



# Gradeall

INTERNATIONAL LTD



## OTR TYRE DOWNSIZING EQUIPMENT

The Gradeall OTR downsizing equipment range is an affordable solution to end of life OTR (Off The Road) tyres. With an estimated recovery rate of just 11% there are a significant number OTR tyres worldwide that are not correctly disposed of, typically just taking up valuable space presenting a health and fire hazard.

Looking at the main challenges of recycling OTR tyres i.e. their size, weight and how harsh they are on shredders we developed 3 machines that effectively downsizes these tyres into easy to manage sub 25Kg segments.

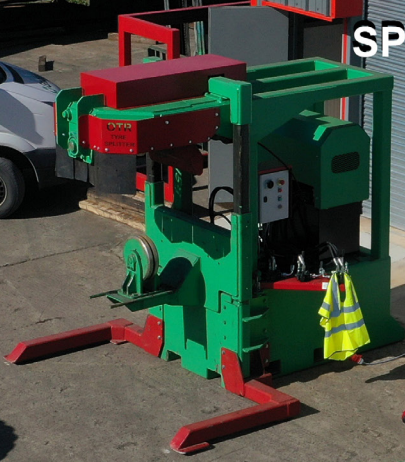
The first step in OTR recycling. With it possible to bale these segments in a conventional tyres baler all of the recycling options open to car tyres become available as the tyres can now be easily transported to go on towards shredding, or pyrolysis.

Reduce on site storage concerns, we found that it was possible to bale 5 OTR tyres into one PAS108 sized bale, obviously exact numbers vary depending on the source tyre but it still represents a massive reduction in volume. Transport costs are therefore much lower further encouraging sustainable recycling of these tyres.





**OTR  
SPLITTER**



**OTR  
SIDEWALL  
CUTTER**

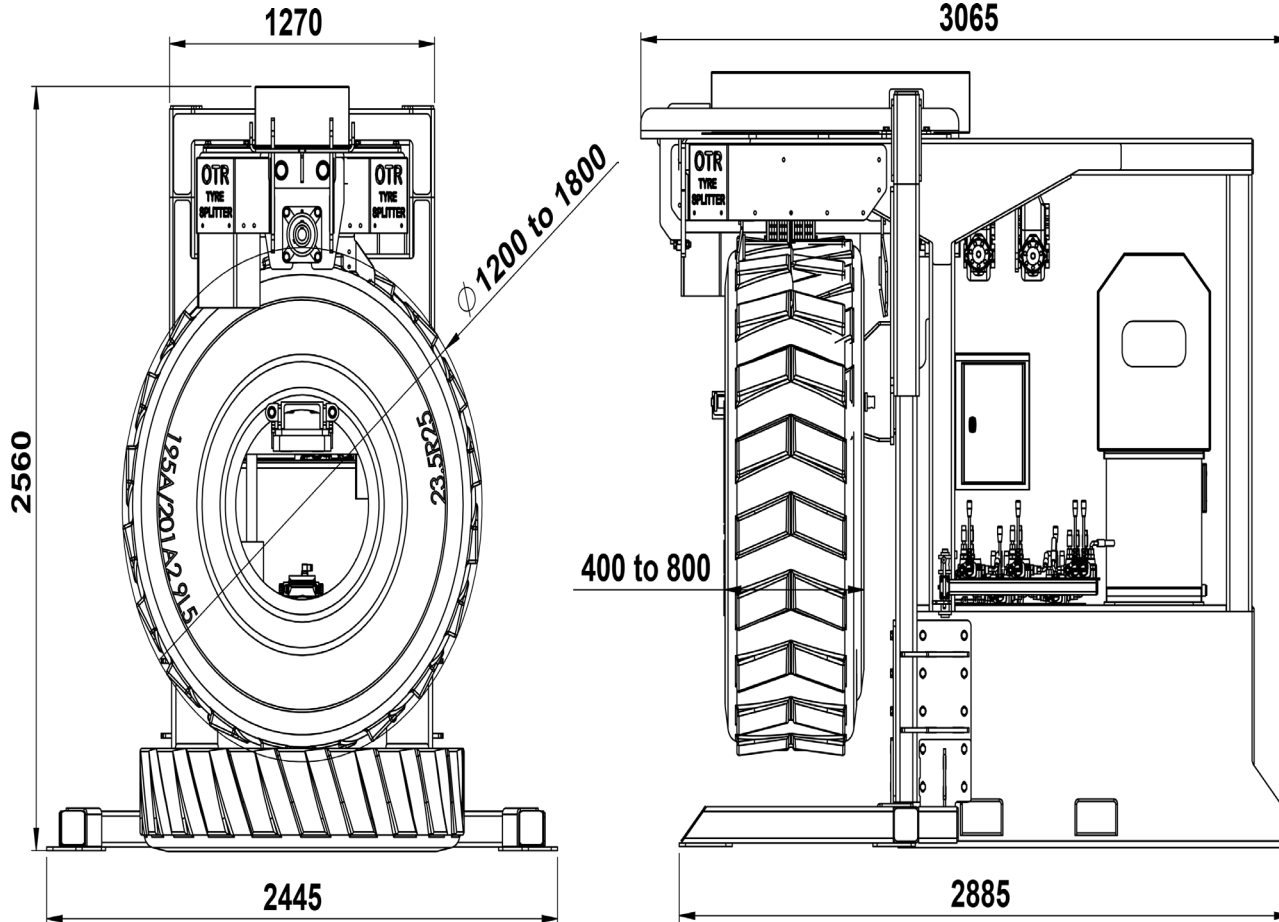
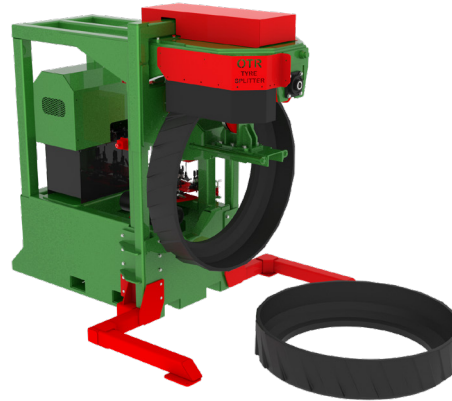


