TANA 50TH ANNIVERSARY PUBLICATION

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Path to Growth



Year 2021 has been full of exceptional moments. We have celebrated our 50th anniversary together with our supplier network and with our distributors. We have collected plenty of historical data, have done interviews and naturally have shared those memories with you via social media and also in this leaflet. It is easy to say that we at Tana are extremely proud of our history and achievements. All this has been possible thanks to our strong partner network. I would like to ask you to spend a moment with those stories. There is plenty of good stuff.

Covid has been with us close to two years. It has naturally caused plenty of supply and cargo related challenges but all in all we have managed rather well thanks to our committed personnel. Kari Liuska CEO

Sales in general has been better than ever in most countries during 2021 and it will bring good results. Size of the global fleet is steadily growing, and it will mean more repeat sales and bigger service business in the future. Our digital solutions have been and will be core features to secure proper and rapid service for our clients.

One of our targets for this year was to improve quality of the products. We have already seen that it has been successful process. Our annual quality cost has decreased over 30%. Good for Tana, but our core target has been to secure better uptime and higher customer satisfaction. We are on good path on that.

Another important target for this and future years is to strengthen Tana product portfolio for the waste treatment needs. 2021 we launched new shredder version and heavy H Series compactors. New product releases will be done 2022. These will be launched later 2022.

I would like to thank you all Tana customers and distributors for being with us last 50 years.

TANA From Waste to Value®

When Tana was starting its business in the early Seventies, the times were very different from now. Re-using raw materials was not much of a priority and making use of the processed waste on a larger scale was still far in the future. When Tana built the first efficient machines for mechanical waste processing, the doors to a new thinking were opened - and so began their visionary work for realizing the value in waste. Over time, the added functionality and intelligence raised the recycling efficiency of their machines to a whole new level.

As Tana is starting its second 50-year cycle, the circular economy has become commonplace. The importance of recycling and waste utilisation is realized all across the globe, while the improvements in technology make recycling more sensible and efficient. The new thinking that was in its bud 50 years ago has fulfilled its promises and blossomed to new possibilities. In this new world, Tana, its people as well as its partners continue their work for smarter, more efficient processing and utilisation of waste.

50 YEARS OF WASTE AND BEYOND TANA

What happened in 2021?

Tana has had an amazing year. Business have grown, new waste machine models have been launched and personnel resources have increased globally. Tana brand is getting more and more awareness in different parts of the globe and our authorized distributor network is doing excellent job with customer experience. Tana customers can rely on the whole Tana team throughout the machine lifetime.

Even though Tana has put effort on the digital tools, nothing can replace the actual face to face encounters. While the daily operations can be handed with Teams meetings, emails, and phone calls, it has been important to be able to discuss live, face to face during fairs and exhibitions, as well as in demos and company visits taking safety instructions into account as instructed.

We are all very proud of the achievements we and our network has received during the year. It has required lot of hard work but also courage, trust, and an open heart.

We continue to believe our actions speak louder than words.

Tana Team



New TANA DT440eco mobile waste shredders were launched at the beginning of 2021. 440 Series shredders on tracks are most poular models year after year.



TANA'S MOST EXPENSIVE EMPLOYEE

Landfills have been goldmines for many companies, as everything has to be done according to regulations. "In the USA, for example, the law stipulated that compacted waste had to be covered by six inches of soil," recalls Tana's veteran mechanic Hannu Mättö, who represented the company overseas from the 1970s all the way up until 2007. During that period, he spent up to two hundred days a year on the road.

In 1978, Hannu moved for one year to Springfield in the USA, where Tana had begun exporting landfill compactors. "It was really quite an experience, since I didn't know the language very well. I was sort of forced to learn," admits Hannu, who has been retired for 14 years already.

"There was no public support or training, and there was always a lack of money – it was expensive to travel around the world in those days. The company's management even admitted that I was their most expensive employee," Hannu adds with a grin. of English, I had to choose my words carefully," he explains.

Long-time professional

Hannu had acquired his metalworking skills through a three-year apprenticeship in Sweden in the late 1960s and early 1970s. After returning to Finland, he heard from his brother that when putting out a landfill fire he had seen an "unbelievable machine" and that it had been made in Väinölä, Jyväskylä.

"SolgotmyselfajobwithTana.Idideverything there related to these landfill compactors, including welding and assembling. Once I had done everything, I was eventually asked to travel abroad to work on our machines in other countries," Hannu says.

