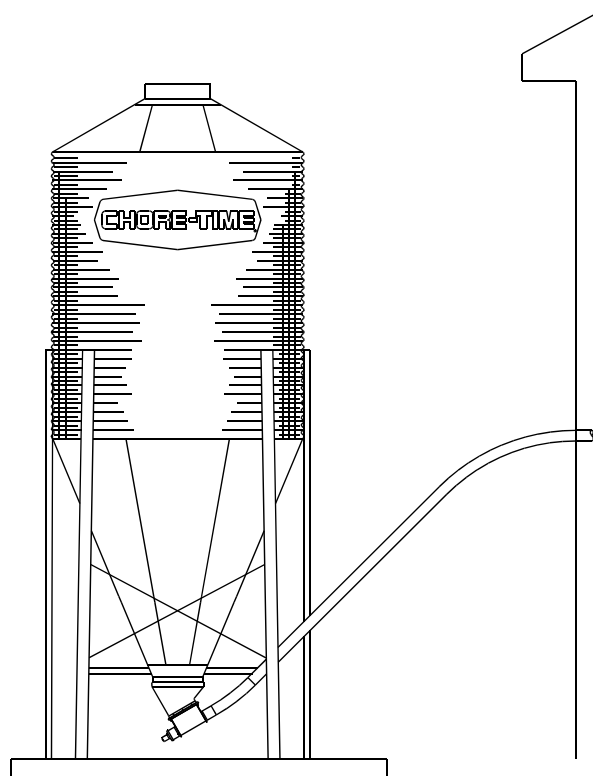


**Model 55, 75, 75 Plus, 90, 108, and HMC
FLEX-AUGER**

Installation and Operators Manual

Installation and Operators Manual



**For additional parts and information, contact your nearest Chore-Time distributor or representative.
Find your nearest distributor at: www.choretime.com/contacts**

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Introduction

Limited Warranty

CTB, Inc. (“Chore-Time”) warrants the new CHORE-TIME FLEX-AUGER Model 55, 75, 75 Plus, 90, 108, and 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

Safety

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

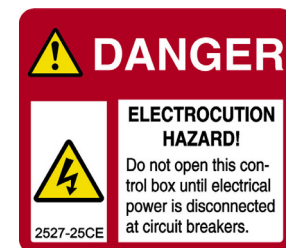
DANGER: Moving Auger

This decal is placed on the End Cap Weldment and Clean-out cover. Severe personal injury will result, if the electrical power is not disconnected, prior to servicing the equipment.



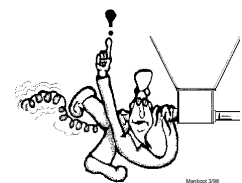
DANGER: Electrical Hazard

- 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 Auger. Springing Auger may cause personal injury.



Attention: Read the Manual

See the manual for detailed installation instructions.



General

The CHORE-TIME FLEX-AUGER® Feed Delivery System is designed to deliver 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, and parts listing information. The Table of Contents provides a convenient overview of the information in this manual. The Table of Contents also specifies which pages contain information for the sales personal, installer, and consumer (end user).

IMPORTANT: CE stands for Certified Europe. It is a standard which equipment must meet or exceed in order to be sold in Europe. CE provides a benchmark for safety and manufacturing issues. CE is required only on equipment sold in Europe.



CHORE-TIME Equipment recognizes CE Mark and pursues compliance in all applicable products. Any alterations to the products will violate the CE compliance, will void the warranty, and may cause personal injury and/or death.

Please include the names and address of your CHORE-TIME Distributor.

Please fill in the following information about your Chore-Time FLEX-AUGER® 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

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 108) 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 52**. 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. Partical Size
Model 55	2-1/4" (55 mm)	15 lb/min. (7 kg/min.)	mash, crumbles 18% moist. content	1/8" x 1/2" (3 mm x 13 mm)
Model 75	3" (75 mm)	50 lb/min. (22 kg/min.)	mash, crumbles 18% moist. content	1/8" x 1/2" (3 mm x 13 mm)
Model 75 Plus	3" (75 mm)	50 lb/min. (22 kg/min.)	mash, crumbles, pellets 18% moist. content	1/4" x 5/8" (8 mm x 13 mm)
Model 90	3-1/2" (90 mm)	100 lb/min. (45 kg/min.)	mash, pellets, shelled corn 18% moist content	3/16" x 1/2" (5 mm x 13mm)
Model HMC	3-1/2" (90 mm)	50 lb/min. (22 kg/min.)	high-moisture corn, larger pellets, crumbles, mash 27% moist. content	3/8" x 3/4" (10 mm x 20 mm)
Model 108	4-1/4" Steel (108 mm)	220 lb/min. (99.8 kg/min.)	mash, pellets, Shelled corn, crumbles 27% moist. content	3/16" x 1/2" (5 mm x 13 mm)
High Capacity Model 108	4-1/4" PVC (108 mm)	250 lb/min. (113.4 kg/min.)	mash, pellets, Shelled corn, crumbles 27% moist. content	3/16" x 1/2" (5 mm x 13 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; Except Model 75 Plus which runs at 425 RPM.				

System Weight and Length Specifications

Adequate support must be provided to prevent the tubes from sagging and support the weight of the Power Unit.

Models 55–90, and HMC

The auger, tubes, and feed weigh approximately 6 lbs/ft. (9 kg/m). The Power Unit weighs approximately 80 lbs. (36 kg).

Model 108

The auger, tubes, and feed weigh approximately 8 lbs/ft. (3.6 kg/m). The Power Unit weighs approximately 100 lbs. (45 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 H.P.	Maximum Line Length	Maximum Extension
1/3	150' (46 M)	185' (56 M)
1/2	250' (76 M)	285' (72 M)

Model 75

Motor H.P.	Maximum Line Length	Maximum 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 75 Plus

Motor H.P.	Maximum Line Length	Maximum Extension
3/4	75' (23 M)	105' (55 M)
1	150' (46 M)	180' (55 M)
1-1/2	300' (91 M)	330' (101 M)

Model 90

Motor H.P.	Maximum Line Length	Maximum 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 HMC

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

Model 108

Motor H.P.	Maximum Line Length	Maximum Extension
3/4	50' (9 M)	75' (20 M)
1	100' (30 M)	135' (41 M)
1-1/2	150' (46 M)	185' (56 M)

*Model 108 High Capacity

Motor H.P.	Maximum Line Length	Maximum Extension
1	50' (9 M)	75' (20 M)
1-1/2	100' (30 M)	135' (41 M)
2	150' (46 M)	185' (56 M)

All Systems, except Model 75 Plus are based on 348 RPM Power Units.

*Models 75 Plus and 108 High-Capacity Systems are based on a standard 425 RPM Power Units.

For high-moisture applications, reduce the line length capacity for each Power Unit by 50%.

Planning

Planning the System

See **Figure 1 (on page 10)** for the recommended FLEX-AUGER installation layouts and **Figure 2 (on page 11)** for layouts that are not recommended. 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 13** 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 13** 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. Maximum line lengths should be reduced for elevations over 8' (2.4m) and/or inclines steeper than 45° (degrees).

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; except for Model 75 Plus Systems. For Model 75 Plus Systems reduce stretch by 2.5" per 50' (63.5 mm per 15.2 m). Increase the stretch if necessary.

If an extension hopper is used:

- a. Extension Hoppers may eliminate Elbows as they can be mounted to turn 90 degree to the left or right.
 - Model 55–90 Extension Hoppers are of one-piece design.
 - Model 108s are of two-piece design, and the Lower Boot can be rotated 90 degree to the left or right.
- 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 9**, 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 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 30° Two-Motor Tandem System instructions (Model 75, 90, HMC, and 108 Two-Motor Tandem systems only).
8. See “**System Weight & Length Specifications**” on page 9 to determine maximum line lengths and power unit requirements.

Recommended Layouts

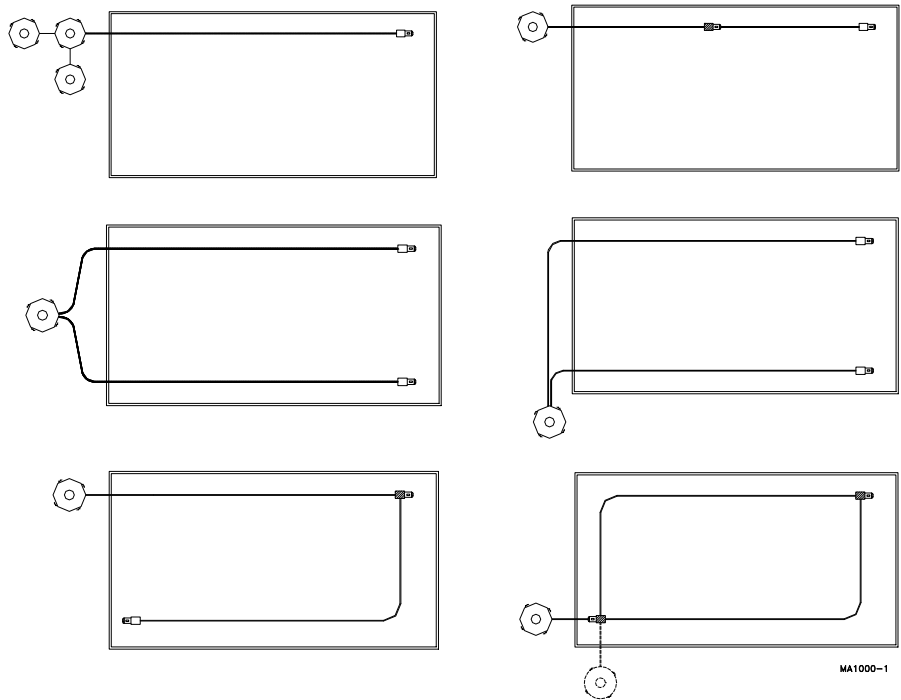


Figure 1. Recommended Layouts

Not Recommended Layouts

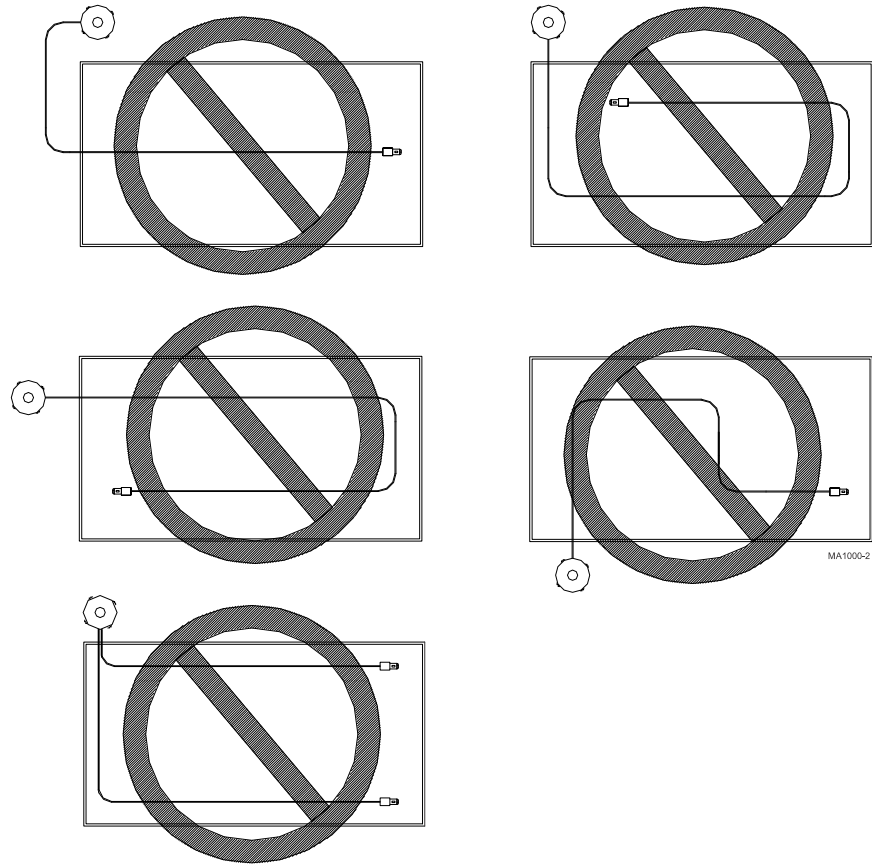


Figure 2. Non-recommended Layouts

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, 75 Plus, 90, 108, and 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.

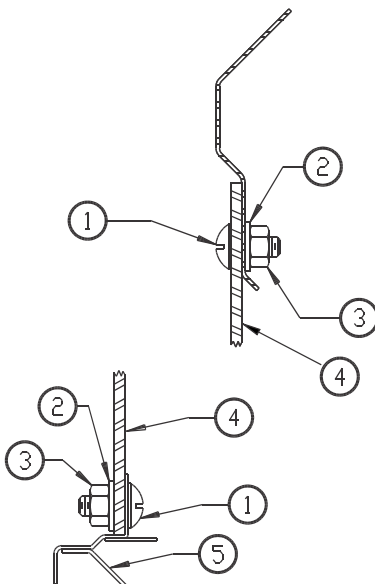
The bin collar is installed during bulk bin assembly. Chore-Time bins have a welded collar. Bin Adapter Kits are available to modify existing bins so that the welded collar can be used. In addition, most other feed bin manufacturers have a collar available to be used with Chore-Time FLEX-AUGER Feed Delivery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

Item	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

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 "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, 108, or HMC with 5' 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)	

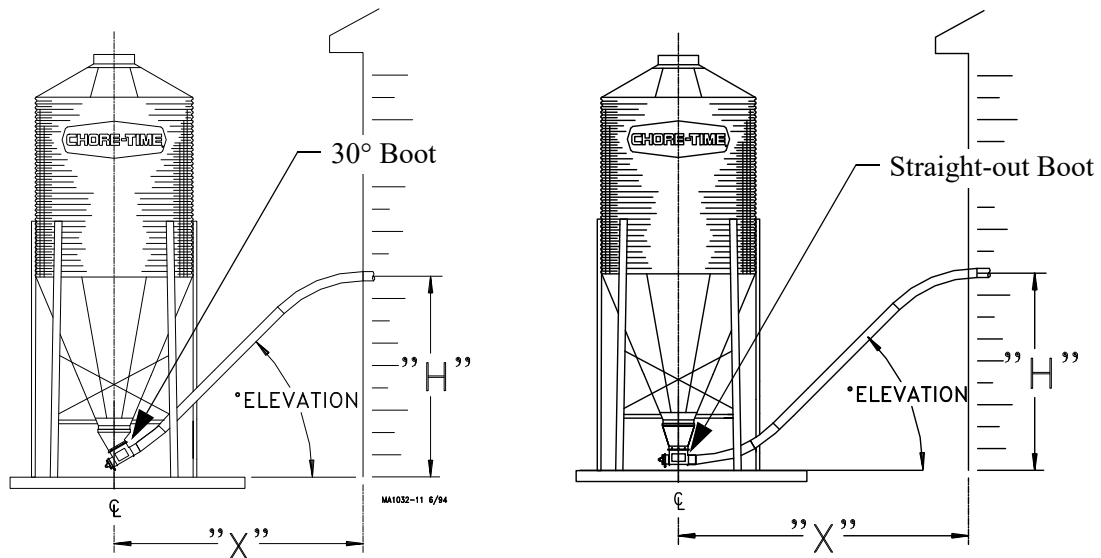


Figure 4. Bin-to-Building Placement

Model 90/108 FLEX-AUGER® Systems Bin Placement Chart (with In-Line or Rotated Screeners)

Use this diagram and chart to determine proper feed bin placement when using screener.

"X" = distance from center of bin to where fill system enters the building.

"H" = height from top of bin pad to where fill system enters the building.

Degree of elevation = Angle at which the system is installed (from horizontal).

System shown with screener boot installed in-line; system may also be installed with the screener boot rotated 90 degrees.

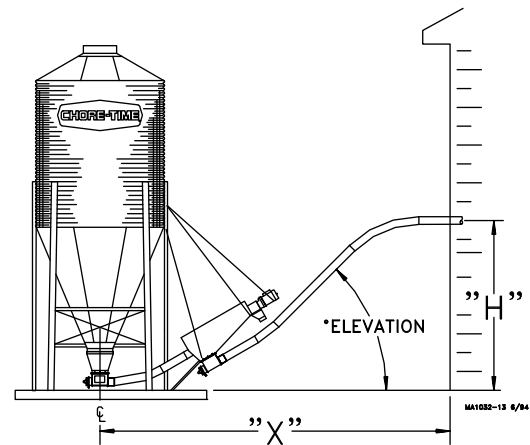


Figure 5. Bin Placement

Chart for minimum distances ("X") from building to center of bin using the various entrance heights ("H"), upper boots and elevations listed below.

System Model	Entrance Height "H"	30 Degree Upper Bin Boot (part no. 4347)		Straight-Out Upper Bin Boot (part no. 6093)	
		30 Degree	45 Degree	30 Degree	45 Degree
Model 90/108 Using Screener Screener Boot is in-line with System	5' (1.5 m)	12.5' (3.8 m)	11.5' (3.5 m)	15' (4.6 m)	14' (4.3 m)
	6' (1.8 m)	14' (4.3 m)	12.5' (3.8 m)	16.5' (5 m)	15' (4.6 m)
	7' (2.1 m)	16' (4.9 m)	13.5' (4.1 m)	18.5' (5.6 m)	16' (4.9 m)
	8' (2.4 m)	17.5' (5.3 m)	14.5' (4.4 m)	20' (6.1 m)	17' (5.2 m)
	9' (2.7 m)	19.5' (5.9 m)	15.5' (4.7 m)	22' (6.7 m)	18' (5.5 m)
	10' (3 m)	21' (6.4 m)	16.5' (5 m)	23.5' (7.2 m)	19' (5.8 m)
	11' (3.4 m)	23' (7 m)	17.5' (5.3 m)	25.5' (7.8 m)	20' (6.1 m)
	12' (3.7 m)	24.5' (7.5 m)	18.5' (5.6 m)	27' (8.2 m)	21' (6.4 m)
	13' (4 m)	26.5' (8.1 m)	19.5' (5.9 m)	29' (8.8 m)	22' (6.7 m)
	14' (4.3 m)	28' (8.5 m)	20.5' (6.2 m)	30.5' (9.3 m)	23' (7 m)
	15' (4.6 m)	29.5' (9 m)	21.5' (6.5 m)	32.5' (9.9 m)	24' (7.3 m)
	16' (4.9 m)	31.5' (9.6 m)	22.5' (6.8 m)	34' (10.4 m)	25' (7.6 m)
17' (5.2 m)	33' (10 m)	23.5' (7.2 m)	35.5' (10.8 m)	26' (7.9 m)	
18' (5.5 m)	35' (10.7 m)	24.5' (7.5 m)	37.5' (11.4 m)	27' (8.2 m)	
19' (5.8 m)	36.5' (11.1 m)	25.5' (7.8 m)	39' (11.9 m)	28' (8.5 m)	
20' (6.1 m)	38.5' (11.7 m)	26.5' (8.1 m)	41' (12.5 m)	29' (8.8 m)	
Model 90/108 using Screener Screener Boot is Rotated 90 degrees to System	5' (1.5 m)	11' (3.4 m)	9.5' (2.9 m)	11' (3.4 m)	9.5' (2.9 m)
	6' (1.8 m)	13' (4 m)	10.5' (3.2 m)	13' (4 m)	10.5' (3.2 m)
	7' (2.1 m)	14.5' (4.4 m)	11.5' (3.5 m)	14.5' (4.4 m)	11.5' (3.5 m)
	8' (2.4 m)	16' (4.9 m)	12.5' (3.8 m)	16' (4.9 m)	12.5' (3.8 m)
	9' (2.7 m)	18' (5.5 m)	13.5' (4.1 m)	18' (5.5 m)	13.5' (4.1 m)
	10' (3 m)	19.5' (5.9 m)	14.5' (4.4 m)	19.5' (5.9 m)	14.5' (4.4 m)
	11' (3.4 m)	21.5' (6.5 m)	15.5' (4.7 m)	21.5' (6.5 m)	15.5' (4.7 m)
	12' (3.7 m)	23' (7 m)	16.5' (5 m)	23' (7 m)	16.5' (5 m)
	13' (4 m)	25' (7.6 m)	17.5' (5.3 m)	25' (7.6 m)	17.5' (5.3 m)
	14' (4.3 m)	26.5' (8.1 m)	18.5' (5.6 m)	26.5' (8.1 m)	18.5' (5.6 m)
	15' (4.6 m)	28.5' (8.7 m)	19.5' (5.9 m)	28.5' (8.7 m)	19.5' (5.9 m)
	16' (4.9 m)	30' (9.1 m)	20.5' (6.2 m)	30' (9.1 m)	20.5' (6.2 m)
17' (5.2 m)	32' (9.8 m)	21.5' (6.5 m)	32' (9.8 m)	21.5' (6.5 m)	
18' (5.5 m)	33.5' (10.2 m)	22.5' (6.8 m)	33.5' (10.2 m)	22.5' (6.8 m)	
19' (5.8 m)	35.5' (10.8 m)	23.5' (7.1 m)	35.5' (10.8 m)	23.5' (7.2 m)	
20' (6.1 m)	37' (11.3 m)	24.5' (7.4 m)	37' (11.3 m)	24.5' (7.5 m)	

Straight-Out Bin Boot with Feed Screener (Boot Rotated 90°)

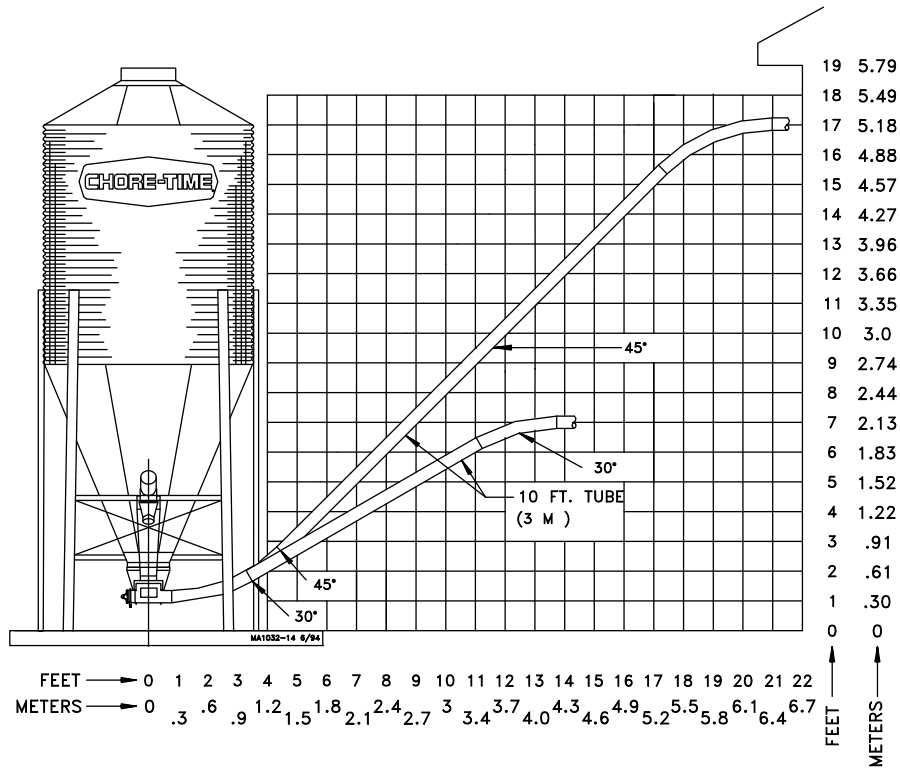


Figure 6. Straight-Out Bin Boot with Feed Screener

30° Bin Boot with Feed Screener

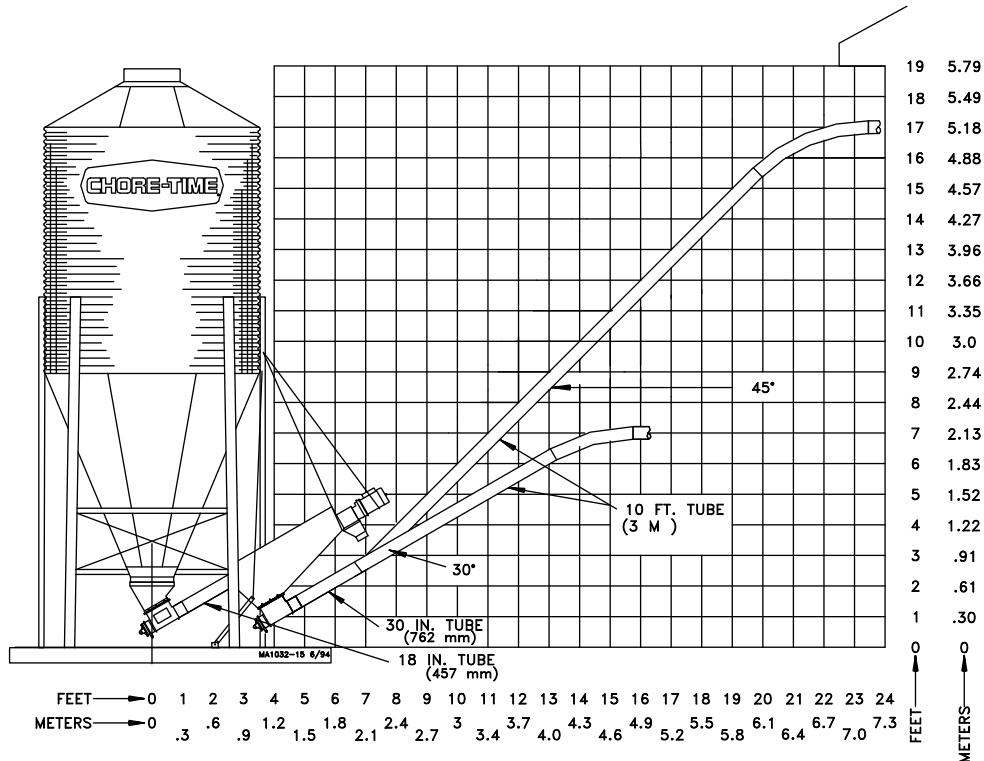


Figure 7. 30° Bin Boot with Feed Screener

Straight-Out Bin Boot with Feed Screener

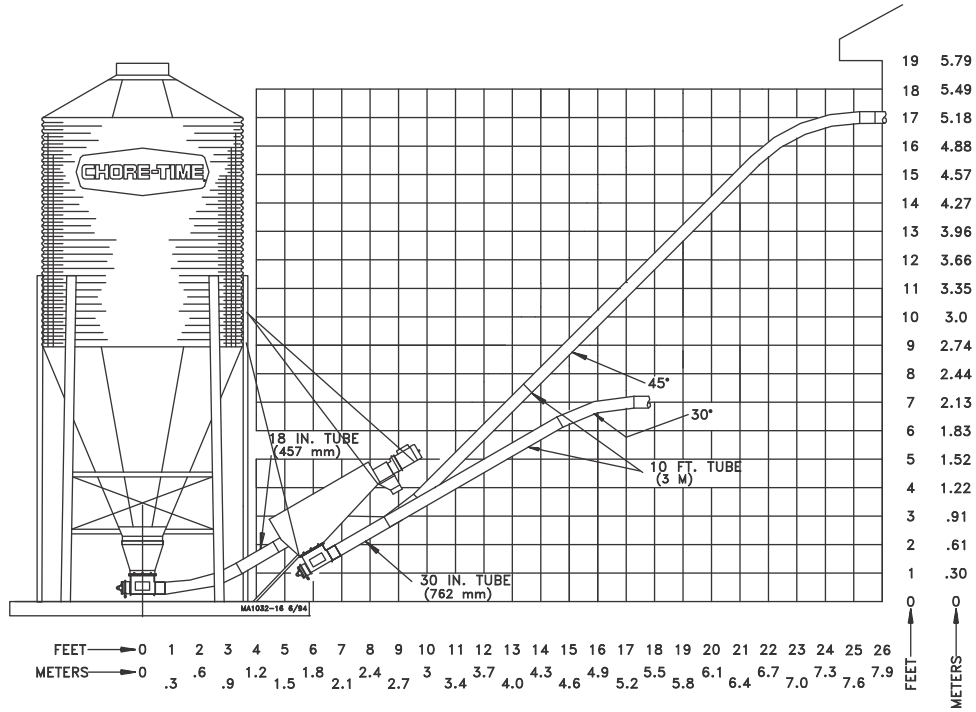
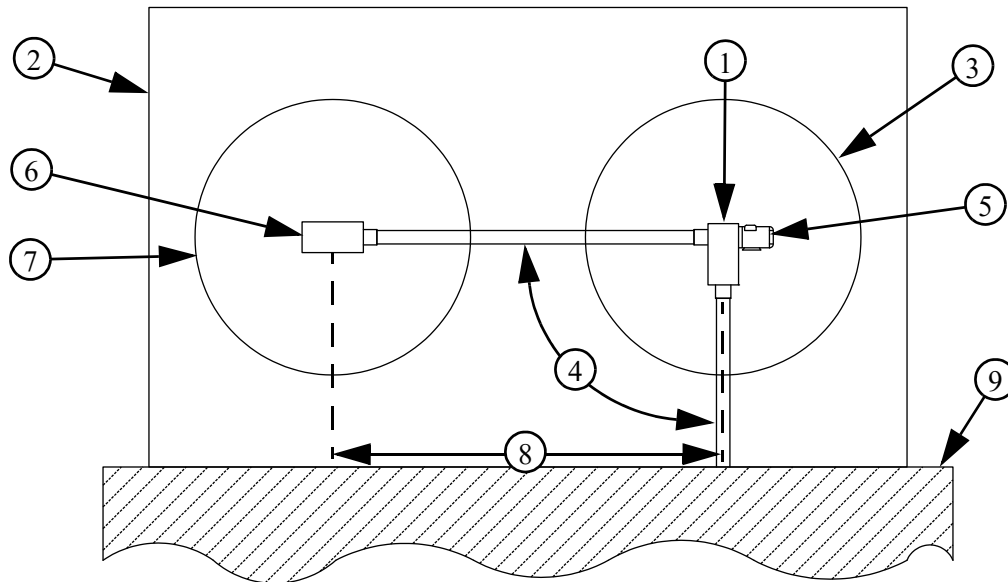


Figure 8. Straight-Out Bin Boot with Feeder Screener

30° Two-Motor Tandem Systems (Model 75, 90, and HMC Only)

IMPORTANT: PLAN CAREFULLY BEFORE BEGINNING TO INSTALL THE TWO-MOTOR TANDEM FLEX-AUGER SYSTEM.

Pour a single concrete pad for BOTH bins. Ensure that is level. Pad dimensions and specifications should meet bin manufacturer's requirements. Position the bins so that legs will not interfere with the FLEX-AUGER installation.



