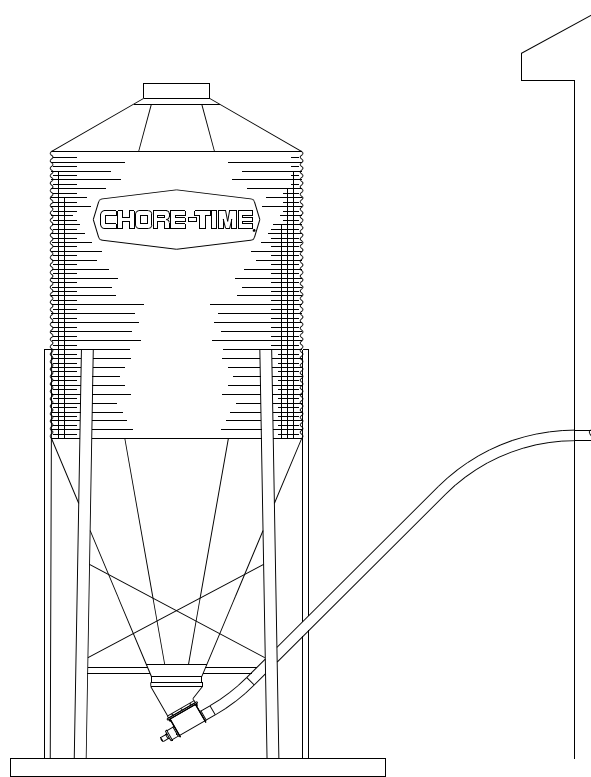


## Model 55,75,90, & HMC FLEX-AUGER

Installation and Operators Manual

Installation and Operators Manual



Contact your nearby Chore-Time distributor or representative for additional parts and information.

Chore-Time Group  
A division of CTB, Inc.  
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Phone (574) 658-4101 Fax (877) 730-8825  
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Internet: [poultry@choretime.com](mailto:poultry@choretime.com)

## Limited Warranty

### LIMITED WARRANTY

Chore-Time Group, a division of CTB, Inc. ("Chore-Time") warrants the new CHORE-TIME FLEX-AUGER Model 55,75,90, & HMC equipment manufactured by Chore-Time to be free from defects in material or workmanship under normal usage and conditions, for One (1) year from the date of installation by the original purchaser ("Warranty"). Chore-Time provides for an extension of the aforementioned Warranty period ("Extended Warranty Period") with respect to certain Product parts. If such a defect is determined by Chore-Time to exist within the applicable period, Chore-Time will, at its option, (a) repair the Product or Component Part free of charge, F.O.B. the factory of manufacture or (b) replace the Product or Component Part free of charge, F.O.B. the factory of manufacture. This Warranty is not transferable, and applies only to the original purchaser of the Product.

### CONDITIONS AND LIMITATIONS

THIS WARRANTY CONSTITUTES CHORE-TIME'S ENTIRE AND SOLE WARRANTY AND CHORE-TIME EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES. CHORE-TIME shall not be liable for any direct, indirect, incidental, consequential or special damages which any purchaser may suffer or claim to suffer as a result of any defect in the Product. Consequential or Special Damages as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs, and operational inefficiencies. *Some jurisdictions prohibit limitations on implied warranties and/or the exclusion or limitation of such damages, so these limitations and exclusions may not apply to you. This warranty gives the original purchaser specific legal rights. You may also have other rights based upon your specific jurisdiction.*

Compliance with federal, state and local rules which apply to the location, installation and use of the Product are the responsibility of the original purchaser, and CHORE-TIME shall not be liable for any damages which may result from non-compliance with such rules.

The following circumstances shall render this Warranty void:

- Modifications made to the Product not specifically delineated in the Product manual.
- Product not installed and/or operated in accordance with the instructions published by the CHORE-TIME.
- All components of the Product are not original equipment supplied by CHORE-TIME.
- Product was not purchased from and/or installed by a CHORE-TIME authorized distributor or certified representative.
- Product experienced malfunction or failure resulting from misuse, abuse, mismanagement, negligence, alteration, accident, or lack of proper maintenance, or from lightning strikes, electrical power surges or interruption of electricity.
- Product experienced corrosion, material deterioration and/or equipment malfunction caused by or consistent with the application of chemicals, minerals, sediments or other foreign elements.
- Product was used for any purpose other than for the care of poultry and livestock.
- 

The Warranty and Extended Warranty may only be modified in writing by an officer of CHORE-TIME. CHORE-TIME shall have no obligation or responsibility for any representations or warranties made by or on behalf of any distributor, dealer, agent or certified representative.

Effective: April 2014

## Support Information

The Chore-Time FLEX-AUGER® Feed Delivery System is designed to convey poultry and livestock feed types. Using this equipment for any other purpose or in a way not within the operating recommendations specified in this manual will void the warranty and may cause personal injury and/or death.

This manual is designed to provide comprehensive planning, installation, wiring, operation, and parts listing information. The Table of Contents provides a convenient overview of the information in this manual.

Fill in the following information about your FLEX-AUGER® Feed Delivery System. Keep this manual in a clean, dry place for future reference.

**Distributor's Name** \_\_\_\_\_

**Distributor's Address** \_\_\_\_\_

**Distributor's Phone** \_\_\_\_\_ **Date of Purchase** \_\_\_\_\_

**Installer's Name** \_\_\_\_\_

**Installer's Address** \_\_\_\_\_

**Installer's Phone** \_\_\_\_\_ **Date of Installation** \_\_\_\_\_

**System Specifications** \_\_\_\_\_

**Feed Delivery System Supplying** \_\_\_\_\_

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## Safety and General Information

**Caution, Warning and Danger Decals** have been placed on the equipment to warn of potentially dangerous situations. Care should be taken to keep this information intact and easy to read at all times. Replace missing or damaged safety decals immediately.

### Safety–Alert Symbol



**This is a safety–alert symbol.** When you see this symbol on your equipment, be alert to the potential for personal injury. This equipment is designed to be installed and operated as safely as possible...however, hazards do exist.

### Understanding Signal Words

**Signal words** are used in conjunction with the safety–alert symbol to identify the severity of the warning.



**DANGER** indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



**WARNING** indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



**CAUTION** indicates a hazardous situation which, if not avoided, **MAY** result in minor or moderate injury.

### Follow Safety Instructions

Carefully read all safety messages in this manual and on your equipment safety signs. Follow recommended precautions and safe operating practices.

Keep safety signs in good condition. Replace missing or damaged safety signs.

### Decal Descriptions

#### **DANGER: Moving Auger**

This decal is placed on the Clean-Out Cover of the FLEX-AUGER Control Unit.

Severe personal injury will result, if the electrical power is not disconnected, prior to servicing the equipment.

#### **DANGER: Electrical Hazard**

Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

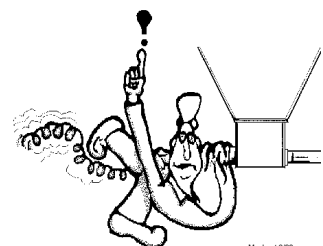
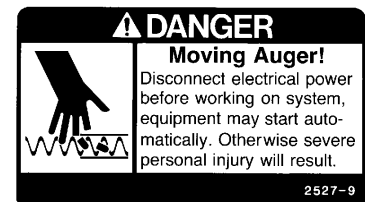
All electrical wiring must be done by a qualified electrician in accordance with local and national electric codes.

Ground all non-current carrying metal parts to guard against electrical shock.

Electrical disconnects and over current protection are not supplied with the equipment.

#### **DANGER: Springing Auger**

Use caution when working with the Auger--springing auger may cause personal injury.



## General Information

### Selecting the System

CHORE-TIME Feed Delivery systems are designed to handle most common livestock and poultry feeds. We can not guarantee satisfactory operation with all formulations. We suggest that you contact our Technical Service Department concerning the use of new or unusual formulations.

FLEX-AUGER Feed Delivery Systems are the most versatile feed conveying systems available. Their ease of installation, reliability, low maintenance, and adaptability for many different applications, make them an indispensable part of any livestock feeding system.

The FLEX-AUGER Feed Delivery System you choose should be based on the following:

1. Particle Size - Feed particles that are too large for the system will cause damage to the particles, excessive power requirements, and plugging of the system.
2. Moisture Content (18% maximum) - The moisture content of the feed, among other factors, determines the amount of buildup that will occur on the auger and auger tubes when conveying feed. Feeds with high moisture content (above 18%) will freeze if exposed to freezing temperatures. This type of feed tends to flow less-easily causing higher power requirements. Feeds in High Moisture Corn applications should not exceed 27% moisture content.
3. Feed capacities - Each size of FLEX-AUGER delivers feed at a different rate. These rates should be matched to your feed requirements. An application that requires a large volume of feed to be moved should use a larger (i.e. Model 90 or HMC) auger system or possibly two smaller auger (i.e. Model 55 or 75) systems. See below for System Comparison information.
4. Running Time - Size the system so that the maximum operating time is four hours per day (24 hours). If necessary, refer to **“Livestock and Poultry Feed Consumption” on page 53**. If your system operating times exceed four hours per day, contact your distributor or Chore-Time’s Technical Service Department.

**NOTE:** The maximum allowable liquid molasses content for all FLEX-AUGER Feed Delivery Systems is 2%. At higher liquid molasses content or at moisture levels above the recommended limits, the auger tubes can become coated. This reduces the carrying capacity of the feed delivery system, causing eventual plugging of the system.

Commercial layer applications require the use of all steel FLEX-AUGER Feed Delivery Systems. Hardened steel elbows are required for these applications. This is due to the abrasive feed particles in commercial layer feed rations. Do not mix steel and PVC components within a system.

### System Comparison Chart

| System           | Tube Dia.         | Delivery Rate*              | Feed Types  | Max. Part. Size                |
|------------------|-------------------|-----------------------------|---|--------------------------------|
| <b>Model 55</b>  | 2-1/4"<br>(55 mm) | 15 lb/min.<br>(7 kg/min.)   | mash, crumbles<br>18% moist. content  | 1/8" x 1/2"<br>(3 mm x 13 mm)  |
| <b>Model 75</b>  | 3"<br>(75 mm)     | 50 lb/min.<br>(22 kg/min.)  | mash, crumbles<br>18% moist. content  | 1/8" x 1/2"<br>(3 mm x 13 mm)  |
| <b>Model 90</b>  | 3-1/2"<br>(90 mm) | 100 lb/min.<br>(45 kg/min.) | mash, pellets,<br>shelled corn<br>18% moist. content                        | 3/16" x 1/2"<br>(5 mm x 13 mm) |
| <b>Model HMC</b> | 3-1/2"<br>(90 mm) | 50 lb/min.<br>(22 kg/min.)  | high-moisture corn,<br>larger pellets, crumbles,<br>mash 27% moist. content | 3/8" x 3/4"<br>(10 mm x 20 mm) |

\*Conveying capacity is based on feed with 40 pounds per cubic foot (640 kg. per cubic meter) density. Conveying capacities for all the FLEX-AUGER Systems are determined using 348 RPM Power Units.

## System Weight & Length Specifications

Adequate support must be provided to prevent the tubes from sagging and support the weight of the Control Unit. The auger, tubes, and feed weigh approximately 6 lbs/ft. (9 kg/m). The Control Unit weighs approximately 80 lbs. (36 kg).

Line lengths specified allow for two 45 degree elbows in the elevation. Reduce line length by 30' (9 m) for each additional horizontal 90 degree elbow.

For Tandem Systems, raise the horsepower one size over recommendations in the table below or reduce line length by 50' (15.4 m).

Note: If voltage supplied is 208V, reduce the line lengths by 20%.

Horsepower requirements are based on length of the FLEX-AUGER System and type of system installed--number of turns, tandem systems, etc. The charts included show maximum line lengths for FLEX-AUGER Systems plus maximum lengths for systems using Extension Hoppers.

### **Model 55**

| Motor<br>H.P. | Maximum<br>Line Length | Maximum<br>Extension |
|---------------|------------------------|----------------------|
| 1/3           | 150' (46 M)            | 185' (56 M)          |
| 1/2           | 250' (76 M)            | 285' (72 M)          |

### **Model 90**

| Motor<br>H.P. | Maximum<br>Line Length | Maximum<br>Extension |
|---------------|------------------------|----------------------|
| 1/2           | 30' (9 M)              | 65' (20 M)           |
| 3/4           | 90' (27 M)             | 125' (38 M)          |
| 1             | 150' (46 M)            | 185' (56 M)          |

### **Model 75**

| Motor<br>H.P. | Maximum<br>Line Length | Maximum<br>Extension |
|---------------|------------------------|----------------------|
| 1/2           | 80' (24 M)             | 125' (38 M)          |
| 3/4           | 150' (46 M)            | 185' (56 M)          |
| 1             | 200' (61 M)            | 245' (75 M)          |

### **Model HMC**

| Motor<br>H.P. | Maximum<br>Line Length | Maximum<br>Extension |
|---------------|------------------------|----------------------|
| 1/2           | 30' (9 M)              | 55' (17 M)           |
| 3/4           | 90' (27 M)             | 105' (32 M)          |
| 1             | 150' (46 M)            | 185' (56 M)          |



## Planning

### Planning the System

See **Figure 1. on page 10** for recommended, and **Figure 2. on page 10** for non-recommended FLEX-AUGER installations. When laying out the FLEX-AUGER Feed Delivery System, plan the system so that the auger tubes do not interfere with doors, windows, or other equipment.

See **“Bin to Building Placement Chart” on page 11** for different elevations and boots.

1. For the easiest installation and most trouble-free operation, locate the feed bin in a direct line with the FLEX-AUGER Feed Delivery System. The **“Bin to Building Placement Chart” on page 11** also provides some points of reference for bin placement according to the height at which the FLEX-AUGER tube enters the building. Remember, these are only examples. The layouts can be modified by changing the elbows, the tube sections, and/or the distance from the bin to the building.  
Locate the bin so that the FLEX-AUGER Feed Delivery System does not have to convey feed at an angle of more than 60 degrees from the horizontal to enter the building at the desired height. Chore-Time considers a 45 degree elevation to be standard--the lower the angle, the more reliable the system.
2. Lay out the system as straight as possible. Avoid extra elbows and curves by locating the feed bin in line with the feeders. One horizontal 90 degree right hand turn is permissible inside the building. 180 degree turns are not recommended under any conditions.  
If additional turns or elbows are required, use extension hoppers. Remember: one 90 degree elbow requires the same power as 30' (9.1 m) of straight line.
3. Plan the system so that the auger tubes are directly over the feeders or hoppers to be filled as possible. The drop tubes may be angled up to a maximum of 45 degrees from the vertical if necessary. At angles greater than 45 degrees, bridging in the drop tubes may occur.
4. The control unit must be located over a feeder or hopper that will require as much or more feed than any of the other feeders or hoppers. If frequent filling is desired, mount the drop tube switch or hopper level switch low so that this feeder or hopper will have a low feed level. This causes the feeder to call for feed more often, the system will restart, and the other feeders will be refilled sooner.
5. Do not locate outlet drops on or just before an elbow. Install the drop after the elbow so feed will cushion the auger through the curve. If there is some reason why the outlet drop cannot be moved, it must have some “feed bypass” to cushion the auger through the elbow.
6. Avoid horizontal left-hand turns if possible. The elbow in a left-hand turn is not cushioned by the feed and will wear faster. On systems with a 90 degree horizontal left-hand turn, reduce the stretch to reduce wear.

**NOTE: A rule of thumb for left-hand turns is to reduce stretch to 1" per 50' (25 mm per 15.2 m) on initial installation. Increase the stretch if necessary.**

**If an extension hopper is used:**

- A. Locate the hopper so there will not be any outlet drops on the short tube or elbow leading out of the hopper.
- B. The longer portion of the system with most of the outlet drops should follow the extension hopper. For example: in a 300' (91.4 m) Model 75 System the distance from the bin to the extension hopper should be 100' (30.5 m). From the extension hopper to the control unit should be 200' (61 m) with most outlets placed on the 200' (61 m) section. Refer to **“System Weight & Length Specifications” on page 8**, for power unit requirements.

**NOTE: The lower part of the extension hopper can be turned 90 degrees to the left or right in relation to the top portion of the extension hopper. This allows the extension hopper to replace a horizontal elbow where both might be located in approximately the same position in the system.**

7. Remember the following points when installing a Straight-Through Tandem System or Two Motor Tandem System:
  - A. The straight-through tandem bin arrangement uses one continuous auger.
  - B. The Two Motor Tandem bin arrangement uses two separate augers and power units.
  - C. Pour one level concrete pad for both bins (in either system).
  - D. Position bins so that legs will not interfere with the FLEX-AUGER System (in either system). See the Two Motor Tandem System instructions (Model 75, 90, & HMC systems only).
8. See **“System Weight & Length Specifications” on page 8** to determine maximum line lengths and power unit requirements.

# Installation

## Recommended Layouts

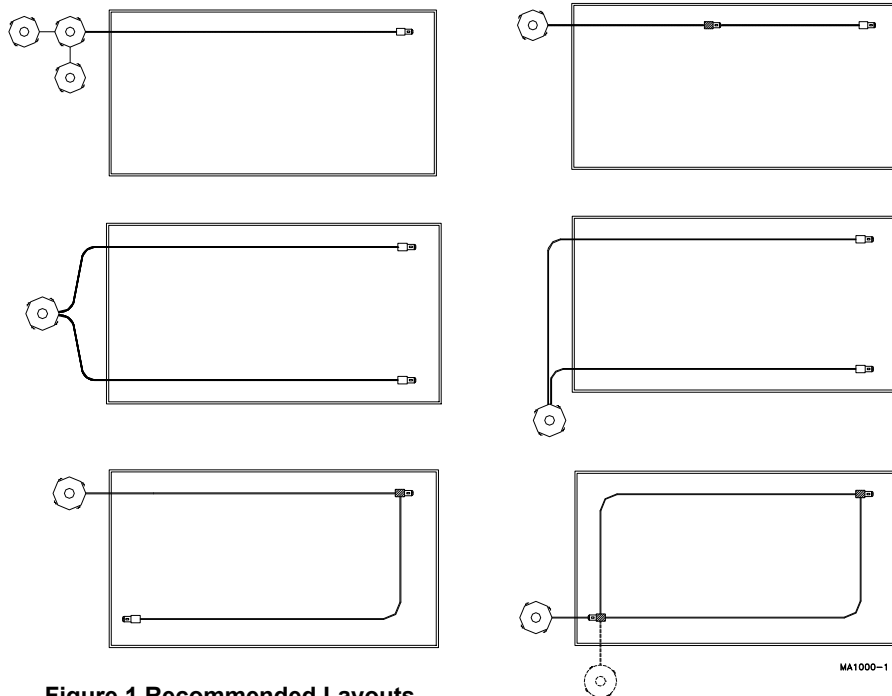


Figure 1. Recommended Layouts

## Not Recommended Layouts

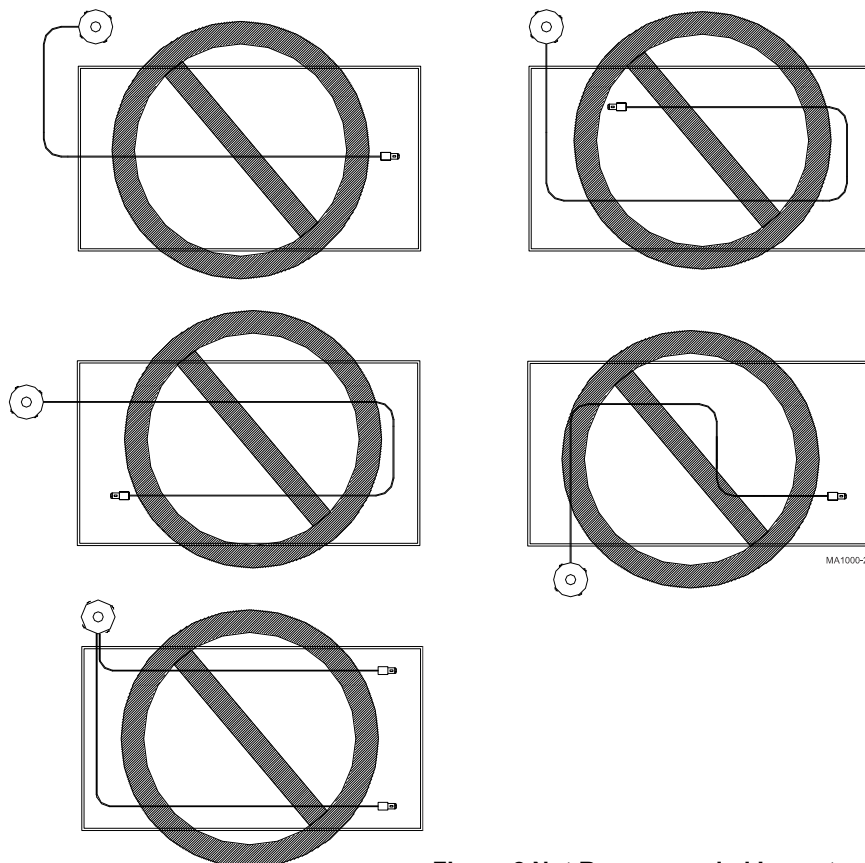


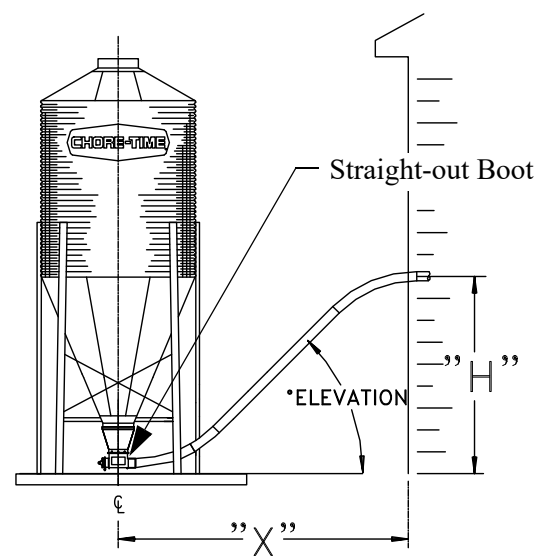
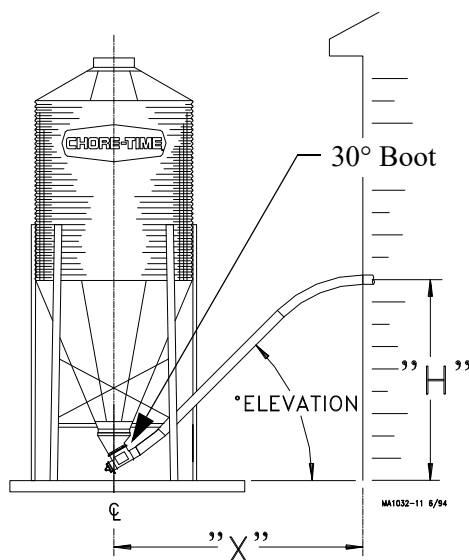
Figure 2. Not Recommended Layouts

## Bin to Building Placement Chart

Use this chart to determine the distance from building to center of bin ("X") at the various entrance heights ("H") and degrees of elevations listed below.

