

## Agricultural Ventilation Solutions

Curtains • Panels • Tarp Doors

Chimneys • HVLS Fans • Control Systems • Drives • Actuators



# Standard Folding Curtains



## Our most cost effective option

Ideal for farms on a budget or for smaller scale operations, this system is available with either wind ropes or pipe. It can be configured for manual operation or auto control. (See page 18 for controller options). The curtain opens from the top to minimize unwanted draft on animals and employees.

The unit can be rolled up from the bottom for summer storage with a self locking gearbox, keeping it safe from UV damage and protecting it from rodents. The end pockets are fastened at all edges, also prolonging its life. Four trim options are available: Red, Green, Black and White. All the steel hardware components are stainless.

This model can be installed on new or renovated buildings with curtains available from 4-9' high and up to 160' long. This is an ideal system for dairy, goats, sheep, beef, horse arenas storage sheds and numerous other applications.

# EZ-Roll Curtains



## Greater versatility and longer life

The EZ-Roll system has a big edge over the folding system. The curtain fabric is rolled onto a bottom floating aluminum tube which maintains a constant tension on the material, significantly minimizing curtain wear. This system also protects the curtain from water accumulation and rodent damage, and the tight material makes less wind noise. The tube is easy to connect and disconnect via a stainless steel power shaft; heavy duty stainless pulleys are used. A cordless drill can easily be used to drive the shaft during installation, and in the event of a power failure. Available with wind rope, aluminum wind pipe or rubber coated wind pipe.

A German made drive is paired with a cable slack sensing pulley above it that keeps the cable tight on the drum at all times. The EZ-Roll system can be configured to operate in fully automatic mode, all year long. (See controller options on page 18). The drive is covered with an easily removable plastic housing that protects it from snow and rodents. This system is suitable for and can be mounted on all kinds of buildings. Curtain heights from 3-11' are available.



# Bottom Roll-Up System



## Simple and effective

The Bottom Roll-Up System provides effective ventilation control very simply, without any pulleys or cables. The curtain can be operated with a manual climbing drive and a chain operation kit (see Drives page 16). It can also be installed with an automatic climbing drive as shown in the picture (above), or with a fixed drive and a longer telescopic shaft.

This system is also available with temperature, wind and even rain sensing, and it can be installed with either wind pipe or rope. Installations can be made as a single rolling system that is up to 10 feet high, or as a double rolling system that is up to 15 feet high and up to 180 feet long. The Bottom Roll-Up system is adaptable to many applications, including installations over outdoor feed bunks.



# Twin Roll-Up System



## Extra insulation for a warmer environment

The Twin Roll-Up System is very similar to the EZ-Roll system, but with one critical difference: Twin Roll-Up combines two layers of curtain material instead of only one, creating an insulating airspace. When not in use, both layers roll up together, and the canvas material is always rolled up tight in order to keep out rodents and water.

The Twin Roll-Up System is ideal for calf barns and shelters for other animals that need ongoing protection in a warmer atmosphere. Installations can be up to 10' high and up to 140' long. Installation options include wind pipe or rope, and either cable or tube lifting system. Rubber coating over wind pipe is optional for a longer lasting system.

For larger and longer openings the heavy duty tube system is used instead of the standard pulley-cable system. The tube system can also be incorporated into our automatic control system, with wind and / or rain sensing.

# Split Curtain System (Rolling and Folding)



## The higher the better

Modern agricultural facilities are being built with higher and higher sidewall openings in order to get the ventilation that is needed during the summer months. This creates an even bigger problem during the winter, when these walls need to be closed.

The solution is a split curtain system.

Split curtain systems typically have a bottom roll up option for the bottom curtain, and a folding or EZ-Roll or bottom roll up curtain at the top. The bottom curtain is normally left rolled up during the summer, and down during the winter. The top curtain is continuously adjusted during winter months for optimal ventilation, and it is available as an automatic or a manual system. The bottom curtain is typically installed as a manual system, because it needs to be change position less frequently.

