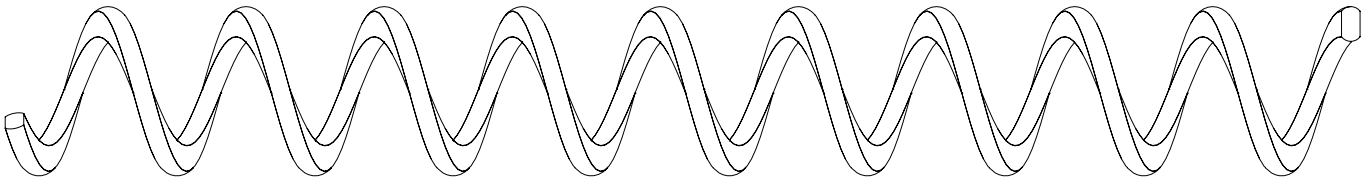
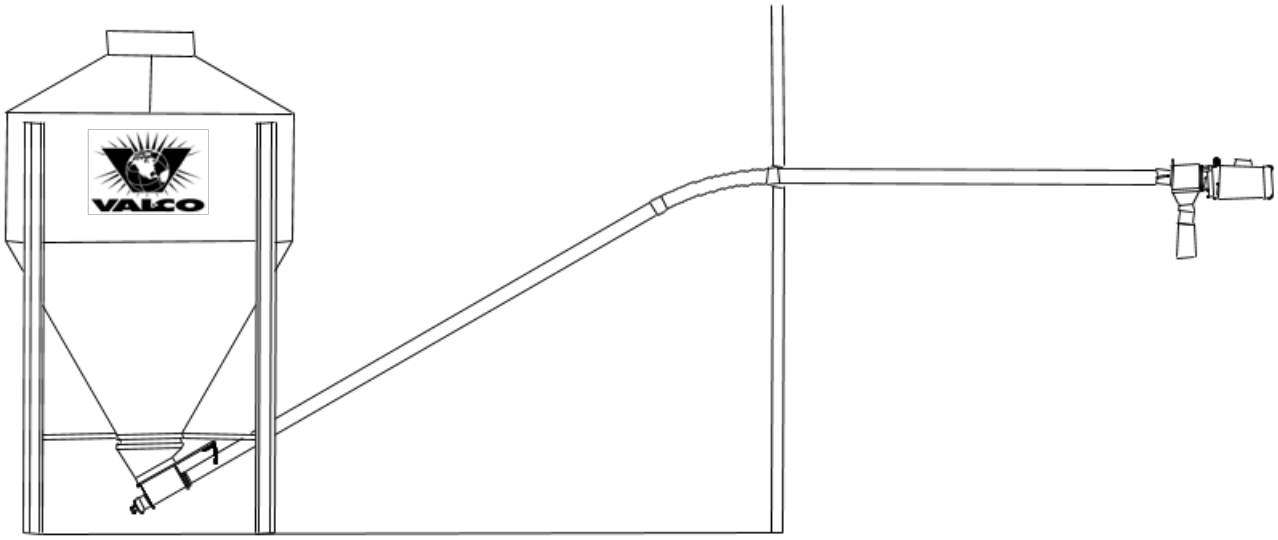
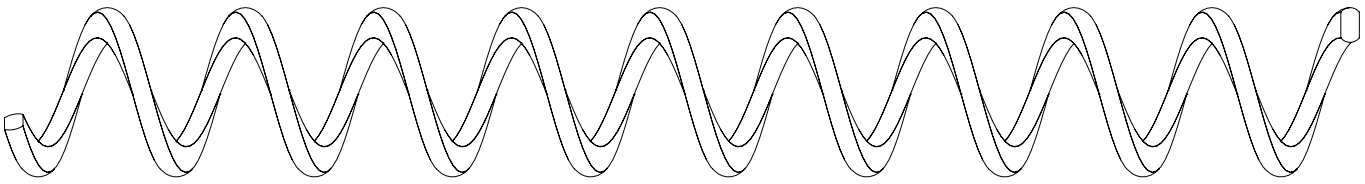
Flexible Auger Feed Delivery System
Installation & Operator's Manual

Models 720 (2.25") 725 (3" Pellet) 730 (3.0")
735HM (3.5" High Moisture) 735HV (3.5" High Volume)







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Parts Pages

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.

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.

Flexible Auger Feed Delivery Systems - General Specifications

MODEL 720 2.25” (55mm) FLEXIBLE AUGER FILL SYSTEMS

Used to convey dry ground feed and crumble type mash - maximum moisture content 18%. Maximum particle size 1/8” diameter x 1/2” long. System is not recommended for large pellets or shelled corn. PVC tubes are 2.25” (55mm) outside diameter; flexible auger is 1.52” outside diameter. Approximate feed delivery rate is 15 lbs. per minute or 900 lbs. per hour based on 40 lbs./cubic foot feed density and 358 rpm drive unit.

MODEL 725 “PELLET” 3” (75mm) FLEXIBLE AUGER FILL SYSTEMS

Used to convey dry ground feed and crumble type mash - maximum moisture content 18%. Maximum particle size 1/8” diameter x 1/2” long. System is recommended for pellets or shelled corn. PVC tubes are 3” (75mm) outside diameter; flexible auger is 2.25” outside diameter. Approximate feed delivery rate is 35 lbs. per minute or 2100 lbs. per hour based on 40 lbs./cubic foot feed density and 358 rpm drive unit.

MODEL 730 3” (75mm) FLEXIBLE AUGER FILL SYSTEMS

Used to convey dry ground feed and crumble type mash - maximum moisture content 18%. Maximum particle size 1/8” diameter x 1/2” long. System is not recommended for large pellets or shelled corn. PVC tubes are 3” (75mm) outside diameter; flexible auger is 2.38” outside diameter. Approximate feed delivery rate is 50 lbs. per minute or 3000 lbs. per hour based on 40 lbs./cubic foot feed density and 358 rpm drive unit.

MODEL 735 HV 3.5” (90mm) FLEXIBLE AUGER FILL SYSTEMS

Used to convey dry ground feed and crumble type mash - maximum moisture content 18%. Maximum particle size 3/16” diameter x 1/2” long. System is not recommended for large pellets or shelled corn. PVC tubes are 3.5” (90mm) outside diameter; flexible auger is 2.71” outside diameter. Approximate feed delivery rate is 100 lbs. per minute or 6000 lbs. per hour based on 40 lbs./cubic foot feed density and 358 rpm drive unit.

MODEL 735 HM 3.5” (90mm) FLEXIBLE AUGER FILL SYSTEMS

Used to convey dry ground feed and crumble type mash - **maximum moisture content 27%**. Maximum particle size 3/8” diameter x 3/4” long. System is not recommended for large pellets or shelled corn. PVC tubes are 3.5” (90mm) outside diameter; flexible auger is 2.38” outside diameter. Approximate feed delivery rate is 50 lbs. per minute or 3000 lbs. per hour based on 40 lbs./cubic foot feed density and 358 rpm drive unit.

SYSTEM NOTES

1. Auger boots, tube hangers, feed drop outlets, downspout tubes, feed control switches and other optional items are not included with the systems listed. Order these items separately.
2. Size your system to make the maximum operating time four hours per day. Some applications may require two flexible auger fill systems or possibly a 4” or 6” rigid auger system to meet the desired delivery rate.
3. A time clock or other control is recommended with all systems to prevent excess empty auger operation and other malfunctions.
4. Multiple bin pass-thru or tandem systems are recommended when extra feed storage or dual rations are required.
5. Extended length systems are complete with components to transfer from one feed line to another. These systems are available with direct drive power units only. RECOMMENDATION: Select a drive unit with a faster output rpm for the extended system than for the supply (entrance or pass-thru) system.
6. All systems are normally wired for 230V, 60HZ, 1 Phase operation. Additional motors (60HZ - 3 Phase, 50HZ - 1 Phase, & 50HZ - 3 Phase) are also available.
7. Standard drive unit (both v-belt and direct drive) is 358 rpm at 60HZ, 368 rpm at 50HZ operation. Alternate speeds (190, 250, & 441 rpm at 60HZ -- 159, 208, & 298 rpm at 50HZ) are also available.

IMPORTANT

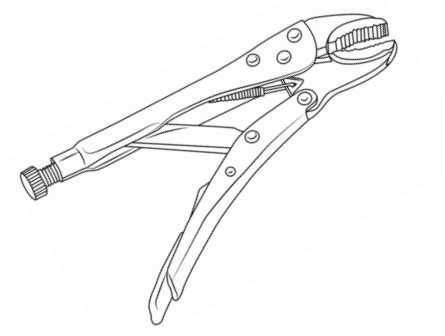
WHEN USING ADDITIONAL FORMED TUBES ON A SYSTEM, FOR EACH ADDITIONAL 90˚ OF FORMED PVC TUBE ADDED TO A LINE DECREASE THE MAXIMUM LINE LENGTH FOR EACH MOTOR SIZE BY 30 FEET.

Installation

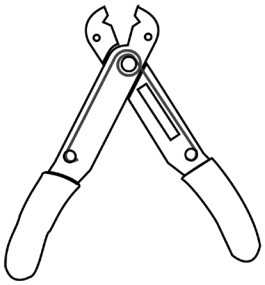
Tools

- *Vise-Grips*
- *Wire Strippers / Cutters*
- *Allen Wrench Set*
- *Phillips Screwdriver, #2*
- *Straight Screwdriver, 1/4”*
- *Drill with Hole Saw*
- *Driver/Socket/Wrench Set with 6” extension*
- *Open End Wrenches*
- *Adjustable Wrench*
- *Hack Saw or Miter / Chop Saw*

Vise-Grips

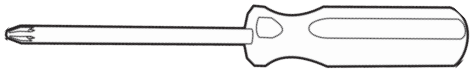


Wire Strippers / Cutters

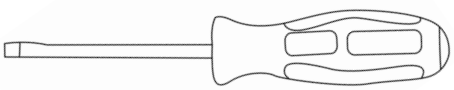


Allen Wrench Set

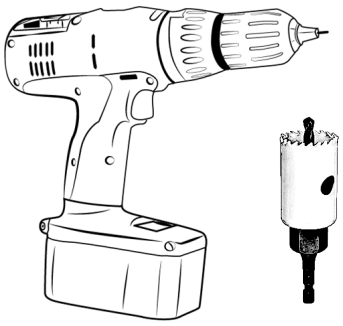
Phillips Screwdriver, #2



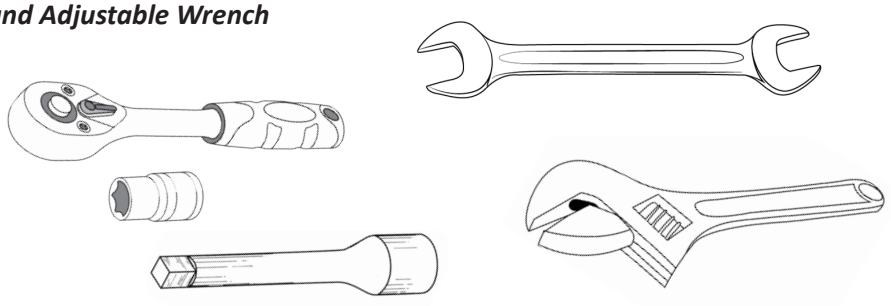
Straight Screwdriver, 1/4”



Drill, with Hole Saw

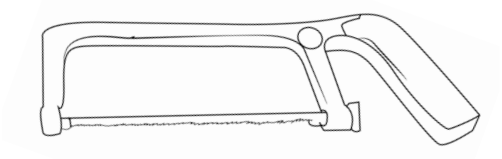


Socket Set, Open End Wrenches, and Adjustable Wrench

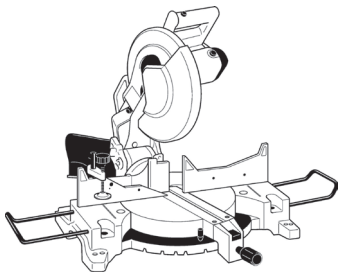


Miter / Chop Saw, with fine-tooth blade

Hack Saw



- or -



Planning Your VAL-CO Feed Delivery System

For the easiest and most trouble free system locate the feed bin in a direct line with the feed delivery system. Refer to the BIN POSITIONING in this instruction manual (page 10, figures 11 & 12) for bin placement according to the height at which the PVC tube enters the building. Locate the bin so that the system does not have to convey feed at an angle of more than 60 degrees. A 45 degree entry should be considered standard.

Whenever possible lay out the system to run straight. Avoid problems with extra elbows and curves by locating the feed bin in line with feeders. One horizontal 90 degree turn is allowed inside the building. A 180 degree turn is NOT recommended by VAL-CO under any circumstances. If additional turns or elbows are needed, use extension hoppers, as shown on pages 8 & 9. NOTE: One (1) 90 degree elbow requires the same power as 30' of straight line; subtract 30' off VAL-CO recommended maximum length for each elbow.

Left hand turns in the system should be avoided at all times. If a left hand turn is the only alternative, be sure to reduce stretch by 1" per 50' at initial installation to reduce wear on the elbow. Reference page 22 for auger stretch procedure.

Plan your feed delivery system so the auger tubes are over the feeders as much as possible. To avoid bridging problems do not angle the drop tubes more than 45 degrees.

The discharge head must be located over a feeder that will require as much or more feed than any of the feeders in the line.

Do not position drop outlets on or just before an elbow. Drops should be located after an elbow to allow feed to cushion the auger through the elbow.

With the use of an extended length system the larger portion of outlet drops should be located on the longest portion of the feed line.

Typical System Installations

While VAL-CO feed delivery systems are available to meet most any need, there are some general guidelines to consider when planning the layout of your system.

On the following pages you will find some of the most common types of installations.

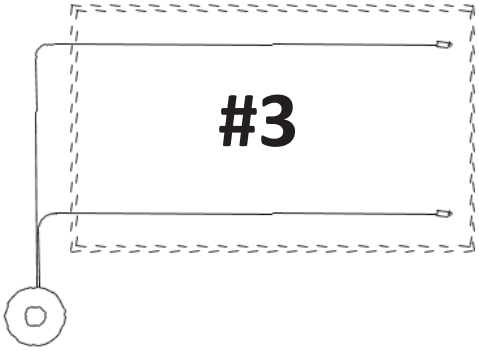
Proper planning to insure the correct installation of your feed delivery system will eliminate many problems that can occur later.

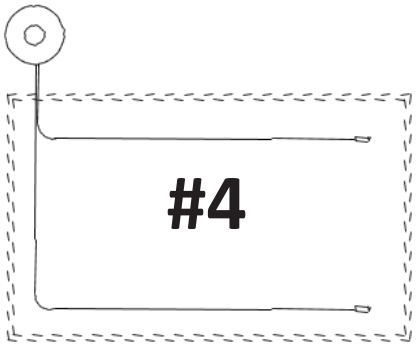
If you are unsure of the system that's correct for your needs, be sure to contact the VAL-CO distributor nearest you for any assistance needed.

System Installations - continued

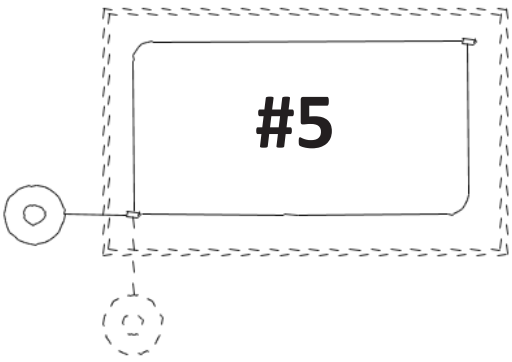
Systems #1 & #2 represent extended length systems. The power requirements for each part of the system should be equal.

System #3 utilizes two 90 degree right hand turns, making it a much more favorable installation instead of system #4 utilizing two left hand turns.

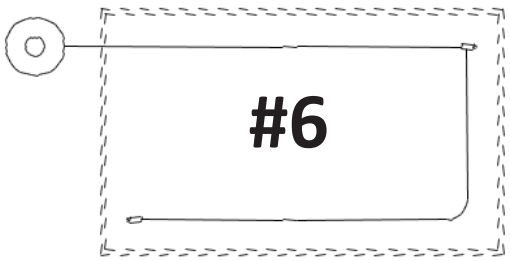




System #5 represents a circulating feed delivery system with options for bin placement. This system is used where a continuous supply of feed is needed.

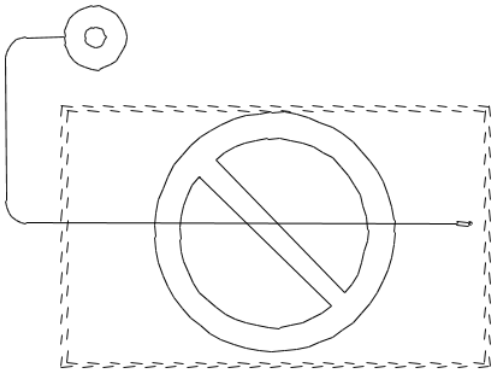


System #6 is an extended length system with one additional 90 degree elbow. This system is acceptable but system's #2 & #3 would be recommended to reduce excessive run time.



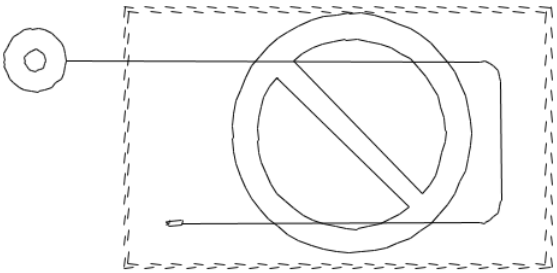
System Installations - continued

System #7 would not be recommended due to 180 degree left hand turns causing erratic auger operation.



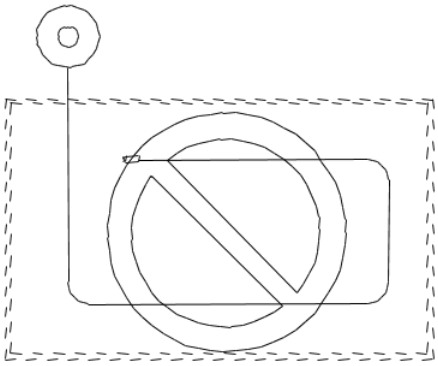
#7

System #8 should not be used because of 180 degree turns causing excessive elbow wear.



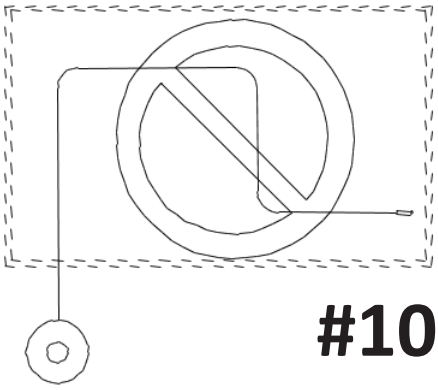
#8

System #9 would not be recommended due to 180 degree left hand turns.



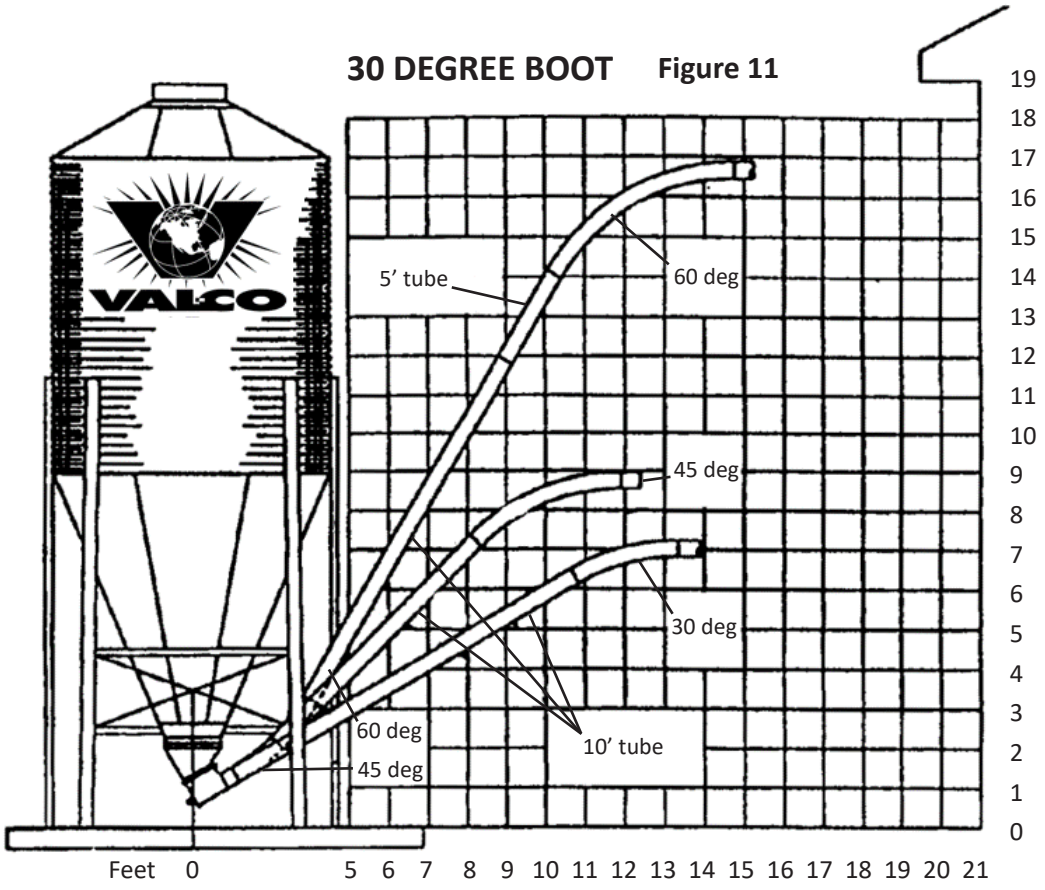
#9

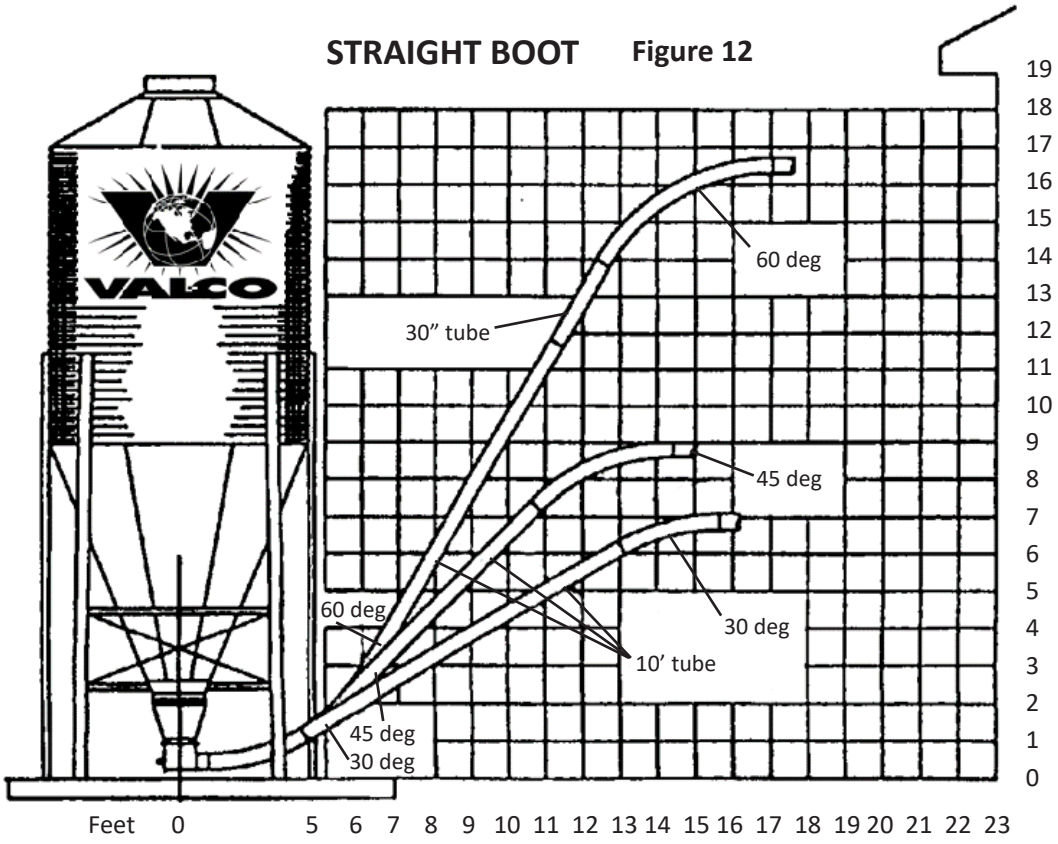
System #10 would not be recommended because there are too many elbows causing auger vibration, motor stall, and excessive elbow wear.



#10

Bin Positioning





Installation Procedure

Read All Instructions Before Starting Installation of Feed System

STEP 1. BIN LOCATION

Use the images on pages 8, 9 & 10 to determine the location of your bin. Pour a concrete pad in accordance with the instructions in your bin manual. Attempt to place the bin in a direct line with the auger system to simplify installation, however most entrance requirements can be accommodated.

STEP 2. BOOT INSTALLATION

Refer to pages 14, 15 & 16 in this manual for boot installation. Proper use of hardware and a quality silicone caulking are key ingredients to the correct installation of all boots.

STEP 3. TUBE INSTALLATION (inside the building)

Determine the desired location for auger line in the building. Install hanger bolts every four (4) feet or less. If the building has a rafter spacing of more than four (4) feet some type of bridging should be nailed between the rafters.

Additional support may be necessary at the discharge head and motor drive end of the system. Be CERTAIN that the suspension system is properly secured to the rafters or other structure and will safely support the weight of the feed line during operation.

STEP 4. TUBE INSTALLATION (outside the building)

Line up the auger tubes from the building entrance hole to the boot on the feed bin. If necessary cut a 45 degree elbow to achieve the required angle. Refer to page 10 BIN POSITIONING for standard entrance angles and page 17 TUBE INSTALLATION for the proper cutting of the PVC tubes. Up to this point all tubes are dry-fitted together.

STEP 5. CEMENTING PVC TUBES

Follow the directions on can for safe handling of PVC cement. Be sure to square off all cut ends. Before applying the PVC cement on tubes be sure all surfaces to be joined are cleaned. After joining tubes give them a twist to align them as they are joined to full depth. Hold tube and bell together for 30 seconds to insure proper seal.

STEP 6. OUTLET DROP INSTALLATION

Determine locations where outlet drops are required. Cut openings in tubes and install outlet drops as per directions on page 19, OUTLET DROP INSTALLATION. Outlet drops should NOT be installed ON or JUST BEFORE formed tubes. IF AN OUTLET IS REQUIRED ON A FORMED TUBE FEED CARRYOVER SHOULD BE ALLOWED TO CUSHION THE AUGER THROUGH THE CURVE. Feed carryover can be accomplished by varying the size of the outlet hole in the tube.

STEP 7. AUGER SPLICING

The recommended method for splicing or lengthening the auger is by welding with a bronze, flux-coated rod. Lay the auger in an angle iron for alignment. Butt 3/4” to 1” of the ends of the auger to be joined and weld on both sides of the joint; DO NOT weld the flighting tips. Allow the weld to air cool, then file smooth to avoid auger tube wear. Refer to page 22 for further instruction. AN AUGER WELD JOINT SHOULD NOT BE INSTALLED IN A FORMED TUBE OR IN AN INCLINED TUBE. THE WELD JOINT SHOULD BE INSTALLED CLOSER TO THE DRIVE UNIT TO MINIMIZE FEED FLOW RESTRICTIONS.

Continued on next page.

Installation Procedure - continued

STEP 8. AUGER INSERTION

With the bearing and shaft off of the back of the boot, insert the auger through the boot and auger tubing. Work the auger up to the discharge head end of the suspended tubing. The excess auger length at the boot end should NOT be cut off at this time. Handle the auger carefully. Dropping the auger may cause it to kink. DO NOT install auger that has been kinked as it will wear a hole in the auger tubing at the spot of the kink.

USE EXTREME CAUTION WHEN HANDLING AUGER. THE AUGER IS UNDER TENSION AND MAY SPRING CAUSING SERIOUS INJURY. ALWAYS WEAR PROTECTIVE CLOTHING AND SAFETY GLASSES WHEN HANDLING THE AUGER.

STEP 9. DRIVE UNIT INSTALLATION

See page 20 for detailed instructions.

STEP 10. CUTTING AUGER (at boot end)

Auger must already be attached to the drive unit end. Auger should be stretched 2” for every 50’ of length. Measure the stretch from the rear edge of the boot and cut at that point. See pages 21 & 22 for detailed instructions.

STEP 11. SHUTOFF SWITCHES

See page 23 for detailed instructions concerning VAL-CO shutoff switches.

STEP 12. START PROCEDURES

Reference page 27. New auger is coated with oil for protection against rust. The auger must be cleaned and polished before the system can handle a full load of feed. To clean and polish the auger turn the system on and let it run empty for several minutes. Then cycle 1/4 bushel of feed through the system; repeat this cycle several times, gradually increasing feed amount to one (1) bushel. Slowly increase the amount of feed into the system until the auger carries its full load.

STEP 13. TROUBLESHOOTING

See page 28 for TROUBLESHOOTING guide.

STEP 14. MAINTENANCE

See page 27 for MAINTENANCE instructions.

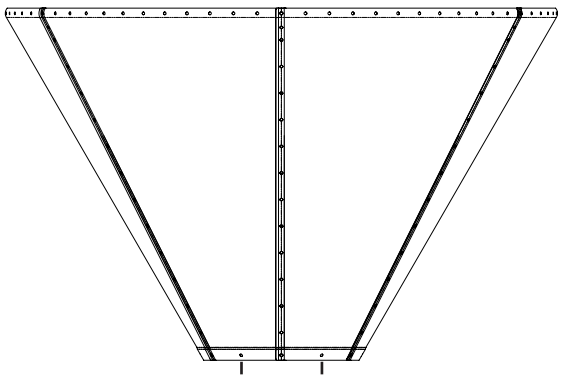
Boot Installation - Overview

The following pages describe instructions for the installation of slide valves for Straight End Boots, Straight Pass-Thru Boots, and 30 Degree Boots, as shown in Figure 13. Please read the entire manual to learn about slide valve orientation, hardware orientation, caulking instructions and replacement part numbers. It is very important all directions are followed for proper operation and weather resistance.

Proper use of hardware and silicone caulking is critical to the correct installation of VAL-CO boots and plastic transitions. Refer to pages 15 & 16 for proper hardware installation and caulking points. USE ONLY 100% SILICONE OUTDOOR CAULKING.

Bin 16” Opening Attachments

Figure 13



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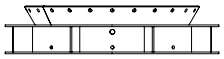
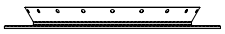
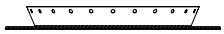


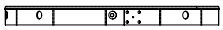
512200
TOP & BOTTOM WELDED COLLAR
(single piece, for all 12’ Bins)



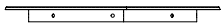
506011
60° TOP COLLAR
(for all 6’ & 9’ Bins)



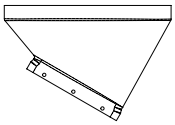
507011
67° TOP COLLAR
(for all 7’ Bins)



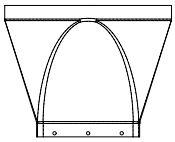
509438
REINFORCED BOTTOM COLLAR
(for all 3, 4, 5 & 6 ring 9’ Bins)



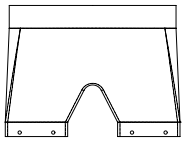
500260
STANDARD BOTTOM COLLAR
(for all 6’, 7’, and 1 & 2 ring 9’ bins)



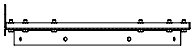
500475 Green, 500575 Clear, 500857 Translucent
30° UPPER BOOT TRANSITION



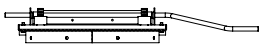
500485 Green, 500585 Clear, 500855 Translucent
STRAIGHT UPPER
BOOT TRANSITION



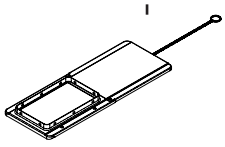
700010 Green
STRAIGHT DOUBLE
UPPER BOOT TRANSITION
(Accomodates 2 Lower Boots)



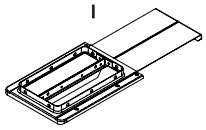
501190
MANUAL SLIDE VALVE



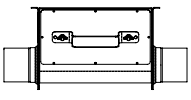
501997
RACK & PINION
WITH CRANK



500471
BOOT SLIDE VALVE - SINGLE SLIDE



500374
BOOT SLIDE VALVE - SPLIT SLIDE



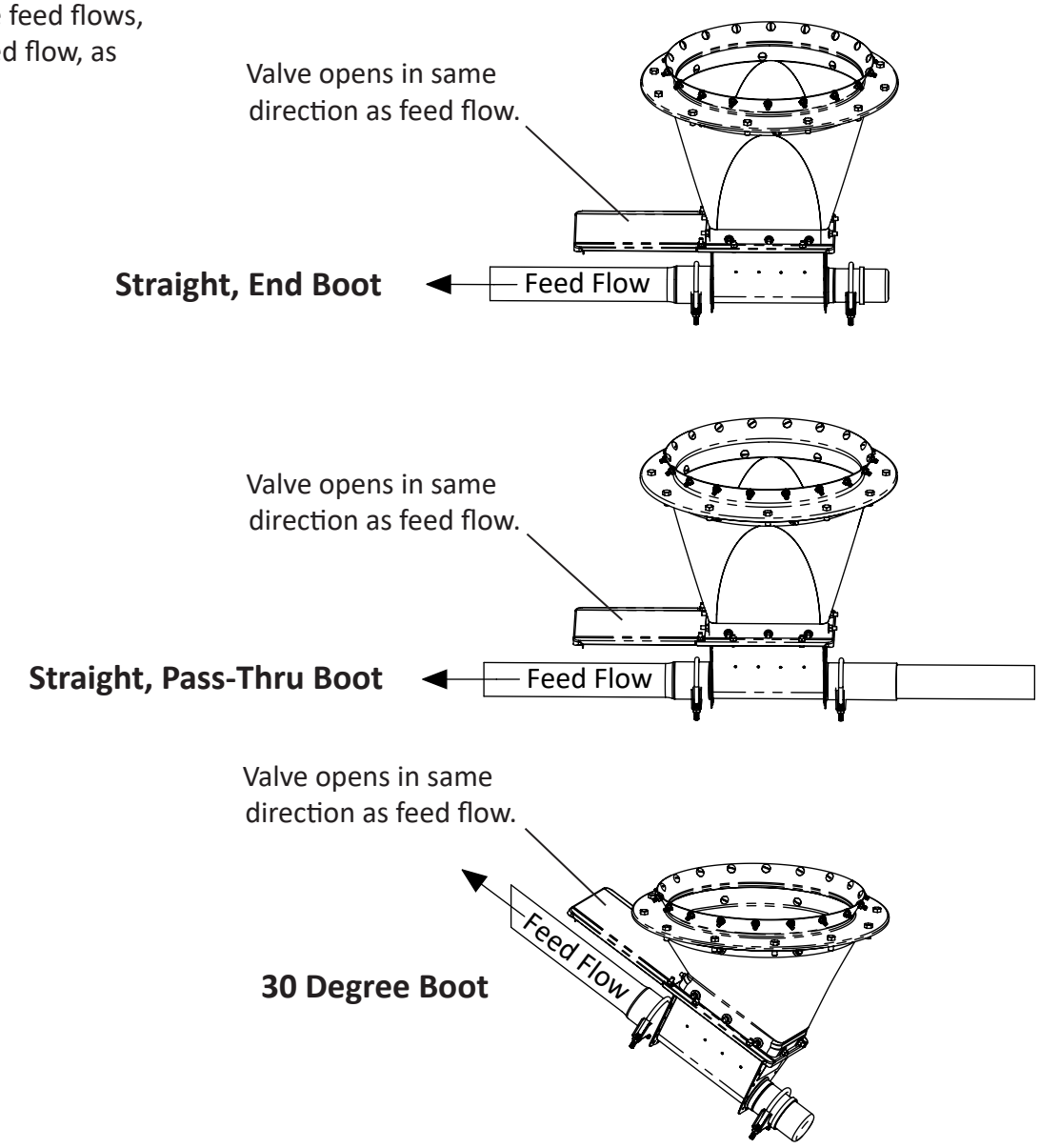
LOWER BOOT
4” RIGID AUGER - 6” RIGID AUGER - 2.25”/3”/3.5”/4.25” FLEXIBLE AUGER

Slide Valve & Hardware Installation

Slide Valve Orientation

The slide valve should open in the same direction as the feed flows, to ensure optimal feed flow, as shown in Figure 16.

Figure 14



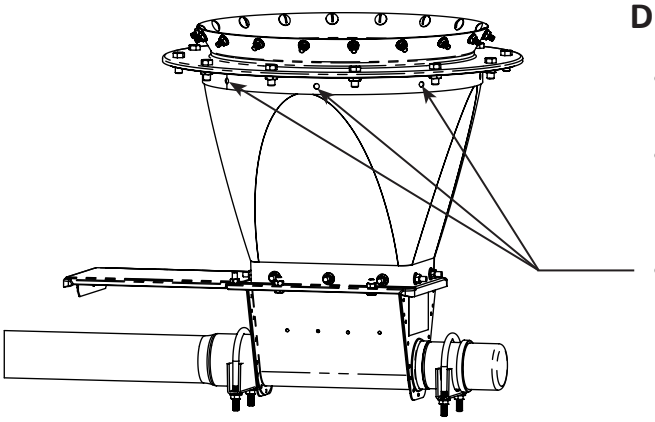


Figure 15

Drill Holes:

- Slide the plastic transition into the bottom collar until it seats against the top collar.
- Make sure the rectangular opening of the plastic transition is pointed in the desired direction auger will go.
- Use the bottom collar holes as guides to drill 11/32” (8.8 mm) diameter holes 8 times in the upper rim of the plastic transition, as shown in Figure 15.

Caulking Instructions:

- To ensure moisture does not seep inside boot, all joints and hardware holes must be caulked properly.
- Clean the locations where caulking is to be applied.
- Use rope caulk supplied with feed bin between collars.
- Use UV resistant silicone caulk and apply between all mating parts as shown.
- There must be bead of caulk sealing each hardware hole as shown in Figure 16, detail view.
- Reference Feed Bin & Flexible Auger Manuals for more information.