- The bin on the right is shown with a straight-out bin boot.
- The bin on the left is shown with a 30 degree bin boot.

| System Model   | Entrance Height<br>"H" | 30 Degree Upper Bin Boot (part no. 4347) |               |               | Straight-Out Upper Bin Boot (part no. 6093) |             |               |
|--|------------------------|--|---------------|---------------|---|-------------|---------------|
|  |                        | 30 Degree                                | 45 Degree     | 60 Degree     | 30 Degree                                   | 45 Degree   | 60 Degree     |
| Model 55, 75, 90,<br>or HMC with 5'<br>radius elbows | 5' (1.5 m)             | 9' (2.7 m)                               | -----         | -----         | 11.5' (3.5 m)                               | 10' (3 m)   | -----         |
|  | 6' (1.8 m)             | 11' (3.4 m)                              | 8.5' (2.6 m)  | 8' (2.4 m)    | 13.5' (4.1 m)                               | 11' (3.4 m) | 10' (3 m)     |
|  | 7' (2.1 m)             | 12.5' (3.8 m)                            | 9.5' (2.9 m)  | 8.5' (2.6 m)  | 15' (4.6 m)                                 | 12' (3.7 m) | 11' (3.4 m)   |
|  | 8' (2.4 m)             | 14.5' (4.4 m)                            | 10.5' (3.2 m) | 9' (2.7 m)    | 17' (5.2 m)                                 | 13' (4 m)   | 11.5' (3.5 m) |
|  | 9' (2.7 m)             | 16' (4.9 m)                              | 11.5' (3.5 m) | 9.5' (2.9 m)  | 18.5' (5.6 m)                               | 14' (4.3 m) | 12' (3.7 m)   |
|  | 10' (3 m)              | 17.5' (5.3 m)                            | 12.5' (3.8 m) | 10' (3 m)     | 20' (6.1 m)                                 | 15' (4.6 m) | 12.5' (3.8 m) |
|  | 11' (3.3 m)            | 19.5' (5.9 m)                            | 13.5' (4.1 m) | 10.5' (3.2 m) | 22' (6.7 m)                                 | 16' (4.9 m) | 13' (4 m)     |
|  | 12' (3.7 m)            | 21' (6.4 m)                              | 14.5' (4.4 m) | 11.5' (3.5 m) | 23.5' (7.2 m)                               | 17' (5.2 m) | 13.5' (4.1 m) |
|  | 13' (4 m)              | 23' (7 m)                                | 15.5' (4.7 m) | 12' (3.7 m)   | 25.5' (7.8 m)                               | 18' (5.5 m) | 14' (4.3 m)   |
|  | 14' (4.3 m)            | 24.5' (7.5 m)                            | 16.5' (5 m)   | 12.5' (3.8 m) | 27' (8.2 m)                                 | 19' (5.8 m) | 15' (4.6 m)   |
|  | 15' (4.6 m)            | 26.5' (8.1 m)                            | 17.5' (5.3 m) | 13' (4 m)     | 29' (8.8 m)                                 | 20' (6 m)   | 15.5' (4.7 m) |
|  | 16' (4.9 m)            | 28' (8.5 m)                              | 18.5' (5.6 m) | 13.5' (4.1 m) | 30.5' (9.3 m)                               | 21' (6.4 m) | 16' (4.9 m)   |
|  | 17' (5.2 m)            | 30' (9.1 m)                              | 19.5' (5.9 m) | 14' (4.3 m)   | 32.5' (9.9 m)                               | 22' (6.7 m) | 16.5' (5 m)   |
|  | 18' (5.5 m)            | 31.5' (9.6 m)                            | 20.5' (6.2 m) | 14.5' (4.4 m) | 34' (10.4 m)                                | 23' (7 m)   | 17' (5.2 m)   |
|  | 19' (5.8 m)            | 33.5' (10.2 m)                           | 21.5' (6.5 m) | 15.5' (4.7 m) | 36' (11 m)                                  | 24' (7.3 m) | 17.5' (5.3 m) |
|  | 20' (6.1 m)            | 35' (10.7 m)                             | 22.5' (6.8 m) | 16' (4.9 m)   | 37.5' (11.4 m)                              | 25' (7.6 m) | 18.5' (5.6 m) |



# Installation

## Installation Notes

Install the equipment as specified in this manual. Failure to install as specified may cause damage to the equipment and/or cause personal injury or death.

Take special notice of the warnings and safety decals on the equipment and in this manual.

Always wear protective clothing and protective glasses when working with the equipment.

Discarded materials, equipment, and boxes may be recycled. Recycle according to local and national codes.

Unless otherwise specified, the Model 55, 75, 90, & HMC Systems are installed similarly.

All the systems are available with straight-out or 30 degree upper boots, except the Model 55. The Model 55 requires the 30 degree upper boot (the straight-out boot is not available for the Model 55).

## Bin Location and Collar Information

For easiest installation and trouble-free operation, locate the feed bin in a direct line with the FLEX-AUGER System. The layout chart provides some points of reference for bin placement according to the height at which the system enters the building.

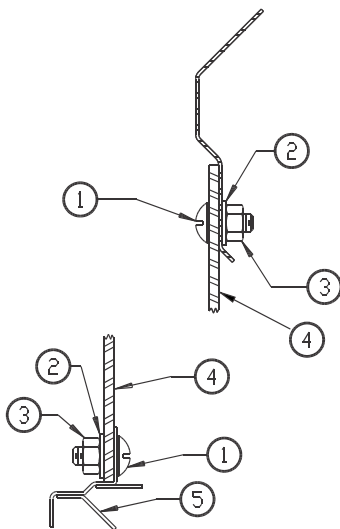
The bin collar is installed during bulk bin assembly. Chore-Time bins have a welded collar. Bin Adapter Kits are available to modify existing bins so that the welded collar can be used. In addition, most other feed bin manufacturers have a collar available to be used with Chore-Time FLEX-AUGER Feed Delivery Systems.

## Boot Installation

1. Insert the upper boot into the bin collar opening and turn it to line up with the direction that the auger line will go. The boot must be as far up into the opening as it will go. Use the holes in the ring for drilling guides and drill 11/32" (8.8 mm) holes in the upper rim of the boot. Attach the boot to the Bin Collar using the hardware provided. **See Figure 3.** for correct use of hardware to attach the boot.

**IMPORTANT: Failure to install the hardware as shown in Figure 3 may cause breakage of the Upper boot body.**

2. Attach the transfer plate to the upper boot. Use truss head bin-seal bolts installed from the inside of the plate, with flat washers placed under the nuts.
3. Insert the slide into the transfer plate slot so that it is in its operating position before bolting the slide shield in place. Use two 5/16-18x3/4" hex head machine screws to secure the shield.
4. Bolt the lower boot to the transfer plate using four 5/16-18x3/4" hex head machine screws.



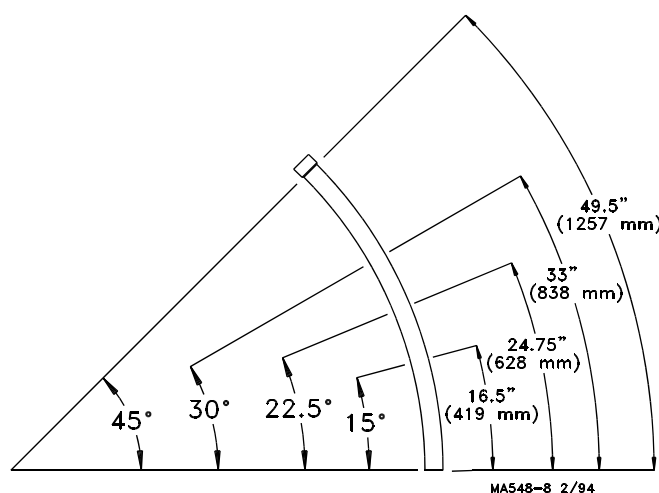
MA1000-77 1/95

| Key | Description                   |
|-----|-------------------------------|
| 1   | 5/16-18x3/4" Truss Head Screw |
| 2   | 5/16" Nylon Washer            |
| 3   | 5/16-18 Nylon Hex Nut         |
| 4   | Upper Boot Body               |
| 5   | Transfer Plate                |
| 6   | Welded Bin Collar             |

**Figure 3.Boot Installation Diagram**

## Auger Tube Installation

The FLEX-AUGER Delivery System includes two 45 degree elbows as standard equipment. These elbows are used to make the sloping portion of the auger line at the feed bin, and elsewhere in the system if necessary. If additional elbows are required, they should be ordered separately. **Figure 4** shows how the elbow can be cut into shorter sections.



|                         |                  |
|-------------------------|------------------|
| 15 Degree Elbow .....   | 16.5" or 419 mm  |
| 22.5 Degree Elbow ..... | 24.75" or 628 mm |
| 30 Degree Elbow .....   | 33" or 838 mm    |
| 45 Degree Elbow .....   | 49.5" or 1257 mm |

**These dimensions are measured along the long, outside curve of the elbow. They do not include the belled end of the elbow in the measurement.**

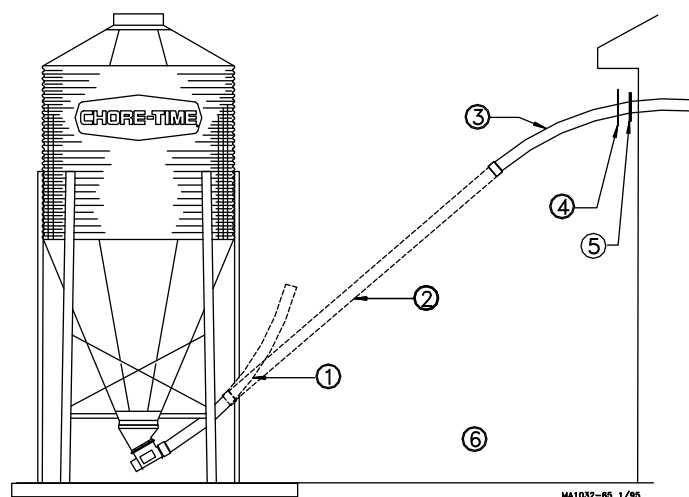
**Figure 4.PVC Elbow Cutting Guidelines**

1. Determine where the entrance hole for the auger tube must be located on the building and cut it.
2. Cut the elbow used where the auger enters the building (if necessary). Slide the seal ring and neoprene seal over the straight end of the elbow and place it in the hole cut in the building, with the belled end outside the building. (See **Figure 5**).
3. Model 75, 90, & HMC: Slide the belled end of the elbow or auger tube over the outlet end of the boot. A clamp is provided to secure the elbow or auger tube to the boot.

Model 55: Install the Model 55 Stub Tube over the outlet end of the boot. A clamp is provided to secure the Stub Tube to the boot.

Slide the belled end of the first elbow or auger tube over the stub tube.

4. Place the end of a straight section of tube inside the belled end of the elbow in the building. Hold the straight section of auger tube so that it touches the elbow on the boot. Mark the spot where the tube aligns with the "boot" elbow and cut the elbow at that point.

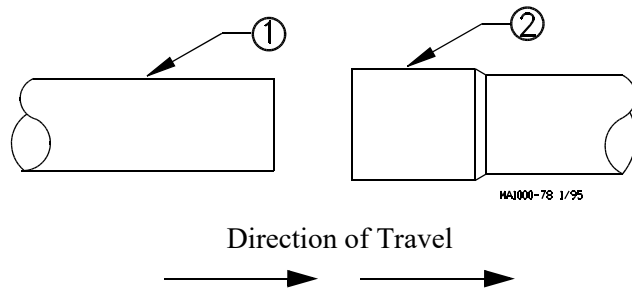


| Key | Description  |
|-----|--|
| 1   | 45° Elbow  |
| 2   | Auger Tube   |
| 3   | 45° Elbow  |
| 4   | Seal Ring  |
| 5   | Neoprene Seal  |
| 6   | Note: Belled end of elbows and auger tubes should be towards boot. |

**Figure 5.Elbow Installation outside the building**

5. Place the belled end of the auger tube over the end of the elbow just cut, and hold the tube against the top

elbow. Mark and cut the straight auger tube so that it will fit between the two elbows. Remember to cut the auger tube long enough to fit inside the belled end of the elbow in the building. Figure 4 shows the direction the auger is to run in relation to the belled end of the tube. NOTE: In some installations it may be possible to eliminate the elbow on the boot, using only a straight auger tube and one elbow where the tube enters the building.



| Key | Description                    |
|-----|--------------------------------|
| 1   | Straight section of Auger Tube |
| 2   | Belled end of Auger Tube       |

Figure 6. Proper Auger Tube Connection

6. Dry-fit all parts. When satisfied that elbows and tubes fit together smoothly, glue with PVC cement according to the following instructions.

The auger tubes and elbows for the FLEX-AUGER systems are made of specially formulated PVC tubing. Use the PVC solvent cement to make strong, reliable bonds.

**FOLLOW DIRECTIONS ON THE CAN FOR SAFE HANDLING OF CEMENT.**

1. Be sure tube is cut off squarely. Remove burrs from outside and inside the end of the tube.
2. Dry fit all parts. Tube should fit inside belled end of next tube to full depth without excess force.
3. Clean surfaces to be joined. SURFACES MUST BE FREE OF DIRT OR GREASE!
4. Apply a generous coat of cement to both the inside of the belled end and outside of the other tube. Be sure cement covers all of the joint area so there are no bare spots.
5. Quickly join the tubes, giving them a twisting motion to bring them into alignment as they are joined.
6. Keep pressure on the joint until the PVC cement sets up.

**ALL TUBE JOINTS EXPOSED TO MOISTURE AND WEATHER MUST BE SEALED OR CAULKED TO WATERPROOF THEM IN ADDITION TO CEMENTING OR CLAMPING THE JOINT!**

7. If there is more than 15 feet (4.5 meters) of auger tube between the boot and the building, provide additional support for the tubes so that the boot does not have to carry the weight of the auger. Extra support can be achieved with cables or chains fastened to the bin legs and auger tube.
8. Install the remaining tubes in the system AFTER the outlet holes have been located and cut. The auger tubes should be cemented using PVC cement supplied. NOTE: The tubes can be joined by cutting off the belled ends and fastening tubes together with tube connectors if there is some reason why permanent installation is not desired. (Tube Connectors are not standard equipment and must be ordered separately for this type of installation).

## Supporting the System Inside the Building

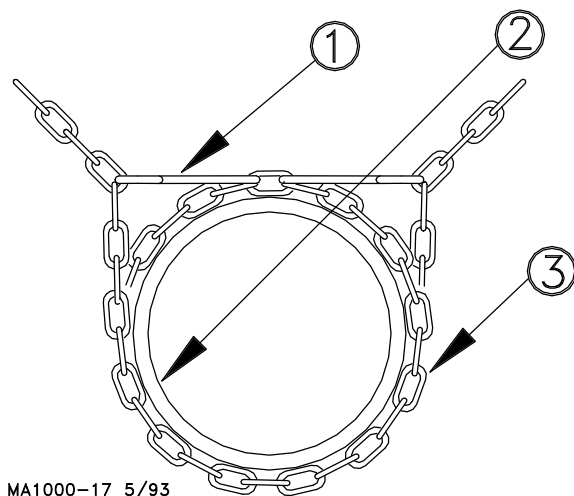
Support the Auger Tubing with chain and "S" Hooks every 5 feet [1.5m]. Steel Tube systems require support every 10 feet [3m]. The system should be restrained from swinging by using chain and "S" hooks to brace the auger tube, every 20 feet [6m], as shown in **Figure 7**.

Horizontal elbows need to be supported in at least two places. Chain, screw hooks, and "S" hooks are supplied as a suspension kit for supporting the equipment. Keep the line as level and straight as possible.

If Drop Feeders, Extension Hoppers, Outlet Drops with long angled Drop Tubes, or other loads are imposed on the system, extra support will be required.

Power Units require extra support to resist the twisting encountered when the motor starts and stops. Use the motor mount base, all of the "ears" on the gearhead as well as the suspension point provided on the 46800 Control Unit Box to support the Power Unit.

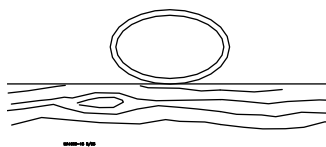
Adequate chain and "S" hooks are provided with each system to properly support it. Other means of supporting the system are permissible as long as the system receives the correct support and the auger tube is not dented or flattened. Alternative support systems must allow for expansion and contraction of the Auger Tubes.



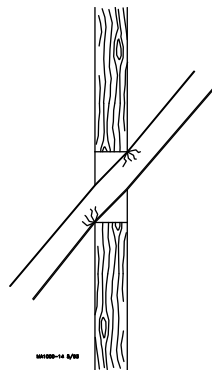
| Key | Description |
|-----|-------------|
| 1   | "S" Hook    |
| 2   | Auger Tube  |
| 3   | Chain       |

**Figure 7. Proper Auger Tube Connection**

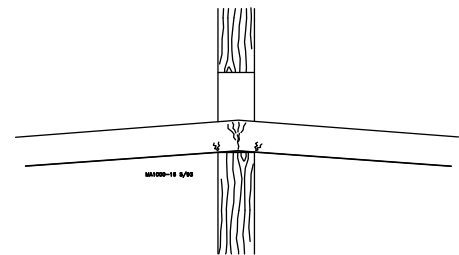
When the auger tube passes through a side wall or partition, especially where it enters the building, the opening should be made large enough so the auger tube can be supported without resting on the wall. If the auger tube rests on the wall or partition, the auger tube may flatten out or become kinked--causing excessive wear. (See **Figure 8**).



Auger tube flattened because the supports are not high enough to keep the weight of the auger tube off the wall.



Auger tube pinched because the Auger Tube is not in line with the hole in the Wall.



Auger tube flattened because the supports are not high enough to keep the weight of the auger tube off the wall.

**Figure 8. Faulty Tube Installations**

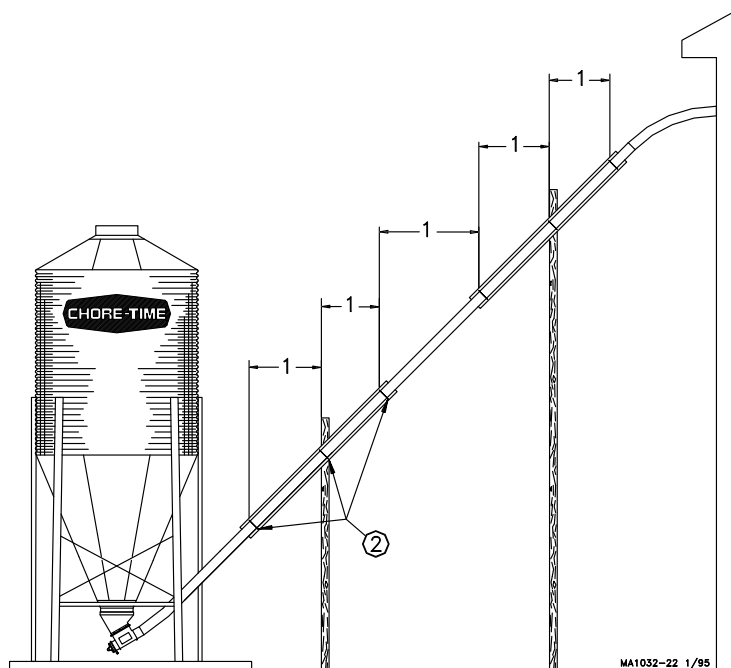
## Supporting the System Outside the Building

Some systems require additional support to avoid sagging auger tubes. This support must be adequate to support the weight of the auger tubes filled with feed. Special attention should be given to avoid excessive pressure from the auger being transferred to boot. Chain or cable suspended from the bin or building will not provide adequate support for these systems.

Some common systems are shown in **Figure 9**, **Figure 10**, and **Figure 11** with the recommended supports.

**Note:** Supports must be designed to prevent (weight) loads from being transferred back onto the boot.

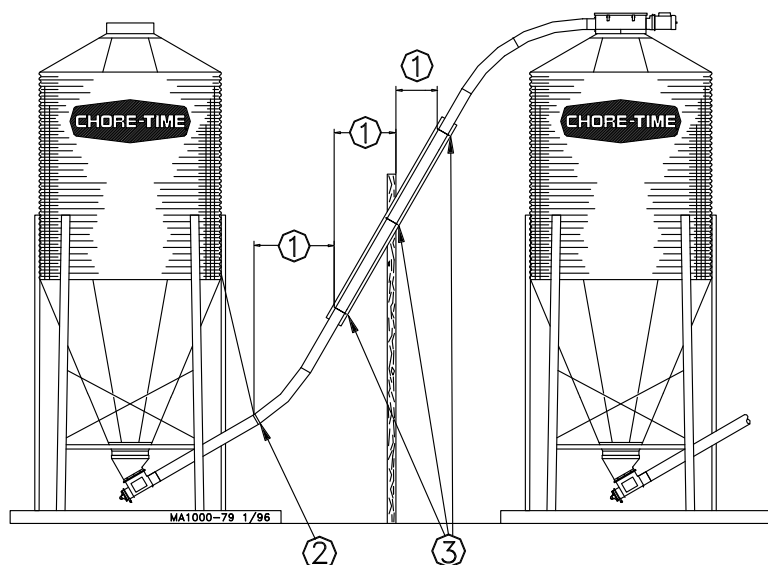
### Elevated Systems



| Key | Description   |
|-----|---|
| 1   | 5' (1.5 m) for PVC systems<br>10' (3 m) for STEEL systems |
| 2   | Place clamps here.  |

Figure 9. Elevated Systems

### Bin to Bin Fill Systems



| Key | Description   |
|-----|---|
| 1   | 5' (1.5 m) for PVC systems<br>10' (3 m) for STEEL systems |
| 2   | Place clamps here.  |

Figure 10. Bin to Bin Fill Systems



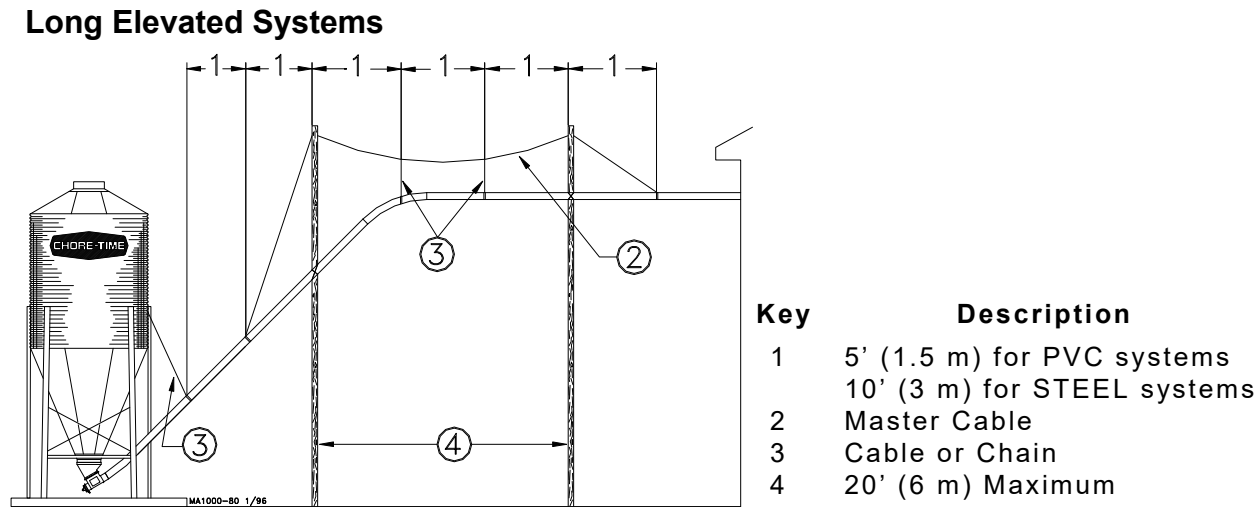


Figure 11.Long Elevated Systems

Outlet Assembly Installation

The Model 55, 75, HMC/90 Outlet Assemblies are designed to drop feed from a Feed Delivery or Feeding System into a Gravity Drop Tube. **Figure 12** shows the components that make up an outlet assembly.

