



12' BULK FEED BIN

Model 512

Installation Manual



990020
REV [J]

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VAL PRODUCTS, INC. WARRANTIES

For Warranty claims information, please see the “Manufactured Products Standard Warranty” form QMS101 available from Val Products, Inc. by:

- Phone: 1-800-998-2526
- Email: marcom@val-co.com
- Online: <http://val-co.it/warranty>

Conditions and Limitations:

- Products and Systems involved in a warranty claim under the “Manufactured Products Standard Warranty” shall have been properly installed, maintained and operated under competent supervision, according to the instructions provided by Val Products, Inc.
- Malfunction or failure resulting from misuse, abuse, negligence, alteration, accident or lack of proper installation or maintenance shall not be considered a defect under the Warranty.

Introduction

This manual covers the assembly instructions for the 12' Feed Bin with parts lists. Bin accessories and options have been added at the back of this manual for your convenience.

Features

- Weather tight roof.
- Warp resistant top lid closes tight to keep out moisture and offers smooth operating openers.
- Bin bolts have a built in weather seal.
- Drip edge keeps water away from the taper hopper and unloading boot.
- Taper Hoppers are offset to allow smooth feed flow.
- Bin sheets are made of heavy gauge G-90 galvanized steel with 2-2/3" wide by 1/2" deep corrugation.
- Legs are die formed with a sturdy bracing system for structural support.
- High strength bolts are used throughout.

Site Selection

The success of assembling your new bulk bin begins with the ground you start on and the foundation you lay. The selected site must be firm, level ground with good water drainage and a soil bearing capacity of 3500 lbs. per sq. ft. Check with your local soil engineer if you have any questions. When you have determined that the soil is acceptable, you should also consider the following factors: accessibility of feed handling equipment, space for future growth and the absence of overhead obstructions such as power lines or tree branches.

General Information

- Read all safety information, instructions and illustrations before starting to assemble your new bulk bin.
- Please review the complete assembly manual twice before starting and be sure to check your shipment with the packing list for any shortages. Please report shortages promptly.
- Metric measurements are shown in millimeters and in parenthesis throughout the manual. Example: 13" (330mm)
- The terms horizontal and vertical refer to the bin in a standing position.
- Instructions for optional bin accessories are packaged with the components.
- To help decide which is the top and bottom of corrugated hoppers, a hole spacing of 3.125" (79mm) is used at the top of all extension hoppers and at the bottom of all main hoppers.
- Vertical seams must be staggered on all hopper rings. On 12' x 6 or 7 ring bins, align leg holes on bottom two main hopper rings to accommodate longer legs.
- Taper hopper vertical seams and boot collar seam use truss head bin bolts with the head always on the inside of the bin to allow for better feed flow.
- Corrugated hoppers and roof deck seams use hex head bin bolts with the head to the outside except to fasten legs to corrugation where the bolt head goes to the inside.
- Tighten all bin bolts from the nut side to help reduce the possibility of damaging the rubber seal on bin bolts. Do not allow the bolt heads to spin when tightening.
- When assembling corrugation sheets, use a drift pin to help align holes and always overlap sheets in the same direction. Finger tighten nuts until the next ring is assembled.
- Remove protective paper from decal before raising bin. Paper may be difficult to remove if exposed to warm sunlight for several hours.

Symbols

Our concern is for your safety. The safety warnings are included in this manual as a guide to help and encourage the safe operation of your equipment. It is your responsibility to evaluate the hazards of each operation and implement the safest method of protecting yourself as owner and/or operator.



= NOTICE - Important information. Be sure to read.






= WARNING - The safety alert symbol is used on warning signs that describe the importance of a feature or explain a step that one should pay close attention to avoid problems or personal injury.



- Avoid any alterations to the equipment. Such alterations may produce a very dangerous situation where serious injury or death may occur.
- Keep all safety guards on equipment
- Ground all electrical equipment. Do not bypass electrical safety equipment. Make sure electrical equipment is properly installed and grounded by a qualified electrician.
- Wear a hard hat during construction
- Order and attach warning symbols to danger areas that are not already noted.
- Do not enter bin during operation or at any time without proper safety precautions.

This Label MUST be present on the inside of the roof lid. Contact your distributor for a free replacement if missing.

 <h1 style="margin: 0;">DANGER</h1>	
YOU CAN SUFFOCATE UNDER MATERIAL IN THIS TANK	
	
FLOWING MATERIAL TRAPS AND SUFFOCATES	CRUSTED MATERIAL COLLAPSES AND SUFFOCATES
NEVER ENTER THIS TANK DURING LOADING AND UNLOADING	
AT OTHER TIMES ENTER TANK ONLY IF YOU	
<ol style="list-style-type: none"> 1. SHUT OFF AND LOCK OUT ALL POWER. 2. USE A SAFETY HARNESS AND SAFETY LINE. 3. WEAR PROPER BREATHING EQUIPMENT. 4. AVOID THE CENTER OF THE TANK. 5. STATION PEOPLE TO HELP OUTSIDE THE TANK. 	
<small>500443</small>	

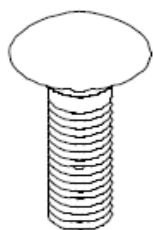


12' Feed Bin Hardware Parts

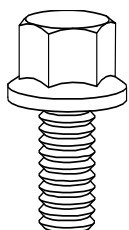
NOTE: Check all parts with each packing list included with each carton of product or the parts list included in this manual before starting assembly. Report any shortages immediately to your supplier.

Save all cartons until bin is completed.

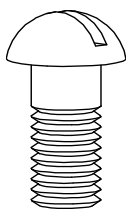
Hardware List



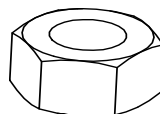
011475 7/16" x 1"
Carriage Bolt



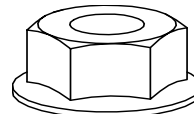
501442 - 5/16" x 1"
Flanged Hex Bin Bolt



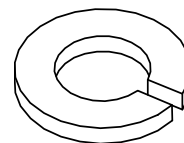
501440 - 5/16" x 3/4"
Truss Bin Bolt



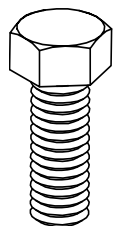
010603 - 5/16
Hex Nut



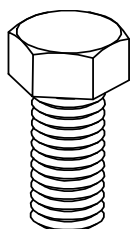
501441 - 5/16"
Flange Nut



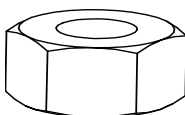
010253 - 3/8"
Lockwasher



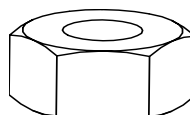
010664 - 3/8" X 1"
Hex Bolt



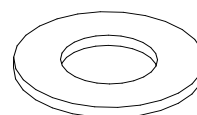
012240 - 7/16" x 1"
Hex Bolt



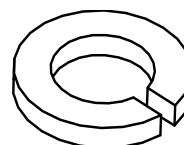
011115 - 3/8"
Hex Nut



011116 - 7/16"
Hex Nut



010433 - 7/16"
Flat Washer



010254 - 7/16"
Lockwasher

Tools Required

Below is a list of tools required to assemble your new bin. The use of an electric or air impact wrench will greatly reduce your assembly time.

- Open or Box End Wrenches (1/2", 9/16", 5/8", 11/16")
- Socket Set with Speed Wrench or Impact
- Hammer or Rubber Mallet
- Large Screwdriver
- 12" Drift Punches
- Nail Apron for convenience
- (2-3) Ladders (one ladder will need to be straight and fit thru 16" opening)



Be careful when using power equipment not to over-torque fasteners.

12' (3.66m) Feed Bin Specifications

12' 40 Deg Roof Bin Capacity and Fill Height									
Feed Capacity						Fill Height			
Bin	Tons	Mtrc Ton	cu. Ft.	cu. m.	Bushels	Inches	Ft	In	Meters
12' x 1R	17.32	15.72	866.2	24.53	696	229	19	1	5.82
12' x 2R	23.35	21.19	1167.6	33.06	938	261	21	9	6.63
12' x 3R	29.38	26.65	1469.1	41.60	1180	293	24	5	7.44
12' x 4R	35.41	32.12	1770.5	50.13	1423	325	27	1	8.26
12' x 5R	41.44	37.59	2071.9	58.67	1665	357	29	9	9.07
12' x 6R	47.47	43.06	2373.3	67.20	1907	389	32	5	9.88
12' x 7R	53.49	48.53	2674.7	75.74	2149	421	35	1	10.69

- All 16" opening bins include VAL-CO®'s exclusive 2-piece boot collar.
- Ladder safety cages are available.
- All bins are designed for the storage of FREE-FLOWING materials only.



Soybean Meal, meat scraps and certain other materials are NOT considered FREE-FLOWING and should NOT be stored in these bins.



Foundation and Anchoring Specifications

NOTE: To avoid cable hanging over edge of slab, place a PVC tube thru slab before pouring to drive ground rod through.

After selecting the best site for your new bin and making sure the soil has the required 3500 pounds per square foot (psf), you are now ready to begin your foundation. It is extremely important that your bin has a firm and level foundation. The concrete used for this must have a minimum compression rate of 3000 lbs. per square inch at 28 days. The pad must be smooth and meet the dimensions listed below. It is imperative that it is poured both square and level. When laying out the bolt locations, it is very important the bin maintains squareness. Be sure to check all (3) diagonal measurements and hold the same distance between holes as shown below in Figure 1.

3500 psf = 1587.573 kg (per square 0.3048m)

The “L” shaped anchor bolt shown in Figure 2 below can be purchased from local retailers. When using the optional anchor bolts, shown in Figure 3 below, holes can be drilled after concrete has set. However; you must use the same dimensions as shown below to assure the bin maintains squareness. Note: Locating anchor bolt holes by using the assembled bin legs does not assure the bin will be set squarely and can result in damage to equipment and/or personal injury.

Figure 1

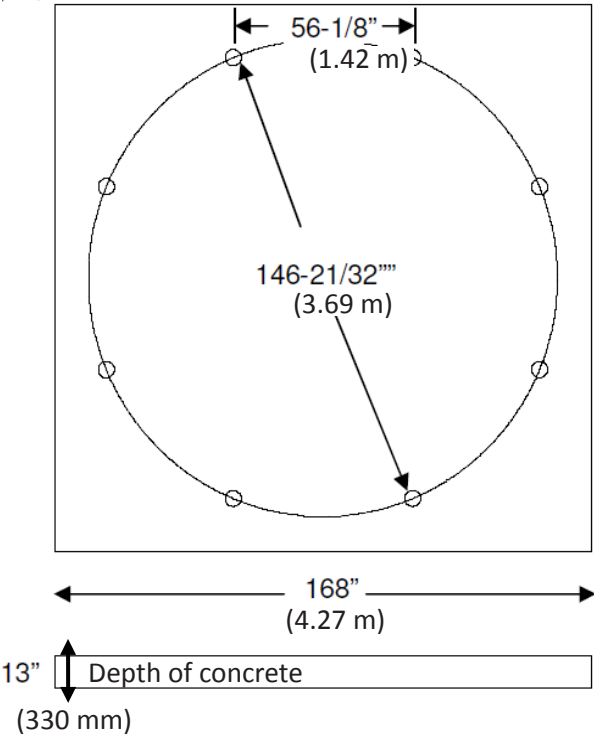


Figure 2

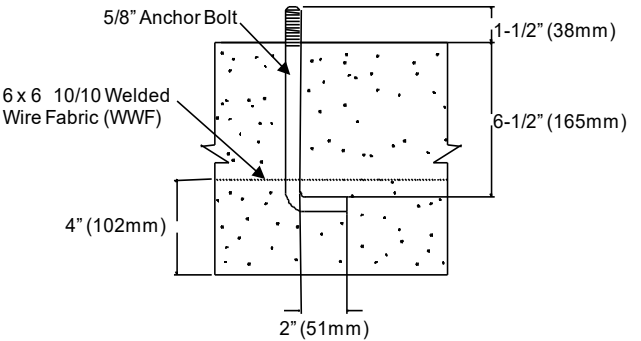
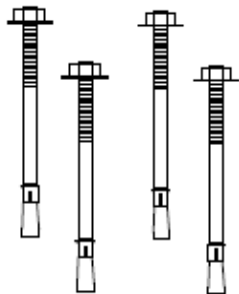


Figure 3



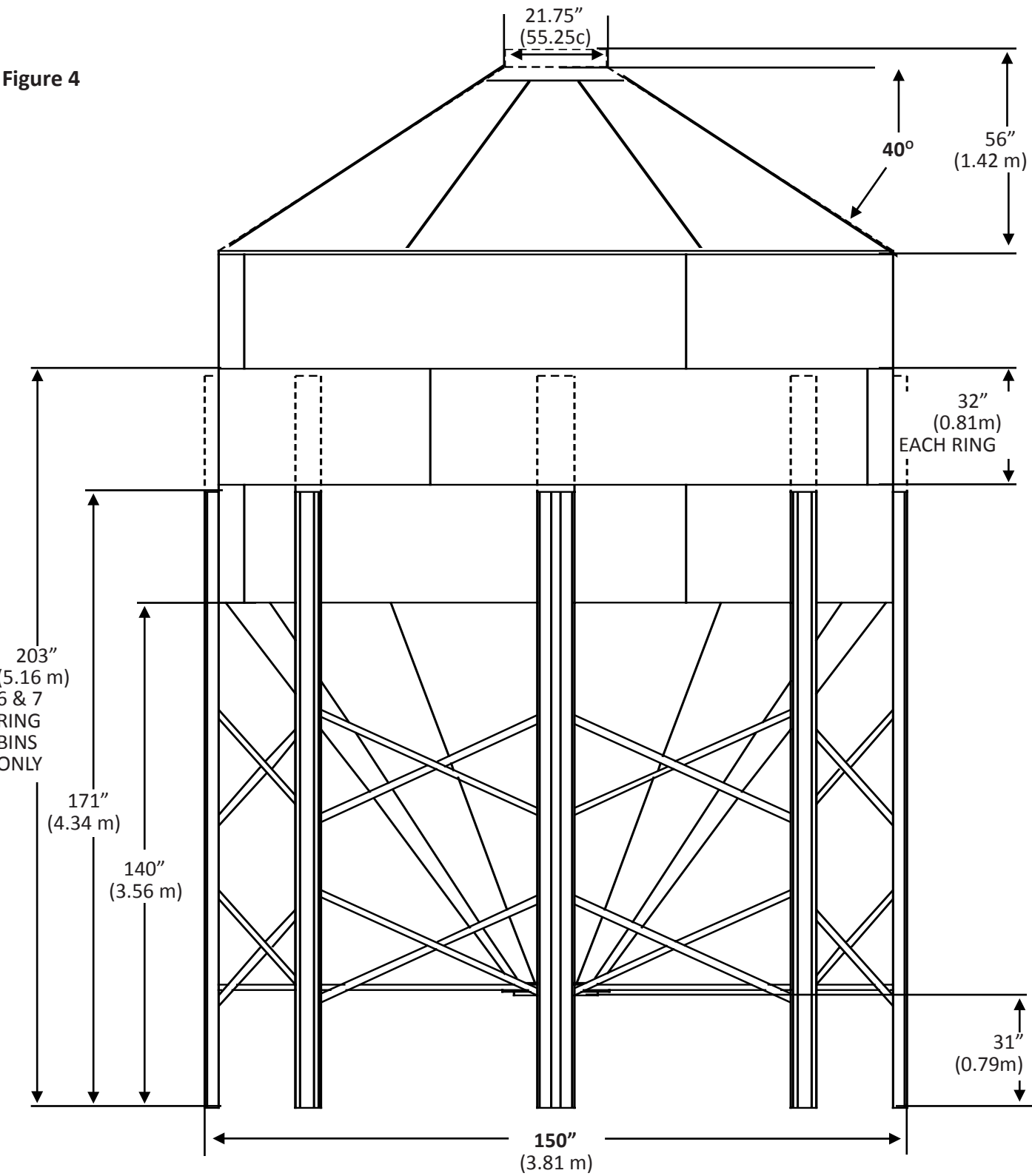
Optional style anchor bolts as shown here can be supplied by VAL-CO™.

Order kit 500388 for 12' bins.