Item	Description
1	30° (degree) Intermediate Boot
2	A Level Concrete Pad
3	Intermediate Bin
4	90° Corner
5	Two-Motor Tandem Power Unit
6	Straight-Out Terminal Boot
7	Terminal Bin
8	10 feet (3 meters)
9	Building

Figure 9. Bin Locations for Two-Motor Tandem Systems

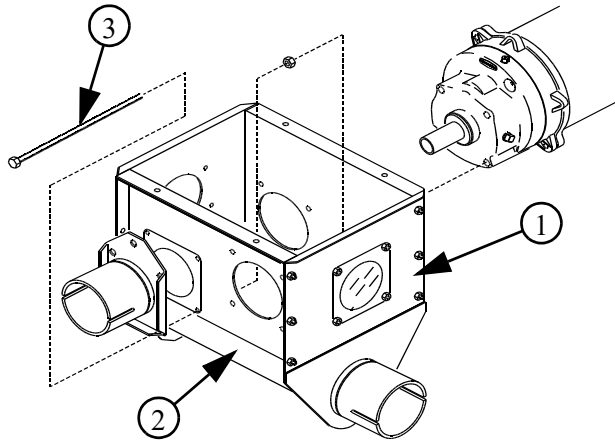
Locate the bins as illustrated in **Figure 9**. Commonly, the intermediate bin is placed 10 feet (3 m) from the building, allowing the auger to enter the building at about ceiling height (8' or 2.4 m). The terminal bin is installed at a 90-degree angle to the intermediate bin. Feed bins up to 9' (2.74 m) diameter are commonly placed 10' (3 m) on center from the intermediate bin. One 10' (3 m) PVC tube can be used to connect the boots in this application.

NOTE: These are only guidelines. Many variations are possible. Installation of the Upper Boots, Transfer Plates, and Auger is the same for the Two-Motor Tandem System as the standard system. The terminal bin must use a "straight-out" boot body. The intermediate bin requires a 30° boot body. Refer to the FLEX-AUGER Fill System Manual for installation information of standard components.

1. Install the power unit/gearhead assembly and tube anchor on the intermediate lower boot using the hardware provided with the power unit.

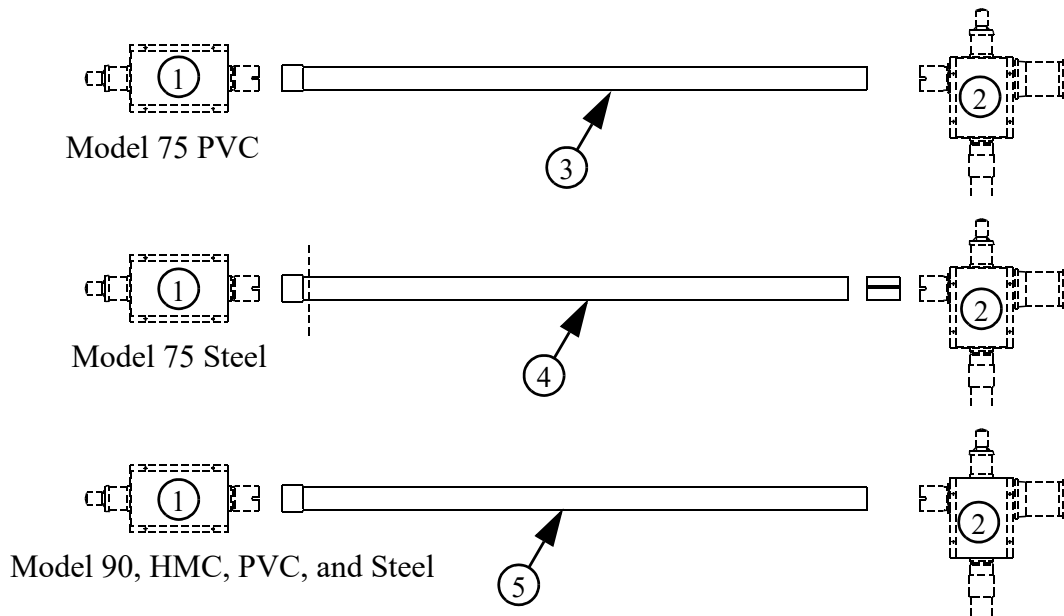
NOTE: Tube anchor and power unit openings are identical, allowing either right- or left-turn installations. For right turn, switch placement as shipped is acceptable. For left turn, the power unit will not mount beside the switch. Left turn installations require moving the switch to the access plate location over the outlet end of the boot.

2. Remove the 7-1/2" bolt and nut from the boot as shipped. Re-install the bolt so that the nut is installed INSIDE the boot as shown in **Figure 10**, and the bolt is threaded into the face of the gear head on the power unit. Tighten the nut down against the side of the boot. This holds the cannonball in place in the boot.
3. Bolt the Lower Boot Weldment to the transfer plate of each bin using four 5/16-18x3/4" hex head machine screws.
4. Install PVC tube and auger from the terminal bin to the intermediate bin, as shown in **Figure 11**.
5. After auger installation is completed, place a cannonball in each boot assembly and install the clean-out cover in the terminal boot. Install the access cover on the intermediate bin.



Item	Description
1	Access Cover
2	Two-Motor Tandem Body
3	7-1/2" (19 cm) Hex Hd. Bolt

Figure 10. Bolt Location



Item	System Type	Description
1	All	Terminal Boot
2	All	Intermediate Boot
3	75 PVC	Slide belled end of tube over Terminal Boot Bell; Straight end of tube inside Intermediate Boot Bell
4	75 Steel	Cut bell off. Insert pipe into Terminal Boot Bell. Slide Tube Insert into the Intermediate Boot. Slide the tube into the Insert.
5	90, HMC, PVC & Steel	Insert bell over Stub Tube Outlet on Terminal Boot. Slide the straight end of the tube into the belled end of the Intermediate Boot.

Figure 11. Moving the PVC Tube and Auger

Model 108 Two-Motor Tandem Systems

IMPORTANT: PLAN CAREFULLY BEFORE BEGINNING TO INSTALL THE MODEL 108 TWO-MOTOR TANDEM SYSTEM. PLACEMENT OF BINS IS IMPORTANT FOR PROPER INSTALLATION OF THE TWO-MOTOR TANDEM SYSTEM.

Pour one level concrete pad for BOTH bins. Pad dimensions and specifications must meet bin manufacturer's requirements. Position the bins so that legs will not interfere with the Flex-Auger system installation.

Two-Motor Model 108 Tandem systems may have more than two bins connected together, but additional components are required.

Bin Location

Locate the bins as illustrated in **Figure 12**. Note that bins may be installed in-line or forming a 90-degree angle with the system.

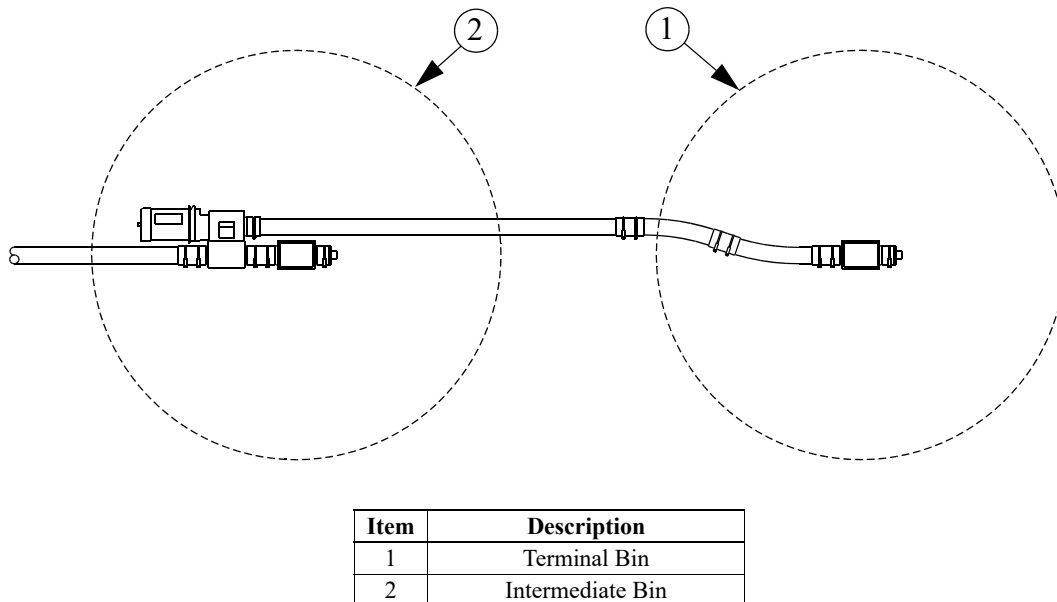


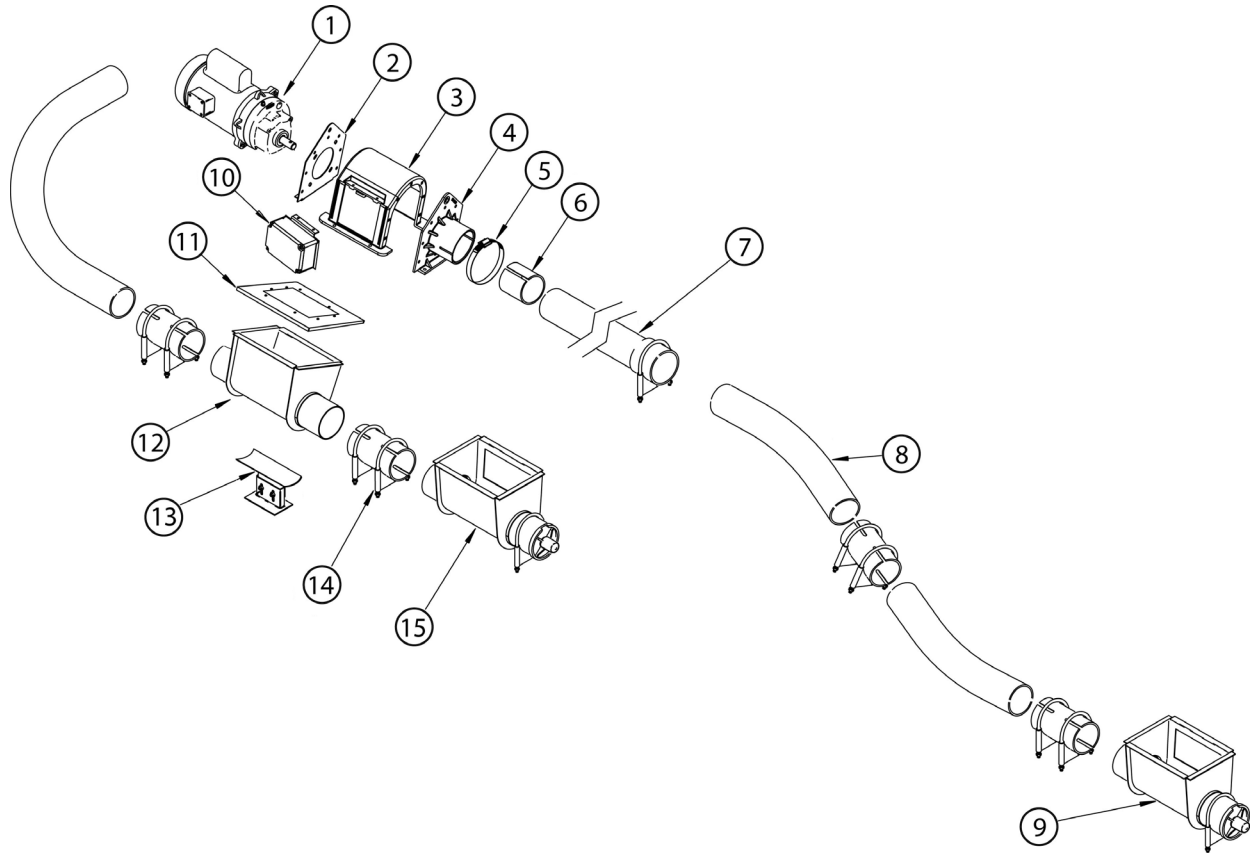
Figure 12. Two-Motor Model 108 Tandem Systems Bins

Connecting the Bins

Assemble your Two-Motor Tandem components as shown in **Figure 13 (on page 20)** or **Figure 14 (on page 21)**.

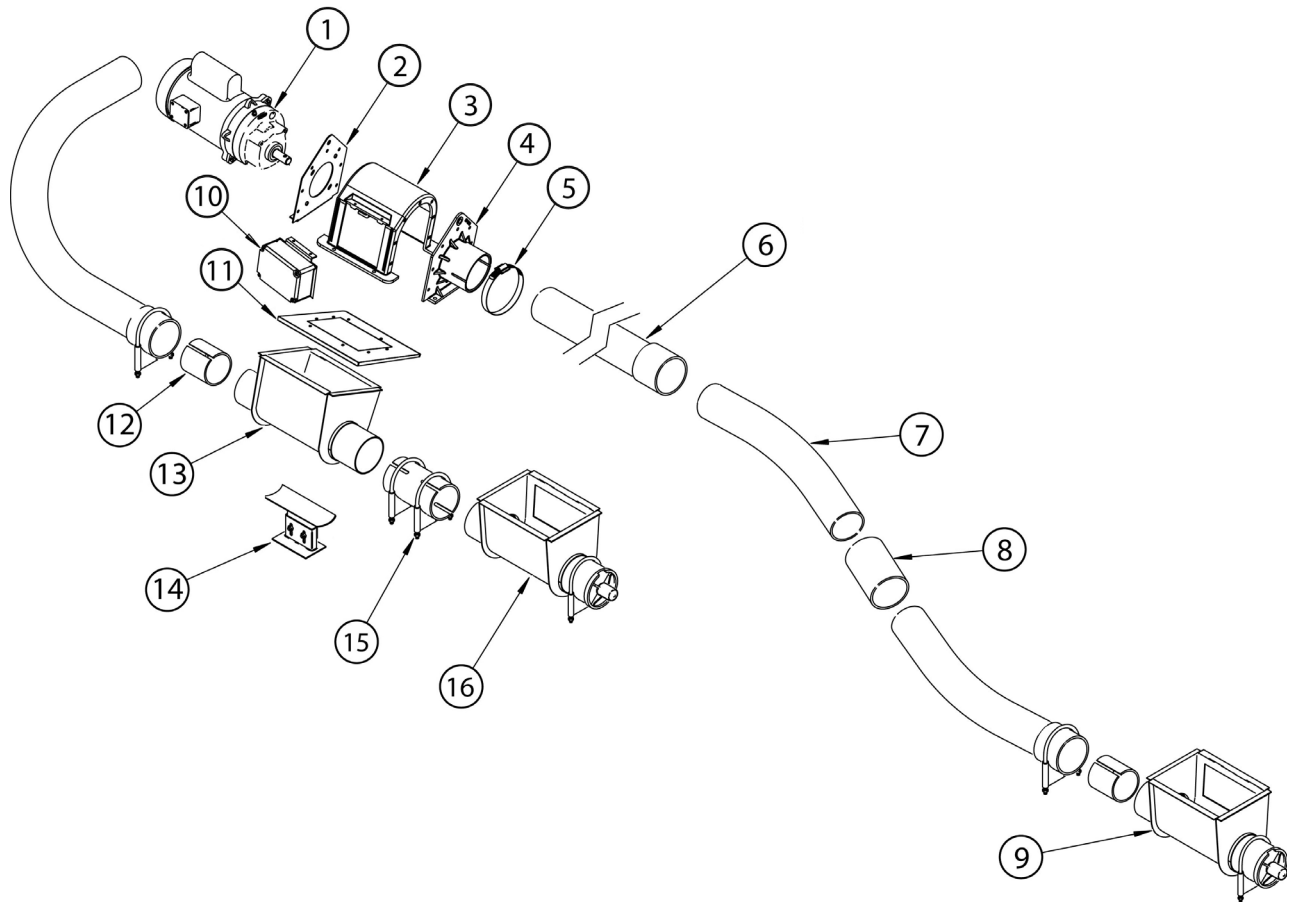
For Steel systems, refer to **Figure 13**. For PVC systems, refer to **Figure 14**.

1. Secure the Connecting Boot directly to the Intermediate Bin Boot using a Tube Connector w/clamps.
2. Install the Boot Support Assembly under the Connecting Boot to provide adequate support.
3. Install an Adapter Plate on the bottom of the Control Unit, using the hardware provided.
4. The 90-degree Elbow must be cut into (2) 22-1/2° Elbows. Refer to the FLEX-AUGER Installation Manual for elbow cutting information.
5. Assemble the 22-1/2° elbows, straight pipe, Tube Connectors, Tube Inserts, PVC Couplers, and clamps between the Terminal Bin Boot and the Connecting Boot.
6. Install and stretch the auger as specified in the Model 108 FLEX-AUGER Fill System Manual.
7. Wire the Two-Motor Tandem system as specified in the wiring diagrams.



Item	Description
1	Power Unit
2	Adapter Plate
3	Control Body
4	Tube Anchor
5	Tube Clamp
6	Tube Insert
7	Auger Tube
8	22-1/2° Elbow
9	Terminal Bin Boot
10	Safety Switch
11	Adapter Plater
12	Connecting Boot
13	Boot Support Assembly
14	Tube Connector w/ clamps
15	Intermediate Bin Boot

Figure 13. Model 108 Steel Two-Motor Tandem Systems Bins



Item	Description
1	Power Unit
2	Adapter Plate
3	Control Body
4	Tube Anchor
5	Tube Clamp
6	Auger Tube
7	22-1/2° Elbow
8	Tube Connector
9	Terminal Bin Boot
10	Safety Switch
11	Adapter Plater
12	Tube Insert
13	Connecting Boot
14	Boot Support Assembly
15	Tube Connector w/ clamps
16	Intermediate Bin Boot

Figure 14. Model 108 PVC Two-Motor Tandem Systems Bins

Model 108 FLEX-AUGER Extended-Length Feed Delivery Systems

Carefully plan the Model 108 Fill System installation. Make sure the system will not interfere with other equipment, doors, windows, etc.

The charts below provide power unit recommendations and maximum system line lengths. Notice that the top chart applies to standard 348 RPM systems, and the lower chart applies to the (optional) High-Capacity 425 RPM systems.

Maximum Line Lengths* for Standard 348 RPM Systems			
Motor HP	Power Unit Part Number	Standard System	Extended System
3/4	3259-52	50 ft. (15.2 m)	75 ft. (22.8 m)
1	3259-49	100 ft. (30.5 m)	135 ft. (41.1 m)
1-1/2	3259-66	150 ft. (45.7 m)	185 ft. (56.4 m)

Maximum Line Lengths* for High-Capacity 425 RPM Systems			
Motor HP	Power Unit Part Number	Standard System	Extended System
1	3259-79	50 ft. (15.2 m)	75 ft. (22.8 m)
1-1/2	3259-80	100 ft. (30.5 m)	135 ft. (41.1 m)
2	3259-121	150 ft. (45.7 m)	185 ft. (56.4 m)

*Maximum line lengths should be reduced for elevations over 8' (2.4 m) and/or inclines steeper than 45 degrees.

Maximum lengths for 108 systems include the use of two PVC elbows. If additional elbows are used, decrease line length by 30 ft. (9 m) per elbow. Length of extension systems do not include elbows. Decrease maximum extension system lengths by 30 ft. (9 m) per elbow if used in the system.

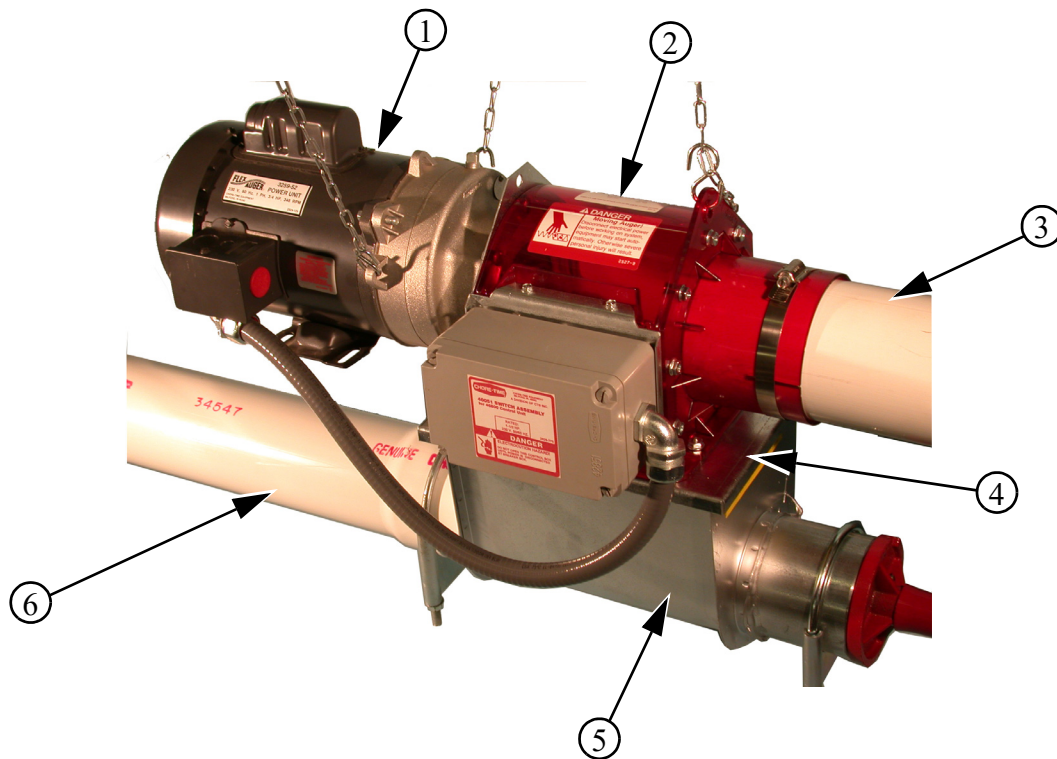
Horsepower requirements are based on length of the Model 108 FLEX-AUGER system and type of system installed; i.e., number of turns.

Model 108 Extension Boot Installation

The Model 108 Extension Kit is used to increase total length of the Model 108 FLEX-AUGER system or to turn 90 degrees, in applications where this is required.

Maximum lengths for the standard and extended length systems are shown on page 8 of this manual. **DO NOT EXCEED THESE RECOMMENDATIONS.**

1. Install the Control Unit at the end of the standard system as described in the Control Unit installation section of this manual.
2. Remove the plastic drop from the bottom of the control unit housing. Re-use the hardware to install the 45970 Adapter Plate to the control unit housing. (See Figure 15.)
3. Install the Extension Boot on the bottom of the adapter plate, using the hardware provided with the adapter plate. Note that the Extension Boot can be installed to extend the system in a straight line or used to make a 90 degree turn in installations where that is desirable.
4. Install the extended length portion of the system similar to the standard system.
5. Wire the extended length system according to the applicable wiring diagrams in this manual.



Item	Description
1	Power Unit
2	Control Unit
3	Incoming Auger Tube
4	Adapter Plate
5	Extension Boot (Model 108)
6	Outgoing Auger Tube

Figure 15. Extension Boot Installation

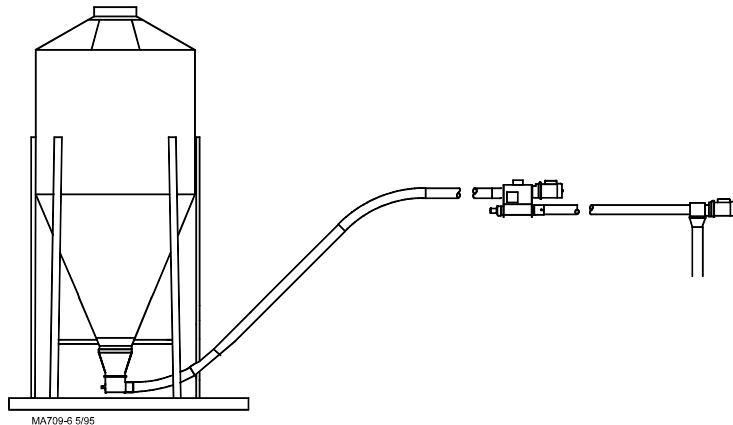
Extension Hopper Installation

The extended length Model 55, 75, 75 Stainless, 75 Plus, 75 Plus Stainless, 90, and HMC FLEX-AUGER Feed Delivery Systems are used to increase the total length of the system in applications where this is required.

The Model 75 Plus/SS System offers Extension Hopper Kits in both Galvanized Steel and Stainless Steel Construction.

The Extension Boot Kits may be used with:

- **Model 55:** 1/3, and 1/2 H.P. Power Units.
- **Model 75/Stainless, 90, and HMC:** 1/2, 3/4, and 1 H.P. Power Units.
- **Model 75 Plus/Stainless:** 3/4, 1, and 1-1/2 H.P. Power Units



Maximum lengths for the standard system and Extended Length Systems with various power unit are shown in the chart below.

Motor Size	Model 55		Model 75/SS		Model 75/SS Plus		Model 90		Model HMC	
	Max. Standard	Max. Extension	Max. Standard	Max. Extension	Max. Standard	Max. Extension	Max. Standard	Max. Extension	Max. Standard	Max. Extension
1/3 H.P.	150 Feet (46 M)	185 Feet (56 M)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1/2 H.P.	250 Feet (76 M)	285 Feet (87 M)	80 Feet (24 M)	125 Feet (38 M)	n/a	n/a	30 Feet (9 M)	65 Feet (20 M)	30 Feet (9 M)	55 Feet (17 M)
3/4 H.P.	n/a	n/a	150 Feet (46 M)	185 Feet (56 M)	80 Feet (24 M)	125 Feet (38 M)	90 Feet (27 M)	125 Feet (38 M)	90 Feet (27 M)	105 Feet (32 M)
1 H.P.	n/a	n/a	200 Feet (61 M)	245 Feet (75 M)	150 Feet (46 M)	185 Feet (56 M)	150 Feet (46 M)	185 Feet (56 M)	150 Feet (46 M)	185 Feet (56 M)
1-1/2 H.P.	n/a	n/a	n/a	n/a	300 Feet (91 M)	345 Feet (105 M)	n/a	n/a	n/a	n/a

Maximum length recommendations for standard systems include use of two 45-degree elbows. No elbows are included in the recommendations for maximum length of extension systems. If additional elbows are required, decrease the length recommendations by 30 feet (9 m) for each additional 90-degree turn.

By moving the Window Plate, Cover Plate, Tube Anchor, Level Switch Assembly, and Power Unit, it is possible to extend the system in a straight line or use the Extension Boot to replace elbows making a 90-degree turn where that is convenient.

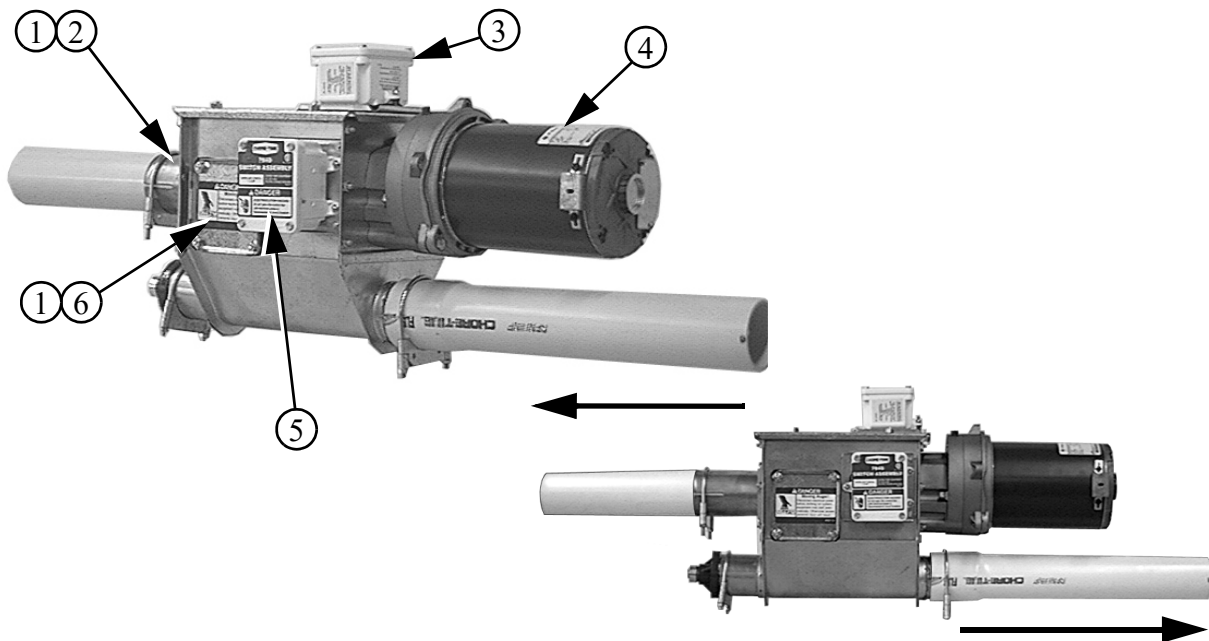
The Safety Switch should be located toward the outlet end of the boot on all applications.

Figure 16 (on page 25) through Figure 18 (on page 27) show that by moving several components to different locations the Extension Boot may be used to turn right hand, left hand, or extend a straight line system.

Extension Hopper Installation Instructions

1. Attach the (incoming) Tube Anchor (**Item 2**) to the Extended Length Boot, using hardware supplied.
2. Place a Tube Clamp on the Tube Anchor.
3. Mount the Power Unit (**Item 4**) on the Boot, using 5/16-18 hardware supplied.
4. Locate the Extension Hopper near the center of the auger line to balance the load on the systems.
5. Suspend the Extension Hopper/Power Unit from the ceiling. The Extension Hopper, Power Unit, and Feed weigh approximately 90 pounds (40.1 kg). Adequate support must be provided to prevent sagging at the Extension Hopper location.
6. Support the Boot securely, using the “ears” on the Power Unit, a chain, and screw hooks to suspend the Extension Hopper.
7. Install the incoming and outgoing auger tubes to the Tube Anchor and Boot Anchor on the Extension Hopper.
8. Install the remaining fill system components as specified in the FLEX-AUGER Fill System Manual.
9. A full-length Restrictor Tube is provided with the Extension Hopper. The Restrictor Tube may need to be shortened to match the outgoing feed with the incoming feed. Refer to the instructions on shortening the Restrictor in the FLEX-AUGER Fill System Manual.
10. Refer to the wiring diagrams for proper wiring information for the Extension Hopper.

