



9' BULK FEED BIN

Model 509

Installation Manual



990018

REV [K]

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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 9' Feed Bin with parts lists. Bin accessories and options have been added at the back of this manual for your convenience.

Features

- Weather tight die formed roof.
- Reinforced ribs at the seams for added strength and ease of assembly.
- 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. Except on 9' x 5 or 6 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

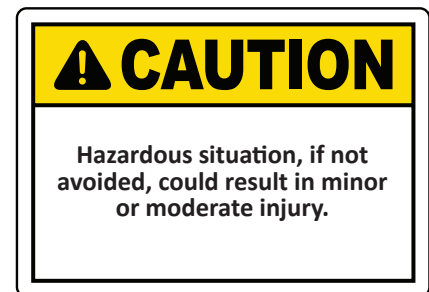
Our concern is for your safety. The safety warnings are included in this manual as a guide to help and encourage the safe operation of your equipment. It is your responsibility to evaluate the hazards of each operation and implement the safest method of protecting yourself as owner and/or operator.



= 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.

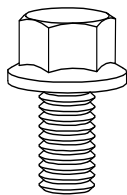
<h1 style="margin: 0;">DANGER</h1>	
<p>YOU CAN SUFFOCATE UNDER MATERIAL IN THIS TANK</p>	
<p>FLOWING MATERIAL TRAPS AND SUFFOCATES</p>	<p>CRUSTED MATERIAL COLLAPSES AND SUFFOCATES</p>
<p>NEVER ENTER THIS TANK DURING LOADING AND UNLOADING</p>	
<p>AT OTHER TIMES ENTER TANK ONLY IF YOU</p>	
<ol style="list-style-type: 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>	

9' Feed Bin Hardware Parts

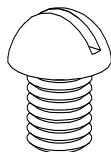
NOTE: Check all parts with each packing list included with each carton of product or the parts list included in this manual before starting assembly. Report any shortages immediately to your supplier.

Save all cartons until bin is completed.

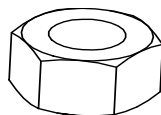
Hardware List



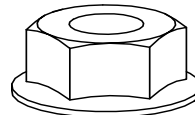
501442 - 5/16" x 1"
Flanged Hex Bin Bolt



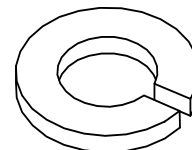
501440 - 5/16" x 3/4"
Truss Bin Bolt



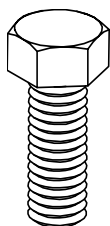
010603 - 5/16
Hex Nut



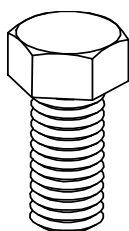
501441 - 5/16"
Flange Nut



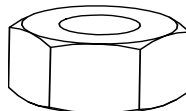
010253 - 3/8"
Lockwasher



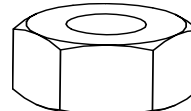
010664 - 3/8" X 1"
Hex Bolt



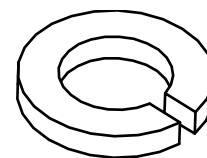
012240 - 7/16" x 1"
Hex Bolt



011115 - 3/8"
Hex Nut



011116 - 7/16"
Hex Nut



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



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

9' (2.74m) Feed Bin Specifications

9' 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
9' x 1R	8.12	7.37	406.0	11.50	326	186	15	6	4.72
9' x 2R	11.51	10.44	575.6	16.30	463	218	18	2	5.54
9' x 3R	14.90	13.52	745.1	21.10	599	250	20	10	6.35
9' x 4R	18.29	16.60	914.7	25.90	735	282	23	6	7.16
9' x 5R	21.68	19.67	1084.2	30.70	871	314	26	2	7.98
9' x 6R	25.07	22.75	1253.7	35.50	1007	346	28	10	8.79

- 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*. 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

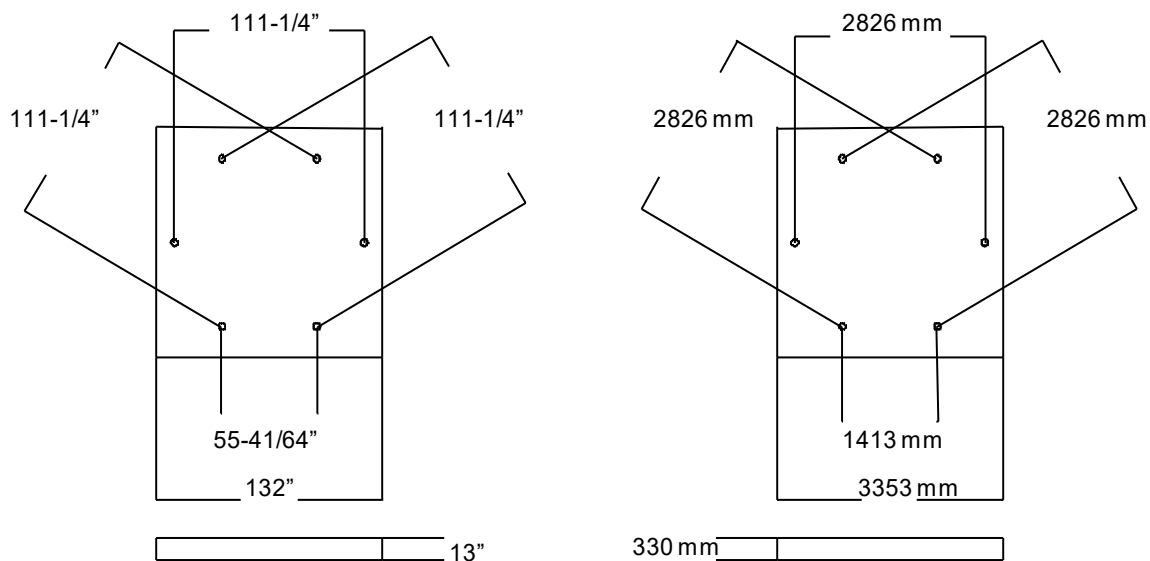


FIGURE 2

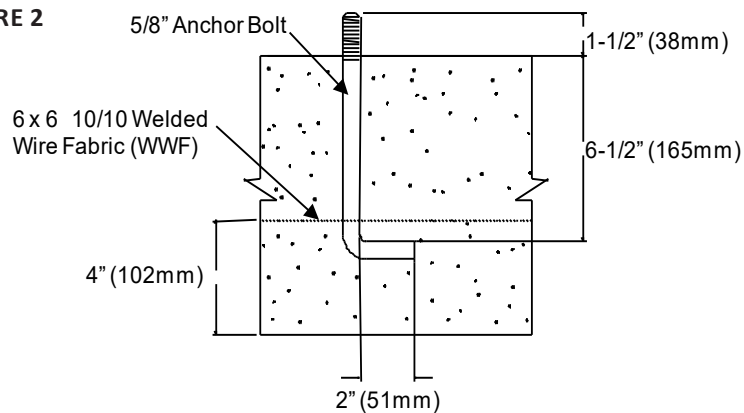
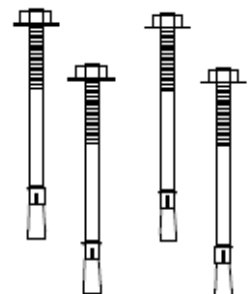


FIGURE 3

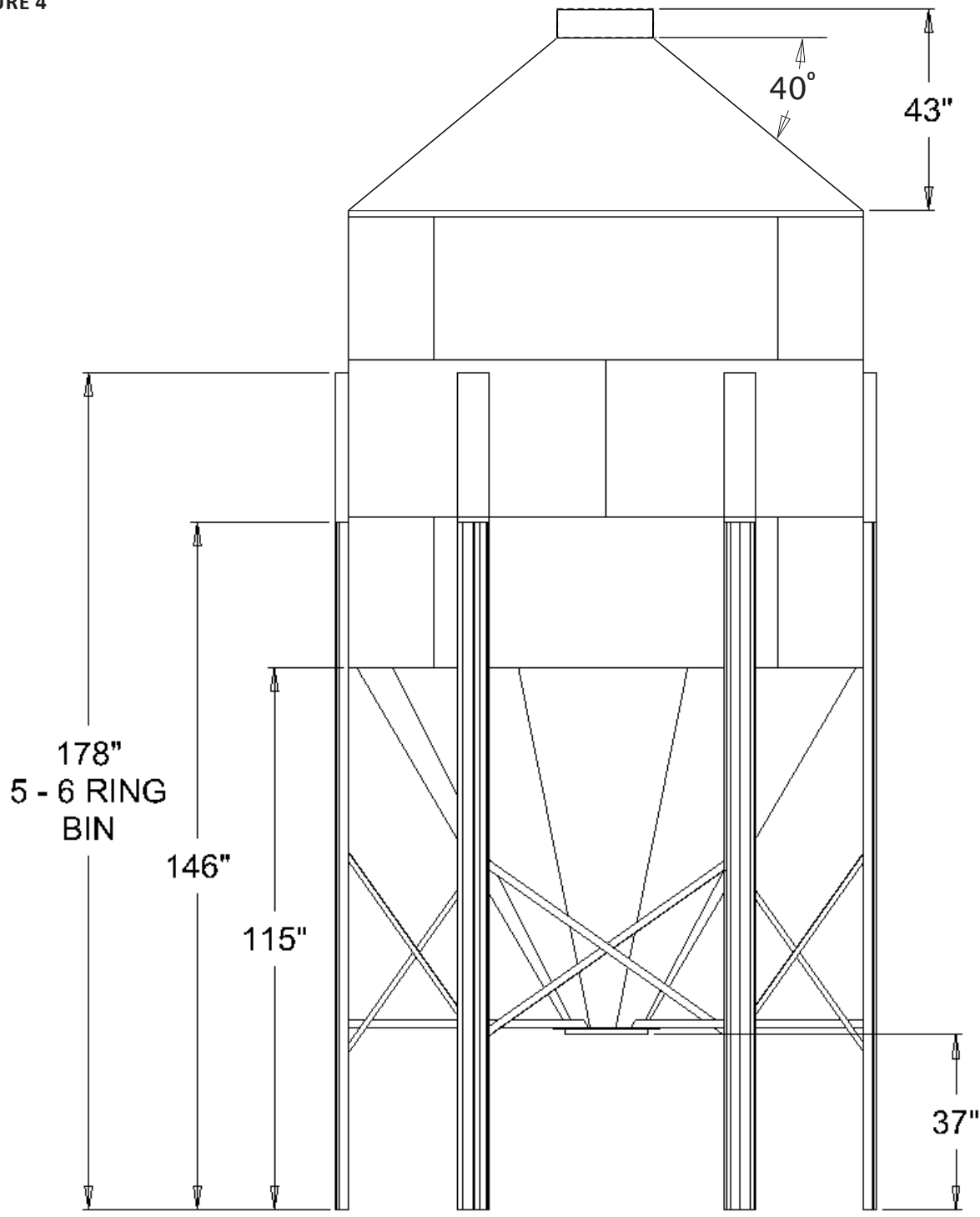
Optional style anchor bolts as shown here can be supplied by VAL-CO™.

Order kit #500221 for 9' bins.



9' Diameter Bin Dimensions

FIGURE 4



9' Feed Bin Overview

FIGURE 5

CORRUGATED HOPPERS

1 RING BIN

- 509038 20ga Main - (2)
- 509039 20ga Main w/Decal - (1)

2 RING BIN

- 509038 20ga Main - (3)
- 509008 20ga Extension - (2)
- 509009 20ga Ext. w/Decal - (1)

3 RING BIN

- 509038 20ga Main - (3)
- 509008 20ga Extension - (5)
- 509009 20ga Ext. w/Decal - (1)

4 RING BIN

- 509037 18ga Main - (3)
- 509008 20ga Extension - (8)
- 509009 20ga Ext. w/Decal - (1)

5 RING BIN

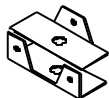
- 509035 16ga Main - (3)
- 509011 18ga Main Ext. - (3)
- 509014 18ga Extension - (3)
- 509008 20ga Extension - (5)
- 509009 20ga Ext. w/Decal - (1)

