

SEED TERMINATOR

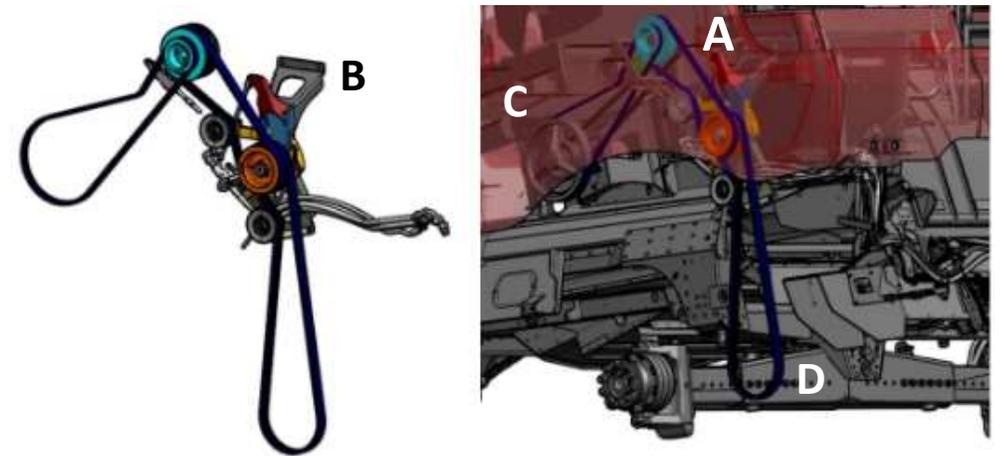
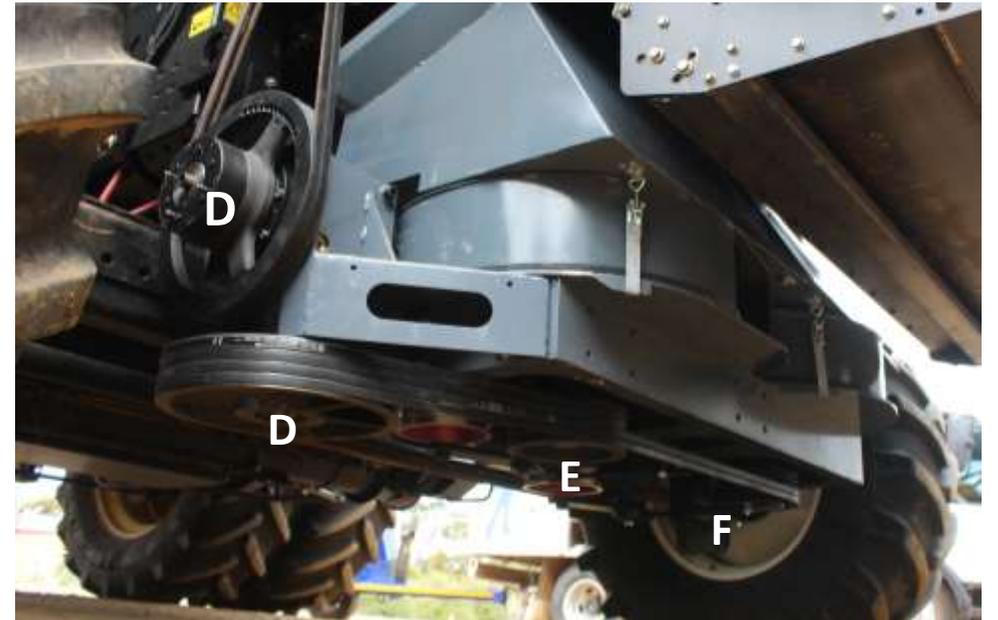
Brief Overview Case IH/Seed Terminator Integration

