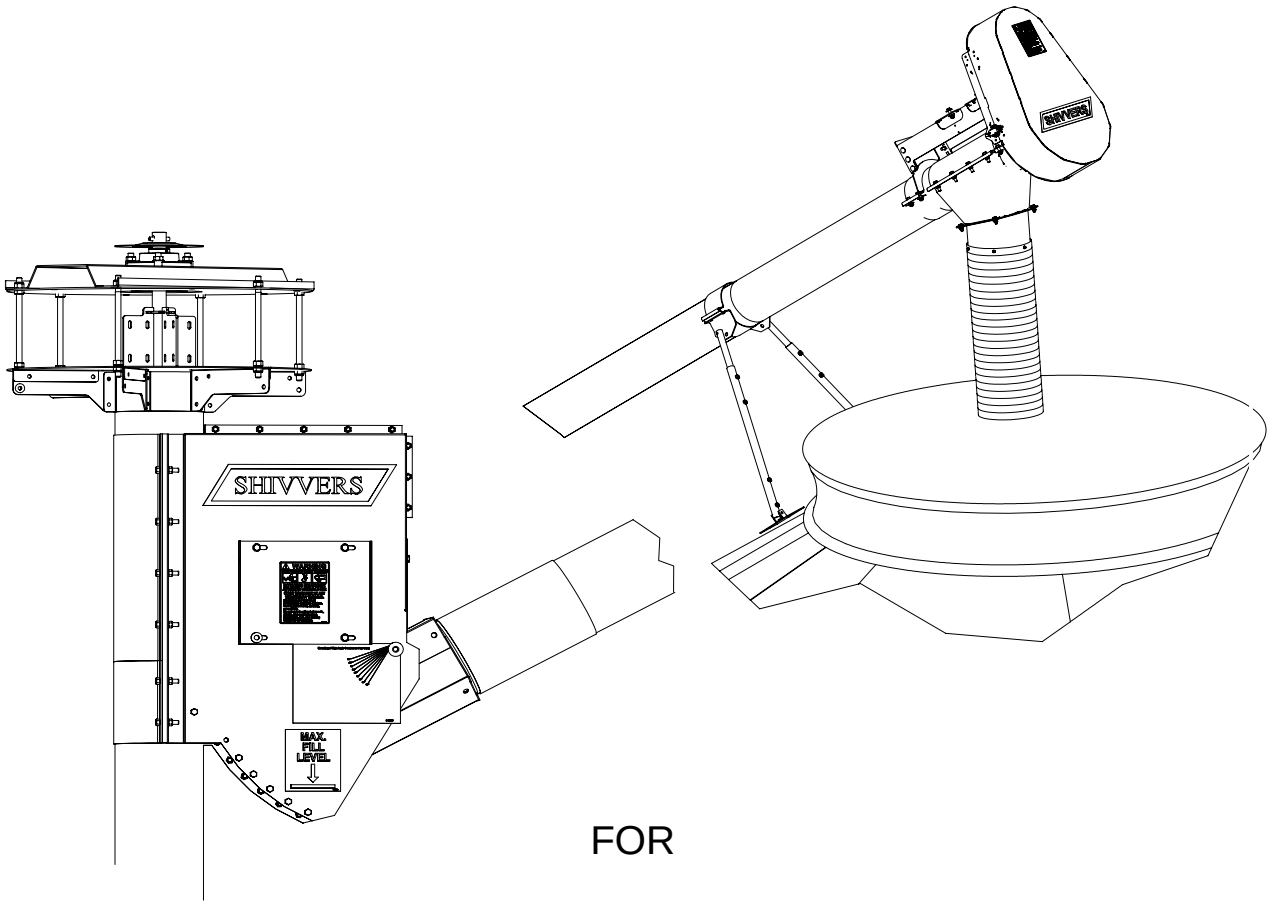
SHIVVERS

INSTALLATION INSTRUCTIONS



FOR

8" CONTINUOUS FLOW AND AUXILIARY TRANSFER AUGERS

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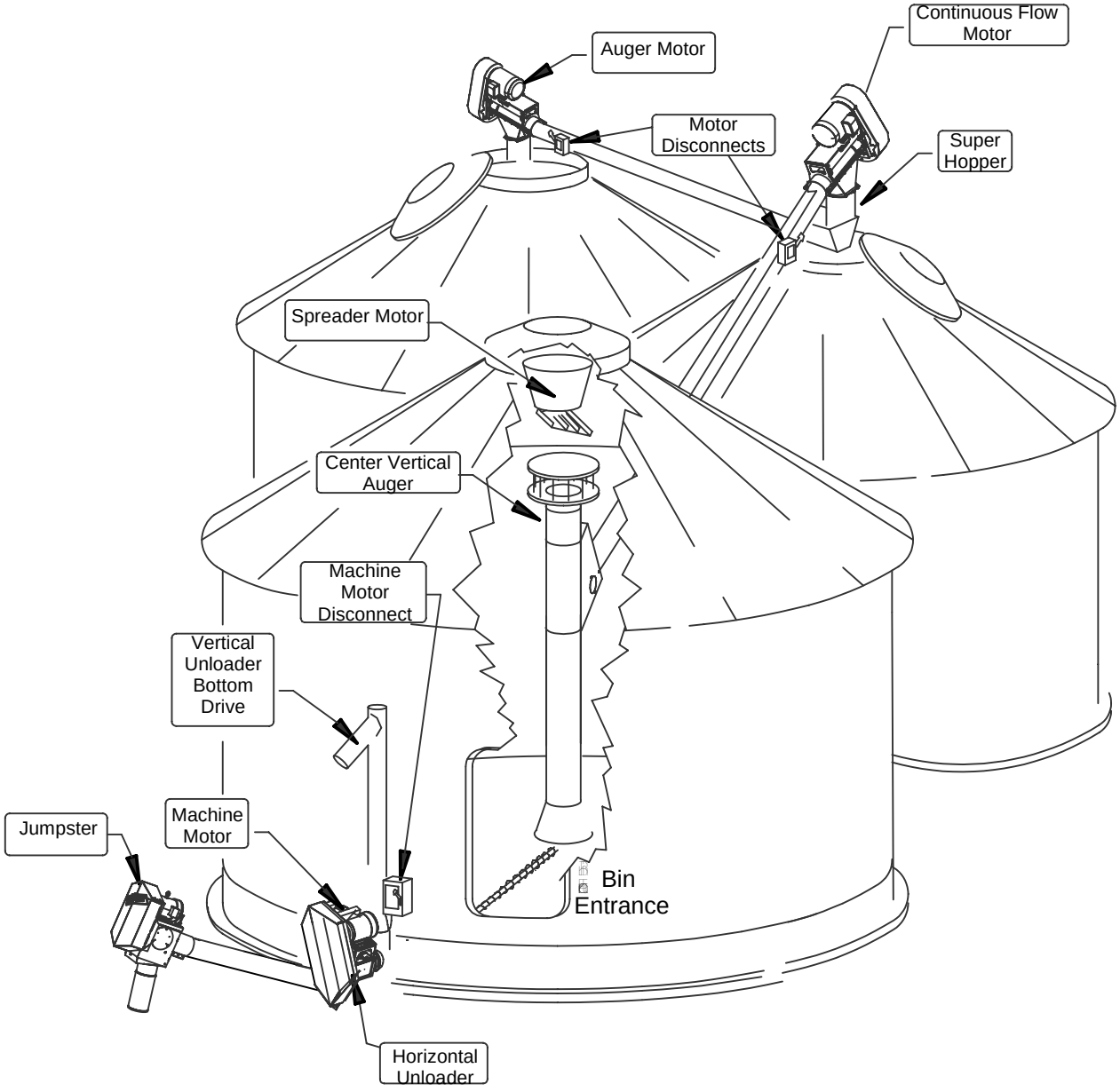


Introduction

The Continuous Flow auger is the first transfer auger system coming out of the drying bin. One end connects to the Center Vertical auger in the drying bin, and the other end goes to the top of a storage bin. This manual covers installation of 8" diameter augers. There can be more than one Continuous Flow auger connected to the Center Vertical. If they exit the drying bin 180° apart, the boots can be bolted back to back. If the angle is other than 180°, the boots will need to be stacked (or modified in the field).

The Auxiliary Transfer Auger (sometimes called Horizontal Transfer Auger) is designed to transfer grain from the Continuous Flow Auger to a second cooling bin and possibly on to other bins. The special inlet Hopper Assembly has a Slide Gate which may be opened to allow grain to fall through the Hopper Assembly into the first cooling bin. A Drop Outlet Assembly may also be used in the middle of the auger which may be opened to drop grain into other storage bins.

Both the Continuous Flow and Auxiliary Transfer auger systems come with a downspout assembly that is placed at the motor end of the auger.

The 8" augers are recommended for Circulator II systems (with two-sweep or three-sweep augers) where more capacity is needed. The 8" augers are available with or without hanger bearings. If hanger bearings are used, they are located every 10' along the auger. The hanger bearings can be relubricated.

The motor end of the auger system is called the "basic assembly". In 8" auger assemblies, it is available in 20' or 40' lengths. To get the required length, "extension assemblies" are used. They are available in 5', 10', 20' and 40' lengths. NOT included with the auger systems, but required, are a motor, motor pulley, overload heater elements, and the control circuit. Other equipment may be required (such as a truss) or desired (such as a grain sample valve or a grain cleaner). They may be shown in this manual, but there should be complete instructions with each piece of equipment.

Safety Information

The user of this equipment must assume responsibility for his own safety and for the safety of those working with him.

If any items covered in this manual are not completely understood, or there is a concern with the safety of the product, contact Shivvers at the address shown on the front cover.

Read and understand the Operator's Safety Manual (P-10001), and all applicable operator's manuals, before working on Shivvers equipment.

Read and understand this manual completely before using this equipment.

Take note anytime this safety alert symbol appears. Your safety, and that of persons around you, may be at stake.

The safety alert symbol will be accompanied by one of three signal words whose definitions are given as:

DANGER: Red and white. Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

WARNING: Orange and black. Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION: Yellow and black. Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

Safety Information

Using a tagged padlock, lock off all sources of potential energy before beginning the installation!

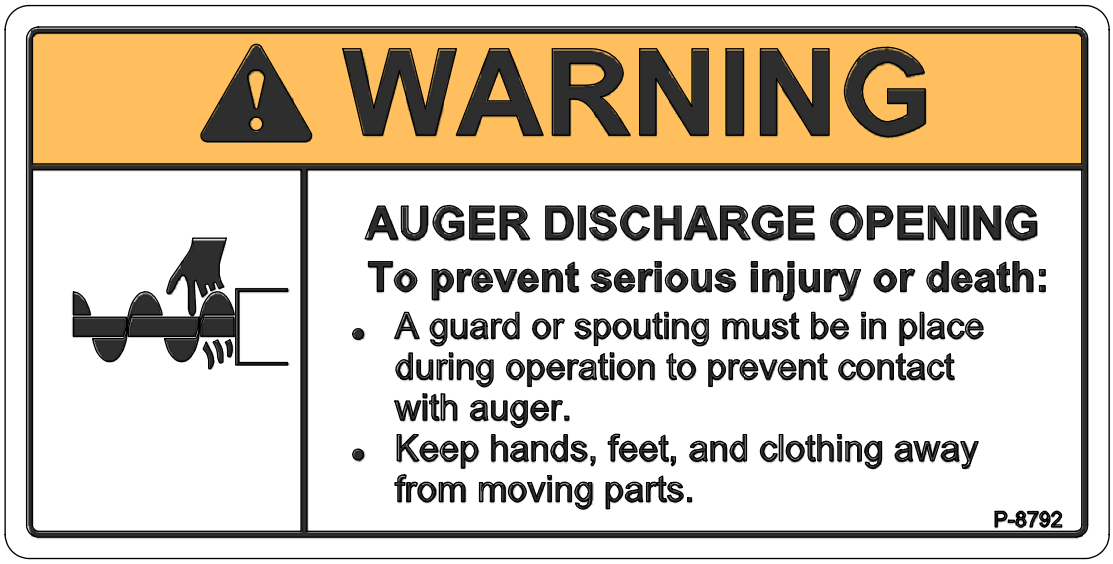
All electrical wiring shall be installed in compliance with the latest addition of the ANSI/NFPA Standard 70, National Electrical Code, as a minimum requirement, and in compliance with local wiring codes as applicable.

Wiring must be done by a competent electrician. A licensed electrician is recommended, and must be used when required by local or state statutes.

The installation of this equipment will require special tools such as an oxy-acetylene torch (cutting torch), ladders, safety belts, power tools, and power cords with GFCI (ground fault circuit interrupter). The safe operation, use, and condition, of this equipment is the responsibility of the contractor, or persons involved in their use.

Avoid dusty conditions (especially on existing bins where grain has been stored), to prevent fires or explosions caused by combustion. Wear a dust mask.

Safety Decal Location

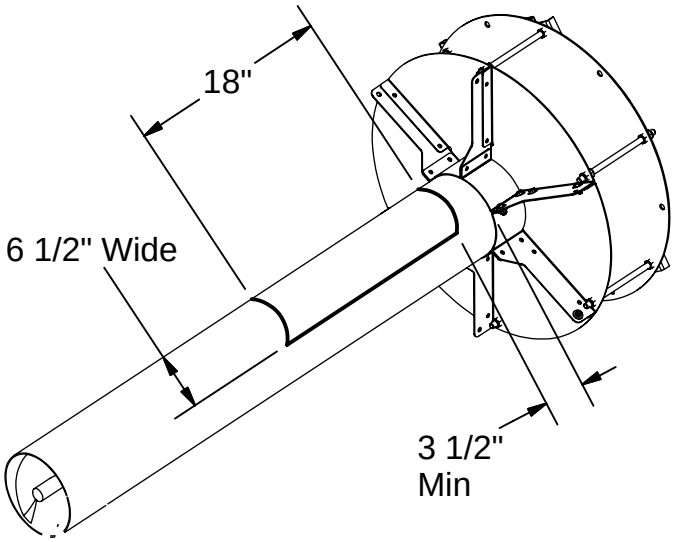


Located near discharge end of Continuous Flow and Auxiliary Transfer Augers (one on each side).

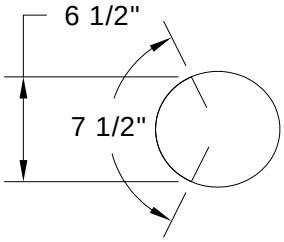
INSTALLING CONTINUOUS FLOW

Installing Continuous Flow

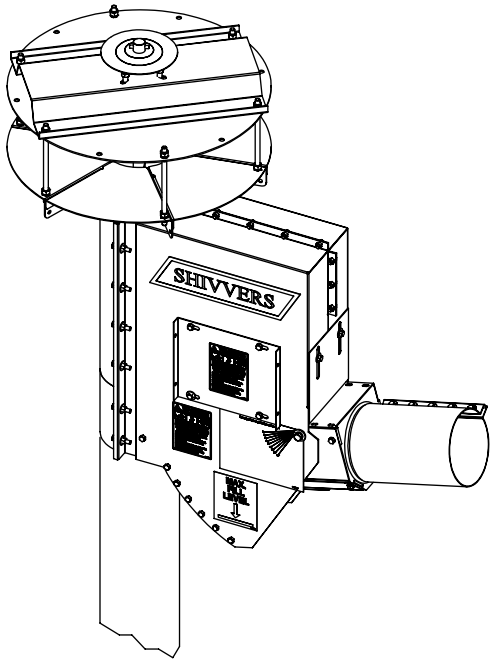
1. With these instructions, it is understood that the center vertical has previously been installed and trued.



Discharge Hole Size



Cut a Hole in the Center Vertical Tube for the Continuous Flow as shown, 6 1/2" Wide by 18" Long. Center the High Angle Boot over the hole you have just cut in the center vertical. Mount into place and fasten securely with the halfbands and hardware provided.



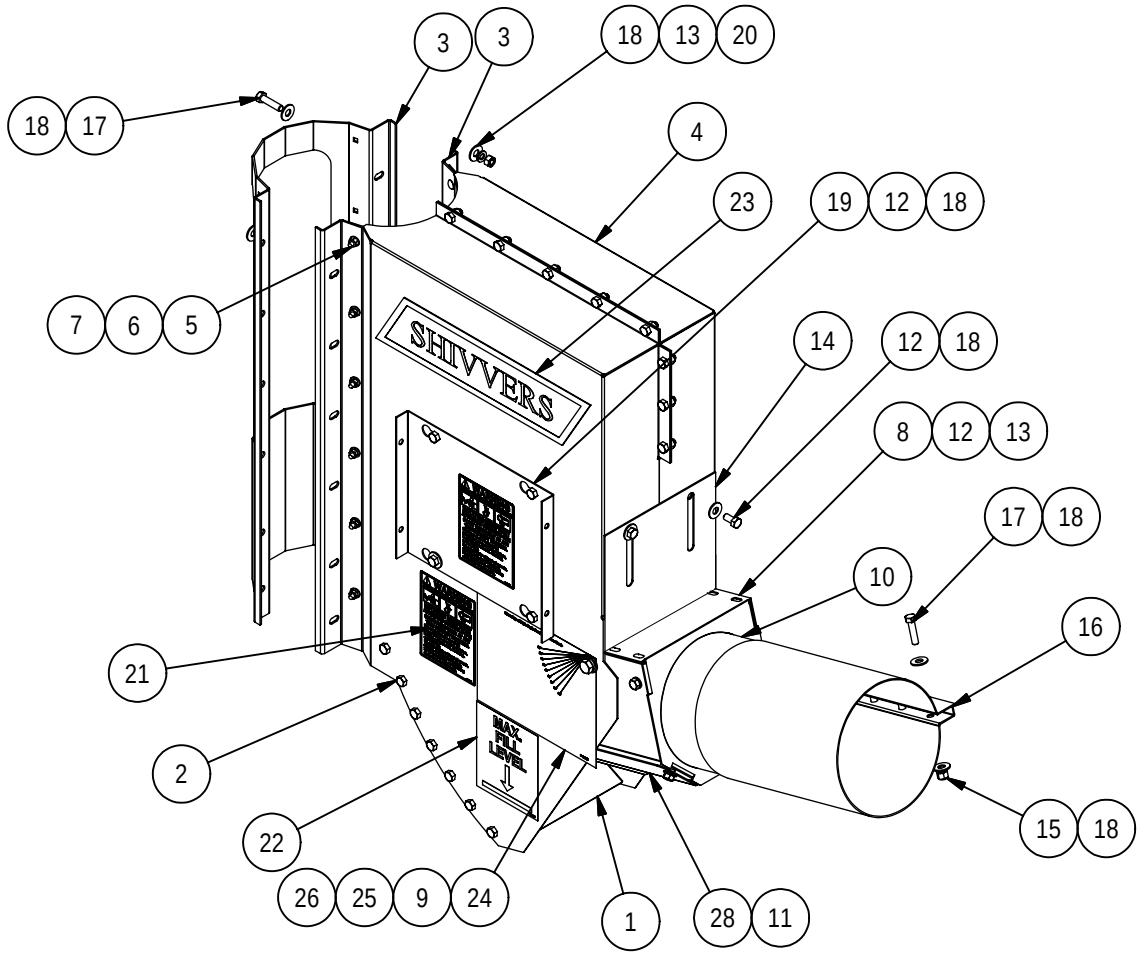
Installing Continuous Flow

2. Assemble the Bolt Together High Angle Boot, as shown.

658W-001A

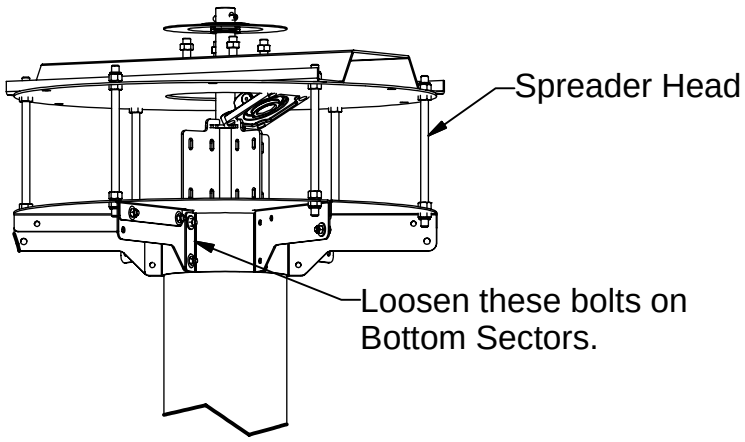
8" x 8" HACV BOOT ASSEMBLY W/HALFBAND REINFORCEMENT

