus very important for us. Also, with the Chippo all-purpose chipper and its new, contrary-resistant rotor we are showing a product innovation that we think will attract great interest. This event is particularly important for our core central European markets, first and foremost Germany, Austria and Switzerland.

What is the connection between biomass processing and your new green efficiency® innovation programme?

Komptech's green efficiency® initiative has two levels. For one thing, it means new, more efficient, quieter, more economical and environment-friendly products. Our slogan "higher performance, lower consumption" expresses that, and reflects the superiority of the technology we offer under the programme. For another thing, it refers to a general attitude in our company.

We are taking responsibility for the future, and our work with renewable energy sources and their processing is part of that. And of course, when a company has "Technology for a better environment" as its tagline, it needs to live up to it by working on sustainable technologies.

What are you looking for from the biomass business in the coming years?

While the use of agricultural land to grow biomass for energy is increasingly subject to criticism, there are some areas where we expect continued strong growth. This includes the processing of woody biomass, not from industrial wood but from other material streams such as residual forestry wood, forestry cuttings, municipal green cuttings and waste wood. Also, regulatory changes will cause anaerobic digestion of organic materials and other processes to gain ground. By 2020 annual biomass energy use in the EU is slated to increase by 63 percent over 2010, to around 2200 petajoules. To put that into perspective, it is twice the amount of energy used in Austria each year. That means the absolute growth of biomass will be higher than all other renewable energy sources combined.

Someday our grandchildren will ask us what we did with their future. We're working on intelligent answers.

Josef Heissenberger,
CEO Komptech GmbH







HAPPY CHIPPO

The Beat Risi company in Sempach, Switzerland works in demolition and civil engineering, and now also processes wood to biofuel, which it sells to local heating associations and private users.

The Chippo 5010 Cdt can handle logs up to 75 cm in diameter.



The continually rising demand for wood chips in Switzerland motivated innovative entrepreneur Beat Risi to invest in a "professional chipper." Before that his company had always used tractor-driven chippers, but in 2011 Risi bought his first truck-mounted chipper, a Komtech Chippo 5010 Cd. With it, he got not just a new mobile machine, but also the expertise, advice, knowledge and excellent service and spare parts logistics of W. Mahler AG, Komtech's chipper distributor in Switzerland.

DIRECT DRIVE

A truck-mounted chipper generally offers an easier view of what's going on, more straightforward operation, and higher speeds when moving from job to job. The Chippo 5010 Cd also offers other advantages over its competitors. In cooperation with truck manufacturer MAN Komtech developed a special transmission that enables direct powering of the chipper from the truck engine, obviating the need for an additional chipper engine. This reduces weight and diesel fuel consumption, as well as operating and service costs.



Beat Risi's team is happy with the two Chippos (on the right: The new Chippo 5010 Cd "turnable")

BIGGER AND BETTER

The high throughput is another big benefit. Its aggressive intake with pre-compression by two horizontal and two vertical intake rollers can handle logs up to 75 cm in diameter. Komptech's blade mounting arrangement is also very innovative. Blades can be changed in just a few minutes, so the chipper is ready for the next job quickly. Chip discharge can be by conveyor or flexibly and precisely by variable-speed blower. The external cooling system is designed for ongoing high performance.

BEAT RISI IS HAPPY

Beat Risi is quite satisfied with the dark green Komptech chipper from W. Mahler AG. Orders for energy wood continue to climb, prompting Risi to purchase a second mobile chipper. With his positive experience with the Chippo, it wasn't hard to decide where to look. This time Risi chose a Chippo 5010 Cdt version. The "t" stands for "turnable." Its chipping unit is mounted on a solid turntable and swivels hydraulically through 260°. The feedstock it processes can be on the right or left of the road. With the turntable, this chipper doesn't need to turn around, often a laborious process on narrow logging roads. Instead, it can turn the chipper so the feed is right where it's needed. ■



Beat Risi Maschinenunternehmen

FRANCE

GERMANY

Zürich ●
Sempach ○

LIECHTENSTEIN
AUSTRIA

SWITZERLAND

ITALY



www.beatrisi.ch

CHIPPO 5010 CD

Six reasons you'll love the Chippo

The decision for a Chippo drum chipper is a decision for top chip quality at the lowest operating costs. Numerous features improve throughput and keep wear, maintenance and energy costs low, like the active feed, efficient blade geometry, and conveyor discharge.