The Split Curtain System is available with wind ropes or pipes. Heights of 9-18' are available, and up to 160' in length.



# XTR Curtain System



## Ideal for Canadian Weather

The XTR Curtain system is based on a centre rolling system that winds the complete curtain to the bottom of the opening. This means that the full curtain height is automatic, so your ventilation system will be operating accurately, all year long. There is no bottom curtain that should be closed when it is open, or vice versa. Only one drive is used with a heavy duty telescopic shaft, so there is no risk of collision.

All hardware is stainless or galvanized, and the curtain hems are lock stitched so that unravelling is impossible. The end pockets have all edges fastened to maximize the fabric life. Built with heavy duty aluminum wind pipes and a large, 1/4" stainless cable that is rated for twice the drive capacity. Wind pipes are available with a rubber coating for longer curtain life and less wind noise.

Available from 11-15' high and up to 140' long.

# EZ Seal Panels



## When heat loss isn't an option

EZ Seal Panels are assembled with all rust free hardware and are built for the high rust issues of the swine and poultry industries. These panels consist of heavy duty tarp outer skin and 2.5" thick inner insulation with an R12 rating. Heavy duty 2" pulleys are made with Delrin plastic. The panels can be installed with a hand crank, or as fully automatic with rain and wind compensation - (see page 17).

Windows can be installed with as little as 6' between each one. Panels are available in custom colors (see page 15) with white as the standard. The option of a different colour on each side is also available.



# Glass Panels



## The clear choice in natural ventilation

Glass Panels are very popular in both tie stall and modern dairy barns, in parlour areas where lots of natural light is beneficial for operator and livestock comfort. Installations are available with either manual or fully automatic controls, and are often paired with a Tri Star Control and a tunnel ventilation system.

An cable slack sensing device is used with this system in scenarios where the panels are fully automatic during the winter. When ice forms on the panels and the actuators open, the panels are prevented from suddenly falling open during a thaw, thus keeping the cables safe from snapping. Hot dipped galvanized pipes are used as tracks for the panel to slide up and down. All stainless hardware is used, along with heavy duty 3" rust free pulleys. The cables are easily height adjustable after the complete system is installed. A UV treated rubber gasket is installed around the panel opening to prevent air leakage.

# Insulated Curtains



## The solution of choice for pigs and poultry

These curtains are built with the same heavy material as all our other standard curtain systems, but they also include an added layer of air bubble insulation material in the center, between 2 layers of curtain. Unlike most of the other layered curtains on the market, this bubble material will maintain its form and last for years without degrading.

Insulated curtains fold down easily during the summer months, so your livestock and employees can stay comfortable all year long. These systems are used for all types of facilities and are available in heights from 2-11'. They come with wind rope or optional wind pipes, and are available as manual or fully automatic, with both natural and tunnel ventilation capabilities.

See our Actuators and Controller pages (17-18) for more info.



# Tarp Doors



## The economical door choice

Tarp doors are commonly used in beef and dairy barns, sheds, manure storage areas and a host of other applications, they come in a heavy 18 oz material and are available in many different colors and textures (please see page 15). Pre galvanized metal channels are used at the sides to hold the tarp in place. Aluminum tubes every 34 inches help stabilize the door in high winds.

Tarp doors can be fastened at the top, or installed with both bottom and top openings to better manage ventilation and reduce draft on livestock. They are available for openings up to 20' wide without added wind pipe supports. Top opening doors can also be incorporated into your automatic ventilation control system.

Available with a hand winch or drum drive and up-down switch, this door system can be installed up to any length with wind pipe supports.

# Chimneys and Ridge Vents ...



Chimneys are the ideal ridge ventilation system. Ridge chimneys minimize down drafts and require zero maintenance. All hardware is stainless and rust free; the panels are made from high density styrofoam.

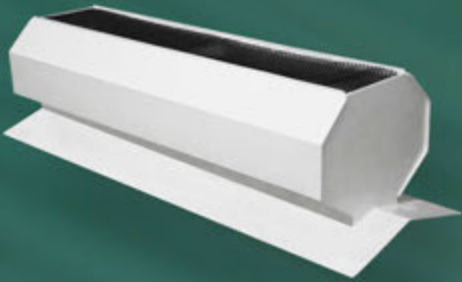
Standard sizes are 22", 30" and 36", but we can also make them to your custom requirements, from 2' to any length that is available. For barns without ceilings, the 2' chimneys are used with welded on flashing to minimize installation time. 2' chimneys can also be used for barns with a ceiling; a duct extension is then required to extend the chimney below the ceiling. This makes for an easier, more labor friendly install. 2' chimneys are also available in an economical, non-insulated version.

The 2' chimneys with welded on flashing are a favourite of fabric building contractors. 4 different roof colours are available - white, green, red and black.

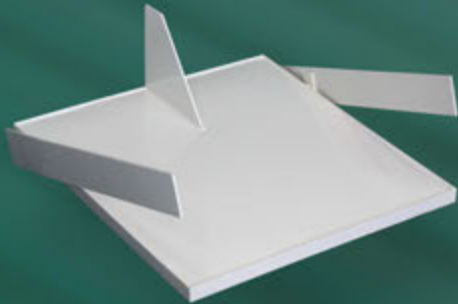




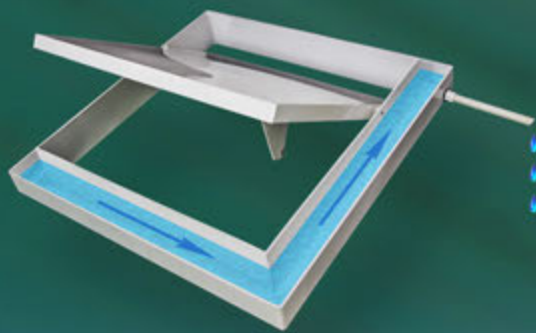
# ... the Standard for Ontario Barns



Proper attic ventilation is critical to keep your wooden trusses from rotting and your truss plates from rusting. Linear Ridge Vents are the answer to your attic ventilation in a completely rust free, UV treated unit. They are available in red, green, black and white. The flashing can be made in any profile and angle to fit roofs made of steel, fabric and everything in between.



Fully welded plastic Chimney Baffles will make your roof ventilation work the way you want it to, in a virtually maintenance free environment. These baffle systems are easy to access, minimize stress on the cable and pulleys and use no springs that will wear out over time. Installations are available with a hand winch, or they can be incorporated into your automatic control system. Standard sizes are 22", 30" and 36"; custom sizes are also available on request.



Dry Alley Baffles were designed to take all excess water and condensation and transfer it into your manure alley, keeping your feed dry and eliminating water puddles in your feed alley. Stainless hardware and UV treated plastic make this drainage solution easy to install.



# HVLS Fans



Powerfoil® 8

Studies show that more comfortable employees are more productive; the same goes for livestock. Farmers know comfortable cows are productive cows, but air conditioning the barn usually isn't in the cards. Summer heat can dramatically impact livestock's feed intake, daily weight gain, reproductive performance and ultimate production.

Big Ass Fans - available in 6, 8 and 10 blade configurations - improve not only thermal comfort, but also air quality and footing for improved herd health. They are an economical, energy efficient solution for a host of farming issues - from moisture control to air quality, birds, bugs and more.

These 5- to 24-ft (1.5- to 7.3m) diameter overhead fans circulate a massive amount of air to make animals (and workers) feel 10°F (5.6°C) cooler during the hot summer months. In winter, setting the fan at a slow speed will push rising heat back down to the floor level for more comfortable working conditions (and living conditions for those with four legs). Recirculating the warmed air means less work for heating units, and because the fans use their size, not speed, to move huge amounts of air, they require minimal energy.

HVLS Fans provide an effective companion to ridge and wall ventilation systems, giving livestock farmers full control over the atmosphere in their barns.

For information about specific features and specifications of the Basic 6, please see [www.bigassfans.com/products/basic-6](http://www.bigassfans.com/products/basic-6). Powerfoil 8 features and specs are found here: [bigassfans.com/products/powerfoil-8](http://bigassfans.com/products/powerfoil-8), and the industry leading Powerfoil X3.0 is here: [bigassfans.com/products/powerfoil-x30](http://bigassfans.com/products/powerfoil-x30).



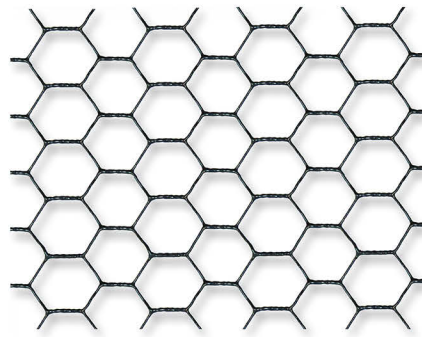
Powerfoil® X2.0



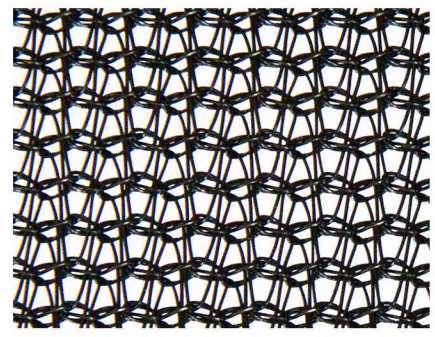
# Screen and Fabric

## Bird Netting

The screen type we most frequently install is our heavy duty 20 gauge galvanized plastic coated bird netting. This material is very stretch resistant, giving the curtain very good support. The reason most modern curtain installations are



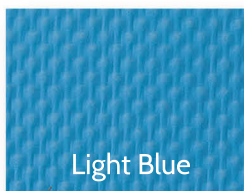
GALVANIZED PLASTIC COATED



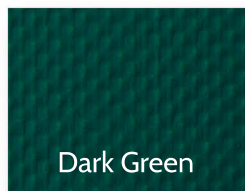
SHADE CLOTH

paired with bird screen is that it prolongs the curtain life by up to or over 200%. The screen provides the curtain with a flat surface to lie against, instead of just the posts. This added support spreads the wear pattern over the complete curtain and not just on each side of the posts or studs. Available in widths of 12"-90". **Shade Cloth** is most often installed under the bird screen along the top of the curtain or panel openings in barns for calves or other livestock that can't be exposed to drafts. It allows the curtain to be open up to 10 inches on a windy day, admitting fresh air but preventing drafts. We recommend using thin 1x6 on posts instead of 2x6, to prevent premature curtain wear at the corners. Ask us about our lighter **Bird Barrier Screen** to keep birds out of the trusses of open truss buildings. In some installations, the green breathable material (see bottom of page) is used for the full, opening height for almost no draft.

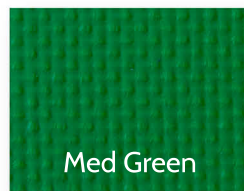
**Tarp Door Fabrics** come in standard white, with many other colours available. This heavy 18 oz. material is needed for wide door openings. Clear material is also available to add windows or clear strips to maximize light penetration.



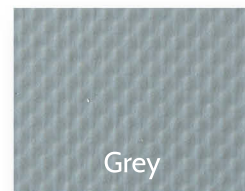
Light Blue



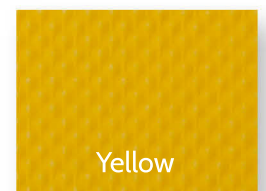
Dark Green



Med Green



Grey



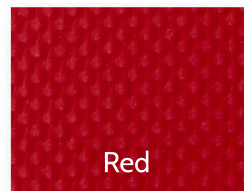
Yellow



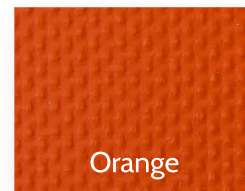
Med Blue



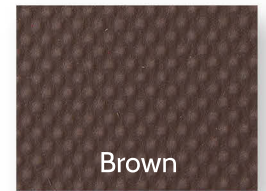
Burgundy



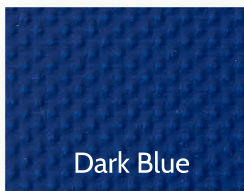
Red



Orange



Brown



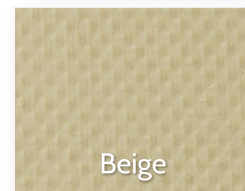
Dark Blue



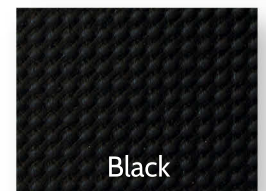
Fabric Type 1



Fabric Type 2



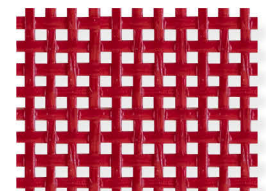
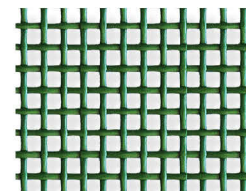
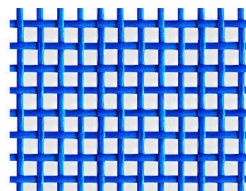
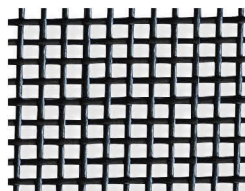
Beige



Black

Tarp doors are also available with **Breathable Materials** allowing minimal ventilation and yet still keep most of the rain and snow outside. It is ideal for shading purposes and will keep the building fresh with very minimal draft.

Breathable Materials for Tarp Doors are available in 4 different colours: Black, Blue, Green and Red.



# Drives

## Automatic Drum Drive

These drives are specially made for agricultural ventilation purposes, and are used worldwide. This isn't just an ordinary gear motor with built on limit switches - precision limit switches are built and sealed right into the German engineered gear drive. The tapered stainless steel drum is machined with grooves to maximize the cable life. Drums without grooves force the cable into an oval shape and cause premature wear. Our drums are specially tapered for the material we use, keeping the bottom floating tube where the curtain rolls on, in place. Now your curtain won't come up past the opening when it is rolled up at the bottom, and your air flow will keep moving, as it should.



## Manual Drum Drive

The manual drive is built for barns that operate on a budget, or that don't really need the benefits of a completely automated system. The standard handle configuration is for outside use, but it can also be mounted inside, up to 8 feet above, below or beside the drive. The optional chain drive kit (shown on the right) is ideal for higher mounted drives or for bottom roll up systems where the drive travels up and down.

The EZ Roll Power shaft (below left) is easily removable for winter use, and future adjustments can easily be made if needed. EZ-Roll curtains have to have the bottom floating tube disconnected for the winter because of snow and ice accumulation.

The innovative EZ Roll Pulley (right) will not allow the cable to get loose and unravel off the drum. When a curtain is frozen against the wall, it may not fall open when the drive opens. Our pulley stops the drive until the cable is taugt again. If a cable gets loose and the curtain closes again with the cable winding on top of itself, the cable will break.

Inside mounted hand winch & pulley for glass panel, folding curtain or insulated curtain





# Actuators

## EZ Lift Actuator System

Stainless steel curtain moving actuators are ideal for folding curtains, panels and insulated curtains. Delrin plastic drive blocks are used instead of copper for long system life. Backup safety switches are standard to keep the machine from over positioning. The cover is easily removable to make adjustments or for annual maintenance, such as greasing the machine. The EZ Lift Actuator system comes with standard 115V motors, but other voltage motors are available on request. With a load rating of 2500 lbs, this machine will keep even your heaviest curtains moving smoothly. The 3" pulleys that are installed with EZ Lift Actuators are designed to keep the cable on the pulley even if the cable should become loose for whatever reason.