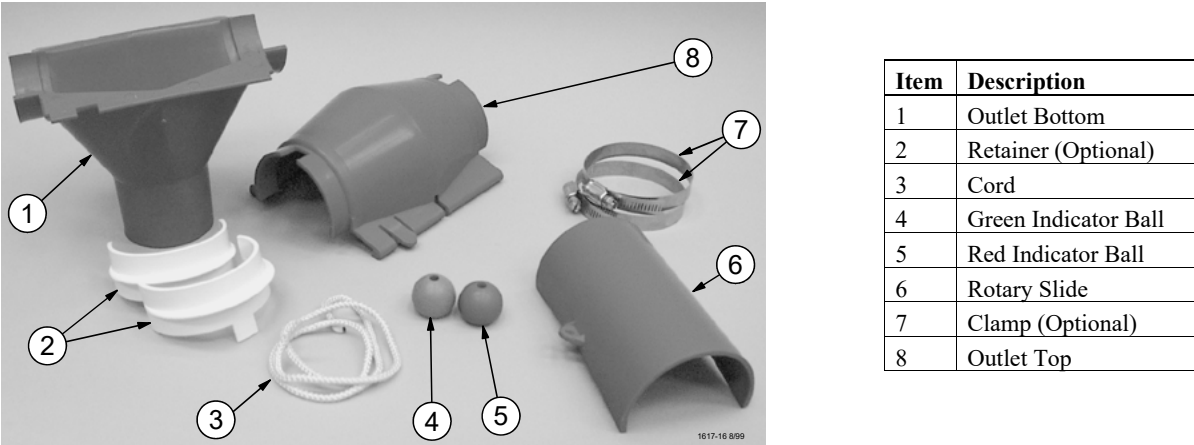


Figure 12.Outlet Assembly Components

1. Determine the location of the Outlet Assembly and drill or cut the desired outlet hole as shown in **Figure 13**.

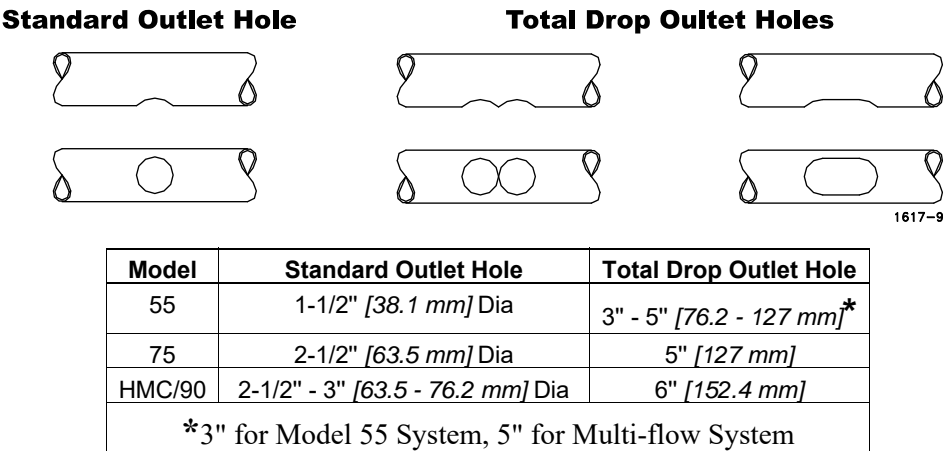
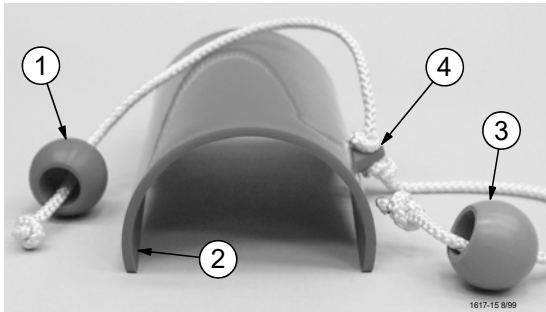


Figure 13.Cutting the Outlet Hole in the Fill System Pipe

2. Insert the Cord through the hole in the Rotary Slide tab, pull until centered, and knot it on both sides of the tab as shown in **Figure 14**. Slide the Indicator Balls on the Cord ends, as shown in **Figure 14**, and knot the Cord ends so the Indicator Balls will not fall off.



| Item | Description        |
|------|--------------------|
| 1    | Red Indicator Ball |
| 2    | Rotary Slide       |

| Item | Description          |
|------|----------------------|
| 3    | Green Indicator Ball |
| 4    | Tab on Rotary Slide  |

Figure 14.Assembling the Rotary Slide

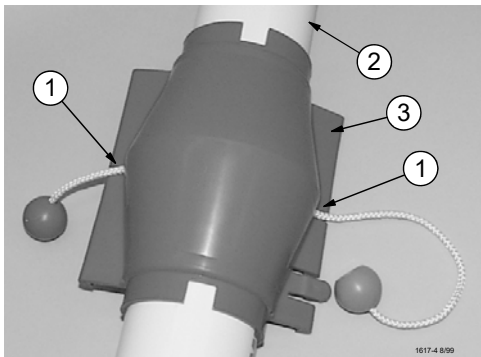
3. Snap the assembled Rotary Slide over the Fill System Pipe as shown in **Figure 15**.



| Item | Description      |
|------|------------------|
| 1    | Fill System Pipe |
| 2    | Rotary Slide     |

Figure 15.Rotary Slide Snapped onto the Fill System Pipe

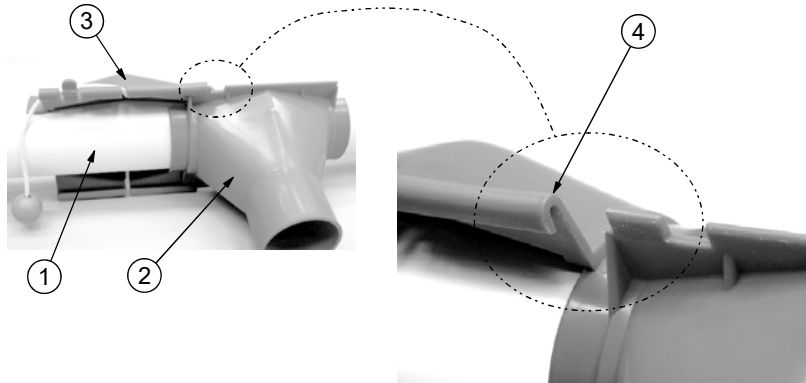
4. Snap the Outlet Top to the Fill System Pipe over the Rotary Slide as shown in **Figure 16**. Make sure the Cord comes out through the notches on each side of the Outlet Top as shown in **Figure 16**.



| Item | Description      |
|------|------------------|
| 1    | Notch on Top     |
| 2    | Fill System Pipe |
| 3    | Outlet Top       |

Figure 16.Top Placed over the Rotary Slide

5. Use the Cord ends to hold the Rotary Slide in the full open position (cradled inside of the Outlet Top.) Engage the top edges of the Outlet Bottom into the open ends of the Outlet Top Tracks. Slide the parts together pressing the locking tab on the Outlet Top out of the way, allowing the Outlet Bottom to pass until completely assembled. The locking tab should then snap into place preventing the outlet assembly from sliding apart. (See **Figure 17**)



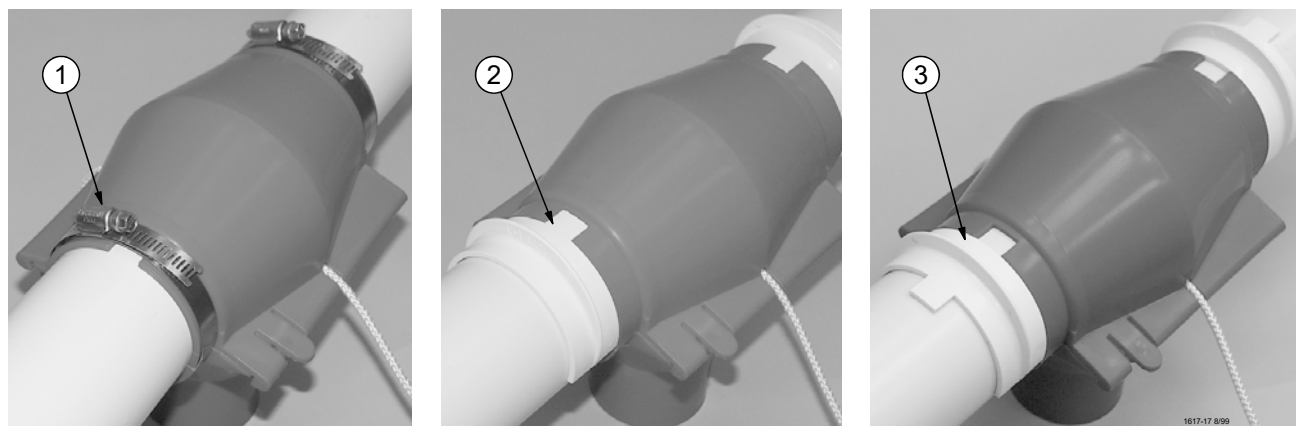
| Item | Description      |
|------|------------------|
| 1    | Fill System Pipe |
| 2    | Outlet Bottom    |
| 3    | Outlet Top       |
| 4    | Outlet Top Track |

Figure 17.Assembling the Outlet Bottom to the Outlet Top

6. Now add Clamps or Retainers (as ordered) to the Outlet Assembly to prevent it from sliding and/or rotating on the pipe. Clamps will prevent the Outlet Assembly from sliding or rotating on the pipe. Retainers can be used in two different ways. Retainers may prevent the Outlet Assembly from sliding or rotating on the pipe, or prevent the Outlet Assembly from sliding on the pipe, but allow it to rotate. **Figure 18** shows the three different methods for holding the Outlet Assembly in place.

If Clamps are used, place the Clamps on the Outlet Assembly as shown and tighten.

When using the Retainers, for a completely locked Outlet Assembly, insert the tabs on the Retainers into the notches on the Outlet Top when gluing the Retainers in place with PVC Cement. With a rotating Outlet Assembly, glue the Retainers in place with the tabs pointing away from the Outlet Top.



| Item | Description   |
|------|---|
| 1    | Outlet Assembly using Clamps (non-sliding, non-rotating)    |
| 2    | Outlet Assembly using Retainers (non-sliding, non-rotating) |
| 3    | Outlet Assembly using Retainers (non-sliding, rotating)     |

**Figure 18. Installing the Retainers on the Outlet Assembly**

## Control Unit & Power Unit Installation

1. Attach the tube anchor to the appropriate end (determine the best side of control unit for switch placement) of the control unit body by inserting the 1/4-20x.75 carriage bolts from the inside of the control unit through the tube anchor and attach 1/4-20 flange hex nut.

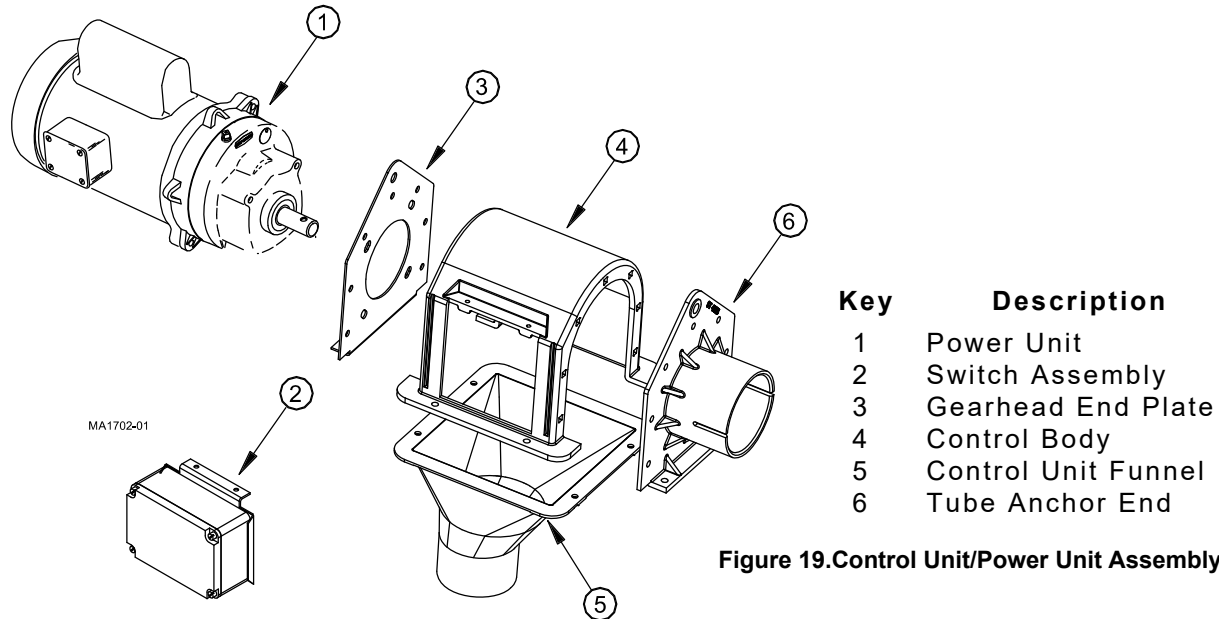


Figure 19. Control Unit/Power Unit Assembly

2. Connect the power unit to the gearhead end plate using the 5/16-18 machine screws and the flat washers packed with the control.
3. Attach the gearhead end plate to the control unit body the same as the tube anchor.
4. Insert the lower section of the switch assembly into the control unit and secure the top with the 2 #10x.5 screws provided.

### For Single Phase Direct Drive Control Units

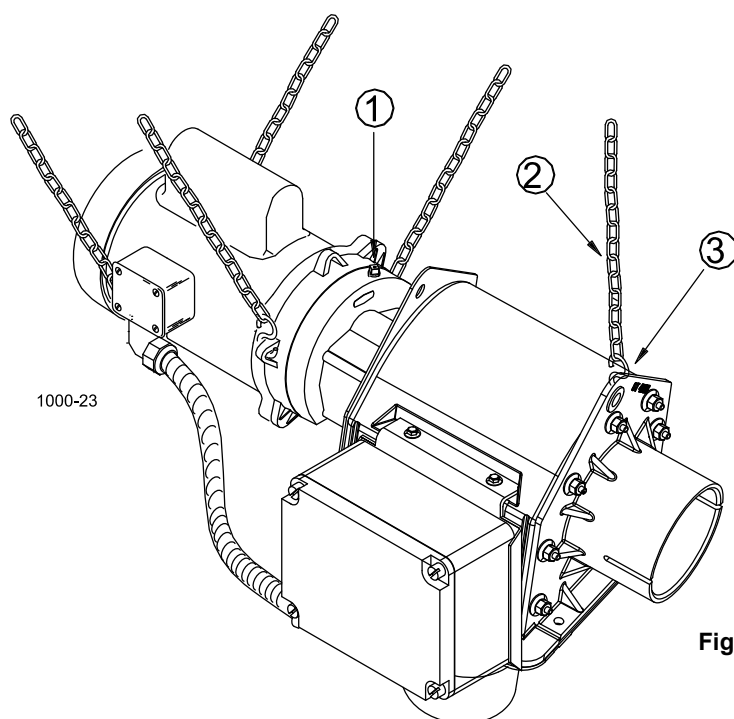
1. Connect the electrical wires on the power unit to the control unit.
2. Drill bottom of control unit switch box with 7/8" (22.2mm) hole to receive the 90o connector and motor wire. Use caution not to disturb any wires or components of the switch box ass'y when drilling holes.
3. Attach the 90 degree connector & conduit to the control unit housing.
4. Attach the insulated motor wires to the terminal block in the control housing: one wire to terminal "3" and one wire to terminal "4". Attach the bare grounding wire to one of the green colored screws provided for attaching the grounding wires.
5. Place the adjustable tube clamp on the tube anchor and connect the control unit/power unit assembly to the end of the FLEX-AUGER tube.

**Note:** The switch in the control unit is a safety backup switch in case the hopper level switch or drop tube switch fails to shut off the system. **DO NOT** use the safety switch to control the FLEX-AUGER System. This will cause feed to bridge in the control.

6. Support the Power Unit and Control Unit securely. Points are provided at the gear head and the tube anchor for suspending the equipment with chain and "S" hooks supplied with the delivery system (See Figure 20).  
 NOTE: Other ways of supporting the delivery system can be used where it is practical, as long as the supports do not let the equipment sag or do not make flat spots in the auger tubes.

**Note:** The motor should be fastened to keep it from twisting. "S" hooks and chain can be attached to the motor base to prevent the motor from shifting.

7. Install the driver assembly on the power unit shaft. Start the socket head screws but leave the anchor clamp loose enough to slip in the auger.  
 8. Replace the plastic shipping plug in the gear head with the vent plug provided.



| Key | Description                                    |
|-----|--|
| 1   | Replace shipping plug with vent plug provided. |
| 2   | Chain  |
| 3   | "S" Hook                                       |

Figure 20. Control Unit/Power Unit Suspension

## Belt Drive Control Unit Installation

The Belt Drive Control Unit installation is much the same as the direct drive unit. Mount the Belt Drive Adapter and Motor to the control unit, then proceed with installation to the auger tube as described in this manual.

**"Standard Belt Drive Control Units" on page 40** can be used as an assembly guide for the Belt Drive Control Unit. **Figure 21** shows a Belt Drive Control Unit suspended.



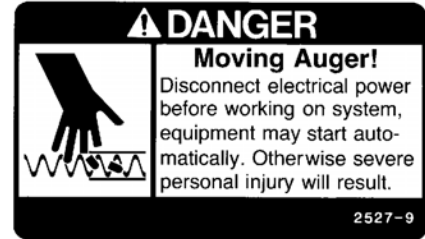
Figure 21. Belt Drive Control Unit

## Auger Installation

Use extreme caution when working with the auger. The auger is under tension and may spring causing injury. Always wear protective clothing and protective glasses when working with the auger.

Use extreme caution when pushing the auger into the auger tubes. Keep your hands away from the end of the auger tube to avoid injury.

Handle the FLEX-AUGER carefully. Dropping the rolls of auger may cause the auger to kink. Do not install an auger that has a sharp kink in it. The kink will cause the auger to wear a hole in the tube at that spot. If the kink cannot be straightened with pliers, the kink must be cut out and the auger brazed back together. Refer to the "Auger Brazing" section in this manual for the correct brazing procedure.



1. Beginning at the boot, push the auger into the auger tube through the rear of the boot until the auger reaches the control unit end of the line.

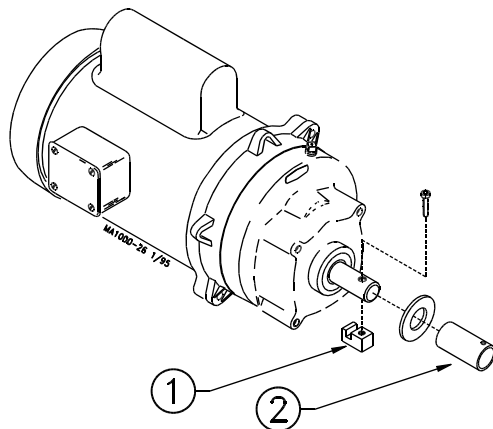
**Use extreme caution when pushing the auger into the auger tubes. Keep your hands away from the end of the auger tube to avoid injury.**

2. Attach the auger to the driver by rotating the driver and threading the auger through the anchor clamp.

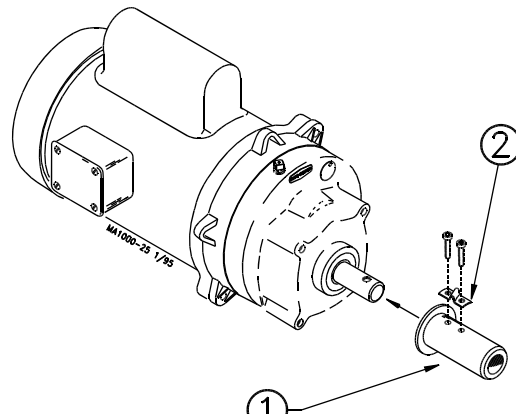
**Figure 22** shows the Model 55 Driver installation procedure. Control Unit not shown for clarity.

**Figure 22** shows the Model 75, 90, & HMC Driver installation procedure. Control Unit not shown for clarity.

3. Rotate the auger so that it is fully engaged on the Driver. Tighten the screws securely to clamp the auger to the control unit.



| Key | Description           |
|-----|-----------------------|
| 1   | Model 55 Driver Block |
| 2   | Model 55 Driver Tube  |



| Key | Description                         |
|-----|-------------------------------------|
| 1   | Model 75, 90, & HMC Driver Assembly |
| 2   | Anchor Clamp                        |

**Figure 22. Auger Installation**

4. Assemble the control unit funnel to the tube anchor and the gearhead end plate with 4 1/4-20x.63 hex head bolts and 1/4-20 hex flange nuts. The straight side of the funnel should be position on the power unit side of the control.
5. Pull on the loose end of the auger at the boot once or twice until it begins to stretch, then release it slowly. This will bring the auger to its natural length.

**IMPORTANT: On Single Boot Systems, Stretch the auger 2 inches (50 mm) for every 50 feet (15.2 m) of length. Example: For a 150 ft. (45 m) system the auger should be cut 6 inches (150 mm) shorter than its natural length. Measure the amount of stretch from the rear edge of the boot and cut the auger at that point.**

**Note: For ease of cutting, measure and mark the auger at the point where it is to be cut. Then, pull the auger an additional 6-8" (150-200 mm) and use locking pliers to clamp the auger while you cut it.**

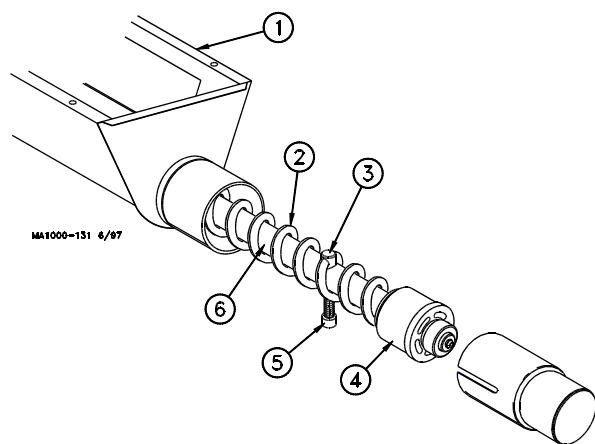
6. **Figure 23** shows the proper assembly of the Model 55 boot components. Insert the Auger over the Anchor and through the Auger Clamp until Auger touches washer. Torque Set Screw into Auger Clamp 10-12 ft.-lbs. Over tightening the Set Screw may cause damage to the Auger Clamp.

**Figure 23** shows the proper assembly of the Model 75, 90, & HMC anchor components. Insert the anchor into the auger until the auger touches the anchor flange. The auger must be threaded onto the Boot Anchor Assembly, through the clamp pin. Use a 5/16" open-end wrench to tighten the clamp pin setscrew on the auger.

**Some of the Boot Models have Anchor and Bearing Assemblies with Restrictors that may be shortened, if necessary, to increase capacity.**

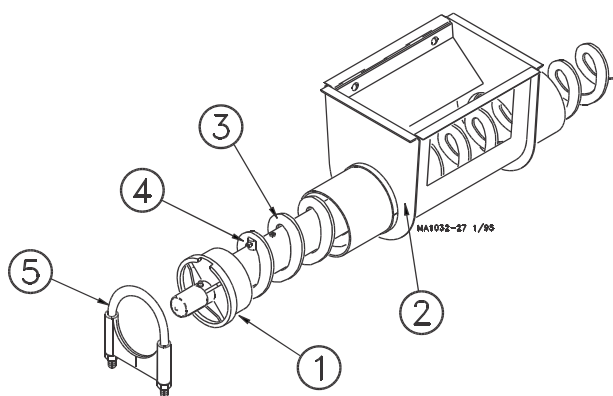
7. Attach the anchor assembly to the boot.
8. Place the cannonball in the boot.

Model 55



| Key | Description   |
|-----|---|
| 1   | Model 55 Lower Boot                                 |
| 2   | Model 55 Auger                                      |
| 3   | Auger Clamp   |
| 4   | Anchor Bearing                                      |
| 5   | Tighten socket screw to secure auger to the Anchor. |
| 6   | Anchor  |

Model 90 &amp; HMC Models



| Key | Description                                    |
|-----|--|
| 1   | Anchor and Bearing Assembly                    |
| 2   | Lower Boot                                     |
| 3   | Auger  |
| 4   | Tighten Set Screw to secure Auger in Clamp Pin |
| 5   | Tube Clamp                                     |

Figure 23. Anchor and Bearing Installation



## Cover Plate Installation

The cover plate is installed after installation of the auger in the tube (See Figure 24).

To install the cover plate:

1. Loosen wing nuts to end of studs
2. Start lower side of cover plate in boot opening.
3. Slide the cover plate up as far as possible so that plate catches top of boot opening.
4. Hold the cover securely while tightening the wing nuts.

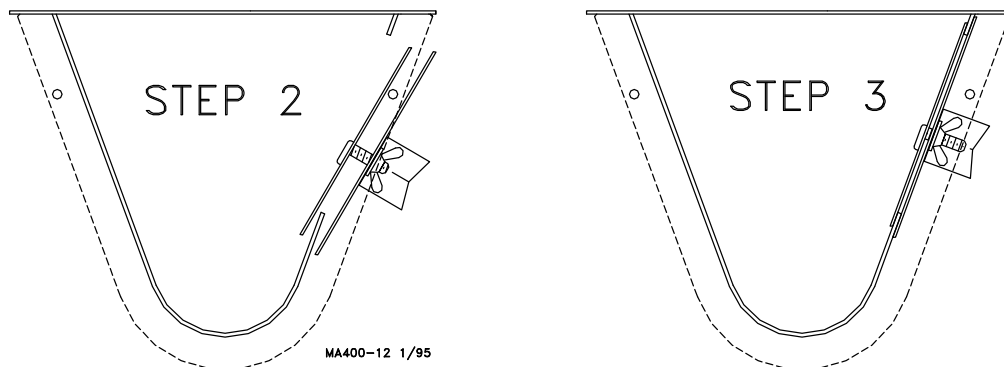


Figure 24. Cover Plate Installation

## Auger Brazing/Filing

If the auger needs to be spliced or lengthened, locate the brazed joint closer to the power unit to minimize feed flow restriction in the line.

