

# COMPLETE **BROILER** SYSTEM



**Grain & Protein Technologies Asia Sdn. Bhd.**

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**Cumberland** *Raise your best.*



## STORAGE & DELIVERY SYSTEMS



### Hoppers And Bracing

Fully galvanized, roll formed 6-bend legs, cross ties and two piece leg anchor sections provide greater strength, stability, support and load transfer. Tank hoppers are available in 60° or 67° slopes in either a 16" or 22" hopper opening. Hopper panels are die-formed with a down-turned sealed edge for a weather-tight fit and assembled with rounded, truss-head bolts to reduce content bridging.



### Sturdy Side Ladders

A unique, non-interfering safety rail and fully die-formed, sectional side ladder provide solid, comfortable access. Ladder rungs are dimpled for better footing in inclement weather.



### Factory Formed Fill Kits Available

Exclusive pre-punched, extruded lip roof panels for the optional pneumatic fill-kit eliminate the inconvenience of field-cutting fill and exhaust tube openings, and ensuring moisture-proof seals.



### Easy Ground Control

Cumberland's feed tank bin lid is easily opened and closed from the ground using a simple pull chain system.



### Rigid Roof Panels

Feed tank roof panels are precision manufactured for easy installation and feature reinforced ribs at each seam for added strength and rigidity on both 30° and 40° bin roof options.



### View Windows

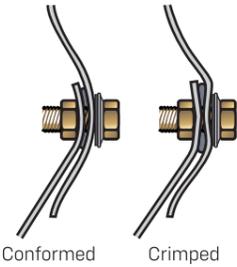
Save yourself a trip up and down the feed tank ladder with Cumberland's optional view windows in either a sidewall or hopper panel mount. Feed levels inside the tank can be quickly and easily monitored at a glance.

### Bulk Feed Tank

Cumberland's Bulk Feed Tanks perfectly illustrate the attention to detail that quality demands. Every stage of the forming process, from corrugation to die-cut shaping to precision finishing, is controlled at our own facilities to assure quality is maintained.

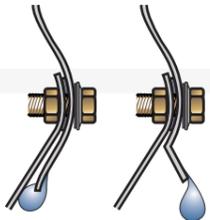
### Exclusive To Cumberland Hoppers

The upper eave, where the hopper is joined to the sidewall, is specially die-formed to conform to the shape of the sidewall corrugation. Most other manufacturers depend on crimping and bolt pressure to force the connection which produces corrosion-prone distortion and dimpling of the sidewall.



### Drip Lip Water Deflection

Cumberland's Drip Lip Water Deflection is a one-of-a-kind, roll-formed bottom sheet edge, which forces water away from the hopper and lower boot area.



### Added Security

Stay in compliance with current fall protection standards with Cumberland's flexible cable vertical safety systems and feed tank safety cages.



### Reinforced Belting

Reinforced rubber belting bumper provides additional protection to peak ring.



### Secure Design

An internal magnet adds additional holding power to keep the lid closed.



### Optional Snow Guard

Optional Snow Guard helps deter blowing snow from entering the tank.

### Bulk Feed Tanks Models:

| Model  | Part Number   |                 |      |                 | Maximum Capacity |              |             | Overall Height |        |
|--------|---------------|-----------------|------|-----------------|------------------|--------------|-------------|----------------|--------|
|        | Diameter Feet | Diameter Meters | Ring | Angle of Hopper | Cubic Feet       | Cubic Meters | Metric Tons | Feet           | Meters |
| BFT 6  | 6             | 1.83            | 1    | 60°             | 147.60           | 4.18         | 2.67        | 11.3"          | 3.43   |
| BFT 6  | 6             | 1.83            | 2    | 60°             | 222.21           | 6.29         | 4.03        | 13'11"         | 4.25   |
| BFT 6  | 6             | 1.83            | 3    | 60°             | 296.82           | 8.41         | 5.38        | 16'7"          | 5.06   |
| BFT 6  | 6             | 1.83            | 4    | 60°             | 371.43           | 10.52        | 6.74        | 19'3"          | 5.87   |
| BFT 7  | 7             | 2.13            | 1    | 67°             | 244.96           | 6.94         | 4.44        | 14'3"          | 4.35   |
| BFT 7  | 7             | 2.13            | 2    | 67°             | 346.51           | 9.81         | 6.29        | 16'11"         | 5.16   |
| BFT 7  | 7             | 2.13            | 3    | 67°             | 448.06           | 12.69        | 8.13        | 19'7"          | 5.97   |
| BFT 7  | 7             | 2.13            | 4    | 67°             | 549.61           | 15.56        | 9.97        | 22'3"          | 6.78   |
| BFT 7  | 7             | 2.13            | 5    | 67°             | 651.16           | 18.44        | 11.82       | 24'11"         | 7.60   |
| BFT 7  | 7             | 2.13            | 6    | 67°             | 752.71           | 21.31        | 13.66       | 27'7"          | 8.41   |
| BFT 9  | 9             | 2.74            | 1    | 60°             | 413.81           | 11.72        | 7.51        | 15'11"         | 4.59   |
| BFT 9  | 9             | 2.74            | 2    | 60°             | 581.68           | 16.47        | 10.56       | 17'9"          | 5.41   |
| BFT 9  | 9             | 2.74            | 3    | 60°             | 749.55           | 21.22        | 13.60       | 20'5"          | 6.24   |
| BFT 9  | 9             | 2.74            | 4    | 60°             | 917.42           | 25.98        | 16.65       | 23'1"          | 6.74   |
| BFT 9  | 9             | 2.74            | 5    | 60°             | 1085.28          | 30.73        | 19.70       | 25'9"          | 7.85   |
| BFT 9  | 9             | 2.74            | 6    | 60°             | 1253.15          | 35.49        | 22.75       | 28'5"          | 8.66   |
| BFT 12 | 12            | 3.66            | 2    | 60°             | 1177.87          | 33.35        | 21.38       | 21'11"         | 6.67   |
| BFT 12 | 12            | 3.66            | 3    | 60°             | 1476.30          | 41.8         | 26.80       | 24'7"          | 7.49   |
| BFT 12 | 12            | 3.66            | 4    | 60°             | 1774.73          | 50.25        | 32.22       | 27'3"          | 8.30   |
| BFT 12 | 12            | 3.66            | 5    | 60°             | 2073.17          | 58.71        | 37.64       | 29'11"         | 9.11   |
| BFT 12 | 12            | 3.65            | 6    | 60°             | 2371.60          | 67.16        | 43.05       | 32'7"          | 9.93   |
| BFT 15 | 15            | 4.57            | 2    | 60°             | 2064.39          | 58.46        | 37.48       | 25'10"         | 7.87   |
| BFT 15 | 15            | 4.57            | 3    | 60°             | 2530.69          | 71.66        | 45.94       | 28'6"          | 8.68   |
| BFT 15 | 15            | 4.57            | 4    | 60°             | 2996.99          | 84.87        | 54.41       | 31'2"          | 9.50   |
| BFT 15 | 15            | 4.57            | 5    | 60°             | 3463.29          | 98.07        | 62.84       | 33'10"         | 10.31  |



Factory assemble for easy installation, Cumberland's feed tank lid features a durable LLDPE construction and swings fully open on 7' diameter bins and larger.

- Available for 30° and 40° roof profiles
- Simplified clamp-band installation of lid assembly peak ring
- Clamp-band design allows installation in 360° orientation
- Retro-fit packages available for 20" and 22-1/2 O.D peak rings

## FLEX-FLO™ DELIVERY SYSTEMS

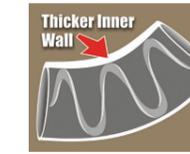
Cumberland offers five Flex-Flo™ models with capacities ranging from 15lbs. to 220lbs./minute (6.8kg to 99.8kg/min) whether it's ground feed, crumble feed, mash, high moisture corn, shelled corn or pellets, Cumberland has the equipment to handle it. For corn with up to 27% moisture and other hard to flow materials, Cumberland also offers a Flex-Flo™ High Roughage system which incorporates a special combination of a 3" (75mm) auger in a 3-.5" (90mm) tube to reduce plugging.

### Special Blend



Polyvinyl chloride (PVC) tubing is extruded and formed in our own facility, to exacting standards and under our own quality control. Blended PVC allows us to formulate the optimum compound for UV stabilization, strength and wear resistance.

### Around the Bend



For moving feed up in the air and around corners. Flex-Flo™ tubing is available in specially formed elbows with increased wall thickness on the inside of the elbow for strength and wear resistance.

### Quality Auger



Cumberland augers are coiled in-house from high tensile steel. The wire used is flattened prior to hardening, providing for a more consistent, high quality product.

| Flex-Flo™ Models  | Model 220 | Model 300 | Model HR | Model 350 | Model 500 |
|---|-----------|-----------|----------|-----------|-----------|
| Tube Outside Diameter                                       | 2.25"     | 3"        | 3.5"     | 3.5"      | 5"        |
| Tube Outside Diameter (mm)                                  | 55        | 75        | 90       | 90        | 125       |
| Tube Corner Radius  | 5'/10'    | 5'        | 5'       | 5'        | 6'        |
| Tube Corner Radius (m)                                      | 3.05      | 1.83      | 1.83     | 1.83      | 1.83      |
| Max. Single System Length with Three Elbows                 | 250'      | 200'      | 150'     | 150'      | *150'     |
| Max. Single System Length (m) with Three Elbows             | 76.2      | 60.96     | 45.72    | 45.72     | *45.72    |
| Recommended Motor Sizes at Max. Length (Horsepower)         | 0.5       | 1         | 1        | 1         | 1.5       |
| Capacity (Lbs./Minute at 40 Lbs. per Cu. Ft)                | 15        | 50        | 50       | 100       | 220       |
| Capacity (Kgs./Minute at 640 kg. per Cu. Ft)                | 6.8       | 22.7      | 22.7     | 45.4      | 99.8      |
| Extension Length (Motor End of First System) w/o Elbows     | 300'      | 235'      | 185'     | 185'      | *185'     |
| Extension Length (Motor End of First System) (m) w/o Elbows | 92        | 72        | 56       | 56        | *56       |

\* For high moisture corn reduce system length by 50%



**DELIVERY SYSTEMS**

**Extension Unit**

For applications requiring distance greater than the standard length of any given system, extension units are available that can expand the delivery range to practically any distance and can provide access at 90° from the main line.

**Heavy Duty Boots**

Cumberland's 16" (40.6cm) parabolic boot (available in straight boot, 30° and straight twin boots) is made from the very latest ultra high impact polypropylene for greater flexibility and durability. Far from ABS plastic, which is stiff, brittle and prone to fracture, cracking and tear-out, especially where it's attached to steel. ABS is not able to be UV stabilized, unlike the polypropylene resin blend which contains special UV light inhibitors, further enhancing it's durability.

**Smart Monitoring In Real-Time**

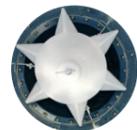
Monitor feed usage, track feed levels, and receive automatic notifications from the EDGE Bin Scale system. Its cloud-based architecture allows remote connections via any web-enabled device, giving you the ability to analyze data in real-time and respond quickly to any issue.



**Sure-Flo**

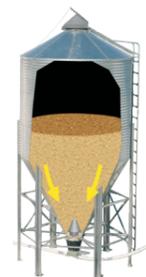
An affordable and simple way to prevent bridging and promote even feed flow in feed bins!

- Reduces feed bridging
- First in, first out feed flow
- Reduces feed separation
- Easy to install

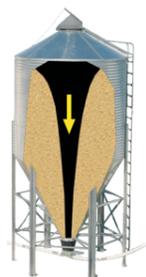


The Sure-Flo support bracket easily bolts to the hopper collar of new or existing bulk feed bins and is quick and simple to install.

Sure-Flo directs feed down the hopper the bin rather than down the center creating a first in, first out feed flow. The gentle movement of the heavy walled molded cone enhances flow as feed passes over it.



With Sure-Flow



Without Sure-Flow

**PAN FEEDING**

**PAN FEEDING**



Direct-Drive Power Unit

Direct-Drive Power Unit



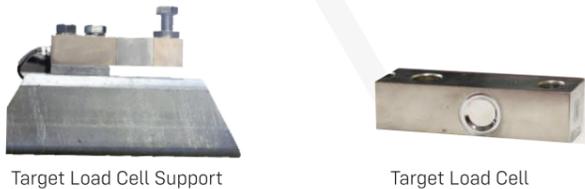
Twin Boot

Straight Boot

30° Boot

**Bin Load Cell**

- Each load cell has 10,000lbs (4,536kg) capacity
- Lightning protection at each load cell
- Accuracy over the entire linear range
- Accuracy and durability to withstand lightning, wind and temperature fluctuations



Target Load Cell Support

Target Load Cell

**Flow Hammer**

Feed bridging has become a common event in the poultry industry as feed rations change due to fluctuating input costs and the use of alternative feed stuffs to lower cost and gain feed efficiency. The "Flow Hammer" is a reliable and affordable solution that easily adapts to most existing feed bins. This product aids in the prevention of out of feed events in all phases of poultry production.

- Minimize feed bridging events to keep feed flowing consistently to birds
- Can be installed on a full or empty bulk feed tank
- Low maintenance and simple installation (no field modifications to the tank required)
- Timed and sensor control unit modes:  
The time mode uses an "on" time and a "cycle" time to control the Flow Hammer when the feed system is running.  
The sensor mode uses a sensing device to detect a feed flow issue and activates the Flow Hammer. Once the event has ended, the Flow Hammer shuts off.



Hi-Lo Classic



Hi-Lo VIII Pan



Hi-Lo Plus



MY Pan

**Hi-Lo Classic & Hi-Lo VIII Pan**

Two-Stage pan performance inside one complete feeder is the idea behind Cumberland's revolutionary Hi-Lo Pan Feeding System. The Hi-Lo pan feeder represents a unique concept in the poultry industry, using one feeder to take from day-old through adult. The first ten days of a broiler chick is critical. The Hi-Lo pan feeder can start on the house floor, presenting a lip height of 2.1" (5.33cm), the average height of traditional "chick lids". As the bird grows, the feeding line needs to be raised. The Hi-Lo is able to expand into a 3.5" (8.89cm) deep pan. The higher wall and feed saver lip prevent waste from raking and spill out.



The telescoping drop tube automatically compensates for uneven floor conditions. The drop tube is available in either the standard one piece or optional two pieces design.



**360° Action**  
The combination of drop tube and grill allows movement in 360°, reducing bruising and injury to the birds.



**Feed Depth Control**  
Measures directly from the bottom of the pan, assuring all birds a consistent and even supply for fresh feed.



**Two Stages Collapsed (2.1") and Expanded (3.5")**

**MY Pan**

MY Pan is a comprehensive feeding pan that is easy to install and operate, designed for day-old chicks till harvest.

- Slide to detach and engage Drop Tube
- Flood Window
- Optional Shut off
- 6 Stages Rotating Feed Level
- Anti Scratch Fin

**Non flooding minimum feeding position**

When the feeder is winched up above the floor, the flood feed window will shut off and minimize the feed to flow through the saving ring.



**Flood feed position**

When the feeder is seated on the floor, the feeding window will give maximum flooding feed. The shallow pan is designed with a feed-saving lip that prevents waste and allows day-old chicks to access the feed easily.

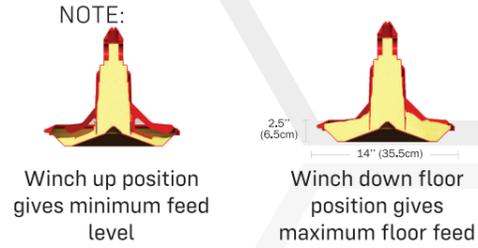




EZ Flood Pan

### EZ Flood Pan

The EZ Flood Pan is suited for day-old chicks until full grown. The design concept of EZ Pan is to allow maximum flooding feed when the pan is set at the lowest position



### Hi-Lo & M-Series Drop Tube

With the new Drop Tube, the Hi-Lo and M-Series Pans can now be used in conjunction with both the rib-less and ribbed tube.

- Easy detachment of pan assembly auger tube
- One piece drop tube retro kit can be used as chick booster when used in conjunction with Feed Tray
- Convenient push to allow feed drop onto the pan and pull to shut off useful during brooding stage



### M Series Pan (7 & 14 Spoke Design)

The M Series Pan is suited for day-old chicks until adult. It is made from high quality materials with high corrosion resistance and UV resistance. The wide spokes will reduce bruising and injury to the birds. The higher wall and feed saver lip helps prevent wastage.



M7 Pan



M14 Pan

### Tubing & Auger

The rib on Cumberland's lock formed tubing gives added strength to the tube, as well as providing a solid way to hold the pans in place. The auger is manufactured from pre-flattened wire to reduce material stress and provide for a more consistent, high quality product.



Rib Tube

Round/ Rib-less Tube



### Poultry Boots

Heavy fabricated, galvanized, single and double outlet boots are available for end or center housing feeding applications.



Feed Level Switch

### Hopper Feed Level Switch

Traditional micro switch hopper level controls are available to regulate feed delivery.

### i-Plus 3 Control Pan



Cumberland i-Plus 3 Control Pan feeding system utilizes Infrared technology to sense and detect the level of feed in the control pan for proper and reliable operation which promotes full pans and healthy birds. All control pan models are durably constructed and assure consistent feed regulation.

After first 8 days brooding, elevate feeder line 1cm every 3 days.



i-Plus 3 Control Pan



As the i-Plus 3 Control Pan fills, the infrared beams detect the feed levels.



When the feed level breaks all three of the infrared sensors, the auger will stop automatically.



When the feed drops below the infrared sensors, the auger will re-start automatically after delay.

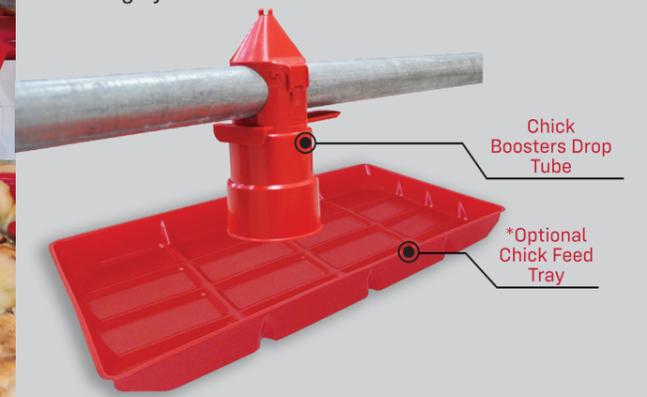


## INTRODUCING CHICK BOOSTER

Suitable for day old chicks for quick and easy accessible to supplementary feed on their first day of life.

Cumberland Chick Booster provides ample feeding spaces for the chicks to feed. Enhancing uniformity growth and healthy.

With 8 on 12' or 10 on 12' rib-less or ribbed auger tubes, the Chick Booster can be assembled using the same pan feeding systems.



Chick Boosters Drop Tube

\*Optional Chick Feed Tray

# WATERING SYSTEMS

This system features an important innovation: using ball valve sitting on toggle pin. It has a 360 side-to-side toggle action screw in nipple, which makes drinking four times easier than ever before. The upper metering ball precisely control the flow of water through the valve and the high quality snap on drip cup which keeps the litter dry.



1. Sight gauge
2. End kit
3. Shocker cable
4. Drinker cup
5. Nipple
6. Conduit support pipe
7. Regulator mount bracket
8. Regulator
9. Flush
10. Water inlet



## Nipple & Drip Cup

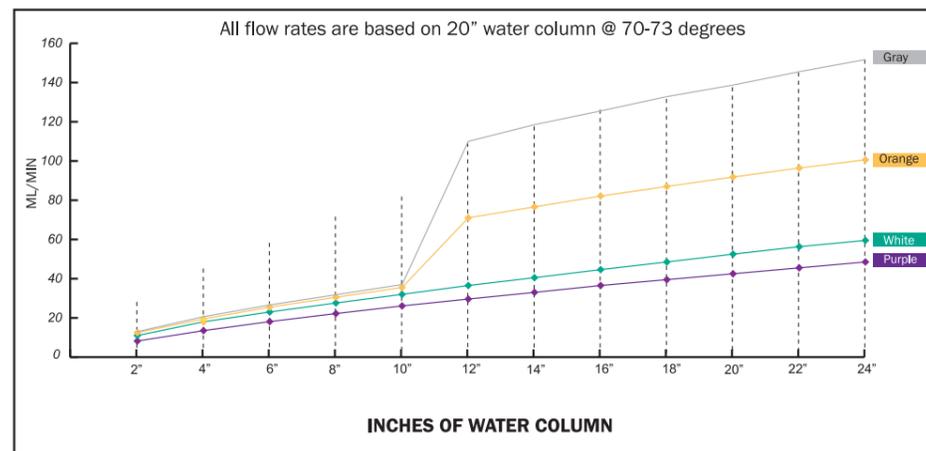
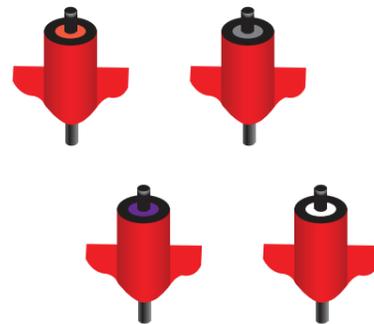
- Cumberland uses hardened high grade stainless steel balls for a tighter seal and accurate flow control
- Inner components are contained and will not disassemble during shipping
- Screw in nipple uses all stainless steel components manufactured in USA
- No special wrench required for assembly

## Twin Lock Nipple Valves

- 4 different styles available to meet all watering needs
- Only 3 moving parts
- Extra long life
- 360° toggle
- Four times easier action
- Quick and easy assembly (no wrench required)
- High precision stainless steel ball and seat
- Lower pin drinking cavity attracts chicks
- Standard Twin Lock connection interchanges with other brands
- The double locking feature compresses and seals the o-ring uniformly around the drinker

Twin Lock Design | Stainless Nipple Valves

|        |                |
|--------|----------------|
| Gray   | CW-9580TA-HIA  |
| Orange | CW-9440TA-HIA  |
| White  | CW-9197TA-HIA  |
| Purple | CW-10233TA-HIA |



## Plastic Nipple CW-P10013



| Pushed In        |             | Side Action      |             |
|------------------|-------------|------------------|-------------|
| Water Level (cm) | Minute (ml) | Water Level (cm) | Minute (ml) |
| 10               | 50          | 10               | 45          |
| 20               | 72          | 20               | 70          |
| 30               | 101         | 30               | 92          |

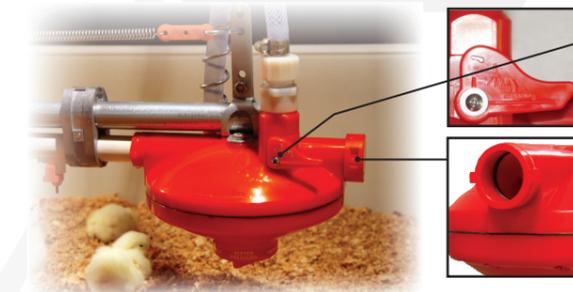
## Stainless Steel Nipple CW-10015



| Pushed In        |             | Side Action      |             |
|------------------|-------------|------------------|-------------|
| Water Level (cm) | Minute (ml) | Water Level (cm) | Minute (ml) |
| 10               | 57          | 10               | 26          |
| 20               | 86          | 20               | 56          |
| 30               | 119         | 30               | 72          |
| 40               | 138         | 40               | 98          |

## Water Regulator

Flushing of the Cumberland Watering System requires no extra plumbing and valves. The Cumberland Regulator can be easily removed from the watering line without interfering with the suspension of the watering line. The heavy-duty housing of the Cumberland Water Regulator design allows higher incoming water pressure and helps to prevent any leakage where housing is bolted together. Square pipe adaptor kit is available for Square Pipe System.

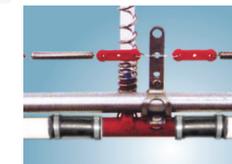


### Convenient Flush

Cumberland's unique flush lever is designed for greater versatility and ease of use, no by-pass necessary.

### Removable End Cap

This regulator can be easily removed from the watering line without interfering with the suspension of the watering line. With the unique in-line design, it can be used as a mid-line regulator by simply removing the end cap.



### Air Vent

- Bleeds air from high spots
- Offers mid-line sight gauge reading
- Can be installed anywhere



### Regulator for Both Round and Square Pipe Systems

- Delivers high volume of water at an adjustable pressure
- Heavy-duty
- Square pipe adaptor available as an accessory for square pipe system



### End Kit-Auto Flush

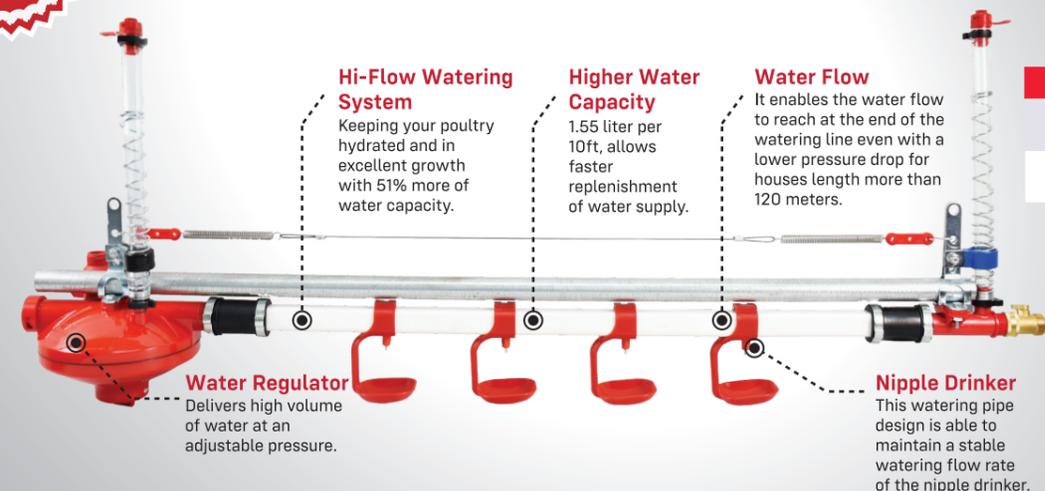
- Extra strong design
- All flexible sight gauge allows easy pressure reading
- Require no valve at end kit to flush



### Self Sealing Cap

Self sealing cap at clear sight tube to prevent water spillage.

# NEW INTRODUCING HI-FLOW WATERING SYSTEM



### Hi-Flow Watering System

Keeping your poultry hydrated and in excellent growth with 51% more of water capacity.

### Higher Water Capacity

1.55 liter per 10ft, allows faster replenishment of water supply.

### Water Flow

It enables the water flow to reach at the end of the watering line even with a lower pressure drop for houses length more than 120 meters.

**Water Regulator**  
Delivers high volume of water at an adjustable pressure.

**Nipple Drinker**  
This watering pipe design is able to maintain a stable watering flow rate of the nipple drinker.

| Dimension           |             |
|---------------------|-------------|
| Hi-Flow Square Pipe | 28mm x 28mm |
| Regular Square Pipe | 22mm x 22mm |

# VENTILATION FANS



## Mega Flow Galvanized Fans

Lower Cost, Higher Profits

Cumberland ventilation systems are the perfect solution for more efficient, high performance, climate control in poultry production facilities. Our equipment has been field refined and industry proven to be extremely effective in reducing bird stress caused by overheated or poorly ventilated houses. Even if your building is well ventilated, inefficient equipment can blow healthy bird profits right out the window. If you're looking for a better return on your investment, go for Cumberland, your ventilation expert.



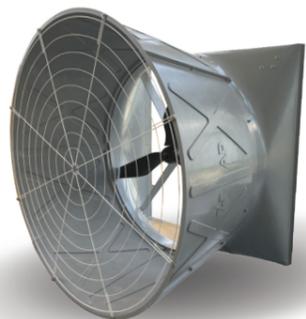
## Slantwall Fans

Cumberland offers 36" and 50" galvanized steel belt drive slantwall fans to maintain optimal environmental conditions efficiently and effectively. All galvanized fans are constructed of heavy gauge, G-90 grade galvanized steel and use high efficiency motor for continuous duty cycles. Galvanized fans propellers are aerodynamically balanced for maximum air flow.



## 50" 6- Blade Box Fans

- Cumberland 50" 6-blade box fan delivers improved performance
- Stainless steel fan blade, housing and shutter are made from Zinc-Aluminum-Magnesium alloy coated steel
  - Corrosion resistant
  - Suitable in high-humidity and ammonia environment
  - Shutter is equipped with linkage and centrifugal system for simultaneous opening and closing to ensure maximum air flow passage



## 56" High Performance Fan

Cumberland offers 56" high-efficiency direct drive variable speed fan, designed to uphold optimal environmental conditions with unparalleled efficiency. With fan blades made of Nylon Plastic Composite, it ensures durability and delivers superior performance. The fan incorporates a Permanent Magnet Synchronous Motor that excels in energy efficiency and performance. Ideal for diverse work environments, it stands as a testament to cutting-edge engineering.



3 Blade Cone Fan

## Cone Fan

Optional discharge cones can boost fan output by as much as 10-15%, greatly increasing efficiency. Made from all galvanized steel, cones are available in easy to ship and assemble four-piece segments for 36", 50" & 52" models.

## Galvanized Fan Performance Value

| Model   | Hz | Dia. | Drive | Type         | HP  | .05 Static Pressure |          | .10 Static Pressure |          | Remarks           |
|---------|----|------|-------|--------------|-----|---------------------|----------|---------------------|----------|-------------------|
|         |    |      |       |              |     | CFM                 | CFM/Watt | CFM                 | CFM/Watt |                   |
| X36GB   | 50 | 36   | Belt  | Box          | 0.5 | 7867                | 34.4     | 7260                | 30.5     | Wire Grill        |
| X36GSHB | 50 | 36   | Belt  | Box/ Shutter | 0.5 | 6476                | 26.9     | 5812                | 23       | PVC Shutter       |
| X36GCB  | 50 | 36   | Belt  | SW CONE      | 0.5 | 7,444               | 33.2     | 6667                | 27.8     | PVC Shutter       |
| X50GSHB | 50 | 50   | Belt  | Box/ Shutter | 1.5 | 18,820              | 14.8     | 17,396              | 13.4     | PVC Shutter       |
| X50GCB  | 50 | 50   | Belt  | SW CONE      | 1.5 | 21,420              | 19       | 19,680              | 16.9     | PVC Shutter       |
| X52GCB  | 50 | 52   | Belt  | SW CONE      | 1.5 | 24,400              | 18.6     | 22,500              | 16.5     | PVC Shutter       |
| X52GCB  | 50 | 52   | Belt  | SW CONE      | 1.5 | 23,688              | 23.1     | 22,181              | 20.8     | Aluminium Shutter |

\* All test with PVC shutter. \* All 50Hz fan result are test by GSI China fan test chamber.  
\* All model are available in 60 Hz

## 50" 6- Blade Box Fans

| Static Pressure |    | Airflow |       | Fan Speed | Input Voltage | Input Current | Power | Performance |          |
|-----------------|----|---------|-------|-----------|---------------|---------------|-------|-------------|----------|
| in.H2O          | Pa | CFM     | M3/hr | Rpm       | Volt          | Amp           | Watt  | CFM/Watt    | kw/M3/hr |
| 0.00            | 0  | 23000   | 39100 | 462       | 380.8         | 2.55          | 1398  | 16.5        | 36       |
| 0.05            | 12 | 22100   | 37500 | 460       | 380.5         | 2.62          | 1451  | 15.2        | 39       |
| 0.10            | 25 | 21000   | 35800 | 459       | 380.0         | 2.69          | 1495  | 14.0        | 42       |
| 0.15            | 37 | 19900   | 33800 | 458       | 379.6         | 2.78          | 1551  | 12.8        | 46       |
| 0.20            | 50 | 18600   | 31600 | 456       | 379.1         | 2.84          | 1592  | 11.7        | 50       |
| 0.25            | 62 | 17000   | 28900 | 456       | 379.2         | 2.90          | 1633  | 10.4        | 57       |
| 0.30            | 75 | 15500   | 26300 | 455       | 379.4         | 2.96          | 1671  | 9.3         | 64       |

## Mega Flow External Damper Fans

Lower Cost, Higher Profits

The Mega Flow External Damper Fan (Mega Flow ED) follows the footsteps of its top of the line Mega Flow predecessors, boasting the industry's highest performance in a galvanized fan. The External Damper line has been completely re-engineered upgraded from the ground up to insure optimum levels of both quality as well as performance. Increasing air flow during operation and providing an unsurpassed complete seal when closed.

Our innovative AddAire butterfly style shutter system comes in standard on all Mega Flow ED models. Due to the fact that minimal dust and debris is collected by the AddAire Shutter, the efficiency and performance of the unit will remain at their optimum levels for the life of the fan.

- Doors remain fully opened under extreme static pressure due to the patented AddAire wings
- Magnetic shutter panel right eliminates movement of shutter
- Four piece galvanized cone for ease of installation
- Available with good label cog v-belt with automatic belt tensioner or powertwist link belt
- Pillow block bearings when not in use and creates a complete seal
- Super efficiency totally enclosed air over energy efficient motors



AddAire is a feature that allows the butterfly style doors to be fully opened and remain fully opened under extreme levels of static pressure.

## Galvanized Damper Fan Performance Values

| Model         | Dia. | Drive | Phase | 0.0 Static Pressure |          | 0.05 Static Pressure |          | 0.10 Static Pressure |          | 0.15 Static Pressure |          | 0.20 Static Pressure |          | BESS LAB TEST # |
|---------------|------|-------|-------|---------------------|----------|----------------------|----------|----------------------|----------|----------------------|----------|----------------------|----------|-----------------|
|               |      |       |       | CFM                 | CFM/Watt | CFM                  | CFM/Watt | CFM                  | CFM/Watt | CFM                  | CFM/Watt | CFM                  | CFM/Watt |                 |
| 77-0137-IB    | 52"  | Belt  | 3     | 30,700              | 24.9     | 29,000               | 21.9     | 27,300               | 19.4     | 25,400               | 16.9     | 23,000               | 14.5     | 05332-C         |
| 77-0138-IB    | 52"  | Belt  | 3     | 29,300              | 25.0     | 27,500               | 21.9     | 25,700               | 19.3     | 23,500               | 16.8     | 21,100               | 14.3     | 05334-C         |
| 77-00165P-50U | 54"  | Belt  | 3     | 32,000              | 23.7     | 30,600               | 21.4     | 29,000               | 19.2     | 27,200               | 17.1     | 25,300               | 15.2     | 14165           |
| 77-0165P-60U  |      |       |       |                     |          |                      |          |                      |          |                      |          |                      |          |                 |

\*77-0137-IB, 77-0165P-60U were tested in 60Hz  
\*77-0138-IB, 77-0165-P-50U was tested with 50Hz

Available in a variety of sizes and materials, we have a shutter to fit your particular requirements. The true airfoil design of our shutter blades make them streamline the exhaust air flow with very little performance loss. Simple to install and built to last a lifetime. Cumberland shutters can provide an easy and affordable means of controlling incoming light and building climate.

Cumberland PVC shutters come in white or black colour, which requires very low maintenance and are easy to clean. The black shutters are used to reduce lighting applications. Aluminium shutters are also available for great durability in any environment. All shutters are rustproof and practically maintenance free.



**Light Traps Features:**

- High light reduction
- PVC extrusion profile protects against sunlight and high temperatures
- Resistance to corrosion and deterioration
- Easy installation and maintenance

**ATTIC VENTS & VENT DOOR SYSTEMS**

**Easy Intall Attic Vents**

Cumberland's Attic Vent ACI Series is precision engineered to extract solar heat from the attic space so it can be used as a valuable heat source. This unique and innovative design is cost effective, durable and easy to install. Incorporating all of the same benefits of the ACI-2500 and ACI-4000 Series, Cumberland's PACI-2500 Series vents are pressure actuated and operated by constant force of static pressure controlled springs. The Attic Vent System is designed to be retrofit friendly in most drop ceiling poultry houses.

- Benefits of Cumberland Attic Vent:
- Drier litter
  - Lower ammonia concentration levels
  - Better environment for the bird



| Part Number  | Description  | CFM at Full Open Airflow @ 0.10SP | CFM at Horizontal Airflow @ 0.10SP | Framed Opening   |
|--------------|--|-----------------------------------|------------------------------------|------------------|
| ACI-2500P2   | All Plastic Actuated Ceiling Inlet                           | 2500                              | 1700                               | 19" W x 27"L     |
| ACI-2500GP2  | Actuated Ceiling Inlet (Galvanized Frame)                    | 2500                              | 1700                               | 21.5"W x 27"L    |
| ACI-4000P2   | All Plastic Actuated Ceiling Inlet                           | 4000                              | 2500                               | 19" W x 46.5"L   |
| ACI-4000GP2  | Actuated Ceiling Inlet (Galvanized Frame)                    | 4000                              | 2500                               | 21.5" W x 46.5"L |
| PACI-2500GP2 | Plastic 2500 Pressure Actuated Attic Vent (Galvanized Frame) | 2100                              | 1300                               | 21.5" W x 27"L   |
| PACI-2500P2  | All Plastic 2500 Pressure Actuated Attic Vent                | 2100                              | 1300                               | 19" W x 27"L     |

Designed to be retrofit friendly in most drop ceiling poultry houses.

**CURVED DOOR DESIGN** directs air along the ceiling toward the house walls for gentle air mixing without downdrafts on the birds.

**Have You Ever Considered Using Attic Heat as Green Solar Energy for Brooding?**

**Operation**

Vents are operated with a linear actuator or curtain machine and are controlled by your ventilation controller.

**House Conditions**

Significant benefits to Cumberland's Attic vents are drier litter and lower ammonia concentration levels, thus providing a better in house environment for the birds.

**Retrofit Friendly**

The Attic Vent System is designed to be retrofit friendly in most drop ceiling poultry houses.

**Sidewall Vent Doors**

Cumberland's vent doors are used in poultry applications where transitional ventilation is required. Vent doors comes with galvanized or plastic which are easy to install. These doors are maintenance free and will provide optimum circulation for many years. Plastic curved door directs fresh air into the house along the ceiling toward the peak for gentle air mixing without downdrafts on the birds and is ideal for wider poultry houses.

**Fuel Savings**

Mixing warm air from the attic with house air during minimum ventilation reduces fuel consumption as compared to using cold air through sidewall inlets. Fuel savings can vary depending on management, house construction and climate.

**Unique Door Design**

Exceptional air mixing due to the curved door profile which provides proper air velocity directing warm air from the attic into the house.

**Specifications:**

| Part Number  | Description       | CFM at 0.10SP | Rough Opening   |
|--------------|-------------------|---------------|-----------------|
| 6612-4408RCN | Plastic Vent Door | 1816          | 8.75" x 44.50"  |
| 6612-4413RCN | Plastic Vent Door | 2953          | 13.50" x 44.50" |
| 07501387     | GI Vent Door      | -             | 12.85" x 63"    |
| 07502334     | GI Vent Door      | -             | 11.8" x 48"     |



**EVAPORATIVE COOLING SYSTEMS**



**Key Features:**

**Open Top Design**

Made of high quality aluminum, this system will give years of dependable operation under the harshest conditions. The Open Top design allows you to see the water jets and easily check water pressure. It also offers access to the spray bar for cleaning. Pre-punched and heavy duty stainless steel components help simplify installation.

**Water Troughs**

Cumberland's pre-formed square trough serves as a 3 gallon per lineal foot (44.8liters per meter) water reservoirs. Constructed with corrosion proof, ultra-violet stabilized PVC components, the trough allows unevaporated water to be recirculated back to the holding tank. A perforated tray snaps to the trough to hold pads firmly in place. Injection molded end caps and couplers speed up installation.

**Water Jet Pump**

- All jet pump kits will be factory assembled for easy field installation
- Pump motor available in 0.5Hp 3Ph - 50Hz and 1Hp 3Ph - 50/60Hz continuous duty motor





### Closed Top Cooling System

Cumberland's RCS Gen 2 is a combination of simplified and effective evaporative cooling system. It was developed after years of field study and test, ideal for areas with hot and dry climate. RCS Gen 2 is a reliable climate control solution, requiring minimum installation and crafted for simple supervision and maintenance.

Cumberland only chooses cellulose pads with top quality, made of special cellulose material that provides a large surface area for high cooling capacity. Chemical impregnation protects the pads from damages influenced by outdoor weather.

#### Key Features: Close Top Design



Easy, convenient and flexible opening during cleaning and servicing



Top profile with perforated pipe and deflector for an even distribution of water along the pads



Design of Float Valve is to assure the compact design of integrated trough and tank



Better water distribution along the pads especially for long evaporative system to ensure the livestock are heat stress free



Simplified system with huge water capacity allows easy installation and maximum cooling effect with minimum hassle. 3.96 gallon per linear foot (59.1 litres per meter)



Practical clip - retainers allow a simple and quick replacement of the pads, saving time and labour



Easy installation and pipe cleaning



Bigger Spray Pipe design, better spray effect

## CURTAIN MACHINES

Protect the health of your investment with a properly controlled curtain system. Cumberland's curtain machines deliver powerful performance and reliable operation with durable components to withstand a rigorous environment.

### PowerTrak Linear Drive and Systems

The superior quality and design of the PowerTrak has produced maximum performance and efficiency. This model is a second generation of super strength power pulley systems introduced by Cumberland. It has been completely upgraded with service in mind and boasts many performance and durability enhancing features while maintaining the strong points of its popular predecessors, Power Curtain and Power Vent.

### PowerTrak Optional Chain and Sprocket

Depend on the superior quality and design of Cumberland power systems for maximum performance and efficiency. A proven standard in vent applications was set with the introduction of the optional Chain and Sprocket PowerTrack which minimizes alignment problems and cable breakage in vent applications.

- Upper and lower auxiliary contacts for enhanced Evolution features
- 15% increase in load block support surface for greater life
- Convenient hinged springlock door that is easily removed
- Channel lock "trak-drive" system captures load block
- Built in head bracket with needle bearing pulleys
- Easy adjust springcam limit switch system
- Modular construction for ease of service
- Greater protection from the elements
- 5,000 pound capacity



### Gear Up to Powerful Performance

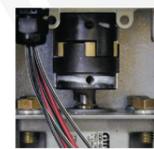
Protect the health of your investment with a properly controlled curtain system. Cumberland's curtain machines deliver powerful performance and reliable operation with durable components to withstand a rigorous environment.

### Curtain Controller

Cumberland's Curtain Controller is a screw driven automated curtain machine with a heavy duty 15, 30 or 60 RPM motor. Multi-directional, frame mounted, header pulleys are standard.



Solid construction and rust resistant materials make the sprocket controller a reliable workhorse year after year.



The Curtain Controller utilizes a threaded block and drive screw directly coupled to a direct drive gear motor.



Isolated primary and secondary limit switches allow for backup protection.



The drive block assembly features a removable nylon insert in a heavy-duty cast iron drive block simplifying cable/chain installation and ease of maintenance. This design also decreases friction and provides wear characteristics superior to conventional brass drive blocks. UHMW polyethylene guide wheels ensure smooth travel, proper alignment and stability.



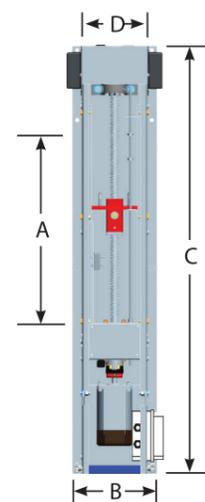
### Curtain Machine Specifications

| Model                     | H.P  | Voltage  | Frequency | Amp Draw | Travel Speed   | RPM  |
|---------------------------|------|----------|-----------|----------|----------------|------|
| 15 RPM Curtain Controller | 1/12 | 115V     | 60Hz      | 1.0 Amps | 3" per minute  | 15   |
| 30 RPM Curtain Controller | 1/8  | 115/220V | 50/60Hz   | 1.7 Amps | 6" per minute  | 30   |
| 60 RPM Curtain Controller | 1/6  | 115V     | 60Hz      | 1.8 Amps | 12" per minute | 60   |
| A.T. Newell               | 1/2  | 115V     | 60Hz      | 6.0 Amps | 3" per minute  | 1725 |
| Auto-Air Actuator         | 1/8  | 115V     | 60Hz      | 1.8 Amps | 15" per minute | 1625 |

### Curtain Controller Dimensions

| Curtain Controller Length | "A" Travel    | "B" Width      | "C" Length    | "D" Width Less Flange | Weight           |
|---------------------------|---------------|----------------|---------------|-----------------------|------------------|
| 24" (61cm)                | 22" (55.9cm)  | 10.2" (25.9cm) | 52" (132.1cm) | 9.5" (24.1cm)         | 110lbs. (49.9kg) |
| 36" (91.4cm)              | 34" (86.4cm)  | 10.2" (25.9cm) | 64" (162.6cm) | 9.5" (24.1cm)         | 130lbs. (58.9kg) |
| 48" (121.9cm)             | 46" (116.8cm) | 10.2" (25.9cm) | 76" (193cm)   | 9.5" (24.1cm)         | 150lbs. (68.0kg) |
| 60" (152.4cm)             | 58" (147.3cm) | 10.2" (25.9cm) | 88" (223.5cm) | 9.5" (24.1cm)         | 160lbs. (72.6kg) |

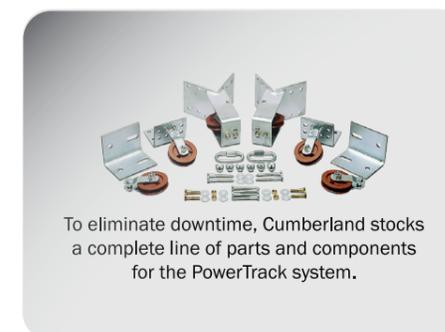
Specifications are subject to change without notice.



### Emergency Curtain Drop Curt-O-Matic II & III



- Simple 3-wire hookup
- Available in 240 volt models
- 5 years product defect warranty
- Curtain chain kit
- Optional: Curt-O-Matic III can be hooked up to your alarm system's electronic audible, to signal alarm if arm system should drop
- Easy installation



To eliminate downtime, Cumberland stocks a complete line of parts and components for the PowerTrack system.

# HEATING SYSTEMS

## Super Saver Heater

The Super Saver XL heating line is a direct fired heaters that offers **Universal Mount** model which includes variations for both inside suspension hanging and outside mounting.

### Key Features:



The inside mount model is a gas circulating heater ideal for a confinement environment.



The "Service Saver" enclosed electronic control unit is sealed from debris such as dust and moisture and is accessible through a side swinging door making the unit easily field serviceable.



Hanging system allows for placement of heater at most optimum locations in the building.



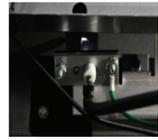
A side swinging door design gives **easy access** to internal components like the "Super Saver" control unit and blower motor, making it one of the easiest to service heaters on the market.



The outside mount model is a forced air heater complete with all relevant installation hardware. Its superior combustion is provided by clean, fresh outdoor air and ensures healthy and safe heating for your poultry needs. All models are available with options for **natural gas or liquid propane**.



Sloped Top and Louvre Panels for better air flow and efficient heat distribution.



The **Electronic DSI Ignition** is standard on all Super Saver heater models. The heating chamber is made of high temp aluminized steel for superior rust protection. The cast iron burner is enamel dipped to eliminate dust adhesion and rust. The surrounding air intake increases combustion and heat change efficiency.

## Super Saver XL Specifications

| Specification                                     | Model SS-225-XL                      |
|---|--------------------------------------|
| Maximum Input (BTUH)                              | 225,000 (65.9kW)                     |
| Ventilation Air Required to Support Combustion    | 1000 CFM (1699M <sup>3</sup> /hr)    |
| Inlet Gas Supply Pressure Acceptable at the Inlet | Max. 14 in W.C.<br>Min. 12.5 in W.C. |
| Burner Manifold Pressure                          | 11 in W.C.                           |
| Motor Characteristics                             | 1/3 HP / 1100 RPM                    |
| Electrical Supply (Volts/Hz/Phase)                | 240/50/1<br>200-230/60/1             |
| Dimension (Inches) L x W x H                      | 24½ x 19¼ x 30                       |
| Weight  | 130lb (60kg)                         |

- Direct spark models available in 225,000 BTU
- High temp aluminized steel burn chamber
- Side swing door for easy access and maintenance
- Diagnostic lights for troubleshooting ease
- Standard adjustable "Y" heat deflector
- 1/3 HP totally enclosed thermally protected motor with sealed bearings
- Standard "1/2" gas cock installed as gas valve
- Back-up safety sail switch
- High limit safety switch (manual reset)
- On/off toggle switch
- Service Saver enclosed control box
- 30% gas saving vs conventional brooder

| Super Saver XL Minimum Clearances |             |
|-----------------------------------|-------------|
| Ceiling                           | 12" (305mm) |
| Wall                              | 12" (305mm) |
| Floor                             | 20" (508mm) |



## PuraFire Heater

With one of the lowest carbon monoxide outputs in the industry (CO emissions of 5 parts per million), PuraFire Heaters are available in C225 (225,000 BTUH). Each heater is LP or natural gas compatible and can be mounted inside or outside any house. These heaters are constructed of tough, rust-resistant galvanized steel for long life and durability.

PuraFire's bottom-draw intake better controls the air flow into and throughout the entire unit and provides a more efficient mix of air and gas. Cool air, channeled along the inside casing, creates a buffer that keeps the outside cooler (not hot to the touch). This air pattern results in a unique bent flame design, which greatly increases the flame's surface area and heat chamber efficiency. All models are available with options for natural gas or liquid propane.

### Features

- Bottom-draw intake better controls air flow
- "Bent flame" design greatly increases flame surface area & heat chamber efficiency
- Outside is not hot to touch
- Motor assembly, blower, gas valve, control panel & other components are protected from moisture
- Swinging doors on each side allow access to all working parts
- Even heat distribution
- Consistent, clean burning source of warmth with near 100% fuel efficiency
- Thermostat operated
- Intelligent trouble-shooting safety features.
- In case of flame failure, an automatic fan shut down stops drafts & gas control lockout preventing gas from escaping
- About 30% gas saving vs conventional brooder



The enclosed electronic control unit is sealed from debris such as dust and moisture and is accessible through a side swinging door making the unit easily field serviceable.



Hanging system allows for placement of heater at most optimum locations in the building.



PuraFire igniters are available with stainless steel casings



## Universal Mount

PuraFire Heater can be used for either inside or outside mount applications.

| PuraFire Minimum Clearances |             |
|-----------------------------|-------------|
| Ceiling                     | 12" (305mm) |
| Wall                        | 12" (305mm) |
| Floor                       | 20" (508mm) |

## INTRODUCING HEATER STAND

Built with galvanized steel to prevent corrossions. With the Swivel Castor Wheels, you can easily relocate the heaters anywhere in your farm. Elevates heated air circulation by 2 feet for uniform distribution of heat particularly for cages.

### Features:

- Fitted with four 4" Swivel Castor Wheels
- Elevate heater by 2 feet (approximately 60cm)



## EDGE 2 CONTROLLER

# EASIER, FASTER, SAFER AND SMARTER. THAT'S THE EDGE 2 CONTROLLER

The next-generation EDGE 2 controller from Cumberland is the most advanced, complete and easy-to-use controller available to monitor and manage all control applications in your poultry barns.

## SIMPLIFY MANAGEMENT OF YOUR COMPLEX OPERATION



- **FUNCTION LIKE A SMART PHONE**  
Large screen, vibrant graphics and familiar "swipe" and "scroll" smart phone functions.
- **IMPROVED CONNECTIVITY SAVES TIME**  
Integrated Wi-Fi.
- **EASIER NAVIGATION**  
Fewer "clicks" to get to a desired function.
- **CONNECT WHEN YOU'RE ON THE GO**  
Connect to the controller 24/7 from anywhere using a dedicated app.
- **UNINTERRUPTED OPERATION**  
Protected by redundant power supplies and communication paths for uninterrupted operation.
- **EIGHT PROGRAM SETTING**  
Automate tasks and configure equipment settings based on production or environmental conditions.
- **ONE CONTROLLER IS ALL YOU NEED**  
Control multiple buildings or rooms from a single EDGE 2 controller.
- **BY-PASS MODE WITH PUSH OF A BUTTON**  
Temporarily by-pass programmed functions with the push of a button.

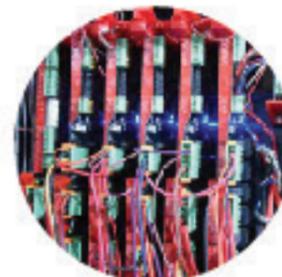


**EASIER**  
One less button to push

**SAFER**  
Industry leading redundancy

**FASTER**  
Controller boots up quicker

**SMARTER**  
More data storage = more flexibility



### VERSATILE

- Connect ventilation, cooling, heating, lighting and watering systems
- Track feed inventory, consumption, animal weight
- Monitor ammonia, humidity, CO2, air velocity and static pressure



### MULTI-LANGUAGE

- EDGE 2 supports all major languages



### MULTI-REGION

- EDGE 2 is UL/CSA certified and CE-approved



### SERVICE & SUPPORT

- Our technical service team is only a phone call away

# CONTROLLER SYSTEMS



## TC5-8SDA - 8 Stage Controller

- Eight ON/OFF climate controls for fan or heater
- Up to 8 fans outputs
- Up to 2 heat outputs
- Up to one cooling outputs
- Minimum ventilation ON/OFF timer
- Automatic temperature reduction
- Alarm

## Alert Alarm III

- Detects high limit and low limit set point temperatures. If any of these do not meet the requirements, it will trigger the alarm signal
- It can be equipped with 2 temperature sensors and 2 auxiliary inputs from other controllers
- It has built in backup battery that can last up to 2 hours
- Has its own backup siren
- Power supply: 120V AC or 240V AC 50/60 Hz
- Temperature range: 0°C – 55°C
- Outputs: 1 @ 12V DC and 1 AMP inputs
- 2 temperature probes or TC4-4SD board to work as slave



## Bird Scale

Help you monitor the precise desired targeted weight. The attractive platform encourages birds to hop onto the scale. The more weight hit each day, the more accurate the house average weight will be. This bird hanging scale kit includes the bird platform and the LCT-1 load cell.

### Key Features:

- Easy to use
- Push-button access to information:
  - Average and number of weight
  - Standard deviation, uniformity and daily gain
- Weigh your birds throughout the day
- Featherweight can have up to 4 platforms – 2 in each house. Each platform has an independent reading. Any platform can be assigned to house 1 or house 2
- Maximum weight of 50kg
- Trade quality Load Cell
- Load cell is located above the platform away from the litter
- Litter and manure build-up do not influence weighing accuracy
- No electrical wires under the platform



## Electronic Controller Expert LA



Compatible with Download Box

- Ventilation based on static pressure and temperature
- 2 timed curtain output
- Up to 16 relay output
- Feeder, heater runtime and water monitoring are saved in memory for up to 75 days
- Upload and download chip to easily transfer all the settings (up to 15 different programs)
- 2 air inlets, 2 natural curtain outputs and 2 tunnel outputs
- Energy saver features
- Seamless ventilation step between stages

- PC programmable (optional)
- Minimum ventilation curve strategy and status LED
- Stage 1 fan ramping feature
- Up to 8 inside and 2 outside temperature probe
- 4 heating stage with High/Low for up to 75 days
- Light program
- Two 0-10 volts outputs
- 1 cooling stage with programmable cycle timer and relative humidity (RH) override feature when the maximum RH set point is reached
- Clean mode can be activated for empty rooms
- Alarm monitoring
- 3 controller programs that can be charged manually by age and by outside temperature

- Copy and paste feature within control
- Memory chip
- Multiple password protected user levels or optional no passwords
- Sensor calibration
- Misting, age and mortality
  - Room temperature 60 days
  - Inside probe temperature 10 days
  - Outside temperature 75 days
  - Humidity 75 days
  - Heater run time 75 days
  - Feeder run time 75 days
  - Daily water consumption 75 days



## Environmental Electrical Control Panel



### Wall mount control system

This control systems range from:

- Ventilation control system
- Feeding control system
- Lighting control system
- Winching control system

## Relay panel manual motor starters for control systems

This relay panel manual motor starters provide protection against:

- Overload
- Short circuit
- Phase failure
- Under voltage

Fuseless protection saves cost, space and provides for quick reaction under short circuit conditions, switching the motor off within 3ms. It is therefore an easy to handle, cost effective protection solution.

## MORE THAN JUST A CLIMATE CONTROLLER

# TC-PRO CONTROLLER

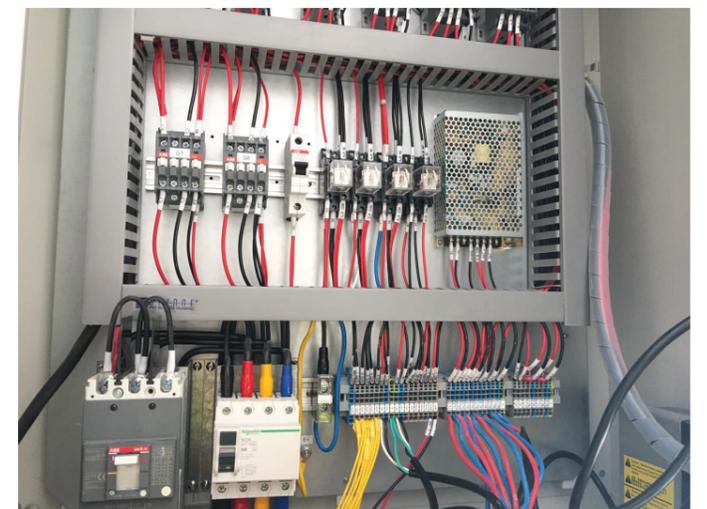
TC-PRO and TC-PRO Plus has the ability to handle multiple control applications such as monitoring and managing the feed systems and livestock growth with its additional relay options. Throughout your livestock's growing stages, now you can be in control and access through internet connectivity.



Complete Unit

### Optional large cabinet for whole house control panel

- Evolution secondary sensing systems
- Lighting distribution control systems
- Feeding distribution control systems
- Ventilation control systems
- Base/plinth, complete 100mm high
- TC5 – 8SDA
- Lifting eyebolts
- Divide mounting plate



# AGRI ALERT ALARM SYSTEMS

## Agri-Alert™ 800EZE



- Graphical LCD screen
  - View information quickly & clearly
  - Intuitive screen design
  - Easy navigation through menus
- Monitor up to 8 zones
- Acknowledge alarms by phone
- Call in from off site for zone temperature and system status report

## Agri-Alert™ 128 Touch



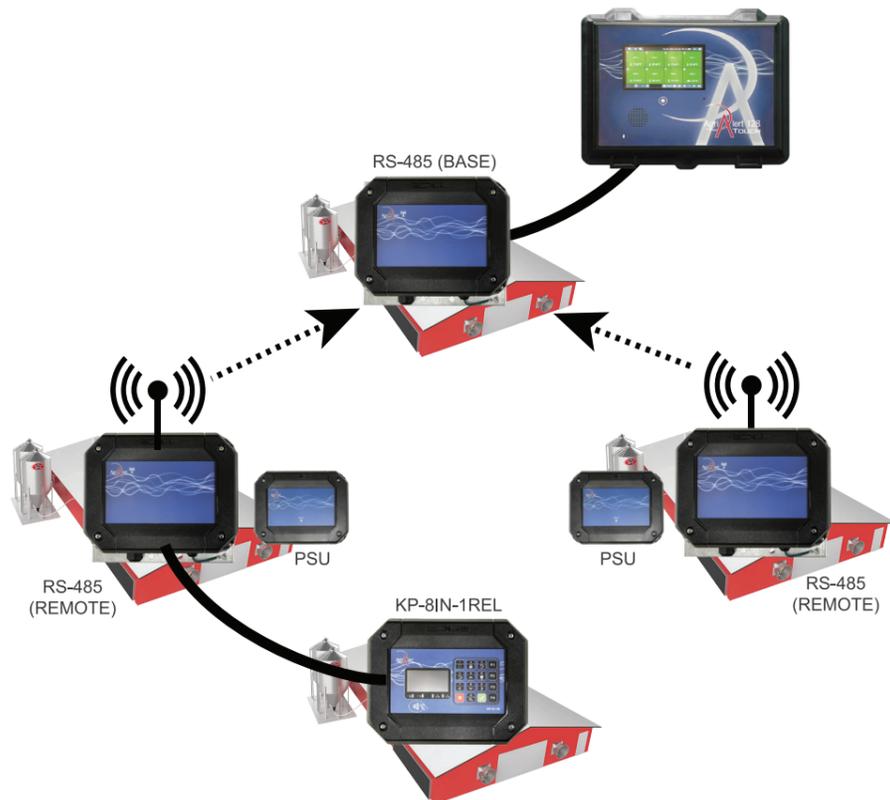
- 7-inch color touch screen allows all zones to be seen at once
- Internet connectivity provides remote access, eliminating your need to go to the barn
- Email and SMS notifications
- Modular architecture allows you to design a system that's the right size for your operation
- 128 zones let you monitor a large site with a single system
- Phone dialer provides dependable delivery of alarm notification
- Built-in security makes sure only authorized users can adjust the system
- Fully compatible AA9600 replacement

### Wireless Option

Go wireless with RS-485 modules. This module can be programmed as a receiver or transmitter with a range of up to 6,500 feet\*. This wireless module is typically used in combination with a main controller (AA128 Touch, or AA9600). A secondary wireless RS-485 transmitter can be utilized to relay information from remote RS-485 modules to the wireless RS-485 (Base). This allows a variety of configuration options to accommodate your particular needs.

### Typical Site For An AA128 System

Wireless system allows establishing communication between up to 16 remote links per Wireless RS-485 (Base).



### Agri-Alert™ Specification

|  | AA 800EZE                                 | AA 128 TOUCH  |
|--|---|---|
| Number of zones available                                | 8   | 128   |
| Programmable zone types                                  | temperature dry contact / ELR, burglary   | temperature dry contact / ELR, burglary, 4-20 mA, outdoor probe, 0-5 volt |
| Zone partitioning (grouping)                             | 8   | 16  |
| Temperature sensor calibration                           | yes                                       | yes   |
| Number of contacts system can call                       | 8   | 12  |
| Number of call sequences per alarm                       | up to 7                                   | no limit  |
| Acknowledge alarm by phone                               | yes                                       | yes   |
| Alarm restored call-back feature                         | yes                                       | yes   |
| Call in for temperature / status reports                 | yes                                       | yes   |
| Programmable recognition time per zone                   | yes                                       | yes   |
| Programmable start call delay                            | yes                                       | yes   |
| Programmable alarm recall feature                        | yes                                       | yes   |
| Outside temp compensation feature                        | yes                                       | yes   |
| Independent users  | up to 10                                  | up to 102   |
| Auxiliary 28 volt / 12 volt DC power output              | no/ yes                                   | yes/ yes  |
| Siren output   | yes                                       | yes   |
| Output relays (programmable)                             | yes                                       | yes   |
| Individual zone labeling (on screen)                     | no  | yes   |
| Individual zone voice identification                     | yes                                       | yes   |
| Individual zone status identification                    | yes                                       | yes   |
| Remote modules   | no  | yes   |
| Wireless compatible                                      | no  | yes   |
| Rechargeable battery                                     | yes                                       | yes   |
| Display  | 1" x 2" LCD screen                        | 7" color touch screen   |
| Event buffer (non-volatile)                              | yes                                       | yes   |
| Alarm memory log   | yes                                       | yes   |
| Temperature SP can be set to a curve                     | no  | yes   |
| Telephone line monitoring                                | yes                                       | yes   |
| Phone line seizure                                       | yes                                       | yes   |
| Bypass zones remotely                                    | yes                                       | yes   |
| Program & Back-up w/PC                                   | yes                                       | yes   |
| System self diagnostics feature (system trouble)         | battery, AC supply, siren, fuses & probes | battery, AC supply, siren, fuses, probes & dialer, SBI                    |
| Multi language   | no  | yes   |
| Automatic software update when connected to the internet | no  | yes   |
| Ethernet connection                                      | no  | yes   |

### Peace Of Mind

Agri-Alert is a complete alarm system for monitoring temperature, power, feed and watering system, burglary, bio security and more. The Agri-Alert alarm system constantly monitors your operation and quickly notifies you upon detection of common site problems or failures.



# FLOORING SYSTEMS

## Performance

Our slatted floor reduces foot pad related diseases and breast blisters, which are caused by wooden slats. Plastic Slats have a longer lifespan.

## Rot-Proof/Non-Porous

Our solid plastic construction is rot/corrosion proof, resists microorganisms build-up and sheds waste efficiently.

## High Quality

- Made from high impact polypropylene plastic material for durability and easy cleaning
- Corrosion free and does not hide contaminants or harbour bacterial growth
- Available with (or without) UV protection

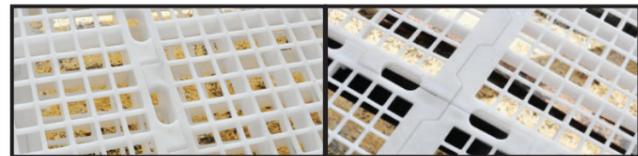
## Original Cumberland Slats Contain:



Cumberland Logo

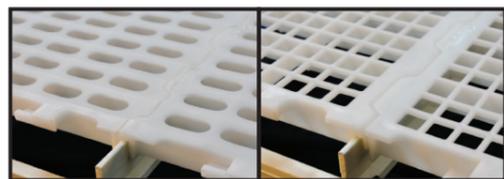
Manufacturing Date

## Interlock Design



- Designed with interlock system for all four sides of the slat
- Provides secure attachment to the steel support beam

## Models



Comfort Model

Eco Model

## No Sharp Edges

- 100% consistence dimensions
- No sharp edges or corners

## Strength

- Strong enough to support the weight of 120kg (265lbs)
- 100% virgin plastic construction without break

## Optional

- PVC slat support for steel flat bar available for complete slat system package



- PVC support pipes (with outer diameter of 48mm) and 2 types of plastic leg screw rods to fit to 38mm x 4.5mm steel flat bar or 50mm x 6.0mm steel flat bar
- Adjustability of up to +/- 1 inch (a total of 2 inches) to compensate on uneven floor level of up to 2 inches

## Specification

| Technical Data  | Comfort Model (Oval Holes) | Eco Model (Square Holes) |
|-----------------|----------------------------|--------------------------|
| Material        | Polypropylene              | Polypropylene            |
| Dimension       | 1020mm x 515mm             | 1020mm x 515mm           |
| Hole Dimensions | 20mm x 45mm                | 20mm x 20mm              |
| Actual Weight   | 2.74kg/ 6.04lbs            | 2.10kg/ 4.63lbs          |
| Colour          | White                      | White                    |

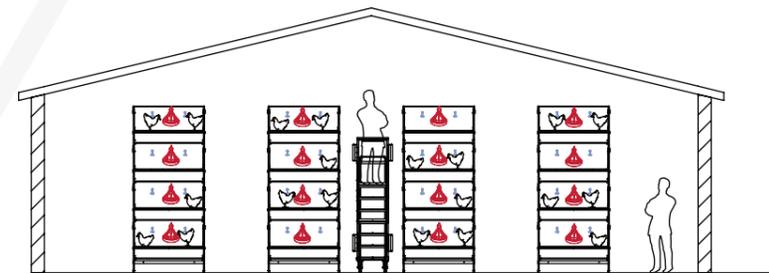
# BROILER GROWING SOLUTION

Broiler Growing Solution is a growing system with a high level of automation for fast, convenient management of both the mechanical operations and the livestock. The system can be configured for up to four tiers to maximize utilization of available floor space and to optimize stocking density.

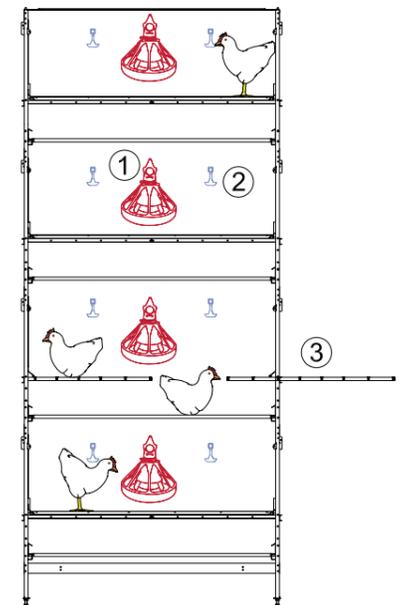
| Broiler Plus              | mm      | inch  |
|---------------------------|---------|-------|
| Section length            | 2400.00 | 94.49 |
| Width/ upright, external  | 1790.00 | 70.47 |
| Overall upright, external | 1830.00 | 72.05 |
| Tier height               | 735.00  | 28.94 |
| Min. floor clearance      | 240.00  | 9.45  |

| System Height by Tier | mm      | inch   |
|-----------------------|---------|--------|
| 2 Tiers               | 1740.00 | 68.50  |
| 3 Tiers               | 2490.00 | 98.03  |
| 4 Tiers               | 3240.00 | 127.55 |

The Broiler Growing System, comprising up to four tiers, enables efficient use of building space.



1. Feed pan
2. Drinking line
3. Removable plastic slat floor



## Advantages and Benefits

### Flock Uniformity

Broiler Growing Solution features height-adjustable feed and water supply lines that ensure a high level of flock uniformity. The height of the feed and water supply lines can be adapted to match livestock growth. The central layout with two feed pans in each section contributes to a good feed intake and low feed loss. Easy access to the feed pans optimizes the flock's feed conversion and supports uniform growth of all livestock.

### Efficient Livestock Removal

With many years of practical experience, Cumberland has succeeded in optimizing the livestock removal process for the Broiler Growing Solution. Above all, much attention was paid to achieving a high degree of automation. After removing the floors, birds are automatically transported along the manure belt and elevated by an automatic lift system to the Broiler cross-conveyor, which gently delivers them to the loading bay. Since the manure belt runs on special Tecno manure belt rollers, it is capable of transporting heavy loads while achieving low wear levels.

### Fast, Convenient Operation

Broiler Growing Solution promotes fast, convenient operation. For example, visibility into the system is excellent, thus simplifying monitoring of the broilers. The practical sliding doors make it easy to access the livestock for vaccinations, culling, etc. On top of this, livestock removal is a quick and efficient automated process that keeps labor cost to a minimum. Additionally, each floor can be easily removed individually and then refitted after cleaning.

### Low Operating Costs And Long Service Life

Cumberland's system is characterized by a wide range of technical advancements that minimize operational costs. For instance, manure belts on each tier can be controlled individually to save energy costs. The livestock removal process is optimized by first automatically transporting birds on the manure belt (once the floors are removed) and then via the lift system to the Broiler cross conveyor and finally to the loading bay, which saves time and effort. The excellent visibility provided by the design supports efficient and time-saving system operation. Many high-quality details also serve to enhance the system's durability, which lowers long-term operating costs across the entire service life. For example, hot dip galvanized components provide excellent corrosion protection and the unique roller-guided manure belt system also supports low-wear operation in longer systems.



CREATE DRY & COMFORTABLE ENVIRONMENT  
**BUILT FOR DURABILITY & STRENGTH**



### Cumberland Structures

Cumberland structures offer a wider range of pre-fabricated structures for almost all use and applications. Benefiting from the experience of supplying to more than 60 countries and over 200 construction projects per year. We are industry experts in creating high quality buildings that are bio-secure, cost efficient, weather resistant and can custom-build projects for any kind of buildings from livestock buildings, food processing plants, cold storage and hatcheries.



### Poultry

Cumberland structures meet all your requirements for poultry productions. Specialized in designing and setting up poultry structures to optimize farm production efficiency. Our structures are carefully crafted to provide ideal living conditions for poultry, ensuring uniform growth and maximizing the potential for successful productions.

These durable structures offers an economical cost of ownership throughout a very long life cycle tailored to enhance performance at every stage.

### Cumberland Structural Frames

Cumberland structural frames utilizes 100% galvanized steel for its structure and utilizes bolted and steel truss assembly to minimize shipping expenses and ensure rapid on-site installation. Our commitment to excellence is reflected in the delivery of durable structures that able to withstand various weather conditions. All Cumberland structures are certified through EUROCODE calculations, guaranteeing their quality and compliance.

### Installation of Structures

Cumberland structures boast a lighter frame for an efficient concrete base. Each post securely stands on a solid concrete block, ensuring rapid and robust construction. Our prefabricated design allows for swift installation with detailed step-by-step instructions, combining ease and strength in every structure.

### Roof

The roof may be supplied using PU sandwich panel, corrugated lacquered trapezoidal metal sheets or Aluminium-Zinc coated metal sheets. All roof material options are sleek in design and will provide excellent weather protection. Sheathing Color does matter as outdoor temperature are usually 33°C.

### Ceiling and Top Insulation

Cumberland ceiling profiles are skillfully crafted from PU sandwich panels, lacquered metal sheets, or aluminum-zinc coating that effectively prevent heat buildup. Combined with polyurethane or glass wool insulation, they maintain optimal interior temperatures creating an ideal environment in hot weather. Additionally, it fosters an air gap for dynamic ventilation, exemplifying Cumberland's commitment to professional solutions for superior climate control.



### Steel Trusses

Cumberland efficient steel structural design methods harness the advantages of steel to ensure the quality, safety, economy, and sustainability of a project. All Cumberland steel trusses undergo precision cutting, drilling and welding, ensuring robust strength to support all essential husbandry equipment.

### Advantages



# CUMBERLAND

## Raise Your Best

You welcome Cumberland on your farm because you expect performance. We welcome the opportunity. To help you reach your potential, with the highest quality systems you can count on and real support when you need it. So, you can raise your best birds and grow a thriving business.