12' Diameter Bin Dimensions

Figure 4



12' Feed Bin Overview

CORRUGATED HOPPERS

1 RING BIN

512038 14ga Main - [3]
512041 14ga Main w/decal - [1]

2 RING BIN

512038 14ga Main - [4]
512008 20ga Ext. - [3]
512009 20ga Ext. w/decal - [1]

3 RING BIN

512038 14ga Main - [4]
512011 18ga Ext. - [4]
512008 20ga Ext. - [3]
512009 20ga Ext. w/decal - [1]

4 RING BIN

512038 14ga Main - [4]
512035 16ga Ext. - [4]
512008 20ga Ext. - [7]
512009 20ga Ext. w/decal - [1]

5 RING BIN

512040 12ga Main - [4]
512035 16ga Ext. - [4]
512011 18ga Ext. - [4]
512008 20ga Ext. - [7]
512009 20ga Ext. w/decal - [1]

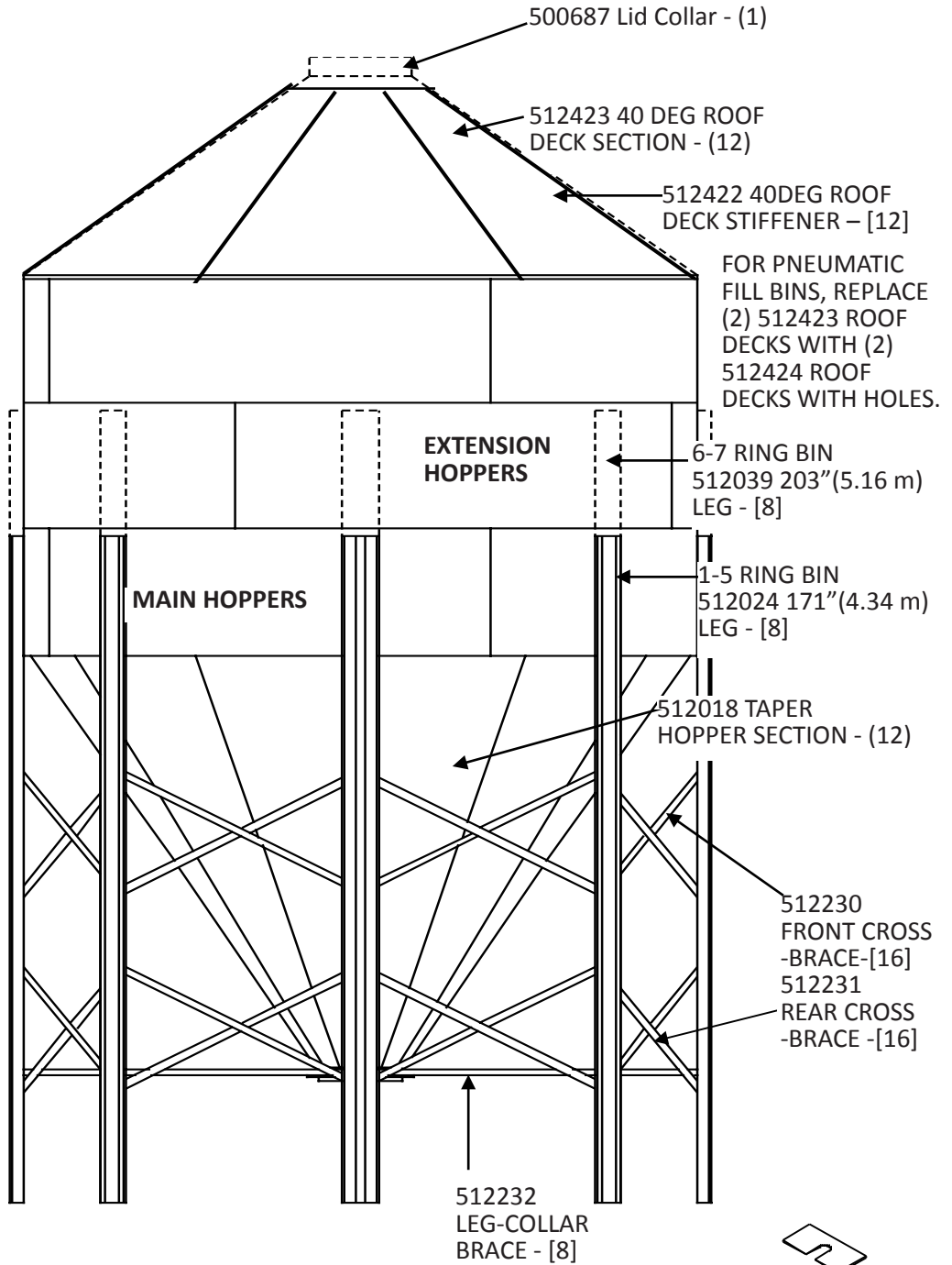
6 RING BIN

512040 12ga Main - [4]
512037 14ga Ext. w/holes - [4]
512035 16ga Ext. - [4]
512011 18ga Ext. - [4]
512008 20ga Ext. - [7]
512009 20ga Ext. w/decal - [1]

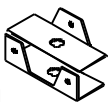
7 RING BIN

512040 12ga Main - [4]
512037 14ga Ext. w/holes - [4]
512014 14ga Ext. - [4]
512035 16ga Ext. - [4]
512011 18ga Ext. - [4]
512008 20ga Ext. - [7]
512009 20ga Ext. w/decal - [1]

Figure 5

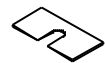


500156 TOP
LEG PLATE - (8)



500155 BOTTOM
LEG PLATE - (8)

OPTIONAL 500249
LEG SHIMS - VARY

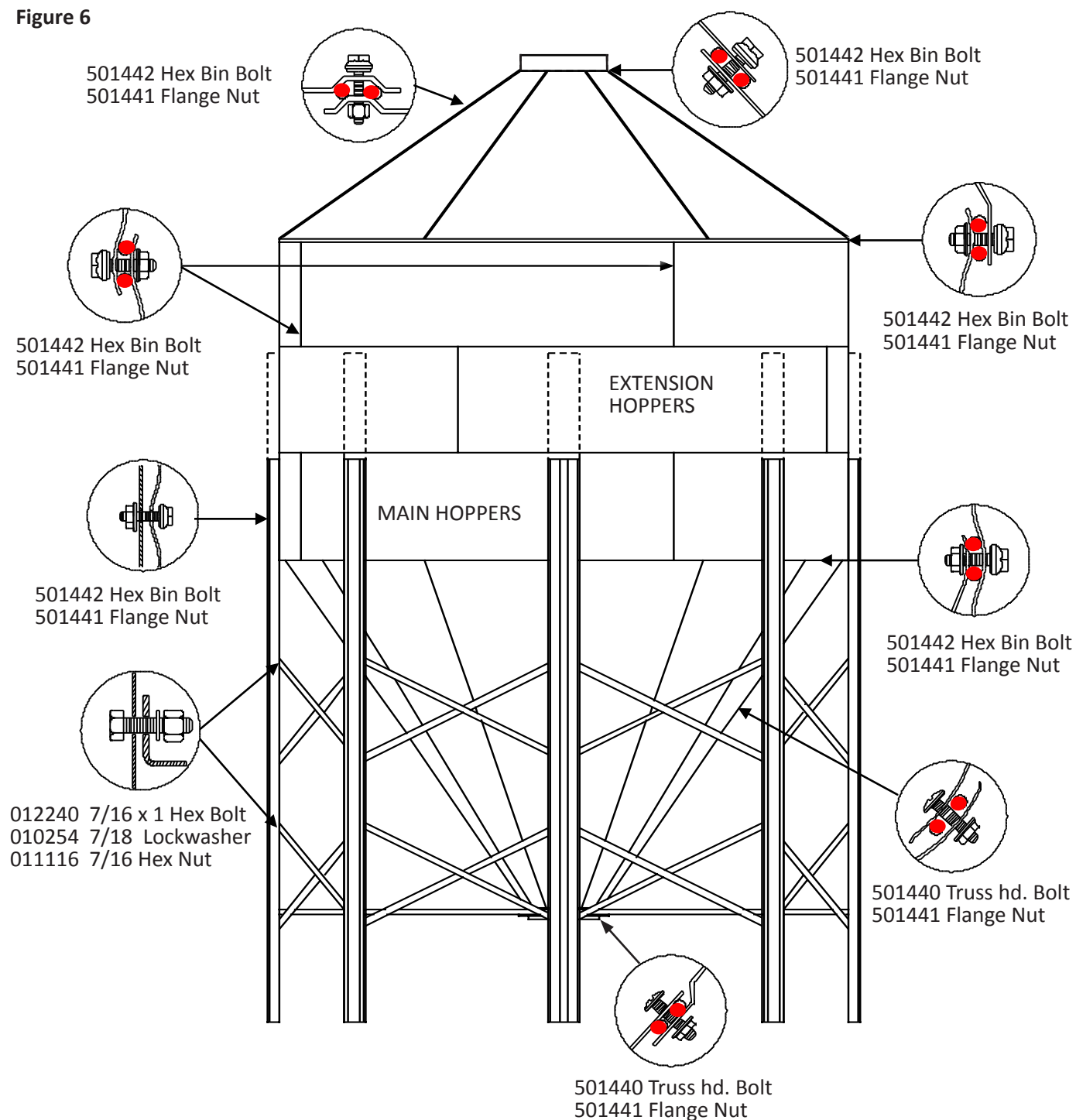


Hardware Assembly Summary

This illustration shows the type of fasteners, placement and position of caulking. This illustration can be used as a quick reference when assembling your bin. Refer to the step-by-step instructions for complete assembly details.

● = Caulking Bead (IT IS RECOMMENDED THAT YOU USE THE CAULKING PROCEDURE ON THE NEXT FEW PAGES.)

Figure 6



Determining Bin Assembly Method

It is necessary for you to determine how many rings your bin assembly includes and what method of bin assembly and lifting you will decide to use. There are 2 options for assembly. The first option is to assemble the bin “vertically” using a bin lifting device as you preform assembly. The Second option FOR 1-3 RING BINS ONLY is to assemble the bin on its side “horizontally” to completion. (Assembly and Lifting instructions are at the end of the manual.)

Option 1 “VERTICAL” ASSEMBLY - *RECOMMENDED* FOR ALL BINS

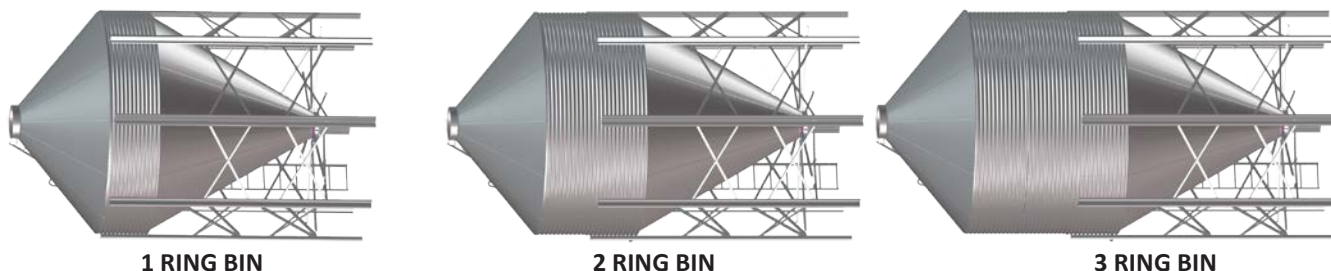
Figure 7



VERTICAL ASSEMBLY - *REQUIRED* FOR 4-7 BINS



Option 2 “HORIZONTAL” ASSEMBLY - *ONLY FOR 1-3 RING 12 ft. BINS (NOT Val-Co™ recommendation)*



Corrugated Hopper Assembly / Caulking Instructions

The 1st ring assembly is the same for both assembly options 1 and 2. The following instructions will focus on Option 1 "Vertical" Assembly.

1. Once the assembly method is determined, identify the 4 lightest weight corrugated hopper sheets by the part number on the inside of each sheet, or the gauge (the higher the gauge number, the lighter the steel. **Example: 20 ga. is lighter than 18 ga.**)
2. Set the top ring of the hopper sheets in a circle as shown in Figures 8 and 9. **Make sure the horizontal side with the most holes is to the top.**
3. Apply the caulking putty to the inside of the hopper sheets, (where they join and form a seam), along both sides of the holes as shown in Figure 10.
4. Place the caulked end to the inside or behind the un-caulked end of each adjacent hopper sheet as shown in Figure 10. **Use a drift pin/AWL to align corner holes.**

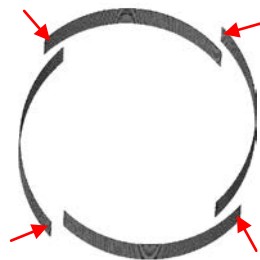


Figure 8

Assemble Hopper Sheets by overlapping the same end on each sheet as shown to left

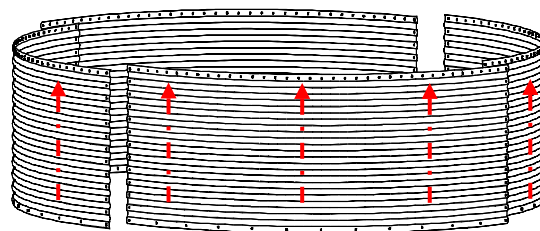


Figure 9

Be sure caulking forms a good seal around the holes and seam to prevent leaking.

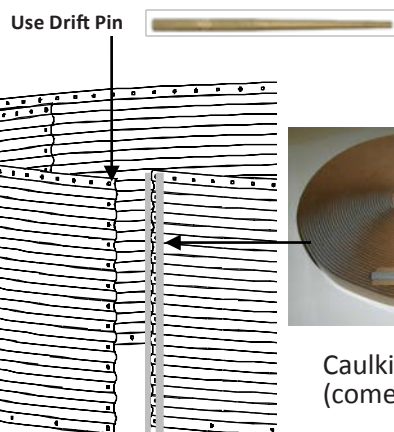


Figure 10

Caulking Putty (comes rolled)

5. Assemble ends with 501442 Bin Bolts and 501441 Flange Nuts. Continue inserting Bin Bolts and Flanged Nuts to all the holes along the vertical seam as you assemble the ring.

NOTE: Do not tighten until all (4) sheets of ring are assembled.

- Make sure you have aligned the corner hole where the (4) hopper sheets meet **first** for easiest assembly.
- Remember to complete entire ring before tightening nuts.
- Make sure you tighten all Bin Bolts from the Flange Nut side. Using the Bin Bolt head to tighten bolts can damage the rubber seal and may lead to possible leaking.

6. After top ring is assembled run a row of caulking all the way along both sides of TOP horizontal holes on outside of hopper sheets. You are now ready to begin assembling Roof Deck sections.

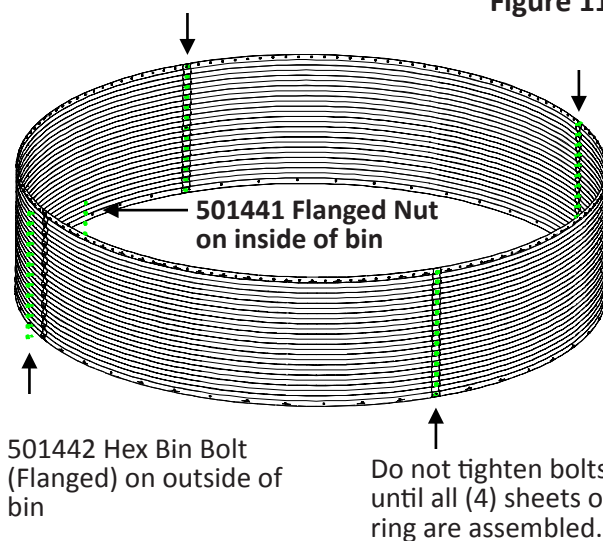


Figure 11

Roof Deck Assembly (VERTICAL example)

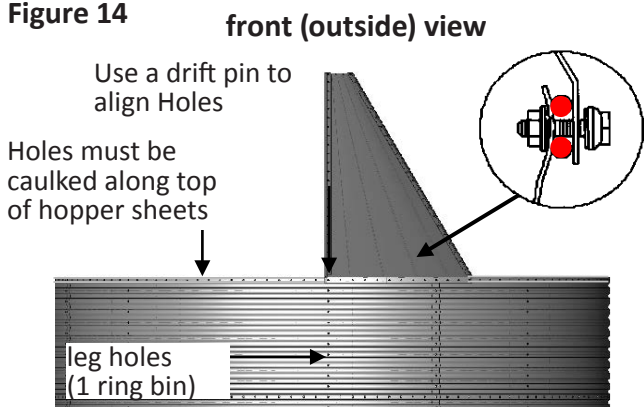
From here going forward we will use Option 1 “Vertical” assembly in detailing steps. These steps would be the same in a side “horizontal” assembly except that you might choose to follow the assembly order detailed at the end of the manual for “Horizontal” side assembly.

1. Before you begin to assemble the roof deck sections you must decide where the bin legs will be located on the bottom ring of the bin. Each ring of corrugation must be staggered 1/2 sheet. You can determine where the legs will be located compared to the top ring by the size of the bin/number of rings.
2. After determining the location of the bin legs you are ready to assemble roof decks to corrugated hoppers. Align first roof deck so seam will align with a leg for 1-5 ring bin as shown in Figure 12.

When all hopper sheets are assembled you should have the heaviest corrugation on the bottom and the decaled sheet on top.

On Pneumatic Fill bins, be sure the roof deck sections (with holes as shown in Figure 13) are straight across from each other and not located where legs will be in center of the roof deck section. Consider which side you prefer to have the fill Inlet (intake), lid opening and ladder position.

Figure 14



3. Place bottom edge of Roof Deck section over (previously) caulked holes in the top ring of hoppers and fasten with 501442 - 5/16” Bin Bolts and 501441 Flange Nuts keeping bolt heads to the out side as shown in Figure 14 above.
4. Double caulk the top side of roof deck vertical seam that will go under the adjacent next roof deck.

Figure 12

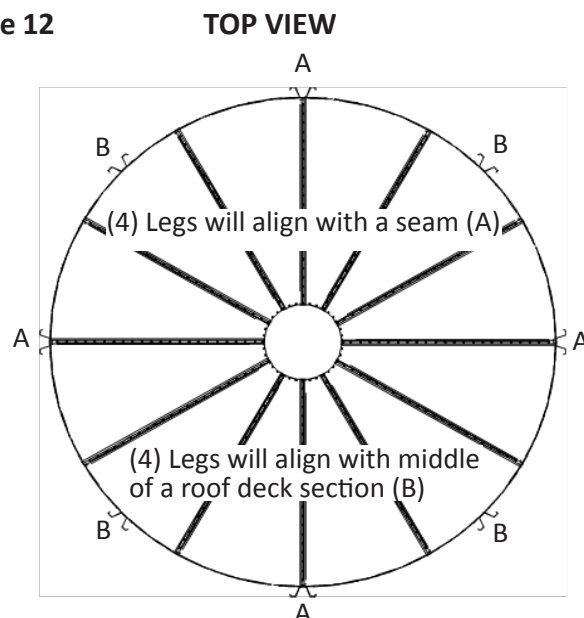


Figure 13

512424 (2)
Pneumatic Fill
Roof Decks

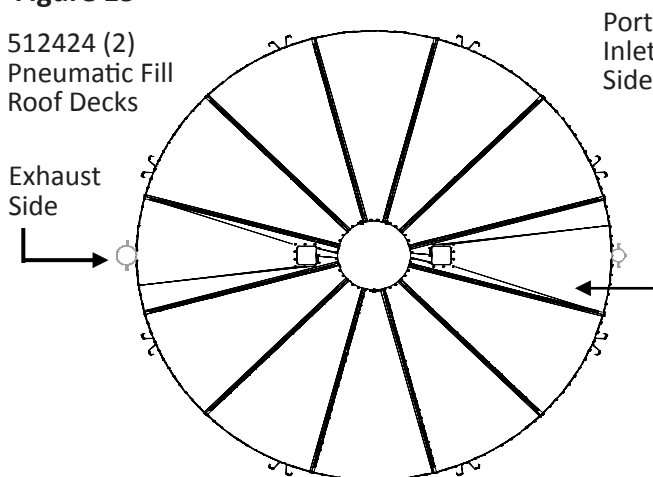
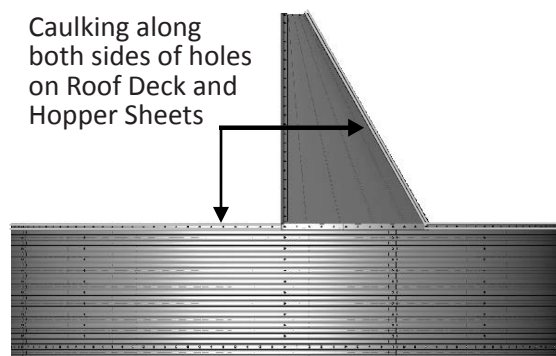


Figure 15

front (outside) view



Be sure to caulk all seams along both sides of the holes to form a good seal to prevent leaking!

