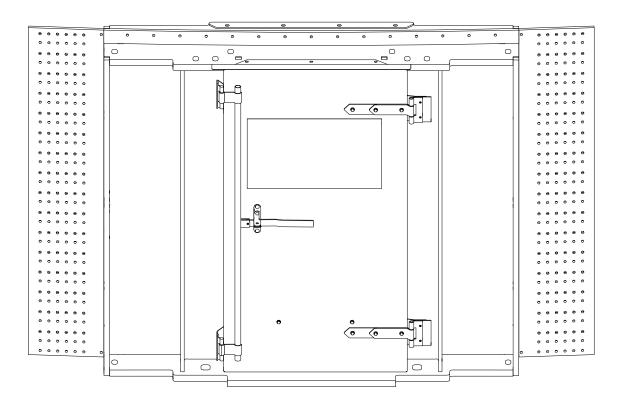


## **Two-Ring Commercial Door**

Outside Stiffened Bins (3 stiffeners per wall sheet) Installation and Storage Instructions





Read this manual before using product. Failure to follow instructions and safety precautions can result in serious injury, death, or property damage. Keep manual for future reference.

Part Number: 236941 R0 Revised: February 2025 Original Instructions TWO-RING COMMERCIAL DOOR – OUTSIDE STIFFENED BINS (3 STIFFENERS PER WALL SHEET)

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## **1. Introduction**

Before assembling, please read this manual. Familiarize yourself with the process and the necessary precautions for efficient and safe assembly of this AGI Two-Ring Commercial Door.

Everyone present at the assembly site is required to be familiar with all safety precautions.

Keep this manual available for frequent reference and review it with new personnel. Call your local distributor or dealer if you need assistance or additional information.

## 2. Safety

### 2.1. Safety Alert Symbol and Signal Words



This safety alert symbol indicates important safety messages in this manual. When you see this symbol, be alert to the possibility of injury or death, carefully read the message that follows, and inform others.

**Signal Words:** Note the use of the signal words **DANGER**, **WARNING**, **CAUTION**, and **NOTICE** with the safety messages. The appropriate signal word for each message has been selected using the definitions below as a guideline.

DANGER Indicates an imminently hazardous situation that, if not avoided, will result in serious injury or death.
 WARNING Indicates a hazardous situation that, if not avoided, could result in serious injury or death.
 CAUTION Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.
 NOTICE Indicates a potentially hazardous situation that, if not avoided, may result in property damage.

### 2.2. General Safety Information

Read and understand all safety instructions, safety decals, and manuals and follow them when assembling the equipment.

• Only experienced personnel who are familiar with this type of assembly and installation should perform this work. Untrained assemblers/installers expose themselves and bystanders to possible serious injury or death.



- Do not modify the two-ring commercial door in any way or deviate from the instructions in this manual without written permission from the manufacturer. Unauthorized modification or methods may impair the function and/or safety. Any unauthorized modification will void the warranty.
- Follow a health and safety program for your worksite. Contact your local occupational health and safety organization for information.
- Contact your local representative or AGI if you need assistance or additional information.
- Always follow applicable local codes and regulations.

### 2.3. Personal Protective Equipment

The following Personal Protective Equipment (PPE) should be worn when installing the equipment.

Safety Glasses



Wear safety glasses at all times to protect eyes from debris.

Coveralls



Wear coveralls to protect skin.

Hard Hat



Wear a hard hat to help protect your head.

### 2.4. Safety Decals

- Keep safety decals clean and legible at all times.
- Replace safety decals that are missing or have become illegible. See decal location figures that follow.
- Replaced parts must display the same decal(s) as the original part.
- Replacement safety decals are available free of charge from your distributor, dealer, or factory as applicable.

### 2.5. Decal Installation/Replacement

- 1. Decal area must be clean and dry, with a temperature above 50°F (10°C).
- 2. Decide on the exact position before you remove the backing paper.
- 3. Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
- 4. Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
- 5. Small air pockets can be pierced with a pin and smoothed out using the decal backing paper.

### 2.6. Safety Decal Locations and Details

Replicas of the safety decals that are attached to the two-ring commercial door and their messages are shown in the figure(s) that follow. Safe operation and use of the two-ring commercial door requires that you familiarize yourself with the various safety decals and the areas or particular functions that the decals apply to, as well as the safety precautions that must be taken to avoid serious injury, death, or damage.

#### Steel-Toe Boots



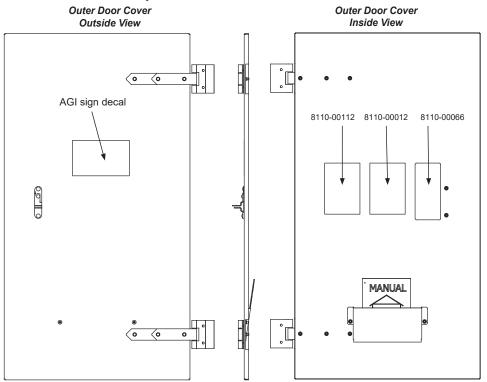
Wear steel-toe boots to protect feet from falling debris.

### Work Gloves



Wear work gloves to protect your hands from sharp and rough edges.

#### **Outer Door Cover Safety Decal Locations**



#### **Safety Decals and Part Numbers**

#### 8110-00012



#### 8110-00112



#### 8110-00066

#### NOTICE

When equipped with aeration system, to prevent roof and/or bin damage:

Use a minimum 1 square foot (0.1m<sup>2</sup>) opening

for each 1000ft3/min (30m3/min) of air.

 Ensure all roof vents are open and unobstructed. Discontinue use of aeration fan if roof vents

become obstructed with ice.

## **3. Before You Begin**

### 3.1. Site and Assembly

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

- Bin location and bin siting
- Soil conditions and corresponding foundation requirements (Note that the examples provided in manuals are for specifically stated soil conditions.)
- Bin assembly (AGI recommends the use of qualified bin installers. Contact AGI for information on installers in your area.)
- Field modifications or equipment additions that affect the bin structure
- Interconnections with neighboring structures
- Have the builder make all non-bin equipment in excess of AGI's recommendations. All such equipment including: LEGS, WALKWAYS, SPOUTING, and CONVEYORS must be self supporting.
- Compliance with all applicable safety standards, including but not limited to fall restraint systems (ladders or other systems). Contact local safety authorities as the standards vary between jurisdictions.

### **3.2.** Critical Assembly Requirements

To ensure a successful, safe and reliable outcome you must comply with the following assembly techniques and practices:

- 1. Comply with all local code and jurisdictional requirements applicable to your two-ring commercial door installation.
- 2. Make sure that the proper hardware is utilized for all bolted connections. If a shortage occurs, do not substitute. Take the necessary steps to obtain the proper hardware. Make sure nuts are tightened to the required torque values as specified in the appropriate assembly manual.
- 3. Comply with all assembly instructions provided in the appropriate assembly manual to make sure your whole two-ring commercial door is constructed safely.