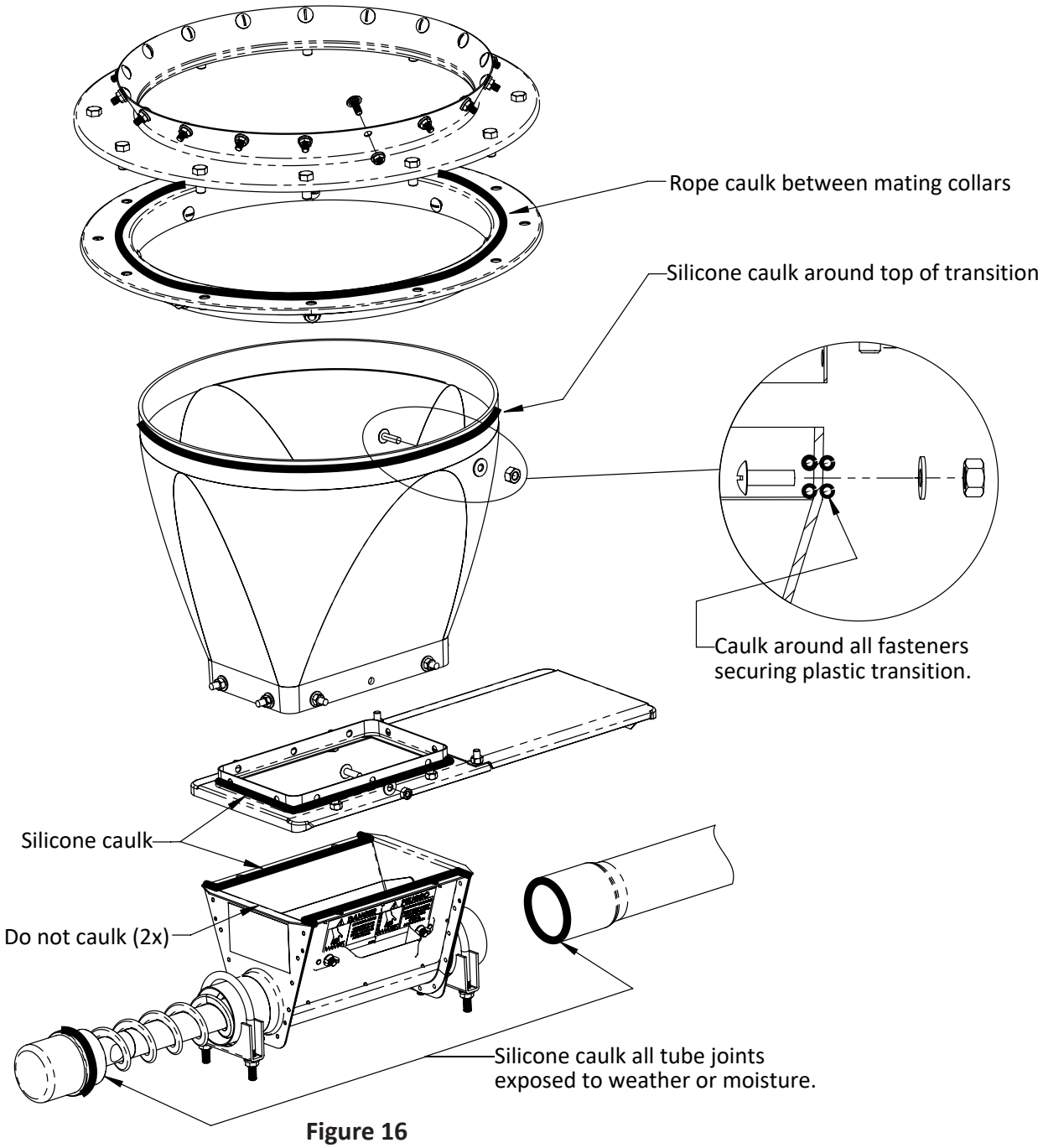


Figure 16

Hardware Instructions:

- All tapered sections of the feed bin should be secured with round head truss bolts.
- It is very important to install the round head inside the bin so feed will flow over. This includes the hardware of the collar to the bin, the bottom collar to the boot transition, and the slide valve to the lower boot, as shown in the detail views of Figure 17.
- Insert the slide into the transfer plate slot so that it is in working order before bolting the slide shield in place.
- Bolt the lower boot to the transfer plate using the hardware provided, as shown in Figure 17.

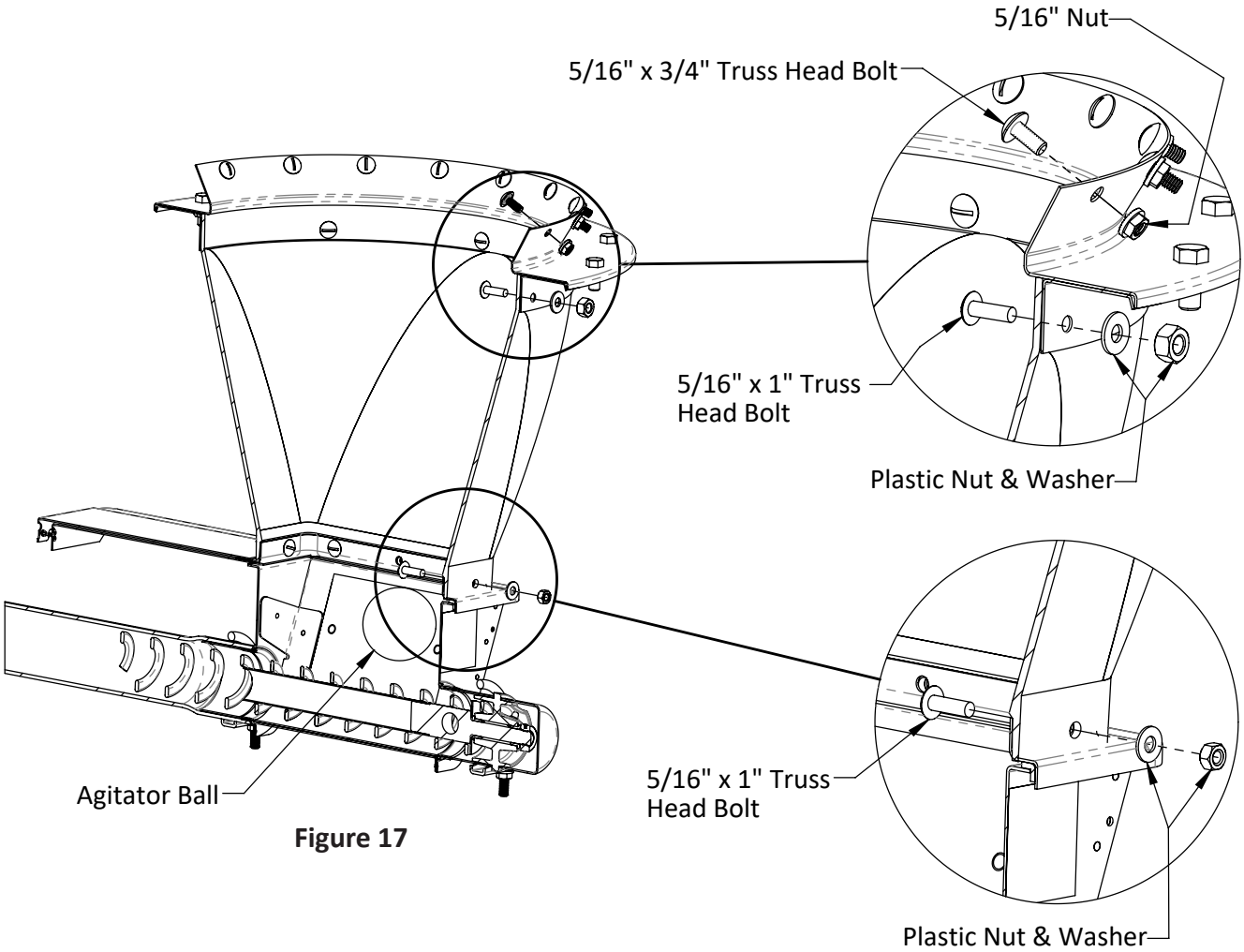


Figure 17

	Agitator ball is ONLY supposed to be used in feed loads where feed bridging is a problem (hot feed, high moisture, high fat). Remove ball when feed is freely flowing. Leaving ball inside bin will result in premature wear!

NOTE: Straight, End Boot shown for reference. All hardware and slide valve instructions apply to all boots.

Auger Tube Installation

Use Chart A and Figure 18 to help determine where to cut an elbow according to the desired degree turn. Each elbow will turn 45 degrees at full length. All dimensions are measured along the long outside curve of the elbow and DO NOT include the belled end of the elbow in measurement.

DEGREE	720	725	730	735HM	735HV
15	16-9/32”	16-1/2”	16-1/2”	16-5/8”	16-5/8”
22.5	24-7/16”	24-3/4”	24-3/4”	24-15/16”	24-15/16”
30	32-9/16”	33”	33”	33-1/4”	33-1/4”
45	48-7/8”	49-1/2”	49-1/2”	49-7/8”	49-7/8”

Chart A

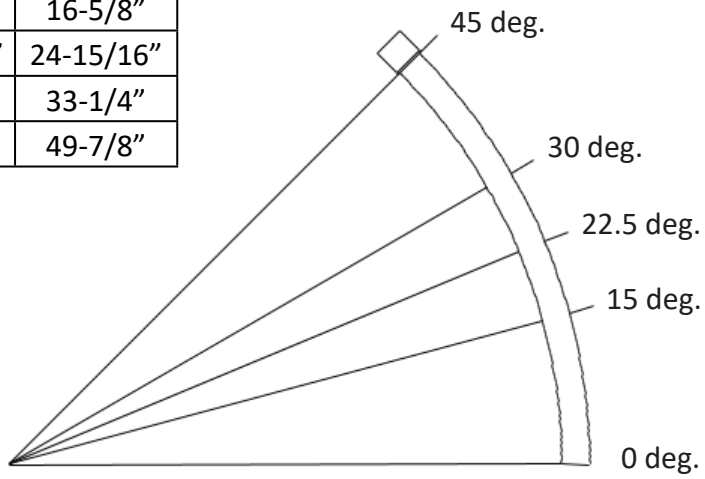


Figure 18

Be sure to cut ends square. Remove burrs and clean thoroughly before applying PVC cement. For proper use of PVC cement, follow directions on can.

All tube joints that are exposed to moisture and weather must be caulked with 100% silicone outdoor caulking to waterproof them in addition to cementing the joint.

Proper Auger Tube Connection

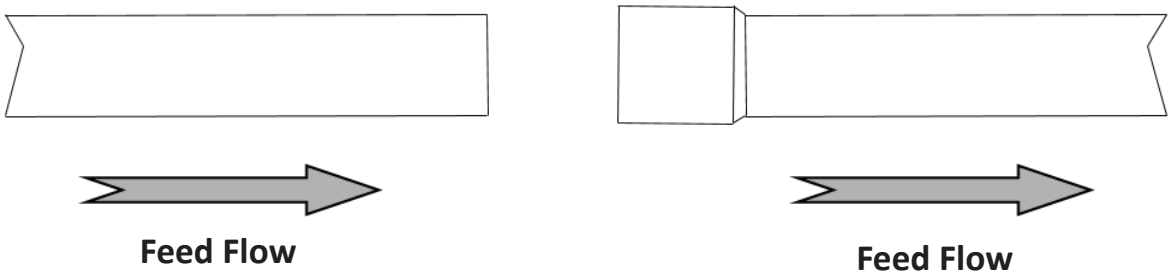


Figure 19

Supporting The System

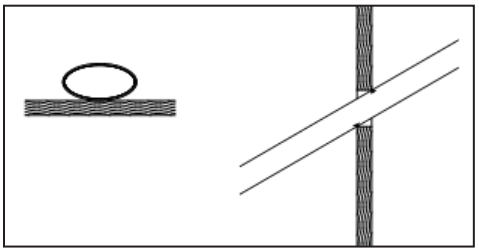


Figure 20

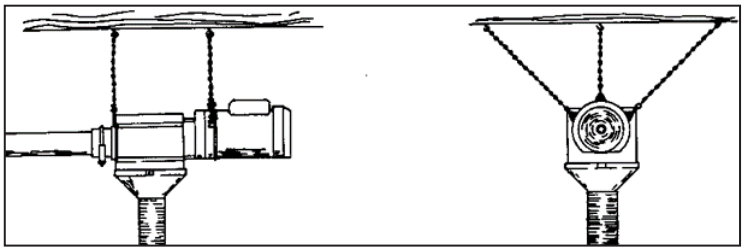


Figure 21

When the auger tube passes through a wall or partition the opening must be made large enough so that the auger tube can be supported without resting on any part of the wall (every 4 feet). If the auger tube rests on a wall or partition it may flatten out or become kinked causing excessive wear. (Figure 20)

Drive units will require extra support to handle the twisting encountered when the motor starts and stops. Be sure to use the suspension points provided on the drive unit and on the discharge head to avoid problems caused by motor twist. (Figure 21)

Support the auger tubing every 4 feet using chain and "S" hooks fastened to the rafters in a building. If rafter spacing is over 4 feet some type of bridging must be used. (example: 2" x 4" nailed between rafters.)

It is important to allow for thermal expansion and contraction of auger tubes. Do not rigidly mount ends of system or damage will occur. Chain and "S" hooks are the best means of support to allow for expansion and contraction of the auger tubes.

The feed system should be restrained from swinging by wrapping chain completely around tubing and securing the chain with "S" hooks, as shown in Figure 22, or the tube can be suspended with formed tube hangers as shown in Figure 23. Reference page 37 for part numbers.

If drop feeders, extension hoppers, outlet drops, or any other loads will be imposed on the system, additional support should be added at that point.

Horizontal elbows need to be supported in at least two (2) places and some cases three (3), keep the line as straight and level as possible to avoid premature tube wear.

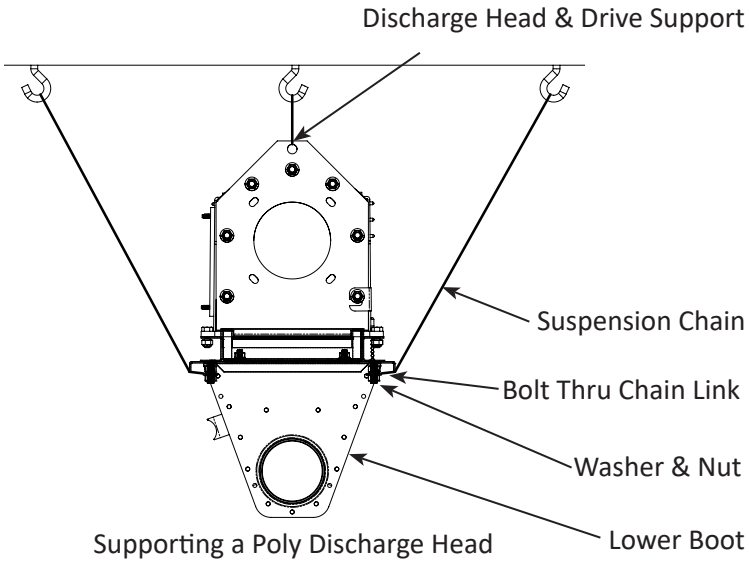
Outside the building the auger tube should be supported at least every 5 feet. The supports must be adequate to support the weight of the auger tubes when they are filled with feed.

Supports on the outside of the building must be designed to prevent weight loads from being transferred back onto the lower boot assembly. Chain or cable from either the building or the feed bin will not necessarily accomplish this.

When suspending a Poly Discharge Head with a boot attached below, the weight of the boot must not hang from the plastic discharge head. The boot must be suspended from the ceiling as shown in Figure 24, or damage to the Discharge Head will occur.

Figure 22

Figure 23



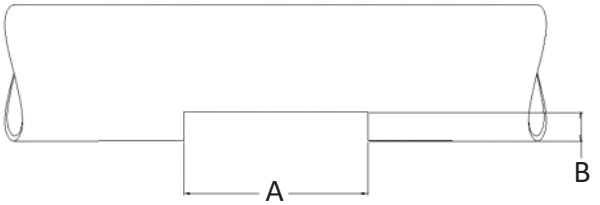
Supporting a Poly Discharge Head

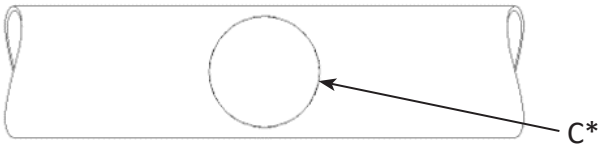
Figure 24

Outlet Drop Installation

Cut the outlet hole in the auger tube. A saber saw or hacksaw should be used when total feed dropout is desired. Use a hole saw and drill to cut round carry over hole. NOTICE: Deburr all holes to ensure proper slide valve function. See Figure 25 and Chart B below for appropriate hole sizes for specific auger tube sizes. IMPORTANT: THESE HOLE SIZES DO NOT APPLY TO DROP FEEDER INSTALLATIONS. Refer to the volumetric drop manual (shipped with 770500 control drop) for appropriate drop feeder hole sizes.

*Outlet hole notched for total feed dropout.





*Outlet hole when carry-over is acceptable.

Figure 25

KEY	720	725	730	735HM	735HV
A	4	4	4	4	4
B	.625	.625	.625	.625	.625
C	1.5	2.5	2.5	3.0	3.0

Chart B

Insert the cord through the hole in the Rotary Feed Gate. Pull cord until it is centered and knot it on both sides of the tab. Slip cord through the holes located on either side of the Drop Housing. Slide the Indicator Balls on the cord ends, and knot the ends to ensure that the Indicator Balls will not fall off, as shown in Figure 26. The location of the colored balls should indicate if the gate is open or closed. If the green ball is lower than the red ball, the gate is open. If the red ball is lower than the green ball, the gate is closed.

Attach the Rotary Feed Gate assembly to the tube as shown in Figure 27. Affix the Drop Housing to the tube as indicated in Figure 28 and secure with stainless steel clamps.

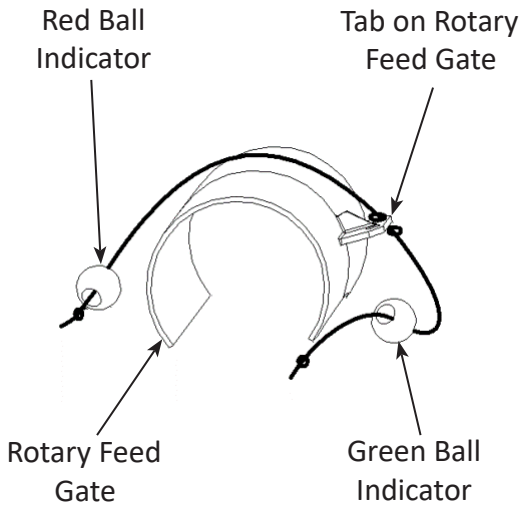


Figure 26

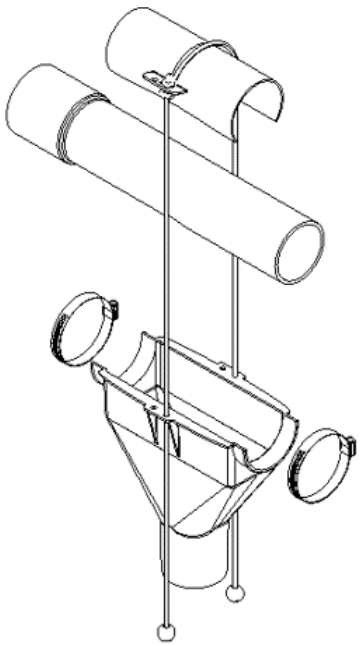


Figure 27

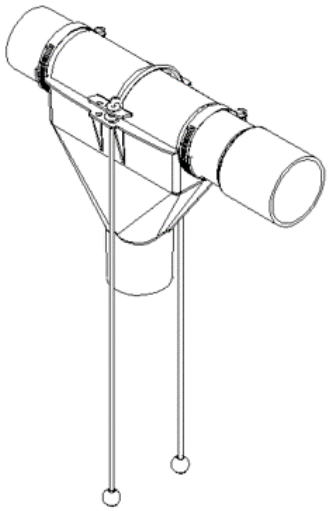


Figure 28

Drive Unit Installation

- Bolt the tube port to the discharge head with a 5/16” flat washer and 5/16” nut on each of the four 5/16” x 3/4” bolts.
- Mount the discharge head to the motor and gearbox assembly with four 5/16” x 3/4” bolts and four 5/16” flat washers provided.
- **CAUTION:** Gear reducer must be filled with oil before starting motor or serious and unwarranted damage will occur. Check to ensure oil level is up to oil level port, on side of gearbox.
- Remove plug from top of gearbox and install vent plug received in hardware bag with gearbox. Failure to install vent plug will cause unwarranted damage to occur.
- Oil: Use one of the following equivalents: Mobil-lube HD 80w 90, Shell-Spirax HD 80w 90.
- The discharge head and motor are typically wired at 220 volts. All wiring should be done by a qualified electrician. Refer to the wiring diagrams in this manual.
- Slide and clamp the VAL-CO tubing on the tube port.
- Suspend the discharge head and motor and gearbox assembly from the ceiling . Support holes are provided on the units.
- **NOTE:** The safety switch on the discharge head is provided as a back-up switch in case the hopper level switch does not operate properly. This switch is not intended to be used for controlling the auger system, but as a safety back-up switch only.

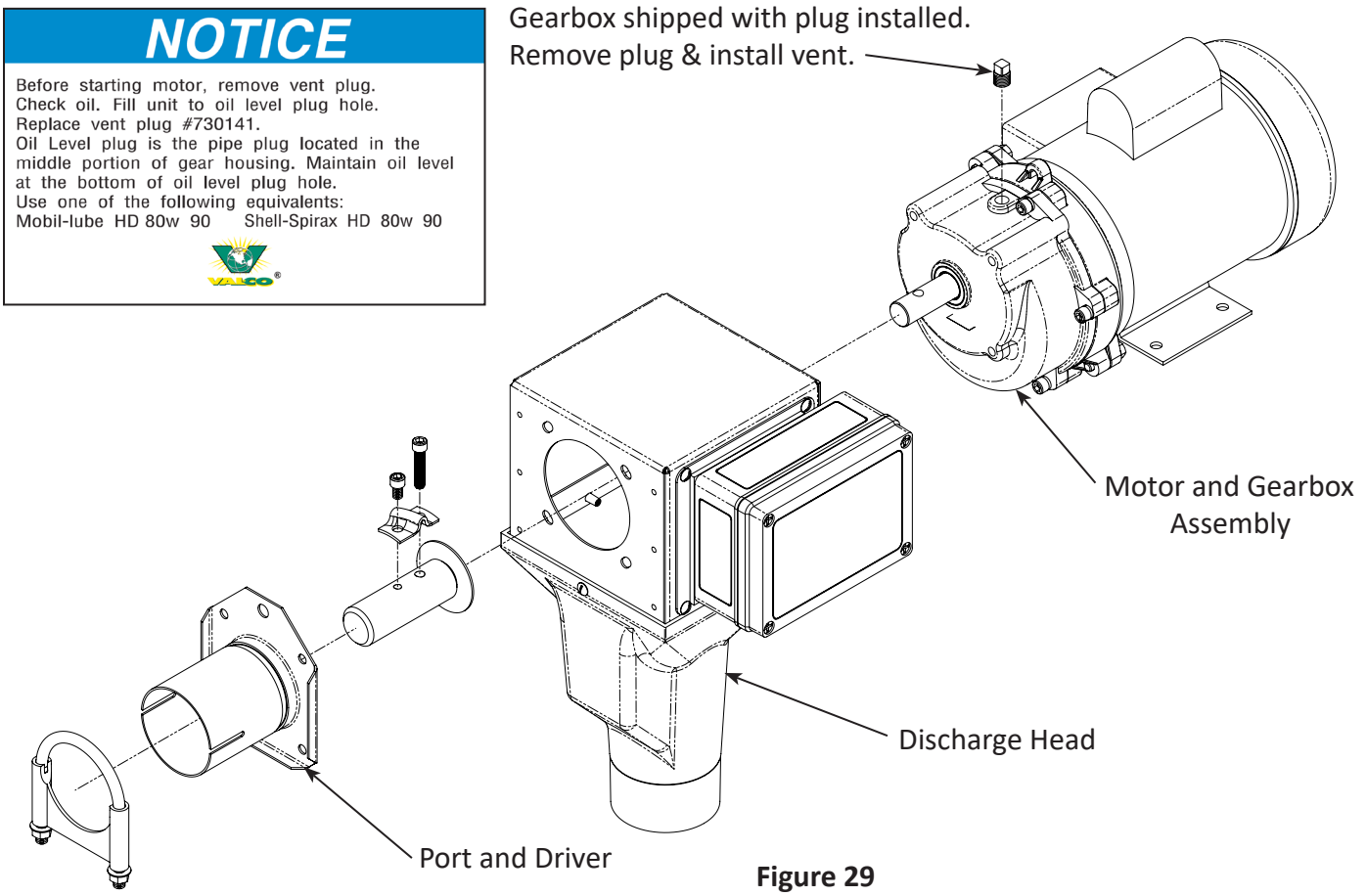


Figure 29

Auger Installation

1. Place the auger coil approximately 6-10 ft. (1.8mm-3.1m) away from the end of boot, as shown in Figure 30.
2. Uncoil the auger from the outside of the roll. Inspect the auger carefully as it is installed. Kinks must be removed and the auger brazed back together. Push the auger into the boot being careful not to kink the auger.
3. Attach the auger to the drive end. Be sure to butt the auger all the way up against drive washer.

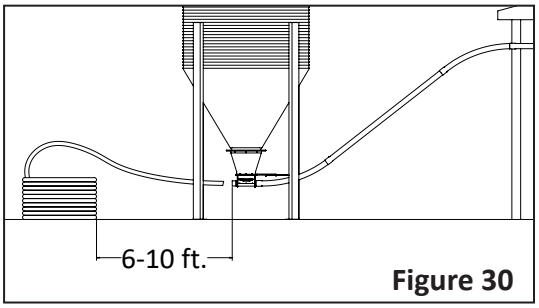


Figure 30

4. From the boot end, pull and release the free end of the auger a few times. This will ensure the auger is in its natural position. Place a mark at the end of the boot as shown in Figure 31.

5. Stretch the auger the correct amount by pulling out of the boot tube:

   - Single feed bin: 2” (5cm) per 50’ (15m) of auger length
   - Tandem feed bin: 4” (10cm) per 50’ (15m) of auger length

   Make the cut mark at the proper stretch length, as shown in Figure 32. Stretch the auger an additional 8” for working room. Secure auger temporarily by clamping auger with Vise-Grips directly before boot entrance. Then cut the auger at cut mark with hacksaw, grinder, or bolt cutters.

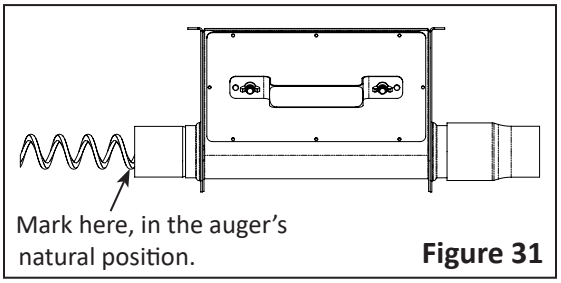


Figure 31

6. Slide the boot bearing shaft onto the auger and thread the auger inside the anchor, as shown in Figure 33. Tighten the square head set screw to secure auger.
7. Pull auger out of boot slightly to relieve pressure on Vise-Grip clamp. Release clamp from auger and carefully guide the bearing shaft into the boot tube.
8. Secure bearing in boot tube with tube clamp provided.

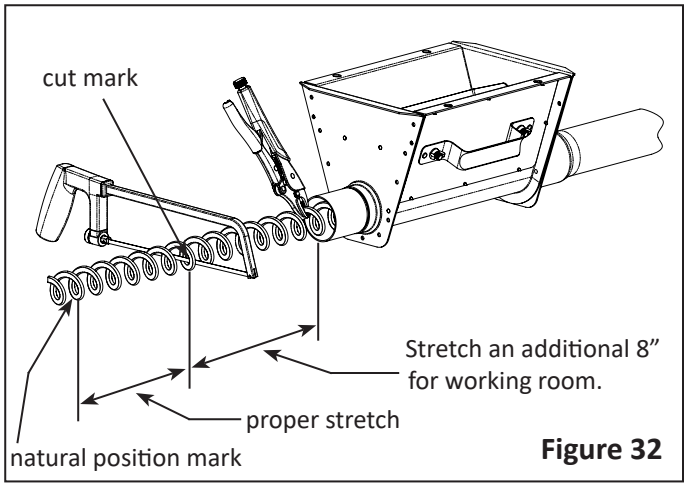


Figure 32

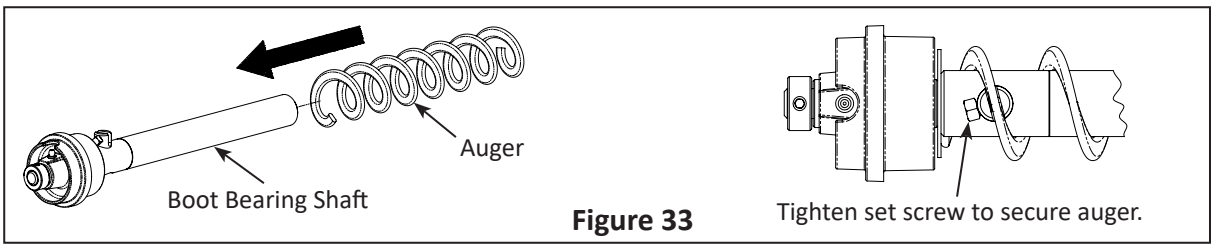


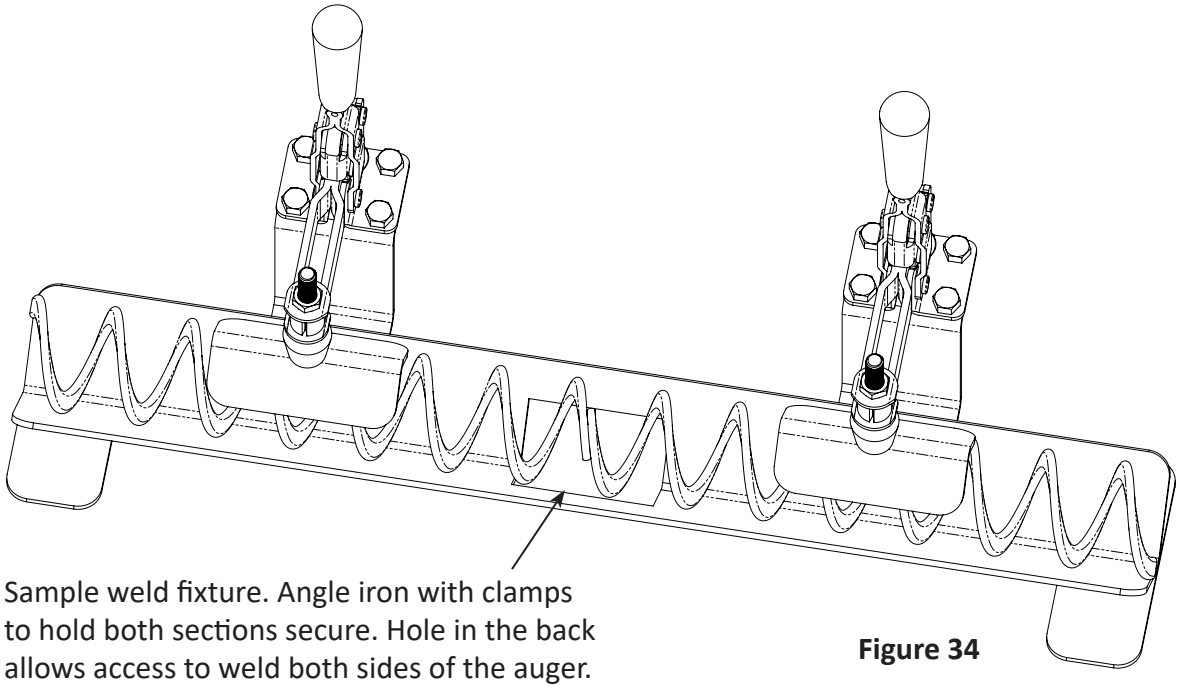
Figure 33

USE EXTREME CAUTION WHEN HANDLING AUGER. THE AUGER IS UNDER TENSION AND MAY SPRING CAUSING SERIOUS INJURY. ALWAYS WEAR PROTECTIVE CLOTHING AND SAFETY GLASSES WHEN HANDLING THE AUGER.

Auger Splicing

The recommended method for splicing or lengthening the auger is by welding with a bronze, flux-coated rod. Lay the auger in an angle iron for alignment, as shown in Figure 34. Butt 3/4" to 1" of the ends of the auger to be joined and weld on both sides of the joint, as shown in Figure 35. DO NOT weld the flighting tips. Allow the weld to air cool, then file smooth to avoid auger tube wear. Be sure to weld the auger together so the two pieces are aligned in a very straight line.

NOTICE: AUGER WELD JOINT SHOULD NOT BE INSTALLED IN A FORMED TUBE OR IN AN INCLINED TUBE. THE WELD JOINT SHOULD BE INSTALLED CLOSER TO THE DRIVE UNIT TO MINIMIZE FEED FLOW RESTRICTIONS.



Sample weld fixture. Angle iron with clamps to hold both sections secure. Hole in the back allows access to weld both sides of the auger.

Figure 34

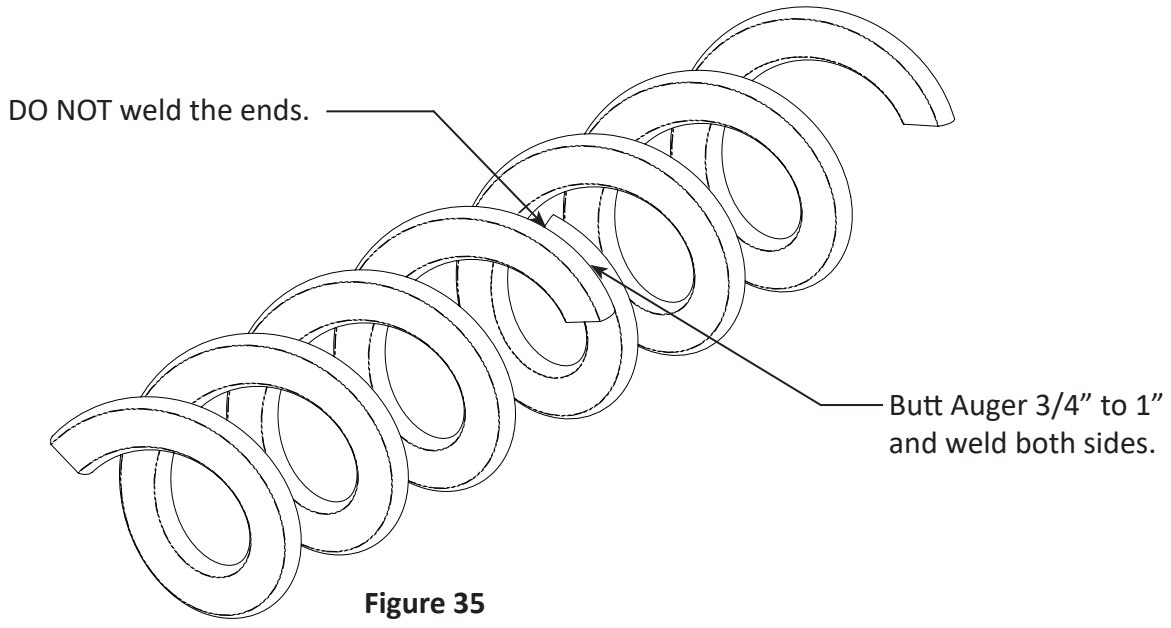


Figure 35

Feed Level Controls

Feed level controls should be installed below the discharge head to stop the auger when the last feeder is full.

- The proximity sensor should be installed in the downspout funnel below the discharge head, as shown in Figure 36.
- The hopper level switch should be installed in the hopper below the discharge head, as shown in Figure 37 (refer to the instructions packed with the hopper level switch for proper placement).

