



Model ST-500H Tire Shredding System, Helsinki, Finland

Shredder on the go . . .

Innovative new technology for mobile shredding

Shred-Tech has recently delivered Europe's largest Mobile Tire Shredding System to Sakkivalene Oy of Finland. The system is designed to shred not only car, truck, and off-road vehicle tires, but also other wastes such as metal drums, wooden skids and pallets, assorted bulky wastes and demolition debris.

Sakkivalene is Finland's largest environmental management company with core businesses in the waste management, maintenance and professional cleaning and property supervision businesses. Sakkivalene commissioned Shred-Tech to manufacture a shredding system that would be both portable and versatile. All tires, from car to off-road, had to be reduced to a 2" (50mm) chip size. Also, it was required that a minimum of labor be used and the system be able to operate in Finland's harsh winter conditions. Lastly, the system being mobile, had to meet Finnish and European road regulations as well as the CE safety regulations now mandatory in the European Common Market.

The solution, as proposed by Shred-Tech, is the Model ST-500H Hydraulic Shredder mounted on a custom designed transport trailer outfitted with auxiliary equipment including a rotating crane with grapple and a stowable discharge conveyor. The system is powered by a Shred-Tech diesel hydraulic power unit utilizing a CAT Diesel Engine. The ST-500H Shredder is capable of reducing tires weighing up to 1,800 lbs. (820kg) as well as a wide variety of other bulky wastes. Weight restrictions on the mobile shredding unit required a second trailer be provided for the classification of tires to produce a 2" (50mm) chip. Close

coupling the custom designed secondary transport trailer to the ST-500H trailer provided a closed loop tire processing system discharging 2" (50mm) tire chips. When the customer requires a coarse shred, or to reduce bulky wastes, the shredding system can be quickly and easily disengaged from the classifier trailer. The CAT Diesel Engine powers not only the shredder but also the separate classification system.

The throughputs required for the ST-500H System were 9.35 tons (8.5 tonnes) per hour to a 2" (50mm) sizing. When not close coupled to the classifier, the coarse shred provided by the ST-500H System was to be at a rate of 14.3 tons (13 tonnes) per hour of assorted tires. Both throughputs were surpassed.

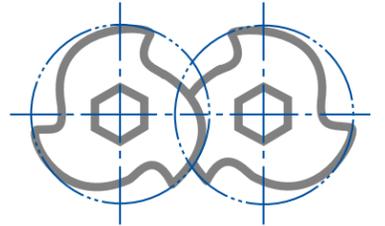
Similar mobile units to the ST-500H have been previously manufactured by Shred-Tech. This, however, is the first system where a second trailer has been coupled to provide a predetermined 2"(50mm) tire chip. The significant throughputs achieved by the Mobile ST-500H Tire Shredding System, along with the minimum amount of set-up time (15 minutes) means a scrap tire processor may now be able to economically reduce old tire piles on site to a size suitable for onward processing.

Shred-Tech has invested significant engineering resources into this new system to meet not only road regulations throughout the world but also to achieve the durability necessary to reduce large volumes of tires for long periods of time. The ST-500H Shredder is a rugged industrial machine currently used to process other difficult items such as hazardous waste, municipal waste and scrap metal.

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The SHREDDER



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Tire Shredding Research Continues

A twenty year history of investing in research and development, a successful record of innovation, and quality manufacturing have given Shred-Tech Engineers the foundation to design the most efficient and advanced tire shredders available today.

Shred-Tech Tire Shredding Systems are available in stationary or transportable arrangements. Diesel hydraulic,

electric hydraulic, and electro-mechanical drive systems up to 1000 HP can produce in excess of 240,000 lbs. of knife tip cutting force. These high knife tip forces allow for the efficient reduction of truck and large off-road vehicle tires. Complete tire shredding systems are designed to meet each customer's specific installation and application requirements. In-house engineering and manufacturing of shred-

ders, material handling conveyors, classification systems, and electrical controls, ensure that the customer has a single source supplier responsible and accountable for their tire processing needs.