### 3.3. Product Storage

If you won't be assembling the bin right away, store the bundles and boxes inside a building with good ventilation to prevent white or red rust from forming.

#### Note

White rust can be removed and does not cause permanent damage.

### NOTICE Red rust causes permanent structural damage.

Do not assemble any part containing red rust.

If you can't store the bundles and boxes inside, follow the instructions below for outdoor storage.

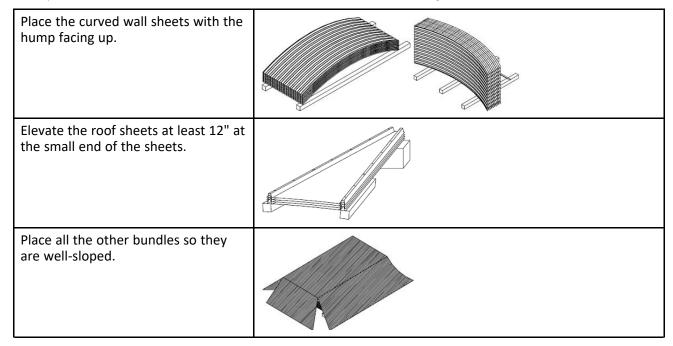
### **Storing Bin Bundles and Boxes Outdoors**

**Required Materials:** 

- Wood blocks
- Waterproof tarp

Storage Procedure:

1. First, place the bundles and boxes on wood blocks about 6"-8" off the ground.



2. For the bin boxes, ladder boxes, and hardware boxes: build a simple framework to support, cover with a waterproof tarp, and secure.

#### Note

The boxes are not waterproof and will deteriorate in normal weather conditions, allowing moisture to contact the parts inside.

#### If Parts Become Wet

- 1. Open the bundles as soon as possible.
- 2. Separate and dry the bin sheets or parts. Keep the parts separated until assembly.

### A WARNING Risk of injury or damage.

Brace parts securely to avoid damage or injury from material falling when in storage.

- 3. Dry any boxed parts that are wet and store them in a new, dry box.
- 4. After drying the wall sheets, apply a food-grade oil with a clean, lint-free cloth.

#### Note

Applying oil will help prevent moisture to contact with the dried wall sheets.

### **WARNING** Risk of slipping.

Do not use oil on roof sheets, ladders, or other parts where a person may walk or stand after the bin is assembled.

### 3.4. Grain Bin Use

- Fill the bin through the center roof opening only.
- Do not overfill the bin roof area! This may cause roof damage or failure.
- Do not off-center unload a grain bin. It is imperative to unload from the center of the bin first, until as much
  grain as possible has been removed, and only then proceed to unload from the next closest unload gate to
  the center. Continue utilizing the unload gates in succession from the center towards the outside. Gate
  control mechanisms should be clearly marked and interconnected to prevent an external gate from being
  opened first.
- The only exception to center unloading is when a properly designed and installed side draw system is utilized. However, as bins tend to go out of round when employing side draws, the bin must be completely emptied before refilling.
- When unloading a bin with a mobile auger through a properly designed auger chute, the entry end of the auger should be pushed into the center of the bin before the auger is engaged. Slower rates of flow are preferable and should not exceed the capacity of an 8" auger.
- Ensure that the inner door panels of grain bin doors are completely closed and latched before filling the grain bin.
- Never enter a loaded grain bin for any reason. Grain can be a killer.

### 3.5. Important Notes

- AGI does not provide a foundation design for this product, and is not liable for any damages or injuries related to inadequately designed or constructed foundations. Customers must contract professional services for all foundation design and construction work.
- Contact local power officials for minimum power line clearance.
- See Section 3.2 Critical Assembly Requirements on page 9 for mandatory siting and assembly requirements.
- Tighten all bolts to the recommended torque settings.

## 4. Preparation

### 4.1. Check the Shipment

Unload the parts at the assembly site and compare the packing slip to the shipment. Ensure that all items have arrived and that none are damaged.

Report damaged parts or shortages immediately to your dealer. Your dealer will order replacement parts immediately to ensure that assembly will not be held up by missing parts. All parts will be charged for and credit will be issued by party at fault. No credit will be issued if freight bills are signed as received in good condition.

### 4.2. List of Tools and Equipment

Use quality tools and equipment. Use them safely, and correctly, for their intended use. Tools for this application should include:

### Tools

- Electric or pneumatic (air) impact tools
- Power drill and drill bits
- Sockets (multiple 9/16" and 1/2" sockets recommended)
- Large-pocket carpenter pouch
- 8" (20 cm) metal punches (for aligning bolt holes)
- Step and extension ladders, construction grade
- 6-point wrenches (Imperial, box end)
- Metal-cutting saw suitable for cutting ladder sections
- Scaffolding

### **Minimum Recommended Safety Equipment**

- A properly-stocked first-aid kit
- Eye, foot, head, and hand protection (safety glasses, steel-toed boots, hard hat, work gloves)
- Cable, chain, or rope to tie-off bin or jacks in case of wind
- Body harness and lifeline (for use where falling hazard exists)
- Ground fault interrupt protected electrical hook-ups

### 4.3. Order Optional Equipment

Optional equipment such as unloading augers, aeration equipment, anchor bolts, foundation sealant, external ladders, safety cage and platforms, etc., should all be on site and checked before assembly starts. Plan your installation in advance. For details, see assembly instruction supplied with optional equipment.

## **5. Assembly**

### 5.1. Assembly Safety

## ▲ WARNING • Do not take chances with safety. The components can be large, heavy, and hard to handle. Always use the proper tools, rated lifting equipment, and lifting points for the job.

- Do not stand on, under, or near any component that is not secured.
- Carry out assembly in a large open area with a level surface.
- Always have two or more people assembling the two-ring commercial door.
- Make sure you have sufficient lighting for the work area.
- Tighten all fasteners according to their specifications. Do not replace or substitute bolts, nuts, or other hardware that is of lesser quality than the hardware supplied by the manufacturer.
- Stay away from overhead power lines and other obstructions during assembly. Contact with power lines can cause electrocution.
- Do not work in high winds.

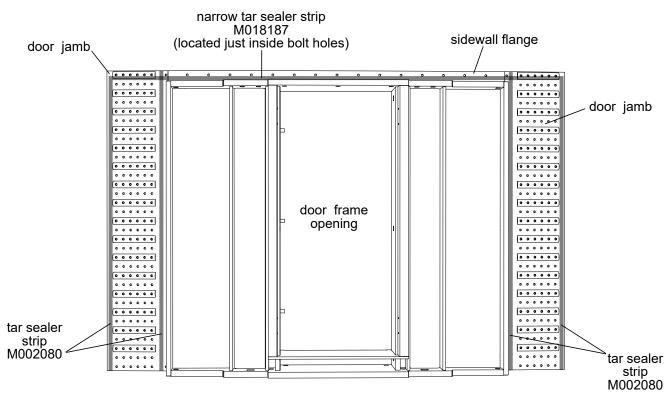
### 5.2. Apply Sealer Tape to Door Frame Outer Side

#### Note

Install the sealer tape in conjunction with the commercial bin base sealer in such a way as to completely prevent all moisture seepage into the bin.