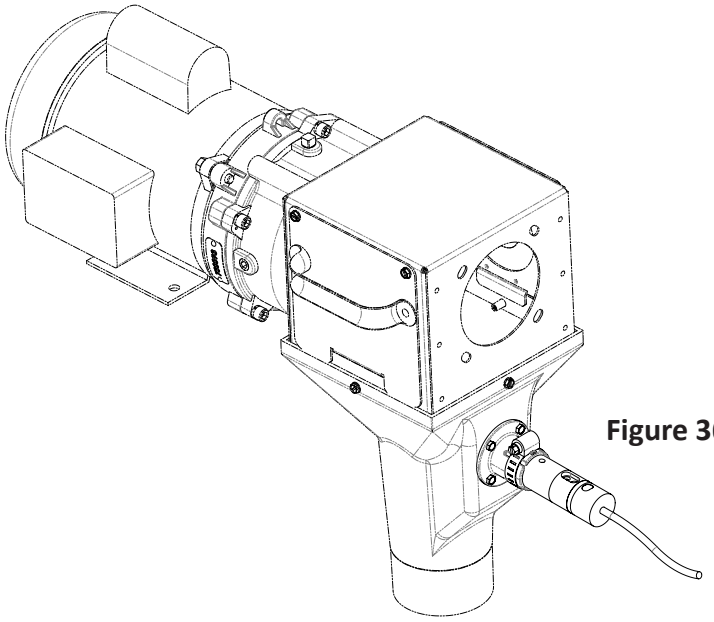
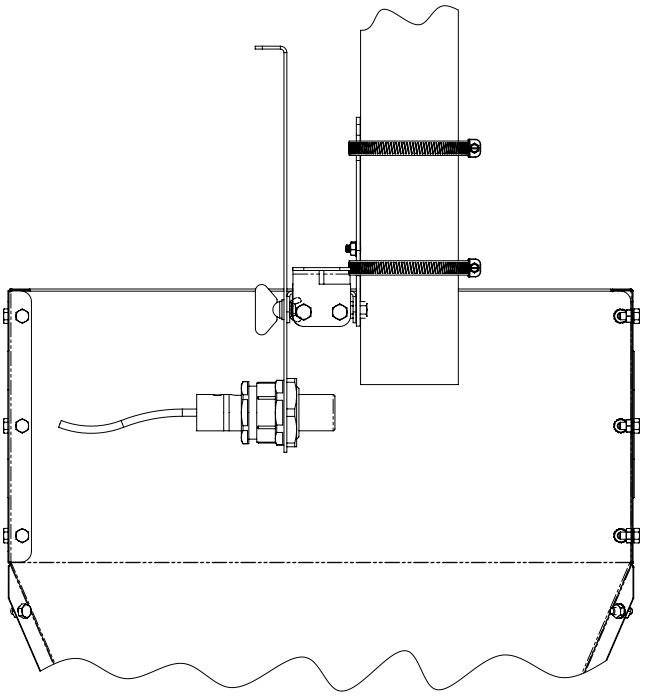


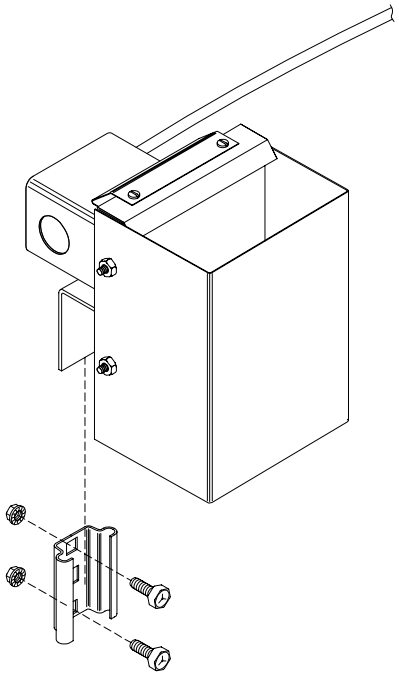
Figure 36

730465 Proximity Discharge Head Sensor



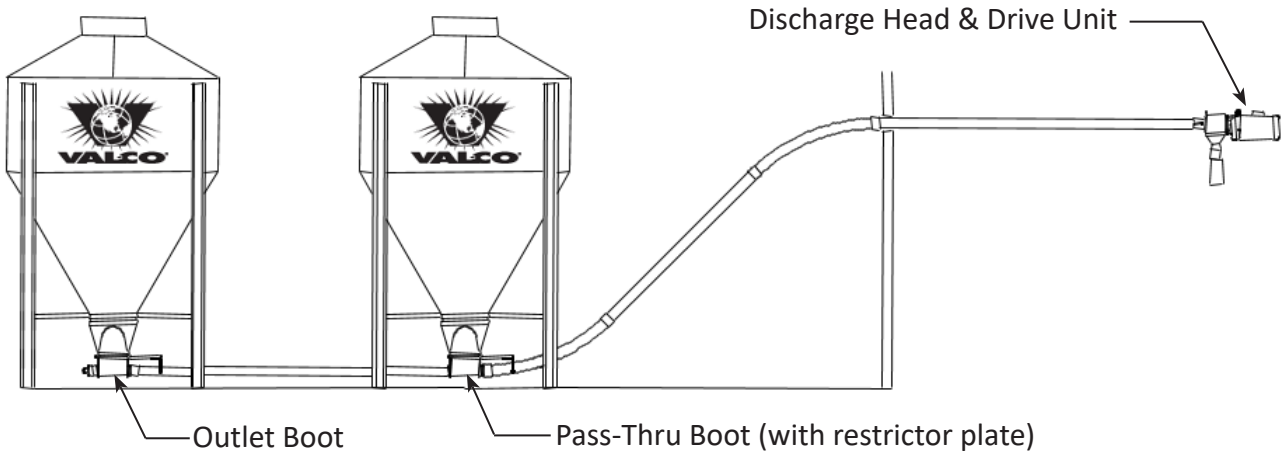
460057 Proximity
Hopper Level Sensor

Figure 37



720097 Mechanical
Hopper Level Switch

Pass-Thru Systems & Extended Length Systems



A pass-thru bin must have a restrictor plate installed in the boot, as shown in Figure 38.

The boots must be in alignment to prevent premature wearing on the system tubes. Install the auger starting at the first bin and through the second bin until it reaches the discharge head.

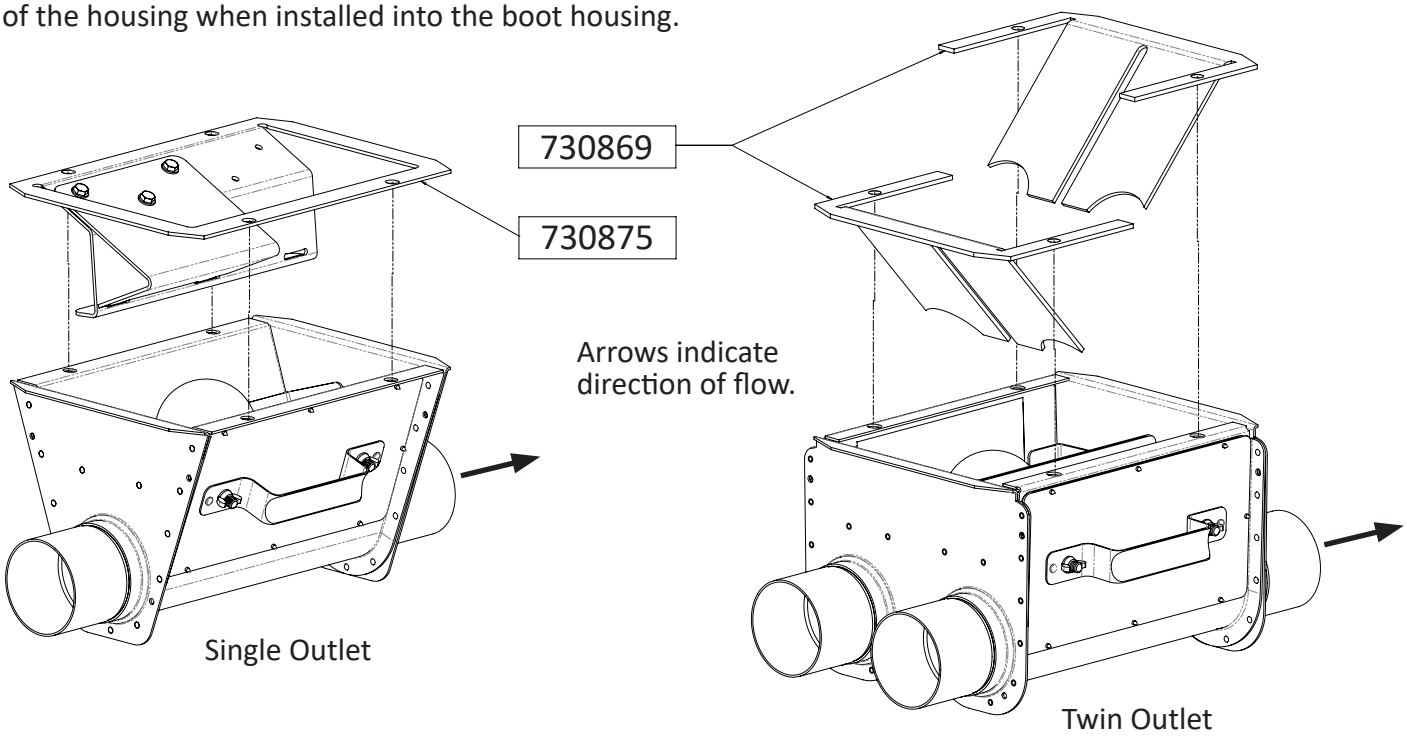
In pass-thru systems, do not have more than one bin open at the same time while the auger is running. If more than one slide valve is open at the same time, the auger will be overloaded and could jam.

Follow the instructions under the **AUGER INSTALLATION** section of this manual.

Figure 38

Pass-Thru Bin Restrictor Plates

The baffle shield must be mounted on the bearing end of the housing when installed into the boot housing.



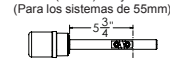
Flag Systems & Extended Length Systems

NOTICE

For flag and extended systems, cut back bearing restrictor shaft to the length shown in the diagram.

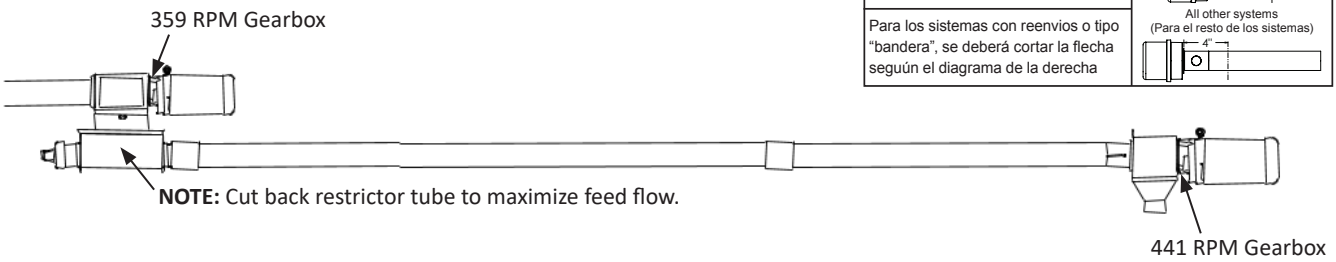
Para los sistemas con reenvios o tipo "bandera", se deberá cortar la flecha seguún el diagrama de la derecha

720 (55mm) fill system
(Para los sistemas de 55mm)



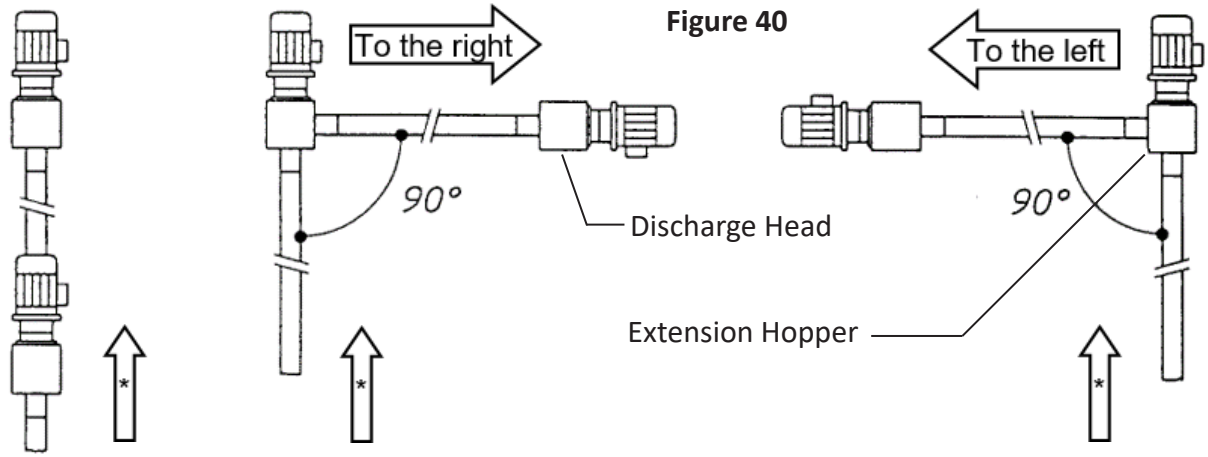
All other systems
(Para el resto de los sistemas)

Figure 39



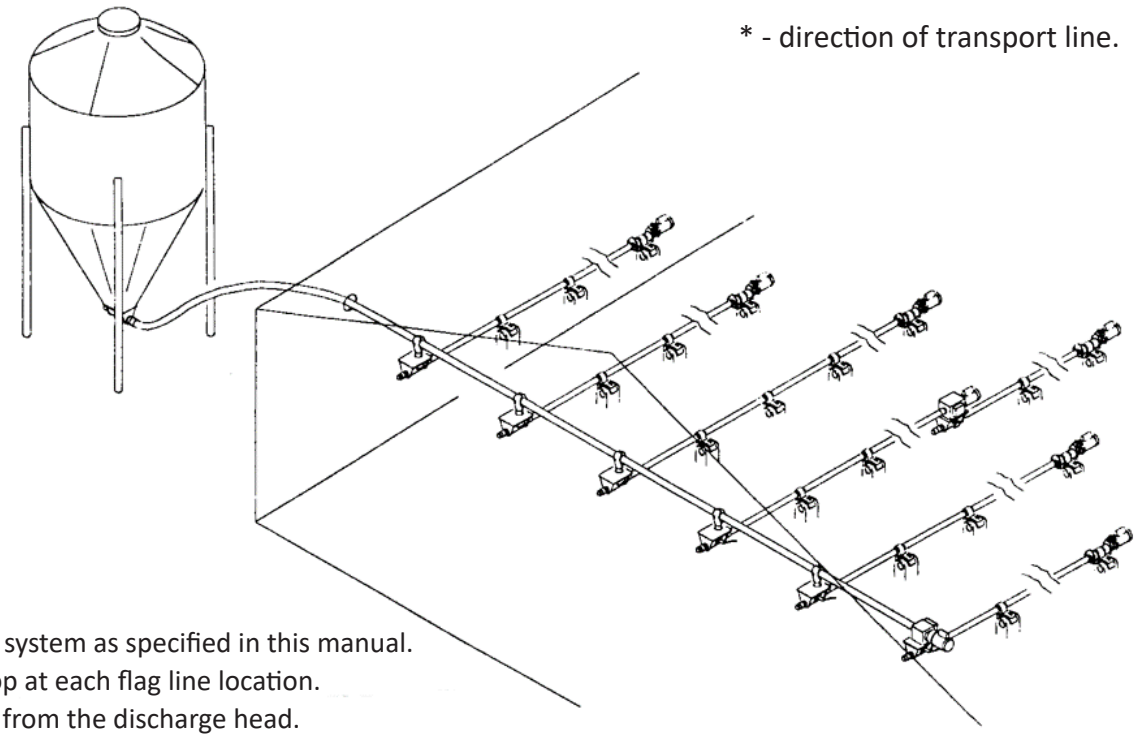
An extended length system installation is shown in Figure 39. Suspend the extended system the same way as a standard system at the discharge head. The auger should be installed using the instructions under the **AUGER INSTALLATION** section of this manual. Failure to cut back restrictor tube or use the correct gearbox can result in auger jamming. The line can be turned 90 degrees left or right using an extension hopper, as shown in Figure 40.

Figure 40



Flag Systems

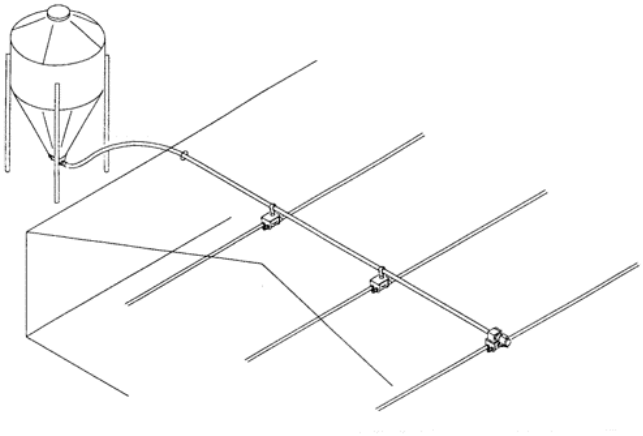
* - direction of transport line.



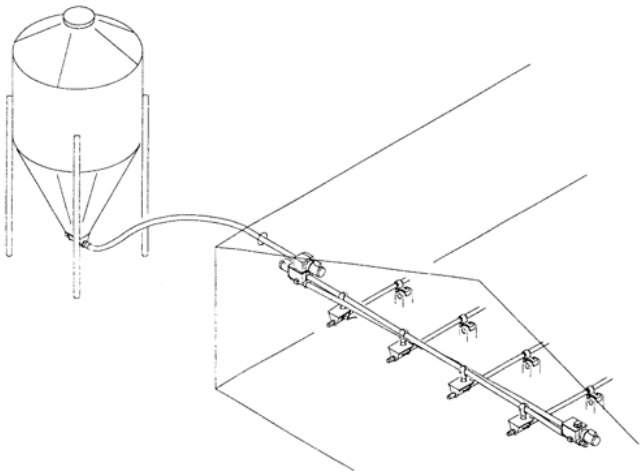
- Install the auger fill system as specified in this manual.
- Install an outlet drop at each flag line location.
- Remove the funnel from the discharge head.
- A transfer plate is needed to connect the discharge head to the last flag line.
- Secure the transfer plate to the discharge head using the hardware supplied for the funnel.

Flag Systems (continued)

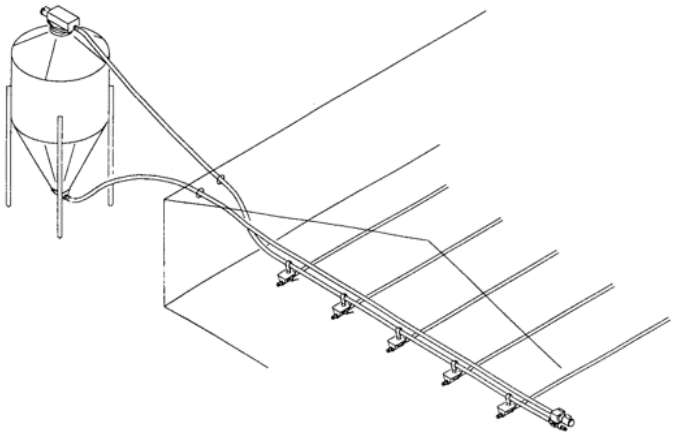
Alternate Layouts



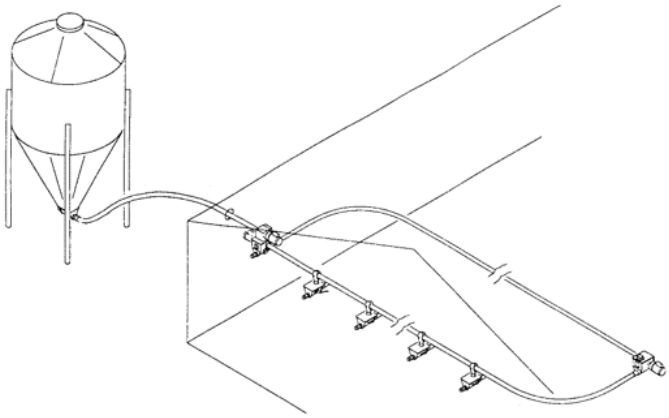
Twin Boot Flag System Layout



Return Flag System Layout



Return-to-Bin Flag System Layout



Circulating Flag System Layout

Start-Up Procedures

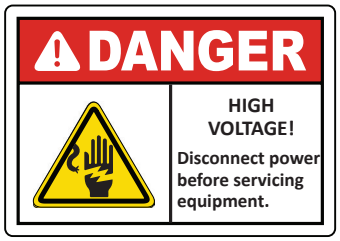
- ***It is important to allow the inside of the tubes and the auger to be polished by the moving feed before opening the slide valve the entire way. Otherwise the auger could overload and jam.*** New auger is coated with oil for protection against rust. The auger must be cleaned and polished before the system can handle a full load of feed. To clean the auger turn the system on and let it run empty for several minutes. Then cycle 1/4 bushel of feed through the system; repeat this cycle several times, gradually increasing feed amount to one (1) bushel. Slowly increase the amount of feed into the system until the auger carries its full load.
- Before turning the auger on, grease tailshaft bearings/bushings.
- In pass-thru systems, do not have more than one bin open at the same time while the auger is running. If more than one slide valve is open at the same time, the auger will be overloaded and could jam.
- Do not allow the auger to run empty. Premature wear and damage to components could result.
- After the system is broken-in and polished, slide the valve at least once a week will ensure the valve remains operable and free from feed debris.

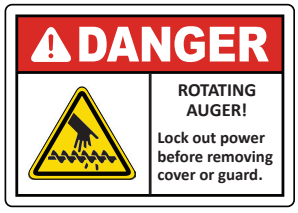
Maintenance & Operating Recommendations

- Grease bearing at boot end every 30 days.
- Regularly check the system for loose hardware and tighten if necessary.
- Direct drive units - periodically check the oil level in the motor gear reducer. If necessary add lubricant so that the oil level reaches up to the side of the reducer and/or the bottom of the pipe plug.
- V-Belt drive units - periodically apply grease lubricant to the grease fitting on the bearing housing.
- The system tubes should be kept level. Sagging tubes will cause wearing at these points.
- Empty the feed from the system if the system is to set for a long period of time.

DANGER - HIGH VOLTAGE ELECTRICAL COMPONENTS

- Disconnect power source before servicing automatic system.
- May start or stop at any time.
- Failure to do so will result in serious injury or death.





Danger - Rotating Auger
Disconnect power before working on system. Auger starts automatically and severe personal injury will result.

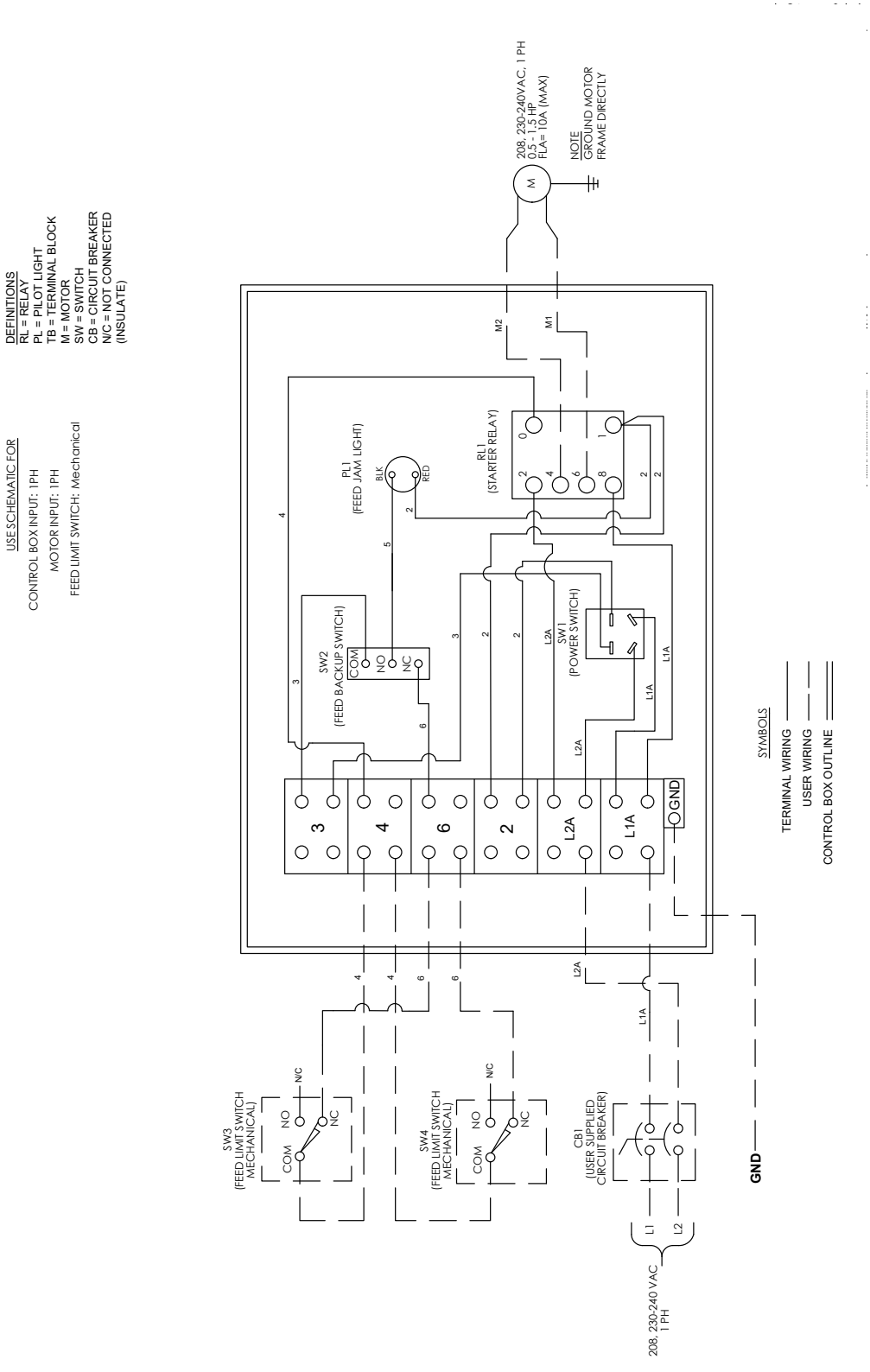
USE CAUTION when servicing or repairing your system. Follow all instructions and warnings when working with your fill system.

Troubleshooting Guide

Problem	Possible Cause	Corrective Action
Motor on drive unit will not run	No power supplied to motor.	Check motor reset button, (if furnished on motor). Check all circuits, wired joints, fuses, and on-off switches.
	Motor is overloaded and will not run.	Check for foreign material in system (nuts, bolts, etc.)
	Shutoff switch in boot is in off position due to lack of feed in boot.	Check bin for feed supply and for feed bridging.
	Discharge head safety switch is packed with feed and stuck in off position.	Remove packed feed. Verify switch operation and replace if necessary.
	Hopper shutoff switch is misadjusted or stuck in off position.	Check its operation and response and readjust if necessary. Replace defective switch.
	Motor wired for wrong voltage.	Check motor wiring diagram.
	Motor is defective.	Replace motor.
Motor overloads after short run	Motor horsepower too small for system.	Contact your dealer for required motor size for length of system.
	Motor is wired for 230 VAC and is running on 115 VAC.	See motor wiring diagram for correct wiring.
	Motor running in wrong direction (motor runs, stops, no feed moved).	Check motor wiring diagram for changing direction of motor.
	Foreign object in system (motor runs, binds, stops, auger spins backwards).	Remove foreign object (auger may have to be removed).
	Defective motor.	Replace motor.
	High moisture feed in system.	Avoid conveying wet feed. Clean auger and tubes.
	Pass thru bin does not have restrictor plates installed.	Install restrictor plates in all pass thru bins.
	End bin restrictor tube is cut too short.	Check/replace restrictor tube in end bin.
System does not run smoothly (excessive vibration and noise)	Auger too long.	Cut auger to correct length. After the first 1 to 6 months of operation, the auger may stretch. Excess auger length should be removed as described.
	Auger is kinked or poorly brazed.	See **AUGER SPLICING** if brazing seems to be the problem. If auger is kinked, replace kinked section, (do not run a brazed joint in a corner).
	Tubes are not straight and level.	Support auger tubes every 4 feet or less.
	Feed drop placed near corner.	Do not place drops directly before a corner.
	Boot bearing is worn.	Replace boot bearing.
Tubes wear through	Auger runs dry too often.	Install switch in boot to shut system off when empty.
	Auger kinked or poorly brazed.	Check **AUGER SPLICING** procedures. Never place a brazed section in a corner. If the auger is kinked, replace kinked section.
Motor runs but auger does not turn	Pinion in direct drive motor is broken.	Replace pinion and examine gears in gear reducer: if worn, replace gear reducer also. Refer to lubrication and maintenance instructions for direct drive.
	Worn out bearings in V-belt drive bearing housing from lack of lubricant.	Lubricate grease fitting at bearing housing periodically. Replace worn out bearings.
	Belt slips in belt drive.	Readjust belt for proper tension.
		Replace old worn out belt.
		New belt should be inspected for tightness after the first 2 or 3 weeks of operation, since most belt stretch will occur when the belts are new.
	Pin sheared in flighting driver.	Replace roll pin.

User Wiring

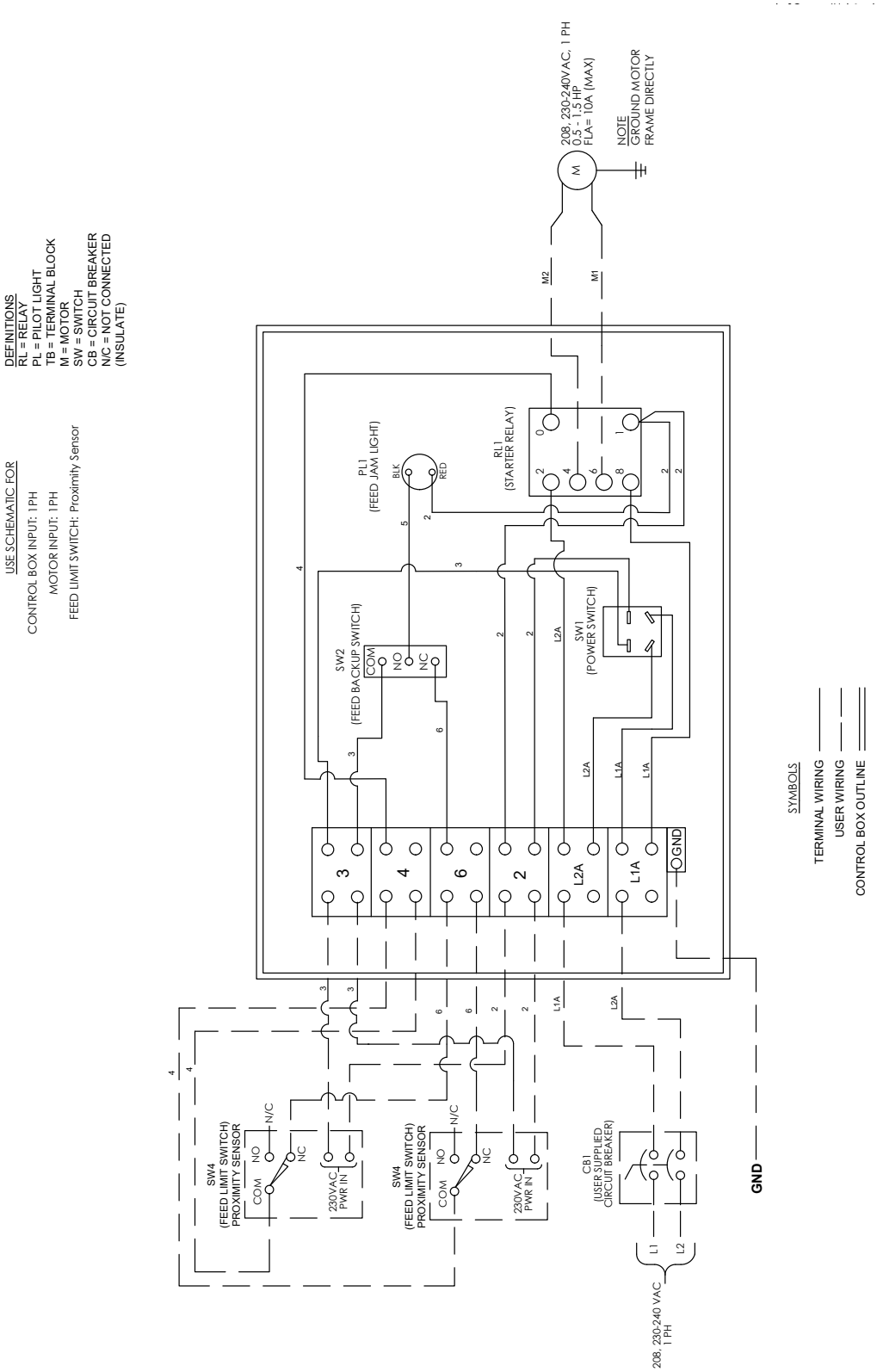
Discharge Head 1P, with Relay - Mechanical Hopper Switch



WIRING MUST BE DONE BY A LICENSED ELECTRICIAN. ALL LOCAL AND NATIONAL CODES MUST BE FOLLOWED!

User Wiring

Discharge Head 1P, with Relay - Proximity Sensor



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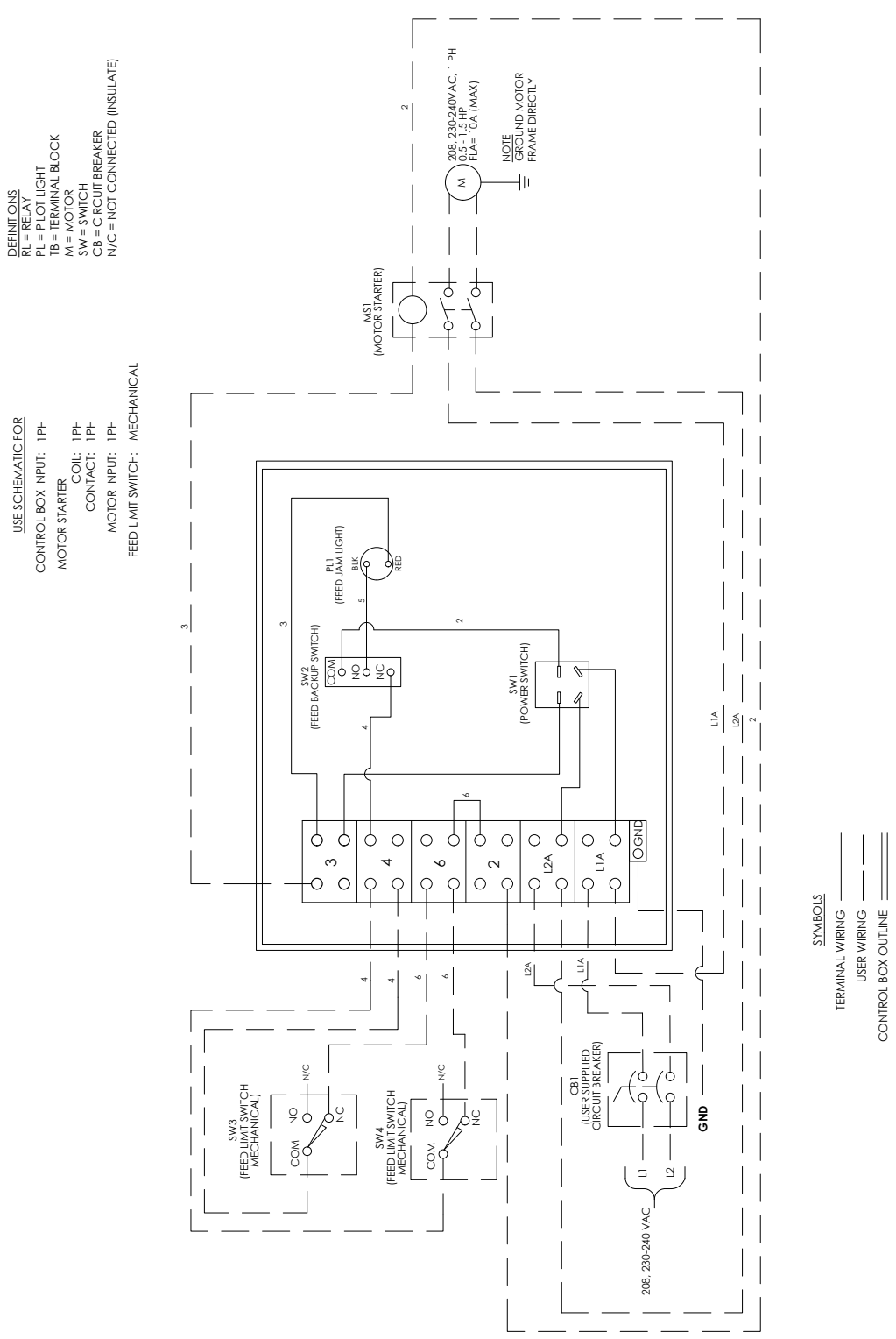
User Wiring

Discharge Head 1P, No Relay - Mechanical Hopper Switch



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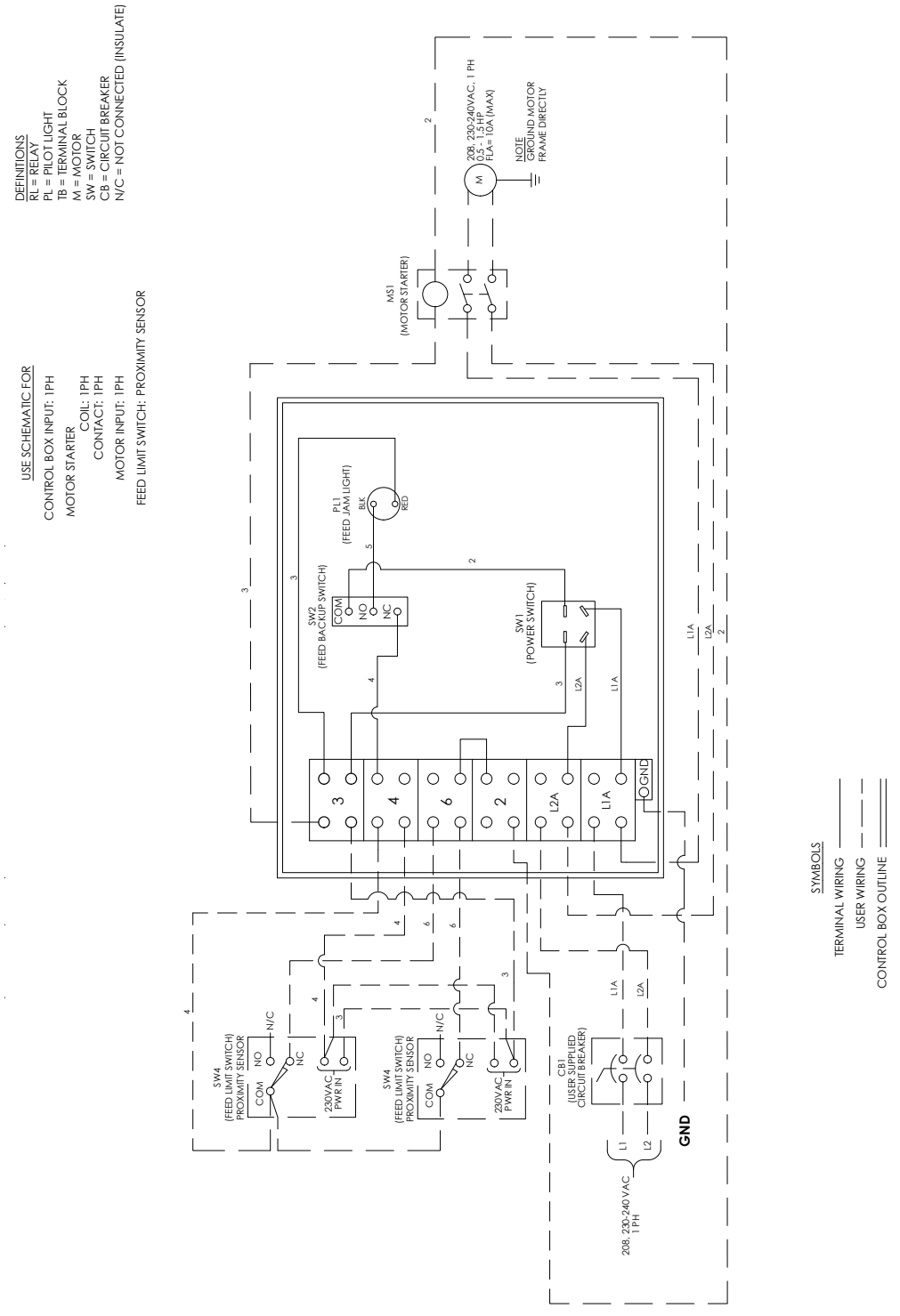
User Wiring