The situations he faced abroad required perseverance and ingenuity. All his travelling benefitted not only Tana's customers, but also the company's product development. "I took a lot of photographs and took notes about things that didn't seem to be quite right for the application in question. Many of my suggestions were introduced very rapidly too," Hannu adds.

"No understand" probably helped in many situations

After the first landfill compactor was delivered to Germany, exports began to the Nordic countries, the European continent, the USA and around the world. Hannu Mättö flew back and forth making repairs on machines that had been in heavy use, all the time accumulating expertise on the demands put on the machines in different conditions.

"Our product wasn't quite ready for such heavy use on these enormous landfills. For example, the reduction gears at the time weren't up to the job at first," he says. Tana's landfill compactors were still ahead of their time. Waste had to be compacted in order to take up less space, and regulations required lots of soil on top of the compacted waste.

Our machines levelled the waste very nicely, so there was less need for soil. A relatively small amount was needed to hide the waste and make it look tidy," Hannu describes. The workdays in the USA were long and

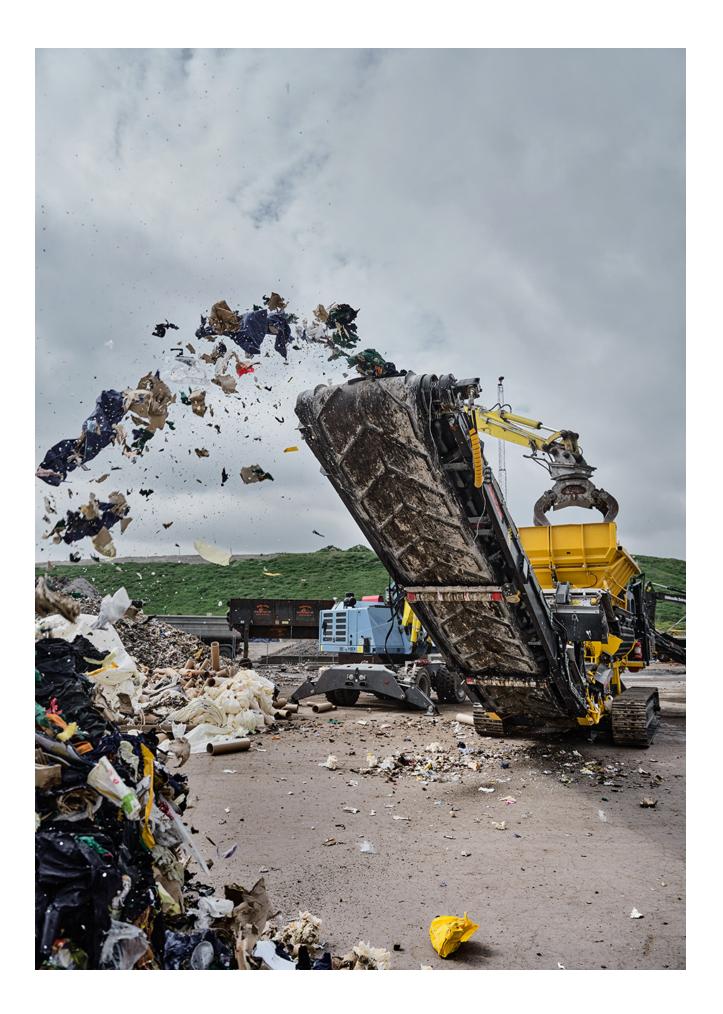
customers were demanding, and the atmosphere was not particularly marked by trust. "If someone started demanding details, I had to reply, "no understand". Even with my poor knowledge of English, I had to choose my words carefully," he explains.

Tough times, but always moving forwards

Tana's machines arrived in Australia in the 1980s as part of a countertrade for Hawk fighter jets. The hydraulics began to suffer in the hot conditions, so Hannu Mättö was called upon to perform maintenance and repairs. Before long, "tropical-condition cooling systems" were designed for the machines. "I have flown round-trip from Finland to Australia 39 times. I was picked up straight from the airport and driven out to inspect the machines. I was often made the scapegoat, but at the same time I understood that it would get better as soon as we got the machine working again," Hannu recalls.

Decades of travel took their toll, especially on personal relations and health. Hannu retired in 2007 due to back problems. Nevertheless, he feels that his work was truly appreciated at Tana. "There were not many men who would have done the same job. They were tough years, but we were always moving forwards. Today's machines owe a lot to the expertise we gathered from around the world."

