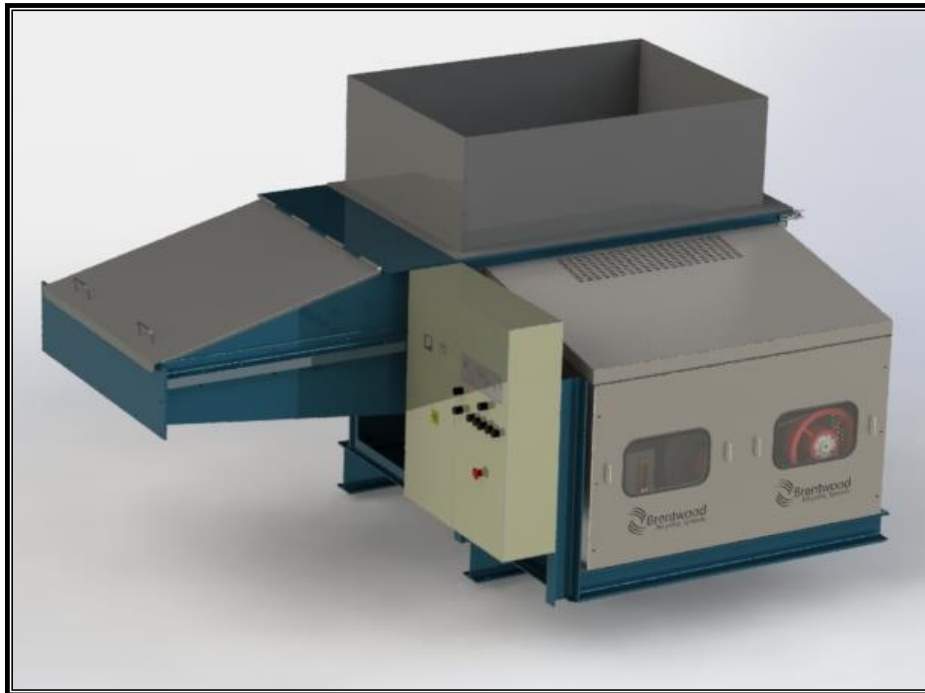


Product Information

Brentwood Single Shaft Shredder BWS400-1250



Machinery Description

The **Brentwood Single Shaft Shredder Model BWS 400-1250** is supplied to the following specification.
The shredder consists of the following:

1. A **BWS 400-1250 Brentwood Shredder** –fitted with 30mm square cutters, 1250mm over cutting chamber. Up to 128 cutters are bolted to the 400mm diameter rotor and positioned to cut through a fixed blade. The fixed blade and cutters are replaceable. The cutters can be rotated to provide 4 different cutting edges.
The rotor is powered by a 55kW electric motor driving a gearbox mounted on the rotor via a belt arrangement.

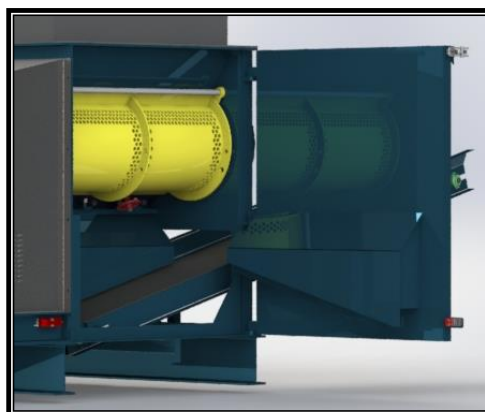


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A **screen under the rotor** sizes shredded material. The standard screen size is 40mm diameter but this can be varied as required. The screen is pivoted and can be swung out to allow un-shreddable material to be removed. After the screen shredded material drops onto the discharge conveyor
The machine casing is wire brush cleaned and then painted in a 2 pack epoxy paint system.



2. **Pusher Platen** to push feed material towards the rotor. The platen continuously cycles back and forth to provide a continuous feed of material to the rotor. The top of the platen is a flat steel plate enabling new material to be loaded in while shredding continues.