- 1. Apply tar sealer taping to the door frame outer side. Use the pattern depicted in the following drawing.
- 2. Apply narrow tar sealer strip (M018187) horizontally along the top sidewall flange and the door jambs.
- 3. Install 1-1/4" wide tar sealer strip (M002080) vertically on each side of the door jamb holes and corrugation spacers. Run the innermost tar sealer strips from the top door jamb edge down to the bottom door jamb edge.
- 4. Use the narrow tar sealer strip, 1-1/4" wide tar sealer strip, and bin base sealer to fully complete a rectangular moisture barrier surround around the outer door frame assembly (with sealer tape just inside the outermost bolt holes) as shown.
- 5. Before inserting the door frame into the sidewall and after the door is installed, apply caulking at the door location wherever necessary in order to completely prevent any moisture seepage from entering the bin.

#### Figure 1. Door Frame Outer Side Sealer Tape Pattern



### 5.3. Install the Door Frame to the Sidewall

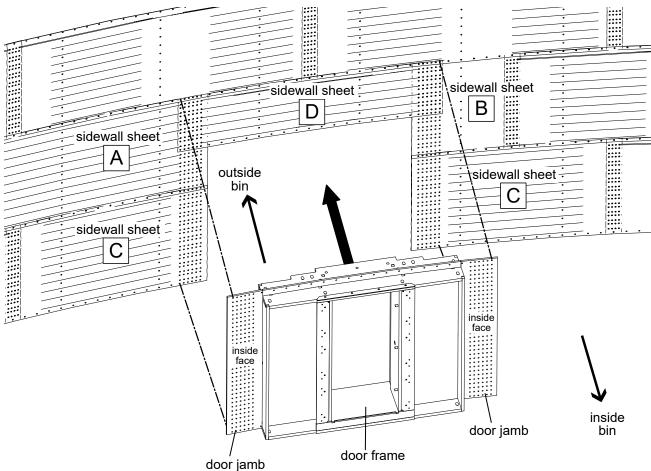
#### Note

Special considerations may be necessary when installing the door onto the anchor bolts.

- 1. Use the proper lifting equipment. Safety lift and position the door frame onto the anchor bolts and inside of the Commercial Bin Sidewall as shown in the following figure.
- 2. Position the jamb faces with the tar sealer and sealer tape facing the outside of the bin.
- 3. Use bolts, drift pins, or other safe method to temporarily hold the door frame and door jambs in place against the sidewall until the door is secured to the sidewall.
- 4. Avoid smearing the tar sealer or sealer tape during this process.

#### Note

Use the following hardware to install the door frame to the sidewall: 7/16" x 2.5" grade 8.2 bin bolts (193735) and 7/16" flange nuts (154158).



#### Figure 2. Install the Door Frame to the Sidewall

#### Note

This door is designed only for use with externally stiffened bins that have 3 stiffeners per sidewall sheet.

• Stiffener lines will line up with both the left and right door frame sides.

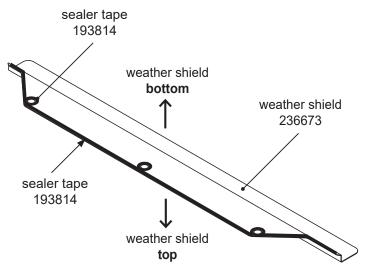
### 5.4. Apply Sealer to the Weather Shield

Applying sealer tape to the weather shield prevents moisture from entering around weather shield bolts.

To apply sealer to the weather shield:

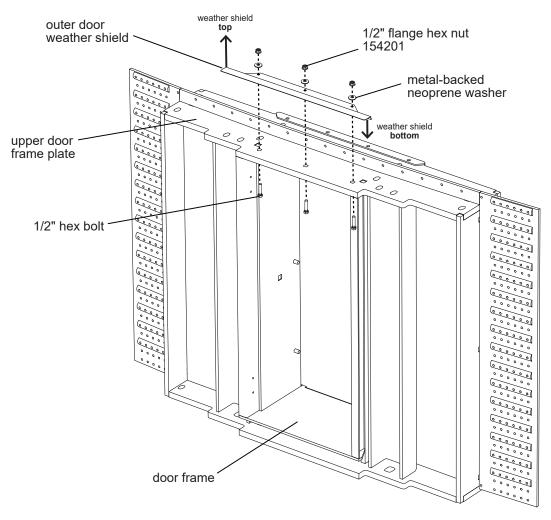
- 1. Turn the weather shield upside down.
- 2. Apply sealer tape around the weather shield bolt holes as shown in Figure 3.
- 3. Apply a line of sealer tape along the weather shield inside edge as shown.

#### Figure 3. Applying Sealer to the Weather Shield



### 5.5. Install the Weather Shield

- 1. Install the weather shield as shown in the following figure.
- 2. Use the supplied 1/2" hex bolts, 1/2" flange nuts, and metal-backed neoprene washers to make these connections.
- 3. Locate the 1/2" flange nuts and metal-backed neoprene washers at the weather shield top. Locate the 1/2" hex bolts below the upper door frame plate.



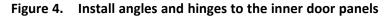
### 5.6. Install Angles and Hinges

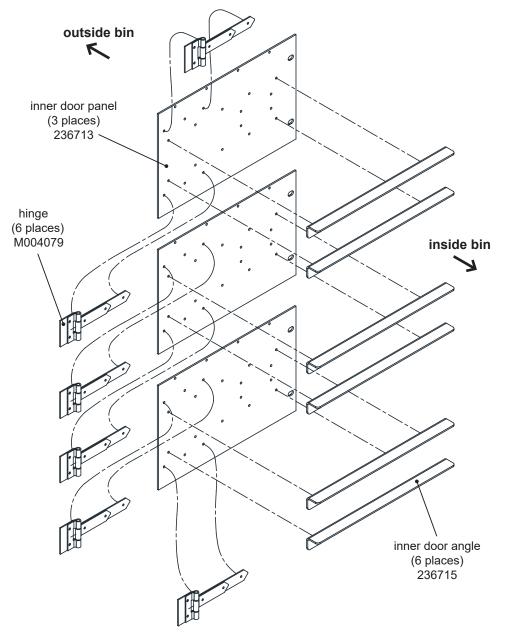
- 1. Install the inner cover angles and hinges to the inner door panels
  - a. Use 5/16" x 1-1/4" bin bolts (235917) and 5/16" flange nuts (235926) to make the connections.

#### Important

Fill all inner door panel bolt holes at these connections.

