

# Even more versatile than before

# Unique versatility

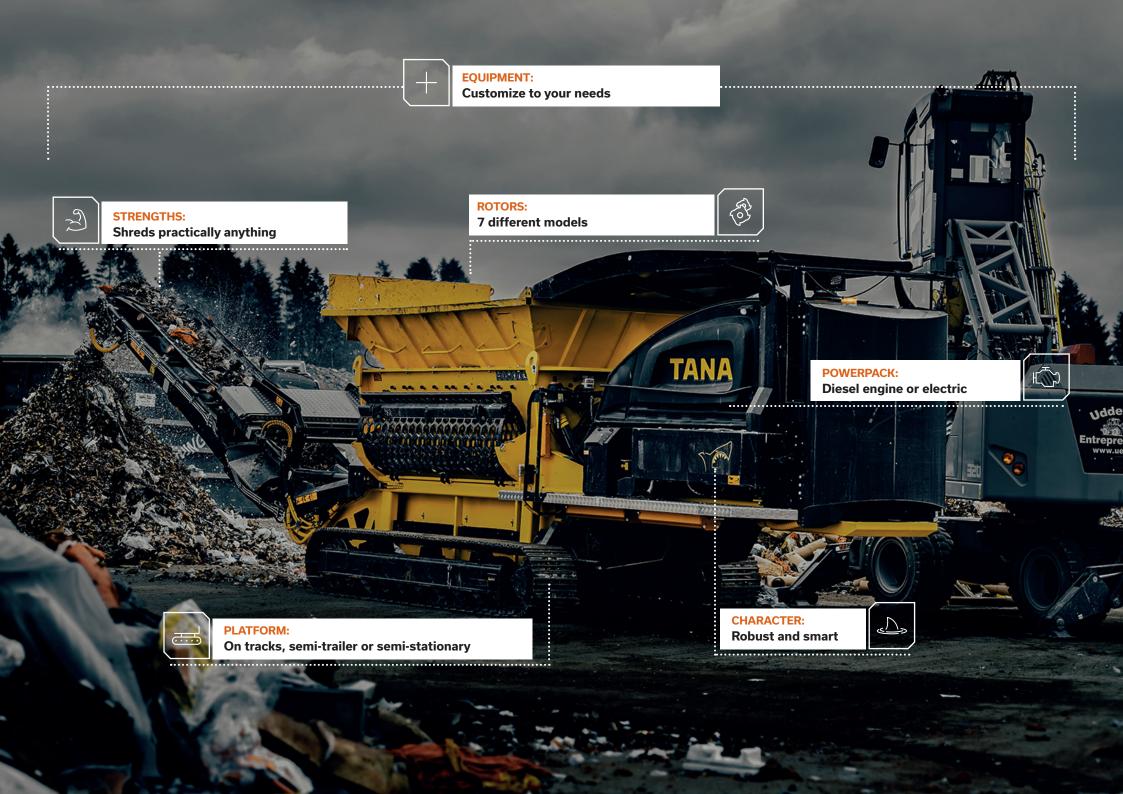
Investing in a TANA shredder opens multiple opportunities. The TANA Shark is able to produce a homogenous particle size and has the capability to process the widest range of materials - even the toughest ones. Our 440 series shredders offer even more flexibility than before thanks to a wider variety of rotors, screen sizes and platforms. All our shredders are electric or diesel powered.

#### Ease of use

TANA shredders are extremely easy to adjust. Integrated screens are used to control the end product size and can be changed in just ten minutes. Non-crushables can be removed through the opening side wall. The TANA Control System (TCS) offers 12 preset operating programs for different types of waste. The touchscreen is state of the art, and software updates can be done remotely.

#### Ease of maintenance

Easy access to all service and maintenance points is one of the most appreciated features of TANA products. In addition to more efficient daily routines, optimal ergonomics maximize uptime. The opening side wall provides access to the rotor and the counter knives making rotor maintenance smooth and easy compared to other players on the market.