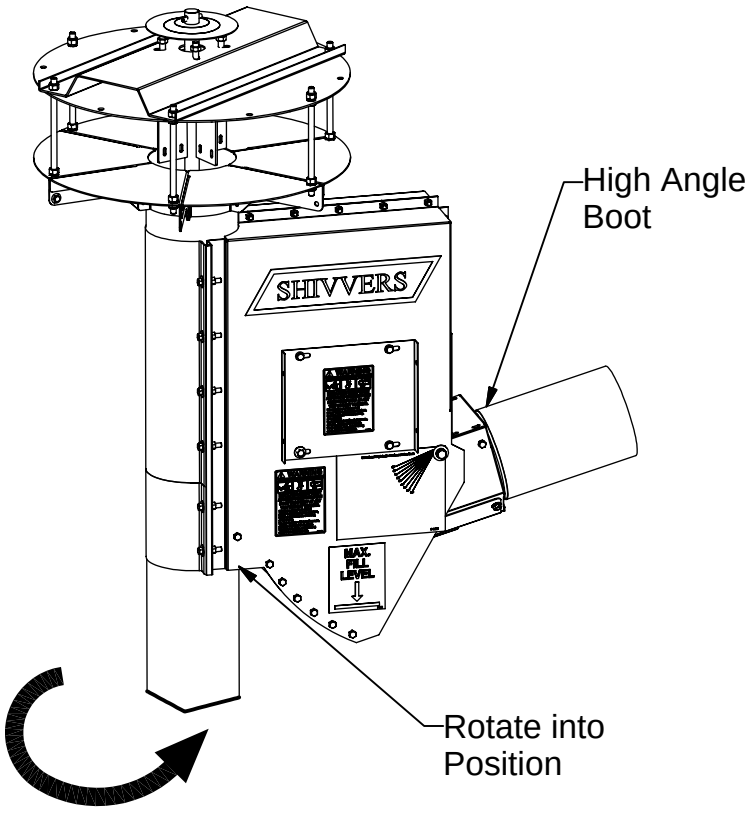
ITEM	PART NUMBER	DESCRIPTION	ITEM	PART NUMBER	DESCRIPTION
1	658-098P	BOOT BOTTOM	15	F-1239	LOCKNUT, 3/8-16
2	658-096P	BOOT SIDE 1	16	243-006P	SLEEVE, 8"
3	658-099P	HALFBAND W/SLOT	17	F-1015-27	HHCS, 3/8 X 1-1/2
4	658-097P	BOOT SIDE 2	18	F-1009-03	WASHER ,438 ID
5	F-1823	BOLT,1/4-20 X 3/4	19	685-029A	DROP OUTLET DOOR
6	F-1009-01	LOCKWASHER, 1/4	20	F-1011-03	NUT, 3/8-16
7	F-1158_	NUT, 1/4-20	21	P-10223	DECAL, WARNING
8	658-092W	BOOT SCOOP	22	P-9134	DECAL, MAX FILL
9	F-1759	HHCS, 1/2-13 X 1	23	P-8427	DECAL, SHIVVERS
10	658-085W	8" BOOT TUBE	24	P-11617	DECAL, HACV BOOT
11	F-2124	FHCS, 3/8-16 X 3/4	25	F-1464	LOCKWASHER, 1/2
12	F-1015-23	HHCS, 3/8-16 X 3/4	26	F-1009-05	WASHER, 1/2
13	F-1019-03	LOCKWASHER, 3/8	27	F-1015-28	HHCS, 3/8-16 X 1-3/4
14	658-037P	UPPER COVER PLATE	28	658-094A	CLEAN OUT DOOR, SCOOP



Installing Continuous Flow

3. If it is necessary to align the Continuous Flow Boot to the storage bin, loosen the bolts on the Center Vertical Spreader Head Halfband, or on the Bottom Plate Sectors of the WSCV, as shown. Rotate the Center Vertical Tube so that the Continuous Flow Boot points in the proper direction for the Continuous Flow Auger to exit the bin roof to the storage bin.





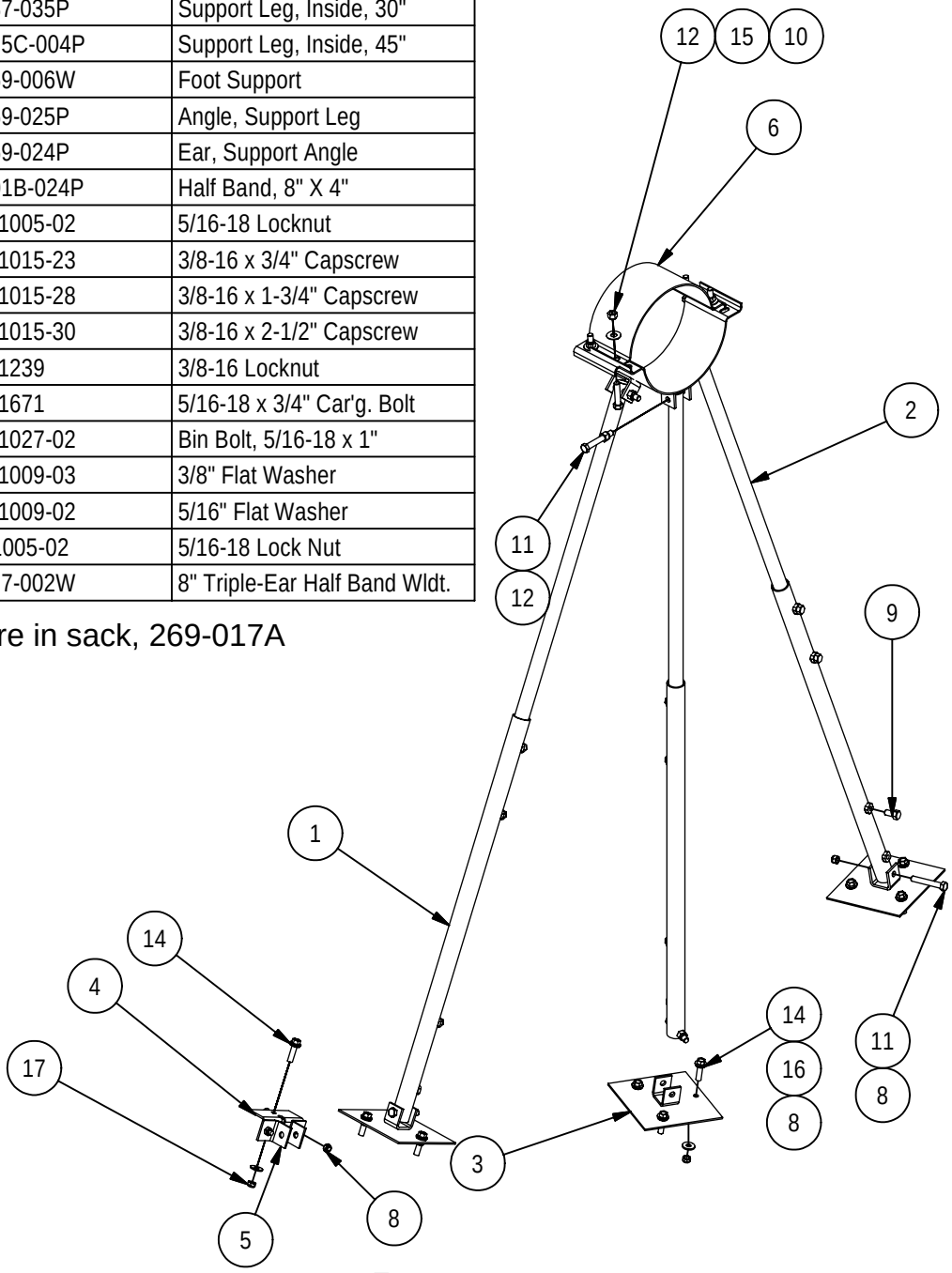
Installing Continuous Flow

4. Assemble the Tripod Roof Brace and install on the roof of the storage bin. This location can be determined by aligning the Tripod Roof Brace in a straight line between the two roof caps. It should be located as close to the storage bin roof cap as possible.

673B-001A -- 8" x 46"
673C-001A -- 8" x 66"

ITEM	QTY	PART NUMBER	DESCRIPTION
1	3	237-034W	Support Leg, Outside, 30"
		275C-002W	Support Leg, Outside, 45"
2	3	237-035P	Support Leg, Inside, 30"
		275C-004P	Support Leg, Inside, 45"
3	3	269-006W	Foot Support
4	2	269-025P	Angle, Support Leg
5	4	269-024P	Ear, Support Angle
6	1	201B-024P	Half Band, 8" X 4"
8	1	F-1005-02	5/16-18 Locknut
9	9	F-1015-23	3/8-16 x 3/4" Capscrew
10	4	F-1015-28	3/8-16 x 1-3/4" Capscrew
11	6	F-1015-30	3/8-16 x 2-1/2" Capscrew
12	9	F-1239	3/8-16 Locknut
13	4	F-1671	5/16-18 x 3/4" Car'g. Bolt
14	11	F-1027-02	Bin Bolt, 5/16-18 x 1"
15	4	F-1009-03	3/8" Flat Washer
16	11	F-1009-02	5/16" Flat Washer
17	15	F1005-02	5/16-18 Lock Nut
18	1	397-002W	8" Triple-Ear Half Band Wldt.

Note: Hardware in sack, 269-017A



Installing Continuous Flow

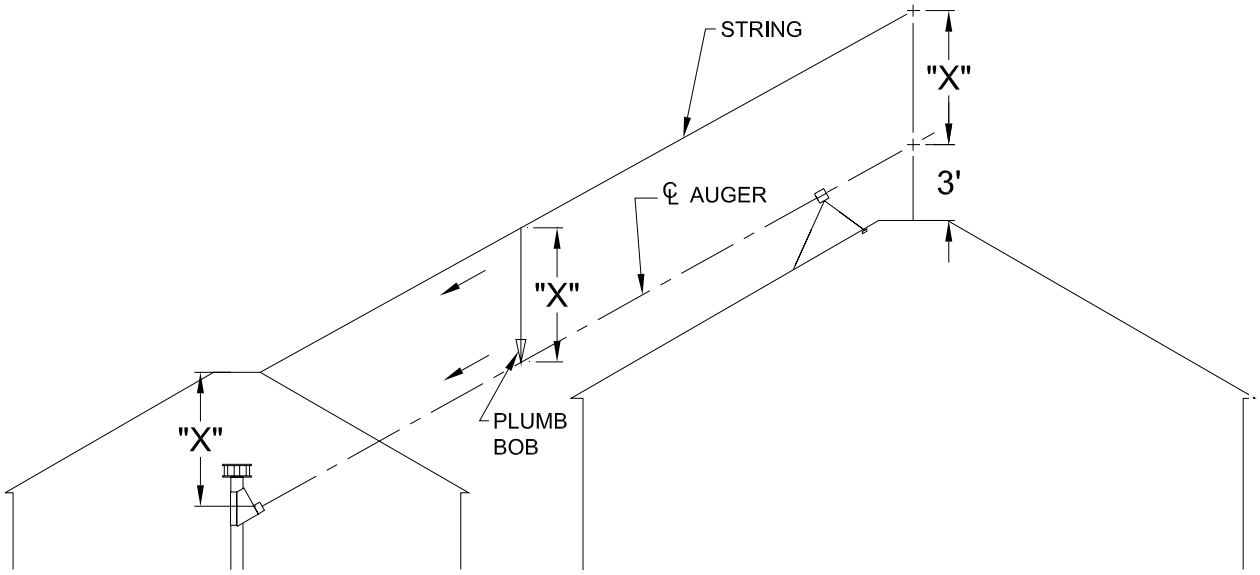
5. Drill a small hole in the drying bin roof for the Continuous Flow Auger to project through. To determine this exact hole location, we suggest one of the following procedures. Method C serves as a good check for Method A or B and should be used as such.

METHOD A: PLUMB BOB

Measure a vertical distance from the Continuous Flow Boot outlet to the drying bin roof opening. This distance is shown as "X" on the drawing.

Tie a string at the drying bin roof opening directly above the Continuous Flow Boot outlet. Stretch the string across to the storage bin roof to a point "X" plus 3 feet above the storage bin roof opening.

Tie a plumb-bob of length "X" to the string. Slide the plumb-bob down the string until it touches the drying bin roof. This should be the center of the elliptical hole. Drill a small hole at this point.



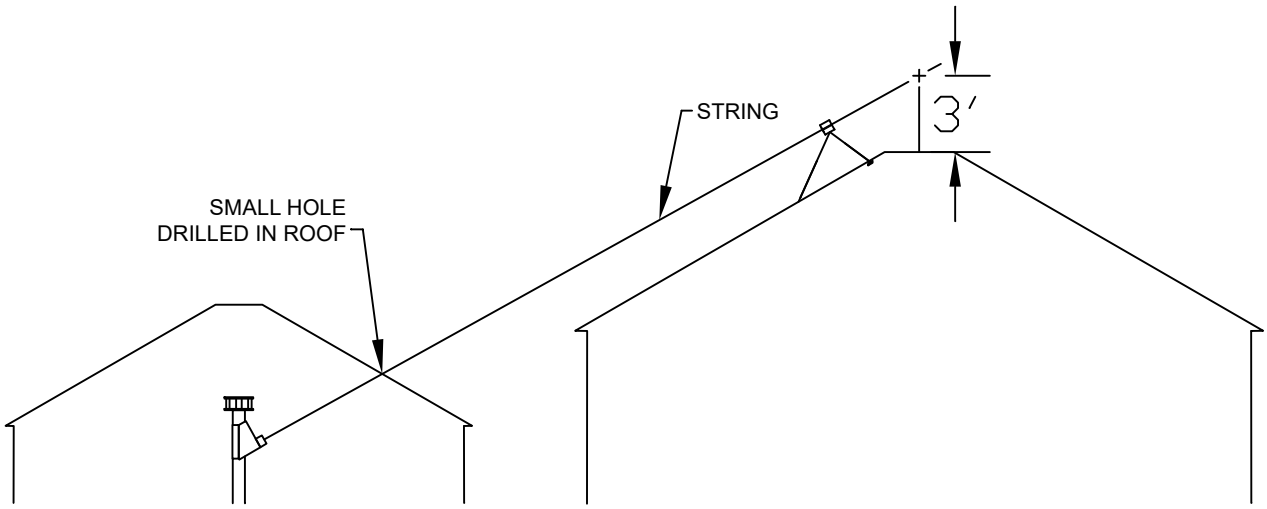
Installing Continuous Flow

METHOD B: CHECK WITH STRING

Sight over the triple-eared halfband of the roof brace on the storage bin. Make a point on the drying bin roof where you estimate the auger will come through. Drill a hole at this point.

Stretch a string from the bottom of the triple-eared halfband through the drilled hole to the bottom point of the Continuous Flow Boot outlet. Observe the hole for deflection against the hole in the bin roof.

If the string is deflected against the hole, drill another hole closer to the exact location to remove the deflection. Repeat process until string is not deflected against the hole.



Installing Continuous Flow

METHOD C: CALCULATED

DETERMINATION OF CONTINUOUS FLOW AUGER ROOF OPENING WITH VARIED GEOMETRY

(SEE DIAGRAM ON NEXT PAGE)

UNKNOWNS **Measure all heights from top of the foundation (feet)**			
VALUES TO BE MEASURED ON SITE IN FEET	(SEE DIAGRAM)	EXAMPLE	
TOTAL HEIGHT OF DRYING BIN	TH	24	
TOTAL HEIGHT TO C.V. BOOT	TB	19	
TOTAL HEIGHT OF BIN SIDEWALL	TW	18	
TOP ROOF OPENING DIAMETER	RD	3	
DRYING BIN DIAMETER	BD	28	
TOTAL HEIGHT OF ADJACENT BIN	TA	30	
DESIRED DISTANCE ABOVE TOP OF STORAGE BIN	DA	3	
FOUNDATION DIFFERENCE FROM DRYING BIN TO STORAGE BIN	OFF	1	*
CENTER TO CENTER BIN DISTANCE	CC	40	

NOTE:
A Microsoft EXCEL spreadsheet program named CALCULATED METHOD.xls is available from SHIVVERS.

CALCULATED VALUES (feet)			
	(SEE DIAGRAM)	CALCULATED	
LENGTH OF AUGER	a	42.720	**
AUGER ANGLE	X	110.556	
DRYING BIN ROOF ANGLE (DEGREE ABOVE HORZ.)	P	25.641	
DISTANCE FROM EDGE OF ROOF OPENING TO ROOF HOLE	m	5.757	***
OR IF m IS GREATER THEN h, FIND VALUE FOR b.			
DISTANCE FROM TOP OF BIN WALL DOWN TO HOLE	b	NIL	****

* Positive or negative number.

** Distance from center of center vertical to center of discharge. (Cut back tube 12")
(subtract off .333' (4") for 6" Center Vertical.)
(subtract off .417' (5") for 8" Center Vertical.)