Shred-Tech stationary tire shredding systems incorporate several design advancements which make system maintenance easy, quick and safe. (Continued from page 1)

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Examples include sleeved bearings, torsion box cutting chamber design, and proprietary knife stack tightening system. Bulk head walls and steel labyrinths provide extra bearing and seal protection. Machined hexagonal shafts facilitate easy knife removal, while the overall machine design allows for cutting chamber disassembly without having to remove the shredder's feed hopper.

Shred-Tech Transportable Tire Shredding equipment can be supplied with bulk handling systems to minimize on-site labor costs. These bulk handling systems usually consist of crane with grapple that can feed up to 10 tires at a time into the shredder. The ST-150H Transportable Tire Shredding System includes diesel hydraulic power unit, crane and grapple,

shredder, classification equipment and materials handling conveyors. The system is fully mounted on a tri-axle transport trailer and can process up to 6 tons per hour of car and truck tires to a 2" (50mm) tire chip size. Larger transportable units are available, but due to weight restrictions, the classification equipment is usually supplied on a separate transport trailer.

Quality of workmanship and attention to design detail is evident in all aspects of Shred-Tech's comprehensive line of Tire Shredding Systems. State-of-art electrical controls are included with all systems. With installations in Asia, North America and Europe, Shred-Tech is the world's leader in heavy duty, industrial tire shredding equipment.

Shred-Tech A TWENTY YEAR SUCCESS STORY

Shred-Tech's team of professional engineers and technologists are experts not only in reduction technology, but in machine design, metallurgy, electronics, pneumatics and hydraulics as well.

Shred-Tech's in-house control of design, fabrication, machining, PLC Controls and assembly assures quality

"SHRED-TECH Shredders hold up where others don't! It's a proven fact"

Norvill Brown, Tire Shredders Inc.

products manufactured on time. A full parts inventory for all Shredders and Tire Shredding Systems is available for next day delivery. Service representatives are on stand-by around the clock to respond with advice, direction or on-site visits.

Business today is competitive in both quality and price. Shred-Tech will match or better all competitors' prices as long as it does not compromise quality.



ST 150E Tire Shredding System Reduces Automobile and Truck tires to a 2" minus chip size @ a rate of 6TPH

TIRE FACTS

Did you know that

One car tire weighs 22 lbs (10 kg)
One truck tire weighs 80 lbs (36 kg)

and that in one cubic yard
you can put

10 car tires or
3 truck tires or
33 shredded car tires (single pass) or
7 shredded truck tires (single pass) or
47 shredded car tires (2" chip)

and did you know that

Tire-derived-fuel (TDF) chips offer users a higher energy value than coal or wood chips, and have little or no adverse effect on air emissions

Source: US EPA Markets for Scrap Tire Report



Shred-Tech Has Global Impact

SHRED-TECH shredders can be found from Texas To Malaysia

As well as the United States and Canada, Shred-Tech has systems successfully operating around the world including the United Kingdom, Europe and the Pacific Rim.

The ST-500H Hydraulic tire shredding system c/w conveyors and classifier (above) is producing 2" fuel chips for the European market.

Technical Specifications

Shredder	ST-100E ST-100H	ST-150E ST-150H	ST-200E	ST-200EL	ST-500H	ST-500HL
Drive	Electric or Hydraulic	Electric or Hydraulic	Electric	Electric	Hydraulic	Hydraulic
Cutting Chamber	60"x32"	60"x40"	75"x43"	96"x43"	75"x43"	96"x43"

Estimated Throughput - Tons per Hour (TPH)

	ST-100E ST-100H	ST-150E ST-150H	ST-200E	ST-200EL	ST-500H	ST-500HL
Single Pass	8	10	15	20	15	20
2" minus	4	6	7	8	7	8
Auto	X	X	X	X	X	X
Truck		X	X	X	X	X
Off-Road					X	X

Note: Dual Shredder Systems are available for 2" minus throughput rates in excess of 10 TPH.