Seed Terminator Pty Ltd
PO Box 273 Clarendon SA 5157
www.seedterminator.com.au

Drives

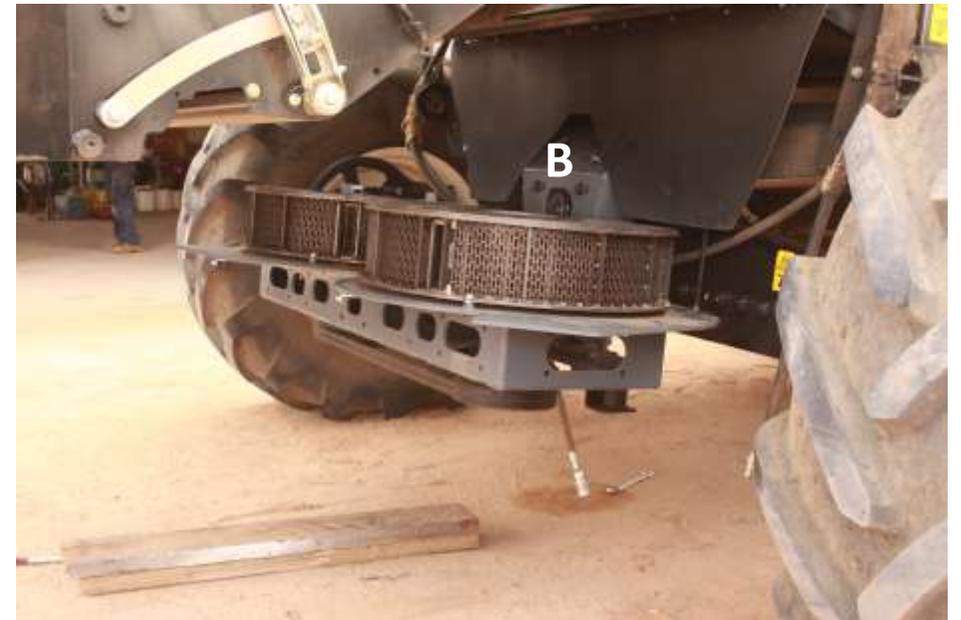
Power is obtained from the main engine gearcase (A) routed through the Case IH Chaff Mill Drive Kit exclusively engineered for Seed Terminator (B), providing power to original OEM drive components (C) while supplying power to the Seed Terminator main gearcase (D). While the main Seed Terminator gearcase (D) supplies power independently to each spindle assembly (E) & (F).

The Case IH drive kit provides the peace of mind of a Case IH designed and engineered driveline.



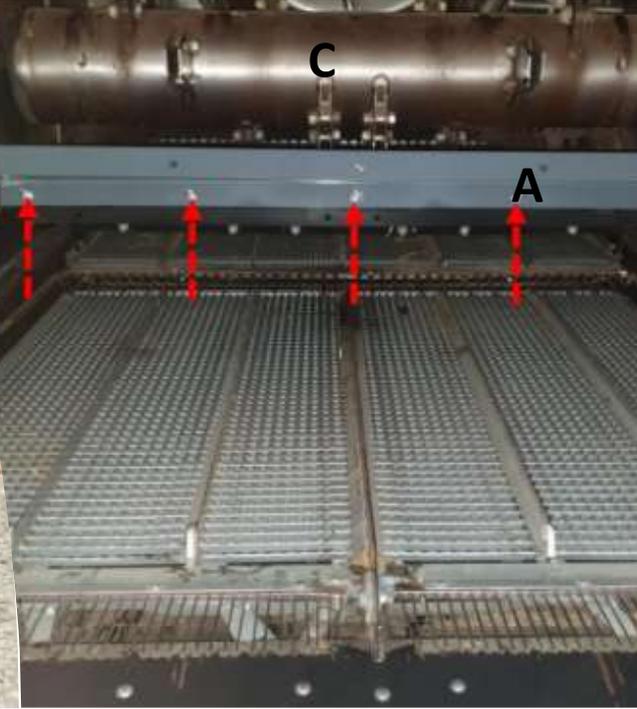
Attachment

The Seed Terminator chassis (A) is attached to the rear hitch (B). This provides a strong secure fitment between the separator body and Seed Terminator chassis, ensuring long lasting reliability of both components.



