

TS-Series Passenger Tyre Shredding Systems

**Patented
Technology**



**TYRE SHREDDERS
UK LIMITED**



The **TS50** Passenger Tyre Shredding Systems are the only machines offering comprehensive removal of all tyre wire in a single pass machine.

Giving an output in the region of 500kg/hr of virtually wire-free 20mm rubber chip, the TS50 system is a cost effective solution to tyre recycling for the established player or for new venture companies alike. With a wide market available for the rubber product, especially in the equestrian market, payback of your investment can be realised in surprisingly short periods of time.

TS50 Passenger tyre shredder.

This is where whole tyres are processed in one step and wire free rubber is produced. 95% of the tyre rubber is liberated in the process as finished product.

Discharge conveyor belt.

The discharge belt is of substantial design and takes all of the clean rubber and wire from the TS machine and transfers it to the final separation stages. The whole system is fully intergrated.

Over Band Magnet.

The Over Band Magnet is responsible for removing the majority of the liberated steel away from the conveyor belt surface and depositing it in a suitable skip or bin. The unit is guarded for safety and to contain all wire in one area.



Rare Earth Drum Magnet/Discharge chute.

The Rare Earth Drum is the final separation stage of the process. Any ferrous materials not detected in time by the Over Band will be rejected here. This ensures that the final 20mm rubber is clean and safe for use in the markets such as equestrian and childrens play areas.

Included in the TS50 system with the four-rotor shredder is a water spray bar to dose water in to the hopper for improving product quality and productivity, discharge conveyor belt for transfer of your 20mm rubber chip to bulk container or bag and over band and rare earth drum magnets for removal of all wire after the shredding process.

With the additional option of the **TP Series** pre-shredders, TSUK can raise output by as much as 30% in order to really reap the rewards of your investment. Alternatively, pre-shredding and debanding will allow processing of commercial tyres in the TS100 system.

The **TP Series** pre-shredders offer quick and easy volume reduction of passenger tyres to complement our TS Series passenger tyre shredding systems.

TP300S Pre-shredder



With outputs in the range of 1,000 kg/hr up to 8,000 kg/hr, the TP Series offer rough shredding of passenger and truck tyres in front of our TS50 and TS100 systems in order to increase output by as much as 30%. In addition, with a high percentage of the workload taken up by the TP machine, cutting disc life in the TS machine can be increased by up to another 20% offering reduced down time and lower maintenance costs.

The TP Pre-shredder can be fully integrated in to the TS system control and is supplied with a heavy-duty transfer conveyor belt to automatically keep the TS system topped up with pre-shredded rubber.



TP300S/TS100 System

The TP300S/TS100 System is a high capacity alternative to the revolutionary TS50 Passenger Tyre Shredder. Designed for volume, this system incorporates the TP300S pre-shredder and TS100 four shaft shredder.

Giving an output in the region of 1000-1300kg/hr of virtually wire-free 20mm rubber chip from passenger tyres, the TP300S/TS100 system is a cost effective solution to tyre recycling at high volume. Twin and triple lines are available, with bi-directional in-feed conveyors automatically feeding all TS100's. This allows processing of over 5 tonnes per hour of passenger tyres with the TS100 Triple system. (With TP600H pre-shredder.) Additionally, use of our DB30 debeader allows processing of truck and super-single tyres producing about 800 kg/hr of finished 20mm rubber chips.

DB30 Tyre Debeader



Truck Tyre Bead Wire



TS-Series Passenger Tyre Shredding Systems

- 99.9% of the wire is removed during the shredding process.
- Auto-reverse facility ensures seamless operation with minimal operator involvement.
- Virtually wire-free product suitable for equestrian markets or granulation.
- Low speed ensures high torque performance coupled with low noise emissions (79dBA).
- Liberated steel is potentially a saleable bi-product.
- Further downsizing to <4mm is possible with our **GS Series** granulation plant.
- Full service and support team for commissioning, installation and service contracts.

TS-Series Passenger Tyre Shredding System Specification

	TS50	TS100 (Combined with TP300S)
Hopper Opening:	1418mm x 1330mm	1500x1500mm
Hopper Configuration:	Standard with Water Spray Bar	Standard with Water Spray Bar
Machine Opening:	960mm x 700mm	1040x1200mm
Rotor:	4-Rotor, Double hook cutting arrangement	4-Rotor, Double hook cutting arrangement
Rotor Length:	960mm	1040mm
Rotor Speed	28 RPM	23/25 RPM
Screen Size	20mm	20mm
Motor size	2 x 30 kW	2x22kW + 2x30kW
Weight:	Approximately 5,000 kg	Approximately 8,000 Kg's
Estimated Output for application:	500 kg/hr on whole passenger tyres, up to 650kg/hr on pre-shredded passenger tyres.	1,000-1,300 kg/hr on pre-shredded passenger tyres.

TP Series Pre-Shredders

- Efficient pre-shredding of passenger tyres (Also truck and agricultural tyres on certain models).
- Can be fully integrated with TS shredding system for easy operation.
- Increase TS system output by up to 30%.
- Reduce maintenance costs and downtime of your TS system.
- Auto-reverse facility.
- Discharge conveying system included.

TP-Series Pre-Shredding System Specification

	TP100	TP300	TP300S	TP600H
Hopper opening (mm)	1300x1400	1400x1700	1235x1150	1500x2000
Cutter Chamber opening (mm)	820x685	1315x700	1235x990	1505x1100
Motor Power	2x18.5kW	50kW	2x37kW	2x37kW
Approx. Output	1500 kg/hr	3000 kg/hr	3000 kg/hr	5000 kg/hr
Tyres accepted	Passenger/4x4	Light commercial	Super-Singles	Super-Singles
Machine weight	2,500 kg's	5,000 kg's	8,840 kg's	12,000 kg's

NB: [1] Machine outputs are based on passenger tyres only. Output on larger tyres will be reduced.

[2] TP300S and TP600H are hydraulic drive machines.

[3] TP300S will process debanded super-singles.



9 Darwin House Corbygate Business Park Priors Haw Road Corby Northamptonshire NN17 5JG
 Telephone +44 (0) 1536 206470 e-mail: info@s4r.co.uk website: www.systems4recycling.com