To align the auger for brazing, lay it in angle iron and clamp securely.

Rotate the auger to allow both the inside and outside edges of the augers to be brazed.

Butt the ends of the auger against each other. **DO NOT SCREW ONE AUGER INSIDE THE OTHER**--This restricts the feed flow.

**Figure 25** and the associated chart specify how far to lap the augers.

A bronze, flux-coated rod is recommended. The joint should be well filled and smooth so that it does not wear against the tube. Allow the joint to air cool.

File the auger edges, as shown in **Figure 25**, to avoid damage to the auger tubes. Also, file off any brazing that extended beyond the outside radius of the auger flightings.

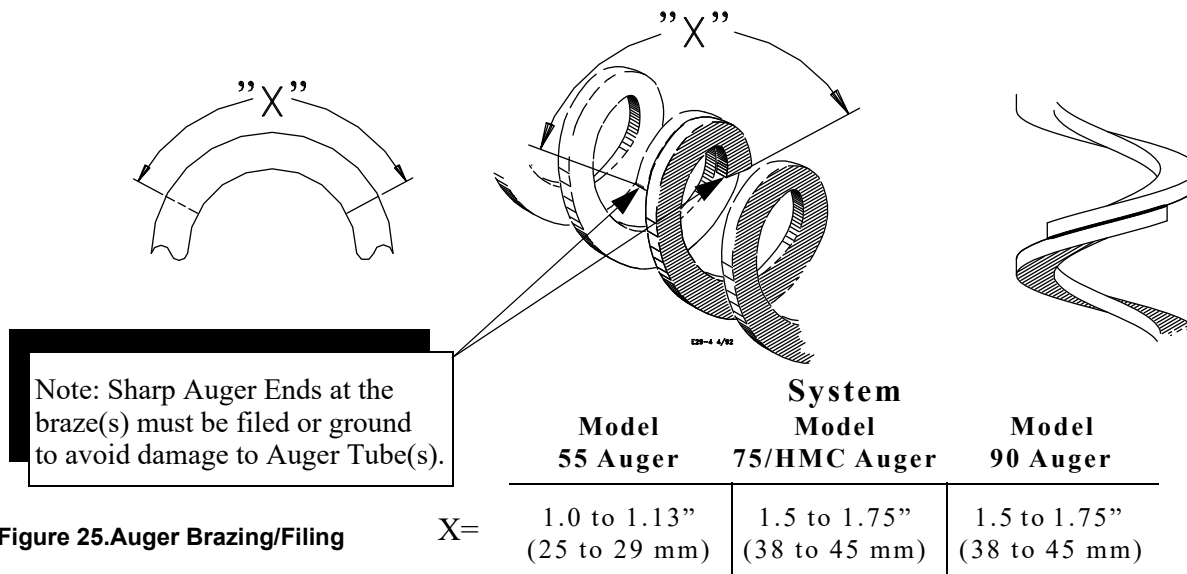
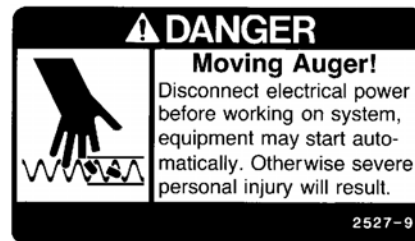


Figure 25. Auger Brazing/Filing



## Restrictor Adjustment

Some Boots have Restrictors that may be adjusted for increased delivery capacities.

DO NOT ADJUST THE RESTRICTOR UNTIL THE SYSTEM HAS BEEN IN OPERATION AND THE SYSTEM IS BROKEN IN.

THE MODEL 55 RESTRICTOR IS NOT ADJUSTABLE.

**Note:** Feed delivery capacities are based on 40 lbs/ ft.3 (640 kg/m3) feed density. Systems using lighter weight feeds may not be able to achieve the maximum capacities listed.

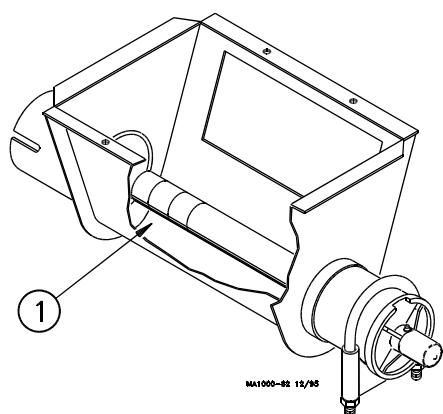
**Note:** Always refer to the motor amperage nameplate when increasing the feed flow capacity. Exceeding the nameplate amperage may result in nuisance motor overload tripping and/or damage to the system.

1. Loosen the tube clamp on the back of the Lower Boot to remove the Anchor and Bearing Assembly from the boot.
2. Use extreme caution when working with the auger under tension. Springing auger can cause personal injury.

Pull enough of the auger out of the auger tube to allow the Restrictor Tube to be cut.

Use locking pliers to hold the auger outside the boot.

3. Use a hacksaw to cut 1" (25 mm) at a time off the end of the Restrictor Tube to increase feed flow (See **Figure 26**).
4. CAREFULLY remove the locking pliers while holding on to the Anchor and Bearing Assembly and auger securely.
5. CAREFULLY allow auger to draw the Anchor and Bearing Assembly back into the Lower Boot. DO NOT ALLOW THE BEARING TO BE SLAMMED BACK INTO THE BOOT.



### Key

1

### Description

Cut off approximately 1" (25 mm) of the Restrictor Tube to increase feed flow. Repeat as required.

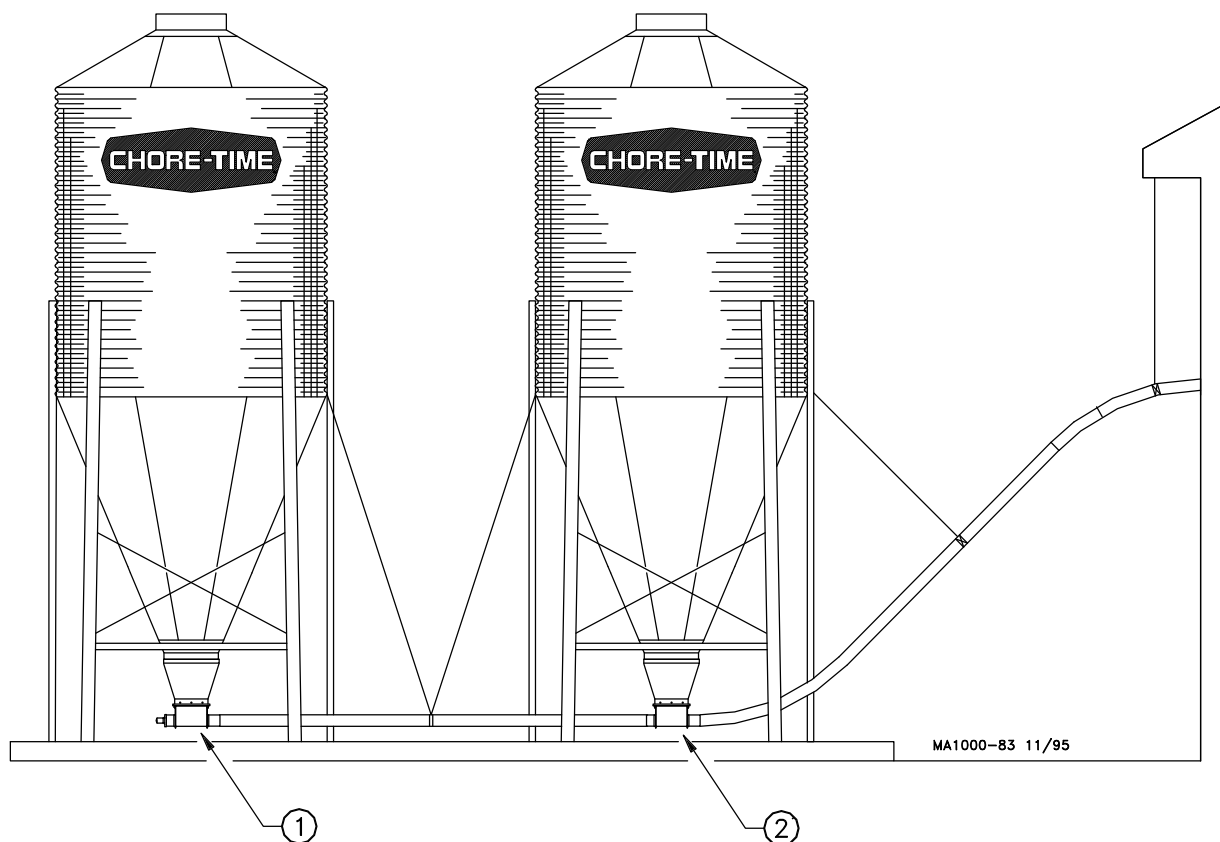
**Figure 26. Restrictor Adjustment Model 90 & HMC Only**

## Straight-Through Tandem Boot

The Straight-Through Tandem Boots allow one or two augers to remove feed from two separate feed bins. Feed should only be drawn from one bin at a time.

Solid Cannonballs are used in conjunction with the Boot Baffles.

1. Install boots on both feed bins. Be sure the outlets and inlets on the boots are in line and arrow tape is pointed in direction of feed flow. **Figure 27** shows a typical Straight-Through Tandem System.



| Key | Description  |
|-----|--|
| 1   | Straight-Out Boot on Terminal Bin (with Baffles)   |
| 2   | Straight-Thru Boot on Intermediate Bin (w/Baffles) |

**Figure 27. Straight-Through Tandem**

2. Measure and cut an auger tube(s) to connect the two boots (See **Figure 29**).

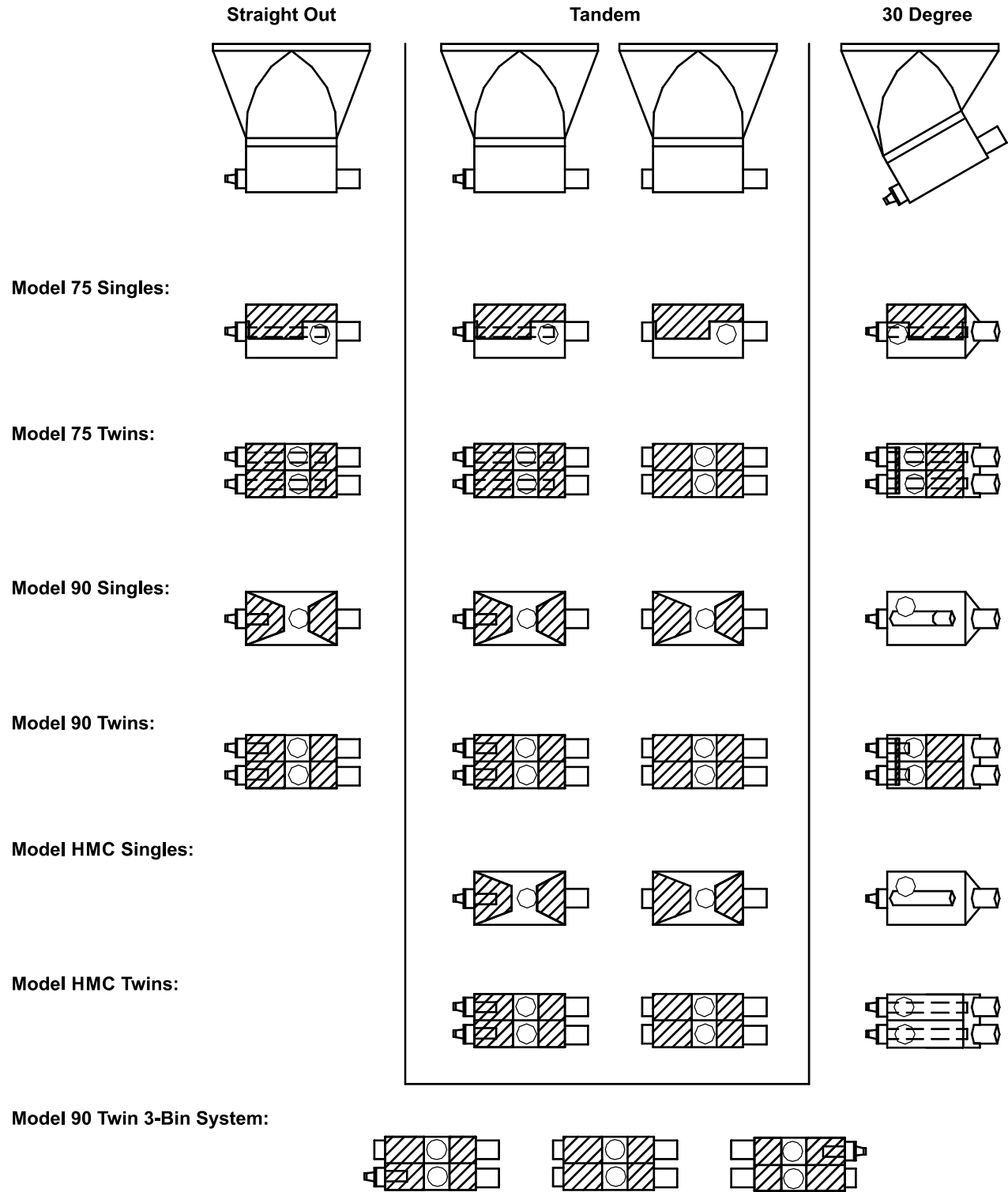
For Model 90 & HMC FLEX-AUGER systems, the belled end of the auger tube fits directly over the outlet end the Straight-Out Boot. The straight end of the Auger Tube connects to the incoming end of the Straight-Thru Boot, using a Tube Connector. (See **Figure 29**)

For Model 75 FLEX-AUGER (PVC) systems, slide the belled end of the Model 75 Auger Tube over the outlet of the Straight-Out Boot. The straight end of the Auger Tube connects to the incoming end of the Straight-Thru Boot, using a Tube Insert and Tube Connector.

For Model 75 FLEX-AUGER (Steel) systems, slide the straight end of the Model 75 Auger Tube into the outlet end of the Straight-Out Boot. The belled end of the Auger Tube should be slid over the inlet end of the Straight-Thru Boot. (See **Figure 29**).

Remember to caulk all tube joints exposed to weather or moisture.

Standard FLEX-AUGER Boots and Baffle Locations  
(As Shipped from Factory)



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Figure 28.Standard FLEX-AUGER Boots and Baffle Locations

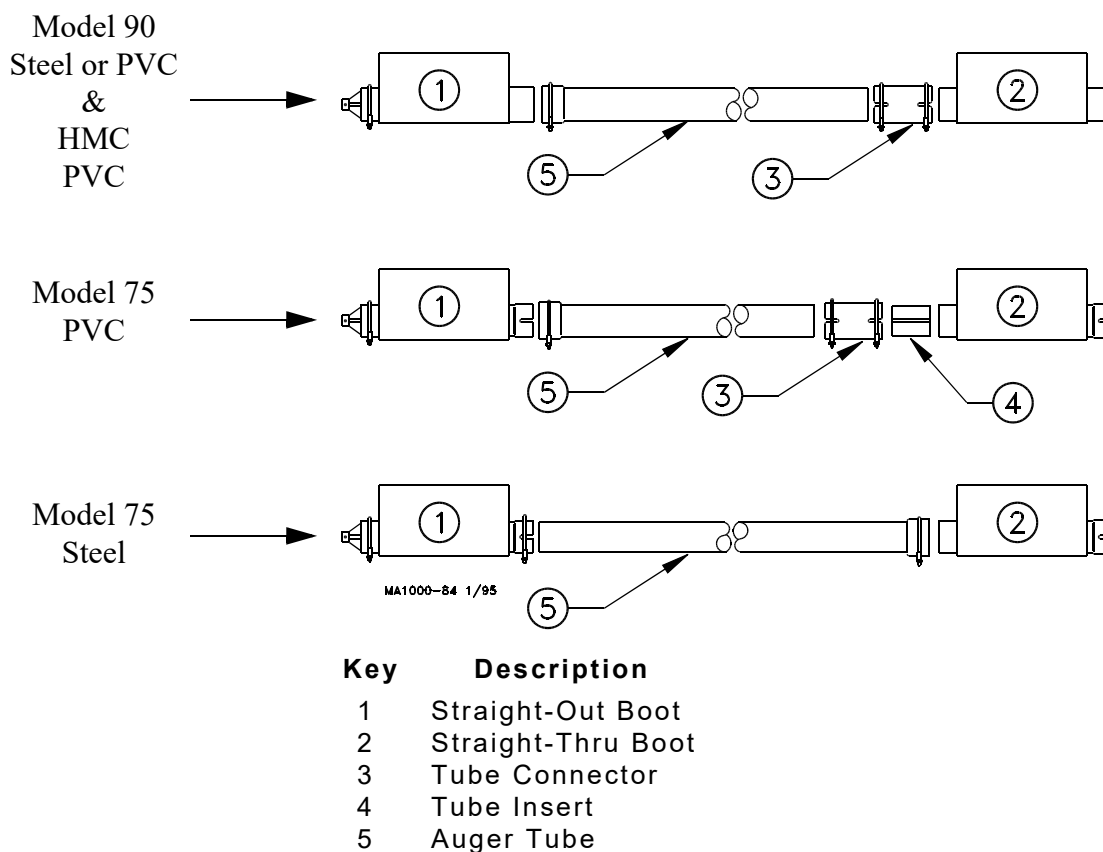


Figure 29. Model 75, 90, & HMC Straight-Through Tandem Boot connections.

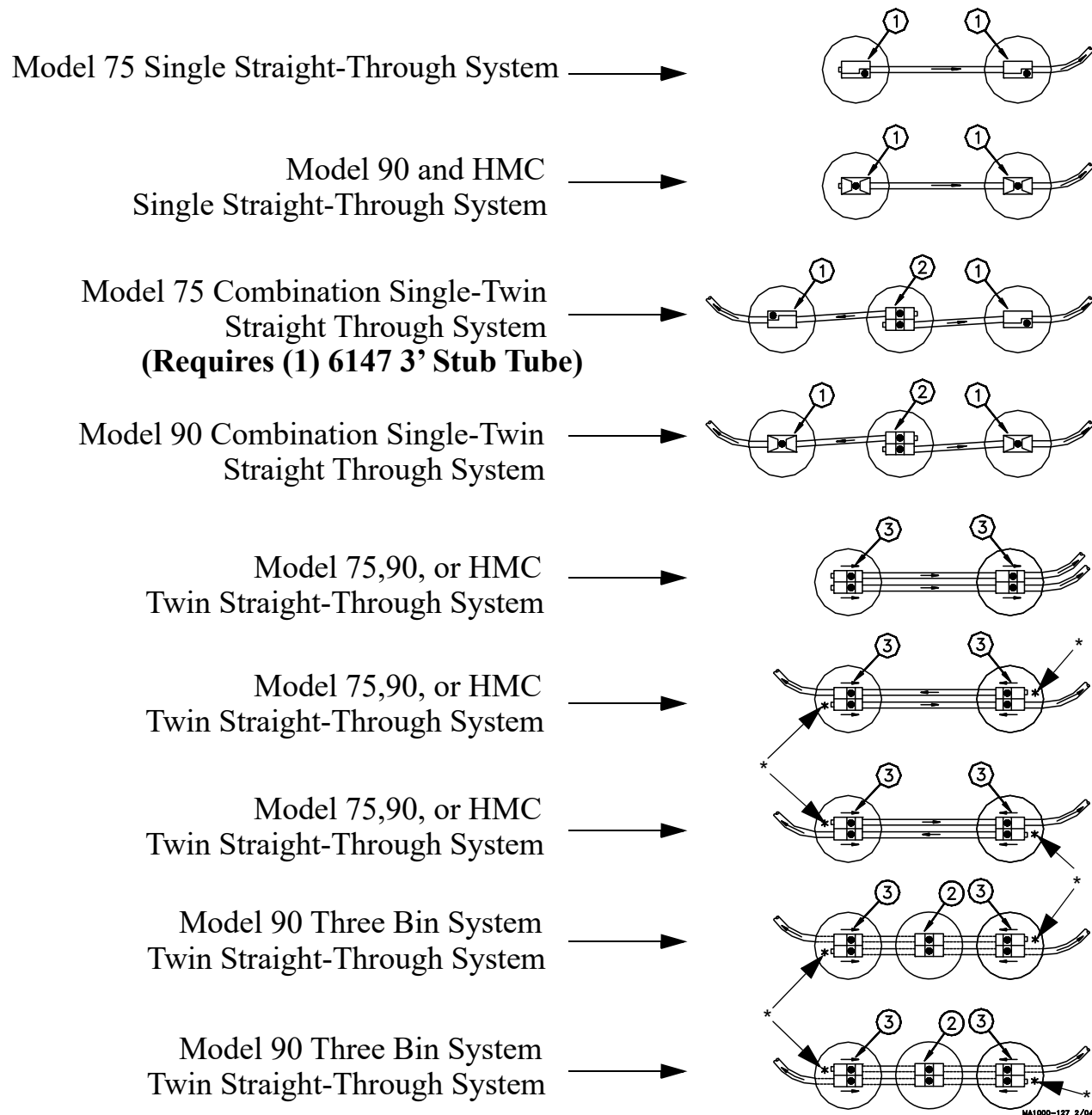
3. Push the auger into the line of tubes and anchor it at the power unit end. Stretch the auger 4 inches per 50 feet (100 mm per 15 m) and cut it even with the rear of the straight-out boot. **Notice the auger stretch is not the same as for Single Boot FLEX-AUGER Systems. Note: For Model 90 3-Bin Systems, stretch auger 6 inches per 50 feet.**
4. Use a tube clamp to secure the bearing cap to the boot.

## Boot Baffles for Straight-Through Boot Systems

The Chore-Time Boot Baffles are for use with dry, coarse, mash, crumbles, or pelleted feeds to prevent boots from overcharging the system.

The Boot Baffles are intended for use in both “straight-out” & “straight-through” boots. Boot Baffles are factory installed on Straight-Through Boot Systems.

See **Figure 30** for applications and auger direction.



### Key Description

- 1 Single Baffled Boot
- 2 Twin Baffled Boot (Model 75 or 90) Mount Either Direction
- 3 Arrow Tape

**\*Note:** On twin systems running in opposite directions, follow the tape on the bearing end of the system.

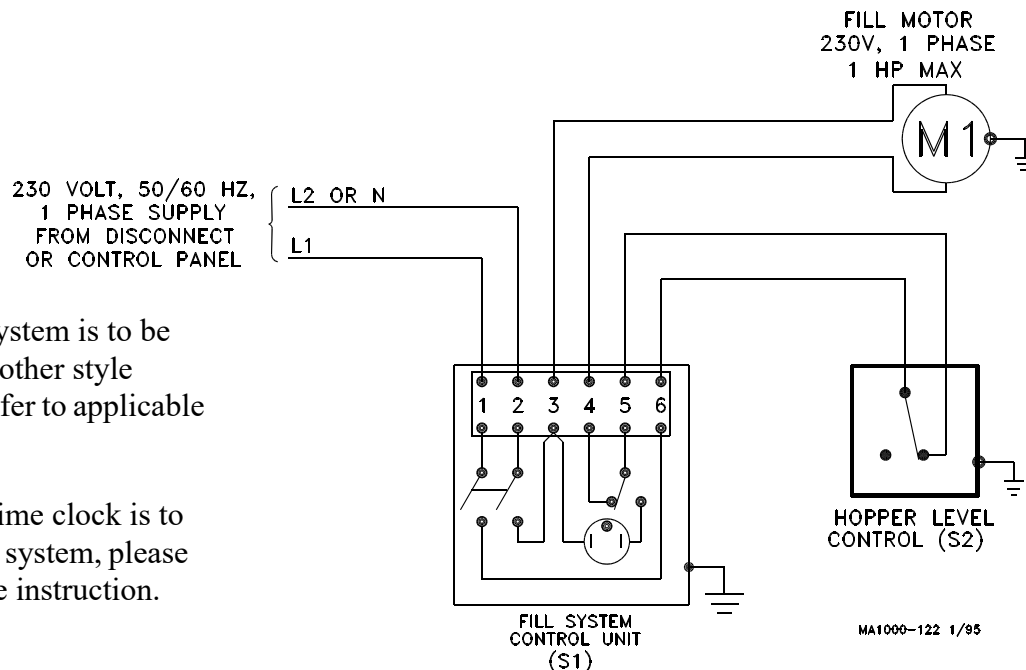
**Figure 30. Optional Baffle Configurations**

## Feed Level Control Installation

The Hopper Level Control (or Drop Tube Switch) is installed in the feed hopper (or in the drop tube over the feeder) at the power unit end of the line. This feed flow control switch stops the FLEX-AUGER System when the last feeder is full. Install the hopper level control or drop tube switch according to instructions shipped with the unit.