6 RING BIN

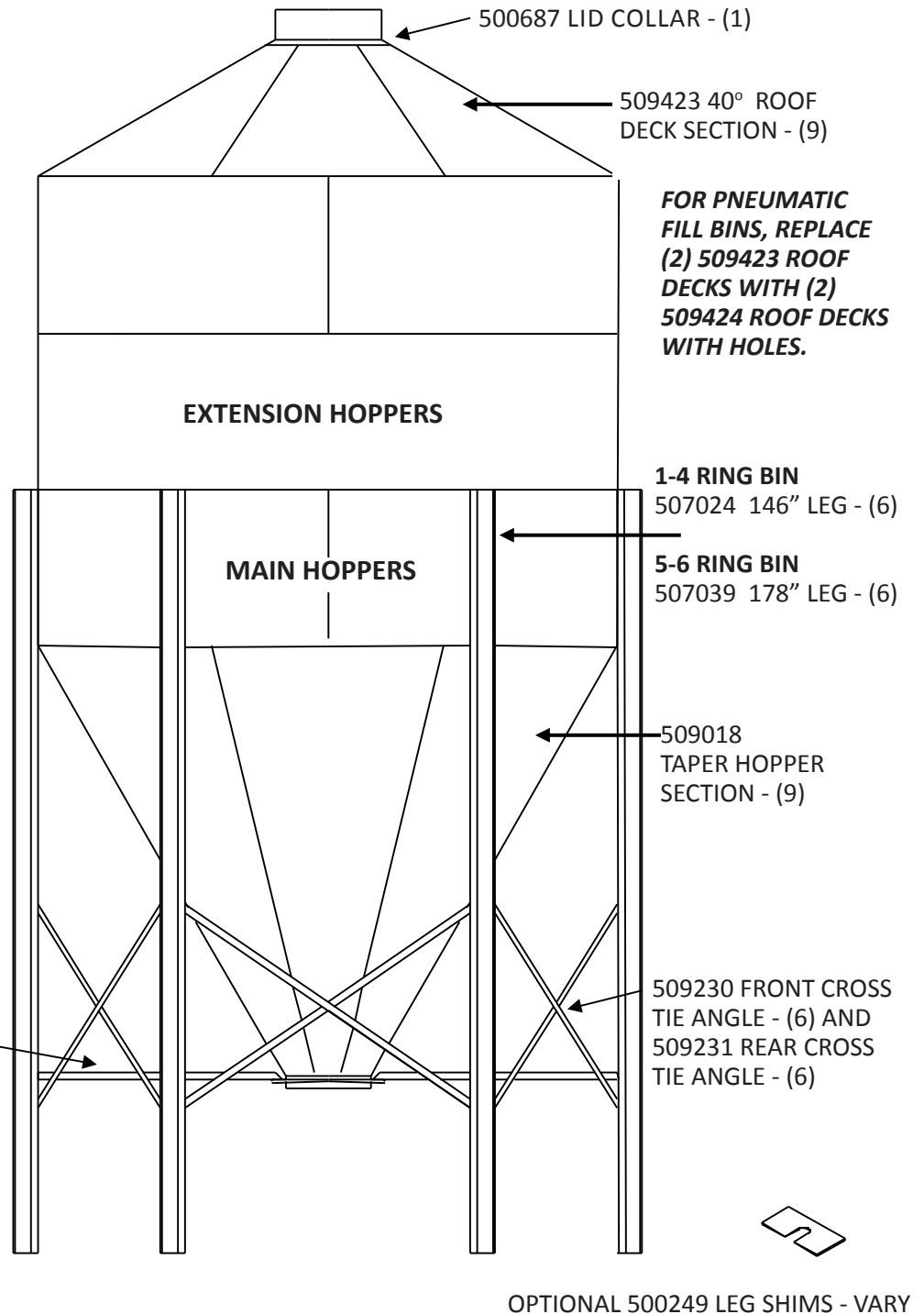
- 509035 16ga Main - (3)
- 509011 18ga Main Ext. - (3)
- 509014 18ga Extension - (3)
- 509008 20ga Extension - (8)
- 509009 20ga Ext. w/Decal - (1)

509232 LEG TO
COLLAR BRACE - (6)

500156 TOP
LEG PLATE - (6)



500155 BOTTOM
LEG PLATE - (6)



OPTIONAL 500249 LEG SHIMS - VARY

NOTE: 5 - 6 RING BINS REQUIRE SPECIAL BRACING AS SHOWN ON NEXT PAGE.

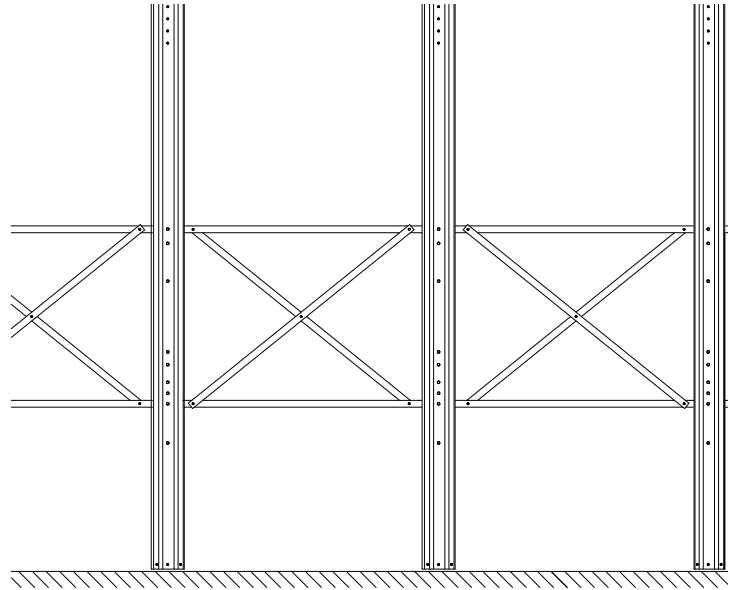
Overview Continued - Special Bracing For 178" Bin Legs

FIGURE 6

Bracing for 9' x 5 or 6 ring Bins:

- (12) 507033 "X" Brace Angle
- (12) 509032 Tie Brace Angle
- (1) 509167 Special Brace Hdwe. Bag

Use 7/16" x 1" hex bolts, nuts and lockwashers in hardware bag 509161 from 509160 basic hardware carton to fasten leg braces to legs. Use 5/16" x 1" Hex bin bolts and nuts in this bag to attach the "X" braces to the cross braces.

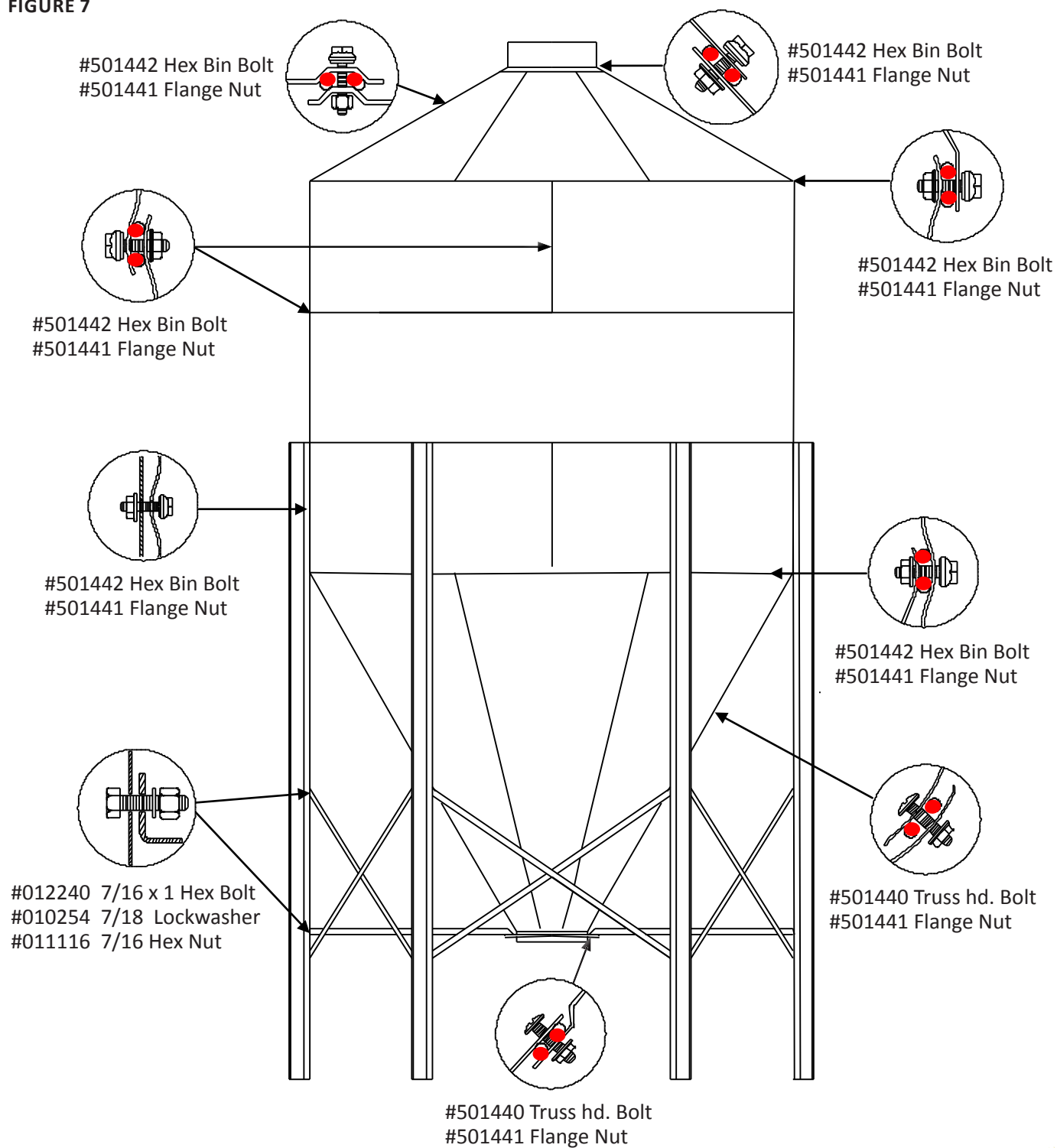


Hardware Assembly Summary

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 DETAILED ON THE NEXT PAGE.)

FIGURE 7



Corrugated Hopper Assembly / Caulking Instructions

Begin by determining assembly method. VAL-CO® bins may be assembled either horizontally or vertically. **VERTICAL** assembly for 9 Ft bins can be accomplished using the **VAL-CO® Bin Lifting Kit #500578** as described in the **Bin Lifting Kit Assembly** section. Processes are basically the same in both methods of assembly. (Vertical assembly is recommended for 12 ft bins.)

1. Identify the 3 heaviest corrugated hopper sheets by either the ID tag, the gauge (the higher the gauge number, the lighter the steel. *Example: 20 ga. is lighter than 18 ga.*), or by the extra row of vertical holes and the bottom row of holes being spaced 3 1/8" apart as shown in Figure 8 to the right.
2. Apply the caulking putty to the inside of the hopper sheets, (where they join and form a seam), along side the holes to form a tight seal as shown in Figure 9.
3. Place the caulked end over the un-caulked end of each adjacent hopper sheet. (As the RED arrows show in the drawing at the top right of this page.)

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

4. 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, then tighten.

NOTE: Do not tighten until all (3) sheets of ring are assembled.

- Make sure you have aligned the corner hole where the (3) 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.

FIGURE 8

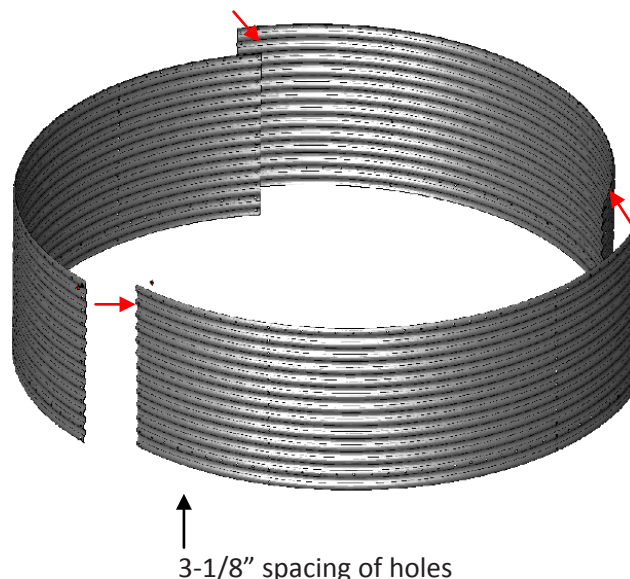


FIGURE 9

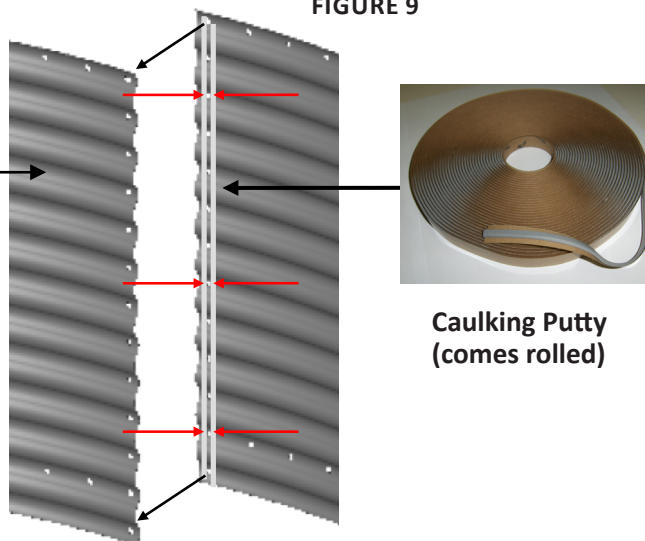
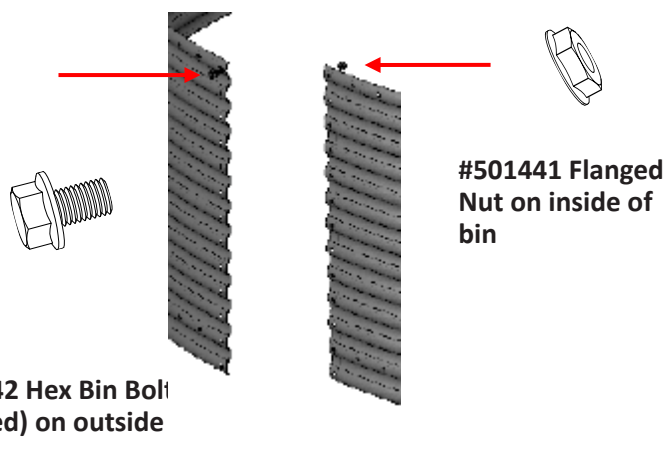