Roof Deck Assembly (VERTICAL example) - continued

You will need a person inside the bin to accomplish this assembly. It is helpful to hold up the Roof Decks as you assemble them with a supporting pole using a punch or drift pin thru a top hole of the Roof Deck into the top of the pole as shown in Figure 16 to the right until you have several sections assembled.

5. Place the next Roof Deck section on top of the two rows of caulking and align the holes on the vertical seam as shown in Figure 17.
6. Position Roof Deck Stiffener Angle under the seam of the (2) Roof Deck sections with the flange facing to ward the inside of the bin (downward) as shown in Figure 17.
7. Align the holes on the Stiffner Angle with the vertical holes of the Roof Deck sections. **Use a drift pin to line up the holes at each end of the vertical seam and use 501442 Bin Bolt and 501441 Flange Nut.**

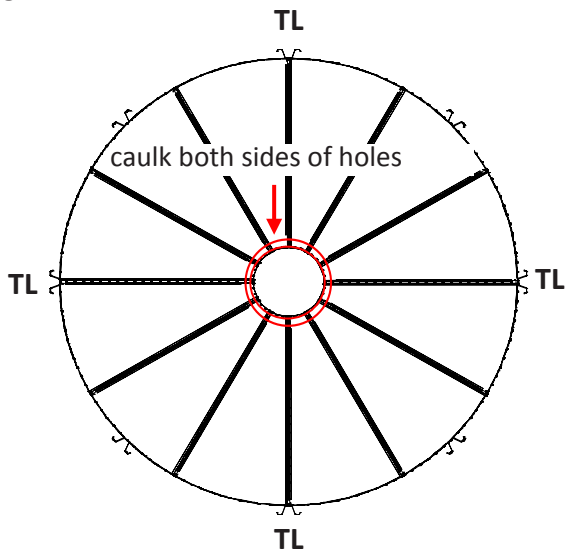
NOTE: Do not tighten bolts until after you have installed the lid and all the hardware is installed on the Roof Deck sections.

8. Continue around the bin until all (12) Roof Deck Sections are assembled.

Lid Collar Assembly

1. Caulk both sides of holes around the top end of the roof decks, same as previously instructed, and fasten lid collar to roof decks with Bin bolts and Flange nuts.

Figure 19



Now would be a good time to install accessory kits that require attachment to the roof or rings that are assembled. These kits would include the Wayback Lid or Tru-Lok Lid, Pneumatic Fill Kit, and Tube Extensions and Ladder kits.

Figure 16

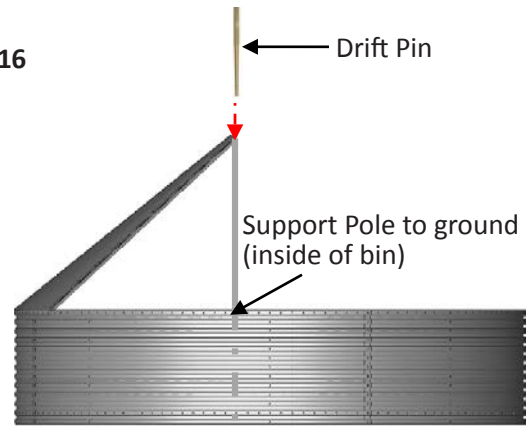


Figure 17

Back View of Figure 14 (INSIDE ROOF) showing Stiffner Angle assembly to Roof Deck & Hopper Sheet

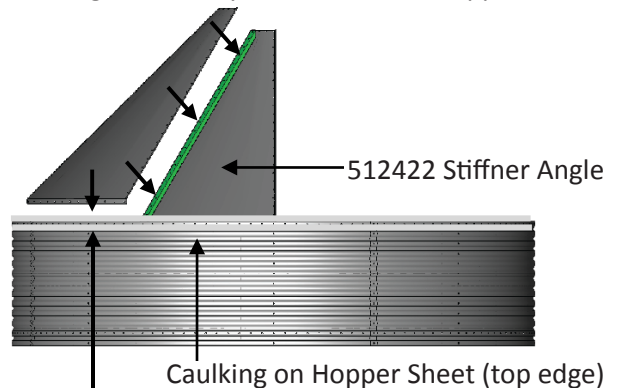


Figure 18

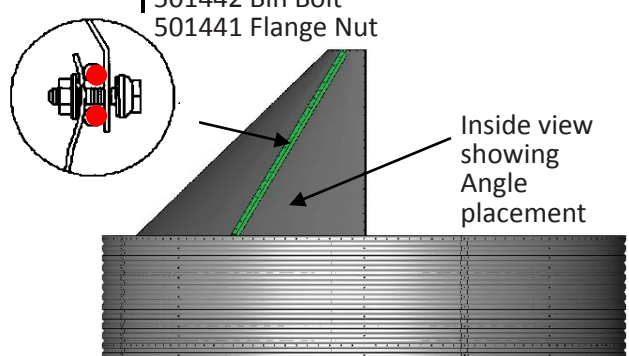
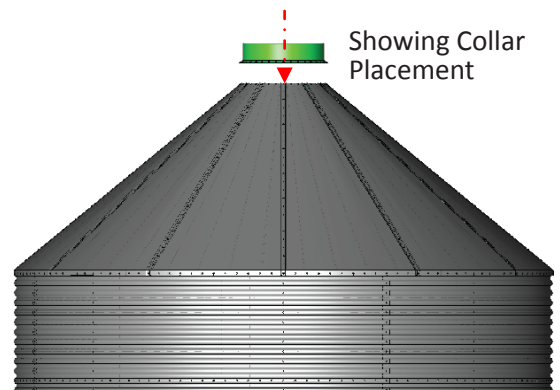


Figure 20

ROOF DECK SECTIONS COMPLETED



Ladder Position

NOTE: Determine where the 512050 Roof Ladder Standoff should be located and leave (2) holes open for attaching when you assemble the ladder. This will save you from having to remove them later.

The ladder should be positioned between (2) bin legs approximately 90 degrees from direction of lid opener as shown in Figure 21 and 22 below.

Figure 21

TRU-LOK / LADDER POSITION

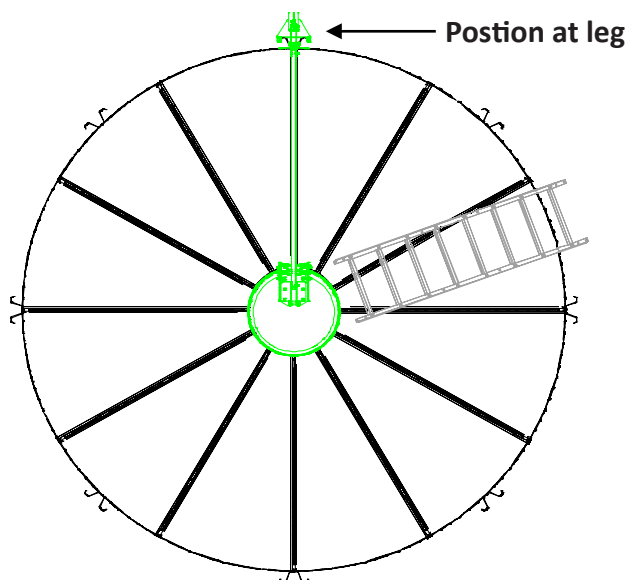
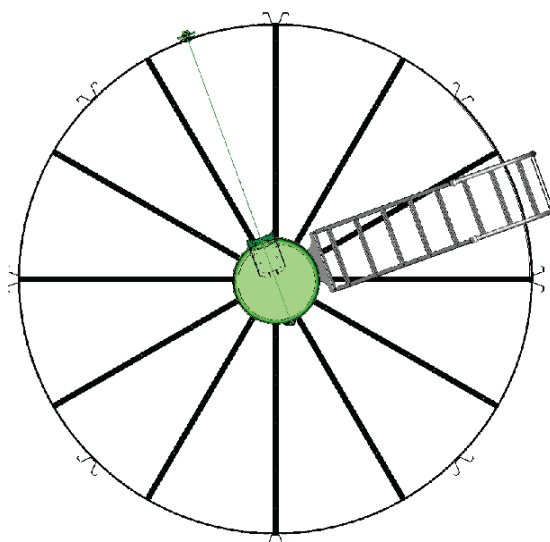


Figure 22

WAY-BACK LID / LADDER POSITION



NOTE: Refer to the Way-Back Lid and Tru-Lok Lid assembly instructions included in the product carton.

Roof Ladder Assembly (VERTICAL example)

1. Attach the 512050 Roof Ladder Standoff Bracket to the (2) empty holes in the Lid Collar with 501442 Bin Bolts and 501441 Flange Nuts *as shown in Figure 23*.

NOTE: You may have assembled this hardware into the Lid Collar previously, so just remove them now to attach the Roof Ladder Standoff Bracket.

2. Remove the (2) bolts and nuts in Roof Deck at **Hopper seam** that align with Roof Ladder Standoff Bracket (6 hole spread) *as shown in Figure 23a* and attach (2) 500195 Ladder Top Brackets using top hole and same 501442 Bin Bolts and 501441 Flange Nuts as removed.
3. Assemble (2) 512915 Roof Deck Ladder Rails and (8) 500030 Ladder Steps with 010643 5/16" X 3/4" Bolts and 012789 Locknuts. Keep locknuts to inside of rails. Refer to Figure 24 to right, to determine proper spacing for rails.
4. Fasten Roof Ladder to Roof Standoff with (2) 010643 5/16" x 3/4" Hex Bolts and 012789 Locknuts.

NOTE: Use top hole in Ladder Top Brackets to attach to bin.

5. To attach 500191 Ladder Extension assembly, fasten 500769 Roof Ladder Angle to the inside of the top end of both Ladder Rails and attach the 500768 Handrails to outside of the Ladder Rails using the same hardware as above.
6. Position 1st Extension Ladder Rails over 500195 Ladder Top Brackets and slide open end of 500769 Roof Ladder Angles under Roof Ladder.
7. Align the (2) holes in top brackets and 40° Roof Ladder Brackets with the ladders and loosely assemble parts with hardware above. Use the 2nd set of holes in the ladder rails.
8. Assemble the top end of the (2) handrails and bottom end to 500769 Connecting Angles with same hardware and tighten all nuts secure.

All nuts should be to inside of ladders.

Figure 23

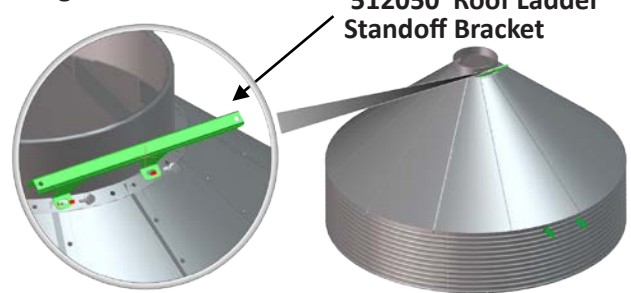


Figure 23a

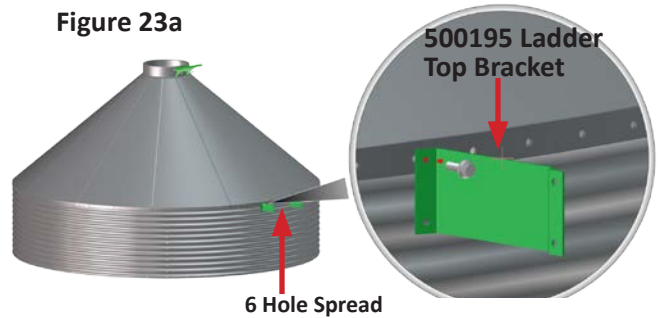


Figure 24

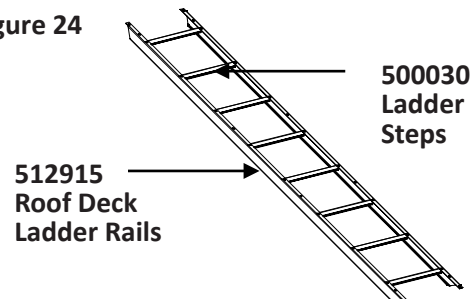
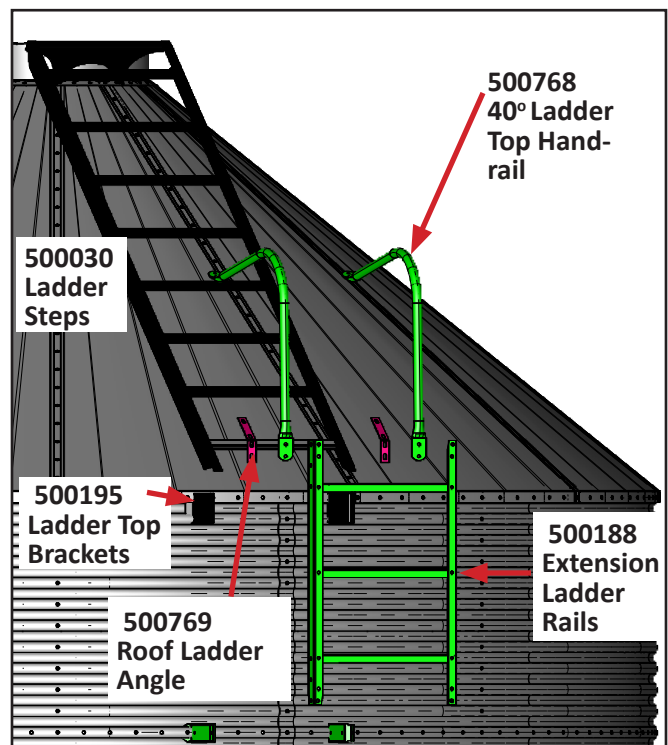


Figure 25



Pneumatic Fill Kit

The Pneumatic Fill Kit and extension tubes do require some assembly. See **Pneumatic Fill Overview and Parts List (Option)**, for parts list with overview drawing.

Inlet Assembly:

1. Connect the flared end of the 4" Inlet Port to one end of the 4" Inlet Roof Tube and the other end of the 4" Inlet Tube to the shorter flared end of the 40° Inlet Elbow piece using the 1/4" x 3/4" self drilling screws in all pre-drilled holes on the flanged ends.
2. Attach the 4" narrow (half) clamp section to the roof at the seam to the bin with a carriage bolt and flange nut. *(We recommend you do this before you attach the tube assembly to the roof section or insert the Side Fill tube for easier install.)*
3. Apply a strip of caulking on both sides of the line of bolts between the plate and roof section. Now attach the plate at the end of the 4" Inlet Port to the roof section with the 5/16" x 1" Hex bin bolts w/washers and 5/16" Flange nuts. *(Match predrilled holes on the plate to the pre-drilled holes on the roof section. Be sure not to spin the bolt which could damage the washer. We recommend that you tighten from the nut side.)*
4. Connect the Side Fill Tube into the flanged end of the 40° Inlet Elbow piece and use the 1/4" x 3/4" self-drilling screws. (You may choose to attach to 40° Elbow before you attach the system to the roof.)

Exhaust Assembly:

1. Connect 6" Exhaust Port to the Tube section then connect the Tube section to the (flexible) Exhaust Elbow (tube ends crimped for insertion). Then use the 14 Sheet Metal screws/Neoprene washers at pre-drilled holes of the tubes to secure *as shown in Figure 41.*
2. Attach one of the 6" Clamp halves to the roof at the seam to the bin with a carriage bolt/flange nut.
3. Apply caulking between the plate and roof section. Now attach the plate at the end of the Exhaust Port to the 6" roof section with the 5/16" x 1" Hex bin bolts w/washers and 5/16" Flange nuts. (Match pre-drilled holes on plate to the pre-drilled holes on the roof section.)
4. Attach and tighten the other half of the 6" Clamp around the bottom portion of the 6" Exhaust Elbow with 5/16" Hex bin bolts w/washers and 5/16" Flange nuts to secure. (6" Clamp halves (4) included for optional Exhaust extension tube.)

Figure 39

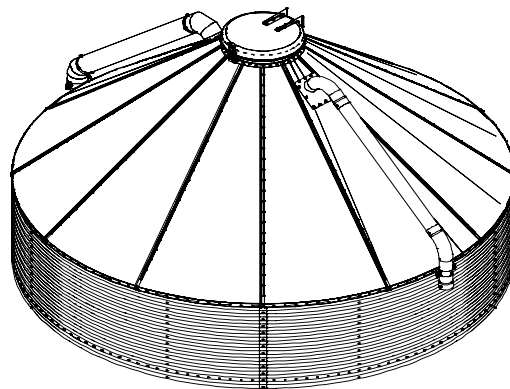


Figure 40

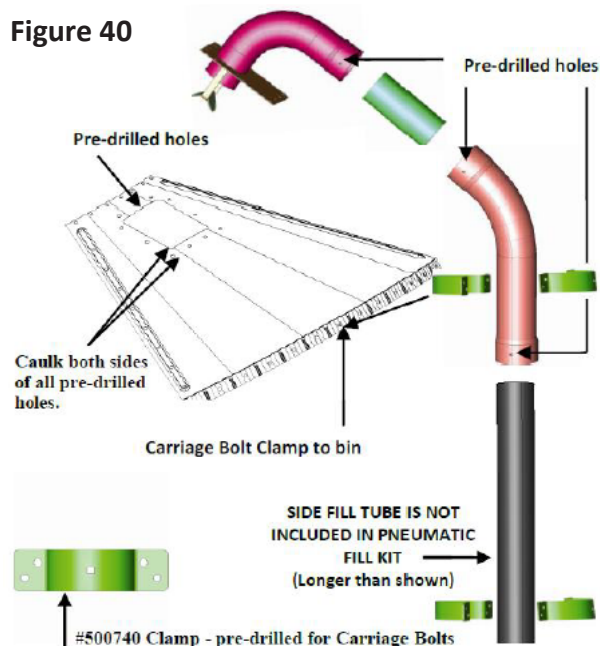
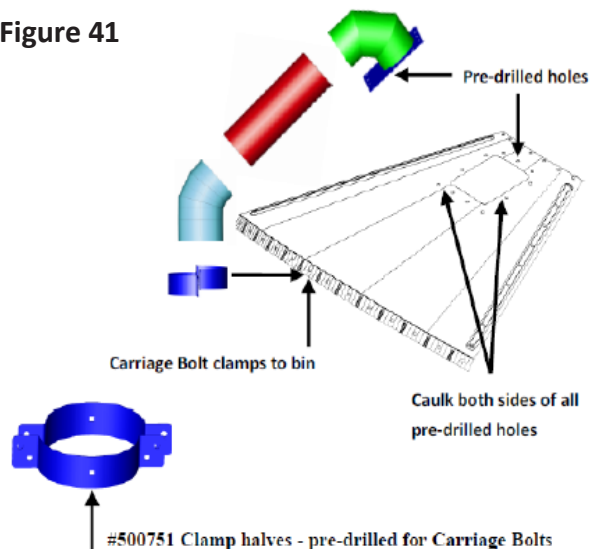


Figure 41



Vertical Assembly-(REQUIRED for 4-7 Ring Bins)

To finish assembling the bin, you will need a crane or boom/rig with the proper lifting height and capacity to lift your completed bin. Failure to properly handle and secure the bin can result in serious injury or equipment damage.