Discharge Head 1P, No Relay - Proximity Sensor



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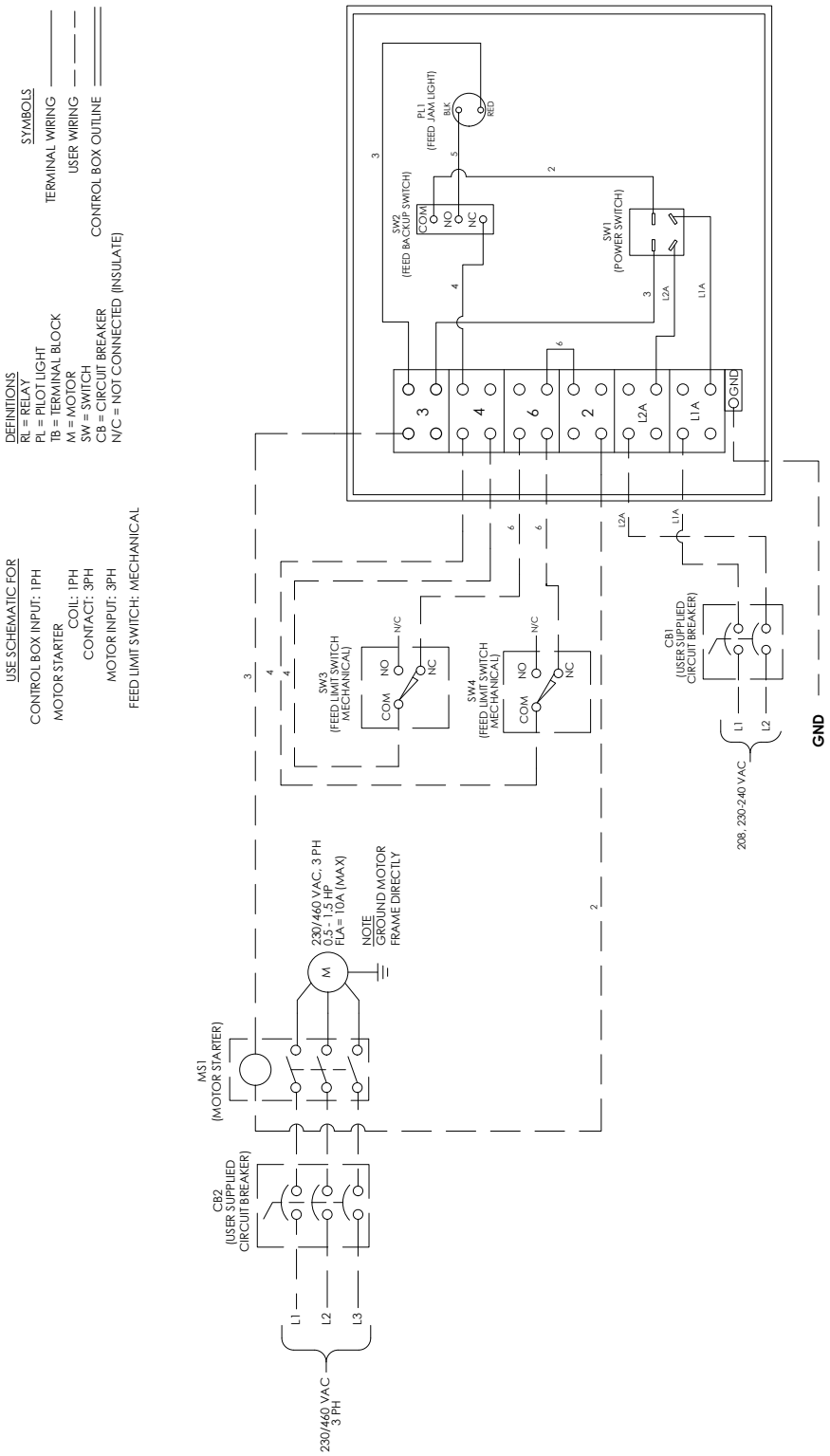
User Wiring

Discharge Head 3P, No Relay - Mechanical Hopper Switch



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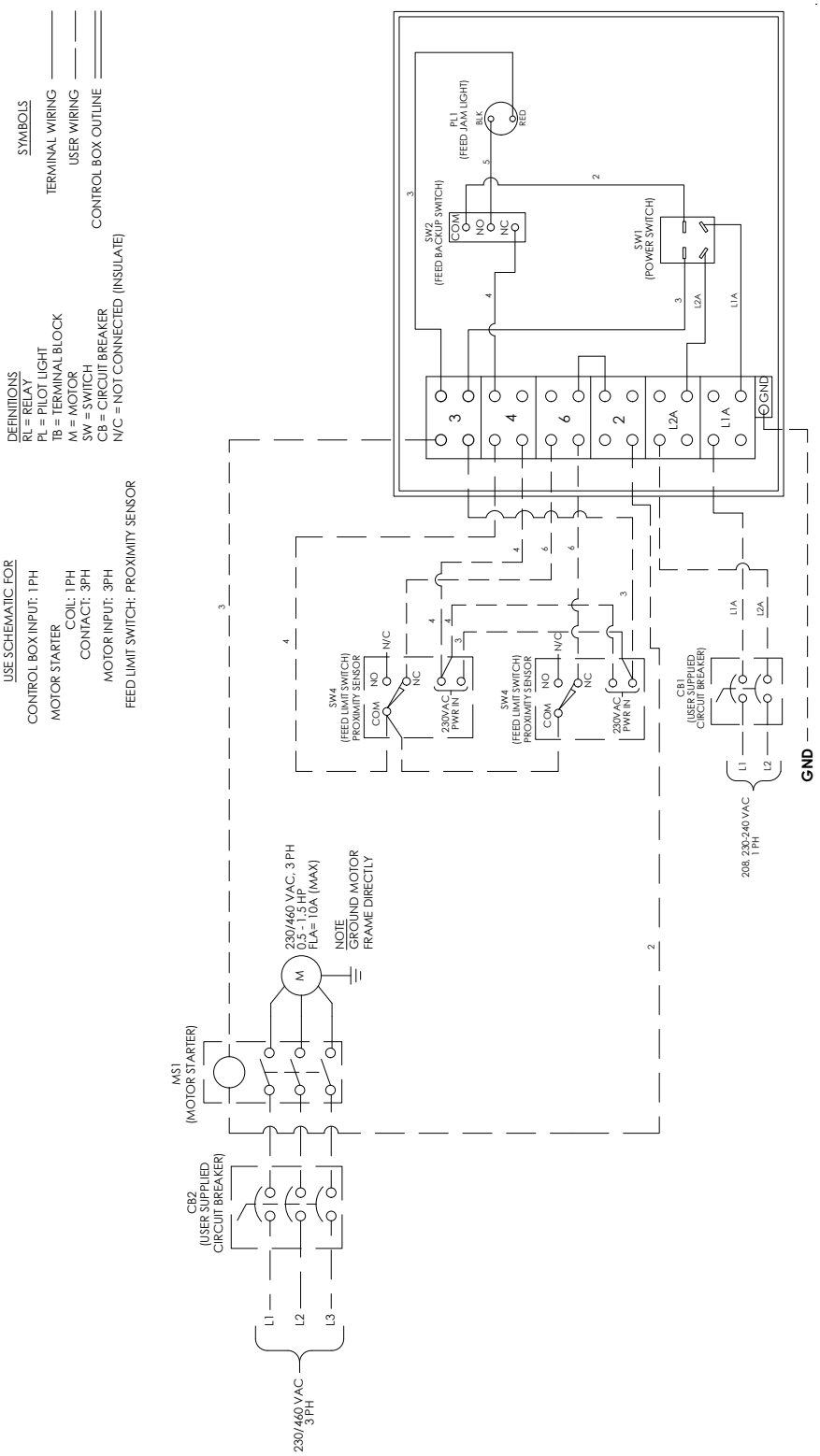
User Wiring

Discharge Head 3P, No Relay - Proximity Sensor



WIRING MUST BE DONE BY A LICENSED ELECTRICIAN. ALL LOCAL AND NATIONAL CODES MUST BE FOLLOWED!

Factory Wiring

Discharge Head, with Relay

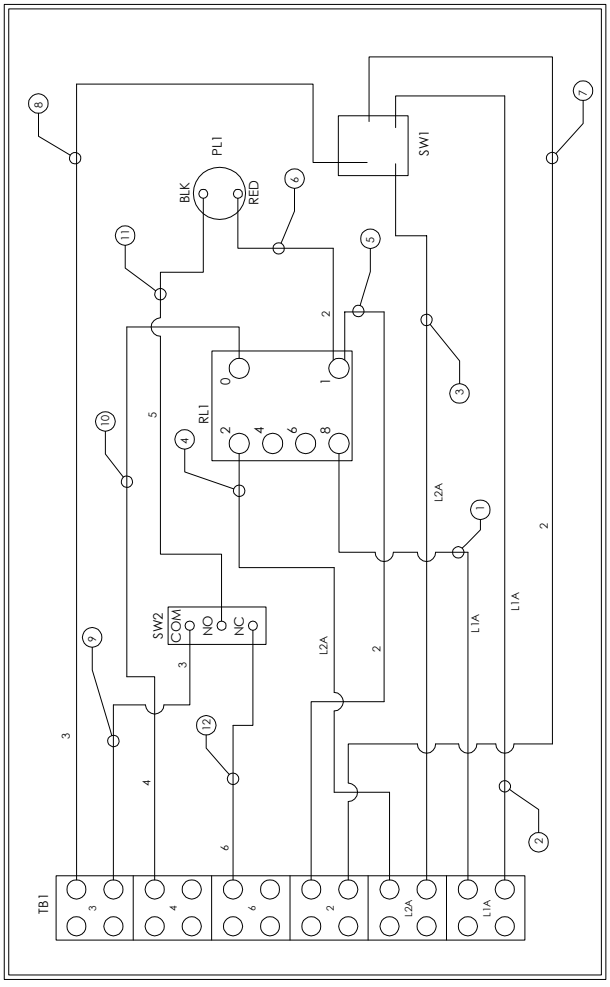
NOTE
1. TB1 - WIRE ENDS ARE STRIPPED.
2. SW1 - WIRE ENDS ARE RING TERMINALS.
3. SW2 - WIRE ENDS ARE SPADE TERMINALS.
4. RL1 - WIRE ENDS ARE SPADE TERMINALS.
5. NUMBERS SHOWN ON WIRES ARE WIRE LABELS.

SYMBOLS
FACTORY WIRING
CONTROL BOX OUT LINE
ITEM # (#)

DEFINITIONS
RL = RELAY
PL = PILOT LIGHT
TB = TERMINAL BLOCK
SW = SWITCH
CB = CIRCUIT BREAKER
N/C = NOT CONNECTED (INSULATE)

WIRE CHART

ITEM	LABEL	WIRE TYPE	LENGTH	TERMINATION 1 TYPE	TERMINATION 1 PART #	TERMINATION 2 TYPE	TERMINATION 2 PART #
1	L1A	SPE-00001039	3-1/2"	#6 SPADE	730521	7/16" STRIPPED	
2	L1A	SPE-00001039	5"	#6 RING	730513	7/16" STRIPPED	
3	L2A	SPE-00001039	5"	#6 RING	730513	7/16" STRIPPED	
4	L2A	SPE-00001039	5"	#6 SPADE	730521	7/16" STRIPPED	
5	2	SPE-00001039	6"	#6 SPADE	730521	7/16" STRIPPED	
6	2	SPE-00001039	4"	#6 SPADE	730521		
7	2	SPE-00001039	5"	#6 RING	730513	7/16" STRIPPED	
8	3	SPE-00001039	6"	#6 RING	730513	7/16" STRIPPED	
9	3	SPE-00001039	3-1/2"	#6 SPADE	730521	7/16" STRIPPED	
10	4	SPE-00001039	6"	#6 SPADE	730521	7/16" STRIPPED	
11	5	SPE-00001039	5"	#6 SPADE	730521		
12	6	SPE-00001039	3-1/2"	#6 SPADE	730521	7/16" STRIPPED	



WIRING MUST BE DONE BY A LICENSED ELECTRICIAN. ALL LOCAL AND NATIONAL CODES MUST BE FOLLOWED!

Factory Wiring

Discharge Head, No Relay

NOTE

1. TB1 - WIRE ENDS ARE STRIPPED
2. SW1 - WIRE ENDS ARE RING TERMINALS
3. SW2 - WIRE ENDS ARE SPADE TERMINALS
4. RL1 - WIRE ENDS ARE SPADE TERMINALS
5. NUMBERS SHOWN ON WIRES ARE WIRE LABELS

SYMBOLS

FACTORY WIRING

CONTROL BOX OUT LINE

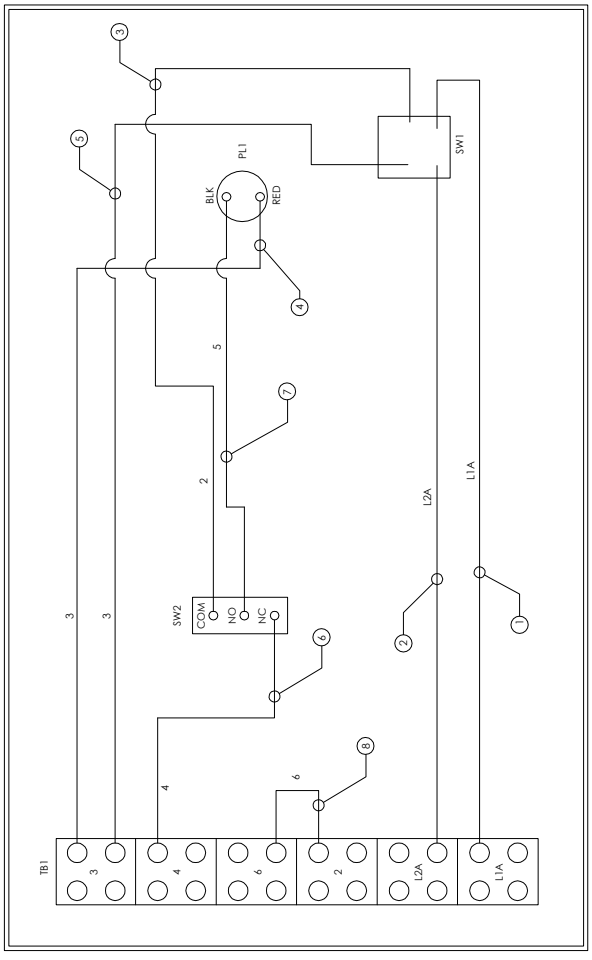
ITEM # (#)

DEFINITIONS

RL = RELAY
PL = PILOT LIGHT
TB = TERMINAL BLOCK
SW = SWITCH
CB = CIRCUIT BREAKER
N/C = NOT CONNECTED (INSULATE)

WIRE CHART

ITEM	LABEL	WIRE TYPE	LENGTH	TERMINATION 1 TYPE	TERMINATION 1 PART #	TERMINATION 2 TYPE	TERMINATION 2 PART #
1	L1A	SPE-0001039	5"	#6 RING	730513	7/16" STRIPPED	
2	L2A	SPE-0001039	5"	#6 RING	730513	7/16" STRIPPED	
3	2	SPE-0001039	4"	#6 RING	730513	#6 SPADE	730521
4	3	SPE-0001039	6" TO 6.40"			7/16" STRIPPED	
5	3	SPE-0001039	6"	#6 RING	730513	7/16" STRIPPED	
6	4	SPE-0001039	3"	#6 SPADE	730521	7/16" STRIPPED	
7	5	SPE-0001039	5"	#6 SPADE	730521		
8	6	SPE-0001039	2"	3/8" STRIPPED		7/16" STRIPPED	



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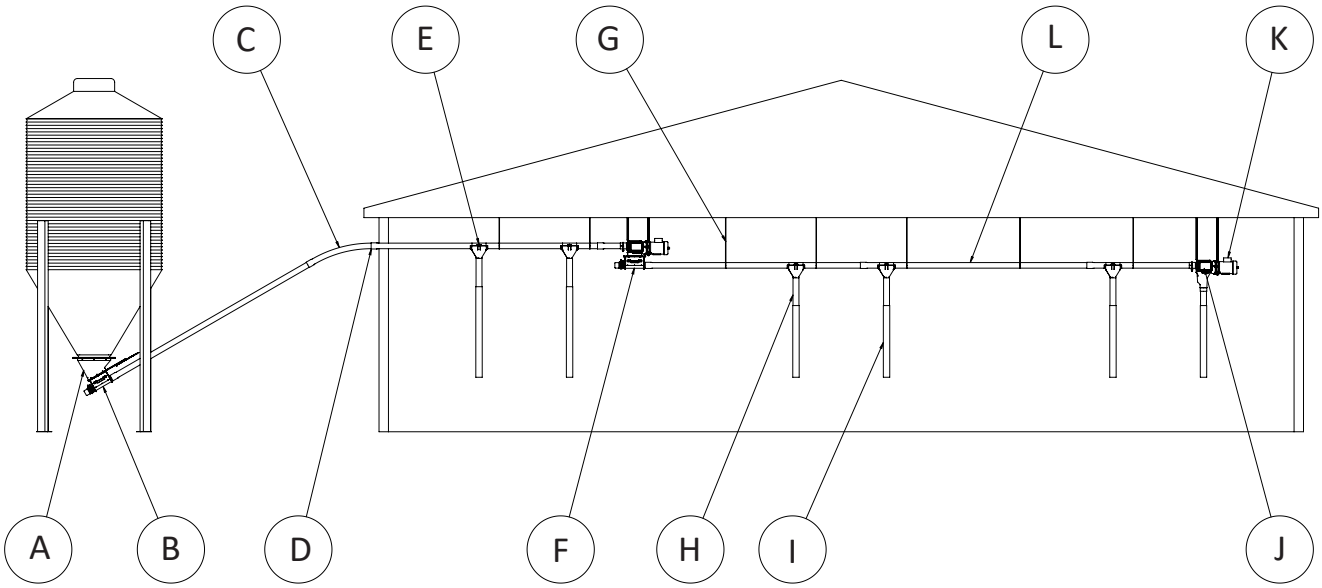
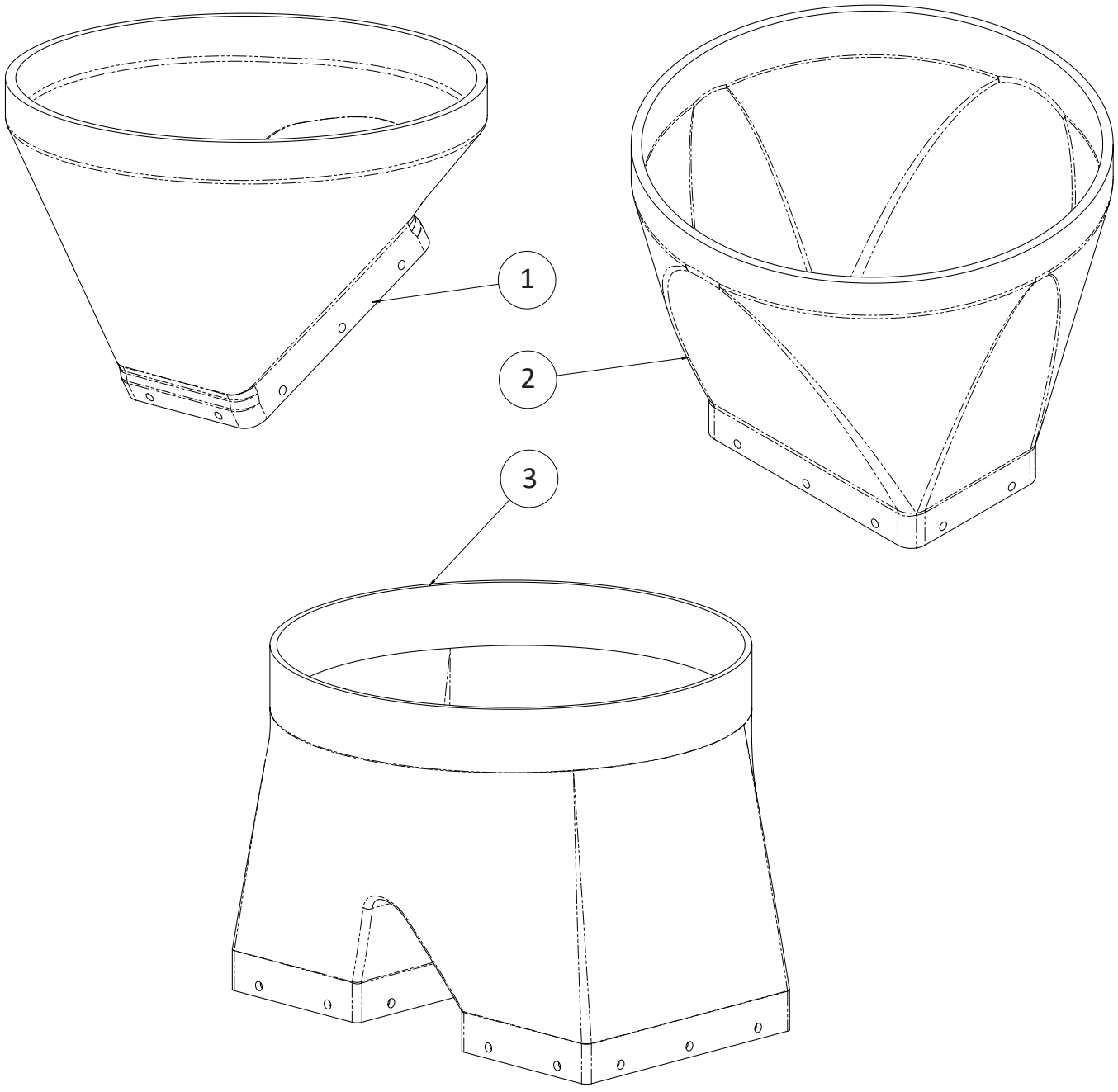
Feed Delivery System



KEY	DESCRIPTION	720	725	730	735HM	735HV
A	Plastic Transition	See page 38.				
B	Slide Valve & Boot Assembly	Slide Valve on page 39, Boots on pages 40-49				
C	45 Degree PVC Elbow	720498	730499	730499	735499	735499
D	Cover Plate	723012				
	Universal Tube Gasket	735605				
E	Plastic Drop w/ Shutoff	720550	730550	730550	735550	735550
F	Transfer Plate	500517 – Steel Discharge Head 500590 – Poly Discharge Head				
G	Suspension Components:					
	5/16” x 3-1/2” Screw Hook	730441				
	Formed Hanger	720220	713220	713220	735220	735220
	2/0 Double Loop Chain (foot)	820099				
H	Translucent Plastic Downspout Tube	730615	730615	730615	735615	735615
I	Telescoping Translucent Plastic Downspout Tube	730421	730421	730421	730421	735421
J	Discharge Head	See Discharge head on pages 54-55, Port Tubes on pages 58-67				
K	Motor & Gearbox Assembly	See pages 68-71				
L	10’ Straight PVC Tube	720434	730434	730434	735434	735434
N/S	Flexible Auger	720440	725440	730440	730440	735440

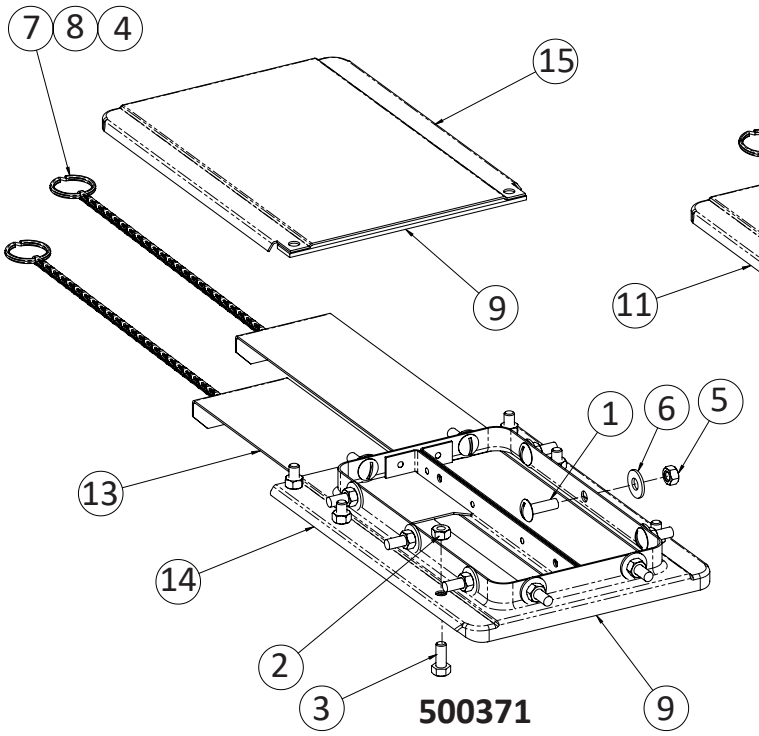
Upper Boot Transitions

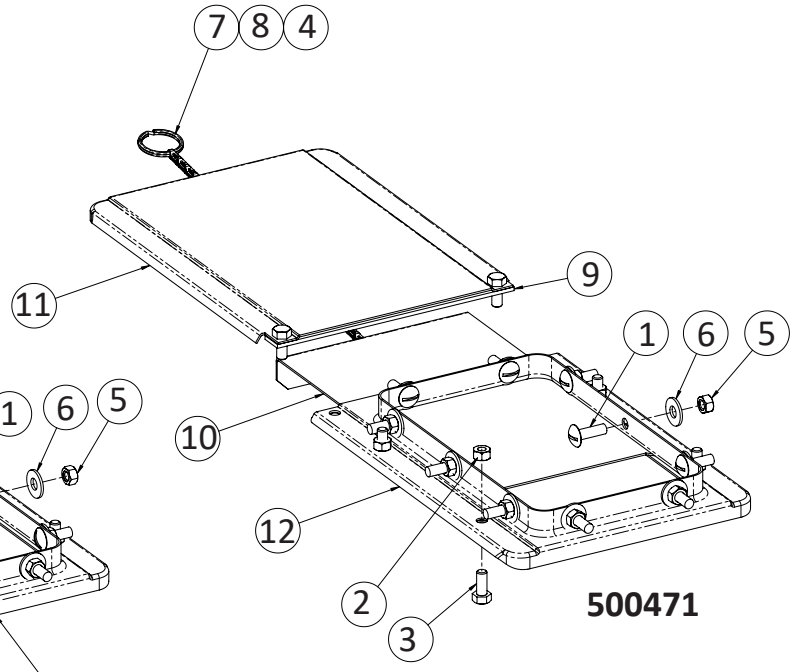
ITEM #	PART #	DESCRIPTION
UPPER BOOT TRANSITIONS - PART NUMBERS		
1	500475	30 DEGREE PLASTIC UPPER BOOT TRANSITION - GREEN
	500575	30 DEGREE PLASTIC UPPER BOOT TRANSITION - CLEAR
	500857	30 DEGREE PLASTIC UPPER BOOT TRANSITION - TRANSLUCENT
2	500485	STRAIGHT PLASTIC UPPER BOOT TRANSITION - GREEN
	500585	STRAIGHT PLASTIC UPPER BOOT TRANSITION - CLEAR
	500855	STRAIGHT PLASTIC UPPER BOOT TRANSITION - TRANSLUCENT
3	700010	STRAIGHT DOUBLE PLASTIC UPPER BOOT TRANSITION - GREEN



Single & Twin Slide Valves

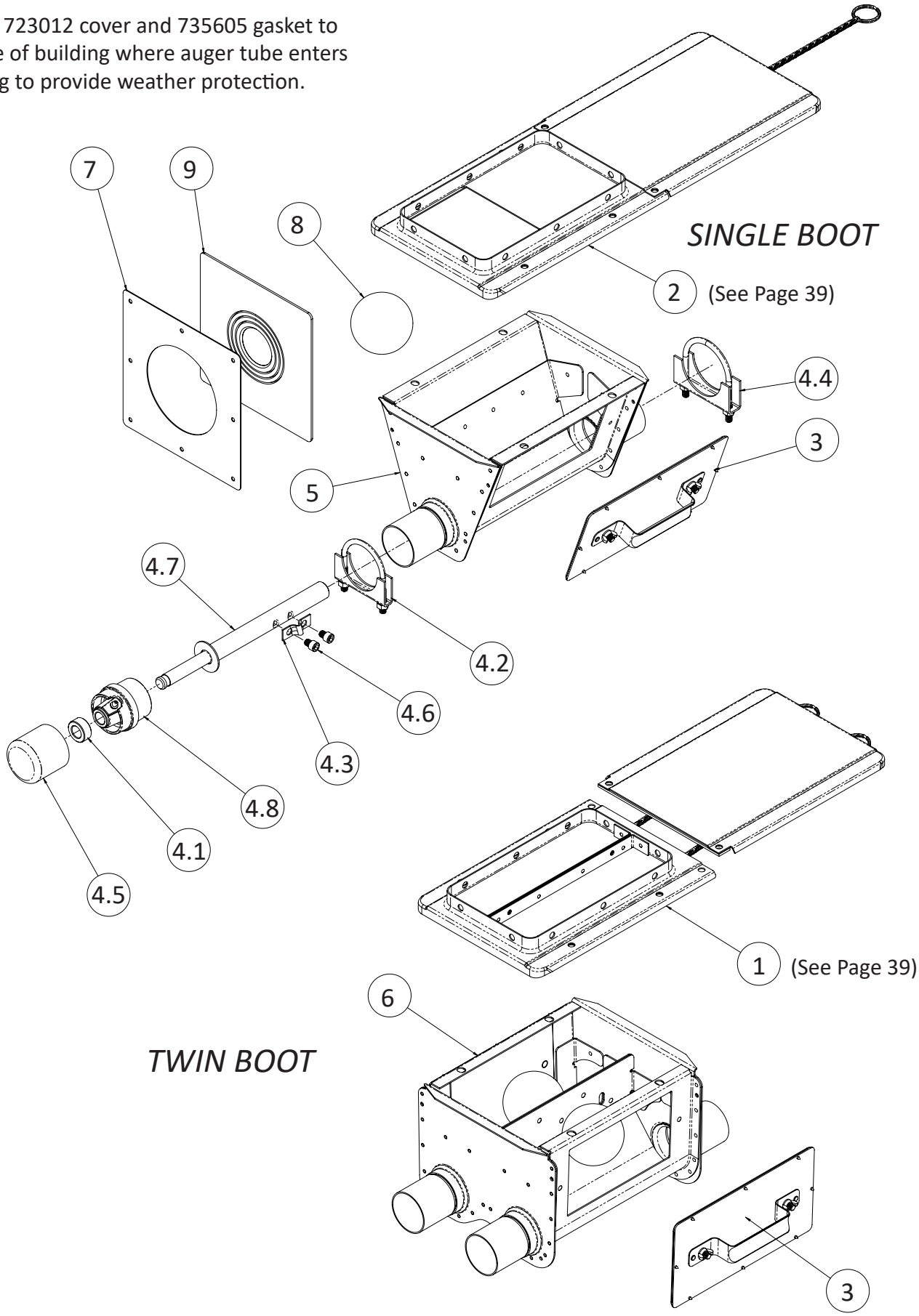
ITEM #	PART #	DESCRIPTION	QTY
500471 & 500371 COMMON PARTS			
1	010544	5/16" X 1" LG TRUSS HEAD BOLT	18
2	010603	5/16" HEX NUT	6
3	010643	5/16" X 3/4" LG HEX BOLT	6
4	012660	7/64" X 3/4" COTTER PIN	1
5	012781	5/16" NYLON HEX NUT	18
6	012782	5/16" NYLON WASHER	18
7	500305	12" ZINC PLATED CHAIN	1
8	500306	CHAIN RING	1
9	500487	WEATHER STRIPPING, PER FT.	1.25 ft
500471 - SINGLE SLIDE VALVE			
10	500301	SINGLE SLIDE PLATE	1
11	500302	SINGLE SLIDE WEATHER SHIELD	1
12	500309	SINGLE TRANSFER PLATE	1
500371 - TWIN SLIDE VALVE			
13	500324	TWIN SLIDE PLATE	2
14	500374	TWIN TRANSFER PLATE (contains (2) 500324)	1
15	500587	TWIN SLIDE WEATHER SHIELD	1





Exploded View: Model 720 Boots For 2.25” (55mm) Fill Systems

Mount 723012 cover and 735605 gasket to outside of building where auger tube enters building to provide weather protection.



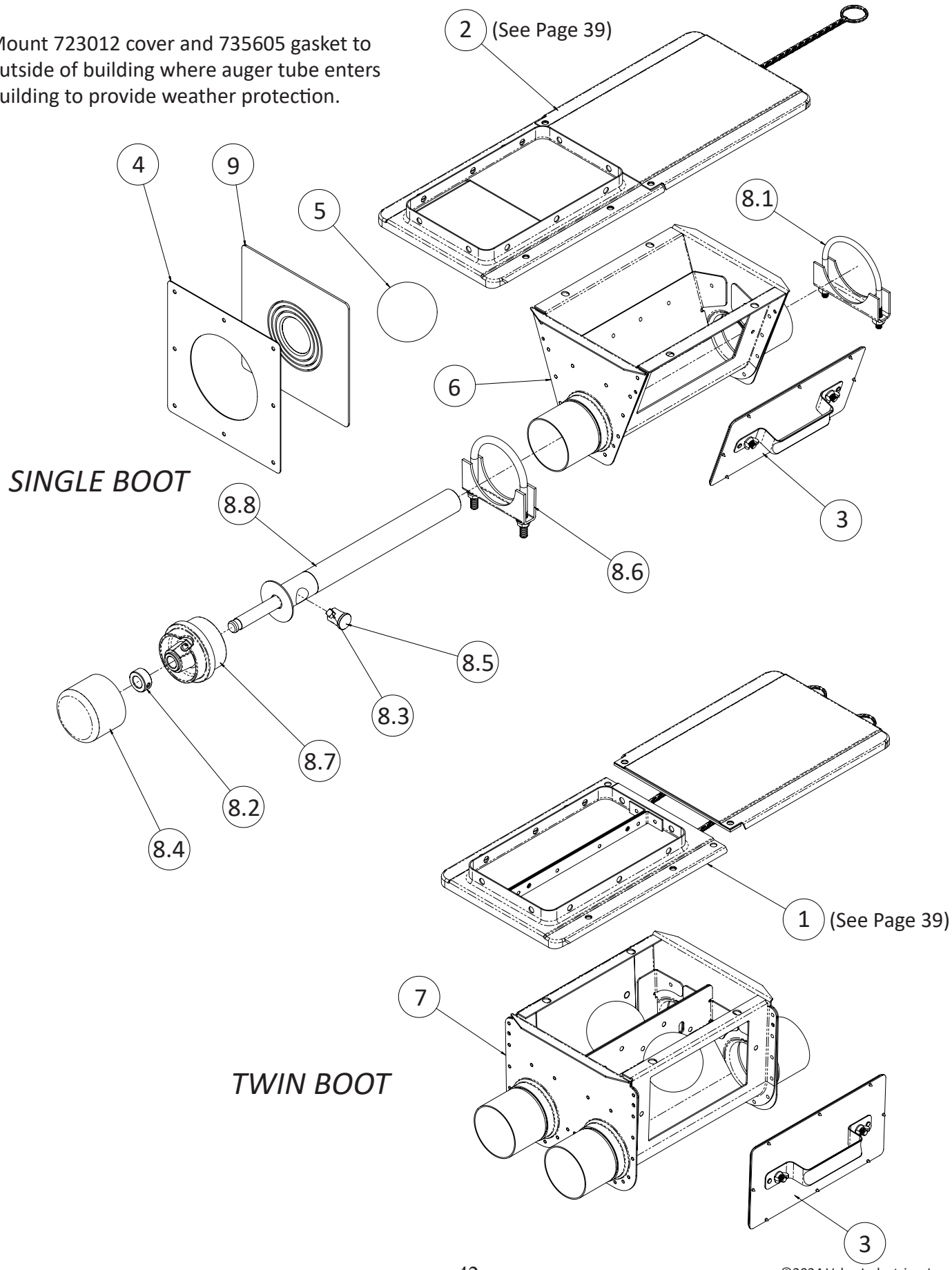
Parts List: Model 720 Boots For 2.25” (55mm) Fill Systems

PART #	DESCRIPTION
MODEL 720 BOOTS FOR 2.25” (55MM) FILL SYSTEMS - COMPLETE KITS	
720940	2.25” SINGLE OUTLET PASS-THRU LOWER BOOT - W/ P-T KIT, BAFFLE/RESTRICTOR & SINGLE SV
720960	2.25” TWIN OUTLET PASS-THRU LOWER BOOT - W/ (2) P-T KITS, BAFFLE/RESTRICTOR & SINGLE SV
720961	2.25” TWIN OUTLET PASS-THRU LOWER BOOT - W/ (2) P-T KITS, BAFFLE/RESTRICTOR & SPLIT SV
720963	2.25” SINGLE OUTLET LOWER BOOT - W/ ANCHOR & BEARING KIT & SINGLE SV
720964	2.25” SINGLE OUTLET LOWER BOOT - W/ ANCHOR & BEARING KIT - WITHOUT SV
720965	2.25” TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS & SINGLE SV
720966	2.25” TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS & SPLIT SV
720967	2.25” TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS - WITHOUT SV
720968	2.25” COMB. TWIN OUTLET LOWER BOOT - W/ (1) ANCHOR & BEARING KIT, (1) P-T KIT, BAFFLE/RESTRICTOR & SPLIT SV

ITEM #	PART #	DESCRIPTION
MODEL 720 BOOTS FOR 2.25” (55MM) FILL SYSTEMS - PARTS LIST		
1	500371	16” SPLIT BOOT SLIDE VALVE (see page 39 for components)
2	500471	16” BOOT SLIDE VALVE WITH HARDWARE (see page 39 for components)
3	704303	BOOT ACCESS DOOR ASSEMBLY
4	720785	2-1/4” AUGER SHAFT & BEARING KIT
4.1	713414	5/8” LOCKING COLLAR
4.2	720004	2-1/4” TUBE CLAMP ASSEMBLY
4.3	720412	FLIGHTING ANCHOR
4.4	720467	2-1/2” TUBE CLAMP ASSEMBLY
4.5	720833	3” PLASTIC BEARING CAP
4.6	730414	5/16-18 X 3/8” CAP SCREW (QTY. 2)
4.7	731003	2-1/4” AUGER DRIVE SHAFT WELD ASSEMBLY
4.8	731004	2-1/4” AUGER DRIVE BEARING ASSEMBLY
5	720807	2-1/4” SINGLE BOOT HOUSING
6	720848	2-1/4” TWIN BOOT HOUSING
7	723012	COVER PLATE FOR UNIVERSAL TUBE ENTRY GASKET
8	724020	AGITATOR BALL
9	735605	UNIVERSAL TUBE ENTRY GASKET

Exploded View: Model 725 Boots For Pellet 3” (75mm) Fill Systems

Mount 723012 cover and 735605 gasket to outside of building where auger tube enters building to provide weather protection.



