# **KOMPTECH**MAGAZINE

**EDITION 01/2018** 



INNOVATION NEW AT IFAT

**PRACTICE** 

TURNING TRASH INTO GOLD

PRACTICE
TESTING "CONNECT!"



**IFAT 2018 EDITION** 

Turbo-boost your business



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Komptech GmbH, Kühau 37, 8130 Frohnleiten, Austria T +43 3126 505 - 0, F +43 3126 505 - 505, info@komptech.com, www.komptech.com Editors: Andreas Kunter, Joachim Hirtenfellner Layout & graphics: Alexandra Gaugl Photos: Komptech GmbH
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# MACHINE CONFIGURATOR



OFFER

OPERATING COST CALCULATION

# Boost your business!

We can help you do more business. Komptech doesn't just make innovative, high quality machines, we also have the right solution for your business model. From used machines to rentals to the right systems technology for your facility, we have it. With the machine management system Connect! and the best in class after-sales service, we help keep your investment paying dividends long-term.

PROACTIVE SERVICE

**SUPPORT** 

EXCELLENT SPARE PART AVAILABITITY



REMOTE ASSISTANCE

CUSTOMER

# **NEM MACHINES**

**RENTAL MACHINES** 



MOBILE-/ SYSTEM TECHNOLOGY

**INNOVATION** 

**USED MACHINES** 

**ALL-IN CONTRACTS** 



**SERVICES** 

MAINTENANCE CONTRACTS
SERVICE CONTRACTS



**CONNECT!** 

DATA MANAGEMENT

ELECTRONIC DOCUMENTATION



In countries where separate organics collection is not yet in place or only partially so, the production of "quality compost" from contaminated municipal waste is the only way to meet the demand for compost. Even where organics are source-separated, other trash can get put in the organics bin by mistake, and improper prior treatment can result in contraries like glass, stones and plastic in the material.

# HOW CAN THIS BE ADDRESSED IN COMPOST TREATMENT?

To make pure compost with a grain between 0 and 20 mm takes the right machines and components working together as a well-functioning system. Another requirement might be a certain level of mobility of the system, so that it can serve multiple smaller sites or be used to provide contract services. In every case, the compost to be cleaned needs to be cured and dry. The moisture content should not exceed 30 percent. This is necessary not just for good screening, but also for the reliable functioning of downstream processing (air separator table).

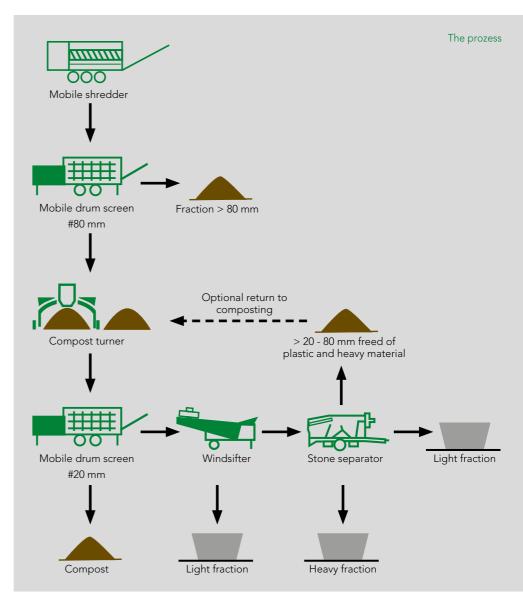
Preparation starts with drum or star screening. The material is separated into a fine fraction of 0-15 (or 20) mm and an oversize fraction. The resulting fines are now screened for contraries with one or more air separator tables. An air separator table is basically a tilted vibration plate with fine holes through which air is blown. The ballistic separation effect removes contraries like glass and stones, while the airflow gets rid of light plastic pieces.

The 15 (or 20) mm overs left after screening go back to composting to increase the amount of final product. Before that they too should be freed of plastic film and stones. This is normally done by a windsifter with roll separation. The cleaned oversize fraction then goes back to the composting process, where it acts as a structure material that provides for the necessary ventilation, and after multiple passes through composting ends up in the fines.

Cleaning compost is no longer theoretical, but a very functional process of proven effectiveness when the right technical steps and parameters are applied.



GOTTFRIED REITHER
SYSTEM TECHNOLOGY MANAGER





Komptech Area Sales Manager Markus Maierhofer with BHL CEO Harald Blochberger and logistic professional Martin Gahrleitner (from left to right)

# Komptech really helped us as we were building up our business.

Harald Blochberger

In addition to Sibiu, S.C. B.H.L. Produktion S.R.L. – that's the full name of the company – has locations in Suceavar and Galati. "In Suceavar we operate our own service workshop with two service busses and five employees," reports Harald Blochberger. A total of 35 people work in the processing business. "But we also offer customers complete service including logistics and transport," adds Blochberger. "For that we have 110 trucks in operation."

# TRANSPORTATION AS THE STARTING GUN

The company started out in Romania in 2007 with logistics services. "In 2010 we got into biomass processing. Since then we've expanded to Hungary and Slovakia, and are currently building up our operations in Ukraine and Belarus," said Blochberger. His main business is waste wood processing for industry and chip production for electricity and district heating plants. The company processes 120,000 loose cubic meters of biomass per month and supplies heating plants of up to 40 megawatts capacity.

# **CLOSE COOPERATION**

"We've worked closely with Komptech

since 2012," says Blochberger. The contact came through a former Komptech employee whom Blochberger has known since childhood. "They really helped us as we were building up our business, and we solved the initial difficulties together," he says appreciatively. "With the great distances, we had to learn some costly lessons about service and spare parts availability," he adds on a more critical note. "Even minor repairs meant high costs. But now the relationship with Komptech is working very well, including availability of spare and wear parts as well as replacement machines. If a problem comes up, they find a solution quickly and expertly."

# A BIG MACHINE PARK

The teething problems are long past and now the company operates 14 dark green Komptech machines, mostly Axtors and Crambos. Seven of them are used only in Romania. "We're very happy with the machines," says Blochberger. "The Crambo is extremely maintenance-friendly, sturdy and dependable, and very resistant to stoppages. On logs, the Axtor does much better than comparable competitor machines." He adds a critical note: "But the Axtor could stand to be a bit more contrary-resistant."

# **BIG PLANS**

Asked about the next steps, Harald Blochberger says "we're consolidating and extending our market leadership in Eastern Europe. To do that, we need to get into renting out our machines." The company plans to build up a rental machine park and actively advertise rentals. Building up the market in Ukraine and Belarus is another priority. "We took our first machines there into operation in Autumn 2017," he adds.

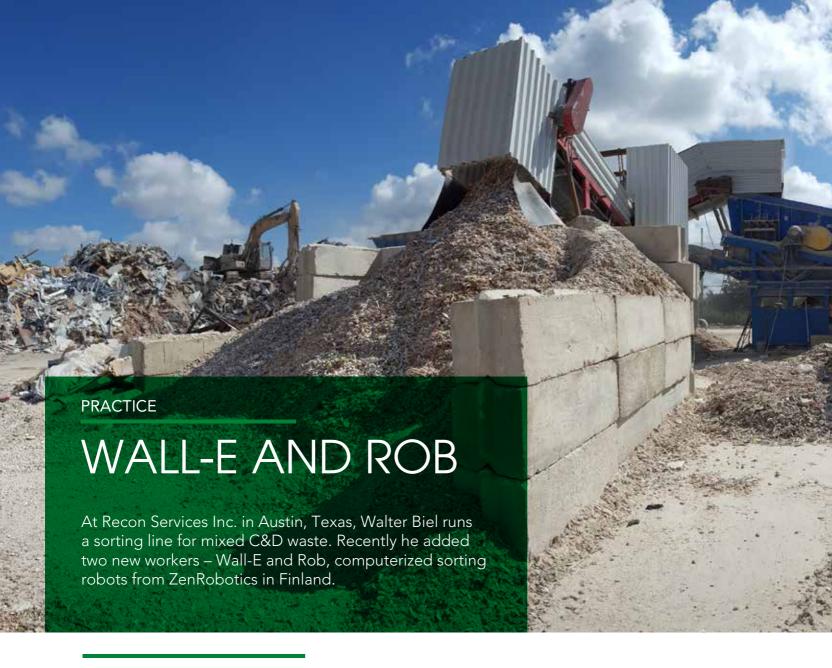


# **BHL PRODUKTION S.R.L.**

Emil Cioran nr. 6, RO - 550025 Sibiu www.bhl-logistic.com







In 2015 Walter Biel decided to revamp his facility, and tasked American plant builder Sparta with the job. They planned and built a traditional C&D waste sorting line. The material entered the system from a hopper, was screened by a 2-deck screener, and then everything that wasn't wood was sorted out by people in sorting cabins. The wood was high-speed chipped into fuel.