Lifting can be done with an appropriate heavy gauge steel chain which meets the weight requirements of the completed bin. This chain should be connected to a qualified heavy gauge steel device (engineered according to weight and product specifications) which has been mounted to the collar.

NOTE: VAL-CO™ does not at this time provide a Bin Lifting Kit for the 12 ft Feed Bin and is not responsible for safety issues, Bin Lifting design or method of lifting the bin for assembly.

1. After checking that the bin is safely secured, raise the bin high enough to slip the next hopper sheet to the inside of the previous ring. Refer to the parts list drawing from the Corrugated Hopper Assembly / Caulking Instructions section to find which ga. corrugation is to be used next.

Remember! corrugation always goes from lightest at top to heaviest on bottom.

2. Be sure to caulk corrugated hopper sheets the same as previously done on the first ring and stagger the seams by 1/2 of a sheet as these are shown in Figure 43.

Be sure that you place each new hopper sheet on the inside of the previous top ring. DO NOT TIGHTEN BIN BOLTS UNTIL ALL HOPPER SECTIONS ARE ASSEMBLED AND THE TOP COLLAR TO THE BOTTOM TAPER PANEL IS INSTALLED. THEN YOU MAY TIGHTEN ALL BIN BOLTS. Be sure to tighten from the flange nut side. Using the bin bolt head to tighten bolts can damage the rubber seal and may lead to possible leaking problems. This will be done after legs are installed.

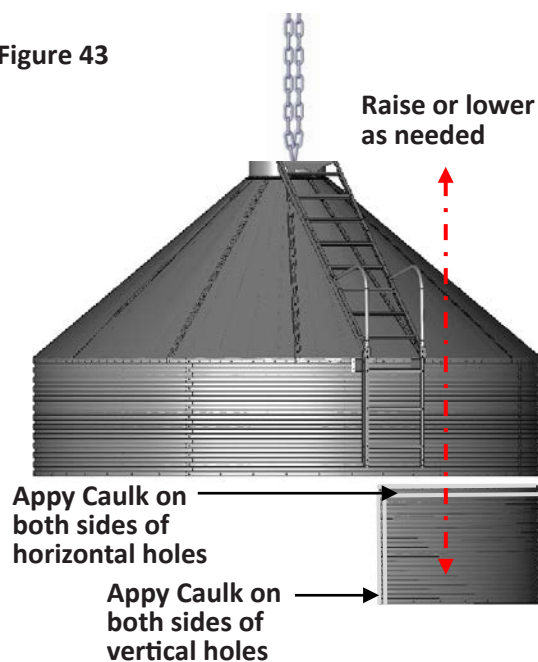
REMINDER - assemble extension ladders, lid opener, accessories , or Pneumatic Fill Tube Extensions as you assemble each ring of the corrugated hopper sheets. Continue assembling the bin in this manner until you have completed adding all hopper sheets, ladder extensions, accessories, and Pneumatic Fill Tube Extensions as required according to the number of rings for your bin.



Figure 42



Figure 43

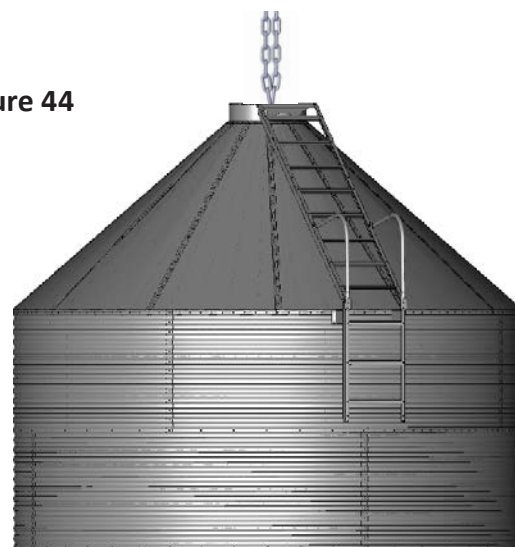


NOTE: VAL-CO™ is NOT responsible for Bin Lifting Assembly Methods. Safety and Method are the responsibility of the assembler.

Vertical Assembly - Extension Ladder Assembly

At this point in the manual we will concentrate on basic bin assembly and not detail bin lifting.

Figure 44



3. Continue adding the appropriate hopper sheets according to the number of rings you are assembling. *Refer to the parts list drawing from the Corrugated Hopper Assembly / Caulking Instructions section to find which ga. corrugation is to be used.* Caulk all holes on both sides, using the same method as previously instructed, until you have completed the 2nd ring.
4. Remove the bin hardware in (2) holes for each 500031 Ladder Bracket that align with the 500195 Top Brackets. **(There will be one set of Ladder Brackets for each hopper ring.)** Now attach the 500031 Ladder Brackets in alignment with the 500195 Top Brackets, as shown in Figure 44 on this page, with the hardware that you just removed.
5. Slip next Extension Ladder Assembly inside bottom of previous ladder and assemble to each other and adjacent Ladder Brackets with (4) 010643 5/16" x 3/4" Hex bolts and 012789 Locknuts.

Repeat these instructions with each ladder extension.



500195
Top Brackets



500031
Ladder Brackets

Figure 45

500191 Extension
Ladder Assembly

500031
Ladder
Brackets

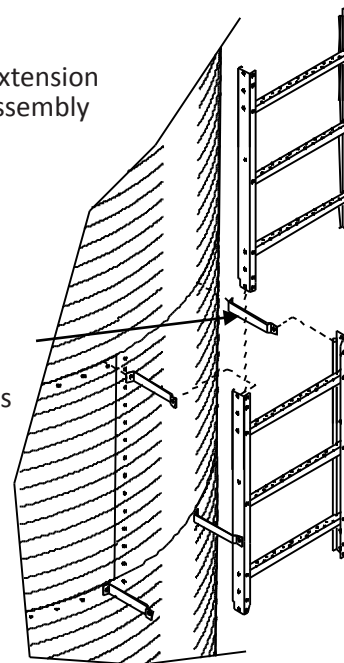
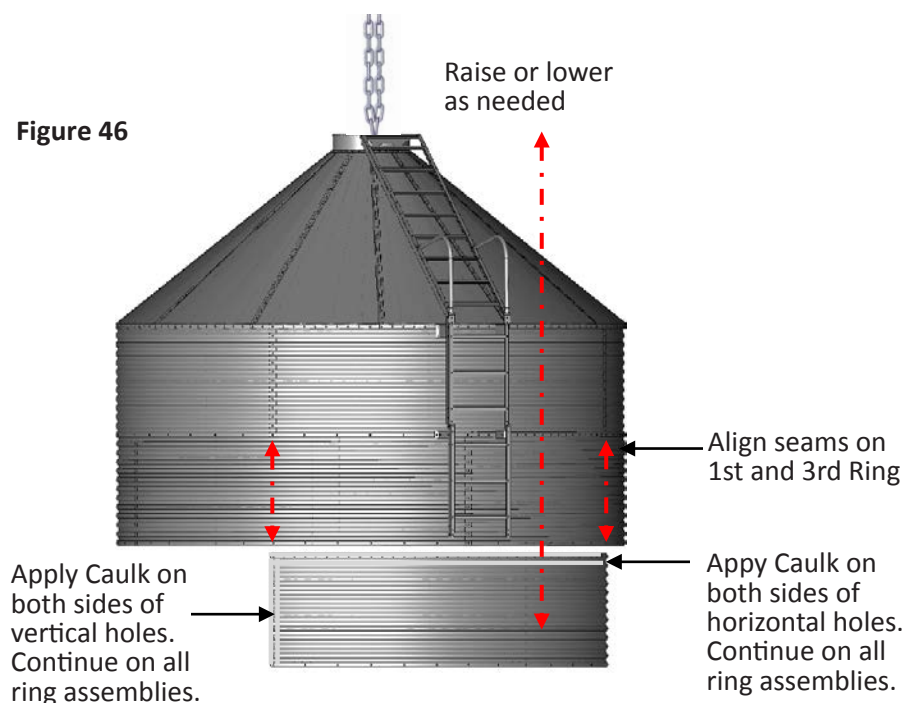


Figure 46



Vertical Assembly - Extension Ladder Assembly - continued

Figure 47

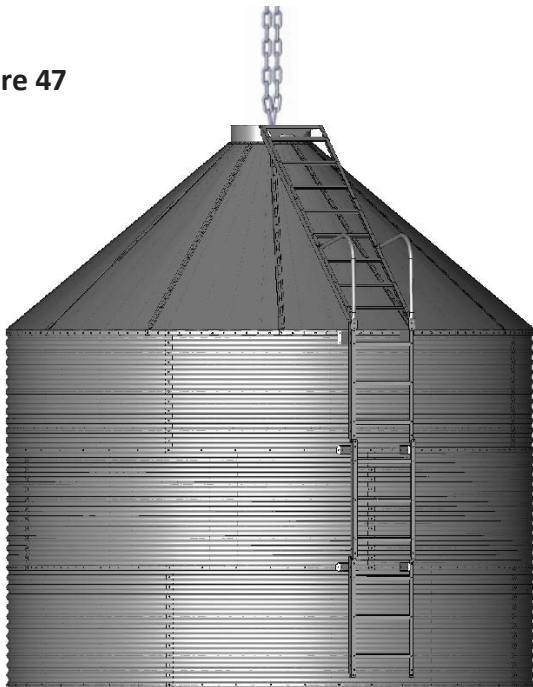


Figure 49

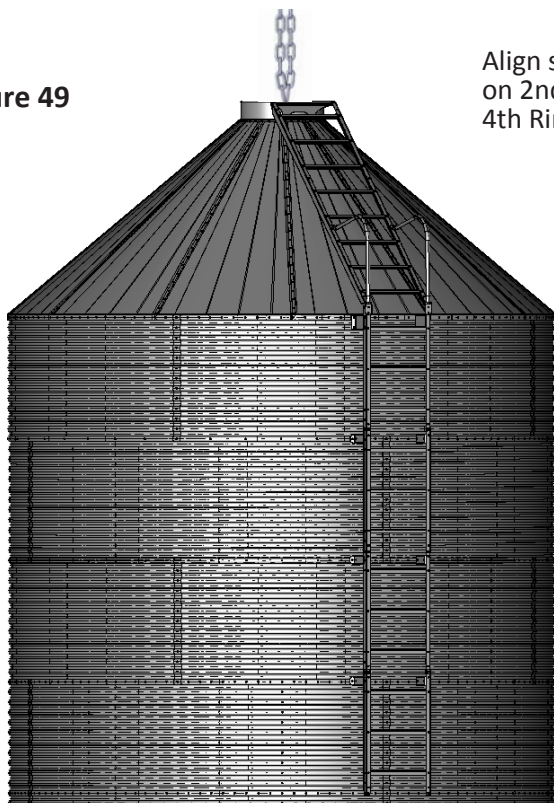
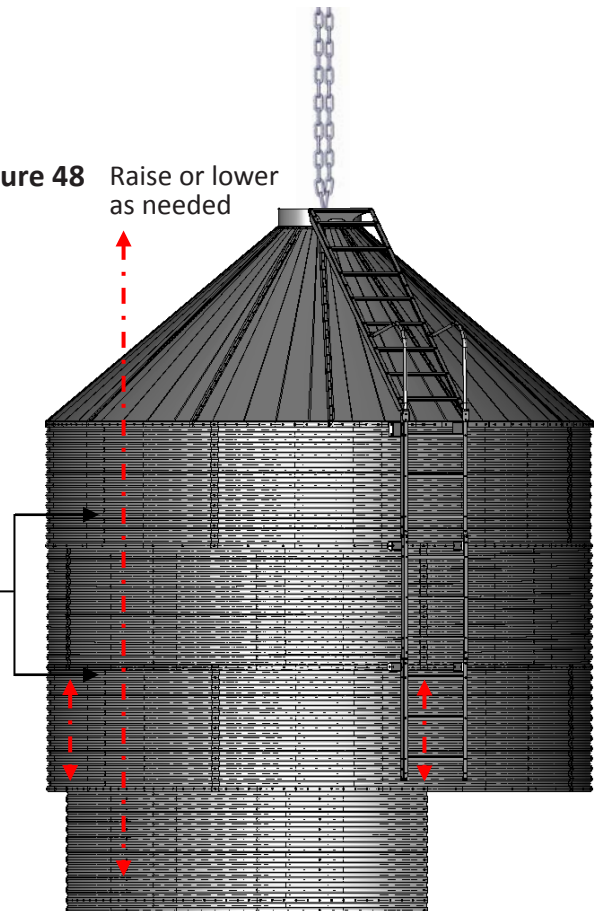


Figure 48 Raise or lower as needed



After you have finished assembling all the hopper sheets on a 1-7 ring bin you are ready to attach the bin legs. Directions on how to assemble the legs will follow on the next page Under Leg Assembly.

Leg Assembly - (Vertical 1 - 5 Rings)

1. Begin by assembling the Upper 500156 and Lower 500155 Leg Base Plates to the bottom of each leg using (3) 010664 3/8" x 1" Hex Bolts, 010253 3/8" Lock Washers and 011115 3/8" Nuts. *as shown in Figure 50 and 51.*

To assemble legs you will continue to need someone inside the bin to push bolts thru holes.

Figure 48

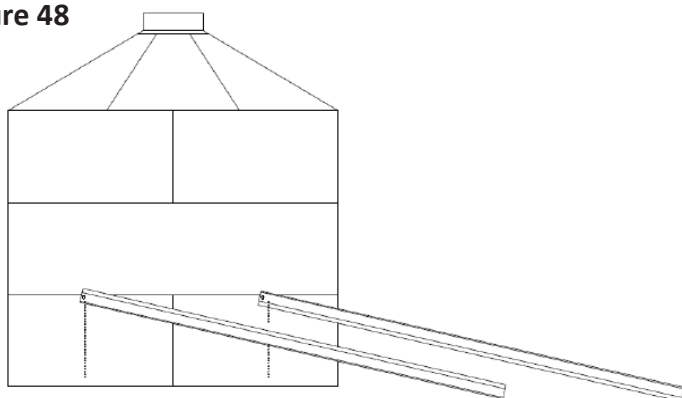


Figure 50

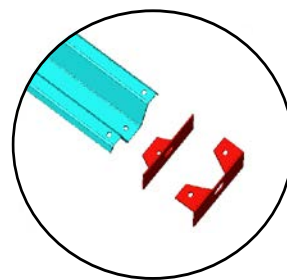


Figure 51

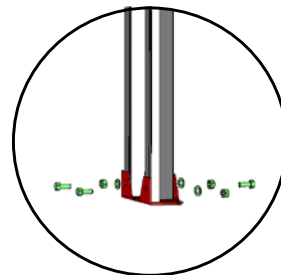


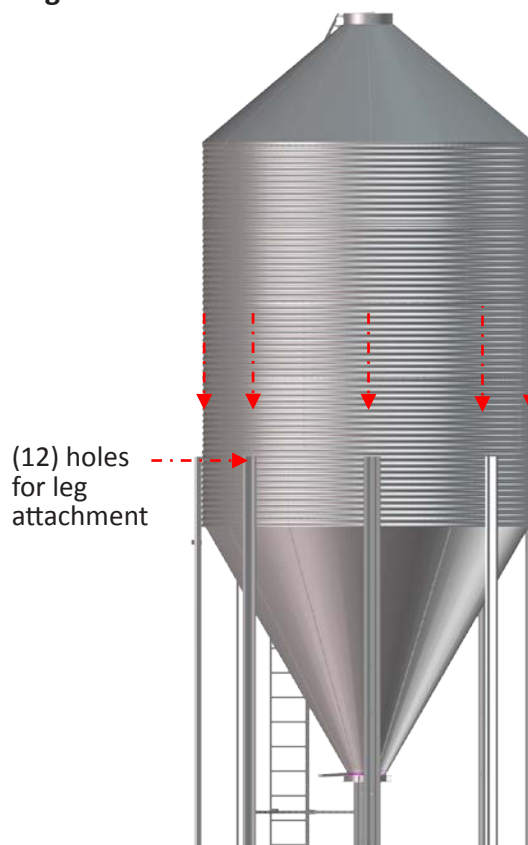
Figure 52

2. After base plates are assembled loosely attach the top hole of each leg to top leg hole in bottom ring *as shown in Figure 48, above*, with (1) 501442 bin bolt and 501441 Flange Nut. ***Bolt heads go to inside of bin.***
3. Position legs around bin all in same direction as shown above. When all legs are attached you will need to raise bin slowly and reposition legs as bin is raised until legs are hanging straight down bin *as shown in Figure 52.*
4. Use properly secured ladders to finish assembling legs to bin. Attach the 512024 (171") bin leg to the (12) leg holes in the bottom ring *as shown in Figure 52.*

Leave second from bottom hole open to **attach taper hoppers later**. Set bin down after legs are secured.

Use a Drift Pin from the outside of the bin as previously instructed, for aligning holes.