NEW CONTRARY PROTECTION DESIGN

The input material isn't always clean trunk wood. Sometimes it's shrub cuttings or forestry residue, which can be contaminated with contraries and more liable to damage the machine. But we have a special configuration to address that - a chipping drum with patented safety design. When the blade encounters a contrary it can't deal with, a shear bolt and swing-away blade holder minimize the danger of damage to the chipping drum or counter-blade, while economical blades keep costs low when replacements are required. The material discharge is also set up for coarser chips, and is by conveyor only.



06 Efficient discharge

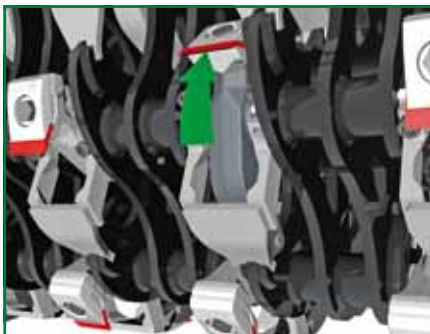
Chip discharge can be by conveyor to save material and energy, or flexibly and precisely by variable-speed blower



05 The right speed for the job

440 rpm drum speed for trunks, or 400 or 560 with gearbox for all-purpose use

NEW



01 No fear of drum damage

A special drum with new contrary safety design prevents damage to blade mount and chipping drum - ideal for chipping shrub cuttings and forestry residue.



02 Always keeps its cool

External cooling for continuous high performance in all conditions



03 A comfortable workplace

Depending on your preference, a roomy truck cab or crane cab with a perfect view



04 The best feed system

Aggressive intake with pre-compression by 2 horizontal and 2 vertical feed rollers

MAXED OUT

Page-one
story

In Berlin, two Crambos work tirelessly on a huge pile of waste wood. They shred 13 hours a day, turning waste into biomass fuel to supply the city with power and heat.



Krzysztof von Malottki (l.) and operations manager Uwe Kulitzscher (r.) examine the grain of the fuel product.



Every day, the plant turns around 500 tonnes of used wood.

At 6 AM the first gripper crane gets underway at Holzkontor Preussen GmbH in Berlin's Spandau neighbourhood. The plan for the day? The same as every day - shred at least 500 tonnes of used wood, clean out the metal and load it for transport, to feed a large wood-fired power and heating plant. "We're the main supplier for the plant, with an annual volume of 150,000 tonnes of fuel," says operations manager Uwe Kulitzscher of the company's responsibility. "Buffer capacity is limited, both here and at the power plant, so we need to continuously prepare and deliver fuel." Normally a stationary system would be used to handle this enormous throughput, but a breakdown about six months ago prompted the company to start using two mobile machines.

"We're an extreme case."

Uwe Kulitzscher

"It was clear to us from the beginning that our requirements represented an extreme case for the mobile machines. We work used wood of all kinds, from simple pallets to heavy construction timbers with massive iron clamps. Despite our best efforts at presorting, massive contraries still

get into the shredders and we have to deal with it," says Kulitzscher of the tough conditions the Crambos must cope with until the stationary unit is up and running again.

THE THREE CRITERIA

"The interplay of throughput, consumption and wear was the deciding factor in selecting the machines," says Kulitzscher. "We tested a number of machines, and it was often obvious after just an hour that they weren't up to the task." The Komptech shredders ultimately won the daily waste wood marathon. They work in a two-stage process. A Crambo 5200 direct with large screen basket does the pre-shredding. A magnet on its discharge conveyor removes most of the metallic contraries. A Crambo 6200 direct then fine-shreds the material to the 0 to 200 mm grain desired by the customer. Another magnet separator further reduces the metal content. Gripper cranes feed the shredders, a demanding task despite their polyp grippers. "We can consistently turn out 40 tonnes of finished product per hour, and maintain that rate over the long term," says Kulitzscher, praising the Crambo shredding system. It only shuts down for refuelling. ➡



Holzkontor Preussen GmbH is a subsidiary of AR reenergie + rohstoffe GmbH & Co. KG. As a certified waste disposal company, it focuses on disposal, logistics and the environment-friendly production of recycled materials from used wood. At its Berlin-Spandau location the company operates one of Germany's most capable waste wood processing systems. Its wood recyclates are used as fuel in biomass thermal power plants, and as raw materials in the wood products industry.

www.hk-preussen.de



Uwe Kulitzscher shows why wear resistance is so important.