If work has demanded a lot, it has also given a lot in return. "It gave me an understanding of how things are done and how people think in different parts of the world. And good friends," Hannu Mättö summarises.



TANA 440 SHREDDERS

New TANA 440 shredders were launched at the beginning of 2021.

The popular TANA 440 shredders have been further improved in response to feedback from customers and dealers. First new model of the 440 series is the TANA 440DTeco shredder which is even more versatile, more productive, and easier to use.

The versatility, productivity and easeof-use of TANA 440 shredders have all been taken to a new level, following improvements suggested by customers and dealers. The TANA 440 has traditionally been the company's most popular shredder. It is used especially for processing challenging waste fractions, such as mattresses, tires, plastics, cables and textiles. Versatility was already a major advantage of the TANA shredders, and the new 440DTeco now has even more applications.

In addition to the traditional 33-knife rotor, there is also the new option of 44 knives for added shredding performance. For example, the 44-knife roto increases capacity / output in tire shredding by 25 %. The extended rotor offering also includes options for heavy duty use and for optimizing operating costs. In addition, with the updated labyrinth seal the rotor end structure has improved to protect the gearbox from external objects and disturbances.

TANA 440 shredders are available as track, trailer and electric models. The TANA ProTrack[®] information management system, Tana service kits and a global sales and service network help maximize productivity at all times, anywhere in the world.

The biggest change externally in the TANA 440DTeco shredder is the new higher machine frame, which allows over 200mm more space between the conveyor and the rotor on track models. The new frame structure allows more space for material flow underneath the rotor, helping especially with the pre-shredding of bulky materials, such as plastics and mattresses.



KINDNESS AND EQUAL TREATMENT

I have a lot of good memories, says Tuire Hautakangas, hostess.

I looked after food services and cleanliness at the workplace from 2005 to 2016, when I retired with longing minds.

It all began when Tana was looking for a cook to provide food at the workplace. CEO Kari Kangas offered me the position, and so I began working as hostess.

I have warm memories of my time at Tana – they were the best years of my working life. I was always happy to go to work and plan my tasks the way I thought was best.

I often started my workday ahead of schedule, even if my official working hours were 6am to 12noon. I didn't really look at the clock, I just did everything that had to be done at my own pace.

I maintained order as needed. I instructed others to keep everything neat and tidy. I got the message across by giving orders in a friendly way and seldom had to repeat myself. I felt that I was liked, and it showed: we always greeted each other, regardless of our positions. Visiting customers, especially when they arrived from abroad, made my work all the more colourful. I would plan their meals in advance if I was told they had special requirements. I am not very good at languages, but the others would translate and in that way we would exchange pleasantries.

I have a lot of good memories from special events, such as our Christmas parties. They were always fun, even if I am not much of a party person. I also fondly remember how the other girls at work used to apply makeup on me and make me look pretty, even though I never use makeup otherwise.

I have to say, I've never had such a nice employer as Tana and CEO Kari Kangas. His kindness and equal treatment make it very special. He always asked how you were doing and was friendly. If all bosses were that good, Finland would do really well!

I wish Tana all the best for the future. May you continue along the same path for the next 50 years!"







VOEB in Austria

Ecomondo in Italy

EXHIBITIONS, DEMOS & SEMINARS

TANA was present in many events in 2021 as our distributors participated in fairs, seminars and held customer demos all over the world.



Demo in Portugal



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Roadshow in Germany
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Clean County, Russia

Demo in France



Entreprenad Live, Sweden



Yhdyskuntatekniikka, Finland



TANA CELEBRATION

Tana held a 50th anniversary party to the company's customers and partners on a Thursday night in October. During the night of magic, good food and drinks, we also awarded our partners.

Our network includes several partners who enable high-quality and efficient machines for our customers and we wanted to reward these wonderful partners for their valuable collaboration with us.

The Partner of the Year - **Toijala Works Oy** - has been cooperating with Tana since the early 2000s on a broad front, extending to product development, sales support and procurement.

With its own expertise and investment, the Product Development Partner of the Year - **Epec Oy** - has helped to make TANA products more reliable and of higher quality.

The Newcomer of the Year - **Levytyö Särkinen Oy** - was able to fix it quickly and with high quality in a challenging situation, from which the cooperation started to expand even more.

Tanan's long-term partner - **Hydac Oy Suomi / Finland** - received the Quality of the Year award, with whom the cooperation is uncomplicated and smooth, the products are of high quality and the deliveries have taken place on schedule.



