

1 *The first step to a professional crop storage system*



From 100 tons to 22,000 tons, from converted cattle sheds to purpose-built commercial grain stores, for the past 40 years Martin Lishman Pile-Dry Pedestals and Fans has been the number one choice as part of a professional crop storage system.



Pile-Dry Pedestals and Fans is the fastest low volume cooling system and the only system of its kind that will dry grain. Backed by research by HGCA and CSL, you can be sure that Pile-Dry Pedestals will help you meet your crop storage objectives.



*Why is Pile-Dry Pedestals and Fans the fastest crop cooling system?
Why is it the only system of its kind that will dry grain?
Turn over for the answers to these questions ... and much more.*

Pile-Dry Pedestals & Fans

KEY FACTS

Pile-Dry Pedestals

Pile-Dry Pedestals are free-standing, metal, vertical ventilation ducts. Unique design centrifugal fans fit into the top and can be moved easily between them.

The fans are typically used to suck air through the grain. Sucking avoids condensation at the grain surface and the grain does not have to be level filled.

Easy Handling

Pile-Dry Pedestals are vertical and visible in the store. Typically they are spaced at least 6m apart so loading and unloading grain around them is achieved easily.

Trailers, telescopic loaders, conveyors, elevators and pushers can all be used in the normal manner with no risk of damage.

Fast Cooling

Pile-Dry Pedestals is the fastest low volume cooling system, operating at 20% above the required rate. Crops cool quickly and evenly to conserve quality, without the need for insecticides.

Pile-Dry Pedestals will cool grain straight off the combine, hot off the drier to increase capacity and chill the grain to avoid insects and harmful moulds.

Versatile

Pile-Dry Pedestals will cool, dry and condition, long or short term in bulk stores, bins and silos.

They have been used with all bulk stored crops - cereals, rape, rice, beans, peas, potatoes, wood chips and many more.

They are modular, to suit all stores, simple to install and leave buildings multi-purpose.

Proven Success

Stored grain represents a huge investment. Maximising the return from this investment requires a professional system that maintains crop quality.

Martin Lishman can draw on 40 years of successful experience to provide the most energy-efficient, cost-effective, practical and convenient way to do the job.

Choosing the right Pedestal for your store

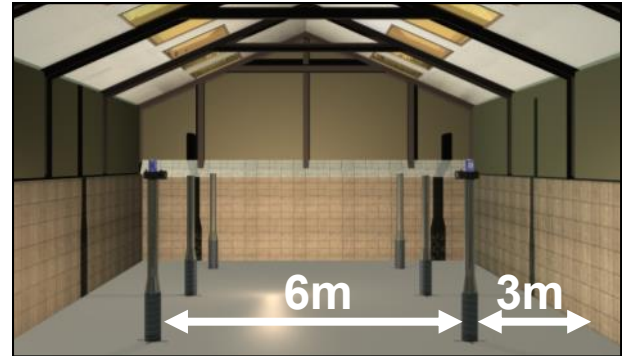
How deep can you store your crop?

Pile-Dry Pedestals work best in deeper rather than shallow grain - this helps air to be sucked from further away rather than take a short route from the surface.

If grain walls are low or weak the grain can be surcharged up around the Pedestal and slope down towards the wall or floor - the grain does not have to be level when sucking.

P2 Pedestal - 3m (10') basic height, 3' or 6' extensions available; includes base stand and end cap

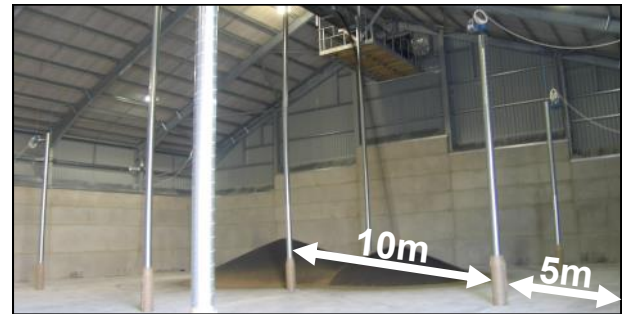
- For grain stored at c.3m (10') with surcharging up to c.4.5m in the middle of the store
- Allow one P2 per 6m x 6m (20' x 20') area - 3m from the walls and 6m between each one
- In high moisture grain (18%+) put them closer together
- Spacings apply equally to all crops



P2 Pedestal - c.80 to 120 tons per unit

P3 Pedestal - 4.8m (16') basic height, 3' or 6' extensions available; includes base stand and end cap

- For grain stored at c.4.5m (15') and up to 12m deep
- Allow one P3 per 10m x 10m (30' x 30') area - 5m from the walls and 10m between them
- In high moisture grain put them closer together but no deeper than 4.5m
- Spacings apply equally to all crops



P3 Pedestal - c.350 to 900 tons per unit

Backed by research

Research by HGCA supports the spacings recommended for Martin Lishman Pile-Dry Pedestals used with Pile-Dry Fans. Don't be tempted to make do with fewer Pedestals or wider spacings - cooling will be slower, insects may occur and hot spots will develop. Avoid metal and plastic systems with lower airflows which may cause loss of grain quality at these spacings and depths.