REMINDER: Tighten all bin bolts from the flange nut side. Using the bin bolt head to tighten bolts can damage the rubber seal and may lead to possible leaking problems.



This example shows (1) leg missing to detail holes and other legs attached with red arrows to detail placement of legs continuing around bin ring.

Leg Assembly - (Vertical 6 - 7 Rings)

1. Assemble the same as the 1-5 Ring bins as described in steps 1-4 above and shown in Figure 50. Be sure to use the 512039 (202.8") bin legs.

The 512039 202.8" bin leg will require the bottom two rings or (24) holes. When attaching either the 6th or 7th ring be sure to align the bottom ring seams to the previously assembled ring so that the vertical sets of (12) holes on each hopper sheet align as shown in Figure 53 to right.

Leg and Brace Assembly

1. Assemble 512230 Front Cross Angle and 512231 Rear Cross Angle together in center with 012240 7/16" x 1" Hex Bolt, 010254 7/16" Lock-washer and 011116 Nut as shown in Figure 54.
2. Position between pair of legs using holes as shown in Figure 54 and fasten with same 7/16" hardware as above. Ends of angles with longer tabs go to the top of the legs. Alternate positioning of ends is recommended for best fit.

EXAMPLE: If top end of angle is over adjoining angle then bottom end of that angle should be under the adjoining angle) Repeat assembly until all cross braces are assembled. Do not tighten nuts until all bracing is finished.



Figure 53

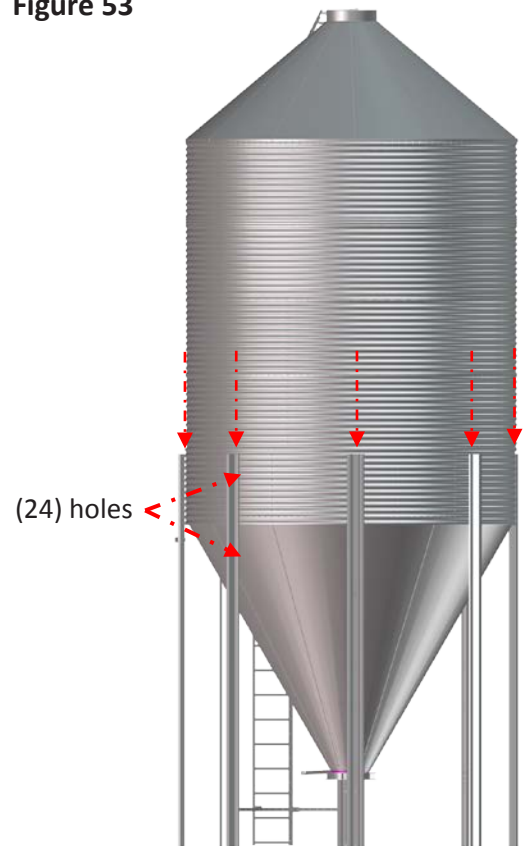


Figure 54

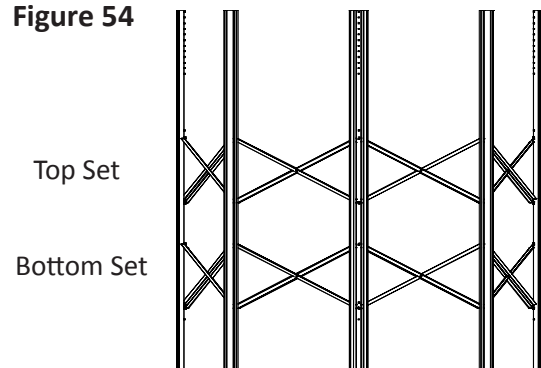
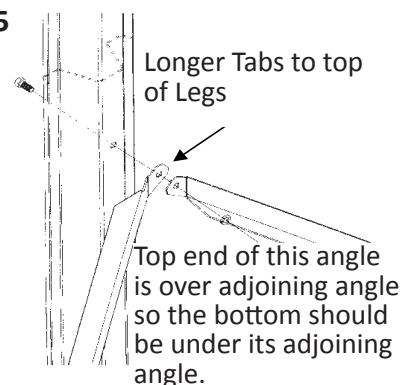


Figure 55



Taper Hopper Assembly

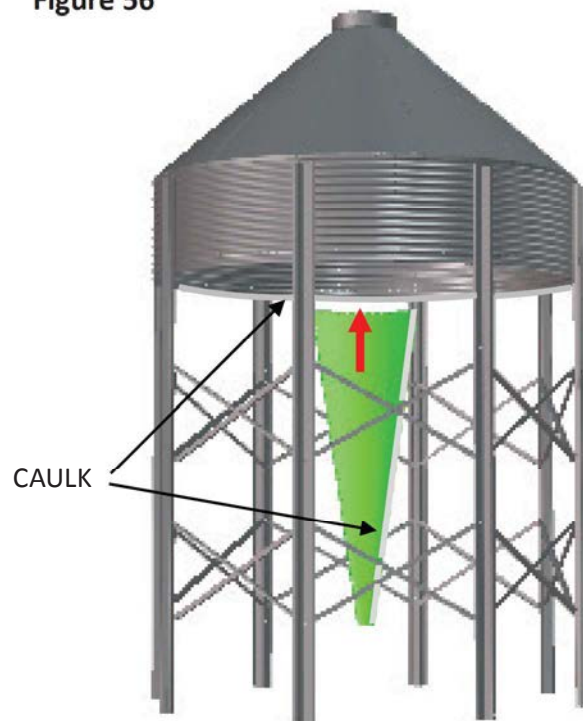
To assemble taper hoppers to bin you will need (5) people, (2) on ladders to align and assemble taper hoppers to corrugation and to assemble top part of vertical seams, (2) on the ground to position parts and assemble bottom half of vertical seams and (1) on a straight ladder inside the bin for the last taper hopper. Be sure to have sturdy, stable ladders to work from. (1) Straight ladder must be narrow enough to fit thru collar and long enough to lean against corrugation from the ground.

Optional: Taper Hopper angle bracing is available and if used should be assembled to each taper hopper seam as you perform assembly.

NOTE: It is important to start with a taper hopper seam aligned with a leg.

1. Caulk inside horizontal holes on corrugation and along each vertical seam making sure both sides of holes are caulked thoroughly to avoid leaking.
2. Use 501442 hex bin bolts and 501441 flange nuts along horizontal seam keeping bolt heads to outside except for leg holes. Use 501440 Truss Bin bolts and Flange Nuts for all vertical taper hopper seams keeping bolt heads to inside of bin. **Leave bottom hole open for collar.** See Figure 56 for this example.
3. Before assembling the last Taper Hopper section, which will allow just enough flex, to slightly spread the gap for inserting the 512200 HD Taper Hopper Boot Collar, to slip in and up through, the inside of the bottom end of hoppers as shown in Figure 57. Caulk as detailed in step 7 on next page.

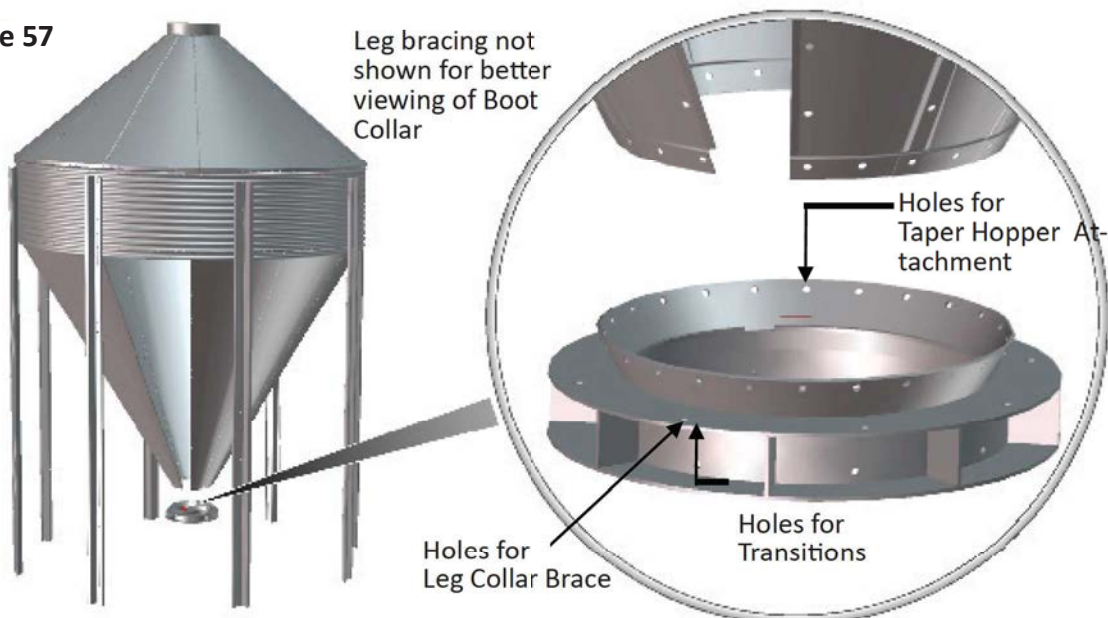
Figure 56



Caulk on inside Bottom Hopper Sheet along both sides of horizontal holes.

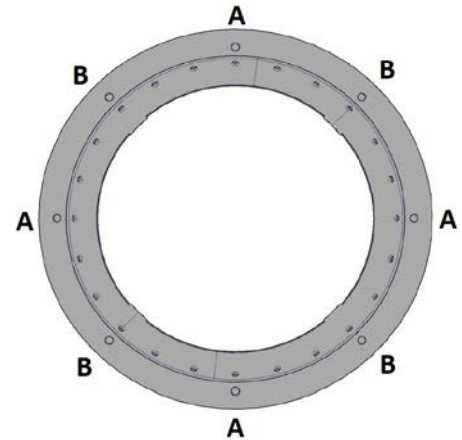
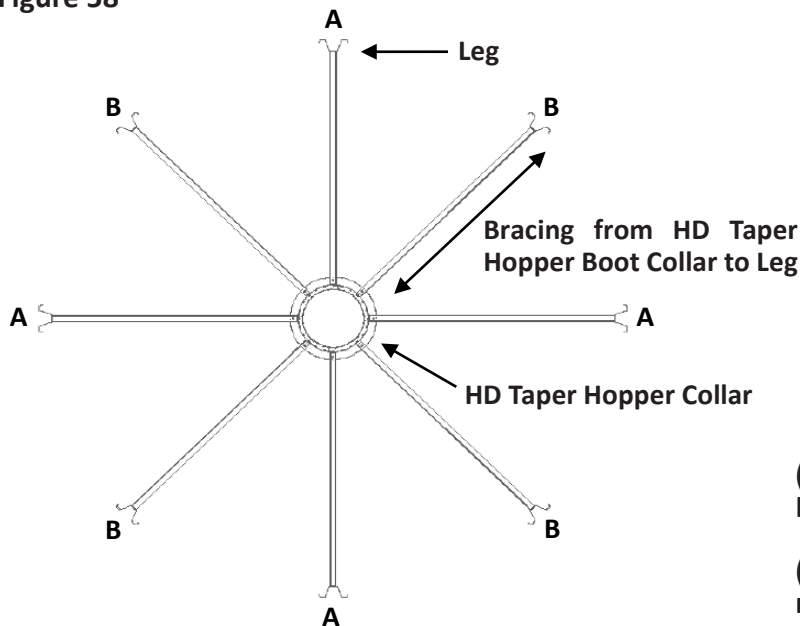
AFTER THE BOOT COLLAR IS INSTALLED place the straight ladder inside the bin thru the Boot Collar and TIGHTEN ALL BOLTS OF THE HOPPER AND TAPER PANELS.

Figure 57



HD Taper Collar Bracing

Figure 58



(4) Legs and Braces will align with a Taper Hopper seam. (A)

(4) Legs and Braces will align with the middle of a Taper Hopper section. (B)

Note positioning of holes in HD Taper Hopper Boot Collar.

4. Align collar so holes in HD Taper Hopper Boot Collar Plate align directly with legs. See Figure 58 above and 54 on previous page for reference.

5. Temporarily fasten a couple of leg-collar braces in place to be sure collar is properly aligned.

NOTE: BRACE MUST POINT TO OPPOSITE LEG OR BIN COMPONENT FAILURE MAY RESULT.

6. When aligned, remove temporary braces and caulk around collar to Taper Hopper seam covering both sides of holes. Use same hardware as used on vertical seams. Assemble last Taper Hopper same as previous hoppers.
7. Attach collar to each bin leg with 512232 leg-collar braces using 012240 7/16" x 1" hex bolts, 010254 lock washers and 011116 nuts on collar end and 011475 7/16" x 1" carriage bolts, 010433 7/16" flat washers and 011116 nuts on leg end.

Use square hole in leg for carriage bolts.

Figure 59



Figure 60



Side Ladder Assembly

1. To finish assembling side ladder, get (2) 512051 Ladder Standoff Rails and assemble between legs using 010643 5/16" x 3/4" bolts and 012789 5/16" locknuts as shown in Figure 61.

2. Assemble (2) 500031 Ladder Brackets to Top Ladder Standoff Rail with 010643 bolts and 012789 locknuts.

Be sure to align brackets with extension ladders previously assembled to bin.

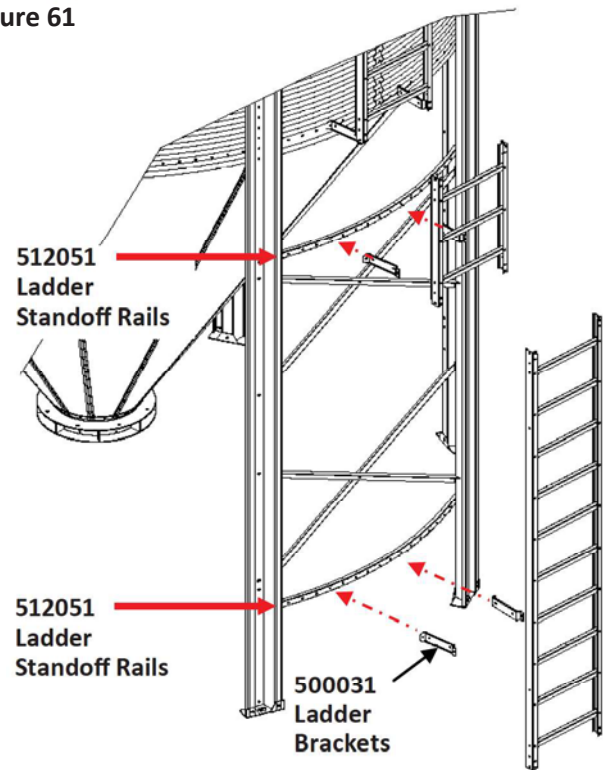
3. Assemble 500191 Extension Ladder to the bottom Extension Ladder. Attach to the Ladder Brackets on Top Standoff Rail.

4. Attach 500196 Basic Ladder Assembly to bottom Extension Ladder with same hardware used above.

5. Assemble to both Ladder Brackets on each Standoff Rail also using same hardware. Be sure all bolts protrude to inside of ladder.

NOTE: Make sure all locknuts are tightened securely before proceeding to next step. Do not over-torque locknuts.

Figure 61



Leg Anchoring

1. Check that each leg is square with foundation and shim as necessary to assure squareness.

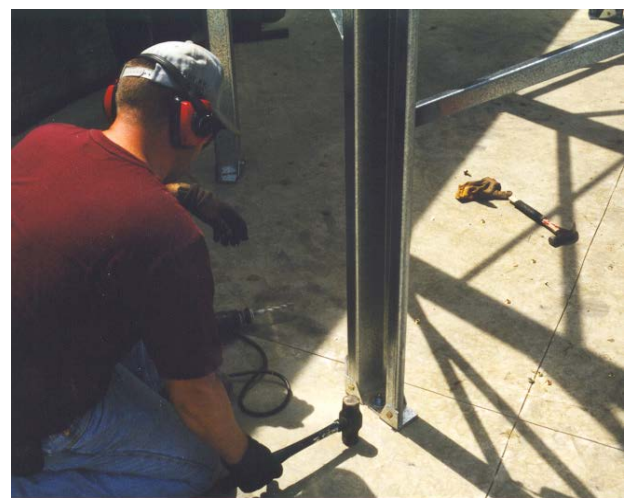
NOTE: LEGS MUST BE ANCHORED PROPERLY!

2. Double check all dimensions before anchoring secure.

Figure 62 Side Ladder Assembled



Figure 63 Anchored to Foundation



Position all legs according to the *Foundation and Anchoring Specifications* section and secure legs to foundation.