FIGURE 10

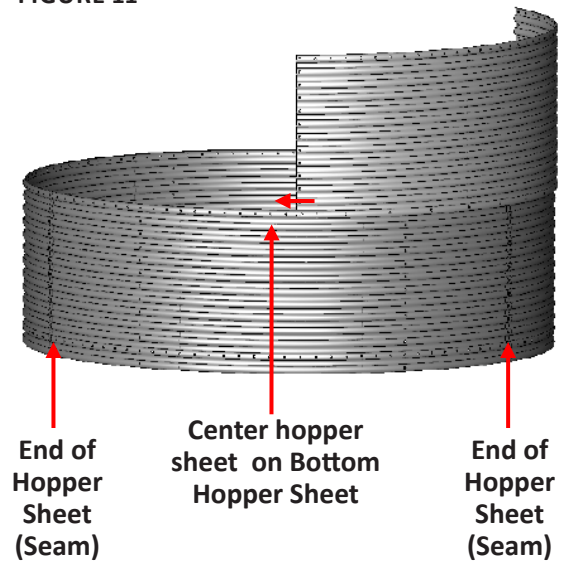


Corrugated Hopper Assembly / Caulking Instructions

5. Refer to parts list detailed in the **9' Feed Bin Overview** to determine the next sheets required to build additional rings.
6. Place 2 rows of caulk around the horizontal, bottom holes inside of the 2nd ring hopper sheets. Then place (1) 2nd (second) ring hopper on top of the assembled 1st (first) ring making sure the 2nd (second) ring hopper sheet ends are at the center of the 1st (first) ring hopper sheets and holes align, as illustrated to the right in Figure 11. Use the #501442 Hex Bin Bolt and the #501441 Flanged Nuts in each hole to attach the panels and rings together, **then tighten**. *On 5 and 6 ring bins you will need to be sure to align leg holes with bottom ring leg holes.*

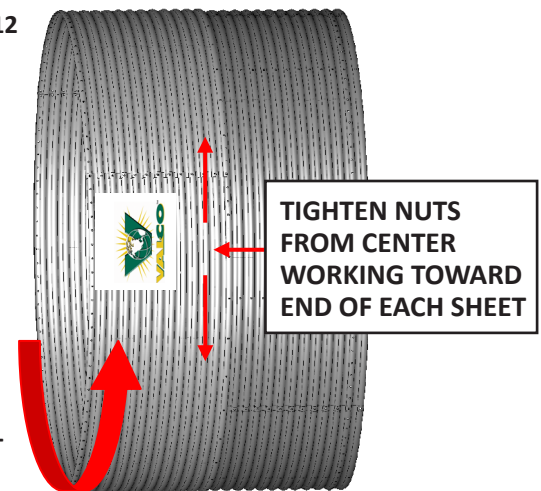
NOTE: Be sure to caulk all seams along both sides of the holes to form a good seal to prevent leaking!

FIGURE 11



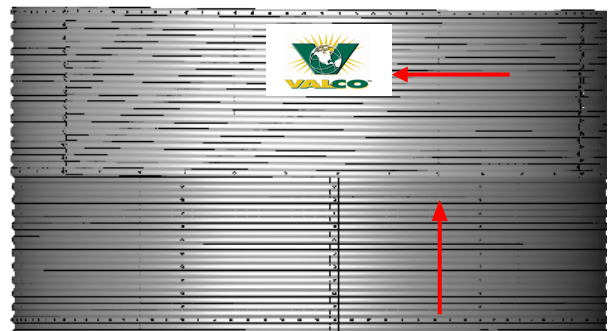
7. After completing the second ring you should lay assembly on its side so hoppers can be rolled easily to ease remaining assembly *as shown in Figure 12*.
8. Continue the same process of installing all bolts in panels and all bolts connecting the 3rd to the 2nd ring, **then tighten**. Continue this process until you have completed all the rings. *Note: Install the bolts on the horizontal seams by starting in center of hopper sheet and working toward ends as shown with red arrows in Figure 12.*

FIGURE 12



- Align the corner hole where the (3) hopper sheets meet first for easiest assembly.
- Remember to complete entire ring before tightening nuts.

FIGURE 13



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

Taper Hopper and Collar Assembly

NOTE: Before assembling taper hopper sections to corrugated hoppers you must apply the caulking as previously instructed, to assure a watertight seal.

1. Begin caulking around the inside of the bottom row of holes on the bottom ring of corrugated hopper sheets .
2. Caulk taper hopper sheets along the vertical side with the bend towards the inside. *Caulk all taper hoppers on same side and apply to both sides of holes.*
3. Align 1st taper hopper sheet/panel section with one set of leg holes and assemble to inside of corrugated hoppers using #501442 hex bin bolts and #501441 flange nuts, **DO NOT TIGHTEN.**

NOTE: Keep bolt heads on outside of assembly.
Leave holes that align with leg holes open until assembling legs to bin.

4. Place 2nd taper hopper sheet/panel over 1st hopper sheet/panel and 1st ring (and reinforcement angle if used), **align holes with drift pins**, install bolts as shown in Figure 14, **DO NOT TIGHTEN.**

NOTE: Reinforcing angles are not used on 1 or 2 ring bins.

5. Install bolts to connect 3rd hopper sheet/panel to the 1st ring and 2nd hopper sheet/panel (and reinforcement angel if used), **DO NOT TIGHTEN.** Continue until all hopper sheet/panels have been assembled.
6. Caulk #507011 top collar on both sides of holes on out side of top flange. Place inside the end/bottom of the assembled hoppers. Align holes in collar so every other hole is aligned with a row of leg holes in corrugated hoppers. **Tighten all bolts in taper hopper panels and collar at this time.**
7. Finish assembling the final (2) sections and top collar. **Tighten all hardware.** Caulk #500260 Bottom Collar around opening on top side of collar. Assemble to #507011 Top Collar with (6) #012240 7/16" x 1" Hex Bolts, #010254 Lockwashers and #011116 Nuts using the six holes that do not align with legs.

FIGURE 14

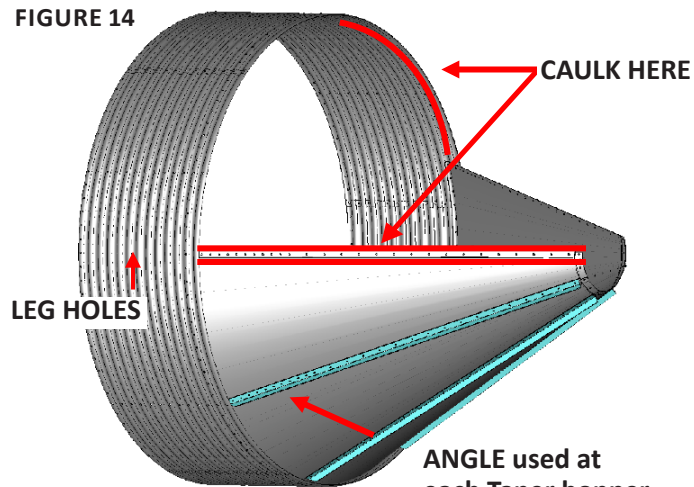


FIGURE 15

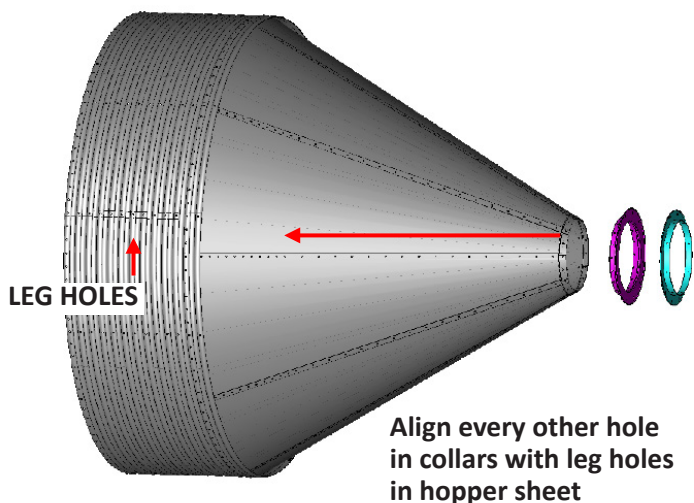
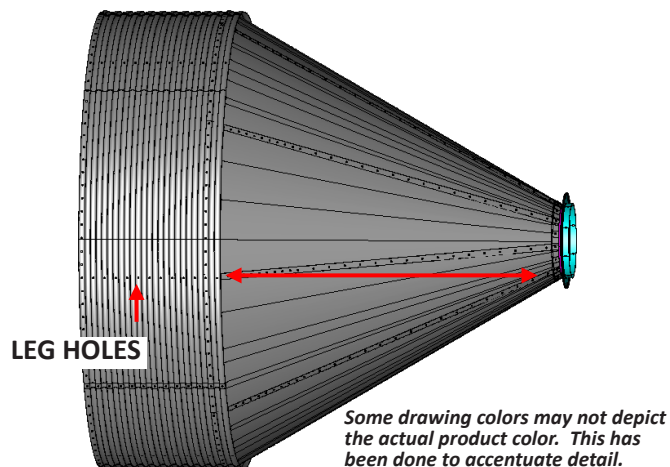
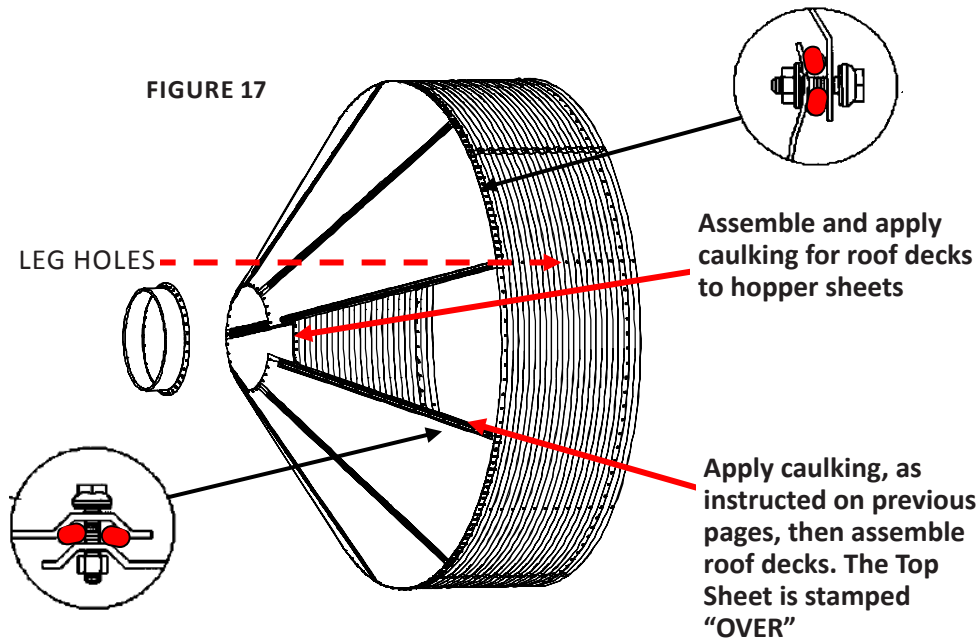


FIGURE 16



Roof Deck and Lid Collar Assembly



If you chose to perform a VERTICAL assembly, you should attach Bin Lifting Brackets as you attach roof deck sections, as detailed in Bin Lifting Kit Assembly section.

#509424 (2) Pneumatic Fill Roof Decks for replacement (holes for Pneumatic Fill Kit)

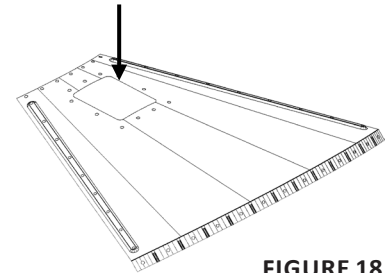


FIGURE 18

NOTE: Before assembling roof deck you must decide where the lid opener and ladder will be located. In addition; when installing PNEUMATIC FILL BINS you must decide on the Roof Deck replacement location.