3. **Cover with bolt in access doors** to protect operators from all drive-train moving parts. The access doors are inter-locked to provide safe access to the drive-train components, which include rotor motor, gearbox, drive belts and hydraulic power pack. The cover provides visual inspection of the drive belt while shredding and incorporates ventilation vents for motor cooling.



4. **Control panel** to Brentwood design including PLC. Provision of and connection to 415V supply is not included.

The control system includes:

A “No-load Bridge Break” function.

If the current draw on the rotor motor drops below a preset level for approx 20 seconds, the pusher platen will stop and go in the reverse direction. When this happens material in the hopper is rearranged and when the pusher platen returns in the forward direction, shredding should recommence.

A “Jam Over-time” function.

If the pusher platen has not reached it's end position in approximately 60 secs the rotor will stop and the pusher platen will return to the home (or rear) position. Under these conditions it is assumed a large piece of material has jammed and needs removing from the infeed hopper.

Conforms to a Category 3 Safety rating

5. **Hydraulic Power Pack** for pusher platen.
6. **Infeed hopper**

Refer to Drawing 8270 for General Arrangement detail

Specifications

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Single Shaft Model BWS 400-1250 Shredder Specification

Rotor Drive Motor	55 kW Fully Enclosed, Fan cooled	4 pole	IP55
Full Load current	92 amps		
Starting current	92 amps	Star / delta start	
Overload Current	184 amps	(Overload current level machine is stopped)	
Voltage	415 Volts		
Frequency	50 Hz		
Cutting Chamber	1250 mm wide	1800 mm long	(hopper opening)
Rotor	444 mm diam over cutters	90 RPM	Solid high tensile semi-killed carbon steel, machined gooves with machined tool holders welded into rotor
Cutting Knives	30 mm square	Qty upto 128 cutters	H13 tool steel through hardened to approx. 52 Rc Bolt in replacable and rotateable to provide 4 cutting tips
Fixed Cutting Blade	H13 tool through steel hardened to approx. 52 Rc, fixed by bolts Replacable and rotateable to provide 2 cutting edges,		
Secondary fixed blade	H13 tool through steel hardened to approx. 52 Rc, fixed by bolts Replacable and rotateable to provide 2 cutting edges,		
Screen under cutters	Pivoted for maintenance protected by shear pins		
Pusher Platen	Hydraulic actuation to automatically cycle in and out while rotor running Flat top allows loading on top of platen while shredding Stroke 1240mm		
Hydraulics Power	5.5 kW for operation of pusher platen Double acting 24VDC solenoid, with "soft-shift" valve action Air blast cooler, visual oil level indicator, oil over-temperature switch, 75L tank		
Electrical Controls	Standard Brentwood controls include a Schneider Modicon PLC Provide "Over-current Sensing" function at 200% of full load to shut down rotor Provide "Under-current Sensing" function to enable pusher platen to stop and reverse direction, to assist material bridging and blockages Provide "Jam Over-time" function to shut down rotor and move platen to home position to enable removal of unshredable material. Rotor motion detection and solenoid door lock to ensure safe access to screen and conveyor area Conforms to a Category 3 Safety rating		
Construction	Frame - AS250 mild steel welded fabrication		
Machine weight	7,500 kg (approx - with hopper)		
Discharge	Belt Conveyor 400mm wide x 3.0m long		
Machine dimensions	<u>Incl Hopper & Conveyor</u>	<u>Without hopper or conveyor</u>	
	3670 mm long	3670	mm long
	4340 mm wide	2630	mm wide
	2360 mm high	2360	mm high
Drive	Electric motor via belt driven helical gearbox which is shaft mounted to rotor Rotor speed 90RPM Fully enclosed with safety cover, enabling easy access for maintenance Interlocked with safty switches Covers hydraulic power pack, rotor drive motor, belts and gearbox		
General Arrangment	Refer drawing 8270		

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