**OTR  
SHEAR**



# OTR Splitter

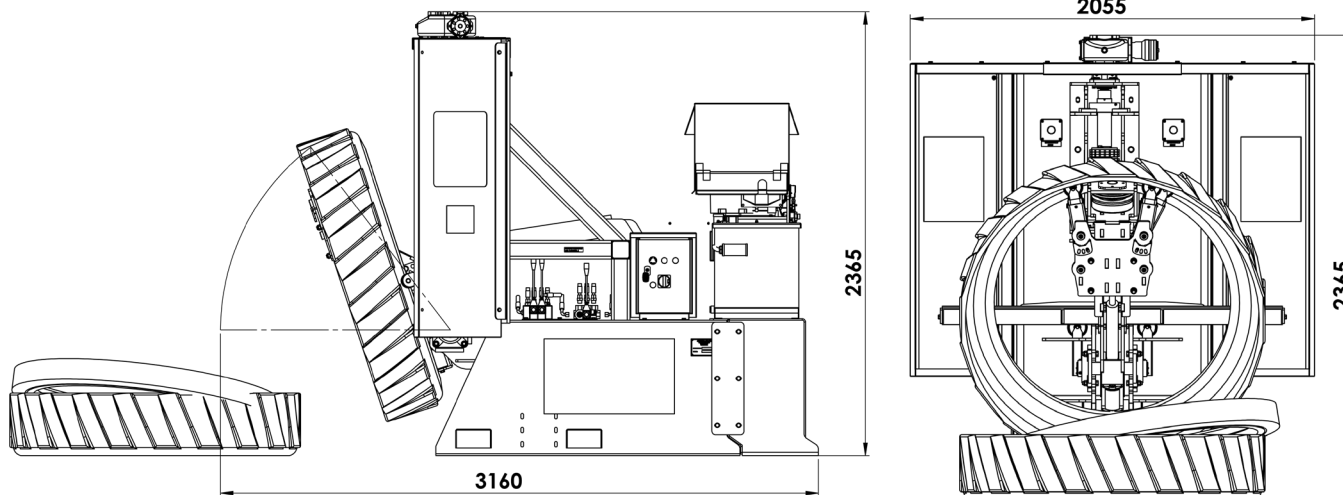
The first step in the process. The OTR splitter. A forklift brings the tyre to the OTR splitter which cuts the tyre in half. Thanks to a specially designed blade and alignment system the tyre is cut in two equal halves along the middle of its tread section.



Model	OTR Splitter
Weight (Kg)	3650
Power Supply	415v 3 Phase

# OTR Sidewall Cutter

The second stage is to bring the halves of the tyre to the OTR sidewall cutter. This machine cuts the sidewalls out of the tyres. This isolates the bead section which is the part that causes most problems for shredders. The sidewall cutter can actually take a second cut from the sidewall close to the bead if required.