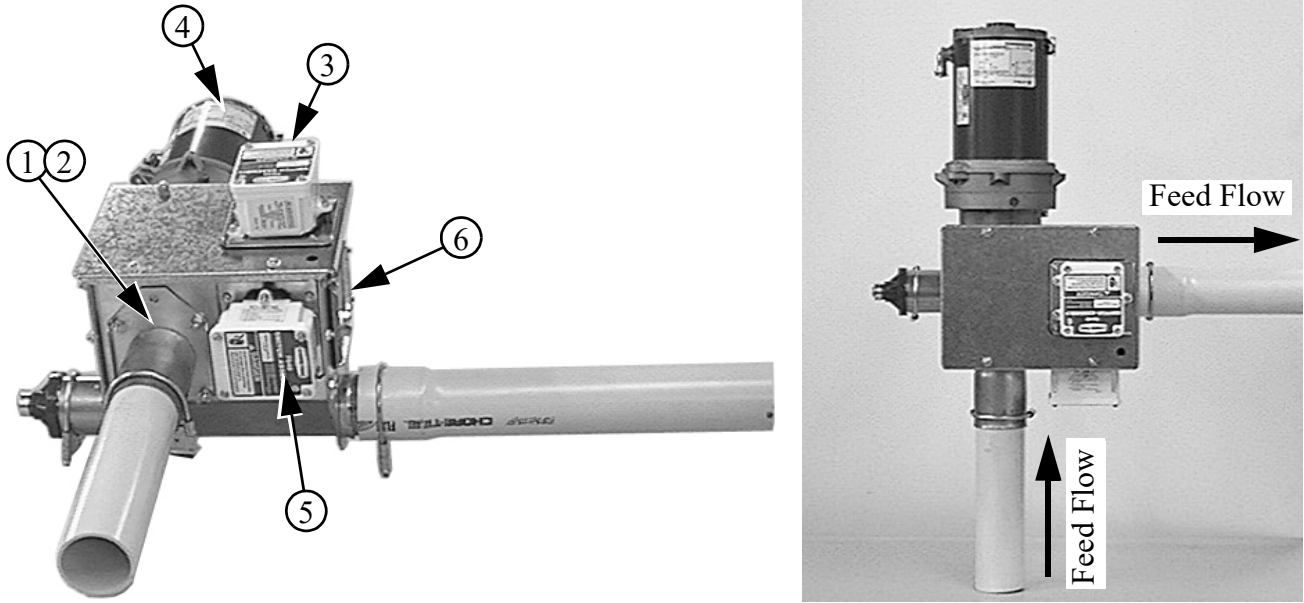
Straight Line Application



		Model 55	Model 90 & HMC	Model 75	Model 75 Stainless	Model 75 Plus	Model 75 Plus Stainless
Key	Description	Part No.					
1	Seal	4873	4873	4873	4873	4873	4873
2	Incoming Tube Anchor	35531	5069	6518	6518SS	6518	6518SS
3	Safety Switch Assembly	7840	7840	7840	7840SS	7840	7840SS
4	Power Unit	--	--	--	--	--	--
5	Level Switch Assembly	7840	7840	7840	7840SS	7840	7840SS
6	Cover Plate	4878	4878	4878	4878SS	4878	4878SS

Figure 16. Side View of Straight Line Application (Arrows indicating Feed Line)

Right-Hand Turn Application

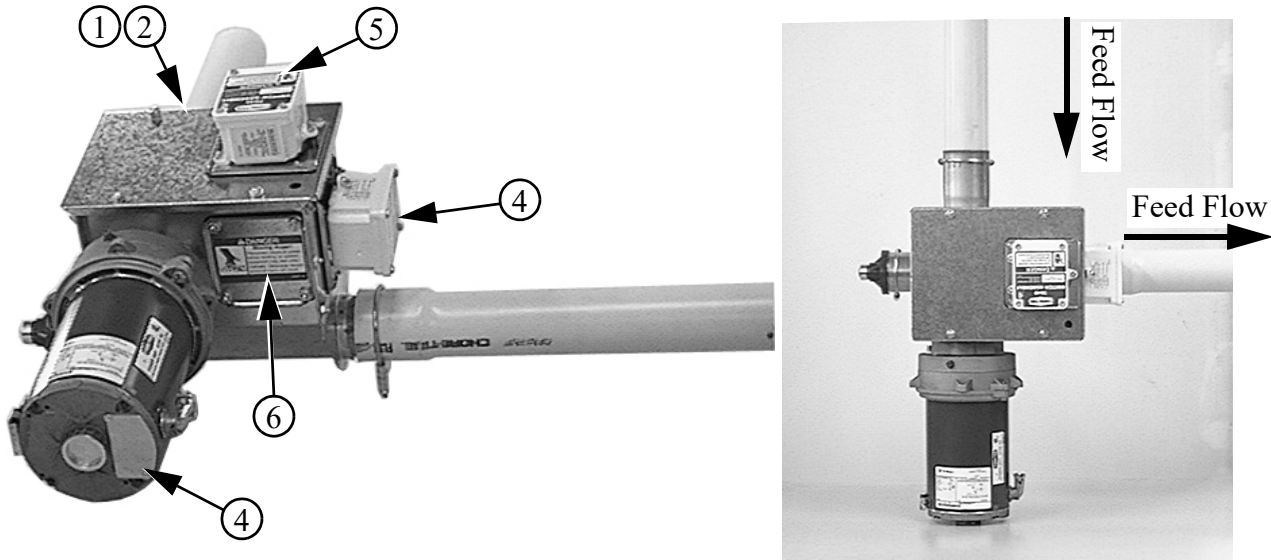


		Model 55	Model 75	Model 90 & HMC	Model 75 Stainless	Model 75 Plus	Model 75 Plus Stainless
Key	Description	Part No.					
1	Seal	4873	4873	4873	4873	4873	4873
2	Incoming Tube Anchor	35531	6518	5069	6518SS	6518	6518SS
3	Safety Switch Ass'y	7840	7840	7840	7840SS	7840	7840SS
4	Power Unit	--	--	--	--	--	--
5	Level Switch Ass'y	7840	7840	7840	7840SS	7840	7840SS
6	Window Plate	7842	7842	7842	7842SS	7842	7842SS

Figure 17. Right-Hand Turn Application

Left-Hand Turn Application

The Power Unit will not mount beside the switch (as it is shipped) for left-hand turn applications. Left-hand turn applications will require moving the Level Switch to the Access Plate location over the outlet end of the boot as shown in **Figure 18**.

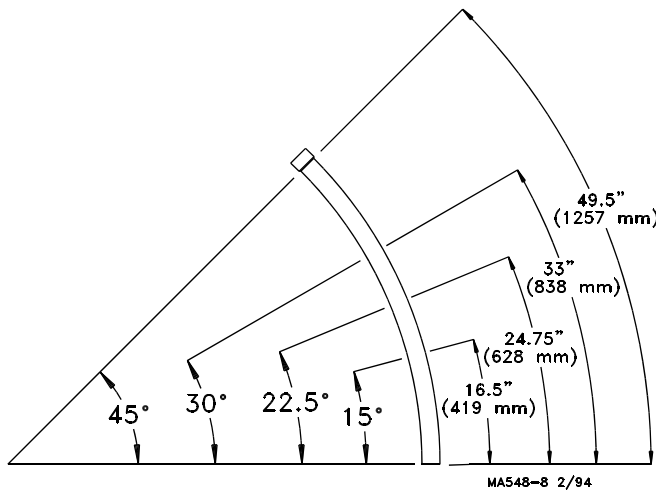


		Model 55	Model 75	Model 90 & HMC	Model 75 Stainless	Model 75 Plus	Model 75 Plus Stainless
Key	Description	Part No.					
1	Seal	4873	4873	4873	4873	4873	4873
2	Incoming Tube Anchor	35531	6518	5069	6518SS	6518	6518SS
3	Safety Switch Ass'y	7840	7840	7840	7840SS	7840	7840SS
4	Power Unit	--	--	--	--	--	--
5	Level Switch Ass'y	7840	7840	7840	7840SS	7840	7840SS
6	Cover Plate	4878	4878	4878	4878SS	4878	4878SS

Figure 18. Left-Hand Turn Application

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 19** shows how the elbow can be cut into shorter sections.

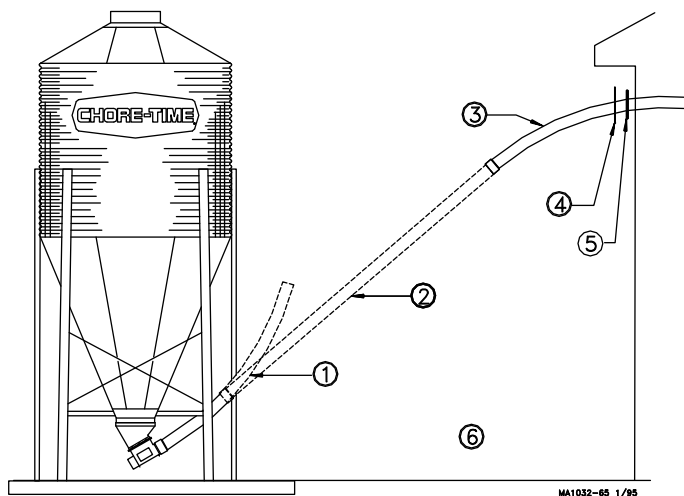


- 15 Degree Elbow 16.5" or 419 mm
- 22.5 Degree Elbow 24.75" or 628 mm
- 30 Degree Elbow 33" or 838 mm
- 45 Degree Elbow 49.5" or 1257 mm

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 19. 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 20.).
3. Model 75, 75 Plus, 90, 108, and 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.
Model 108 PVC: Systems will require use of a Tube Insert to join belled elbow or straight tube over Boot outlet end.
4. Slide the belled end of the first elbow or auger tube over the stub tube.
5. 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.



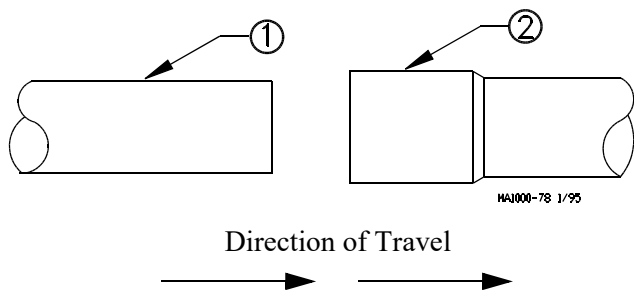
Item	Description
1	45° Elbow
2	Auger Tube
3	45° Elbow
4	Seal Ring
5	Neoprene Seal
6	Note: Belled end of elbows and auger tubes should be towards boot.

Figure 20. Elbow Installation outside the building

6. 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 21** 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.



Item	Description
1	Straight section of the Auger Tube
2	Belled End of the Auger Tube

Figure 21. Proper Auger Tube Connection

7. 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.



CAUTION: FOLLOW DIRECTIONS ON THE CAN FOR SAFE HANDLING OF CEMENT.

- a. Be sure tube is cut off squarely. Remove burrs from outside and inside the end of the tube.
- b. Dry fit all parts. Tube should fit inside belled end of next tube to full depth without excess force.
- c. Clean surfaces to be joined. **SURFACES MUST BE FREE OF DIRT OR GREASE!**
- d. 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.
- e. Quickly join the tubes, giving them a twisting motion to bring them into alignment as they are joined.
- f. Keep pressure on the joint until the PVC cement sets up.

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

- g. 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.
- h. 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

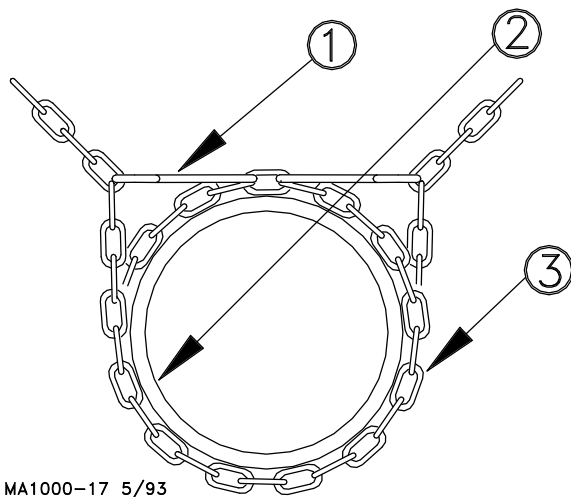
Support the Auger Tubing with chain and "S" Hooks every 5 feet [1.5m]. Steel Tube systems require support every 10 feet [3m]. The system should be restrained from swinging by using chain and "S" hooks to brace the auger tube, every 20 feet [6m], as shown in **Figure 22**.

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.

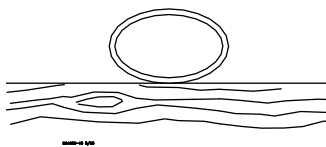


Item	Description
1	"S" Hook
2	Auger Tube
3	Chain

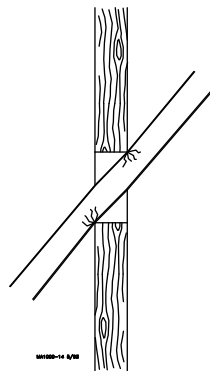
Figure 22. Proper Auger Tube Connection

MA1000-17 5/93

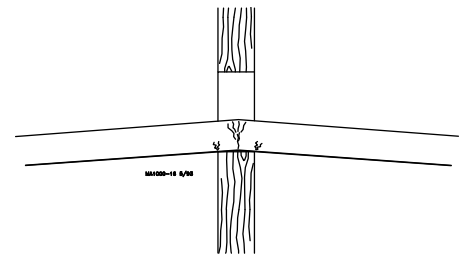
When the auger tube passes through a side wall or partition, especially where it enters the building, the opening should be made large enough so the auger tube can be supported without resting on the wall. If the auger tube rests on the wall or partition, the auger tube may flatten out or become kinked--causing excessive wear. (See **Figure 23**.)



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 23. Faulty Tube Installations

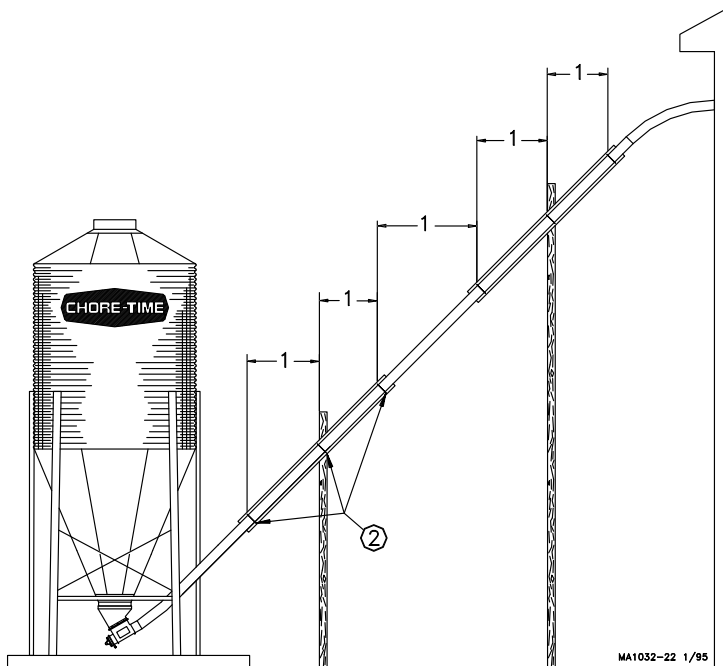
Supporting the System Outside the Building

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 24**, **Figure 25**, and **Figure 26** with the recommended supports.

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

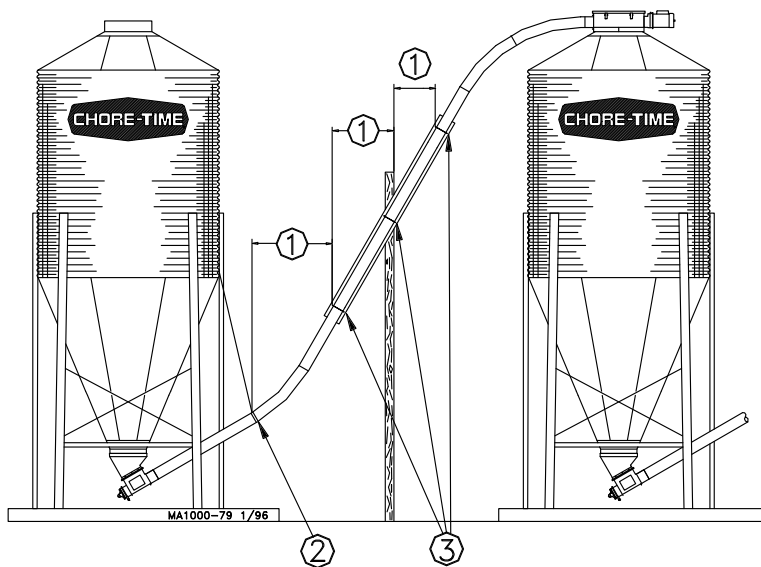
Elevated Systems



Item	Description
1	5' (1.5 m) for PVC systems
2	Place clamps here.

Figure 24. Elevated Systems

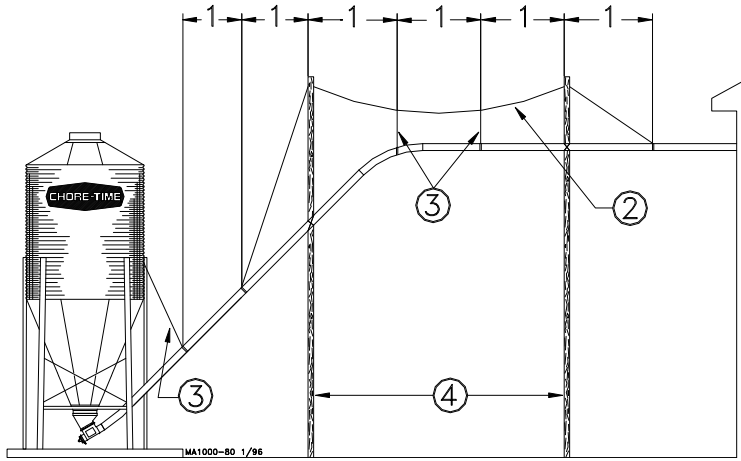
Bin-to-Bin Fill Systems



Item	Description
1	5' (1.5 m) for PVC systems or 10' (3 m) for STEEL systems
2	Place clamps here.

Figure 25. Bin-to-Bin Fill Systems

Long Elevated Systems

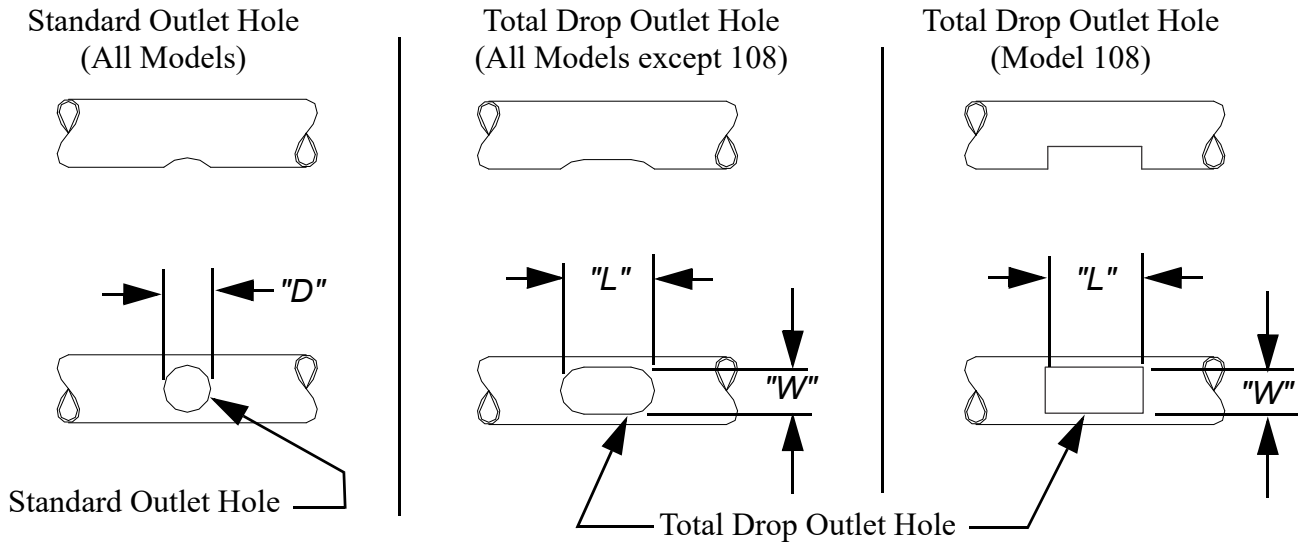


Item	Description
1	5' (1.5 m) for PVC systems or 10' (3 m) for STEEL systems
2	Master Cable
3	Cable or Chain
4	20' (6 m) Maximum

Figure 26. Long Elevated Systems

Outlet Assembly Installation

1. Determine the location of the Outlet Assembly and drill or cut the desired outlet hole **as shown in Figure 27**.

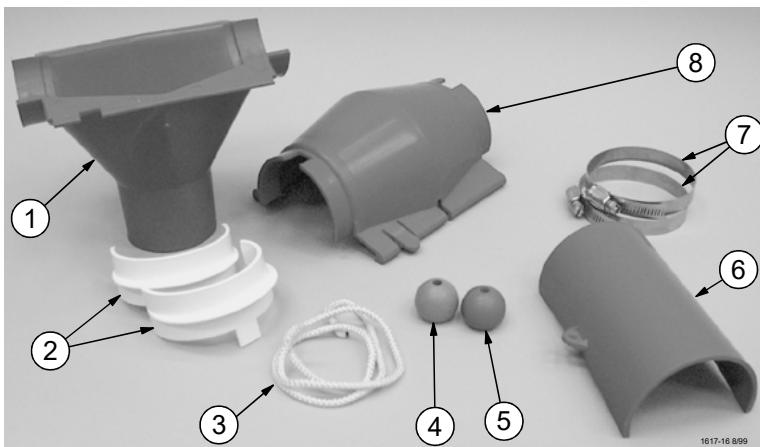


Model	Standard Outlet Hole	Total Drop Outlet Hole	
	"D" Diameter	"W" Width	"L" Length
55	1-1/2" [38.1 mm] Dia.	3" [76.2]	5" [127 mm]
75	2-1/2" [63.5 mm] Dia.	2-1/2" [63.5 mm]	5" [127 mm]
75 Plus	2" [50.8 mm] Dia.	2" x [50.8]	4" [101.6 mm]
HMC/90	3" [76.2 mm] Dia.	3" [76.2 mm]	6" [152.4 mm]
108	3-1/2" [90 mm] Dia.	3-1/2" [90 mm]	5-3/8" [137 mm]
Multi-Flow	1-1/2" [38.1 mm] Dia.	1-1/2" [38.1 mm]	5" [127 mm]

Figure 27. Cutting the Outlet Hole in the Fill System Pipe

Model 55, 75, HMC/90 Outlet Assembly

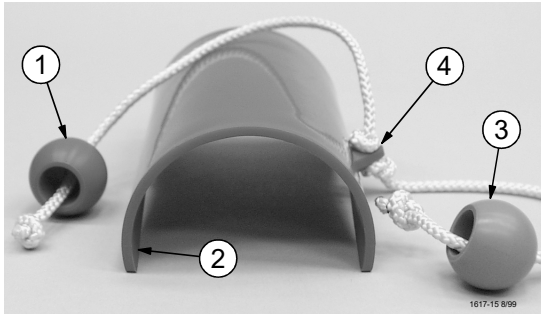
The Model 55, 75, HMC/90 Outlet Assemblies are designed to drop feed from a Feed Delivery or Feeding System into a Gravity Drop Tube. **Figure 28** shows the components that make up an outlet assembly.



Item	Description
1	Outlet Bottom
2	Retainer (Optional)
3	Cord
4	Green Indicator Ball
5	Red Indicator Ball
6	Rotary Slide
7	Clamp (Optional)
8	Outlet Top

Figure 28. Outlet Assembly Components

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 29**. Slide the Indicator Balls on the Cord ends, as shown in **Figure 29**, and knot the Cord ends so the Indicator Balls will not fall off.



Item	Description
1	Red Indicator Ball
2	Rotary Slide
3	Green Indicator Ball
4	Tab on Rotary Slide

Figure 29. Assembling the Rotary Slide

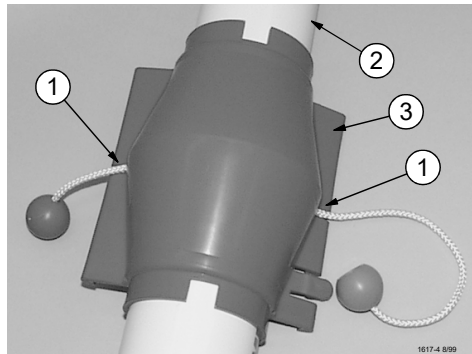
3. Snap the assembled Rotary Slide over the Fill System Pipe as shown in **Figure 30**.



Item	Description
1	Fill System Pipe
2	Rotary Slide

Figure 30. Rotary Slide Snapped onto the Fill System Pipe

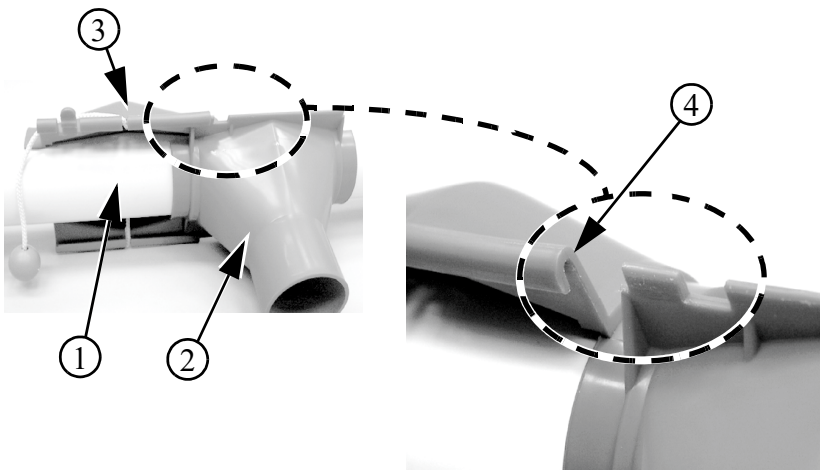
4. Snap the Outlet Top to the Fill System Pipe over the Rotary Slide as shown in **Figure 31**. Make sure the Cord comes out through the notches on each side of the Outlet Top as shown in **Figure 31**.



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

Figure 31. 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 32**.)



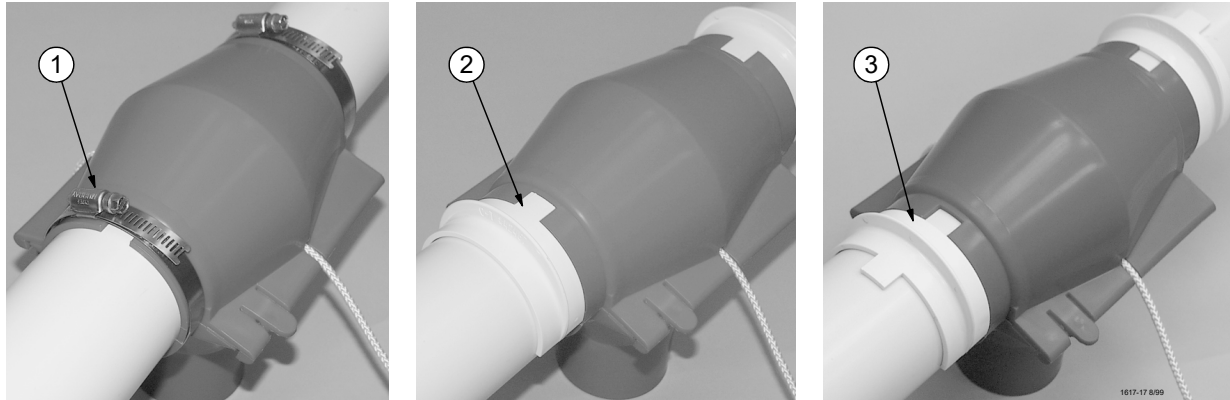
Item	Description
1	Fill System Pipe
2	Outlet Bottom
3	Outlet Top
4	Outlet Top Track

Figure 32. 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. See **Figure 33 (on page 35)**. It 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 33. Installing the Retainers on the Outlet Assembly

Model 108 Outlet Assembly

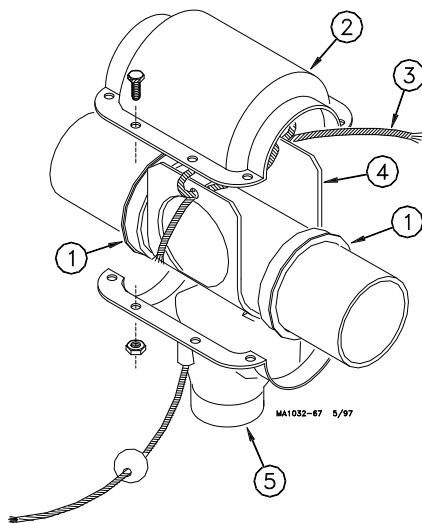
1. Wrap the rotary slide around the auger tube. POSITION SLIDES IN SAME DIRECTION FOR ALL DROPS SO THAT THE SLIDES WILL ALL OPERATE THE SAME WHEN ROPES ARE PULLED.
2. Thread the rope through the ends of the rotary slide.
3. Tie the ends of the rotary slide together so that the ends of the rope are the same length.
4. Open rope guide holes molded into the drop halves. Use a 3/16" (5 mm) drill bit and power drill to make a good hole for the rope.

NOTE: DO NOT OPEN THESE HOLES IF THE ROTARY SLIDE WILL NOT BE INSTALLED.

5. Thread the rope ends through the guide holes in the drop halves.
6. Position drop halves over the rotary slide and fasten the two halves together using hardware provided. (See Figure 34.)

Insert Rings are provided for both Steel Systems (Thicker Rings) and PVC Systems (Thinner Rings).

Slide the Insert Rings (with Flanges out) into position between the outlet halves to serve as spacers. (See Figure 34.)



Item	Description
1	Insert (For Steel or PVC System)
2	Top Half
3	Rope
4	Rotary Slide
5	Bottom Half w/Spout

Figure 34. Model 108 Outlet Drop Assembly

7. Test the operation of the rotary slide by pulling on the ends of the rope. Be sure the outlet drop is centered over the outlet hole, then move the rotary slide to the open position (check by looking up through the drop opening) and mark the short end of the rope where it goes through the guide hole. Tie a knot in the rope at the marked spot to act as a stop for the rotary slide.
8. Install green and red indicator balls on the ends of the rope. Tie knots in the rope to hold the balls in place. Use the green ball on the rope used to open the outlet drop. Use the red ball on the rope used to close the drop. This will indicate if the Outlet Drop is open or closed.
9. Dab PVC cement around the auger tube to prevent the drop from shifting on the tube.
10. Two screws are supplied for use in the bottom of the drop to attach a drop tube to the system.

Control Unit and 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.