# WASTE 360 NOT A WASTE OF TIME

That same year, Walter visited Waste360 in Austin, Texas. At the booth of Plexus, ZenRobotics' US sales partner and sister company of Komptech Americas, a video of the company's robots in action

caught Walter's attention. He thought the technology looked ideal and decided to buy a unit with two robot arms. The Alpowered robots were delivered, set up in existing sorting cabins, and nicknamed Wall-E and Rob.

# **BO-RING**

The two robots worked well - so well that they got bored, since the material feed wasn't up to par. The bots are designed to sort out high-value or highly problematic fractions by priority. They use various measurement methods and decide by themselves which pieces to pick. But since the material stream was screened only with a two-deck screener, fines and 2D material would get on the

conveyor along with the wood. Another problem was stoppages in the deck screener, which meant that that the sorting conveyor sometimes ran empty.

>>





W.A.L.L-E and R.O.B the two robots at work.

# **PROBLEM SOLVED**

This is where the Komptech Americas and Plexus treatment experts got involved. Walter Biel contacted them immediately. A few meetings and plant visits later it was clear that only a modification of the processing line could increase the efficiency of the robots. Working with the project office in Vienna, Austria, they reconfigured the Recon Services plant with the condition that the existing machines and conveyors had to be used, two- and three-dimensional pieces had to be pre shredded and separated, and the three-dimensional material would be taken out of the material stream before it got to Wall-E and Rob. To bridge the gap short-term, Komptech Americas supplied a low-speed shredder on loan immediately after the first visit.

# **TERMINATOR & BALLISTOR**

The new plant configuration uses the proven Terminator 5000S as a preshredder. In addition to being tough and wear-resistant, the Terminator stands out because of its ability to deal with contraries. Its armoured drum was fitted with F teeth, and the counter comb got armoured teeth as well. To ensure problem-free operation the machine was configured for high clearance. The distance between the bottom of the drum and the top of the conveyor is a metre. For separating out fines and flats, really only one machine came into consideration - the Ballistor 10300 ballistic separator, which separates three fractions in one pass. Since the material contains a lot of abrasives, the replaceable side and screen elements

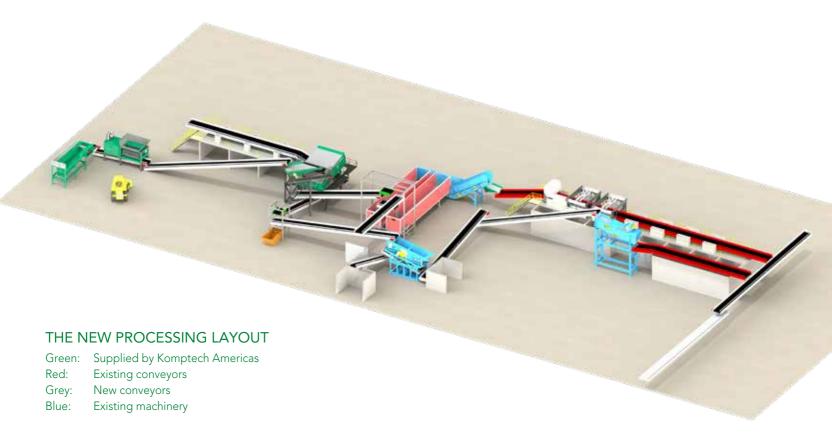
on the paddles of the separator are of hardox, while the wear elements on the sidewalls are of special S690 steel.

A vibrator feed channel at 45 degrees distributes the material stream across the entire working width of the Ballistor.

# **FINAL SORTING**

The two-dimensional fraction from the Ballistor is manually sorted when current market prices for paper and plastic justify it. The fines are screened again with the existing deck screen. The resulting fines are taken away for use as landfill cover, while the middle fraction is sent through the existing windsifter. The goal is to get the wood out of this middle fraction. Ferrous items in the three-dimensional material are magnet-separated and sent to two walking







floor hoppers. The throughput of the line is higher than Wall-E and Rob's, so processing is done in one shift and sorting in three. But humans are needed only for the processing shift. The rest of the day nobody needs to be at the site. After the material has been processed Wall-E and Rob see only cubic items, and remove everything except untreated wood. With the controlled hopper feed and triple re-spreading of the material before the ZenRobotics recognition unit, the robots don't get too many surprises. Nothing is covered up, there is enough time to set the conveyor speed, and most importantly, work can continue around the clock.

For this new processing line setup, Walter Biel and Recon Services were awarded the title of "2018 Recycler of the Year" by the American Construction & Demolition Recycling Association.

Servicing Your Waste Hauling Needs

Washington, D.C.

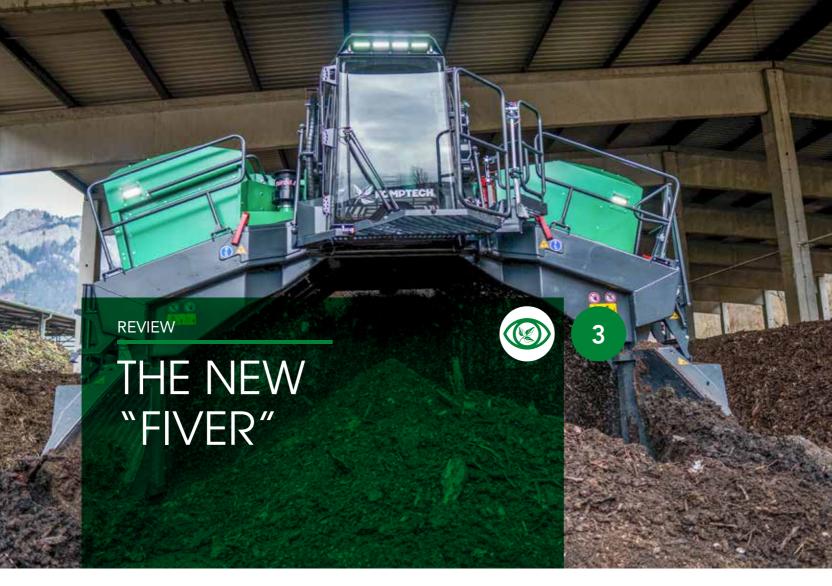
Austin, Texas

# **RECON SERVICES INC.**

www.reconservicesinc.com www.komptech.com

•••••

The facility treats mixed construction waste.



The new Topturn X family is getting a new member. With the Topturn X5000, Komptech presents a modern machine with the ideal combination of performance and design features.