# All you need to know

# Best adjustability

With TANA you can make even-sized end products. You can adjust the particle size from 50 mm to 500 mm. The right screen size will be determined by the material characteristics and the required end product size.

# Largest variety of materials

- Tyres
- Commercial & industrial waste (C&I)
- Construction and demolition waste (C&D)
- Municipal solid waste (MSW)
- Other types of special waste & side streams: ragger wire, plastics, pallets and waste wood, household waste, mattresses and furniture, paper, barbed wire, shingles

#### Most versatile use

- Pre-shredding
- Secondary shredding
- Final shredding

# Material recovery & re-use

Waste can be transformed into valuable raw materials – with the right machine. Material recovery and re-use offer growing business opportunities. Reducing, re-using and recovering waste to manage waste sustainably can be done profitably with the TANA Shark.

# From waste to energy

Produce alternative fuel like SRF, RDF or TDF. The composition of waste streams changes constantly. The waste shredding process needs to be adjustable, as the quality of the source and end material vary. Commercial and industrial waste, tires, construction and demolition waste, and other types of waste can be crushed one after another and even mixed after shredding.



# For the best performance

# Bolted cleaning combs

Cleaning combs at the back of the machine also affect the level of even quality of the end product size. Long cleaning combs help in producing a homogeneous particle size. Short combs are a good choice when working with heavily contaminated or difficult to shred materials. Bolt on cleaning combs are convenient to change and maintain.

# Electrically controlled hydraulics

The electronic control of the rotor hydraulics allows faster and more precise control over the entire shredding process. TCS optimizes and adjusts the entire system, ensuring the best combination of performance and fuel economy. This way the performance and the capacity of the machine stay in balance with the operating costs at all times, from easily shreddable materials to the most challenging ones.

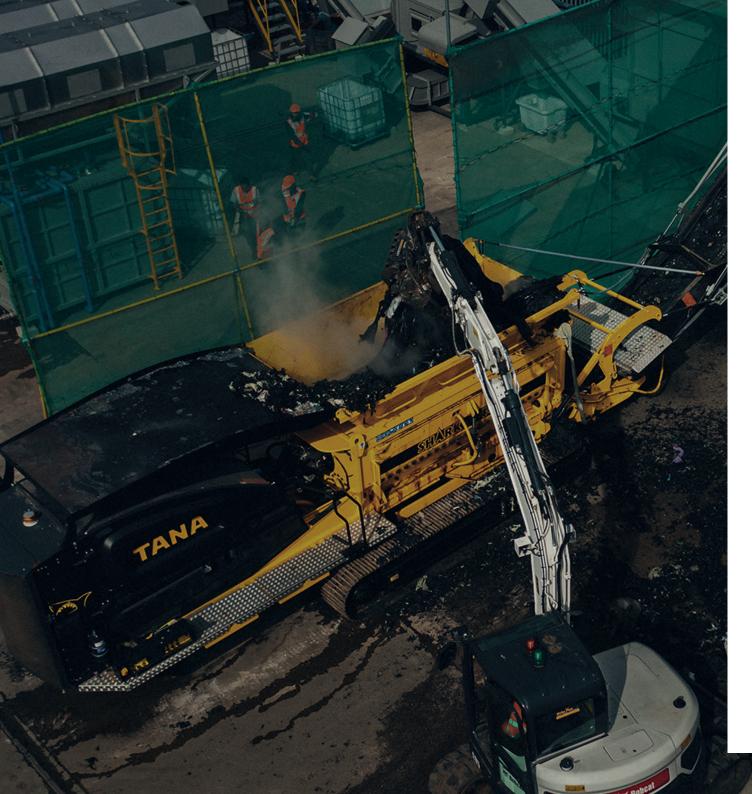
### Power

Choice of two excellent options. Powerful and reliable Cummins diesel engines offer durable and efficient power generation and full mobility for all shredding purposes. Available for all markes in Tier IIIA and Stage V / Tier 4 Final versions.

Electrically driven powerpack offers VEM electric motors coupled together with proven TANA hydraulics for cases where electricity is available. Same performance, lower OPEX, zero CO2 local emissions.