Internal Baffle

An internal baffle (**A**) is installed into the separator body to assist with the separation between the separator load (**B**) and the cleaning shoe load (**C**). The separator load is routed over the top of the internal baffle to be processed by the OEM residue systems, while the shoe load is fed into the inlet chutes (**D**) of the Seed Terminator for processing.

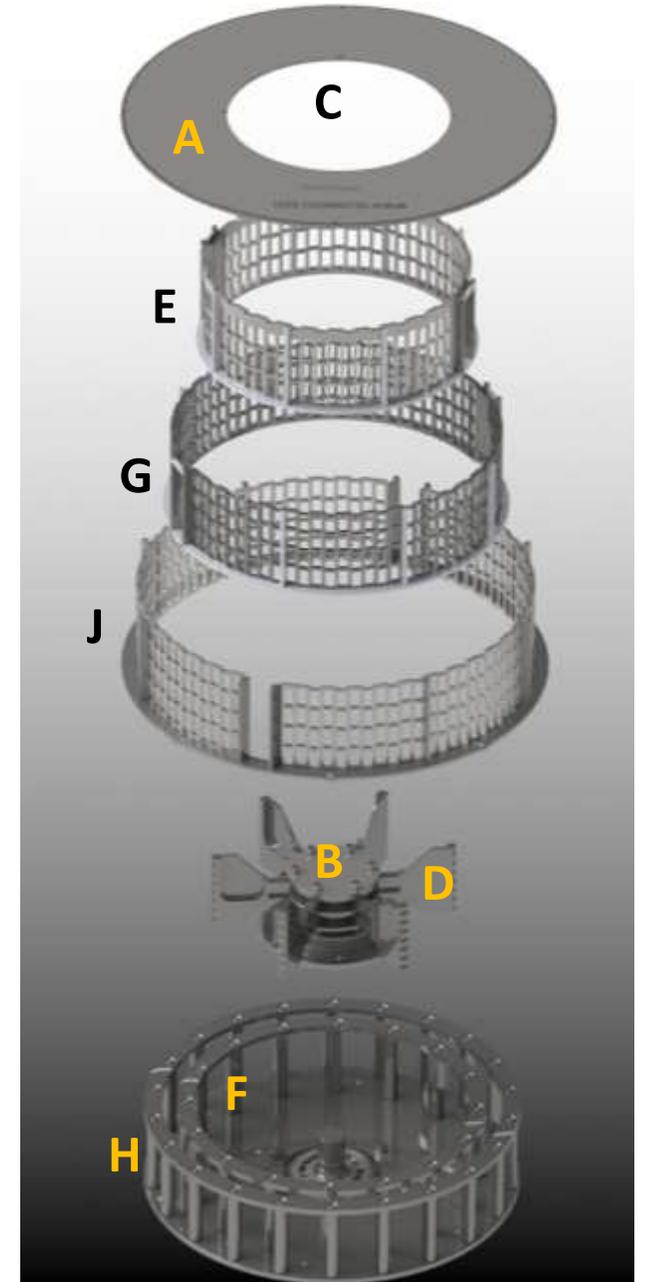


Material Processing



The Multi-Stage Hammer Mill is composed of both stationary and rotating component groups. Stationary (A) being the screen set, which is attached to the main chassis and Rotating (B) being the flails and rotor, which is attached to the hub/spindle assemblies.

The shoe load enters the inlet chutes and is fed into the center of the screen set (C), while the flails (D) start the initial processing of the material as they impact it while pushing it through the inner screen (E) providing a shear, crush, grind & impact process. Once the material passes through the inner screen the inside rotor bars (F) impacts the material while pushing it through the secondary screen (G), followed by the outside rotor bars (H) and screen (J)



Processed Material Exit/Spread

Processed material exits out of both the LH & RH mill outlets (A) & (B) and is spread across the working width (cut width) of the harvester. Whether you're targeting herbicide resistance, reducing green bridging in next year's crop program or stopping the spread of wild oats. Soil health will also be increasing, due to retention of K value and ability of processed particle size to work its way into the soil structure with ease.