We also wanted to celebrate our 50th anniversary with the people who have worked in Tana during the years and the people who have retired. A nice Christmassy event was held in 9th of December at Jyväskylä

Kari Kangas named Finnish Entrepreneur of the Year 2021 and the Regional Entrepreneur of the Year 2020 award for Central Finland!

Each year, the Federation of Finnish Enterprises (Suomen Yrittäjät) and its member organisations recognise companies that have been successful nationally, regionally and locally. The Finnish Entrepreneur of the Year award underlines the importance and value of entrepreneurship and highlights the work of individual entrepreneurs. The award is also highly valued by its recipients, as it is a mark of recognition from their entrepreneurial colleagues. Kangas feels that respect for entrepreneurship has risen in Finland, and young people increasingly see entrepreneurship as a viable option for employment and for realising themselves.

"There is really no better opportunity for realising one's own dreams and working. Entrepreneurship is an adventure in which you have to trust yourself and dare to take risks. Just as there are many risks, there are also opportunities for success. I am happy that I had the courage to say yes to entrepreneurship."

TANA LANDFILL COMPACTORS ARE UNIQUE

Mechanic Marko Vuori assembled frames for TANA landfill compactors and saw for himself at the Mustankorkea landfill in Jyväskylä how effectively they compacted the waste. These days, Marko maintains and services TANA landfill compactors and other machines throughout Finland.



"It gives you a good feeling when you fix a machine and get it working. Last spring, I brought back to life an old green TANA landfill compactor that had been exported to Norway in the 1990s. I myself drove it onto the shipping pallet. It's unbelievable to think that the exact same machine returned to Finland to be fixed by me. These days, it's still working in Ylivieska," Marko Vuori says.

Marko joined Tana in the 1990s, originally as a flame cutter; he was invited to work by the supervisor at the time. His tasks included manufacturing frame components. At the time, TANA landfill compactors were manufactured in the workshops in Jyväskylä, Vaajakoski and the Väinölä shipyard. I did flame cutting for several years until a fire destroyed the workshop in Väinölä and production was transferred entirely to Vaajakoski," Marko recalls.

Fire marks a turning point

The fire of 1993 was a turning point in Tana's history. Afterwards, ready-made components were increasingly ordered from Poland and elsewhere, and the assembly of Tana's machines comprised mostly welding and fitting.

Later, even welding took a back seat when entire frames were ordered from subcontractors. After that, I fitted hydraulics and engines until the 2000s.



Appreciation shown in many ways

Marko Vuori enjoyed his time with Tana enormously, and he always felt that Tana really cared for its employees. This could be seen in many ways: parties were held, meals were served and nice Christmas presents were distributed.

"We had good managers, great work colleagues and tools that did their job. We had our own sense of humour, even though not everyone got it!" Marko remembers. During his years working on landfill compactors, Marko witnessed the leaps in technology over the decades, and also how their emissions have been reduced.

From operating landfill compactors to servicing them

After working for Tana, Marko Vuori went to work for one of the company's customers. He drove landfill compactors at the Mustankorkea landfill in Jyväskylä for many years and also serviced them. This made him appreciate how well Tana's landfill compactors really work.

"The product is really unique and really compacts the waste well. My work at the Mustankorkea landfill was nice enough, but since I had been used to working with my hands and not sitting all day, I developed back problems."

Today, Marko Vuori works as a service technician for Bimu and travels around Finland servicing wheeled and mining machinery. His job requires constant travelling all over Finland, and he usually works outdoors, rain or shine. According to Marko, this kind of mobile work suits him well.

TANA DEALER MEETING HYBRID EVENT

In 2021 we arranged our Dealer meeting as a hydrid event.

With the ongoing pandemic situation, it was pretty uncertain how we could arrange our annual Dealer Meeting this year. Previous year, in 2020 we held the DM as a virtual event because of the travelling restrictions. As the virtual meeting was a success, we considered the same format as an option for 2021 meeting also. Luckily, many of our dealers were able to travel so the meeting was held as a hybrid event: some participated live, and others joined the event online.