*** If auger exits bin roof, measure down from top edge of roof opening to auger hole.

**** If auger exits bin wall measure from top of bin wall down to auger hole.

$$a = \sqrt{(TA+DA+OFF-TB)^2 + (CC)^2}$$

$$X = 180 - ARCSIN(\frac{CC}{a})$$

$$P = ARCTAN\frac{(TH-TW)}{(BD-RD)/2}$$

$$E = 90 - P$$

$$F = 180 - X$$

$$s = \{ \sqrt{(\frac{0.5(RD)}{SIN(E)})^2 - (\frac{RD}{2})^2} \} + (TH-TW) - (TB-TW)$$

$$m = \frac{s * SIN(F)}{SIN(180 - (F+E))} - \frac{0.5(RD)}{SIN(E)}$$

$$h = \sqrt{(TH-TW)^2 + (\frac{BD-RD}{2})^2}$$

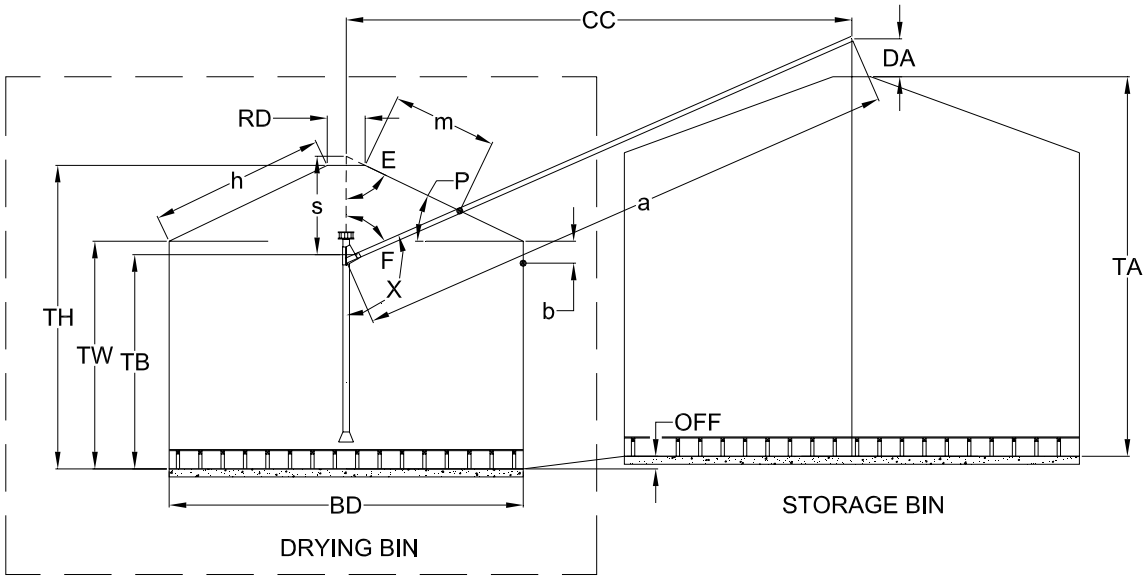
$$b = m - (h * \frac{SIN(180 - (F+E))}{SIN(F)})$$

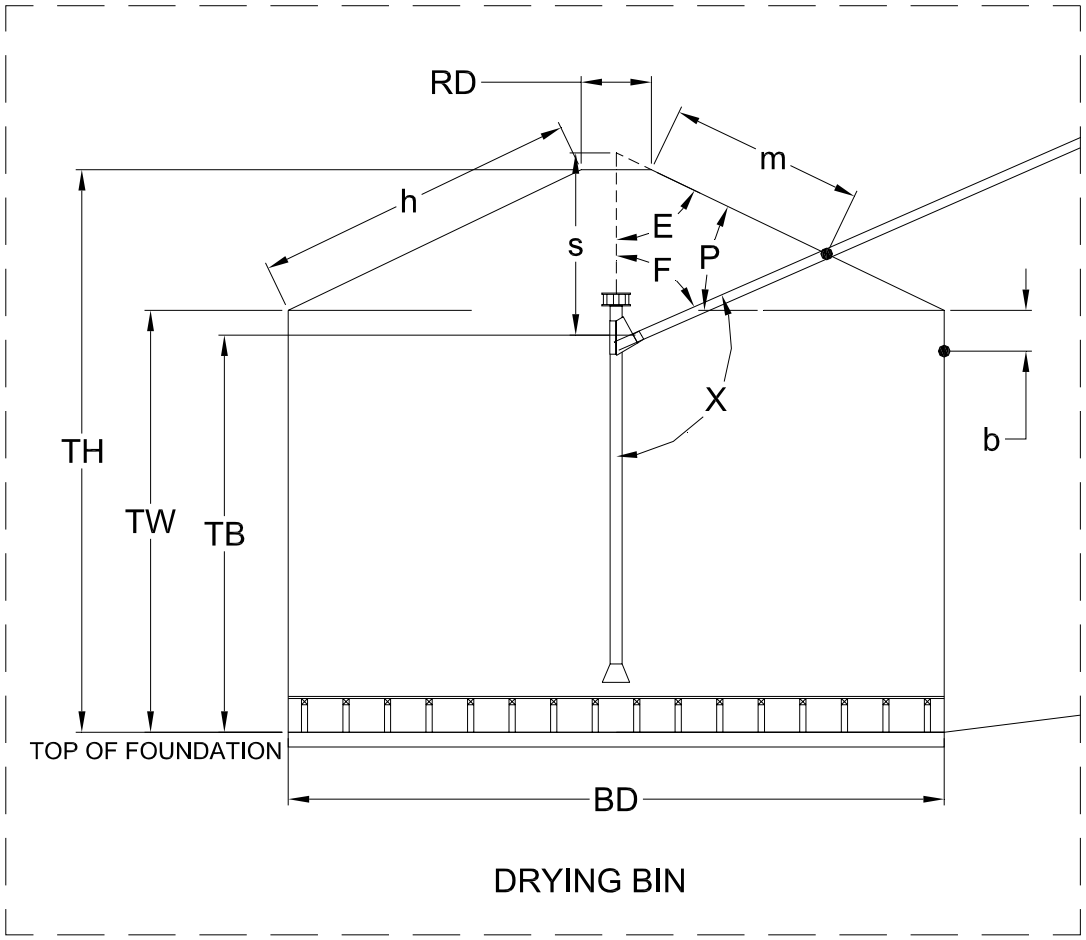
EXAMPLE
42.72
110.556
25.641
64.359
69.444
5.72
5.757
13.865
NIL

Inches	Decimal - ft.
1	0.083
2	0.167
3	0.250
4	0.333
5	0.417
6	0.500
7	0.583
8	0.667
9	0.750
10	0.833
11	0.917

Installing Continuous Flow

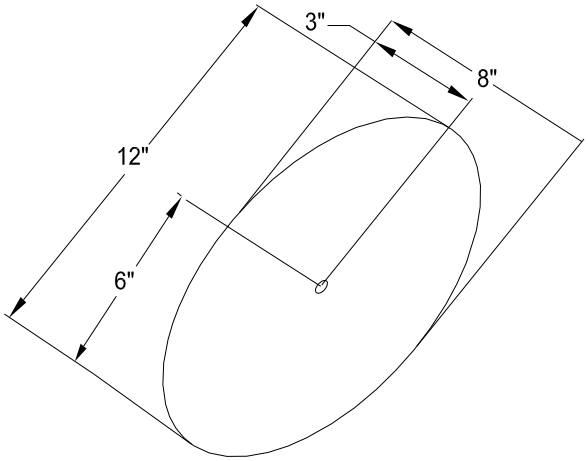
METHOD C: CALCULATED



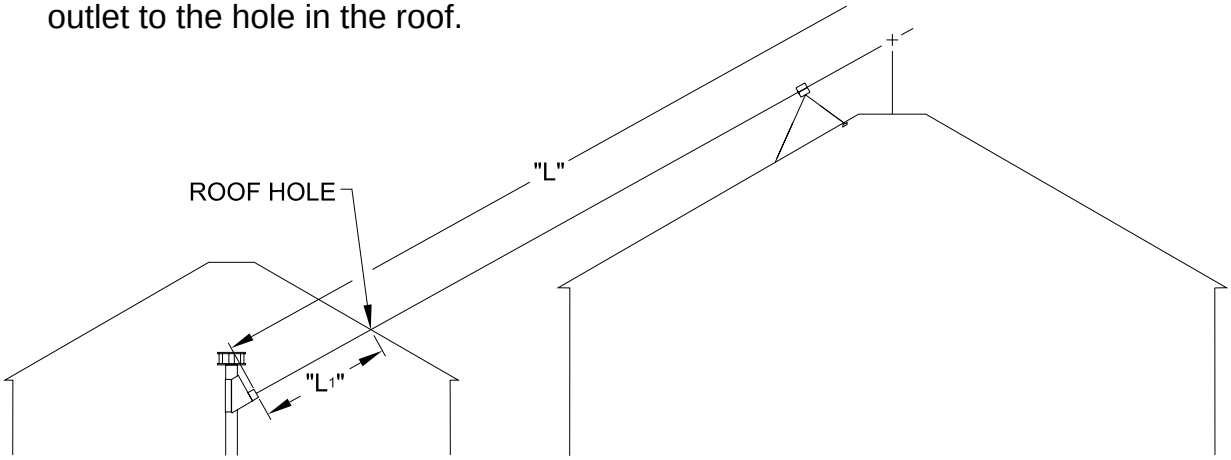


Installing Continuous Flow

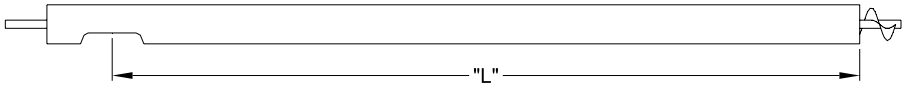
6. Cut the required hole for your Continuous Flow tube diameter using the dimensions shown below.



7. Measure the exact overall length for the Continuous Flow tube required. Measure this distance from the Continuous Flow Boot outlet, through the roof hole, over the Roof Brace and to the center of the roof opening in the storage bin. Note this length (L) and the length (L1) from the Continuous Flow Boot outlet to the hole in the roof.



8. Measure the basic auger length.



This length needs to equal or longer than the length measured in the previous step. In most installations the auger will have to be shortened.

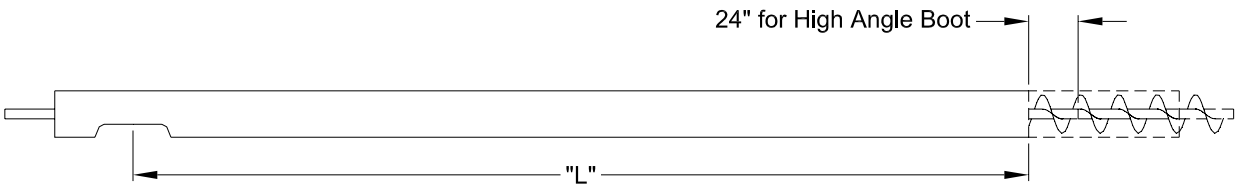
Installing Continuous Flow

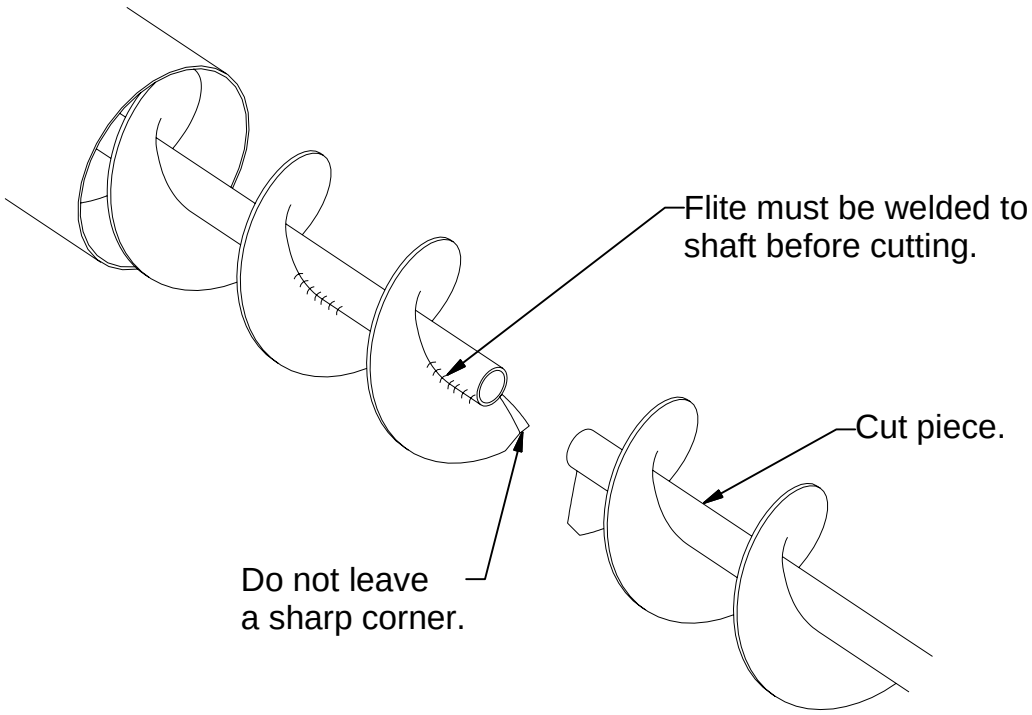
To obtain the exact length "L", it may be necessary to shorten extensions. Do so as follows:

TO SHORTEN:

Mark the required "L" length on the tube. Cut tube as squarely as possible to this length. DO NOT cut fliting yet.

Measure the correct length for the exposed portion of fliting (24" for High Angle Boot). Weld the fliting to the shaft before trimming excess length. The end of the fliting MUST be welded to the shaft. Cut the shaft and fliting off to maintain the 24" length exposure for High Angle Boot.





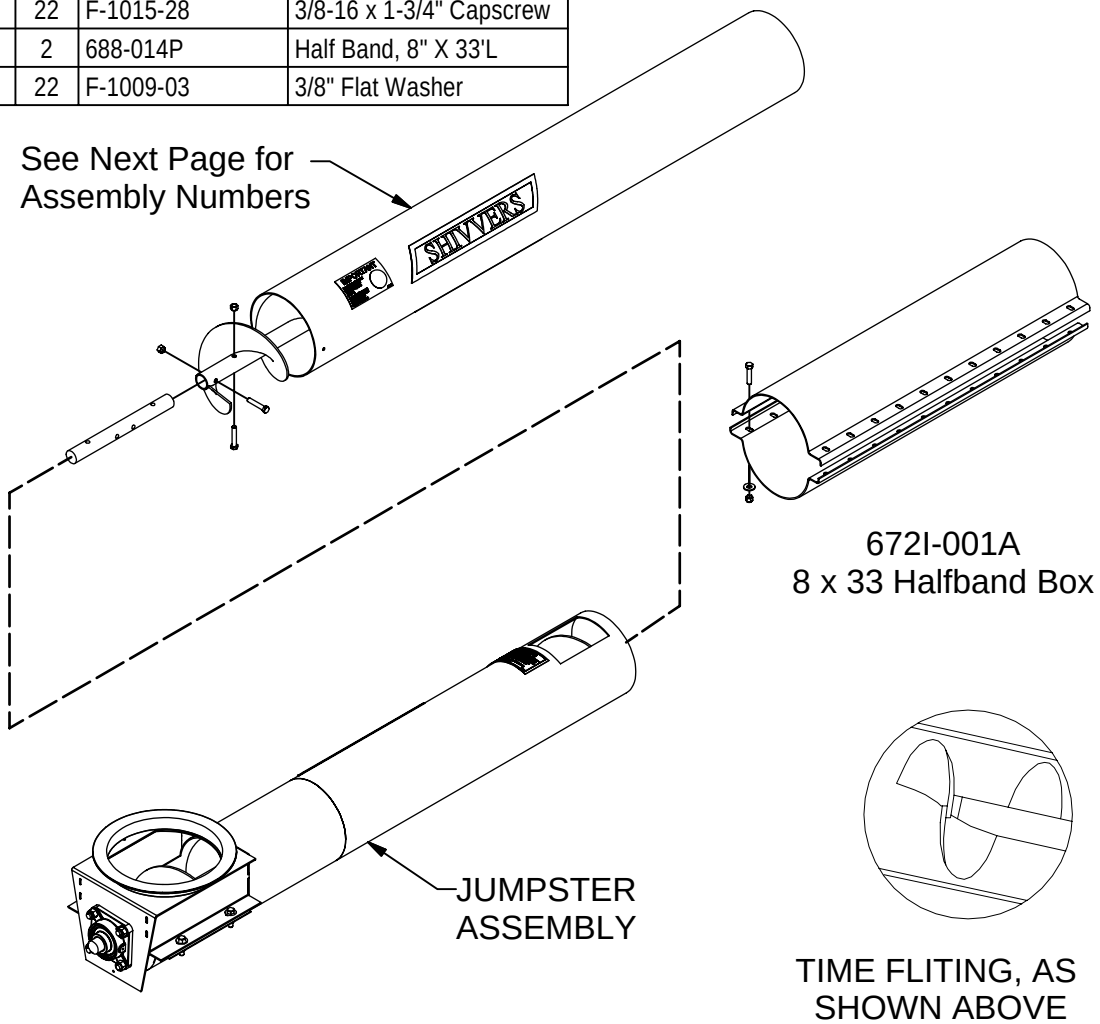
Installing Continuous Flow

8" BASIC JUMPSTER ASSEMBLY
671 (A-C)-001A

Part Number	Length of Tube	Flite	Tube
671A-001A	5'	671A-002W	671A-023A
671B-001A	10'	671B-002W	671B-023A
671C-001A	20'	671C-002W	671C-023A

672I-001A

ITEM	QTY	PART NUMBER	DESCRIPTION
1	22	F-1239	3/8 Locknut
2	22	F-1015-28	3/8-16 x 1-3/4" Capscrew
3	2	688-014P	Half Band, 8" X 33'L
4	22	F-1009-03	3/8" Flat Washer



672I-001A
8 x 33 Halfband Box

TIME FLITING, AS
SHOWN ABOVE

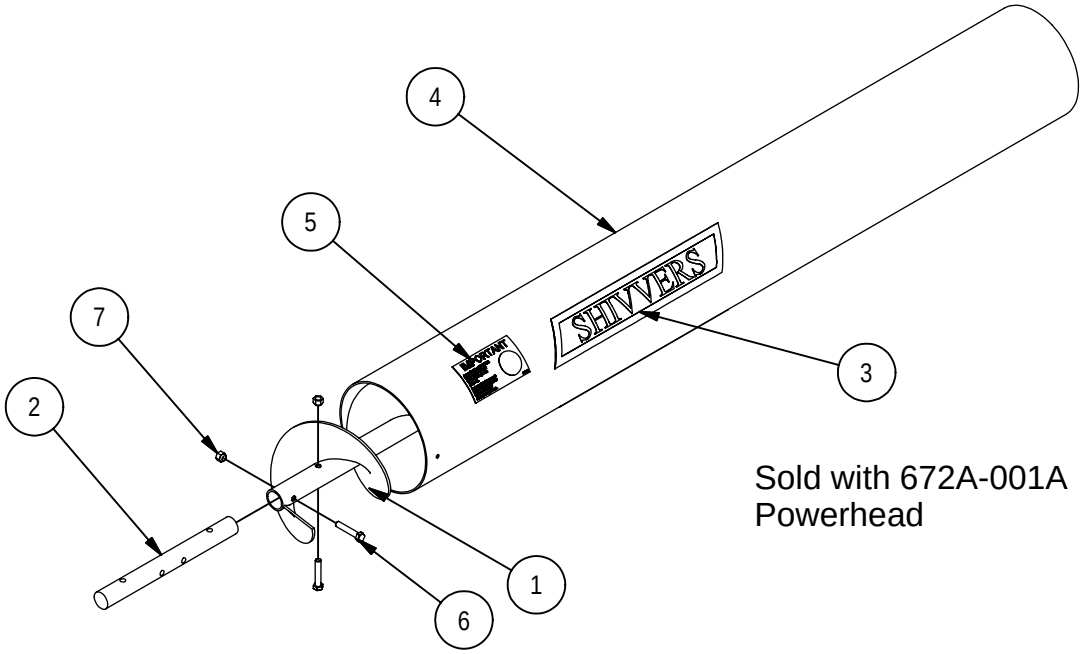
NOTE: All auger tubing must be butted tightly together and aligned before tightening the long connector halfbands. Proper alignment will help prevent premature excessive wear of the auger tubing.
Fasten Appropriate Extension Augers to the Basic Auger Assembly (See Step 8).