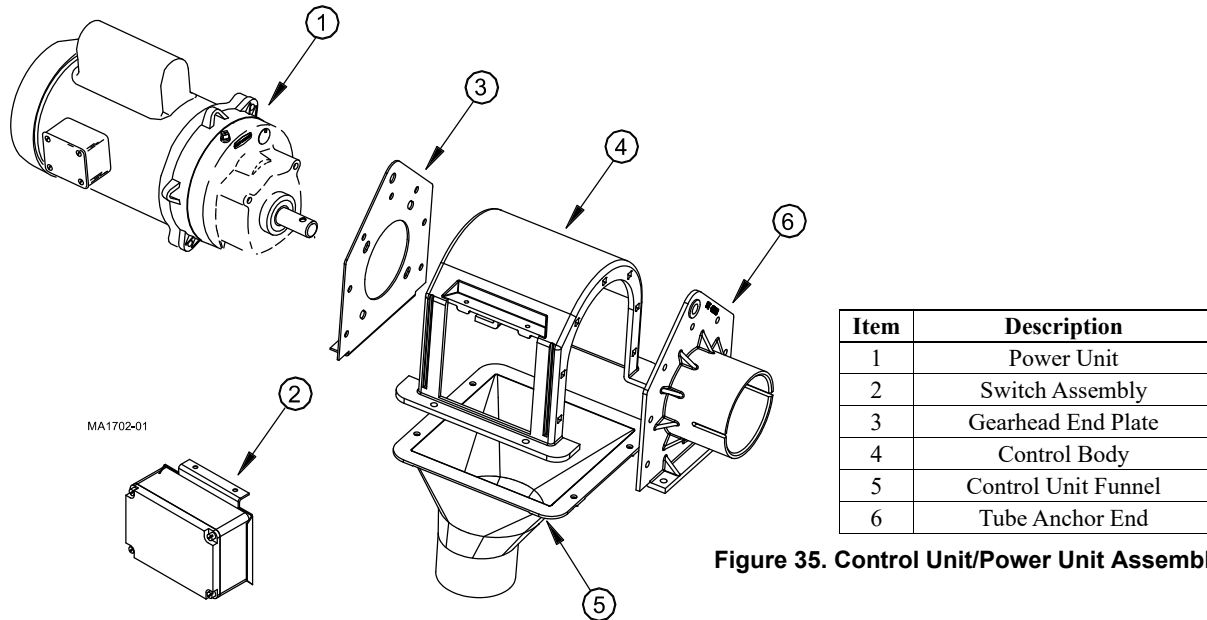


Figure 35. Control Unit/Power Unit Assembly

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

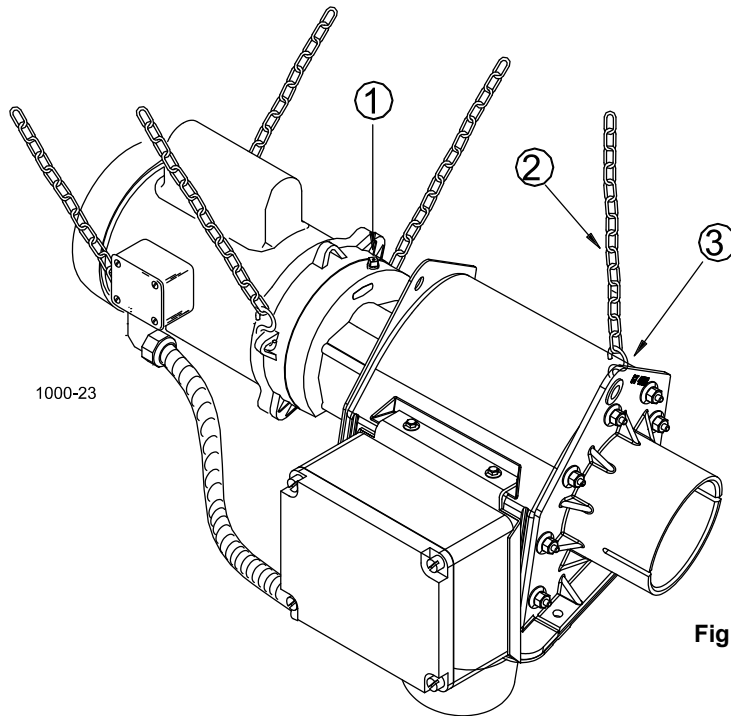
- a. Connect the electrical wires on the power unit to the control unit.
 - b. Drill bottom of control unit switch box with 7/8" (22.2mm) hole to receive the 90-degree connector and motor wire. Use caution not to disturb any wires or components of the switch box assembly when drilling holes.
 - c. Attach the 90-degree connector and conduit to the control unit housing.
 - d. 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.

- 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 36.).
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.

- 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.
- Replace the plastic shipping plug in the gear head with the vent plug provided.



Item	Description
1	Replace Shipping Plug with Vent Plug Provided
2	Chain
3	"S" Hook

Figure 36. 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. **“Extension Hopper Part Numbers” on page 76** can be used as an assembly guide for the Belt Drive Control Unit. **Figure 37** shows a Belt Drive Control Unit suspended.

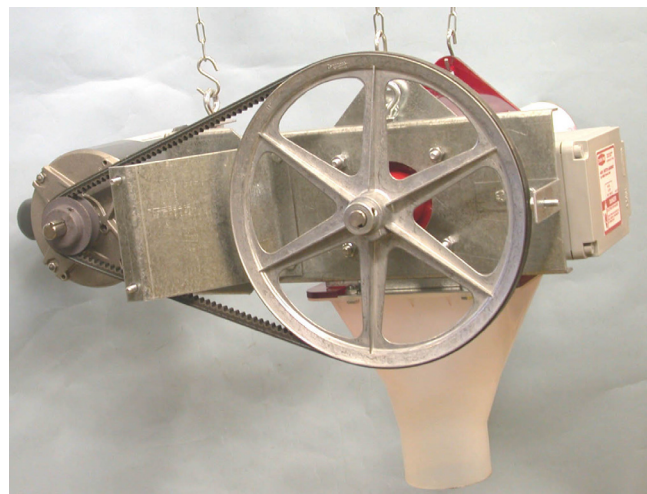


Figure 37. Belt Drive Control Unit

Auger Installation



WARNING: 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.



DANGER: 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.

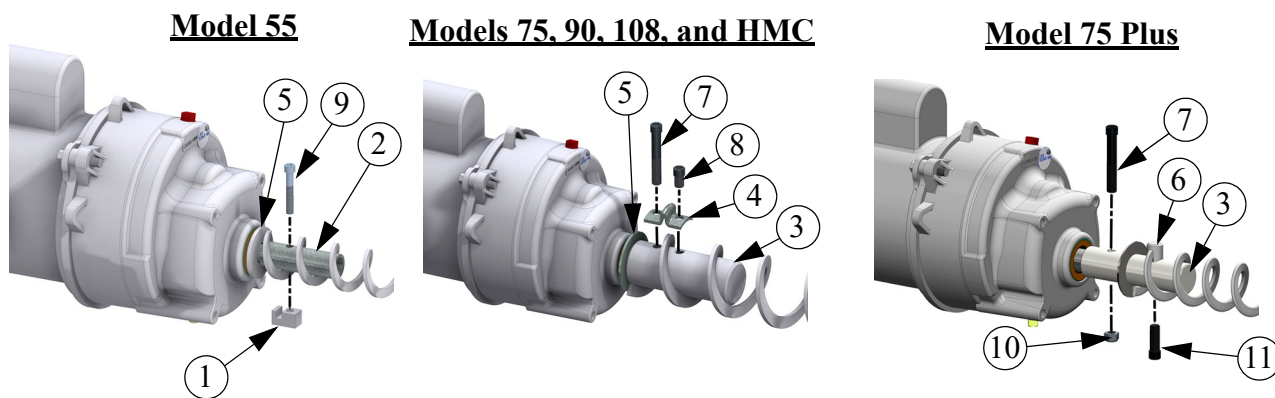
Handle the FLEX-AUGER carefully. Dropping the rolls of auger may cause the auger to kink. DO NOT install an auger that has a sharp kink. The kink will cause the auger to wear a hole in the tube at that spot. If the kink cannot be straightened with pliers, the kink must be cut out and the auger brazed 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.



DANGER: 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 drivers as shown below. Control Units 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.



Item	Description	Model 55	Model 75	Model 75 Plus	Model 90	Model HMC	Model 108
		Part No					
1	Driver Block	4642	--	--	--	--	--
2	Driver Tube	2920	--	--	--	--	--
3	Driver Weldment	--	7704	56390	7706	7704	30312
4	Anchor Clamp	--	7703	--	7703	7703	7703
5	Washer	1484	--	--	--	--	--
6	Auger Clamp	--	--	56405	--	--	--
7	5/16-18 x 2.25" S. Hd Cap Screw	--	6850-4	6850-4	6850-4	6850-4	6850-2
8	5-16-18 x.50 SKTH Cap Screw	--	6850-3	6850-3	6850-3	6850-3	6850-1
9	1/4-20 Socket Head Cap Screw	5083-8	--	--	--	--	--
10	5/16-18 Lock Nut	--	--	2148	--	--	--
11	5/16-18 x 1 SKTH Cap Screw	--	--	6850-5	--	--	--

Figure 38. Auger Installation

- 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.
- 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.

Auger Stretch

On Model 55, 75, 90, and HMC 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.

On Model 75 Plus Single-Boot System: Stretch the Auger 5" (127mm) for every 50 ft. (15.2m) of length.

On Model 108 Single-Boot System: Stretch the Auger 8" (203mm) for every 50 ft. (15.2m) of length.

On Model 75, 90, and HMC Two-Boot Tandem Systems: The Auger stretch must be doubled to 4"(100mm) for every 50 ft. (15.2 m) of length.

On Model 108 Two-Boot Tandem Systems: The Auger stretch must be doubled to 16"(406mm) for every 50 ft. (15.2 m) of length.

On Model 75 Plus Two-Boot Tandem Systems: Stretch the Auger 10" (254 mm) per 50 ft. (15.2 m).

On Model 90 Twin Three-Bin Systems: Stretch the Auger 6" (150 mm) for every 50' (15.2 m) of length.

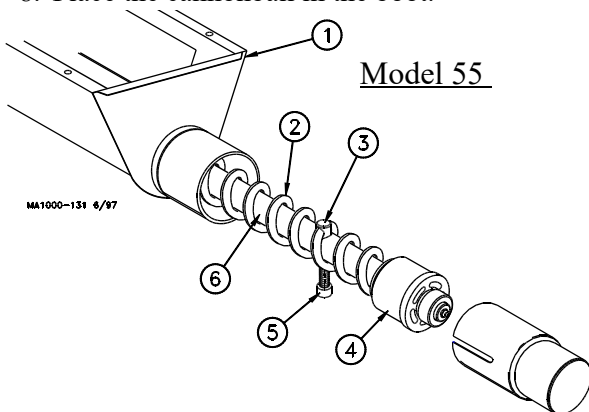
NOTE: For ease of cutting, measure and mark the auger at the point where it is to be cut. Then, pull the auger an additional 6–8" (150–200 mm) and use locking pliers to clamp the auger while you cut it.

- Figure 39** 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 39 shows the proper assembly of the Model 75, 75 Plus, 90, and 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.

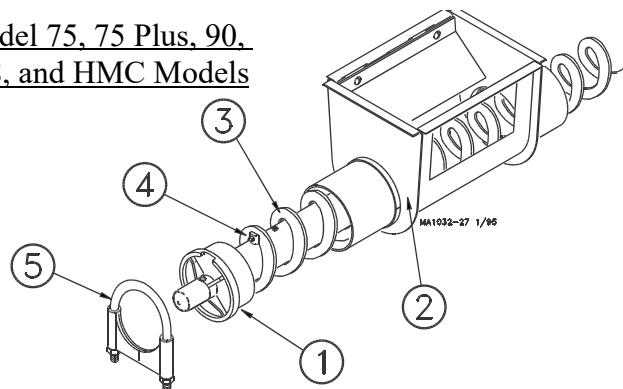
NOTE: Some of the Boot Models have Anchor and Bearing Assemblies with Restrictors that may be shortened, if necessary, to increase capacity.

- Attach the anchor assembly to the boot.
- Place the cannonball in the boot.



Item	Description
1	Model 55 Lower Boot
2	Model 55 Auger
3	Auger Clamp
4	Anchor Bearing
5	Tighten Socket Screw to Secure to the Anchor

Model 75, 75 Plus, 90, 108, and HMC Models



Item	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 39. Anchor and Bearing Installation

Cover Plate Installation

The cover plate is installed after installation of the auger in the tube (See Figure 40.).

To install the cover plate:

1. Loosen 5/16-18 Lock Nuts (Item 1) to end of studs
2. Start lower side of Cover Plate (Item 2) 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 5/16-18 Lock Nuts.

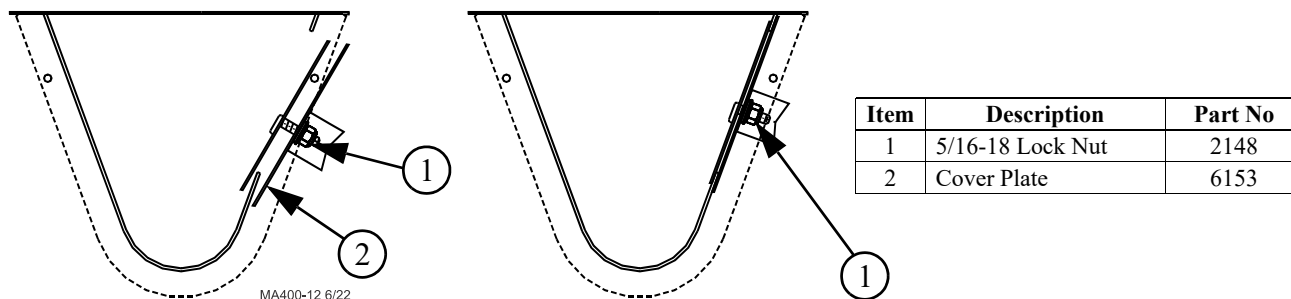


Figure 40. Cover Plate Installation

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.

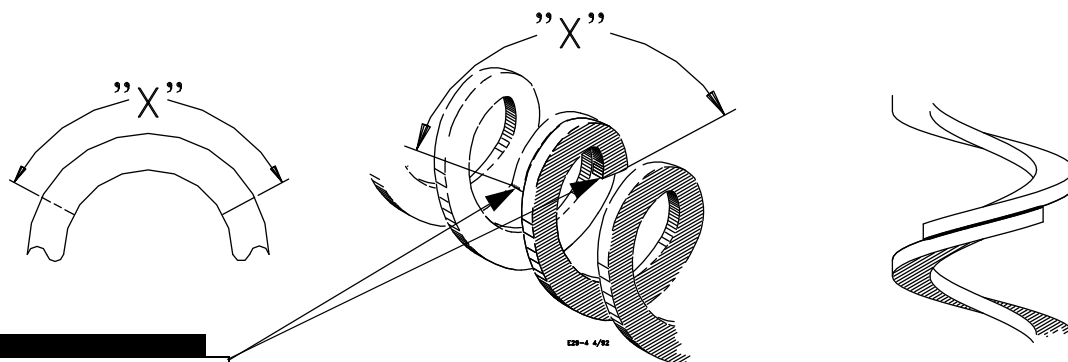
Butt the ends of the auger against each other. DO NOT SCREW ONE AUGER INSIDE THE OTHER—This restricts the feed flow.



Figure 41 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 41, to avoid damage to the auger tubes. Also, file off any brazing that extended beyond the outside radius of the auger flightings.



Note: Sharp Auger Ends at the braze(s) must be filed or ground to avoid damage to Auger Tube(s).

	Model 55 Auger	Model 75, & HMC Auger	Model 90 Auger	Model 75 Plus Auger	Model 108 Auger
X=	1.0 to 1.13" (25 to 29 mm)	1.5 to 1.75" (38 to 45 mm)	1.5 to 1.75" (38 to 45 mm)	1.25 to 1.50" (32 to 38 mm)	2" (50 mm)

Figure 41. 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.

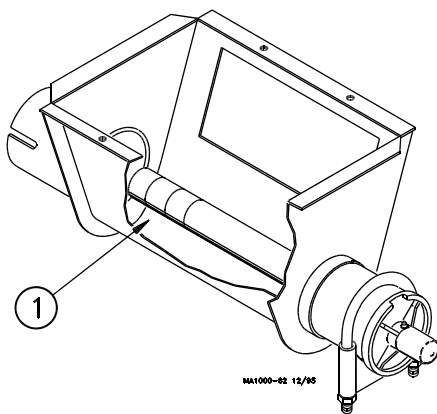
NOTE: Always refer to the motor amperage nameplate when increasing the feed flow capacity. Exceeding the nameplate amperage may result in nuisance motor overload tripping and/or damage to the system.

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 42.**).
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.

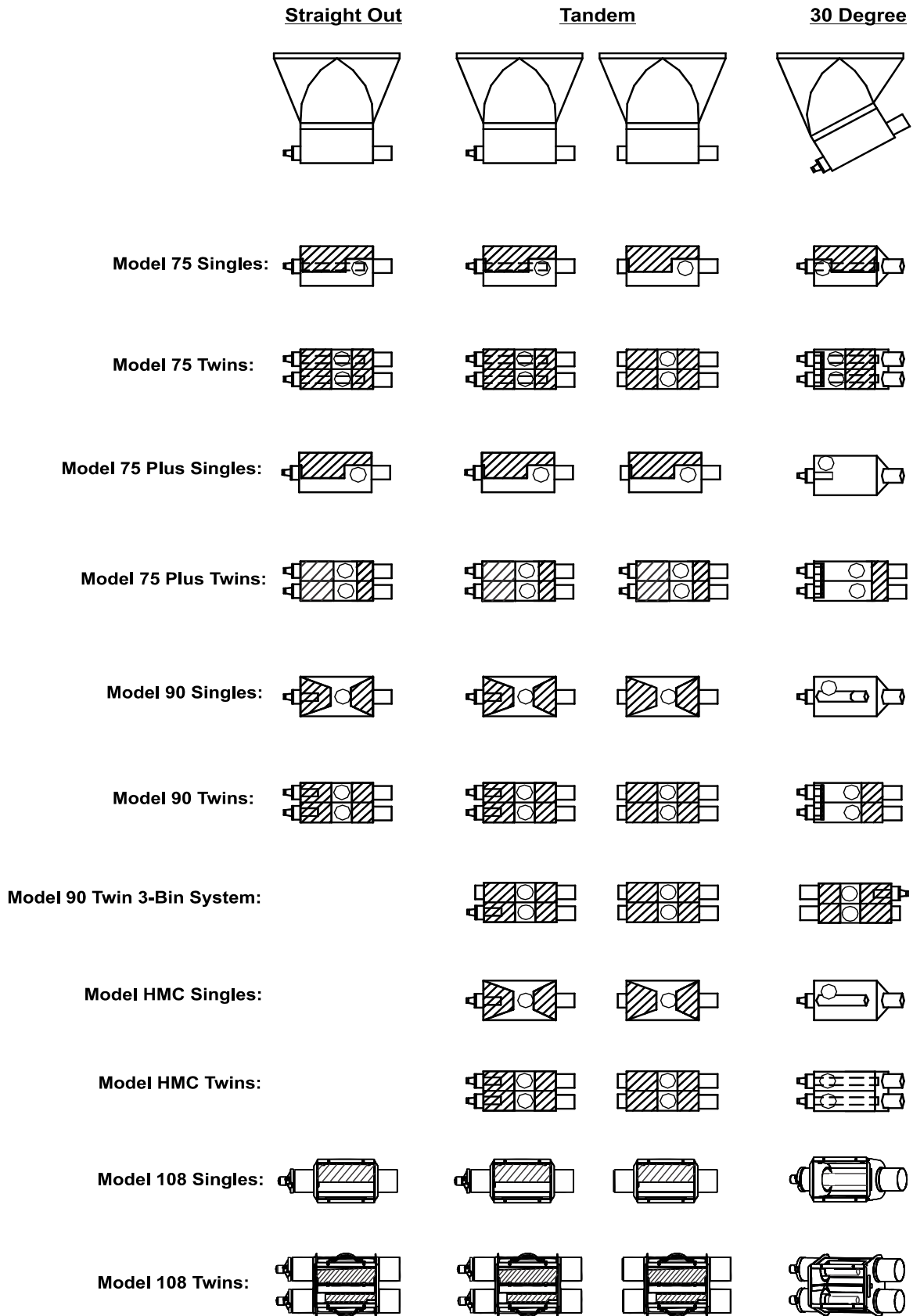


Item	Description
1	Cut off approximately 1" (25 mm) of the Restrictor Tube to increase feed flow. Repeat as required.

Figure 42. Restrictor Adjustment Model 90 & HMC Only

Standard FLEX-AUGER Boots and Baffle Locations

(As Shipped from Factory)



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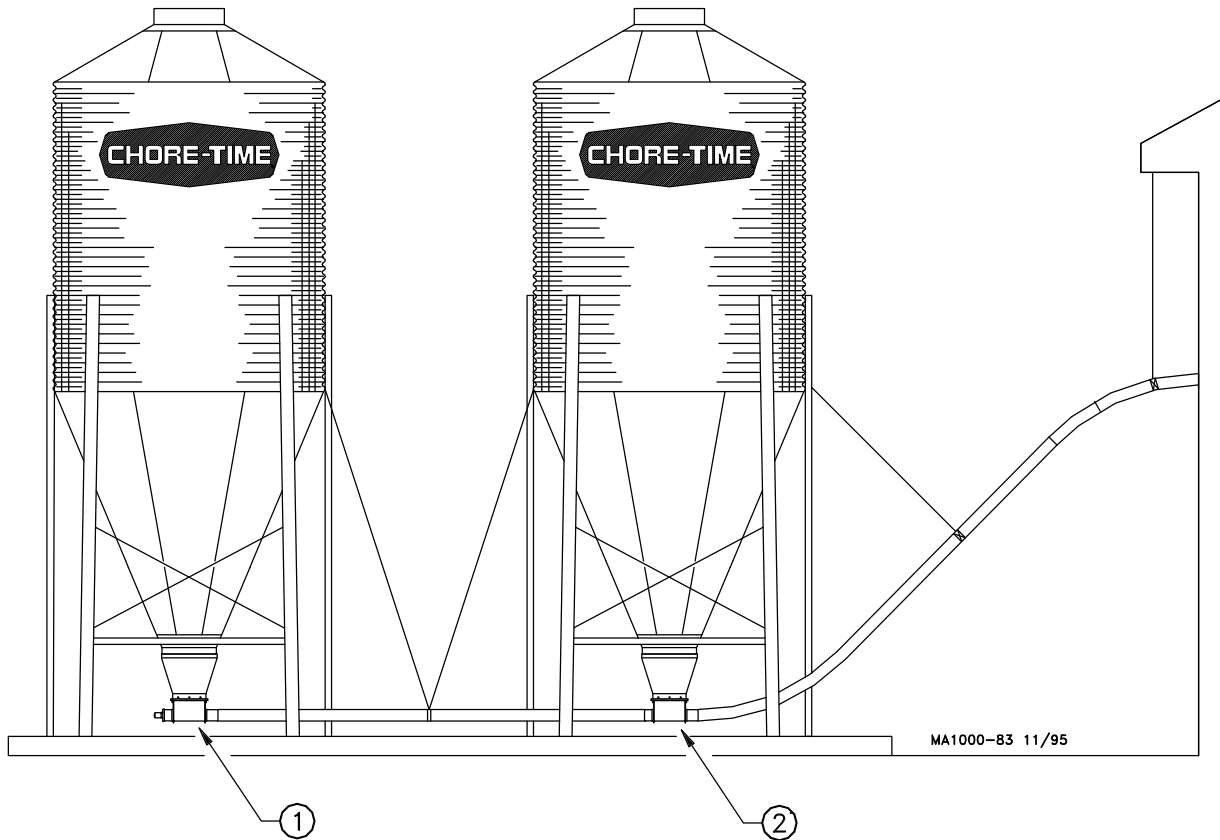
Figure 43. Standard FLEX-AUGER Boots and Baffle Locations

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 44** shows a typical Straight-Through Tandem System.



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

Figure 44. Straight-Through Tandem

2. Measure and cut an auger tube(s) to connect the two boots See **Figure 45 (on page 45)**.

For Model 90 and 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 45 (on page 45)**.

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 45 (on page 45)**.

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

Model 75, 75 Plus, 90, and HMC Systems

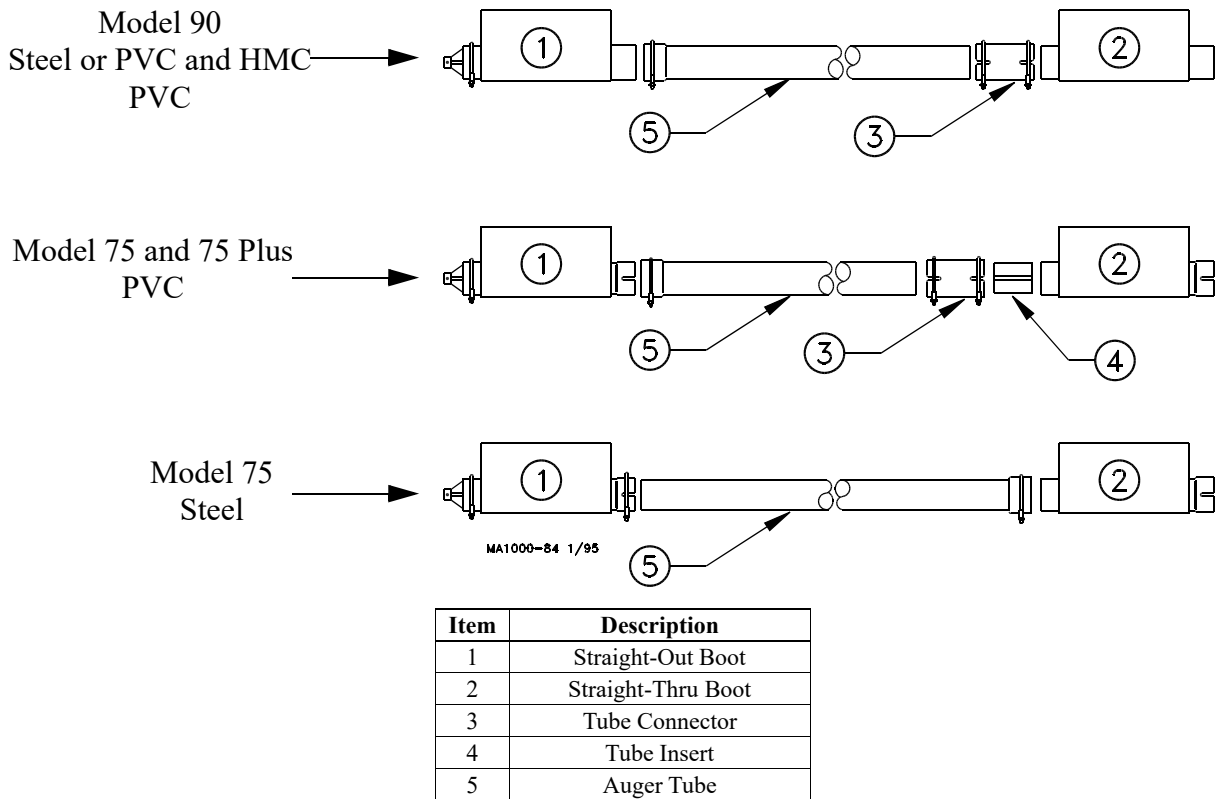


Figure 45. Model 75, 75 Plus, 90, & HMC Straight-Through Tandem Boot connections.

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.

Example: For Model 90 Three-Bin Systems, stretch auger 6 inches per 50 feet.

NOTE: See “Auger Stretch” on page 40 for a breakdown of Auger Stretch for each System.

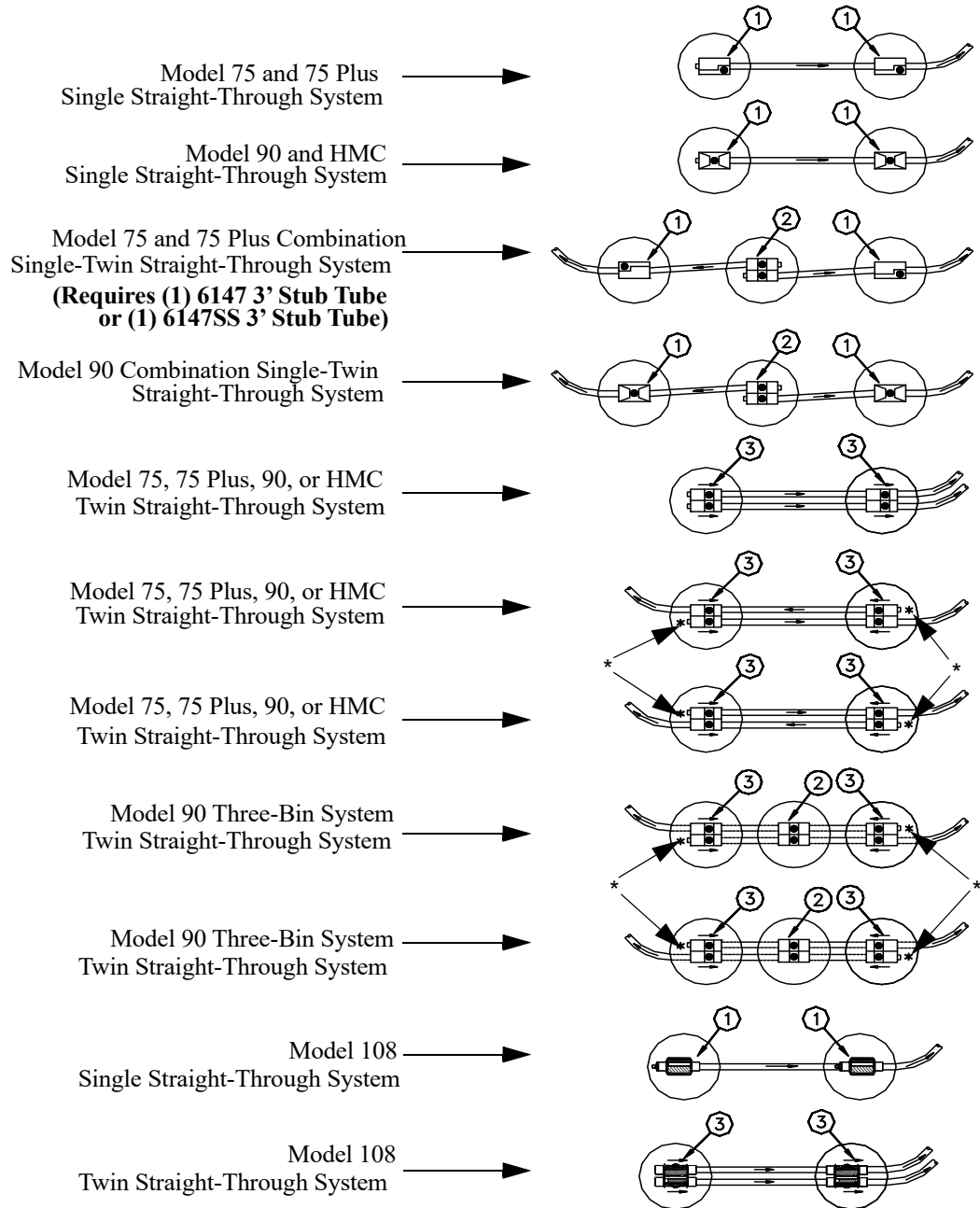
4. Use a tube clamp to secure the bearing to the boot.

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” and “straight-through” boots. Boot Baffles are factory installed on Straight-Through Boot Systems.

See **Figure 46** for applications and auger direction.