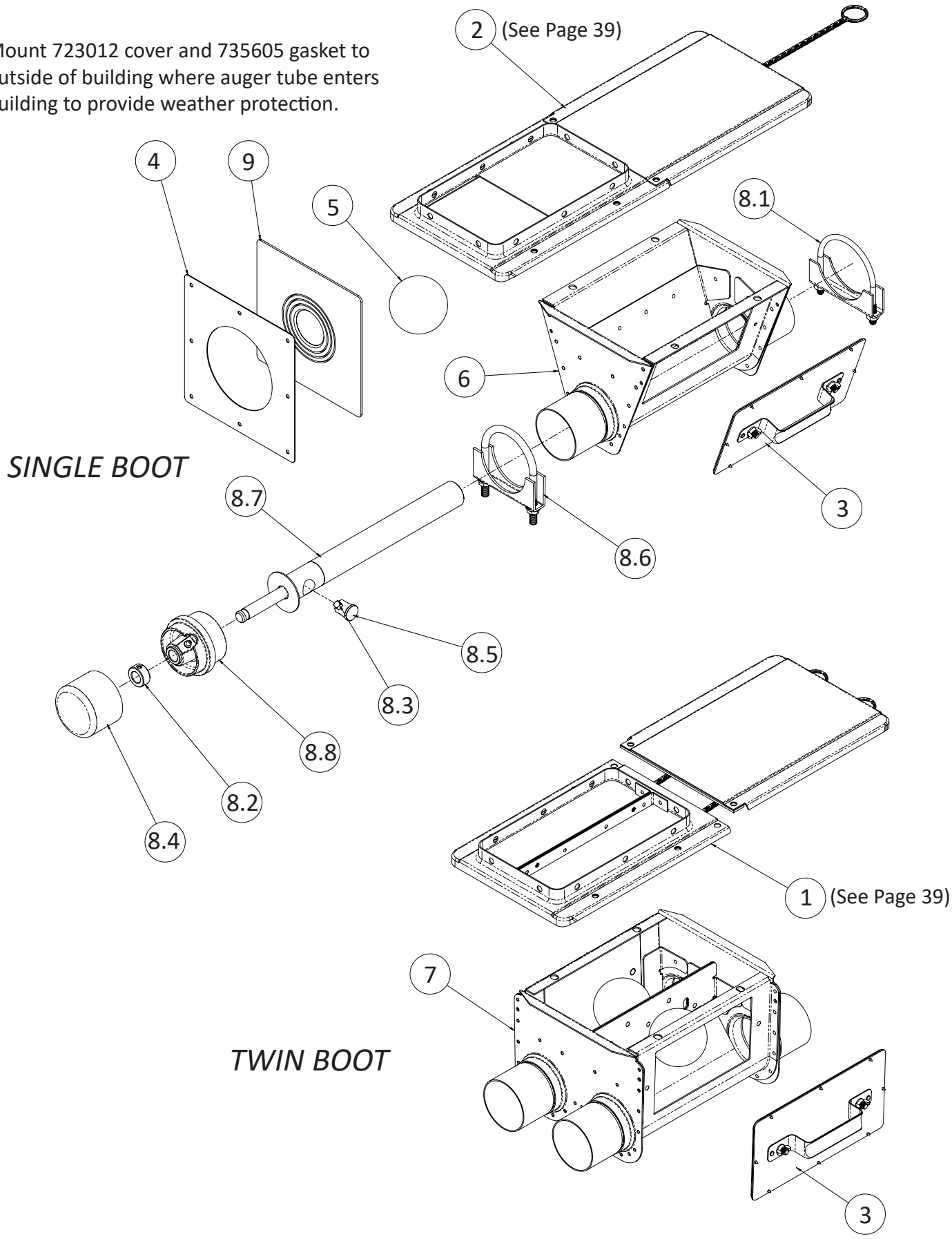
Parts List: Model 725 Boots For Pellet 3” (75mm) Fill Systems

PART #	DESCRIPTION
MODEL 725 BOOTS FOR PELLET 3” (75MM) FILL SYSTEMS - COMPLETE KITS	
725931	3” SINGLE OUTLET LOWER BOOT - W/ ANCHOR & BEARING KIT & SINGLE SV
725932	3” SINGLE OUTLET LOWER BOOT - W/ ANCHOR & BEARING KIT - WITHOUT SV
725933	3” TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS & SINGLE SV
725934	3” TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS & SPLIT SV
725935	3” TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS - WITHOUT SV
725936	3” COMB. TWIN OUTLET LOWER BOOT - W/ (1) ANCHOR & BEARING KIT, (1) P-T KIT & SPLIT SV
730940	3” SINGLE OUTLET PASS-THRU LOWER BOOT - W/ P-T KIT & SINGLE SV
730960	3” TWIN OUTLET PASS-THRU LOWER BOOT - W/ (2) P-T KITS & SINGLE SV
730961	3” TWIN OUTLET PASS-THRU LOWER BOOT - W/ (2) P-T KITS & SPLIT SV

ITEM #	PART #	DESCRIPTION
MODEL 725 BOOTS FOR PELLET 3” (75MM) FILL SYSTEMS - PARTS LIST		
1	500371	16” SPLIT BOOT SLIDE VALVE (see page 39 for components)
2	500471	16” BOOT SLIDE VALVE WITH HARDWARE (see page 39 for components)
3	704303	BOOT ACCESS DOOR ASSEMBLY
4	723012	COVER PLATE FOR UNIVERSAL TUBE ENTRY GASKET
5	724020	AGITATOR BALL
6	730807	3” SINGLE BOOT HOUSING
7	730850	3” TWIN BOOT HOUSING
8	731023	725 AUGER SHAFT & BEARING KIT
8.1	713197	3-1/4” TUBE CLAMP ASSEMBLY
8.2	713414	5/8” LOCKING COLLAR
8.3	713422	5/16-18 X 1/2” SET SCREW
8.4	720833	3” PLASTIC BEARING CAP
8.5	730821	FLIGHTING ANCHOR
8.6	730953	3” TUBE CLAMP ASSEMBLY
8.7	730994	3” AUGER DRIVE BEARING ASSEMBLY
8.8	731022	725 AUGER DRIVE SHAFT WELD ASSEMBLY
9	735605	UNIVERSAL TUBE ENTRY GASKET

Exploded View: Model 730 Boots For 3” (75mm) Fill Systems

Mount 723012 cover and 735605 gasket to outside of building where auger tube enters building to provide weather protection.



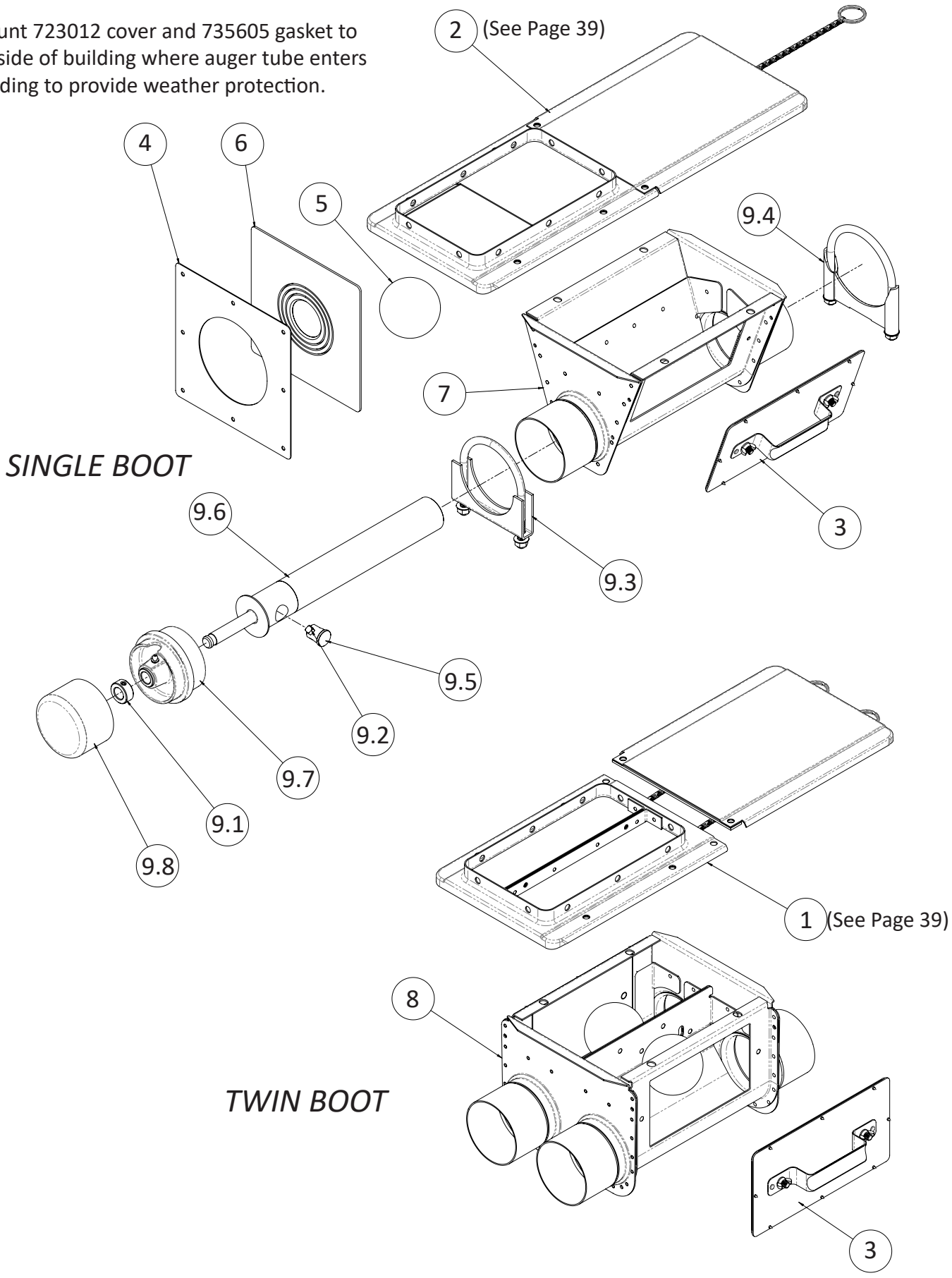
Parts List: Model 730 Boots For 3” (75mm) Fill Systems

PART #	DESCRIPTION
MODEL 730 BOOTS FOR 3” (75MM) FILL SYSTEMS - COMPLETE KITS	
730940	3” SINGLE OUTLET PASS-THRU LOWER BOOT - W/ P-T KIT, BAFFLE/RESTRICTOR & SINGLE SV
730943	3” SINGLE OUTLET LOWER BOOT - W/ ANCHOR & BEARING KIT & SINGLE SV
730944	3” SINGLE OUTLET LOWER BOOT - W/ ANCHOR & BEARING KIT - WITHOUT SV
730945	3” TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS & SINGLE SV
730946	3” TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS & SPLIT SV
730947	3” TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS - WITHOUT SV
730948	3” COMB. TWIN OUTLET LOWER BOOT - W/ (1) ANCHOR & BEARING KIT, (1) P-T KIT, BAFFLE/RESTRICTOR & SPLIT SV
730960	3” TWIN OUTLET PASS-THRU LOWER BOOT - W/ (2) P-T KITS, BAFFLE/RESTRICTOR & SINGLE SV”
730961	3” TWIN OUTLET PASS-THRU LOWER BOOT - W/ (2) P-T KITS (2), BAFFLE/RESTRICTOR & SPLIT SV”

ITEM #	PART #	DESCRIPTION
MODEL 730 BOOTS FOR 3” (75MM) FILL SYSTEMS - PARTS LIST		
1	500371	16” SPLIT BOOT SLIDE VALVE (see page 39 for components)
2	500471	16” BOOT SLIDE VALVE WITH HARDWARE (see page 39 for components)
3	704303	BOOT ACCESS DOOR ASSEMBLY
4	723012	COVER PLATE FOR UNIVERSAL TUBE ENTRY GASKET
5	724020	AGITATOR BALL
6	730807	3” SINGLE BOOT HOUSING
7	730850	3” TWIN BOOT HOUSING
8	731008	3” AUGER SHAFT & BEARING KIT
8.1	713197	3-1/4” TUBE CLAMP ASSEMBLY
8.2	713414	5/8” LOCKING COLLAR
8.3	713422	5/16-18 X 1/2” SET SCREW
8.4	720833	3” PLASTIC BEARING CAP
8.5	730821	FLIGHTING ANCHOR
8.6	730953	3” TUBE CLAMP ASSEMBLY
8.7	730993	3” AUGER DRIVE SHAFT WELD ASSEMBLY
8.8	730994	3” AUGER DRIVE BEARING ASSEMBLY
9	735605	UNIVERSAL TUBE ENTRY GASKET

Exploded View: Model 735HV Boots For High Volume 3.5” (90mm) Fill Systems

Mount 723012 cover and 735605 gasket to outside of building where auger tube enters building to provide weather protection.



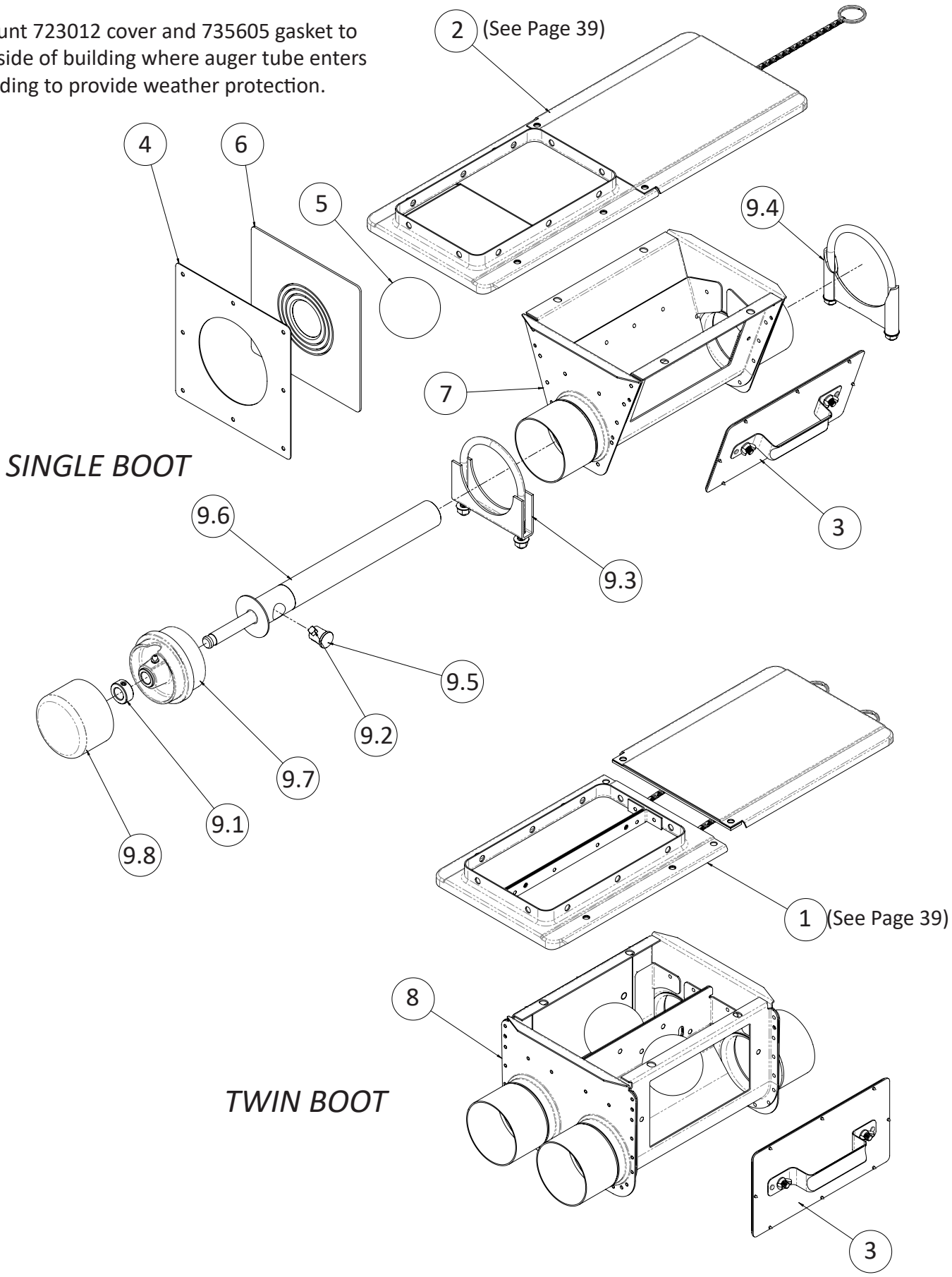
Parts List: Model 735HV Boots For High Volume 3.5” (90mm) Fill Systems

PART #	DESCRIPTION
MODEL 735HV BOOTS FOR HIGH VOLUME 3.5” (90MM) FILL SYSTEMS - COMPLETE KITS	
735940	3.5” HV/HM SINGLE OUTLET PASS-THRU LOWER BOOT - W/ P-T KIT, BAFFLE/RESTRICTOR & SINGLE SV
735960	3.5” HV/HM TWIN OUTLET PASS-THRU LOWER BOOT - W/ (2) P-T KITS, BAFFLE/RESTRICTOR & SINGLE SV
735961	3.5” HV/HM TWIN OUTLET PASS-THRU LOWER BOOT - W/ (2) P-T KITS, BAFFLE/RESTRICTOR & SPLIT SV
735993	3.5” HV SINGLE OUTLET LOWER BOOT - W/ ANCHOR & BEARING KIT & SINGLE SV
735994	3.5” HV SINGLE OUTLET LOWER BOOT - W/ ANCHOR & BEARING KIT - WITHOUT SV
735995	3.5” HV TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS & SINGLE SV
735996	3.5” HV TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS & SPLIT SV
735997	3.5” HV TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS - WITHOUT SV
735998	3.5” HV COMB. TWIN OUTLET LOWER BOOT - W/ (1) ANCHOR & BEARING KIT, (1) P-T KIT, BAFFLE/RESTRICTOR & SPLIT SV

ITEM #	PART #	DESCRIPTION
MODEL 735HV BOOTS FOR HIGH VOLUME 3.5” (90MM) FILL SYSTEMS - PARTS LIST		
1	500371	16” SPLIT BOOT SLIDE VALVE (see page 39 for components)
2	500471	16” BOOT SLIDE VALVE WITH HARDWARE (see page 39 for components)
3	704303	BOOT ACCESS DOOR ASSEMBLY
4	723012	COVER PLATE FOR UNIVERSAL TUBE ENTRY GASKET
5	724020	AGITATOR BALL
6	735605	UNIVERSAL TUBE ENTRY GASKET
7	735814	3-1/2” SINGLE BOOT HOUSING
8	735850	3-1/2” TWIN BOOT HOUSING
9	735878	3-1/2” AUGER SHAFT & BEARING KIT
9.1	713414	5/8” LOCKING COLLAR
9.2	713422	5/16-18 X 1/2” SET SCREW
9.3	724401	3-1/2” TUBE CLAMP ASSEMBLY
9.4	724403	3-3/4” TUBE CLAMP ASSEMBLY
9.5	730821	FLIGHTING ANCHOR
9.6	730998	3-1/2” AUGER DRIVE SHAFT WELD ASSEMBLY
9.7	730999	3-1/2” AUGER DRIVE BEARING ASSEMBLY
9.8	735830	3-1/2” PLASTIC BEARING CAP

Exploded View: Model 735HM Boots For High Moisture3.5” (90mm) Fill Systems

Mount 723012 cover and 735605 gasket to outside of building where auger tube enters building to provide weather protection.



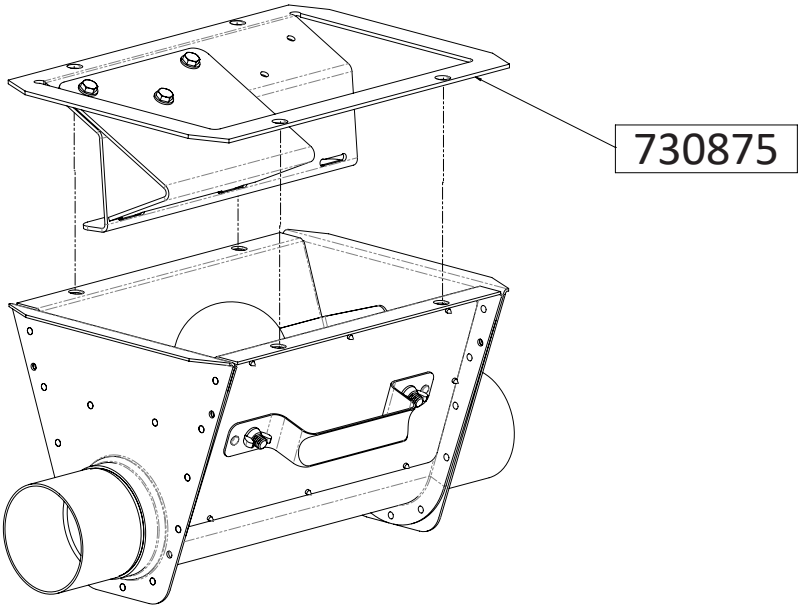
Parts List: Model 735HM Boots For High Moisture 3.5” (90mm) Fill Systems

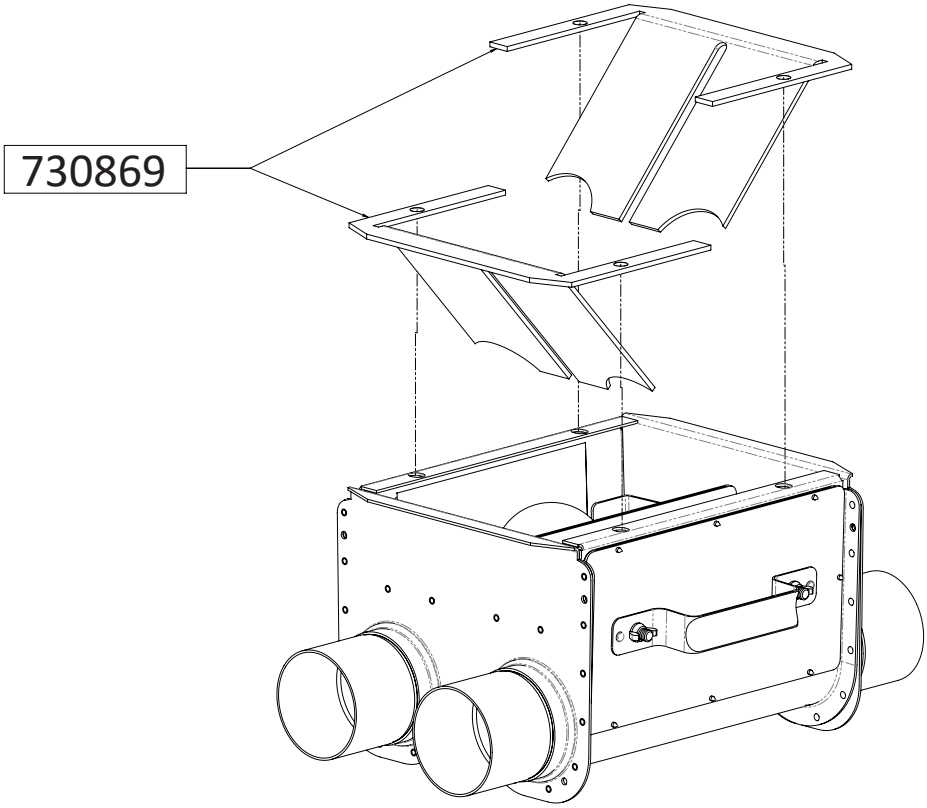
PART #	DESCRIPTION
MODEL 735HM BOOTS FOR HIGH MOISTURE 3.5” (90MM) FILL SYSTEMS - COMPLETE KITS	
735940	3.5” HV/HM SINGLE OUTLET PASS-THRU LOWER BOOT - W/ P-T KIT, BAFFLE/RESTRICTOR & SINGLE SV
735960	3.5” HV/HMTWIN OUTLET PASS-THRU LOWER BOOT - W/ (2) P-T KITS, BAFFLE/RESTRICTOR & SINGLE SV
735961	3.5” HV/HM TWIN OUTLET PASS-THRU LOWER BOOT - W/ (2) P-T KITS, BAFFLE/RESTRICTOR & SPLIT SV
735984	3.5” HM SINGLE OUTLET LOWER BOOT - W/ ANCHOR & BEARING KIT & SINGLE SV
735985	3.5” HM SINGLE OUTLET LOWER BOOT - W/ ANCHOR & BEARING KIT - WITHOUT SV
735986	3.5” HM TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS & SINGLE SV
735987	3.5” HM TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS & SPLIT SV
735988	3.5” HM TWIN OUTLET LOWER BOOT - W/ (2) ANCHOR & BEARING KITS - WITHOUT SV
735989	3.5” HM COMB. TWIN OUTLET LOWER BOOT - W/ (1) ANCHOR & BEARING KIT, (1) P-T KIT, BAFFLE/RESTRICTOR & SPLIT SV

ITEM #	PART #	DESCRIPTION
MODEL 735HM BOOTS FOR HIGH MOISTURE 3.5” (90MM) FILL SYSTEMS - PARTS LIST		
1	500371	16” SPLIT BOOT SLIDE VALVE (see page 39 for components)
2	500471	16” BOOT SLIDE VALVE WITH HARDWARE (see page 39 for components)
3	704303	BOOT ACCESS DOOR ASSEMBLY
4	723012	COVER PLATE FOR UNIVERSAL TUBE ENTRY GASKET
5	724020	AGITATOR BALL
6	735605	UNIVERSAL TUBE ENTRY GASKET
7	735814	3-1/2” SINGLE BOOT HOUSING
8	735850	3-1/2” TWIN BOOT HOUSING
9	735880	3-1/2” HM AUGER SHAFT & BEARING KIT
9.1	713414	5/8” LOCKING COLLAR
9.2	713422	5/16-18 X 1/2” SET SCREW
9.3	724401	3-1/2” TUBE CLAMP ASSEMBLY
9.4	724403	3-3/4” TUBE CLAMP ASSEMBLY
9.5	730821	FLIGHTING ANCHOR
9.6	730993	3” AUGER DRIVE SHAFT WELD ASSEMBLY
9.7	730999	3-1/2” AUGER DRIVE BEARING ASSEMBLY
9.8	735830	3-1/2” PLASTIC BEARING CAP

Boot Baffles / Restrictors

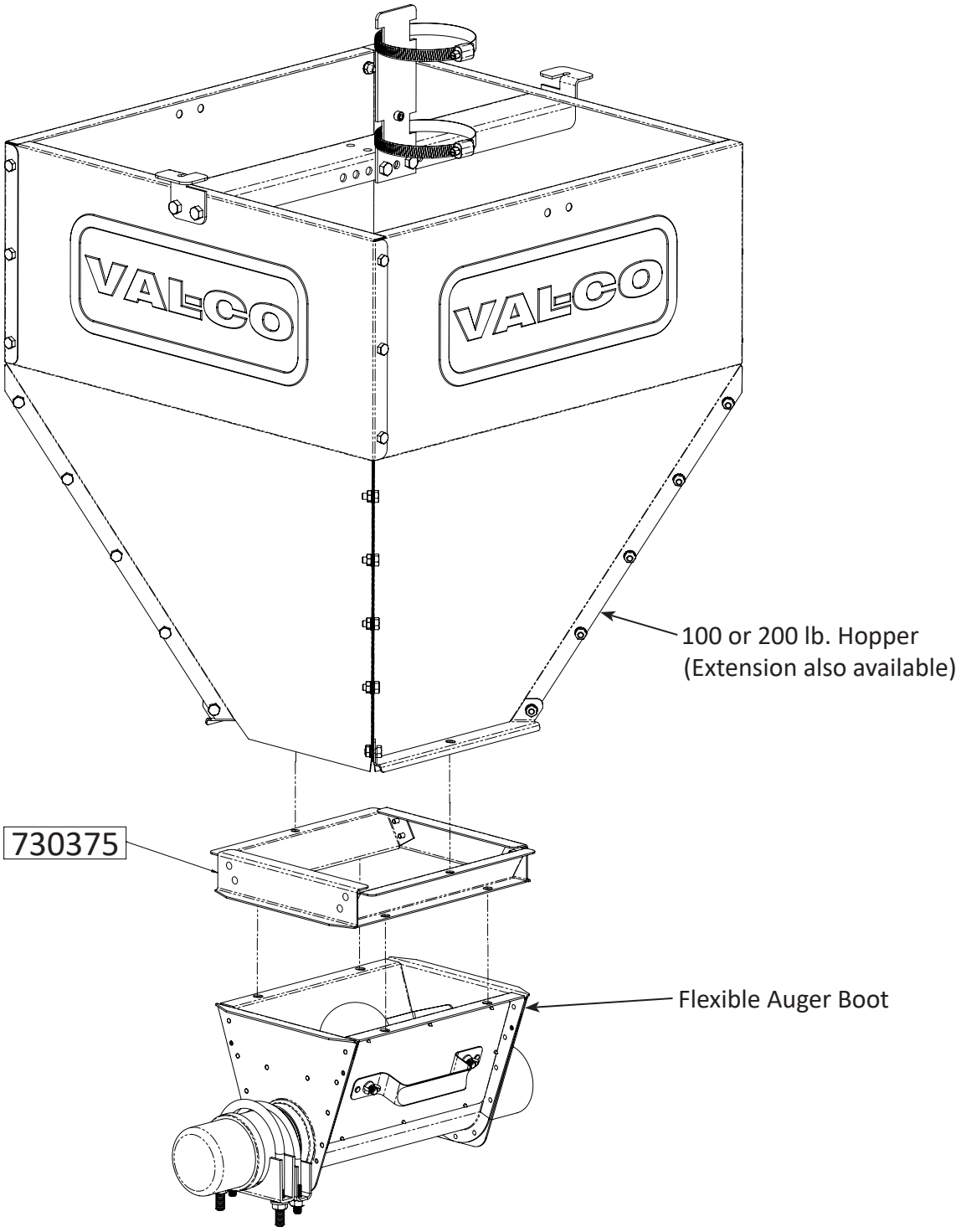
PART #	DESCRIPTION
BOOT BAFFLES / RESTRICTORS - PART NUMBERS	
730869	3” TWIN BOOT BAFFLE (contains QTY 2)
730875	SINGLE BOOT BAFFLE / RESTRICTOR





Lower Boot Adapter

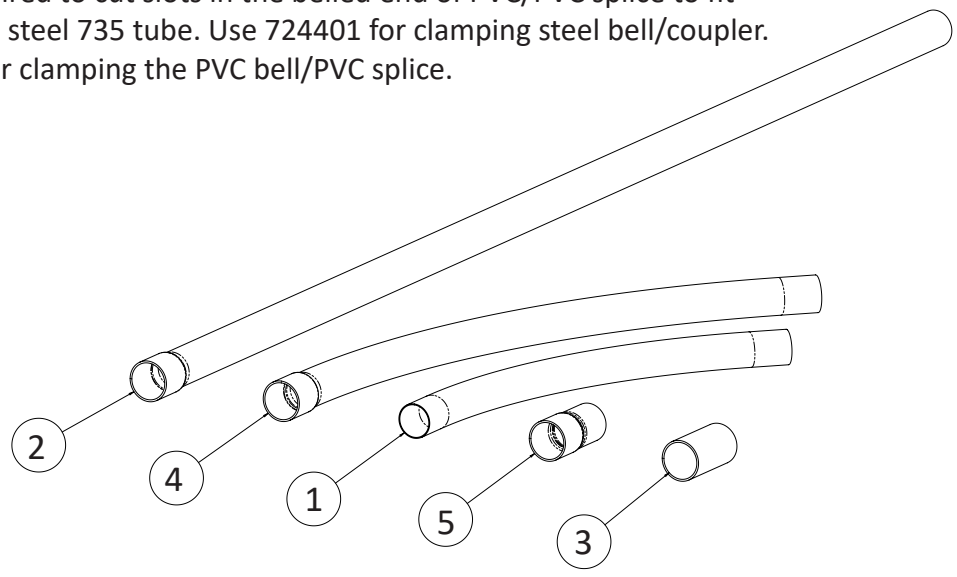
PART #	DESCRIPTION
LOWER BOOT ADAPTER - PART NUMBERS	
730375	FEED HOPPER ADAPTER ASSEMBLY



PVC Tubes

ITEM #	PART #	DESCRIPTION
MODEL 720 - 2-1/4” PVC TUBES		
2	720434	2-1/4” 10’ STRAIGHT PVC TUBE
-	720434-222	BUNDLE OF 222 - 720434 TUBES
3	720435	2-1/4” PVC TUBE SPLICE
-	720435-070	CARTON OF 70 - 720435 SPLICES
4	720498	2-1/4” 45 DEGREE FORMED PVC TUBE
-	720498-065	BUNDLE OF 65 - 720498 TUBES
MODEL 725 / 730 - 3” PVC TUBES		
1	730426	3” 45D STEEL FORMED TUBE
2	730434	3” 10’ STRAIGHT PVC TUBE
-	730434-116	BUNDLE OF 116 - 723434 TUBES
3	730435	3” PVC TUBE SPLICE
-	730435-080	CARTON OF 80 - 730435 SPLICES
4	730499	3” 45 DEGREE FORMED PVC TUBE
-	730499-050	BUNDLE OF 50 - 730499 TUBES
5	730908	STEEL TO PVC ADAPTER 3”
MODEL 735 HV / HM - 3-1/2” PVC TUBES		
1	735426	STEEL ELBOW, 735 X 45 DEG, NO BELL, COUPLER REQUIRED
2	735434	3-1/2” 10’ STRAIGHT PVC TUBE
-	735434-092	BUNDLE OF 92 - 723434 TUBES
3	735435	3-1/2” PVC TUBE SPLICE
-	735435-050	CARTON OF 50 - 735435 SPLICES
4	735499	3-1/2” 45 DEGREE FORMED PVC TUBE
-	735499-040	BUNDLE OF 40 - 735499 TUBES

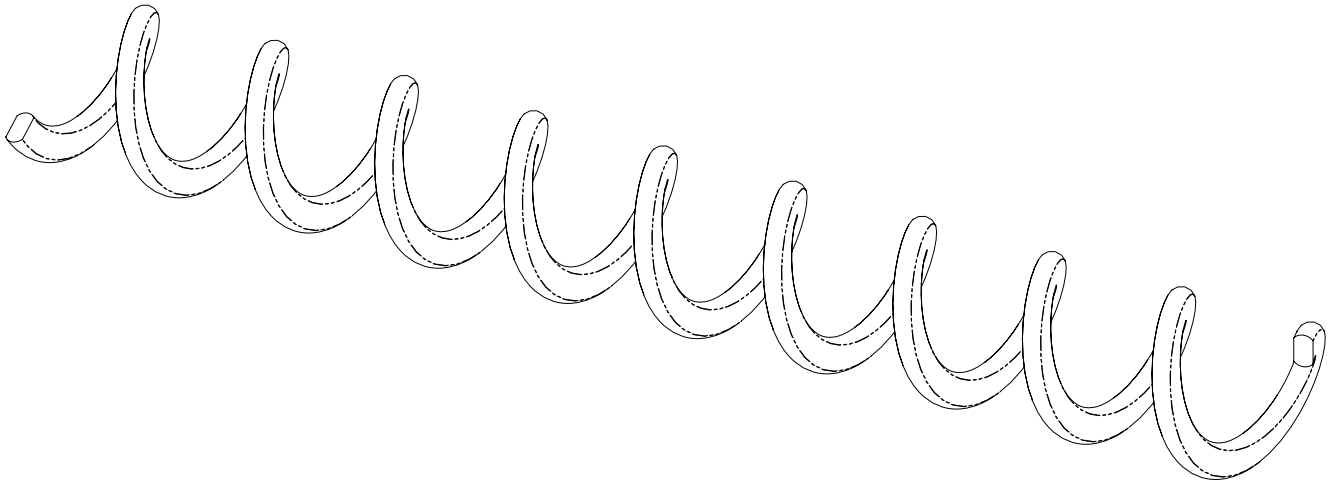
735 tube can interchange between PVC and steel. Due to tight fitment, it may be required to cut slots in the belled end of PVC/PVC splice to fit overtop of the steel 735 tube. Use 724401 for clamping steel bell/coupler. Use 724402 for clamping the PVC bell/PVC splice.



Augers

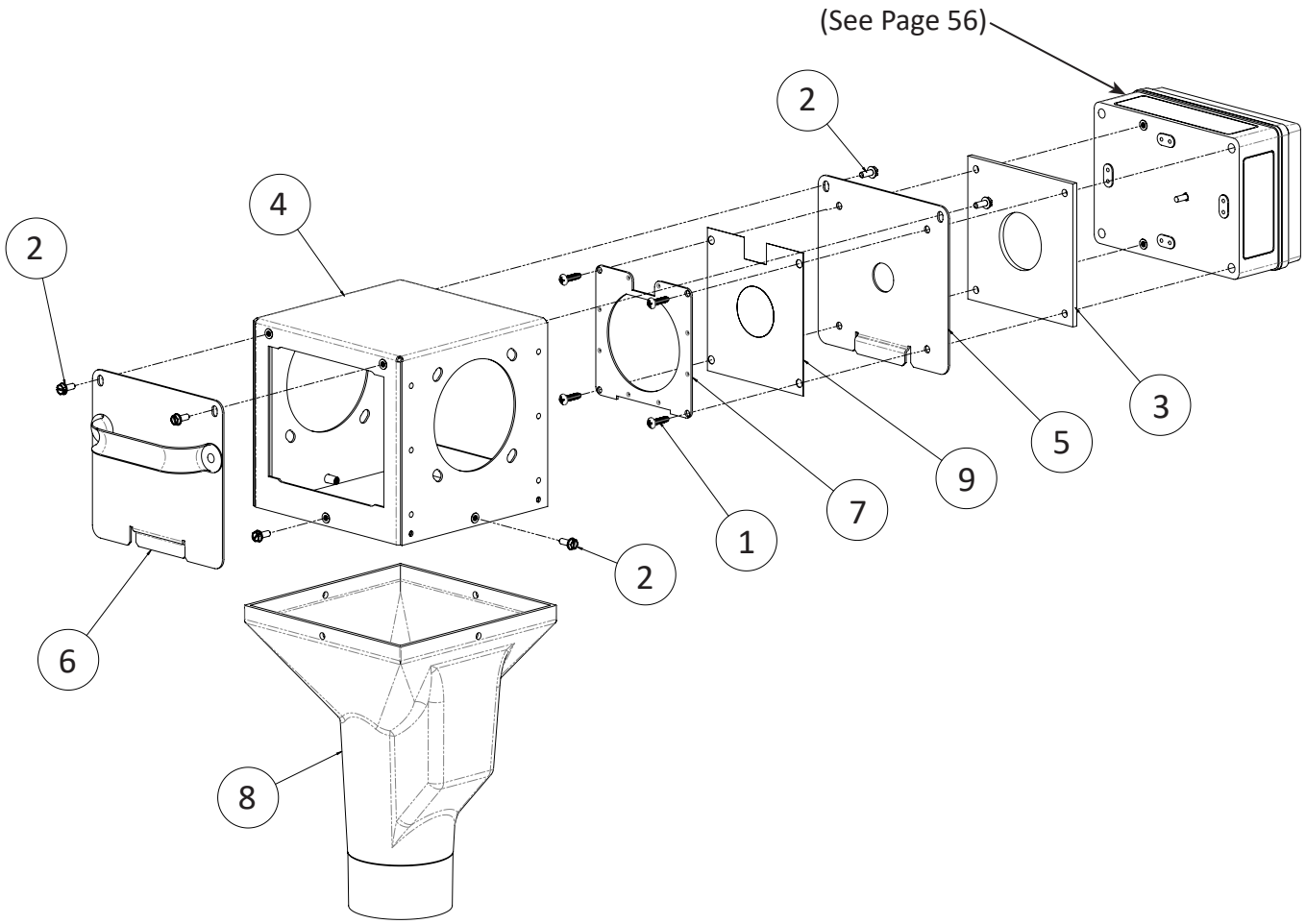
PART #	DESCRIPTION
AUGER - PART NUMBERS	
720440	FLEXIBLE AUGER, 1.52” OD
725440	FLEXIBLE AUGER, 2.25” OD
730440	FLEXIBLE AUGER, 2.38” OD
735440	FLEXIBLE AUGER, 2.71” OD

Auger is available in 10 ft. increments, from 40 ft. to 300 ft. To order, add a suffix to the base part number listed above of “-0000,” specifying the desired auger length. For example: a 220 ft. roll of 730 auger would be 730440-0220. Augers are available in longer lengths. Please contact customer service for more info.