Drive	TOPTURN X4500	TOPTURN X5000
Power (kW/HP):	151/205 or optional 205/278	205/278 or optional 250/340
Turning unit		
Turning drum diameter (mm):	1200	1200
Windrow dimensions		
Windrow width (mm):	4500	5000
Max. windrow height (mm):	2200	2200
Windrow cross-section at 45° repose angle (m²):	5.1	6.2
Weight		
Wheel (t):	~ 14.5	~ 16.0
Track (t):	~ 15.0	~ 16.5
Throughput (dependent on material)		
Throughput performance (m³/h):	up to 3000	up to 4000

The new Topturn X5000 is a self-propelled windrow turner that is ideal for the medium to high-volume category. The Topturn X4500 has proven itself as a starter machine for smaller compost facilities. The wider Topturn X5000 is the perfect machine for the five metre wide by two metre tall windrows used at many larger facilities. If all of its performance potential is used to the full, it can turn up to 4000 cubic metres of compost in an hour.

# INDIVIDUAL SOLUTIONS

Komptech hasn't "merely" improved on the proven Topturn X series, but invested much development work in an even better, and more individual, overall design. This can be seen not just from the contemporary styling, but also in many details that were redeveloped in order to give even more practical utility. As with the smaller X4500, the X5000 comes in two power versions.

In addition to the powerful 250 kW diesel engine, there is also a version with a 205 kW engine at an even better price. Both engines meet current exhaust requirements.

Generously dimensioned cooling systems keep them running smoothly under all conditions.

# HIGH-LEVEL EASE OF MAINTENANCE

A press of a button turns the left and right body panels into roomy maintenance platforms with convenient access ladders so the operator can reach all maintenance points safely and easily. All filters and fluid fill openings are in easy to reach positions. Special access panels in the tunnel and drum bearings accessible from the outside underline the exceptional maintenance-friendliness of the new Topturn X series. Komptech also thought about the wear costs. The high-strength steel turning blades be turned 180 degrees when they get worn, for a whole new use cycle before needing to be replaced.

# PROVEN TECHNOLOGY AND NEW IDEAS

The large 1.2 m diameter drum delivers high throughput for the thorough windrow mixing that is so important in composting. The combination of solid frame, tough chassis and sturdy clearing blades ensures efficient turning. The decision for wheel or tracked version will ultimately depend entirely on conditions at the site - because both models are priced the same. The new one-piece clearing blades allow faster and more convenient changes from work to transport position. The optional lifting cabin simplifies getting in and is another factor that contributes to fast readiness. The cabin itself is a comfortable workspace, with more room, powerful air conditioner and aircushioned seat.

With its combination of proven solutions and new details, the new Topturn X series is a further refinement of Komptech's compost turners. The goal is always to deliver innovative technology with maximum user benefit, and this is one more example.



When the cab is in the transport position the turner is very compact, simplifying multi-site use.



A press of a button turns the left and right body panels into roomy maintenance platforms.





Bühlmann Recycling AG in Münchenwiler near Bern, Switzerland, can look back on some dramatic changes. It has grown from a family farm into a major regional disposal firm in just over 30 years.

In 1981 Hansueli Bühlmann took over his parents' farm, where during the winter scrap metal was collected, sorted, and resold. Just four years later he founded Bühlmann Alteisen AG. By 2004 he employed 50 people. That year he reorganized the company as Bühlmann Recycling AG.



The Bühlmann Recycling AG location in Münchenwiler, Switzerland



Hansueli Bühlmann's parents' house, the foundation stone for Bühlmann Recycling AG.





# **BRANCHING OUT**

Today Bühlmann Recycling AG collects and processes waste of all kinds. With Hansueli Bühlmann, "processing" means sorting waste in such a way that the end product is of high enough quality to go directly to other industries for use as raw materials. "If you process waste deeply enough, it gets more valuable. But you have to try out new ways of doing things, and test machines for

different applications," he says. These days Bühlmann Recycling AG has six locations, in Münchenwiler, Cressier, Lyss, Heimberg, Spiez and Interlaken.

# HARD AT WORK AROUND THE CLOCK

"If you work 16 hours a day, six days a week, you'll get more done than if you just work seven or eight-hour days. And if you put your heart into something,

success will come automatically. My father and I built our first halls together, with no help except for an old dozer," reminisces Bühlmann. Now 170 employees work at one of Switzerland's largest scrap and precious metal reclamation companies, managed by Hansueli Bühlmann together with brother-in-law and co-owner Martin Ritschard.

>>



Bühlmann also preshreds home appliances.

# I want to do valuecreation in depth.

Hansueli Bühlmann

# A VALUE-CREATION PHILOSOPHY

Hansueli Bühlmann's philosophy is clear: "I want to do value-creation in depth, I want to create jobs for our region, I want to use materials from this area so I can keep shipping costs low, and I also have sustainability in mind." He also wants to sell as much of his output as he can in Switzerland, a smaller amount in the rest of Europe and only the remainder overseas

# THE KEY: MACHINERY

Before every new purchase Hansueli Bühlmann analyses the market carefully, so it can take a few years for him to finally decide. In 2002 GETAG's then-director and Komptech sales partner Peter Grepper drove with him to reference plants and demonstrated the Terminator. "I wasn't so sure about it to start with, but then the waste streams we got started to change, while the Terminator get better and better," recalls Bühlmann. He didn't finally decide to get his first Terminator until 2003. At that time company had started separating material streams and buying specific machines for specific tasks.



The Terminator at work processing waste wood.

# A TERMINATOR FOR ALL REASONS

Over the years he's bought seven Terminators in all, including a Terminator XF for pre-shredding home electronics. "Right now we use our three Terminators for pre-shredding plastics, rubber, electric cables, bulky waste and railroad ties, before the material goes on to sorting and further shredding or direct to shredding," explains Bühlmann. "The advantage of the Terminator is that it can tear as well as cut, depending on how you set the gap at the teeth. That makes it a multi-use machine that doesn't produce a lot of dust. Depending on the material, different types of Terminators can be used, from type U to XF, for coarse, fine or extra fine shredding. Also, the mobile version lets us take it where we need it," he says of another Terminator benefit.

# THE WASTE WOOD CHALLENGE

Nowadays the company also processes waste wood. "Today we make wood chippings of high enough quality that they can be used for chipboard or by cement works," says Bühlmann. But it takes the right machinery. "We use two Crambo direct universal shredders from Komptech. They're designed for shredding green cuttings and wood. With them we can reduce the wood to the desired size without making a lot of fines or dust," he says with satisfaction.

Dr. Petra Strunk
Editor-in-Chief
AT mineral processing
recovery - Recycling Technology Worldwide



The Terminator is put to flexible use at the facility.



Tyres in the morning ...



... in the afternoon waste wood - no problem for the Terminator.



Hansueli Bühlmann lends a hand.



# **BÜHLMANN RECYCLING AG**

Crauxstrasse Postfach, 1797 Münchenwiler info@bbr.ch www.bbr.ch

# **GETAG ENTSORGUNGS-TECHNIK AG**

Industrie Allmend 35 CH-4629 Fulenbach team@getag.ch www.getag.ch







What started in 1982 as a modest farm has become one of Michigan's largest suppliers of compost and mulch.
An on-site look at Hammond Farms in Lansing.

Clifford E. Walkington is General Manager of Hammond Farms, where he's been for 22 years. He took over from Lee Hammond Senior. Lee Hammond Junior, son of the company founder, is ready to take on the job. "I've been with the company since I was in school", he says. "I was bagging product when I was ten."

# A TRUE SUCCESS STORY

Lee Hammond Senior's idea was that Lansing needed a "one-stop-shop" for all gardening products. "We never stopped developing along those lines", says Clifford. Today the company puts out nearly 80,000 cubic metres of mulch, including 50,000 cubic metres of coloured mulch. "In the past few years organic waste has become more and more important", says Clifford. Now the farm processes large volumes of green cuttings compost and mixes it down to about 40,000 cubic metres of premium soil substrate. Hammond even has paving and decorative stones on offer.