1. After deciding on proper layout, you need to begin caulking roof decks along both sides of bottom holes and holes along side marked "OVER".
2. Install bolts to connect roof decks over the top of corrugated hoppers starting with one end aligned with lid opener leg. *Refer to drawings.* Use 5/16" Hex Bin Bolts and Flange Nuts. Continue until all roof decks are assembled to hopper. **Keep bolt heads to the outside and DO NOT TIGHTEN.**
3. Double caulk around holes on bottom of #507687 Lid Collar and position on roof decks. *Refer to drawing above in Figure 17.*
4. **TIGHTEN** all hardware on collar and roof decks.

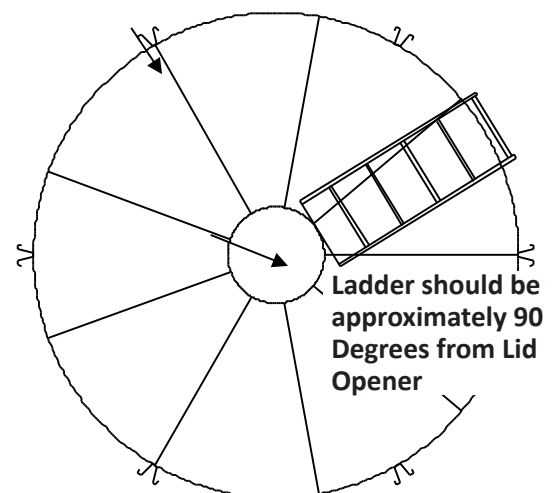
- Overlap sections as marked "over" or "under".
- LID COLLAR IS ASSEMBLED TO TAPPER HOPPER PANELS.
- REPLACE (2) #507423 Roof Decks with (2) #507424 Roof Decks with holes (shown above in Figure 18.) when installing PNEUMATIC FILL BINS. *Position Roof Decks across from each other. Refer to the Pneumatic Fill Quick Sheet more detailed Instruction.*

The drawing below shows the recommended layout for locating the lid opener and ladder.

- Ladders should be located approximately 90° from lid opener.
- Way-Back Opener does not need to align with leg.

FIGURE 19

Lid Opener Leg (Tru-Lok Add-On Option)



Leg and Tank Assembly

After you have finished assembling the tank, it is time to attach the bin legs.

- To assemble legs you will need someone inside the bin to push bolts thru holes.
- While someone is still in the bin, you can assemble the ladder brackets as described on the next few pages to eliminate having to re-enter the bin later.

1. The #507024 146" bin leg attaches to the (12) leg holes in the bottom ring as shown in Figure 20 to right. **The #507039 178" bin leg will require the bottom two rings or (24) holes.**
2. Align holes with Drift Pin from outside bin. Hand tighten #501442 Bin Bolts and #501441 Flange Nuts on all holes. Refer to Figure 20.
3. Roll the bin to assemble each leg until all the legs are complete. **Tighten all nuts secure.**
4. Before person exits bin, have them check for missing bolts by darkening bin and looking for light thru open holes.
5. After legs are secure, you can now assemble top and bottom Leg Base Plates to each leg. Use (3) #010664 3/8 x 1 Hex Bolts, (3) #010253 3/8" Lock washers and (3) #011115 3/8" Nuts per leg. Refer to Figure 22 and 23 below. **Tighten nuts secure.**

FIGURE 20

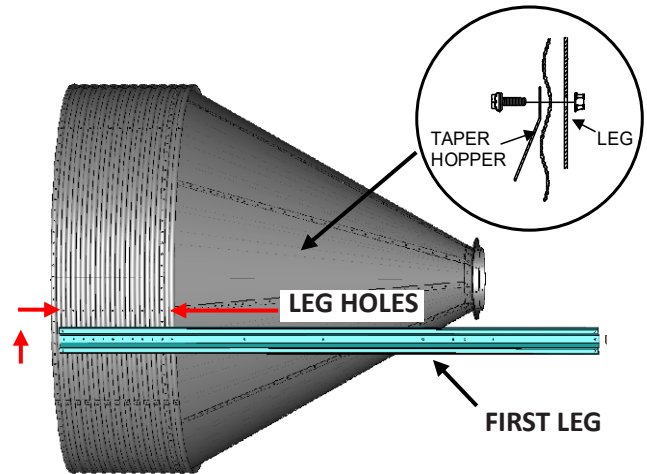


FIGURE 21

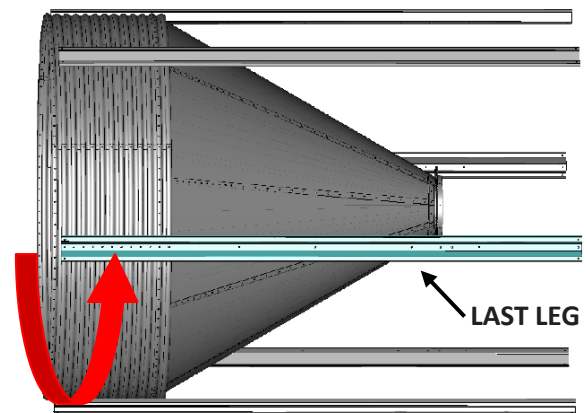


FIGURE 22

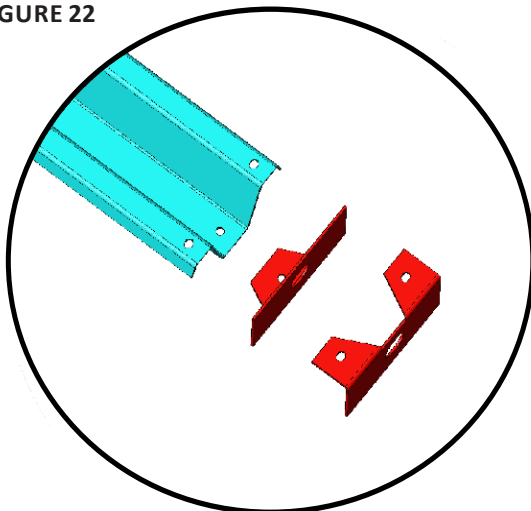
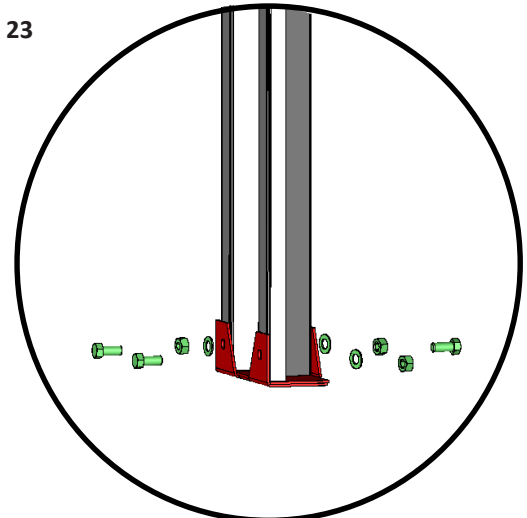
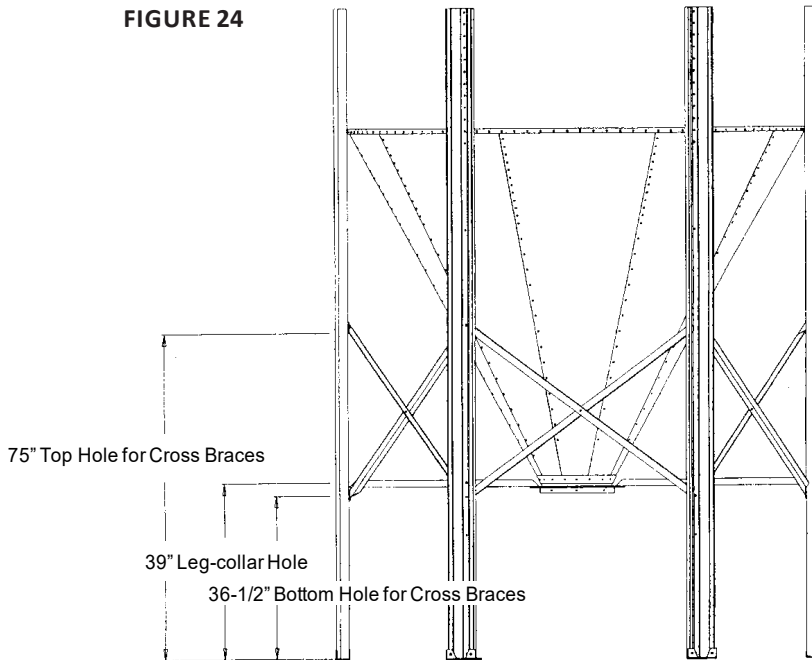


FIGURE 23



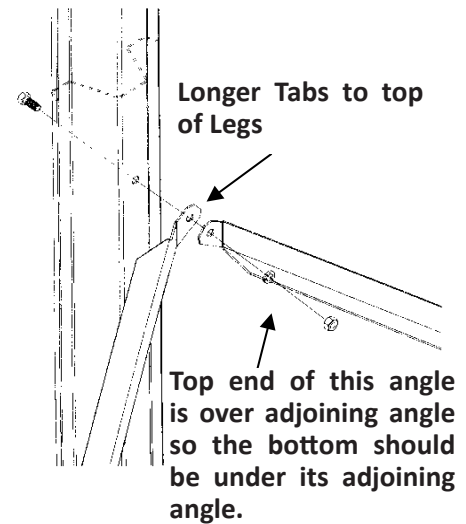
Leg and Brace Assembly - 1 Ring through 4 Ring Bins

FIGURE 24



LEG BRACING DETAIL

FIGURE 25



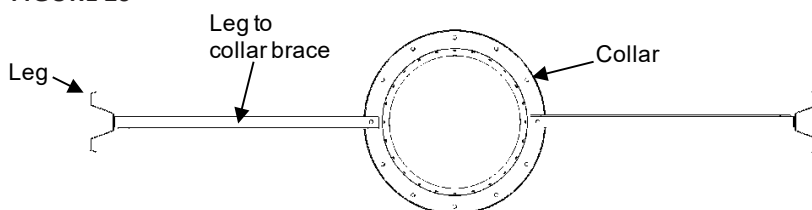
1. Assemble #509230 Front Cross Angle and #509231 Rear Cross Angle together in center with #012240 7/16" x 1" Hex Bolt, #010254 7/16" Lock-washer and #011116 Nut as shown in Figure 24 above.
2. Position between pair of legs using holes as shown in Figure 25 and fasten with same 7/16" hardware as above. 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.

3. Fasten #509232 Leg-Collar Brace between each leg and the top of collar with the same 7/16" hardware as rest of bracing. Use leg hole shown above and aligning hole in collar to assemble braces. **Brace must point to opposite leg or bin component failure may result.**
4. Tighten all hardware secure when bracing is completed.

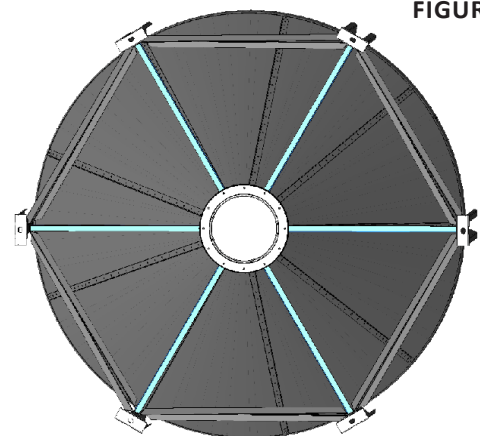
COLLAR BRACING DETAIL

FIGURE 26



BOTTOM VIEW WITH BRACING on 9 ft Bin

FIGURE 27



Roof Ladder Assembly

NOTE: Before assembling the roof deck sections and lid collar make sure you have determined where the roof ladder should be located.

1. Remove the (2) bolts in lid collar that align with the holes in the #500278 Roof Ladder Standoff and assemble Standoff to lid collar with the same hardware.

NOTE: The following part of this assembly requires someone inside bin and can be done previously at the same time you are assembling the legs.

2. Now find the (2) holes in the roof deck and hopper seam that align with the outside holes of the Ladder Standoff, (6 hole spread) as shown in Figure 28.
3. Remove the existing hardware and fasten (2) #500195 Top Ladder Brackets to bin with the same hardware, using the top hole in each bracket as shown in Figure 28 on top right.
4. Assemble (2) #509915 Roof Deck Ladder Rails and (5) #500030 Ladder Steps with #010643 5/16" X 3/4" Bolts and #012789 Locknuts. **Keep locknuts to inside of rails.** Refer to Figure 29 to right, to determine proper spacing for rails.