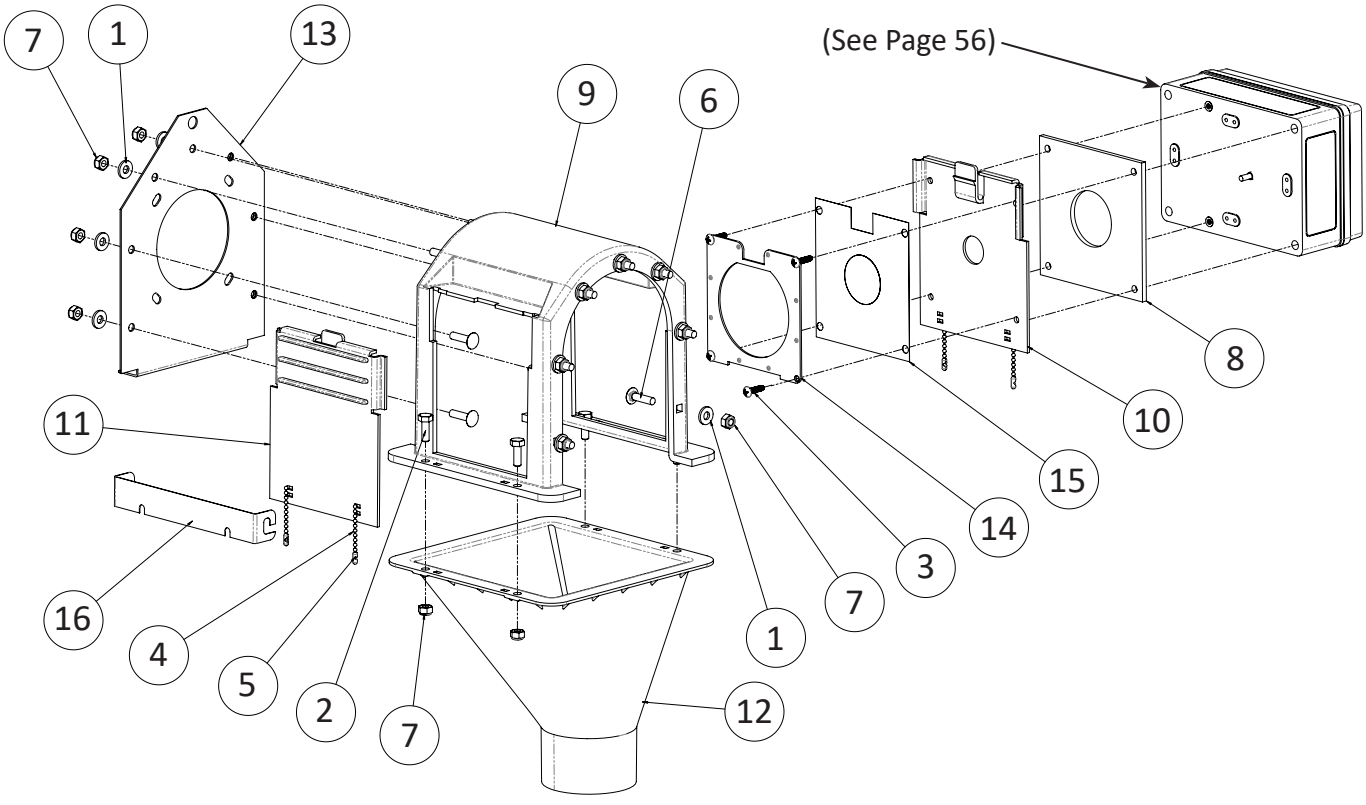
730462 Basic Steel Discharge Head

ITEM #	PART #	QTY	DESCRIPTION
730462 BASIC STEEL DISCHARGE HEAD - PARTS LIST			
1	011382	4	#10-24 X 3/4” SELF TAP SCREW
2	012675	8	#10-24 X 1/2” HEX SCREW
3	730046	1	DISCHARGE HEAD GASKET
4	730569	1	DISCHARGE HEAD HOUSING
5	730570	1	ENCLOSURE MOUNTING PLATE
6	730572	1	ACCESS DOOR ASSY
7	730573	1	DIAPHRAGM RETAINER
8	730634	1	PLASTIC FUNNEL
9	730765	1	CONTACT ASSEMBLY DISCHARGE CONTROL BOX



730463 Basic Poly Discharge Head

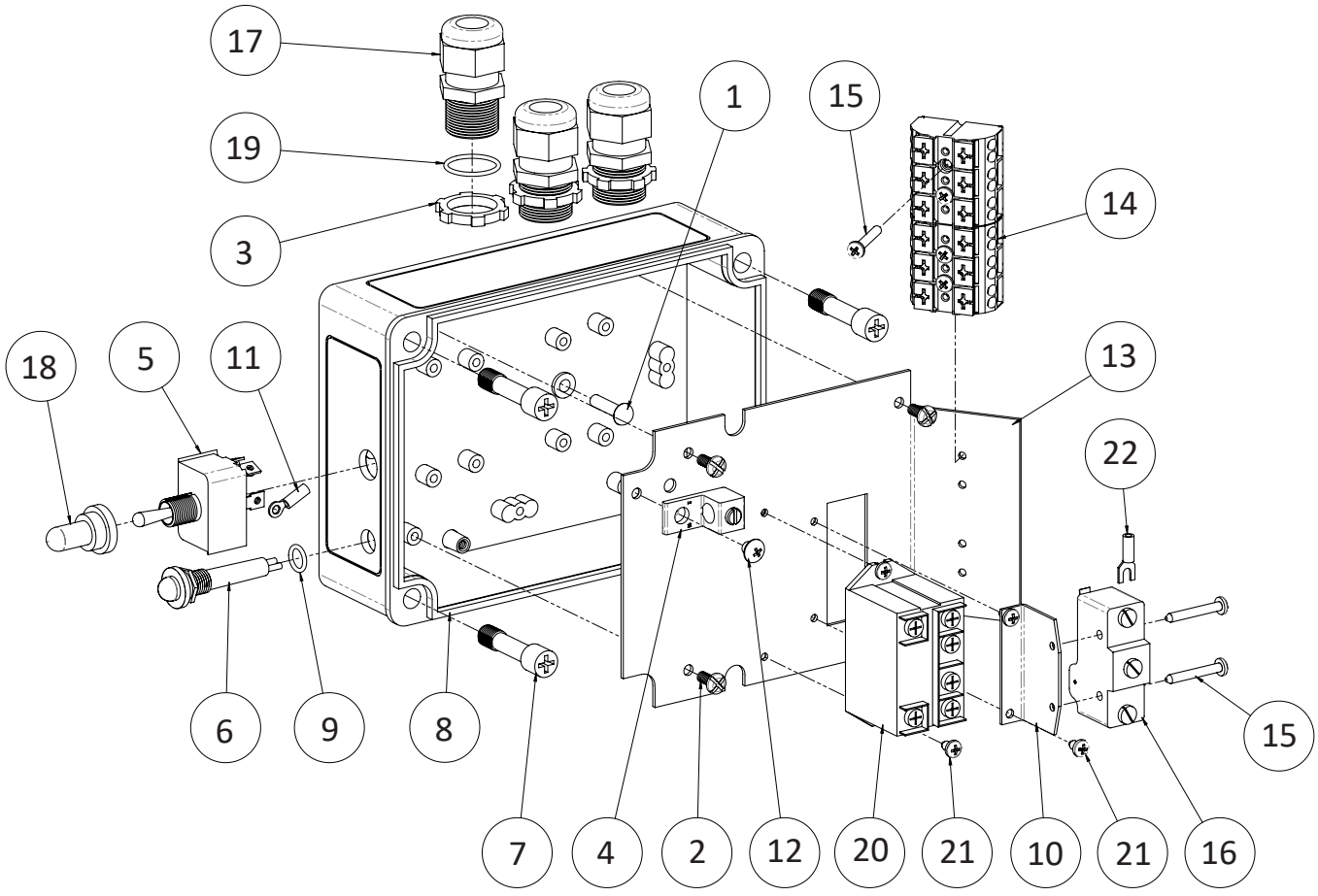
ITEM #	PART #	QTY	DESCRIPTION
730463 BASIC POLY DISCHARGE HEAD - PARTS LIST			
1	010424	14	WASHER, FLAT, 1/4” SAE ZP
2	010617	4	BOLT, 1/4-20 X 3/4” LG HCS ZP GR5
3	011382	4	SCREW #10-24X3/4” SELF TAP TYPE F PAN PHILLIP
4	011431	4	#6 BALL CHAIN
5	011432	2.5	#6 BALL CHAIN CONNECTOR
6	011434	14	1/4” X 1” CARRIAGE BOLT
7	012793	18	1/4-20 NYLOCK NUT
8	730046	1	GASKET, DISCHARGE HEAD
9	730267	1	POLY DISCHARGE HEAD
10	730271	1	POLY ELECTRIC BOX MOUNT
11	730272	1	POLY ACCESS DOOR
12	730273	1	POLY FUNNEL
13	730274	1	GEARBOX MOUNT
14	730573	1	DIAPHRAGM RETAINER
15	730765	1	CONTACT ASSEMBLY DISCHARGE CONTROL BOX
16	730783	1	POLY FLAG HOPPER DOOR STRAP



Discharge Head Control Box With Backup Mechanical Switch

ITEM #	PART #	QTY	DESCRIPTION
730501 & 730505 CONTROL BOXES - COMMON PARTS			
1	011165	1	3/16OD X 3/4L SOLID SS RIVET
2	011380	4	8-32 X 3/8 PH SCREW
3	420473	3	1/2” CONDUIT NUT
4	450484	1	GROUND BLOCK
5	723424	1	TOGGLE SWITCH, DPST, 10A, 250V
6	730043	1	RED LIGHT, 250V, 1/2W
7	730236	4	ENCLOSURE SCREW
8	730453	1	ENCLOSURE ASSY, DH CONTROL BOX
9	730502	1	3/8ID X 1/2OD BUNA-N O-RING
10	730503	1	MICRO SWITCH BRACKET
11	730513	4	16-14AWG, #6 BLUE RING TERMINAL
12	730516	1	10-32 X 1/4 PPH TRS ZP SCREW
13	730527	1	MOUNTING PLATE, DH CTRL BOX
14	730528	2	TERMINAL BLOCK, 3 POLE, 300V, 20A AWG 20-12, 4 CONN./POLE
15	730558	6	6-32 X 1” PPH TRS ZP SCREW
16	730989	1	MICRO SWITCH, SPDT 20A, 250VAC
17	750030	3	1/2” NPT STRAIGHT CORDGRIP
18	750657	1	TOGGLE SWITCH BOOT
19	HW-71-204	3	11/16 ID, 13/16 OD O-RING

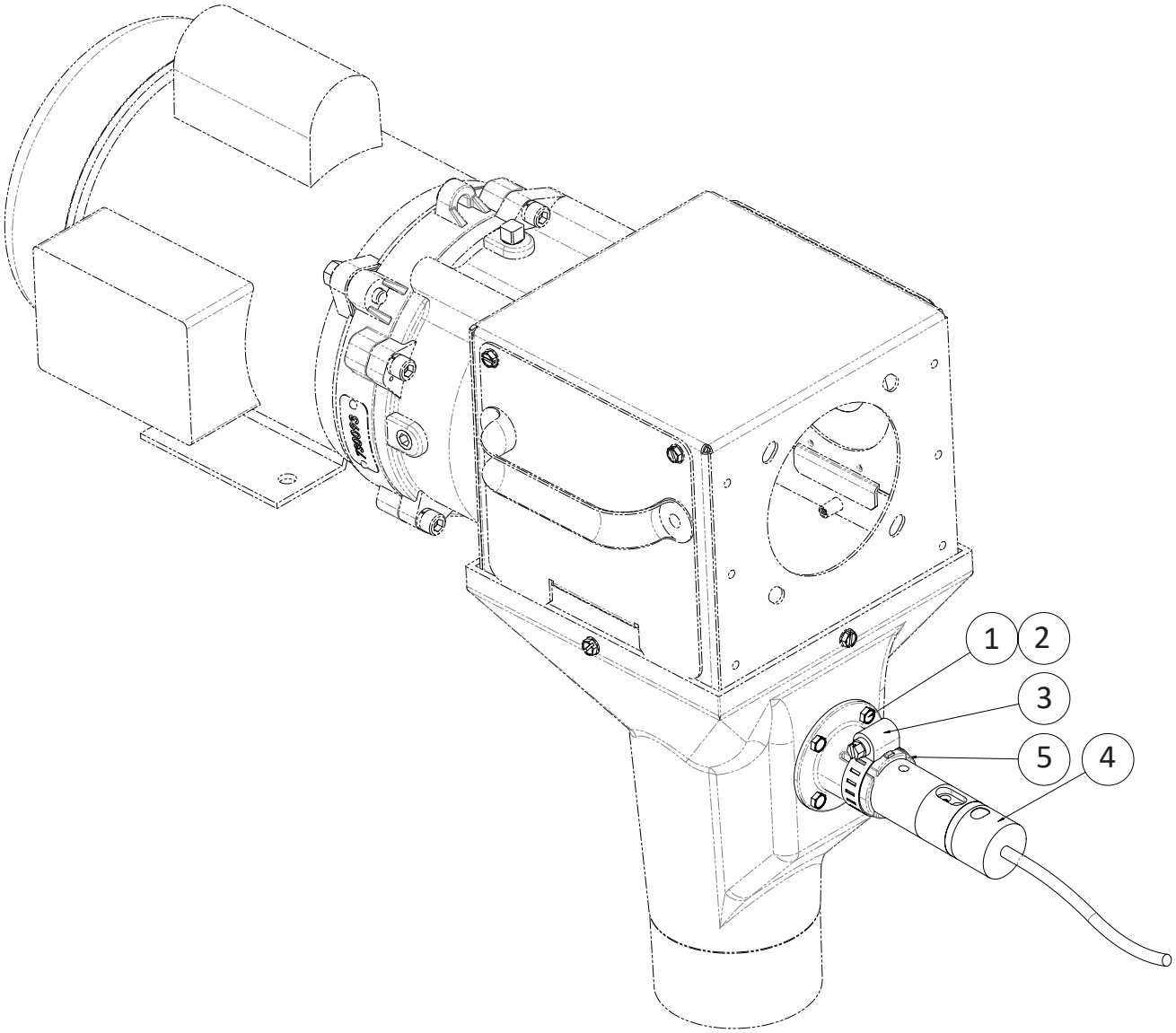
ITEM #	PART #	QTY	DESCRIPTION
730501 CONTROL BOX W/RELAY			
20	730044	1	DPST 25A, 240V POWER RELAY
21	730514	5	6-32 X 1/4 PPH TRS ZP SCREW
22	730521	8	16-14AWG, #6 BLUE SPADE TERMINAL
730505 CONTROL BOX WITHOUT RELAY			
21	730514	3	6-32 X 1/4 PPH TRS ZP SCREW
22	730521	3	16-14AWG, #6 BLUE SPADE TERMINAL



730465 Proximity Sensor & Mount

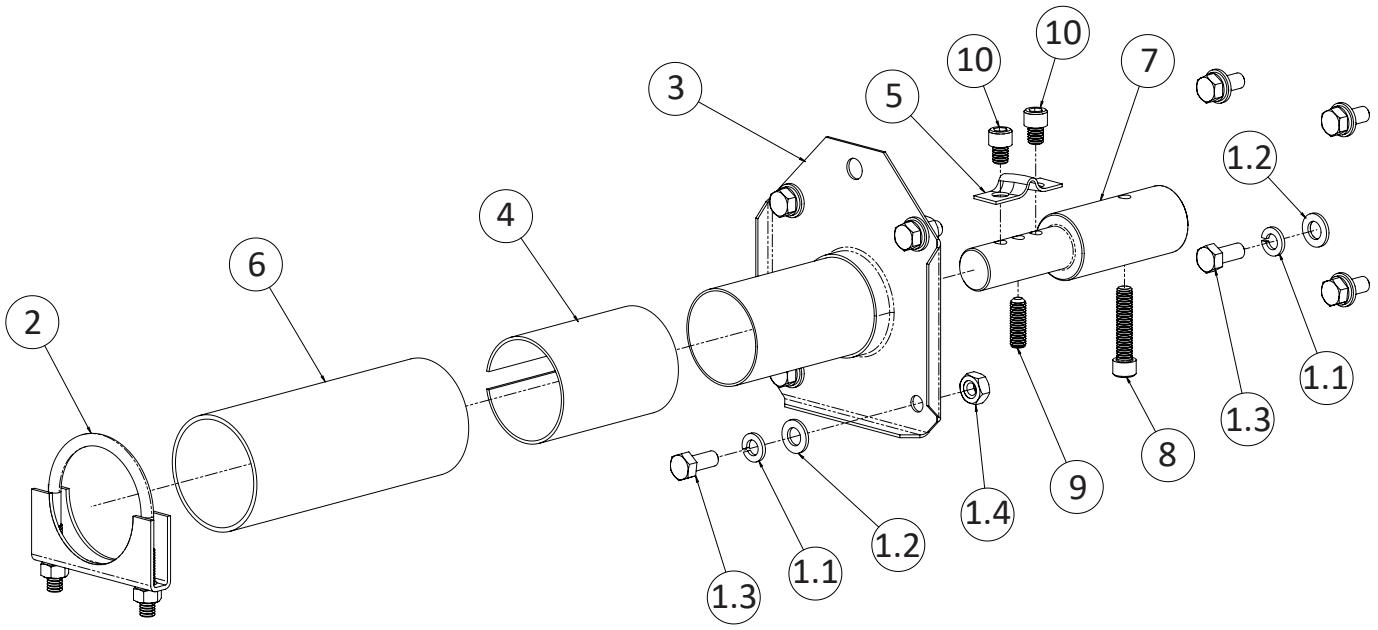
ITEM #	PART #	QTY	DESCRIPTION
730465 PROXIMITY SENSOR & MOUNT - PARTS LIST			
1	010408	4	#10-24 KEP NUT
2	012795	4	#10-24 X 1/2” UNSLOTTED HEX SCREW
3	730282	1	1-1/2” SS HOSE CLAMP
4	750418	1	PROXIMITY SWITCH, 44R-33, 90-265V
5	780055	1	PROXIMITY SENSOR BASE

Note: Proximity Sensor shown in context, assembled to Steel Discharge Head (also used on Poly Discharge Head). Discharge Head, Motor & Gearbox shown for reference only.



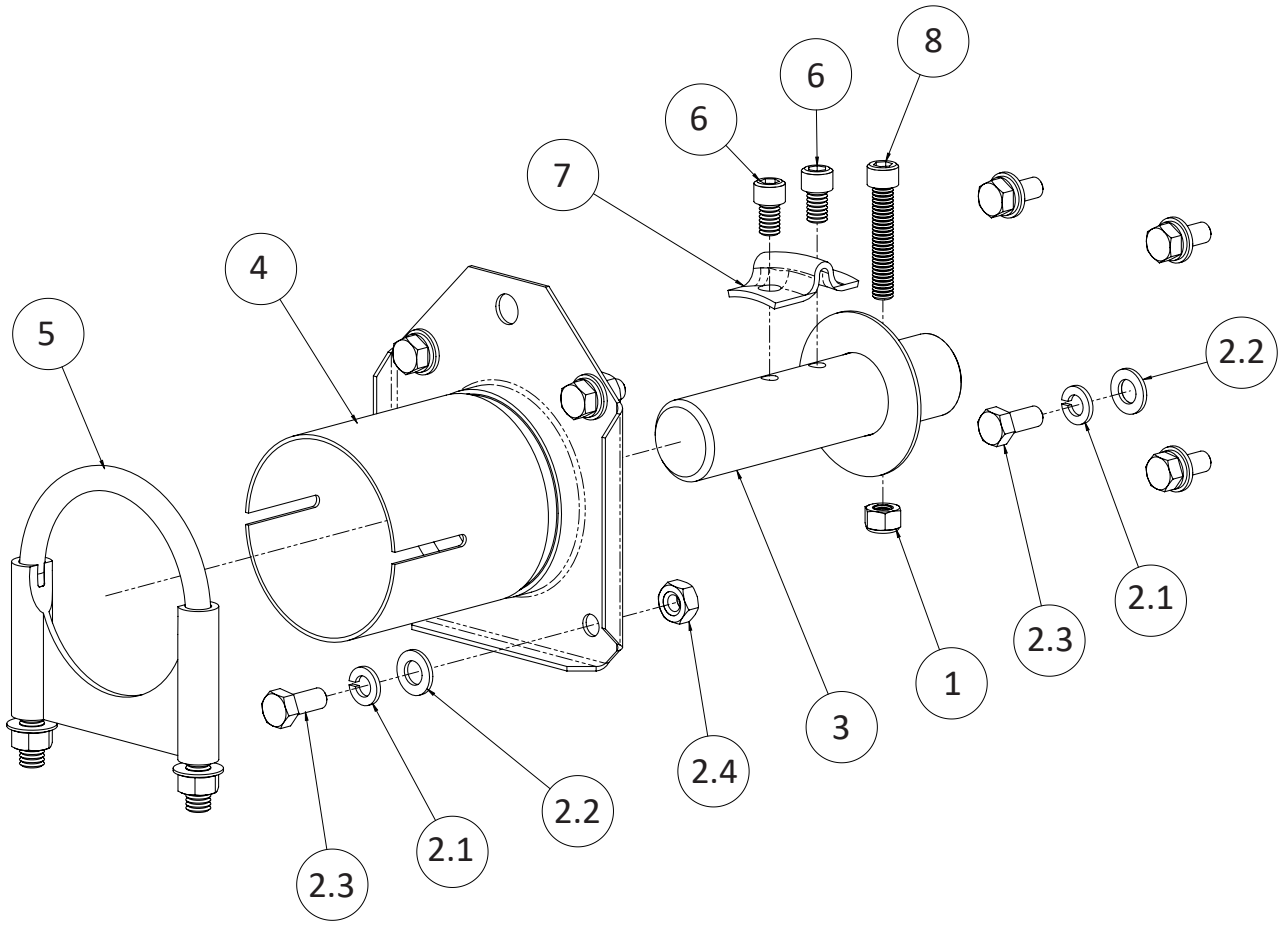
720304 - 720 Steel Port & Driver

ITEM #	PART #	QTY	DESCRIPTION
720304 - 720 STEEL PORT & DRIVER - PARTS LIST			
1	713195	1	DH TUBE HARDWARE BAG (bag not shown)
1.1	010252	8	5/16” SPLIT LOCKWASHER
1.2	010426	8	5/16” X 11/16” FLAT WASHER
1.3	010463	8	5/16-18 X 3/4” HEX BOLT
1.4	011114	4	5/16-18 HEX NUT
2	720004	1	2-1/4” TUBE CLAMP
3	720034	1	2-1/4” TUBE & PORT PLATE
4	720305	1	2-1/4” STEEL DH PORT TUBE SHIM
5	720412	1	FLIGHTING ANCHOR
6	720435	1	2-1/4” PVC TUBE SPLICE
7	720611	1	FLIGHTING DRIVER
8	730303	1	5/16-18 X 1-1/2” SOCKET HEAD SCREW
9	730403	1	1” KNURLED SET SCREW
10	730414	2	5/16-18 X 3/8” SOCKET HEAD SCREW



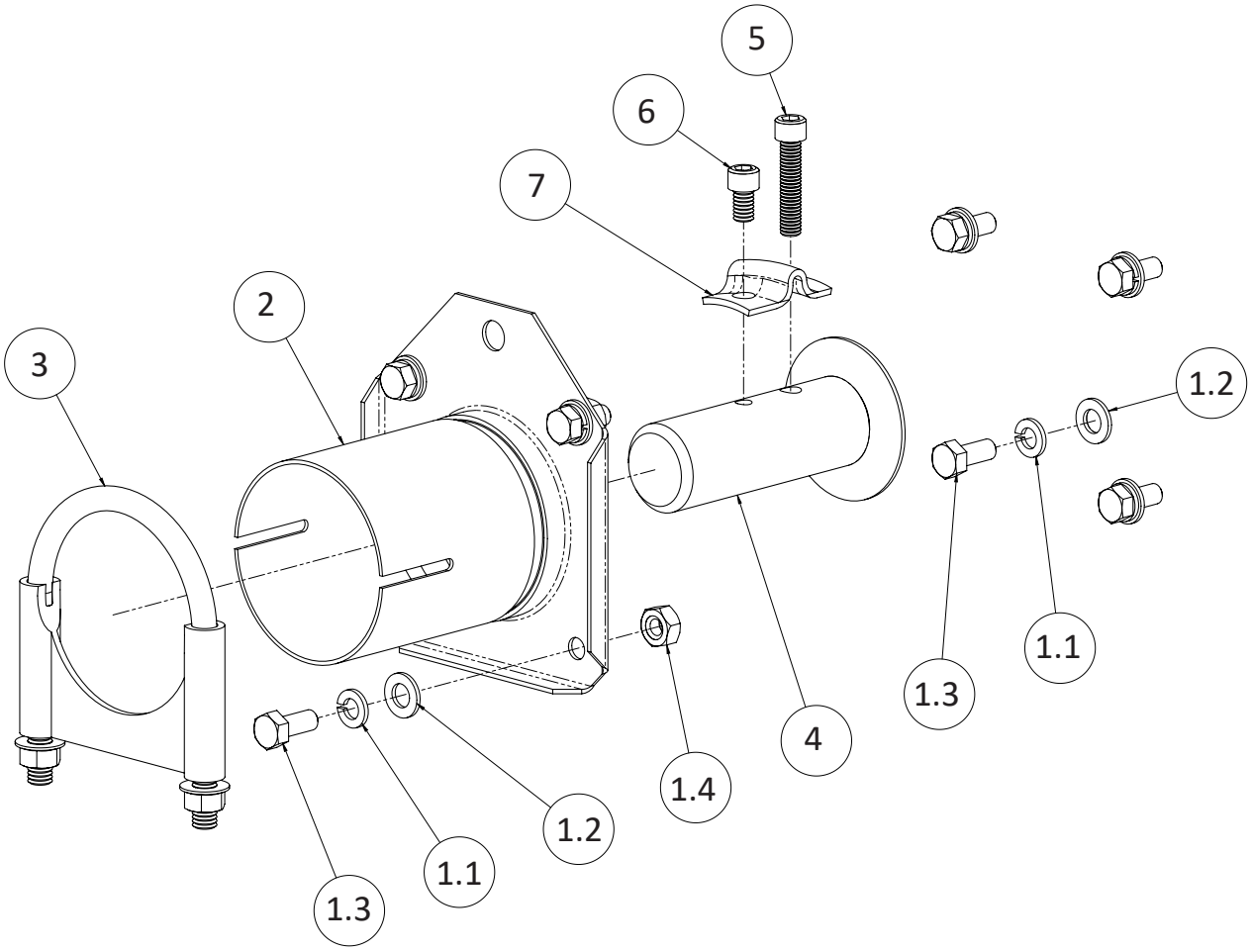
725304 - 730 Steel Port & 725 Driver

ITEM #	PART #	QTY	DESCRIPTION
725304 - 730 STEEL PORT & 725 DRIVER - PARTS LIST			
1	012789	1	5/16-18 NYLOCK NUT
2	713195	1	DH TUBE HARDWARE BAG (bag not shown)
2.1	010252	8	5/16” SPLIT LOCKWASHER
2.2	010426	8	5/16” X 11/16” FLAT WASHER
2.3	010463	8	5/16-18 X 3/4” HEX BOLT
2.4	011114	4	5/16-18 HEX NUT
3	725300	1	DRIVER, WELD ASSEMBLY
4	730034	1	3” TUBE & PORT PLATE
5	730234	1	3” TUBE CLAMP
6	730371	2	5/16-18 X 1/2” SOCKET HEAD SCREW
7	730417	1	12GA FLIGHTING ANCHOR
8	735303	1	5/16-18 X 1-3/4” SOCKET HEAD SCREW



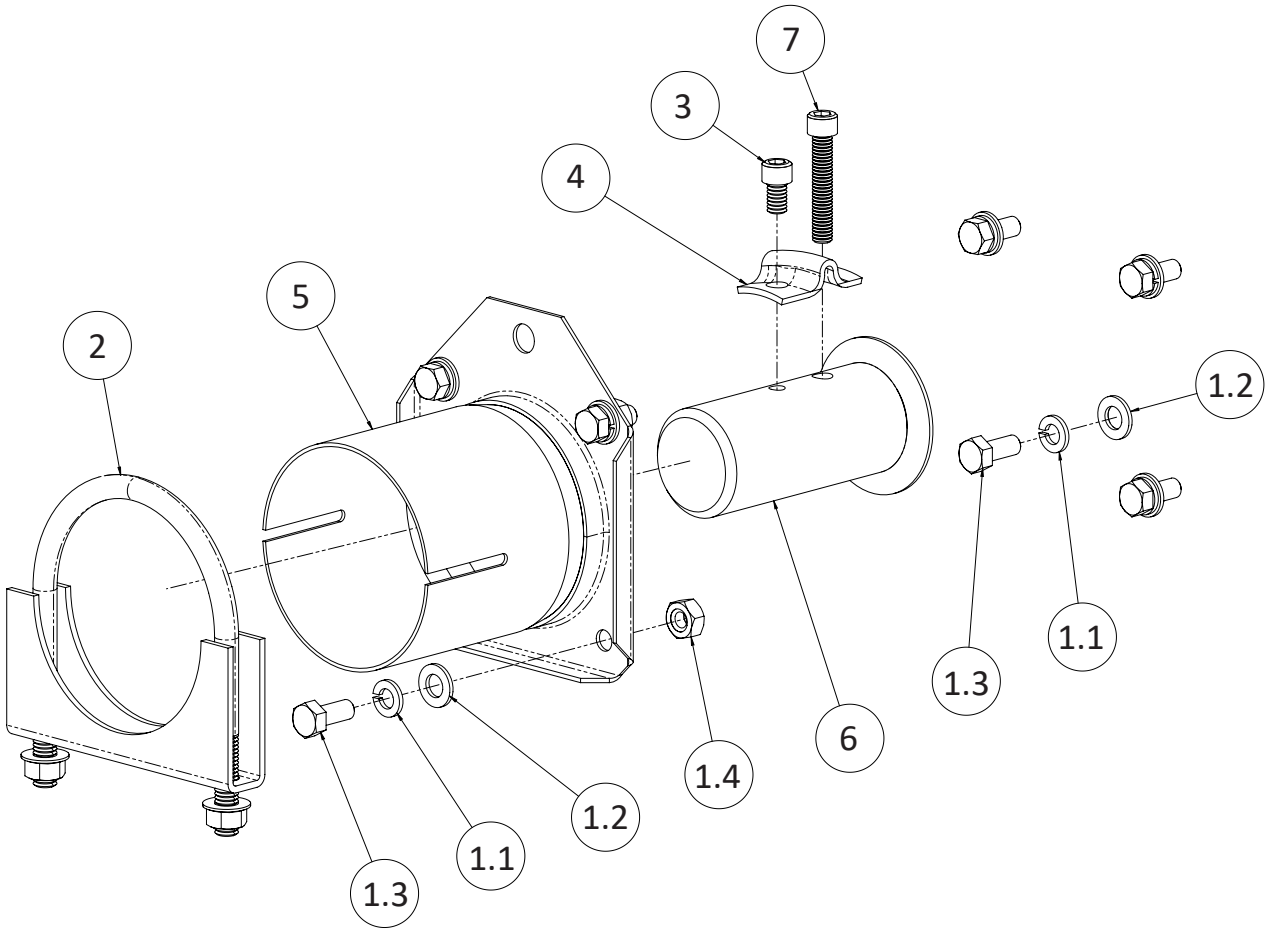
730304 - 730 Steel Port & Driver

ITEM #	PART #	QTY	DESCRIPTION
730304 - 730 STEEL PORT & DRIVER - PARTS LIST			
1	713195	1	DH TUBE HARDWARE BAG (bag not shown)
1.1	010252	8	5/16” SPLIT LOCKWASHER
1.2	010426	8	5/16” X 11/16” FLAT WASHER
1.3	010463	8	5/16-18 X 3/4” HEX BOLT
1.4	011114	4	5/16-18 HEX NUT
2	730034	1	3” TUBE & PORT PLATE
3	730234	1	3” TUBE CLAMP
4	730300	1	3” FLIGHTING DRIVER
5	730303	1	5/16-18 X 1-1/2” SOCKET HEAD SCREW
6	730371	1	5/16-18 X 1/2” SOCKET HEAD SCREW
7	730417	1	12GA FLIGHTING ANCHOR



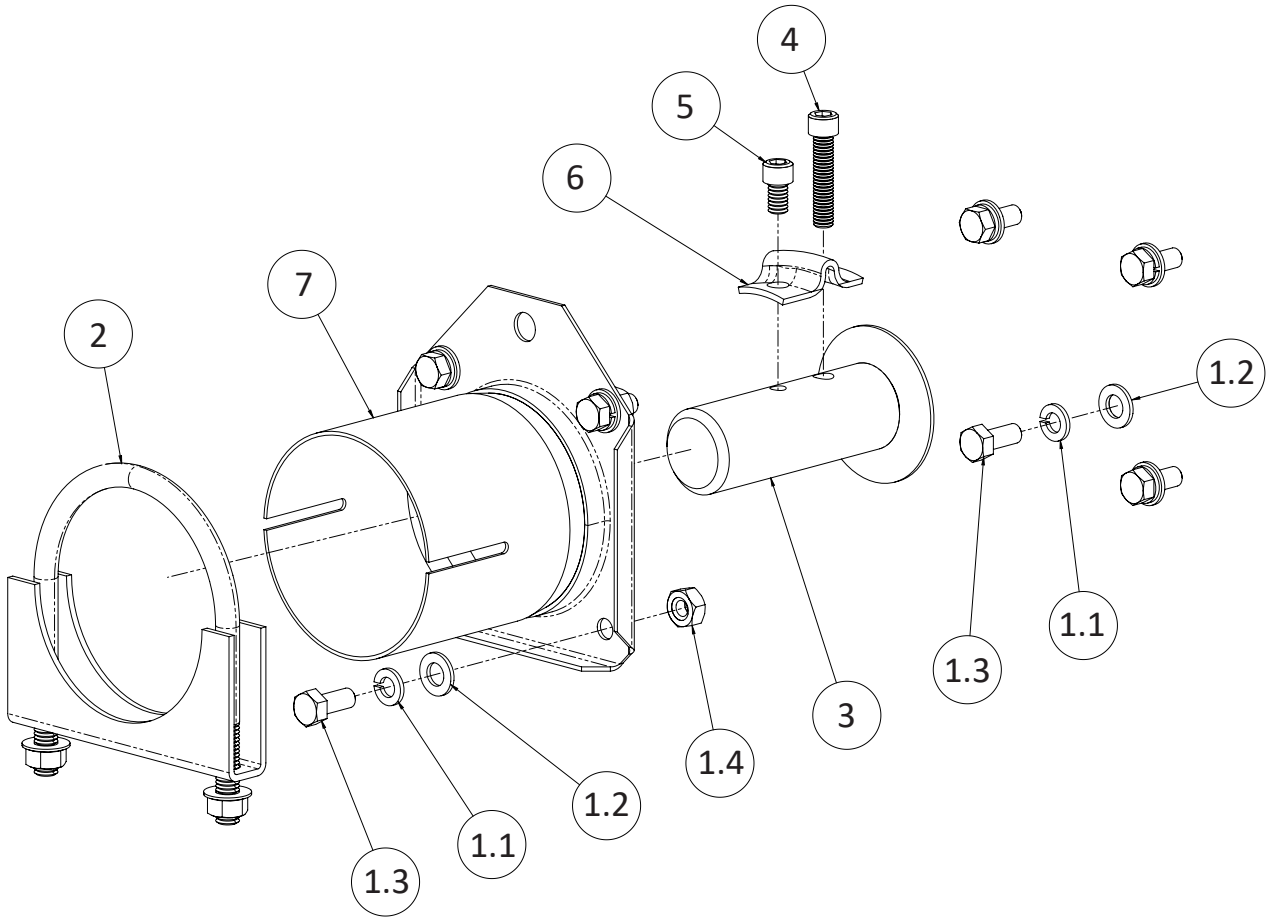
735305 - 735HV Steel Port & Driver

ITEM #	PART #	QTY	DESCRIPTION
735305 - 735HV STEEL PORT & DRIVER - PARTS LIST			
1	713195	1	DH TUBE HARDWARE BAG (bag not shown)
1.1	010252	8	5/16” SPLIT LOCKWASHER
1.2	010426	8	5/16” X 11/16” FLAT WASHER
1.3	010463	8	5/16-18 X 3/4” HEX BOLT
1.4	011114	4	5/16-18 HEX NUT
2	724401	1	3-1/2” TUBE CLAMP
3	730371	1	5/16-18 X 1/2” SOCKET HEAD SCREW
4	730417	1	12GA FLIGHTING ANCHOR
5	735035	1	3-1/2” TUBE & PORT PLATE
6	735300	1	3-1/2” FLIGHTING DRIVER
7	735303	1	5/16-18 X 1-3/4” SOCKET HEAD SCREW