>>



Hammond Farms processes organic and other types of waste.



The Topturn has made composting at Hammond Farms much more efficient.



Multistar L3 at Hammond Farms has over 5000 operating hours under its belt.

# We turn what looks like trash into a beautiful product.

Clifford E. Walkington

# AN EYE FOR THE PROCESS

In addition to just processing the biodegradable waste that he takes in from the Lansing area, Clifford needed to find the right recipe for composting this very damp material. "We experimented and tried out a lot of things", he says. "We used to mix the material with front loaders. That took two weeks. Now we do the same amount in three quarters of a day with a Topturn X63", he says about an investment that has made the process much more economical. "You can only earn money with the process when you understand it. And we do, at both ends." Hammond Farms gets paid not just to take the organic waste, but also for the finished product. That's by no means the case everywhere in the US. Most composters get no money for their final product.

# SPRING IS HIGH SEASON

Spring is when Hammond is at its busiest. Demand for all products starts to rise in late March along with the temperature. "It peaks in late May. Everything starts to tail off after June", Clifford explains. Early on the large-volume customers like municipalities dominate, while later most sales are to individuals and home gardeners. "At the beginning of spring we can't make enough material", says Clifford. "The two screeners run practically around the clock." The screeners he's talking about are star screens, a Multistar L3 and an XL3. The L3 is the older one, with six years at Hammond and over 5000 operating hours under its belt. "The screeners go far towards reducing shredding costs, because we only need to reshred the screen overflow", says Clifford of the economic considerations involved.

# LONG PARTNERSHIP

Six years ago Clifford Walkington learned about Komptech at a mulch producer conference. A presentation of the benefits of star screening caught his attention. "The star screens really make nice material, and throughput is high." Clifford has nothing but praise for the relationship with Komptech.

"I really can say only good things about them. If a minor problem does come up, they're ready to listen." He's especially appreciative of his contact person at Komptech Americas, Kevin Yuncker.

# THE SHREDDING FACTOR

Large domestic high-speed grinders were formerly the obvious choice for making mulch. But Clifford found out about the low-speed Crambo through machine rentals. "I love the Crambo", he says. He is most impressed by its contrary-resistance and ability to handle difficult materials like rootstocks. "I hope business stays good. Then we'll get one of our own." And business is very good. The company opened its fourth location at the start of the year. Headcount is at 50 and there are plans to hire more. Designated successor Lee Hammond Junior revealed a little of his plans for the future: "We're going to be marketing to areas farther away soon."

# **REGULATORY TIGHTENING**

While legal mandates are already very strict in Europe, the US has barely started to regulate compost. Clifford says, "we expect much more restrictive legislation down the road. A few years ago five percent by volume plastic was OK in finished compost, but now it's only one percent. And we expect that to tighten up." Our course, there is a good side to this. "More and more people are aware that to get a clean product, you need to do something about the waste at the source."

# Hove the Crambo.

Clifford E. Walkington

# THE FUTURE IS GREEN

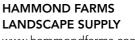
"We also know that we have a responsibility to educate the public. More and more schools and interested individuals come to visit us and tour the plant", says Clifford. "And that's just the tip of the iceberg. The next generation needs to do better, and I'm sure they will." He gets a lot of compliments from visitors. "People are really excited when they see our operation. We turn what looks like trash into a beautiful product."

# **ALL SCREENING**

IS NOT ALIKE

American mulch is different from European mulch. In Europe it's made mostly from bark (bark mulch). In the US it's made from entire trunks shredded with high-speed grinders. That makes it much more fibrous than the pure bark mulch in Europe.









Hammond Farms sells a wide range of materials.



In March 2015 Symevad, a district domestic waste treatment authority, and the Hantsch company began construction of a new organic waste treatment facility in Vitry en Atrois (Northern France) for 32,000 tonnes of green waste per year.

Since 2006 the mission of Symevad has been to implement an ambitious and coherent policy of treatment and recovery of the waste produced of more than 325,000 inhabitants by the almost 100 member municipalities in its territory located in the north of France.

# 1 Shredding The four-step process at the Symevad plant. 2 Intensive composting 3 Screening A and B in 21 days Throughput 19-22% C in 49 days: rotting degree 5 4 Composting 4 Composting 5 y 00/120 mm Throughput 10-12% 6 weeks, rotting degree 5 Throughput 9-10%

# AN INNOVATIVE PROCESS WITH GUARANTEED RESULTS

The Hantsch solution consists of striking the right balance between pre-compost olfactory stabilization and biomass drying, through slow grinding and three weeks of bio-drying.

Alan Guegan, engineering director of Hantsch, describes the process: "After pre-heating with oxygen-driven aeration, we screen the material into three fractions whose particle sizes are adjustable to the needs of the market. The wood is then easily cleaned of its impurities and the stabilization of the non-odorous fine fraction is completed by mechanical turning. Our technology adapts to the variability of plant waste, anticipating regulatory changes in the biomass market. All this is achieved while producing up to 22 percent per year of clean dry wood, and without any odour nuisance for residents." To limit effluent release, the wastewater is filtered biologically in reed beds. The Hantsch solution together with the Komptech machines have resulted in a simple and robust process, adaptable to seasonal variations of green waste and aimed at producing a quality fuel free of undesirable ingredients, and a perfectly stabilized compost.



Stage 1 – Shredding: A Crambo 5000SE equipped with a biobasket XL shreds the input. Ferrous metal is removed by an overband magnet.



Stage 2 – Intensive composting: The shredded material is dried for three weeks in eight BIODOMES® tunnels equipped with aeration slabs and ventilation system.



Stage 3 – Screening: This step is carried out by a Multistar XL SE star screen to extract two wood fractions and the compost in a single pass.



Stage 4 – Composting: The material is turned by a Topturn X63 windrow turner.

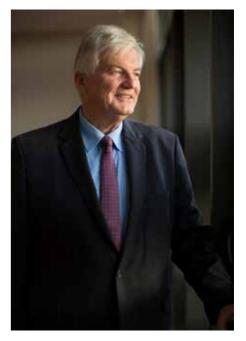


SYMEVAD

www.symevad.org

# **HANTSCH** 6 Rue de l'Europe, 67520 Marlenheim www.hantsch.fr





Martial Vandewoestyne, CEO Symevad

# AXTOR 4510

Six reasons you'll love the new Axtor.

The new Axtor 4510 is a universal high-speed wood chipper whose features and performance are expressly designed to meet the demands of lower and medium scale users.

The latest addition to the Axtor series, the new Axtor 4510 is also the smallest in the series, but like its bigger brothers it is perfect for both chipping and shredding. With a 456 HP engine and the same rotor dimensions as the Axtor 6010, the new Axtor is a balanced package with exactly the performance and economy that its target group is looking for. The dimensions are compact and the total weight is 19 tonnes in the two-axle trailer version, making it not just very easy to transport, but also right-sized for small to medium-scale facilities. Naturally, the easy transportation makes it likewise of interest to contract service providers, who need to react flexibly in terms of work sites as well as in their service offerings, from shredding to chipping.



# PLENTY OF ROOM

Large feed ramp (L x W x H:  $4.16 \times 1.43 \times 0.60$  m) with sturdy apron conveyor and tilt hopper.



