

## Pile-Dry Pedestal® Fans

**IMPORTANT!**

**READ THESE INSTRUCTIONS BEFORE USING THE FAN**

**A qualified electrician must be used to install this equipment**

*These instructions apply to the following fan models:*

*F2/1/B (F2 Single Phase), F2/3/B (F2 Three Phase)*

*F3/1/B (F3 Single Phase), F3/3/B (F3 Three Phase)*

### Attaching the Fan Spigot - only applies to the F3/3/B Fan

1. Remove the F3/3/B Fan and Spigot from the box.
2. Using the 8mm spanner provided, remove the six bolts holding the Inlet Guard and Inlet Cone in place.
3. Re-attach the Inlet Cone, followed by the Inlet Guard and finally the Spigot. Line up the drill holes of each component.
4. Once all the bolts are in place, tighten fully using the spanner supplied. Take care not to cross the threads.



5. The fan is now ready to install.

### Inspect the fan immediately on arrival

The fan is packaged to prevent damage during transport but should be examined immediately on arrival. Ensure the metal cap on the top of the fan, and the plastic cooling fan underneath it, are both intact and the cooling fan rotates freely. Check the main fan impeller can rotate freely with no contact between the impeller and the fan casing. If there is any sign of damage to the fan - DO NOT USE IT. Report any damage immediately to your supplier. Damage not immediately reported may not be considered as a warranty claim.

### Fit thermal overload protection

Electrical installation regulations require all motors larger than 0.75HP to be installed with thermal overload protection. This must be used to protect your fan against motor damage. **Failure to fit and use a thermal overload with the fan will invalidate any warranty claim.**

### Extension leads

Each fan is fitted with c.3m cable. Any additional extension lead must be fitted by a qualified electrician.

### Make sure the power supply is correct for the fan

Fan Model	Power Supply	KW	Maximum Operating Current
F2/1/B	Single Phase - 230 volts	1.1	Please ensure the motor plate full load current matches the set overload value.
F2/3/B	Three Phase – 415 volts	1.1	
F3/1/B	Single Phase - 230 volts	1.5	
F3/3/B	Three Phase – 415 volts	2.2	

Ensure the fan is operating at the correct voltage and at less than the Maximum Operating Current. Check this where the power supply is connected to the fan, with the fan operating and in the storage circumstances in which it is to be used. Check the voltage and current immediately after switching the fan on. The current will increase to a very high level for a split second when the fan is switched on. If the current does not return quickly to the operating current level or the voltage is incorrect - SWITCH THE FAN OFF STRAIGHT AWAY! Failure to do so may cause damage to the motor.

### Make sure the fan is rotating in the correct direction

When observed from above the motor the fan impeller should be rotating anti-clockwise. Pay particular attention to this when connecting 3 phase fans to a power supply.

### Normal fan operating conditions

The fan should normally operate below the maximum operating current when used on a Pile-Dry Pedestal in grain stored at the recommended depth for the Pedestal. This is because the grain creates a resistance to airflow. If there is no resistance, a motor without thermal overload protection can overheat and may be damaged unless the fan is switched off.

### Abnormal fan operation in difficult storage conditions

Some stored crops do not always create enough resistance to airflow and the thermal overload fitted may frequently cut the power supply to the fan. Circumstances in which this might occur include:

- grain which is too shallow
- bulk stored potatoes which are dry, very large or too shallow
- peas or beans which are very dry or too shallow

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There are no definitive conditions where air resistance may be too low, but be aware that a combination of circumstances could lead to this. For example, potatoes being ventilated may be too shallow *and* large *and* dry. Individually, these circumstances may allow correct operation of the fan. Together, the fan may draw too much current and the thermal overload will automatically switch the fan off to prevent damage.

To enable the fan to operate successfully, without altering the stored crop, it is possible to restrict the airflow through the fan and achieve a reduction in operating current. A simple way to do this is to block a row of holes in the fan outlet grill with duct tape.

## Use of the fan with wet oilseed rape, high erucic acid oilseed rape and wood chips

### *Wet Oilseed Rape*

Use of the fan with dry oilseed rape can give excellent cooling results. But it is not recommended to use the fan to ventilate or dry *wet* oilseed rape. Wet oilseed rape creates high resistance to airflow and the airflow of the fan is insufficient to overcome this and permit sufficient cooling.

### *High Erucic Acid Oilseed Rape*

If the oilseed rape is a variety with high erucic acid content and is both wet and very hot then the rape seed can start to break down and release acid. If the fan is used in these circumstances, the acid will eventually damage the fan impeller. Any adverse consequences of using the fan in these conditions are not covered under warranty. This also applies to use of the fan in association with propionic acid (Prop Corn), which is not recommended at all.