LOCATION ADVANTAGE

Efficiency has a special place in the overall fuel preparation concept. The processing plant and the power plant are situated so that fuel supply can be by ship. They're only 20 km apart by road; the water route is longer, but shipping is significantly more environment-friendly than it would be to deliver by truck. Uwe Kulitzscher appreciates the location advantage. "I can load 500 tonnes of fuel on a ship. To deliver that amount by road I would need to send 50 trucks through town. That means higher transportation costs, and more exhaust and noise pollution. In cold winters the canals can freeze over, and that creates a real logistics challenge for all concerned."

EFFICIENT SURVIVALISTS

For true sustainability, low-emission transportation also needs to include low energy consumption in the fuel production. That is precisely where the Crambo shines: Its mechanical drive system uses energy extremely efficiently. Even at high loading, its diesel consumption remains under 40 litres per hour. "With this many hours of operation, every litre is a cost factor that quickly adds up. So in this regard we are naturally very happy with our machines," says Kulitzscher. Energy costs are a very important factor, but so are noise and pollutant emissions. Here again these shredders are at the head of the class; the latest exhaust scrubbing and special sound-insulated engine compartment makes them anything but "loud and smelly."

But what about wear? Kulitzscher is realistic. "Naturally I can't expect a road-mobile machine to be as wear-resistant as a stationary machine. On our stationary shredder the rotor alone weighed as much as the entire Crambo, and even it broke down sometimes." With that in mind, the Crambos are doing great in what for them is a kind of survival endurance test. Naturally, this is also a situation we can learn a lot from. So the Komptech service team is working closely with technical manager Krzysztof von Malottki to determine which tooth configuration gives the longest performance, how processes can be further improved, and what modifications make the machines even better able to stand up to contraries. Kulitzscher puts it succinctly: "We felt that the best way to cope with this transition phase would be with the Crambo as a machine and Komptech as a partner, and the decision turned out to be the right one."

Uwe Kulitzscher also has plans for later, when the stationary system comes back online. Then the mobile machines will be set free once again, to shred waste wood or possibly other biomass materials at customer sites. ■

LESS FUEL, MORE POWER.

- 35,000 liter diesel/year
equivalent to 100,000 kg of CO₂



green
efficiency



Crambo direct
Dual-shaft shredder

www.greenefficiency.com | www.komptech.com

THE COURAGE TO TRY SOMETHING NEW

Sometimes you need to go off the beaten path if you want to succeed.
The story of Gunther Händle and his new star screen. ➔



The Händle family is happy about their new Multistar L3-L.
Left to right: Melitta, Rebecca and Gunther Händle (top),
Daniel and Ralf Händle (bottom)



The first screening more than met expectations.

The company is situated very scenically - west of Kornwestheim, right between Stuttgart and Ludwigsburg, lies the compost facility of Händle Kompost & Biomasse GmbH. Despite its proximity to the city, the area has lost none of its rural charm. Nestled among farms and fields, the facility has a view almost to Stuttgart. As befits the spic-and-span local ethos, the premises make a very trim and tidy impression on the visitor. The hall is large and

orderly, the paved yard is clean, and the various feedstocks are neatly separated, as are the end products. It is obvious at a glance that this is a place where clean, careful work is done. Owner and manager Gunther Händle welcomes us cheerfully and introduces his family, who are eagerly looking over a newly arrived Multistar L3-L - his wife Melitta Händle, who also handles office work and bookkeeping, sons Daniel and Ralf, and Rebecca, the youngest.

Even his parents Elke and Günter Händle are on hand, making another feature of the company unmistakable - this is a family operation in the fullest sense of the word. So naturally Daniel and Ralf were interested in the new machine and helped pick it out, as Gunther Händle proudly relates: "When it came to what the right technology would be, Daniel and Ralf looked into it in great detail, and that was one of the big factors."