The Dealer Meeting 2021 was a warm insightful event with good discussions, laughter and of course singing and dancing! The highlight was the annual Dealer meeting awards:

Dealer of the Year 2020: Smart Equipment, Benelux & France

Newcomer of the Year 2020 : Komunální technika, Czech Republic

Sales Person of the Year 2020: Shaun Walker, Tana Recycling Machinery UK

Excellence in service 2020: Matt Craft, Humdinger Equipment, USA

Excellence in marketing 2020: Tana Italia, Italy

Excellence in marketing 2020: Tana Italia, Italy





In honor of the Tana 50th anniversary we wanted to give **special recognition to the most longstanding Tana distributor, GCM Enviro Pty. Ltd.** Company has been dedicated to Tana since 1998. They have had excellence in sales and customer service year in year out resulting in successful business and recognized Tana brand in Australia.

Tana Dealer Meeting took place in Tampere, Finland on 10.-12.11.2021. The event gathered Tana distributors from all over the world together to look back at the past 12 months and to see all the great things ahead.



TANA

TANA H SERIES LANDFILL COMPACTORS

New heavy TANA H Series landfill cmpactors were introduced at the end of 2021.

TANA's unique design with full-width drums, rigid frame and large crushing teeth ensures optimal compaction results. These same proven features can be found in the new H Series, which now includes models in the 38-52 ton range: the H380 and H380eco, the H450 and H450eco, and the H520 and H520eco.

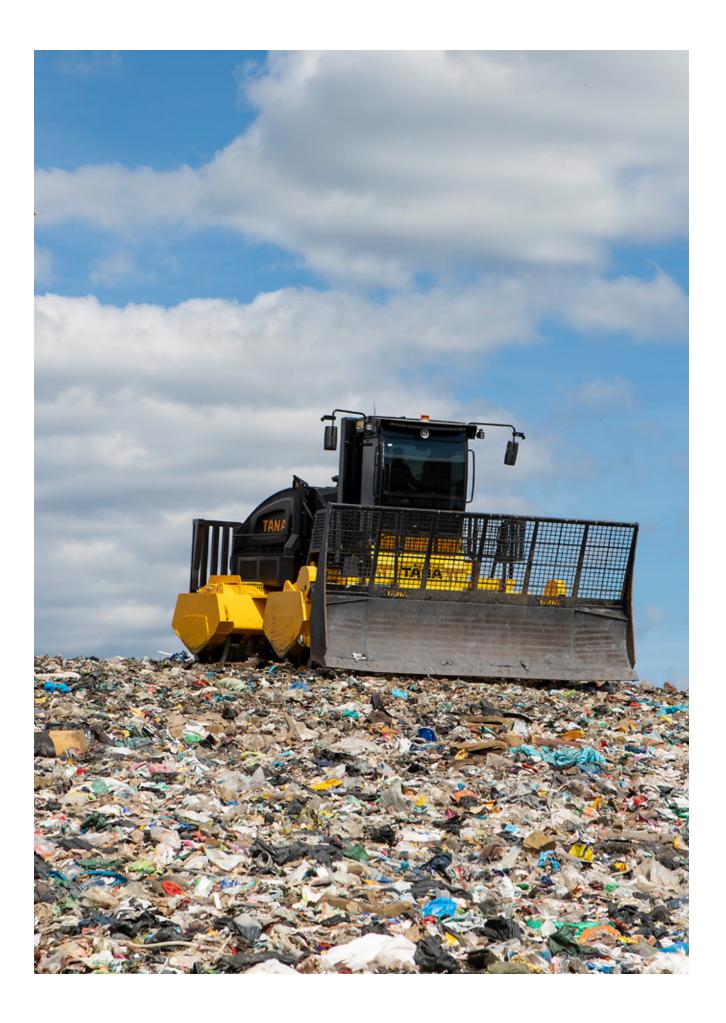
H Series models have several new and improved features that make them even more efficient and reliable; for example, their speed has been increased to 10 km/h (6.2 mph).



Like other TANA landfill compactors, the new H Series models handle waste cost-effectively and offer maximum compaction and waste handling capacity with low operating costs.

We have listened to TANA users and focused especially on driver comfort. H Series landfill compactors have a spacious cab with excellent visibility in all directions, including reversing cameras. A comfortable driver's seat and ergonomic controls ensure excellent working comfort. The TANA Control System (TCS) has a new user interface that further improves driveability and machine operation. The menu is easy to use and clear, and it auickly displays dials for speed, rpm and engine load. The user interface features a graphical touchscreen and offers the driver comprehensive adjustment and diagnostic options.