Installing Continuous Flow

TO LENGTHEN:

Determine that the seam joint will not fall within 2 feet to either side of the point the auger exits through the roof (length "L_1" in Step 8). Add extensions, as required, to obtain at least the total auger length ("L") required. If there will be a joint inside the drying bin, slide the Conical Roof Boot onto the auger before adding the extension. See Step 10. The extension auger fliting must be connected to the main auger fliting with the shaft and hardware supplied. All fliting must be timed (overlapped) so that there is an even flow of grain past the connection. Grind connection smooth if necessary.

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	See Chart Below	8" Ext. Flite Weldment
2	1	671-007P	Flite Connector Shaft
3	2	P-8427	DECAL, Shivvers, Large
4	1	See Chart Below	8" Ext. Tube
5	1	P-7247	Decal, Important, Auger Fliting
6	2	F-1073	3/8-16 x 2" Capscrew
7	2	F-1239	3/8 Locknut



Sold with 672A-001A Powerhead

Part Number	Tube Length	Tube (#5)	Flite(Qty) (#1)
671I-001A	5'	671A-005P	671A-002W(1)
671J-001A	10'	671B-005P	671B-002W(1)
671K-001A	20'	671C-005P	671C-002W(1)
671L-001A	40'	671D-005P	671C-002W(2)

Installing Continuous Flow

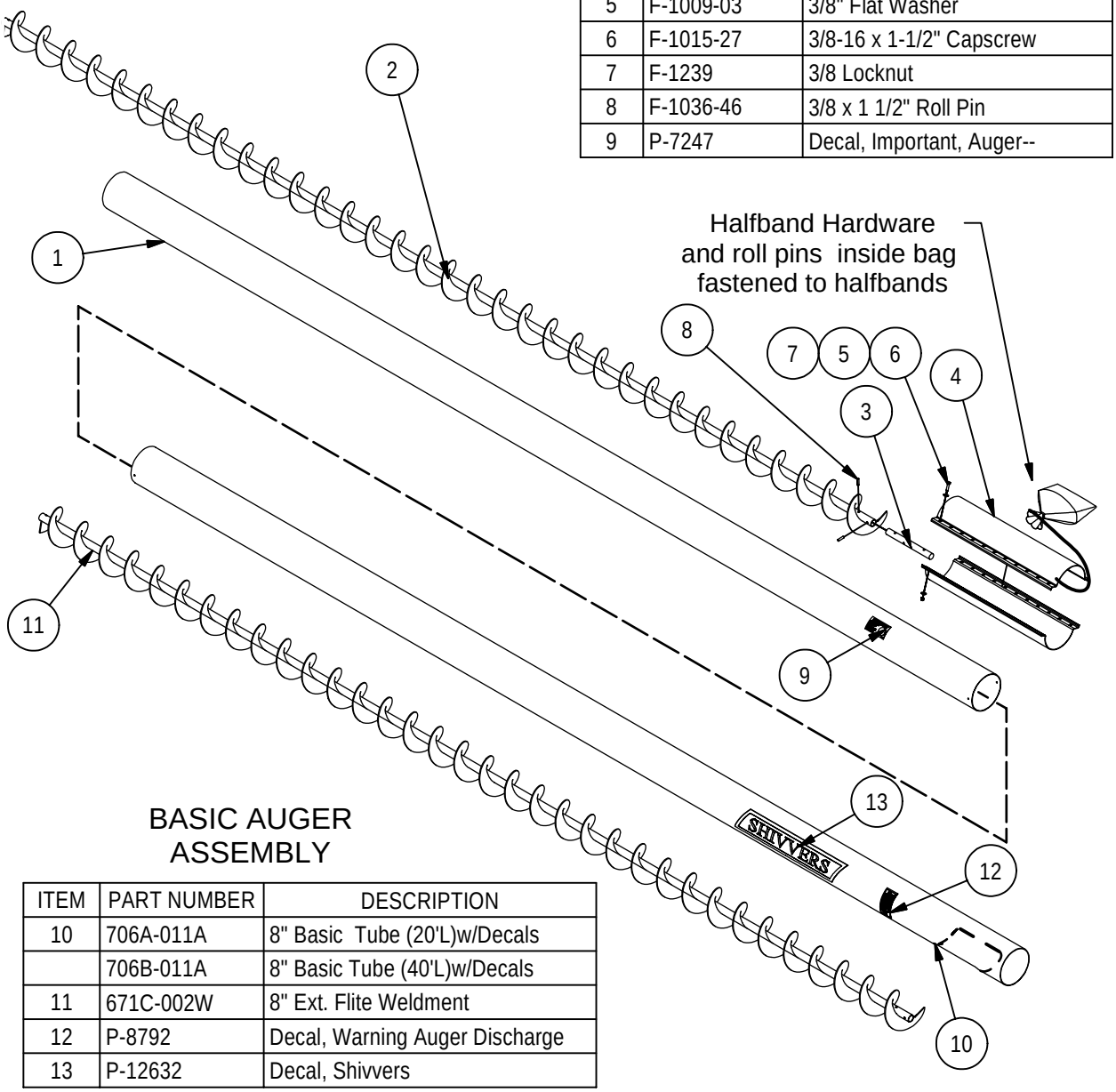
BASIC AUGER ASSEMBLIES AND EXTENSION ASSEMBLIES
WITHOUT HANGER BEARINGS

EXTENSION	LENGTH	FLITE
706C-001A	10'	671B-002W (1)
706D-001A	20'	671C-002W (1)
706E-001A	40'	671C-002W (2)
706F-001A	5'	671A-002W (1)

SOLD WITH QUICK RELEASE
POWERHEAD
702B-001A

AUGER EXTENSION
ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION
1	671(A-D)-005P	8" Ext. Tube
2	671C-002W	8" Ext. Flite Weldment
3	671-007P	Flite Connector Shaft
4	688-014P	Half Band, 8" X 33"L
5	F-1009-03	3/8" Flat Washer
6	F-1015-27	3/8-16 x 1-1/2" Capscrew
7	F-1239	3/8 Locknut
8	F-1036-46	3/8 x 1 1/2" Roll Pin
9	P-7247	Decal, Important, Auger--



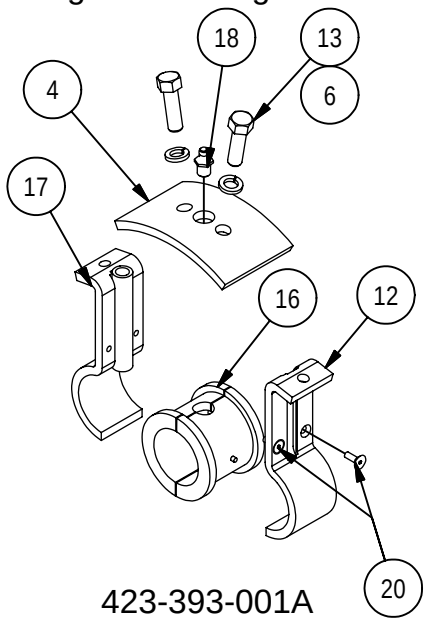
BASIC AUGER
ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION
10	706A-011A	8" Basic Tube (20'L)w/Decals
	706B-011A	8" Basic Tube (40'L)w/Decals
11	671C-002W	8" Ext. Flite Weldment
12	P-8792	Decal, Warning Auger Discharge
13	P-12632	Decal, Shivvers

Installing Continuous Flow

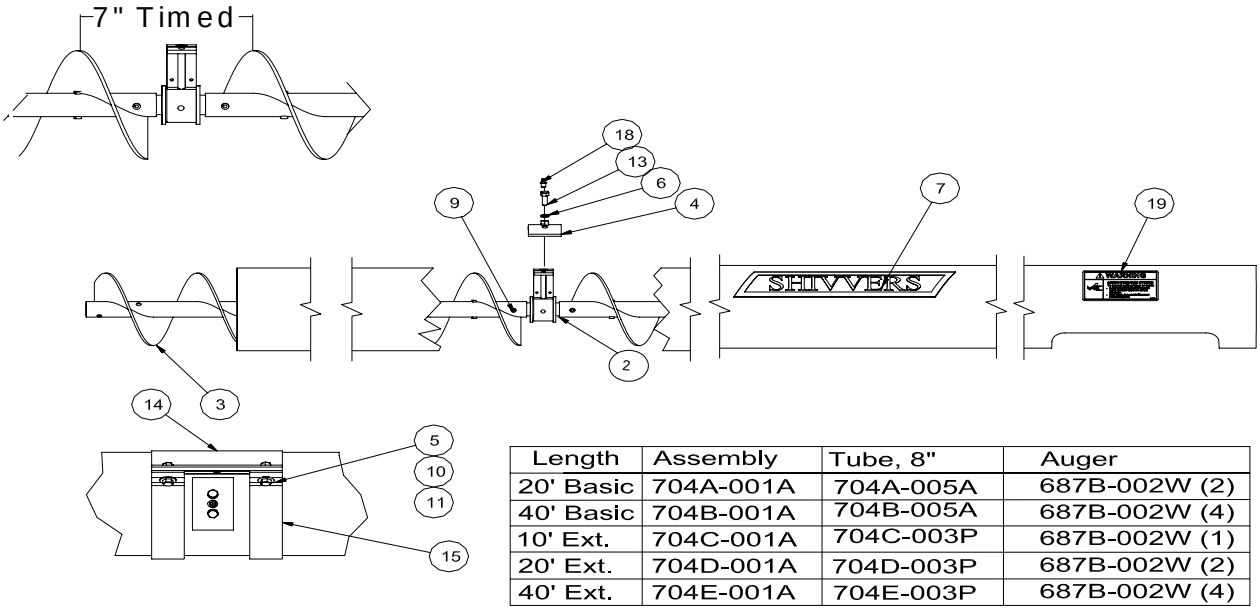
BASIC WOOD HANGER BEARING AUGERS AND EXTENSION ASSEMBLIES

8" Hanger Bearing Augers and Extensions must be timed as shown below. If the flite is not timed, grain will not flow smoothly through the assemblies. Tighten the long and short halfbands from the 688-016A Halfband Box so that the hole for access to the hanger bearings is well covered by the longest halfband with the 2" long halfband against the edge of the Top Plate of the hangers.



423-393-001A
Replacement Kit
Wood Hanger Bearing
Assembly

Parts List		
ITEM	PART NUMBER	DESCRIPTION
1	See Chart	CFTA/ QR Basic Hsg Tube: 8"
2	687-005P	Connector Shaft
3	See Chart	8" Ext. Flite Weldment
4	698-009P	Top Plate Hanger Bearing
5	F-1015-27	3/8-16 x 1-1/2" Capscrew
6	F-1019-03	3/8" Lockwasher
7	P-8427	Decal, SHIVVERS, Large
9	F-1036-47	3/8 x 1 3/4" Roll Pin
10	F-1009-03	3/8" Flat Washer
11	F-1239	3/8 Locknut
12	698-004P	Hanger Bracket, Front
13	F-1394	3/8-16 x 1" Capscrew
14	688-013P	Half Band, 8" X 8"L
15	688-012P	Half Band, 8" X 2"
16	704-004P	Wood Bearing with Grease Hole
17	698-007W	Hanger Bracket Weldment
18	H-1010-07	Grease Fitting, 1/8 NPT
19	P-8792	Decal,Warning Auger Discharge
20	F-2074	Flathead Capscrew, 10-32 x 1/2"

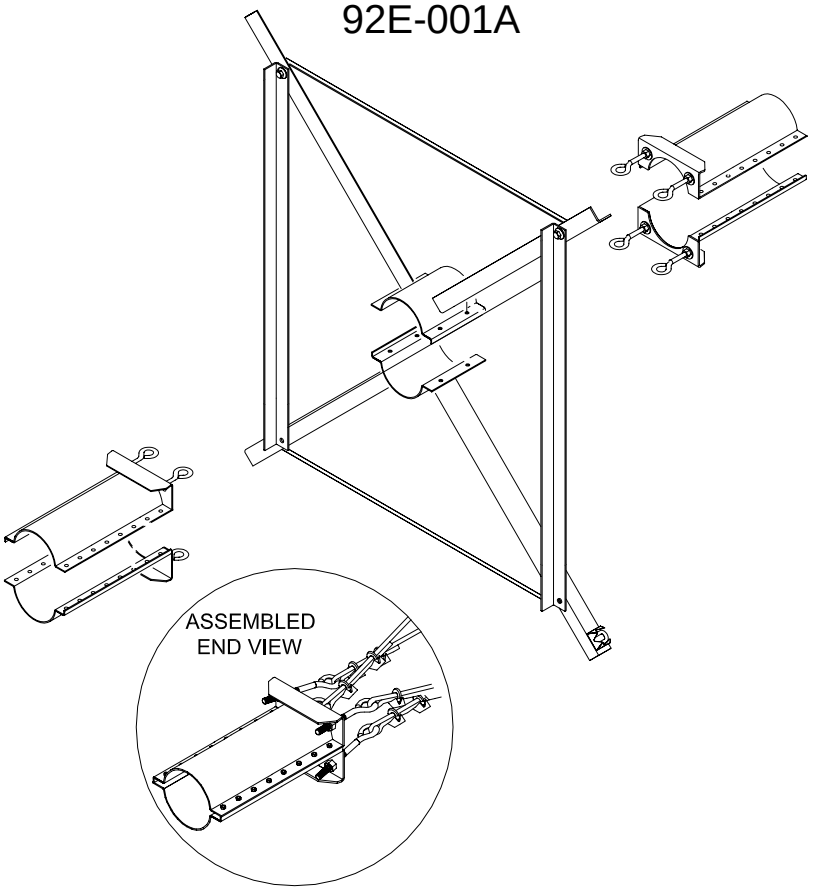


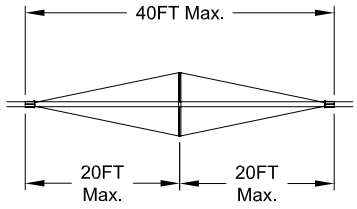
Length	Assembly	Tube, 8"	Auger
20' Basic	704A-001A	704A-005A	687B-002W (2)
40' Basic	704B-001A	704B-005A	687B-002W (4)
10' Ext.	704C-001A	704C-003P	687B-002W (1)
20' Ext.	704D-001A	704D-003P	687B-002W (2)
40' Ext.	704E-001A	704E-003P	687B-002W (4)

Installing Continuous Flow

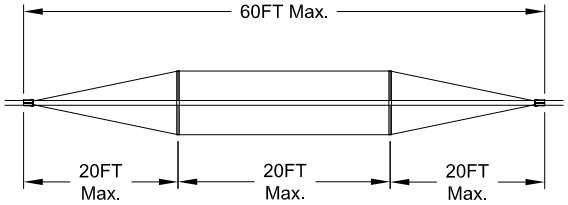
9. Install additional Roof Braces as required so that auger is not unsupported for any span greater than 20'. (Refer to Step 4). Assemble Bipods in like manner.) A ground-based support or a truss assembly must be used where spans between any unsupported section are greater than 20'.