2. Tighten all bolts.

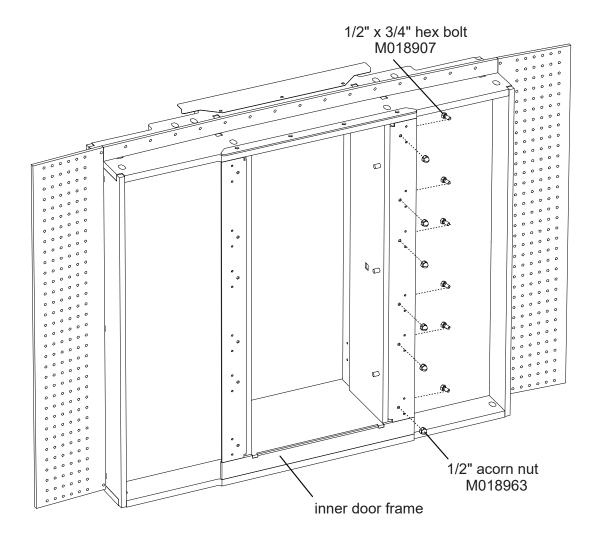




### 5.7. Install the Inner Door Frame Acorn Nuts

- 1. Install acorn nuts (M018963) and 1/2" hex bolts (M018907) to the inner door frame on the latch side (the side where the inner door panel assemblies will latch) as shown in the following figure.
- 2. Tighten all hardware.

#### Figure 5. Install the inner door frame acorn nuts

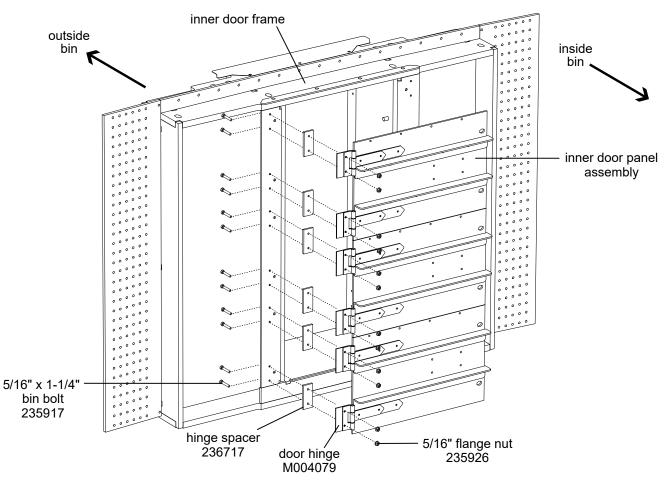


### 5.8. Install the Inner Door Panels to the Frame

To install the inner door panels to the frame:

- 1. Mount the door panel hinges to the frame.
  - a. Position hinge spacers between the door hinges and frame.
  - b. Use 5/16" x 1-1/4" bin bolts (235917) and 5/16" flange nuts (235926).
- 2. Align inner door panels on the door frame in the closed position.
- 3. Tighten all bolts





### 5.9. Install Latches, Pivot Brackets, and Inner Door Seam Angles

- 1. Insert the inner door handle latches into the pivot brackets.
- 2. Bolt the pivot brackets to the inner door panels as shown in the following figure. Use 5/16" x 1-1/4" bin bolts (235917) and 5/16" flange nuts (235926).
- 3. Install inner door seam angles to the upper ends of the middle and lower inner door panels as shown. Use 5/16" x 1-1/4" bin bolts (235917) and 5/16" flange nuts (235926).
- 4. Tighten all bolts.

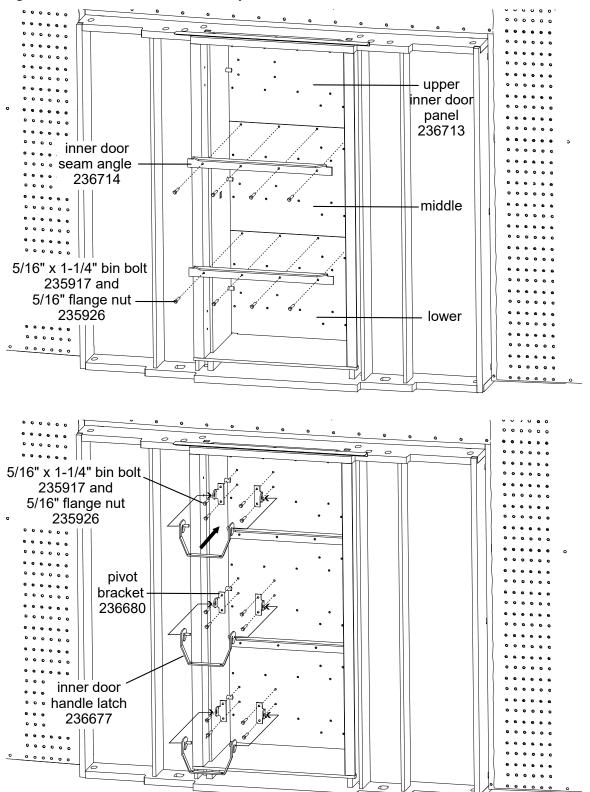
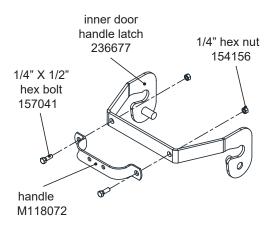


Figure 7. Inner Door Panels Assembly

### **5.10.** Install Door Handles to Inner Door Handle Latches

- 1. Fasten the handles to the inner door handle latches.
- 2. Use 1/4" x 1/2" hex bolts (157041) and 1/4" hex nuts (154156). Tighten these bolts.

#### Figure 8. Inner Door Handle and Latch Assembly

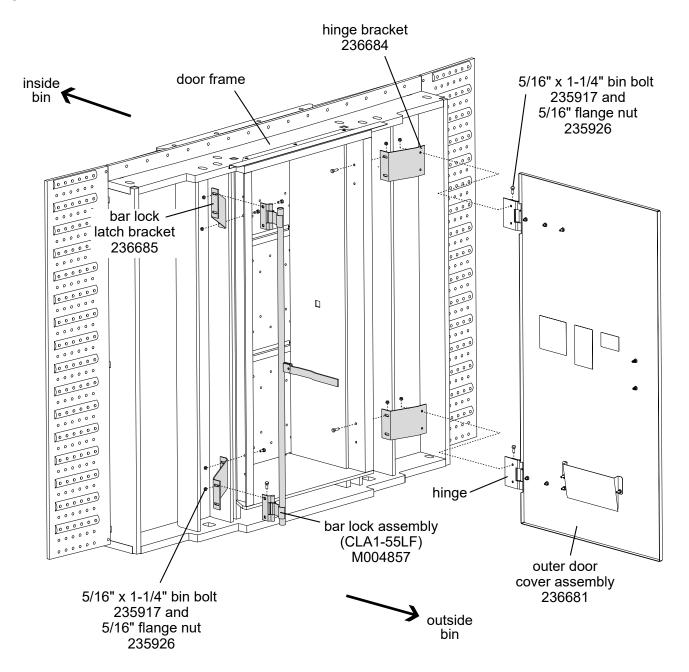


### 5.11. Install the Outer Door Cover and Handle Bar Lock

To install the outer door cover and handle bar lock:

- 1. Install the outer door hinge brackets to the door frame.
- 2. Install the outer door cover hinges to the hinge brackets.
- 3. Install the bar lock latch brackets to the door frame.
- 4. Install the door handle bar lock to the bar lock latch brackets.
  - a. Use 5/16" x 1-1/4" bin bolts (235917) and flange nuts (235926) for each of these connections.