Item	Description
1	Single-Baffled Boot
2	Twin Baffled Boot (Model 75, 75 Plus, 90, or 108) Mount Either Direction
3	Arrow Tape

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

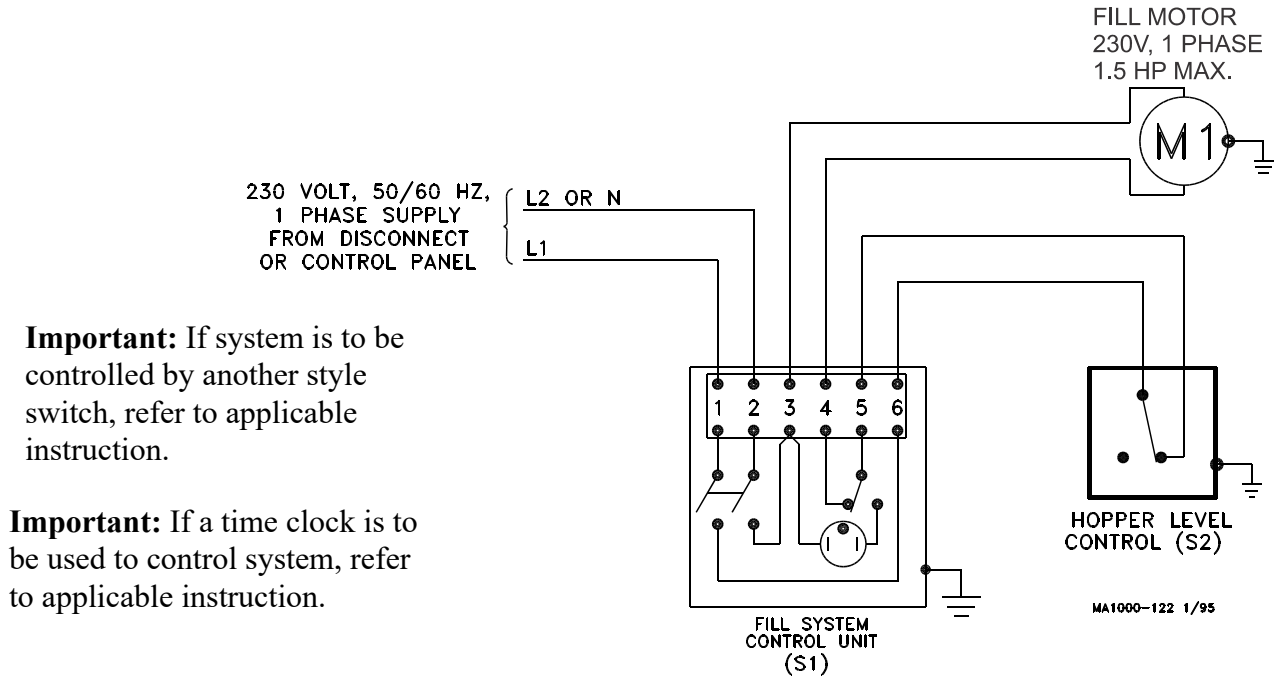
Figure 46. Optional Baffle Configurations

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

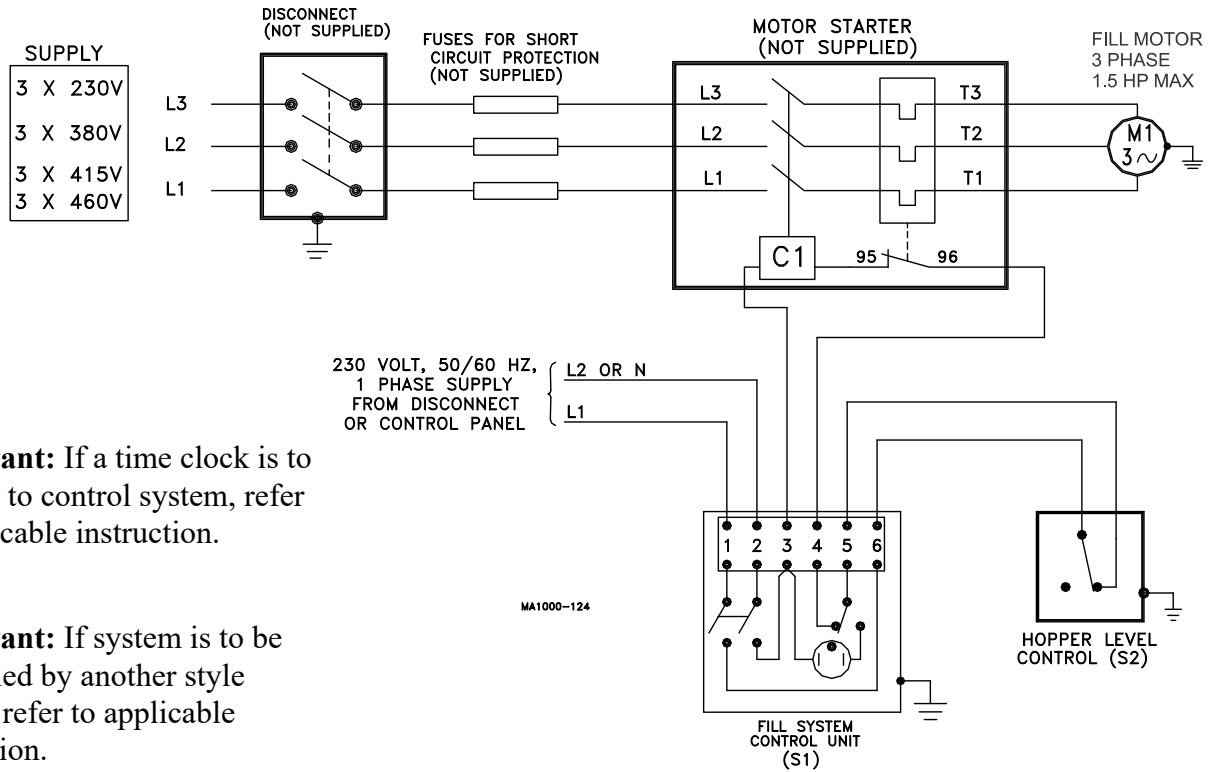


Important: If system is to be controlled by another style switch, refer to applicable instruction.

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

Figure 47. Hopper-Level Control Switch (Single-Phase) Wiring Diagram

Hopper-Level Control Switch (Three Phase) Wiring

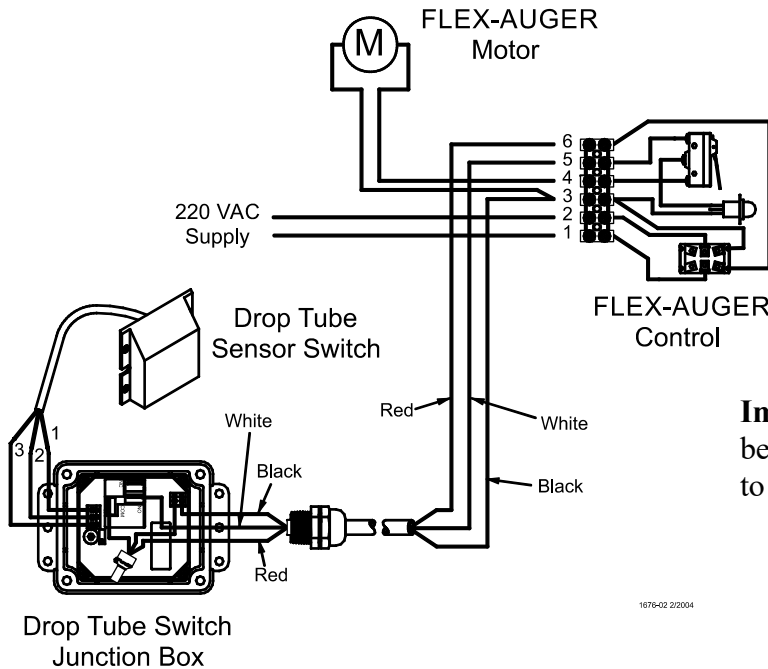


Important: If a time clock is to be used to control system, refer to applicable instruction.

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

Figure 48. Hopper-Level Control Switch (Three Phase) Wiring Diagram

SENSOR PLUS™ Electronic Switch (Single Phase) Wiring



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

Figure 49. SENSOR PLUS™ Electronic Switch (Single Phase) Wiring Diagram

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.

NOTE: 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

NOTE: 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 42.

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.

Troubleshooting



DANGER: 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.	

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 ³ density (64 kg/m ³)	
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.

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.



DANGER: 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.

NOTE: 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.

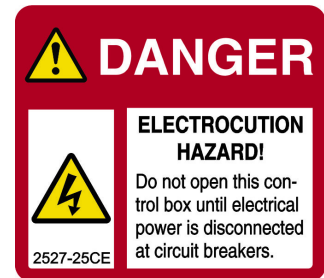
Disconnect power to the system to prevent accidentally starting the system.

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.

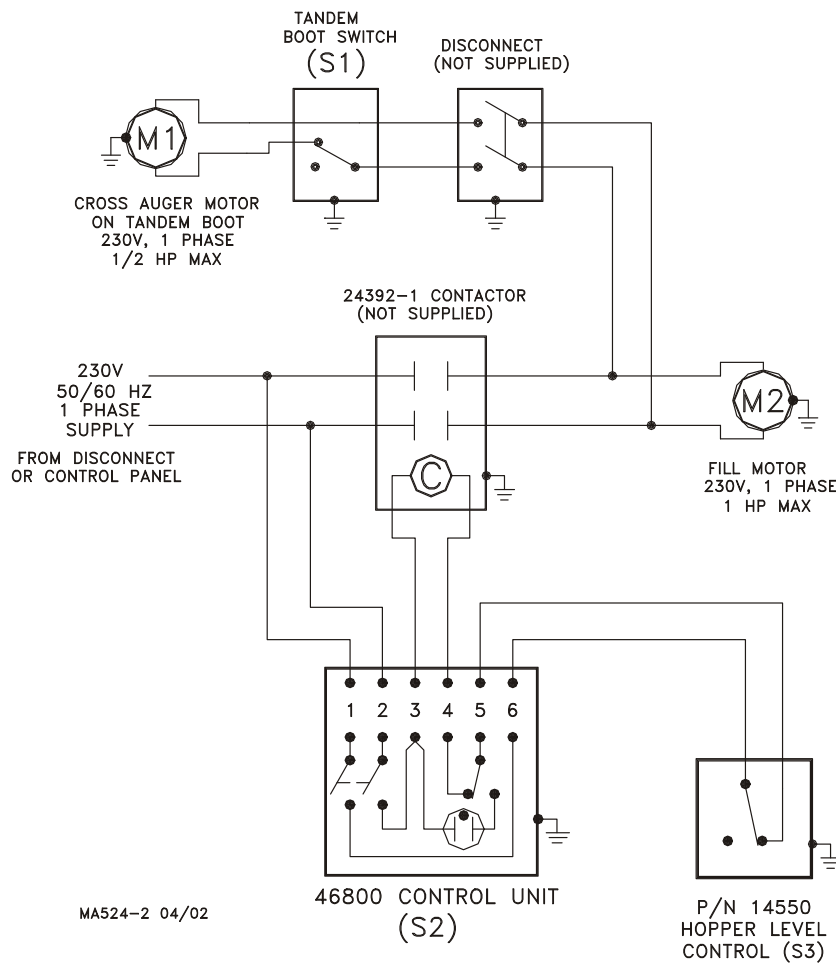
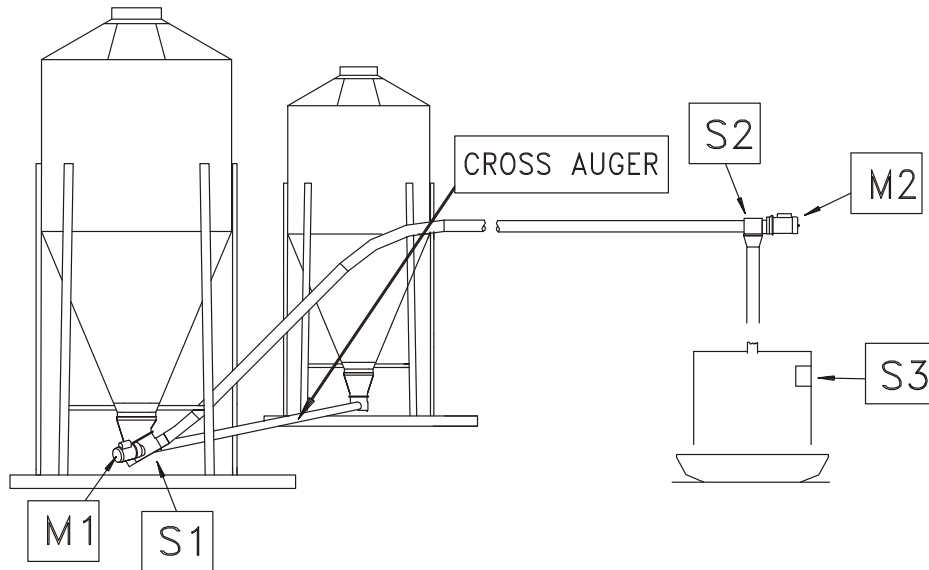
- F. Remove remaining system components in the opposite order they were installed, according to this manual.



Wiring

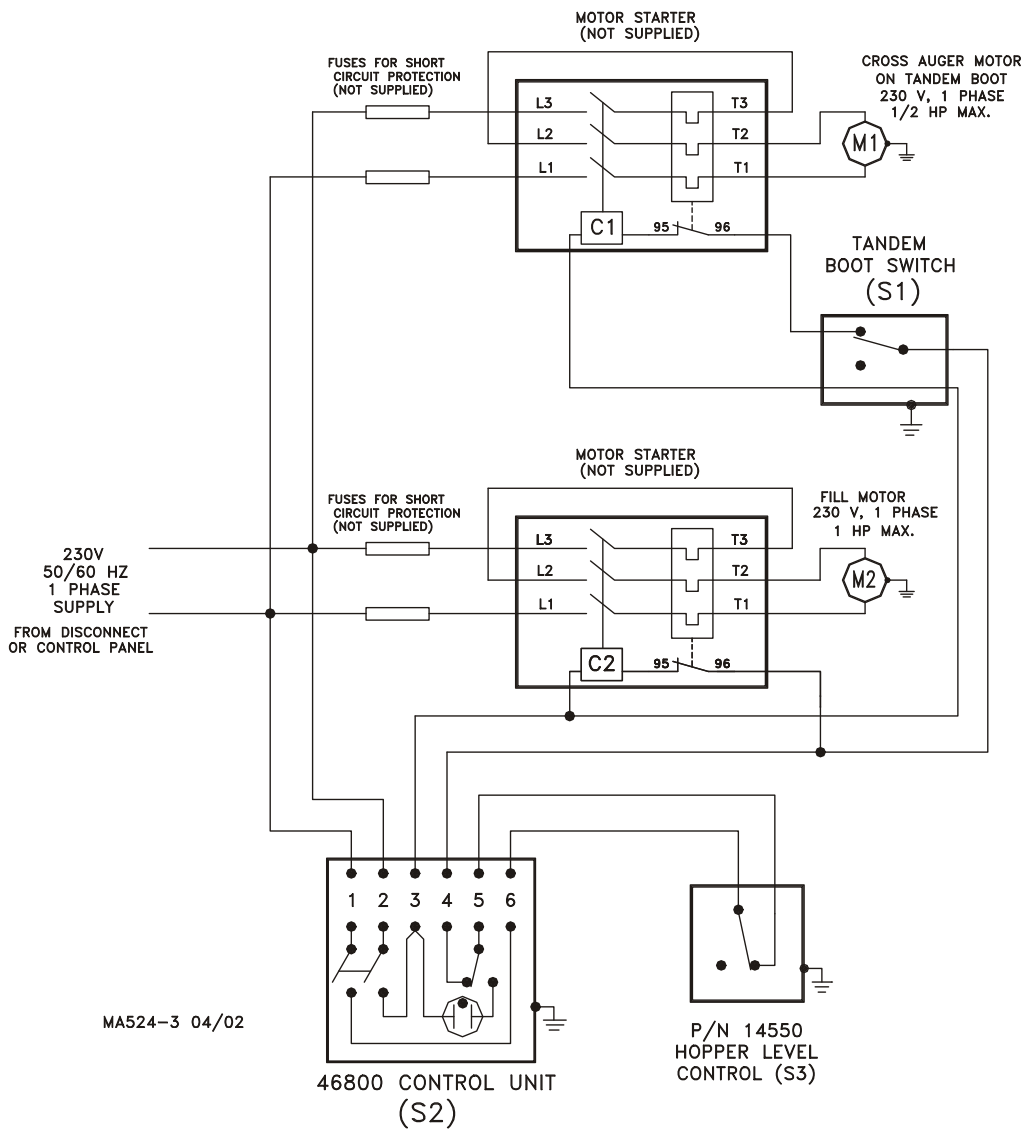
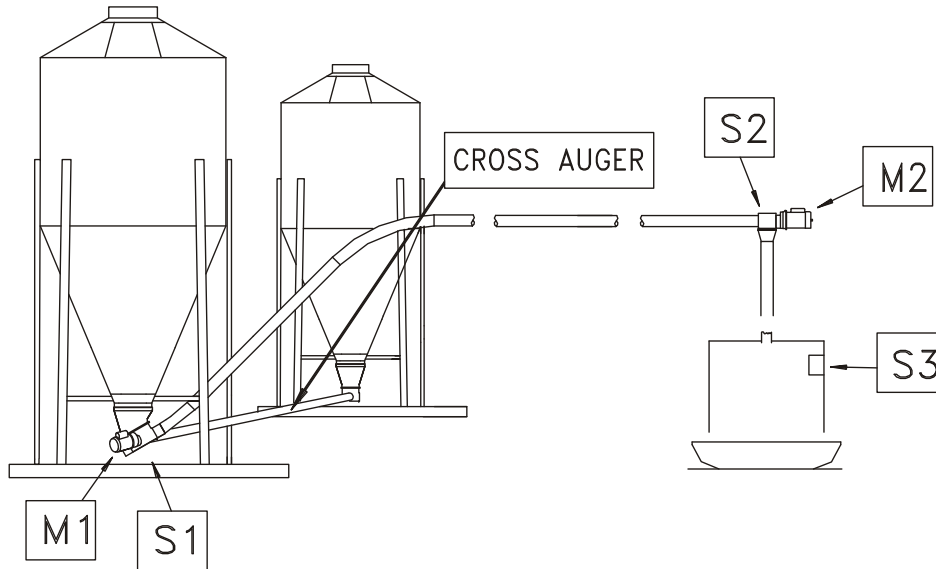
30° Degree Two-Motor Tandem System Wiring

30° Degree Two Motor Tandem, 1 Phase, 230 V, 50/60 Hz, without Motor Starters

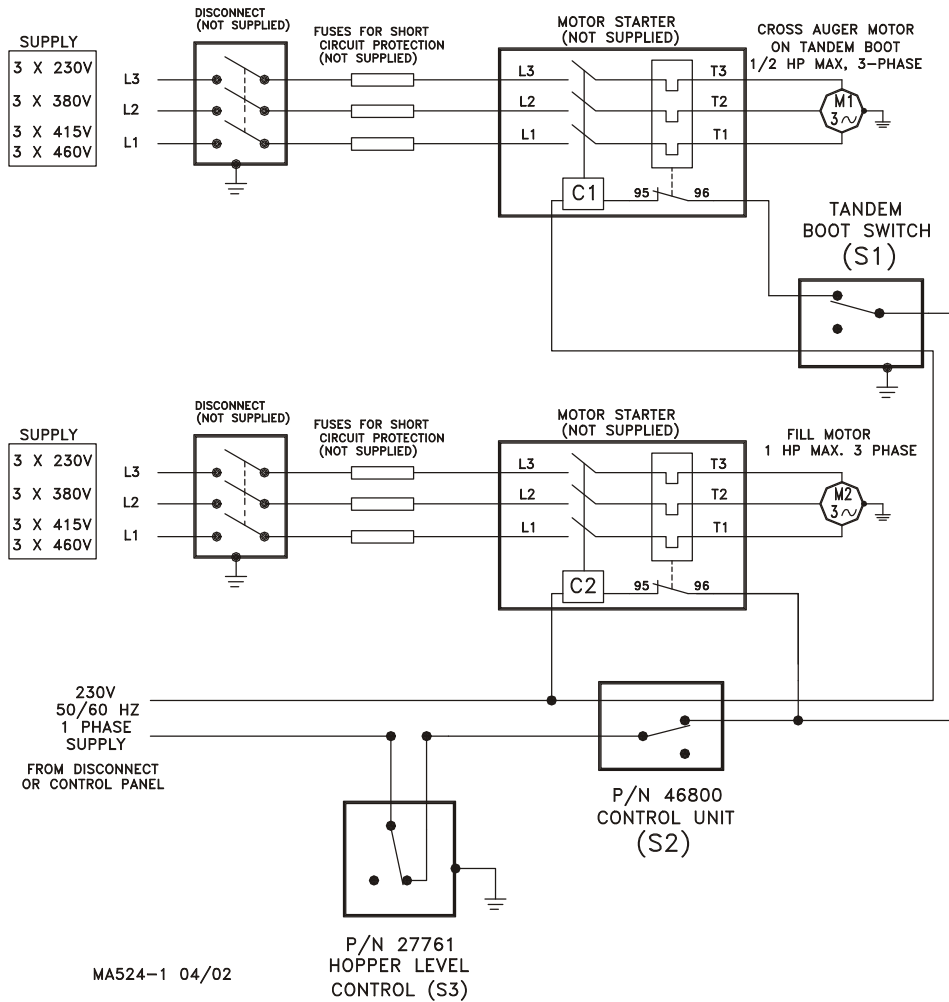
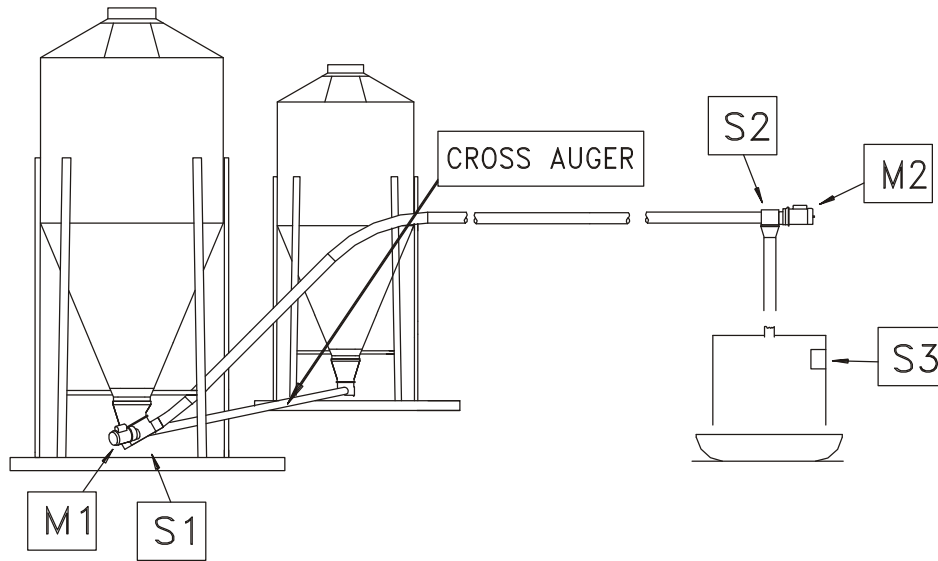


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30° Two Motor Tandem, 1 Phase, 230 V, 50/60 Hz, *with* Motor Starters

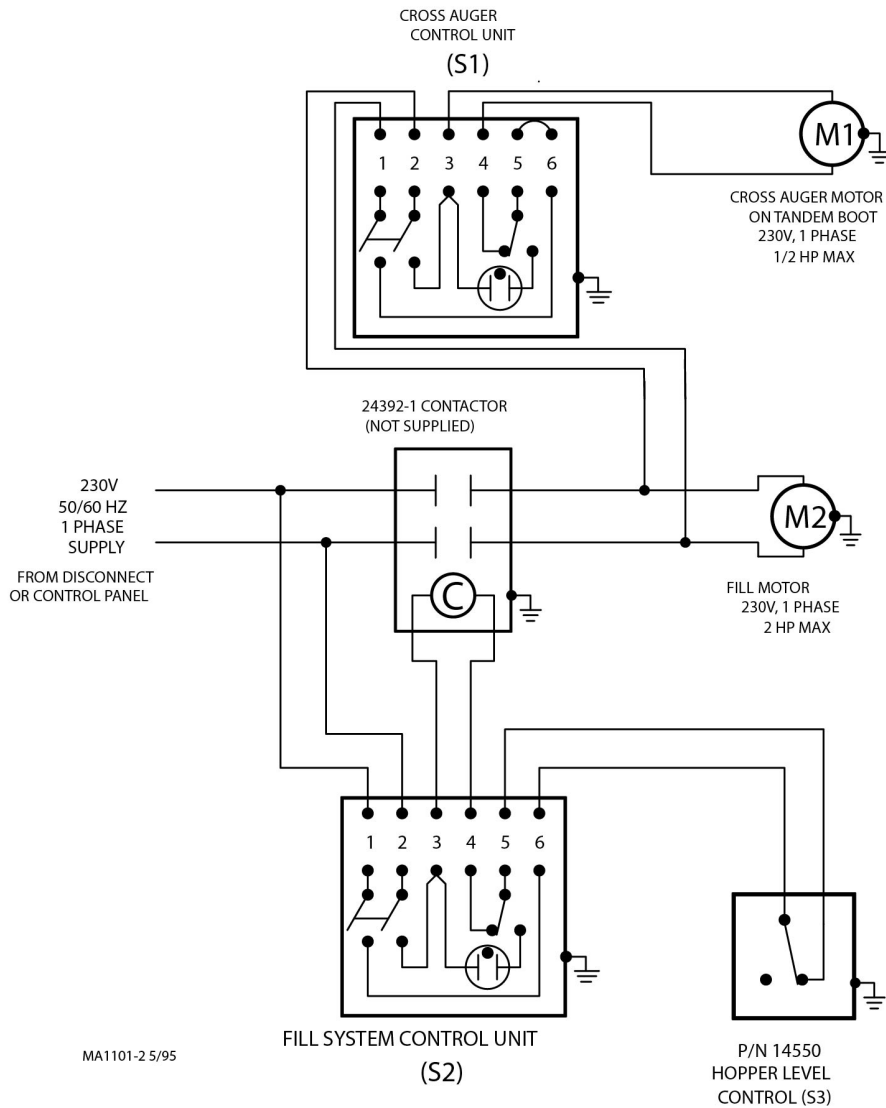
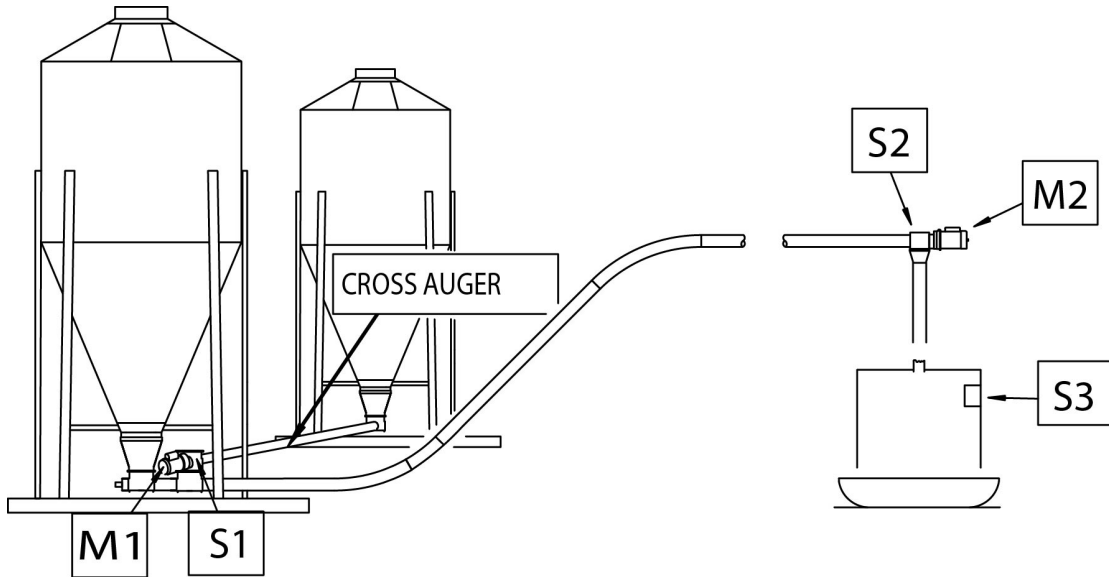


30° Two Motor Tandem, 3 Phase, 230/380/415/460 V, 50/60 Hz, with Motor Starters



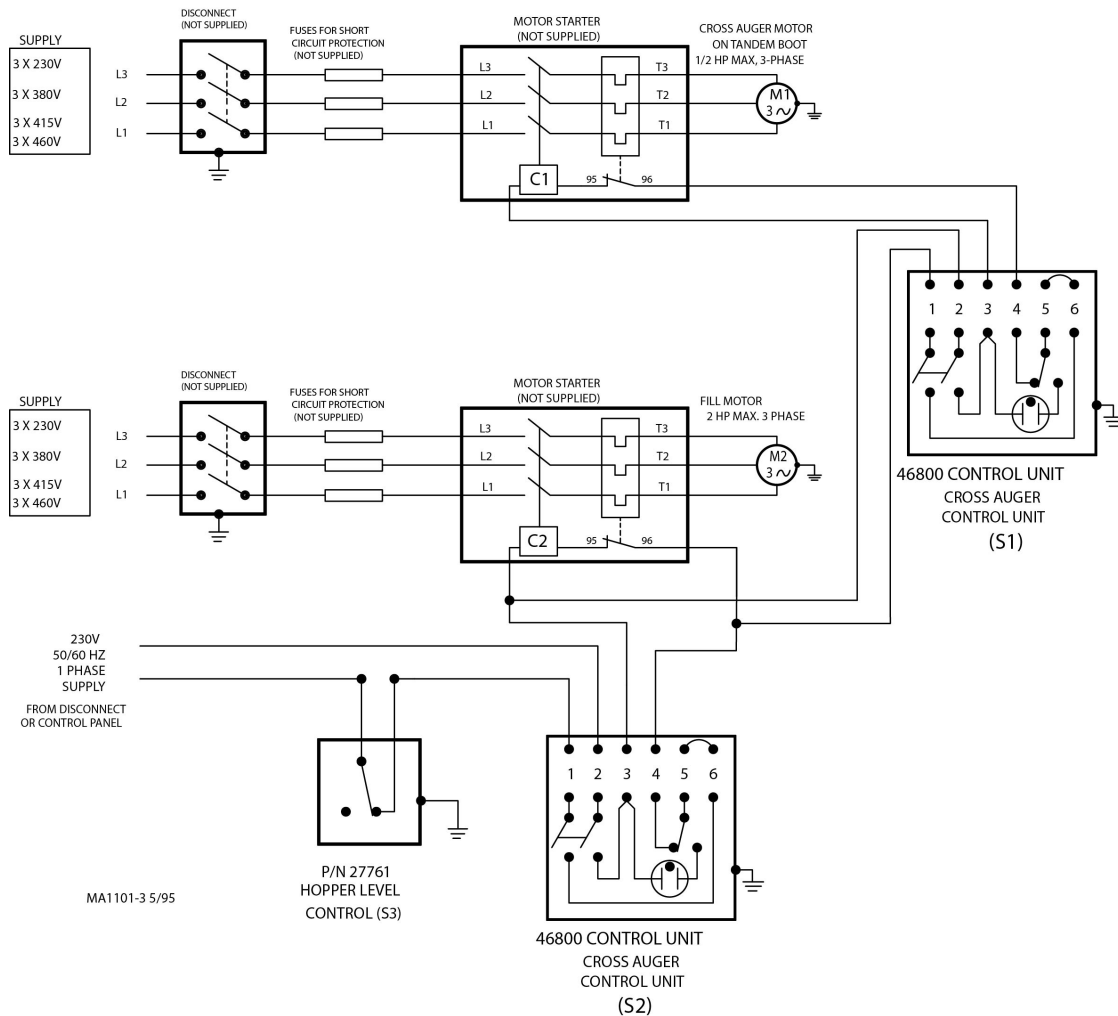
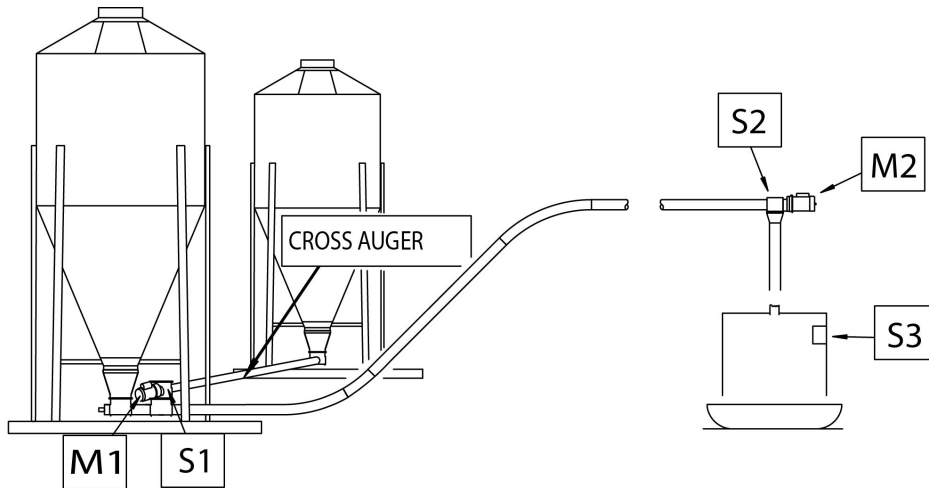
Model 108 Two-Motor Tandem System Wiring Diagrams