FIGURE 30

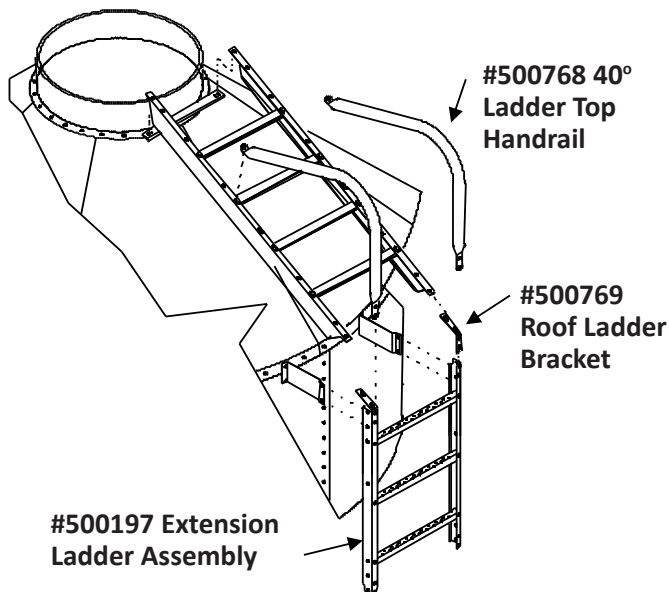


FIGURE 28

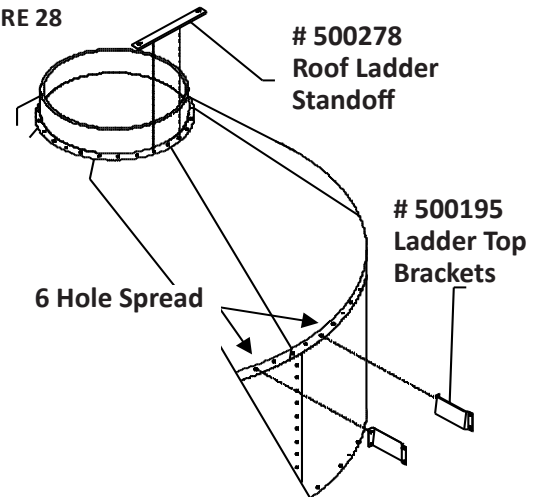
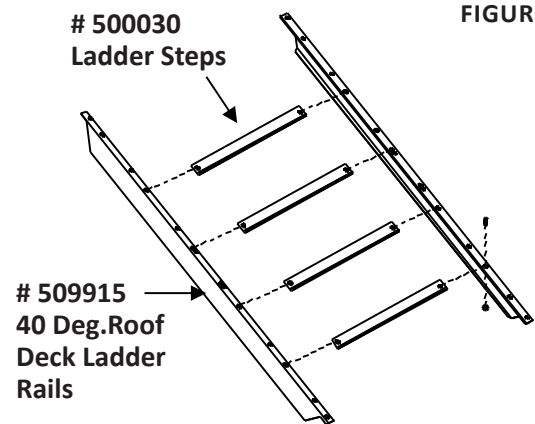


FIGURE 29



5. After Roof Ladder is assembled, fasten to Roof Standoff with (2) #010643 5/16" x 3/4" Hex Bolts and #012789 Locknuts. Get (1) #500197 Ladder Extension Assembly and fasten #500286 Connecting Angle to inside of top end of both rails and #500284 Handrail to outside of rails using same hardware as above. **For 40 deg roofs, use #500769 connecting angles and #500768 handrail.**
6. Position extension ladder rails over top brackets and slide open end of connecting angles under roof ladder. Align the (2) holes in top brackets and connecting angles with the ladders and loosely assemble parts with hardware above. Assemble the top end of the (2) #500284 handrails with same hardware and tighten all nuts secure. All nuts should be to inside of ladders.

Side Ladder Assembly

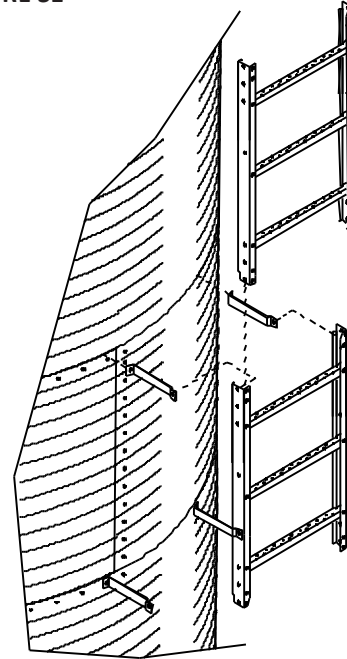
In each corrugated hopper sheet seam you must attach (2) #500031 Ladder Brackets in alignment with the top brackets assembled previously.

NOTE: *This part of assembly requires someone inside the bin and can/could be done previously at the same time you are assembling legs.*

1. Remove the bin hardware in each hole that aligns with the top brackets and assemble (2) #500031 Ladder Brackets per hopper ring using the same hardware just removed.
2. 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 until all ladder extensions are assembled.

FIGURE 31



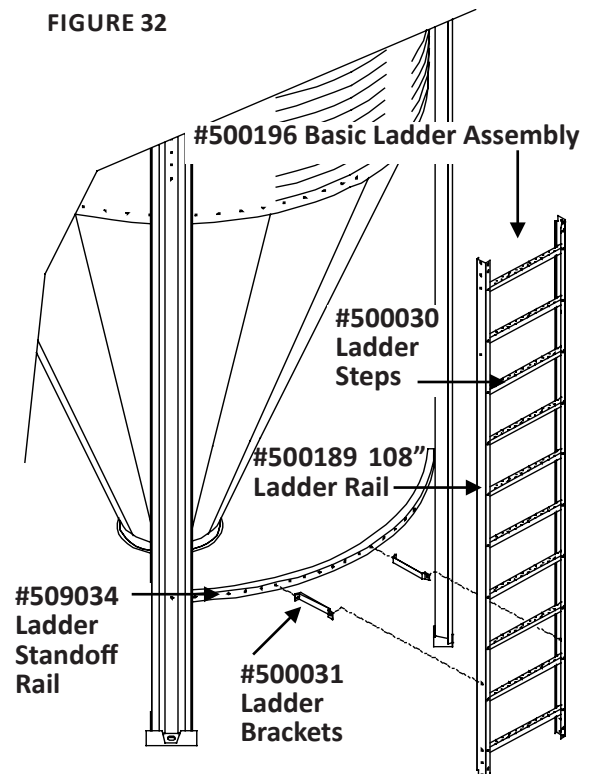
After all extension ladders are assembled -

3. Take #509034 Ladder Standoff Rail and assemble between legs below ladders using the bottom hole of each leg (approximately 21" from bottom of leg) and #501442 Bin Bolts and Flange Nuts.
4. Align (2) #500031 Ladder Brackets with Ladder Brackets above and fasten to Standoff Rail with #010643 Bolts and #012789 Locknuts.
5. Slide #500196 Basic Ladder Assembly under bottom rails of Extension Ladder and assemble to Extension Ladder and both Ladder Brackets on Standoff Rail using #010643 Bolts and #012789 Locknuts.

After ladder is assembled tighten all locknuts.

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

FIGURE 32



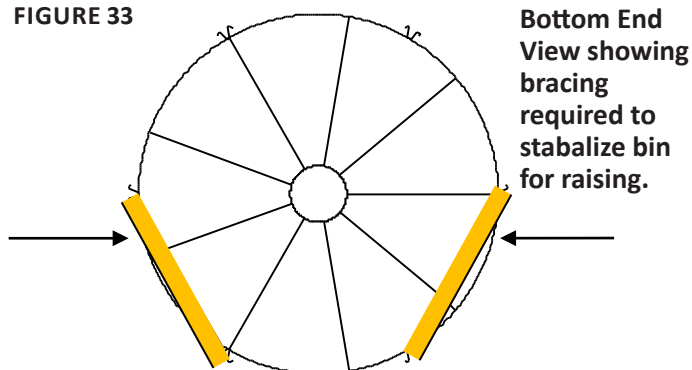
Erecting the Bin

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 2" x 4" braces to 59-7/8" long and fasten between legs *as shown in Figure 33 Bottom End View*.
3. Place 2" x 4" bracing between legs, *as shown in Figure 33*, to provide extra support.
4. Raise the bin *as shown in Figure 34 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 33



Bin Grounding Instructions

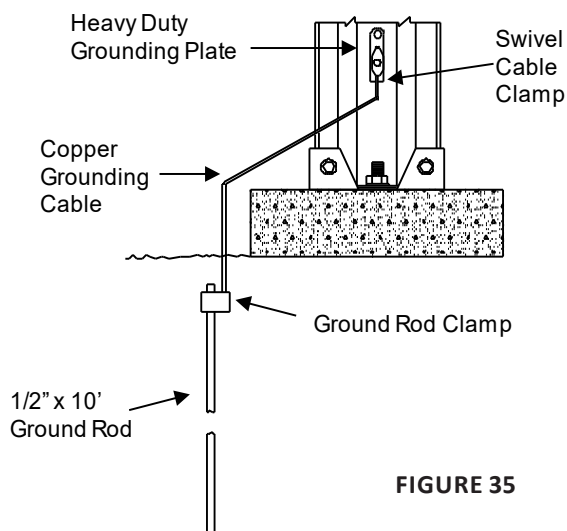
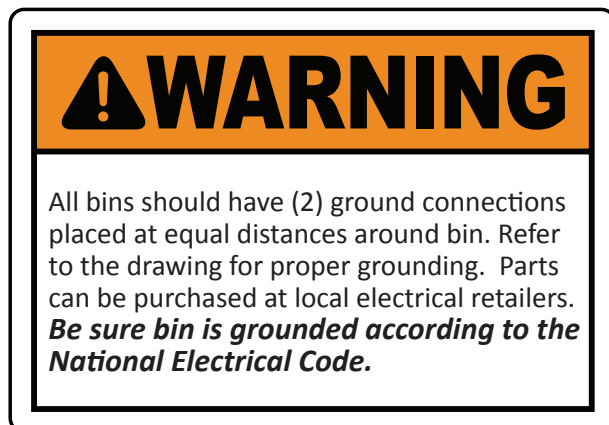
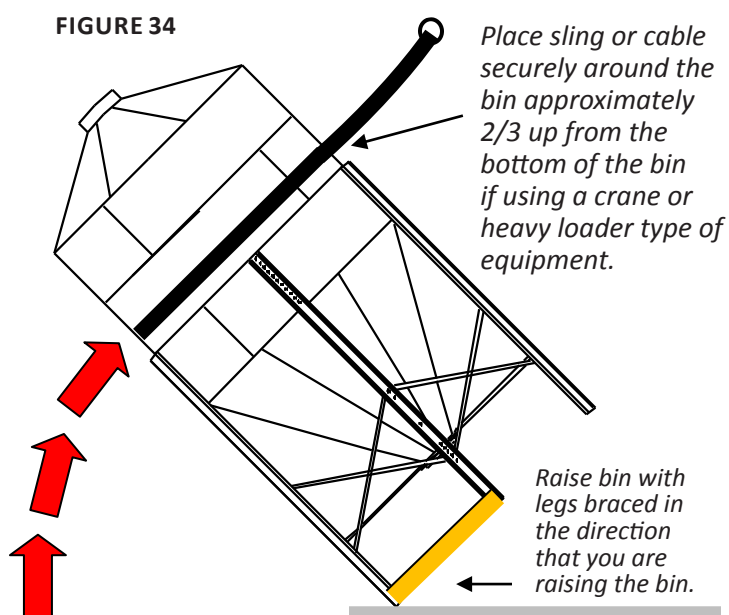