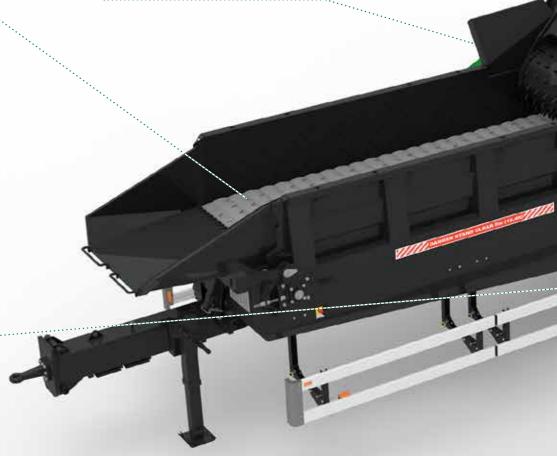
# **MAINTENANCE MADE EASY**

Roomy service platform for easy access to engine and drum.



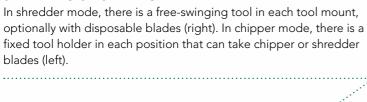
# WHEN THE GOING GETS TOUGH

Optional self-propelled tracked chassis with wide tread.





# SHREDDING OR CHIPPING



KOMPTECH AXTOR 4510



# **PLENTY OF POWER**

CAT® C9.3B engine with 456 hp and the latest emission control level (V).



# **READY FOR BIG THINGS**

Generous intake (B  $\times$  H: 1.45  $\times$  0.85 m) and 1.10 m diameter drum.





With the new Terminator
Type V, the Terminator family
has become even more flexible
and versatile. Komptech
Product Manager Christoph
Feyerer explains the key goals
and characteristics of the new
machine.

# What was the idea behind the development of the new Terminator Type V?

The original Terminator was primarily intended for waste. The basic idea with the Type V was to greatly expand the scope of applications of the Terminator, and I feel like we have achieved that ambitious goal. We can now offer customers an extremely versatile machine that is also ideal for biomass. Processing green waste and shrub cuttings requires a more aggressive shredding unit in order to ensure active and even material intake. Accordingly, the blades on the shredding drum were made 40 percent higher. The drum also has considerably more teeth than before, which is good for throughput as well as shredding quality.

# Where does this new version fit in the overall Terminator lineup?

From a technical point view, the new Terminator Type V is a line extension, i.e. a new version of the existing models (U, F, XXF). The modular concept played a major role in the development. The ability to easily replace all major components was designed in from the beginning. Our development engineers succeeded in integrating future variants into the basic layout. This guarantees maximum flexibility for our customers, since by putting together the right components we can set up a machine exactly for a customer's requirements. With the Type V, for the first time we offer an optional reshredding unit under the drum. That greatly expands the range of possible grain sizes.



With more, and more aggressive, teeth on the drum...



... the Termnator V can shred biomass with ease.

# What can customers expect from the Terminator Type V?

They can look forward to an even more individual high-performance machine that has a wide range of applications. This will be especially interesting for companies that work with a variety of different materials, be it waste (household or commercial), biomass (green cuttings, shrub cuttings) or waste

wood. The new Terminator easily delivers high material quality at high throughput. Other benefits result from modifications and refinements to the basic machine, such as even better service access and a weight reduction of over 750 kg with no reduction in functionality. The Terminator retains its proven hydraulic drive and low speed running that have made it a contrary-resistant, virtually indestructible machine.



Don't let the name mislead you. Nowadays "Komptech" stands for much more than just composting technology. The following two examples show that a Komptech drum screen like the Nemus can also be an asset for mineral screening, despite or perhaps because of its "greenness."

Komptech can do more than just green, even if most people associate the name and company colour "only" with the composting industry. There are many other areas where the company's long experience and superior technology give it an edge. Mineral screening is the application in this story, that we'll tell together with Steven Probst, our representative in southwestern Germany. We went with him to visit two users in the Mannheim-Ludwigshafen area, where the Nemus 2700 is showing what it can do.

# QUALITY, IN MORE WAYS THAN ONE

The first work site is at the Mannheim harbour, one of the most important inland ports in Europe. We visit the recycling yard of BRN – Baustoffe Rhein-Neckar GmbH.

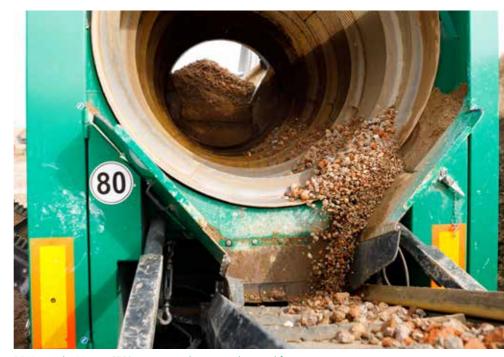
Owner and manager Thomas Lück takes the time to show us the Nemus 2700 he purchased new in November 2016. At its own site the company process mineral raw materials from a wide variety of sources. Lück says that quality is the first priority: "All demolition is not the same. I prefer to call it selective deconstruction, because the better sorted the materials are when we get them, the better we can process them into high-quality final products."

"The Nemus has run over 800 hours without any major problems," says Lück. That's something we like to hear. And what's particularly noticeable is that the 800 hours aren't... particularly noticeable. The screen is used with 10 mm and 35 mm screens for presorted demolition waste and excavated soil to get cable bedding sand, substrate and topsoil. Thomas Lück explains the goal: "What we focus on making is qualified and precisely defined earth and substrate mixes, such as substrates for athletic turf or tree planting. We also use the Nemus to mix in composts. In everything we do, we have high quality in mind.

How did he come to choose the Nemus? "The good reputation of Komptech was a very important criterion, as it also means a lot of experience in technical implementation. And I really liked the size of the screening area. That plus the drum bearings, problem-free drive and especially the simple drum change drove the ultimate decision. Ease of maintenance, extensive standard equipment, well thought-out solutions like the lubrication system and easy cleaning – our experience with the screener has confirmed the rightness of the decision."



Thomas Lück, owner and manager of BRN, and Steven Probst (Komptech) talk about the Nemus 2700.



BRN uses the Nemus 2700 to screen substrate and mineral fractions.

The good reputation of Komptech was a very important criterion.

Thomas Lück

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# I would buy from them again.

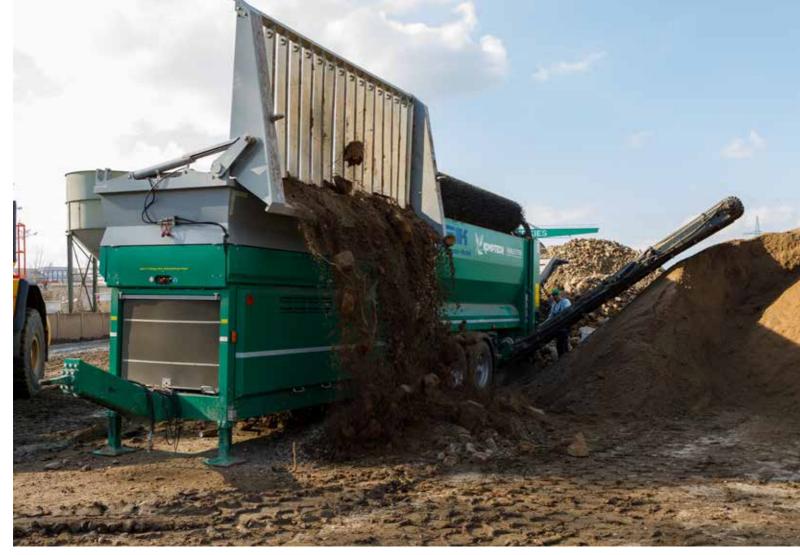
Thomas Lück

Lück is well aware that drum screens have their limits with very damp and cohesive material. But he doesn't blame it on the Nemus. Instead, he sees it as a challenge: "We've learned to properly assess the different materials based on their origin. And for that reason we talk to Komptech about our suggestions for detail improvements. Because why not make something good better?" This is a great example of a relationship with a customer who knows that his suggestions are taken seriously. "I would buy another Komptech right away" is how Lück summarizes his thoughts, and you couldn't wish for higher praise.