The Monitoring System consists of two main operational components and eight sensors. Both main components contain the programs to allow the system to operate. See below for a brief description.

Both the main components (Controller & Display) are located within the operator station. It displays all data vital to the operation of the Seed Terminator including mill rotating speeds, machine vibration, blockage detection in the chaff chutes and temperature sensors for the mill spindles and the main gearbox. Additionally, for maintenance an hour meter with pre-set intervals is incorporated and monitors the usage time of the Seed Terminator in the 'harvester on' mode.

Monitoring

In Field Uptime

Simple yet most effective mechanical drive system on the market. Being 100% belt driven the gearcase is completely isolated from the mills while the mills are isolated from each other = driveline flexibility and decreasing potential downtime.

With a required 1,580-rpm input speed allows the 1:1 ratio gearcase operate slower and more efficiently, therefore does not require the complexity of additional cooling. Gearcase orientation allows for the pinion gear and all bearing assemblies to be submerged in oil, providing optimal lubrication.

To achieve the 2,900-3,000-rpm mill speed the speed increase takes place between the gearcase output sheave and spindle sheaves, which are driven using metric SPB section belts. This allows increased tension over a standard "B" section belt, resulting with power to handle the toughest of conditions.

Spindle design utilizing robust bearing sets, fully supporting the mill assemblies and are lube for life.

Changeover time? 10 minutes per screen set and 30 minutes per rotating group (flails & rotors).

The future-proof tech platform will any accommodate of the latest generation of mill tech or mill options, simply slot in the latest generation of mill tech and go.





Performance That Pays

Our AeroIMPACT 3 Multi-Stage Hammer Mill Technology incorporates a suite of enhanced engineering design requirements for long-lasting performance that pays. While product uptime is always at the forefront of our R&D team.

Aerodynamic heat-treated & tungsten coated rotor bars for even wear, reduced no load power improving overall mill efficiency.

Precision machined from specially sourced Australian Steel in conjunction with a heat-treated these pivotal flails are as tough as they come.

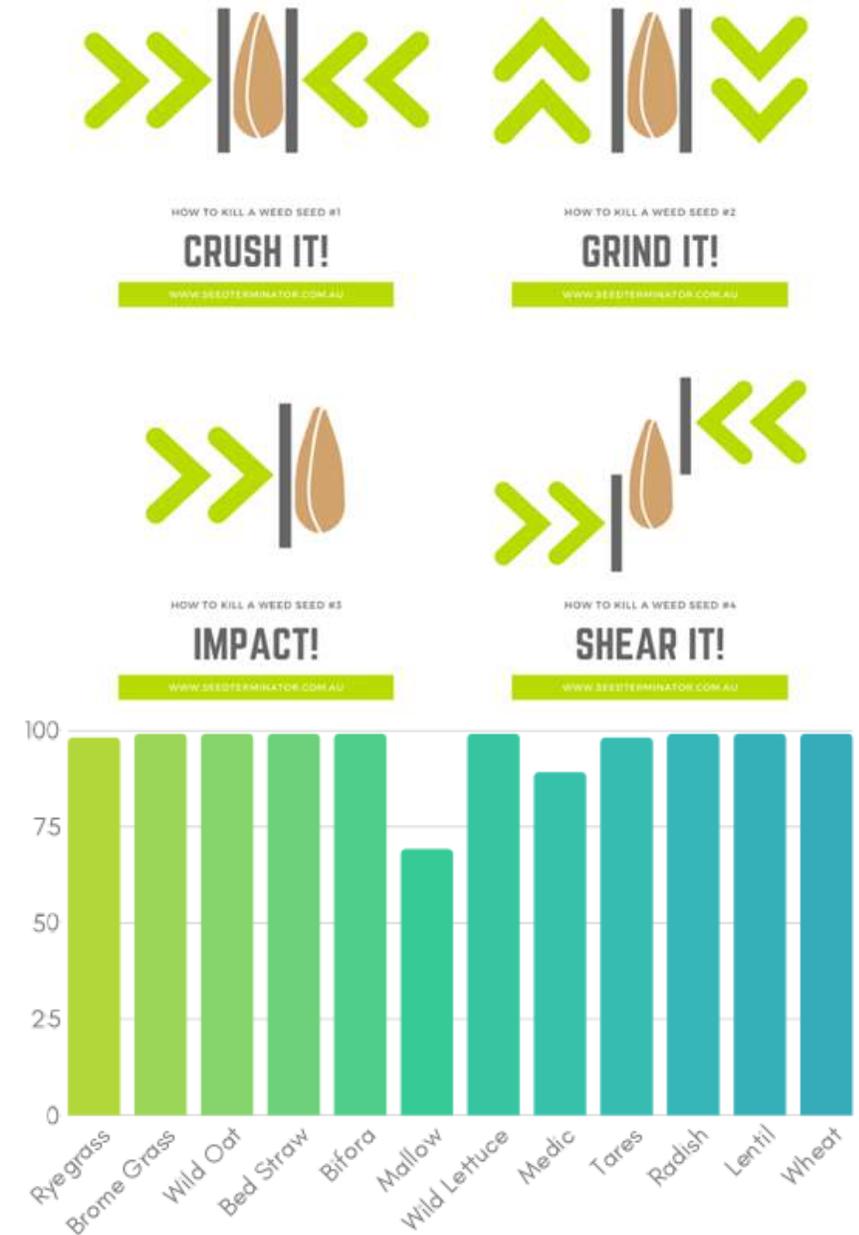
AeroIMPACT 3 screens are proven in-field performers. 60% thicker and made from specially sourced Australian Steel, along with updated manufacturing techniques driving replacement costs down. These screens are made to last and won't break the bank when it comes to replacements.

