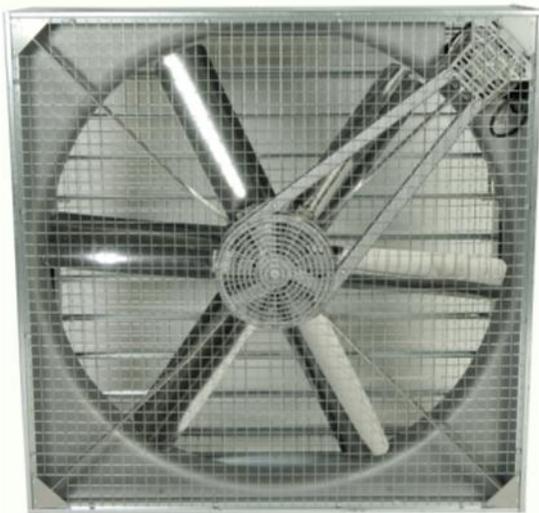


2 Step two in a professional crop storage system



The Martin Lishman StoreVent system has been specially designed to maximise the efficiency of crop cooling and drying systems. It improves crop store ventilation by expelling warm, moist air and replacing it with fresh, cool air.

Extract warm air from buildings and replace it with cool fresh air to increase cooling speed and reduce energy consumption.



The StoreVent system includes high volume belt-drive fans and fixed blade intake louvres which are matched in size and quantity to the amount of air expelled from Pile-Dry Fans and other cooling and drying systems used in typical crop storage situations.

*Why is it essential to have external ventilation in your crop store?
Which StoreVent system will suit your storage situation?
Turn over for the answers to these questions ... and much more.*

StoreVent Building Ventilation

Choosing the correct StoreVent option for your store

StoreVent provides active building ventilation with a belt-drive or plate fan, full weather protection to the fans (built-in or independent back-draught shutter), passive intake louvred openings and automatic control of louvres and fans.

We have calculated the most efficient combination of StoreVent components in relation to the number and type of Pile-Dry Fans in use in your store. For other types of crop ventilating fan, we will require the airflows and operating pressures to make the closest match to the capabilities of the StoreVent fans and free areas of the StoreVent louvres.

Using the table below, find the maximum number and type of Pile-Dry Fans used in your crop store (shown in the columns on the left) and look along the line to see the appropriate StoreVent fan model, louvre size and back-draught shutter. Individual components can also be supplied - please ask for details.

StoreVent Models						
Maximum number of Pile-Dry Pedestal Fans used in the Crop Store				StoreVent Fan Model	StoreVent Class B 38mm pitch Louvre Size (mm)	Back draught shutter size (mm)
F2/1/B 1.1kW, 1ph	F2/3/B 1.1kW, 3ph	F3/1/B 1.5kW, 1ph	F3/3/B 2.2kW, 3ph			
				Plate Fans		
2	2			SV400/1ph	700 x 700	400
3	3	2		SV500 1ph or 3ph	800 x 800	500
			2		900 x 900	
4	4			1000 x 1000		
5	5	3	3	SV560	1000 x 1000	560
6	6	4		1ph or 3ph	1100 x 1100	
				Belt-Drive Fans		
			4	SVBD800 1ph or 3ph	1200 x 1200	Belt-Drive Fans include an integral back draught shutter
7	7			SVBD1000 1ph or 3ph	1200 x 1200	
8	8	5	5		1250 x 1250	
9	9	6	6		1500 x 1500	
		7, 8		Two of SVBD1000 1ph or 3ph	1100 x 1100 (two)	
		9			1200 x 1200 (two)	
10, 11, 12	10, 11, 12	10, 11, 12		1500 x 1500 (two)		
			7, 8	Two of SVBD1250 1ph or 3ph	1100 x 1100 (two)	
			9		1250 x 1250 (two)	
			10, 11, 12, 12+		1500 x 1500 (two)	

Example: If you have a maximum of 6 F3/3/B fans in use in your store you will need one 3ph belt-drive SVBD1000 fan and one 1500 x 1500mm louvre.

Why use the Martin Lishman StoreVent system in your crop store?