# TANA Control System

The TANA Control System (TCS) controls machine operations and automatically stops the machine in case of overloading, for example. TanaConnect® is a useful tool for taking care of timely and correctly scheduled maintenances. Critical alarm notifications may even prevent machine breakdowns.



# Flexible operations

By adjusting the amount of counter knives, the end product size can be regulated, and with an adequate rotor screen, it can be fine-tuned and the optimal end product size-capacity ratio achieved. Both the rotor knives and the counter knives have two wearing surfaces that prolong their service life. Rotors and counter knives are also available with a carbide coating for extreme wear resistance.

# Protecting your investments

The TANA Shark operates on a hydrostatic power transmission identical to the one used in TANA landfill compactors. The patented swing frame system protects the gearbox from overloading and possible damage.

# Operational efficiency

Easy access to daily inspection points makes the routines more efficient and maximizes the machine's uptime. The removal of non-crushables is quick and easy through the opening side wall.

# Ease of maintenance and service

Easily accessible service points improve ergonomics and save time, both of which are highly appreciated by TANA owners. Service kits including the needed filters and parts for each scheduled maintenance are delivered with TANA machines – convenient, rapid and easy.

# Special features of TANA waste shredders



# | TANA Powerpack

Side-opening engine covers give easy access to service points that are designed to be user-friendly. Service platforms around the machine make daily maintenance more comfortable, efficient and safe.



# Patented swing frame

The patented swing frame system protects the gearbox and prevents breakdowns.





# TANA Control System (TCS)

TANA TCS has been updated with a new touchscreen display module. Choose one of the 12 preset shredding programs to ensure an optimized process.



# TanaConnect®

TanaConnect® provides online access to your machine wherever you are. For maximizing machine uptime and optimizing your operations.



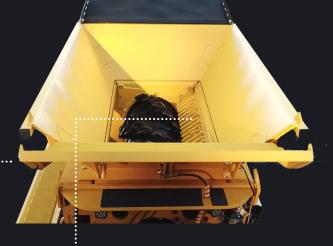
2

# **:Overband magnet**

Separating ferrous metals from the shredded material results in a cleaner end product and additional income. The height and direction can be controlled easily through TCS.



# Folding hopper side wall





Bolted cleaning combs



# Versatile 2-part conveyor with scale

The speed and direction of each conveyor can be adjusted separately. The conveyor scale weighs the shredded material so you can accurately monitor your process. The usability of the magnet is state of the art the height of the magnet can be adjusted and it can be turned off and back on again during operation. The direction of the magnet to the left or right can be chosen, which improves flexibility.

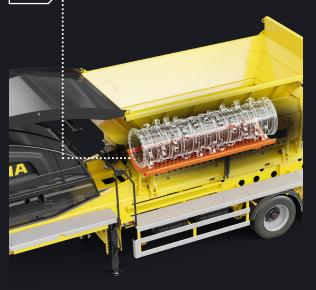


# Torque and robustness

The highest torque on the market and robust structure ensure its capability to shred the toughest materials, like big tires and ragger wire.



11 different rotor screen **:**sizes



# Unique Intelligence

# Control system optimizes and controls operation

The TANA Control System (TCS) monitors and controls the machine functions. The operating programs adjust the shredder functions to the optimal level needed for the shredding process in question. It is the key element in controlling operating costs.

# Integrated scale collects information

The integrated scale will keep you up to date on the amount of shredded waste. The scale automatically weighs the shredded materials and sends the information to the TanaConnect® information management system. Reports provide an overall understanding of the efficiency of your shredding process.

# Track processes in real-time with TanaConnect®

Through TanaConnect® the operation can be followed in real time. Critical alarm notifications help to prevent potential problems, and if something happens, troubleshooting and diagnostics are faster and more accurate, minimizing downtime. As a machine owner you will have control of the machine anywhere and anytime.

TanaConnect® is a digital service portal providing all needed information and tools in one place, including a fleet management system, to efficiently operate TANA machines.