Why is Pile-Dry Pedestals and Fans the best low volume ventilation system with 40 years of proven success?

- Metal round-hole perforated ducts have up to 8 times more free air space than other types of metal and plastic duct so can cope with deeper or wetter grain
- Metal perforated duct airflow resistance is 30 times less than through plastic duct walls which means all the fan power is directed to the grain
- Pile-Dry Fans operate at up to 70% higher pressure and deliver up to 70% more air than fans sold with plastic columns so will cool faster and dry more

...and are they strong enough?

Of course they are! You don't risk 22,000 tons of rape 12 metres deep with something that isn't up to the job. Pile-Dry Pedestals are designed for professional crop storage systems, plastic drainage pipes are designed to go underground.



Professional Crop Storage Systems

Selecting the size and quantity of Pile-Dry Fans

Do you want to cool or dry your grain - or both?

Pile-Dry Fans are the most powerful low volume fans available, delivering an airflow of more than 10m³/hour/tonne and, if ambient conditions allow, will cool grain below 15°C within 2 weeks of harvest and down to 5°C before Christmas.

Pile-Dry Fans sustain high airflow at high pressure which enables them to dry grain at up to 2% per week, with examples of drying from as high as 35%, from 28% to 15%, from 19% to below 15% and many more, with perfect results.

Speed of cooling and rate of drying depends on favourable ambient conditions, efficient fan control when the air is suitable, fan strength and how many fans you use in the store. Don't be tempted to use lower power or poor quality fans - your grain quality will suffer.

F2 Fan - use with P2 Pedestal

Power:
1ph, 1.5HP, 1.1kW (F2/1/B)
or 3ph, 1.5HP, 1.1kW (F2/3/B)
Max airflow:
2380m³/h (1400cfm)
Max pressure:
1550pa (6¼"wg)
Structure:
6" (150mm) inlet, square outlet (blowing adapter available), aluminium body with carry handles



F3 Fan - use with P3 Pedestal

Power:
1ph, 2HP, 1.5kW (F3/1/B)
or 3ph, 3HP, 2.2kW (F3/3/B)
Max airflow:
3190m³/h (1875cfm) (F3/1/B)
3780m³/h (2225cfm) (F3/3/B)
Max pressure:
1670pa (6¾"wg) (F3/1/B)
1870pa (7½"wg) (F3/3/B)
Structure:
8" (200mm) inlet, square outlet (blowing adapter available), aluminium body with carry handles



Fan Overload Protectors

Required installation equipment for Pile-Dry Fans - available as manual starters or as automatic contactors if used with a controller.



To Cool Grain

- Use at least one fan per 4 Pedestals
- Increase this quantity for faster cooling, grain in poor condition or to reduce the number of times fans are moved
- Move the fans between Pedestals depending on crop temperatures
- Use automatic control to save energy

To Dry Grain

- Increase the fan quantity for faster drying or if the grain is above 18% (use one fan per Pedestal above 20%)
- Use automatic control to make best use of warm, dry ambient air in the summer



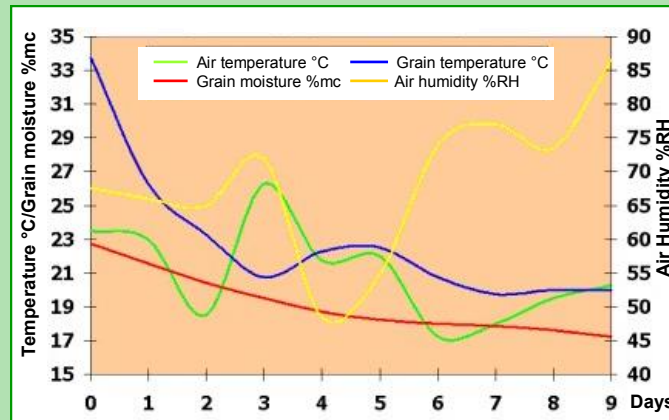
The Thermo-Humidistat Controller displays ambient air temperature and relative humidity. It is the ideal option for simple humidity control of drying fans.

Backed by research

Research by HGCA showed that, when compared with slotted plastic ducts, the metal round-hole perforated duct of Pile-Dry Pedestals had 22% more airflow which resulted in higher airspeed in the grain. This was due to the larger free air space and better distribution of holes in the metal duct and was given as the reason for the faster cooling times with Pile-Dry Pedestals.

Why is Pile-Dry Pedestals and Fans the only low volume system able to dry grain and the fastest at cooling grain?

- Pile-Dry Pedestals have round-hole perforated ducts with 31% of free air space. (This compares with c.10% for louvred metal and c.4% for slotted plastic.)
- This means no resistance to airflow and all the fan power ventilates the grain.
- Pile-Dry Pedestals can cool grain by 20°C in 36 hours and, conditions depending, dry from as high as 35% to below 15%. No other system can achieve this.