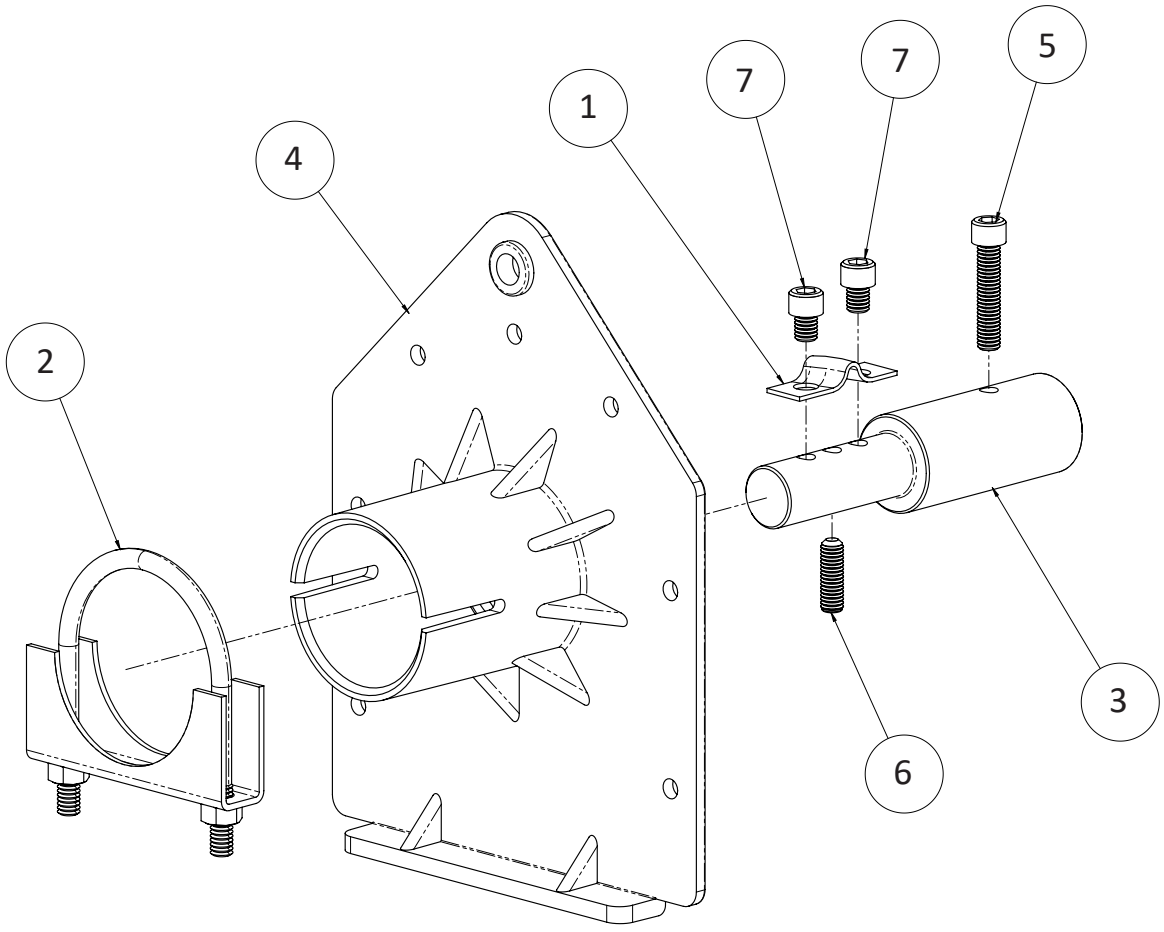
735304 - 735HM Steel Port & Driver

ITEM #	PART #	QTY	DESCRIPTION
735304 - 735HM STEEL PORT & DRIVER - PARTS LIST			
1	713195	1	DH TUBE HARDWARE BAG (bag not shown)
1.1	010252	8	5/16” SPLIT LOCKWASHER
1.2	010426	8	5/16” X 11/16” FLAT WASHER
1.3	010463	8	5/16-18 X 3/4” HEX BOLT
1.4	011114	4	5/16-18 HEX NUT
2	724401	1	3-1/2” TUBE CLAMP
3	730300	1	3” FLIGHTING DRIVER
4	730303	1	5/16-18 X 1-1/2” SOCKET HEAD SCREW
5	730371	1	5/16-18 X 1/2” SOCKET HEAD SCREW
6	730417	1	12GA FLIGHTING ANCHOR
7	735035	1	3-1/2” TUBE & PORT PLATE



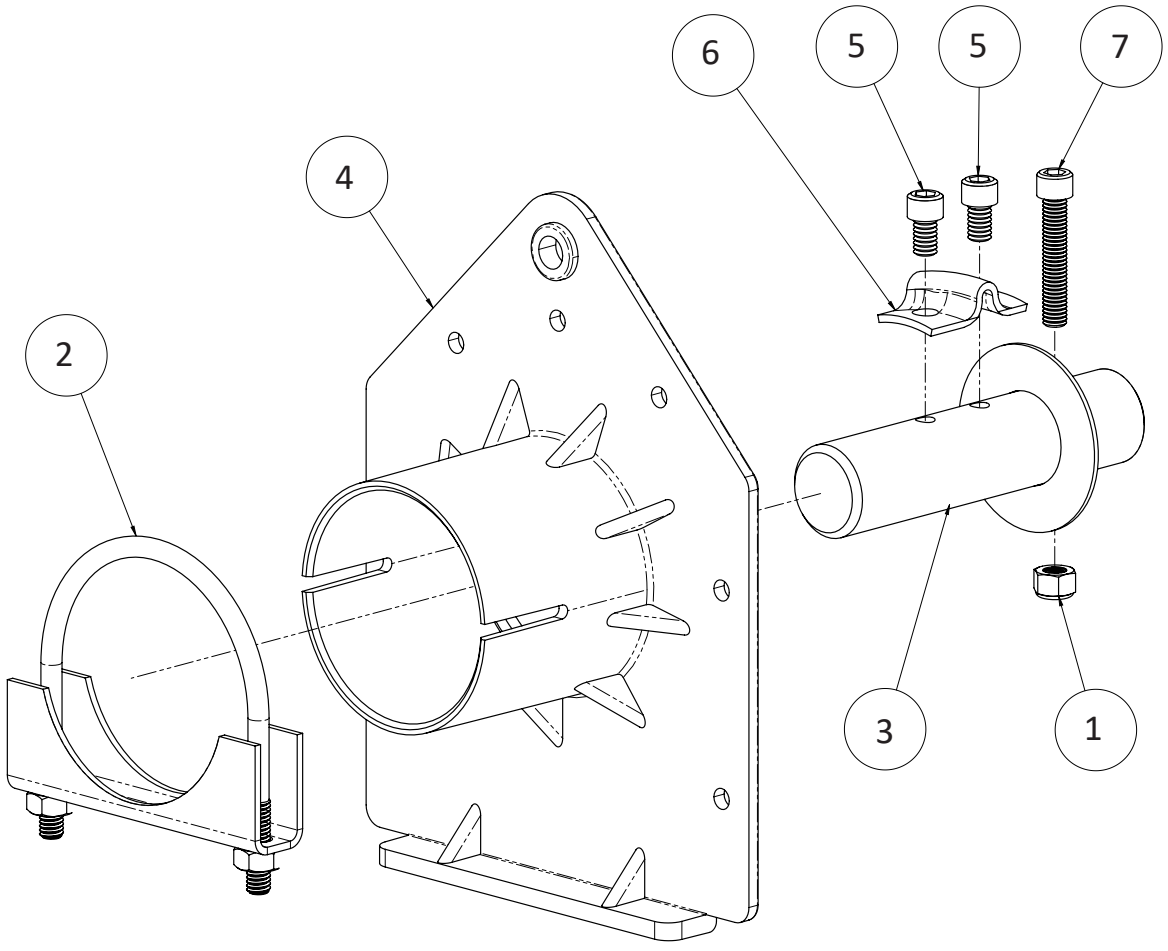
720464 - 720 Poly Port & Driver

ITEM #	PART #	QTY	DESCRIPTION
720464 - 720 POLY PORT & DRIVER - PARTS LIST			
1	720412	1	FLIGHTING ANCHOR
2	720467	1	2-1/2” TUBE CLAMP
3	720611	1	720 FLIGHTING DRIVER
4	730270	1	2-1/4” POLY PORT TUBE
5	730303	1	5/16-18 X 1-1/2” SOCKET HEAD SCREW
6	730403	1	1” KNURLED SET CREW
7	730414	2	5/16-18 X 3/8” SOCKET HEAD SCREW



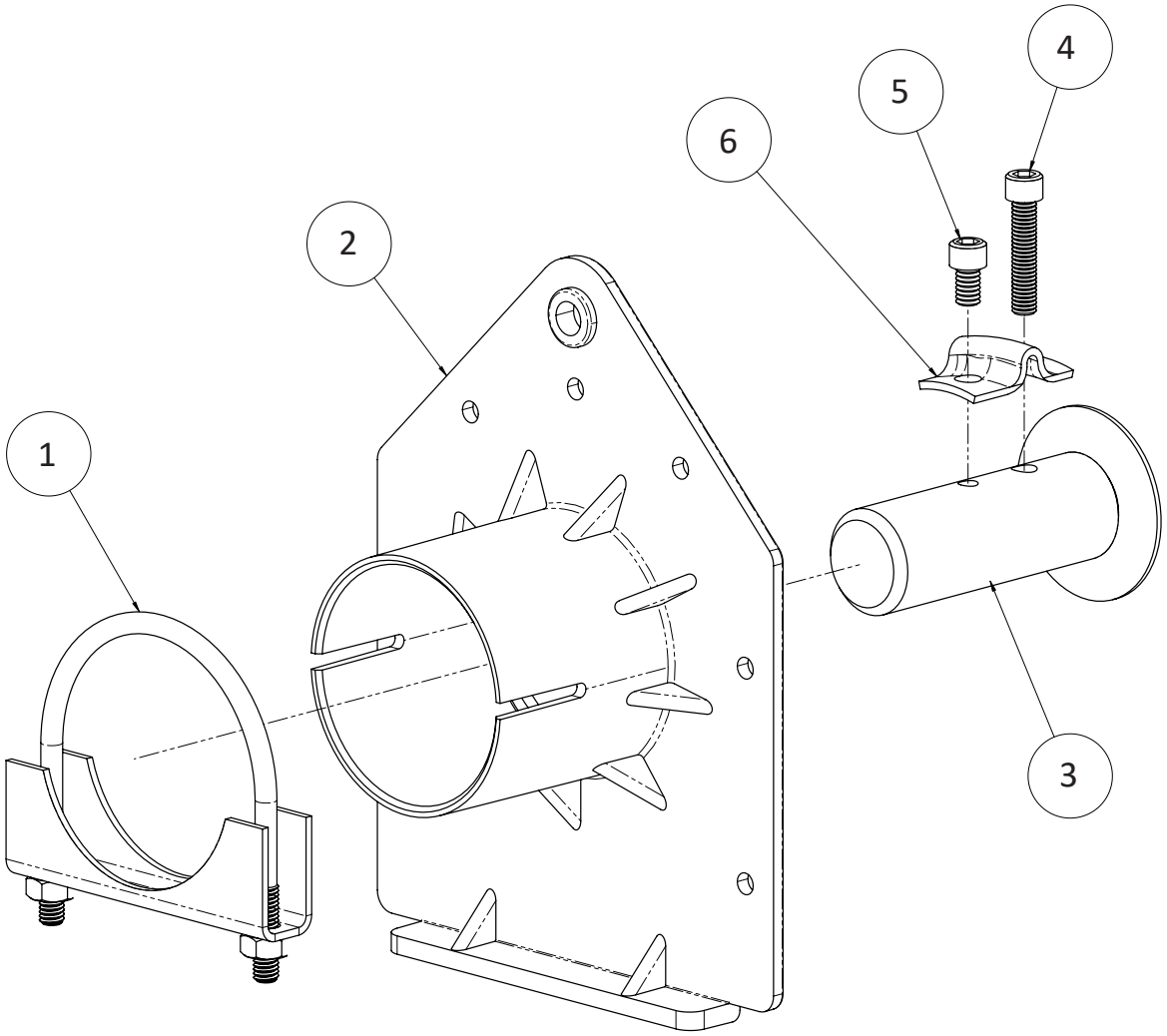
725464 - 730 Poly Port & 725 Driver

ITEM #	PART #	QTY	DESCRIPTION
725464 - 730 POLY PORT & 725 DRIVER - PARTS LIST			
1	012789	1	5/16-18 NYLOCK NUT
2	713197	1	3-1/4” TUBE CLAMP
3	725300	1	DRIVER WELD ASSEMBLY
4	730269	1	3” POLY PORT TUBE
5	730371	2	5/16-18 X 1/2” SOCKET HEAD SCREW
6	730417	1	12GA FLIGHTING ANCHOR
7	735303	1	5/16-18 X 1-3/4” SOCKET HEAD SCREW



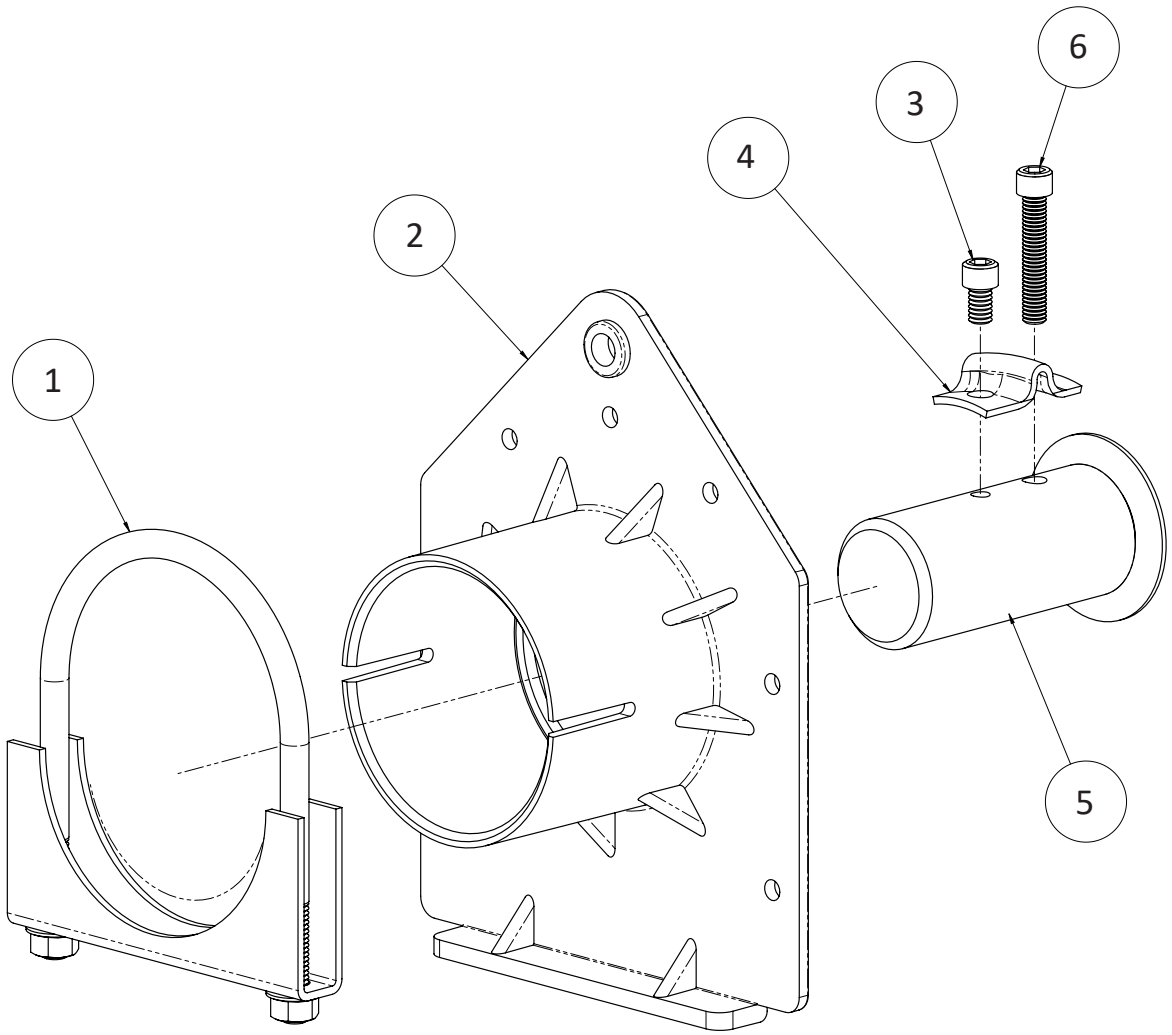
730464 - 730 Poly Port & Driver

ITEM #	PART #	QTY	DESCRIPTION
730464 - 730 POLY PORT & DRIVER - PARTS LIST			
1	713197	1	3-1/4” TUBE CLAMP
2	730269	1	3” POLY PORT TUBE
3	730300	1	3” FLIGHTING DRIVER
4	730303	1	5/16-18 X 1-1/2” SOCKET HEAD SCREW
5	730371	2	5/16-18 X 1/2” SOCKET HEAD SCREW
6	730417	1	12GA FLIGHTING ANCHOR



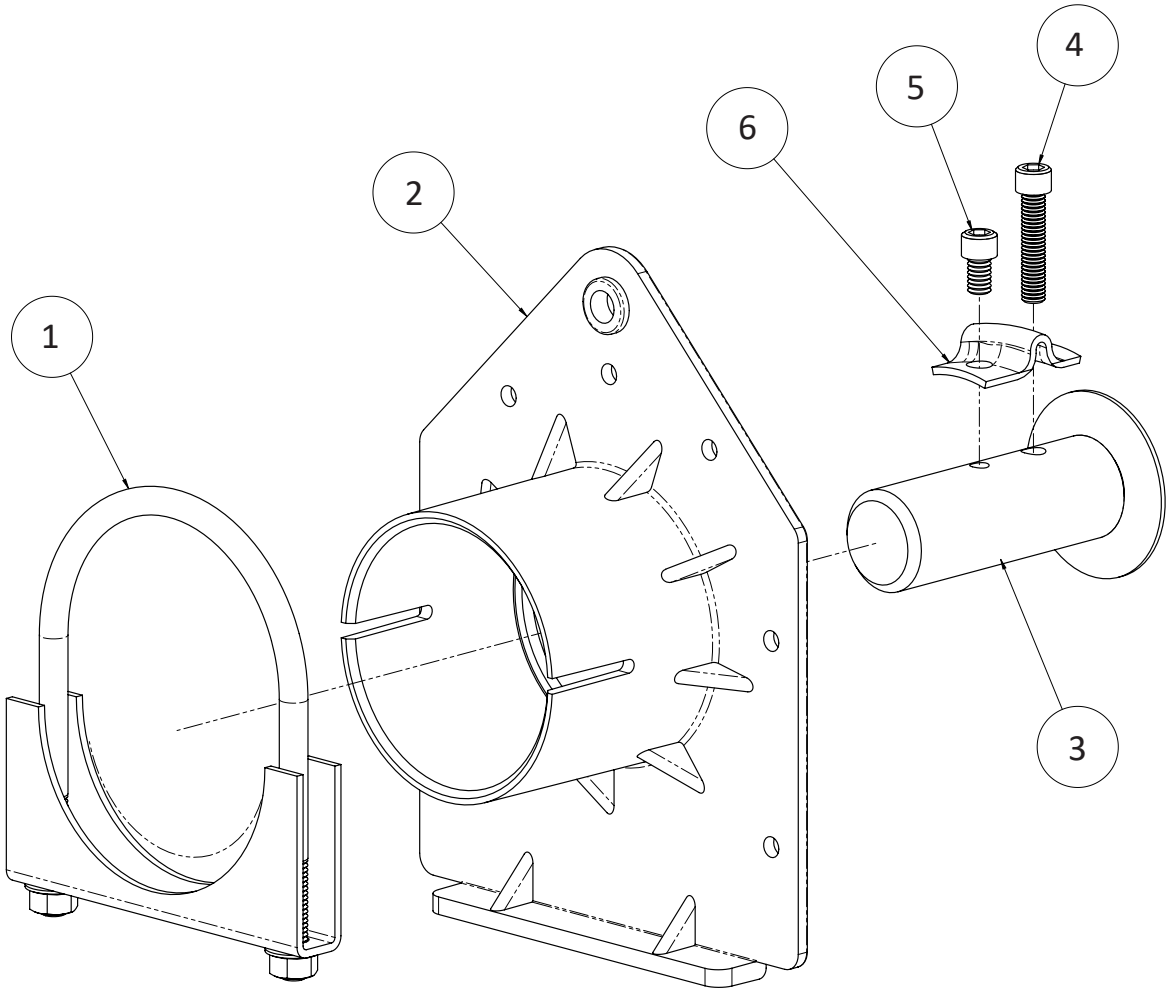
735466 - 735HV Poly Port & Driver

ITEM #	PART #	QTY	DESCRIPTION
735466 - 735HV POLY PORT & DRIVER - PARTS LIST			
1	724402	1	4” TUBE CLAMP
2	730268	1	3-1/2” POLY PORT TUBE
3	730371	2	5/16-18 X 1/2” SOCKET HEAD SCREW
4	730417	1	12GA FLIGHTING ANCHOR
5	735300	1	3-1/2” FLIGHTING DRIVER
6	735303	1	5/16-18 X 1-3/4” SOCKET HEAD SCREW



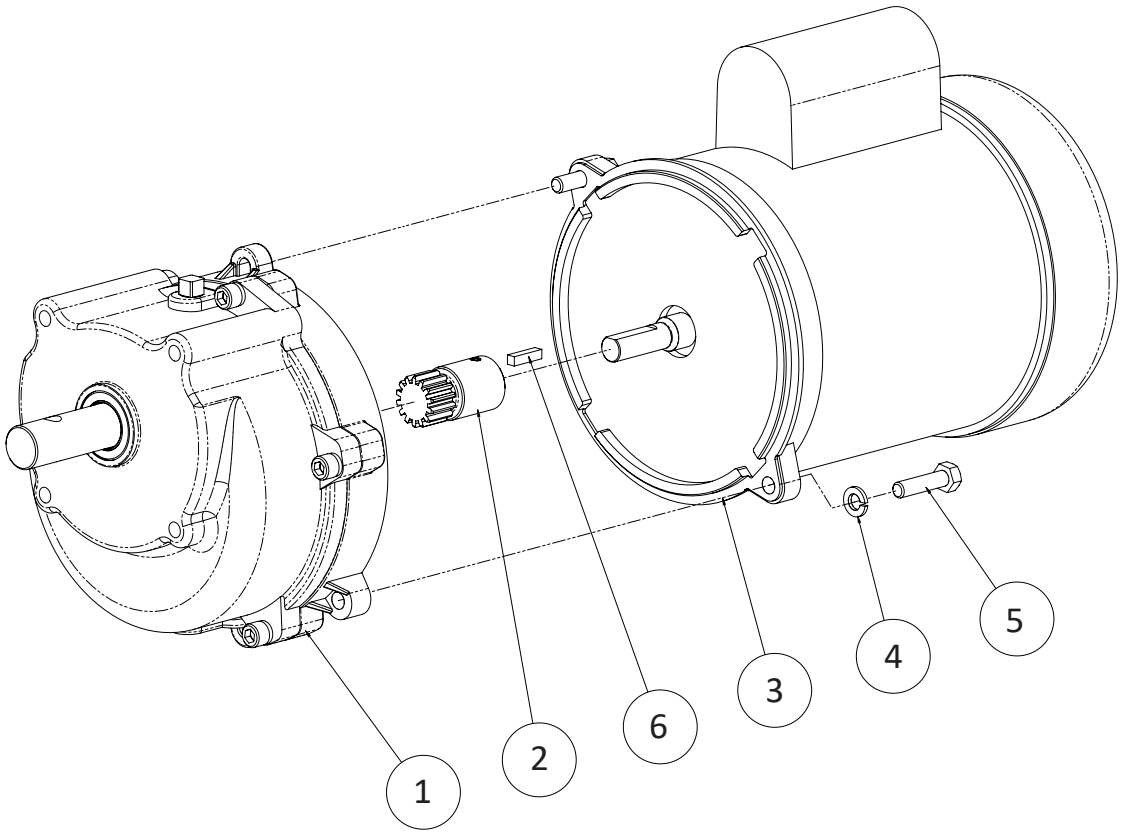
735480 - 735HM Poly Port & Driver

ITEM #	PART #	QTY	DESCRIPTION
735480 - 735HM POLY PORT & DRIVER - PARTS LIST			
1	724402	1	4” TUBE CLAMP
2	730268	1	3-1/2” POLY PORT TUBE
3	730300	1	3” FLIGHTING DRIVER
4	730303	1	5/16-18 X 1-1/2” SOCKET HEAD SCREW
5	730371	2	5/16-18 X 1/2” SOCKET HEAD SCREW
6	730417	1	12GA FLIGHTING ANCHOR



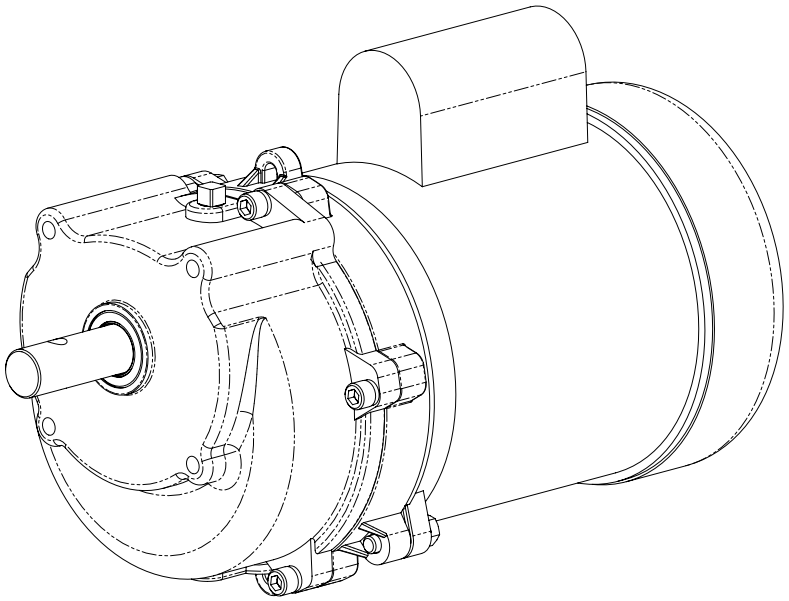
Single Phase Direct Drive Units

ITEM #	PART #	DESCRIPTION
SINGLE PHASE DIRECT DRIVE UNITS - PARTS LIST		
GEAR REDUCERS - DIE CAST ALUMINUM (DCA)		
1	730089	358 RPM GEAR REDUCER - DCA 7/8” OUTPUT SHAFT (296 RPM @ 50HZ)
	730093	266 RPM GEAR REDUCER - DCA 7/8” OUTPUT SHAFT (220 RPM @ 50HZ)
	730123	189 RPM GEAR REDUCER - DCA 7/8” OUTPUT SHAFT (156 RPM @ 50HZ)
	730124	441 RPM GEAR REDUCER - DCA 7/8” OUTPUT SHAFT (365 RPM @ 50HZ)
PINIONS - DIE CAST ALUMINUM (DCA) GEARBOXES		
2	450366	1/2” BORE PINION - DCA GEARBOX 2-1/8” LONG - 14 TEETH
	730094	5/8” BORE PINION - DCA GEARBOX 2-1/2” LONG - 14 TEETH
SINGLE PHASE MOTORS		
3	735390	1P MOTOR, .50HP, 115/230V, 50/60HZ, 1425/1725 RPM
	735391	1P MOTOR, .75HP, 115/230V, 50/60HZ, 1425/1725 RPM
	735392	1P MOTOR, 1.0HP, 115/208-230V, 50/60HZ, 1425/1725 RPM
	735486	1P MOTOR, 1.5HP, 115/208-230V, 60HZ, 1725 RPM
	735464	1P MOTOR, 1.0HP, 110/220V, 50HZ, 1500 RPM
	735465	1P MOTOR, 1.5HP, 110/220V, 50HZ, 1500 RPM
HARDWARE TO INSTALL GEAR REDUCER		
4	010252	5/16” SPLIT LOCK WASHER (QTY 2)
5	010647	5/16” X 1-1/4” HEX BOLT (QTY 2)
6	690339	3/16” X 3/4” LONG SQUARE KEY



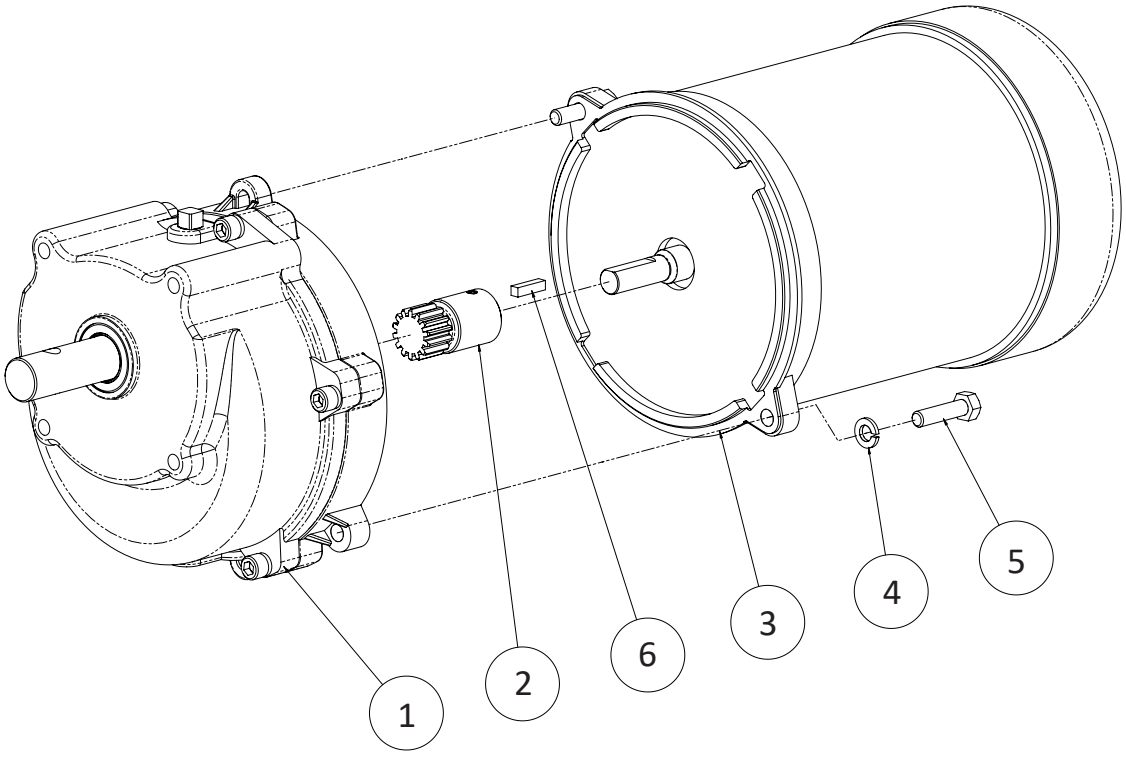
Single Phase Direct Drive Units - Parts Index

PART #	DESCRIPTION	GEARBOX	PINION	MOTOR	KEY
720325	DRIVE, .50HP,156/189RPM,7/8SH,115/230V,50/60H,1P	730123	450366	735390	-
720326	DRIVE,.75HP,156/189RPM,7/8SH,115/230V,50/60H,1P	730123	450366	735391	-
720327	DRIVE,1.0HP,189RPM,7/8SH,115/208-230V,60H,1P	730123	730094	735392	690339
720328	DRIVE,1.5HP,189RPM,7/8SH,115/230V,60H,1P	730123	730094	735486	690339
730315	DRIVE,.50HP,220/266RPM,7/8SH,115/230V,50/60H,1P	730093	450366	735390	-
730316	DRIVE,.75HP,220/266RPM,7/8SH,115/230V,50/60H,1P	730093	450366	735391	-
730317	DRIVE,1.0HP,266RPM,7/8SH,115/208-230V,60H,1P	730093	730094	735392	690339
730318	DRIVE,1.5HP,266RPM,7/8SH,115/230V,60H,1P	730093	730094	735486	690339
735342	DRIVE,1.0HP,365RPM,7/8SH,110/220V,50H,1P	730124	730094	735464	690339
735343	DRIVE,1.5HP,365RPM,7/8SH,110/220V,50H,1P	730124	730094	735465	690339
735360	DRIVE,.50HP,365/441RPM,7/8SH,115/230V,50/60H,1P	730124	450366	735390	-
735361	DRIVE,.75HP,365/441RPM,7/8SH,115/230V,50/60H,1P	730124	450366	735391	-
735362	DRIVE,1.0HP,441RPM,7/8SH,115/208-230V,60H,1P	730124	730094	735392	690339
735363	DRIVE,1.5HP,441RPM,7/8SH,115/230V,60H,1P	730124	730094	735486	690339
735380	DRIVE,.50HP,296/358RPM,7/8SH,115/230V,50/60H,1P	730089	450366	735390	-
735381	DRIVE,.75HP,296/358RPM,7/8SH,115/230V,50/60H,1P	730089	450366	735391	-
735382	DRIVE,1.0HP,358RPM,7/8SH,115/208-230V,60H,1P	730089	730094	735392	690339
735383	DRIVE,1.5HP,358RPM,7/8SH,115/230V,60H,1P	730089	730094	735486	690339
735527	DRIVE,1.0HP,296RPM,7/8SH,110/220V,50H,1P	730089	450366	735464	690339
735528	DRIVE,1.5HP,296RPM,7/8SH,110/220V,50H,1P	730089	450366	735465	690339
735532	DRIVE,1.0HP,220RPM,7/8SH,110/220V,50H,1P	730093	730094	735464	690339
735533	DRIVE,1.5HP,220RPM,7/8SH,110/220V,50H,1P	730093	730094	735465	690339



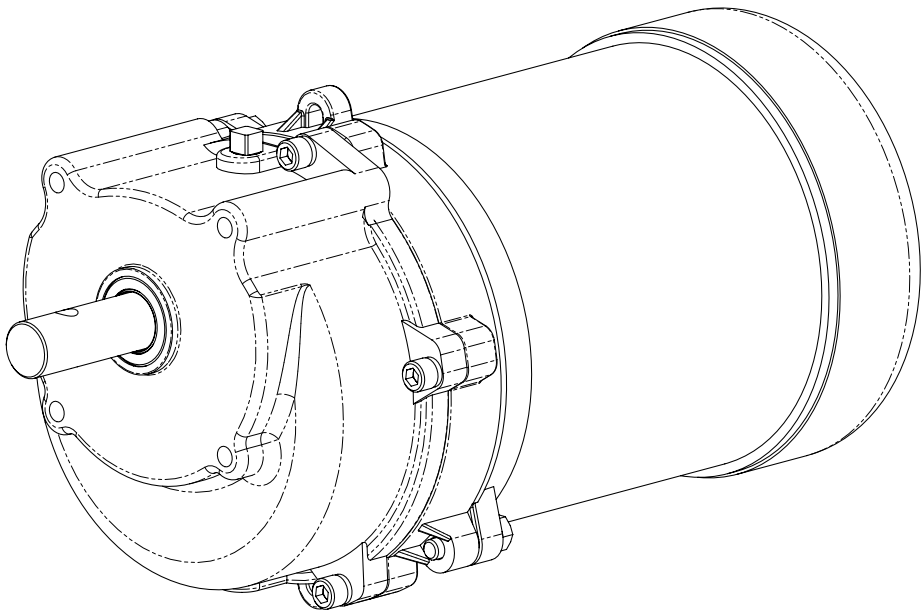
Three Phase Direct Drive Units

ITEM #	PART #	DESCRIPTION
THREE PHASE DIRECT DRIVE UNITS - PARTS LIST		
GEAR REDUCERS - DIE CAST ALUMINUM (DCA)		
1	730089	358 RPM GEAR REDUCER - DCA 7/8” OUTPUT SHAFT (296 RPM @ 50HZ)
	730093	266 RPM GEAR REDUCER - DCA 7/8” OUTPUT SHAFT (220 RPM @ 50HZ)
	730123	189 RPM GEAR REDUCER - DCA 7/8” OUTPUT SHAFT (156 RPM @ 50HZ)
	730124	441 RPM GEAR REDUCER - DCA 7/8” OUTPUT SHAFT (365 RPM @ 50HZ)
PINIONS - DIE CAST ALUMINUM (DCA) GEARBOXES		
2	450366	1/2” BORE PINION - DCA GEARBOX 2-1/8” LONG - 14 TEETH
	730094	5/8” BORE PINION - DCA GEARBOX 2-1/2” LONG - 14 TEETH
THREE PHASE MOTORS		
3	735460	3P MOTOR, .50HP, 190/380&208-230/460V, 50&60HZ, 1425/1725 RPM
	735461	3P MOTOR, .75HP, 190/380&208-230/460V, 50&60HZ, 1425/1725 RPM
	735462	3P MOTOR, 1.0HP, 190/380&208-230/460V, 50&60HZ, 1425/1725 RPM
	735463	3P MOTOR, 1.5HP, 190/380&208-230/460V, 50&60HZ, 1425/1725 RPM
HARDWARE TO INSTALL GEAR REDUCER		
4	010252	5/16” SPLIT LOCK WASHER (QTY 2)
5	010647	5/16” X 1-1/4” HEX BOLT (QTY 2)
6	690339	3/16” X 3/4” LONG SQUARE KEY