- StoreVent maximises the efficiency of your crop cooling and drying systems
- StoreVent matches the size of extraction fan and air intake to the amount of air expelled from Pile-Dry crop ventilating fans
- StoreVent increases cooling speed, reduces energy consumption, reduces the chance of insect infestation and improves the quality of your grain.

It makes sense to include StoreVent as part of your professional crop storage system.

Why ventilate your crop store?

Many agricultural buildings have inadequate external ventilation, or none at all. This makes crop cooling systems inefficient because warm air extracted from the grain is circulated within the building rather than being expelled.

The result is poor energy efficiency and slow cooling speeds. Condensation can occur inside the building giving a higher potential for insect infestation and lower quality grain.

Leaving the doors open can help the situation, but there is still no through-flow of fresh air. This also increases the security risk at remote sites and is non-compliant with quality assurance schemes since birds and vermin can enter the store.

StoreVent removes all these risks and ensures maximum energy and cooling efficiency from your crop ventilation system.

The principles of the StoreVent system

StoreVent has been designed, with different sizes and quantities of intake louvre and extraction fan, to match the number of Pile-Dry Pedestal fans likely to be used in a crop store.

The design ensures the amount of air extracted from the grain is expelled from the building and replaced with fresh air. It takes into account the volume of grain in the building rather than the amount of internal space and ensures sufficient air exchange to maximise the cooling and drying effect of the ambient air.

StoreVent works equally well with all types of crop ventilation and drying systems, including underfloor ducts, using the same design principles.

Automatic Control

Operation of StoreVent extraction fans can be linked to any of the Martin Lishman automatic fan control systems, including Barn Owl Wireless. Enabling warm, moist air to be extracted from the building as it is extracted from the grain provides the most energy efficient way to operate your crop store.

StoreVent fans can also be used in manual mode for dust extraction when loading and unloading a store.

Professional Crop Storage Systems

Specifications of the StoreVent system components

StoreVent Plate Fans

- Used in smaller stores (less than 1000 tons)
- Good airflow, working up to static pressures of 200 Pa
- Tough epoxy paint finish plate surround suitable for mounting in any position
- Motors protected to IP55 with sealed bearings and condensation drainage holes
- Includes integral protection/bird guard
- Should be fitted with a back-draught shutter on the outside of the building



Plate Fan

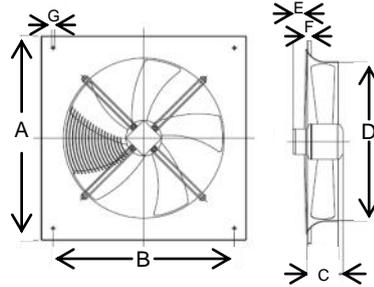


Back-Draught Shutter

Plate Fan	Vol (m ³ /s)	Pressure (Pa)	Volts	Watts	FLC Amps	A	B	C	D	E	F	G	Wt (Kg)
SV 400/1	1.0	80	230	150	0.92	540	490	110	400	60	15	10	10.5
SV 500/1	1.5	140	230	400	2	655	615	115	500	60	15	10	16.5
SV 500/3		200	400		0.95								
SV 560/1	1.8	140	230	400	2.3	725	670	115	560	60	15	10	18
SV 560/3	2.2	200	400		1.2								

Dimensions in mm

StoreVent Back-Draught Shutter - all-weather plastic louvre with vanes that open automatically when airflow commences. Fitted independently of the plate fan on the outside of the wall. Sizes are c.50mm larger than the diameter of the plate fan blades.

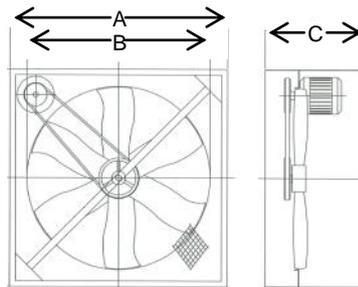


StoreVent Belt-Drive Fans

- Used in larger stores (more than 1000 tons)
- Substantial airflow at low pressures and low energy consumption
- Galvanised sheet steel fan housing with bird mesh on both sides
- Motors protected to IP55 with sealed bearings
- Self-cleaning stainless steel impeller
- Built-in centrifugally operated back-draught shutter - once opened, fan performance is unaffected