Figure 9. Install the outer door cover and handle bar lock

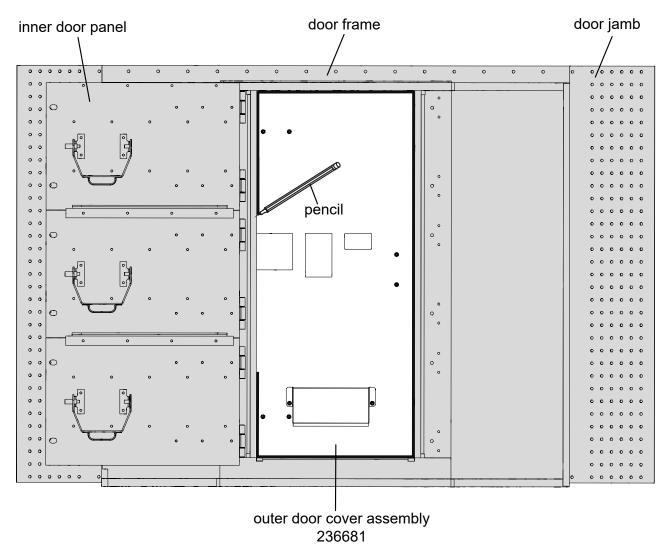


### **5.12.** Trace the Frame Edge onto the Outer Door Cover

To prepare the door cover for sealer tape application:

- 1. Open the inner door panel.
- 2. Close the outer door cover.
- 3. Use a pencil to trace the outer door frame opening pattern onto the outer door cover.

#### Figure 10. Trace the pattern on the outer door cover



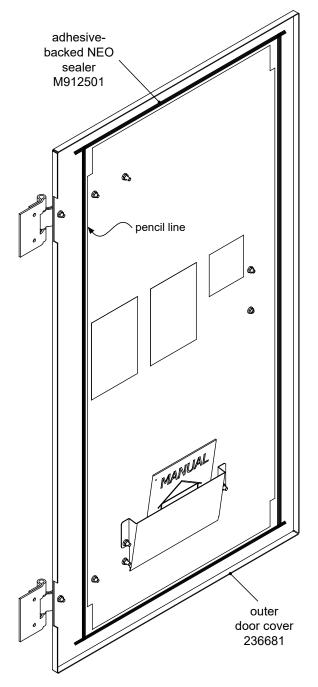
### 5.13. Apply Adhesive-Backed Sealer Tape

Adding sealer tape to the door cover ensures a weather tight seal.

Apply adhesive-backed sealer tape to the door panel as follows:

- 1. Apply adhesive-backed neo sealer (M912501) to the inside of the outer door cover.
  - a. Position the sealer outside the pencil line pattern.
  - b. Ensure the sealer so that the door cover will come to rest against the outer door frame.

#### Figure 11. Applying Sealer Tape to the Door Cover



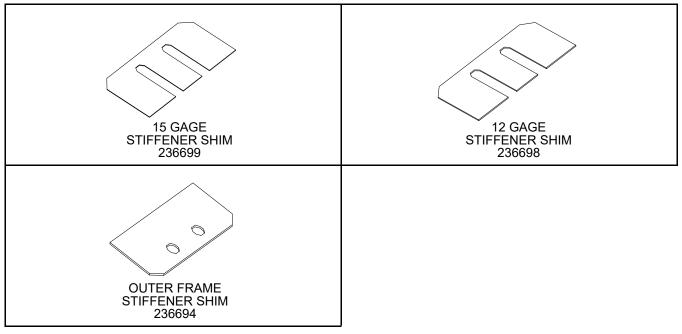
# 5.14. Install Stiffeners and Shims, then Fasten the Door Frame to the Stiffeners

### 5.14.1 Door Shims

#### Important

Door Shim types are shown below. The quantities of shims of each type required for your installation may differ from the quantities of shims called for in these instructions. There should not be any remaining gaps between the stiffeners/door stiffeners and the door frame when shimming is complete.

#### Table 1. Shims



### 5.14.2 Locate Shims and Install the Stiffeners

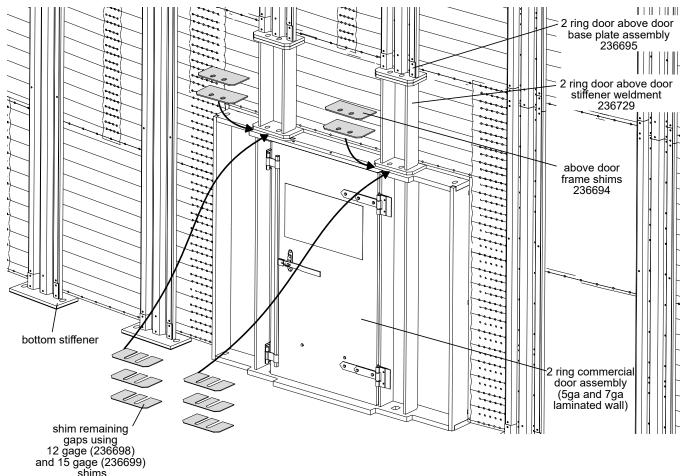
- 1. Read and understand all of the instructions in this manual section before connecting and bolting the door frame to the stiffeners and anchor bolts.
- 2. Install stiffeners above the door as shown in the following figure.
- 3. Install bottom stiffeners above the door.
- 4. Loosely bolt the stiffeners above the door to the sidewall with the appropriate bolts.
- 5. Install (236694) shims above the door as shown in the following figure. Place one (236694) shim underneath each stiffener above the door.
- 6. Use two 3/4" x 4" hex bolts (150023), 3/4" flat washers (154978), and 3/4" hex nuts (150041) to bolt together top door frame ends to the stiffeners. Bolts must pass through the door frame shims and stiffeners.
- 7. Fill any remaining gaps between the stiffeners and the door (above the door and below the door) using 12 gage and 15 gage stiffener shims as needed.

#### Important

When shimming is complete there shouldn't be any remaining gaps between the stiffeners and the door frame.

8. Tighten all bolts.

#### Figure 12. Locate Above Door Stiffeners.

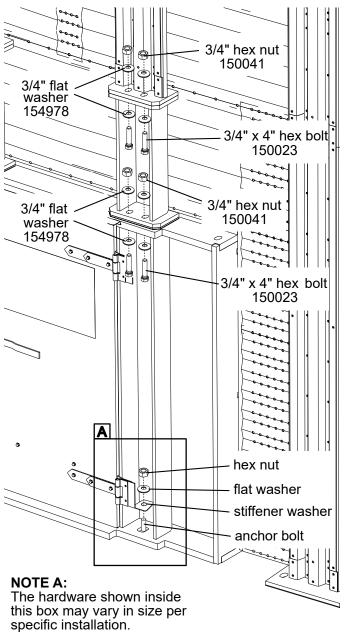


### 5.14.3 Securely Fasten The Door Frame to the Stiffeners and Anchor Bolts

Note: Special consideration may be necessary when installing the door onto anchor bolts.