All TANA landfill compactors are equipped with the TANA ProTrack[®] information management system, which connects the machine to a data network. This easy-to-use tool facilitates maintenance and provides real-time information on machine performance and status. The TANA ProTrack[®] information management system can be used effortlessly on a tablet, smartphone, or computer.



FRIENDSHIP, NOT JUST A JOB

Massimo Moretti worked for 21 years servicing TANA machines in Italy.

The relationship when began Massimo's entrepreneur friend asked him to take a look at a problem with a TANA machine. Massimo managed to solve the issue, leading to a maintenance service agreement with the company in question. Later, local representation and servicing of TANA machines transferred entirely to Massimo's brother's company (Service Pompe), also known as Tana Italia.

"I fell in love with TANA machines at first sight, since their performance is in a class of their own. Our customers too are extremely satisfied with Tana's products for exactly the same reason," Massimo says.

Through his collaboration with Tana and training trips to Finland, Massimo also fell in love with Finland and Finns, who he claims are easy to get to know.

"Klaus, Jarmo, Hannu, Mirja, Kari and many others have become good friends over the years. My best friend in Finland is Harri Uusi-Maahi, who acquainted me with the secrets of the Finnish sauna and ice swimming. The sauna became such an important place for me that I had to get one for my own home too – from Finland, naturally!"

Harri Uusi-Maahi also appreciates the friendship that he formed with Massimo at work.

"We have a really nice and warm friendship with Massimo. We both like old motorcycles and are passionate about mushroom picking. Whenever we find really nice mushrooms, we have to send each other photos," Harri admits.

The contact between the two friends has been much more than just business. They have become friends with their entire families and still call each other regularly. They also plan to visit each other again as soon as travel restrictions are lifted.

"Even though Massimo is already retired, he is still keen to help servicing machines whenever needed. Massimo always comes to the rescue if there is a particularly tricky problem, as he knows Tana's machines like the back of his hand! He is an important link in the transfer of know how to the new generation of Tana Italia." Through his collaboration with Tana and training trips to Finland, Massimo also fell in love with Finland and Finns, who he claims are easy to get to know.