TANACONNEC



TanaConnect® has an integrated information management system that collects real-time and detailed data about the shredding process, amounts of shredded materials and the machine itself.

The **TANA Control System** (TCS) monitors and controls the machine functions.



Choose the rotor for your needs.



Heavy Duty Rotor C&D





Standard Rotor Wood, green waste, MSW

low wear

# **Available rotors:**

- Standard 33
- Standard 33+
- Heavy duty 33
- Heavy duty 33+
- Standard 44
- Heavy duty 44
- Heavy duty 44+
- The plus rotors can withstand up to six times more fatigue making them a safe, long-term choice for heavy applications with intensive wear.
- The HD rotors offer ease of maintenance in the form of easily replaceable wear plates, which are available as individual pieces of full sets for the entire rotor.
- 33 knife rotor offers flexibility and suitability for all applications and is meant especially for applications where the infeed material size is bulky or large.
- 44 knife rotors offer increased performance and capacity in applications where the particle size is controlled with a screen and the infeed material is homogenous.

Heavy Duty+ Rotor
Tires, ragger wire, mattre



high wear

### **SHARK ON TRACKS**

The most versatile mobile waste shredder with excellent capacity and productivity. You will get excellent performance with better fuel efficiency, lower machine operating costs and improved usability and serviceability.

#### 

- Raised frame with more space to guarantee better material flow underneath the rotor
- Integrated scale for staying up to date on the amount of shredded waste

- · Bolt-on cleaning combs for easier maintenance
- Magnet conveyor: discharge side selected from TCS + hydraulic magnet adjustment during operation
- Full mobility with tracks move around by remote control



# **440ET**

### Electric

- Full mobility drives on diesel, shreds on electricity
- Effortless use of auxiliary power
- Less noise and zero emissions
- Quick couplings for power grid



# **SHARK ON SEMI-TRAILER**

Easy to move. Choose diesel or 6 dB quieter electric engine with zero emission. TANA shredder's efficiency and unique versatility provide TANA owners with opportunities to increase profits and reduce costs.

**440D**EU Stage IIIA/U.S. EPA Tier 3

Diesel



440Deco

EU Stage V/U.S. EPA Tier 4(f) Diesel

- Integrated scale for staying up to date on the amount of shredded waste
- Standard frame (no raised frame)
- Bolt-on cleaning combs for easier maintenance
- Magnet conveyor improvements: discharge side selected from TCS + hydraulic magnet adjustment during operation



# **440EM**

#### Electric

- Electric semi-trailer TANA Shark offers the same versatility and reliability as it's diesel equivalent, while being more ecofriendly in terms of emissions and noise.
- It provides a sustainable process with low operations costs, cleaner site and safer working environment.
- Easy and safe access to power grid is guaranteed with quick couplings



### **STATIONARY WASTE SHREDDER**

Stays put and guarantees zero emissions. Less noise. TANA's exceptional reliability, efficiency and productivity.

# 440E

#### Electric

- Electricity boosts the productivity while providing low operating and maintenance costs
- Easy and safe access to power grid is guaranteed with quick couplings
- Magnet conveyor rotation direction can be chosen
- Multiple different setup options to precisely match your requirement:

Shredding unit + powerpack

Shredding unit + powerpack + base

Shredding unit + powerpack + base + lower conveyor

Shredding unit + powerpack + base + lower & upper conveyor

Shredding unit + powerpack + base + lower & upper conveyor + magnet







# **DIESEL MODELS**

General information	440DT   440DTeco	440D   440Deco	
Operating weight, kg *	30200 (440DT) / 30400 (440DTeco)	27300 (440D)/ 27500 (440Deco	
Total length in transportation, mm**	10260	1027	
Total length in operation, mm	15750	1568	
Total width, mm	2550	253	
Total heigth in transportation, mm	3600	395	
Rotor shaft type	single shaft	single sha	
Conveyor belt speed (max. m/s)	3		
Conveyor width	1000	100	
Discharge & transfer conveyor length (mm)	5480, 7050	5480, 7050	
Conveyor height on operation**	4290	4720	
ntegrated scale	х		
Remote control	х	optio	
Maximum velocity (models with tracks)	2,5 km/h		
Engine and power transmission			
Motor & efficiency	Cummins X15 (440DT) - Fulfills Tier 3, EU Stage IIIA Cummins X15 (440DTeco) - Fulfills Tier 4 final, EU Stage V	Cummins X15 (440D - Fulfills Tier 3, EU Stage III Cummins X15 (440Deco - Fulfills Tier 4 final, EU Stage	
Power rating (SAE J1995) (kW)	399	35	
Displacement (I) & number of cylinders	15 - 6	15-	
Fuel tank (litres)	720		
Urea tank (eco-models only)	56		
Rotor drive gears, pcs	2		
Nominal rotor torque, kNm	440	44	
Infeed hopper			
_oading height (mm)	3170	340	
√olume m3	5		
Shredding tools			
Rotor shredding length, mm	3000	3000 300	
Rotor speed max, rpm	28	28	
Rotor diameter, mm	920	920 920	
Rotor knives, pcs	33 / 44 (option)	33 / 44 (option	
Counter knives, pcs	23	2	
Rotor knife type	Bolt-on, reversible knife	Bolt-on, reversible kni	
Rotor knife size, mm	115x70		
Examples of optional equipment:			
Overband magnet	x		
Conveyor side covers	х		
Rotor screen sizes (mm)	50, 76, 90, 100, 109, 120, 140, 167, 220, 275, special tyre shredding screen	50, 76, 90, 100, 109, 120, 140, 167, 220, 27 special tyre shredding scree	

Technical specification D120111/24.10.2023

Weights and measurements are given within normal tolerances limits. The manufacturer reserves the right for any changes.

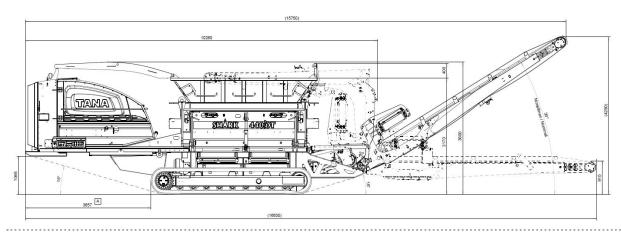
<sup>\*</sup> Operating weight includes the basic machine (fuel tank full)

<sup>\*\*</sup> When at 30° nominal working angle

# **ELECTRIC MODELS**

General informaton	440ET	440EM	440E
Operating weight, kg *	31900	27400	2450
Total length in transportation, mm**	10260	10060	634
Total length in operation, mm	15750	15480	1190
Total width, mm	2550	2530	242
Total heigth in transportation, mm	3600	3970	334
Rotor shaft type	single shaft	single shaft	single sha
Conveyor belt speed (max. m/s)	3	3	
Conveyor width	1000	1000	100
Discharge & transfer conveyor length (mm)	5480, 7050	5480, 7050	_ **
Conveyor height on operation**	4290	4730	
ntegrated scale	х	х	
Remote control	х	option	optio
Maximum velocity (models with tracks)	1,3 km/h		
Electric motor and power transmiss	ion		
Motor & efficiency	VEM, IE4	VEM, IE4	VEM, IE
	Doosan D34 3,4 liter, 4 cylinder engine		
NIIV II and a series (AAOFT and )	- Fulfills Tier 4 final, EU Stage V		
AUX diesel engine (440ET only)	2 x 160 kW****/ 2 x 175 kW****	2 x 160 kW****/ 2 x 175 kW****	2 x 160 kW****/ 2 x 175 kW****
Power rating (SAE J1995) (kW)	2 X 160 RVV/ 2 X 1/5 RVV	2 X 100 KVV / 2 X 1/3 KVV	2 X 160 KVV / 2 X 1/5 KVV
Fuel tank litres (440ET only)	55	-	
Electrical connection/earthing	TN-C	TN-C	TN-
Main fuse size	630 A	630 A	630
Rotor drive gears, pcs	2	2	
Nominal rotor torque, kNm	440	440	44
nfeed hopper			
.oading height (mm)	3170	3400	2296 (without the base
/olume m3	5	5	
Shredding tools			
Rotor shredding length, mm	3000	3000	300
Rotor speed max, rpm	26/28	26/28	26/2
Rotor diameter, mm	920	920	92
Rotor knives, pcs	33 / 44 (option)	33 / 44 (option)	33 / 44 (option
Counter knives, pcs	23	23	2
Rotor knife type	Bolt-on, reversible knife	Bolt-on, reversible knife	Bolt-on, reversible knit
otor knife size, mm	115x70	115x70	115x7
xamples of optional equipments:			
Overband magnet	х	х	x*
Conveyor side covers	x	x	
Rotor screen sizes (mm)	50, 76, 90, 100, 109, 120, 140, 167, 220, 275,	50, 76, 90, 100, 109, 120, 140, 167, 220, 275,	50, 76, 90, 100, 109, 120, 140, 167, 220, 27