FIGURE 35

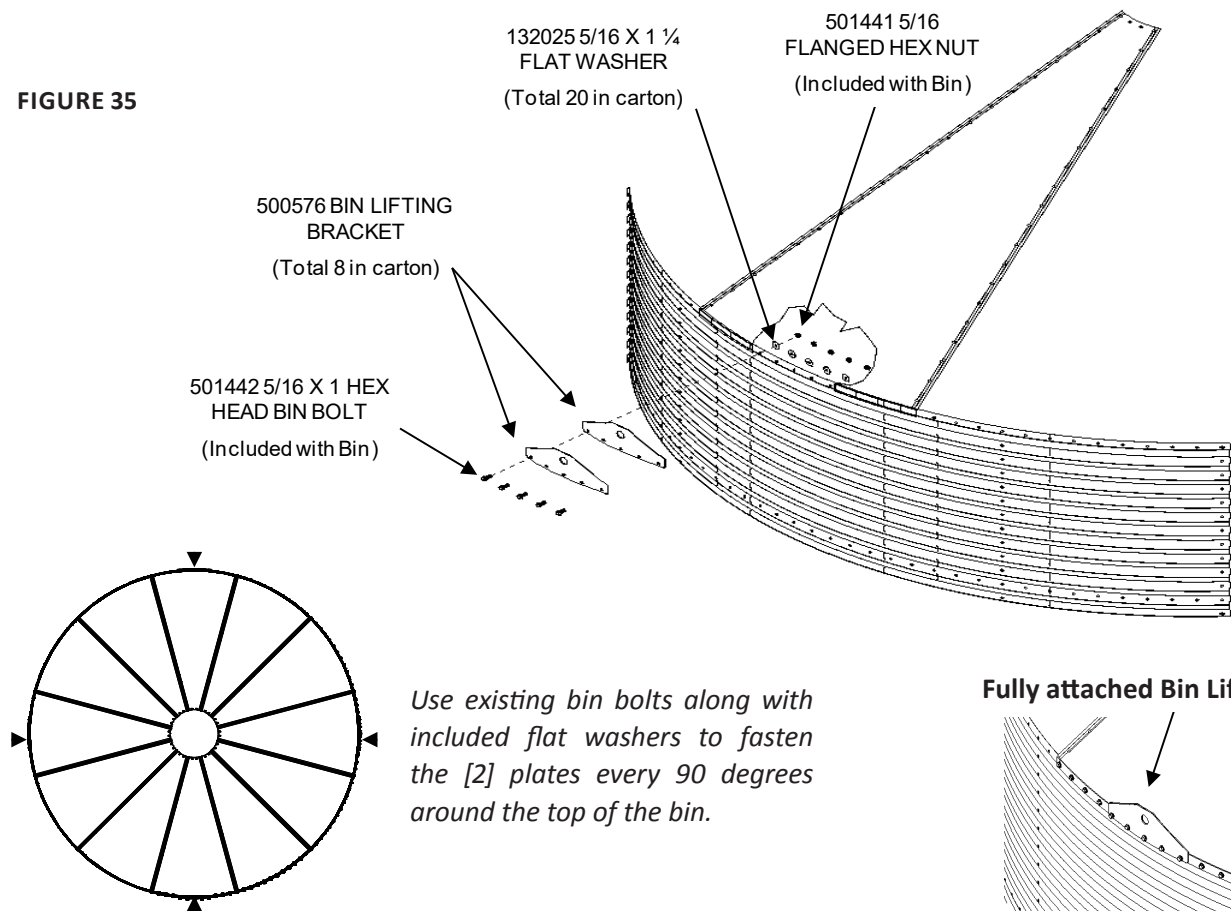
Raising the Bin

FIGURE 34



Bin Lifting Kit Assembly

FIGURE 35



Raising the Bin - Using Bin Lifting Kit method

Used ONLY in vertical assembly

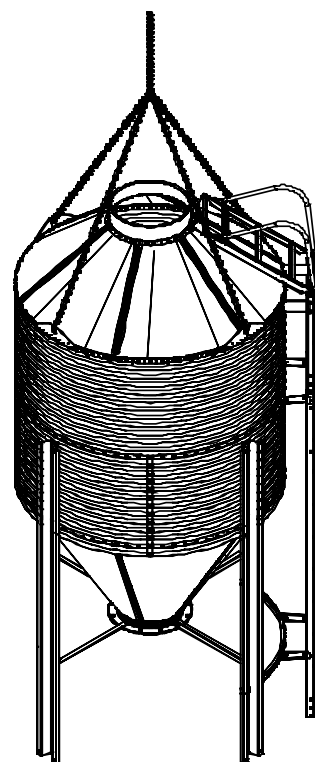
When using the Bin Lifting Kit method, attach a chain to each bracket. Bring the 4 chains together and attach to a single chain/cable using the proper heavy equipment to lift.

NOTE: Be sure chains are **SECURE** before lifting!

FIGURE 36



Shown: 7 ft bin



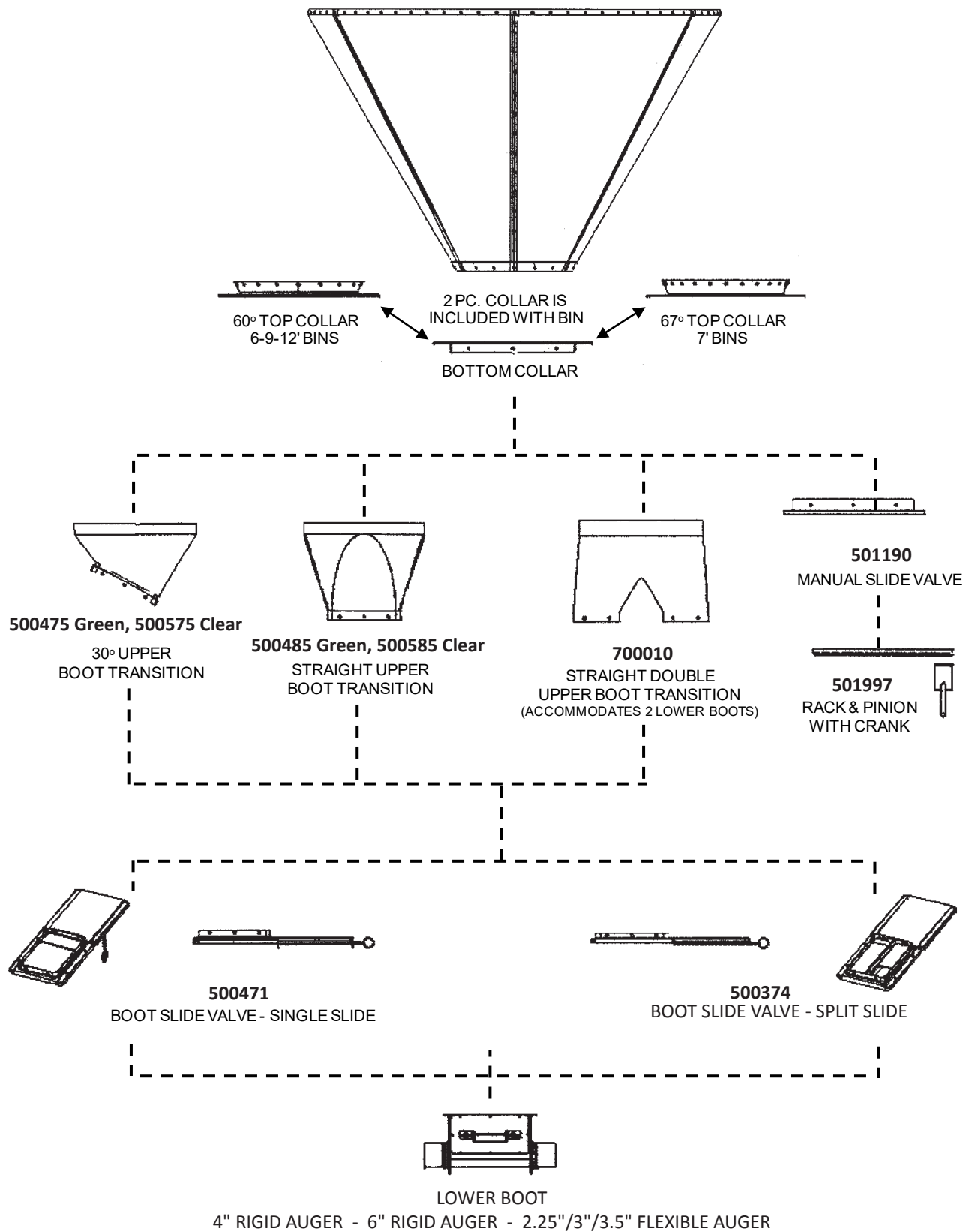
9 Ft Feed Bin - Common Parts List

BIN SIZE & OPENING		9' - 16" OPENING						9' - 16" OPENING					
OPENER TYPE		WAY-BACK OPENER						PNEUMATIC FILL ROOF					
NUMBER OF RINGS		1	2	3	4	5	6	1	2	3	4	5	6
ORDER NUMBER		509W41	509W42	509W43	509W44	509W45	509W46	509741	509742	509743	509744	509745	509746
PART #	DESCRIPTION	QUANTITY						QUANTITY					
500650	Way-Back Lid Carton	1	1	1	1	1	1	0	0	0	0	0	0
500790	40° Pneumatic Fill Kit Lid Carton	0	0	0	0	0	0	1	1	1	1	1	1
506171	Collar Carton	1	1	0	0	0	0	1	1	0	0	0	0
507024	Galvanized Leg - 146" (1-4R)	6	6	6	6	0	0	6	6	6	6	0	0
507033	"X" Brace	0	0	0	0	12	12	0	0	0	0	12	12
507039	Galvanized Leg - 178" (5-6R)	0	0	0	0	6	6	0	0	0	0	6	6
509008	20 ga. Extension Hopper - Plain	0	2	5	8	5	8	0	2	5	8	5	8
509009	20 ga. Extension Hopper - Decal	0	1	1	1	1	1	0	1	1	1	1	1
509011	18 ga. Main Hopper - Plain	0	0	0	0	3	3	0	0	0	0	3	3
509014	18 ga. Extension Hopper - Plain	0	0	0	0	3	3	0	0	0	0	3	3
509018	Taper Hopper Section	9	9	9	9	9	9	9	9	9	9	9	9
509032	Brace Tie	0	0	0	0	12	12	0	0	0	0	12	12
509035	16 ga. Main Hopper - Plain With Drip Edge	0	0	0	0	3	3	0	0	0	0	3	3
509037	18 ga. Main Hopper - Plain With Drip Edge	0	0	0	3	0	0	0	0	0	3	0	0
509038	20 ga. Main Hopper - Plain With Drip Edge	2	3	3	0	0	0	2	3	3	0	0	0
509039	20 ga. Main Hopper - Decal With Drip Edge	1	0	0	0	0	0	1	0	0	0	0	0
509041	Taper Hopper Reinforcement Angle	0	0	9	9	9	9	0	0	9	9	9	9
509059	Basic Caulking Carton	1	1	1	1	1	1	1	1	1	1	1	1
509072	Extension Hardware Carton	0	1	2	3	4	5	0	1	2	3	4	5
509160	Basic Hardware Carton	1	1	1	1	1	1	1	1	1	1	1	1
509163	178" Leg Hardware Carton	0	0	0	0	1	1	0	0	0	0	1	1
509167	Special Bracing Hardware Bag	0	0	0	0	1	1	0	0	0	0	1	1
509230	Front Cross Tie Brace Angle	6	6	6	6	0	0	6	6	6	6	0	0
509231	Rear Cross Tie Brace Angle	6	6	6	6	0	0	6	6	6	6	0	0
509232	Leg-Collar Brace Angle	6	6	6	6	6	6	6	6	6	6	6	6
509423	Roof Deck Section 40°	9	9	9	9	9	9	7	7	7	7	7	7
509424	Roof Deck Section 40° - Pneumatic Fill	0	0	0	0	0	0	2	2	2	2	2	2
509440	Collar Carton, Reinforced	0	0	1	1	1	1	0	0	1	1	1	1
OPTIONAL TRU-LOCK ADD-ON	500226	Tru-Lok Basic Tube	1	1	1	1	1	X	X	X	X	X	X
	500728	Tru-Lok Tube Guide (3-6 Ring)	0	0	1	1	1	X	X	X	X	X	X
	500729	Tru-Lok Extension Tube	1	2	3	4	5	6	X	X	X	X	X
	500775	Tru-Lok Accessory Carton 40°	1	1	1	1	1	X	X	X	X	X	X
	509727	Tru-Lok Roof Tube - 9'	1	1	1	1	1	X	X	X	X	X	X
OPTIONAL LADDER	500191	Extension Ladder	1	2	3	4	5	6	1	2	3	4	5
	500772	Basic Ladder 40°	1	1	1	1	1	1	1	1	1	1	1
	509034	Ladder Stand-Off Ring	1	1	1	1	1	1	1	1	1	1	1
	509916	Roof Ladder 40°	1	1	1	1	1	1	1	1	1	1	1
PNEUMATIC FILL OPTIONS	509640	Pneumatic Fill Kit - 9' 40°	X	X	X	X	X	X	1	1	1	1	1
	704287	4" Tube Joiner w/ Hardware	X	X	X	X	X	X	0	0	0	0	1
	704411	4" X 7' Galvanized Side Fill Tub	X	X	X	X	X	X	0	0	0	0	0
	704412	4" X 11' Galvanized Side Fill Tub	X	X	X	X	X	X	1	1	0	0	0
	704413	4" X 15' Galvanized Side Fill Tub	X	X	X	X	X	X	0	0	1	0	0
	704414	4" X 19' Galvanized Side Fill Tub	X	X	X	X	X	X	0	0	0	1	1
	704441	4" X 4' Galvanized Side Fill Tub	X	X	X	X	X	X	0	0	0	0	1