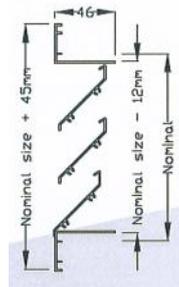
Belt-Drive Fan	Max Vol (m ³ /S)	Max Pressure (Pa)	Volts	Watts	FLC Amps	A	B	C	Wt (Kg)
SVBD 800/1	4.6	60	230	550	4	960	800	330	44
SVBD 800/3			400		1.65				
SVBD 1000/1	7.1	100	230	750	5.4	1150	1000	330	50
SVBD 1000/3			400		2.6				
SVBD 1250/1	12.1	100	230	1500	8.4	1380	1250	330	72
SVBD 1250/3			400		3.2				

Dimensions in mm

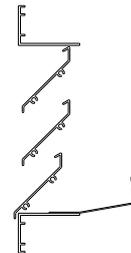


StoreVent Class B Air Intake Louvres

- Give 95-98.9% protection against rain ingress
- Fitted with 30mm flanged frame
- Integral internal drip cill and water ejection system
- Free airflow area of 50%
- Extruded aluminium construction with blades screwed into frame
- Standard 38mm pitch blade with strengthening mullion to rear of louvre
- Optional high performance (Class A) or variable control louvres
- Optional polyester powder coat finish



38mm pitch louvre



Louvre showing drip cill (projects just 50mm internally)

Installation of StoreVent

StoreVent system components should be installed to take the best advantage of prevailing winds and the airflow generated by crop ventilation systems.

Intake louvres should be installed (usually above the door) so that the prevailing wind can enter through the louvre.

Extraction fans should be installed at the opposite end or side of the building. Louvres and fans should not be used in the same wall.

Pile-Dry Fans located on Pile-Dry Pedestals should be pointed towards the extraction fan. This assists the flow of air across the grain so that fresh cool air enters through the louvre and warm wet air is extracted by the fan.

Installation of StoreVent components must be carried out by competent engineers in accordance with all statutory electrical and health and safety regulations.

StoreVent Fans

The extraction fans are either plate mounted, used in smaller stores, or belt-driven which extract a large amount of air very quickly. The quoted size of the fan refers to the diameter of the fan blades. The metal casing structure of the fan (belt-drive fan) or metal plate surround (plate fan) is larger.

All fans are fitted with bird mesh. Belt-drive fans are also fitted with a centrifugally operated weather shutter that closes automatically when the fan switches off. This prevents harsh weather blowing from a northerly or easterly direction from entering the building. Plate fans should be installed with a separate back-draught shutter fitted to the outside of the building.

StoreVent Louvres

The standard Class B fixed blade intake louvres provide 95-98.9% rain resistance. They are of plain aluminium construction with a surrounding flange and integral internal drip cill and water ejection system. Their specific measurements are shown on this page, but the general principle of size is that the quoted size of the louvre refers to the size of the hole in the wall that it will fit into. All louvres are fitted with 1cm² bird mesh. They can also be powder coated to suit most existing cladding colours if required.

Other louvre options include:

- Class A high performance louvres which prevent 99% of rain ingress but need to be larger in size to maintain the same air flow.
- Chain operated variable volume control louvres
- Motorized moving blade louvres

Professional Crop Storage Systems

Four steps to improving your crop storage

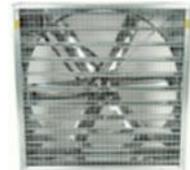
1 Pile-Dry Pedestals & Fans

- *The highest grain quality with the fastest cooling system*
 - *The only low volume system able to dry grain*
 - *Backed by research and 40 years experience*
- see the *Martin Lishman Pile-Dry Pedestals and Fans brochure for further details.*



2 StoreVent Crop Store Air Extraction System

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



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*
- 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

StoreVent systems 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. It is the user's ultimate responsibility to decide which option is best suited for the conditions and situation in which the louvre is to be installed and used.

The StoreVent system has been devised and is marketed 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 StoreVent Dealer: