



STORAGE & DELIVERY



BULK FEED TANKS

Cumberland is a part of GSI, the world's largest manufacturer of corrugated, galvanized steel storage tanks. The ability to leverage over 35 years of bin manufacturing experience and technology allows Cumberland to provide quality feed storage and delivery systems that address a wide range of design and capacity requirements.

RELIABLE CONSTRUCTION



PRECISION MANUFACTURED ROOF PANELS, provide consistent quality, and feature reinforced ribs at each seam for added strength and rigidity on both the 30° and 40° bin roof options.



Fully galvanized, **ROLL FORMED 6-BEND LEGS, CROSS TIES AND TWO-PIECE LEG ANCHOR SECTIONS** providing greater strength, stability, support and load transfer. Tank hoppers are die-formed with sealed edge down-turned for a weather-tight fit. The die-formed eave provides a tight seal and smoother flow of material from the 45°, 60° or 67° slope options.



HIGH STRENGTH LADDERS with roll-formed sides are available in 2' and 9' sections for quick assembly. Ladder rungs are engineered to eliminate rung spin, and are dimpled for a better grip.



Ladder cages are available for all Bulk Feed Tank sizes. Cages are completely **GALVANIZED** for maximum life and bolt directly to the prepunched side-wall ladders. The cage bottom **BELL SECTION** allows ample maneuvering space while ascending or descending.

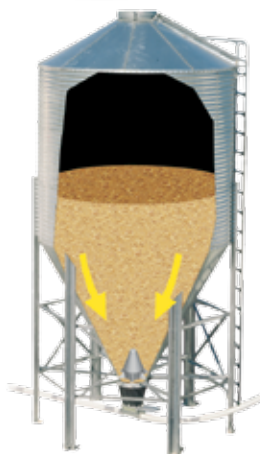


FIRST IN, FIRST OUT FEED FLOW

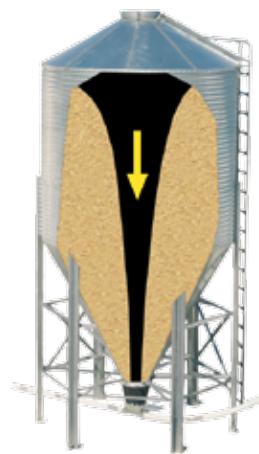


The optional **SURE-FLO** directs feed down the hopper of the bin rather than down the center creating a first in, first out feed flow.

- Reduces Feed Bridging
- First Feed In is First Feed Out
- Reduces Feed Separation
- Easy to Install

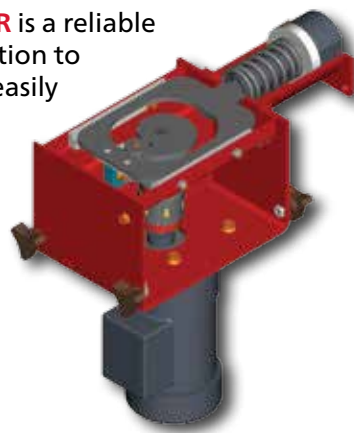


With Sure-Flo



Without Sure-Flo

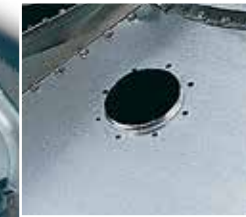
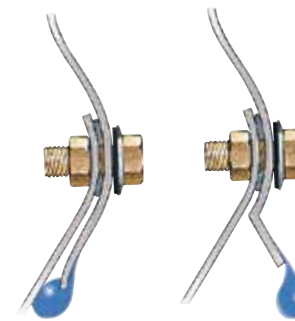
The **FLOW HAMMER** is a reliable and affordable solution to feed bridging that easily adapts to most existing feed bins. (See page 7 for more information)



ADDITIONAL FEED TANK FEATURES AND OPTIONS



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.



Cumberland's exclusive pre-punched, **EXTRUDED LIP ROOF PANEL**, provided for the optional pneumatic fill kit, eliminates the inconvenience of field-cutting the openings for the fill and exhaust tubes, and insures secure, moisture-proof seals.



Optional **VIEW WINDOWS** allow easy acknowledgment of feed level in bin at a glance.

RUGGED BIN LID DESIGN

Cumberland's Bin Lid features a durable LLDPE construction and is factory assembled for easy installation.

BIN LID FEATURES

- Available for 30° and 40° roof profiles
- Swings open a full 180°, lying flat and parallel to the ground, but positioned below the peak ring when fully opened
- Reinforced rubber bumper provides additional protection to peak ring
- Simplified clamp-band installation of lid assembly peak ring
- Internal magnet adds additional force to keep lid closed
- Clamp-band design allows installation in 360° orientation
- Retro-fit packages available for 20" and 22-1/2" O.D. peak rings
- Optional Snow Guard (shown right) helps deter blowing snow from entering the bulk feed tank



FLEX-FLO CONTROL UNITS

- Fixed 30 second motor delay for electronic safety switch
- Uses proprietary sensing technology for operation
- Auger relay (Max 25 Amp load) rated for 1-1/2 HP Flex-Flo motors
- Operating status indicated via Bi-Color LED
- Easy one wire, one terminal installation
- Controls single phase or three phase motors
- Additional contactor included for feed monitoring
- 240 volt, 50 Hz or 60Hz



Constructed from non-corrosive materials for long life and durability



Retrofit electronic sensor



Clear access door for quick and easy visual inspection



Bi-Color LED allows quick verification of operating status



Tube Anchors available for Flex-Flo™ 220, 300, 350 and 500 models

BOOT UNLOADERS

Designed to fit below the 16" (406mm) plastic and 22" (559 mm) metal boots, Cumberland's standard unloaders are available for 2.2" (55mm), 3" (75mm), 3.5" (90mm), and 5" (125mm). All Cumberland unloaders have an ultra high impact, polypropylene slide-gate above the auger to meter feed or serve as a complete shut off. A convenient inspection/clean out plate, located on the side, is easily removed with two wing nuts.

Cumberland's **CLEAR BOOT** allows quick verification that feed is present in the bin. This heavy walled boot is injected molded from a specially formulated ultraviolet stabilized clear polycarbonate blend.



FEED TANK BOOTS

Cumberland's **16" (40.6 CM) PARABOLIC BOOTS**, available in straight, 30°, and straight twin models, are made from ultra high impact polypropylene for greater flexibility, dependability and durability.



30° Drop Boot

Straight Boot

Twin Boot

FLEX-FLO™ FEED DELIVERY SYSTEMS

Manufactured in-house to our own exacting standards

Cumberland offers five Flex-Flo™ models with capacities ranging from 15 lbs. to 220 lbs./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 3-1/2" (90mm) tube to reduce plugging.

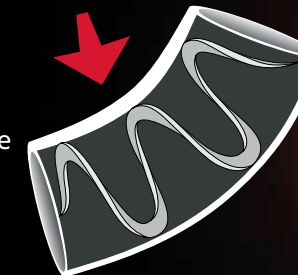


BLENDED PVC TUBING is extruded and formed at our own facilities allowing us to formulate the optimum compound for UV stabilization, strength and wear resistance.

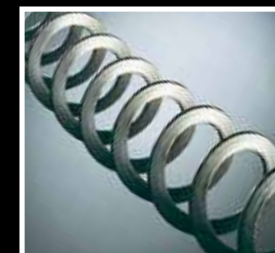
FLEX-FLO™ XD Xtreme Durability

Flex-Flo™ XD utilizes an exclusive manufacturing process resulting in improved durability compared to traditional auger.

Thicker Inner Wall



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.



HIGH TENSILE STEEL AUGERS are coiled using wire that is flattened prior to hardening for a more consistent, high quality product.



DROP TUBE KITS

Cumberland's original drop kit is available for all Flex-Flo™ systems providing a **TOTALLY ENCLOSED** outlet drop.



The **KWIK-ATTACH** drop kit is easy to install and attaches securely to avoid feed spills. This kit allows for complete clean-out of feed and can be adapted with actuators for remote operation.



FLEX-FLO™ SPECIFICATIONS

MODEL NUMBER	220	300	HR	350	500
Tube Outside Diameter	2.20"/55mm	3"/75mm	3.5"/90mm	3.5"/90mm	5"/125mm
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 3 Elbows	76.2	60.96	45.72	45.72	*45.72
Recommended Motor Sizes at Max. Length (HP)	.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. m)	480	1360	1360	2722	5988
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%

EASILY MANAGE YOUR FEED INVENTORY WITH FEED-LINK™

The Integra Feed-Link System from Cumberland provides a cost-effective method of monitoring and managing on-site feed inventory either at the site or from a remote location. Feed-Link can be easily adapted to new or existing facilities to provide accurate real-time data regarding feed inventory levels and feed consumption.

The Feed-Link™ display unit can be mounted either on the bin or inside the house up to one hundred feet away. The digital display can be set to display pounds, kilograms or percentage of full. The display unit also serves as the interface to perform a simple calibration procedure after the system has been installed.



Eliminate the Task of Climbing Bins

Feed-Link eliminates the dangerous task of climbing bins to check feed levels, improving worker safety and decreasing labor cost. With Feed-Link, feed levels can be properly managed, eliminating emergency calls for feed and production losses associated with running out of feed.



LOAD CELL ASSEMBLY

The rugged load cell assemblies are specifically designed for the harsh environment of a poultry facility and adapt easily to most feed bins utilizing the existing anchor bolts. Two models of load cells are available; a standard unit for up to 5,000 lbs. (2,250 kg.) per bin leg and a high capacity model rated at up to 10,000 lbs. (4,500 kg.) per bin leg. The compact design of the load cell assemblies only increases the overall height of the feed bin by approximately three inches (eight centimeters).



FEED-LINK™ SPECIFICATIONS

Input Power	110/220 Volt - 50/60 Hz
Display Resolution	20 lbs. - 10 Kg. - 1%
Display Temperature Range	-5 to 150°F / -20 to 65°C
Water Pulse Meter	1 gal. / 3.8 liters per pulse
Maximum Weight Per Load Cell	
Standard Load Cell	5,000 lbs. / 2,250 kg.
High Capacity Load Cell	10,000 lbs. / 4,500 kg.



WATER PULSE METER

Each display unit has an input for a water pulse meter, allowing water consumption to be monitored using the Feed-Link software. The water consumption data is collected and stored for a rolling 24-hour period, providing you with another tool to monitor water consumption by your birds.

The unique field calibration system utilized by Feed-Link in combination with the placement of a load cell under every leg allows for maximum accuracy in monitoring feed consumption.



Delivers an impact of over 500 lbs/sec

FLOW HAMMER FEATURES

- Helps 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)
- Control unit has both timed and sensor controlled modes:
 - The timed 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*
- 240 volt power supply required
- Simple and concise control units, with test mode
- Control unit can be remotely mounted or tank mounted with optional leg bracket



Patent Pending
Designed and manufactured by
Cumberland in the USA

While high frequency vibration devices are effective in promoting feed flow, their use can result in loosened hardware and metal fatigue potentially resulting in structural failure. The Flow HAMMER's low frequency / high impact design promotes feed flow without damaging your Cumberland feed bin or voiding its warranty.



MINIMIZE FEED TANK BRIDGING

Feed bridging can cause interruptions in feeding sessions resulting in feed quality issues and requiring time consuming corrective measures. The **FLOW HAMMER** is a reliable and affordable solution that easily adapts to most existing feed bins. This patent pending product aids in the prevention of out of feed events in all phases of poultry production resulting in reliable and consistent first in, first out feed flow.