BIG STARS, BIG RESULTS

There was no doubt as to what the machine needed to do. "In addition to quality-controlled green cuttings compost, high-quality biomass is our second and decisive product area. Our existing combination of trommel and star screen ran up against its performance limits, in terms of quality - i.e. the granular size separation - and in terms of throughput.

Our main biomass customer is practically right next door, so the route to continued company growth was obvious - screening quality and throughput are the determining factors. Only a pure star screen could deliver what we needed, so almost two years ago we started

During the handover, all operations are explained in detail.



looking around, organized a series of demos here at the site, and were almost ready to settle for one of the machines we'd seen, although we weren't quite happy with the results it gave. But Komptech's commitment and perseverance paid off. They worked with us until they created a solution that finally won all of us over.

The practical demonstration of a Multistar L3 here in Kornwestheim was the first step. When I saw it I knew we were headed in the right direction. Its broad eight-prong stars were exactly what we needed. Not to mention the other features of the Multistar series."

THE SECRET OF THE SCREEN GAP

The Multistar L3 is one of the most successful star screens on the market, which almost certainly has to do with its standard features and basic design. Two superimposed screening decks and the "coarse before fine" principle give it high screening quality. Material fed into the generous hopper is first moved to the coarse deck by a chain conveyor. The hopper slopes upward so there is no risk of clogging. From there, the screened material goes in controlled quantity to the fine deck, where it is separated into a fine and medium fraction. The coarse before fine principle delivers high screening quality, permits shorter screens and also protects the fine screen from large contraries.

The model chosen by Händle Kompost & Biomasse GmbH is an L3-L, whose longer coarse deck makes the first step more effective, which makes a big difference in throughput and quality when screening fresh and woody biomass. That and the larger screening stars let the machine manage 50 to 350 m³ per hour depending on the type and consistency of the material, according to Gunther Händle. The electric drive, either from mains power or as in this case using an on-board diesel generator, gives the machine lower fuel, wear and maintenance costs than with conventional diesel-hydraulic power.

The patented Cleanstar® fingers provide effective self-cleaning of the deck, a not inconsiderable benefit when working with woody feedstocks. And the adjustable star gap and speed deliver a precise quality other machines can't match, as Gunther Händle has discovered. Adding it all up, the Multistar L3-L is a perfect fit for his operation.

CONVINCING ARGUMENTS

Händle's Multistar L3-L is the 200th L3 to go out to a customer, so it's kind of an anniversary. But for Händle, the benefits and added value he gets from the machine are more important. "In buying a Komptech star screen, I went off the beaten path for the first time. But you have to be open to new things. Most of all, I'm convinced that it's the best machine to screen our biomass." We couldn't have said it better ourselves! ■



Händle Kompost & Biomasse GmbH



Company founded: 1996
Currently managed by Gunther Händle

The company produces RAL-certified compost from green cuttings, and is a member of the Gütegemeinschaft Kompost Region Süd e. V. industry association in Baden-Württemberg. Since 2004 the company has also produced high-quality biomass. One of its most important customers is a biomass thermal power plant in nearby Ludwigsburg, which it supplies using its own containers and trucks.

The company also offers related products like impact absorber for playgrounds, bark mulch and wood chips. One of Gunther Händle's business principles is "we turn waste into high-quality products. It's part of our tradition, because our family works in agriculture to this day. So we demand the very best from our own products."

More machine for the same price.

Anniversary promotion:
Choose from six customer-specific packages free of charge.



Multistar L3
mobile star screen

More informations at www.komptech.com.



Shredding and chipping made easy.



**green
efficiency**

NEW

Material in abundance:
Throughputs up to 300 cubic metres per hour

From shredding to chipping:
Change tool elements, switch
speed and away you go!

Neat and tidy feeding please:
Huge feed table (5.7 x 1.4 metres)
with hinged hopper

Always the right particle size:
Simple screen basket exchange with
screen basket rotatable to the rear

Bigmouth: 1450 x 850 mm
feed opening with aggressive feed rollers

Yellow powerhouse:
CAT® C15 engine with 590 HP in
maintenance-friendly underfloor position

AXTOR 6010

Universal shredder for
green waste and wood



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TECHNOLOGY FOR A BETTER ENVIRONMENT