108 Two Motor Tandem, 1 Phase, 230 V, 50/60 Hz, *without* Motor Starters

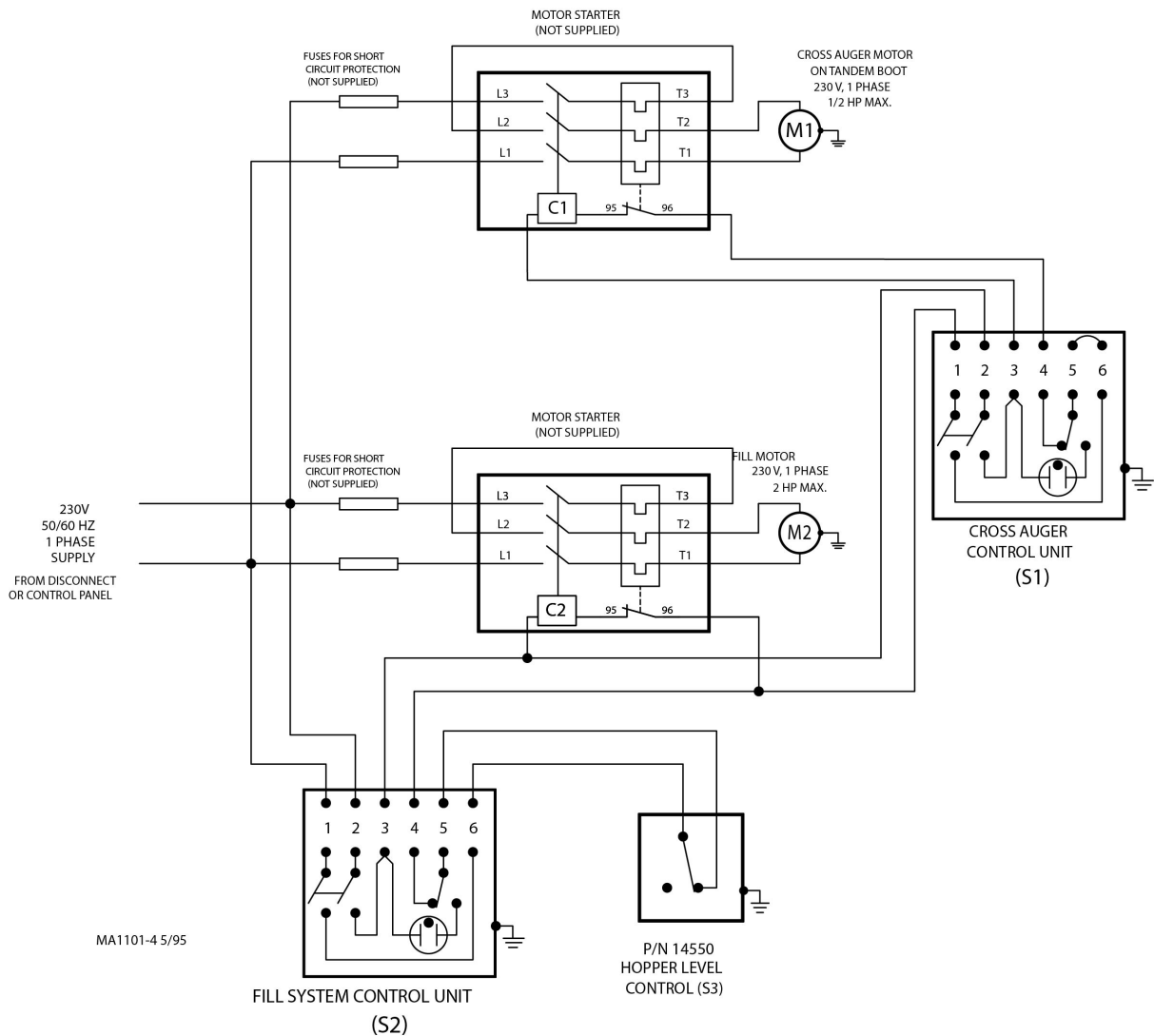
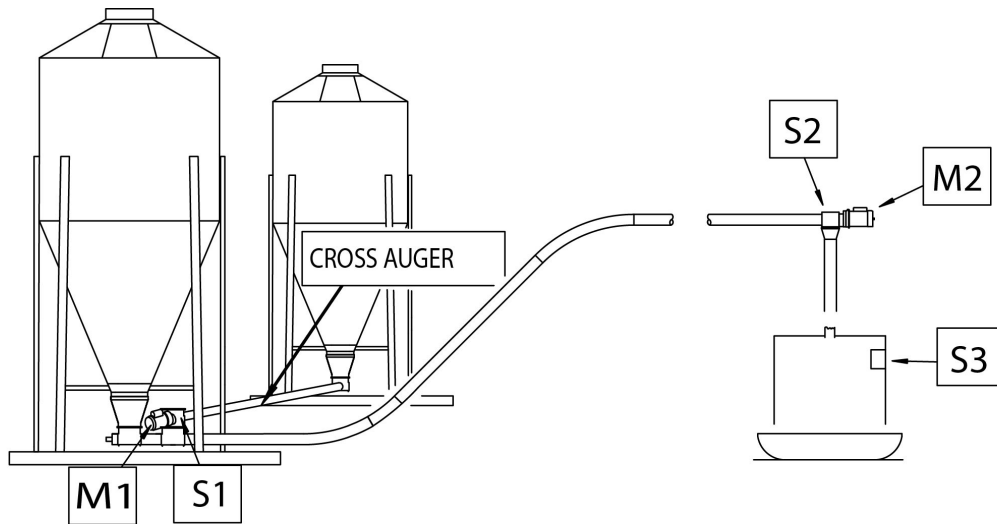


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108 Two Motor Tandem, 3 Phase, 230/380/415/460 V, 50/60 Hz, with Motor Starters

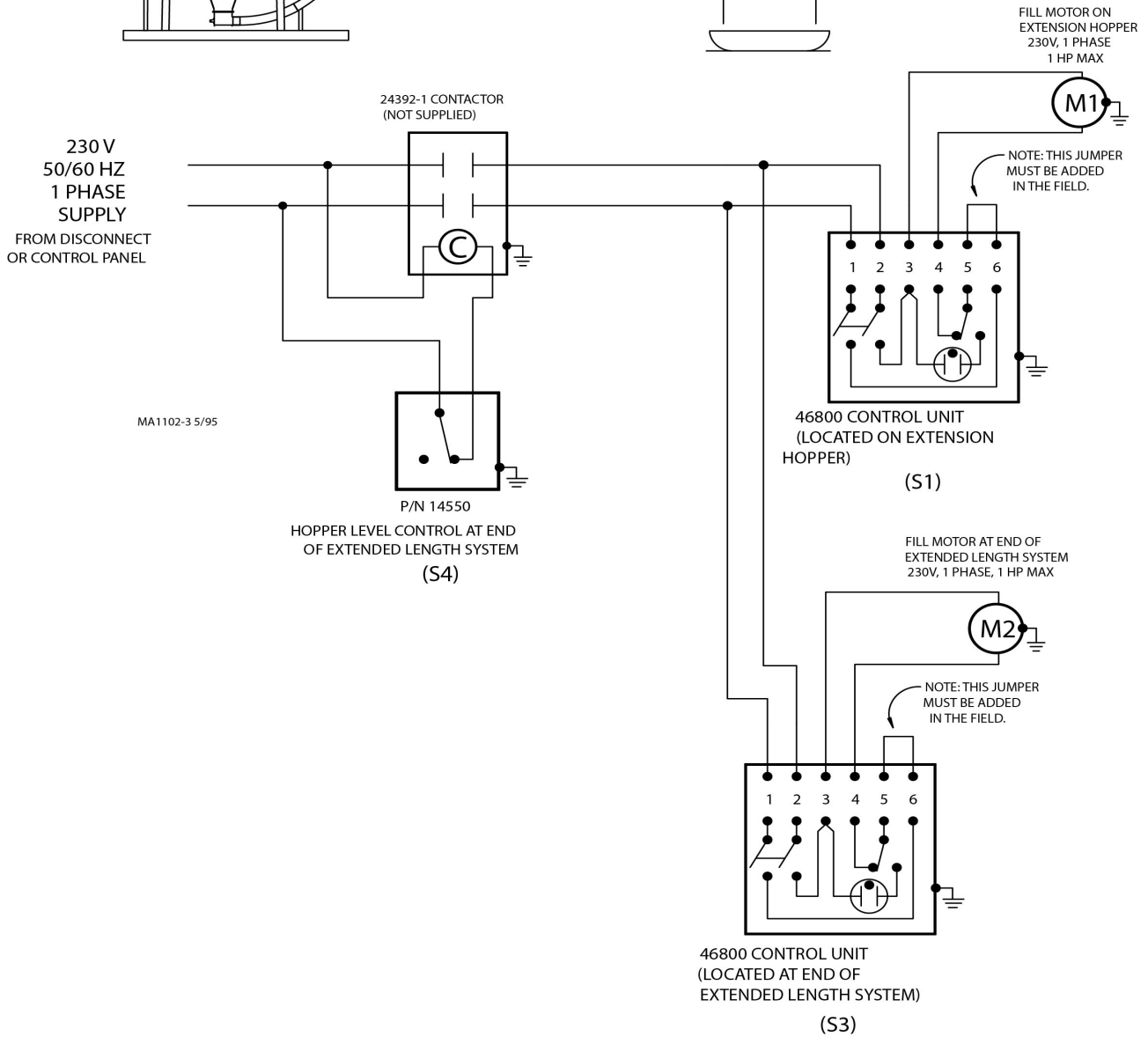
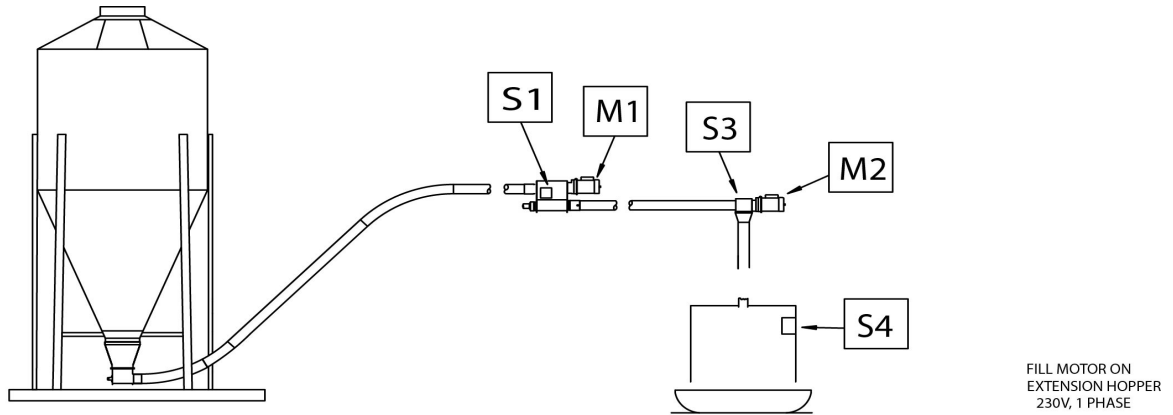


108 Two Motor Tandem, 1 Phase, 230 V, 50/60 Hz, with Motor Starters

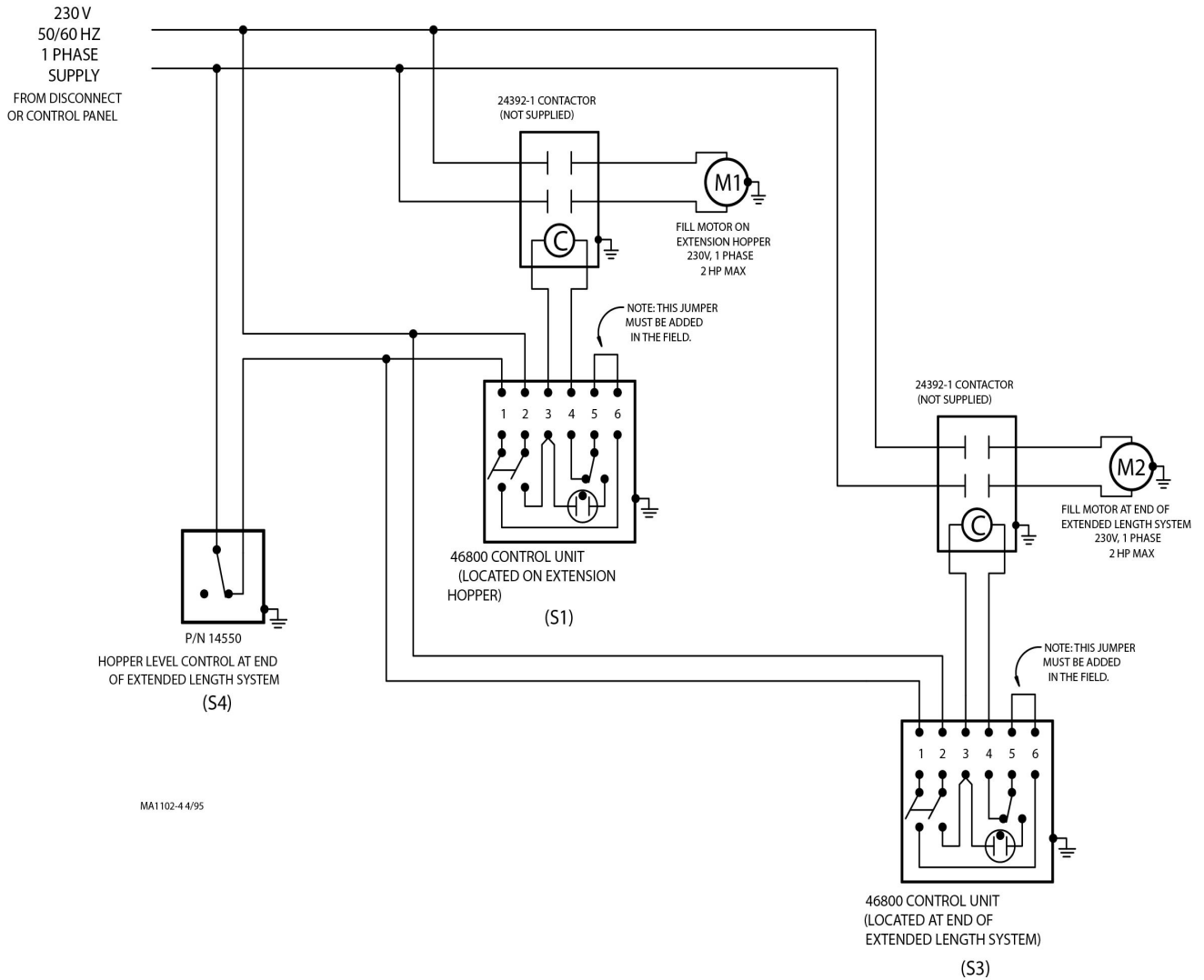
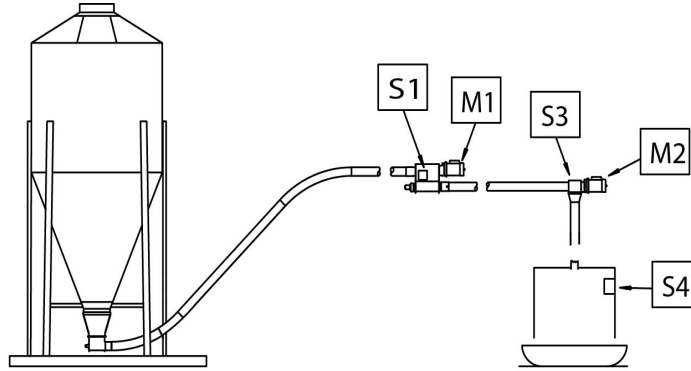


Model 108 Extension Boot System Wiring Diagrams

108 Extension Boot, 1 Phase, 230 V, 50/60Hz, w/o Motor Starters (1 H.P. or less)

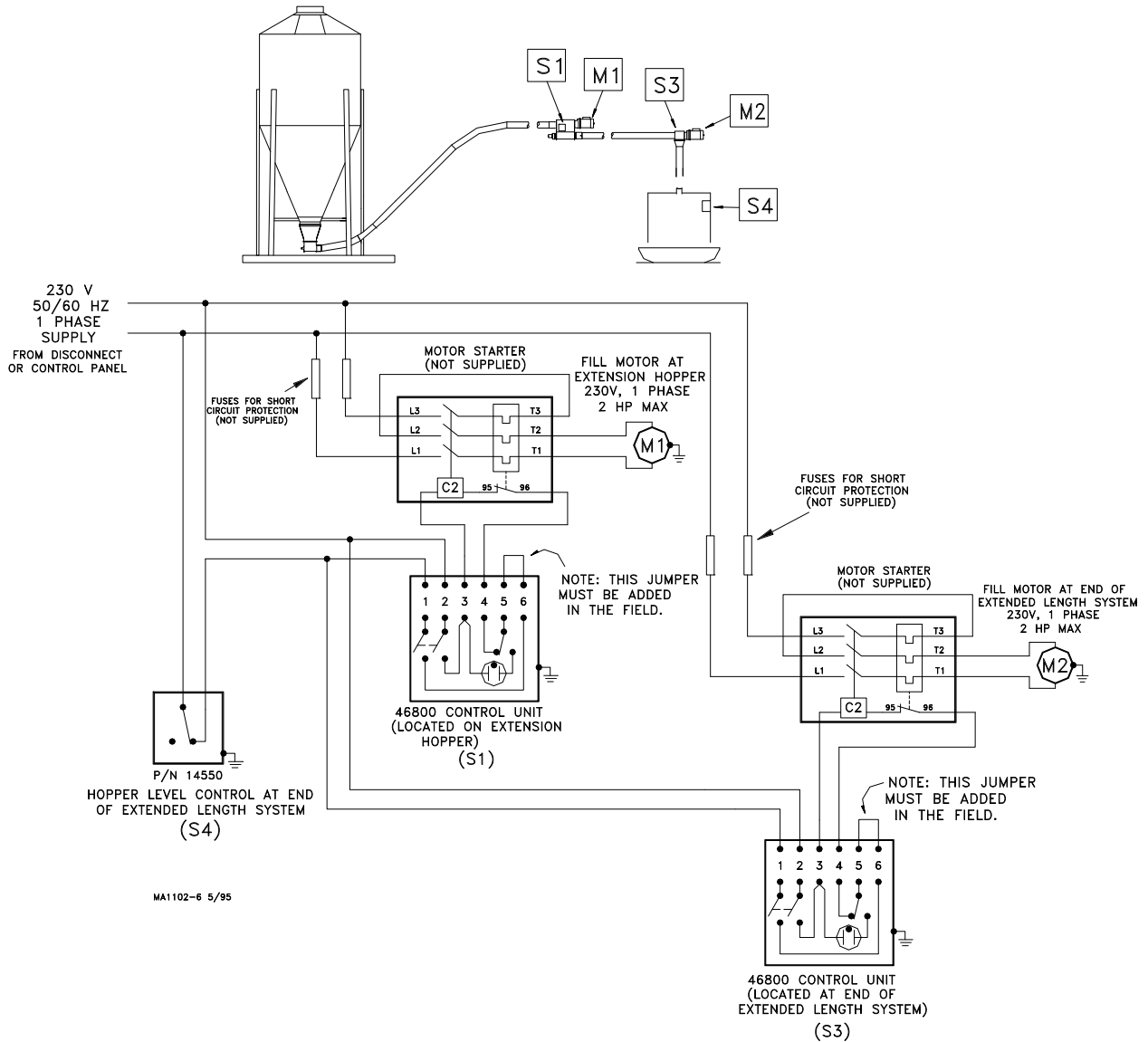


108 Extension Boot, 1 Phase, 230 V, 50/60Hz, w/o Motor Starters (1-1/2 H.P. or larger)

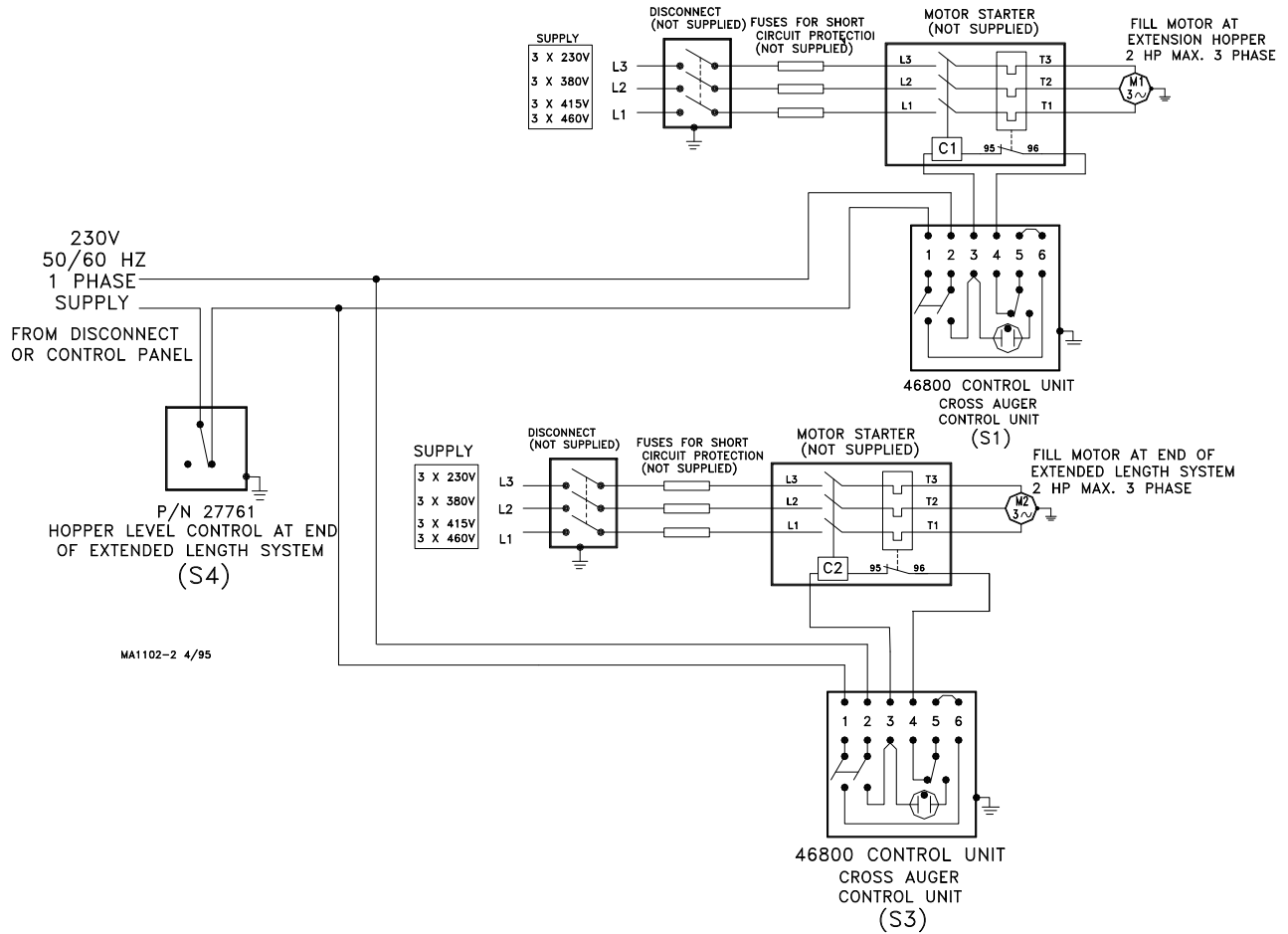
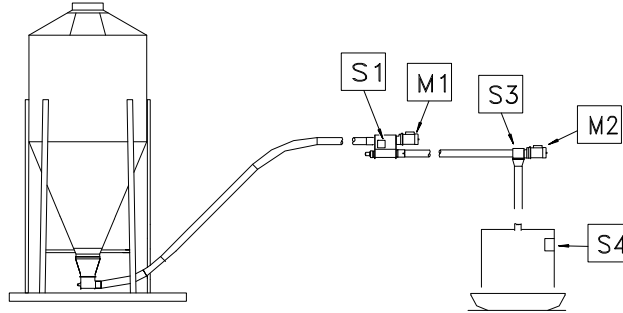


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108 Extension Boot, 1 Phase, 230 V, 50/60Hz, with Motor Starters

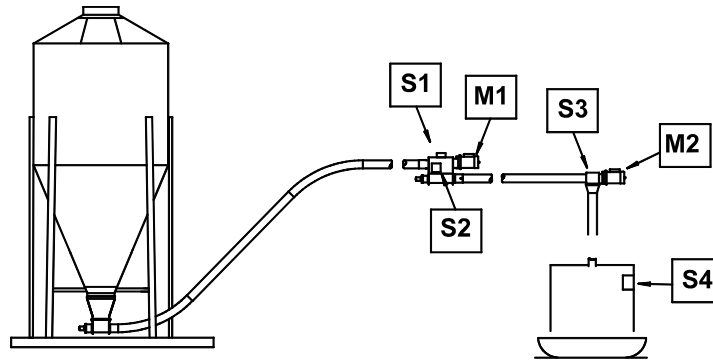


108 Extension Boot, 3 Phase, 220/380/415/460 V, 50/60Hz, with Motor Starters

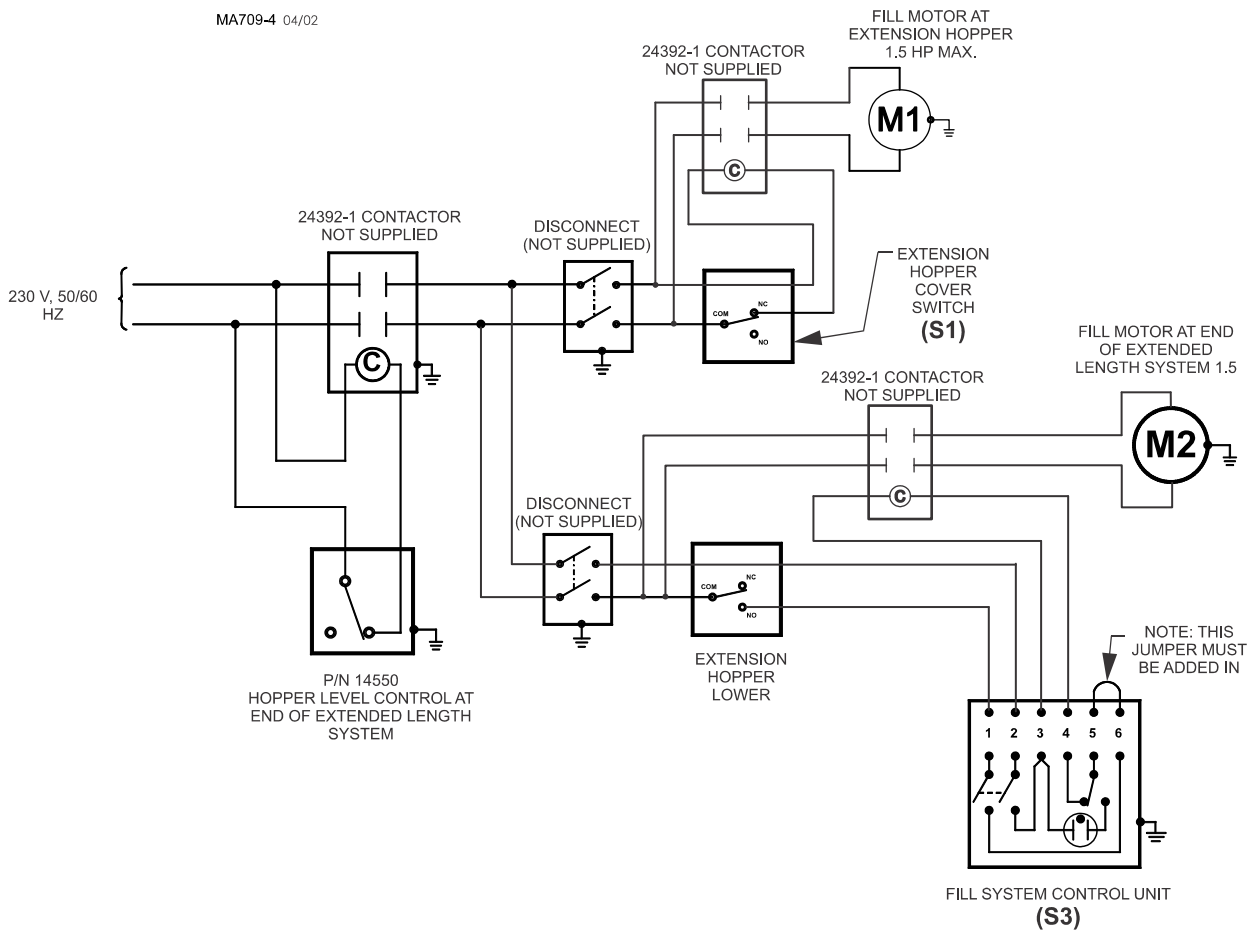


Model 55, 75, 75 plus, & HMC Extension Hopper System Wiring Diagrams

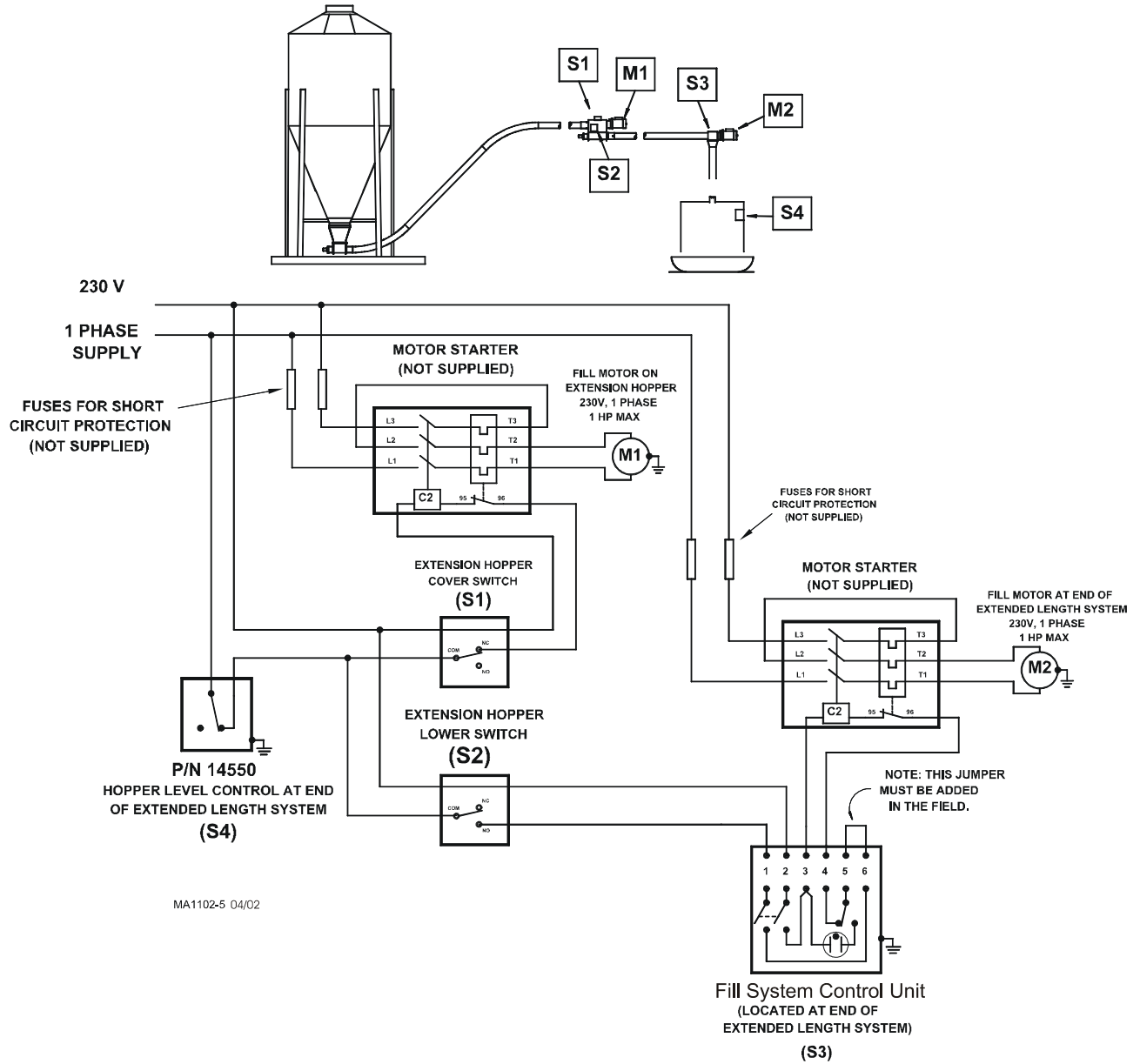
55,75,75plus,&HMC Extension Hopper, 1 Phase, 230 V, 50/60Hz, without Motor Starters