The wiring diagram for each type of delivery system shows how the hopper level control (drop tube switch is the same) must be wired into the control unit.

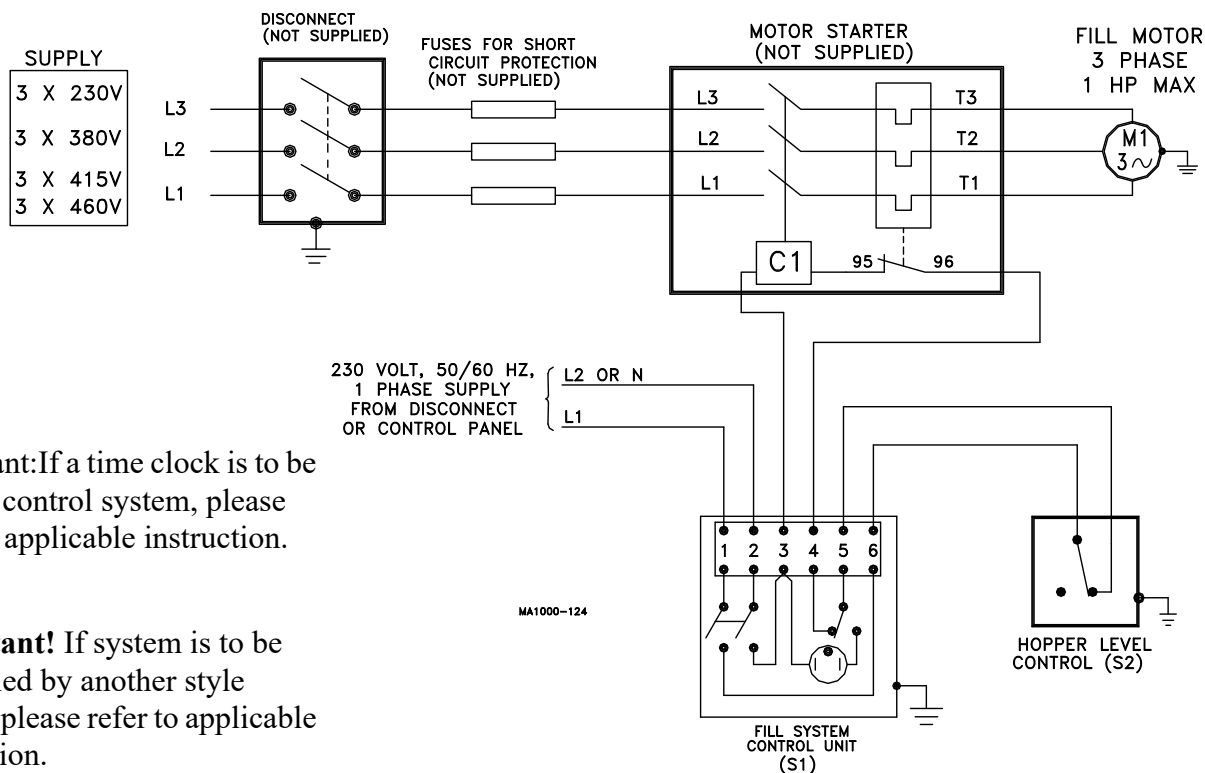
### Hopper Level Control Switch (Single Phase) Wiring



**Important!** If system is to be controlled by another style switch, please refer to applicable instruction.

**Important!** If a time clock is to be used to control system, please refer to applicable instruction.

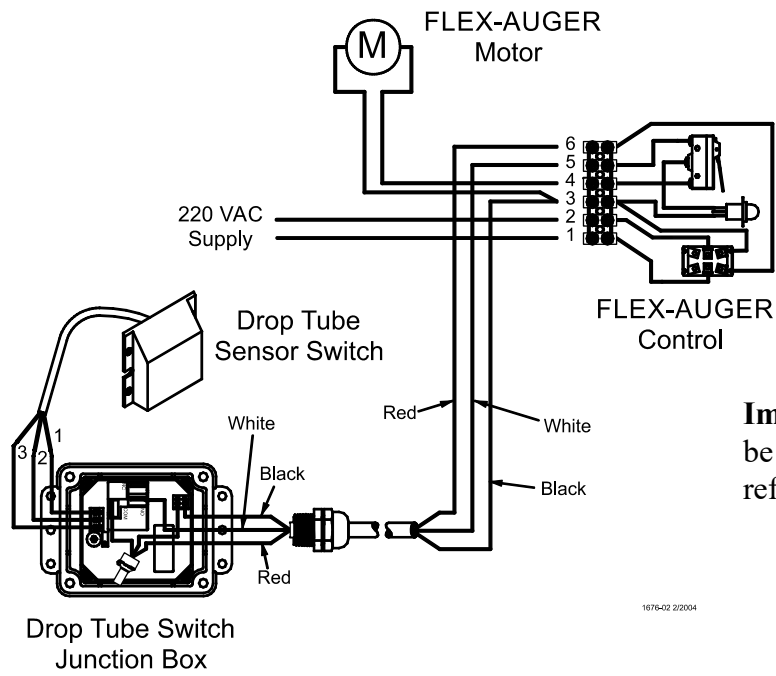
### Hopper Level Control Switch (Three Phase) Wiring



**Important:** If a time clock is to be used to control system, please refer to applicable instruction.

**Important!** If system is to be controlled by another style switch, please refer to applicable instruction.

SENSOR PLUS™ Electronic Switch (Single Phase) Wiring



**Important!** If a time clock is to be used to control system, please refer to applicable instruction.

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## Operation

1. During initial start-up, the boot slide should be only partially open to prevent the auger from being fully charged. Maintain partially open Slide until feed reaches the far end Control Unit. After that, the boot slide must be fully open for proper delivery system operation.
2. Do not permit the FLEX-AUGER system to operate empty. Use a time clock or Auger Timer with the system whenever possible. This reduces short cycling by operating on a preset schedule instead of on demand. It also prevents excessive running of the system if the bin becomes empty. If the optional boot switch is used, the fill system will shut down when the bin becomes empty.
3. Program the time clock to fill feeders often so the FLEX-AUGER System does not have to run a long period of time to get feeders filled. Poultry feeders supplied by the FLEX-AUGER System should be operated by a time clock so feeders start at the same time. This gives the FLEX-AUGER System a better chance to keep up with them. Note: The hopper level control must be positioned low in the last feeder hopper.
4. The red light on the control unit will light if feed has packed inside. If this happens, remove feed from the drop tube and tap the side of the power unit to clear the safety switch. Keep the hopper level control in adjustment and positioned straight up and down so the paddle swings freely. The safety switch does not take the place of the hopper level control.
5. If the FLEX-AUGER System must be used to convey high-moisture feed, empty the auger line completely after each running to prevent the feed from setting up in the tubes.
6. On Baffled Boots, the flow rates are predetermined with factory installed Baffles. The Baffles are non-adjustable.

**On Non-Baffled Boots, the restrictor on the boot anchor regulates the amount of feed flowing into the auger. Start a new system with the restrictor installed as shipped**

**Allow the system to polish out before adjusting the feed flow. If more feed flow is desirable, the restrictor may be shortened. Refer to "Restrictor Adjustment" on page 25.**

7. When feeding with the Straight-Through Tandem System, open the slide on only one bin at a time!

## Start-Up Procedure for New Systems

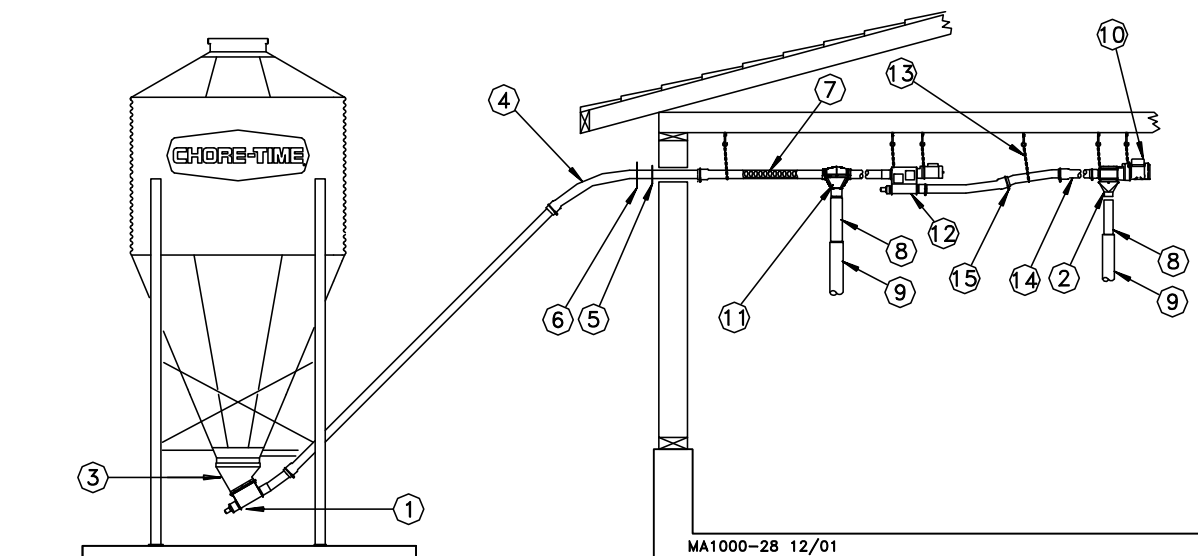
**Important!** DO NOT RUN FEED THROUGH A NEW SYSTEM UNTIL AFTER THIS PROCEDURE HAS BEEN FOLLOWED OR THE AUGER WILL PLUG AND BIND.

1. Close the Slide on the FLEX-AUGER® Boot.
2. Operate the system empty for one minute.
3. Open the slide on the FLEX-AUGER® boot no more than 1 inch (25 mm) to allow some feed into the boot.
4. Operate the system with the slide in this position until feed has reached the Control Unit. This removes the manufacturing grease and oil from the auger and tubes. If this grease and oil is not removed, the feed may bunch up causing the auger to plug and bind.
5. Now the slide can be fully opened and the system operated normally.



## Parts Listing

### Model 55,75,90,& HMC Feed Delivery System Standard Components



| KEY | DESCRIPTION           | Model 55<br>PART NO. | Model 75<br>PART NO.     | Model 90<br>PART NO. | Model HMC<br>PART NO. |
|-----|-----------------------|----------------------|--------------------------|----------------------|-----------------------|
| 1   | Boot Assembly         |                      | See separate parts list. |                      |                       |
| 2   | Control Unit          |                      | See separate parts list  |                      |                       |
| 3   | Upper Boot            |                      | See Separate parts list  |                      |                       |
| 4   | 45 Degree PVC Elbow   | 34855                | 7285                     | 7357                 | 7357                  |
| 5   | Neoprene Seal         | 6394                 | 2613                     | 5035                 | 5035                  |
| 6   | Seal Ring             | 2612                 | 2612                     | 2612                 | 2612                  |
| 7** | Auger                 | 7961-0               | 4744-0                   | 6942-0               | 4744-0                |
| 8   | Plastic Drop Tube     | 1932                 | 1932                     | 6381                 | 6381                  |
| 9   | Telescoping Drop Tube | 14366-1932           | 14366-1932               | 14366-6381           | 14366-6381            |
| 10  | Power Unit            |                      | See separate parts list  |                      |                       |
| 11  | Outlet Drop Kit       | 43455C/43455R        | 43475C/43475R            | 43490C/43490R        | 43490C/43490R         |
| 12  | Extension Hopper      | 40170                | 7944                     | 7869                 | 7849                  |
| 13  | Suspension Kit        | 5043                 | 5043                     | 5043                 | 5043                  |
|     | (25) "S" Hooks        | 2805                 | 2805                     | 2805                 | 2805                  |
|     | (12) Screw Hooks      | 1214                 | 1214                     | 1214                 | 1214                  |
| *** | (25') Chain           | 2128                 | 2128                     | 2128                 | 2128                  |
| 14  | PVC Auger Tube        | 7955                 | 6516                     | 6293                 | 6293                  |
| 15  | Tube Clamp Kit        | 7976                 | 6515                     | 6721                 | 6721                  |

\*\*Model 55 Auger (Part No. 7961-0) may be ordered in lengths from 20 ft. to 400 ft. maximum. Example: 7961-155 would be 155' of auger.

Model 75 Auger (Part No. 4744-0) may be ordered in lengths from 20 ft. to 300 ft. maximum. Example: 4744-155 would be 155' of auger.

Model 90 Auger (Part No. 6942-0) may be ordered in lengths from 20 ft. to 250 ft. maximum. Example: 6942-155 would be 155' of auger.

\*\*\*Chain purchased separately must be in either 100' hank (Part No. 2128-100) or 250' reel (Part No. 2128-250).

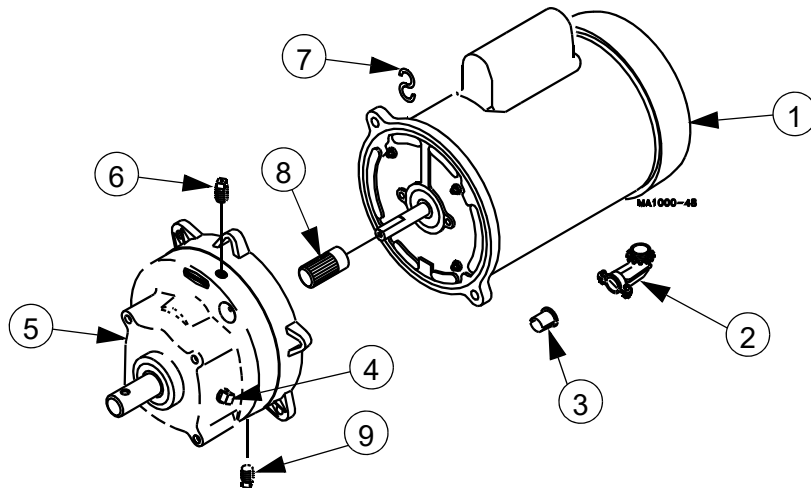
### Steel Components

| DESCRIPTION                    | PART NO. | PART NO. | PART NO. | PART NO. |
|--------------------------------|----------|----------|----------|----------|
| 10' (3 m) Steel Tube           | ----     | 2088     | 5091     | ----     |
| 45 Degree Hardened Steel Elbow | ----     | 14324    | 6472     | ----     |
| Tube Connector Kit             | ----     | 2103     | 6595     | ----     |

**Power Unit Assembly Part Numbers**

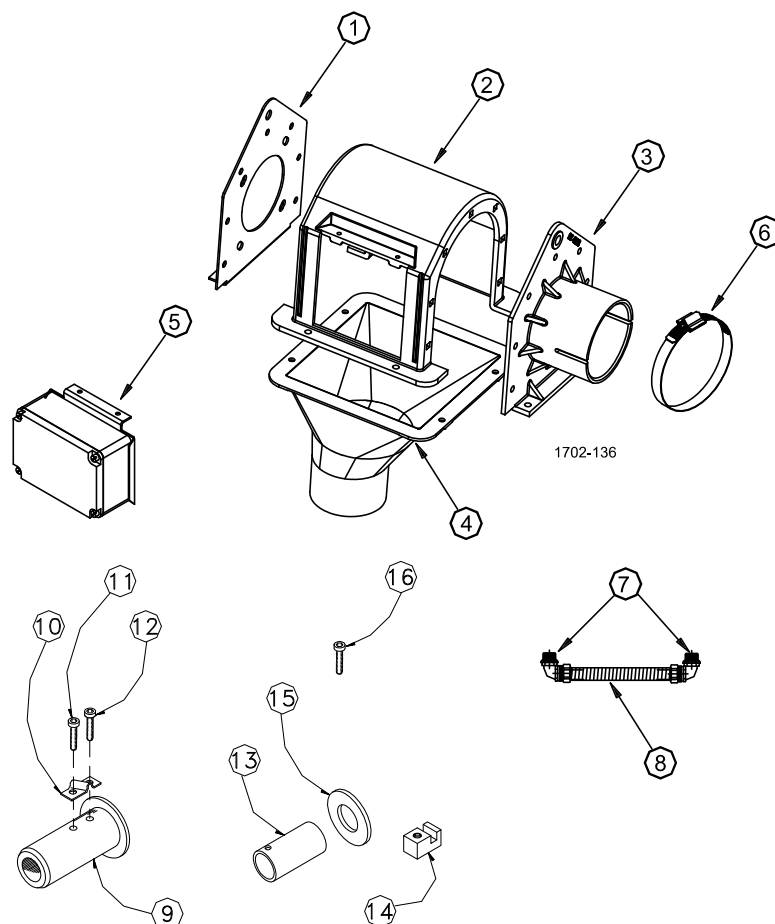
| <u>Part Number</u> | <u>HP</u> | <u>RPM</u> | <u>Phase</u> | <u>Hz</u> | <u>Voltage</u>  | <u>Usages</u>                |
|--------------------|-----------|------------|--------------|-----------|-----------------|------------------------------|
| 3259-49            | 1.0 HP    | 348 RPM    | Single       | 60 Hz     | 230             | Model 75, 90, & HMC          |
| 3259-50            | 1/2 HP    | 216 RPM    | Single       | 60 Hz     | 230             | Model 75/90 Two Motor Tandem |
| 3259-51            | 1/2 HP    | 348 RPM    | Single       | 60 Hz     | 230             | Model 75, 90, & HMC          |
| 3259-52            | 3/4 HP    | 348 RPM    | Single       | 60 Hz     | 230             | Model 75, 90, & HMC          |
| 3259-67            | 1/2 HP    | 129 RPM    | Single       | 60 Hz     | 230             | Model 75, & HMC              |
| 3259-77            | 1/2 HP    | 425 RPM    | Single       | 60 Hz     | 230             | Model 90                     |
| 3259-78            | 3/4 HP    | 425 RPM    | Single       | 60 Hz     | 230             | Model 90                     |
| 3259-79            | 1.0 HP    | 425 RPM    | Single       | 60 Hz     | 230             | Model 90                     |
| 3259-89            | 1.0 HP    | 348 RPM    | Single       | 50 Hz     | 220             | Model 75, 90, & HMC          |
| 3259-34            | 1/3 HP    | 348 RPM    | Single       | 60 Hz     | 230             | Model 55 only                |
| 3259-39            | 1/2 HP    | 348 RPM    | Single       | 60 Hz     | 230             | Model 55 only                |
| 3259-98            | 1/2 HP    | 348 RPM    | Single       | 50 Hz     | 220             | Model 55 only                |
| 3259-88            | 3/4 HP    | 348 RPM    | Single       | 50 Hz     | 220             | Model 75 & 90                |
| 3259-108           | 1.0 HP    | 474 RPM    | Single       | 50 Hz     | 220             | Model 90                     |
| 3259-109           | 1/2 HP    | 180 RPM    | Single       | 50 Hz     | 220             | Model 75, & HMC              |
| 3259-148           | 1.0 HP    | 580 RPM    | Single       | 50 Hz     | 220             | Model 90                     |
| 3259-136           | 3/4 HP    | 216 RPM    | Single       | 60 Hz     | 230             | Model 75, & HMC              |
| 3259-122           | 3/4 HP    | 584 RPM    | Single       | 60 Hz     | 230             | Model 90                     |
| 3259-123           | 1.0 HP    | 584 RPM    | Single       | 60 Hz     | 230             | Model 90                     |
| 3259-124           | 1.5 HP    | 584 RPM    | Single       | 60 Hz     | 230             | Model 90                     |
| 3259-137           | 1.0 HP    | 584 RPM    | Three        | 60 Hz     | 200             | Model 90                     |
| 3259-102           | 1/2 HP    | 180 RPM    | Three        | 50 Hz     | 220/380-415     | Model 75 & HMC               |
| 3259-105           | 1.0 HP    | 348 RPM    | Three        | 50 Hz     | 220/380-415     | Model 75 & 90                |
| 3259-107           | 1.0 HP    | 474 RPM    | Three        | 50 Hz     | 220/380-415     | Model 90                     |
| 3259-117           | 1.0 HP    | 348 RPM    | Three        | 60 Hz     | 208-230/460     | Model 75, 90, & HMC          |
| 3259-118           | 1.0 HP    | 425 RPM    | Three        | 60 Hz     | 208-230-460     | Model 75 & 90                |
| 3259-120           | 3/4 HP    | 425 RPM    | Three        | 60 Hz     | 208-230-460     | Model 75 & 90                |
| 3259-119           | 3/4 HP    | 348 RPM    | Three        | 60 Hz     | 208-230/460     | Model 75, 90, & HMC          |
| 3259-134           | 1/2 HP    | 348 RPM    | Three        | 60 Hz     | 220-240/380-400 | Model 55                     |
| 3259-137           | 1.5 HP    | 584 RPM    | Three        | 60 Hz     | 200/380         | Model 90                     |
| 3259-150           | 1.0 HP    | 580 RPM    | Three        | 50 Hz     | 220/380         | Model 90                     |
| 3259-151           | 1.5 HP    | 580 RPM    | Three        | 50 Hz     | 220/380         | Model 90                     |
| 3259-152           | 1.0 HP    | 584 RPM    | Three        | 60 Hz     | 220/380         | Model 90                     |

## 3259-0 Power Units



| Key | Description         | 3259-49<br>Part No.  | 3259-50<br>Part No.  | 3259-51<br>Part No.  | 3259-52<br>Part No.  | 3259-89<br>Part No.  | 3259-102<br>Part No. | 3259-67<br>Part No.  |
|-----|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1   | Motor               | 6857                 | 5050                 | 5050                 | 5051                 | 26157                | 28033                | 5703                 |
| 4   | Pipe Plug           | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 |
| 5   | Gearhead            | 3261-7               | 3261-6               | 3261-7               | 3261-7               | 3261-10              | 3261-6               | 3261-8               |
| 6   | Vent Plug           | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 |
| 7   | S Hook              | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 |
| 8   | Pinion Assembly     | 6104                 | 3249                 | 5046                 | 5046                 | 6104                 | 3249                 | 3245                 |
| 9   | Magnetic Pipe Plug  | 30160                | 30160                | 30160                | 30160                | 30160                | 30160                | 30160                |
| Key | Description         | 3259-34<br>Part No.  | 3259-39<br>Part No.  | 3259-98<br>Part No.  | 3259-88<br>Part No.  | 3259-107<br>Part No. | 3259-108<br>Part No. | 3259-109<br>Part No. |
| 1   | Motor               | 4229                 | 5703                 | 5977                 | 6305                 | 28035                | 26157                | 5977                 |
| 2   | 90 Degree Connector | 4228                 | 4228                 | ----                 | ----                 | ----                 | ----                 | ----                 |
| 3   | Anti-Short Bushing  | 6304                 | 6304                 | ----                 | ----                 | ----                 | ----                 | ----                 |
| 4   | Pipe Plug           | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 |
| 5   | Gearhead            | 3261-5               | 3261-5               | 3261-11              | 3261-10              | 3261-13              | 3261-13              | 3261-6               |
| 6   | Vent Plug           | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 |
| 7   | S Hook              | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 |
| 8   | Pinion Assembly     | 5046                 | 5046                 | 5046                 | 5046                 | 6104                 | 6104                 | 3249                 |
| 9   | Magnetic Pipe Plug  | 30160                | 30160                | 30160                | 30160                | 30160                | 30160                | 30160                |
| Key | Description         | 3259-117<br>Part No. | 3259-119<br>Part No. | 3259-105<br>Part No. | 3259-77<br>Part No.  | 3259-78<br>Part No.  | 3259-79<br>Part No.  | 3259-136<br>Part No. |
| 1   | Motor               | 34101                | 34102                | 28035                | 5050                 | 5051                 | 6857                 | 5051                 |
| 4   | Pipe Plug           | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 |
| 5   | Gearhead            | 3261-7               | 3261-7               | 3261-10              | 3261-10              | 3261-10              | 3261-10              | 3261-6               |
| 6   | Vent Plug           | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 |
| 7   | S Hook              | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 |
| 8   | Pinion Assembly     | 6104                 | 5046                 | 6104                 | 5052                 | 5052                 | 6106                 | 3245                 |
| 9   | Magnetic Pipe Plug  | 30160                | 30160                | 30160                | 30160                | 30160                | 30160                | 30160                |
| Key | Description         | 3259-122<br>Part No. | 3259-123<br>Part No. | 3259-124<br>Part No. | 3259-137<br>Part No. | 3259-118<br>Part No. | 3259-120<br>Part No. |                      |
| 1   | Motor               | 5051                 | 6857                 | 8782                 | 28036EUR             | 34101                | 34102                |                      |
| 4   | Pipe Plug           | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 |                      |
| 5   | Gearhead            | 3261-13              | 3261-13              | 3261-13              | 3261-13              | 3261-10              | 3261-10              |                      |
| 6   | Vent Plug           | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 |                      |
| 7   | S Hook              | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 |                      |
| 8   | Pinion Assembly     | 5052                 | 6106                 | 6106                 | 6106                 | 6106                 | 5052                 |                      |
| 9   | Magnetic Pipe Plug  | 30160                | 30160                | 30160                | 30160                | 30160                | 30160                |                      |
| Key | Description         | 3259-134<br>Part No. | 3259-137<br>Part No. | 3259-148<br>Part No. | 3259-150<br>Part No. | 3259-151<br>Part No. | 3259-152<br>Part No. |                      |
| 1   | Motor               | 28031EUR             | 28036EUR             | 26157                | 28035EUR             | 28036EUR             | 28035EUR             |                      |
| 4   | Pipe Plug           | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 | 2755                 |                      |
| 5   | Gearhead            | 3261-5               | 3261-13              | 3261-16              | 3261-16              | 3261-16              | 3261-13              |                      |
| 6   | Vent Plug           | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 | 3523                 |                      |
| 7   | S Hook              | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 | 4270                 |                      |
| 8   | Pinion Assembly     | 5046                 | 6104                 | 6104                 | 6104                 | 6104                 | 6104                 |                      |
| 9   | Magnetic Pipe Plug  | 30160                | 30160                | 30160                | 30160                | 30160                | 30160                |                      |

