

**MERIDIAN**

**SMOOTHWALL BINS**  
**EASTERN**

# SMOOTHWALL BINS



**MERIDIAN**

[meridianmfg.com](http://meridianmfg.com)



Meridian sets the standard of excellence in the storage and handling industry. We continuously incorporate the latest technological innovations to meet our customers' ever-changing needs. Meticulous attention to quality and detail reflect the attitude and dedication of our highly skilled craftsmen, lending confidence to each Meridian customer of a superior and dependable product. Meridian's best references are the thousands of farmers and commercial customers who have experienced the quality and value of the Meridian family of products.

Meridian and many Meridian dealers have trucks and trailers specifically designed to deliver and setup bins on each customer's yard. Our experienced drivers and dealers ensure each bin is positioned just right and ready to use.

Meridian is continually investing in the latest technology, equipment and training programs in an ongoing effort to carefully design and develop a most efficient and durable product. Robots are utilized in highly repetitive and tight welding spots to ensure unsurpassed welding procedures.







**5** Multi-purpose Bins

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**13** Liquid Hopper Bins

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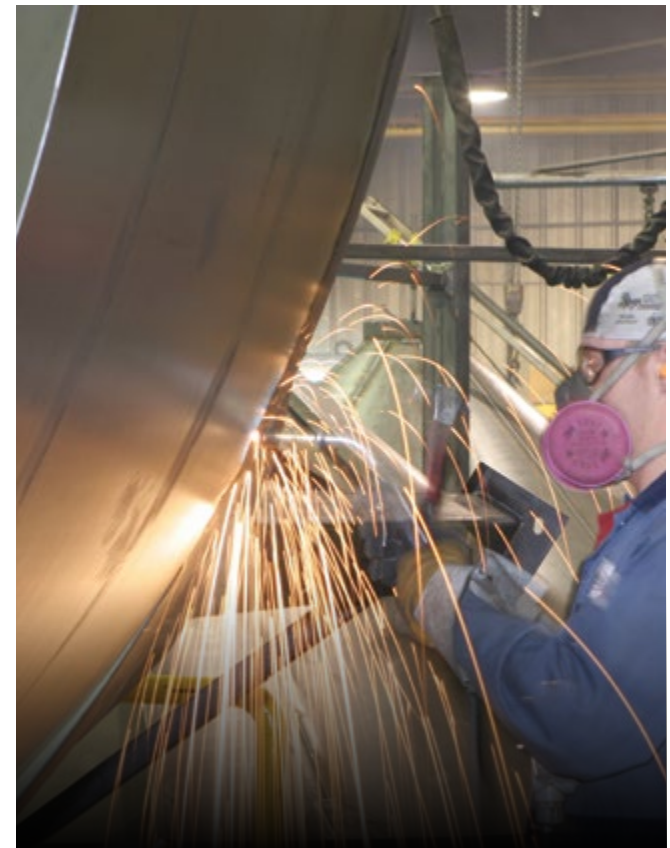
**17** AirMax specifications

**18** SmoothWall Bin specifications



## DEPENDABLE STORAGE

Our products are backed with a 10 year structural and 5 year paint warranty.



All our steel components and materials are designed and selected utilizing our suppliers' latest technology to ensure the best quality bin for each application. HSS (Hollow Structural Steel) tubing, leg bands, leg rings, bracing and sheeting are carefully selected for strength and milling, followed by rigorous cleaning and storage standards.





## HIGHLIGHTS

- ▶ Twice the “salt spray rating” of regular powders
- ▶ Best in industry edge coverage on sharp surfaces
- ▶ Superior adhesion to all steel including seams and smooth surfaces
- ▶ Extra abrasion resistance
- ▶ Additional slip factor for improved product flow and cleanliness
- ▶ 10 year on structural integrity on SmoothWall hopper bins
- ▶ One year paint warranty for liquid and commercial SmoothWall hopper bins
- ▶ Five year paint warranty on all other SmoothWall bins!



## DURABLE FINISH

All paints are not created equal. Our bins utilize a premium powder coating for maximum durability.

# MULTI-PURPOSE BINS





# MEETS ALL YOUR NEEDS

Meridian multi-purpose bins are the #1 choice for fertilizer storage in Agribusiness and On-farm.

## **VERSATILITY.**

Used to handle and store fertilizer, grain, feed and seed and extends to coal and any other free-flowing, dry granular commodity. Meridian offers a variety of powder chemistry options including zinc and epoxies to ensure years of trouble free storage. Contact Meridian's sales team for any questions regarding our bins, including Series II, powder coating options and custom build requirements.

## **GREAT FEATURES. GREAT QUALITY**

- ▶ HSS (hollow structural steel) legs and bracing
- ▶ Premium Rack-n-Pinion slide gate with crank
- ▶ Complete sidewall and roof ladder
- ▶ 25" top opening
- ▶ Vented top lid – spring loaded and ground operated
- ▶ Min. 40 degree bottom cone and 35 degree roof cone
- ▶ 24" clearance under the slide gate
- ▶ Interior powdercoat paint

# GRAINMAX BINS





# SUPERIOR SELF CLEANING

Completely self-cleaning with no obstructions.



## **HIGH LEVEL PROTECTION.**

GrainMax hopper bins offer top quality grain and seed storage at prices comparable to corrugated hopper combos. Without bolts and ribs, the GrainMax seamless interior allows for safe and easy unloading, while ensuring no seed or contaminants are trapped on the walls or joints.

Completely self-cleaning with no obstructions, GrainMax hopper bins are the safest and most efficient grain bins available. You and your family will appreciate the quality and safety of GrainMax, and the time and energy saved handling grain in a smooth-wall bin.

## **GREAT FEATURES. GREAT QUALITY**

- ▶ HSS (hollow structural steel) legs and bracing
- ▶ Premium Rack-n-Pinion slide gate with crank
- ▶ Complete sidewall and roof ladder
- ▶ 25" top opening
- ▶ Vented top lid – spring loaded and ground operated
- ▶ Min. 40 degree bottom cone and 35 degree roof cone
- ▶ 24" clearance under the slide gate



# FEED BINS







## SAFETY FIRST. SIZED RIGHT.

Meridian feed bins are the perfect size to protect feed quality.

## QUALITY & MANAGEMENT.

Meridian's SmoothWall Feed bins are designed with feed quality and management in mind. The advantage of Meridian's SmoothWall design is very evident in feed storage. Smooth cone and side-wall surfaces, without bolts or ribs, a bottom cone of 55 or 60 degrees, and our exclusive high slip factor powder coating, ensure feed discharge without hang ups and entrapments, thus reducing spoilage and unnecessary expenses.

## GREAT FEATURES. GREAT QUALITY

- ▶ HSS (hollow structural steel) legs and bracing
- ▶ Complete sidewall and roof ladder
- ▶ Standard retractable ladder for safety
- ▶ Optional ladder cage and hand rail for added safety
- ▶ 25" top opening
- ▶ Vented or non-vented top lid spring loaded and ground operated
- ▶ 55 degree or 60 degree bottom cone depending on model
- ▶ 30" clearance under discharge ring
- ▶ Interior powder coat finish



# STEEP-CONE BINS





## **ELIMINATE HANG UPS.**

For commodities requiring a steeper cone and more capacity than a feed bin, the solution is a Meridian Steep Cone series. These bins are built with the same standards as the fertilizer series, but feature a 55 degree bottom cone in capacities up to 150 MT.

The variance of flow characteristics may result in some products bridging inside a bin. The Meridian Sales Team will ensure you receive the best bin design for your storage needs.

### **GREAT FEATURES. GREAT QUALITY**

- ▶ HSS (hollow structural steel) legs and bracing
- ▶ Premium Rack-n-Pinion slide gate with crank
- ▶ Complete sidewall and roof ladder
- ▶ 25" top opening
- ▶ Vented top lid – spring loaded and ground operated
- ▶ 55 degree or 60 degree bottom cone depending on model
- ▶ 35 degree roof cone
- ▶ 24" clearance under the slide gate
- ▶ Interior powder coat finish





**LIQUID HOPPER BINS**





Optional bolt on slide gate assembly for use with dry flowable products



Heavy duty flanged bottom opening with stainless steel bottom plate assembly

## ULTIMATE STORAGE.

Meridian's Liquid hopper bins are the ultimate storage bins, taking versatility and multi-purpose to the extreme. In addition to storing all the dry flowable products of the fertilizer series, these bins are designed, engineered and painted to store a whole range of liquid products such as liquid fertilizer, liquid feed supplements and honey. With the exception of the bottom flange plate assembly, these bins look identical to the fertilizer bins, differing significantly however, in heavier gauge steel, welded inside and out, four coats of powder and other standard features.

## GREAT FEATURES. GREAT QUALITY

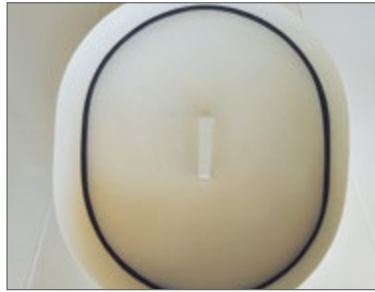
- ▶ Minimum 12 gauge construction
- ▶ Welded - Inside and outside
- ▶ Interior has 2 coats of Meridian's epoxy powder
- ▶ Exterior has 2 coats of Meridian's exclusive premium powder finish with a Zinc undercoat
- ▶ Complete sidewall and roof ladder
- ▶ Heavy Duty flanged bottom opening with Stainless Steel Bottom Plate

# SMOOTHWALL

## OPTIONS



**Bin Lid Opener**  
Easy opening of roof lid.



**Bottom Manway**  
Access hole in bottom cone.



**Fan Mounting Bracket**  
Support bracket mounted under fan.



**Flanged Auger Boots**  
Fastens under slide gate assembly.  
Standard & Flex Auger boots available.



**Ladder Cage (Sidewall)**  
Safety enclosure for added security.  
Roof handrail also available.



**LevAlert**  
Level indicator on sidewall.



**Liquid Site Gauge Valve**  
Spring loaded for added security.



**Pail Spout**  
For spot feeding or sampling.



**Poke Hole**  
8" x 8" access to discharge just above gate.



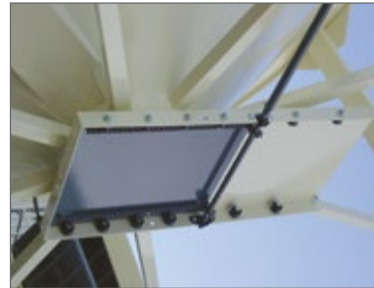
**Probe Hole**  
Access for fast product quality control.



**Roof Manhole**  
Access hole in top cone.



**Skid Foundation**  
Skid foundations are available for most bins.



**Slide Gate Assembly**  
Also available in Stainless Steel.



**Slide Gate to Chore Time Adaptor**  
Easy transition to a flex auger boot.



**View Glass**  
4" round window on sidewall.

# AIRMAX

The **Meridian AirMax™** Aeration System cools and dries grain, minimizes the risk of bugs, allows farmers to start harvesting earlier and significantly decreases the chance of spoilage in the bin.



## VERTICAL ONE-PIECE AERATION

- ▶ Aeration system design enables natural air grain drying as conditions permit
- ▶ Continuous screen from top to bottom
- ▶ Angle rib construction distributes point load pressures
- ▶ 24" rib spacing maximizes aeration area
- ▶ **FULL LEG SUPPORT 4" UP AERATION**
- ▶ Complete interior screen perforated to lid
- ▶ Duct clean out shroud
- ▶ Factory installed in 40 & 45 degree Meridian bins at time of manufacture
- ▶ 3 leg design

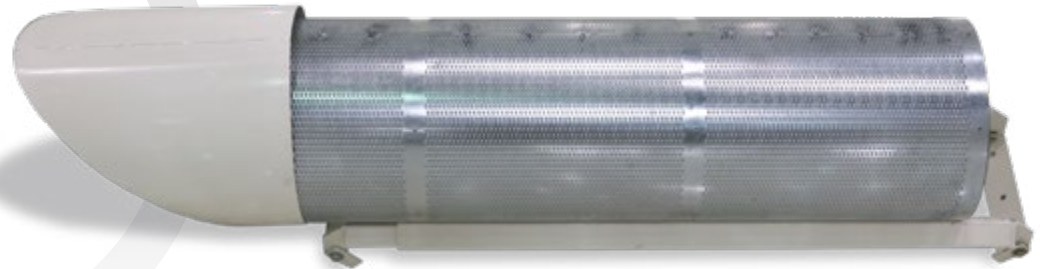


## VERTICAL (SECTIONAL) AERATION

- ▶ Designed for installation into existing hopper bins
- ▶ Sectional pieces fit through a standard Meridian man-way for installation inside the hopper bin
- ▶ Aeration system design enables natural air grain drying as conditions permit
- ▶ Continuous screen from top to bottom
- ▶ Engineered honeycomb frame sections
- ▶ 24" rib spacing maximizes aeration area
- ▶ Full leg support 4" up aeration
- ▶ Duct clean out shroud
- ▶ **SUITABLE FOR HIGH-FLOW APPLICATIONS, EXTRA SUPPORT LEGS OPTIONAL**
- ▶ Fits 35,40,45,55 and 60 degree cones
- ▶ 4 leg design

## HORIZONTAL AERATION

- ▶ Aeration design enables easy removal of aeration tube for cleaning or fertilizer storage
- ▶ Continuous screen from end to end
- ▶ Angle rib construction distributes point load pressures
- ▶ 24" rib spacing maximizes aeration area
- ▶ **FITS 40 & 45 DEGREE CONES**
- ▶ Bolt-in version is available for installation into existing hopper bins. Duct is removable



## UNIQUE FEATURES

### VERTICAL NATURAL AIR DRYING SYSTEM:

- Designed to easily retrofit your existing hoppers bins
- Retro system is designed and approved for installation in steeper cones and use in high moisture grain
- Larger screen surface area maximizes the effectiveness of your drying, cooling and aeration efforts
- Optional extra support leg increases stability in high-flow applications
- Full support legs ensure a durable, problem free system

### HORIZONTAL AERATION SYSTEM:

- Easily removed for quick cleaning or when storing fertilizer
- Larger screen surface area maximizes the effectiveness for cooling and aerating grain
- Available bolt-in kit for installation in existing hopper bins



MODELS	MAX BIN SIZE (BUSHELS) <sup>1</sup>	RECOMMENDED HOPPER BIN SIZE <sup>2</sup>	DIMENSIONS	DIA. I.D	WEIGHT (LBS)	SCREEN SURFACE (INCHES)	INLET SIZE AND TYPE	HEIGHT INTO GRAIN CAVITY 35° CONE <sup>3</sup>	HEIGHT INTO GRAIN CAVITY 40° CONE <sup>3</sup>	HEIGHT INTO GRAIN CAVITY 55° CONE <sup>3</sup>
<b>VERTICAL AERATION – ONE PIECE</b>										
V3004	3500	14' & 16' bins up to 3500 bushels. Models 1615. GM3 and smaller	30" x 4'	20"	385	6299	9" x 14" Rect	n/a	86"	n/a
V3006	5000	14' & 16' bins up to 5000 bushels. Models 1625. GM5 and smaller	30" x 6'	20"	440	9656	9" x 14" Rect	n/a	110"	n/a
V3008	6000	14' & 16' bins up to 6000 bushels. Models 1630. GM6 and smaller	30" x 8'	20"	525	13132	9" x 14" Rect	n/a	134"	n/a
V4504	7000	14', 16' & 18" bins up to 7000 bushels. Models 1825. GM64 and smaller	45" x 4'	30"	580	9301	14" x 17" Rect	n/a	95"	n/a
<b>VERTICAL AERATION – SECTIONAL (DESIGNED FOR RETROFITTING EXISTING HOPPER BINS AND HIGH-FLOW APPLICATIONS) <sup>4</sup></b>										
VS3004	5000	All bins up to 5000 bushels	30" x 4'	20"	420	5245	9" x 14" Rect	80"	86"	99"
VS3006	8000	All bins up to 8000 bushels	30" x 6'	20"	500	7990	9" x 14" Rect	104"	110"	123"
VS4504	15000	All bins up to 15000 bushels	45" x 4'	30"	600	7925	14" x 17" Rect	88"	95"	116"
VS4506	20000	All bins up to 20000 bushels	45" x 6'	30"	745	12100	14" x 17" Rect	112"	119"	140"
<b>HORIZONTAL AERATION (REMOVABLE FOR FERTILIZER STORAGE AND AVAILABLE FOR RETROFITTING EXISTING BINS)</b>										
H1808	5000	14' & 16' bins up to 3300 bushels. Models 1615. GM3 and smaller	18" x 8'	n/a	155	3478	18" Rnd	38"	44"	n/a
H2408	6500	14', 16' & 18' bins up to 5000 bushels. Models 1625, 1820, GM500 and smaller.	24" x 8'	n/a	235	4660	24" Rnd	44"	50"	n/a
H2410	6500	14', 16' & 18' bins up to 6500 bushels. Models 1630, 1825, GM6, GM64 and smaller	24" x 10'	n/a	285	6284	24" Rnd	51"	59"	n/a

1. Recommended bushel capacities for Meridian AirMax™ system.

2. Recommended bin model(s) for maximum grain drying and aeration results.

3. Distance from gate to top of aeration mechanism.

4. Meridian AirMax™ Sectional system is an exclusive and unique aeration product allowing installation of vertical aeration in existing hopper bins. This unit is built heavier than the one-piece Meridian AirMax™, withstanding weights up to 20,000 bushels.

# SMOOTHWALL

## MODELS AND SPECIFICATIONS

### FEED BIN SERIES

MODEL #	APPROX. BUSHEL	CUBIC FEET	IMP. TONS	METRIC TONNES	BIN HEIGHT	MIN. AUGER
<b>7' Diameter Feed Bins - 60 Degree Bottom Cone</b>						
705	252	301	6	5.5	14'-10"	33'
708	349	416	8.3	7.5	17'-10"	33'
710	414	492	9.8	8.9	19'-10"	33'
712	479	569	11.4	10.3	21'-10"	* 33'
715	576	684	13.7	12.4	24'-10"	39'
<b>8' Diameter Feed Bins - 55 Degree Bottom Cone</b>						
805	330	393	7.9	7.1	15'	33'
808	456	543	10.9	9.9	18'	33'
810	541	643	12.9	11.7	20'	33'
812	625	744	14.9	13.5	22'	39'
815	752	894	17.9	16.2	25'	* 39'
<b>9' Diameter Feed Bins - 55 Degree Bottom Cone</b>						
905	436	520	10.4	9.4	16'-1"	33'
908	596	710	14.2	12.9	19'-1"	33'
910	703	837	16.7	15.2	21'-1"	* 33'
912	811	964	19.3	17.5	23'-1"	39'
915	971	1,154	23.1	20.9	26'-1"	46'
<b>10' Diameter Feed Bins - 55 Degree Bottom Cone</b>						
1010	892	1,061	21.2	19.3	22'-2"	39'
1012	1,024	1,218	24.4	22.1	24'-2"	39'
1015	1,222	1,453	29.1	26.4	27'-2"	46'
1020	1,553	1,845	36.9	33.5	32'-2"	53'

12' diameter feed bins available; reference Steep Cone Bin Series.

### GRAINMAX SERIES

MODEL #	APPROX. BUSHEL	CUBIC FEET	IMP. TONS	METRIC TONNES	BIN HEIGHT	MIN. AUGER
<b>13' Diameter GrainMax - 45 Degree Bottom Cone</b>						
GM1310	1,521	1813	45.3	41.1	22'-5"	39'
GM1315	2,080	2475	61.9	56.1	27'-5"	46'
GM1320	2,639	3138	78.4	71.2	32'-5"	53'
GM1325	3,198	3800	95	86.2	37'-5"	59'
GM1330	3,757	4462	111.6	101.2	42'-5"	66'
GM1335	4,316	5125	128.1	116.2	47'-5"	* 72'
<b>13'-6" Diameter GrainMax - 40 Degree Bottom Cone</b>						
GM1412	1855	2209	55.2	50.1	23'-11"	* 39'
GM1420	2819	3352	83.8	76	31'-11"	53'
GM1425	3422	4067	101.7	92.2	36'-11"	59'
GM1430	4025	4781	119.5	108.4	41'-11"	* 66'
GM1435	4626	5493	137.3	124.6	46'-11"	* 72'

Auger Calculations are (Eve+R)x1.4 = Minimum auger length required.

\* Minimum Auger length will fit with no room to spare.  
The next auger length longer is recommended.

### MULTI-PURPOSE BIN SERIES

MODEL #	APPROX. BUSHEL	CUBIC FEET	IMP. TONS	METRIC TONNES	BIN HEIGHT	MIN. AUGER
<b>12' Diameter Multi-Purpose - 45 Degree Bottom Cone</b>						
1208	1079	1287	39.9	36.2	19'-8"	33'
1210	1270	1512	46.9	42.5	21'-8"	39'
1212	1460	1738	53.9	48.9	23'-8"	39'
1215	1746	2077	64.4	58.4	26'-8"	46'
1220	2222	2641	81.9	74.3	31'-8"	53'
1225	2697	3204	99.3	90.1	36'-8"	59'
1230	3173	3768	116.8	106	41'-8"	66'
<b>13' Diameter Multi-Purpose - 45 Degree Bottom Cone</b>						
1310	1521	1813	56.2	51	22'-6"	39'
1312	1745	2078	64.4	58.4	24'-6"	* 39'
1315	2080	2475	76.7	69.6	27'-6"	46'
1320	2639	3138	97.3	88.2	32'-6"	53'
1325	3197	3798	117.8	106.8	37'-6"	59'
1330	3755	4461	138.3	125.4	42'-6"	66'
1335	4314	5123	158.8	144.1	47'-6"	* 72'
<b>13'-6" Diameter Multi-Purpose - 40 Degree Bottom Cone</b>						
1412	1855	2209	68.5	62.1	23'-11"	* 39'
1415	2217	2638	81.8	74.2	26'-11"	46'
1420	2819	3352	103.9	94.3	31'-11"	53'
1425	3421	4065	126	114.3	36'-11"	59'
1430	4023	4779	148.2	134.4	41'-11"	66'
1435	4626	5493	170.3	154.5	46'-11"	72'

### LIQUID BIN SERIES

MODEL #	CUBIC FEE	US GALLONS	LITRES	METRIC TONNES	BIN HEIGHT	MIN. AUGER
<b>12' Diameter Liquid Bins - 45 Degree Bottom Cone</b>						
1220L	2639	19,739	74721	96.9	31'-8"	53'
<b>13' Diameter Liquid Bins - 45 Degree Bottom Cone</b>						
1320L	3135	23,451	88772.9	115.1	32'-6"	53'
1330L	4459	33,354	126257.8	163.8	42'-6"	66'
1335L	5121	38,305	145000.2	188.1	47'-6"	* 72'
<b>13'-6" Diameter Liquid Bins - 40 Degree Bottom Cone</b>						
1412L	2208	16,514	62512.1	81.1	24'	* 39'
1415L	2636	19,718	74640.5	96.8	27'	46'
1420L	3350	25,058	94854.3	123	32'	53'
1425L	4064	30,398	115068.2	149.3	37'	59'
1430L	4777	35,738	135282.1	175.5	42'	66'

Liquid tonnage calculated at 13 lbs/Imp gal.

### STEEP CONE BIN SERIES

MODEL #	BUSHEL	CUBIC FEET	MT-1 (62LBS/ FT3)	MT-2 (40LBS/ FT3)	BIN HEIGHT	MIN. AUGER
<b>12' Diameter Steep Cone Series - 55 Degree Bottom Cone</b>						
1208-55	1159	1382	38.9	25.1	21'-10"	39'
1210-55	1350	1607	45.2	29.2	23'-10"	39'
1212-55	1540	1833	51.5	33.3	25'-10"	46'
1215-55	1826	2171	61.1	39.4	28'-10"	46'
1220-55	2301	2735	76.9	49.6	33'-10"	53'
1225-55	2777	3299	92.8	59.9	38'-10"	* 59'
1230-55	3253	3863	108.6	70.1	43'-10"	* 66'
<b>13' Diameter Steep Cone Series - 55 Degree Bottom Cone</b>						
1310-55	1623	1934	54.4	35.1	24'-11"	46'
1315-55	2182	2596	73	47.1	29'-11"	53'
1320-55	2740	3257	91.6	59.1	34'-11"	59'
1325-55	3299	3919	110.2	71.1	39'-11"	66'
1330-55	3857	4581	128.8	83.1	44'-11"	72'
<b>13'-6" Diameter Steep Cone Series - 55 Degree Bottom Cone</b>						
1412-55	2013	2396	67.4	43.5	27'-5"	46'
1415-55	2374	2825	79.4	51.2	30'-5"	53'
1420-55	2977	3538	99.5	64.2	35'-5"	59'
1425-55	3579	4252	119.6	77.2	40'-5"	66'
1430-55	4181	4966	139.7	90.1	45'-5"	72'

Heavy Duty steep cone models also available on request.

### CALCULATIONS

Bushel capacities are approximate.

Feed bin capacities are based on 40 lbs/ft3.

All fertilizer bins, steep cone bins and liquid bins capacities are based on 62 lbs/ft3.

To select the most appropriate bin size for your storage, please follow these steps:

- Determine product density (lbs/ft3).
- Convert the total tonnage being stored to lbs, then divide by the density.

The result is the cubic foot capacity you require.

Ex. You need to store 100 MT of urea fertilizer with a density of 48 lbs.  
 $100 \times 2204 = 220,400 / 48 = 4592$  (Min. ft3 required)

To calculate a bins holding capacity of a specific product, follow these steps:

- Determine product density (lbs/ft3).
- Multiply the bins cubic foot capacity by the product density, then divide by 2204.

Ex. Your fertilizer blend weights 57 lbs/ft3 and your purchasing a model 1425 fertilizer bin.

Model 1425 =  $4065 \text{ ft}^3 \times 57 \text{ lbs} = 231,648 \text{ lbs} / 2204 = 105 \text{ MT}$ .

Your new 1425 will hold approx.105 MT of your specific fertilizer blend.



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