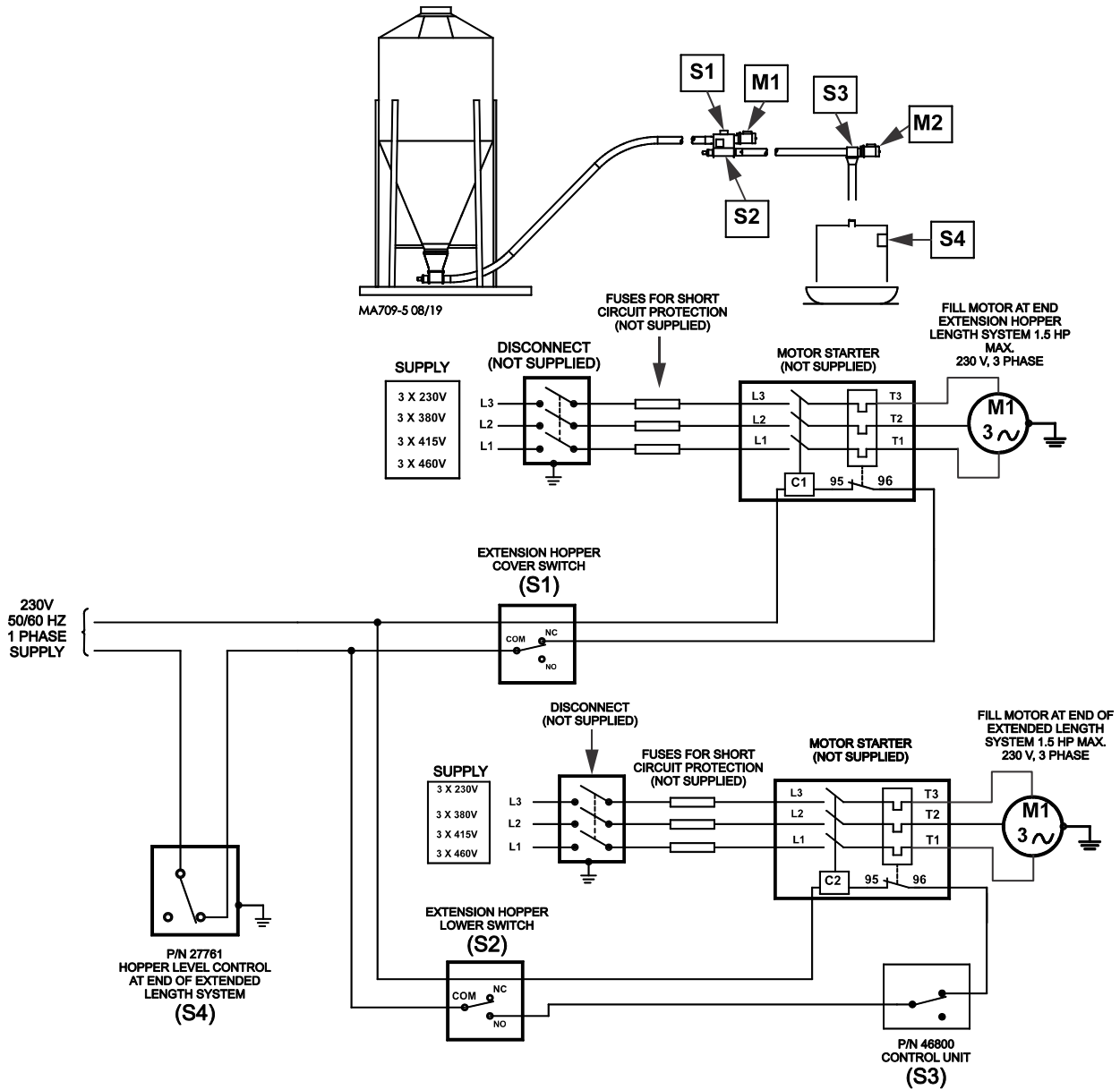
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55, 75, 75plus, &HMC Extension Hopper, 1 Phase, 230 V, 50/60Hz, with Motor Starters

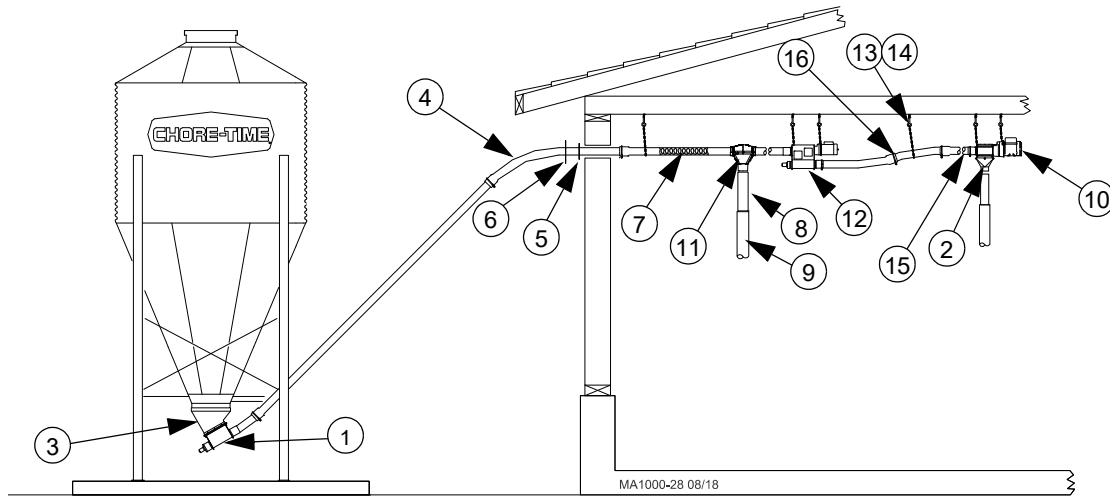


55,75,75plus,& HMC Extension Hopper, 3 Phase, 220/380/415/460 V, 50/60 Hz, w/ Motor Starters



Parts Listing

Model 55, 75, 75 Plus, 90, and HMC Feed Delivery System Components



Item	Description	Model 55	Model 75	Model 75 Plus	Model 90	Model HMC
		Part No				
1	Boot Assembly	See Parts List				
2	Control Unit	See Parts List				
3	Upper Boot	See Parts List				
4	45 Degree PVC Elbow	34855	7285	7285	7357	7357
5	Neoprene Seal	6394	2613	2613	5035	5035
6	Seal Ring	2612	2612	2612	2612	2612
7**	Auger	7961-0	4744-0	56383-0	3942-0	4744-0
8	Plastic Drop Tube	1932	1932	1932	6381	6381
9	Telescoping Drop Tube	14366-1932	14366-1932	14366-1932	14366-6381	14366-6381
10	Power Unit	See Parts List				
11	Outlet Drop Kit w/Clamps	43455C	43475C	43475C	43490C	43490C
	Outlet Drop Kit w/Retainers	43455R	43475R	43475R	43490R	43490R
12	Extension Hopper	40170	7944	7944	7869	7849
13	Suspension Kit	5043	5043	5043	5043	5043
	S Hooks (Qty 25)	2805	2805	2805	2805	2805
	Screw Hooks (Qty 12)	1214	1214	1214	1214	1214
	***Chain (25') [7.62 m]	2128	2128	2128	2128	2128
14	Suspension Kit (Stainless Steel)	5043SS*	5043SS*	5043SS*	5043SS*	5043SS*
	Stainless S Hooks (Qty 25)	2805SS*	2805SS*	2805SS*	2805SS*	2805SS*
	Stainless Screw Hooks (Qty 12)	1214SS*	1214SS*	1214SS*	1214SS*	1214SS*
	***Stainless Chain (25') [7.62 m]	2128-25SS*	2128-25SS*	2128-25SS*	2128-25SS*	2128-25SS*
15	PVC Auger Tube	7955	6516	6516	6293	6293
16****	Tube Clamp Kit	29515	6515	6515	6721	6721

* SS = Stainless Steel.

**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 75 Plus Auger (Part No. 56383-0) may be ordered in lengths from 20 ft. to 335 ft. max. Example 56383-155 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.

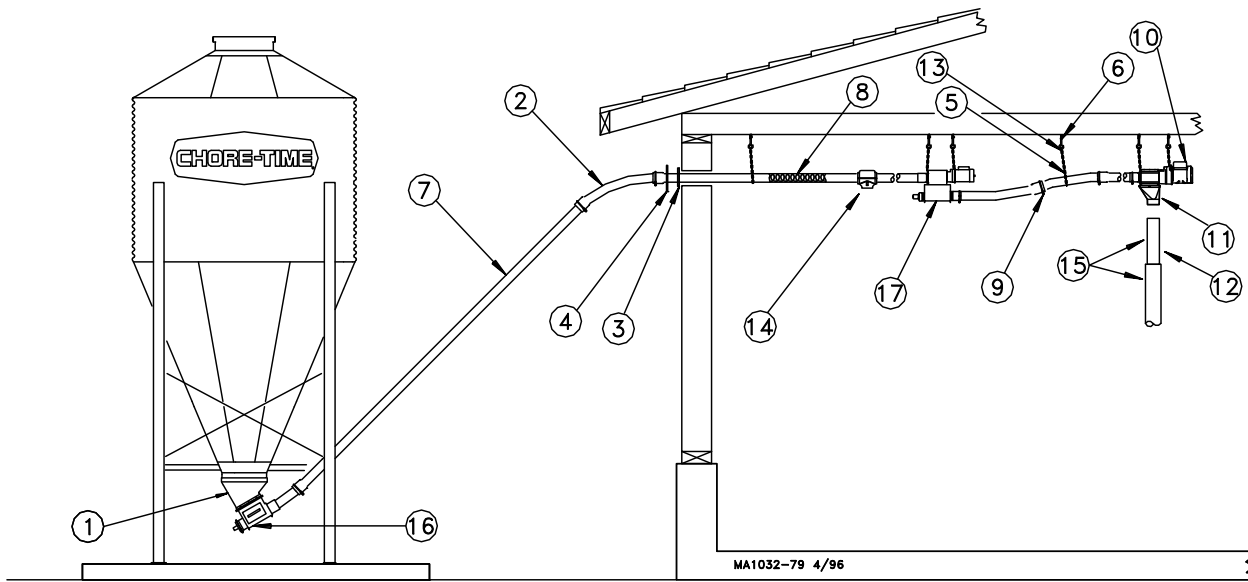
***Chain can be purchased in a 25' [7.62 m] bag (2128-25 or 2128-25SS*), a box of 100' [30.48 m] (2128-100 or 2128-100SS*) or a 250' [76.2 m] reel (2128-250 or 2128-250SS*).

****These Tube Clamp Assemblies are in quantities of 10.

Steel Components

Item	Description	Model 55	Model 75	Model 90	Model HMC
		Part No			
1	10' [3 m] Steel Tube	----	2088	5091	----
2	45 Degree Hardened Steel Elbow	----	14324	6472	----
3	Tube Connector Kit	----	2103	6595	----

Model 108 Feed Delivery System Components



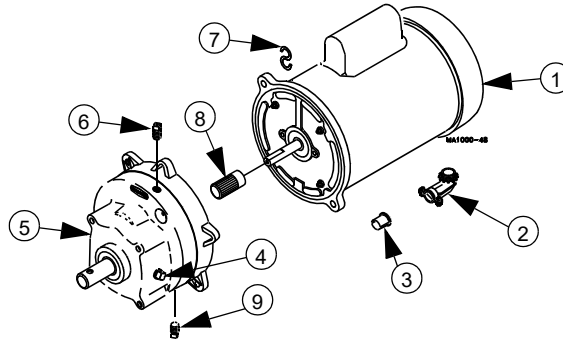
Item	Description	Parts No.
1	Upper Boot (30 Degree)	4347R/C
	Upper Boot (Straight-Out)	6093R/C
2	PVC Elbow, 45 Degree	34546
	—Optional 45 Degree Hard. Steel Elbow	34406
3	Neoprene Seal	34334
4	Seal Ring	8117
5	Chain	2128-100
6	Screw Hook	1214
7	10' (3 m) PVC Tube	34547
	10' (3 m) Steel Tube	34411
8**	Model 108 Auger	30108-0
9	Tube Clamp (for PVC systems)	14373
	Tube Clamp (for steel systems)	34338
10	Power Unit	See Individual Part Lists
11	Control Unit (Direct Drive)	46800-5
	Control Unit (Belt Drive)	46800-15
	Control Unit (Direct Drive, 3 Phs)	46800-10
12	Plastic Drop Tube	9900
13	S Hook	2805
14	Outlet Drop	34358
15	Telescoping Drop Tube	14366-9900
16	Lower Boot Assembly (30 Degree)	34336
	Lower Boot Assembly (Straight-Out)	34341
17	Extension Boot Kit	47862-0
--	Connector w/clamps (for steel systems)	34419
--	Connector (for steel systems)	30277
--	Tube Connector (for PVC systems)	34557

**Auger may be ordered in lengths from 20 ft. to 200 ft. Example: 30108-155 would be 155' of auger.

Power Unit Assembly Part Numbers

Part Number	HP	RPM	Phase	Hz	Voltage	Usage
3259-49	1.0 HP	348 RPM	Single	60 Hz	230	Model 75, 90, 108, & HMC
3259-50	1/2 HP	216 RPM	Single	60 Hz	230	Model 75/90, 108 Two-Motor Tandem
3259-51	1/2 HP	348 RPM	Single	60 Hz	230	Model 75, 90, 108, & HMC
3259-52	3/4 HP	348 RPM	Single	60 Hz	230	Model 75, 90, & HMC
3259-66	1-1/2 HP	348 RPM	Single	60 Hz	230	Model 108
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 75, 75 Plus, 90
3259-79	1.0 HP	425 RPM	Single	60 Hz	230	Model 75, 75 Plus, 90, & 108
3259-80	1.5 HP	425 RPM	Single	60 Hz	230	Model 75, 75 Plus, 90, & 108
3259-89	1.0 HP	348 RPM	Single	50 Hz	220	Model 75, 90,108, & 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, & 108
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, & 108
3259-121	2.0 HP	425 RPM	Single	60 Hz	230	Model 108
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
3259-104	3/4 HP	348 RPM	Three	50 Hz	220/380	Model 108
3259-105	1.0 HP	348 RPM	Three	50 Hz	220/380-415	Model 75, 90, & 108
3259-106	1.5 HP	348 RPM	Three	50 Hz	220/380	Model 108
3259-117	1.0 HP	348 RPM	Three	60 Hz	208-230/460	Model 75, 90,108, & HMC
3259-118	1.0 HP	425 RPM	Three	60 Hz	208-230-460	Model 75, 75 Plus, 90, & 108
3259-120	3/4 HP	425 RPM	Three	60 Hz	208-230-460	Model 75, 75 Plus, & 90
3259-139	1.5 HP	348 RPM	Three	60 Hz	208-230/380	Model 108
3259-140	1.5 HP	425 RPM	Three	60 Hz	208-230-460	Model 75, 75 Plus, 90, & 108
3259-119	3/4 HP	348 RPM	Three	60 Hz	208-230/460	Model 75, 90, 108, & 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
3259-170	2 HP	425 RPM	Three	60 Hz	208-230/460	Model 108

3259-0 Power Units



		3259-49	3259-50	3259-51	3259-52	3259-89	3259-102	3259-66	3259-67
Item	Description	Part Number							
1	Motor	6857	5050	5050	5051	26157	38033	8782	5703
4	Pipe Plug	2755	2755	2755	2755	2755	2755	2755	2755
5	Gearhead	3261-7	3261-6	3261-7	3261-7	3261-10	3261-6	3261-7	3261-8
6	Vent Plug	3523	3523	3523	3523	3523	3523	3523	3523
7	S Hook	2805	2805	2805	2805	2805	2805	2805	2805
8	Pinion Assembly	6104	3249	5046	5046	6104	3249	6104	3249
9	Magnetic Pipe Plug	30160	30160	30160	30160	30160	30160		30160

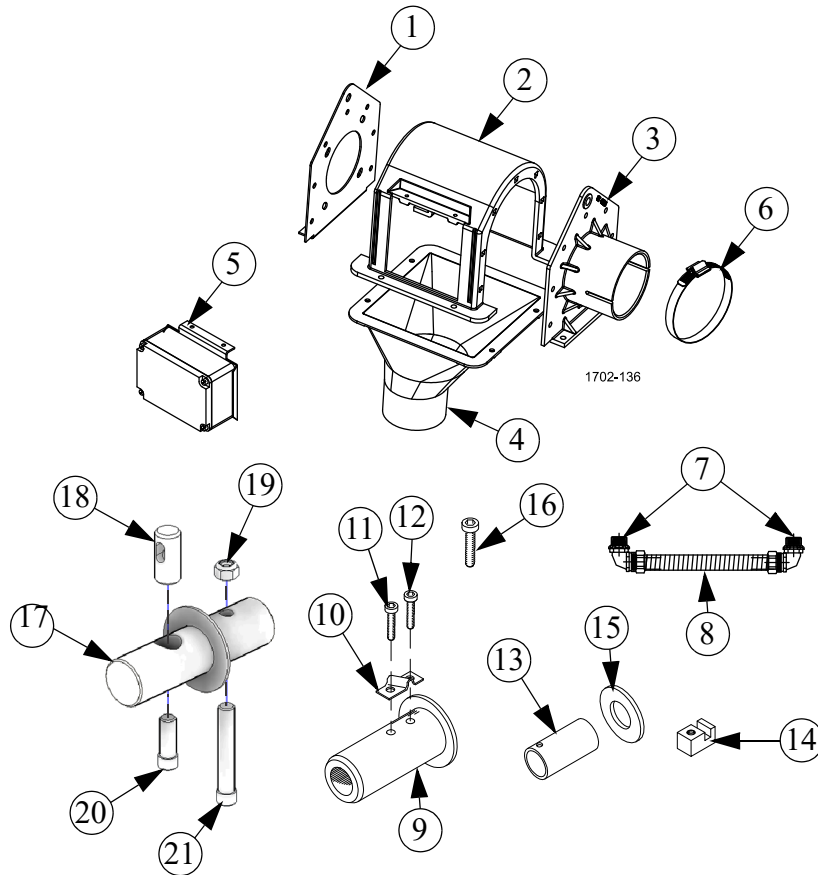
		3259-34	3259-39	3259-98	3259-88	3259-106	3259-107	3259-108	3259-109
Item	Description	Part Number							
1	Motor	4229	5703	5977	6305	28036EUR	28035	26157	5977
2	90 deg. Connector	4228	4228	----	----	----	----	----	----
3	Anti-Short Bushing	6304	6304	----	----	----	----	----	----
4	Pipe Plug	2755	2755	2755	2755	2755	2755	2755	2755
5	Gearhead	3261-5	3261-5	3261-11	3261-10	3261-10	3261-13	3261-13	3261-6
6	Vent Plug	3523	3523	3523	3523	3523	3523	3523	3523
7	S Hook	2805	2805	2805	2805	2805	2805	2805	2805
8	Pinion Assembly	5046	5046	5046	5046	6106	6104	6104	3249
9	Magnetic Pipe Plug	30160	30160	30160	30160	30160	30160	30160	30160

		3259-117	3259-119	3259-105	3259-77	3259-78	3259-79	3259-80	3259-136
Item	Description	Part Number							
1	Motor	34101	34102	28035	5050	5051	26157	8782	5051
4	Pipe Plug	2755	2755	2755	2755	2755	2755	2755	2755
5	Gearhead	3261-7	3261-7	3261-10	3261-10	3261-10	3261-10	3261-10	3261-6
6	Vent Plug	3523	3523	3523	3523	3523	3523	3523	3523
7	S Hook	2805	2805	2805	2805	2805	2805	2805	2805
8	Pinion Assembly	6104	5046	6104	5046	5046	6104	6104	3249
9	Magnetic Pipe Plug	30160	30160	30160	30160	30160	30160	30160	30160

		2529-104	3259-121	3259-122	3259-123	3259-124	3259-137	3259-118	3259-120
Item	Description	Part Number							
1	Motor	28034	34461	5051	6857	8782	28036EUR	34101	34102
4	Pipe Plug	2755	2755	2755	2755	2755	2755	2755	2755
5	Gearhead	3261-10	3261-10	3261-13	3261-13	3261-13	3261-13	3261-10	3261-10
6	Vent Plug	3523	3523	3523	3523	3523	3523	3523	3523
7	S Hook	2805	2805	2805	2805	2805	2805	2805	2805
8	Pinion Assembly	5046	6104	5046	6104	6104	6104	6104	5046
9	Magnetic Pipe Plug	30160	30160	30160	30160	30160	30160	30160	30160

		3259-134	3259-137	3259-139	3259-148	3259-150	3259-151	3259-152	3259-170
Item	Description	Part Number							
1	Motor	28031EUR	28036EUR	39589	26157	28035EUR	28036EUR	28035EUR	56218
4	Pipe Plug	2755	2755	2755	2755	2755	2755	2755	2755
5	Gearhead	3261-5	3261-13	3261-7	3261-16	3261-16	3261-16	3261-13	3261-10
6	Vent Plug	3523	3523	3523	3523	3523	3523	3523	3523
7	S Hook	2805	2805	2805	2805	2805	2805	2805	2805
8	Pinion Assembly	5046	6104	6104	6104	6104	6104	6104	6106
9	Magnetic Pipe Plug	30160	30160	30160	30160	30160	30160	30160	30160

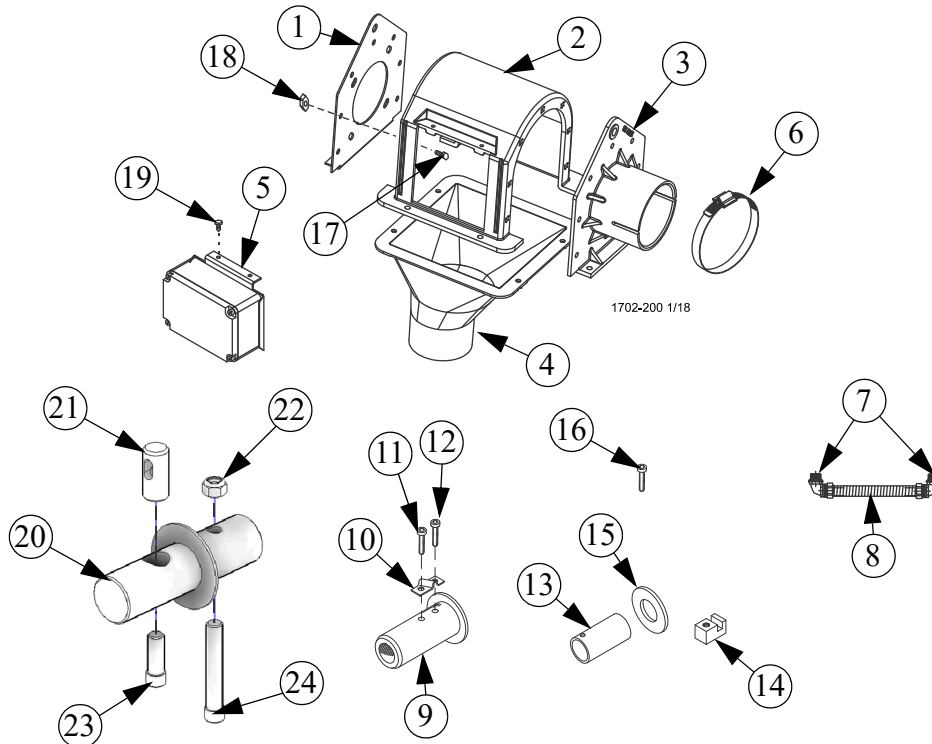
Direct Drive Control Unit (Single Phase)



		Model 55	Model 75	Model 75 Plus	Model 90	Model HMC	Model 108
		46800-1	46800-2	46800-37	46800-4	46800-3	46800-5
Item	Description	Parts No.					
1	Gearhead End Plate	43596	43596	43596	43596	43596	43596
2	Control Unit Body	43601	43601	43601	43601	43601	43601
3	Tube Anchor Plate Weldment	45924	45925	45925	45926	45926	45927
4	Control Unit Funnel	45943-1	45943-1	45943-1	45943-2	45943-2	45943-3
5	Switch & Plate Assembly	46051	46051	46051	46051	46051	46051
6	H.D. Adjustable Clamp	47652-1	47652-1	47652-1	47652-1	47652-1	47652-2
7	Watertight Connector	23810	23810	23810	23810	23810	23810
8	Non-Metal Flex Conduit	26982-10	26982-10	26982-10	26982-10	26982-10	26982-10
9*	Driver Weldment		7704	—	7706	7704	30312
10*	Anchor Clamp		7703	7703	7703	7703	7703
11*	5/16-18x1/2" Socket Hd Cap Screw		6850-3	3850-3	6850-3	6850-3	6850-1
12*	5/16-18x2-1/2" Socket Hd Cap Screw		6850-4	6850-4	6850-4	6850-4	6850-2
13*	Drive Tube	2920					
14*	Drive Block	4642					
15*	Flat Washer	1484					
16*	1/4-20x1-1/2" Screw	5083-8					
17	Model 75 Plus Driver Weldment	—	—	56390	—	—	—
18	Auger Clamp	—	—	56405	—	—	—
19	5/16-18 Hex Lock Nut	—	—	2148	—	—	—
20	5/16-18 x 1" Socket Hd Cap Screw	—	—	6850-5	—	—	—
21	5/16-18 x 2.25" Socket Hd Cap Screw	—	—	6850-4	—	—	—
—	Driver Assembly	46458	6862	56416	6861	6862	30313

*Parts included in Driver Assembly (Part No's 46458, 6862, 5861, or 56416 respectively).

Stainless-Steel Direct Drive Control Unit (Single Phase)



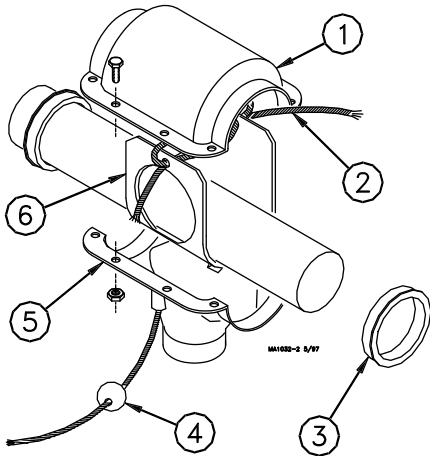
		Model 55	Model 75	Model 75 Plus	Model 90	Model HMC
		46800-27	46800-28	46800-35	46800-30	46800-29
Item	Description	Parts No.				
1	Gearhead End Plate	43596SS	43596SS	43596SS	43596SS	43596SS
2	Control Unit Body	43601	43601	43601	43601	43601
3	Tube Anchor End	45924	45925	45925	45926	45926
4	Control Unit Funnel	45943-1	45943-1	45943-2	45943-2	45943-2
5	Switch & Plate Assembly	46051SS	46051SS	46051SS	46051SS	46051SS
6	H.D. Adjustable Clamp	47652-1	47652-1	47652-1	47652-1	47652-1
7	Watertight Connector	23810-2	23810-2	23810-2	23810-2	23810-2
8	Non-Metal Flex Conduit	26982-10	26982-10	26982-10	26982-10	26982-10
9*	Driver Weldment	—	7704	56390	7706	7704
10*	Anchor Clamp	—	7703	—	7703	7703
11*	5/16-18x1/2" Socket Hd Cap Screw	—	6850-3	—	6850-3	6850-3
12*	5/16-18x2-1/4" Socket Hd Cap Screw	—	6850-4	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	—	—	—	—
17	1/4-20 Rd. Hd. Sq Shnk. Bolt (SS)	7550-6	7550-6	7550-6	7550-6	7550-6
18	1/4-20 Hx Flg. Serr. Nut (SS)	46298	46298	46298	46298	46298
19	#10-14 Twin Helix Screw (SS)	28075SS	28075SS	28075SS	28075SS	28075SS
20	Model 75 Plus Driver Weldment	—	—	56390	—	—
21	Auger Clamp	—	—	56405	—	—
22	5/16-18 Hex Lock Nut	—	—	2148	—	—
23	5/16-18 x 1" Socket Hd Cap Screw	—	—	6850-5	—	—
24	5/16-18 x 2.25" Socket Hd Cap Screw	—	—	6850-4	—	—
—	Driver Assembly	46458	6862	56416	6861	6862

*Parts included in Driver Assembly (Part Numbers 46458, 6862, or 5861 respectively.)