HAVING NOTHING CAN MEAN HAVING EVERYTHING

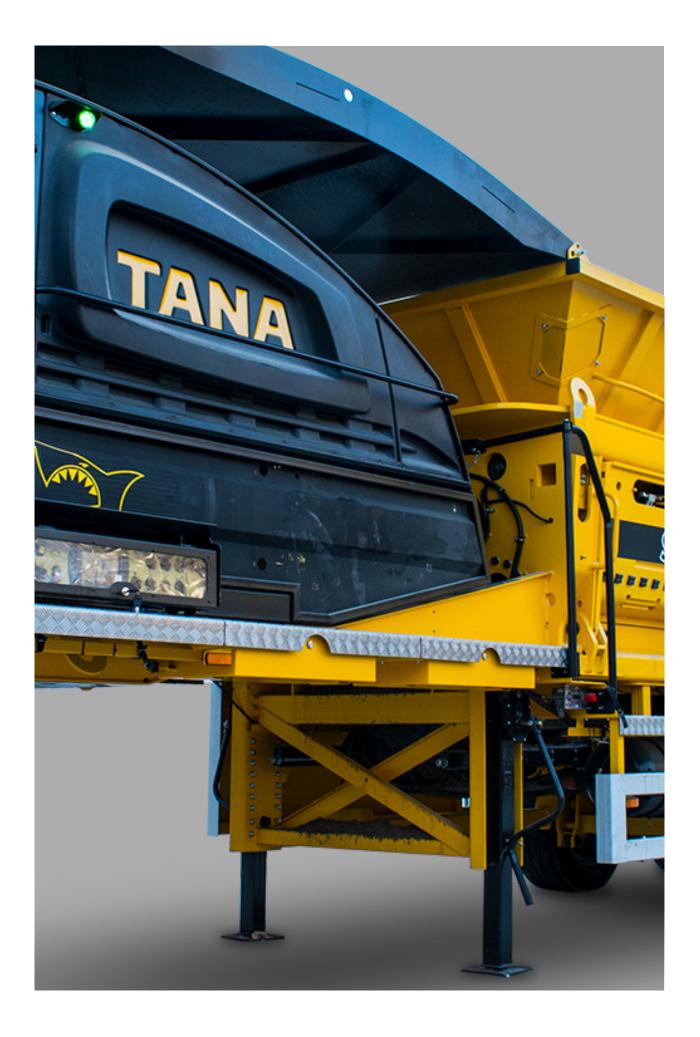


Tana's business model is unique. Our business strategy and model include strong networking with partner companies. With the help of strategic partnerships, it is possible to expand the product range and sales network and develop operations to be more scalable. Today, we are a machine manufacturer without any own manufacturing, which means that we have outsourced all production. Today, we focus on managing our own value network, developing existing products, and supporting our distributors globally. The company slogan TANA From Waste to Value[®] is a symbol of Tana's devotion to not only produce machinery that is unique in terms of its design and features, but also to provide our customers with solutions and services for improved productivity. Our mission is to improve our customers' businesses and enable them to increase their revenue - from waste to value.

Partners in waste

Sustainable growth is possible to achieve when you have all the right people, partners, and resources available. We have the most professional people on our team - in sales, services, support - you name it. When the goal is same for everyone, making more profit for our customers, hard work pays off. Successful co-operation is the key, and it is achieved by trust, courage and appreciation.





TANA SHARK FOR FCC AND LAFARGE

Waste processing firm FCC Česká Republika outlines the steps involved in a recent tyre / RDF plant project for Lafarge in the Czech Republic.

FCC Česká Republika was contacted by the Lafarge Cement Čížkovice cement plant in the second half of 2017. The plant wanted to know if FCC would take over the production of shredded tyres for the plant, a service that had previously been contracted to a third party. FCC was already a long-term partner of the Čížkovice plant, supplying it with high-calorie refuse-derived fuel (RDF).

The existing tyre-grinding line comprised a two-shaft low-speed shredder, a star-shape screen and a set of conveyors. The overthe-screen fraction entered again from the star-shape screen into the shredder. In fact, tyres were circulated until reaching the required size of <100mm.

After some consideration, FCC decided not to purchase this technology from the previous operator. This was mainly due to its poor condition, low capacity and the need to get a building permit to be able to install the technology at a new site, a condition of the Čížkovice plant.

However, FCC did not want to lose the opportunity to supply increased volumes of alternative fuels for the cement plant. In addition to supplying shredded tyres, the company wished to use the new site, in nearby Lovosice, to produce calciner RDF for the cement plant.

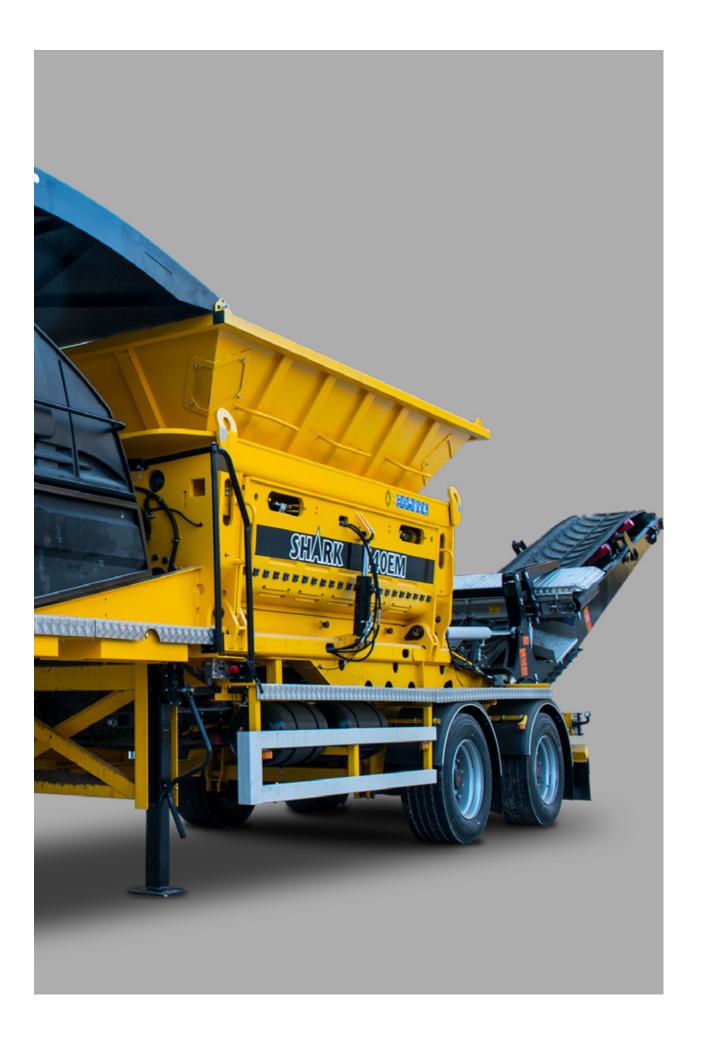
In order to be ready to supply the

plant quickly, FCC opted for a mobile shredder. As mobile units, they do not require building permits, massively speeding up the project.