9 Ft Feed Bin Accessories - Parts List

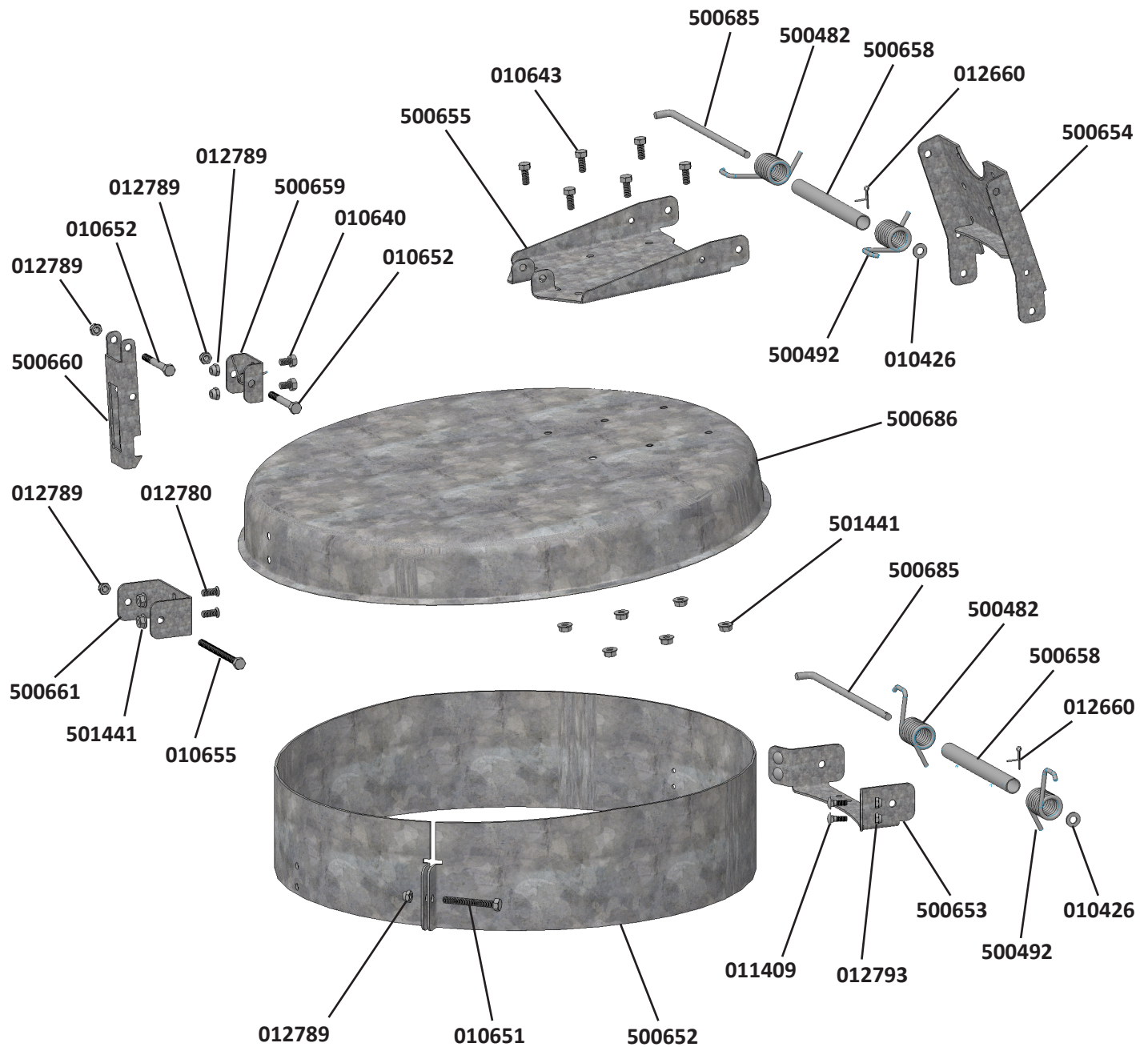
PART #	DESCRIPTION
Bin Accessories	
500221	Anchor Bolt Kit for 9' Diameter Bins
500578	Bin Lifting Bracket Kit
500621	Taper Hopper Slide Valve
501170	25" to 16" Opening Extension Kit Less Boot Collar
501180	25" to 16" Opening Extension Kit With Boot Collar
501398	Roof Vent Kit - 9' Bin
502003	Peek Thru Window
509090	3.40 ton 20 ga. Extension Ring With Hardware - 9' Bin
509091	3.40 ton 18 ga. Extension Ring With Hardware - 9' Bin
509250	9' Bin Taper Hopper Repair Kit
509515	9' 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



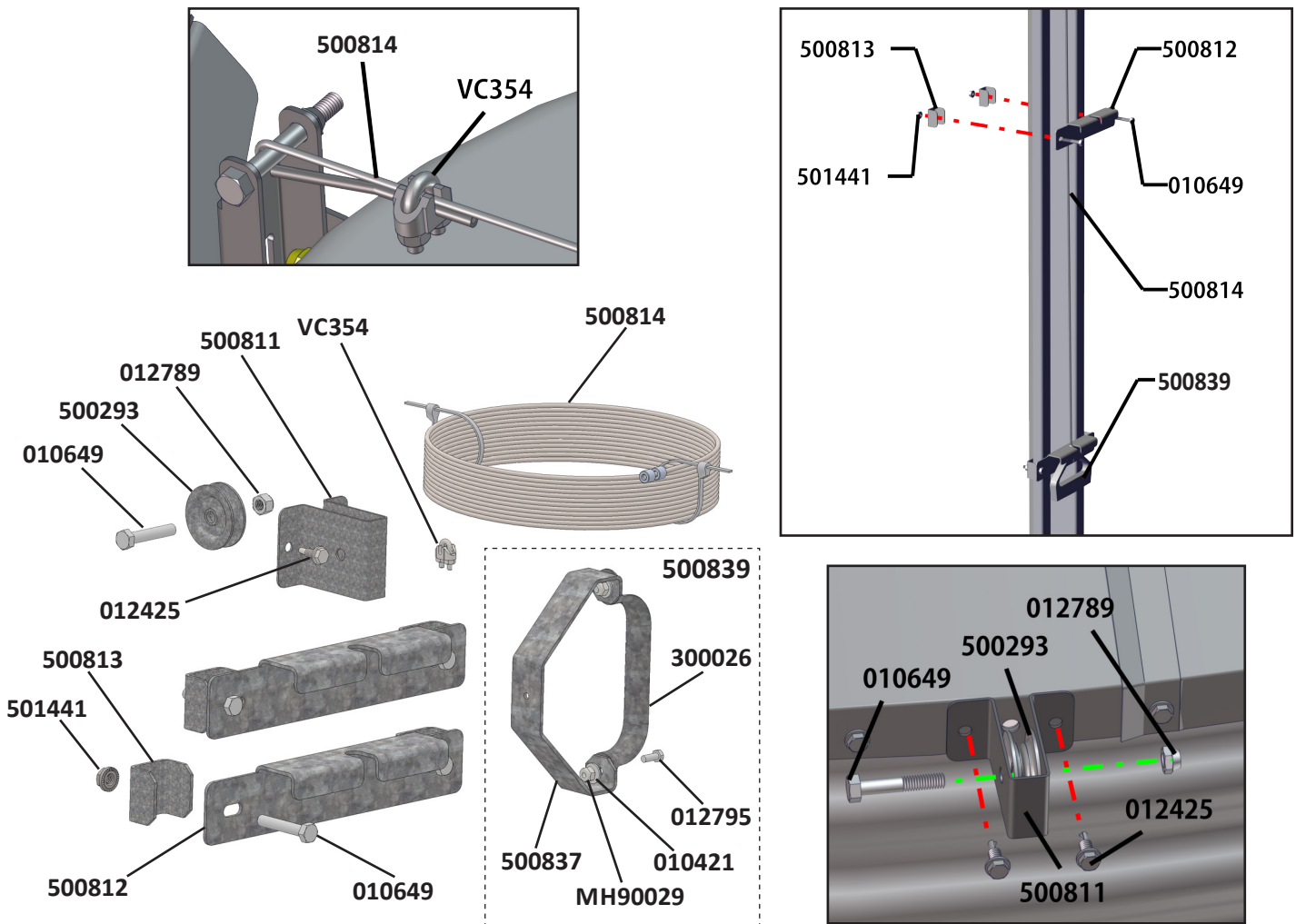
Way-Back Lid - Parts List

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



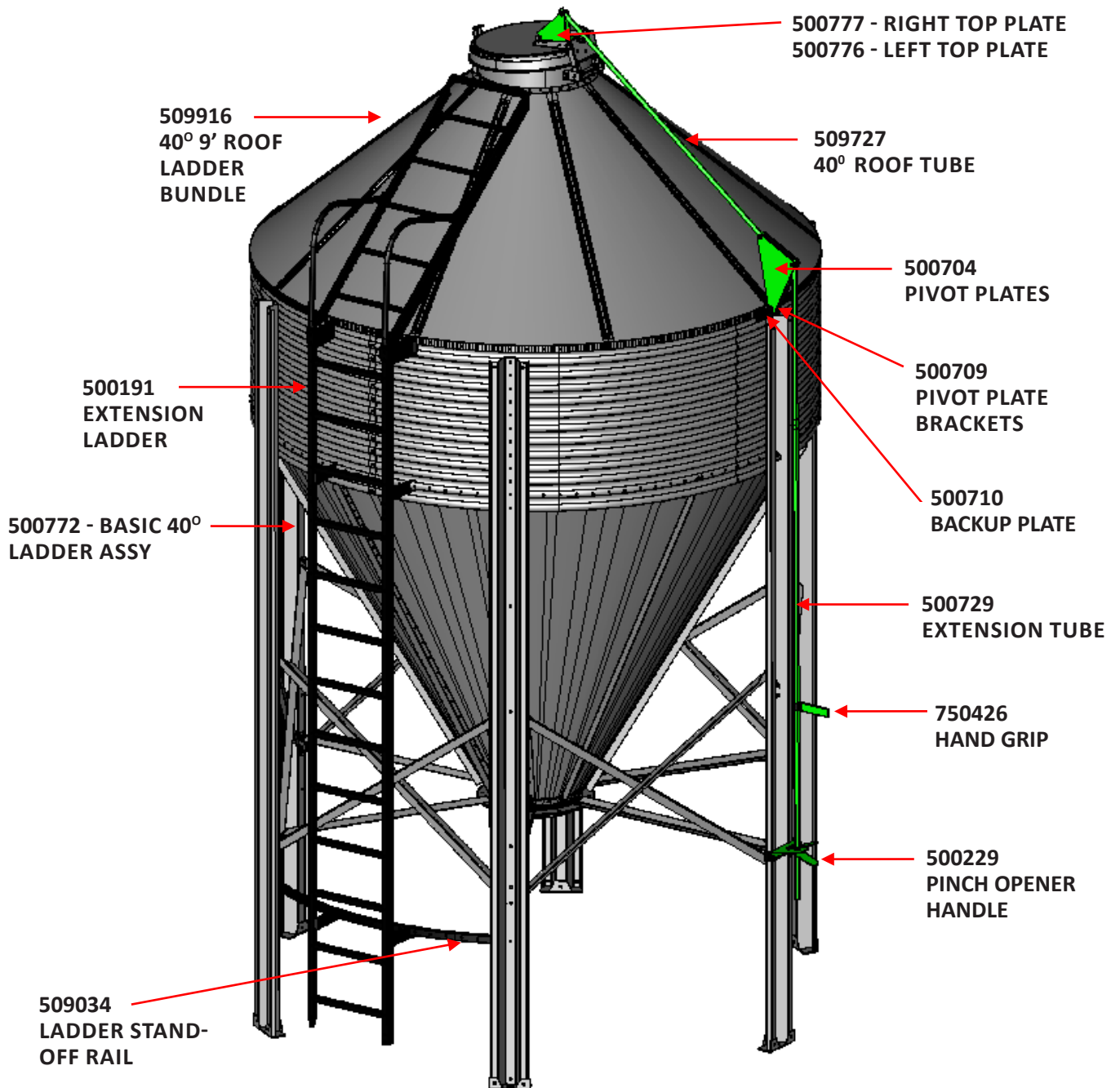
PART #	DESCRIPTION	QTY
500815 - HARDWARE BAG FOR BIN LID OPENER		
010421	3/16" FLAT WASHER	2
010649	5/16-18 X 1-3/4" HEX BOLT	5
012425	1/4" X 3/4" SELF DRILLING SCREWS	2
012789	5/16-18 NYLOCK NUT	1
012795	#10-24 X 1/2" UNSLOTTED HEX BOLT	2
300026	LID HANDLE	1
500293	PULLEY FOR LID CHAIN	1
500811	RETAINER, 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.