- 1. Insert the door frame corners and the door into the bin sidewall.
- 2. Bolt the door into place as shown in the following figure.
  - Anchor bolt hardware at the door to foundation connection will vary per installation.
- At each door frame to stiffener connection, use two 3/4" x 4" hex bolts (150023), 3/4" flat washers (154978), and 3/4" hex nuts (150041) on the upper side of each door frame corner / stiffener hole. Use this connecting hardware to fill both door frame corners / stiffener holes. Tighten all bolts.

Figure 13. Use the supplied connecting hardware to fasten the door frame to the stiffeners and anchor bolts.

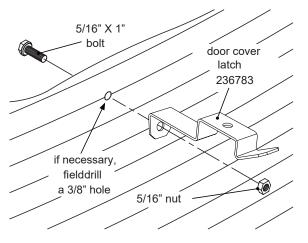


### 5.15. Installing the Door Cover Latch

The cover latch keeps the door cover in fixed position when it is open.

1. Bolt the door cover latch to the sidewall below the door cover (when the door cover is in the open position) on the hinge side of the door. See the following figure.

Figure 14. Door Cover Latch

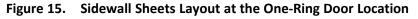


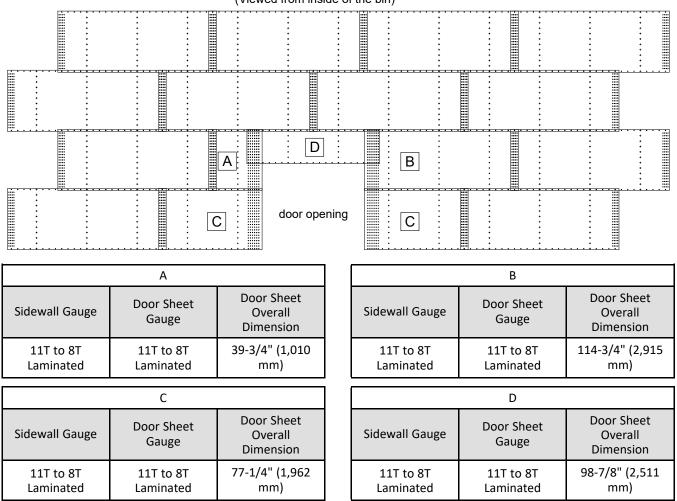
## 6. Specifications

### 6.1. Two-Ring Commercial Door Sidewall Layout

#### Note

A door installed into a laminated sidewall sheet ring is bolted to laminated door sidewall sheets.





(Viewed from inside of the bin)

# 7. Appendix

### 7.1. Parts List

#### Table 2. 2 Ring Door, 236720, Assembly Primary Parts

Part Number	Description	
236721	2 ring door frame weldment, flush floor, 1st and 2nd sidewall rings	
236673 2 ring door weather shield		
236681	2 ring door outer door cover assembly	
M004857 bar-lock assembly (CLA1–55LF)		
236713	2 ring door, 105' and 135' bins, inner door panel	
236714 inner door seam angle		
236715 inner door angle		
236729 2 ring door above door stiffener weldment		
236695 2 ring door above door base plate assembly		

#### Table 3. 2 Ring Door, 236720, Hardware

Part Number	Description	
M004079	2 ring door hinge	
236684	outer door hinge bracket	
236685	outer door latch bracket	
236677	2 ring door inner door handle latch	
M118072	door handle	
236717	hinge spacer	
236680	pivot bracket	
236783	door cover latch	
236694	outer frame stiffener shim	
236698	12 gage stiffener shim	
236699	15 gage stiffener shim	
M002080	1-1/4" x 1" Bin Tite tar sealer strip	
M018187	1/2" x 3/4" x 10' tar sealer strip	
M912501	1/2" x 7/8" adhesive-backed neo sealer	
193814	sealer tape	
170445	clear silicone caulking	

Part Number	Description	
157041	1/4" x 1/2" hex bolt	
M018907 1/2" x 3/4" hex bolt		
235917 5/16" x 1-1/4" bin bolt with seal washer		
193735	7/16" x 2-1/2" hex bolt with shoulder	
M90100451	1/2" x 2-1/2" hex bolt — with metal-backed neoprene washer	
150023	3/4" x 4" grade 8 hex bolt	
150041	3/4" hex nut	
154201 1/2" flange hex nut		
M018963	//018963 1/2" acorn nut	
235926	235926 5/16" flange hex nut	
154156	154156 1/4" flange hex nut	
154158	154158 7/16" flange hex nut	
M018908	018908 1/2" flat washer	
154978	154978 3/4" flat washer	

Table 3 2 Ring D	oor, 236720,	Hardware	(continued)
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### 7.2. Door Parts Identification

#### Figure 16. 2-Ring Door — Outside View

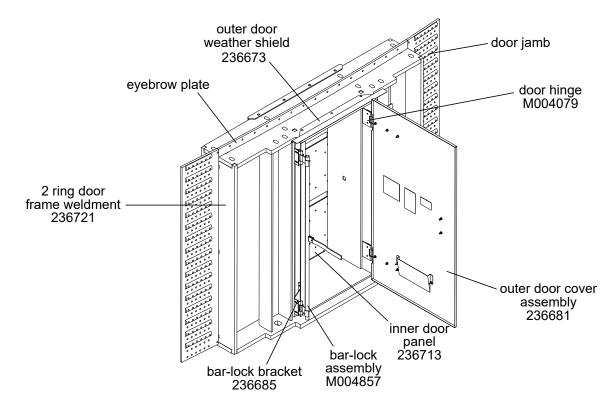
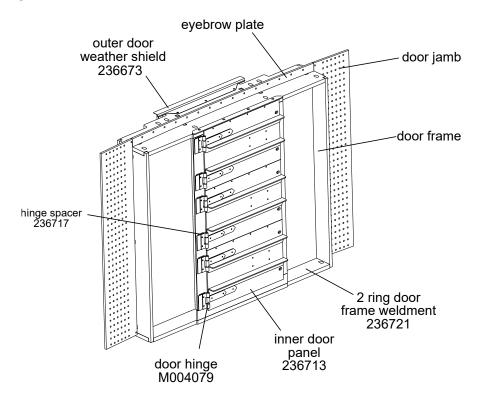
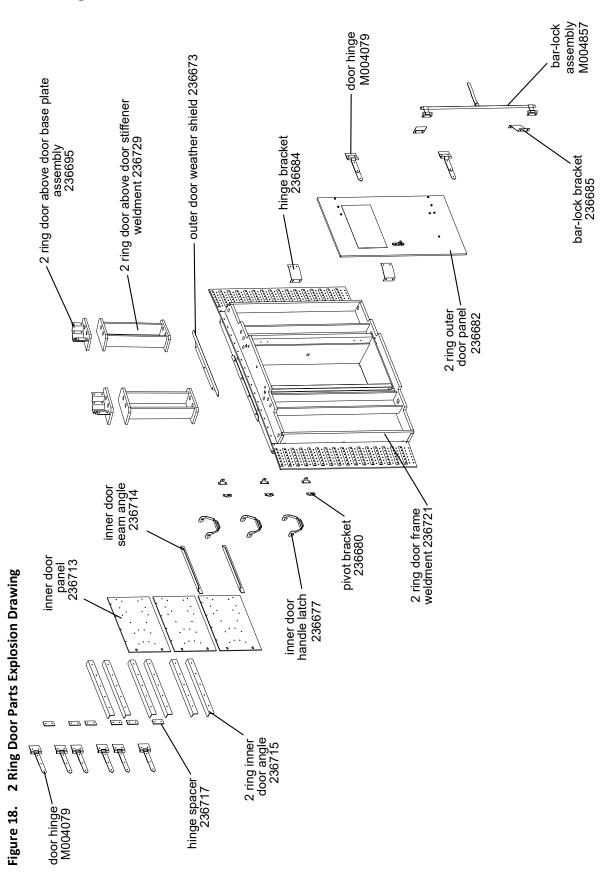