Cooling and Drying with Pile-Dry Pedestals and Fans

KEY FACTS

Priority Cooling

Start cooling with Pile-Dry Pedestals as soon as grain comes into the store or off the drier, and continue for at least 24 hours to remove high heat.

Continue cooling with automatic control to make best use of cooler air. Don't wait until cold weather comes and don't worry about damp air - it is almost impossible to re-wet grain when cooling.

The fans are typically used to suck air through the grain. Sucking avoids condensation at the grain surface and the grain does not have to be level filled.

Effective Drying

Drying with Pile-Dry Pedestals using ambient air has been achieved widely over many years, including grain, peas and beans. The record is barley at 35%! For moistures above 20% alternate sucking and blowing is recommended. Drying results depend on favourable ambient conditions, efficient fan control, fan strength and how many fans you use in the store.

Pedestals are not suited to drying rape or linseed which require high airflows and heat.

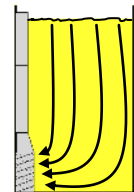
Usage Variations

Pile-Dry Pedestals are operated in the same way for all grains, pulses, potatoes, maize and seeds such as rape, grass and sunflower.

Hessian sleeves are used to prevent small seeds passing through the perforated holes - they maintain the high airflow required and are much more effective than louvred metal or slotted plastic.

Bins and Silos

Using Pile-Dry Pedestals in bins and silos is no different from on-floor and the results are just as good.



Ask about our special versions.

Cost-effective

Pile-Dry Pedestals and Fans provide cost-effective cooling with the lowest capital cost per ton stored.

Increased efficiency and up to 40% lower energy costs is achieved with automatic fan controllers and a correctly specified building ventilation system (StoreVent) that matches the number of fans in use.

Professional Crop Storage Systems

Four steps to improving your crop storage

1 Pile-Dry Pedestals & Fans

The highest grain quality with the fastest cooling system available

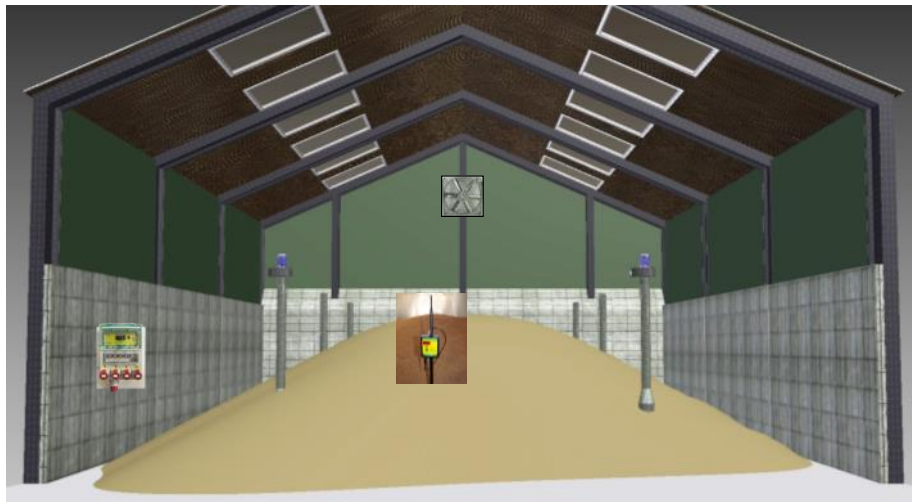


2 StoreVent Crop Store Air Extraction System

- Building ventilation to maximise the efficiency of all crop cooling and drying systems - ensures sufficient air exchange to maintain cool, fresh air in the crop store at all times.

- Can be linked to Martin Lishman automatic fan controllers.

- see the Martin Lishman StoreVent brochure for further details.



3 Automatic Fan Control & Crop Monitoring

- Portable and static automatic fan controllers for energy efficient crop cooling and drying
- Cost effective crop monitoring equipment to ensure the highest crop quality
- Barn Owl Wireless remote crop monitoring, data storage and automatic fan control system

- see the Martin Lishman Fan Control and Crop Monitoring brochure for further details.



Temperature Differential Fan Control

Fast, energy-efficient crop cooling



Thermo-Humidistat Fan Control

Simple control for crop cooling and drying



Barn Owl Temperature & Humidity Fan Control

Comprehensive control for crop cooling and drying



Barn Owl Wireless Control & Monitoring System

Complete crop store management

4 Trouble-Dry Hot Spot Spears & Fans

- Portable and economic cooling - a simple solution to a common problem
- An emergency solution to hot spots where Pile-Dry Pedestals are not in use

- see the Martin Lishman Trouble-Dry brochure for further details.



SPECIFICATIONS

Pile-Dry Pedestals and Fans are available in many models and sizes to suit different storage situations. Talk to your local stockist or contact Martin Lishman to discuss the most appropriate configuration to meet your storage requirements.

Pile-Dry Pedestals and Fans are produced and distributed nationally and internationally exclusively by Martin Lishman Ltd. We reserve the right to alter product specifications at any time without notice.

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Your Pile-Dry Pedestal and Fan Stockist: