MERIDIAN®

# OWNER'S MANUAL


PATENT PROTECTED

This product is covered by one or more U.S., Canadian, Foreign patents and/or pending patent applications. For details, see:

meridianmfg.com/patents

# SMOOTHWALL BIN

# SIGN-OFF FORM

Meridian Manufacturing Inc. follows the general Safety Standards specified by the American Society of Agricultural Engineers (ASAE), and the Occupational Safety and Health Administration (OSHA). Anyone who will be using or maintaining the bin must read and clearly understand ALL Safety and Maintenance information presented in this manual.

Review this information annually, before the season start-up.

Make these periodic reviews of SAFETY and USAGE a standard practice for all of your equipment.

This form is provided for your record keeping to show that all personnel who will be working with the equipment have read and understand the information in this manual. Copy this page to continue record.

| Date | Employee's Signature | Employer's Signature |
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# PRODUCT REGISTRATION FORM

**Attention Dealers:**
You can register products online through the Dealer Login: http://dealers.meridianmfg.com/login/

It is mandatory to register your product in order to qualify for future warranties that may arise. Knowingly falsifying information on this form will result in the voiding of the product warranty.

You may scan/photograph this completed form (must be legible), email it to: register@meridianmfg.com
A copy of this form may also be mailed to Meridian Manufacturing Inc.

Buyer's Name _____ Dealer's Name _____

Address _____ Address _____

City, Prov/State_____ City, Prov/State _____

Postal Code/Zip Code _____ Postal Code/Zip Code _____

Phone Number _____ Phone Number_____

**Note:** Registering a product in multiple entry format is only allowed when the product has the same model number and the same dealer, however each serial number must be legibly listed for each unit. Delivery dates for a multiple entry must be within a one month time frame.

Product Information: _____

Model Number _____ Serial Number _____

Invoice Date _____

**Important:** Please send this form to the Meridian Manufacturing Inc. location which built this product being registered. If you require further assistance call you're dealer or the Meridian® outlet nearest to your location.

We want to thank you for purchasing a Meridian manufactured product. Whether this is your first Meridian purchase or you have been a customer for years, you are now part of the Meridian community of customers and we appreciate your business.

It is important that you now complete the product registration information and this form indicating you have received delivery. This registration and information is necessary to ensure you have access to warranty and product updates in the event it be required in the future.

Registration can be completed by using this form or visiting your dealer who will complete the form online. You will be given access to the Meridian Community and become eligible for updates, special offers and prizes.

Again, thank you for choosing Meridian.

I have thoroughly instructed the buyer on the above described equipment. The review included the content of this manual, equipment care, adjustments, safe operation and warranty policy.

Date _____ Dealer's Signature _____

The above equipment and this manual have been received by me. I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.

Date _____ Buyer's Signature _____

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continued on next page

# TABLE OF CONTENTS

# Section 1: INTRODUCTION

Thank you for choosing a Meridian® Smoothwall Bin.

This equipment has been designed and manufactured to meet the exacting standards for such equipment in the agricultural industry.

Keep this manual for future reference. Call your dealer or distributor, or our office, if you need assistance, information, additional/replacement copies, or a digital version of this document.

Information provided herein is of a descriptive nature. Meridian Manufacturing Inc. reserves the right to modify the equipment design and specifications without any preliminary notice.

Performance quality may depend on the material being handled, weather conditions and other factors.

Bin specifications, features and available options may vary depending on the region.

## 1.1 SERIAL NUMBER

The serial number is located above the safety decals on the hopper leg where the crank is attached.

Have the serial number available when communicating with the dealer or factory and requesting service or asking for information.

Use the space provided for easy reference:

Bin Model No: _____

Bin Serial No: _____

Auxiliary Equip: _____

Fig 1 - Serial number location on hopper leg

## 1.2 PATENT INFORMATION


Meridian® continuously enhances its product offering through product improvements and new product innovations. Marketplace feedback, technological innovation, new materials and manufacturing methods, and a philosophy of continuous improvement constantly challenge the company to develop new and better ways of addressing market needs. Meridian is committed to innovation and reinvestment and as a result, the company maintains a portfolio of patents and intellectual property. For more information on our patents please see our website:

www.meridianmfg.com/patents

# Section 2: SAFETY

The Safety Alert Symbol means:

ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!

3 Big Reasons why safety is important to you:

- Accidents Disable and Kill
- Accidents Cost
- Accidents Can Be Avoided

The Safety Alert Symbol identifies important safety messages on the bin and in this manual.

The following signal words are used in this manual to express the degree of hazard for areas of personal safety.

When you see the symbol and/or the signal words described below, obey the accompanying message to avoid possible injury or death.

**DANGER** — Indicates a hazardous situation that, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations. Typically for machine components which, for functional purposes, cannot be guarded.

**WARNING** — Indicates a hazardous situation, if not avoided, could result in death or serious injury. This word identifies hazards that are exposed when guards are removed. It may be used to alert against unsafe practices.

**CAUTION** — Indicates a hazardous situation, if not avoided, could result in minor or moderate injury. It may be used to alert against unsafe practices.

***NOTICE*** — Indicates practices or situations which may result in the malfunction of, or damage to equipment.

**SAFETY INSTRUCTIONS** — Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.

## 2.1 SAFETY ORIENTATION

YOU are responsible for the SAFE usage and maintenance of your Meridian® Smoothwall Bin. Be sure that everyone who will maintain or work around it, is familiar with the safety, maintenance procedures.

This manual will take you step-by-step through your working day. It will alert you to all the safe practices that should be adhered to while using the bin.

It has been said, "The best safety feature is an informed, careful worker" Good safety practices not only protect you but also the people around you. Make these practices a dynamic part of your workday.

Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- Bin owners must give instructions to employees before allowing them to use the bin.

  Procedures must be reviewed annually thereafter, as per OSHA (Occupational Safety and Health Administration) regulation 1928.57.

- Develop a comprehensive safety program for your work area.

- The most important safety device is a SAFE worker. It is their responsibility to understand all safety and usage instructions in this document, and to follow them.

- An untrained worker exposes himself and bystanders to possible serious injury or death.

- Think SAFETY! Work SAFELY!

## 2.2 GENERAL SAFETY

- You are responsible for the safe use and maintenance of this bin. Good safety practices not only protects you but also those around you. All accidents can be avoided.

- Use this bin for its intended purpose only.

- This bin is not intended for use by children.

## 2.3 EQUIPMENT SAFETY GUIDELINES

- Safety of the workers and bystanders is one of the main concerns when designing and developing this fuel tank. However, every year many accidents occur which could have been avoided by a few seconds of thought, and a more careful approach to handling equipment.

- DO NOT allow personnel to use this tank until they have read this manual. They should have a thorough understanding of the safety precautions.

  Review the safety instructions with all users annually.

- DO NOT modify the tank in any way without written permission from the manufacturer. Any unauthorized modification of the fuel tank will void the warrant

## 2.5 SAFETY DECALS

- Keep safety decals clean/legible at all times.
- Replace safety decals that are missing or have become illegible.
- All safety decals have a part number in the lower right hand corner. Use this part number when ordering replacements.
- Safety decals are available from your authorized distributor, dealer's parts department or from the factory.

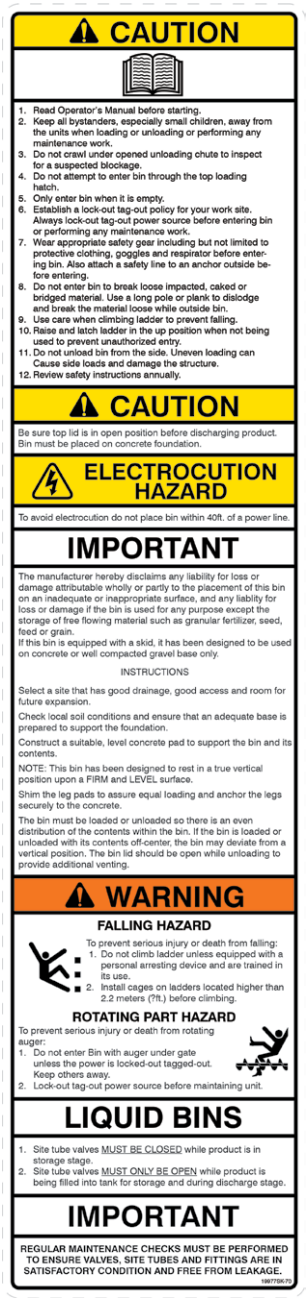
### 2.5.1 Applying Decals:

1. Be sure the application area is clean and dry. Ensure the surrounding temperature is above 10°C (50°F).
   a. Remove all dirt, grease, wax from surface.
   b. Clean with a non-ammonia based cleaner.
   c. Wipe the clean surface with isopropyl alcohol on paper towel, and allow to dry.
2. Determine the exact position before you remove the backing paper.
3. Peel a small portion of the split backing paper.
4. Align the decal over the specified area. Use a squeegee to carefully press the small portion, with the exposed adhesive backing, into place.
5. Slowly peel back the remaining paper and carefully smooth the rest of the decal into place.
6. Small air pockets can be pierced with a pin and smoothed out using the squeegee, or a piece of sign backing paper.

## 2.4 SAFETY DECAL LOCATION

Safety decals are attached to the structure in a visible and convenient location for readability. A safe workplace requires that you familiarize yourself with the information on the decals.

Fig 2 - Safety decal

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## 2.6 WORK PREPARATION

- Work only in daylight or good artificial light.
- Clear working area of stones, branches or hidden obstacles that might be hooked or snagged, causing injury or damage.
- Be sure all machinery is in a stable position, is adjusted and in good operating condition.
- Ensure that all safety guards and
- Install and secure all guards on auxiliary loading/unloading equipment be using it.
  - Safety decals must be in good condition.
- Before starting, inspect all equipment for any loose bolts, worn parts, cracks, leaks or frayed belts. Make the necessary repairs.
- PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS!

  Agricultural equipment can often be noisy enough to cause permanent, partial hearing loss. We recommend that you wear hearing protection on a full-time basis if the noise in the operator's position exceeds 80 db.

  Noise over 85 db on a long-term basis can cause severe hearing loss.

  Noise over 90 db adjacent to the operator over a long-term basis may cause permanent, total hearing loss.

**Note:**
Hearing loss from loud noise
(tractors, chain saws, radios, etc.)
is cumulative over a lifetime
without hope of natural recovery.

## 2.7 MAINTENANCE SAFETY

- Create a Lock-Out Tag-Out program for the auxiliary equipment used to load and unload the bin.
- These bins can store a variety of products and each site is different. It is important to develop an applicable maintenance program to suit your specific work place.
- Do not crawl under the opened unloading chute to inspect for a suspected blockage.
  - Product could suddenly break loose and cause facial and/or eye injury.
- If you enter the bin:
  - Lock out the power sources for all equipment.
  - Have a responsible person close at hand in case of an emergency.
- Use personal protective equipment (PPE) such as eye, hand, breathing and hearing protectors, when performing any service or maintenance work.

- Enter the empty bin with extreme caution:
  - Wear protective clothing, and a properly filtered respirator mask to protect against chemical vapour or residual dust.
  - Connect a safety line to yourself and have a responsible, trained person outside in case of an emergency.
- A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.

- Periodically tighten all bolts, nuts and screws and check that all cotter pins are properly installed to ensure the bin and auxiliary equipment are secure.

## 2.8 OPERATING SAFETY

- Make sure that anyone who will be using the bin or working on or around it reads and understands all the operating, maintenance and safety information in the owner's manual.

- Keep all bystanders, especially children, away from the bin when loading or unloading is being done, or when authorized personnel are carrying out maintenance work.

- Do not crawl under the opened unloading chute to inspect for a suspected blockage. Caked or impacted product could suddenly break loose and cause facial and/or eye injury.

- Do not attempt to enter the bin through the top loading hatch. This opening is designed for loading the bin only and not for human entry.

- Use the optional roof manhole only for entry into the bin and only when the bin is empty for cleaning purposes.

- If you enter the bin, ensure that there is no possibility that the loading or unloading auger could be started up.
  - Lock out the power sources for all equipment.
  - Have a responsible person close at hand in case of an emergency.

- Enter the empty bin with extreme caution. Wear protective clothing, goggles and a properly filtered respirator mask to guard against chemical vapour or residual dust.

  - Connect a safety line to yourself and have a responsible, trained person outside, holding the line, in case of an emergency.

- Do not enter the bin to break loose impacted, caked or bridged material. You could fall through the bridged material if you are trying to clear it from the top. Or have it cave in on you from the bottom. Either situation could result in you being buried in the falling material and suffocating.

- If material is bridged or caked causing a blockage. Use a long pole, a length of board to break the material loose.

- Be very careful when climbing up or down the exterior ladder. Remove excess mud or other material from your footwear that could cause slipping.

- Make sure the safety section of the access ladder is raised and latched in place to prevent children and other unauthorized persons from climbing up on the bin.

- The optional roof manhole should not be used to load or unload material. This will cause the material to be off-centre, either piling up or emptying unevenly to one side of the bin. This uneven stressing of the bin could cause structural damage.

## 2.9 LOCK-OUT TAG-OUT SAFETY

- Establish a formal Lock-Out Tag-Out program for your work site.

- Train all operators and service personnel before allowing them to work around the area.

- Provide tags on all auxiliary equipment and a sign-up sheet to record tag-out details.

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# Section 3: SITE AND INSTALLATION

**⚠ WARNING**

- Read and understand the owner's manual.
- Clear the area of bystanders, especially children, before starting.
- Prepare the base carefully to be sure the bin is supported evenly to prevent tipping.
- Stay away from power lines when lifting or moving the bin. Electrocution can occur without direct contact.
- Move the bin on a calm day or light breeze. The bin is a large, hard-to-handle object that can easily be caught and moved by the wind.
- Use extra care when moving bin. Never move a bin with product in it.
- Use only an approved hoist, crane or other lifting system when positioning bin.
- Secure, anchor the base when positioned.

## 3.1 BIN LOCATION

Unless otherwise specifically provided in writing, Meridian® does not take responsibility for any defects or damages to any property, or injury to any persons, arising from or related to any site or assembly considerations, including but not limited to:

- Bin location and siting.
- Soil conditions and corresponding foundation requirements.
- Field modifications or equipment additions that affect the bin structure.
- Interconnections with neighbouring structures.
- Compliance with all applicable safety standards, including but not limited to, fall restraint systems (ladders or other systems). Local safety authorities should be contacted as standards vary between jurisdictions.

It is important that you, the customer, plan the work site to minimize or eliminate the need to move the bin once positioned.

- We recommend that you consult a civil engineer regarding the chosen site, the soil load bearing capacity, proper method of construction and type of concrete pad.
- Clear area of bystanders, especially children.
- Use only hoists, or cranes with sufficient lift capacity and reach for the bin being positioned.
- Do not move/transport bin(s) when it is windy.
- Ensure the bin is positioned on a base that has been properly prepared to support the weight and loads of the bin when filled.
- Electrocution can occur without direct contact. Do not place bin within 40 ft from power lines.

## 3.2 BIN FOUNDATION

Although the bin base can be temporary, it is recommended that a permanent concrete base be constructed so it can support and carry the weight and load of the bin full of stored material.

The foundation specifications included in this manual are suggestions only, and may not be applicable to your local soil conditions.

Meridian Manufacturing Inc. will not assume any liability for results arising from their use.

1. Gravel Base
   (Temporary Skid Base for Smoothwall Bins):

   Meridian® strongly advises you to consult a civil engineer regarding the site you choose. A professional engineer will check the soil conditions and soil load bearing capacity. They can use the bin's empty and full weights (each product has a different weight) to advise on preparing the proper base.

   If a temporary skid is attached, the bin must be placed on a minimum of 10 inches of compacted granular fill. The entire bearing area of the skid should rest evenly on this area. The fill should be in an area with proper type of soil and good drainage to provide a firm base.

   The foundation should be uniform and level. It should not vary by more than 1/4" over a span of four feet.

**IMPORTANT:**
This should be only a temporary base.
It is highly recommended that a
good concrete pad be used
as a permanent base.

2. Concrete Slab (Permanent Base):
   We recommend that you consult a civil engineer regarding the site you choose, the soil conditions, and soil load bearing capacity. A professional engineer can advise on the proper method of construction and type of concrete slab for your needs.

   The best type of base, and the one we recommended, is a concrete slab that is located on well drained, level ground that is capable of supporting the concrete slab and a full bin under all environmental conditions.

   The design of a concrete slab is based on varied load bearing specifications for the different sized liquid bins. Meridian® is not responsible for damage caused by an inadequate concrete slab. It is the responsibility of the owner to ensure that good construction practices are followed to obtain the required load carrying capacity for the slab. A concrete slab built to the proper performance specifications will ensure a long, trouble-free life for the storage system.

   Meridian® can provide your engineer with the required information, such as bin design and leg reactions (wind and weight load).

   The bin must be bolted to the slab so that all the legs sit evenly and are firmly in contact with the concrete. If the concrete is uneven, full "leg base plate" shims can be used.

## 3.3 BIN DESIGN

The bin, and the grade of steel used, must be designed for the product being stored inside. It is your responsibility to inform Meridian Manufacturing Inc. about what product you are planning to store in the bin, and receive approval to do so.

## 3.4 CONCRETE SLAB CONSTRUCTION

The following information provides specifications and general guidelines for construction of concrete slabs for supporting bins.

It is very important that close attention be given to site preparation and soil conditions in order to provide a good base for the concrete slab.

Items to be aware of include but are not limited to the following:

1. Soil Conditions:
   Sod and other organic material must be removed before laying down the gravel fill. Positive drainage must be provided to drain excessive moisture away from the concrete slab.

   The concrete slab is designed for load stresses on soils with minimum allowable soil bearing capacity of 1500 psf.

   The engineer is not responsible for concrete slab performance on soils with lower than specified bearing capacity or soils that are unsuitable for supporting a concrete pad.

   Soil conditions should be assessed on the basis of soil tests, or of the performance history of similar structures in your local area.

2. Slab Structures:
   The following specifications must be followed to construct a concrete slab to meet the load and stress carrying requirements:
   - The concrete must have a minimum 28 day strength of 3000 psi (1361 kg).
   - Use sulphate resistant cement where required by soil conditions.
   - Do not pour concrete on frozen ground or in an excavation that contains ice, snow, excessive moisture or when the air temperature is below 4°C (40°F).

3. Foundation Specifications:
   d. All foundations must be designed on leveled soil with a bearing capacity of 3,000 psf (14,646 kg/m$^2$). When in doubt, consult a local engineer or architect.

   e. All soil or organic material on the site of the foundation must be excavated and replaced by porous frost-proof material to provide proper draining under foundation and reduce frosting problems (gravel, sand, ballast, crushed stone). This underlying basis is then compacted and covered with polyethylene plastic which acts as a moisture barrier.

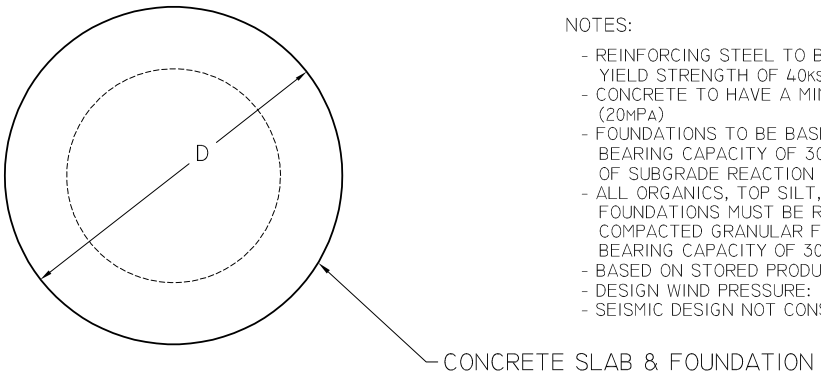
   f. Once the forms have been prepared, begin the placement of reinforcement rods in the foundation (see foundation drawing details). The reinforcement rods offer their greatest strength when they have been joined together, either by weld or wire. 6 x 6" (15.24 x 15.24 cm) wire mesh or 10M (#3) at 12" O/C each way covering the entire area of the foundation, completes preparation before beginning concrete pouring.

   g. Concrete must have a minimum compressive strength of 3,000 psi (20.7 MPa) after 28 days.

   h. Approximative concrete volume quantities found in the corresponding table.

   i. Foundation surface must be level. Columns must be shimmed in uneven circumstances.

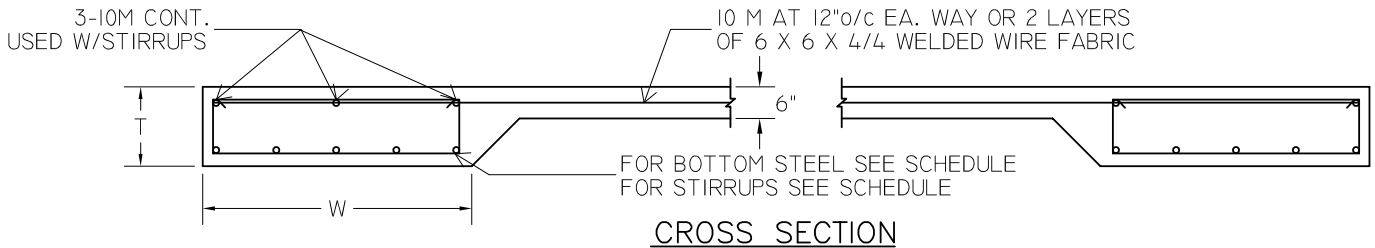
   j. Follow general concrete best practices and guidelines. Wait a minimum of 7 days to install the bins on concrete. It is recommended to wait 28 days until filling the combo hopper bin, to ensure full concrete strength is achieved.




PLAN

NOTES:

- REINFORCING STEEL TO BE DEFORMED BARS WITH A MINIMUM YIELD STRENGTH OF 40KSI (300MPA)
- CONCRETE TO HAVE A MINIMUM 28 DAY STRENGTH OF 3000PSI (20MPA)
- FOUNDATIONS TO BE BASED ON FIRM GROUND WITH A MINIMUM BEARING CAPACITY OF 3000PSF (140KPA) & MINIMUM MODULUS OF SUBGRADE REACTION OF 200 PSI/IN (54 MPA/M)
- ALL ORGANICS, TOP SILT, AND SOFT GROUND BENEATH FOUNDATIONS MUST BE REMOVED AND REPLACED WITH COMPACTED GRANULAR FILL, SUITABLE TO THE ABOVE LISTED BEARING CAPACITY OF 3000PSF.
- BASED ON STORED PRODUCT DENSITY OF 50PCF (800KG/M3)
- DESIGN WIND PRESSURE: 14 PSF (0.67 KPA).
- SEISMIC DESIGN NOT CONSIDERED.




CROSS SECTION

## FOUNDATION SCHEDULE

| BIN MODELS | D | T | W | BOTTOM STEEL | STIRRUPS | CONC. ($M^3$) |
|---|---|---|---|---|---|---|
| 1830 - 1835 OUTSET LEGS | 21'-6" | 20" | 4'-0" | 4-20M @ 14" o/c | 10M @ 12" o/c | 13.9 |
| 1830 - 1835 INSET LEGS | 19-6" | 20" | 4'-0" | 4-20M @ 14" o/c | 10M @ 12" o/c | 11.9 |
| 1810 - 1825 OUTSET LEGS | 21'-0" | 18" | 3'-6" | 4-20M @ 12" o/c | 10M @ 12" o/c | 11.5 |
| 1810 - 1825 INSET LEGS | 19'-0" | 18" | 3'-6" | 4-20M @ 12" o/c | 10M @ 12" o/c | 9.8 |
| 1625 - 1630 | 19'-0" | 18" | 3'-6" | 4-20M @ 12" o/c | 10M @ 12" o/c | 9.8 |
| 1610 - 1620 | 18'-6" | 16" | 3'-0" | 3-20M @ 15" o/c | 10M @ 12" o/c | 8.0 |
| 1525 - 1530 | 18'-6" | 18" | 3'-6" | 4-20M @ 12" o/c | 10M @ 12" o/c | 9.4 |
| 1510 - 1520 | 18'-0" | 16" | 3'-0" | 3-20M @ 15" o/c | 10M @ 12" o/c | 7.6 |
| 1410 - 1420 | 16'-6" | 16" | 3'-0" | 3-20M @ 15" o/c | 10M @ 12" o/c | 6.6 |
| 1305 - 1325 | 14'-6" | 16" | 3'-0" | 3-20M @ 15" o/c | 10M @ 12" o/c | 5.4 |
| 1205 - 1215 | 14'-0" | 14" | 2'-6" | 3-15M @ 12" o/c | 10M @ 12" o/c | 4.2 |
| 1010 - 1015 | 12'-0" | 12" | 2'-6" | 3-15M @ 12" o/c | N/A | 2.8 |
| 910 - 915 | 11'-0" | 10" | 2'-6" | 3-15M @ 12" o/c | N/A | 2.0 |
| 808 - 812 | 10'-0" | 10" | 2'-6" | 3-15M @ 12" o/c | N/A | 1.7 |
| 705 - 710 | 9'-0" | 8" | 2'-6" | 3-15M @ 12" o/c | N/A | 1.2 |
| GM2030 - 2035 | 23'-6" | 20" | 4'-0" | 4-20M @ 14" o/c | 10M @ 12" o/c | 16.0 |
| GM5300 - 7500 OUTSET LEGS | 21'-0" | 18" | 3'-6" | 4-20M @ 12" o/c | 10M @ 12" o/c | 11.5 |
| GM5300 - 7500 INSET LEGS | 19'-0" | 18" | 3'-6" | 4-20M @ 12" o/c | 10M @ 12" o/c | 9.8 |
| GM3000 - 6000 | 18'-6" | 16" | 3'-0" | 4-20M @ 10" o/c | 10M @ 12" o/c | 8.0 |
| GM2300 | 16'-0" | 16" | 2'-6" | 3-15M @ 12" o/c | 10M @ 12" o/c | 6.0 |
| GM1000 | 14'-0" | 10" | 2'-6" | 3-15M @ 12" o/c | N/A | 3.1 |



| | |
|---|---|
| DATE ORDERED: | |
| DATE APPROVED: | |
| DRAWN BY: | ADD |
| DATE DRAWN: | 08/21/17 |
| CHECKED BY: | |
| DATE CHECKED: | |

MERIDIAN®

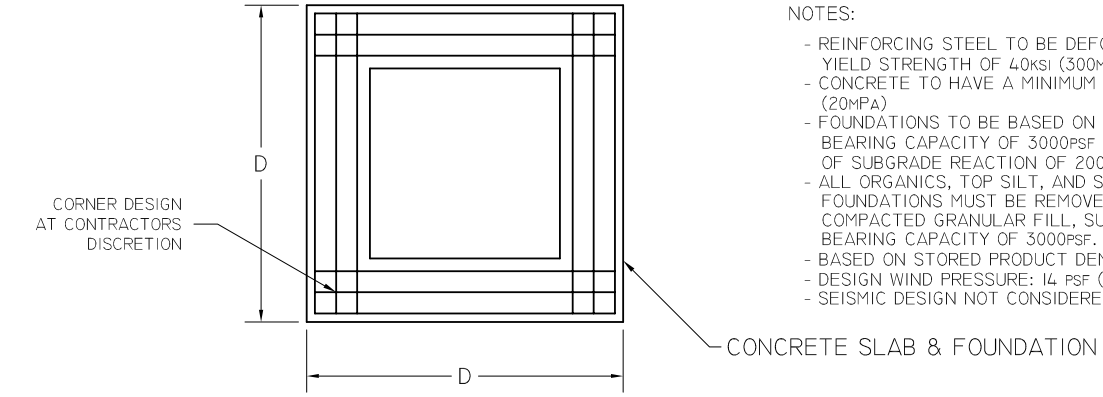
www.meridianmfg.com

CUSTOMER:

BIN FOUNDATION PLANS

| MODEL#: | SALES ORDER#: | SERIAL#: |
|---|---|---|

| REVISION: | PROJECT NO: | SCALE: | BIN WGT: |
|---|---|---|---|
| | | NONE | |

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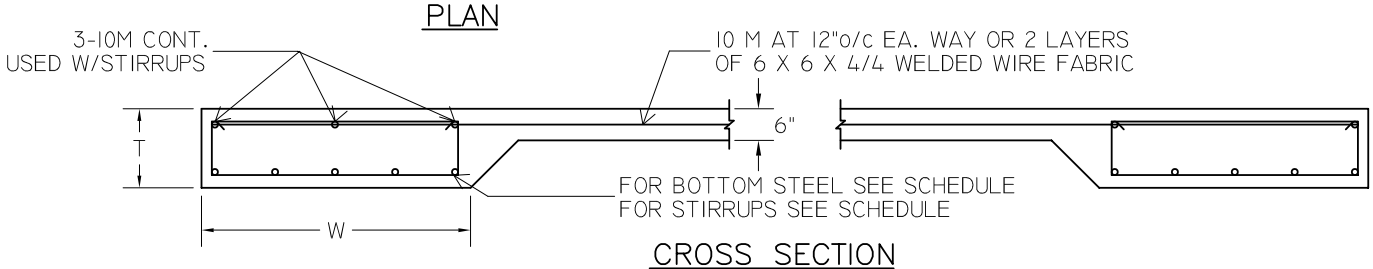


CROSS SECTION

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| 1810 - 1825 INSET LEGS | 18'-0" | 18" | 3'-6" | 4-20M @ 12" o/c | 10M @ 12" o/c | 10.9 |
| 1625 - 1630 | 18'-0" | 18" | 3'-6" | 4-20M @ 12" o/c | 10M @ 12" o/c | 10.9 |
| 1610 - 1620 | 17'-4" | 16" | 3'-0" | 3-20M @ 15" o/c | 10M @ 12" o/c | 8.7 |
| 1525 - 1530 | 17'-4" | 18" | 3'-6" | 4-20M @ 12" o/c | 10M @ 12" o/c | 10.3 |
| 1510 - 1520 | 17'-0" | 16" | 3'-0" | 3-20M @ 15" o/c | 10M @ 12" o/c | 8.5 |
| 1410 - 1420 | 15'-6" | 16" | 3'-0" | 3-20M @ 15" o/c | 10M @ 12" o/c | 7.3 |
| 1305 - 1325 | 13'-0" | 16" | 3'-0" | 3-20M @ 15" o/c | 10M @ 12" o/c | 5.5 |
| 1205 - 1215 | 13'-0" | 14" | 2'-6" | 3-15M @ 12" o/c | 10M @ 12" o/c | 4.6 |
| 1010 - 1015 | 11'-6" | 12" | 2'-6" | 3-15M @ 12" o/c | N/A | 3.2 |
| 910 - 915 | 10'-6" | 10" | 2'-6" | 3-15M @ 12" o/c | N/A | 2.3 |
| 808 - 812 | 9'-6" | 10" | 2'-6" | 3-15M @ 12" o/c | N/A | 2.0 |
| 705 - 710 | 8'-6" | 8" | 2'-6" | 3-15M @ 12" o/c | N/A | 1.3 |
| GM2030 - 2035 | 22'-0" | 20" | 4'-0" | 4-20M @ 14" o/c | 10M @ 12" o/c | 17.4 |
| GM5300 - 7500 OUTSET LEGS | 20'-0" | 18" | 3'-6" | 4-20M @ 12" o/c | 10M @ 12" o/c | 12.9 |
| GM5300 - 7500 INSET LEGS | 18'-0" | 18" | 3'-6" | 4-20M @ 12" o/c | 10M @ 12" o/c | 10.9 |
| GM3000 - 6000 | 18'-0" | 16" | 3'-0" | 4-20M @ 10" o/c | 10M @ 12" o/c | 9.3 |
| GM2300 | 15'-6" | 16" | 2'-6" | 3-15M @ 12" o/c | 10M @ 12" o/c | 6.9 |
| GM1000 | 13'-0" | 10" | 2'-6" | 3-15M @ 12" o/c | N/A | 3.4 |



| | |
|---|---|
| DATE ORDERED: | |
| DATE APPROVED: | |
| DRAWN BY: | ADD |
| DATE DRAWN: | 08/21/17 |
| CHECKED BY: | |
| DATE CHECKED: | |

MERIDIAN®

www.meridianmfg.com

CUSTOMER:

BIN FOUNDATION PLANS

| MODEL#: | SALES ORDER#: | SERIAL#: |
|---|---|---|
| | | |

| REVISION: | PROJECT NO: | SCALE: | BIN WGT: |
|---|---|---|---|
| | | NONE | |

## 3.5 INSTALLATION

Care must be used when moving, lifting and installing the bin. Installation instructions include but are not limited to:

- Clear the area of bystanders, especially small children.

- Have at least one other trained and responsible person to assist and who, in case of an emergency or accident, can provide assistance or seek assistance.

- Stay away from power lines when lifting or moving the bin. Do not place a bin within 40 ft from power lines.

  Electrocution can occur without direct contact.

- Never move a bin that has product in it. The legs, base and supporting structure are not designed with sufficient strength to carry the combined mass. Any structural damage occurring during the move, can lead to more problems or damage when the bin is filled at its final position.

- Do not use tow hooks on a temporary skid base to pull the bin with any product inside. Because of the inherent high centre of gravity and the pulling force that would be concentrated at the tow hooks, the bin would tip over, creating a safety hazard.

- If the unit must be pulled, make sure that it is completely empty and that the area that it will be pulled over is firm, level and contains no obstructions. Proceed with extra caution. The bin is top heavy, having a high centre of gravity and can tip easily.

- Use only a crane, hoist or lift with sufficient load carrying and reach capacity. It must have the appropriate stability to raise, move, position and lower the bin.

- It is recommended that installing the bin be done on a calm day or one with light winds. A bin is a large, hard-to-handle object that can easily be caught and moved by the wind.

**Note:**
It is easier to position the top lid before placing the bin than after.

- Determine where the auger or conveyor will be when loading the bin. The position of this equipment will determine the rotation of the top lid, covering the loading hatch, at the peak of the bin. The lid will need to be opened and out of the way of the loading equipment.
  - Loosen the lid clamping bolts and rotate it to the required position prior to securing the bin into its permanent position.
  - Tighten the clamping bolts to their specified torque and tie the rope to the lid handle.

- Be sure the base cannot move.
  - Stake the skid plate when equipped with a temporary base.
  - Bolt the base to the permanent concrete pad.

  If the base can move, it can lift or slide which leads to tipping.

Fig 3 - Unloading bin

# Section 4: OPERATION

**⚠ WARNING**

- Read and understand the owner's manual, and all safety decals, before using.
- Keep all bystanders, especially small children, away when loading/unloading or performing any maintenance work.
- Do not crawl under opened unloading chute to inspect for a suspected blockage.
- Do not attempt to enter bin through the top loading hatch.
- Only enter bin when it is empty.
- Establish a Lock-Out Tag-Out policy for your work site. Always lock-out tag-out power source before entering bin or performing any maintenance work.
- Climbing ladder with care to prevent falling.
- Raise and latch ladder in the up position when not being used to prevent unauthorized use.
- Do not load/unload bin from the side. It can cause side loads and damage the structure.
- Wear appropriate safety gear including but not limited to protective clothing, goggles and respirator before entering bin. Also attach a safety line to an anchor outside before entering.
- Do not enter bin to break loose impacted, caked or bridged material. Use a long pole or plank to dislodge and break the material loose while outside bin.

This Meridian® Smoothwall Bin has been designed and engineered for loading capacities up to 62 lb per cubic foot. The GrainMax series holds up to 50 lb per cubic foot and are recommended for grain storage only.

Many features incorporated into this bin are the result of suggestions made by customers like you.

It is the responsibility of the owner and users to be familiar with the bin(s) and all the auxiliary loading/unloading equipment before starting. By following the recommended procedures, a safe working environment is provided for the workers and bystanders in the work site.

Hazard controls and accident prevention are dependent upon the personnel working with and maintaining the equipment. Their awareness, concern, prudence and proper training are crucial.

By following these instructions, in conjunction with a good maintenance program, your bin will provide many years of trouble-free storage.

## 4.1 COMPONENTS AND CONTROLS

Bin specifications, components and available options may vary depending on the region. The location of components and options may vary and change without notice.

Fig 4 - Slide gate attached below unloading chute

**Unloading Chute with Slide Gate:**
The unloading chute at the base of the bin comes with a rack and pinion slide gate assembly. A crank is used to work the gate. There is 24" of clearance below the slide gate.

Fig 5 - Crank for slide gate

**Vented Top Lid:**
The top lid, covering the 25" loading hatch at the peak, is vented and spring-loaded. The ventilation avoids a vacuum forming when unloading, which may cause implosion.

A rope is attached to the lid and extends down to the ground, and tied to a leg. Pull the rope to open the lid, release it to close.

Fig 6 - Top lid with rope

**⚠ WARNING**

FALLING HAZARD
Use extreme caution when climbing.

Always raise the retractable ladder section and latch in place when not in use.
This will avoid unauthorized use.

**Sidewall and Roof Ladder:**
Each Bin is designed and built with a ladder that reaches the loading hatch, at the top of the bin.

Fig 7 - Ladders

**Retractable Ladder Section:**
The access ladder has a moveable safety section located at ground level. This is designed to slide up out of reach of children and latch into place.


Fig 8 - Retractable ladder section

## 4.2 OPTIONAL COMPONENTS

The location of options may vary and change without notice. Not all options may be available in all regions.

**Ladder Cage and Handrails:**
This cage surrounds the ladder and hand rails can be added to reduce the chance of falling.

Fig 9 - Ladder cage and handrails

**Fall Arrest System:**
Wear a safety harness while climbing the bin.

Fig 10 - Fall arrest system

**Top Lid Lever:**
A lever is available to easily open the roof lid. Attach it to the hopper leg and tie the rope to it.

Fig 11 - Top lid lever

**Poke Hole:**
This access hole allows you to get a pole or stick into the bin to dislodge any bridged material.

**Bottom Manway:**
This access hole is located in the bottom cone and provides access to the interior of the bin. Do not use it to dislodge bridged material inside the bin.

Fig 12 - Poke Hole and bottom manway

**Roof Manhole:**
A manhole in the roof, is available. It can be used as an inspection port and an entrance to the interior of bin if there is an interior ladder.

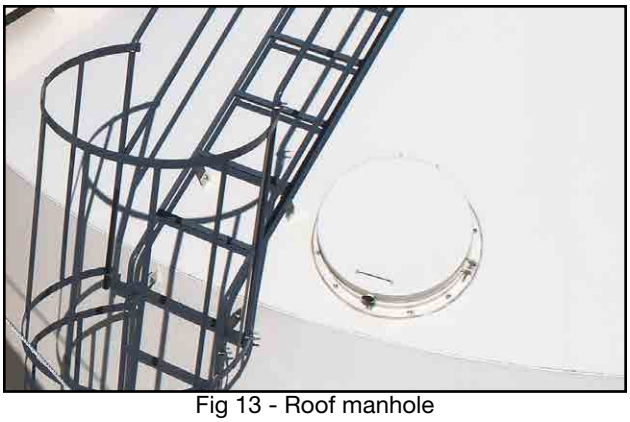
Fig 13 - Roof manhole

**Roof Vent:**
A roof vent allows for added ventilation. They are available in baffled and non-baffled version.


Fig 14 - Roof vent

**Bean Ladder:**
This ladder hangs down the centre of bin and directs the product to flow down the ladder to the bottom of bin reducing damage to seed.

It is particularly recommended for pulse crops of all kinds and reduces splits from handling.

**Note:**
Bean ladder must be removed if the bin will be used for fertilizer storage or any other product that is prone to bridging.


Fig 15 - Bean ladder

**Auger Boot:**
This boot allows an auger to be mounted below the unloading chute for easy and convenient unloading.


Fig 16 - Auger boot

**Pail Spout:**
This spout allows you to take a small sample from the bin without spilling any product. It is equipped with a small hand-operated slide gate to control the size of the sample. A pail works well to collect the sample.

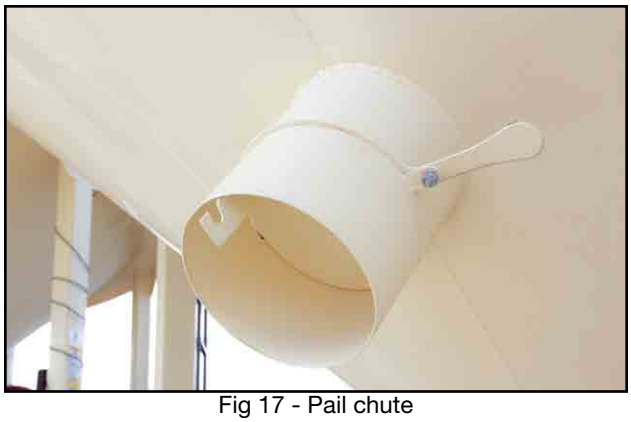
Fig 17 - Pail chute

**LevALERT® Bin Level Indicator:**
LevALERTs are available for installation on the sidewall of the bin. The indicator turns a bright yellow colour when the product inside the bin reaches that point or is above it.

LevALERTs can be installed at any time, and are available with an optional proximity switch to control lights, alarms, etc.


Fig 18 - View glass and LevALERT® Indicator

**View Glass:**
View Glass(es) are available and can be installed into the sidewall to view the product inside.

View Glasses are best ordered and installed from the factory.

**Single, Double or Triple Skid:**
Skid bases are available to bolt to the hopper legs. This is important when the bin is placed on a temporary gravel base.


Fig 19 - Triple skid

**Utility Auger:**
A utility auger is available for convenient unloading. It is available in 4, 6, 8 and 10 inch diameters. The tube is a standard 16 foot length, and extensions are available.


Fig 20 - Utility auger

**Additional Options:**
- Leg Extensions
- Touch-Up Paint
- Grain or Feed Boot
- Pneumatic Fill System
- Non-Vented Top Lid
- Safety Fill
- Transitions
- 12", 14", and 18" Gooseneck Vents
- Moisture and Temperature Cables
- Fan Mounting Bracket
- Lift Hooks

**Note:**

A variety of control systems and switches are available to be used with your storage system for loading and unloading.

Always have a licensed electrician provide the power and controls for your system. All wiring should comply with the ANSI/NFPA 70 electrical requirements.

**Paint (Internal):**

All fertilizer bins come standard with a polyester powder coat finish interior. This powder coat finish protects the interior metal surface when coming in contact with corrosive materials. If fertilizer, potash or any other corrosive material will be placed in the bin, it must have the powder coat finish paint on the inside to prevent damage to the metal surface.

Always inspect the interior surface for damage before filling with corrosive material. Clean and repaint if any damage is found. Warranty will be null and void on any unpainted or poorly maintained bin.

**IMPORTANT:**

Always follow all paint application safety instructions when maintaining the bin.

## 4.3 MERIDIAN AIRMAX® AERATION SYSTEMS

One of these Airmax™ Aeration systems may have come with your bin to condition the product stored inside.

**NOTICE**

CORROSIVE MATERIAL HAZARD
Do not store fertilizer in a bin containing an aeration system.

### 4.3.1 Airmax™ Horizontal Aeration System:

The horizontal aeration tube is inserted through the fan mount. Then the fan can be installed.

- Bolt the in-line fan to the mount in a way that the electrical lines can be routed conveniently.

The aeration tube is removable, to facilitate cleaning of the screen.

- Remove the fan, then unfasten the bolts and carefully pull the tube out of the bin.
- Once the tube is removed, replace the cover plate to prevent moisture and pests from entering the bin.

**Horizontal Aeration Disclaimer:**

Remove the horizontal aeration tube if fertilizer will be stored in the bin. If left inside, it could limit or void the warranty if the cause of a claim is deemed to be from the storage of fertilizer.

### 4.3.2 Airmax™ Vertical Aeration System:

The internally mounted "rocket" has a hollow duct design formed by a self-cleaning perforated metal screen.

Bolt the centrifugal fan to the mount on the hopper bottom.

Fig 21 - Horizontal AirMax™ Aeration tube


Fig 22 - AirMax™ In-Line fan

Fig 23 - Vertical Aeration -One-Piece

Fig 24 - Vertical Aeration -Sectional


Fig 25 - AirMax™ Centrifugal fan

### 4.3.3 Airmax™ 360 Aeration System:

The patented Meridian AirMax® 360 surrounds the full circumference inside the hopper cone. It forces air into the centre of the grain cavity, which is necessary for even grain conditioning.

With no perforations, there are no screens to remove when changing seed varieties, resulting in virtually no cleaning or cross-contamination.

Bolt the fan vertically, onto the inlet mount in a way that the electrical lines can be routed conveniently.

Table 1 - Airmax™ 360 Fan Inlet Size

| BIN SIZE | INLET SIZE |
|---|---|
| 16 Feet | 18" Dia. |
| 18 Feet | 24" Dia. |

**Airmax™ 360 Warranty Disclaimer:**

The storage of fertilizer in a bin equipped with Airmax™ 360 could limit or void the warranty if the cause of a claim is deemed to be from the storage of fertilizer.

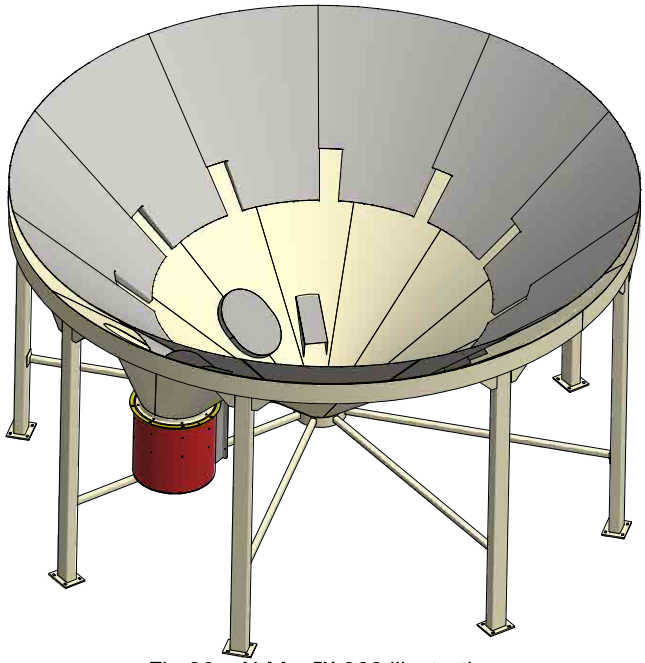

Fig 26 - AirMax™ 360 illustration

Fig 27 - AirMax™ 360 fan mount

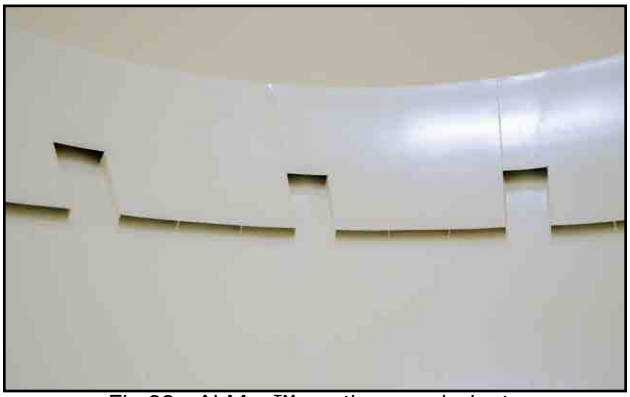

Fig 28 - AirMax™ continuous air ducts

Table 2 - Meridian Airmax® Specifications

| Models | Max Bin Size (Bushels) [1] | Recommended Hopper Bin Size [2] | Dimensions | Dia. I.D. | Weight (LB) | Screen Surface (Inches) | Inlet Size and Type | Height into Grain Cavity 35° Cone [3] | Height into Grain Cavity 40° Cone [3] | Height into Grain Cavity 55° Cone [3] |
|---|---|---|---|---|---|---|---|---|---|---|
| Vertical Aeration – One Piece | | | | | | | | | | |
| 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 |
| Vertical Aeration – Sectional (Designed for Retrofitting Existing Hopper Bins and High-Flow Applications) [4] | | | | | | | | | | |
| 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” |
| Horizontal Aeration (Removable for Fertilizer Storage and Available for Retrofitting Existing Bins) | | | | | | | | | | |
| 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 |
| H2410-HD | 8,500 | Up to 18’ diameter | 24” x 10' | 24” | 360 | 6284 | 24" Rnd | 51” | 59” | n/a |
| H2412-HD | 11,000 | Up to 20’ diameter | 24” x 12' | 24” | 425 | 7908 | 24" Rnd | 58” | 68” | 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 AirMax™, withstanding weights up to 20,000 bushels.

## 4.4 LIQUID HOPPER BIN

Meridian's Liquid hopper bins are the ultimate storage solution, delivering versatility and innovation for a multitude of agricultural and commercial requirements. In addition to storing all the dry flowable products of the fertilizer series, these bins are designed, engineered and coated to store a whole range of liquid products such as liquid fertilizer and liquid feed supplements.

These bins look identical to the fertilizer bins, differing significantly however:
- Bottom flange plate assembly
- Heavier gauge steel
- Welded inside and out
- Four coats of powder chemistry
- Leak tested

Fig 30 - Liquid hopper bin

**3/4 inch Sight Tube with Auto Shut-off Valve:**
The sight tube shows the quantity of liquid inside the tank. Measurements are approximate, and are shown in Imperial and US gallons

Push the spring-loaded valve down to allow liquid into the sight tube to measure the quantity inside the tank. When the valve is released, liquid is restricted from entering the tube.

Fig 29 - liquid valve


Fig 31 - Heavy duty flange bottom

## 4.5 LOADING

The bin(s) are designed to be easy to load or fill with product. A list of general guidelines to be followed include but are not limited to:

- A spring-loaded, vented top lid covers the loading hatch and can be opened from the ground by pulling on the rope provided. The spring loading will automatically close the lid when the cord is released. The venting of the lid allows the bin to "breathe", avoiding vacuum lock when unloading.

- The top lid is designed so that it can be rotated to open in any direction that will work favorably with your particular installation.

  Before erecting the bin, decide on the opening direction and make the adjustment. This will be more convenient than waiting until the bin is set in place.

- The bin should always be centre-loaded and unloaded to prevent uneven stresses on the bin caused by material piling up on one side and emptying from the other. Over-stressing in this manner will cause eventual structural damage.

- The loading hatch at the peak of the bin is designed so that the product will centre-load the bin.

- The unloading chute at the base of the hopper cone is designed to centre-unload product.

- Do not, under any circumstances, use the optional roof manhole as loading port. If it is used, the product will pile unevenly, creating a situation that could cause damage to the bin.

Fig 32 - Loading the bin

## 4.6 UNLOADING

The standard hopper bin is designed with two feet of clearance at the bottom of the cone to provide room for unloading equipment. Use auxiliary unloading equipment as appropriate for your storage system.

A general list of guidelines to be followed include but are not limited to:

- Open the Top Lid while unloading to prevent vacuum damage to the bin.

- To unload product from the bin, use the crank to open the slide gate assembly on the unloading chute. The emptying rate of the bin is determined by how far the slide gate is opened.

  Optional permanent auger mounts and auger boots to enclose the unloading chute can be ordered to complement the functioning of your storage bin.

  The slide gate assembly is optional on Meridian Manufacturing Inc.'s feed bin line.

- Do not, under any circumstances, use the optional bottom manway as an unloading port. If it is used, the product will empty unevenly, creating a situation that could cause damage to the bin.

- Do not crawl under an opened unloading chute to inspect for a suspected blockage. Caked or impacted product could suddenly break loose and cause facial, body and/or eye injury.

- Do not attempt to enter the bin through the loading hatch at the peak. This opening is designed for loading the bin only and not for human entry.

- When unloading fertilizers, make sure that the product does not cake or cling to the sidewall, or empty to one side. Bridging may also occur. This usually occurs when hot product such as mixed potash is loaded into the bin and then cools, causing a moisture build-up due to condensation.

  If this happens, an uneven stress is generated on the bin structure and could cause structural damage.

  To remove the build-up or bridging:
  - Bang on the side of the bin with a rubber mallet to break the product loose.
  - Use a long pole or piece of wood through the manhole to chip the caked product free.

- Use the bottom manway to enter the bin only when it is empty, for cleaning purposes.

- If you enter the bin, make sure that there is no possibility that the loading/unloading auger could be started up.

  Lock-Out Tag-Out the power sources to all auxiliary equipment and have a responsible, trained person close at hand to keep unauthorized individuals away from the work area.

- Enter the empty bin with extreme caution. Wear protective clothing, goggles for eye protection and a properly filtered respirator mask for lung protection.

  It is also good safety practice to connect a safety line to yourself and a secure attachment point outside the bin before entering the enclosed area. Have a responsible, trained person outside to assist in case of an emergency.

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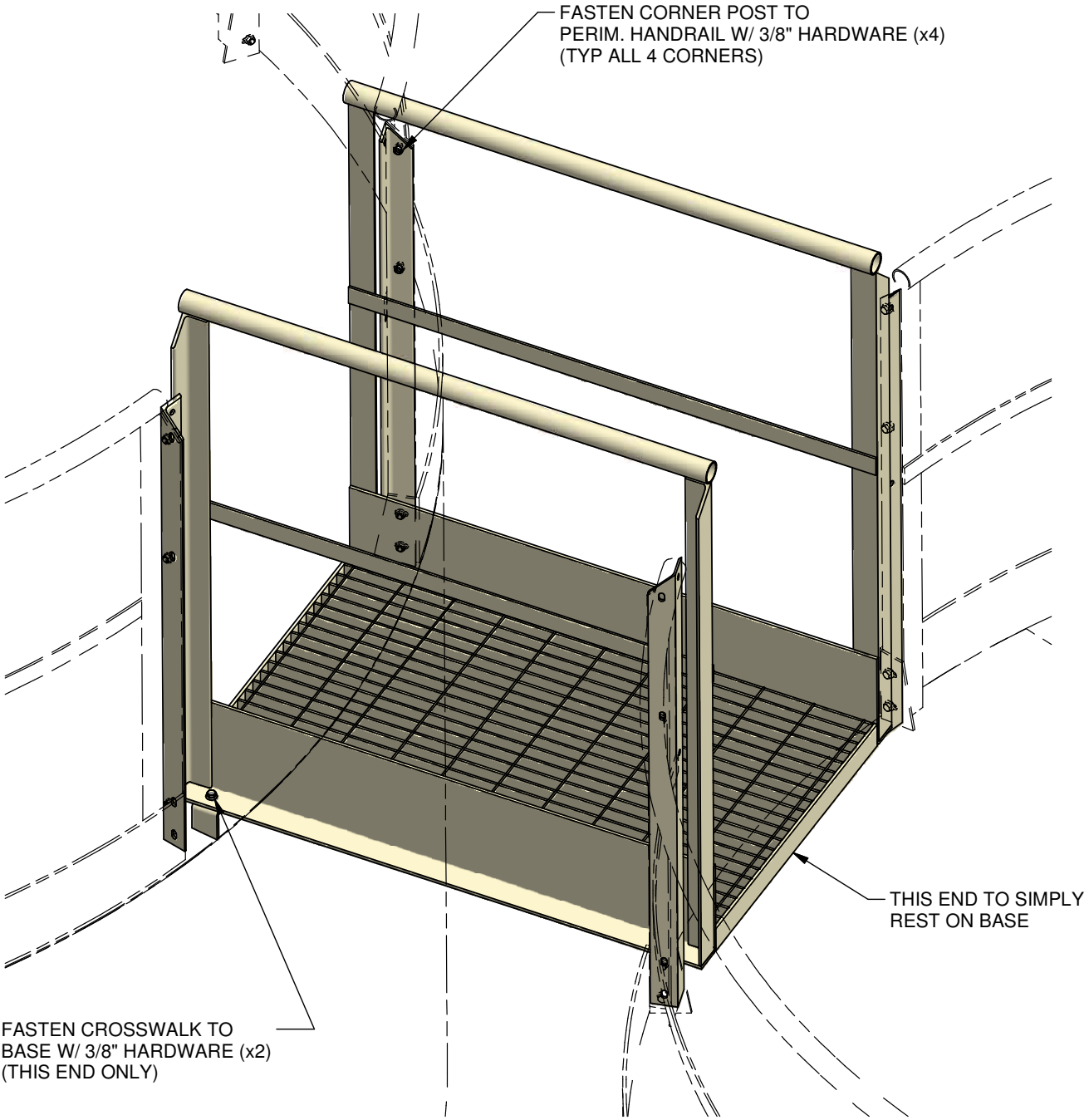
# Section 5: INDUSTRIAL USAGE

**⚠ WARNING**

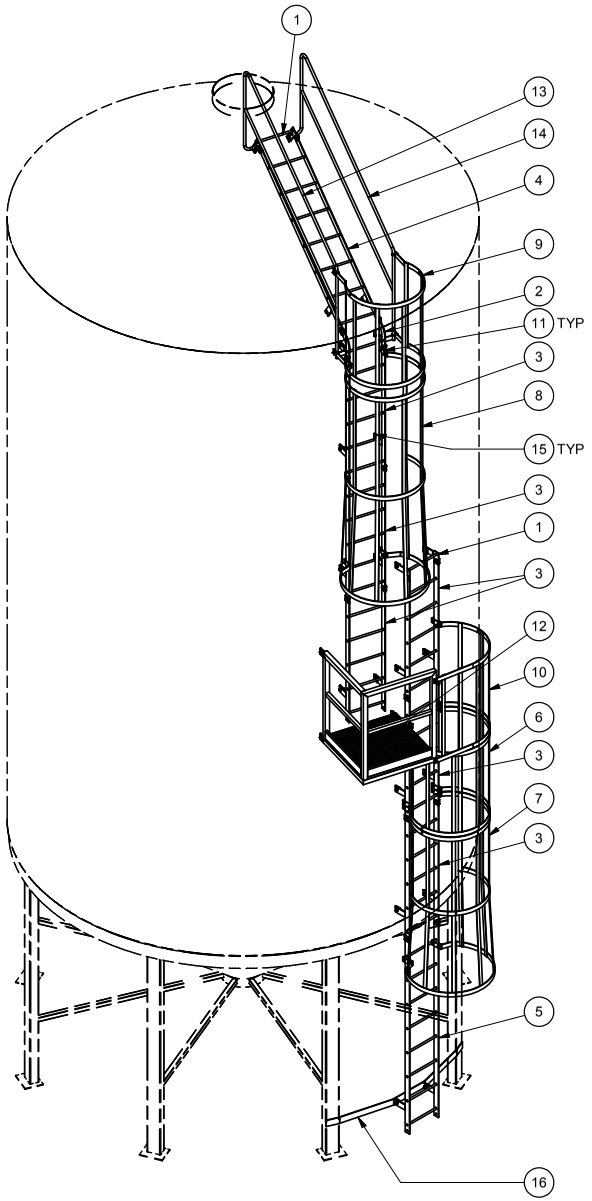
- Read and understand the owner's manual, and all safety decals, before using.
- Have Meridian® or knowledgable personnel to assembly and install catwalks, stairs, etc.
- Use cranes to lift and support equipment while installing.
- Do not crawl under opened unloading chute to inspect for a suspected blockage.
- Do not attempt to enter bin through the top loading hatch.
- Only enter bin when it is empty.
- Climbing ladder with care to prevent falling.
- Wear personal protective equipment (PPE) while assembling and installing. Especially when working at heights.

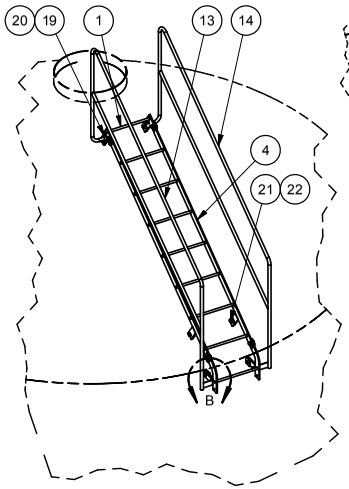
Our bins are built with industrial gauge steel. Meridian® offers a range of structural options to make your site efficient and safe. Talk to our Industrial team for more information.

# CROSSWALK INSTALLATION (12" - 32" SPAN) PART #40669



# LADDER SYSTEM INSTALLATION

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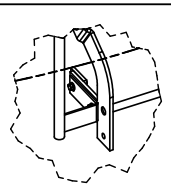

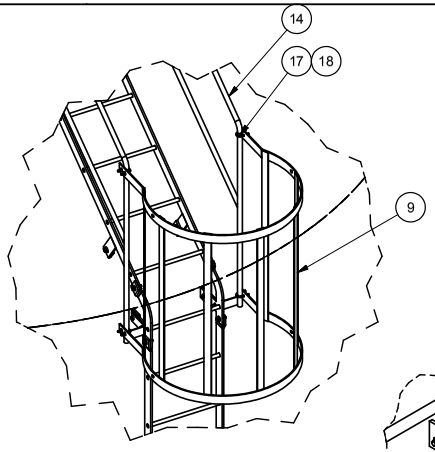


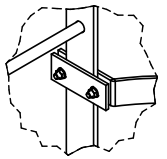

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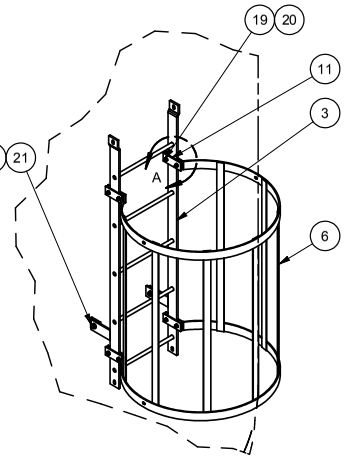



## HANDRAIL MOUNTING

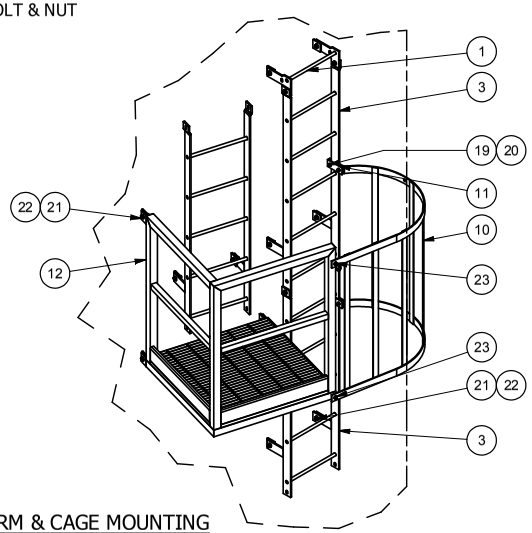
1. PLACE HANDRAIL ON OUTSIDE OF RECEIVERS
2. MOUNT WITH 3/8" x 1 1/2" FLANGED HEX BOLT & NUT (SEE DETAIL B)

## HANDRAIL CAGE MOUNTING

1. PLACE CAGE ENDS ON OUTSIDE OF HANDRAILS
2. MOUNT WITH CAGE U-BOLTS & NUTS
3. ENSURE BOTTOM U-BOLTS ARE PLACED ABOVE HANDRAIL MOUNTING TABS

## STD CAGE MOUNTING

1. PLACE CAGE ENDS ON OUTSIDE OF LADDER SIDERAILS
2. PLACE BOLT BRACKETS ON INSIDE OF LADDER SIDERAILS
3. MOUNT WITH 3/8" x 1 1/2" FLANGED HEX BOLT & NUT
4. ENSURE PARTS ARE NOT INTERFERING WITH LADDER RUNGS (SEE DETAIL A)




## PLATFORM & CAGE MOUNTING

1. PLACE PLATFORM IN TABS
2. MOUNT WITH 1/2" x 1 1/2" HEX BOLT & NUT
3. PLACE CAGE ENDS ON OUTSIDE OF SW LADDER AND PLATFORM
4. MOUNT WITH 3/8" x 1 1/2" FLANGED HEX BOLT & NUT ONTO LADDER WITH MOUNT BRKT ON LADDER INSIDE
5. MOUNT WITH 3/8" x 1" SELF-TAPPING SCREWS TO PLATFORM

| ITEM | QTY | MASS | PART # | DESCRIPTION |
|---|---|---|---|---|
| 1 | 2 | 7.341 lbmass | 31641 | INDUSTRIAL ROOF RECEIVER, GRAY |
| 2 | 1 | 12.469 lbmass | 31640 | INDUSTRIAL SIDEWALL RECEIVER, GRAY |
| 3 | 6 | 45.659 lbmass | 31645 | 5FT INDUSTRIAL LADDER, GRAY |
| 4 | 1 | 62.419 lbmass | 31647 | 7FT INDUSTRIAL LADDER, GRAY |
| 5 | 1 | 70.799 lbmass | 31648 | 8FT INDUSTRIAL LADDER, GRAY |
| 6 | 1 | 49.704 lbmass | 31652 | 42" INDUSTRIAL CAGE, GRAY |
| 7 | 1 | 81.145 lbmass | 31653 | 78" FLARED INDUSTRIAL CAGE, GRAY |
| 8 | 1 | 94.562 lbmass | 31654 | 102" FLARED INDUSTRIAL CAGE, GRAY |
| 9 | 1 | 48.306 lbmass | 31655 | INDUSTRIAL HANDRAIL CAGE, GRAY |
| 10 | 1 | 39.482 lbmass | 31656 | INDUSTRIAL PLATFORM CAGE, GRAY |
| 11 | 14 | 0.689 lbmass | 31658 | CAGE BOLT BRACKET, GRAY |
| 12 | 1 | 139.106 lbmass | 43126 | REST PLATFORM OSHA, LEFT SIDE |
| 13 | 1 | 19.993 lbmass | 31246 | HANDRAIL 7' LH ASSEMBLY GREY |
| 14 | 1 | 19.993 lbmass | 31254 | HANDRAIL 7' RH ASSEMBLY GREY |
| 15 | 25 | 0.612 lbmass | 22155 | LADDER BRACKET, 2 1/2" LG |
| 16 | 1 | 17.248 lbmass | 28943 | LEG LADDER BRACKET 16' |
| 17 | | | 19323 | Ø5/16"-18 UNC x 3/4" PIPE U-BOLT |
| 18 | | | 19318 | NUT, HEX, FLANGED, 5/16-18 UNC |
| 19 | | | 19578 | BOLT, HEX, FLANGED, 3/8-16 UNC X 1.5 |
| 20 | | | 19564 | NUT, HEX, FLANGED, 3/8-16 UNC |
| 21 | | | 19575 | BOLT, HEX, FLANGED, 1/2-13 UNC X 1.5 |
| 22 | | | 19595 | NUT, HEX, FLANGED, 1/2-13 UNC |
| 23 | | | 19579 | SCREW, FLANGED, SELF-TAPPING 3/8-16 UNC X 1 |

MERIDIAN®



| DRAWN BY: | DRAWN BY DATE: | SHEET SIZE: | PROJECT NAME: | MATERIAL: |
|---|---|---|---|---|
| BP | 6/13/2012 | B - SIZE | COMMON BIN PARTS | PART WEIGHT: 982.22 lbmass |
| CHECKED BY: | CHECKED BY DATE: | SCALE: | REV: | PART DESCRIPTION: |
| ADD | | | A | INDUSTRIAL LADDER SYSTEM (INSTALLATION INSTRUCTIONS) |

# PERIMETER HANDRAIL INSTALLATION

1. Install handrail "Section B" (includes 2 posts) to roof tabs.
2. Fasten adjoining handrail "Section A" to handrail "Section B" and then to roof tab.
3. Install remaining "Section A" handrails.
4. Once all sections are installed, fasten the grab bars to the handrail sections.

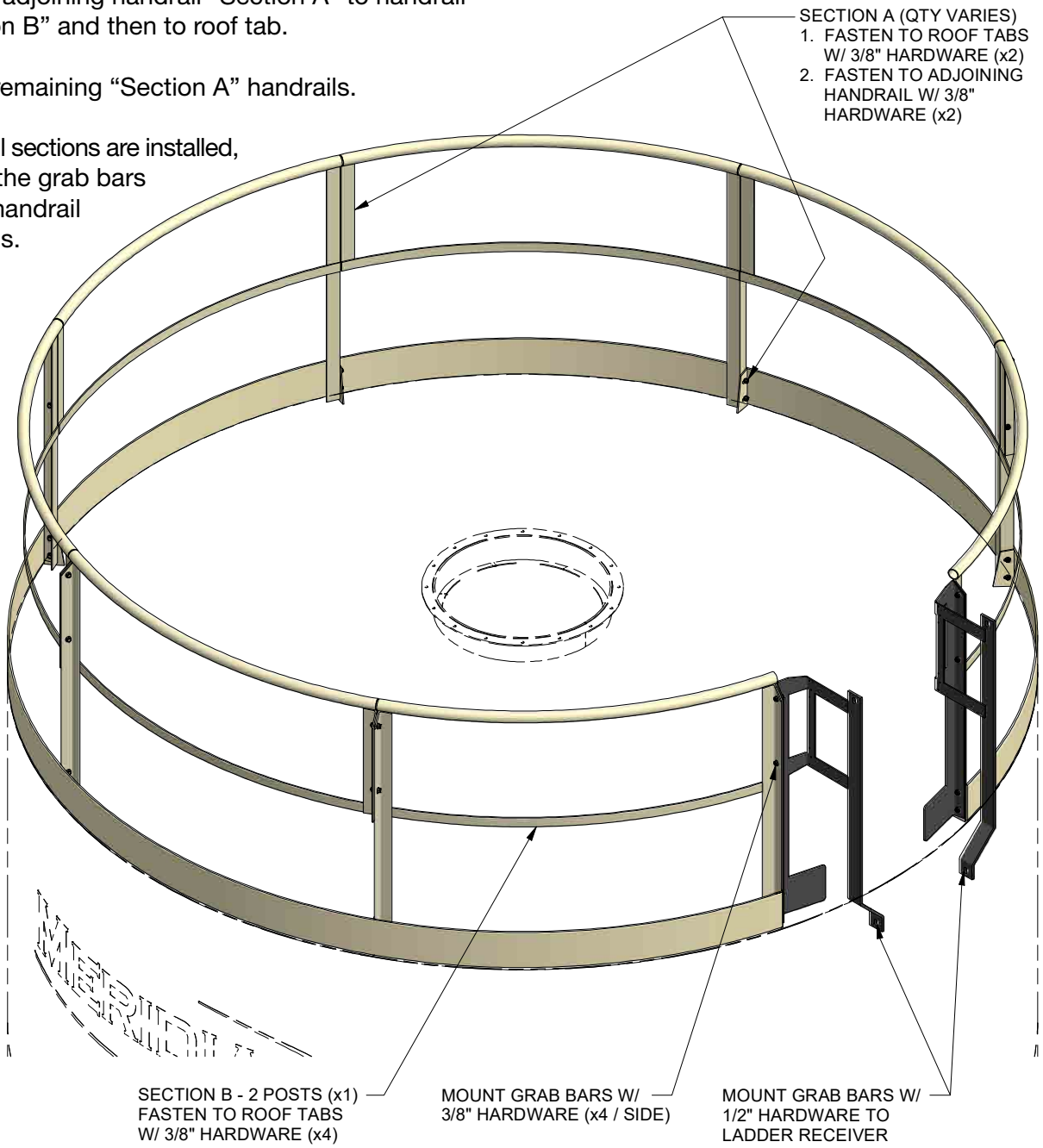



Table 3 - Perimeter Handrail Installation

| QTY | PART # | DESCRIPTION |
|---|---|---|
| 1 | 40672 | PERIMETER HANDRAIL 16' PKG, BONE WHITE |
| 1 | 40673 | PERIMETER HANDRAIL 14' PKG, BONE WHITE |
| 1 | 40674 | PERIMETER HANDRAIL 13'-6" PKG, BONE WHITE |
| 1 | 40675 | PERIMETER HANDRAIL 12' PKG, BONE WHITE |
| 1 | 40676 | PERIMETER HANDRAIL 10' PKG, BONE WHITE |
| 1 | 40677 | PERIMETER HANDRAIL 9' PKG, BONE WHITE |
| 1 | 40678 | PERIMETER HANDRAIL 8' PKG, BONE WHITE |

# Section 6: SERVICE AND MAINTENANCE

**⚠ WARNING**

- Read and understand the owner's manual, and all safety decals, before using.
- Establish a Lock-Out, Tag-Out policy for your work site. Always Lock-Out Tag-Out equipment before entering bin or performing any maintenance work.
- Only enter the bin when it is empty.
- Wear appropriate personal protective equipment (PPE), for the task you are performing.
- Do not attempt to enter bin through the loading hatch at the peak.
- Attach a safety line to an anchor outside before entering.

Each customer's site is different, and store a variety of product. You must develop a service and maintenance program specific to your location and circumstances. You are responsible to ensure that your smoothwall bin(s) are compatible with the product which you wish to store.

By following a careful service and maintenance program for your bin(s), you will enjoy many years of trouble-free storage.

**IMPORTANT:**
If you enter the bin, make sure that there is no possibility that loading could start up. Lock-Out, Tag-Out the auxiliary equipment. A responsible, trained person must be close at hand for assistance.

**⚠ WARNING**

CONFINED SPACE HAZARD
Wear protective clothing, and a properly filtered respirator mask. Connect a safety line to yourself and have a responsible, trained person outside to assist in an emergency.

## 6.1 CONCRETE SLAB INSPECTION

Check the foundation conditions regularly. Cracks that are more than 1/8 inch wide in the concrete slab indicate significant movement.

Always consult with a professional engineer when foundation problems arise. If severe cracking exists, slab levels should be taken to determine whether any area of the slab is sinking independently.

Subsoil conditions should be monitored to ensure against bearing capacity losses.

## 6.2 BIN INSPECTION

- It is important to check that the top lid vent, and any other air vent(s) are open and clear of obstructions.

  Ventilation prevents a vacuum from forming during unloading or emptying, which may cause the bin to implode.

- Inspect welded seams.

- Tighten all bolts to their specific torques.

- Inspect and adjust all plugs, fittings and valves as required.

- Exterior enamel paint kits are also available to touch up scrapes and minor dent marks.

- When the bin is empty:
  - Inspect the welded seams inside.
  - Inspect all internal components.
  - Inspect the painted bin for bare metal areas where the paint has worn.

    A special epoxy paint kit is available and it is highly recommended that only this type of paint be used.

    It is especially necessary that any bare metal be painted before storing fertilizer or any other corrosive commodities. Exposed metal will corrode quickly. A special epoxy repair kit for the interior is available through your Meridian dealer.

## 6.3 LIQUID HOPPER BIN FLANGE BOTTOM TIGHTENING PROCEDURE

Flange bottom joints require proper tightening to avoid leaking. Apply **Loctite® LB 8150**, or equivalent, anti-seize lubricant to the bolt threads. Then, torque each nut to **55 ft-lb**.

This is the procedure for tightening the bolts:

### 6.3.1 Flange Condition Pre-Check:

- Check conditions of flange faces for scratches, dirt and scale.
- Check for corrosion pitting and tool marks.
- Inspect the gasket seating surfaces.
- Check the areas on the flange where the nuts will seat, it should be flat and free from pitting and excessive wear.
- Ring Type Joint (RTJ) grooves must be kept clean, corrosion free & undamaged.

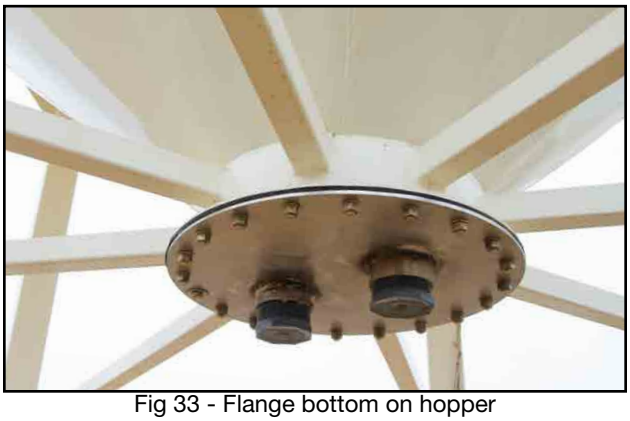


Fig 33 - Flange bottom on hopper

Contact your Supervisor or Quality Control if you find any uncertainties.

### 6.3.2 Flange Alignment:

Visually examine the flange alignment to ensure that it fits well. While aligning the flanges make sure that there are no residual stresses in the joint.

**IMPORTANT:**
Using heat correction for the alignment of flanges is strictly prohibited.

- Flange faces should be parallel and aligned.
- The flange bolt holes should be in line so that the bolts will pass freely.

### 6.3.3 Nut and Bolt/Stud Checks:

- Visually examine nuts and bolts/studs before using them to ensure that they are free from defects such as corrosion and damaged threads.

  **Do not** use fasteners with damaged threads.

- Check the length of the bolts to avoid short bolting or excessive threads. Meridian® supplies flange bolts with sufficient length to allow the use of bolt tensioning equipment or spades, spacers, drip rings and wafer valves, and the associated extra gaskets.

- Visually examine nuts and bolts/studs after cleaning to ensure they are free from burrs. They should be cleaned using a wire brush to remove any dirt on the threads.

- The nut and bolt material grades should be correctly identified before they are used.

- Nuts and bolts can only be reused if it is known that they have not been overloaded or exceeded their yield point.

- When threading the nut onto the bolt, the nut identification marking must always point outwards.

### 6.3.4 Gasket Check:

- Do not use sealing compound, grease or other paste or adhesive on gasket or flange faces.

- Clean gasket seating face using a wire brush.

- Visually examine the gasket, before installation, to assure they are free from defects.

- Make sure the material is as specified, look for any possible defects or damage in the gasket such as folds or creases.

- All Soft material gaskets should be replaced with new ones whenever an opened joint is to be closed again.

- Spiral-wound gaskets should be used only once.

- While inserting the gasket, do not force it into the gasket seat between the mating flange faces. Once the gasket is placed, bring the mating flanges together carefully without knocking the gasket out of place. Install all bolts and hand tighten the nuts.

### 6.3.5 Flange Bottom Bolt Torque Sequence:

**ALWAYS TIGHTEN THE NUT, NOT THE BOLT!**

**Note:**
Bolts should only be torqued if they are fitted into clearance holes.

Apply Loctite® LB 8150, or equivalent, anti-seize lubricant to the bolt threads. Then, use a torque wrench to tighten the nuts to **55 ft-lb**. If the bolt head is torqued rather than the nut then the torque value should be increased to compensate for the additional friction.

The specified method of bolt tightening is equally applicable to coated, galvanized and ungalvanized bolts.

Torque the nuts or bolts in a "CRISS-CROSS", then a "CIRCULAR" sequence using two torquing passes as described below:

- Tighten all nuts by hand as far as possible.
- See Figures 26 to 29 for torque sequence.
- PASS 1: Torque the nuts to **55 ft-lb**. Torque in the correct sequence to a 100% of the final torque value. Check that gasket is getting compressed uniformly.
- PASS 2: Repeat torquing the nuts using the final torque value in a "CIRCULAR" manner until no further rotation of the nut is observed.

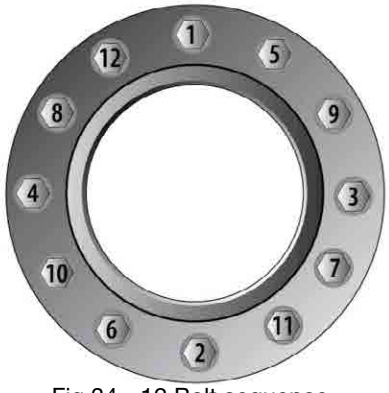


Fig 34 - 12 Bolt sequence

Fig 35 - 16 Bolt sequence

Fig 36 - 20 Bolt sequence

Fig 37 - 24 Bolt sequence

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# Section 7: REFERENCE

For information not included here, or for a digital copy of this manual, please call your dealer, or Meridian Manufacturing Inc. directly for assistance. Visit our website at: www.meridianmfg.com.

## 7.1 FEED BIN SPECIFICATIONS

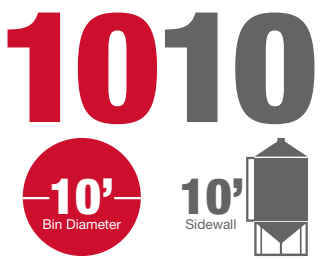


Table 4 - Western Canada

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 705 | 7' Diameter 60° Bottom Cone | 254 | 299 | 6 | 5.4 | 14' 11" | 33' |
| 708 | | 351 | 414 | 8.3 | 7.5 | 17' 11" | 33' |
| 710 | | 417 | 491 | 9.8 | 8.9 | 19' 11" | 39' |
| 808 | 8' Diameter 55° Bottom Cone | 460 | 542 | 10.8 | 9.8 | 18' 1" | 33' |
| 810 | | 545 | 642 | 12.8 | 11.7 | 20' 1" | 39' |
| 812 | | 630 | 742 | 14.8 | 13.5 | 22' 1" | 39' |
| 910 | 9' Diameter 55° Bottom Cone | 710 | 836 | 16.7 | 15.2 | 21' 2" | 39' |
| 912 | | 817 | 962 | 19.2 | 17.5 | 23' 2" | 39' |
| 915 | | 980 | 1,153 | 23.1 | 20.9 | 26' 2" | 46' |
| 1010 | 10' Diameter 55° Bottom Cone | 901 | 1,060 | 21.2 | 19.2 | 22' 3" | 39' |
| 1012 | | 1,034 | 1,217 | 24.3 | 22.1 | 24' 3" | 46' |
| 1015 | | 1,234 | 1,452 | 29 | 26.4 | 27' 3" | 46' |

Table 5 - Eastern Canada

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 705 | 7' Diameter 60° Bottom Cone | 255 | 300 | 6 | 5.4 | 14' 3" | 33' |
| 708 | | 353 | 415 | 8.3 | 7.5 | 17' 3" | 33' |
| 710 | | 419 | 492 | 9.9 | 8.9 | 19' 3" | 33' |
| 712 | | 470 | 557 | 11.4 | 10.4 | 21' 3" | 33' |
| 715 | | 568 | 673 | 13.7 | 12.5 | 24' 3" | 39' |
| 805 | 8' Diameter 55° Bottom Cone | 332 | 394 | 7.9 | 7.2 | 14' 7" | 33' |
| 808 | | 462 | 543 | 10.9 | 9.9 | 17' 6" | 33' |
| 810 | | 547 | 644 | 12.9 | 11.7 | 19' 6" | 33' |
| 812 | | 633 | 744 | 14.9 | 13.5 | 21' 6" | 39' |
| 815 | | 757 | 897 | 17.9 | 16.3 | 24' 7" | 39' |
| 905 | 9' Diameter 55° Bottom Cone | 440 | 521 | 10.4 | 9.5 | 15' 8" | 33' |
| 908 | | 601 | 712 | 14.2 | 12.9 | 18' 8" | 33' |
| 910 | | 712 | 838 | 16.8 | 15.2 | 20' 6" | 33' |
| 912 | | 820 | 965 | 19.3 | 17.5 | 22' 6" | 39' |
| 915 | | 983 | 1156 | 23.1 | 21.0 | 25' 6" | 46' |
| 1010 | 10' Diameter 55° Bottom Cone | 903 | 1063 | 21.3 | 19.3 | 21' 8" | 39' |
| 1012 | | 1037 | 1220 | 24.4 | 22.1 | 23' 8" | 39' |
| 1015 | | 1237 | 1455 | 29.1 | 26.4 | 26' 8" | 46' |
| 1020 | | 1572 | 1849 | 37.0 | 33.0 | 31' 8" | 53' |
| 1215-55<br>1215-55 HD | 12' Diameter 55° Bottom Cone | 1851 | 2178 | 43.0 | 39.0 | 30' 0" | 51' |
| 1220-55<br>1220-55 HD | | 2315 | 2743 | 54.0 | 49.0 | 35' 0" | 61' |
| 1225-55<br>1225-55 HD | | 2792 | 3309 | 66.1 | 60.0 | 40' 0" | 71' |

Table 6 - Central USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | LEGS |
|---|---|---|---|---|---|---|---|
| 605 | 6' Diameter 60° Bottom Cone | 178 | 209 | 4 | 3.6 | 13' 1" | 4 |
| 608 | | 250 | 294 | 6 | 5.4 | 16' 1" | 4 |
| 610 | | 298 | 350 | 7 | 6.4 | 18' 1" | 4 |
| 612 | | 346 | 407 | 8 | 7.2 | 20' 1" | 4 |
| 805 | 8' Diameter 60° Bottom Cone | 351 | 413 | 8 | 7.2 | 15' 6" | 4 |
| 808 | | 479 | 564 | 11 | 10.0 | 18' 6" | 4 |
| 810 | | 564 | 664 | 13 | 11.8 | 20' 6" | 4 |
| 812 | | 650 | 765 | 15 | 13.6 | 22' 6" | 4 |
| 908 | 9' Diameter 60° Bottom Cone | 629 | 740 | 15 | 13.6 | 19' 8" | 4 |
| 910 | | 737 | 867 | 17 | 15.4 | 21' 8" | 4 |
| 912 | | 845 | 994 | 20 | 18.1 | 23' 8" | 4 |
| 915 | | 1007 | 1185 | 24 | 21.8 | 26' 8" | 4 |
| 1010 | 10' Diameter 60° Bottom Cone | 938 | 938 | 22 | 19.9 | 22' 11" | 4 |
| 1012 | | 1071 | 1071 | 25 | 22.7 | 24' 11" | 6 |
| 1015 | | 1271 | 1271 | 30 | 27.2 | 27' 11" | 6 |

## 7.3 GRAINMAX BIN SPECIFICATIONS

# GM4000

**GRAINMAX SERIES** **APROX. 4,000 BUSHELS**

Table 7 - Western Canada

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| GM2300 | 14' Diameter 40° Bottom Cone | 2,296 | 2,702 | 67 | 61 | 26' 5" | 46' |
| GM3000 | 15' 6" Diameter 40° Bottom Cone | 3,037 | 3,573 | 89 | 81 | 28' 9" | 53' |
| GM4000 | | 3,836 | 4,514 | 112 | 102 | 33' 9" | 59' |
| GM5000 | | 4,636 | 5,455 | 136 | 123 | 38' 9" | 66' |
| GM6000 | | 5,434 | 6,394 | 159 | 145 | 43' 9" | 72' |
| GM3000 | 16' Diameter 40° Bottom Cone | 3,258 | 3,833 | 95 | 86 | 28' 11" | 53' |
| GM4000 | | 4,109 | 4,835 | 120 | 109 | 33' 11" | 59' |
| GM5000 | | 4,962 | 5,838 | 145 | 132 | 38' 11" | 66' |
| GM6000 | | 5,813 | 6,839 | 170 | 155 | 43' 11" | 72' |
| GM5300 | 18' Diameter 40° Bottom Cone | 5,312 | 6,250 | 156 | 141 | 35' 6" | 59' |
| GM6400 | | 6,392 | 7,520 | 188 | 170 | 40' 6" | 66' |
| GM7500 | | 7,470 | 8,789 | 219 | 199 | 45' 6" | 79' |
| 2025 | 20' Diameter 40° Bottom Cone | 8,028 | 9,445 | 236 | 214 | 41' 10" | 66' |
| 2030 | | 9,361 | 11,013 | 275 | 249 | 46' 10" | 79' |
| 2035 | | 10,693 | 12,580 | 314 | 285 | 51' 10" | 85' |

Table 8 - Eastern Canada, Northeastern USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 1310GM | 13' Diameter 45° Bottom Cone | 1533 | 1816 | 45 | 41 | 21' 6" | 41' |
| 1315GM | | 2093 | 2480 | 62 | 56 | 26' 6" | 51' |
| 1320GM | | 2653 | 3194 | 78 | 71 | 31' 6" | 61' |
| 1325GM | | 3212 | 3807 | 95 | 86 | 36' 6" | 71' |
| 1330GM | | 3772 | 4471 | 112 | 101 | 41' 6" | 71' |
| 1335GM | | 4332 | 5135 | 128 | 116 | 46' 6" | 81' |
| 1412GM | 13' 6" Diameter 40° Bottom Cone | 1881 | 2213 | 55 | 50 | 24' 1-13/16" | 51' |
| 1420GM | | 2854 | 3358 | 84 | 76 | 31' 9-13/16" | 61' |
| 1425GM | | 3463 | 4074 | 102 | 92 | 36' 9-13/16" | 71' |
| 1430GM | | 4071 | 4790 | 120 | 109 | 41' 9-13/16" | 71' |
| 1435GM | | 4680 | 5506 | 137 | 125 | 46' 9-13/16" | 79' |

Table 9 - Central USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 1208GM | 12' Diameter 40° Bottom Cone | 1064 | 1252 | 39 | 35 | 18' 8" | 36' |
| 1412GM | 13' 6" Diameter 40° Bottom Cone | 1881 | 2213 | 69 | 63 | 23' 9" | 46' |
| 1420GM | | 2854 | 3358 | 104 | 94 | 31' 9" | 56' |
| 1425GM | | 3462 | 4073 | 126 | 114 | 36' 9" | 61' |
| 1615GM | 16' Diameter 40° Bottom Cone | 3264 | 3840 | 98 | 89 | 28' 11" | 53' |
| 1620GM | | 4118 | 4845 | 124 | 112 | 33' 11" | 66' |
| 1625GM | | 4973 | 5851 | 149 | 135 | 38' 11" | 66' |

Table 10 - Northwestern USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| GM3000-US | 15' 6" Diameter 40° Bottom Cone | 3043 | 3580 | 90 | 82 | 28' 9" | 51' |
| GM4000-US | | 3845 | 4323 | 114 | 103 | 33' 9" | 61' |
| GM5000-US | | 4646 | 5466 | 138 | 125 | 38' 9" | 71' |
| GM6000-US | | 5413 | 6368 | 162 | 147 | 43' 2" | 71' |

## 7.4 LIQUID HOPPER BIN SPECIFICATIONS

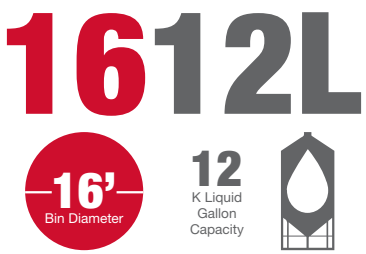


Table 11 - Western Canada

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | US GALLONS | IMP. GALLONS | IMP. TONS* | METRIC TONNES* | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|---|---|
| 1212L | 12' Diameter 45° Bottom Cone | 1,476 | 1,737 | 12,995 | 10,821 | 68 | 62 | 23' 8" | 39' |
| 1412L | 14' Diameter 40° Bottom Cone | 2,084 | 2,452 | 18,344 | 15,275 | 97 | 88 | 25' 4" | 46' |
| 15.512L | 15' 6" Diameter 40° Bottom Cone | 2,556 | 3,008 | 22,504 | 18,739 | 119 | 108 | 25' 9" | 46' |
| 15.515L | | 3,037 | 3,573 | 26,731 | 22,259 | 141 | 128 | 28' 9" | 53' |
| 15.517L | | 3,357 | 3,950 | 29,552 | 24,608 | 156 | 142 | 30' 9" | 53' |
| 15.520L | | 3,836 | 4,513 | 33,764 | 28,115 | 179 | 162 | 33' 9" | 59' |
| 1612L | 16' Diameter 40° Bottom Cone | 2,745 | 3,230 | 24,165 | 20,122 | 128 | 116 | 25' 11" | 46' |
| 1615L | | 3,258 | 3,833 | 28,677 | 23,879 | 152 | 138 | 28' 11" | 53' |
| 1617L | | 3,599 | 4,235 | 31,685 | 26,384 | 168 | 152 | 30' 11" | 53' |
| 1620L | | 4,109 | 4,835 | 36,174 | 30,122 | 192 | 174 | 33' 11" | 59' |

*Based on 12.75 lbs./Imp. Gal.

Table 12 - Eastern Canada, Northeastern USA

| MODEL | DESCRIPTION | CUBIC FEET | US GALLONS | LITRES | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 1220L | 12' Diameter 45° Bottom Cone | 2647 | 19790 | 74913 | 69.9 | 31' 9" | 53' |
| 1320L | 13' Diameter 45° Bottom Cone | 3144 | 23515 | 89014 | 115.1 | 32' 6" | 53' |
| 1330L | | 4471 | 33440 | 126584 | 163.8 | 42' 6" | 66' |
| 1335L | | 5135 | 38410 | 145398 | 188.1 | 47' 6" | 72' |
| 1412L | 13' 6" Diameter 40° Bottom Cone | 2213 | 16930 | 64087 | 81.1 | 23' 10" | 39' |
| 1415L | | 2642 | 20149 | 76272 | 96.8 | 26' 10" | 46' |
| 1420L | | 3358 | 25500 | 96528 | 123.0 | 31' 10" | 53' |
| 1425L | | 4072 | 30851 | 116784 | 149.3 | 36' 10" | 59' |
| 1430L | | 4790 | 36203 | 137043 | 175.t | 41' 10" | 66' |

Table 13 - Central USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. GALLONS | LITRES | IMP. TONS | METRIC TONNES | BIN HEIGHT |
|---|---|---|---|---|---|---|---|---|
| 1220L | 12' Diameter 45° Bottom Cone | 2249 | 2646 | 19793 | 74925 | 82 | 74.4 | 30' 8" |
| 1412L | 13' 6" Diameter 40° Bottom Cone | 1924 | 2264 | 16396 | 62066 | 70 | 63.5 | 23' 10" |
| 1415L | | 2290 | 2694 | 20153 | 76288 | 84 | 76.2 | 26' 10" |
| 1420L | | 2898 | 3409 | 25501 | 96532 | 106 | 96.7 | 31' 10" |
| 1612L | 16' Diameter 40° Bottom Cone | 2825 | 3323 | 24858 | 94098 | 103 | 93.4 | 25' 9" |
| 1615L | | 3338 | 3927 | 29376 | 111200 | 122 | 110.7 | 28' 9" |

Table 14 - Northwestern USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. GALLONS | LITRES | IMP. TONS | METRIC TONNES | BIN HEIGHT |
|---|---|---|---|---|---|---|---|---|
| 1512L | 16' Diameter 40° Bottom Cone | 2561 | 3013 | 22542 | 85331 | 93 | 85 | 25' 9" |
| 1515L | | 3043 | 3580 | 26777 | 101362 | 111 | 101 | 28' 9" |
| 1517L | | 3363 | 3957 | 29600 | 112049 | 123 | 111 | 30' 9" |
| 1520L | | 3845 | 4523 | 33834 | 128075 | 140 | 127 | 33' 9" |

## 7.5 MULTI-PURPOSE BIN SPECIFICATIONS

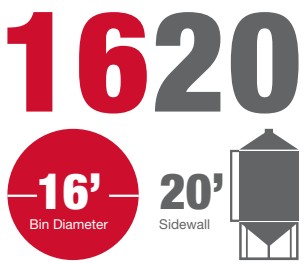


Table 15 - Western Canada

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 1205 | 12' Diameter 45° Bottom Cone | 804 | 947 | 29 | 26 | 16' 8" | 33' |
| 1208 | | 1,093 | 1,286 | 39 | 36 | 19' 8" | 39' |
| 1210 | | 1,284 | 1,511 | 46 | 42 | 21' 8" | 39' |
| 1212 | | 1,476 | 1,737 | 53 | 48 | 23' 8" | 39' |
| 1215 | | 1,763 | 2,075 | 64 | 58 | 26' 8" | 46' |
| 1410 | 14' Diameter 45° Bottom Cone | 1,823 | 2,145 | 66 | 60 | 23' 4" | 39' |
| 1412 | | 2,084 | 2,452 | 76 | 68 | 25' 4" | 46' |
| 1415 | | 2,476 | 2,913 | 90 | 81 | 28' 4" | 53' |
| 1417 | | 2,737 | 3,220 | 99 | 90 | 30' 4" | 53' |
| 1420 | | 3,128 | 3,681 | 114 | 103 | 33' 4" | 59' |
| 15610 | 15' 6" Diameter 40° Bottom Cone | 2,237 | 2,632 | 81 | 74 | 23' 9" | 41' |
| 15612 | | 2,556 | 3,008 | 93 | 84 | 25' 9" | 46' |
| 15615 | | 3,037 | 3,573 | 110 | 100 | 28' 9" | 53' |
| 15617 | | 3,357 | 3,950 | 122 | 111 | 30' 9" | 53' |
| 15620 | | 3,836 | 4,513 | 139 | 126 | 33' 9" | 59' |
| 15625 | | 4,636 | 5,455 | 169 | 153 | 38' 9" | 66' |
| 15630 | | 5,434 | 6,394 | 198 | 179 | 43' 9" | 72' |
| 1610 | 16' Diameter 40° Bottom Cone | 2,405 | 2,830 | 87 | 79 | 23' 11" | 46' |
| 1612 | | 2,746 | 3,231 | 100 | 90 | 25' 11" | 46' |
| 1615 | | 3,258 | 3,833 | 118 | 107 | 28' 11" | 53' |
| 1617 | | 3,599 | 4,235 | 131 | 119 | 30' 11" | 53' |
| 1620 | | 4,109 | 4,835 | 149 | 136 | 33' 11" | 59' |
| 1625 | | 4,961 | 5,837 | 180 | 164 | 38' 11" | 66' |
| 1630 | | 5,813 | 6,839 | 212 | 192 | 43' 11" | 72' |
| 1810 | 18' Diameter 40° Bottom Cone | 3,155 | 3,712 | 115 | 104 | 25' 6" | 46' |
| 1815 | | 4,233 | 4,981 | 154 | 140 | 30' 6" | 53' |
| 1820 | | 5,312 | 6,250 | 193 | 175 | 35' 7" | 59' |
| 1825 | | 6,392 | 7,520 | 233 | 211 | 40' 6" | 66' |
| 1830 | | 7,470 | 8,789 | 272 | 247 | 45' 6" | 79' |

Table 16 - Eastern Canada, Northeastern USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 1208 | 12' Diameter 45° Bottom Cone | 1095 | 1288 | 40 | 36 | 19' 8" | 36' |
| 1210 | | 1287 | 1514 | 47 | 43 | 21' 8" | 41' |
| 1212 | | 1479 | 1740 | 54 | 49 | 23' 8" | 46' |
| 1215 | | 1768 | 2080 | 64 | 58 | 26' 8" | 51' |
| 1220 | | 2233 | 2647 | 79 | 72 | 31' 9" | 56' |
| 1225 | | 2710 | 3212 | 97 | 88 | 36' 9" | 65' |
| 1230 | | 3187 | 3777 | 115 | 104 | 41' 9" | 71' |
| 1310 | 13' Diameter 45° Bottom Cone | 1533 | 1816 | 53 | 48 | 22' 6" | 41' |
| 1312 | | 1757 | 2082 | 61 | 55 | 24' 6" | 46' |
| 1315 | | 2093 | 2480 | 74 | 67 | 27' 6" | 51' |
| 1320 | | 2653 | 3144 | 94 | 85 | 32' 6" | 56' |
| 1325 | | 3212 | 3807 | 115 | 104 | 37' 6" | 65' |
| 1330 | | 3772 | 4471 | 136 | 123 | 42' 6" | 71' |
| 1335 | | 4332 | 5135 | 155 | 141 | 47' 6" | 81' |
| 1412 | 13' 6" Diameter 40° Bottom Cone | 1881 | 2213 | 68 | 62 | 23' 9-13/16" | 46' |
| 1415 | | 2246 | 2642 | 82 | 74 | 26' 9-13/16" | 46' |
| 1420 | | 2854 | 3358 | 103 | 93 | 31' 9-13/16" | 56' |
| 1425 | | 3462 | 4072 | 125 | 113 | 36' 9-13/16" | 61' |
| 1430 | | 4071 | 4790 | 147 | 133 | 41' 9-13/16" | 71' |
| 1435 | | 4680 | 5506 | 169 | 153 | 46' 9-13/16" | 79' |

Table 17 - Ontario

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 1315 | 13' Diameter 45° Bottom Cone | 2093 | 2480 | 74 | 67 | 27' 6" | 46' |
| 1317 | | 2317 | 2745 | 82 | 74 | 29' 6" | 53' |
| 1320 | | 2653 | 3144 | 93 | 85 | 32' 6" | 53' |
| 1322 | | 2877 | 3409 | 103 | 93 | 34' 6" | 59' |
| 1325 | | 3212 | 3807 | 115 | 104 | 37' 6" | 59' |

Table 18 - Central USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 1205 | 12' Diameter 40° Bottom Cone | 776 | 913 | 28 | 25 | 15' 8" | 36' |
| 1208 | | 1064 | 1252 | 39 | 35 | 18' 8" | 36' |
| 1210 | | 1256 | 1478 | 46 | 42 | 20' 8" | 41' |
| 1212 | | 1448 | 1704 | 53 | 48 | 22' 8" | 46' |
| 1215 | | 1737 | 2044 | 63 | 57 | 25' 8" | 51' |
| 1217 | | 1930 | 2270 | 70 | 64 | 27' 8" | 51' |
| 1220 | | 2218 | 2609 | 81 | 73 | 30' 8" | 56' |
| 1410 | 13' 6" Diameter 40° Bottom Cone | 1637 | 1926 | 60 | 54 | 21' 9" | 41' |
| 1412 | | 1881 | 2213 | 69 | 63 | 23' 9" | 46' |
| 1415 | | 2246 | 2642 | 82 | 74 | 26' 9" | 46' |
| 1417 | | 2489 | 2928 | 91 | 83 | 28' 9" | 51' |
| 1420 | | 2854 | 3358 | 104 | 94 | 31' 9" | 56' |
| 1425 | | 3462 | 4073 | 126 | 114 | 36' 9" | 61' |
| 1428 | | 3872 | 4503 | 140 | 127 | 39' 9" | 71' |

Table 19 - Northwestern USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 1510 | 15' 6" Diameter 40° Bottom Cone | 2241 | 2636 | 82 | 74 | 23' 9" | 41' |
| 1512 | | 2561 | 3013 | 93 | 85 | 25' 9" | 46' |
| 1515 | | 3043 | 3580 | 111 | 101 | 28' 9" | 51' |
| 1517 | | 3363 | 3957 | 123 | 111 | 30' 9" | 56' |
| 1520 | | 3845 | 4523 | 140 | 127 | 33' 9" | 61' |
| 1525 | | 4646 | 5466 | 169 | 154 | 38' 9" | 71' |
| 1530 | | 5448 | 6410 | 199 | 180 | 43' 9" | 71' |

## 7.6 SEEDMAX BIN SPECIFICATIONS

Table 20 - Western Canada

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|
| 1412SM | 14' Diameter 45° Bottom Cone | 2088 | 2451 | 26' 6" | 55' |
| 1420SM | | 2301 | 2759 | 28' 6" | 60' |
| 1615SM | 16' Diameter 40° Bottom Cone | 3264 | 3840 | 31' 0" | 51' |
| 1620SM | | 4119 | 4845 | 36' 0" | 60' |
| 1625SM | | 4973 | 5851 | 41' 0" | 65' |
| 1815SM | 18' Diameter 40° Bottom Cone | 4243 | 4991 | 31' 6" | 51' |
| 1820SM | | 5324 | 6263 | 36' 6" | 61' |
| 1825SM | | 6406 | 7536 | 41' 6" | 71' |

Table 21 - Eastern Canada, Northeastern USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|
| 1208SM | 12' Diameter 40° Bottom Cone | 1064 | 1252 | 20' 3/16" | 36' |
| 1212SM | | 1448 | 1704 | 24' 3/16" | 45' |
| 1313SM | 13' Diameter 40° Bottom Cone | 1882 | 2214 | 25' 6" | 50' |
| 1322SM | | 2898 | 3409 | 34' 6" | 65' |
| 1330SM | | 3800 | 4471 | 42' 6" | 75' |
| 1412SM | 13' 6" Diameter 40° Bottom Cone | 1881 | 2213 | 25' 1-13/16" | 50' |
| 1420SM | | 2854 | 3358 | 33' 1-13/16" | 65' |
| 1428SM | | 3828 | 4503 | 41' 1-13/16" | 70' |
| 1430SM | | 4071 | 4790 | 43' 1-13/16" | 75' |

## 7.7 QUICK-WEIGH HOPPER BIN SPECIFICATIONS

Table 22 - Western Canada

| MODEL | DESCRIPTION | CAPACITY | CLEARANCE | HEIGHT | UNITS |
|---|---|---|---|---|---|
| 801QW | 8' Diameter 35° Bottom | 5000 lb | 3' 0" | 6' 9-1/2" | 100 |
| 801QW | | 5000 lb | 8' 6" | 12' 2-1/2" | 100 |
| 801QW | | 5000 lb | 11' 6" | 15' 3-1/2" | 100 |
| 805QW | | 15000 lb | 3' 0" | 10' 9-1/2" | 300 |
| 805QW | | 15000 lb | 8' 6" | 16' 3-1/2" | 300 |
| 805QW | | 15000 lb | 11' 6" | 19' 3-1/2" | 300 |
| 1005QW | 10' Diameter 35° Bottom | 25000 lb | 3' 0" | 12' 10" | 500 |
| 1005QW | | 25000 lb | 8' 6" | 18' 4" | 500 |
| 1005QW | | 25000 lb | 11' 6" | 21' 4" | 500 |

## 7.8 DUMP HOPPER BIN SPECIFICATIONS

Used with underbin conveyer seed sites

Table 23 - Western Canada

| MODEL | DESCRIPTION | CAPACITY | CLEARANCE | HEIGHT | UNITS |
|---|---|---|---|---|---|
| 801DH | 8' Diameter 35° Bottom | 5000 lb | 3' 0" | 6' 10" | 100 |
| 801DH | | 5000 lb | 4' 4" | 8' 2" | 100 |
| 805DH | | 15000 lb | 11' 6" | 19' 4" | 300 |
| 805DH | | 15000 lb | 3' 0" | 10' 10" | 300 |
| 801DH | | 5000 lb | 11' 6" | 15' 3-1/2" | 100 |
| 805DH | | 15000 lb | 8' 6" | 16' 3-1/2" | 300 |
| 1005DH | 10' Diameter 35° Bottom | 25000 lb | 3' 0" | 12' 10" | 500 |
| 1005DH | | 25000 lb | 11' 6" | 21' 4" | 500 |
| 1005DH | | 25000 lb | 8' 6" | 18' 4" | 500 |

## 7.9 STEEP CONE BIN SPECIFICATIONS

# 1610-55

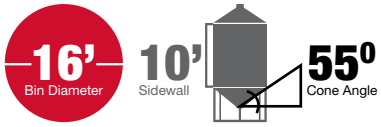


Table 24 - Western Canada

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 1208-55 | 12' Diameter 55° Bottom Cone | 1178 | 1382 | 39 | 25 | 22' | 46' |
| 1210-55 | | 1371 | 1607 | 45 | 29 | 24' | 46' |
| 1212-55 | | 1563 | 1833 | 52 | 33 | 26' | 46' |
| 1215-55 | | 1851 | 2171 | 61 | 39 | 29' | 53' |
| 1410-55 | 14' Diameter 55° Bottom Cone | 1928 | 2297 | 65 | 42 | 26' | 46' |
| 1412-55 | | 2187 | 2605 | 73 | 47 | 28' | 53' |
| 1415-55 | | 2576 | 3065 | 86 | 56 | 31' | 59' |
| 1417-55 | | 2835 | 3372 | 95 | 61 | 33' | 66' |
| 1420-55 | | 3224 | 3833 | 108 | 70 | 36' | 66' |
| 15.510-55 | 15' 6" Diameter 55° Bottom Cone | 2447 | 2917 | 82 | 53 | 28' | 53' |
| 15.512-55 | | 2765 | 3293 | 93 | 60 | 30' | 59' |
| 15.515-55 | | 3242 | 3858 | 109 | 70 | 33' | 66' |
| 15.517-55 | | 3559 | 4235 | 119 | 77 | 35' | 66' |
| 15.520-55 | | 4036 | 4800 | 135 | 87 | 38' | 66' |
| 15.525-55 | | 4830 | 5741 | 161 | 104 | 43' | 72' |
| 15.530-55 | | 5621 | 6678 | 188 | 121 | 48' | 85' |
| 1610-55 | 16' Diameter 55° Bottom Cone | 2638 | 3144 | 88 | 57 | 28' | 53' |
| 1612-55 | | 2976 | 3545 | 100 | 64 | 30' | 59' |
| 1615-55 | | 3484 | 4147 | 117 | 75 | 33' | 66' |
| 1617-55 | | 3823 | 4548 | 128 | 83 | 35' | 66' |
| 1620-55 | | 4330 | 5150 | 145 | 93 | 38' | 66' |
| 1625-55 | | 5177 | 6153 | 173 | 112 | 43' | 72' |
| 1630-55 | | 6019 | 7152 | 201 | 130 | 48' | 85' |

Table 25 - Eastern Canada, Northeastern USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 1208-55 | 12' Diameter 55° Bottom Cone | 1178 | 1386 | 38.9 | 25.1 | 21' 10" | 41' |
| 1210-55 | | 1371 | 1612 | 45.2 | 29.2 | 23' 10" | 41' |
| 1212-55 | | 1563 | 1839 | 51.5 | 33.3 | 25' 10" | 46' |
| 1215-55 | | 1851 | 2178 | 61.1 | 39.4 | 28' 10" | 51' |
| 1220-55 | | 2315 | 2743 | 76.9 | 49.6 | 33' 10" | 61' |
| 1225-55 | | 2792 | 3309 | 92.8 | 59.9 | 38' 10" | 71' |
| 1230-55 | | 3269 | 3874 | 108.6 | 70.1 | 43' 10" | 71' |
| 1310-55 | 13' Diameter 55° Bottom Cone | 1648 | 1939 | 54.4 | 35.1 | 24' 11" | 46' |
| 1312-55 | | 1874 | 2205 | 62.0 | 40.0 | 26' 11" | 51' |
| 1315-55 | | 2213 | 2603 | 73.0 | 47.1 | 29' 11" | 56' |
| 1320-55 | | 2777 | 3267 | 91.6 | 59.1 | 34' 11" | 61' |
| 1325-55 | | 3341 | 3930 | 110.2 | 71.1 | 39' 11" | 71' |
| 1330-55 | | 3905 | 4594 | 128.8 | 83.1 | 44' 11" | 71' |
| 1412-55 | 13' 6" Diameter 55° Bottom Cone | 2012 | 2397 | 67.4 | 43.5 | 27' 7" | 46' |
| 1415-55 | | 2401 | 2825 | 79.4 | 51.2 | 30' 7" | 51' |
| 1420-55 | | 3008 | 3539 | 99.5 | 64.2 | 35' 7" | 56' |
| 1425-55 | | 3615 | 4253 | 119.6 | 77.2 | 40' 7" | 61' |
| 1430-55 | | 4221 | 4967 | 139.7 | 90.1 | 45' 7" | 71' |

Table 26 - Central USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT |
|---|---|---|---|---|---|---|
| 1217-55 | 12' Diameter 55° Bottom Cone | 2043 | 2403 | 74 | 67 | 30' 9" |
| 1220-55 | | 2331 | 2742 | 85 | 77 | 33' 9" |
| 1225-55 | | 2812 | 3308 | 103 | 93 | 38' 9" |
| 1410-55 | 13' 6" Diameter 55° Bottom Cone | 2116 | 2116 | 66 | 60 | 25' 4" |
| 1412-55 | | 2402 | 2402 | 74 | 67 | 27' 4" |
| 1415-55 | | 2406 | 2831 | 88 | 80 | 30' 4" |
| 1417-55 | | 2650 | 3118 | 97 | 88 | 32' 4" |
| 1420-55 | | 3015 | 3547 | 110 | 100 | 30' 11" |
| 1425-55 | | 3624 | 4263 | 132 | 120 | 35' 11" |
| 1430-55 | | 4232 | 4979 | 154 | 140 | 40' 11" |

Table 27 - Northwestern USA

| MODEL | DESCRIPTION | APPROX. BUSHELS | CUBIC FEET | IMP. TONS | METRIC TONNES | BIN HEIGHT | REC. AUGER |
|---|---|---|---|---|---|---|---|
| 1510-55 | 15' 6" Diameter 55° Bottom Cone | 2484 | 2923 | 91 | 82 | 27' 11" | 51' |
| 1512-55 | | 2805 | 3300 | 102 | 93 | 29' 11" | 56' |
| 1515-55 | | 3286 | 3866 | 120 | 109 | 32' 11" | 61' |
| 1517-55 | | 3607 | 4244 | 132 | 119 | 34' 11" | 61' |
| 1520-55 | | 4088 | 4810 | 149 | 135 | 37' 11" | 71' |
| 1525-55 | | 4890 | 5753 | 178 | 162 | 42' 11" | 71' |
| 1530-55 | | 5692 | 6697 | 208 | 188 | 47' 11" | 81' |

## 7.10 EXPLANATION OF CALCULATIONS

Bushel capacities are approximate:
- Feed bin capacities are based on 40 lb/ft$^3$.
- All fertilizer bins, steep cone bins and liquid bins capacities are based on 62 lb/ft$^3$.

To select the most appropriate bin size for your storage, please follow these steps:
- Determine product density (lb/ft$^3$).
- Convert the total tonnage being stored to "lb", then divide by the density. The result is the cubic foot capacity you require.
- **Note:** 1 MT (tonne) = 1.10 US ton = 0.98 Imp ton.

Example - You need to store 100 MT (tonne) of urea fertilizer with a density of 48 lb.
(100 MT = 110.2 US ton = 98.4 Imp ton)
100 x 2204 = 220,400 / 48 = 4592 (Min. ft$^3$ required)
Best model selection would be a 1620 or 1815.

To calculate a bins holding capacity of a specific product, follow these steps:
- Determine product density (lb/ft$^3$).
- Multiply the bins cubic foot capacity by the product density, then divide by 2204.

Example - Your fertilizer blend weights 57 lb/ft$^3$ and your purchasing a model 1625 fertilizer bin.
Model 1625 = 5851 ft$^3$ x 57 lb = 333,507 lb / 2204 = 151 MT.
Your new 1625 will hold about 151 MT of your specific fertilizer blend.
(151 MT (tonne) = 166.5 US ton = 148.6 Imp ton)

# EXTENDED MATERIALS AND WORKMANSHIP WARRANTY

Meridian Manufacturing Inc. (hereinafter referred to as Meridian) hereby warrants the bin(s) sold by it to be free from any defect in material or workmanship under normal use and service for a period of five (5) years from the date of shipment. Meridian's Warranty is as follows: ten (10) years on structural integrity, one (1) year paint for liquid and commercial storage bins from the date of shipment to owner and in the manner referred to in paragraph 2 herein.

THIS WARRANTY IS SUBJECT TO THE FOLLOWING LIMITATIONS, PROVISIONS AND CONDITIONS:

1. This warranty does not apply:
   a. To any product sold by Meridian where it is used in areas exposed to corrosive or aggressive conditions including salt water, acids, alkaloid, ash, cement dust, animal waste or other corrosive chemicals from either inside or outside the bin.
   b. For failures or defects arising out of damage during shipment or during storage on site.
   c. To materials replaced or repaired under this warranty except to the extent of the remainder of the applicable warranty.
   d. To damage resulting from misuse, negligence, accident or improper site preparation by others.
   e. If the product has been altered or modified by others.
   f. If in the case of coating failures the failure is the result of damage, lack of proper maintenance or failure to remove road salt or other contaminants that may have come in contact with the bin surface.
   g. If the product has not been erected and installed strictly in accordance with Meridian’s manuals and instructions.

2. The obligation of Meridian under this warranty shall not arise unless Meridian is notified and this warranty is presented together with a written statement specifying the claim or defect within thirty (30) days after the failure is first detected or made known to the owner and within five (5) years for general and coating claims and ten (10) years for structural claims, from the shipment date. Meridian, in its sole discretion shall determine if the claim is valid and whether correction of the defect or failure shall be made by repair or replacement of the materials.

3. The obligation of Meridian hereunder extends only to the original owner and to the Meridian dealer to whom the materials may have been initially sold. This warranty shall not be subject to any assignment or transfer without the written consent of Meridian.

4. The customer shall acknowledge that it has made its own independent decision to approve the use of the supplied materials and also the specific fabrication and construction procedures utilized to complete the bin, and has satisfied itself as to the suitability of these products for this particular application.

5. The foregoing sets forth the only warranties applicable to said materials and said warranties are given expressly and in lieu of all other warranties, expressed or implied, statutory or otherwise, of merchantability or fitness for a particular purpose and all warranties which exceed or differ from said warranties herein are disclaimed by Meridian.

6. The owner's sole and exclusive remedy against Meridian shall be limited to the applicable warranty set forth herein and the endorsements, if any, issued together with this document and no other remedy (including but not limited to the recovery of assembly or disassembly costs, shipping costs, direct, incidental, special, indirect or consequential damages for lost profits, lost sales, injury to person or property or any other loss, whether arising from breach of contract, breach of warranty, tort, including negligence, strict liability or otherwise) shall be available to the owner or Meridian Dealer or any other person or entitles whether by direct action or for contribution or indemnity or otherwise.

7. The financial obligation of Meridian under this warranty shall be limited to the repair or replacement of the product as originally supplied and in no event shall exceed the original cost of the product supplied.

8. Meridian shall not have any obligation under any warranty herein until all accounts for materials, installation and erection of the said product thereof and for labor and other work performed by Meridian or its dealers have been paid in full by the owner.

Register your product at: www.merdianmfg.com
For warranty information send an email to: warranty@meridianmfg.com

## WARRANTY CLAIM PROCEDURE

1. The product must be registered with Meridian Manufacturing Inc.

2. The purchaser must contact the dealer, from where the unit was purchased, immediately upon discovery of any defects.

3. A completed Warranty Request Form must be submitted by the dealer to Meridian’s warranty representative for review and any subsequent course of action.
   - Warranty requests must be completed with ALL required information in order it to be considered for approval.
   - Send photographs of the entire piece of equipment, and of the specific area of concern.

4. Warranty repair work will only be performed by Meridian or an approved representative of Meridian. Warranty work completed prior to Meridian’s approval will NOT be honoured. Failure to follow procedure may affect any or all of this warranty.

5. All warranty requests will be adjudicated at the sole discretion of Meridian and in accordance with the terms and conditions of the warranty.


Cambridge, ON: (855) 346-3712
Camrose, AB: (800) 830-2467
Lethbridge, AB: (800) 661-1436
Storm Lake, IA: (800) 437-2334
Winkler, MB: (800) 665-7259
www.meridianmfg.com | smoothwall@meridianmfg.com



Part No: 19999-REV1