8" Quad Star Truss Kit
92E-001A





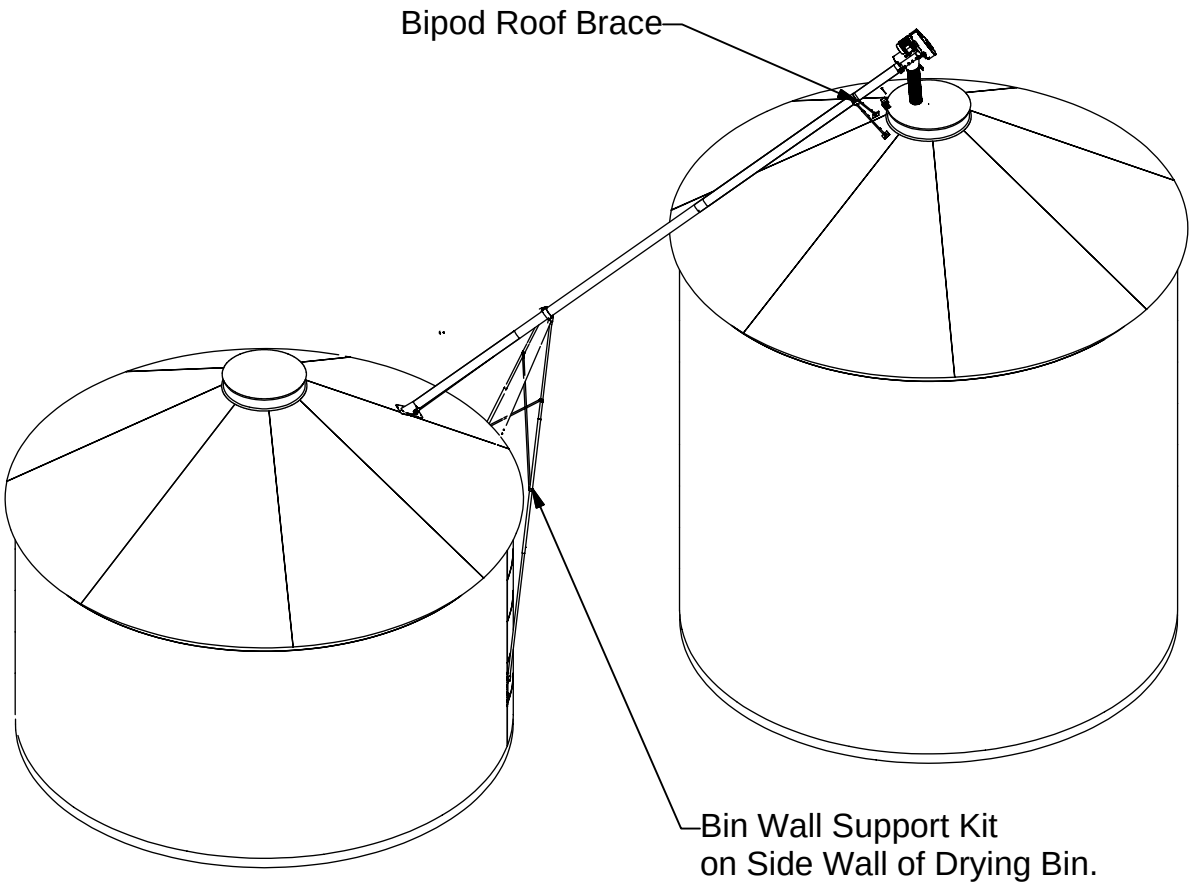
SINGLE TRUSS



DOUBLE TRUSS

Installing Continuous Flow

273E-001A
BIN WALL SUPPORT KIT
273H-001A
LARGE BIN WALL SUPPORT KIT

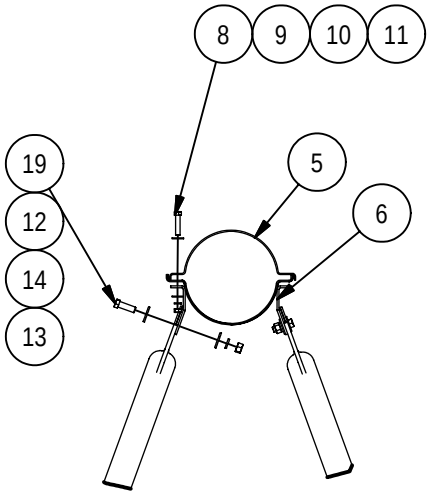


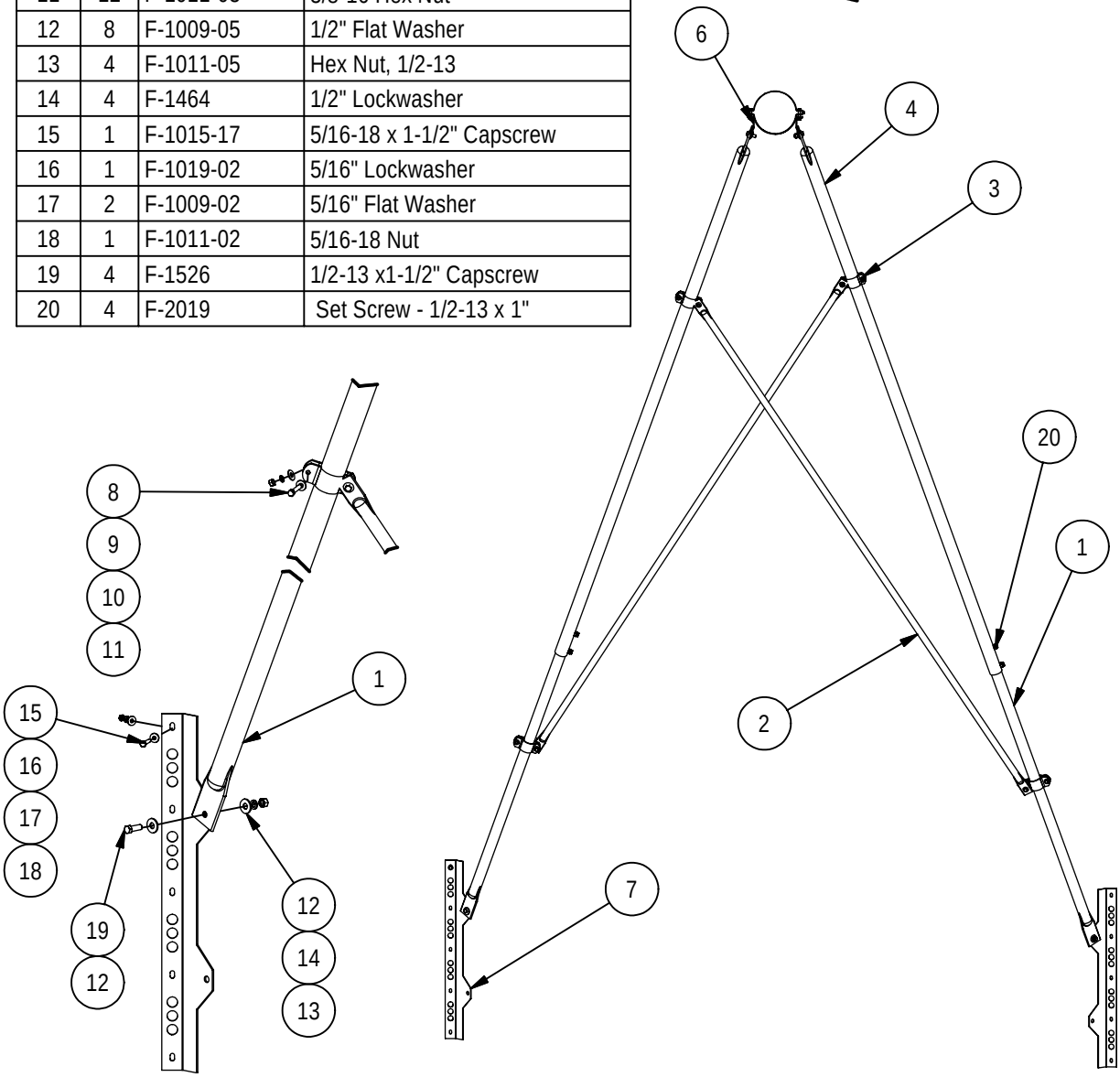
10. Shivvers recommends that for all 8" transfer augers you use extra support such as the Bin Wall Support Kit on the side wall of the drying bin. The storage bin needs a Bipod Roof Brace. These additions will eliminate any added downward pressure to the Center Vertical.

Installing Continuous Flow

273E-001A, BIN WALL SUPPORT KIT

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	273-044P	Bin Wall Support Kit Lower Tube
2	2	273-045P	Bin Wall Support Kit Cross Tube
3	8	273-050P	Bin Wall Support Kit Tube Clamp
4	2	273-052W	Bin Wall Support Kit Upper Tube
5	2	201B-024P	Half Band, 8" X 4"
6	2	273-072P	Halfband Angle Bracket
7	2	273-068P	Angle Bracket
8	12	F-1015-28	3/8-16 x 1-3/4" Capscrew
9	24	F-1009-03	3/8" Flat Washer
10	12	F-1019-03	3/8" Lockwasher
11	12	F-1011-03	3/8-16 Hex Nut
12	8	F-1009-05	1/2" Flat Washer
13	4	F-1011-05	Hex Nut, 1/2-13
14	4	F-1464	1/2" Lockwasher
15	1	F-1015-17	5/16-18 x 1-1/2" Capscrew
16	1	F-1019-02	5/16" Lockwasher
17	2	F-1009-02	5/16" Flat Washer
18	1	F-1011-02	5/16-18 Nut
19	4	F-1526	1/2-13 x1-1/2" Capscrew
20	4	F-2019	Set Screw - 1/2-13 x 1"



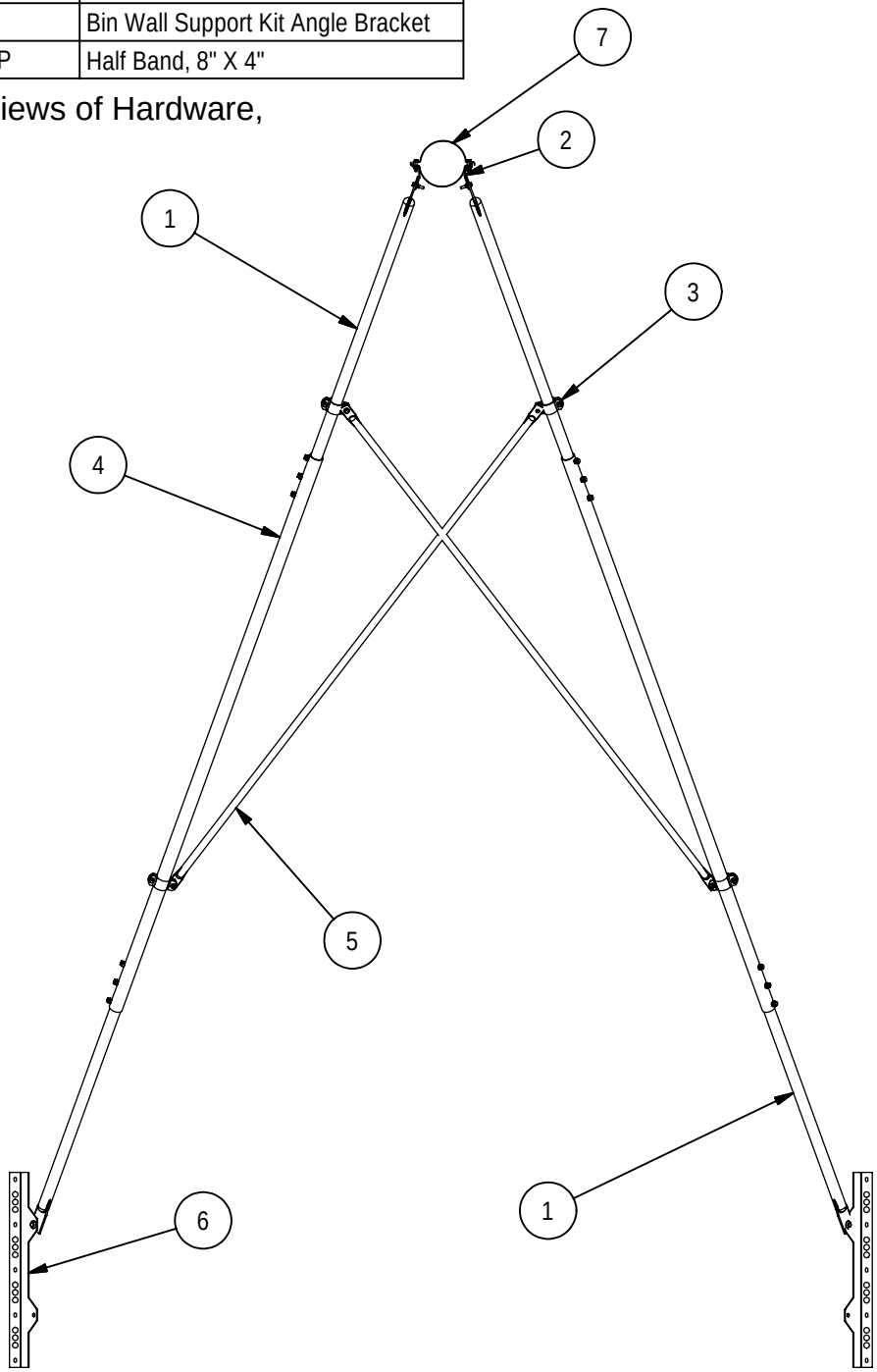


Installing Continuous Flow

273H-001A
LARGE BIN WALL SUPPORT KIT

ITEM	QTY	PART NUMBER	DESCRIPTION
1	4	273-044P	Bin Wall Support Kit Lower Tube
2	2	273-072P	Angle Bracket, Half Band
3	8	273-050P	Bin Wall Support Kit Tube Clamp
4	2	273-073W	Binwall Support Kit Extension Tube
5	2	273-045P	Bin Wall Support Kit Cross Tube
6	2	273-068P	Bin Wall Support Kit Angle Bracket
7	2	201B-024P	Half Band, 8" X 4"

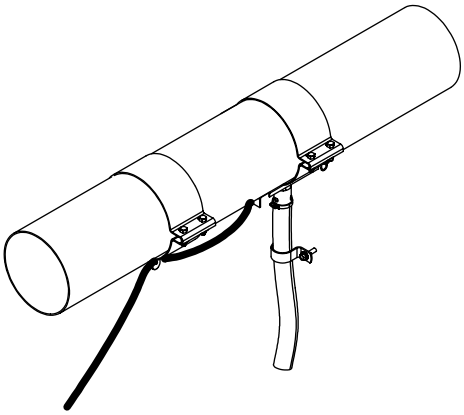
NOTE: For Detail Views of Hardware, see previous page.



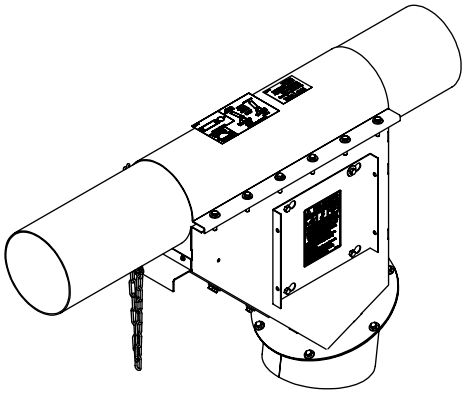
Installing Continuous Flow

NOTE: Install any Continuous Flow Accessories (Grain Sampler Valve, Drop Outlets, Grain Cleaners, etc.) on the auger now, or after the auger is in place.

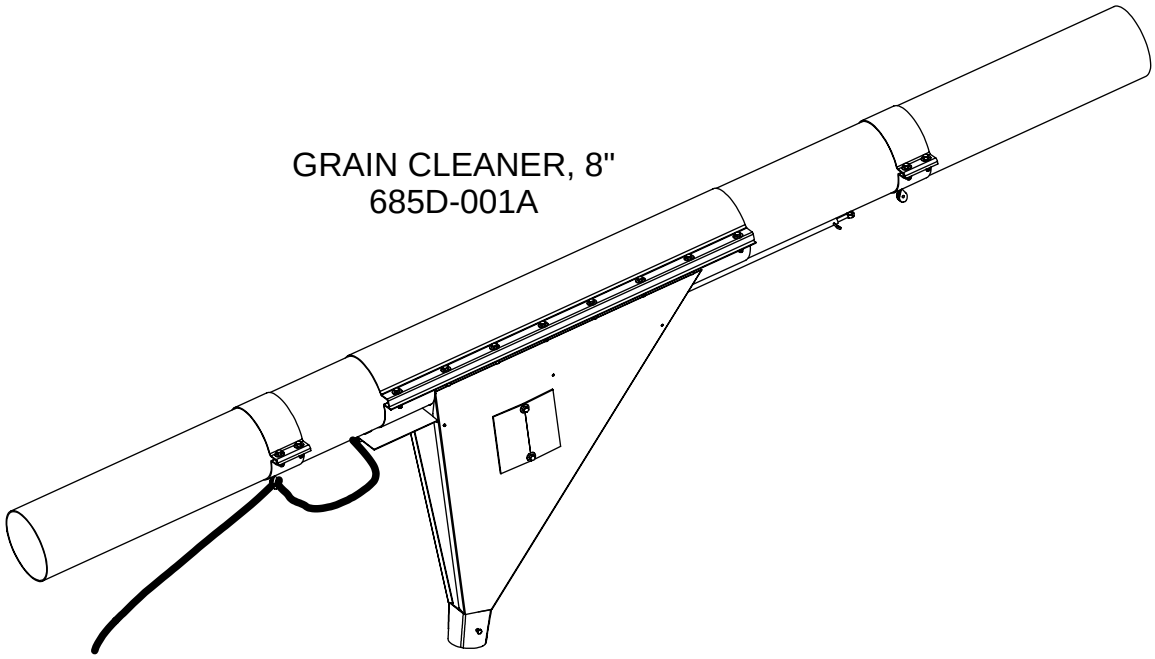
GRAIN SAMPLER VALVE, 8"
265B-001A



DROP OUTLET, 8"
685A-001A, 8" TUBE
(24" HALFBAND)
685E-001A (XL)
(37 1/2" HALFBAND)



GRAIN CLEANER, 8"
685D-001A



Installing Continuous Flow

8" TRANSFER AUGER POWERHEAD AND MOTOR MOUNT

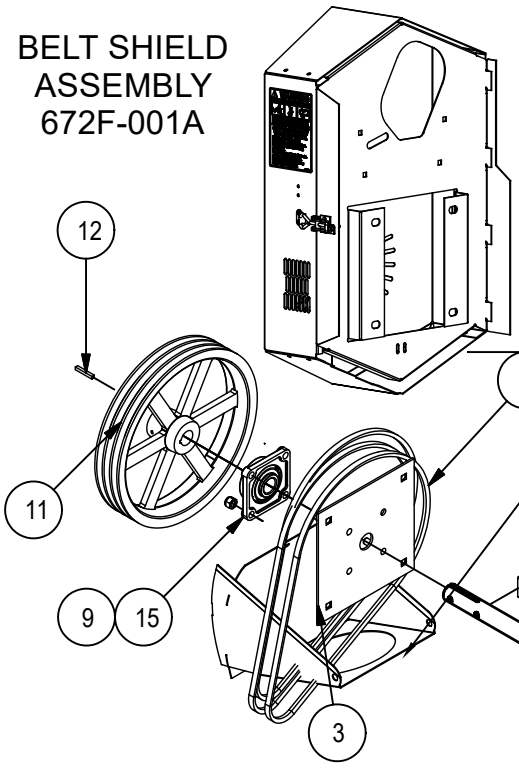
672A-001A

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	672-017W	Tilt Spout Weldment
2	1	672-033P	Power Head Tilt Strap
3	1	672-028W	Bearing Plate
4	1	672-016W	Power Head
5	2	672-035W	Inspection Plate
6	4	F-1015-28	3/8-16 x 1-3/4" Capscrew
7	6	F-1009-03	3/8" Flat Washer
8	8	F-1239	3/8 Locknut
9	8	F-1378	1/2" Locknut
10	1	672-111A	Flipper Shaft Assy
11	1	423-386-001A	3 Groove 14.75" (NOM 15") Pulley
12	1	249Z-018P	Key: 1/4" SQ X 1 3/4"
13	2	F-1073	3/8-16 x 2" Capscrew
14	1	F-1036-47	3/8 x 1 3/4" Roll Pin
15	1	D-2002-02	Bearing, 4-Hole, 1 1/4 ID
16	6	F-1231	Screw #8 X 1/2"
19	3	D-3003-11	Belt AX x 56
20	1	672-083P	Inner Angle
22	10	F-1006-23	3/8-16 x 3/4" Capscrew
23	4	F-1019-03	3/8" Lockwasher
24	1	263-037P	Flex Tube, 8" ID X 24" L