# Technical dimensions



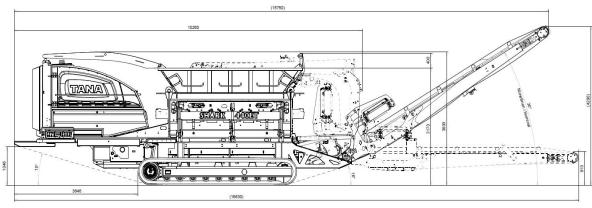
**440DT** 

EU Stage IIIA/U.S. EPA Tier 3 Diesel



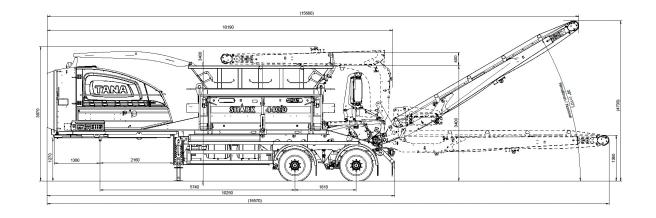
440DTeco

EU Stage V/U.S. EPA Tier 4(f) Diesel



**440ET** 

Electric



440D
EU Stage IIIA/U.S. EPA Tier 3
Diesel
&
440Deco
EU Stage V/U.S. EPA Tier 4(f)
Diesel

(15470)

(15470)

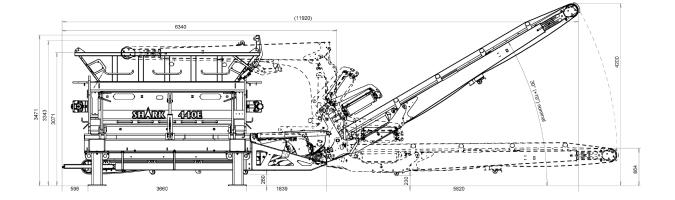
(15470)

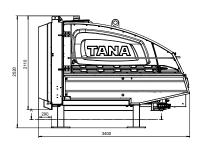
(15470)

(15470)

440EM

# **440E**







# We are here for you.

We know our responsibility and machines

The beginning

The first purpose build landfill

exhibition in Hannover.

compactor with two full-width iron

drums was manufactured for an

Tana Oy is an environmental technology company that promotes sustainable development by providing smart equipment and solutions for solid waste management. It is a matter of honor for us that our customers share the feeling of confidence. We put serious effort into proactive maintenance because we want to keep our promise. We ensure that the Authorized Tana Distributors around the world have the best tools for taking excellent care of Tana customers.

> **1970** 1995-2006

#### Brave decisions and actions

Waste management changed and new solutions were needed. The first slow speed shredder was introduced in 2006.

We wanted to be one step ahead with IoT and decided to equip our machines with intelligence. TANA ProTrack® was launched.

#### Intelligence

# 2024

#### From Waste to Value

By developing our brand, we want to inspire both our staff, partners and customers to do their best in an easier and more efficient way.