# OTHERS CAN ALSO BENEFIT FROM OUR EXPERIENCE

With all the activity in the Mannheim port it would have been easy to forget our second site. But of course we didn't. In among the different yellow-brown soil mixes stands a Nemus 2700. We're in the outdoor storage area of Plant I of Scherer & Kohl GmbH & Co KG, a long-established company that is known far and wide. Markus Bien, operations manager and authorized company officer, accompanies us.

The Nemus that has been in use here since last fall is a rental. It has run about 200 hours without major issues, screening various soil fractions to a 40 millimetre screen cut in order to reclaim mineral components for further processing into secondary construction materials. The excavated earth the company takes in is mostly sandy or silty with low cohesive content. Before deciding on the Nemus the company tested several different drum screens at the site. Bien says that the Nemus worked out best.



The hopper pre-screen separates out larger items in the input.

# ONE MAJOR STRENGTH IS THE SCREENING AREA

"We also had some learning to do, for instance with the settings, and found that without a hopper pre-screen you can't just feed paving slabs or entire foundations into the drum. But with hopper pre-screening that is no longer an issue." As in our first example, the screening area of over 30 square metres was more than convincing, especially considering that "naturally we expect the best possible screening of our input material so that we get clean fractions. It makes a big difference in our disposal costs. For example, in the first test we put cohesive railway gravel through it, and the Nemus gave us 60 percent usable output. No other machine could have done that."



Komptech responded to our needs.

Markus Bien





The Nemus proves that minerals are not a problem for Komptech!

In his experience, wet or damp input material can be dealt with as long as it has a grainy or sandy basic substance to it. In this context, Bien has some very good things to say about working with Komptech. "We had several questions about how the Nemus could be better configured to our needs. Komptech was very willing to look into it. They even sent design people out to us to discuss our suggestions in detail. That will lead to modifications and improvements which will benefit other users."

What you notice here again is how clean the Nemus is. Romeo Muller is the machine operator, and right away you can tell that he's proud of "his" Nemus. "It's a perfect fit here. Maybe a tracked chassis would be better, but except for that, I'll cry if they take it away!" If that's not high praise, nothing is.

# **IT REALLY CAN!**

The day was worth it from the point of view of Komptech sales rep Steven Probst. "Both examples show that we have no problems screening mineral materials. In fact, we benefit from our experience in other fields, where we have always been able to offer technically effective solutions. Another important point is that customers confirm that we listen to them and look for further improvements together with them. That makes the relationship really enjoyable!

With the new Nemus 3000 we're continuing the path we started on. Longer fine and oversize discharge conveyors, new longer service intervals and even more extensive standard equipment make mineral screening more effective and efficient. You couldn't ask for more - Nemus can do green too, and do it a lot better!

I really enjoy our constructive cooperation with the customer!

Steven Probst







Romeo Muller is very happy with the Nemus: "I'll cry if they take it away!"



# BRN – BAUSTOFFE RHEIN-NECKAR GMBH

BRN- Baustoffe Rhein-Neckar GmbH is a sister company of InduRec GmbH, founded in 2005, and works in demolition, deconstruction, hazardous substance removal and land recycling. For InduRec and other customers, BRN sorts waste into mineral material groups at its own site for re-use as quality secondary raw materials. Its extensive, modern machine park is specially configured for the task.

www.indurec.de



# SCHERER & KOHL GMBH & CO. KG

Scherer & Kohl GmbH & Co. KG was founded in 1960 as a haulage company. At its three processing locations in Mannheim und Ludwigshafen it provides a wide range of high quality services for recycled construction materials. The company offers processing of mineral materials, track laying material and used gravel. Demolition, disposal and C&D waste recycling are the core of the company's business, and its 135 employees produce over a half million tonnes of new construction products every year. Its RC mixes for roadbuilding, civil engineering and landscaping are marketed under the name RECYLIT®. Since 2008 Scherer & Kohl GmbH & Co. KG has been a wholly-owned subsidiary of Jakob Becker GmbH & Co. KG.

www.scherer-kohl.de

**PRACTICE** 



7

# RELATIONSHIP STATUS: GREEN FOR GO!





Our innovative "Connect!" monitoring and communication technology makes it much easier for users to keep tabs on their machines. Stefan Blümel is one of the first to use Connect! with his machines, and he is very happy with the "long-distance relationship."

"It works great. Everything is green for go." Stefan Blümel is happy because he just checked on the condition of his Crambo 6200 direct and on how the work is going. "I can see that the operator has been on the job for four hours. The fuel tank is still over half full. On average we use 38.5 litres of diesel per hour, which means that we'll get through the day on this tank without any problems.

>>

It works great. Everything is green for go.

Stefan Blümel



# With Connect! I know what's going on at any time.

Stefan Blümel

### **ALWAYS ON SITE, LIVE**

Stefan Blümel is one of the first users to work with Connect!. As a service provider for waste wood and green cuttings processing, he has machines at several sites in eastern and southern Austria. "Today I happened to be in the area so I could take a look at things in person," says Blümel, "but often our operators and their machines are hundreds of kilometres away from headquarters, sometimes for weeks at a time. Connect! is naturally a great advantage. With it I'm 'live' everywhere and always know what's going on."

### MORE EFFICIENT WORKING

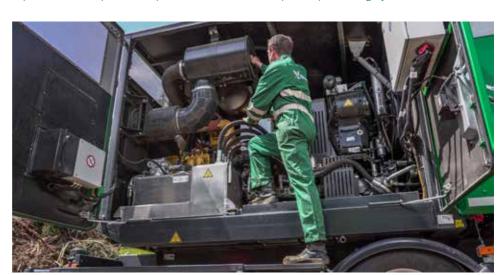
With Connect! our customers have the perfect tool to boost efficiency. Work sessions can be precisely documented, with exact information on operating conditions, consumption and idle time, allowing further tuning of the machine for optimum economy. Faster, coordinated repairs increase availability while also helping the manufacturer and service providers plan technician visits for maximum user benefit. Blümel recalls: "A little over a month ago I found out through Connect! that the Crambo had suddenly stopped running - something was wrong with the engine. But before I even got around to contacting them, Komptech customer service reached out to me and together we analysed the problem. Shortly thereafter a service technician arrived at the site. Since he already knew what the problem was, he could deal with it quickly.



Always in view with Connect! – the current machine condition with operating hours, utilization and fuel consumption.



Important for the operator, helpful for customer service - precise positioning by GPS.



Connect! makes service and repairs go faster and more efficiently.

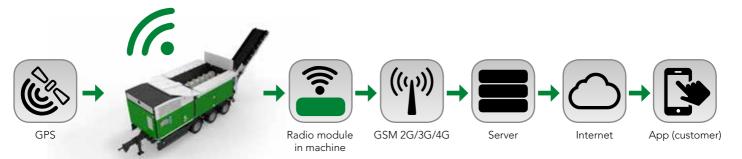


Connect! is specifically designed for Komptech machines and their use environment. The Connect! hardware module is integrated into the machine and connected to the central control unit. The module reports events, diagnosis codes, and data on operating hours, fuel consumption, idle time etc. by mobile radio to a central data server. The webbased Connect! software application provides the data to users, dealers, sales partners and the manufacturer for further use. Connect! can be used on PCs, laptops, tablets and smartphones.

As of 1 January 2018 Connect! has been factory-installed in new Crambo, Terminator, Axtor, Topturn, Cribus, Nemus, Multistar L3 and Hurrifex machines.

It let us deal with the issue quickly.