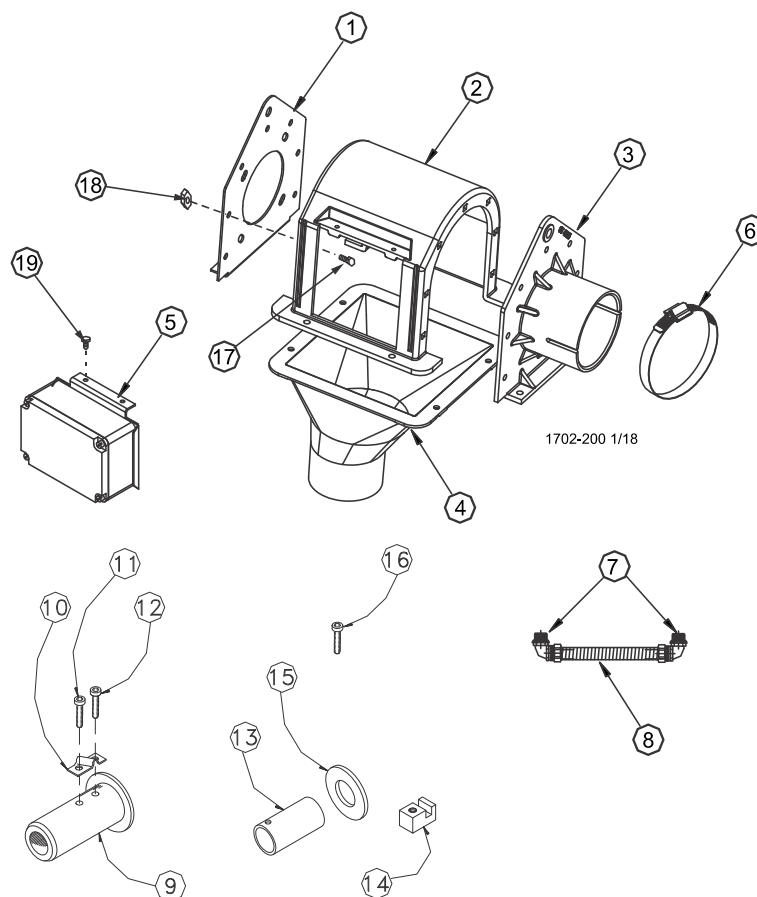
## Direct Drive Control Unit (Single Phase)



| KEY | DESCRIPTION                        | Model 55<br>46800-1<br>PART NO. | Model 75<br>46800-2<br>PART NO. | Model 90<br>46800-4<br>PART NO. | Model HMC<br>46800-3<br>PART NO. |
|-----|------------------------------------|---------------------------------|---------------------------------|---------------------------------|----------------------------------|
| 1   | Gearhead End Plate                 | 43596                           | 43596                           | 43596                           | 43596                            |
| 2   | Control Unit Body                  | 43601                           | 43601                           | 43601                           | 43601                            |
| 3   | Tube Anchor Plate Weldment         | 45924                           | 45925                           | 45926                           | 45926                            |
| 4   | Control Unit Funnel                | 45943-1                         | 45943-1                         | 45943-2                         | 45943-2                          |
| 5   | Switch & Plate Assembly            | 46051                           | 46051                           | 46051                           | 46051                            |
| 6   | H.D. Adjustable Clamp              | 47652-1                         | 47652-1                         | 47652-1                         | 47652-1                          |
| 7   | Water Tight Connector              | 23810                           | 23810                           | 23810                           | 23810                            |
| 8   | Non-Metal Flex Conduit             | 26982-10                        | 26982-10                        | 26982-10                        | 26982-10                         |
| 9*  | Driver Weldment                    |                                 | 7704                            | 7706                            | 7704                             |
| 10* | Anchor Clamp                       |                                 | 7703                            | 7703                            | 7703                             |
| 11* | 5/16-18x1/2" Socket Hd Cap Screw   |                                 | 6850-3                          | 6850-3                          | 6850-3                           |
| 12* | 5/16-18x2-1/2" Socket Hd Cap Screw |                                 | 6850-4                          | 6850-4                          | 6850-4                           |
| 13* | Drive Tube                         | 2920                            |                                 |                                 |                                  |
| 14* | Drive Block                        | 4642                            |                                 |                                 |                                  |
| 15* | Flat Washer                        | 1484                            |                                 |                                 |                                  |
| 16* | 1/4-20x1-1/2" Screw                | 5083-8                          |                                 |                                 |                                  |
| --  | Driver Assembly                    | 46458                           | 6862                            | 6861                            | 6862                             |

\*Parts included in Driver Assembly (Part No's 46458, 6862, or 5861 respectively).

## Stainless Steel Direct Drive Control Unit (Single Phase)



| KEY | DESCRIPTION                        | Model 55<br>46800-27<br>PART NO. | Model 75<br>46800-28<br>PART NO. | Model 90<br>46800-30<br>PART NO. | Model HMC<br>46800-29<br>PART NO. |
|-----|------------------------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------------------|
| 1   | Gearhead End Plate                 | 43596SS                          | 43596SS                          | 43596SS                          | 43596SS                           |
| 2   | Control Unit Body                  | 43601                            | 43601                            | 43601                            | 43601                             |
| 3   | Tube Anchor Plate Weldment         | 45924                            | 45925                            | 45926                            | 45926                             |
| 4   | Control Unit Funnel                | 45943-1                          | 45943-1                          | 45943-2                          | 45943-2                           |
| 5   | Switch & Plate Assembly            | 46051SS                          | 46051SS                          | 46051SS                          | 46051SS                           |
| 6   | H.D. Adjustable Clamp              | 47652-1                          | 47652-1                          | 47652-1                          | 47652-1                           |
| 7   | Water Tight Connector              | 23810                            | 23810                            | 23810                            | 23810                             |
| 8   | Non-Metal Flex Conduit             | 26982-10                         | 26982-10                         | 26982-10                         | 26982-10                          |
| 9*  | Driver Weldment                    |                                  | 7704                             | 7706                             | 7704                              |
| 10* | Anchor Clamp                       |                                  | 7703                             | 7703                             | 7703                              |
| 11* | 5/16-18x1/2" Socket Hd Cap Screw   |                                  | 6850-3                           | 6850-3                           | 6850-3                            |
| 12* | 5/16-18x2-1/2" Socket Hd Cap Screw |                                  | 6850-4                           | 6850-4                           | 6850-4                            |
| 13* | Drive Tube                         | 2920                             |                                  |                                  |                                   |
| 14* | Drive Block                        | 4642                             |                                  |                                  |                                   |
| 15* | Flat Washer                        | 1484                             |                                  |                                  |                                   |
| 16* | 1/4-20x1-1/2" Screw                | 5083-8                           |                                  |                                  |                                   |
| --  | Driver Assembly                    | 46458                            | 6862                             | 6861                             | 6862                              |
| 17  | 1/4-20 Rd. Hd. Sq Shnk. Bolt (SS)  | 7550-6                           | 7550-6                           | 7550-6                           | 7550-6                            |
| 18  | 1/4-20 Hx Flg. Serr. Nut (SS)      | 46298                            | 46298                            | 46298                            | 46298                             |
| 19  | #10-14 Twin Helix Screw (SS)       | 28075SS                          | 28075SS                          | 28075SS                          | 28075SS                           |

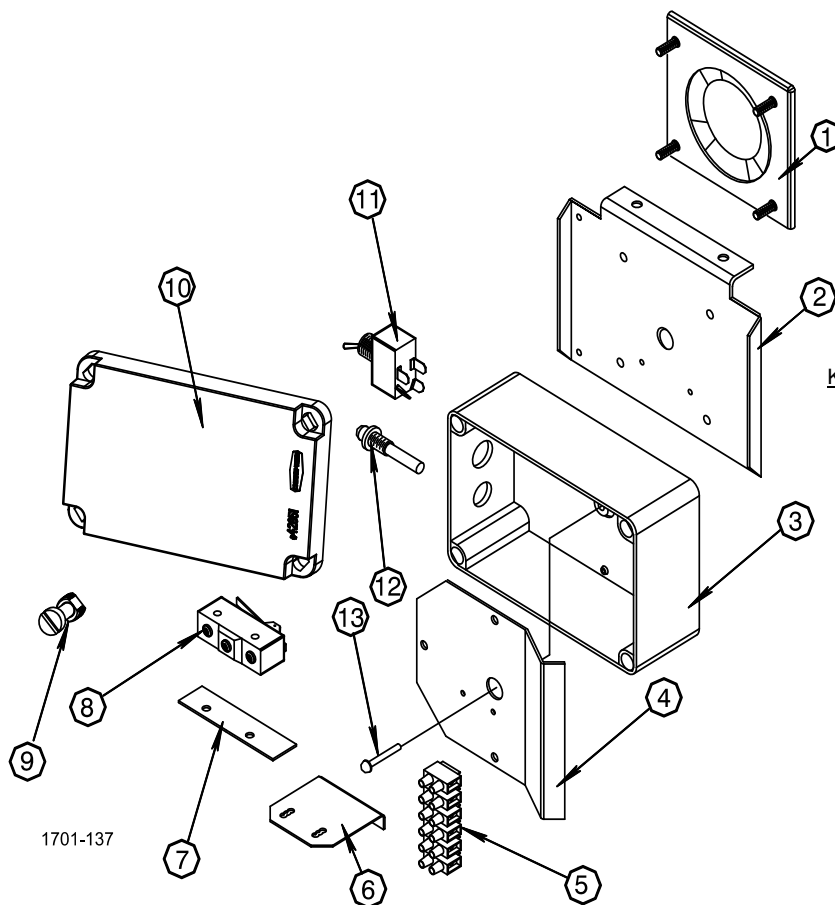
\*Parts included in Driver Assembly (Part No's 46458, 6862, or 5861 respectively).

## International Direct Drive Control Units (3 Phase)

| Model 55<br>46800-31 | Model 75<br>46800-32 | Model 90<br>46800-34 | Model HMC<br>46800-33 |
|----------------------|----------------------|----------------------|-----------------------|
|----------------------|----------------------|----------------------|-----------------------|

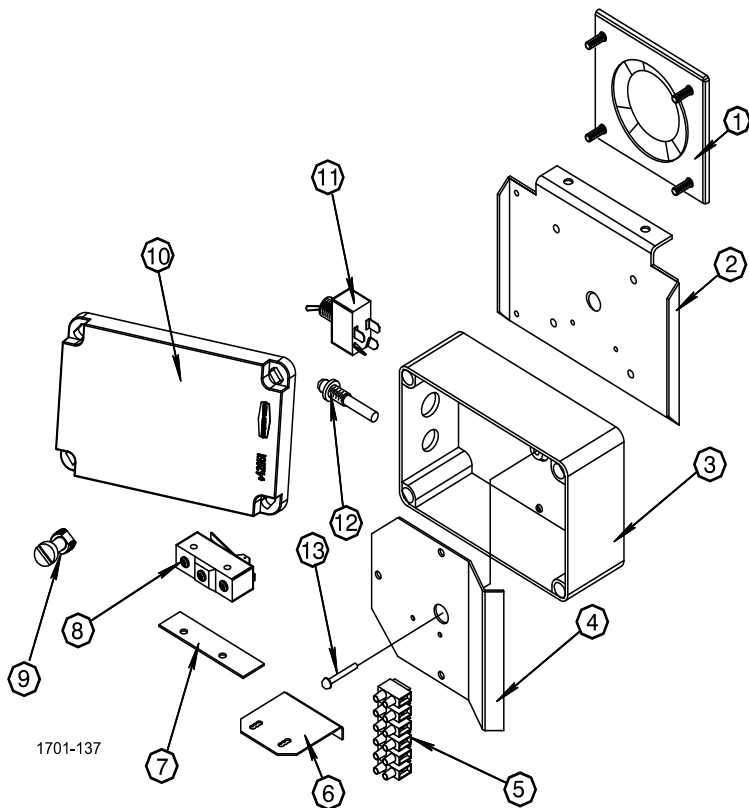
Components - Same as Standard Direct Drive Control Units except does not include the 90° connectors and the flex conduit

## 46051 Switch & Plate Assembly



| KEY | DESCRIPTION                            | PART NO. |
|-----|--|----------|
| 1   | Diaphragm Assembly                     | 46159    |
| 2   | Switch Cover Plate                     | 46030    |
| 3   | 4x6 Electrical Box                     | 46070-1  |
| 4   | Mount Panel                            | 46072    |
| 5   | Terminal Block                         | 34925-6  |
| 6   | Switch Bracket                         | 46093    |
| 7   | Switch Insulation                      | 1907-5   |
| 8   | Micro Switch                           | 46091    |
| 9   | Plastic Screw                          | 42849    |
| 10  | 4x6 Elect Box Cover                    | 42851    |
| 11  | Toggle Switch                          | 7767     |
| 12  | Pilot Light                            | 46047    |
| 13  | Rivet, 3/16 x 1.00<br>round Head(S.S.) | 46906    |

## 46051SS Switch & Plate Assembly



| KEY | DESCRIPTION                            | PART NO. |
|-----|--|----------|
| 1   | Diaphragm Assembly                     | 46159    |
| 2   | Switch Cover Plate (SS)                | 46030SS  |
| 3   | 4x6 Electrical Box                     | 46070-1  |
| 4   | Mount Panel                            | 46072    |
| 5   | Terminal Block                         | 34925-6  |
| 6   | Switch Bracket                         | 46093    |
| 7   | Switch Insulation                      | 1907-5   |
| 8   | Micro Switch                           | 46091    |
| 9   | Plastic Screw                          | 42849    |
| 10  | 4x6 Elect Box Cover                    | 42851    |
| 11  | Toggle Switch                          | 7767     |
| 12  | Pilot Light                            | 46047    |
| 13  | Rivet, 3/16 x 1.00<br>round Head(S.S.) | 46906    |

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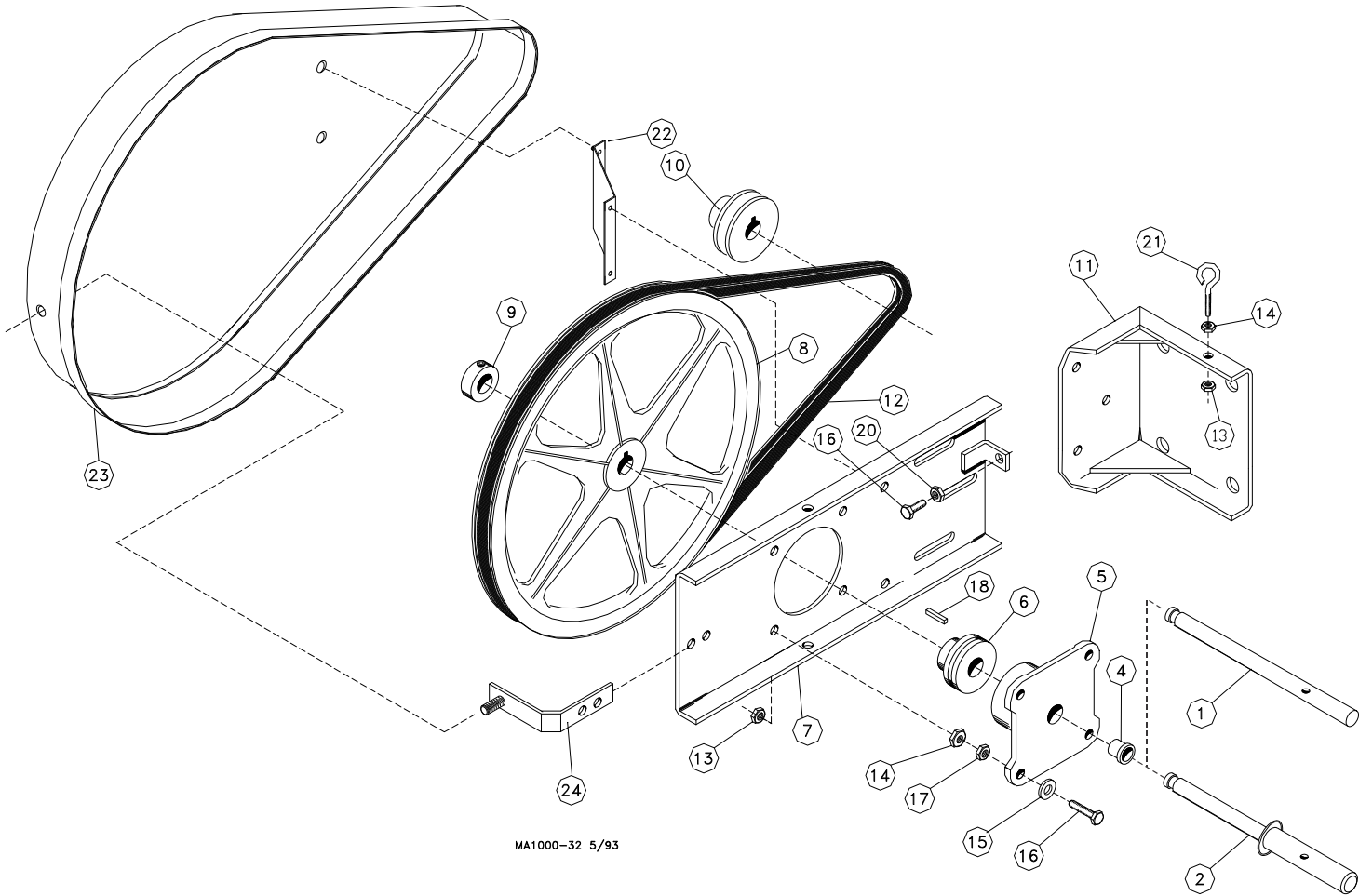
40

## Standard Belt Drive Control Units

| KEY | DESCRIPTION              | Model 55             | Model 75             | Model 90             | Model HMC            |
|-----|--------------------------|----------------------|----------------------|----------------------|----------------------|
|     |                          | 46800-11<br>PART NO. | 46800-12<br>PART NO. | 46800-14<br>PART NO. | 46800-13<br>PART NO. |
| --  | Control Unit             | 46800-6              | 46800-7              | 46800-9              | 46800-8              |
| --* | Belt Drive Parts Package | 46138-1              | 46138-2              | 46138-2              | 46138-2              |

\*See separate parts list “**Boot Components**” on page 43 for individual components.

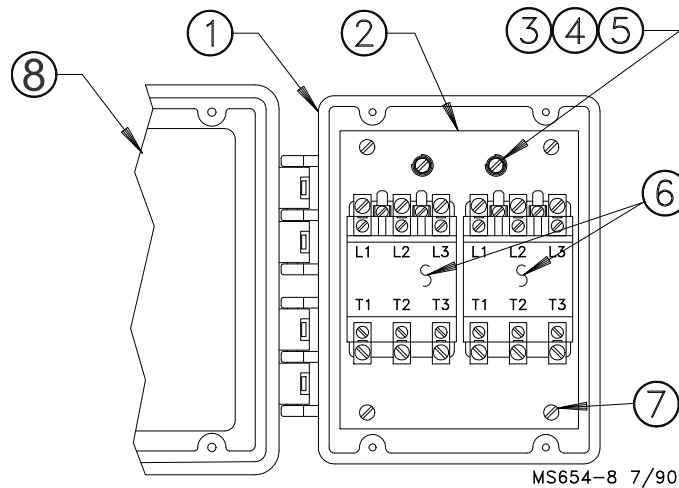
Note: The Belt Drive Control Units include all the Direct Drive Control Unit components, plus the following components.





| Item   | Description                      | Part Number |                       |
|--|----------------------------------|-------------|-----------------------|
|  |                                  | Model 55    | Model 75, 90, and HMC |
| 1 <sup>1</sup>   | Model 55 Driver Shaft            | 27126       | --                    |
| 2 <sup>2</sup>   | Model 75, 90, & HMC Driver Shaft | --          | 46156                 |
| *3 <sup>1,2</sup>  | Grease Fitting                   | 6021        | 6021                  |
| *4 <sup>1,2</sup>  | Flange Bearing                   | 2196        | 2196                  |
| *5 <sup>1,2</sup>  | Front Plate Bearing Holder       | 2047        | 2047                  |
| *6 <sup>1,2</sup>  | Ball Bearing                     | 5930        | 5930                  |
| 7  | Adjustment Bracket               | 46301       | 46301                 |
| 8  | 11" Dia. Sheave                  | 46190       | 46190                 |
| 9 <sup>1,2</sup>   | 5/8" Set Collar                  | 1386        | 1386                  |
| 10   | 2.25" Dia. Sheave                | 3208        | 3208                  |
| 11   | Motor Mount Weldment             | 3058        | 3058                  |
| 12   | "V" Gripnotch Belt               | 4409        | 4409                  |
| 13   | 5/16-18 Hex Locknut              | 2148        | 2148                  |
| 14   | 5/16-18 Hex Locknut              | 593         | 593                   |
| 15   | 5/16 Flat Washer                 | 546         | 546                   |
| 16   | 5/16-18x1-3/4" Hex Hd. M.S.      | 4412-4      | 4412-4                |
| 17   | 5/16-18 Hex Lock Nut             | 2148        | 2148                  |
| 18 <sup>1,2</sup>  | 3/16" Key                        | 2112-1      | 2112-1                |
| 20   | 5/16-18 Hex Nut                  | 2145        | 2145                  |
| 21   | Eyebolt                          | 1503-2      | 1503-2                |
| 22   | Belt Guard Mount                 | 46198       | 46198                 |
| 23   | Belt Guard                       | 46199       | 46199                 |
| 24   | Angle Guard Mount                | 46299       | 46299                 |
| * May be ordered as Bearing Assembly (Part no. 2096)                       |                                  |             |                       |
| <sup>1</sup> May be ordered as Bearing and Shaft Assembly (Part no. 46486) |                                  |             |                       |
| <sup>2</sup> May be ordered as Bearing and Shaft Assembly (Part no. 46157) |                                  |             |                       |

## 24392-0 Contactor Box



| <u>Key</u> | <u>Description</u>     | <u>Part No.</u> |
|------------|------------------------|-----------------|
| 1          | Box                    | 30860-3         |
| 2          | Mounting Plate Support | 41436           |
| 3          | #10 Ext. Lock washer   | 305             |
| 4          | #10-32 Hex Screw       | 34662           |
| 5          | Cup Washer             | 5775            |
| 6          | Contactor              | 55503-230       |
| 7          | #10-24 Pan Head Screw  | 46011           |
| 8          | Lid                    | 30859-2         |

