

SHARK



TANA

MOBILE SHREDDER UNIT

ONE INVESTMENT – MULTIPLE USES

- 2 ONE INVESTMENT – MULTIPLE USES
- 4 VERSATILITY IN PRACTICE
- 6 TRUSTY OPERATIONAL RELIABILITY
- 8 EASY OF SERVICE – AND MAINTENANCE
- 11 TANA – INNOVATIVE SOLID WASTE TREATMENT TECHNOLOGY WORLDWIDE

Tomorrow's Solutions for Today

In order to reach the optimum capacity and size of end product, waste management operators have often chosen a separate shredder for individual types of material. This solution has worked well as long as there are only certain types of waste fractions to be treated. However, as treated material changes, it usually requires additional equipment to optimize the treatment process.



Another frequent solution has been to treat the material in two stages by using a primary and a secondary shredder in the same process. This naturally increases the investment required as well as the operation costs. Further problems are often caused by the difficulties in synchronizing the two different types of shredders. These are some of the challenges we saw in developing our new mobile shredder.

TANA Revolutionizes Traditional Thinking on Shredding

In its R&D Tana Oy has invested heavily in exploring customer feedback. As a result, the TANA Shark Mobile Shredder Unit is unique in its versatility. The TANA Shark is suitable for the mechanical treatment of most recoverable, recyclable and reusable materials - whether it was for just volume reduction, recyclable material production or renewable energy fuel production.



The versatility of the TANA Shark makes it possible for a customer to invest in one shredder unit that allows a quick and cost efficient conversion to suit most waste fractions. The TANA Shark may be used either as a primary shredder only or to process the material into an end product as required. It is available as a single or a twin rotor model. The investment or efficiency is not compromised in spite of changes in waste material types or contracts.

Basics of Versatility

TANA Shark's versatility is based on the very short time required to change rotors to suit different materials (pat. pend.). Other significant factors are the interchangeability of the modular counter tools, the plug-in rotor screens and the optional shredding process programming tailored to different waste fractions.

What Are the Customer Benefits?

The TANA SHARK brings the customer the following tangible benefits measurable in money:

- ✓ One machine/unit = Less investment
- ✓ Modular construction = Increased flexibility between models
- ✓ Purpose-built rotor and counter tool designs + rotor screen = Optimized end product size and capacity
- ✓ Quick change of rotors and counter tools = High level of uptime



VERSATILITY IN PRACTICE

Rotor Installation

The unique installation of the rotor (patent pending) allows for a quick and easy replacement of the rotor. This enables the use of an optimum rotor type in one machine for different waste fractions.



Multiple Shredding Tool Configurations

The rotors are available with various optional shredding tools. They come in different shapes, dimensions, number and placement for multiple uses, all exclusively designed for their purposes.



Modular Counter Tools

The sizes and shapes of the counter tools play an essential role in determining the capacity of the shredder and the particle size of the end product. The TANA Shark is available with variable types of counter tools that come in bolt-on modules of multiple tools. This enables a quick and easy replacement and even reversal of the modules.



Plug-In Rotor Screens

We also offer a variety of rotor screens with different mesh sizes and shapes. The rotor screens are of the plug-in type, making the installment and removal work easy in field conditions.



TANA Control System (TCS)

For capacity optimization, the TANA Shark is operated through the TANA Control System (TCS), complete with pre-programmed process parameters for the most common waste fractions. The optional OneTouch function enables the operator to select the desired program at the press of a button. The operator may also alter the program parameters and enter new settings for fine tuning of the process with specific waste fractions.



Platforms Available for Every Purpose

The customers may select their shredder to be installed on any of the four options available:

- Hook Lift Platform
- Fifth Wheel (Trailer) Platform (see illustration)
- Self-Propelled Tracks
- Free Standing Platform with adjustable struts

In addition to the above, the TANA Shark is also available as an electrically powered mobile or non-mobile version.