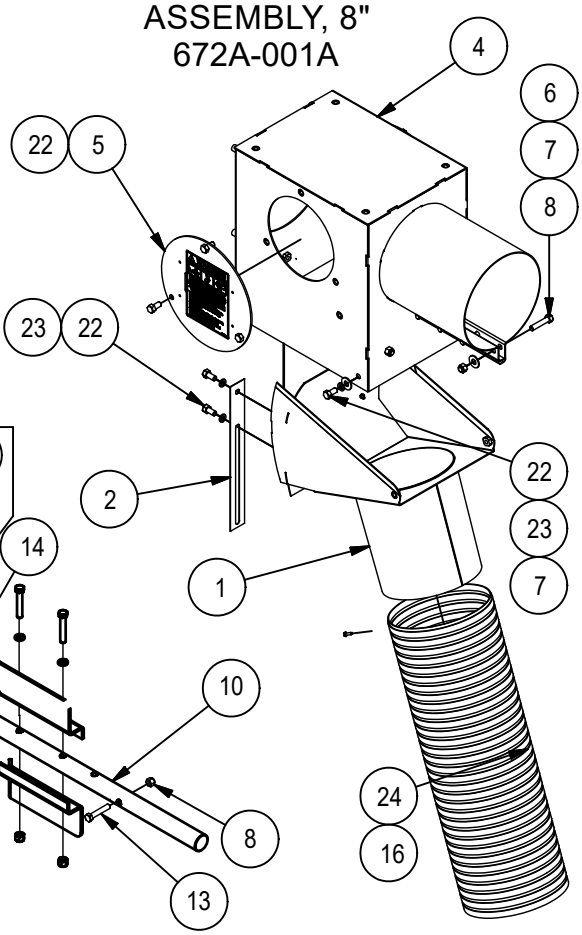
672F-001A

PART NUMBER	DESCRIPTION
672-039W	Inner Belt Shield
225-080A	Belt Shield Door w/Decals
P-8427	Decal, Shivvers
P-10223	Decal, Warning
H-2412	Door Latch Kit
P-8875	Decal, Dir. of Rotation, CCW

BELT SHIELD ASSEMBLY 672F-001A



POWERHEAD ASSEMBLY, 8" 672A-001A



Installing Continuous Flow

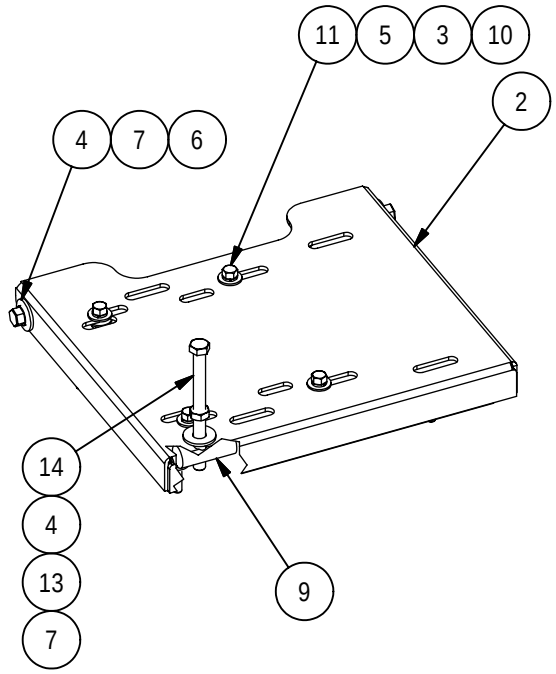
11. Attach the Powerhead and Motor Mount to the Continuous Flow Auger before the auger is in place. Bolt the Bearing Plate and Bearing onto the Belt Shield. Make sure the Grease Zerk on the Flanged Bearing faces down and lined up with the access hole. Slide the Belt Shield with bearing assembly over the flipper shaft. Fasten to the auger using the two roll pins or bolts provided. Install the 3 Groove Pulley.

Instructions:

1. Check to make sure that you have all parts.
2. **Note motor mount bolt locations / rear position.**
3. First you will have to attach the Bottom Motor Mount to the Jumpster / 8" Transfer Auger Power Head using the holes shown in Top View with 3/8 x 1 1/4 Bolt, lockwasher and washer from hardware sack, 672-036A.
4. Bolt Top Motor Mount to Bottom Motor Mount with 1/2" 1/2 x 1 1/4 bolt, lockwasher and washer from 672-036A Hardware Sack. This locks pivot bolt in place.
5. Attach Motor to Top Motor Mount with 3/8 x 1 1/4 bolt, washer and nut from 672-036A Hardware sack.
6. Install long adjuster bolt through top mount with 1/2" nut, lock washer, and flat washer on top and adjuster nut on bottom.

Note:

1. **Install Inner Belt Shield before installing pulleys.**
2. IT IS EASIER AND SAFER TO INSTALL MOTOR ON TRANSFER AUGER BEFORE HOISTING IT INTO POSITION.



MOTOR MOUNT
672G-001A

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	672-026W	Bottom Motor Mount
2	1	672-027P	Top Motor Mount
3	12	F-1009-03	3/8" Flat Washer
4	5	F-1009-05	1/2" Flat Washer
5	4	F-1019-03	3/8" Lockwasher
6	2	F-1386	1/2-13 x1-1/4" Capscrew
7	3	F-1464	1/2" Lockwasher
9	1	672-029P	Motor Adjuster Nut
10	4	F-1239	3/8 Locknut
11	8	F-1307	3/8-16 x 1-1/4" Capscrew
12	4	F-1015-27	3/8-16 x 1-1/2" Capscrew
13	1	F-2117	Thin Nut, 1/2-13, Brass
14	1	F-2118	1/2-13 x 6" Capscrew, 18-8 SS

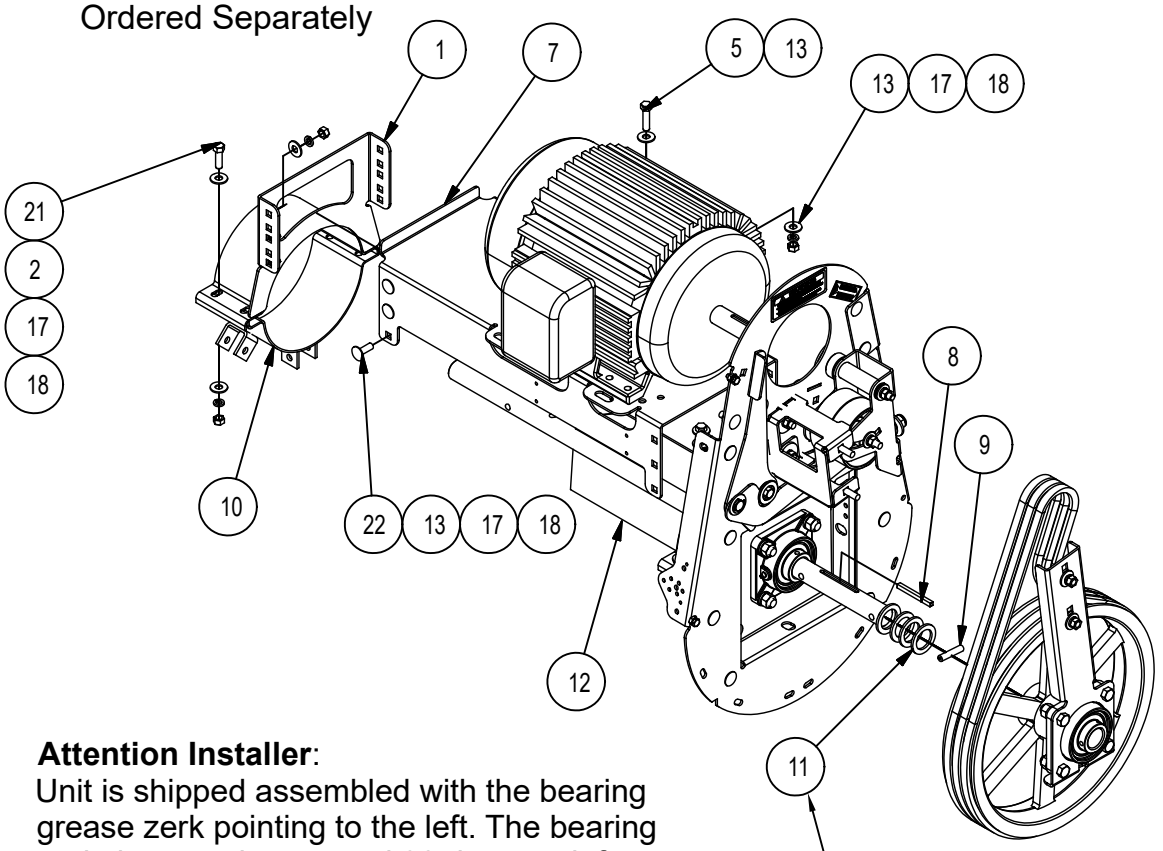
Installing Continuous Flow

QUICK RELEASE POWERHEAD AND MOTOR MOUNT

12. Assemble Motor Mount using Hardware shown (from parts sack, 702-057A). Fasten to Auger Tube above hole where DownSpout will be placed.

ITEM	PART NUMBER	DESCRIPTION
1	702-032W	Rear Frame Weldment, 8"
13	F-1009-03	3/8" Flat Washer
17	F-1019-03	3/8" Lockwasher
18	F-1011-03	3/8-16 Hex Nut
21	F-1307	3/8-16 x 1-1/4" Capscrew
22	F-1274	3/8-16 X 1" Carriage Bolt
7	702-025P	Motor Mount Bracket
8	702-071P	Key, 1/4 x 1/4 x 2 3/4"
9	F-1036-47	3/8 x 1.75" Roll Pin
10	397-002W	8" Triple-Ear Half Band Wldt.
11	F-8003-02	Flat Washer 10 GA 1.281X1.875
12	702-164A	Flipper Shaft Assembly

Motor and Motor Pulley
Ordered Separately

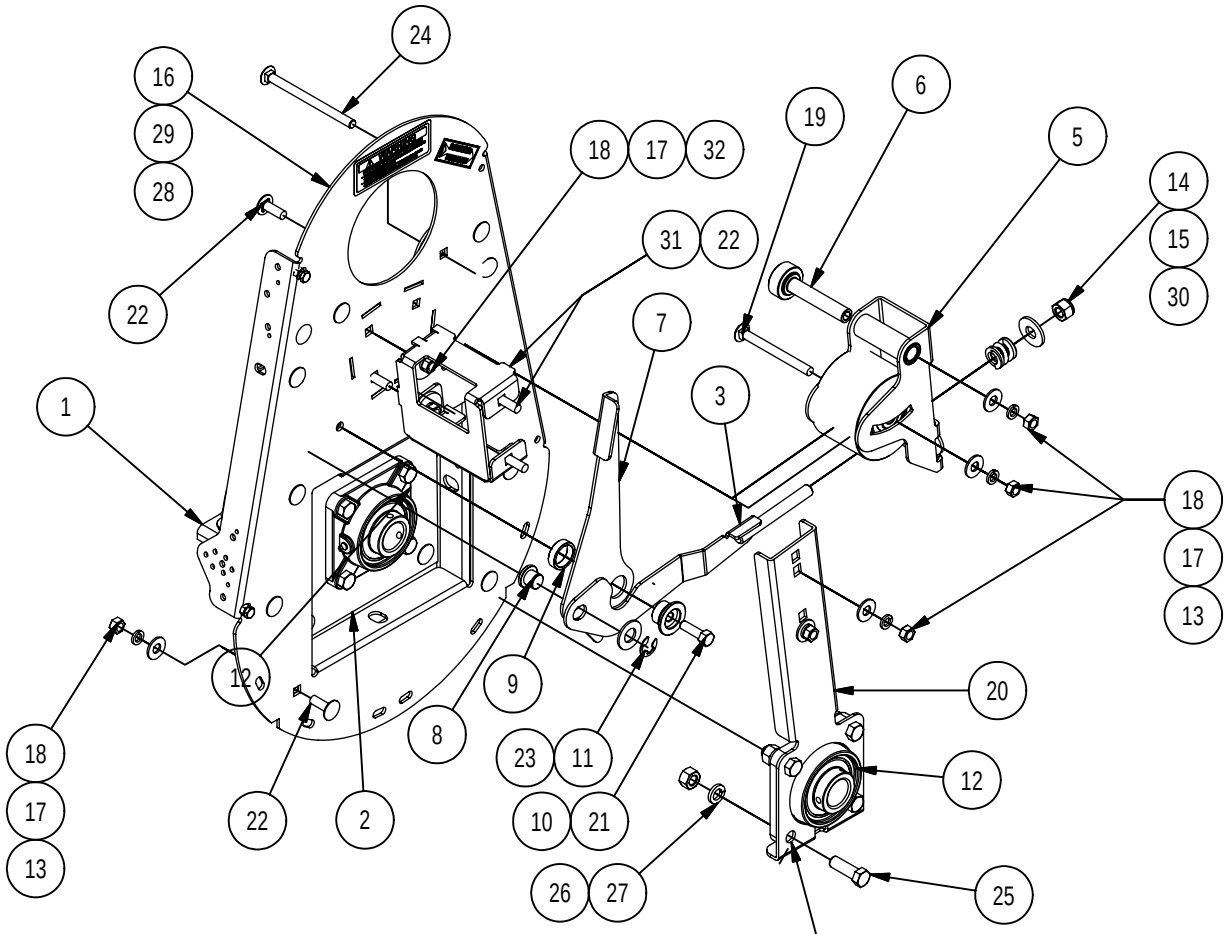


Attention Installer:
Unit is shipped assembled with the bearing grease zerk pointing to the left. The bearing and plate can be rotated 90 degrees left, right or down for better access depending on the installation. The front bearing must stay in the down position.

Used with Hanger Bearing
Auger as needed

INSTALLING CONTINUOUS FLOW

ITEM	PART NUMBER	DESCRIPTION	ITEM	PART NUMBER	DESCRIPTION
1	702-014W	Frame Channel, 8"	17	F-1019-03	3/8" Lockwasher
2	702-012P	Bearing Mount Plate	18	F-1011-03	3/8-16 Hex Nut
3	702-016W	Tensioning Linkage	19	F-2094	Carriage Bolt, 3/8-16 x 4"
4	702-019A	Flat Idler Pulley/Bearing	20	702-115P	Bearing Mount Arm
5	702-021W	Idler Arm	21	F-1307	3/8-16 x 1-1/4" Capscrew
6	702-024P	Idler Arm Pintle	22	F-1274	3/8-16 X 1" Carriage Bolt
7	702-029P	Tensioning Arm	23	F-1940	Washer, Flat, 5/8 Type A
8	702-033P	Tension Arm Pin	24	F-2107	3/8-16 x 5" Carriage Bolt
9	702-034P	Tension Arm Pivot Bushing	25	F-1526	1/2-13 x1-1/2" Capscrew
10	702-035P	Tension Arm Pivot	26	F-1011-05	Hex Nut, 1/2-13
11	F-1595	E-Ring	27	F-1464	1/2" Lockwasher
12	D-2002-02	Bearing, Flange	28	P-12849	Decal, Rotation
13	F-1009-03	3/8" Flat Washer	29	P-10935	Decal, WARNING
14	F-1378	1/2" Nyloc Nut	30	H-2702	Die Spring, 1"OD x 1/2"ID x 1"L
15	F-1009-05	1/2" Flat Washer	31	702-121P	Bearing Mount Bracket CW
16	423-417-001A	Back Plate w/#31 and Decals	32	609-034P	Spindle Spacer Washer

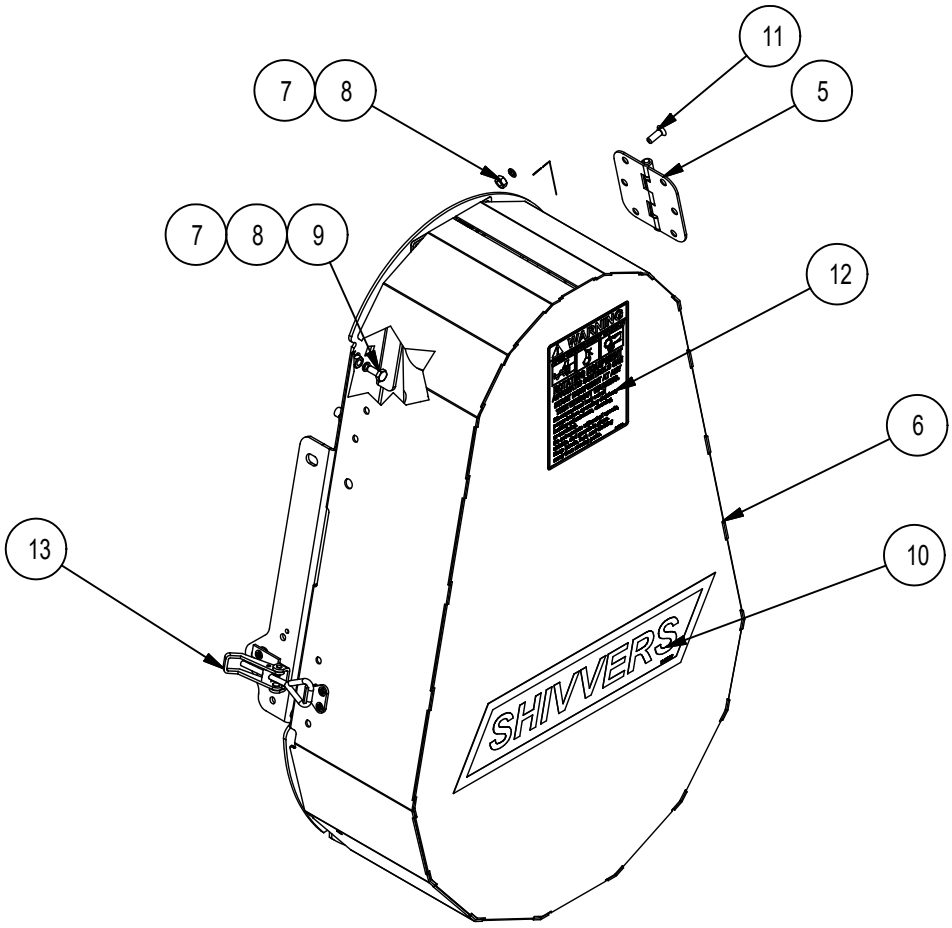


See Bearing grease zerk note on page 25.