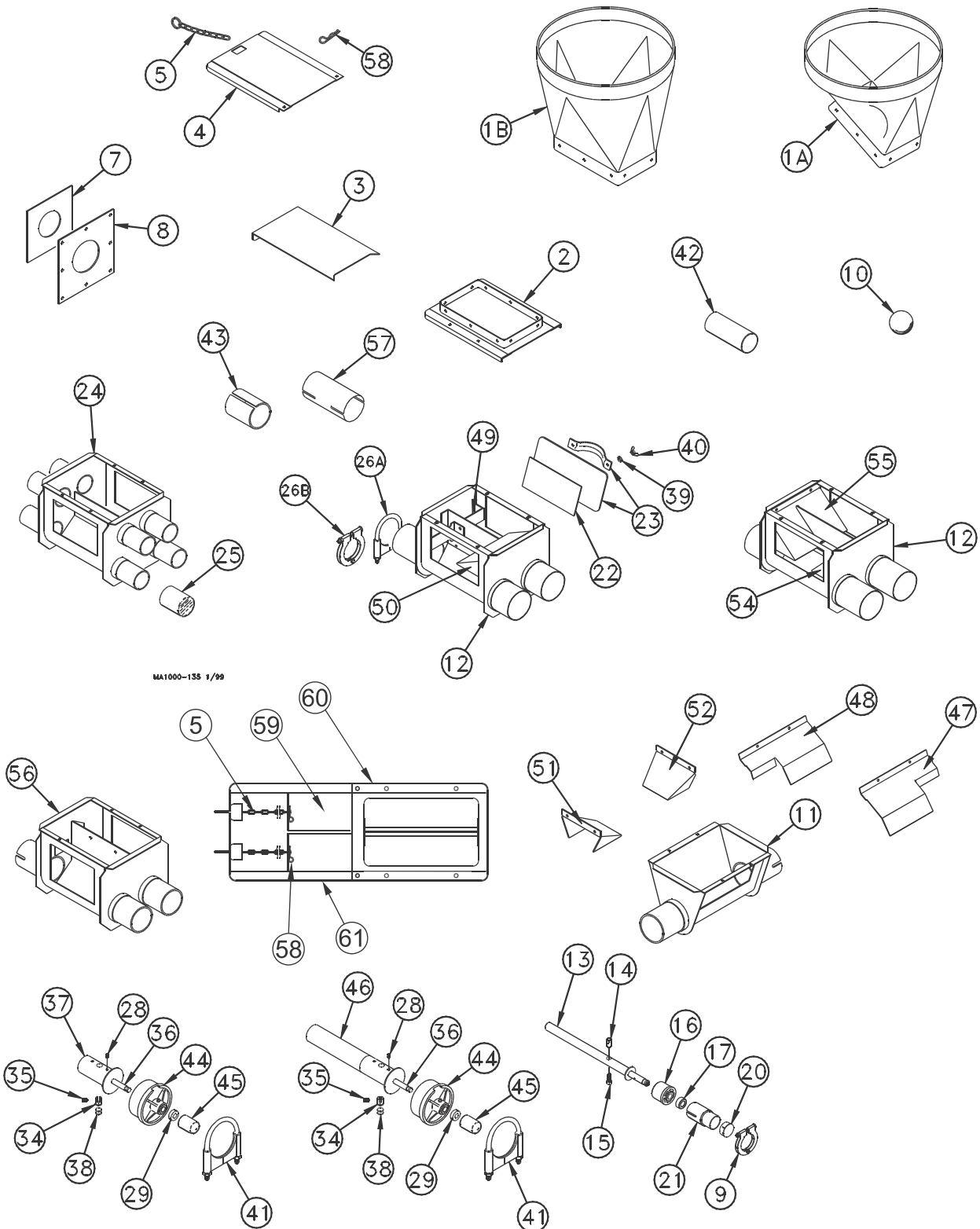
The Contactor Box containing (1) 55503-230 Contactor may be ordered under Part No. 24392-1.

The Contactor Box containing (2) 55503-230 Contactors may be ordered under Part No. 24392-2.

The Contactor Box containing (3) 55503-230 Contactors may be ordered under Part No. 24392-3.

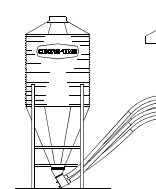
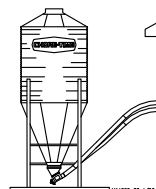
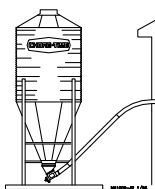
## Boot Components

**Note:** The Parts Listings on the following pages provide the parts numbers associated with this drawing. Be sure to refer to the appropriate page for your model of FLEX-AUGER.



## Model 55 Boot Components

See “Boot Components” on page 43 for Part Schematic.



| Item            | Description             | 30 Degree<br>Single Boot | 30 Degree<br>Twin Boot | 30 Degree<br>Quad Boot |
|-----------------|-------------------------|--------------------------|------------------------|------------------------|
| -- <sup>5</sup> | Complete System         | 8465 <sup>5</sup>        | 8466 <sup>5</sup>      | 8467 <sup>5</sup>      |
| -- <sup>2</sup> | Lower Boot Assembly     | 9313                     | 9314                   | 9315                   |
| 1A <sup>6</sup> | 30 Degree Upper Boot    | 4347R <sup>6</sup>       | 4347R <sup>6</sup>     | 4347R <sup>6</sup>     |
| 2 <sup>3</sup>  | Transfer Plate          | 4359                     | 4359                   | 4359                   |
| 3 <sup>3</sup>  | Slide                   | 4357                     | 4357                   | 36091                  |
| 4 <sup>3</sup>  | Slide Shield            | 4876                     | 4876                   | 4876                   |
| 5 <sup>3</sup>  | Chain Assembly          | 27374                    | 27374                  | 27374                  |
| 7               | Neoprene Seal           | 6394                     | 6394                   | 6394                   |
| 8               | Seal Ring               | 2612                     | 2612                   | 2612                   |
| 9               | Tube Clamp              | 29515                    | 29515                  | 29515                  |
| 10              | Cannonball              | 3621                     | 3621                   | 3621                   |
| 11              | Single Boot Body        | 7999                     | ----                   | ----                   |
| 13 <sup>1</sup> | Model 55 Anchor         | 39410                    | 39410                  | 39410                  |
| 14 <sup>1</sup> | Auger Clamp             | 39205                    | 39205                  | 39205                  |
| 15 <sup>1</sup> | Socket Head Screw       | 6850-7                   | 6850-7                 | 6850-7                 |
| 16 <sup>1</sup> | Anchor Bearing          | 39407                    | 39407                  | 39407                  |
| 17 <sup>1</sup> | Set Collar              | 1386                     | 1386                   | 1386                   |
| 20              | Cap                     | 29523                    | 29523                  | 29523                  |
| 21              | Stub Tube               | 4163                     | 4163                   | 4163                   |
| 22 <sup>4</sup> | Back Plate Weldment     | 6298                     | 6298                   | 6298                   |
| 23 <sup>4</sup> | Clean-Out Cover         | 6301                     | 6301                   | 6301                   |
| 24              | Quad Boot Weldment      | ----                     | ----                   | 7980                   |
| 25              | Outlet Cover            | ----                     | ----                   | 8026                   |
| 26B             | Tube Clamp              | 29520                    | 29520                  | 29520                  |
| 39 <sup>4</sup> | Sealing Washer          | 8491                     | 8491                   | 8491                   |
| 40 <sup>4</sup> | 5/16-18 Wing Nut        | 2146                     | 2146                   | 2146                   |
| 42              | 5" Stub Tube            | 8555                     | 8555                   | 8555                   |
| 56              | Twin Boot Body Weldment | ----                     | 7998                   | ----                   |
| 58 <sup>3</sup> | Hairpin                 | 13906                    | 13906                  | 13906                  |

<sup>1</sup>These components may be ordered as a Model 55 Anchor Bearing Assembly under Chore-Time Part No. 39405.

<sup>2</sup>Items 2 through 56 and item 58 (as listed above) make up the Lower Boot Assemblies (Single, Twin, or Quad).

<sup>3</sup>Items 2 through 6 and item 58 may be ordered under Chore-Time Part No. 6284.

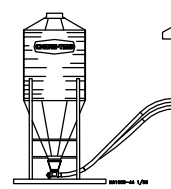
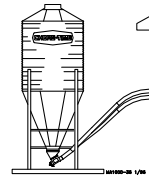
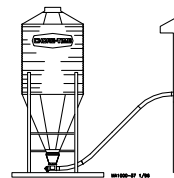
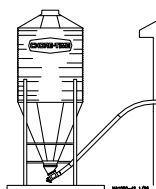
<sup>4</sup>Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 Clean-Out Cover Ass'y.

<sup>5</sup>All Complete Systems will come with transparent Red upper boot(s) unless specified with a “C” (i.e. Complete System # 8465C) This “C” indicates the Complete System will come with a transparent Clear upper boot.

<sup>6</sup>Upper boot Part No.'s will have a suffix “R” for transparent Red upper boots (i.e. 4347R) or will have a suffix “C” for transparent Clear upper boots (i.e. 4347C).

## Model 75 Boot Components

See “Boot Components” on page 43 for Part Schematic.



| Item              | Description              | 30 Degree<br>Single Boot | Straight-Out<br>Single Boot | 30 Degree<br>Twin Boot | Straight-Out<br>Twin Boot |
|-------------------|--------------------------|--------------------------|-----------------------------|------------------------|---------------------------|
| -- <sup>5</sup>   | Complete System          | 6539 <sup>5</sup>        | 6540 <sup>5</sup>           | 6873 <sup>5</sup>      | 36801 <sup>5</sup>        |
| -- <sup>2</sup>   | Lower Boot Assembly      | 36442                    | 36589                       | 36389                  | 36390                     |
| 1A <sup>6</sup>   | 30 Degree Upper Boot     | 4347R <sup>6</sup>       | ----                        | 4347R <sup>6</sup>     | ----                      |
| 1B <sup>6</sup>   | Straight Out Upper Boot  | ----                     | 6093R <sup>6</sup>          | ----                   | 6093R <sup>6</sup>        |
| 2 <sup>3</sup>    | Transfer Plate Weldment  | 4359                     | 4359                        | 4359                   | 36641                     |
| 3 <sup>3</sup>    | Slide                    | 4357                     | 4357                        | 4357                   | 14821                     |
| 4 <sup>3</sup>    | Slide Shield             | 4876                     | 4876                        | 4876                   | 14827                     |
| 5 <sup>3,8</sup>  | Chain Assembly           | 27374                    | 27374                       | 27374                  | 27374                     |
| 7                 | Neoprene Seal            | 2613                     | 2613                        | 2613                   | 2613                      |
| 8                 | Seal Ring                | 2612                     | 2612                        | 2612                   | 2612                      |
| 10                | Cannonball               | 3531                     | 3531                        | 3531                   | 3531                      |
| 11                | Single Boot Body         | 36588                    | 36588                       | ----                   | ----                      |
| 12                | Twin Boot Body           | ----                     | ----                        | 36350                  | 36350                     |
| 22 <sup>4</sup>   | Back Plate Weldment      | 6298                     | 6298                        | 6298                   | 6298                      |
| 23 <sup>4</sup>   | Clean-Out Cover          | 6301                     | 6301                        | 6301                   | 6301                      |
| 26A               | Tube Clamp Kit           | 6515                     | 6515                        | 6515                   | 6515                      |
| 28 <sup>1</sup>   | 5/16-18 x 3/8" Set Screw | 1174                     | 1174                        | 1174                   | 1174                      |
| 29 <sup>1</sup>   | 5/8" Set Collar          | 1386                     | 1386                        | 1386                   | 1386                      |
| 34 <sup>1</sup>   | Clamp Pin                | 4702                     | 4702                        | 4702                   | 4702                      |
| 35 <sup>1</sup>   | 5/16-18 x 1/2" Set Screw | 5095                     | 5095                        | 5095                   | 5095                      |
| 36 <sup>1</sup>   | Anchor Shaft             | 43281                    | 43281                       | 43281                  | 43281                     |
| 39 <sup>4</sup>   | Sealing Washer           | 8491                     | 8491                        | 8491                   | 8491                      |
| 40 <sup>4</sup>   | 5/16-18 Wing Nut         | 2146                     | 2146                        | 2146                   | 2146                      |
| 41 <sup>1</sup>   | Tube Clamp Kit           | 4141                     | 4141                        | 4141                   | 4141                      |
| 42 <sup>7</sup>   | 2.75 x 3.0 Tube          | 6147                     | 6147                        | 6147                   | 6147                      |
| 44                | Bearing Cap              | 35440                    | 35440                       | 35440                  | 35440                     |
| 45 <sup>1</sup>   | Safety Cap               | 29702                    | 29702                       | 29702                  | 29702                     |
| 46 <sup>1</sup>   | Anchor Tube Weldment     | 6840                     | 6840                        | 6840                   | 6840                      |
| 47                | S-O/S-T Single Baffle    | ----                     | 35731                       | ----                   | ----                      |
| 48                | 30° Single Baffle        | 35732                    | ----                        | ----                   | ----                      |
| 49                | Cannon Ball Guard        | ----                     | ----                        | 35843                  | ----                      |
| 50                | Twin End Baffle (75)     | ----                     | ----                        | 35845                  | ----                      |
| 54                | Twin End Baffle (75)     | ----                     | ----                        | ----                   | 35845                     |
| 55                | Twin Outlet Baffle (75)  | ----                     | ----                        | ----                   | 35846                     |
| 58 <sup>3,8</sup> | Hairpin                  | 13906                    | 13906                       | 13906                  | 13906                     |
| 59 <sup>8</sup>   | Slide                    | ----                     | ----                        | ----                   | 14821                     |
| 60 <sup>8</sup>   | Transfer Plate Assembly  | ----                     | ----                        | ----                   | 36642                     |
| 61 <sup>8</sup>   | Slide Shield Assembly    | ----                     | ----                        | ----                   | 14827                     |

<sup>1</sup>These components may be ordered as a Model 75 Anchor Bearing Assembly under Chore-Time Part No. 37346 with Long Restrictor and Chore-Time Part No. 37347 with Short Restrictor.

<sup>2</sup>Items 2 through 55 and item 58 (as listed above) make up the Lower Boot Assemblies (Single or Twin).

<sup>3</sup>Items 2 through 6 and item 58 may be ordered under Chore-Time Part No. 6284.

<sup>4</sup>Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 Clean-Out Cover Ass'y.

<sup>5</sup>All Complete Systems will come with transparent Red upper boot(s) unless specified with a "C" (i.e. Complete System # 6539C) This "C" indicates the Complete System will come with transparent Clear upper boot(s).

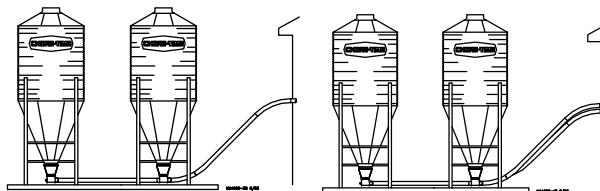
<sup>6</sup>Upper boot Part No.'s will have a suffix "R" for transparent Red upper boots (i.e. 4347R) or will have a suffix "C" for transparent Clear upper boots (i.e. 4347C).

<sup>7</sup>Stub Tube (Item 42) For Opposing Anchor.

<sup>8</sup>Included in 36683 Twin Boot Slide Assembly.

## Model 75 Boot Components (continued)

See “Boot Components” on page 43 for Part Schematic.



| Item              | Description              | Straight-Thru<br>Single Tandem | Straight-Thru<br>Twin Tandem |
|-------------------|--------------------------|--------------------------------|------------------------------|
| -- <sup>5</sup>   | Complete System          | 6541 <sup>5</sup>              | 35880 <sup>5</sup>           |
| -- <sup>2</sup>   | Lower Boot Package       | 36590                          | 36394                        |
| 1A <sup>6</sup>   | 30 Degree Upper Boot     | ----                           | ----                         |
| 1B <sup>6</sup>   | Straight Out Upper Boot  | 6093R <sup>6</sup>             | 6093R <sup>6</sup>           |
| 2 <sup>3</sup>    | Transfer Plate Weldment  | 4359                           | ----                         |
| 3 <sup>3</sup>    | Slide                    | 4357                           | ----                         |
| 4 <sup>3</sup>    | Slide Shield             | 4876                           | ----                         |
| 5 <sup>3,8</sup>  | Chain Assembly           | 27374                          | 27374                        |
| 7                 | Neoprene Seal            | 2613                           | 2613                         |
| 8                 | Seal Ring                | 2612                           | 2612                         |
| 10                | Cannonball               | 3531                           | 3531                         |
| 11                | Single Boot Body         | 36588                          | ----                         |
| 12                | Twin Boot Body Weldment  | ----                           | 36350                        |
| 22 <sup>4</sup>   | Back Plate Weldment      | 6298                           | 6298                         |
| 23 <sup>4</sup>   | Clean-Out Cover          | 6301                           | 6301                         |
| 26A               | Tube Clamp Kit           | 6515                           | 6515                         |
| 28 <sup>1</sup>   | 5/16-18 x 3/8" Set Screw | 1174                           | 1174                         |
| 29 <sup>1</sup>   | 5/8" Set Collar          | 1386                           | 1386                         |
| 34 <sup>1</sup>   | Clamp Pin                | 4702                           | 4702                         |
| 35 <sup>1</sup>   | 5/16-18 x 1/2" Set Screw | 5095                           | 5095                         |
| 36 <sup>1</sup>   | Anchor Shaft             | 37345                          | 37345                        |
| 39 <sup>4</sup>   | Sealing Washer           | 8491                           | 8491                         |
| 40 <sup>4</sup>   | 5/16-18 Wing Nut         | 2146                           | 2146                         |
| 41                | Tube Clamp Kit           | 4141                           | 4141                         |
| 42 <sup>7</sup>   | 2.75 x 3.0 Tube          | 6147                           | 6147                         |
| 43                | Insert                   | 6524                           | 6524                         |
| 44 <sup>1</sup>   | Bearing Cap              | 35440                          | 35440                        |
| 45 <sup>1</sup>   | Safety Cap               | 29702                          | 29702                        |
| 46 <sup>1</sup>   | Anchor Tube Weldment     | 6840                           | 6840                         |
| 47                | S-O/S-T Single Baffle    | 35731                          | ----                         |
| 54                | Twin End Baffle (75)     | ----                           | 35845                        |
| 55                | Twin Outlet Baffle (75)  | ----                           | 35846                        |
| 57                | Tube Connector           | 6512                           | 6512                         |
| 58 <sup>3,8</sup> | Hairpin                  | 13906                          | 13906                        |
| 59 <sup>8</sup>   | Slide                    | ----                           | 14821                        |
| 60 <sup>8</sup>   | Transfer Plate Assembly  | ----                           | 36642                        |
| 61 <sup>8</sup>   | Slide Shield Assembly    | ----                           | 14827                        |

<sup>1</sup>These components may be ordered as a Model 75 Anchor Bearing Assembly under Chore-Time Part No. 37346 with Long Restrictor and Chore-Time Part No. 37347 with Short Restrictor.

<sup>2</sup>Items 2 through 55 and item 58 (as listed above) make up the Lower Boot Packages (Single or Twin).

<sup>3</sup>Items 2 through 6 and item 58 may be ordered under Chore-Time Part No. 6284.

<sup>4</sup>Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 Clean-Out Cover Ass'y.

<sup>5</sup>All Complete Systems will come with transparent Red upper boot(s) unless specified with a "C" (i.e. Complete System # 6541C) This "C" indicates the Complete System will come with transparent Clear upper boot(s).

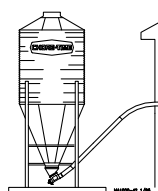
<sup>6</sup>Upper boot Part No.'s will have a suffix "R" for transparent Red upper boots (i.e. 4347R) or will have a suffix "C" for transparent Clear upper boots (i.e. 4347C).

<sup>7</sup>Stub Tube (Item 42) For Opposing Anchor.

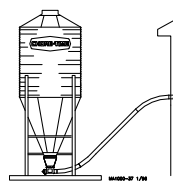
<sup>8</sup>Included in 36683 Twin Boot Slide Assembly.

## Model 90 Boot Components

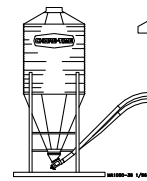
See “Boot Components” on page 43 for Part Schematic.



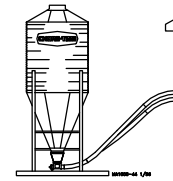
**30 Degree  
Single Boot**



**Straight-Out  
Single Boot**



**30 Degree  
Twin Boot**



**Straight-Out  
Twin Boot**

| Item              | Description               | 30 Degree<br>Single Boot | Straight-Out<br>Single Boot | 30 Degree<br>Twin Boot | Straight-Out<br>Twin Boot |
|-------------------|---------------------------|--------------------------|-----------------------------|------------------------|---------------------------|
| -- <sup>5</sup>   | Complete System           | 6161 <sup>5</sup>        | 6187 <sup>5</sup>           | 6874 <sup>5</sup>      | 6535 <sup>5</sup>         |
| -- <sup>2</sup>   | Lower Boot Assembly       | 9301                     | 36435                       | 36391                  | 36398                     |
| 1A <sup>6</sup>   | 30 Degree Upper Boot      | 4347R <sup>6</sup>       | ----                        | 4347R <sup>6</sup>     | ----                      |
| 1B <sup>6</sup>   | Straight Out Upper Boot   | ----                     | 6093R <sup>6</sup>          | ----                   | 6093R <sup>6</sup>        |
| 2 <sup>3</sup>    | Transfer Plate Weldment   | 4359                     | 4359                        | 4359                   | ----                      |
| 3 <sup>3</sup>    | Slide                     | 4357                     | 4357                        | 4357                   | ----                      |
| 4 <sup>3</sup>    | Slide Shield              | 4876                     | 4876                        | 4876                   | ----                      |
| 5 <sup>3,7</sup>  | Chain Assembly            | 27374                    | 27374                       | 27374                  | 27374                     |
| 7                 | Neoprene Seal             | 5035                     | 5035                        | 5035                   | 5035                      |
| 8                 | Seal Ring                 | 2612                     | 2612                        | 2612                   | 2612                      |
| 10                | Cannonball                | 3531                     | 3531                        | 3531                   | 3531                      |
| 11                | Single Boot Body          | 28873                    | 36433                       | ----                   | ----                      |
| 12                | Twin Boot Body            | ----                     | ----                        | 36354                  | 36354                     |
| 22 <sup>4</sup>   | Back Plate Weldment       | 6298                     | 6298                        | 6298                   | 6298                      |
| 23 <sup>4</sup>   | Clean-Out Cover           | 6301                     | 6301                        | 6301                   | 6301                      |
| 26A               | Tube Clamp Kit            | 6721                     | 6721                        | 6721                   | 6721                      |
| 28 <sup>1</sup>   | 5/16-18 x 3/8" Set Screw  | 1174                     | 1174                        | 1174                   | 1174                      |
| 29 <sup>1</sup>   | 5/8" Set Collar           | 1386                     | 1386                        | 1386                   | 1386                      |
| 34 <sup>1</sup>   | Clamp Pin                 | 4702                     | 4702                        | 4702                   | 4702                      |
| 35 <sup>1</sup>   | 5/16-18 x 1/2" Set Screw  | 5095                     | 5095                        | 5095                   | 5095                      |
| 36 <sup>1</sup>   | Anchor Shaft              | 43281                    | 43281                       | 43281                  | 43281                     |
| 37 <sup>1</sup>   | Anchor Tube Weldment      | ----                     | 26048                       | 26048                  | 26048                     |
| 38 <sup>1</sup>   | Clamp Spacer              | 5009                     | 5009                        | 5009                   | 5009                      |
| 39 <sup>4</sup>   | Sealing Washer            | 8491                     | 8491                        | 8491                   | 8491                      |
| 40 <sup>4</sup>   | 5/16-18 Wing Nut          | 2146                     | 2146                        | 2146                   | 2146                      |
| 41                | Tube Clamp Kit            | 6721                     | 6721                        | 6721                   | 6721                      |
| 44 <sup>1</sup>   | Bearing Cap Assembly      | 34830                    | 34830                       | 34830                  | 34830                     |
| 45 <sup>1</sup>   | Safety Cap                | 29702                    | 29702                       | 29702                  | 29702                     |
| 46 <sup>1</sup>   | Anchor Tube Weldment      | 6833                     | ----                        | ----                   | ----                      |
| 49                | Cannonball Guard          | ----                     | ----                        | 35843                  | ----                      |
| 50                | Twin End Baffle (90)      | ----                     | ----                        | 36026                  | ----                      |
| 51                | Single Inlet Baffle (90)  | ----                     | 35998                       | ----                   | ----                      |
| 52                | Single Outlet Baffle (90) | ----                     | 35999                       | ----                   | ----                      |
| 54                | Twin Inlet Baffle (90)    | ----                     | ----                        | ----                   | 36000                     |
| 55                | Twin Outlet Baffle (90)   | ----                     | ----                        | ----                   | 36001                     |
| 58 <sup>3,7</sup> | Hairpin                   | 13906                    | 13906                       | 13906                  | 13906                     |
| 59 <sup>7</sup>   | Slide                     | ----                     | ----                        | ----                   | 14821                     |
| 60 <sup>7</sup>   | Transfer Plate Assembly   | ----                     | ----                        | ----                   | 36642                     |
| 61 <sup>7</sup>   | Slide Shield Assembly     | ----                     | ----                        | ----                   | 14827                     |

<sup>1</sup>These components may be ordered as a Model 90 Anchor Bearing Assembly under Chore-Time Part No. 35345 with Short Restrictor (except for 30° Single Boot Systems, order Part No. 35343 with Long Restrictor).