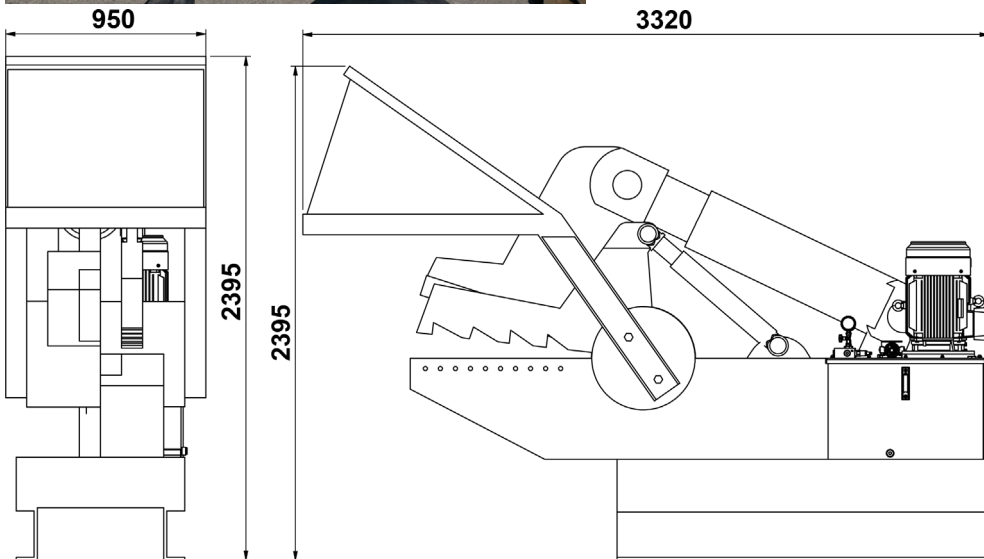
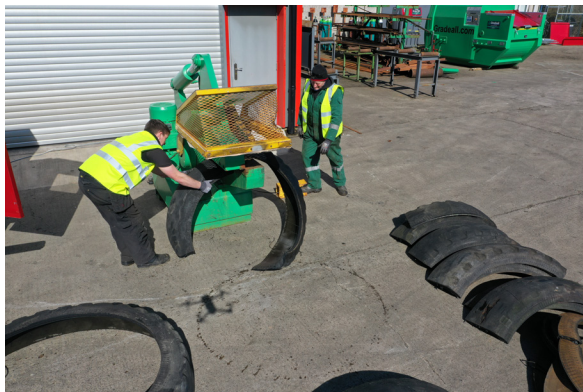
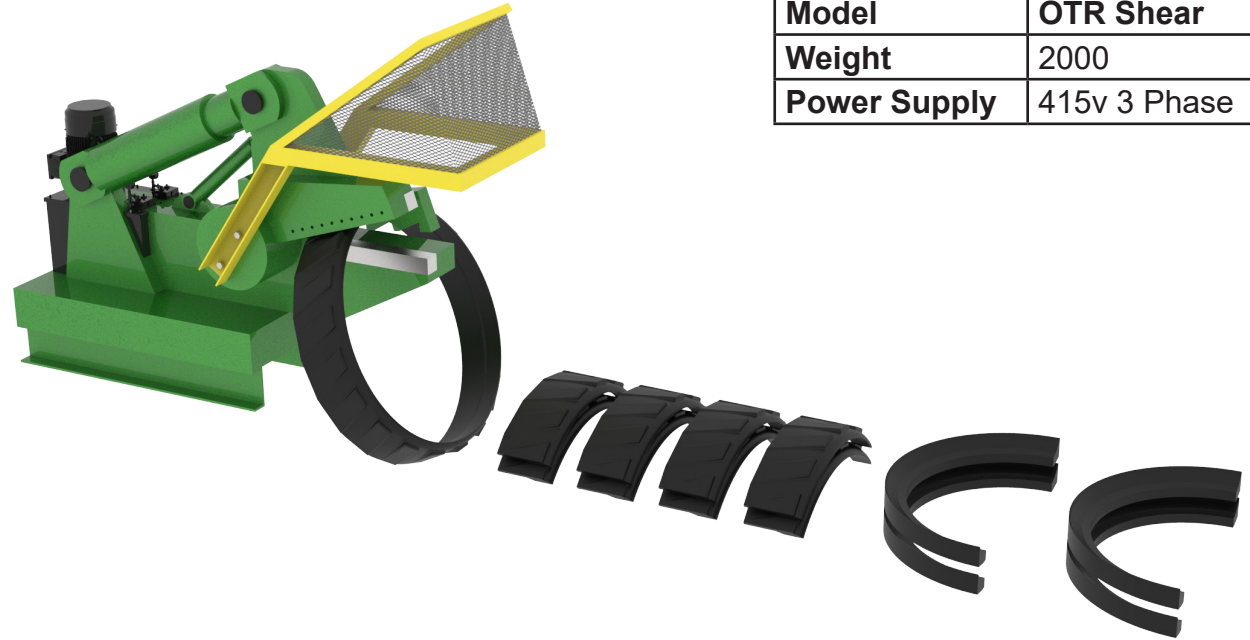