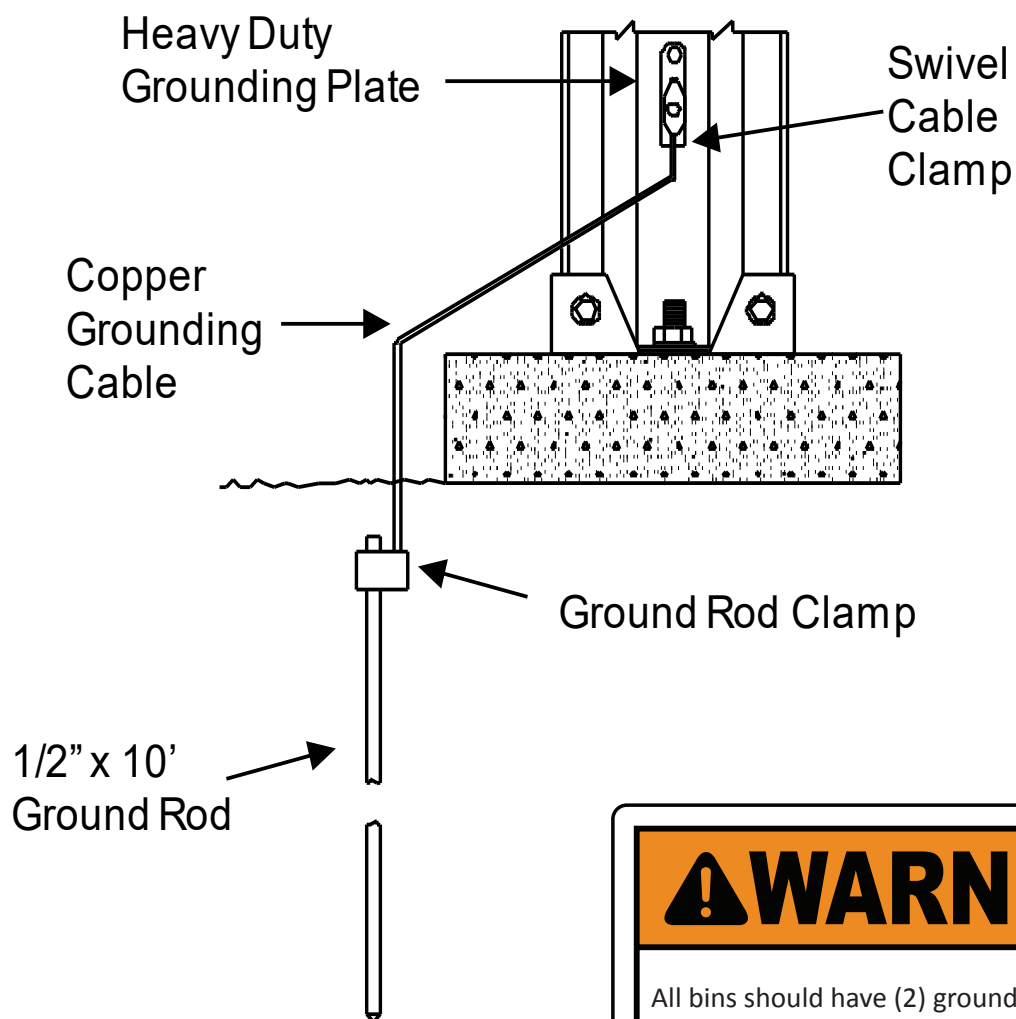
Bin Grounding Instructions

All bins should have (2) grounding connections placed at approximately equal distance around bin. Refer to drawing below for proper grounding specifications. Parts can be purchased at your local electrical retailer.



Be sure bin is grounded according to national electrical code.

Figure 64



WARNING

All bins should have (2) ground connections placed at equal distances around bin. Refer to the drawing for proper grounding. Parts can be purchased at local electrical retailers. ***Be sure bin is grounded according to the National Electrical Code.***

12 Ft Feed Bin - Common Parts List

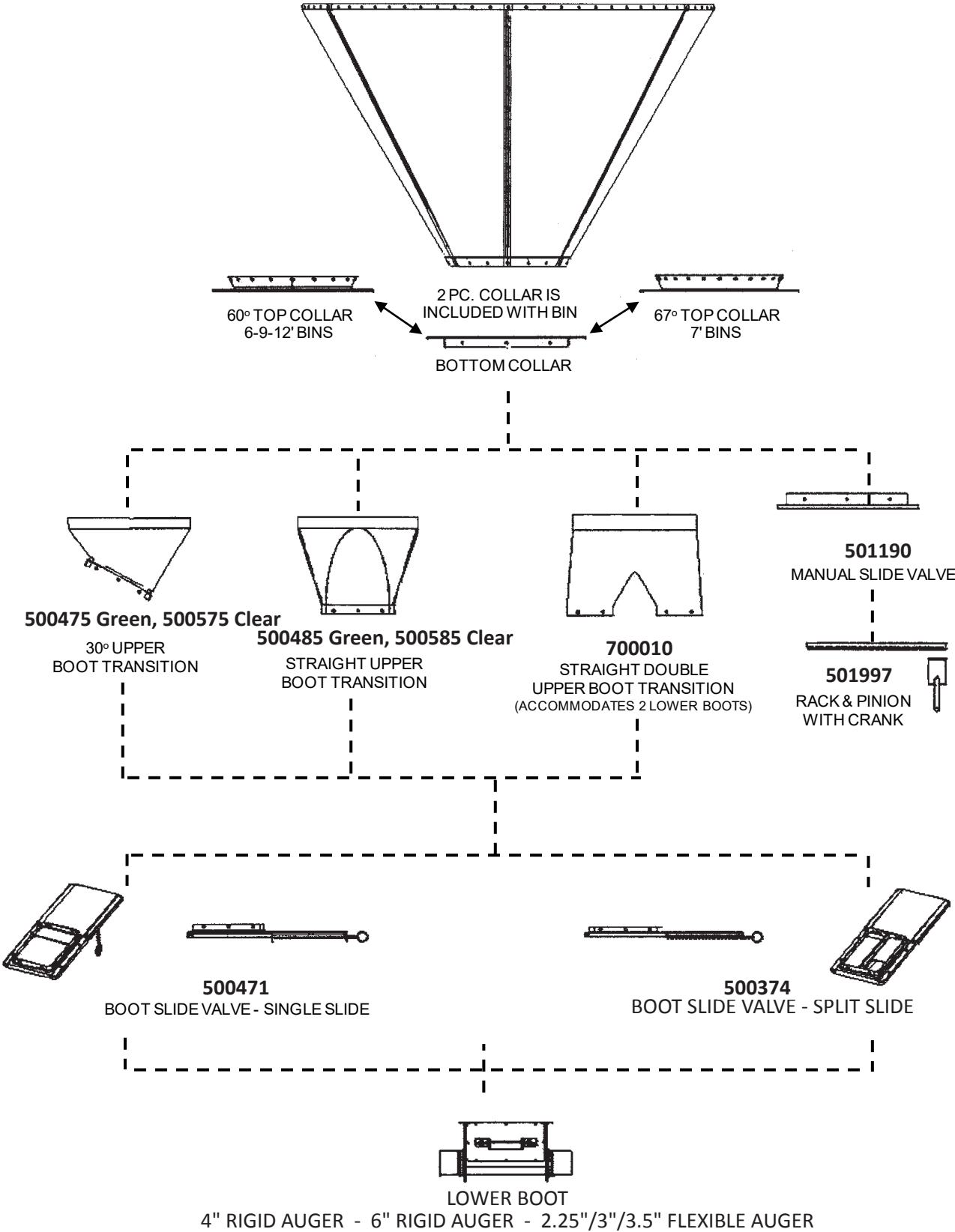
BIN SIZE & OPENING		12' - 16" OPENING							12' - 16" OPENING						
OPENER TYPE		WAY-BACK OPENER							PNEUMATIC FILL ROOF						
NUMBER OF RINGS		1	2	3	4	5	6	7	1	2	3	4	5	6	7
ORDER NUMBER		512W41	512W42	512W43	512W44	512W45	512W46	512W47	512741	512742	512743	512744	512745	512746	512747
PART #	DESCRIPTION	QUANTITY							QUANTITY						
500650	Way-Back Lid Carton	1	1	1	1	1	1	1	0	0	0	0	0	0	0
500790	40° Pneumatic Fill Kit Lid Carton	0	0	0	0	0	0	0	1	1	1	1	1	1	1
512008	20 ga. Extension Hopper - Plain	0	3	3	7	7	7	7	0	3	3	7	7	7	7
512009	20 ga. Extension Hopper - Decal	0	1	1	1	1	1	1	0	1	1	1	1	1	1
512011	18 ga. Main Hopper - Plain	0	0	4	0	4	4	4	0	0	4	0	4	4	4
512014	14 ga. Extension Hopper - Plain	0	0	0	0	0	0	4	0	0	0	0	0	0	4
512018	14 ga. Taper Hopper Section	12	12	12	12	12	12	12	12	12	12	12	12	12	12
512021	Taper Hopper Reinforcement Brace	0	0	12	12	12	12	12	0	0	12	12	12	12	12
512024	Galvanized Leg - 170.88" (1-5R)	8	8	8	8	0	0	0	8	8	8	8	0	0	0
512035	16 ga. Main Hopper - Extension	0	0	0	4	0	4	4	0	0	0	4	0	4	4
512037	14 ga. Main Hopper - Extension & Leg	0	0	0	0	4	4	4	0	0	0	0	4	4	4
512038	14 ga. Main Hopper - Plain w/ Drip Edge	3	4	4	4	0	0	0	3	4	4	4	0	0	0
512039	Galvanized Leg - 202.88" (6-7R)	0	0	0	0	8	8	8	0	0	0	0	8	8	8
512040	12 ga. Main Hopper - Plain w/ Drip Edge	0	0	0	0	4	4	4	0	0	0	0	4	4	4
512041	14 ga. Main Hopper - Decal w/ Drip Edge	1	0	0	0	0	0	0	1	0	0	0	0	0	0
512059	Basic Caulking Carton	1	1	1	1	1	1	1	1	1	1	1	1	1	1
512072	Extension Hardware Carton	0	1	2	3	4	5	6	0	1	2	3	4	5	6
512160	Basic Hardware Carton (1-7R)	1	1	1	1	1	1	1	1	1	1	1	1	1	1
512163	202.88" Leg Hardware Carton	0	0	0	0	1	1	1	0	0	0	0	1	1	1
512171	Collar Carton	1	1	1	1	1	1	1	1	1	1	1	1	1	1
512230	12 ga. Front Cross Tie Angle (1-7R)	16	16	16	16	16	16	16	16	16	16	16	16	16	16
512231	12 ga. Rear Cross Tie Angle (1-7R)	16	16	16	16	16	16	16	16	16	16	16	16	16	16
512232	12 ga. Leg-Collar Brace Angle	8	8	8	8	8	8	8	8	8	8	8	8	8	8
512422	18 ga. Roof Stiffeners 40°	12	12	12	12	12	12	12	12	12	12	12	12	12	12
512423	20 ga. Roof Deck Section	12	12	12	12	12	12	12	10	10	10	10	10	10	10
512424	20 ga. Roof Deck Section - Pneumatic Fill	0	0	0	0	0	0	0	2	2	2	2	2	2	2
OPTIONAL TRU-LOCK ADD-ON	500226	Tru-Lok Basic Tube	1	1	2	2	2	3	X	X	X	X	X	X	X
	500728	Tru-Lok Tube Guide (3-6 Ring)	0	0	1	1	1	1	X	X	X	X	X	X	X
	500729	Tru-Lok Extension Tube	2	3	0	1	2	3	0	X	X	X	X	X	X
	500763	Tru-Lok Extension Coupler Tube	0	0	1	1	1	1	2	X	X	X	X	X	X
	500775	Tru-Lok Accessory Carton 40°	1	1	1	1	1	1	X	X	X	X	X	X	X
	512727	Tru-Lok Roof Tube - 12'	1	1	1	1	1	1	X	X	X	X	X	X	X
OPTIONAL LADDER	500191	Extension Ladder	2	3	4	5	6	7	8	2	3	4	5	6	7
	512051	Ladder Stand-Off Rail	2	2	2	2	2	2	2	2	2	2	2	2	2
	512772	Basic Ladder 40°	1	1	1	1	1	1	1	1	1	1	1	1	1
	512916	Roof Ladder 40°	1	1	1	1	1	1	1	1	1	1	1	1	1
PNEUMATIC FILL OPTIONS	512640	Pneumatic Fill Kit - 12' 40°	X	X	X	X	X	X	1	1	1	1	1	1	1
	704287	4" Tube Joiner w/ Hardware	X	X	X	X	X	X	0	0	0	0	1	1	1
	704411	4" X 7' Galvanized Side Fill Tub	X	X	X	X	X	X	0	0	0	0	0	1	1
	704412	4" X 11' Galvanized Side Fill Tub	X	X	X	X	X	X	1	0	0	0	0	0	0
	704413	4" X 15' Galvanized Side Fill Tub	X	X	X	X	X	X	0	0	1	1	0	0	0
	704414	4" X 19' Galvanized Side Fill Tub	X	X	X	X	X	X	0	0	0	1	1	1	1
	704441	4" X 4' Galvanized Side Fill Tub	X	X	X	X	X	X	0	0	0	0	1	0	0



12 Ft Feed Bin Accessories - Parts List

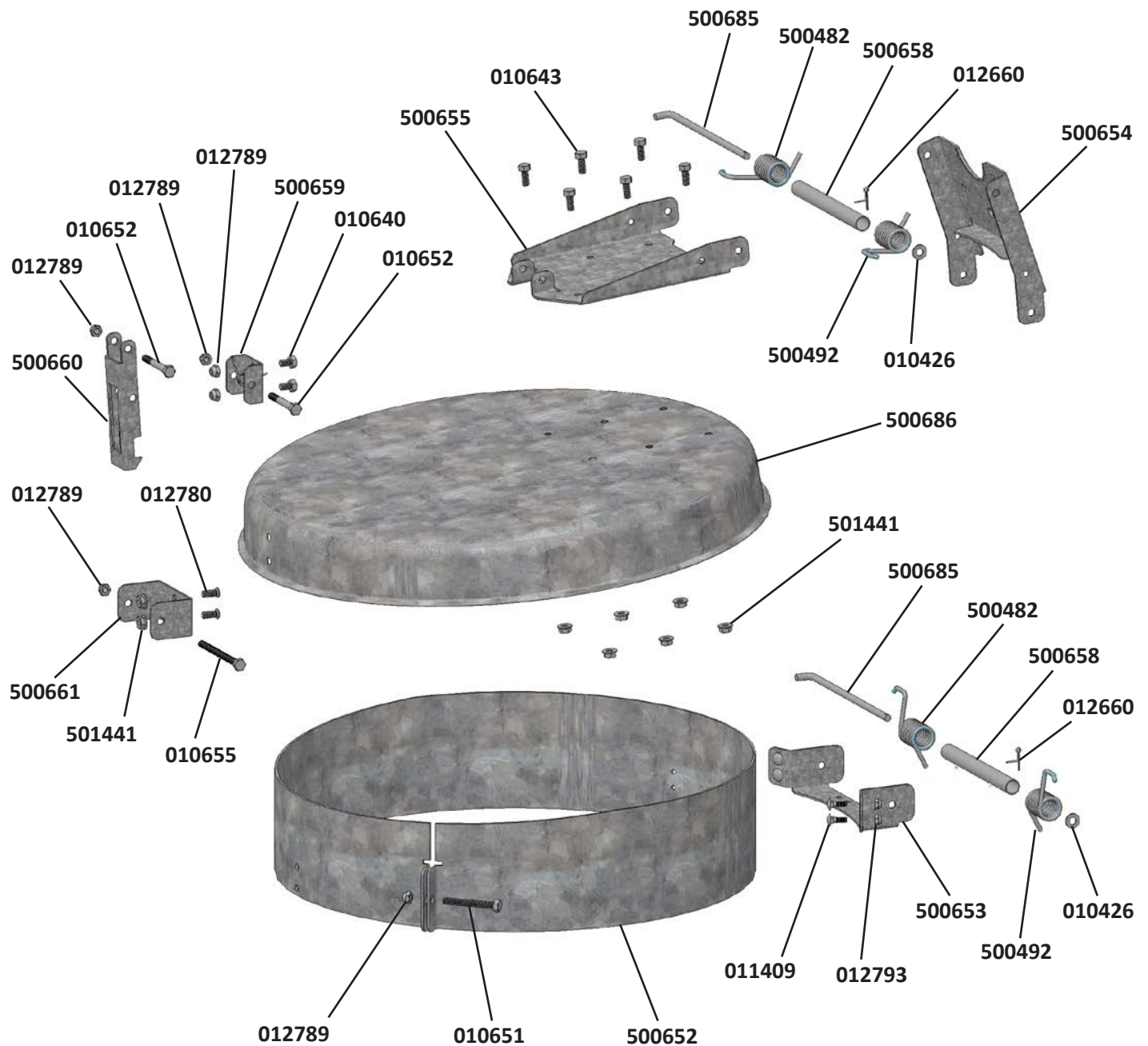
PART #	DESCRIPTION
Bin Accessories	
500388	Anchor Bolt Kit for 12' Diameter Bins
500471	16" Boot Slide Valve Assy (plastic upper boot transition required for installation)
500621	Taper Hopper Slide Valve
501190	Manual Slide Valve Assembly - 16"
501399	Roof Vent Kit - 12' Bin
501997	Optional Rack & Pinion Crank Attachment for 501190 Slide Valve
502003	Peek Thru Window
512021	Taper Hopper Reinforcement Brace (12 required per bin)
512090	6.71 ton 20 ga. Extension Ring With Hardware - 12' Bin
512091	6.71 ton 14 ga. Extension Ring With Hardware - 12' Bin
512250	12' Bin Taper Hopper Repair Kit
512515	12' Taper Hopper Access Panel
Bin 16" Opening Attachments	
500374	Boot Slide Valve - Split Slide
500471	Boot Slide Valve - Single Slide
500475	30° Upper Boot Transition - Green
500485	Straight Upper Boot Transition - Green
500575	30° Upper Boot Transition - Clear
500585	Straight Upper Boot Transition - Clear
501190	Manual Slide Valve
501997	Rack & Pinion with Crank
700010	Straight Double Upper Boot Transition (Accommodates 2 Lower Boots)

Bin 16" Opening Attachments



Way-Back Lid Assembly - Exploded Drawing (500650)