Expected Life: 1,000 hours for rotors & flails, 500 hours for screen sets*

*both crop type and ingestion of soil can reduce life of components

Why Multi-Stage Hammer Mill

Well the answer is moisture content, seed size and speed. To ensure weed seed kill of up to 99% and the ranging harvest conditions Seed Terminator has come to the market with the patented Multi-Stage Hammer Mill utilizing crush, shear, grind and impact technology to maintain the high rate of kill eradicating the seed bank regardless of RPM range of 2,250-3,000rpm & moisture content.



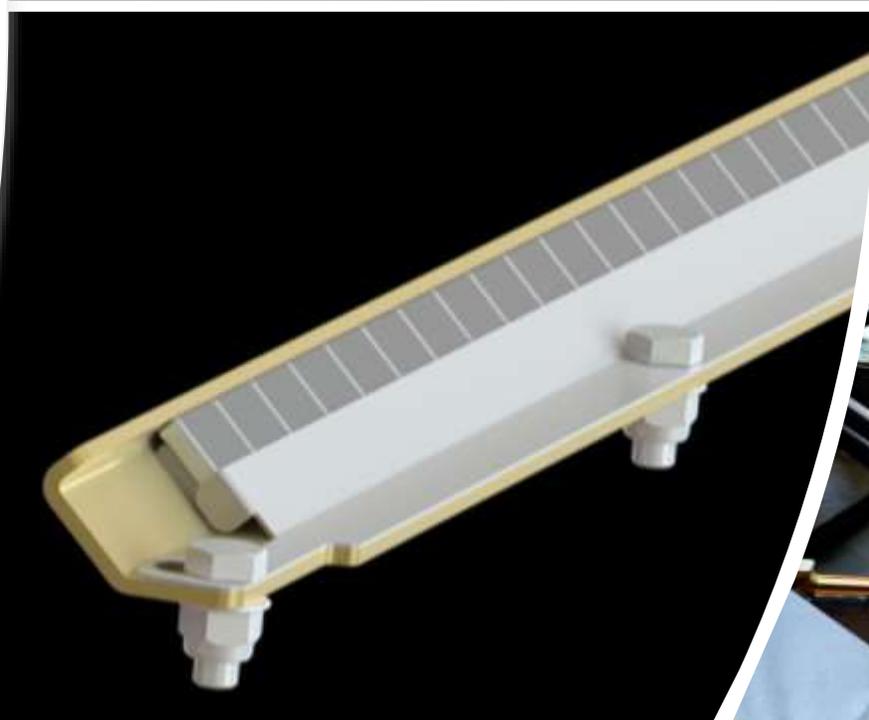
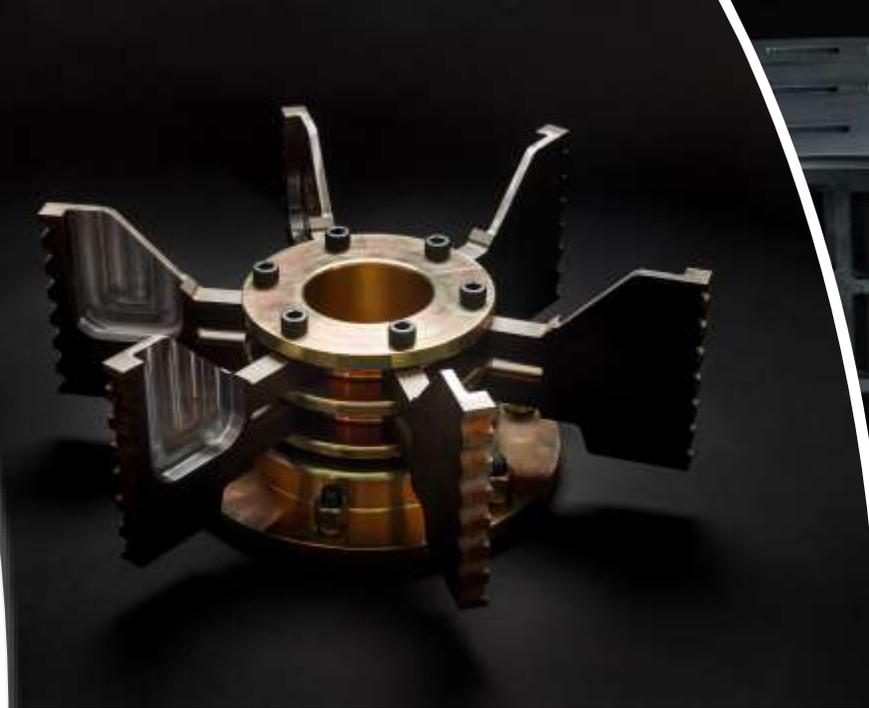
^ South Australian Grains Industry Trust funded research into Weed seed control at normal operating speeds & settings. Stationary efficacy testing for Model Year 2017

Patented Safeguards

It all starts with the Magnet Tray allowing farmers to cut lower with confidence. It contains 79 rare earth magnets each with 9.2kg pulling force, equaling 726.8kg of force to catch ferrous objects that may come across the cleaning shoe. And is a standard on all models for 2020.

Next the pivotal flails allowing for the flail to deflect rather than bend if a large foreign object was to enter the mill.

Built in exit ports to the screen sets allowing for foreign objects to pass if they were ingested, while still providing up to 99% kill of harvest weed seeds.



Mill Technology & Options

High Capacity Screen Set

This screen set has been designed to allow the operator to utilize the Seed Terminator in various crop types, field conditions and farming practices that normally would not permit operation due to plugging. This would include green material growth within standard dry harvesting conditions, i.e. organic farming practices, frosted crop, crop with green plant life while grain moisture is within range i.e. canola. This screen set still provides kill rates between 85-90% depending on both mill speed and weed seed type.

Improved Separator

The improved separator alleviates the mills of short straw intake, as it keeps the two streams of material flow (separator/cleaning shoe) complete separate.



Service Intervals

When it comes to service intervals, we were able to meet the demand of the original customer focus group with no daily grease points and designing all components to be easily handled by the dealer technician or end user. Daily maintenance consists of verifying mill drive belt tensions and cleaning loose material from the chassis, while the tensioner pivot joints require greasing at 50-hour intervals to ensure proper operation and tensions.