Figure 17. 2-Ring Door — Inside View

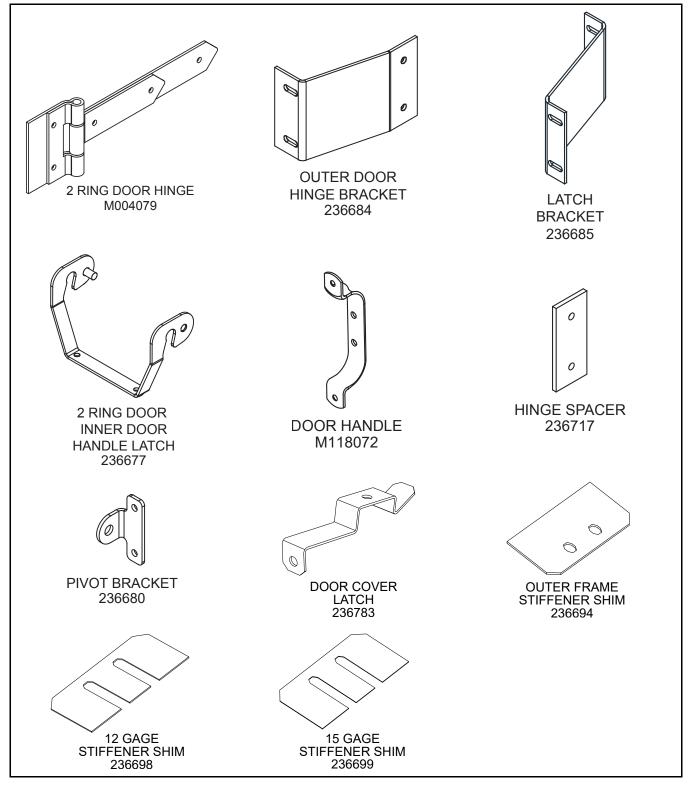


### 7.2.1 2 Ring Door Parts



### 7.2.2 Door Hardware

#### Table 4.Door Hardware

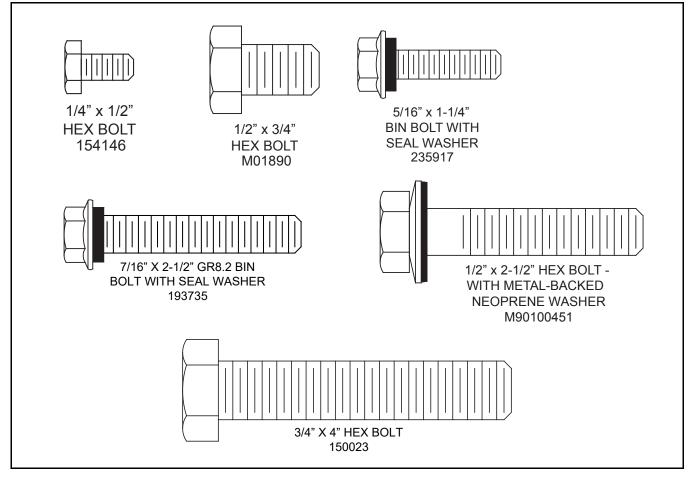


#### Table 4Door Hardware (continued)



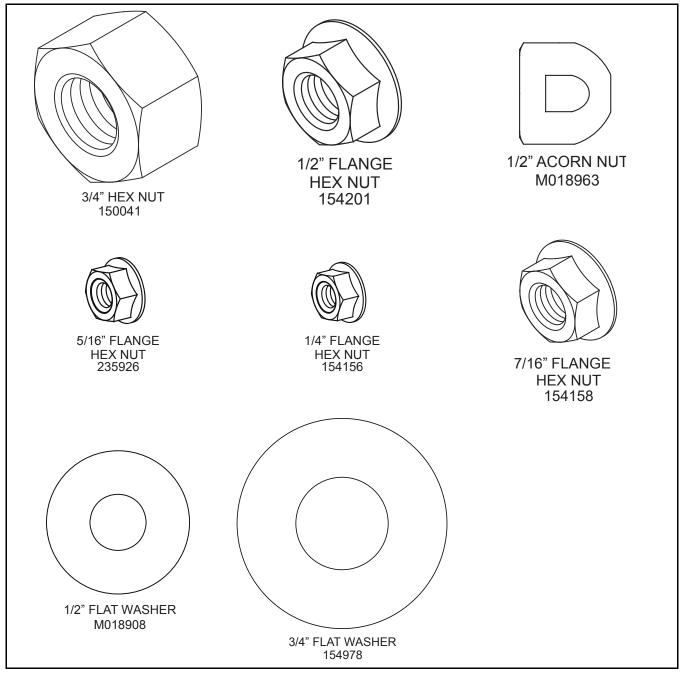
### 7.2.3 Bolts

### Table 5. Bolts



### 7.2.4 Nuts and Washers

#### Table 6.Nuts and Washers



### 7.3. Recommended Bolt Assembly

When tightening bolts, tighten the nut on the bolt until a "snug-tightened condition" has been achieved. A "snug-tightened condition" is defined in *Specification for Structural Joints Using ASTM A325 or A490 Bolts* (Research Council on Structural Connections: June 2004), which states:

"The snug-tightened condition is the tightness that is attained with a few impacts of an impact wrench or the full effort of an ironworker using an ordinary spud wrench to bring the connected plies into firm contact."

A properly tightened bolt will compress the sealing washer noticeably. All assembly crew members must be made aware of this requirement, and must know how to achieve a snug-tightened condition using common binbuilding tools.

It is important that the bolts in the vertical wall sheet seams are tightened enough to squeeze the caulking and bring the wall sheet surfaces into firm contact with each other. This is especially important to monitor when installing bolts in temperatures approaching -10°C (14°F).

The following table shows the minimum impact gun torque capacity necessary to achieve a snug-tightened condition for bolts used in the assembly process.