NOTE: Refer to installation instructions shipped with the Wayback Lid

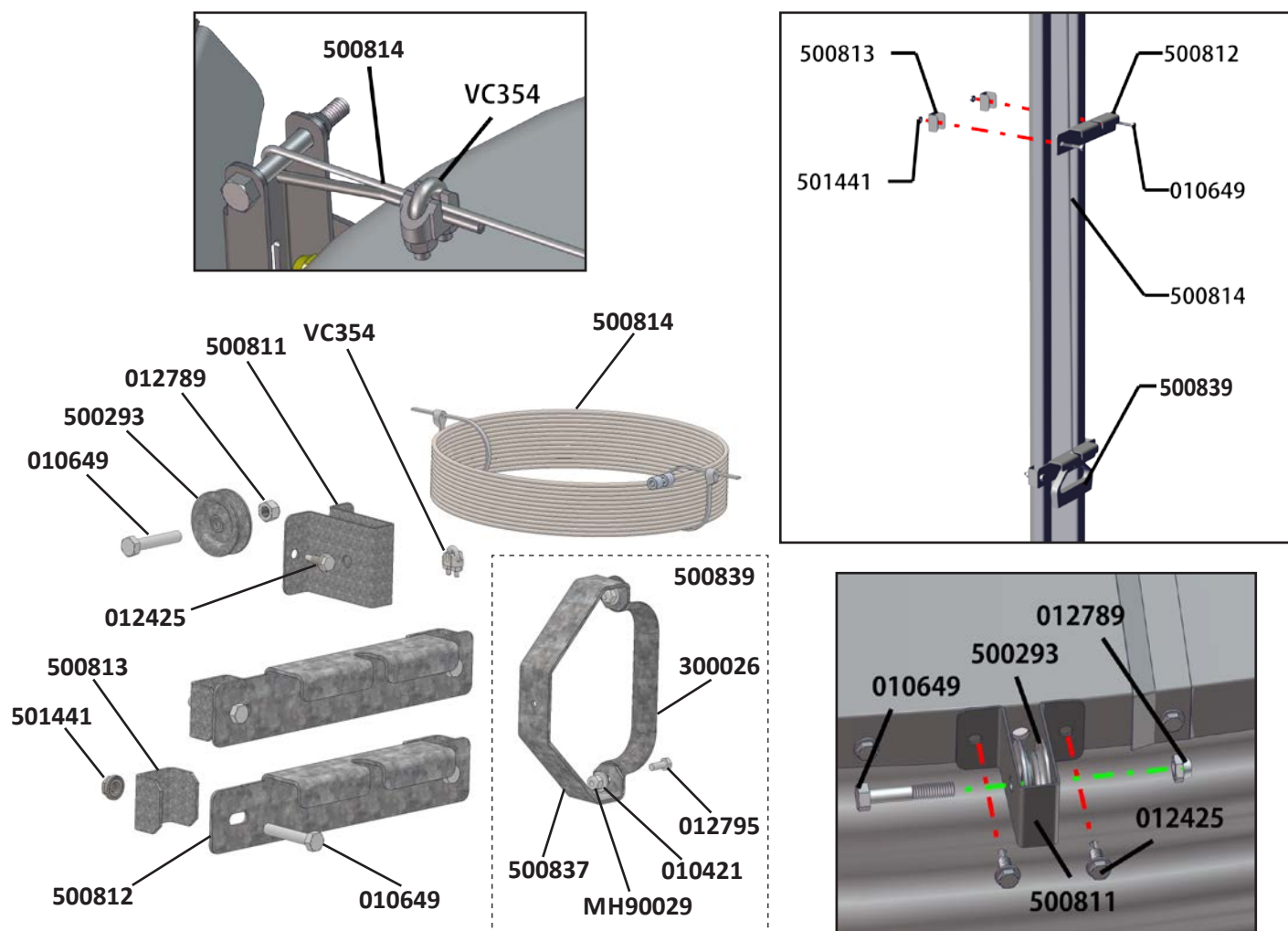


Way-Back Lid - Parts List

PART #	DESCRIPTION	QTY
500650 - WAYBACK LID OPENER (Pre-Assembled)		
010426	WASHER, FLAT 5/16" SAE ZP	2
010640	BOLT, HEX HEAD, 5/16-18 X 1/2" ZP	2
010643	5/16-18 X 3/4" HEX BOLT	6
010651	5/16" X 2-1/2" FULLY THREADED HEX BOLT	1
010652	5/16" X 2-1/2" HEX BOLT	2
010655	5/16-18 X 4" FULLY THREADED GRADE 5 TAP BOLT (YZP)	1
011409	1/4-20 X 3/4" CARRIAGE BOLT	4
012660	7/64" X 3/4" COTTER PIN	2
012780	STUD, PRESS 5/16-18" X 3/4" ZP SELF CLINCHING	2
012789	5/16-18 NYLOCK NUT	6
012793	1/4-20 NYLOCK NUT	4
500482	RIGHT HANDLE LOCK SPRING	2
500492	LEFT HANDLE LOCK SPRING	2
500638	25" X 25" X 9-3/8" CARTON	1
500652	LID LOCKING COLLAR	1
500653	BOTTOM LID HINGE BRKT	1
500654	COLLAR TO LID HINGE BRKT	1
500655	TOP LID HINGE BRKT.	1
500658	SPRING SPACER	2
500659	LID LOCKING BRACKET	1
500660	LID UNLOCKING ARM	1
500661	COLLAR LOCKING BRACKET	1
500662	LID LOCKING SPRING	1
500685	HINGE ROD L/COTTER PIN	2
500686	STACKABLE BIN LID	1
500815	HARDWARE BAG OPENER BIN LID	1
501441	NUT, HEX FLANGE 5/16"-18, ZP JS500	8

NOTE: When ordered as replacement parts quantities will vary.

Way-Back Lid Cord Containment Bracket and Retainer - Parts List



PART #	DESCRIPTION	QTY
500815 - HARDWARE BAG FOR BIN LID OPENER		
010421	3/16" FLAT WASHER	2
010649	5/16-18 X 1-3/4" HEX BOLT	5
012425	1/4" X 3/4" SELF DRILLING SCREWS	2
012789	5/16-18 NYLOCK NUT	1
012795	#10-24 X 1/2" UNSLOTTED HEX BOLT	2
300026	LID HANDLE	1
500293	PULLEY FOR LID CHAIN	1
500811	RETAINER, PULLEY	1
500812	RETAINER, HANDLE	2
500813	CLAMP, RETAINER	4
500814	CABLE ASSEMBLY, 1/8, 32.5'	1
500837	BIN LID HANDLE TOP	1
501441	5/16"-18 HEX FLANGE NUT	4
MH90029	#10-24 NYLOCK NUT	2
VC354	1/8" CABLE CLAMP	1

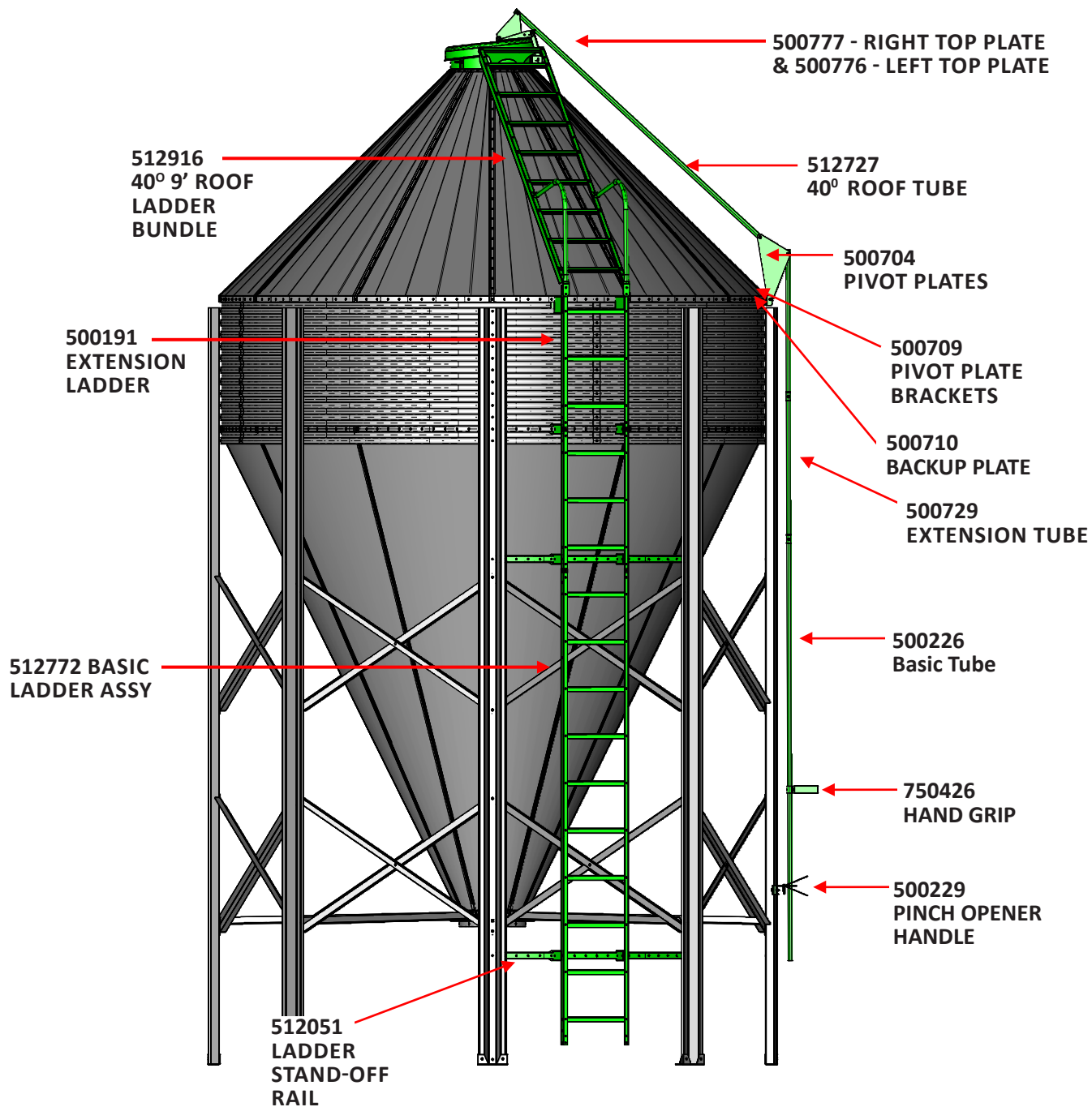
NOTE: When ordered as replacement parts quantities will vary.

NOTE: The Bin Lid Handle can be ordered pre-assembled as **500839 (BIN LID HANDLE ASSEMBLY)**

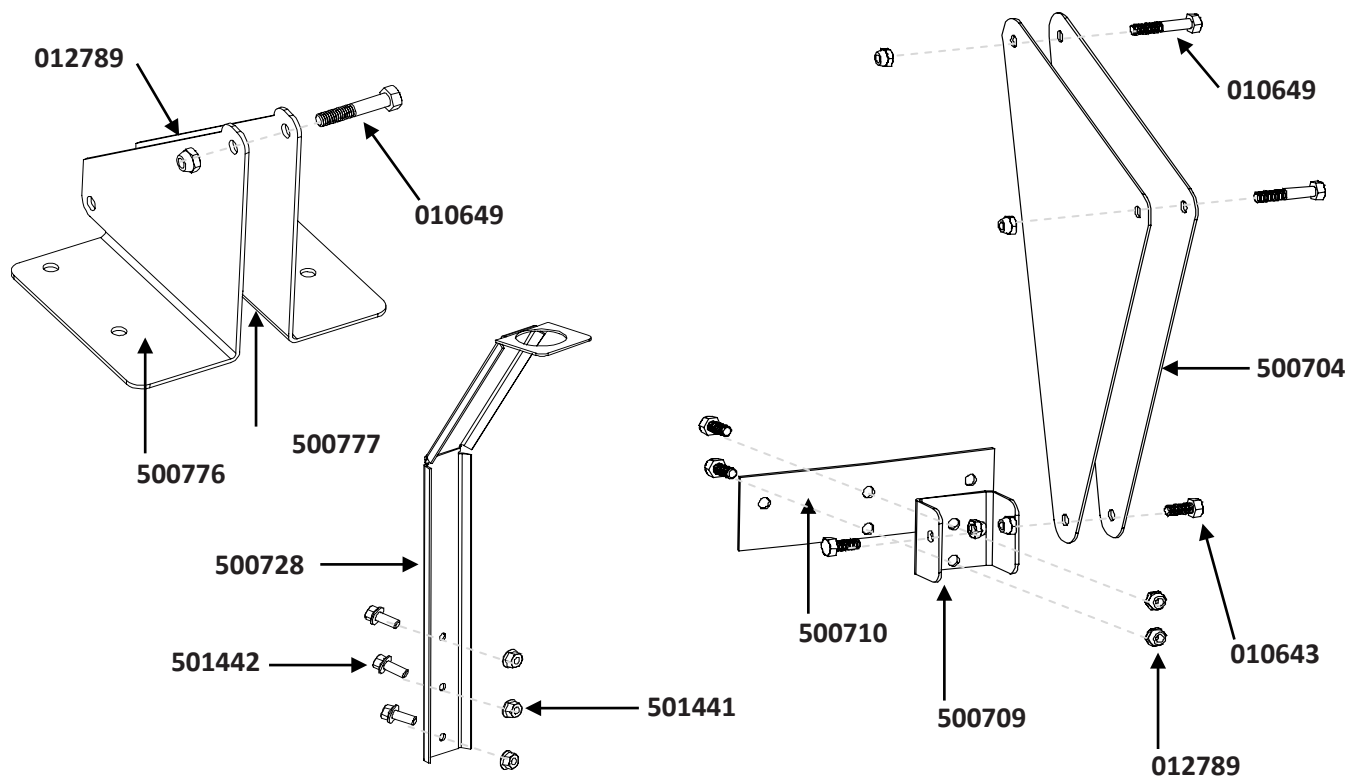


Tru-Lok Add-On Lid Opener and Ladder - Overview

NOTE: Refer to installation instructions shipped with the Tru-Lok Lid



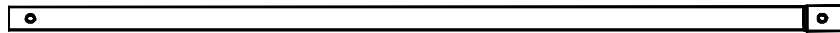
Tru-Lok Add-On - Parts Drawing (Option)



512727 Roof Tube



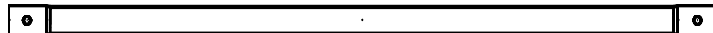
500729 Extension Tube (one (1) belled end)



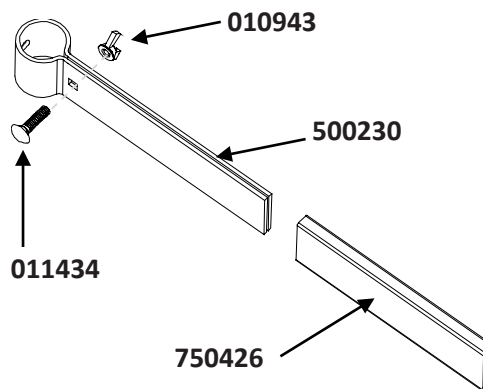
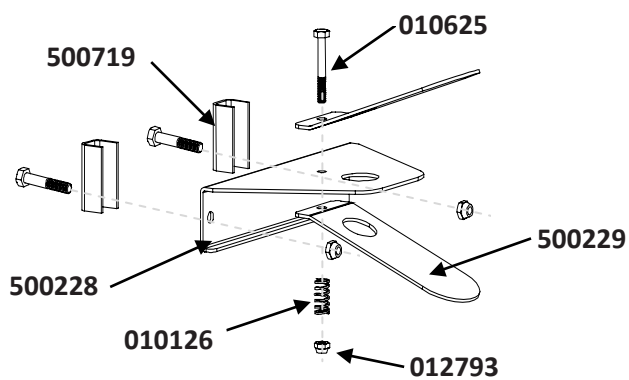
500226 Basic Tube



500763 Extension Coupler (two (2) belled ends)



NOTE: It should be noted that the Basic Tube has NO holes for connections on the bottom end and the Extension Tube has a belled end to fit over, for connection, to the Basic Tube or other Extension Tubes.



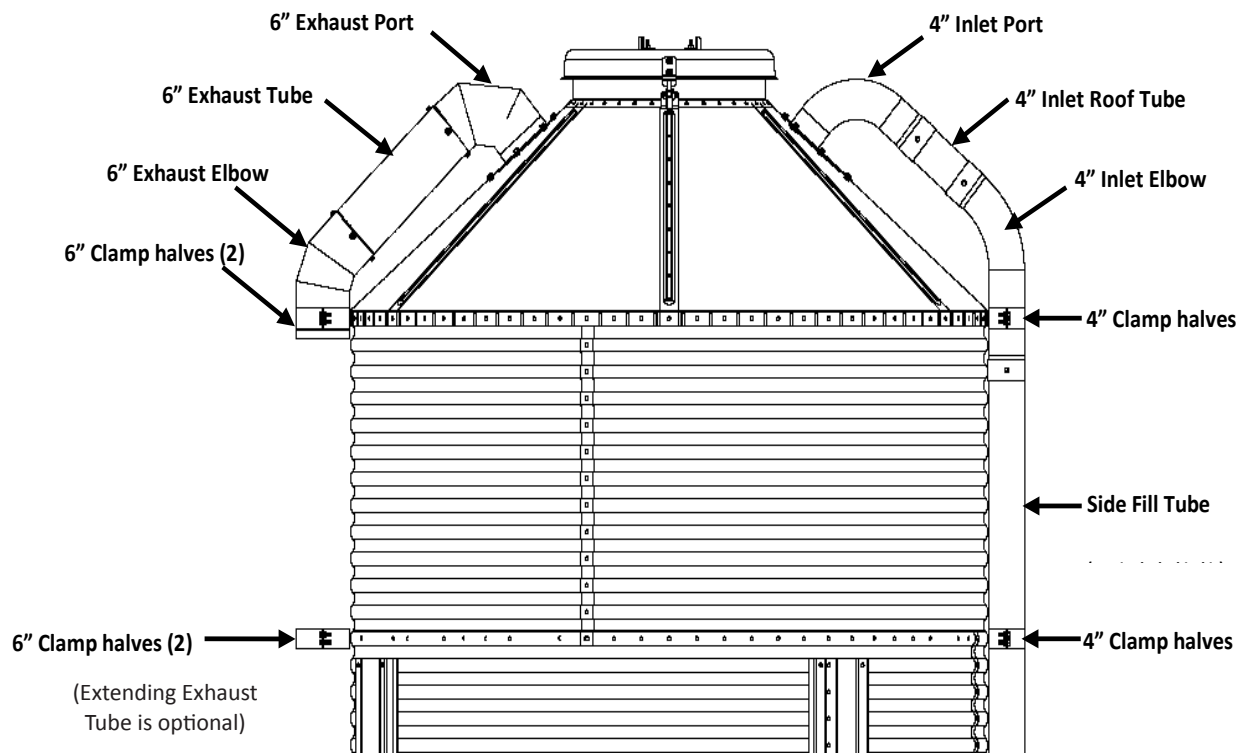
Tru-Lok Add-On - Parts List

PART	DESCRIPTION	QTY
OPTIONAL - Tru-Lok Add-On (571241, 571242, 571243, 591244, 571245, 571246, 571247)		
500775	Tru-Lok Accessory Carton	1
512727	Tru-Lok 40° Roof Tube - 12'	1
500226	Tru-Lok Basic Tube	1-3
500729	Tru-Lok Extension Tube	0-3
500728	Tru-Lok Tube Guide (Available for 3-7 Ring only)	1
500763	34" Lid Tube Ext. Coupler	0-2
Tru-Lok Add-On - REPLACEMENT PARTS (Quantities will vary)		
500777	Right Top Plate	-
500776	Left Top Plate	-
512727	40° Roof Tube	-
500704	Pivot Plates	-
500709	Pivot Plate Bracket	-
500710	Backup Plate	-
500257	Pinch Handle Assembly	-
500229	Pinch Opener Handle	-
500228	Pinch Opener Mtg Bracket	-
010126	1/2" Medium Load Spring	-
500719	Handle Bracket Clip	-
010625	1/4-20 x 2 Hex Bolt	-
012793	1/4-20 Nylock Nut	-
500230	Handle	-
750426	Hand Grip	-
010643	5/16-18 x 3/4" Hex Bolt	-
011434	1/4-20 x 1 Carriage Bolt	-
010943	1/4-20 Wing Nut	-
010649	5/16" Hex Bolt	-
012789	5/16" Locknut	-
501442	5/16" x 1" Flanged Hex Bin Bolt	-
501441	5/16" Flange Nut	-