### *Wood Chips*

Use of the fan to ventilate woodchips can give excellent cooling results. However, wood chips can emit acid (such as tannic and oxalic acid), especially when wet. Over a period of time, the acid may cause corrosion of the galvanised parts of the fan and ventilation duct. Damage can be avoided by attaching a blowing adapter to the fan and blowing air through the woodchips instead of sucking. It is important to inspect the fan regularly to ensure that corrosion has not taken place. If it has, the affected parts should be replaced immediately. Any adverse consequences of using the fan in these conditions are not covered under warranty.

## Maintenance and Service

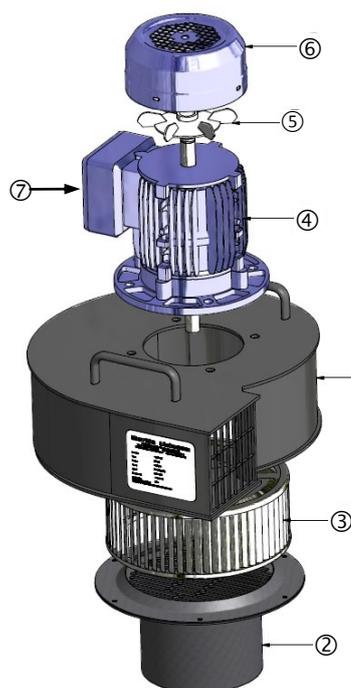
Before turning the fan on, especially after a period of non-use, carry out the following visual checks:

- look for obvious external damage, ingress of foreign objects, build-up of debris on the impeller.

After turning the fan on, listen for the following:

- Non-standard sound (such as excessive bearing noise or uneven running sound) such as might be caused if the impeller has become unbalanced due to a build-up of dust and debris on the impeller.

Do not use the fan if any physical damage is detected. Any build up of dust should be removed from the impeller using an airline. Spare parts, if required, can be selected from the following diagram and list:



### **Parts List (fan model is within the part number)**

<u>Item</u>	<u>Part Number</u>	<u>Description</u>
①	F2/BCASE, F3/3/BCASE	Fan casing c/w inlet assembly
②	F2/B/INLETASSY, F3/B/INLETASSY	Inlet assembly
③	F2/BIMPELLER, F3/1/BIMPELLER, F3/3/BIMPELLER	Impeller
④	F2/1/BMOTOR, F2/3/BMOTOR, F3/1/BMOTOR, F3/3/BMOTOR	Motor
⑤	F2/BCOOLINGFAN, F3/B/COOLINGFAN	Cooling fan
⑥	F2/BCOOLGUARD, F3/BCOOLGUARD	Cooling fan guard
⑦	F2/1/BCAPACITOR, F3/3/BCAPACITOR	Capacitor (inside terminal box)

## **Warranty**

Martin Lishman fans and motors are guaranteed for a period of one year from the date of purchase against mechanical and electrical manufacturing defects. To claim under warranty, the equipment should be returned, at the claimant's expense, to the supplier with a written explanation of the problem. Should there prove to be a defect or malfunction caused by faulty parts or workmanship, it will be repaired or replaced and returned to the claimant without charge. If a warranty claim is rejected, the cost of replacement or repair will be notified to the claimant before any work is carried out.

Any warranty claim will automatically be invalidated if the equipment has been modified or internally tampered with in any way. Damage or faults occurring to the equipment which have been caused by inappropriate use of the equipment or by use not in accordance with these instructions will not be covered under warranty. Whatever the circumstances of use of the equipment, and whatever the operating conditions, it is the responsibility of the user to ensure that the equipment is capable of operating correctly and that all safety regulations are adhered to. Martin Lishman Ltd will not accept any responsibility for any loss or injury arising from misuse of the equipment or any use that is not in accordance with these instructions.

Under no circumstances will Martin Lishman Ltd re-imburse any costs associated with a warranty claim if these costs have been incurred without agreement in advance.

Under the terms of warranty for the equipment under no circumstances will liability exceed the cost of replacement or repair. Martin Lishman Ltd will not be liable for any consequential or indirect loss suffered by purchasers or users of the equipment, whether this loss arises from correct or incorrect use of the equipment, defect or malfunction caused by faulty parts or workmanship or in any other way. Non-exhaustive illustrations of consequential or indirect loss are loss of profits, loss of contracts and damage to property.

Full Terms & Conditions available on request

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