Balt Diamatar	Bolt Diameter Bolt Grade Grade Mark	Crede Merk	Recommended Torque Capacity		
Boit Diameter		Grade Wark	in-lb	ft-lb	N-m
1/4"	Grade 8.2		75	6	8
5/16"	Grade 8.2		215	18	24
3/8"	Grade 8.2		370	31	42
7/16"	Grade 8.2		600	50	68
1/2"	Grade 8.2		960	80	108
5/8"	Grade 8.2	(SPE)	1800	150	203
3/4"	Grade 5	$\langle \cdot \rangle$	3230	269	365

#### Table 7. Recommended Impact Gun Torque Values Capacity to Achieve Snug-Tightened Bolts

For proper sealing, do not overtighten the wall seam connections. Sealing is not critical on stiffener splice connections; these connections should be tightened securely to prevent loosening.

Hold the bolt head securely when tightening the nut to prevent damage to the sealing washer.

#### Important

Always tighten the nut, not the bolt.

Avoid bin assembly at temperatures below -10°C (14°F) if possible. Erection in low temperatures does not ensure strong, well sealed connections. Do not substitute bolts in place of those supplied by AGI.

#### Important

Do not substitute any other bolts/fasteners for those supplied by the AGI factory.

## 8. Warranty

#### **AGI Grain Bin Products**

Ag Growth International, Inc. ("AGI") warrants that the goods and/or services being supplied (the "Goods") will be free from defects in materials and workmanship under normal conditions, use, service, and maintenance, for a period of twelve (12) months from the date of first operation of the Goods, but in no event more than eighteen (18) months from the date of delivery of the Goods to the end-user (or as otherwise set out in the chart below) (the "Warranty Term"). If the Goods are being used for rental purposes, the Warranty Term for the subject Goods shall be limited to 90 days.

Galvanized Bins	5 Years			
SureTrack	2 Years			
Easyflow2	2 Years			
Fans	3 Years			
Heaters	1 Year			
Side Draw	5 Year			
Transitions	3 Years			
Roof Exhauster	1 Year			
Floors	5 Years			
Catwalk	1 Year			
Bulk Feed Tanks	2 Years			
Hopper Tanks	5 Year			
SeedSt	tor-K Cones			
Paint	1 Year			
Structural	10 Year			
Commerci	ial HBB Hopper			
Paint	1 Year			
Structural	10 Year			
Weld	ed Cone(s)			
Paint	1 Year			
Structural	10 Year			
Farm Sm	oothwall Bins			
Paint	1 Year			
Structural	10 Year			
Commercial	Smoothwall Bins			
Paint	1 Year			
Structural	10 Year			
SMARTStir Accessories				
Trolley	1 Year			
Down Auger	1 Year			
Disconnected Box	1 Year			
Grain Spreader	1 Year			
EasyDry	Accessories			
Plenum	5 Year			
Controls	1 Year			
Blower Heater	1 Year			

Subject to AGI's sole discretion, if the Goods, or a component thereof, are found to have a default in materials and/or workmanship within the Warranty Term, AGI will, at its own option and expense, repair or replace the subject Goods or refund the purchase price for the applicable Goods. Any warranty related expenses incurred on behalf of or by the end-user without the prior written consent of AGI shall be the sole responsibility of the end-user. Expenses relating to travel, customs or import duties and tariffs, equipment rental, and any costs associated with accessing the Goods are the sole responsibility of the customer. Warranty shall be void in the event that the Goods are returned or disposed of without the written consent of AGI.

The customer shall not assert a claim that the Goods are defective unless the customer gives written notice to AGI of such defect within forty-eight (48) hours of discovering such defect. In the event of a warranty claim, the customer must complete any and all information

required by AGI in order to properly assess or investigate the claim. AGI shall be given a reasonable opportunity to inspect and test the Goods in question. Failure by the customer to notify AGI of such claim within 48 hours shall operate as a waiver of any and all such claims by the customer.

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This limited warranty extends solely to Goods manufactured by AGI and does not cover any third-party parts, components, or materials. To the extent permitted by the manufacturer, AGI will pass on applicable warranties on third-party parts, components or materials to the end-user. This warranty does not extend to any losses or damages due to misuse, use of a kind and/or to a degree not reasonably expected to be made of the Goods, any use of the Goods which is not an intended use as specified in AGI's published product literature or otherwise specified by AGI in writing, accident, acts of God, abuse, neglect, normal wear and tear (including corrosion and cosmetic issues), any equipment attached to or used in conjunction with the Goods, any field modifications or substitutions to original Goods, component damage incurred during shipping and handling, modification or alteration, used beyond rated capacity, or improper installation, maintenance or application.

THE SOLE AND EXCLUSIVE REMEDY FOR ANY CLAIM HEREUNDER SHALL BE LIMITED TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE. AGI SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE AND IN NOT EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), SHALL AGI'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXCEED THE PURCHASE PRICE OF THE GOODS. BUYER AGREED THAT IN NO EVENT SHALL AGI'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES. THE TERM "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, BUT NOT BE LIMITED TO, LOSS OF ANTICIPATED PROFITS, LOSS OF USE, LOSS OF REVENUE, FAILURE TO MEET GOVERNMENT AND/OR ADMINISTRATIVE REQUIREMENTS, CLEAN UP COSTS, COST OF CAPITAL AND DAMAGE OR LOSS TO OTHER GOODS, PROPERTY OR EQUIPMENT.

To the fullest extent permitted by law, Buyer, on behalf of itself, its suppliers, their agents, employees or any entity or person for which Buyer is or may be responsible ("Indemnitors") shall fully indemnify, save and hold AGI, its agents, employees, officers, directors, partners and related entities harmless from and against all liability, damage, loss, claims, demands, actions and expenses of any nature whatsoever, including, but not limited to reasonable attorney's fees which arise out of or are connected with: (a) any negligent act, error or omission by any Indemnitor in the performance of this agreement; (b) the failure of the Indemnitor to comply with the laws, statutes, ordinances or regulations of any governmental or quasi-governmental authority; or (c) the material breach of any term or condition of this agreement by any of the Indemnitors. Without limiting the generality of the foregoing, the indemnity hereinabove set forth shall include all liability, damage, loss, claims, demands, and actions on account of personal injury, death or property loss to any third party, any Indemnitee, any of Indemnitee's employees, agents, licensees or invitees. The indemnity set forth herein shall survive any termination of this agreement.

THIS WARRANTY IS NON-TRANSFERABLE AND APPLIES ONLY TO THE ORIGINAL END-USER AND SHALL BE CONSIDERED VOID IF NOT REGISTERED WITHIN 30 DAYS OF RECEIPT OF THE GOODS BY THE ORIGINAL END USER.

AGI is a leading provider of equipment solutions for agriculture bulk commodities including seed, fertilizer, grain, and feed systems with a growing platform in providing equipment and solutions for food processing facilities. AGI has manufacturing facilities in Canada, the United States, the United Kingdom, Brazil, South Africa, India and Italy and distributes its products globally.



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