<sup>2</sup>Items 2 through 55 and item 58 (as listed above) make up the Lower Boot Assemblies (Single or Twin).

<sup>3</sup>Items 2 through 6 and item 58 may be ordered under Chore-Time Part No. 6284.

<sup>4</sup>Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 Clean-Out Cover Ass'y.

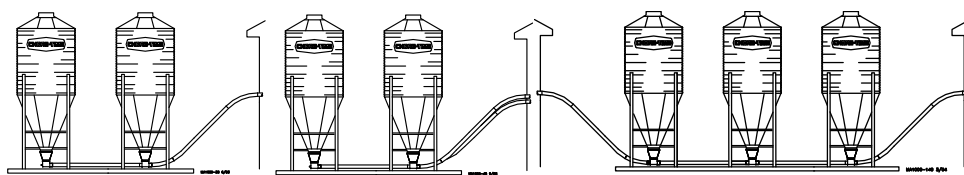
<sup>5</sup>All Complete Systems will come with transparent Red upper boot(s) unless specified with a "C" (i.e. Complete System # 6161C) This "C" indicates the Complete System will come with a transparent Clear upper boot(s).

<sup>6</sup>Upper boot Part No.'s will have a suffix "R" for transparent Red upper boots (i.e. 4347R) or will have a suffix "C" for transparent Clear upper boots (i.e. 4347C).

<sup>7</sup>Included in 36683 Twin Boot Slide Assembly.

## Model 90 Boot Components (continued)

See “Boot Components” on page 43 for Part Schematic.



| Item            | Description                  | Straight-Thru<br>Single Tandem | Straight-Thru<br>Twin Tandem | Twin Straight-Thru<br>Three Bin System |
|-----------------|------------------------------|--------------------------------|------------------------------|--|
| -- <sup>5</sup> | Complete System              | 6281 <sup>5</sup>              | 6538 <sup>5</sup>            | 48660 <sup>5</sup>                     |
| -- <sup>2</sup> | Lower Boot Package           | 36434                          | 36388                        | 48661                                  |
| 1B <sup>6</sup> | Straight Out Upper Boot      | 6093R <sup>6</sup>             | 6093R <sup>6</sup>           | 6093R <sup>6</sup>                     |
| 2 <sup>3</sup>  | Transfer Plate Weldment      | 4359                           | ----                         | ----                                   |
| 3 <sup>3</sup>  | Slide                        | 4357                           | ----                         | ----                                   |
| 4 <sup>3</sup>  | Slide Shield                 | 4876                           | ----                         | ----                                   |
| 5 <sup>3</sup>  | Chain Assembly               | 27374                          | 27374                        | 27374                                  |
| 7               | Neoprene Seal                | 5035                           | 5035                         | 5035                                   |
| 8               | Seal Ring                    | 2612                           | 2612                         | 2612                                   |
| 10              | Cannonball                   | 3531                           | 3531                         | 3531                                   |
| 11              | Single Boot Body             | 36433                          | ----                         | ----                                   |
| 12              | Twin Boot Body Weldment      | ----                           | 36354                        | 36354                                  |
| 22 <sup>4</sup> | Back Plate Weldment          | 6298                           | 6298                         | 6298                                   |
| 23 <sup>4</sup> | Clean-Out Cover              | 6301                           | 6301                         | 6301                                   |
| 26A             | Tube Clamp Kit               | 6721                           | 6721                         | 6721                                   |
| 28 <sup>1</sup> | 5/16-18 x 3/8" Set Screw     | 1174                           | 1174                         | 1174                                   |
| 29 <sup>1</sup> | 5/8" Set Collar              | 1386                           | 1386                         | 1186                                   |
| 34 <sup>1</sup> | Clamp Pin                    | 4702                           | 4702                         | 4702                                   |
| 35 <sup>1</sup> | 5/16-18 x 1/2" Set Screw     | 5095                           | 5095                         | 5095                                   |
| 36 <sup>1</sup> | Anchor Shaft                 | 43281                          | 43281                        | 43281                                  |
| 37 <sup>1</sup> | Anchor Tube Weldment         | 26048                          | 26048                        | 26048                                  |
| 38 <sup>1</sup> | Clamp Spacer                 | 5009                           | 5009                         | 5009                                   |
| 39 <sup>4</sup> | Sealing Washer               | 8491                           | 8491                         | 8491                                   |
| 40 <sup>4</sup> | 5/16-18 Wing Nut             | 2146                           | 2146                         | 2146                                   |
| 41              | Tube Clamp Kit               | 6721                           | 6721                         | 6721                                   |
| 44 <sup>1</sup> | Bearing Cap Assembly         | 34830                          | 34830                        | 34830                                  |
| 45 <sup>1</sup> | Safety Cap                   | 29702                          | 29702                        | 29702                                  |
| 51              | Single Inlet Baffle (90)     | 35998                          | ----                         | ----                                   |
| 52              | Single Outlet Baffle (90)    | 35999                          | ----                         | ----                                   |
| 54              | Twin Inlet Boot Baffle (90)  | ----                           | 36000                        | 36000                                  |
| 55              | Twin Outlet Boot Baffle (90) | ----                           | 36001                        | 36001                                  |
| 58 <sup>3</sup> | Hairpin                      | 13906                          | 13906                        | 13906                                  |
| 59 <sup>7</sup> | Slide                        | ----                           | 14821                        | 14821                                  |
| 60 <sup>7</sup> | Transfer Plate Assembly      | ----                           | 36641                        | 36641                                  |
| 61 <sup>7</sup> | Slide Shield Assembly        | ----                           | 14827                        | 14827                                  |

<sup>1</sup>These components may be ordered as a Model 90 Anchor Bearing Assembly under Chore-Time Part No. 35345 with Short Restrictor.

<sup>2</sup>Items 2 through 55 and item 58 (as listed above) make up the Lower Boot Packages (Single or Twin).

<sup>3</sup>Items 2 through 6 and item 58 may be ordered under Chore-Time Part No. 6284.

<sup>4</sup>Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 Clean-Out Cover Ass'y.

<sup>5</sup>All Complete Systems will come with transparent Red upper boot(s) unless specified with a "C" (i.e. Complete System # 6281C) This "C" indicates the Complete System will come with transparent Clear upper boot(s).

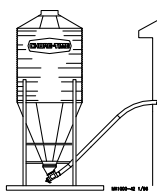
<sup>6</sup>Upper boot Part No.'s will have a suffix "R" for transparent Red upper boots (i.e. 4347R) or will have a suffix "C" for transparent Clear upper boots (i.e. 4347C).

<sup>7</sup>Included in 36683 Twin Boot Slide Assembly.

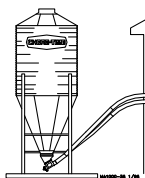


## Model HMC Boot Components

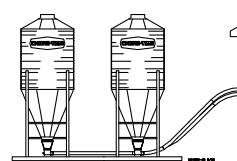
See “Boot Components” on page 43 for Part Schematic.



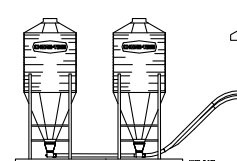
**30 Degree  
Single Boot**



**30 Degree  
Twin Boot**



**Single Straight-  
Thru Tandem**



**Straight-Thru  
Twin Tandem**

| Item              | Description                   | 30 Degree<br>Single Boot | 30 Degree<br>Twin Boot | Single Straight-<br>Thru Tandem | Straight-Thru<br>Twin Tandem |
|-------------------|-------------------------------|--------------------------|------------------------|---------------------------------|------------------------------|
| -- <sup>5</sup>   | Complete System               | 7921 <sup>5</sup>        | 7920 <sup>5</sup>      | 40082 <sup>5</sup>              | 36795 <sup>5</sup>           |
| -- <sup>2</sup>   | Lower Boot Assembly/Package   | 38507                    | 38506                  | 40081                           | 36796                        |
| 1A <sup>6</sup>   | 30 Degree Upper Boot          | 4347R <sup>6</sup>       | 4347R <sup>6</sup>     | ----                            | ----                         |
| 1B <sup>6</sup>   | Straight-Through Upper Boot   | ----                     | ----                   | 6093R <sup>6</sup>              | 6093R <sup>6</sup>           |
| 2 <sup>3</sup>    | Transfer Plate Weldment       | 4359                     | 4359                   | 4359                            | ----                         |
| 3 <sup>3</sup>    | Slide                         | 4357                     | 4357                   | 4357                            | ----                         |
| 4 <sup>3</sup>    | Slide Shield                  | 4876                     | 4876                   | 4876                            | ----                         |
| 5 <sup>3,7</sup>  | Chain Assembly                | 27374                    | 27374                  | 27374                           | 27374                        |
| 7                 | Neoprene Seal                 | 5035                     | 5035                   | 5035                            | 5035                         |
| 8                 | Seal Ring                     | 2612                     | 2612                   | 2612                            | 2612                         |
| 10                | Cannonball                    | 3531                     | 3531                   | 3531                            | 3531                         |
| 11                | Single Boot Body              | 28873                    | ----                   | 36433                           | ----                         |
| 12 <sup>4</sup>   | Twin Boot Body                | ----                     | ----                   | ----                            | 36354                        |
| 22 <sup>4</sup>   | Back Plate Weldment           | 6298                     | 6298                   | 6298                            | 6298                         |
| 23                | Clean-Out Cover               | 6301                     | 6301                   | 6301                            | 6301                         |
| 26                | Tube Clamp Kit                | 6721                     | 6721                   | 6721                            | 6721                         |
| 28 <sup>1</sup>   | 5/16-18 x 3/8" Set Screw      | 1174                     | 1174                   | 1174                            | 1174                         |
| 29 <sup>1</sup>   | 5/8" Set Collar               | 1386                     | 1386                   | 1386                            | 1386                         |
| 34 <sup>1</sup>   | Clamp Pin                     | 4702                     | 4702                   | 4702                            | 4702                         |
| 35 <sup>1</sup>   | 5/16-18 x 1/2" Set Screw      | 5095                     | 5095                   | 5095                            | 5095                         |
| 36 <sup>1</sup>   | Anchor Shaft                  | 43281                    | 43281                  | 43281                           | 43281                        |
| 37 <sup>1</sup>   | Tube Anchor Weldment          | ----                     | ----                   | 36393                           | 36393                        |
| 39 <sup>4</sup>   | Sealing Washer                | 8491                     | 8491                   | 8491                            | 8491                         |
| 40 <sup>4</sup>   | 5/16-18 Wing Nut              | 2146                     | 2146                   | 2146                            | 2146                         |
| 41                | Tube Clamp Kit                | 6721                     | 6721                   | 6721                            | 6721                         |
| 44 <sup>1</sup>   | Bearing Cap Assembly          | 34830                    | 34830                  | 34830                           | 34830                        |
| 45 <sup>1</sup>   | Safety Cap                    | 29702                    | 29702                  | 29702                           | 29702                        |
| 46 <sup>1</sup>   | Anchor Tube Weldment          | 6840                     | 6840                   | ----                            | ----                         |
| 51                | Single Inlet Baffle (HMC)     | ----                     | ----                   | 38638                           | ----                         |
| 52                | Single Outlet Baffle (HMC)    | ----                     | ----                   | 38639                           | ----                         |
| 54                | Twin Inlet Boot Baffle (HMC)  | ----                     | ----                   | ----                            | 36797                        |
| 55                | Twin Outlet Boot Baffle (HMC) | ----                     | ----                   | ----                            | 36798                        |
| 56                | Twin Boot Body                | ---                      | 28933                  | ----                            | ----                         |
| 58 <sup>3,7</sup> | Hairpin                       | 13906                    | 13906                  | 13906                           | 13906                        |
| 59 <sup>7</sup>   | Slide                         | ----                     | ----                   | ----                            | 14821                        |
| 60 <sup>7</sup>   | Transfer Plate Assembly       | ----                     | ----                   | ----                            | 36641                        |
| 61 <sup>7</sup>   | Slide Shield Assembly         | ----                     | ----                   | ----                            | 14827                        |

<sup>1</sup>These components may be ordered as a Model HMC Anchor Bearing Assembly under Chore-Time Part No. 35344 with Long Restrictor (except for Tandem Systems, order Part No. 37241 with Short Restrictor).

<sup>2</sup>Items 2 through 46 and item 58 (as listed above) make up the Lower Boot Assemblies/Packages (Single or Twin).

<sup>3</sup>Items 2 through 6 and item 58 may be ordered under Chore-Time part no. 6284.

<sup>4</sup>Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 Clean-Out Cover Ass'y.

<sup>5</sup>All Complete Systems will come with transparent Red upper boot(s) unless specified with a "C" (i.e. Complete System # 7921C) This "C" indicates the Complete System will come with transparent Clear upper boot(s).

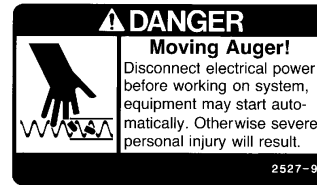
<sup>6</sup>Upper boot Part No.'s will have a suffix "R" for transparent Red upper boots (i.e. 4347R) or will have a suffix "C" for transparent Clear upper boots (i.e. 4347C).

<sup>7</sup>Included in 36683 Twin Boot Slide Assembly.

## Troubleshooting

ALWAYS DISCONNECT POWER TO THE SYSTEM WHEN SERVICING OR MAINTAINING THE EQUIPMENT. FAILURE TO DISCONNECT POWER MAY CAUSE INJURY OR DEATH.

Maintenance and repair to the system must be performed by a qualified technician only.



| Problem                                | Possible Cause   | Corrective Action  |
|--|--|--|
| Delivery system will not run.          | No power to the system.  | Check circuits, fuses, and on-off switches on the equipment.   |
|  | Bin level switch has stopped the system due to lack of feed in the boot.                               | Check feed supply and for possible bridging.   |
|  | Motor overloaded and stopped.  | Check for foreign material in the line. Push the motor reset button.   |
|  | Safety switch actuated in the Control Unit (red pilot light will be lit).                              | Determine reason for feed packing in the Control Unit. Feed level switch out of adjustment?                    |
| Motor overloads after running briefly. | Motor too small.   | Use recommended size motor for line length.  |
|  | Low voltage (motor runs slow and overheats).   | Check line voltage at the motor; use adequate size wire in circuits.   |
|  | Foreign object in the auger (motor runs, stalls, then auger spins in reverse).                         | Check auger line, pull auger to remove objects.  |
|  | Motor wired in reverse (motor runs, stalls, no feed conveyed).   | Disconnect power and change wire connections (direct drive power unit shaft at rear of motor turns clockwise). |
|  | Boot Anchor tight.   | Check for Anchor binding.  |
|  | Wet feed being conveyed or allowed to stand in auger tubes. Defective motor (over heats without load). | Clean auger and tubes; avoid conveying wet feed or empty line after each feeding. Replace motor.               |
| Motor runs, but auger does not turn.   | Sheared driver bolt at Control Unit.   | Replace driver bolt.   |
|  | Broken power unit pinion.  | Examine pinion on motor shaft; replace BOTH gear head and pinion if pinion is damaged.                         |

|  |   |  |
|--|---|--|
| Auger wears holes in tubes.                              | Auger kinked or poorly brazed.  | See Auger Brazing section in this manual   |
| Elbows wear out.   | Auger is stretched too tight; horizontal L.H. turn; auger has been run dry.         | Lengthen auger; Install an Extension Hopper; wire Boot Switch into system.   |
| Excessive auger vibration and noise.                     | System has been operated too often without feed (auger has scored the auger tubes). | Wire a Boot Switch to stop the system when the feed bin is empty; replace damaged auger tubes; be sure auger has proper amount of stretch.                 |
|  | Tubes inadequately supported.   | Support the tubes every 5' (1.5 m) or closer.  |
|  | Horizontal L.H. turn.   | No outlet drops on or just before an elbow; lengthen the auger; install an Extension Hopper ahead of elbows.   |
| Fill system short cycles.                                | Control end feed level switch does not provide large enough feed differential.      | Use a time clock to program operating cycles. Use Control end feed level switch w/lockout and time clock.  |
| Extension Hopper packs full of feed.                     | Both switches on Extension Hopper are out of adjustment.                            | Adjust switches as specified in maintenance section in this manual.  |
| Second portion of extended length system will not start. | Lower switch on Extension Hopper out of adjustment.                                 | Adjust switch as specified in the maintenance section of this manual.  |
|  | Feed level control at end of line out of adjustment.                                | Examine and make necessary adjustments; see feed level switch adjustment instruction.  |
| Second portion of extended length system short cycles.   | Too much Restrictor in the Boot.  | Shorten Restrictor.  |
|  | Too much feed is still dispensing from drops ahead of Extension Hopper.             | Last outlet drop before Extension Hopper must have full feed drop out. NOTE: All feeders ahead of hopper must complete filling before feed reaches hopper. |
|  | Trim Restrictor on first portion to allow more incoming feed.                       |  |

## Maintenance

The FLEX-AUGER Feed Delivery System requires minimum maintenance. However, a routine periodic inspection of the equipment will prevent unnecessary problems.

Maintenance should be done by a qualified technician.

**ALWAYS DISCONNECT POWER TO THE SYSTEM WHEN SERVICING OR MAINTAINING THE EQUIPMENT. FAILURE TO DISCONNECT POWER MAY CAUSE INJURY OR DEATH.**

1. Periodically check and tighten the delivery system hardware.
2. Grease boot bearings on grease fittings regularly, using an automotive or industrial type grease.
3. Keep the FLEX-AUGER tubes level. Adjust if necessary. Wear increases at the points where tubes sag.
4. Replace the Plastic Shipping Plug in the power unit gear head with the Vented Plug during installation of the Power Unit.
5. Check the oil level in the gear heads at installation and every 6 months. The Pipe Plug, on the side of the gear head, indicates proper oil level. Add SAE 40W oil when necessary.

The oil in the gear heads should be replaced every 12 months with new SAE 40W oil.

- A. Remove the bottom Pipe Plug to drain the oil. Discard used oil in accordance with local and national codes.
- B. Wipe any debris off the magnet on the bottom Pipe Plug and reinstall. Remove the side Pipe Plug and (top) Vent Plug.
- C. Set the power unit in the horizontal position.
- D. 2-Stage Gear Heads (3261-5, -6, -7, -8, -10, -11, -13, -16, and -17): Add approximately 9 oz. (266 ml) of SAE 40W oil through top hole. This should be just enough oil to reach the side Pipe Plug.
- 3-Stage Gear Heads (3261-14, -15, -21, and -22): Add approximately 13.5 oz. (384 ml) of SAE 40W oil through top hole. This should be just enough oil to reach the side Pipe Plug.
- E. Install the side Pipe Plug and (top) Vent Plug.

6. Extension Hopper Switch Adjustment Procedure:
  - A. CAUTION: DISCONNECT POWER.
  - B. Make sure no feed is against the Paddle.
  - C. Turn adjusting nut clockwise until switch clicks.
  - D. Turn adjusting nut counterclockwise until switch clicks.
  - E. Turn adjusting nut counterclockwise one half turn.

7. If the system is not to be used for an extended period of time, remove all the feed from the auger lines.
 

Disconnect power to the system to prevent accidentally starting the system.
8. If the system must be disassembled, extreme caution must be used to prevent injury from springing auger.
  - A. Disconnect power to the entire system.
  - B. Pull the Anchor and Bearing Assembly and approx. 18" (45 cm) of auger out of the boot.
  - C. Place a clamp or locking pliers on the auger to prevent it from springing back into the auger tubes.
  - D. Remove Anchor and Bearing Assembly.
  - E. Carefully release the clamp securing the auger.

**CAUTION:** Stand clear...the auger will spring back into the tubes.

- F. Remove remaining system components in the opposite order they were installed, according to this manual.



# Livestock and Poultry Feed Consumption

## POULTRY

Poultry applications use automatic feeding systems sized for the building density. The FLEX-AUGER® Feed Delivery System's delivery rate should be sized to match or exceed the sum of the delivery rates of the automatic feeders supplied.

| CHORE-TIME Floor Feeding Systems                                 | Delivery Rates             |
|--|----------------------------|
| Model C, C2, H2, and G with 216 RPM Power Unit.....              | 10.8 lbs or 4.89 kg/min.*  |
| Model C, C2, H2, and G with 348 RPM Power Unit.....              | 17.0 lbs or 7.71 kg/min.*  |
| Model ATF.....   | 18.0 lbs or 8.16 kg/min.*  |
| Pan Breeder Feeder System.....                                   | 35.0 lbs or 15.87 kg/min.* |
| ULTRAFLO Breeder Feeder (per Hopper).....                        | 52.0 lbs or 23.58 kg/min.* |
| ULTRAPAN Feeding System (per Hopper).....                        | 50.0 lbs or 22.68 kg/min.* |
| *Based on 40 lbs/ft <sup>3</sup> density (64 kg/m <sup>3</sup> ) |                            |
| Genesis Loop (Per Inlet Boot).....                               | 65.0 lbs or 29.48 kg/min.* |
| Genesis Straight-Line.....                                       | 35.0 lbs or 15.9 kg/min.*  |

## HOGS

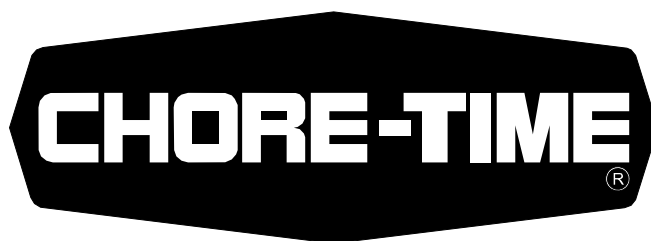
| Live weight-lbs/Hog         | Total Average Daily Feed-lbs/Head |
|-----------------------------|-----------------------------------|
| 10-25 (4.5-11.3 kg).....    | 1.2 (.54 kg)                      |
| 25-50 (11.3-22.7 kg).....   | 2.5 (1.13 kg)                     |
| 50-75 (22.7-34 kg).....     | 4.0 (1.81 kg)                     |
| 75-125 (34-56.7 kg).....    | 5.2 (2.35 kg)                     |
| 125-175 (56.7-79.4 kg)..... | 6.7 (3.04 kg)                     |
| 175-225 (79.4-102 kg).....  | 7.8 (3.54 kg)                     |
| Gestating Sows.....         | 5 (2.26 kg)                       |

## DAIRY

| Milk/Cow/Day-lbs Average | Concentrates*/Cow/Day-lbs Average |
|--------------------------|-----------------------------------|
| 30 (13.61 kg)            | 10 (4.53 kg)                      |
| 50 (22.68 kg)            | 20 (9.07 kg)                      |
| 70 (31.75 kg)            | 30 (13.61 kg)                     |
| 80 (36.28 kg)            | 40 (18.14 kg)                     |

TO DETERMINE THE RUNNING TIME PER DAY-Multiply the number of animals by the feed consumption/head figures from the charts to get Total Feed Consumption.

-Divide Total Feed Consumption by the stated delivery rate of the FLEX-AUGER® Feed Delivery System to get running time per day in minutes. Divide this by 60 to get running time per day in hours.



**MADE TO WORK.**

**BUILT TO LAST.®**

**Revisions to this Manual**

| <b>Page No.</b> | <b>Description of Change</b> | <b>ECO</b> |
|-----------------|------------------------------|------------|
| Various         | Updated old Manual           | 33157      |

**Contact your nearby Chore-Time distributor or representative for additional parts and information.**

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