Stefan Blümel

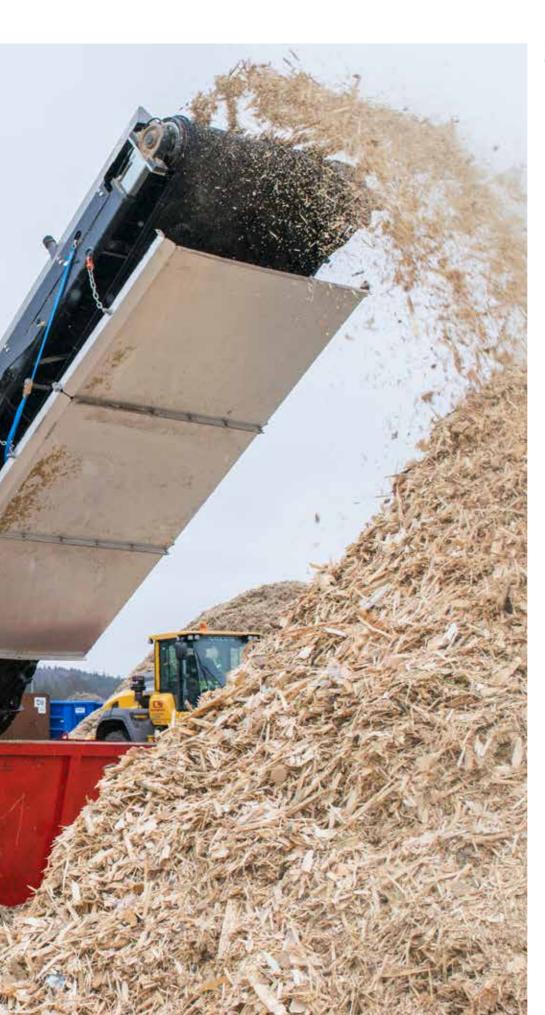


## FLEXIBILITY ABOVE ALL

At Swedish service provider CS Maskin, a low-speed and a high-speed shredder from Komptech have replaced a competitor's much larger high-speed grinder. The two green machines are looking good at all levels.



Magnus Westring, Chief of Operations at CS Maskin.



For three years now Magnus Westring has been Chief of Operations at service provider CS Maskin in Göteborg, Sweden. The company processes solid waste and woody biomass. When he's not enjoying off-roading in the woods in his jeep, he's out selling, making work plans, finishing up jobs and repairing machines. "Sometimes that can mean working into the night," he adds.

### LONG-TERM CONTRACTS...

"We're fortunate enough to have some long-term contracts with big Swedish disposal companies," says Westring.
"But we still try to get small orders in, to keep our machine fleet busy. It makes for more work, but there are more and more competitors out there promising everything and anything just to get jobs."



The Crambo and Axtor processing waste wood.



Tech guys talking shop. Sonny Strandberg (Aksel Benzin A/S) and Magnus Westring (CS Maskin).



Magnus Westring and team discuss a job.

### ...AND PROMISES MET

"In this business you need to keep your promises. Very often you only get one chance. The competition in the service industry is gloves off, and the others are just waiting for you to make a mistake so that they can snatch away the customer," he says of his rough-and-tumble field. Another reason for CS Maskin flexibility is that customers demand just-in-time treatment of their materials.

"You can't afford to make them wait."

### IT ALL STARTED AT ELMIA WOOD

"Last year we visited Elmia Wood because we were in the market for a new shredder. At the booth of Komptech and its Swedish partner Aksel Benzin A/S we saw the Crambo 5200 direct in action for the first time," says Westring, "I had heard of the Crambo but had never seen it in operation. At first we were sceptical, but when the technician opened the side panel and showed us how simple it was to replace the screen basket, we were positively surprised. We had never seen such a convenient solution with any shredder," says Westring.

With the orange competitor machines they were familiar with, that would not have been so easy to do. "After Elmia we tested the machine intensively for a few days and then decided to buy it." The Axtor was not yet on their radar, but before long they had the opportunity to test one thoroughly. "We immediately saw the many possibilities that the machine could offer us."

### Keeping promises is critical.

Magnus Westring

### WIDELY VARYING ORDERS

"With the two dark green machines we have become much more flexible and can take on more jobs than we could before," explains Westring. The Komptechs are more agile, quieter, and create much less dust than the big grinder they replaced. CS Maskin has used them on all sorts of materials. "We use the Crambo and Axtor in line for used wood, green cuttings and bark," says Westring. "These materials can be full of contraries, but the Crambo with the added over-conveyor magnet protects the Axtor from major damage. In turn, the Axtor with its many screening baskets makes exactly the material quality the customer wants." Westring is satisfied with the arrangement. Only one metal contrary has made it through to the Axtor in its 400 operating hours so far, and luckily the damage was just minor. CS has also used the Axtor on logs in chipping mode. "We were excited about the quality of the material and the throughput."

### PARTNERSHIP AS A FACTOR

Machine downtime is catastrophic for any service provider. "Naturally something can always go wrong. And that's when you can tell how good the relationship is." Westring is happy with the excellent service he gets from Swedish Komptech partner Aksel Benzin A/S. Recently the Crambo 5200 direct had to go to the shop because of engine trouble. Aksel Benzin A/S immediately lent them an identical demonstrator machine. "That enabled us to finish the job." Westring also has praise for Sonny Strandberg, Aksel Benzin A/S local representative, who knows exactly what's needed from his time as a service technician. "If there's a problem he has fast answers and can do fast first aid too." Asked if he has any suggestions for improvement, Westring says, "The rear hopper wall on the Crambo could be larger. And on the Axtor it would be nice to have easier access for cleaning the leakage worm." He can't think of anything else. If that's not a good sign, what is?



**CS MASKIN** 



**AKSEL BENZIN A/S** www.akselbenzin.dk



Magnus Westring is happy with the material quality.





Green Care Mulching is well-known throughout the state of Victoria in Australia. Their trucks are a common sight on the road as they move from one contract grinding site to the next. Where formerly those trucks were transporting high-speed grinders, today they are principally seen carrying Crambo directs from Komptech. We spent the morning with Russell Norton, co-owner of Green Care Mulching, to learn about why he decided to incorporate the Komptech Crambo shredder into his business.

### **HEAVY METAL**

About two years ago Russell was looking for a solution. He was tired of seeing his grinders parked in the workshop for repairs instead of out grinding. "They were costing me money instead of making me money," he said. "One metal fencepost could be the difference between a successful job and a costly repair - and I wish it was just fenceposts!" In a mobile office at the Green Care Mulching transfer station in Geelong, Russell showed us a few samples of the contamination that had been through his grinders. "Radiators, steel plate, part of a differential, an 80-kilogram flywheel, sledgehammer heads. We put a radiator from a big earthmoving machine through once. That made a mess. Because we travel from site to site, we don't have control over the feedstock. Our clients always assure us that the material is clean, but we still have to proceed very cautiously," said Russell.

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### **BANG-FREE**

We asked him how he ended up switching to Crambos. He said, "I had heard about low-speed shredders from people in the industry. At first I was put off by the name. 'Low speed? Why would I want something slow?' But now the only complaint that I have about the Crambo is the description. It should be called a high torque shredder. It's anything but slow!"

"I watched videos on YouTube and liked the idea. I wanted to see one in person. I travelled to the other end of the state to see a unit working. I watched it for 10 minutes as it ground through wet, slimy, thick, chunky green waste. It never missed a beat. We saw the contamination going through it. There was no bang. I said to my guys 'Oh my God! This is what we've been looking for!'"

"I had heard good things about Komptech. I was so impressed by what I saw that I didn't even bother looking at other brands. I called up Craig Cosgrove and we developed a relationship quickly. He explained to me about ELB Equipment's stock of spare parts and their branches all over the country. Backup is important to me, so that really sealed the deal."