Bi-Directional Rotor(s)

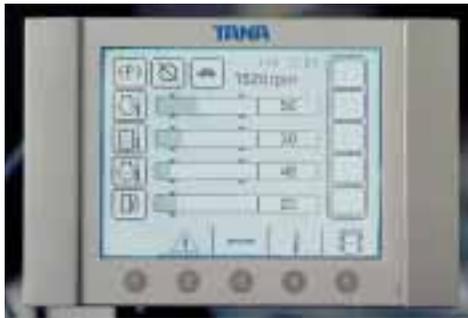
The shredding rotor may be operated in either direction to maximize feed throughput. This function assists in enabling uninterrupted flow of the material fractions through the shredder.



TRUSTY OPERATIONAL RELIABILITY

TANA Control System Provides Cost Efficiency, Operational Reliability and Longer Lifetime

Tana Control System (TCS) monitors all operative functions in the TANA Shark. It prevents machine damage caused by any problems in the driveline and controls the rotor movements depending on the selected work mode. The TCS LCD panel acts as the instrument panel displaying to the operator information from over 100 different pieces of information, e.g. the malfunctions log, fuel consumption, loading rate, service intervals, etc.



For service and maintenance staff, the TCS functions as a set-up screen for the system base adjustments and acts also as a diagnostics tool. All system alarms and machine malfunctions are logged in the TCS memory for easy monitoring and downloading at a later date. This in effect reduces downtime costs and limits potential damage to the powertrain.

TCS also prevents overloading of the powertrain and automatically adjusts the TANA Shark for the

optimum output level. Whenever the loading of the shredder approaches its limits, TCS adjusts the hydraulic pumps accordingly and changes rotary direction when necessary. The rotary direction is also reversed during less-than-optimum loading to increase throughput

Remote Control Unit – Easy and Safe Operation

The TANA Shark is available with an optional remote control unit (RCU) which allows the operator of the loading machine (e.g. a wheel loader etc.) to operate the shredder from his cab. This boosts operational safety and ease of use.



Two Diesel Engine Choices – Caterpillar and Cummins

Depending on the model, the TANA Shark is powered by two of the world's leading diesel engine manufacturers, Caterpillar and Cummins. Both brands are renowned for their reliability and operational economy.



TANA Powertrain – Simplicity Means Reliability

The TANA Shark utilises a hydrostatic powertrain identical to the one used in TANA landfill compactors. The reliable Bosch-Rexroth and Sauer-Danfoss hydraulic pumps and motors are linked to TCS, creating an efficient and maintenance-friendly power transmission system.



The unchallenged advantages of the TANA Shark are the pressure cut-off system protecting the shredder from hydraulic shocks and the closed centre hydraulic system allowing the rotor to be operated in either direction.

Shredding Performance – Optimum End-Product Quality

The shredding performance of the TANA Shark is in a class of its own. The TANA Shark uses small, reduced gapping between the shredding tools and the counter tools, producing uniform quality end product at high capacities with most waste fractions. The counter tool panels open to remove non-crushable materials from the feed stream.

The TANA Shark is available with a plug-in rotor screen to further optimize the end product size when treating certain types of materials.



TANA Shark – Designed To Be Simple And Strong

The simplicity of the TANA Shark's structure allows the removal and re-installation of any component without the need for major disassembly. For example, the conveyor may be quickly uncoupled and removed as a complete unit. The framework materials are high-quality steel for easier welding and maintenance. All wear parts are made of the very durable Hardox 500 steel.



EASY OF SERVICE AND MAINTENANCE



Serviceability Is Key to Productivity

The ease of service and maintenance of a shredder in hard, dirty operative conditions is one of the most important key factors. The TANA Shark addresses these issues by having the diesel engine, the radiators and coolers, and the filter sets fitted in very service-friendly locations. The roomy engine bay provides an ideal environment for carrying out the scheduled servicing. The pre-screening of the airflow to the radiators and an oversized engine air filter greatly reduce the daily service attention required.



