

TONUTTI GROUP

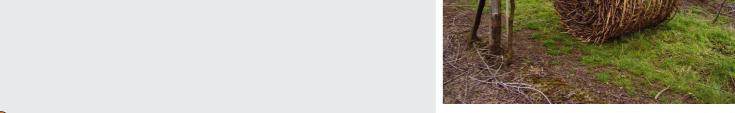


- Biomass residue from farming accounts for a considerable amount of wood waste that is not currently being properly recycled.
- Recovery of prunings for use in energy generation can provide farmers with a significant source of additional income and solves a major waste disposal problem.
- The recovery process for pruning residue consists essentially in treatment of residue farming biomass (prunings) through shredding and drying in order to obtain biofuel (wood chips) which can then easily be used by the farmer or marketed.

THE WOOD CHIP UTILISATION CYCLE IS DIVIDED INTO THE FOLLOWING PHASES:

BALING OF PRUNINGS

Baling is the most efficient way of harvesting small diameter wood waste.



STORAGE AND DRYING OF THE BALED VINE PRUNINGS

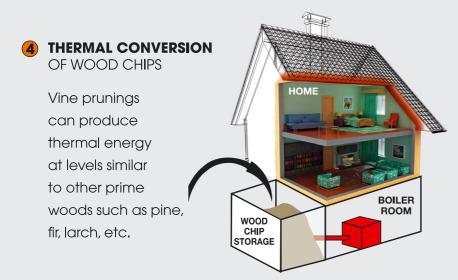
A round bale of vine prunings does not rot, may be stored and left to dry outdoors, can be burned in any industrial furnace, can be shredded for chips and can be moved more easily than bales of smaller dimensions.



3 WOOD CHIPS

An interesting solution is a mobile shredding unit that can be moved to the bale storage site.







The R98 is a fixed chamber round baler equipped with chains and shafts that has been on the market for some years and which in addition to its traditional use for baling forage has also proved particularly useful for baling vine and orchard prunings.

This model forms bales 1200 mm in diameter and 980 mm in width. The compact dimensions of the baler (1850 - 2000 mm depending on the tyres fitted) mean that it is ideal for use in vine/orchard rows of 2500 - 2800 mm.







ADVANTAGES							
1 MATERIAL - SPECIFIC PICKUP	DESIGNED SPECIFICALLY FOR WORKING WITH PRUNINGS AND TRIMMINGS						
2 SIMPLE AND ROBUST MACHINERY	GUARANTEED RELIABILITY WITH VERY LITTLE MAINTENANCE. NO SPRINGS SUBJECT TO BREAKAGE						
3 MAXIMUM EFFICIENCY	WITH FORCE-FEEDING FROM FIRST METRES OF WINDROW PICKUP						
4 HIGH PRODUCTIVITY	OPERATING AT STEADY WORK RATE WITH LOW POWER CONSUMPTION						
5 BEST SOLUTION FOR BALING WOOD WASTE	DUE TO BALER FEATURES WITH CHAINS AND SHAFTS						
6 COMPACT SIZE	BALER MEASURING UNDER 2 MT WIDTH ALLOWS OPERATION INSIDE WINE/ORCHARD ROWS OF 2.5-2.8 M.						

1 FIXED TOOTH ROTOR

The rotor is made up of a large diameter tube which allows prunings to flow upwards towards the compression chamber. Special materials are used for the teeth in order to ensure high levels of resistance and surface hardness. The teeth are arranged in a spiral and converge towards the centre in such a way that the bale does not put excessive load on the walls of the compression chamber during formation. The tooth is geometrically designed in order to aid pickup of material from the ground and easy passage to the compression chamber. Another tooth feature is the specially bevelled point which ensures that material trapped in the grill is cut.



2 SIDE FEEDERS

These are placed vertically at the sides of the baler. They have lower flexible teeth which help to convey the material into the baler. This avoids build-up of material along the side of the baler and allows pickup of prunings outside of the pickup track.



3 GRILL

A grill is situated behind the rotor and feeds the material from the pickup to the compression chamber. Its other important function is to keep the rotor clear and avoid tangling and knotting of material. This system limits clogging and enhances machinery performance.



COLUMBIA R98 ENERGY TECHNICAL DATA												
Length	Width	Height	Weight	Track width		Min. power requirements		Tyres	Bale size	No. bars		
13′8″	6′ 7″	6′ 5″	4244 lbs	5′7″	from 66′ 3″ to 6′ 7″	38/50 kW/hp	540 rpm	11.5/80 15.3 PR	4' x 3' 2,5"	32		

Technical data not binding and subject to change.