INSTALLING CONTINUOUS FLOW

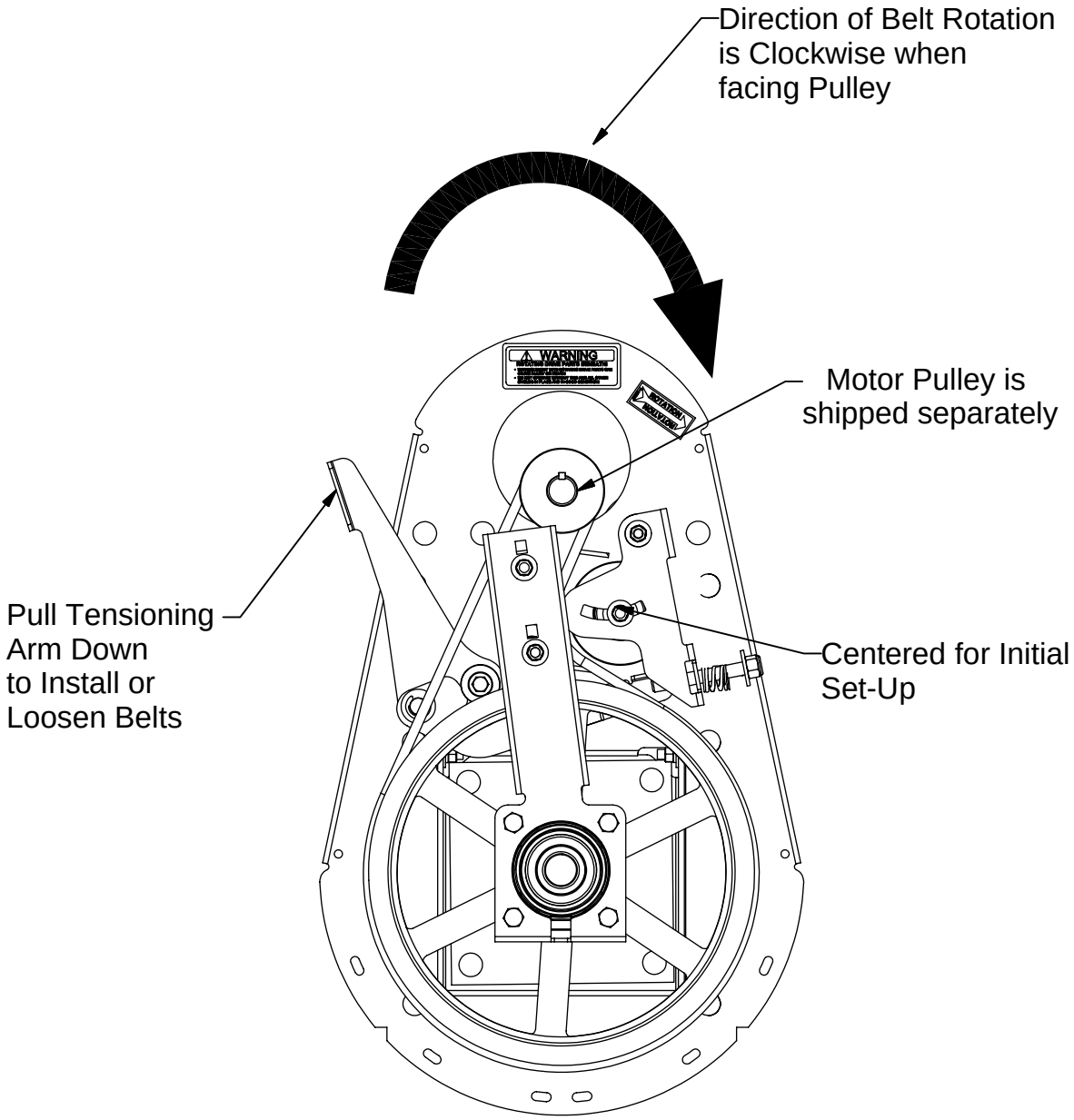
ITEM	PART NUMBER	DESCRIPTION
5	H-2712	Hinge, 3.5 x 3.5
6	702-128A	Belt Shield Body w/Decals
7	F-1019-01	1/4" Lockwasher
8	F-1011-01	1/4-20 Plain Nut
9	F-1015-02	1/4-20 x 5/8" Capscrew
10	P-8427	Decal, SHIVVERS, Med
11	F-2109	Screw, 1/4-20 x 3/4"
12	P-10223	Decal, Warning Rot. Equip.
13	H-2412	DOOR LATCH KIT

Order #5 & 13 (latch, hinges and hardware) in sack #702-070A.



Installing Continuous Flow

12. Place motor on motor mount as shown on page 25. Install Motor Pulley and place motor key and tighten set screws. To Install Belts, pull the Tensionsing Arm down, and wrap belts around pulleys as shown. If needed, tighten the tensioning arm spring. The direction of the belts rotation will be clockwise.

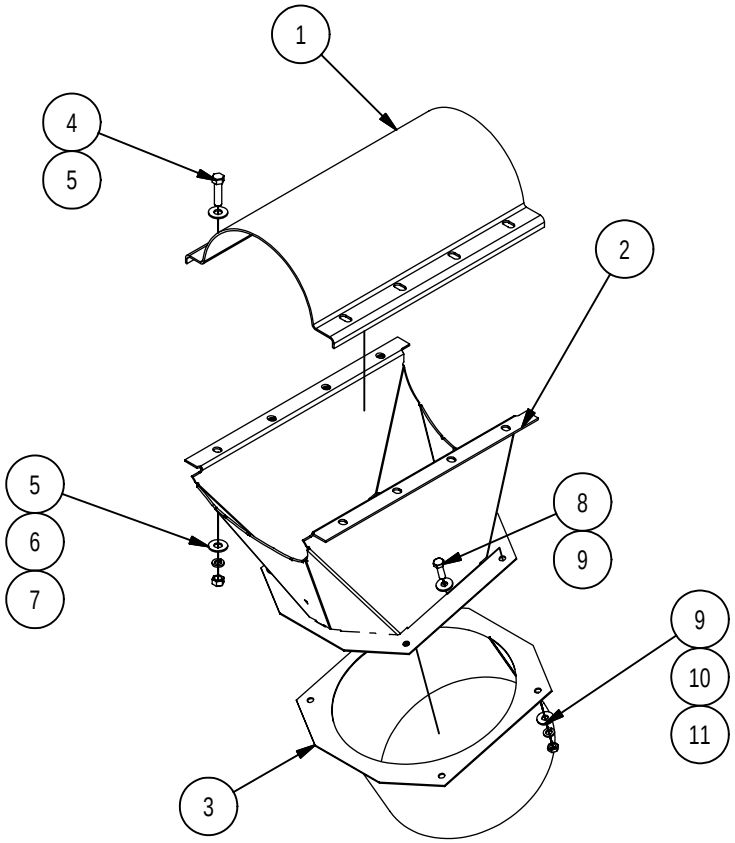


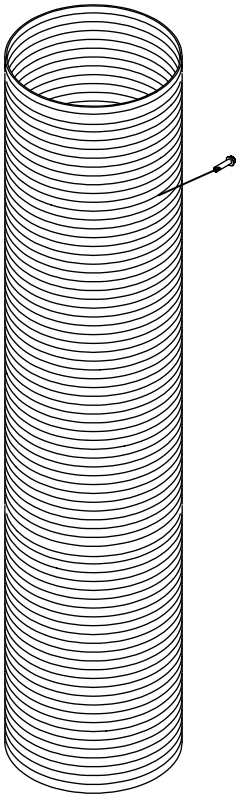
Installing Continuous Flow

12. Attach the Downspout Assembly to the auger now, or after the auger is in place. The downspout assembly parts can be rotated to give different outlet angles.

DOWNSPOUT ASSEMBLY, 8"
W/10" SPOUT TUBE
273I-001A

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	273-096P	Half Band, 8" X 15 1/2"
2	1	273-114W	8" 15 Degree Spout Body
3	1	273-117W	10" Spout Tube
4	8	F-1015-27	3/8-16 x 1-1/2" Capscrew
5	16	F-1009-03	3/8" Flat Washer
6	8	F-1019-03	3/8" Lockwasher
7	8	F-1011-03	3/8-16 Hex Nut
8	4	F-1015-15	5/16-18 x 1" Capscrew
9	8	F-1009-02	5/16" Flat Washer
10	4	F-1011-02	5/16-18 Nut
11	4	F-1019-02	5/16" Lockwasher

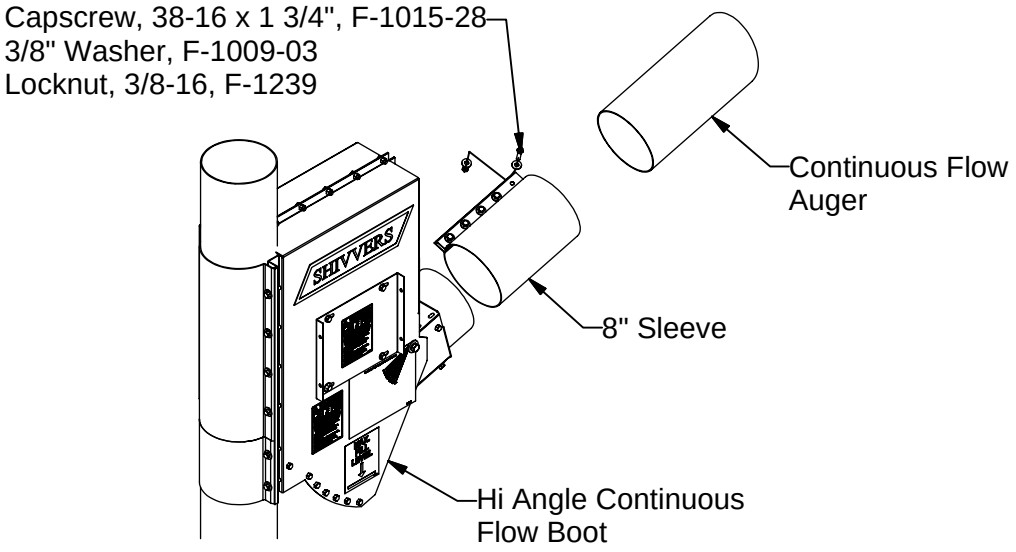




685B-001A
Flex Tube, 10" x 50"L

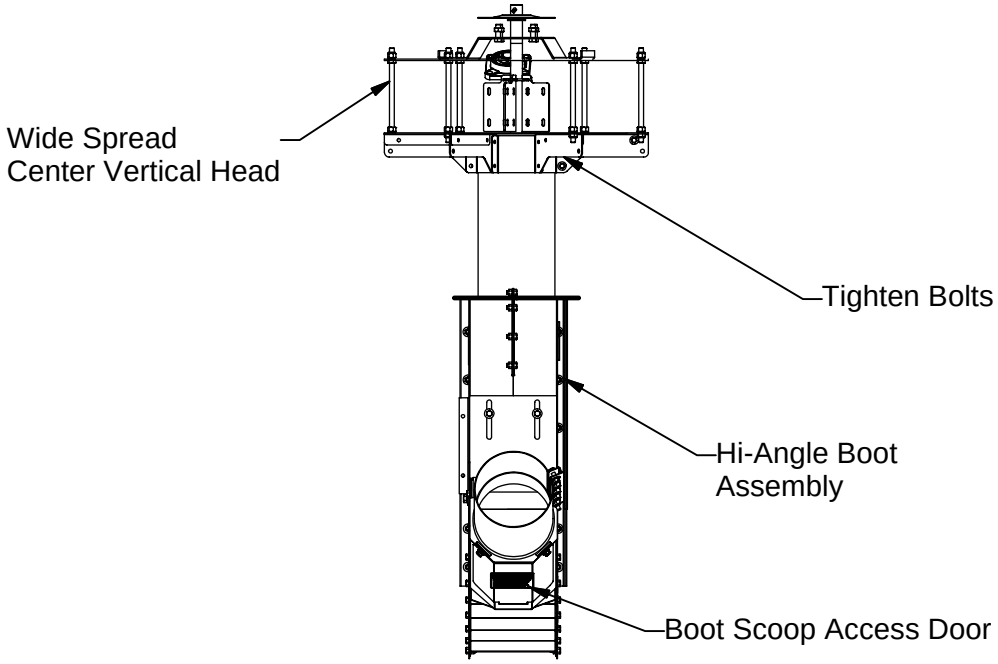
Installing Continuous Flow

14. Raise the Continuous Flow Auger and position it in place through the hole in the roof of the dryer bin. From inside the bin, slide the sleeve onto the auger and fasten the Continuous Flow Auger in place. Be sure that the auger tube mounts flush against the Hi Angle Continuous Flow Boot tube.



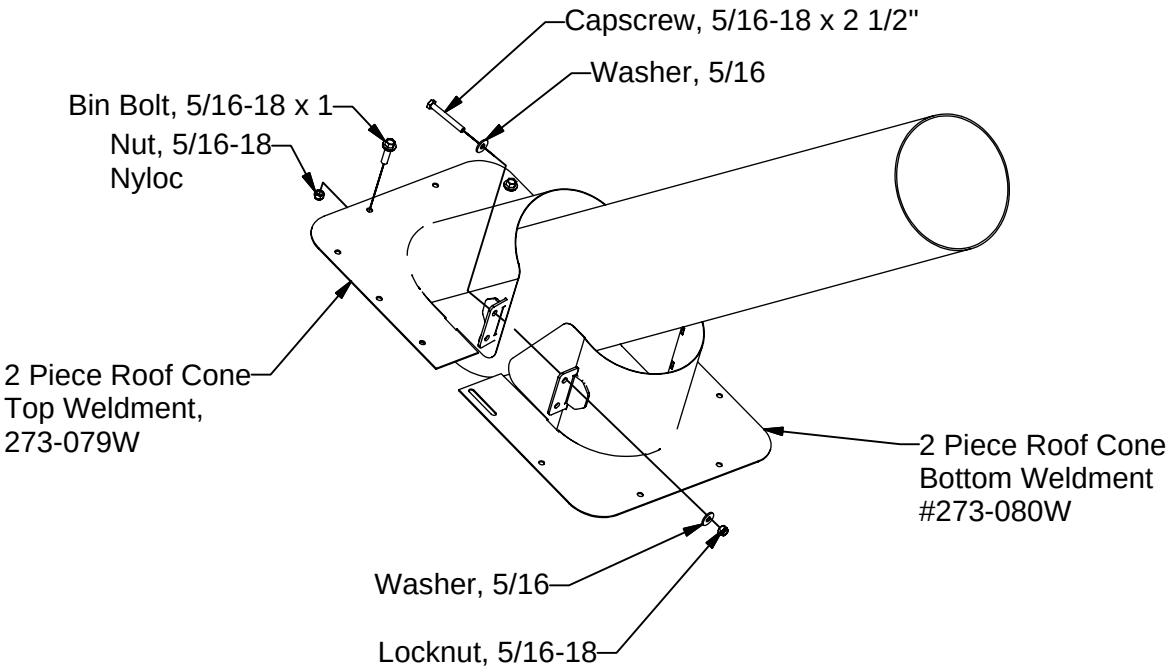
15. Tighten all roof brace halfbands securely in place to hold the Continuous Flow Auger.

16. Tighten the bolts in the Center Vertical Spreader Head (above the Boot Assembly) on the Center vertical if they were loosened earlier (Step 3.)



Installing Continuous Flow

17. Install the 2-Piece Roof Cone (423-374-001A) So that the long (slanted) piece is on top. Use the hardware from 273-092A, 2-Piece Roof Cone Hardware Sack found in the parts Box. Two types of fasteners are supplied for securing the roof cone to the bin roof. Use the supplied thum-seal to seal the edges and around the tube.

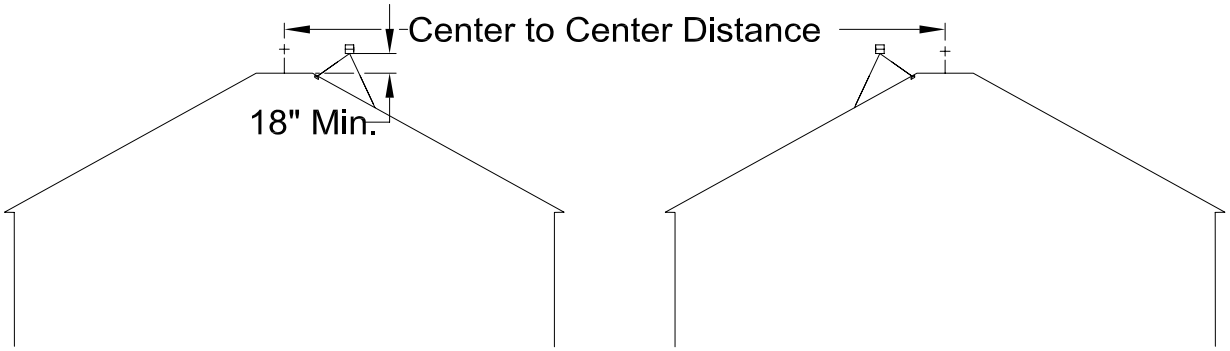


IMPORTANT:
Recheck all bolt connections on the Roof Brace (Double and Triple Eared) Halfbands, Support Legs, Extension Sleeves, Center Vertical Boot, and Center Vertical Spreader Sectors for tightness.

18. Check using the inspection hole or clean-out door in the Continuous Flow Boot to make sure Continuous Flow Fliting is not hitting the Center Vertical Fliting.