TRU-LOK LID OPENER TUBE USAGE CHART (12' BIN)

Tube	1 RING	2 RING	3 RING	4 RING	5 RING	6 RING	7 RING
512727	1	1	1	1	1	1	1
500226	1	1	2	2	2	2	3
500729	2	3	0	1	2	3	0
500763	0	0	1	1	1	1	2

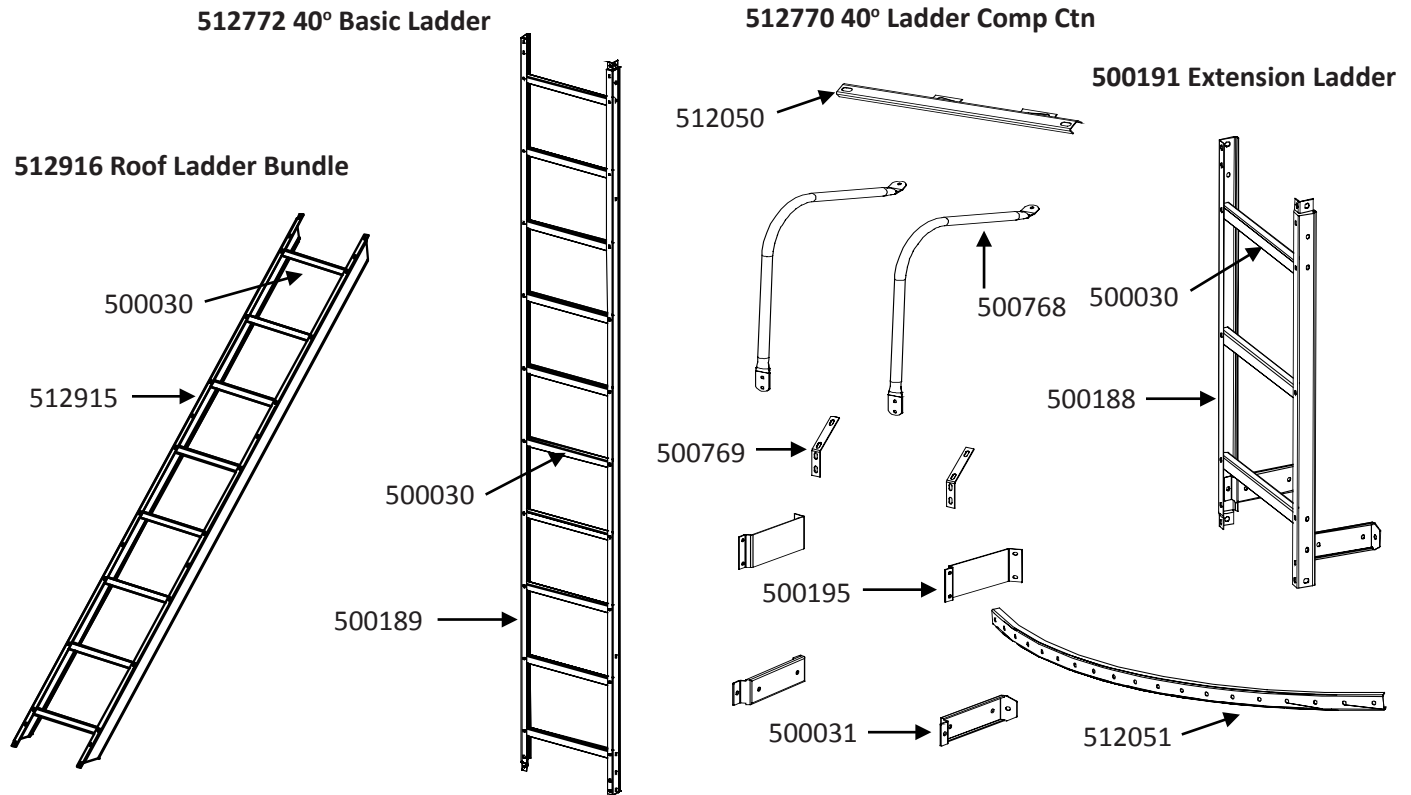
Pneumatic Fill - Overview and Parts List (Option)



When ordered as Replacement Parts the Quantities will vary

PART	DESCRIPTION	QTY
OPTIONAL - Pneumatic Fill Parts - 512640		
500534	Caulking (50' roll)	1
500740	4" Narrow Clamp (half)	6
500743	6" Exhaust Port (elbow) w/plate	1
500744	6" x 24" galv. Duct elbow	1
500751	6" Exhaust clamp (half)	6
500786	4" inlet port w/plate	1
500788	51 Degree Elbow (drilled)	1
500942	Pneumatic Fill Hardware bag	1
512425	6" x 39.87" Exhaust Tube	1
512918	4" x 32.82" Inlet (roof) Tube	1
704441	4" x 4' Galvanized Side Fill Tube (Available for 5 ring)	1
704412	4" x 11' Galvanized Side Fill Tube (Available for 1 Ring)	1
704413	4" x 15' Galvanized Side Fill Tube (Available for 2-3 Ring)	1
704414	4" x 19' Galvanized Side Fill Tube (Available for 4-7 Ring)	1
704287	4" Tube Joiner With Hardware (Available for 5-7 Ring)	1
704411	4" x 7' Side Fill Tube (6-7 Ring)	1

Ladder - Drawing and Parts List



PART	DESCRIPTION	QTY
OPTIONAL - Ladder Assemblies 512921, 512922, 512923, 512924, 512925, 512926, 512927		
512772	Basic 40° Ladder Assy	1
500191	Extension Ladder (Quantity will equal the number of Rings +1)	2-8
512051	Ladder Stand-Off Rail 12'	2
512916	40° 12' Roof Ladder Bundle	1
Ladder - REPLACEMENT PARTS (Quantities will vary)		
010643	5/16-18 X 3/4" Hex Bolt	-
012789	5/16-18 Nylock Nut	-
500030	Ladder Step	-
500189	Ladder Rail (108")	2
512770	12' - 40 DEG Ladder Comp Ctn (includes Ladder attach. brackets, top brackets, hdwr bag, standoff, handrail and Roof Ladder Brkt/connecting angle)	1
500031	Ladder Attachment Bracket	-
500195	Ladder Top Bracket	-
512050	Roof Ladder Standoff	1
512287	Ladder Hdwe Bag	-
500768	40 DEG Ladder Top Handrail	2
500769	40 DEG Roof Ladder Bracket	2
512915	40° Roof Ladder Rail	2

Optional Side Assembly for 1-3 Ring Bins ONLY

1. Follow the **Corrugated Hopper Assembly / Caulking Instructions** for vertical assembly.
2. Tip assembled Hopper Sheet Ring on its side as shown in the Figure 66 below to finish assembly.
3. Attach Taper Hopper sections as shown in Figure 67.
4. Attach Upper and Lower Leg Base Plates to Legs.
5. Attach each 512024 leg to the (12) holes as shown in Figure 68 below.

Figure 65

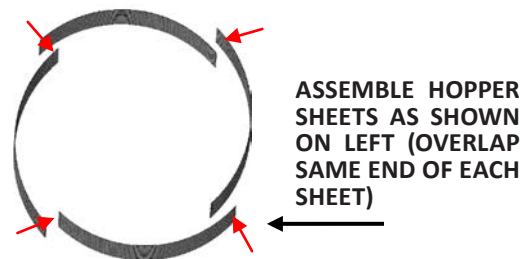


Figure 66



Figure 67

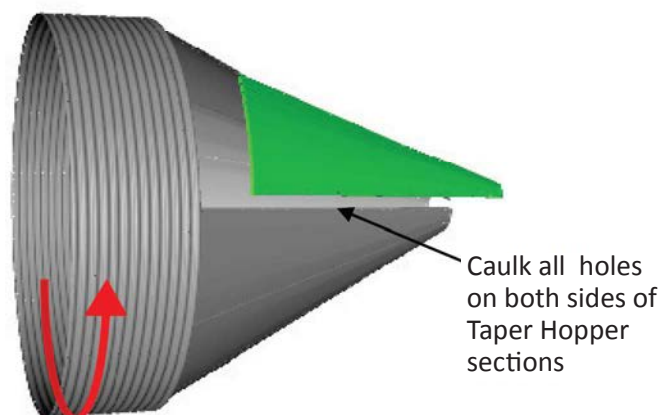
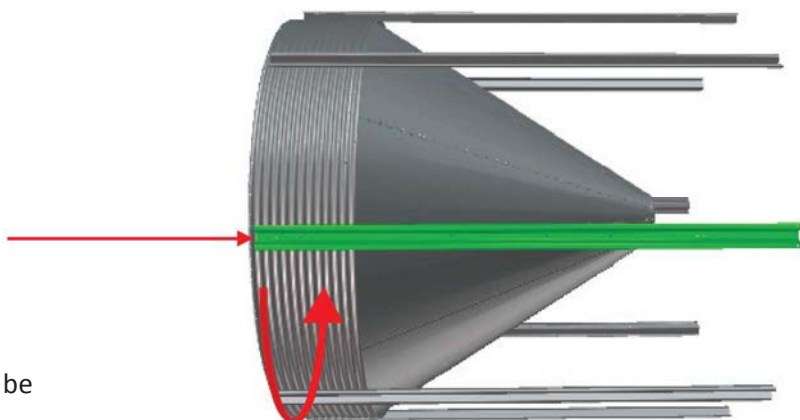


Figure 68

Roll as you need to assemble

(12) Leg holes



Example in Figure 68 shows last leg to be moved into place over (12) leg holes

Optional Side Assembly for 1-3 Ring Bins ONLY - continued

6. Attach HP Taper Hopper Boot Collar *as shown in Figure 69.*
7. Attach Roof Sections, Roof Angles, and Collar *as shown in Figure 70.*
8. Determine the best direction and location for the Lid opening and Ladder placement.
9. Attach the Front Cross Bracing and Rear Cross Bracing to the legs *as shown in Figure 71.*
10. Attach WayBack Lid, Tru-Lok, or Pneumatic Fill kit and ladder kits *as per instructions included with product and shown in Figure 72.*

NOTE: Be sure that all holes, seams and Collars on tank are properly caulked.

Figure 69

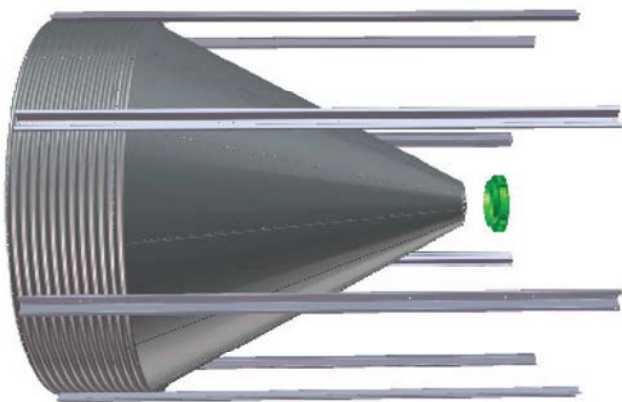


Figure 70

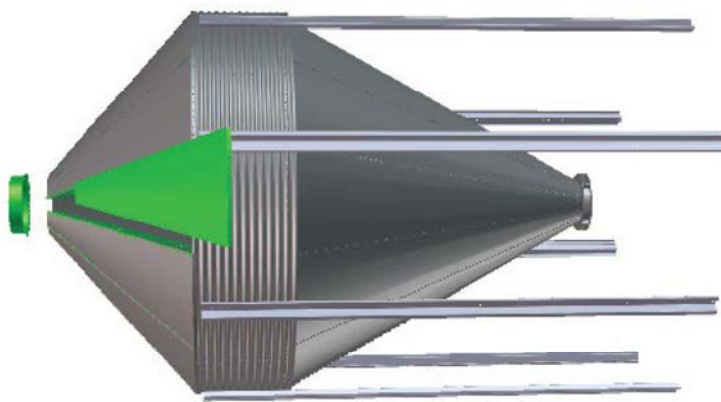


Figure 71

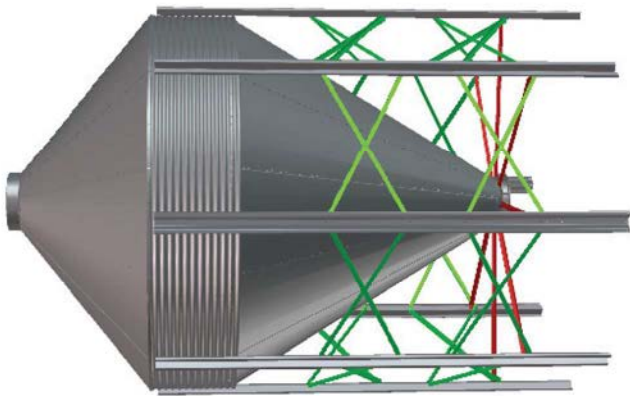
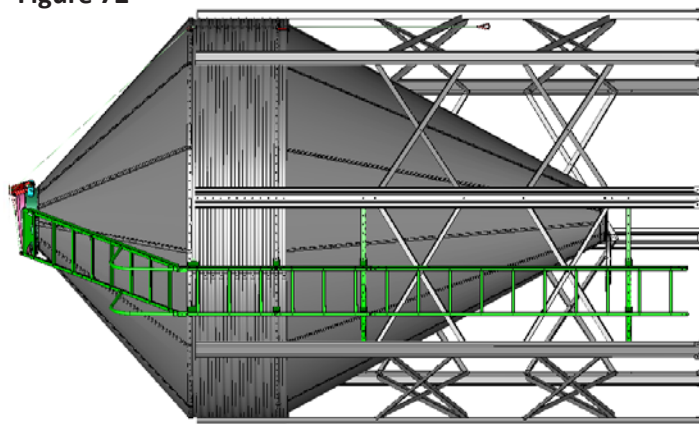


Figure 72



Erecting the Bin for 1-3 Ring Bins ONLY

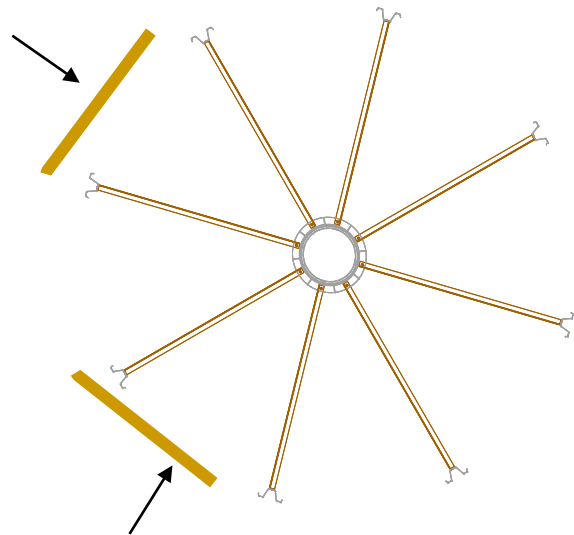
Before erecting your new bin be sure all parts are assembled properly and hardware tightened securely.

1. Peel protective paper off "VAL-CO™" decal before raising bin.
2. Cut two (2) 2" x 4" braces to 50" (1.27 m) long and fasten between legs *as shown below in Figure 73*.
3. Raise the bin *as shown in Figure 74 below*. Be sure to use appropriate heavy equipment.

- Be sure to use proper strength heavy equipment such as; crane, truck with hydraulic lift bed or other.
- Level the legs, to assure stability, after the bin is raised.
- Leg shims 500249 are available.

Figure 73

Bottom End View showing bracing required to stabilize bin for raising.



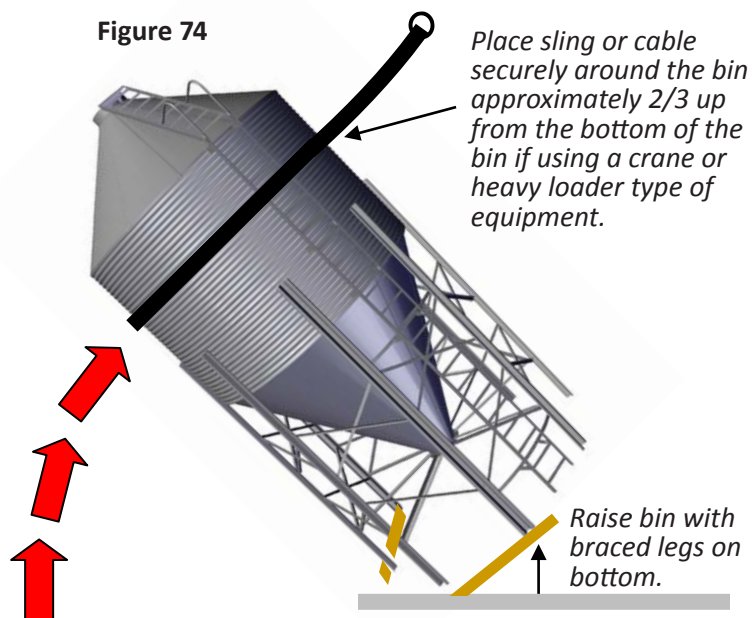
FOR 1-3 RING 12 FT BINS ONLY

NOTE: Bin Lifting Kits for 12 ft bins are not currently available and special design specifications are critical.



Figure 74

Place sling or cable securely around the bin approximately 2/3 up from the bottom of the bin if using a crane or heavy loader type of equipment.



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Email: sales@val-co.com

International:
Phone: (+1) 419.678.8731
Fax: (+1) 419.678.2200
Email: intl.sales@val-co.com

