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# KIMSEED SMALL SEED SCARIFIER



## OPERATING MANUAL

**Sustainable Land Management and Practical Applications Since 1970**

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## Kimseed Small Seeds Scarifier Specifications:

**Dimensions:** Length 600 mm  
Width 425 mm  
Height 1100 mm

**Nett Weight:** 60 Kg

**Motor Details** 0.37 kW, 240V , 50 Hz 2.5 amp

**Abrasive Disc Details:** Diameter 178mm  
Standard Grit 24  
Finer Grit 36

### Disc Speeds

Motor shaft Pulley	Disc shaft Pulley	Final disc speed
1 ¾" Dia.	4" Dia.	610 r.p.m.
2 ½" Dia.	3 ¼" Dia.	1070 r.p.m.
3 ¼" Dia.	2 ½" Dia.	1800 r.p.m.
4 " Dia.	1 ¾" Dia.	3200 r.p.m.

**Capacity:** based on wheat: Kg per hour. Approx. 60kg

**Seed sizes:** Up to 9mm Diameter



## Kimseed Scarifier

### **Increased germination rates:**

The Scarifier has 4 Discs with an abrasive coating that chip away at the hard surface of the seeds. The chipped seed coat allows moisture to quickly penetrate and germinate the seed.

The abrasive cloth backed grit surfaces are glued onto a special steel backing plate.

**Standard Grit is 24** but a finer 36 Grit is advisable for softer seeds.

We have also available as an **option, Diamond Coated discs**, which substantially increase durability. One diamond disc is very good for a top disc where maximum wear occurs.

### **Scarification with 4 discs:**

Cleaned Seed falls onto the centre area of a series of 4 discs Dia 178mm. This equates to a total abrasive area of approximately 2,800 sq cm.

Disc speeds can be changed via a series of stepped pulleys to suit the hardness of the seed coat.

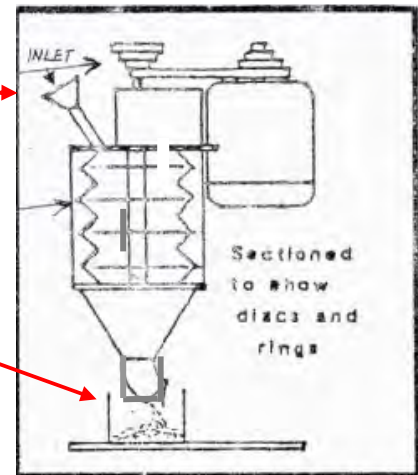
Seeds can be put through the scarifier for a second time if required.

### **Continuous Feed:**

This operation is accomplished by using the funnel fitted on top of the scarifying chamber. For large quantities, Kimseed supply a larger funnel that feeds onto the existing funnel. To avoid overloading the small funnel must be left in place. A tube retainer holds this extra larger funnel in place and is incorporated to the pulley cover.

With the unit locked into the vertical position, the seed is poured slowly into the funnel.

The funnel and its orifice are small to prevent overloading and blockage. If required, seeds may be scarified again to give the desired scarification. A suitable container (plastic bucket) can be used to receive the seeds at the bottom of the scarifier.



**Light weight seed types** tend to remain in the machine after pouring is completed. If this occurs, switching the machine on and off a number of times will clear them out.

**The Scarifier is suited to a wide range of seed types up to 9 mm in diameter.**



## Speed Adjustments

Up to four speeds can be changed by moving the belt up and down the various diameter pulleys. ( see page 1 Specifications )

**WARNING:** Disconnect the Scarifier from the mains power supply before changing the belt to a different speed.

The Belt tensioner may have to be screwed back to enable loosening of the drive belt enough to role it up to the next ratio. Retighten back to factory setting after adjustment.





### **Maintenance:**

Regular inspection of the discs at least once per month or prior to a large batch is recommended. Abrasive surfaces on the Discs do wear out or get clogged with a waxy residue.

**To Check & Clean Discs**, follow the steps below.

**WARNING : Make sure to disconnect the machine from the mains.**

- 1/ Turn machine 180 degrees (up side down) by pulling the "T" handle and turning the unit until it reaches the opposite lock



- 2/ Remove the two Clamping bolts

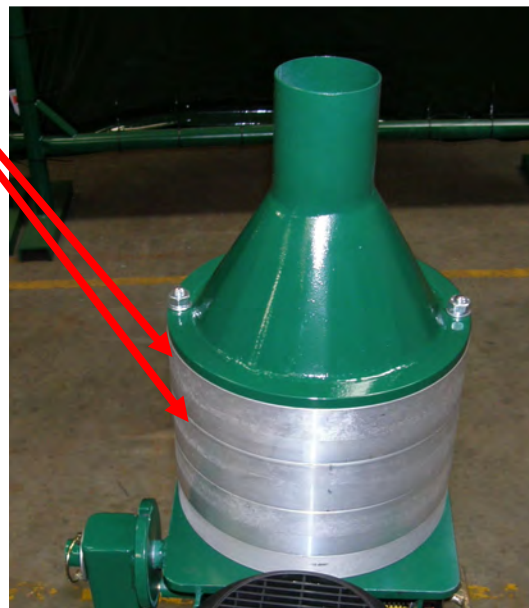


3/ With Care, remove bottom section, this will expose the main locking nut.

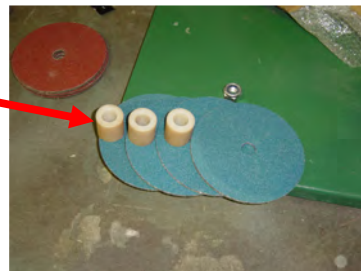
4/ **Remove the lock nut.** This will require the locking of the unit by using a clamping tool such as vice grips onto the main pulley shaft.



5/ **Remove the Abrasive discs and Aluminium "V" Rings** in order and set to one side in order of removal. This will make reassembly easier.



**Important:** Take care of maintaining the same order when removing spacers and abrasive discs.



6/ **Clean discs** with methylated spirits or detergent and a soft bronze brush.

7/ **Replacement of Abrasive:**

Disc grinding surface is glued with conventional contact cement.

The abrasive surface glue can be removed with the aid of a Heat Gun.

Clean surfaces thoroughly before reglueing the new cloth backed abrasives on.

A new cloth backed abrasive disc can then be glued using the same type of adhesive.  
**(contact cement – water and heat resistant).**

8/ **Allow at least 12 hrs** for the glue to harden on new abrasives.

9/ **Reassemble** the discs and V Rings in the **reverse order**.

**Overload Reset Button:**

It is possible that after a prolonged use, the electric motor could stop due to high temperature, if this happens, let motor cool down and press Reset button located under the plastic cover.