## Technidrive Chimney Actuator

With an aluminum housing and stainless steel screws this medium duty actuator is the perfect solution for your chimneys. These actuators come with a load rating of 800 lbs which is lots of power for even the longest chimney systems. The limit switches are easy to use if there is ever need for future adjustments.

For a complete list of technical specifications, please see online: [tinyurl.com/technidrive](http://tinyurl.com/technidrive).



# Controllers and Sensors

## Managing your atmosphere

Efficiently control the ventilation of your barn with tunnel, natural or a combination of both. Tri-Star EXPERT can handle HVLS fans, curtains, panels, heaters super cool high pressure misting, and exhaust fans and have all this technology work together. Tri-Star is compatible with alarms, wind, rain, and humidity sensors and can be programmed to your individual barn to maximize livestock comfort year round. It automatically switches between winter and summer settings for a worry free ventilation system that contains up to 8 sidewall panels.



TRI-STAR MODULE and CONTROLLER

Curtains can be set to stay open a few inches until your freeze temperature is exceeded during the winter, keeping your humidity levels low. The curtains open and close according to the temperature in their respective zones. When the temperature departs significantly from the set point, the panel is opened or closed by a greater amount. A drying option is also available for folding curtains to keep rodents out and the curtains dry. Winter maximum opening setting also can be used to keep curtains from opening all the way in the winter. New modules - (additional curtains and fans) - can be added onto the main control if the barn expands in the future. The curtains remain easy to control manually, with simple toggle switches.

The weather station is an optional add on to the Tri-Star control that monitors outside conditions such as wind speed, wind direction, temperature and rain. It signals the controller to move your curtains and run the fans to maximize animal comfort and keep straw and bedding in place. This integrated system will also close curtains against the wind in a rain storm.



TRI-STAR RAIN and WIND SENSORS

### 2 Zone Ventilation Control

This control can handle 2 curtains and heaters for simple ventilation. Wind sensors can be connected to better manage the sidewall openings. It can also be set to move the curtains faster, the farther the temperature gets from the set point.



### 4 Zone Ventilation Control

Similar to the 2 zone control, it handles 4 curtains or chimney zones and heaters, or a combination of up to 3 curtains and 2 heaters. These controls are also compatible with alarm systems.



### Big Ass FanControl

A simple, user friendly control that will operate your Big Ass Fans automatically and shut them down in high winds. Can be paired with a 2 or 4 zone control for a very economical control system for those under a budget.





# Hardware

Heavy duty hand winches for your manually operated curtains and panels are standard, and are built with large drums for fast operation. Auto locking winches are used for bigger tarp doors and glass panels. These can also be used on curtains when safety is a concern.



STANDARD and SELF LOCKING HAND WINCH



3" heavy duty pulleys with a bearing and grease nipple are used for the main cable. Various pulleys are available for custom requirements. Built to last by local manufacturers.

This is the gearbox that we use on standard roll up curtain systems. It slides up and down the tube on the end pockets so no extra track or wheels are needed.



2.5" aluminum tube used along the top of higher opening curtains and the bottom of EZ-Roll Curtains. It has a thicker wall than the tubes used in any other curtain system. We also use it in our XTR systems.



The innovative aluminum Curtain Fastening Strip is used to fasten curtains along the bottom or top. Fast and easy to install onto the wall with SS screws.



We use this aluminum tube in bottom roll up curtains and along the top in smaller EZ-Roll openings. They speed up installation time and make future curtain replacements easy, if they are ever needed.



Our most economical fastening system is a galvanized conduit in a curtain hem. The curtain is attached to the conduit with aluminum rivets. Used mainly in folding summer roll up curtains and insulated curtains.





## St Clements

3909 Boomer Line, RR#1 St Clements  
Ontario N0B 2M0 519-501-7191  
saleslmbinc@gmail.com

## Dundalk

712665 Southgate Rd 71, RR#1  
Proton Station ON N0C 1L0 519-504-3324  
davidventway@gmail.com