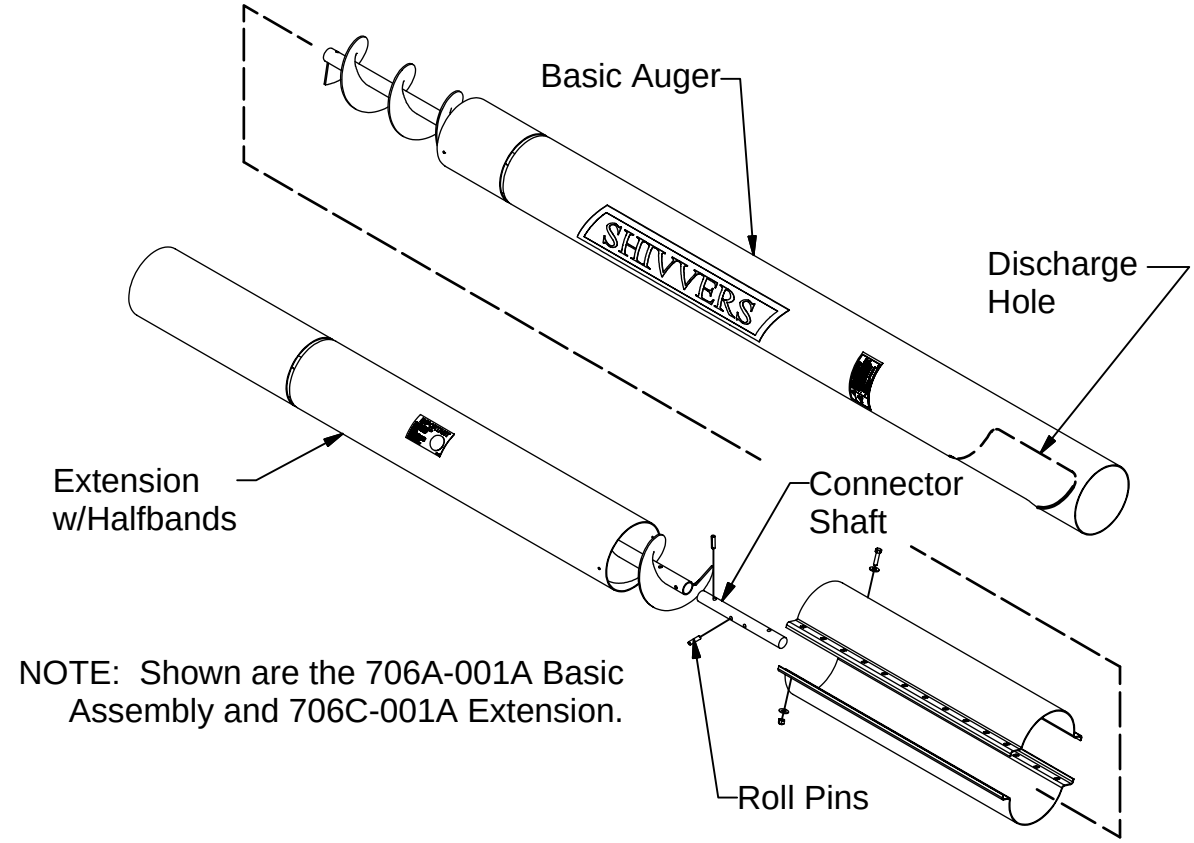
Installing Auxiliary Transfer

1C. Assemble two (2) Tripod Roof Braces. See Step 4 in the Continuous Flow section. Mount on top of storage bins as high as possible, without interfering with the roof cap, in a line between the center bin openings. Adjust legs so that the bottom of the "saddle" has a minium of 18" clearance above the center of the bin openings.



2C. Measure the distance over the "saddle" from the center of one bin to the center of the other bin, as shown above. Remember this measurement for later use in Step 5C.

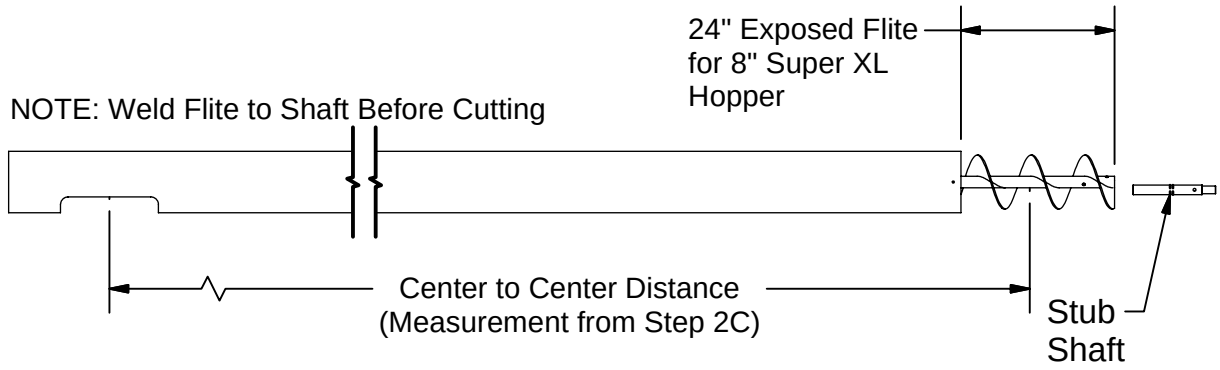
3C. Fasten appropriate Extension Augers to the Basic Auger Assembly as shown. Tighten the halfbands with hardware in sack.



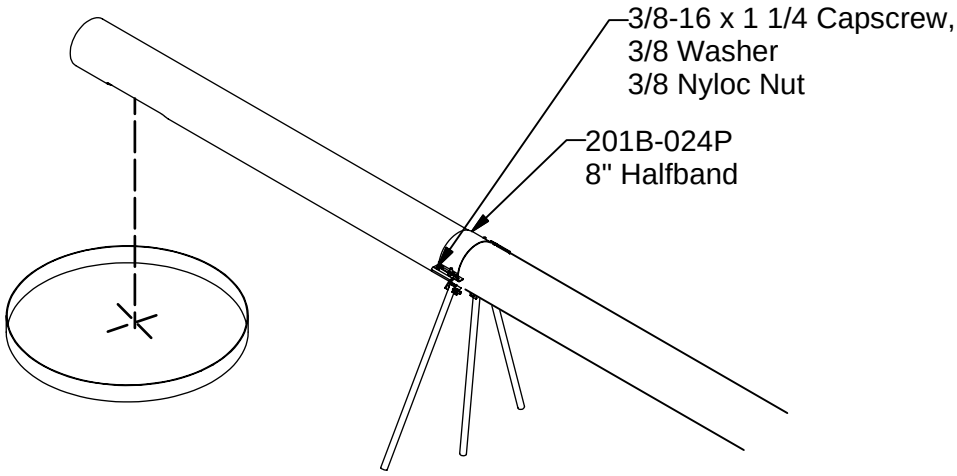
NOTE: Shown are the 706A-001A Basic Assembly and 706C-001A Extension.

Installing Auxiliary Transfer

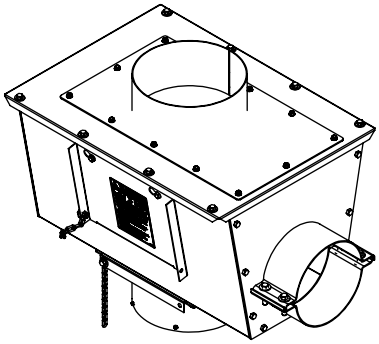
4C. Beginning at the Center of the Discharge Hole, measure down the distance measured from Step 2C. Cut the tube 15" shorter than that measurement for a Super XL Hopper Assembly. Cut fliting at exactly 24" longer than the tube for a Super XL Hopper Assembly. (See P-11000 Super Hopper Installation Manual for further directions). Bolt the Stub Shaft, 672-005P, in the end of the fliting with approximately 1 3/4" exposed using hardware from the Hopper Sack.



5C. Mount auger tube in the "saddle" on top of the bins, lining up the discharge hole directly over the center of the bin. Tighten the bolts in the Brace Leg Halfbands securely.



INSTALLING HOPPER: Refer to P-11000 for Installation Instructions using the Super XL Hopper.



See Next Page for
Exploded View

Installing Auxiliary Transfer

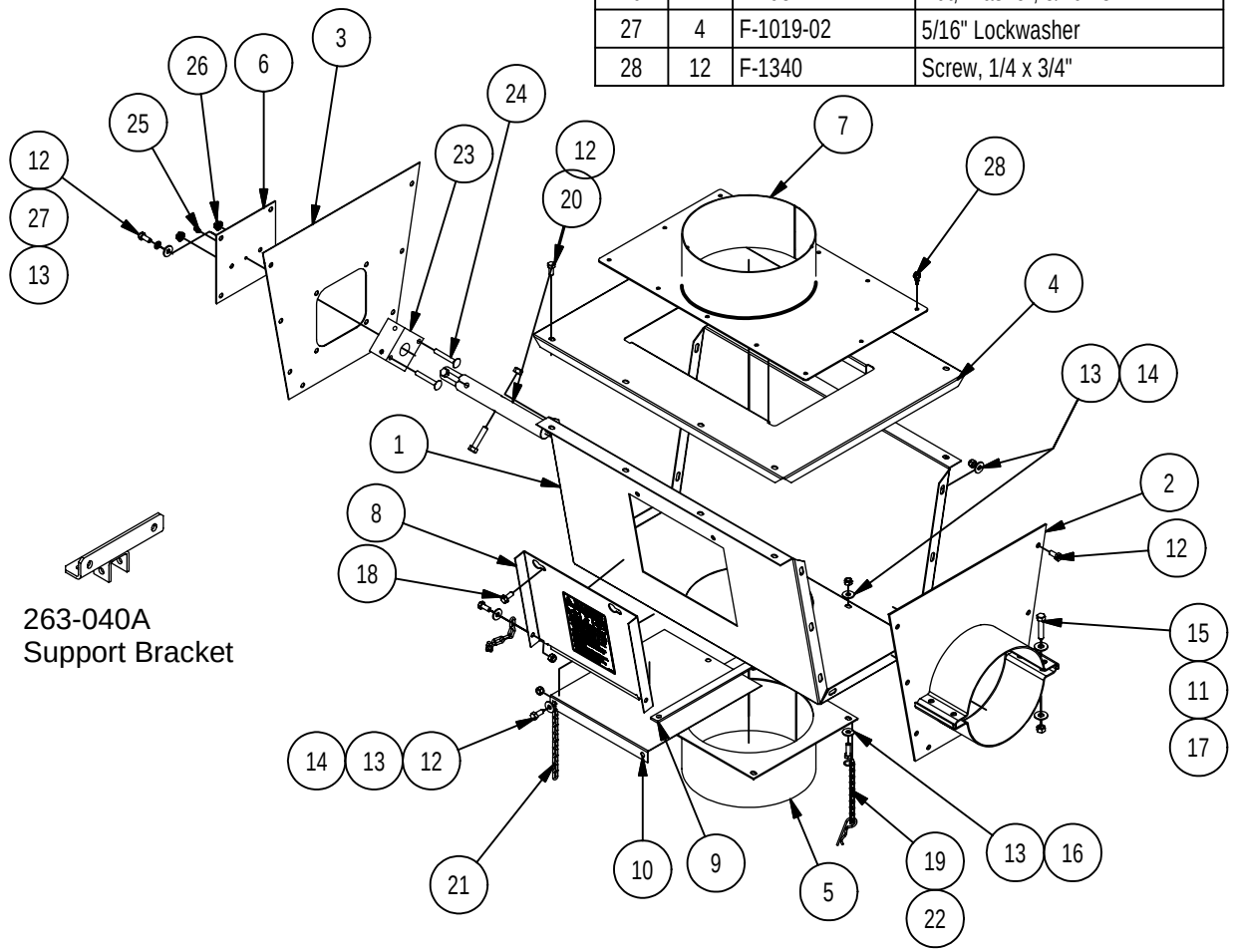
SUPER XL HOPPER
263E-001A

ITEM	PART NUMBER	DESCRIPTION
1	263-044P	Super XL Hopper Body
2	263-047W	Super XL Tube End
3	263-045P	Super XL Bearing End
4	263-043P	Super XL Hopper Lid
5	263-049W	Super XL Hopper Outlet
6	263-041P	Bearing Plate
7	263-051W	Inlet Flange, Lid
8	263-027A	Clean-out Door
9	263-055P	Gate Shim
10	263-056P	Slide Gate

263-058A Parts Sack

ITEM	QTY	PART NUMBER	DESCRIPTION
11	8	F-1009-03	3/8" Flat Washer
12	32	F-1546	5/16-18 x 3/4" Capscrew
13	50	F-1009-02	5/16" Flat Washer
14	32	F-1005-02	5/16-18 Locknut
15	6	F-1015-27	3/8-16 x 1-1/2" Capscrew
16	4	F-1015-15	5/16-18 x 1" Capscrew
17	6	F-1005-03	3/8-16 Locknut Nut
18	2	F-1212	Capscrew, 5/16 x 3/4"
19	1	H-2102	Sash Chain with Ring
20	1	672-005P	Stub Shaft
21	2	222-031P	Chain, 13"L x #1/0
22	1	F-1469	Pin, Cotter 1/8 X 2-1/2"
23	1	262-014P	Bearing, UHMW
24	2	F-1707	5/16-18 x 2 1/4" Carg. Bolt
25	1	H-1056	1/4" Grease Fitting
26	2	F-1931	Nut, Washer, 5/16-18
27	4	F-1019-02	5/16" Lockwasher
28	12	F-1340	Screw, 1/4 x 3/4"

10" Flex Tube
shown on page 27



263-040A
Support Bracket

6C. Install the Hopper Assembly on the intake end of the tube, sliding the shaft into the plastic Bearing.

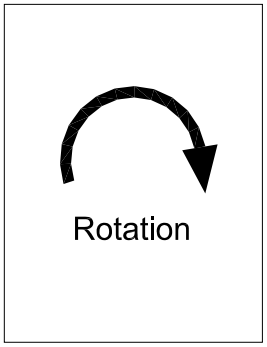
Installing Auxiliary Transfer

7C. Install Additional Roof Braces as required so that the auger is not unsupported for any span greater than 20 feet. (Refer to Step 9 under the Install Continuous Flow Section.) A ground based support or truss MUST be used where spans between any unsupported section are greater than 20 feet.

8C. Install Downspout, Motor Assembly, and Belt Shield Assemby onto discharge end of auger. (Refer to Steps 10-12).

Final Checklist

- ☐ 1. Make sure all hardware sacks were removed from inside the auger tube sections, before they were assembled.
- ☐ 2. Make sure auger fliting was welded to shaft before being cut to length.
- ☐ 3. Make sure all splices were timed correctly and are without gaps. Make sure supplied roll pins were used. Make sure tube splice sleeves are pointing down so water will not run into auger.
- ☐ 4. Make sure all augers are straight.
- ☐ 5. Make sure all augers are secured properly. (No sections unsupported for greater than 20', unless trussed.) Make sure auger fliting will not hit Center Vertical fliting.
- ☐ 6. For Continuous Flow Augers, re-check Center Vertical for plumb. Make sure Continuous Flow Auger isn't pushing against Center Vertical.
- ☐ 7. Make sure all nuts, bolts, and setscrews are tight.
- ☐ 8. Make sure there is a good seal where the Continuous Flow Auger goes through the drying bin roof.
- ☐ 9. Make sure belts and pulleys are in alignment and belts are tight.
- ☐ 10. Make sure factory supplied safety decals are readable. Replace them if they are not.
- ☐ 11. Check for proper motor size based on auger length and angle. (See Factory Representative.)
- ☐ 12. Make sure Belt Shields are in place.
- ☐ 13. For Hanger Bearing Augers, make sure all hanger bearing grease zerks are pointing up.
- ☐ 14. Check motor for proper rotation.



Looking at front of Belt Shield

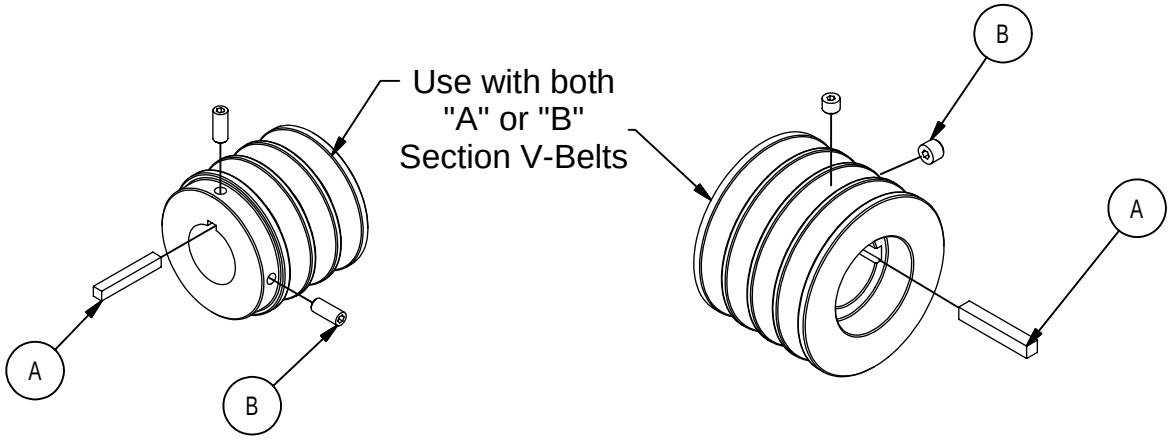
Appendix

3-GROOVE MOTOR PULLEYS

PULLEY ASSEMBLY #	3 GROOVE MOTOR PULLEY	(A) KEY	KEY SIZE	(B) SETSCREW	SETSCREW SIZE
699E-001A	3.25" O.D. and 7/8" Bore	249Z-020P	3/16" SQ. X 1-3/8"	F-2112	5/16-18 X 3/4
699F-001A	3.25" O.D. and 1-1/8" Bore	249Z-018P	1/4" SQ. X 1-3/4"	F-2112	5/16-18 X 3/4
699G-001A	3.25" O.D. and 1-3/8" Bore	249Z-019P	5/16" SQ. X 1-3/4"	F-2112	5/16-18 X 3/4
699H-001A	3.5" O.D. and 1-1/8" Bore	249Z-018P	1/4" SQ. X 1-3/4"	F-2112	5/16-18 x 3/4
699I-001A	3.5" O.D. and 1-3/8" Bore	249Z-019P	5/16" SQ. X 1- 3/4"	F-2112	5/16-18 X 3/4
699J-001A	3.75" O.D. and 1-1/8" Bore	249Z-018P	1/4" SQ. X 1-3/4"	F-2112	5/16-18 X 3/4
699K-001A	3.75" O.D. and 1-3/8" Bore	249Z-019P	5/16" SQ. X 1-3/4"	F-2112	5/16-18 X 3/4
* 699M-001A	4" O.D. and 1-1/8" Bore	249Z-018P	1/4" SQ. X 1-3/4"	F-2112	5/16-18 X 3/4
* 699N-001A	4." O.D. and 1-3/8" Bore	249Z-019P	5/16" SQ. X 1-3/4"	F-2112	5/16-18 X 3/4
699O-001A	4.25" O.D. and 1-1/8" Bore	249Z-018P	1/4" SQ. X 1-3/4"	F-2112	5/16-18 X 3/4
699P-001A	4.25" O.D. and 1-3/8" Bore	249Z-019P	5/16" SQ. X 1-3/4"	F-2112	5/16-18 X 3/4
* 699Q-001A	4" O.D. and 1-5/8" Bore	249-027P	3/8" SQ. X 2"	F-2112	5/16-18 X 3/4
699R-001A	4.25" O.D. and 1-5/8" Bore	249-027P	3/8" SQ. X 2"	F-2112	5/16-18 X 3/4

NOTE: * = Standard sizes.

NOTE: Motor Pulley is not included for 8" Continuous Flow and Horizontal Transfer Augers. Order Separately.



4 GROOVE MOTOR PULLEY
(702E-001A, 702EX-001A)

PULLEY ASSEMBLY	4-GROOVE MOTOR PULLEY	"A" KEY	KEY SIZE	"B" SETSCREW	SETSCREW SIZE
703A-001A	4.25" OD X 1 3/8" BORE	654-224P	5/16 SQ X 2 3/8	F-1468	5/16-18 X 3/8"L
703B-001A	4.25" OD X 1 5/8" BORE	249-027P	3/8 SQ X 2'	F-1468	5/16-18 X 3/8"L