Russell Norton (first on the left) and the Green Care Mulching team with their Crambo direct.



# The Crambo is anything but slow.

Russell Norton

### HIGHER EFFICIENCY, LOWER COSTS

Contract grinding is at the core of Green Care Mulching's business, and Crambo shredders have revolutionized that. In addition to the aforementioned maintenance and downtime problems, the high-speed grinders would typically consume fuel at a rate of 100 litres per hour and teeth would last only around 40 hours. "With the Crambo we're burning around 30 litres per hour and the teeth typically last 400 hours. Our cost to grind has come down so much that we've had customers complain about our pricing – it's too low. They think we're trying to scam them," joked Russell.

### **DOUBLE BENEFIT**

Russell explained that they've won doubly by incorporating the Crambos. They have not only reduced their operating costs and downtime, because they can charge lower rates they have expanded their customer base and so picked up additional work that they once might not have known about.

In addition to contract grinding, Green Care Mulching operates a transfer station and processing plant in Geelong. They take in around 40,000 tonnes of wood and organic waste at the facility per year, which they grind and treat to produce a number of products. Animal bedding from ground pallets is their most important product, but mulches and ground covers for landscapers and nurseries are a growing part of the business.

### **ENCOURAGING OUTLOOK**

When asked about changes for the future, Russell says "wood chips.
The market values wood chips about ten times higher than mulch. I am really keen to take a look at the Axtor as a dual-purpose chipper and grinder. If I can run the Axtor as a grinder when I have to and as a chipper when I get the right opportunities, it'll suit my operations perfectly."

Naturally, we're encouraging this line of thinking.



### **GREEN CARE MULCHING**

Russell Norton has been in the tree care and organic waste management industry for about 20 years. Prior to that he was a policeman. He got into his current line of business from working as a part-time arborist to make some extra money. One thing led to another and today Green Care Mulching employees 36 people and handles about 100,000 tonnes of wood and green waste per year.

Russell's three sons work in the business, doing everything from maintenance to operating the loaders and excavators. Relationships are important to Russell, which is part of the reason he likes to do business with Komptech Distributor ELB Equipment. "Craig Cosgrove and the team have been very helpful. They are always there to take my calls and help out with technical issues. We feel like we have a partnership with the ELB team. They didn't just sell us a machine and then walk away. They stuck by us."

www.green care mulching.com. au

### **MARKETS**

## IN FOCUS: LEBANON

Lebanon has over 6 million inhabitants in a total area of just 10,000 square km.

Naturally that population density brings with it waste disposal problems for this Middle-Eastern country. Through the able representation of our partner Bou Chalhoub, Komptech has sold several projects here in recent years.



GHOSTA Topturn X55

### **FACT BOX**

Land area: 10,452 km²
Population: 6,23 mln.
Population density: 563/km²
Capital: Beirut

Komptech-partner: Bou Chalhoub http://bouchalhoub-est.com/



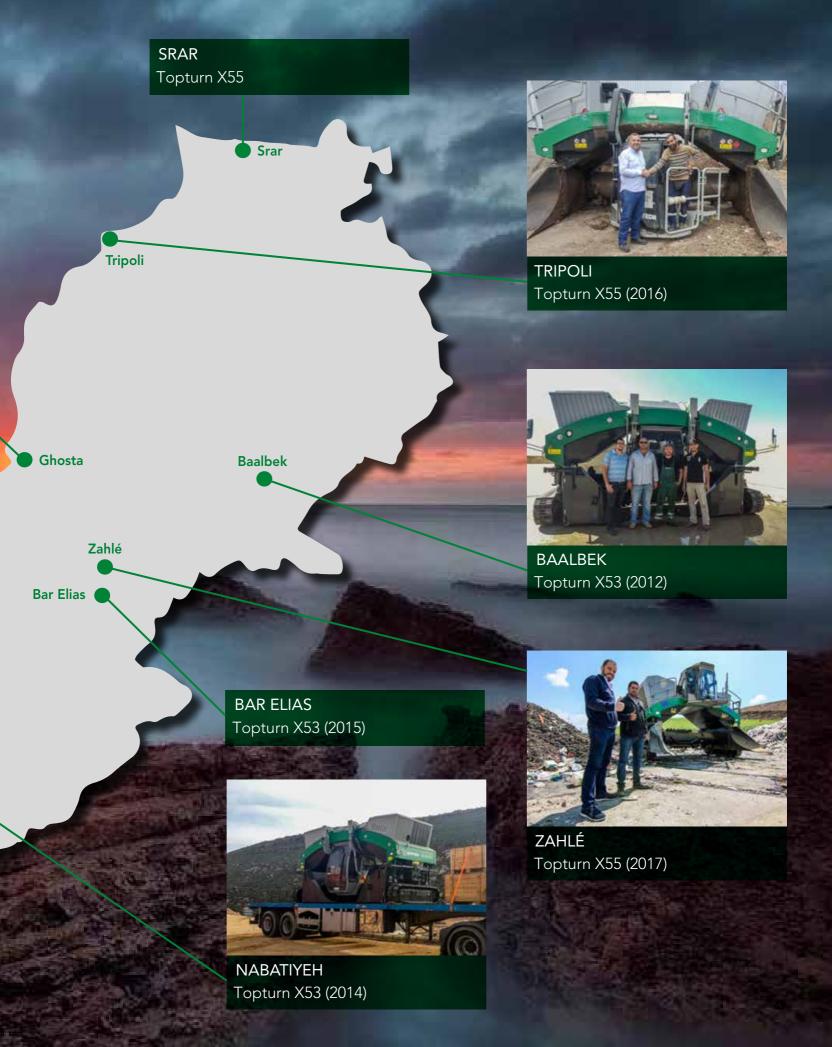


TYRE
Topturn X55 (2017)



Tyre

Beirut





The draft framework waste directive mandates that all EU member states implement separate collection of biodegradable waste by 31 December 2023. By the end of 2021 the member states must submit to the EU Commission a report on the progress of their efforts and the scope of application of separate collection as well as any exceptions.

As of 2027 municipal waste treated aerobically or anaerobically will be considered "recycled" only if it was collected separately. Mechanicalbiological waste treatment (MBWT) will as of that point no longer count as a recycling process. Biodegradable waste will be considered "recycled" only if following aerobic or anaerobic treatment it can be used as a compost, fermentation or similar product for soil improvement.

### **NEW RECYCLING TARGETS**

Final products used as fuel or for energy generation cannot be counted towards recycling targets. In this context, the EU Commission is looking at setting recycling targets for commercial waste and non-hazardous industrial waste including biodegradable waste by the end of 2024. Member states should use economic instruments and other means to create incentives for the use of a waste hierarchy. In addition, they should encourage the use of products made from biodegradable waste such as compost and fertilizer.

### **FURTHER PROCEDURE**

Soon, the EU parliament will consider and decide on revisions to the framework waste directive and the directive on packaging and packaging waste.

The legislation package will then be sent to the council for final passage. At that point, passage is a mere formality. The directives will be published in the gazette of the European Union and come into force 20 days after publication. Member states will then have two years in which to implement the directives in national law. The European Commission will use this time to decide on further implementation rules.

Source and more information:

European Composting Network (ECN), https://www.compostnetwork.info/





Facebook has become one of the most important online communication platforms – and now we are part of it.

Better informed about the Komptech-World: We want to offer a mixture of information and entertainment on Facebook. There is content for customers and business partners as well as for employees - news, special offers, events, job postings, competitions and other stories from the world of Komptech are waiting for you.

In addition to our existing profiles on YouTube and LinkedIn, Facebook will provide another platform to get in direct contact with people.

We look forward to your support and many exciting stories.







facebook