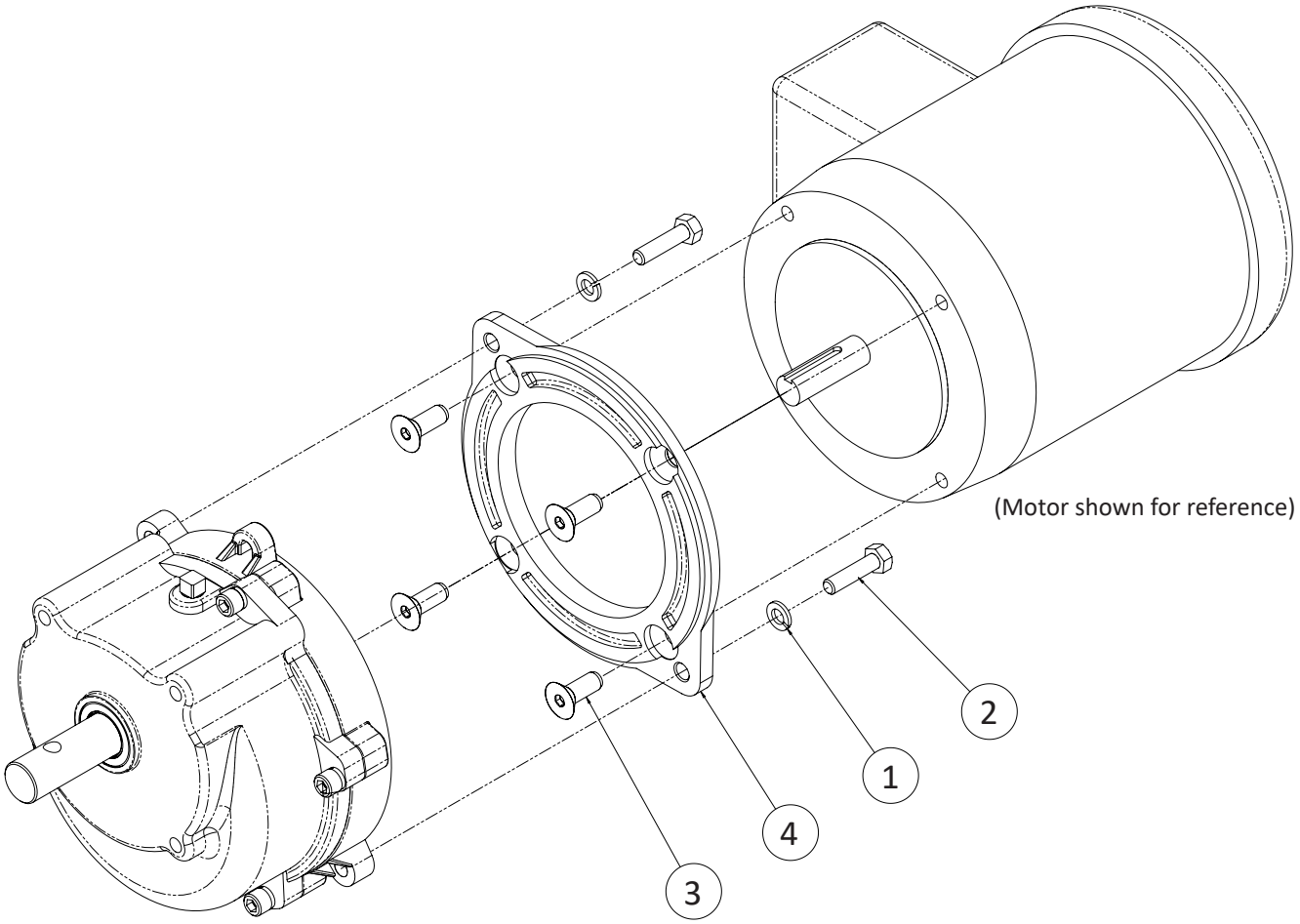
Three Phase Direct Drive Units - Parts Index

PART #	DESCRIPTION	GEARBOX	PINION	MOTOR	KEY
735330	DRIVE,.50HP,296/358RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730089	450366	735460	-
735331	DRIVE,.75HP,296/358RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730089	450366	735461	-
735332	DRIVE,1.0HP,296/358RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730089	730094	735462	690339
735333	DRIVE,1.5HP,296/358RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730089	730094	735463	690339
735510	DRIVE,.50HP,365/441RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730124	450366	735460	-
735511	DRIVE,.75HP,365/441RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730124	450366	735461	-
735512	DRIVE,1.0HP,365/441RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730124	730094	735462	690339
735513	DRIVE,1.5HP,365/441RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730124	730094	735463	690339
735515	DRIVE,.50HP,220/266RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730093	450366	735460	-
735516	DRIVE,.75HP,220/266RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730093	450366	735461	-
735517	DRIVE,1.0HP,220/266RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730093	730094	735462	690339
735518	DRIVE,1.5HP,220/266RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730093	730094	735463	690339
735520	DRIVE,.50HP,156/189RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730123	450366	735460	-
735521	DRIVE,.75HP,156/189RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730123	450366	735461	-
735522	DRIVE,1.0HP,156/189RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730123	730094	735462	690339
735523	DRIVE,1.5HP,156/189RPM,7/8SH,190/380&208-230/460V,50&60H,3P	730123	730094	735463	690339



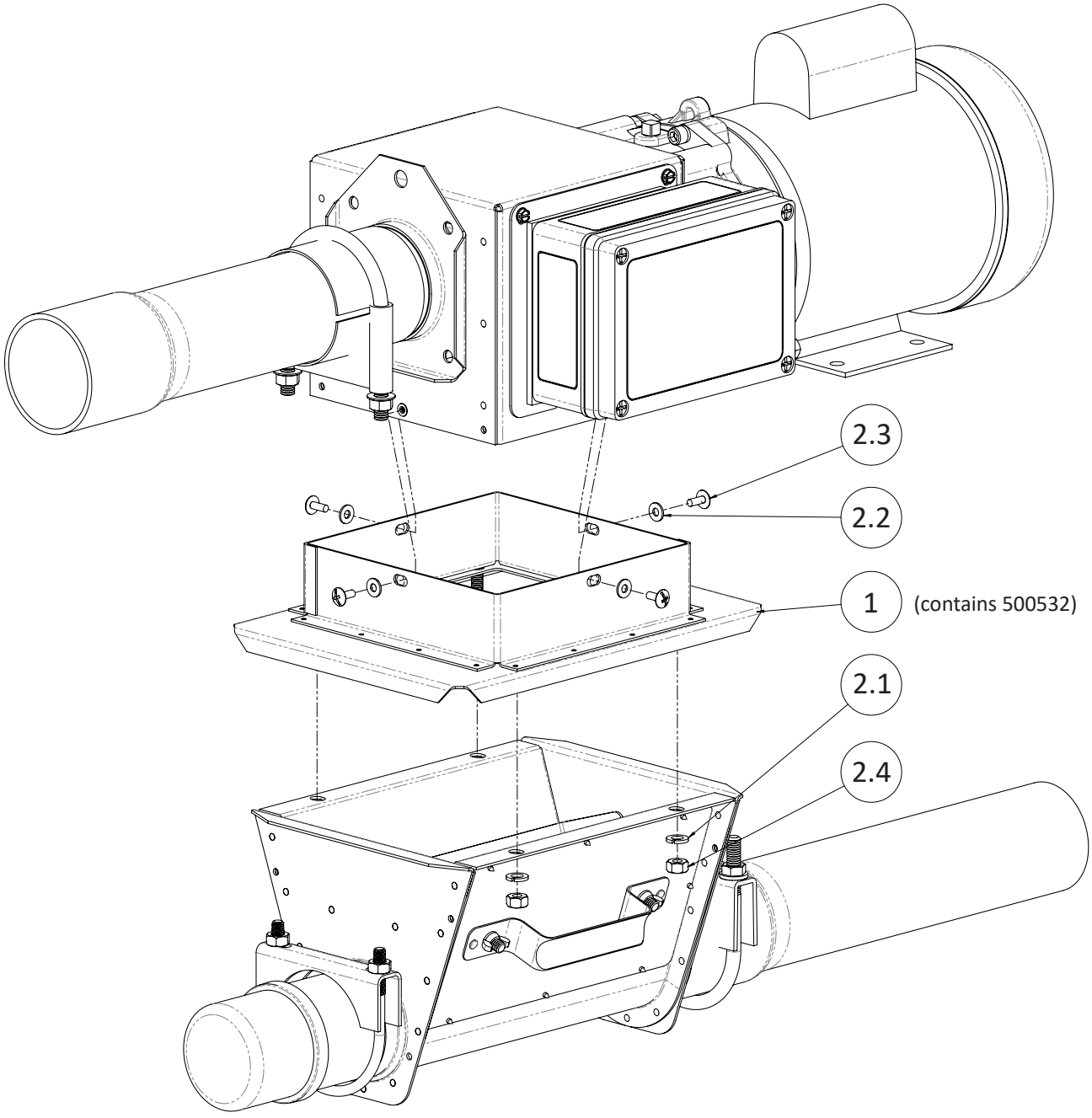
C56 Face Adapter To VAL-CO Gearbox

ITEM #	PART #	QTY	DESCRIPTION
C56 FACE ADAPTER TO VAL-CO GEARBOX - PART NUMBERS			
1	010252	2	5/16” SPLIT LOCK WASHER
2	010647	2	5/16” X 1-1/4” HEX BOLT
3	690347	4	3/8-16 X 1, FLAT HEAD BOLT
4	730126	1	3-PHASE ADAPTER FACE PLATE



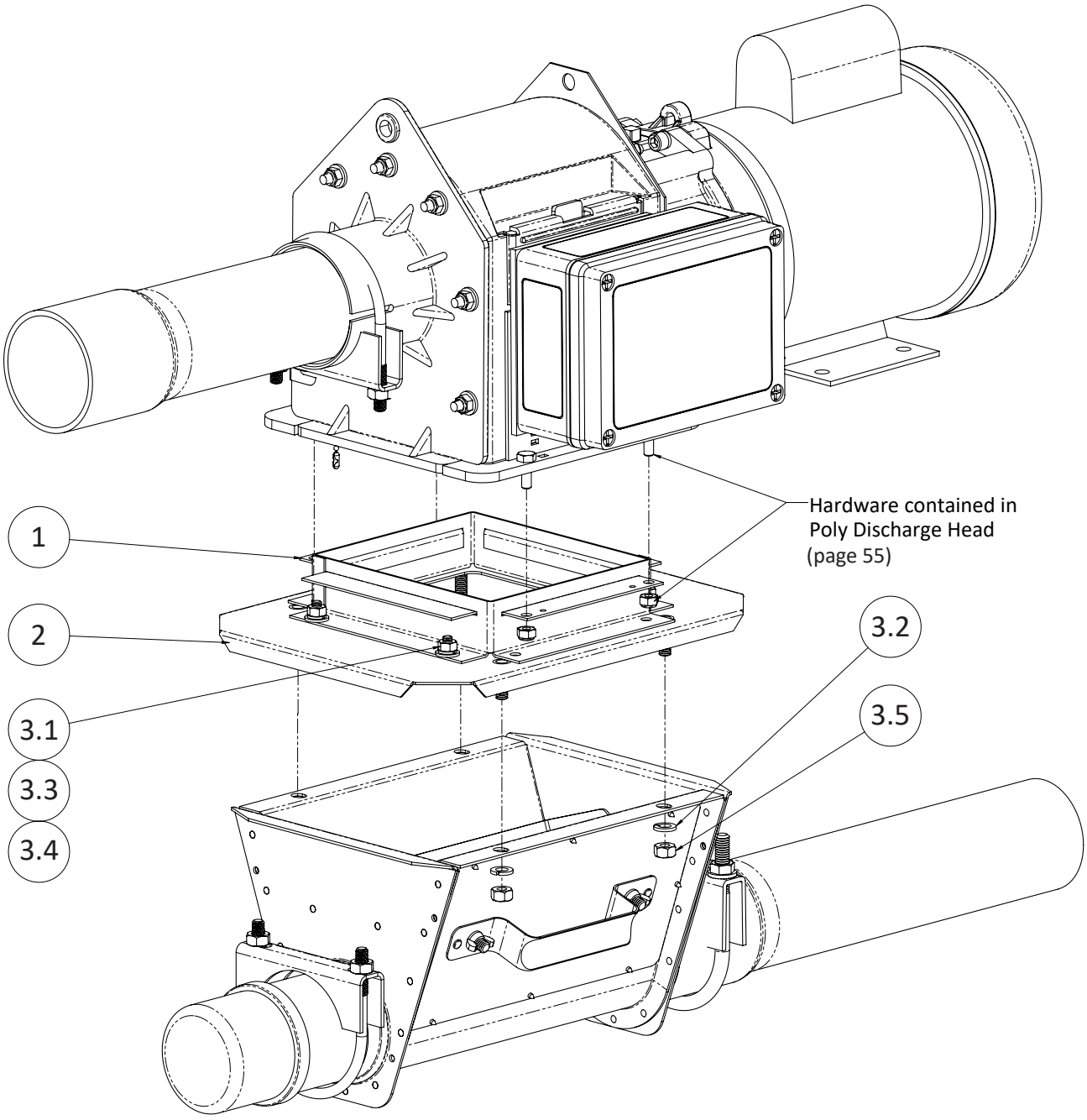
Transfer Plate For Steel Discharge Head

ITEM #	PART #	QTY	DESCRIPTION
500517 TRANSFER PLATE FOR STEEL DISCHARGE HEAD - PART NUMBERS			
1	500517	1	TRANSFER PLATE ASSEMBLY (contains 500532)
2	500532	1	TRANSFER PLATE HARDWARE BAG
2.1	010252	4	5/16” SPLIT LOCK WASHER
2.2	010421	4	3/16” FLAT WASHER
2.3	010502	4	#10-24 X 1/2” SLOTTED SCREW
2.4	010603	4	5/16-18 HEX NUT



Transfer Plate For Poly Discharge Head

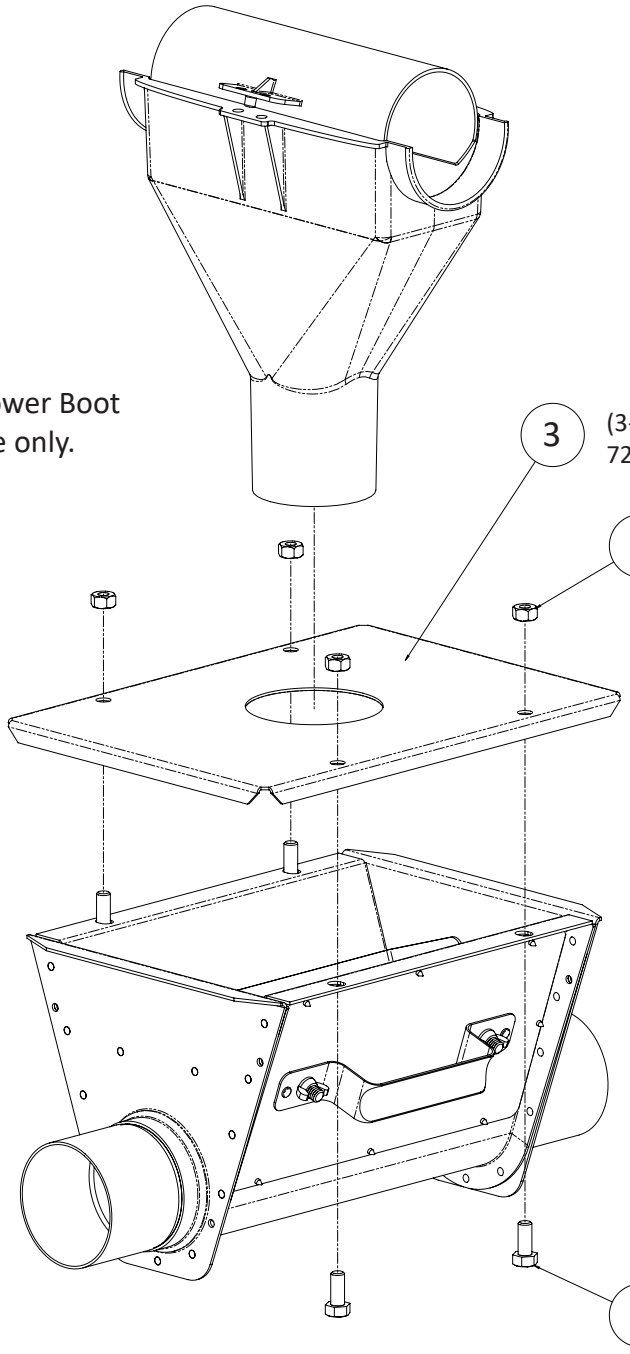
ITEM #	PART #	QTY	DESCRIPTION
500590 TRANSFER PLATE FOR POLY DISCHARGE HEAD - PART NUMBERS			
1	500591	1	TRANSFER PLATE ASSEMBLY
2	500592	1	TRANSFER PLATE ADAPTER
3	500598	1	TRANSFER HARDWARE BAG
3.1	010251	4	1/4” SPLIT LOCK WASHER
3.2	010252	4	5/16” SPLIT LOCK WASHER
3.3	010424	4	1/4” FLAT WASHER
3.4	010602	4	1/4-20 HEX NUT
3.5	010603	4	5/16-18 HEX NUT



Transfer Plate For All-Out Drop

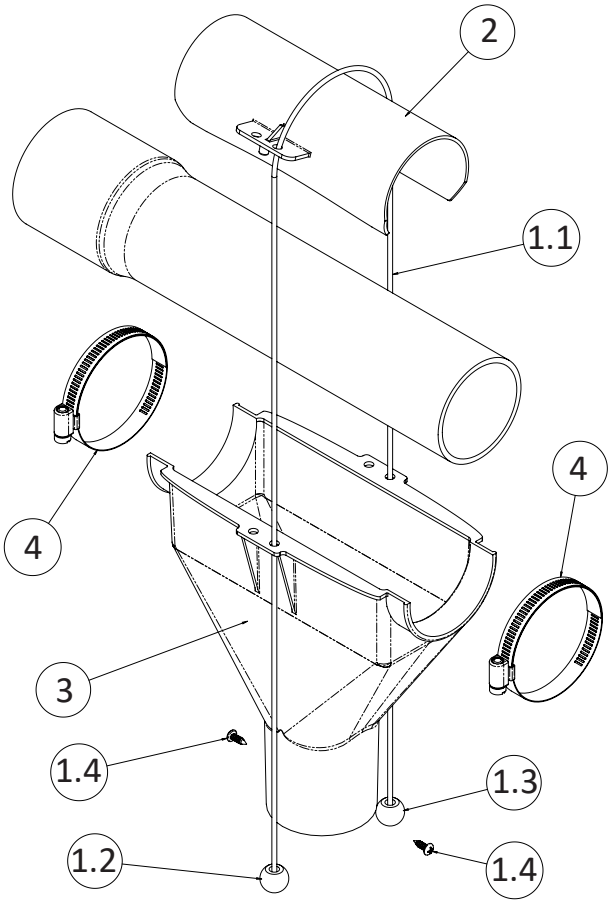
ITEM #	PART #	QTY	DESCRIPTION
TRANSFER PLATE FOR ALL-OUT DROP - PART NUMBERS			
1	010603	4	5/16-18 HEX NUT
2	010643	4	5/16-18 X 3/4” HEX BOLT
3	730085	1	TRANSFER PLATE WITH HOLE

All-Out Drop and Lower Boot shown for reference only.



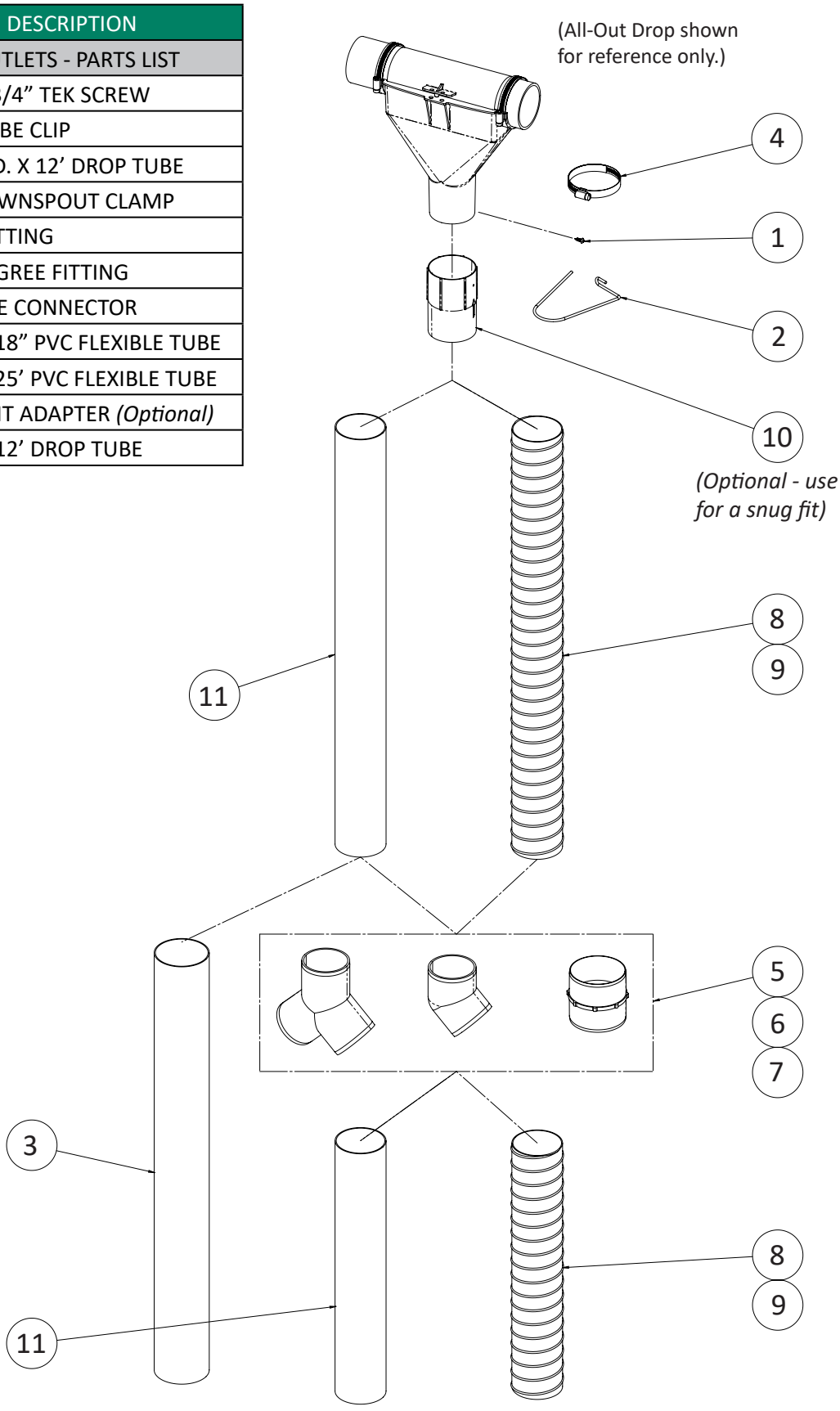
All-Out Drops

ITEM #	PART #	QTY	DESCRIPTION
ALL-OUT DROPS - COMMON PARTS			
1	720556	1	PARTS BAG - FOR ALL MODELS (bag not shown)
1.1	713110	1	10’ DROP CORD
1.2	730490	1	GREEN SHUTOFF BALL
1.3	730492	1	RED SHUTOFF BALL
1.4	730622	2	#8 X 1/2” PANHEAD SCREW
Model 720: 2-1/4” ALL OUT DROP OUTLET & 720555 - CARTON OF (10) 720550			
2	720551	1	2-1/4” FEED DROP SHUTOFF GATE
3	720552	1	2-1/4” FEED DROP HOUSING
4	775095	2	2-1/2” SS HOSE CLAMP
Models 725 & 730: 3” ALL OUT DROP OUTLET & 730555 - CARTON OF (10) 730550			
2	730551	1	3” FEED DROP SHUTOFF GATE
3	730552	1	3” FEED DROP HOUSING
4	730431	2	3” SS HOSE CLAMP
Models 735HV & 735HM: 3-1/2” ALL OUT DROP OUTLET & 735555 - CARTON OF (10) 735550			
2	735551	1	3-1/2” FEED DROP SHUTOFF GATE
3	735552	1	3-1/2” FEED DROP HOUSING
4	730445	2	3-1/2” SS HOSE CLAMP



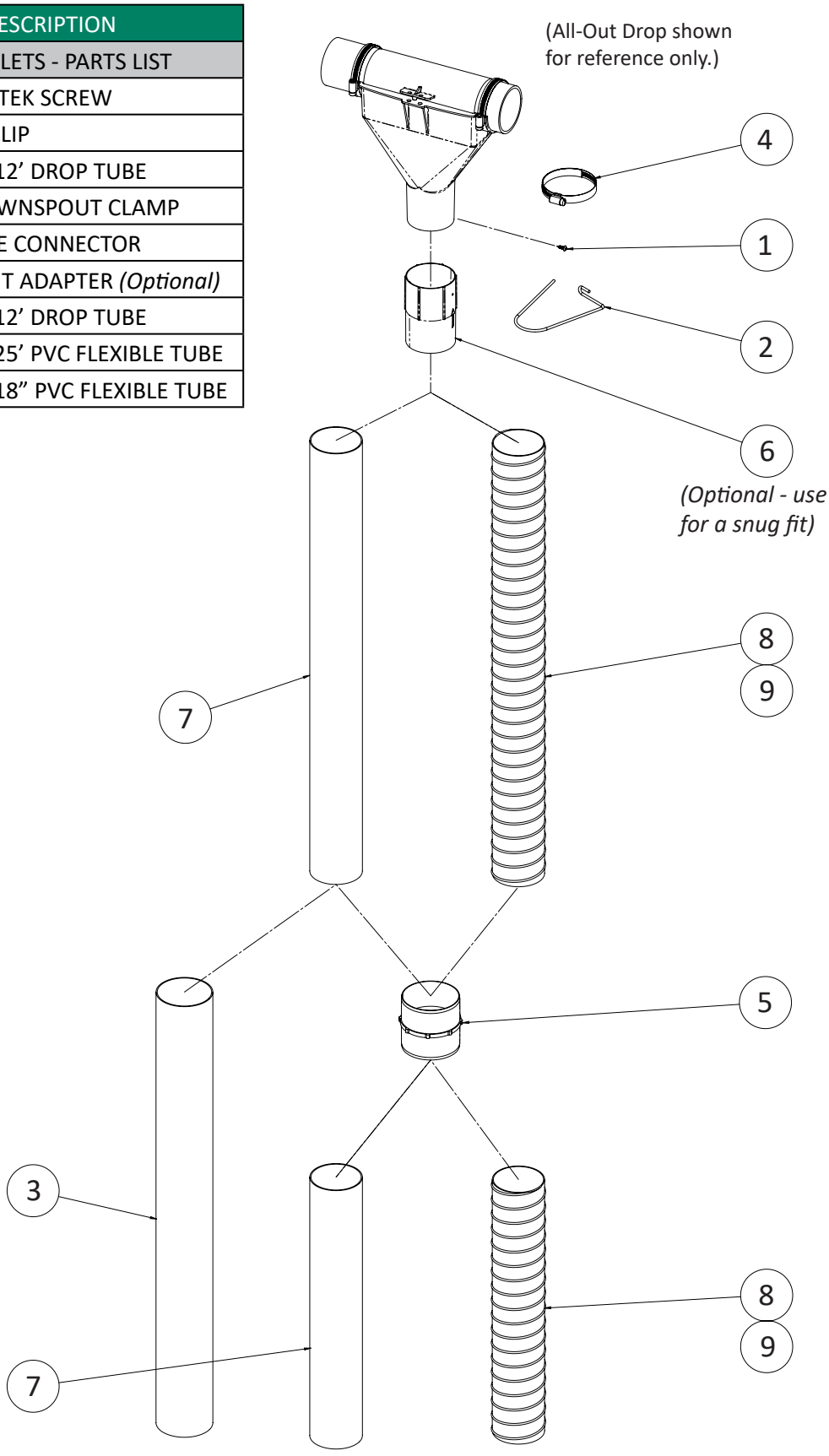
720/725/730 Drop Outlets & Downspout Tubes

ITEM #	PART #	DESCRIPTION
720/725/730 DROP OUTLETS - PARTS LIST		
1	690291	10-16 X 3/4” TEK SCREW
2	730201	DROP TUBE CLIP
3	730289	3-1/4” I.D. X 12’ DROP TUBE
4	730431	3” SS DOWNSPOUT CLAMP
5	730437	3” “Y” FITTING
6	730438	3” 45 DEGREE FITTING
7	730439	3” SLEEVE CONNECTOR
8	730449	3” I.D. X 18” PVC FLEXIBLE TUBE
9	730480	3” I.D. X 25’ PVC FLEXIBLE TUBE
10	730485	3” SUR-FIT ADAPTER *(Optional)*
11	730615	3” I.D. X 12’ DROP TUBE



735HV/735HM Discharge Head Drop Outlets & Downspout Tubes

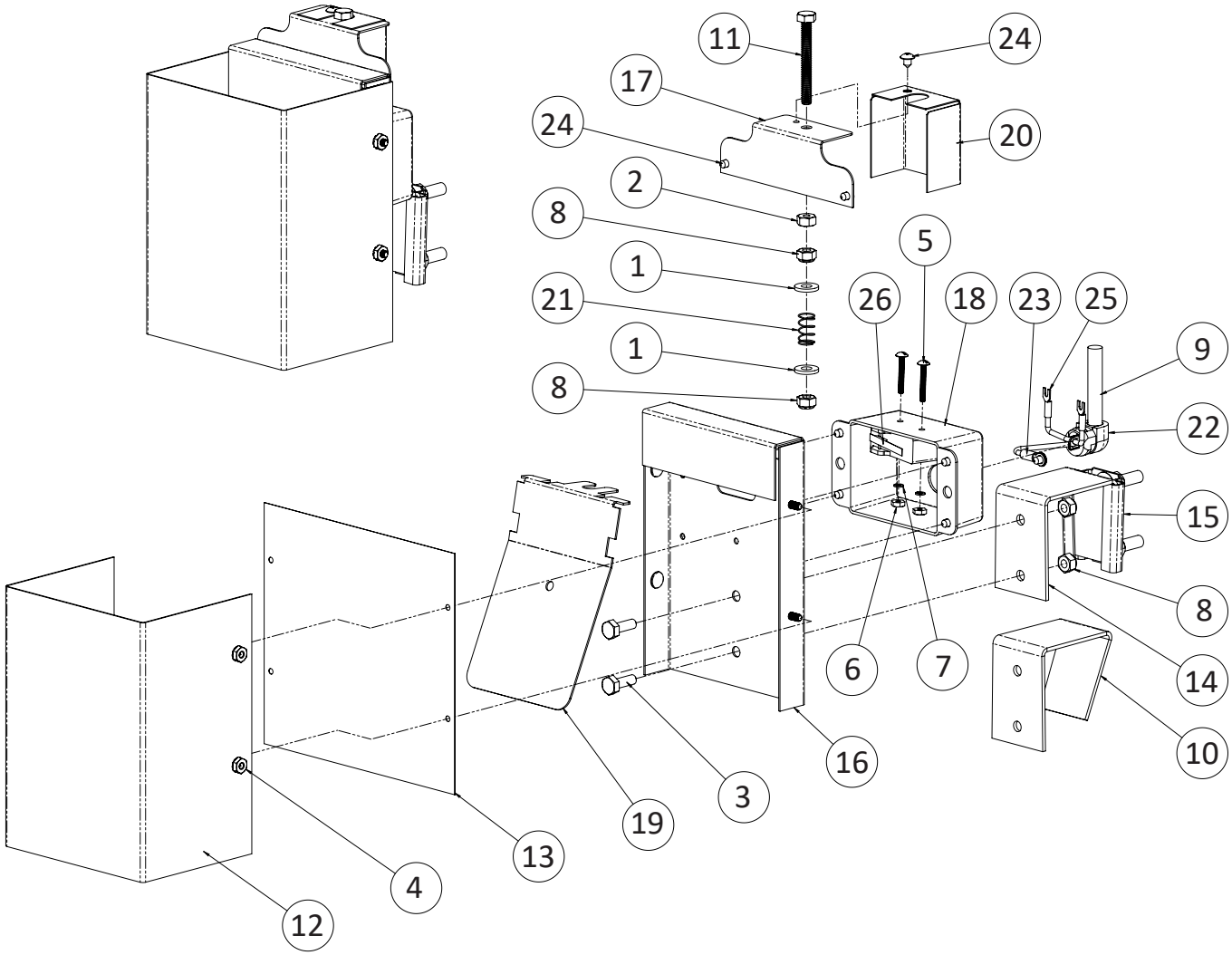
ITEM #	PART #	DESCRIPTION
735HV/735HM DROP OUTLETS - PARTS LIST		
1	690291	10-16 X 3/4” TEK SCREW
2	730201	DROP TUBE CLIP
3	735289	3-3/4” I.D. X 12’ DROP TUBE
4	735431	3-1/2” SS DOWNSPOUT CLAMP
5	735439	3-1/2” SLEEVE CONNECTOR
6	735485	3-1/2” SUR-FIT ADAPTER *(Optional)*
7	735615	3-1/2” I.D. X 12’ DROP TUBE
8	735680	3-1/2” I.D. X 25’ PVC FLEXIBLE TUBE
9	735682	3-1/2” I.D. X 18” PVC FLEXIBLE TUBE



720097 Mechanical Hopper Level Switch

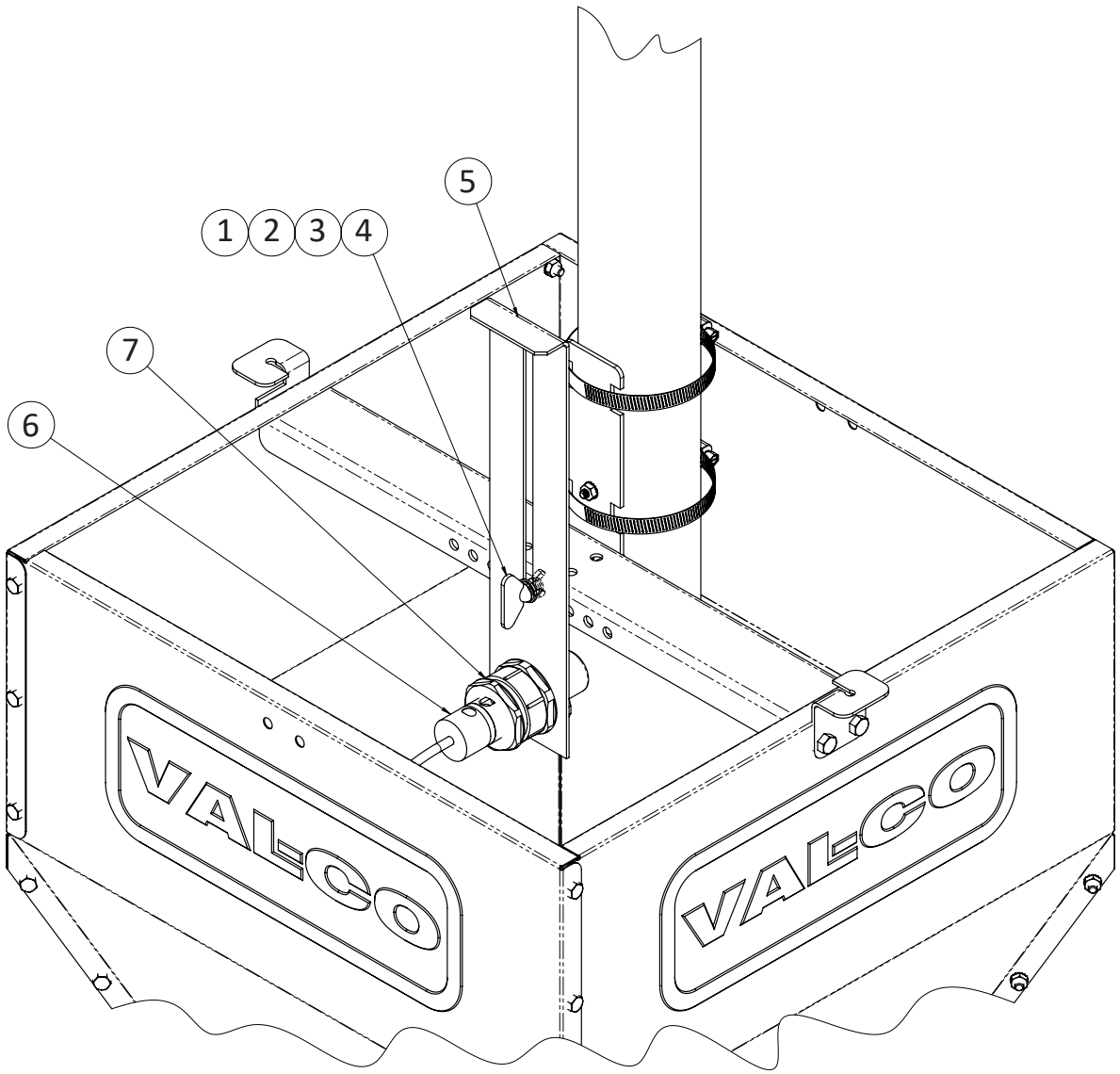
ITEM #	PART #	QTY	DESCRIPTION
720097 MECH. HOPPER LEVEL SWITCH - PARTS LIST			
1	010424	2	1/4” SAE FLAT WASHER
2	010602	1	1/4-20 FINISHED HEX NUT
3	010617	2	1/4-20 X 3/4” HEX HEAD BOLT
4	012408	4	#10-24 HEX KEP NUT
5	012570	2	#6-32 X 1” RD HD SCREW
6	012731	2	#6-32 MACHINE NUT
7	012732	2	#6 LOCKWASHER
8	012793	4	1/4-20 NYLOCK NUT
9	412381	8	14/3 BLACK SJTOW WIRE
10	451017	1	67 DEG HANGER BRACKET
11	690159	1	1/4-20 X 2-1/4 HHTB SCREW
12	720015	1	SWITCH SHIELD
13	720018	1	7” X 6.5” DIAPHRAM

ITEM #	PART #	QTY	DESCRIPTION
720097 MECH. HOPPER LEVEL SWITCH - PARTS LIST			
14	720020	1	90 DEG HANGER BRACKET
15	720023	1	MOUNTING BRACKET
16	720092	1	BODY ASSY, ADJ SWITCH
17	720093	1	TENSIONER BRACKET
18	720094	1	ELECTRIC BOX, ADJ SWITCH
19	720095	1	SWITCH PLATE, ADJ SWITCH
20	720096	1	TENSIONER COVER
21	720098	1	.028 X .437 X .75 SPRING
22	720100	1	STRAIN RELIEF, 90 DEG FOR 14/3
23	730058	1	16-14AWG, #10 BLUE RING TERMINAL
24	730516	8	10-32 X 1/4 PPH SCREW
24	730521	2	16-14AWG, #6 BLUE SPADE TERMINAL
26	730989	1	MICRO SWITCH, SPDT 20A, 250VAC



460057 Proximity Hopper Level Control Switch

ITEM #	PART #	DESCRIPTION
460057 PROXIMITY HOPPER LEVEL CONTROL SWITCH - PART NUMBERS		
1	010252	5/16” SPLIT LOCK WASHER
2	010426	5/16” FLAT WASHER
3	010944	5/16-18 WING NUT
4	102019	5/16-18 X 3/4”THUMBSCREW
5	460023	PROXIMITY SWITCH BRACKET
6	750418	PROXIMITY SENSOR, DOL 33R 220V
7	750419	PLASTIC GLAND FOR PROXIMITY SWITCH



Customer Service

Dealer Name: _____

Street / PO Box _____

City _____

State / Province _____

Zip / Postal _____

Phone _____

Fax _____

E-mail _____

Website _____

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