Model	OTR Sidewall Cutter
Weight (Kg)	2250
Power Supply	415v 3 Phase

# OTR Shear

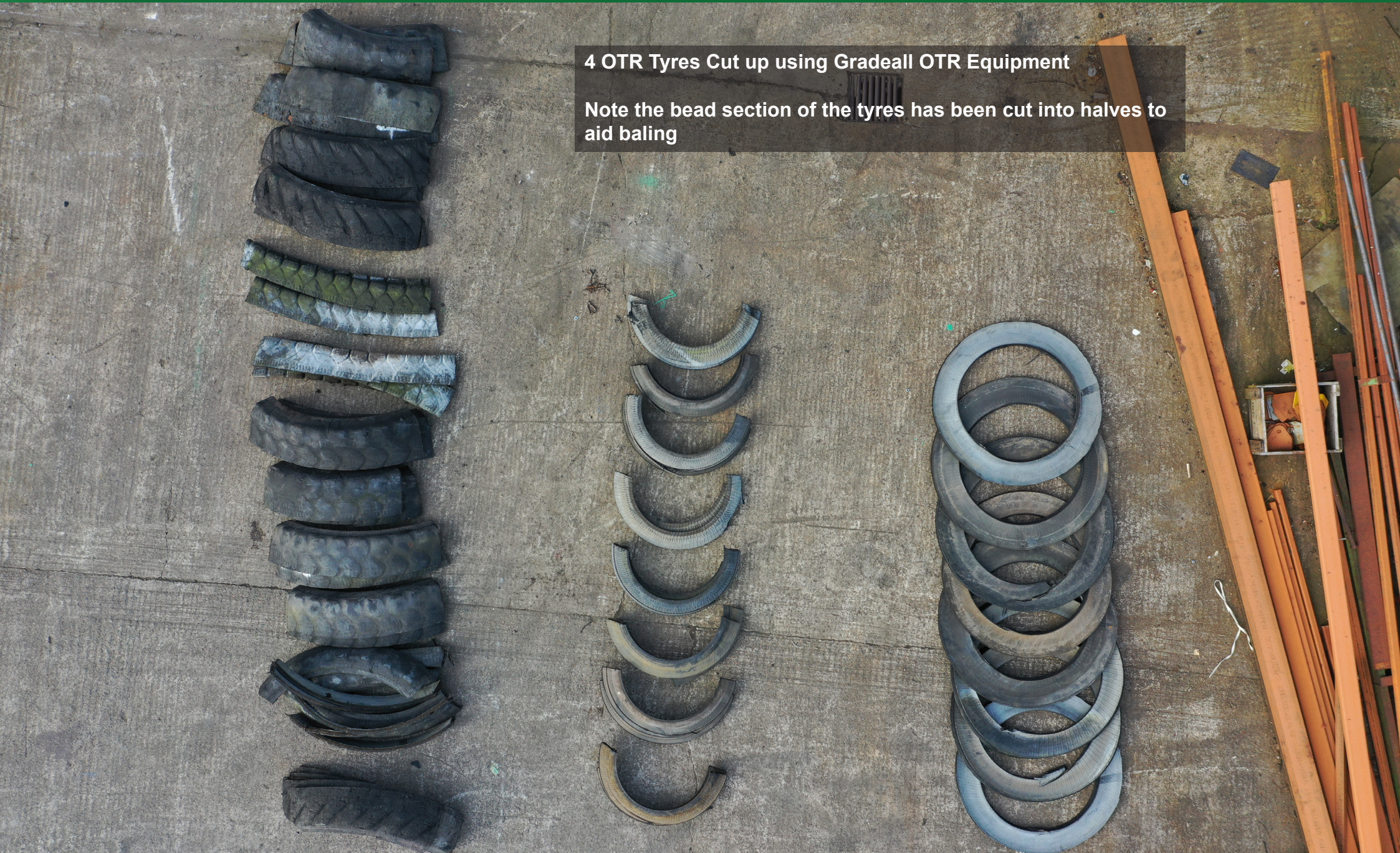
The final stage is to use the OTR shear to cut the tyre down into smaller segments, the tread sections first which are the easiest to cut. This is followed by the sidewalls; the shear is sufficiently strong to cut through the bead of these tyres. Even when cut in half they are now much easier to handle.

Model	OTR Shear
Weight	2000
Power Supply	415v 3 Phase



4 OTR Tyres Cut up using Gradeall OTR Equipment

Note the bead section of the tyres has been cut into halves to aid baling



# Baling OTR Tyres

Based on experience gained from baling truck tyres after using the Sidewall cutter Gradeall have tested OTR tyre segments in the MK2 tyre baler. Which bale very well.

It is possible to fit 5 OTR tyres into one PAS108 sized bale, depending on OTR tyre size. This represents a huge volume reduction and provides a simple way to provide cheap and efficient transport of scrap OTR tyres to shredders or pyrolysis plants.







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