BULK FEED TANK CAPACITIES

Dia. (Ft.)	Dia (Mtrs.)	No. of Rings	Angle of Hopper	Fill Height (Feet)		Fill Height (Meters)		Max. Capacity (Bushels)		Max Capacity (Cu.Ft.)		Max Capacity (M.Tons)		Max Capacity (US.Tons)	
				30° Roof	40° Roof	30° Roof	40° Roof	30° Roof	40° Roof	30° Roof	40° Roof	30° Roof	40° Roof	30° Roof	40° Roof
6'	1.83	1	60°	10' 9"	11' 3"	3.28	3.43	111	118	138.0	147.60	2.50	2.67	2.76	2.95
6'	1.83	2	60°	13' 5"	13' 11"	4.09	4.25	171	178	212.6	222.21	3.86	4.03	4.25	4.44
6'	1.83	3	60°	16' 1"	16' 7"	4.90	5.06	231	238	287.2	296.82	5.21	5.38	5.74	5.93
6'	1.83	4	60°	18' 9"	19' 3"	5.72	5.87	291	298	361.8	371.43	6.56	6.74	7.24	7.42
7'	2.13	1	67°	13' 8"	14' 3"	4.16	4.35	185	196	230.1	244.96	4.17	4.44	4.60	4.89
7'	2.13	2	67°	16' 4"	16' 11"	4.97	5.16	266	278	331.6	346.51	6.02	6.29	6.63	6.93
7'	2.13	3	67°	19' 0"	19' 7"	5.78	5.97	348	360	433.2	448.06	7.86	8.13	8.66	8.96
7'	2.13	4	67°	21' 8"	22' 3"	6.60	6.78	430	441	534.7	549.61	9.70	9.97	10.96	10.99
7'	2.13	5	67°	24' 4"	24' 11"	7.41	7.60	511	523	636.3	651.16	11.54	11.82	12.73	13.02
7'	2.13	6	67°	27' 0"	27' 7"	8.22	8.41	593	604	737.8	752.71	13.39	13.66	14.76	15.05
9'	2.74	1	60°	14' 3"	15' 1"	4.33	4.59	308	332	383.9	413.81	6.96	7.51	7.69	8.27
9'	2.74	2	60°	16' 11"	17' 9"	5.15	5.41	443	467	551.8	581.68	10.01	10.56	11.04	11.63
9'	2.74	3	60°	19' 7"	20' 5"	5.96	6.24	578	602	719.6	749.55	13.06	13.60	14.39	14.99
9'	2.74	4	60°	22' 3"	23' 1"	6.77	7.04	713	737	887.5	917.42	16.10	16.65	17.75	18.34
9'	2.74	5	60°	24' 11"	25' 9"	7.59	7.85	848	872	1055.3	1085.28	19.15	19.70	21.11	21.70
9'	2.74	6	60°	27' 7"	28' 5"	8.40	8.66	983	1007	1223.2	1253.15	22.19	22.75	24.46	25.06
12'	3.66	2	60°	20' 8"	21' 11"	6.29	6.67	887	946	1109.7	1177.87	20.15	21.38	22.18	23.55
12'	3.66	3	60°	23' 4"	24' 7"	7.10	7.49	1126	1186	1407.7	1476.30	25.57	26.80	28.15	29.52
12'	3.66	4	60°	26' 0"	27' 3"	7.91	8.30	1365	1426	1706.1	1774.73	30.99	32.22	34.12	35.49
12'	3.66	5	60°	28' 8"	29' 11"	8.73	9.11	1604	1666	2004.5	2073.17	36.42	37.64	40.08	41.46
12'	3.66	6	60°	31' 4"	32' 7"	9.54	9.93	1842	1905	2302.9	2371.60	41.84	43.05	46.05	47.43
15'	4.57	2	60°	24' 2"	25' 10"	7.37	7.87	1554	1658	1934.8	2064.39	35.12	37.48	38.69	41.28
15'	4.57	3	60°	26' 10"	28' 6"	8.18	8.68	1929	2033	2401.1	2530.69	43.59	45.94	48.02	50.61
15'	4.57	4	60°	29' 6"	31' 2"	8.99	9.50	2304	2408	2867.4	2996.99	52.06	54.41	57.34	59.93
15'	4.57	5	60°	32' 2"	33' 10"	9.80	10.31	2678	2783	3333.7	3463.29	60.52	62.87	66.67	69.26

Specifications subject to change without notice. Specifications for additional sizes and hopper openings are available.

Capacities for 6'-15' diameter tanks are calculated at 40 lbs/cubic foot for free-flowing material. Bushels capacities for 6'-15' diameter tanks are calculated with no compaction and to full cubic foot capacities. It is absolutely necessary to install an appropriate agitator in feed tanks storing soybean meal, cotton seed meal, hot feeds and other products not considered free-flowing material. Consult GSI engineering department when in doubt about a specific material. All BFT series feed tanks include the following standard features: Ground control fill cap (60° & 67° tanks through 15" dia.), roof panels, 2.66 corrugated sidewalls, 16" or 22" hopper opening (as indicated). 16" opening to include the appropriate hopper collar, while 22" opening tanks do not include hopper collar.

Feed tanks to fit your specific needs.



Proven & Dependable™



Cumberland is a part of GSI, a worldwide brand of AGCO

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