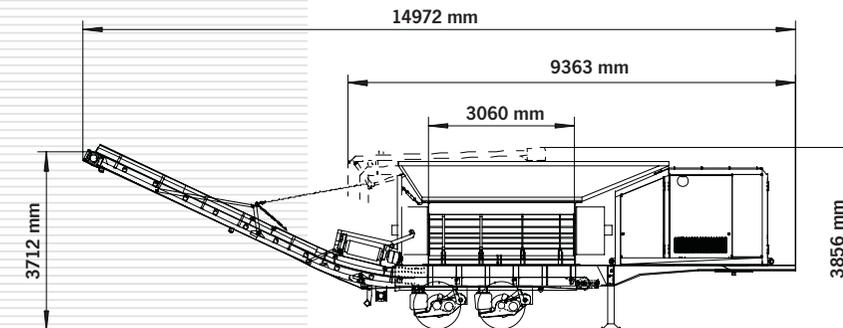
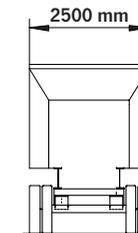
The rotor, the shredding tools and the counter tools are all easily accessible once the counter tool panel is opened to serve as the service platform. Also, fire safety is a key issue when operating in dry and dusty conditions. The low-speed rotor of the TANA Shark minimizes sparks and the bolt-on wear parts make welding work unnecessary in site conditions.





TECHNICAL DATA TANA SHARK 5430

Operating weight	21 500 kg
Description	Hydraulic driven, powered by diesel engine, single rotor shredder. Diesel engine and hydrostatic transmission are controlled by TCS control unit, which sets up the best possible power/power output ratio. TCS protects the system from overloading, overheating and damage caused by non-crushable material by giving an alarm and stopping the operation.
Material feeding opening	1400x3060 mm above the shredder unit
Feeding height	3100 mm
Outlet for the belt	880x3060 mm below the shredder unit
Belt discharge height	4500 mm max.
Shredding tools	
Shredding width	3000 mm
Rotor speed	Customized, 10-30 rpm
Rotor diameter including shredding tool	Customized, 800-900 mm
Number of shredding tools	Customized, 24-54 kpl
Height of shredding tools	Customized 50-150 mm
Width of shredding tools	Customized 50-80 mm
Engine	Caterpillar C15 Stage III/Tier 3
Gross power output	403 kW (540 bhp), SAEJ 1995 / 2100 rpm
No. of cylinders	6
Aspiration	Turbocharger and aftercooler
Cooling	Liquid
Fuel tank	800 l
Power transmission	Hydrostatic with stepless control of speed
Pumps	Rexroth A4VG 250 ccm, 2 pcs; variable displacement axial piston pump with electrical proportional control
Motors	Rexroth A6VE, 2 pcs; variable displacement plug-in motors



TANA – INNOVATIVE SOLID WASTE TREATMENT TECHNOLOGY WORLDWIDE

Dear Valued Customers,

The history of Tana goes back to the golden Sixties when the business started as a family-run garage operation. A lot has changed in the past three decades – Tana today is a successful manufacturer and exporter of six models of the well-known TANA G Series landfill compactor, ranging from 26 to 50 metric tonnes in operating weight. Now we are introducing the TANA Shark mobile shredder products to compliment the landfill compactor line.

Tana's worldwide distribution network reaches some 30 countries in Europe, Asia, Australasia and Africa. We cooperate with very experienced dealers who have strong commitment and expertise in the solid waste management field in their respective regions. Through their efforts and your experience-based feedback from different markets we have been able to continuously improve and develop our product lines. As a result, we are able to offer you the most comprehensive line of landfill compactors on the market today and aim to do the same with the Shark shredder line as well.

The new Shark range of mobile solid waste shredders has been designed to cater for your specific needs wherever you may be. The increasing quality requirements for the end product will keep both you and us on our toes for a long time – we believe in the Shark's ability to match and surpass these challenges.

We handle our spare parts logistics through our dealers worldwide and carry parts for end-of-life models for years to come. Our factory-based Product Support Team includes regionally dedicated After Sales Managers and Rollmasters whose years of expertise ensure the resolution of even the rarest problems. They act as a support line between the manufacturer and the dealer, and interact directly with the end user if necessary.

As we approach our 35th Anniversary, we thank you, the Valued Customer. We also welcome new customers to join forces with us – let's work together to make your waste management processes even more efficient and profitable!

Sincerely at your service,

The TANA Team



www.tana.fi

SHARK

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