Choosing TANA

FCC wanted a mobile shredder that could shred waste tyres down to <100mm in a single pass. This meant a shredder equipped with a fullvalue output screen to guarantee the fraction size. While there are many two-shaft shredder options on the market, there are far fewer singleshaft models with an output screen. TANA is one of the suppliers of such machines, so FCC contacted its Czech representative, Komunální technika s.r.o. FCC wanted to weigh up the machine rapidly, in terms of both capability and cost. A demonstration on the new FCC site was provided, using a wide portfolio of input wastes. In addition to tyres. the wastes also involved wood, car carpet, hard plastics, plastic films, hollow plastic packaging and other materials.

Representatives from the Čížkovice plant were invited to the tests to evaluate the output and to confirm that it met their requirements. Besides the size of the output fraction, the key question also involved the quality of the cut tyres. The plant had previous had a bad experience with a different supplier that provided 'tyre spiders' due to excessive shredding speed. Such spiders have long wires at the extremities of the rubber pieces.



The wires become entangled with each other during subsequent steps, making feeding to the calciner very difficult.

This phenomenon was avoided during the TANA demonstrations and the product was given the plant's seal of approval. A similar trial with a competitor's shredder did not achieve quite the same performance as the TANA machine. It had a lower grinding capacity and the tyres repeatedly became stuck between the rotor and straightforward.

Keep the noise down!

During the tests with all of the machines, FCC was aware of the high levels of noise generated by the shredders' diesel engines. While the business premises are in an industrial area, they are also close to a river. On the opposite bank is a residential area. FCC was concerned that noise would travel easily over the water and lead to noise complaints invthe future.

Quite coincidentally, TANA launched a mobile version of the machine in the market called TANA Shark, which has an electric drive. Although the need for a power supply limits its mobility, FCC does not intend to move the shredder for the forseeable future. The TANA Shark was the clear choice for FCC.

FCC ultimately ordered a TANA Shark 440EM model with an output screen of 76mm. After shredding tyres for the first few months of its life, FCC additionally fed it 'blue reject' from paper mills, the unrecyclable plastic residues from final separation of communal plastics, and other calorific wastes. The combination of these wastes allows FCC to reach the required calorific capacity of the mixture around 15MJ/kg. Moreover, the high humidity of paper-mill reject also positively impacts the shredder's performance. The size of the output fraction is approximately 100mm. Besides preparing RDF for the calciner, the shredder is also used for the rough shredding of tyres (without a screen).

Capacities

When shredding tyres with a screen to <100mm, the capacity is around 4t/hr. Shredding tyres without a screen increases the rate to around 9t/hr. The average output achieved while shredding 60% of mixed materials (tyres + other wastes) and 40% of shredding without a screen is 6.5t/hr overall.

Project timeline

FCC started to work intensively on the project at the start of 2018. The selection of an electrically-driven shredder required the construction of a new 630kV transformer and an electric cable access line within the framework of the area. FCC concluded the purchase agreement with TANA to buy the shredder in August 2018. The construction of the transformer station and the electric cable access line were finished in December 2018, and at the same time, the shredder began test operations. Fuel production began in earnest in 2019.

Lasting benefits

The main benefit of the TANA Shark 440EM is its ability to produce a well-defined, relatively fine output fraction to the client's specification. In this respect FCC feels that it differs from the wide range of other mobile machines that are available on the market. A great benefit also consists of a high torque momentum, which allows the processing of a wide range of waste. FCC thanks the Čížkovice plant for putting its faith in the company once again and for the companies' continued successful collaboration.



Watch the video Click here or scan the QR code



Chip Tyre shreds tyres with TANA Shark. Co-operation with the local Tana distributor GCM Enviro Pty has been successful year after year.

TANA has been proven to be a durable machine with lot of great featurs. For example wires can be removed magnetically so it has cut down Chip Tyre's ware bill by 40%.

Chip Tyre's business has grown from 200 000 tyres a year to 200 000 tyres a month. TANA Shark is robust mobile waste shredder and is the best choice for the difficult materials like tyres.