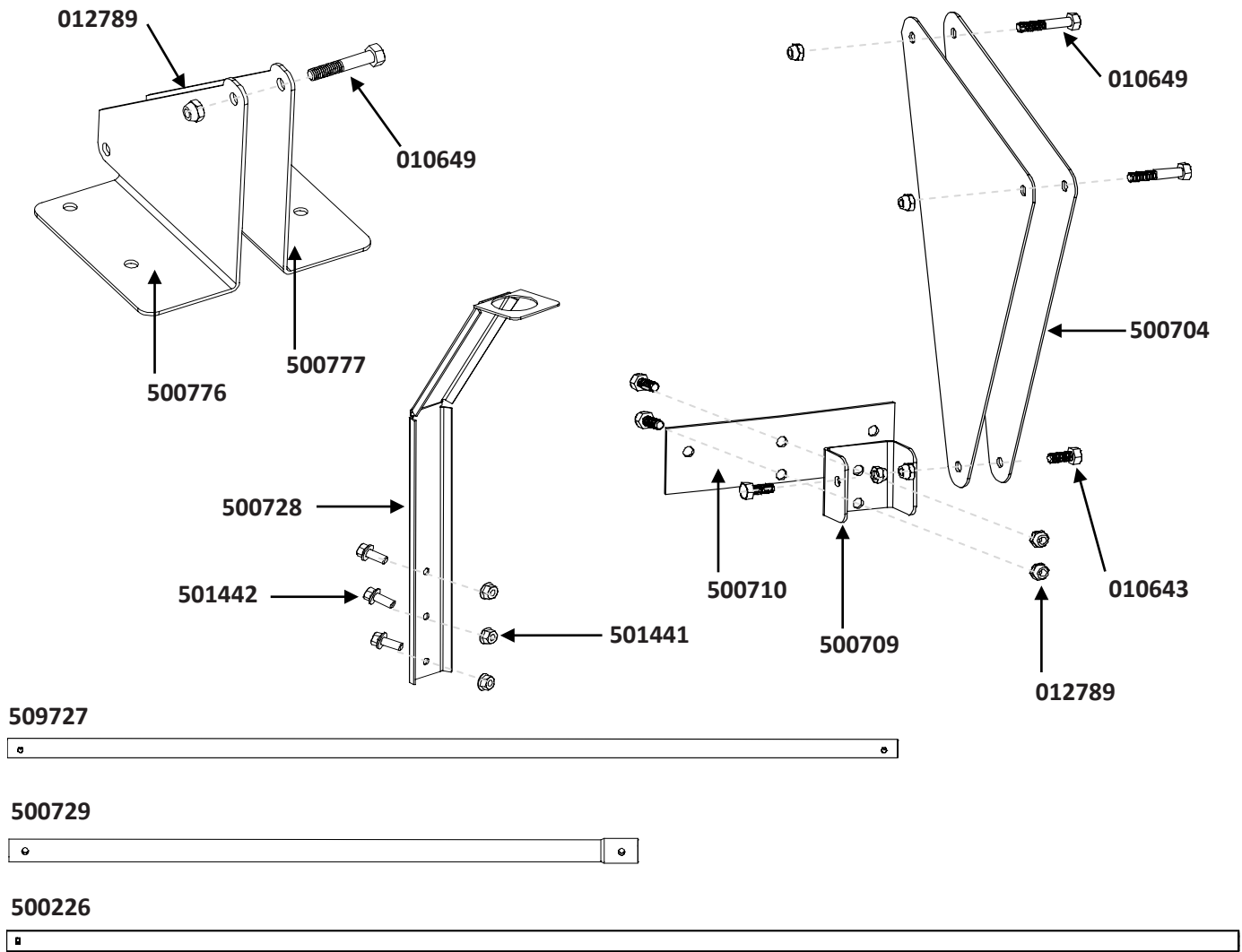
NOTE: The Bin Lid Handle can be ordered pre-assembled as **500839 (BIN LID HANDLE ASSEMBLY)**

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

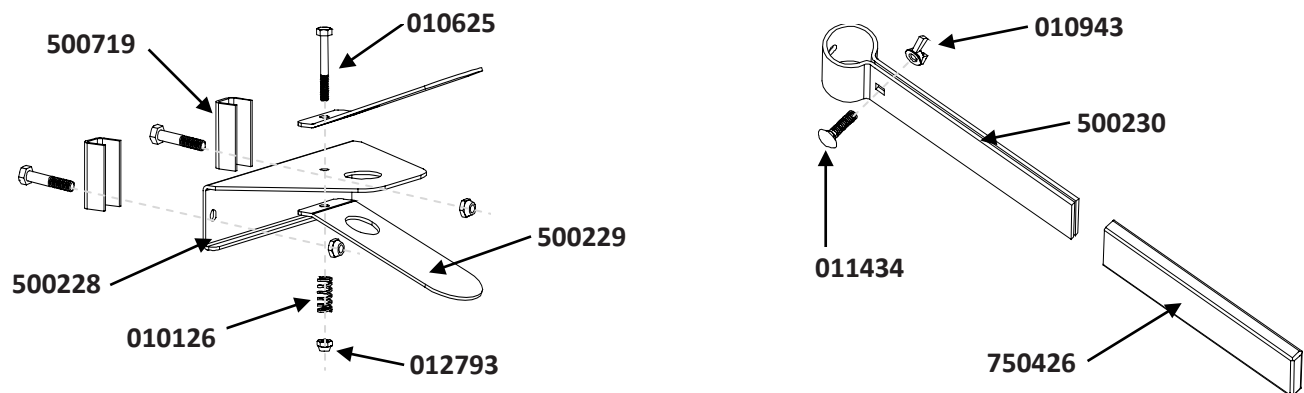
NOTE: Refer to installation instructions shipped with the Tru-Lok Lid



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



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.

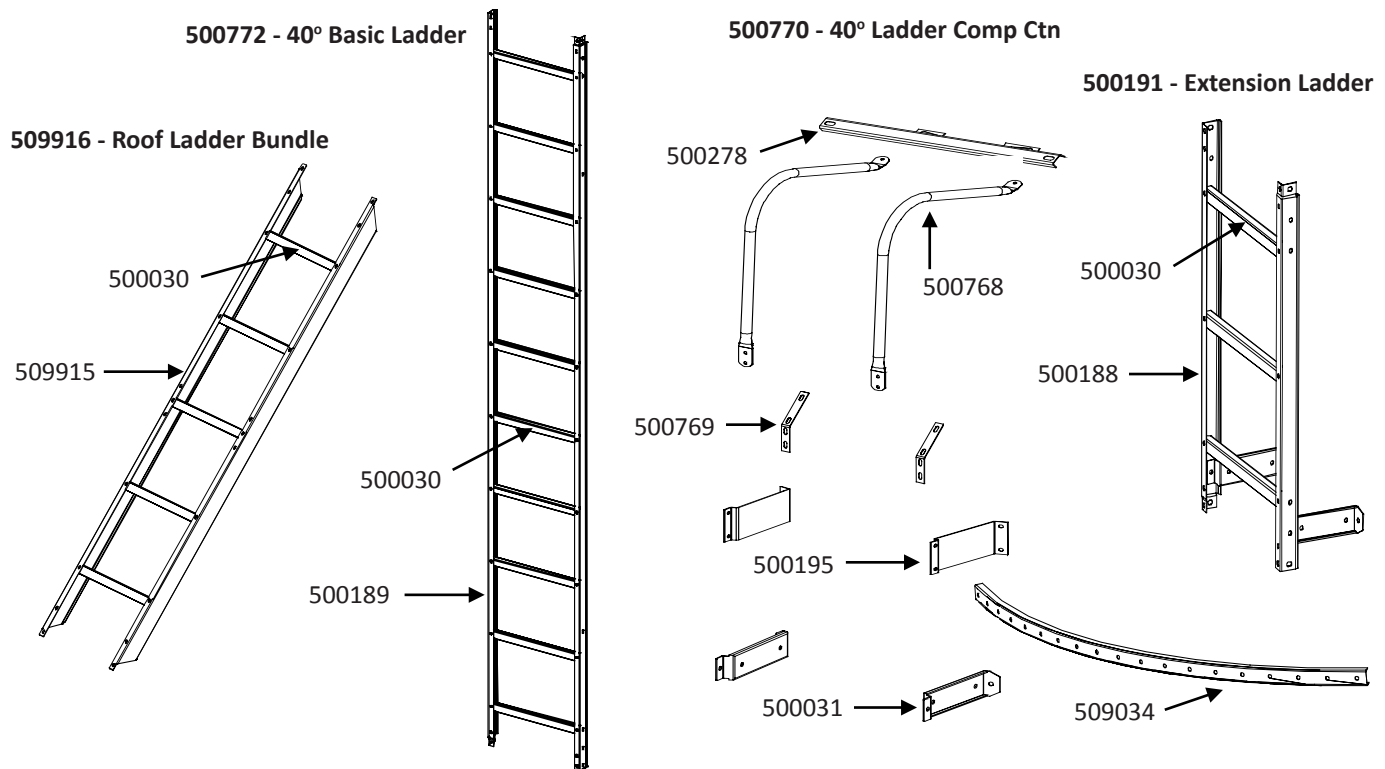


Tru-Lok Add-On - Parts List

PART #	DESCRIPTION	QTY
OPTIONAL - Tru-Lok Add-On (Available for all 9 ft Feed Bins)		
500775	Tru-Lok Accessory Carton	1
509727	Tru-Lok 40° Roof Tube - 9'	1
500226	Tru-Lok Basic Tube	1
500729	Tru-Lok Extension Tube (Quantity will equal the number of Rings)	1-6
500728	Tru-Lok Tube Guide (Available for 3-6 Ring only)	1
Tru-Lok Add-On - REPLACEMENT PARTS (Quantities will vary)		
500777	Right Top Plate	-
500776	Left Top Plate	-
509727	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	-

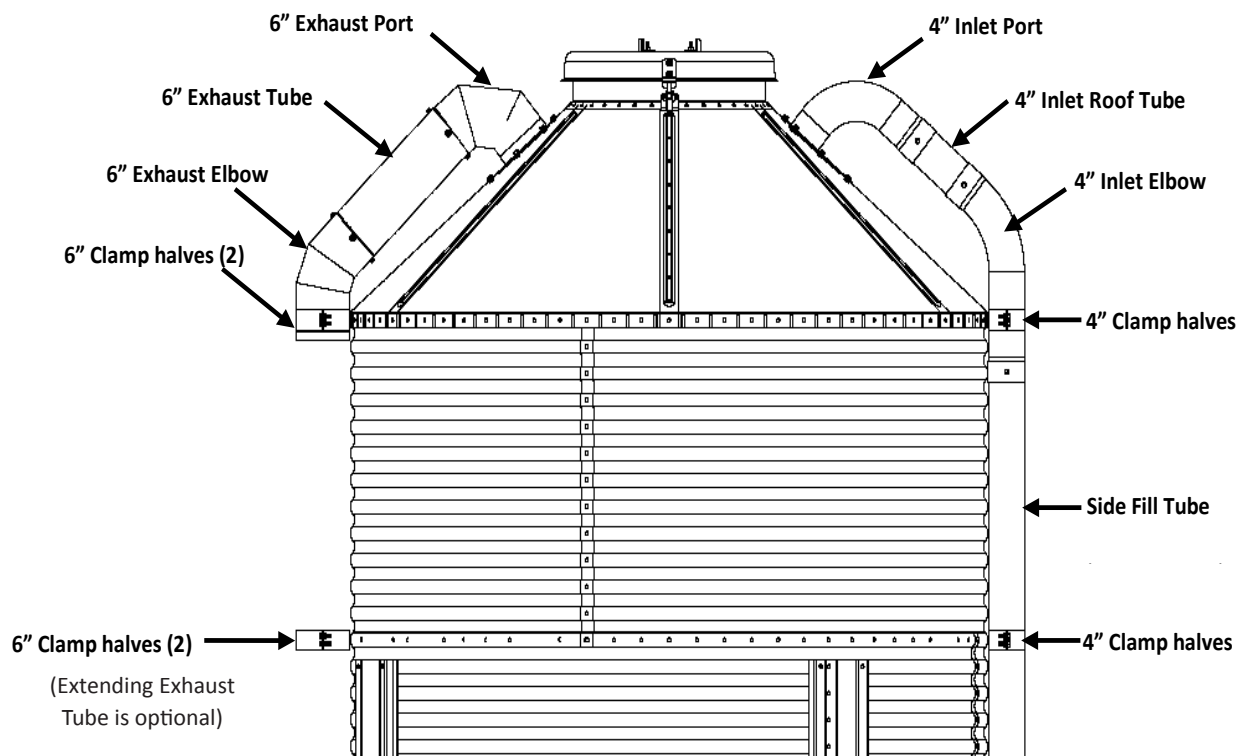


Ladder - Drawing and Parts List



PART #	DESCRIPTION	QTY
OPTIONAL - Ladder Assemblies		
500772	Basic 40° Ladder Assy	1
500191	Extension Ladder (Quantity will equal the number of Rings)	1-6
509034	Ladder Stand-Off Rail	1
509916	40° 9' 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	-
500188	Ext Rail	-
500189	Ladder Rail (108")	2
500770	40 DEG Ladder Comp Ctn (includes Ladder attach. brackets, top brackets, hdwr bag, stand-off, handrail and Roof Ladder Brkt/connecting angle)	1
500031	Ladder Attachment Bracket	-
500195	Ladder Top Bracket	-
500278	Roof Ladder Standoff	1
500287	Ladder Hdwe Bag	-
500768	40 DEG Ladder Top Handrail	2
500769	40 DEG Roof Ladder Bracket	2
509915	40° Roof Ladder Rail	2

Pneumatic Fill - Overview and Parts List (Option)



When ordered as Replacement Parts the Quantities will vary

PART #	DESCRIPTION	QTY
OPTIONAL - Pneumatic Fill Parts		
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
509425	6" x 39.87" Exhaust Tube	1
509918	4" x 32.82" Inlet (roof) Tube	1
704441	4" x 4' Galvanized Side Fill Tube (Available for 6 ring only)	1
704412	4" x 11' Galvanized Side Fill Tube (Available for 1-2 Ring only)	1
704413	4" x 15' Galvanized Side Fill Tube (Available for 3 Ring only)	1
704414	4" x 19' Galvanized Side Fill Tube (Available for 4-6 Ring only)	1
704287	4" Tube Joiner With Hardware (Available for 6 Ring only)	1

Customer Service

Dealer Name: _____

Street / PO Box _____

City _____

State / Province _____

Zip / Postal _____

Phone _____

Fax _____

E-mail _____

Website _____

Customer Service
210 E. Main Street
Coldwater, OH 45828
800.998.2526



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