Stainless International Direct-Drive Control Units (Three Phase)

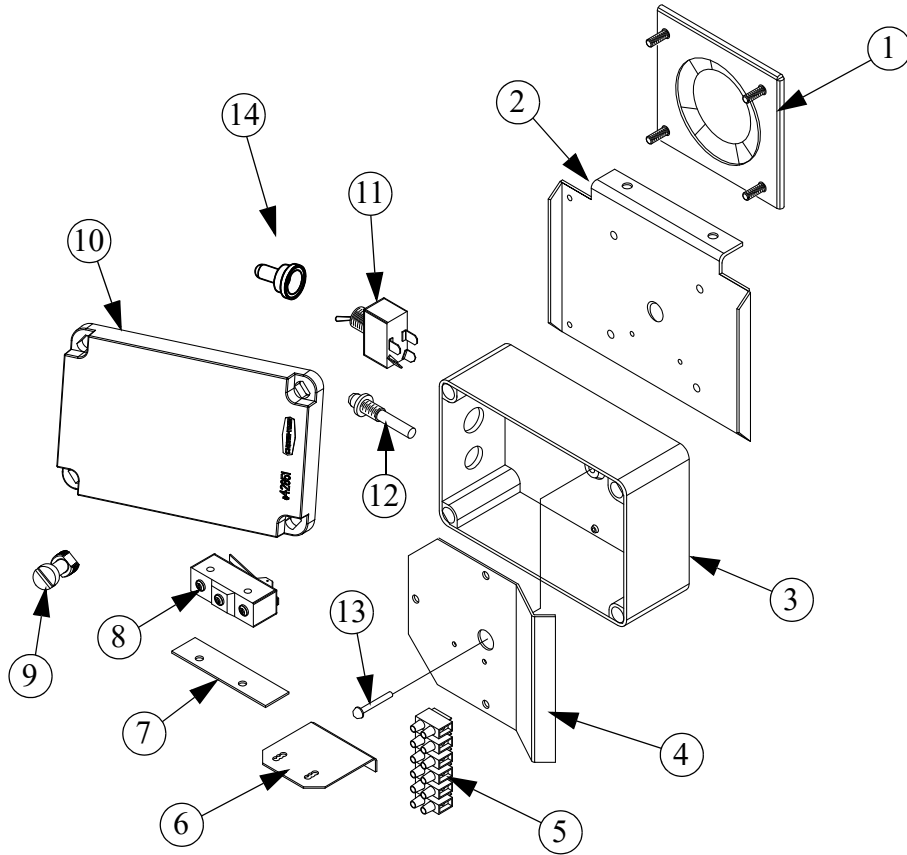
Model 55	Model 75	Model 90	Model HMC	75 Plus
46800-31	46800-32	46800-34	46800-33	46800-36
Components—Same as Standard Direct Drive Control Units except does not include the 90-degree connectors and the flex conduit.				

Model 108 Drop Kit (34358)



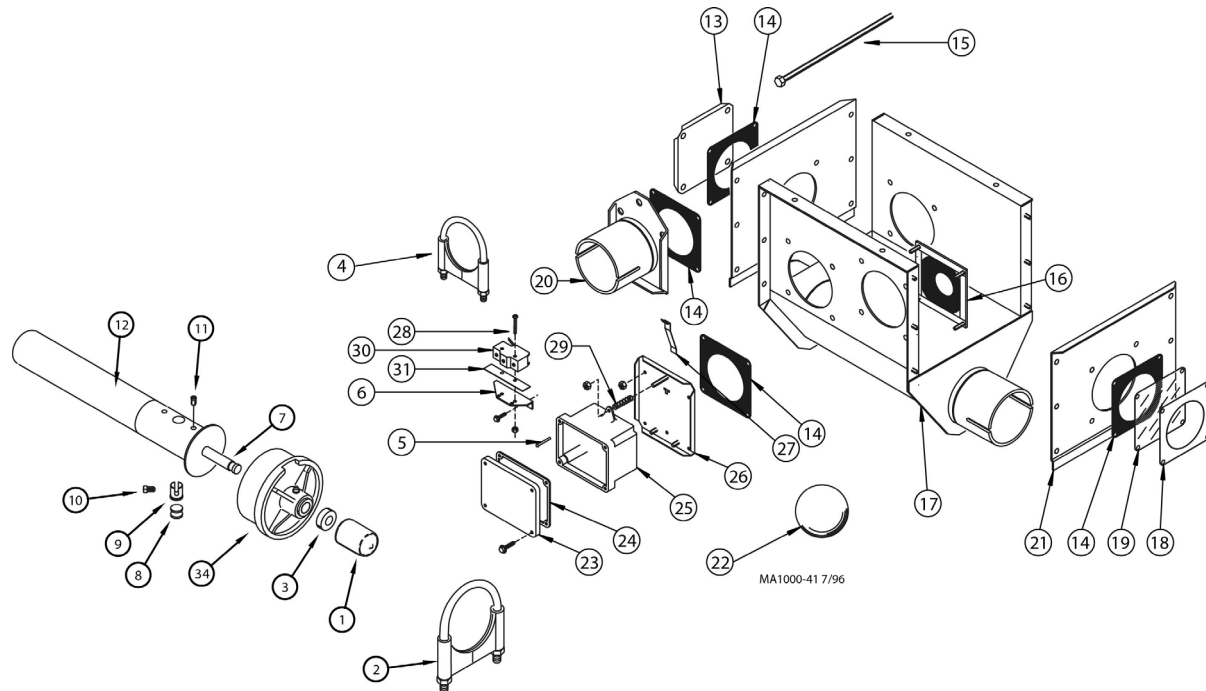
Item	Description	Part No.
1	Drop Half (top)	13780
2	150 Dia. Rope	3085
3	Ring Adapter (for PVC systems)	34630
	Ring Adapter (for STEEL systems)	34360
4	Indicator Ball (red)	24393-1
	Indicator Ball (green)	24393-2
5	Drop Half (bottom)	13781
6	Rotary Slide	34359

46051 & 46051SS Switch and Plate Assembly



Item	Description	46051	46051SS
		Switch and Plate Assembly	Stainless-Steel Switch and Plate Assembly
		Part Number	
1	Diaphragm Assembly	46159	46159
2	Switch Cover Plate	46030	46030SS
3	4 x 6 Electrical Box	46070-1	46070-1
4	Mount Panel	46072	46072
5	Terminal Block	34925-6	34925-6
6	Switch Bracket	46093	46093
7	Switch Insulation	1907-5	1907-5
8	Micro Switch	46091	46091
9	Plastic Screw	42849	42849
10	4 x 6 Electric Box Cover	42851	42851
11	Toggle Switch	7767	7767
12	Pilot Light	46047	46047
13	3/16 x 1 Round Rivet (SS)	46906	46906
14	Toggle Switch Boot	13406	13406

30° Two-Motor Tandem Boot (Part No. 9549, 9548, & 38605)



Item	Description	Part No.
1*	Safety Cap	29702
2*	Tube Clamp Kit (Model 75)	4141
	Tube Clamp Kit (Model 90, HMC)	6721
3*	5/8" Set Collar	1386
4	Tube Clamp Kit	6515
5**	1/8 x 1" Rd Hd Rivet	8757
6**	Switch Bracket	7068
7*	Anchor Shaft (Model 75)	37345
	Anchor Shaft (HMC)	6839
	Anchor Shaft (Model 90)	6832
8*	Clamp Spacer (Model 90)	5009
9*	Clamp Pin	4702
10*	5/16-18 x 1/2" Set Screw	5095
11*	5/16-18 x 3/8" Set Screw	1174
12*	Anchor Tube Weldment (Model 75, HMC)	6840
	Anchor Tube Weldment (Model 90)	6833
13	Cover Plate	4878
14**	Seal	4873
15	5/16-18 x 7-1/2" Bolt	4412-13
16	Diaphragm Assembly	7900
17	Tandem Boot Body Weldment (Model 75)	7878
	Tandem Boot Body Weldment (Model 90, HMC)	28881
18	Window Plate	7842
19	Window	7852
20	Tube Anchor Weldment (Model 75)	6518
	Tube Anchor Weldment (Model 90, HMC)	5069

Item	Description	Part No.
21	Access Panel Assembly	7928
22	Cannonball	3531
23**	Switch Box Cover	6776
24**	Gasket	6777
25**	Switch Box	7841
26**	Switch Mounting Plate	7908
27**	Paddle	7896
28**	6-32 x 7/8" Pan Hd. Screw	1921
29**	Compression Spring	6972
30**	SPDT Actuator Switch	7114
31**	Switch Insulation	1907-5
34*	Bearing Cap Assembly (Model 90, HMC)	34830
	Bearing Cap Assembly (Model 75)	35440
—	Danger Decal	2527-9

*The components may be ordered as an assembly under the following applicable Chore-Time part numbers:

- Model 75: Part number 37346
- Model 90: Part number 35343
- Model HMC: Part number 35344

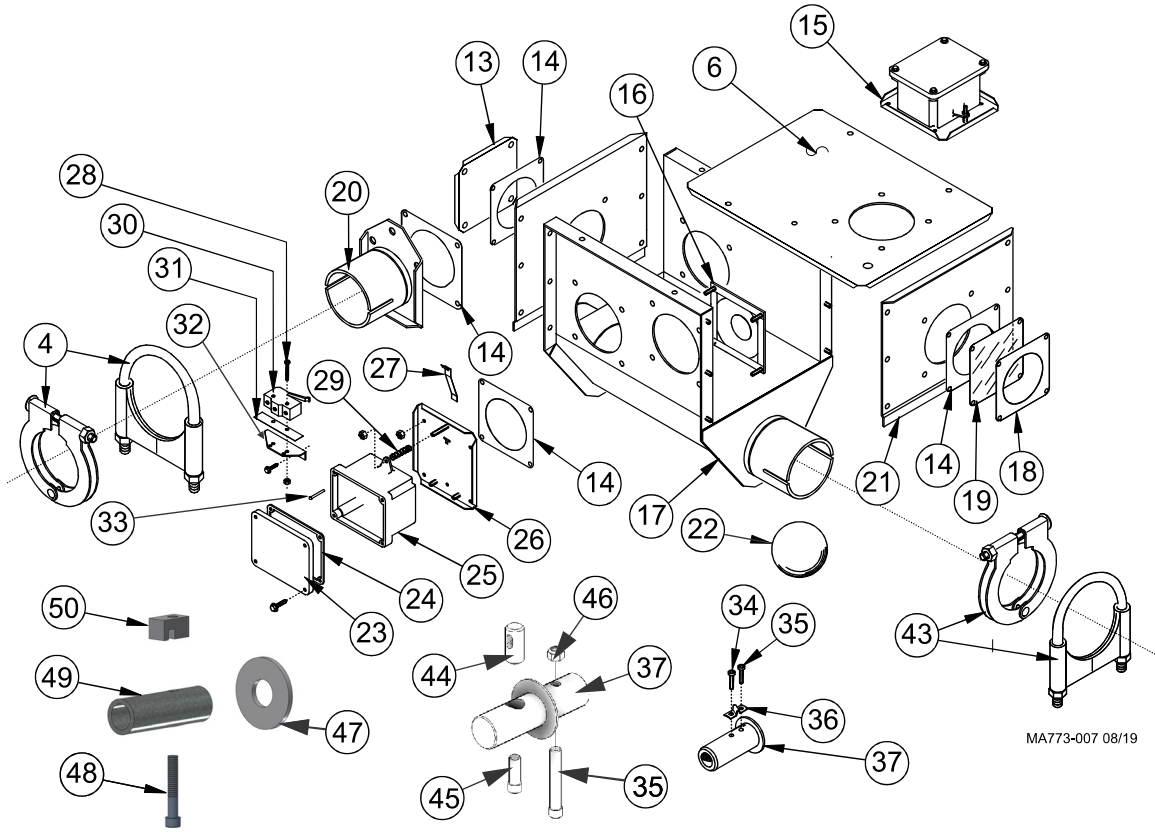
**These components may be ordered as an assembly under Chore-Time part number 7840.

Not shown:

- 6284 Slide and Transfer Kit (all systems)
- 6861 Driver Assembly (Model 90)
- 6862 Driver Assembly (Model 75 & HMC)
- 4347 Upper 30 Degree Boot (all systems)

MODEL 75: 30° Two-Motor Tandem Boot: P/N 9549
MODEL 90: 30° Two-Motor Tandem Boot: P/N 9548
MODEL HMC: 30° Two-Motor Tandem Boot: P/N 38605

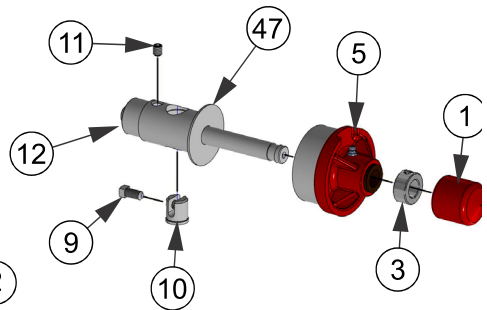
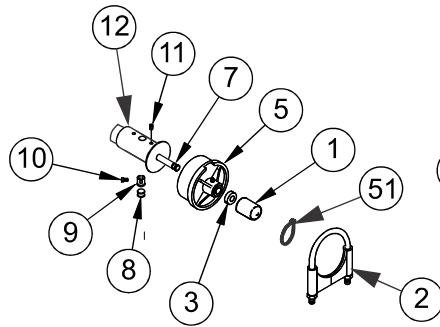
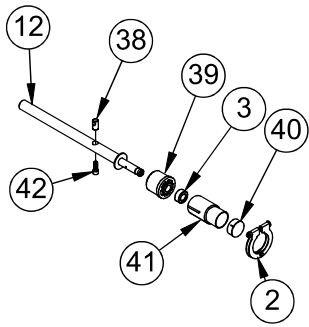
Extension Hopper Part Numbers



Model 55

Model 75, 75 Stainless, 90, & HMC

Model 75 Plus, 75 Plus Stain

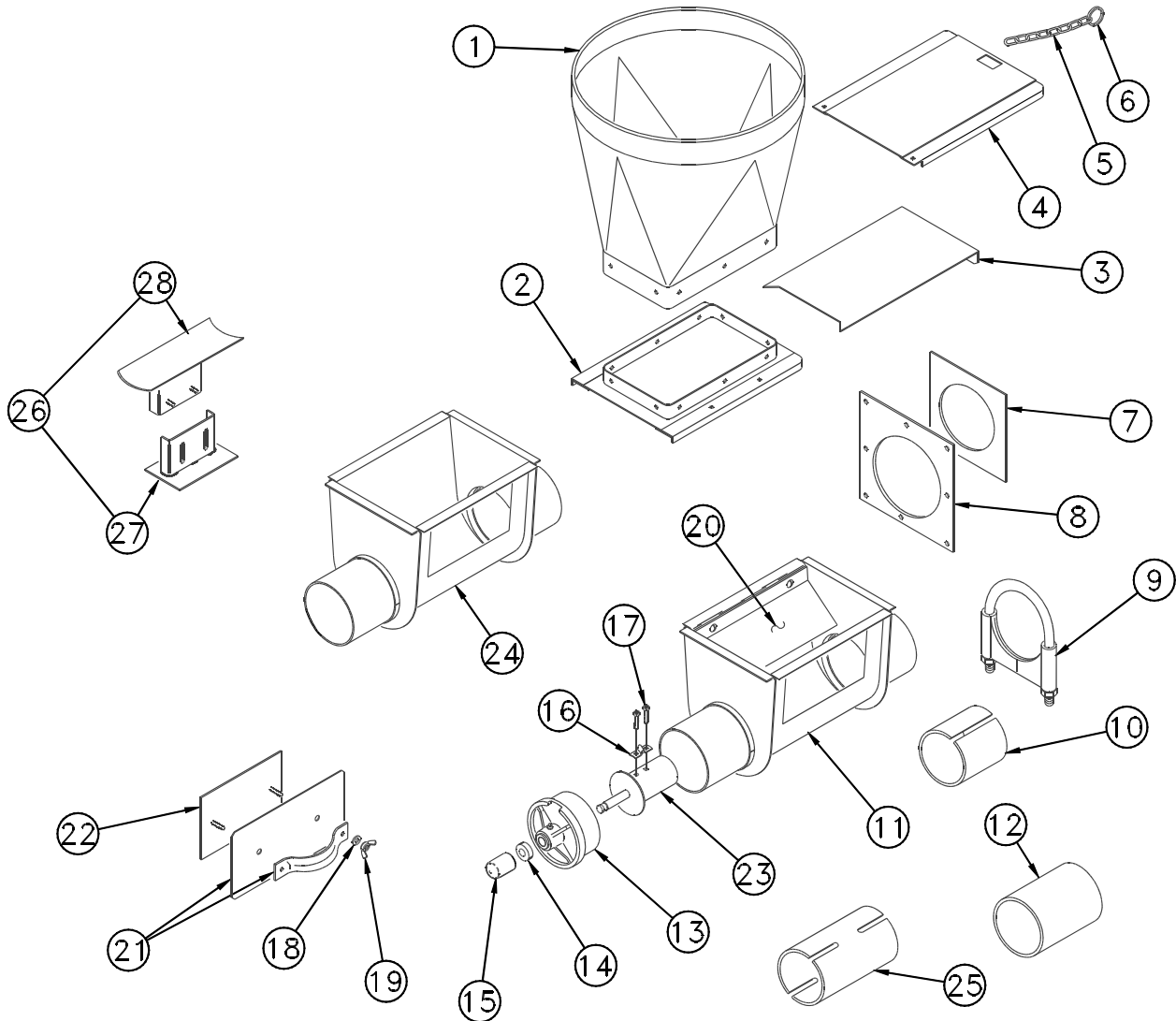


Extension Hopper Part Numbers (Continued)

		Model 55 Kit 40170	Model 75 Kit 7944	Model 75 Stainless Kit 7944SS	Model 75 Plus Kit 56471	Model 75 Plus Stainless 56471SS	Model 90 Kit 7869	Model HMC Kit 7849
Key	Description	Part No.						
1*	Safety Cap	--	29702	29702	29702	29702	29702	29702
2	Tube Clamp Kit	29520	4141	4141	4141	4141	6721	6721
3*	5/8" Set Collar	1386	1386	1386	1386	1386	1386	1386
4	Tube Clamp Kit	35726	6515	6515	6515	6515	6721	6721
5*	Bearing Cap Assembly	--	35440	35440	35440	35440	34830	34830
6***	Cover Assembly	7838	7838	7838SS	7838	7838SS	7838	7838
7*	Universal Anchor Shaft	--	43281	43281	43281	43281	43281	43281
8*	Clamp Spacer	--	--	--	--	--	5009	--
9*	Clamp Pin	--	4702	4702	56409	56409	4702	4702
10*	5/16-18 x 1/2" Set Screw	--	5095	5095	5095	5095	5095	5095
11*	5/16-18 x 3/8" Set Screw	--	1174	1174	1174	1174	1174	1174
12*	Anchor Weldment	39410	36393	36393	56387	56387	26048	36393
13	Cover Plate	4878	4878	4878SS	4878	4878SS	4878	4878
14** ***	Seal	4873	4873	4873	4873	4873	4873	4873
15***	Switch and Plate Assembly	7840	7840	7840SS	7840	7840SS	7840	7840
16***	Diaphragm Assembly	7900	7900	7900	7900	7900	7900	7900
17	Boot Body Weld.	40168	7878	7878SS	7878	7878SS	28881	28881
18	Window Plate	7842	7842	7842SS	7842	7842SS	7842	7842
19	Window	7852	7852	7852	7852	7852	7852	7852
20	Tube Anchor Weldment	35531	6518	6518SS	6518	6518SS	5069	5069
21	Access Panel Assembly	7928	7928	7928SS	7928	7928SS	7928	7928
22	Cannonball	3621	3531	3531	3531	3531	3531	3531
23**	Switch Box Cover	6776	6776	6776	6776	6776	6776	6776
24**	Gasket	6777	6777	6777	6777	6777	6777	6777
25**	Switch Box	7841	7841	7841	7841	7841	7841	7841
26**	Switch Mounting Plate	7908	7908	7908SS	7908	7908SS	7908	7908
27**	Paddle	7896	7896	7896	7896	7896	7896	7896
28**	6-32 x 7/8" Pan Hd. Screw	1921	1921	1921	1921	1921	1921	1921
29**	Compression Spring	6972	6972	6972	6972	6972	6972	6972
30**	Snap Switch	46091	46091	46091	46091	46091	46091	46091
31**	Switch Insulation	1907-5	1907-5	1907-5	1907-5	1907-5	1907-5	1907-5
32**	Switch Bracket	7068	7068	7068	7068	7068	7068	7068
33**	1/8 x 1" Rd Hd Rivet	8757	8757	8757	8757	8757	8757	8757
34	5/16-18 X 1/2 Socket Hd Screw	--	6850-3	6850-3	6850-3	6850-3	6850-3	6850-3
35	5/16-18 x 2-1/4 Socket Hd Screw	--	6850-4	6850-4	6850-4	6850-4	6850-4	6850-4
36	Anchor Block	--	7703	7703	7703	7703	7703	7703
37	Driver Weldment	--	7704	56390	56390	56390	7706	7704
*38	Auger Clamp (Model 55)	39205	--	--	--	--	--	--
*39	Anchor Bearing (Model 55)	39407	--	--	--	--	--	--
40	Cap (Model 55)	29523	--	--	--	--	--	--
41	Stub Tube (Model 55)	4163	--	--	--	--	--	--
*42	Socket Head Screw (Model 55)	6850-7	--	--	--	--	--	--
43	Tube Clamp Kit	29515	6515	6515	6515	6515	6721	6721
44	Auger Clamp Pin	--	--	--	56405	56405	--	--
45	5/16-18 x 1" Socket Hd Screw	--	--	--	6850-5	6850-5	--	--
46	5/16-18 Hex Lock Nut	--	--	--	2148	2148	--	--
47*	.688 x 1.750 x .134 Washer	1484	--	--	--	--	--	--
48*	1/4-20 x 1.50 Sk. Hd Cap Screw	5083-8	--	--	--	--	--	--
49*	Driver Tube	2920	--	--	--	--	--	--
50*	Driver Block	4642	--	--	--	--	--	--
51	Cable Tie	--	56705	56705	56705	56705	56705	56705

*These Anchor and Bearing Components may be ordered as complete Assemblies under the following Part Numbers:
 Model 55 (39405), Model 75/SS (37347), Model 75 Plus/SS (56417), Model 90 (35345), Model HMC (37241)
 **These Switch and Plate components may be ordered as an assembly under Chore-Time part number #7840/SS
 ***The #7839/SS Cover Assembly includes items 6, 14, 15, and 16 and the required hardware.

Model 108 Straight Out Two-Motor Tandem Boot Parts Listing



Item	Description	Part No.
1	Straight-Out Upper Boot	6093
2	Transfer Plate	4359
3	Slide	4357
4	Slide Shield	4876
5	Chain	2128-1
6	Ring	1706
7	Neoprene Seal	34334
8	Seal Ring	8117
9	Tube Clamp (for STEEL systems)	34338
	Tube Clamp (for PVC systems)	14373
10	Tube Insert	34337
11	Boot Body Weldment	30386
12	Tube Connector (for PVC syst.)	34557
13	Bearing Cap Assembly	30314
14	5/8" Set Collar	1386
15	Safety Cap	29703
16	Anchor Clamp	7703
17	5/16-18x7/8" Sock. Hd. C.S.	6850-1
18	Sealing Washer	8491
19	5/16-18 Wingnut	2146

Item	Description	Part No.
20	Baffle	14239
21	Cover Weldment	6301
22	Back Plate Assembly	6298
23	Anchor Weldment	34369
24	Straight-Thru Boot Body Weld.	30385
25	Model 108 Connector (steel sys)	30277
26	Boot Support Assembly	9987
27	Support Weldment	13044
28	Shoe Weldment	13047
—	Transfer Plate Assembly	7856

NOTE: Items #2 through #24 make up the Lower Boot Assembly (part no. 34341).

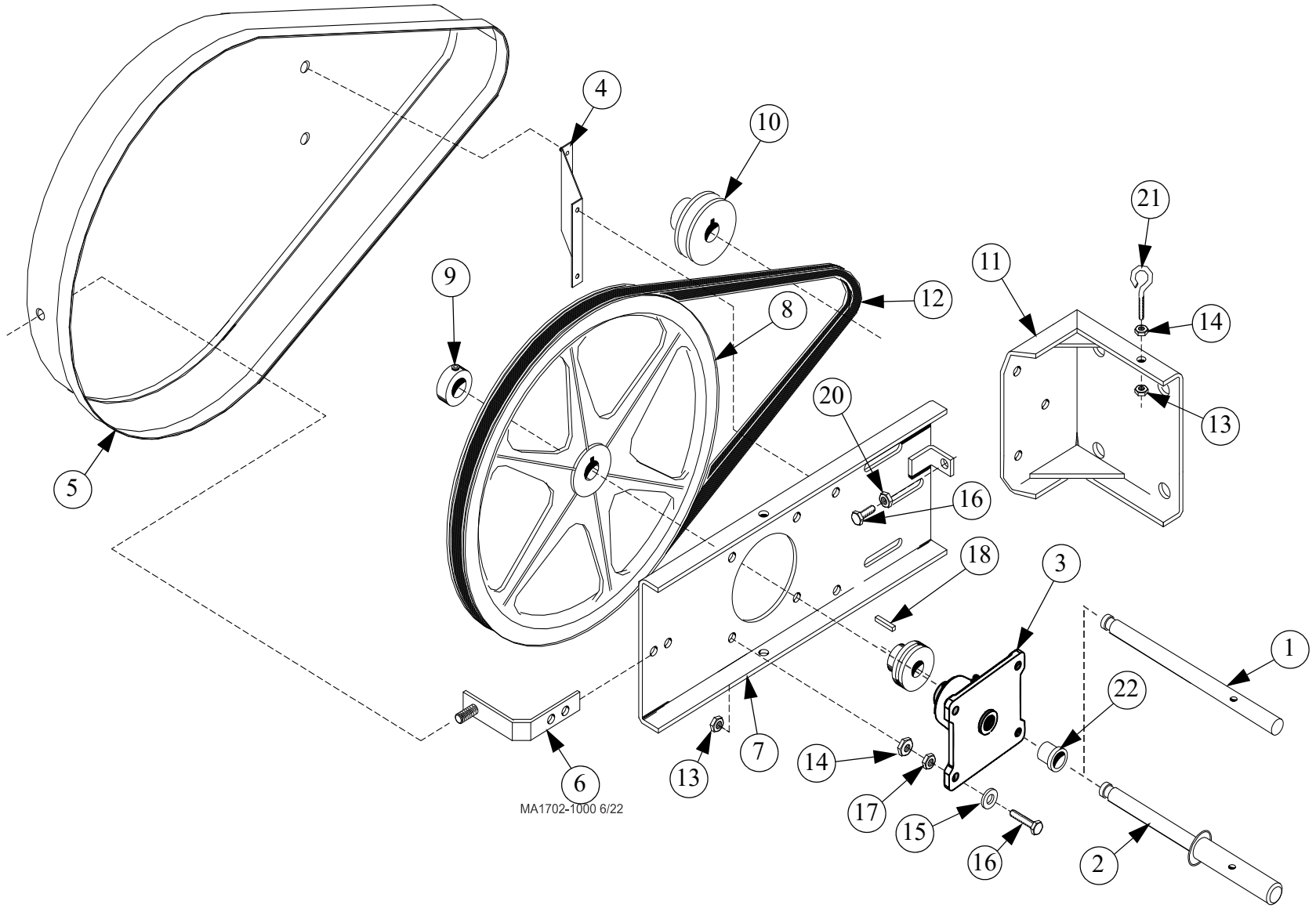
Items #2 through #6 make up the Slide and Transfer Kit (part no. 6284).

The Model 108 Connector (item #25) may be ordered with two (2) Tube Clamps (part no. 34338) as a kit under part no. 34419.

Standard Belt Drive Control Unit Part Numbers

	Model 55	Model 75	Model 90	Model HMC	Model 108
	46800-11	46800-12	46800-14	46800-13	46800-15
Description	Parts No.				
Control Unit	46800-6	46800-7	46800-9	46800-8	47869-1
Belt Drive Parts Package	46138-1	46138-2	46138-2	46138-2	46138-10
Notes: See separate parts list on next page for individual components. The Belt Drive Control Units include all the Direct Drive Control Unit components, plus the following components.					

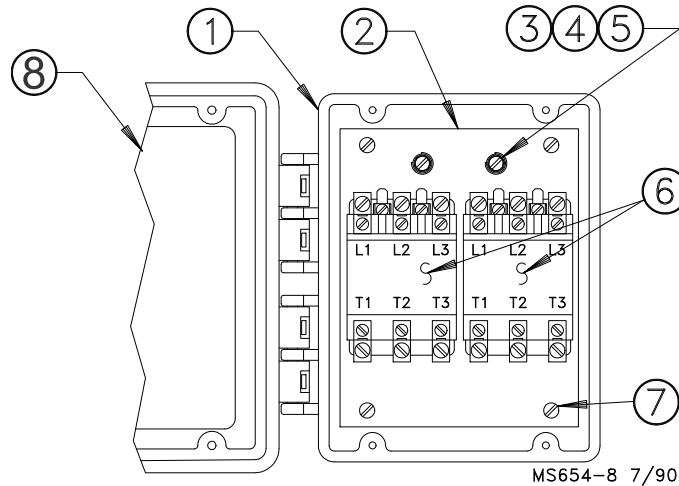
Standard Belt Drive Control Unit Itemized Part Numbers



Standard Belt Drive Control Unit Itemized Part Numbers (Continued)

Item	Description	Part Number	
		Model 55 (46138-1)	Model 75, 75 Plus, 90, 108, and HMC (46138-2)
1 ¹	Model 55 Driver Shaft	27126	--
2 ²	Model 75, 90, 108, & HMC Driver Shaft	--	46156
3 ^{1,2}	Front Plate Bearing Holder	2096	2096
4	Belt Guard Mount	46198	46198
5	Belt Guard	46199	46199
6	Angle Guard Mount	46299	46299
7	Adjustment Bracket	46301	46301
8	11" Dia. Sheave	46190	46190
9 ^{1,2}	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 ^{1,2}	3/16" Key	2112-1	2112-1
20	5/16-18 Hex Nut	2145	2145
21	Eyebolt	1503-2	1503-2
22	Flange Bearing	--	--
23	Ball Bearing	--	--
¹ May be ordered as Bearing and Shaft Assembly (Part no. 46486) ² May be ordered as Bearing and Shaft Assembly (Part no. 46157)			

24392-0 Contactor Box

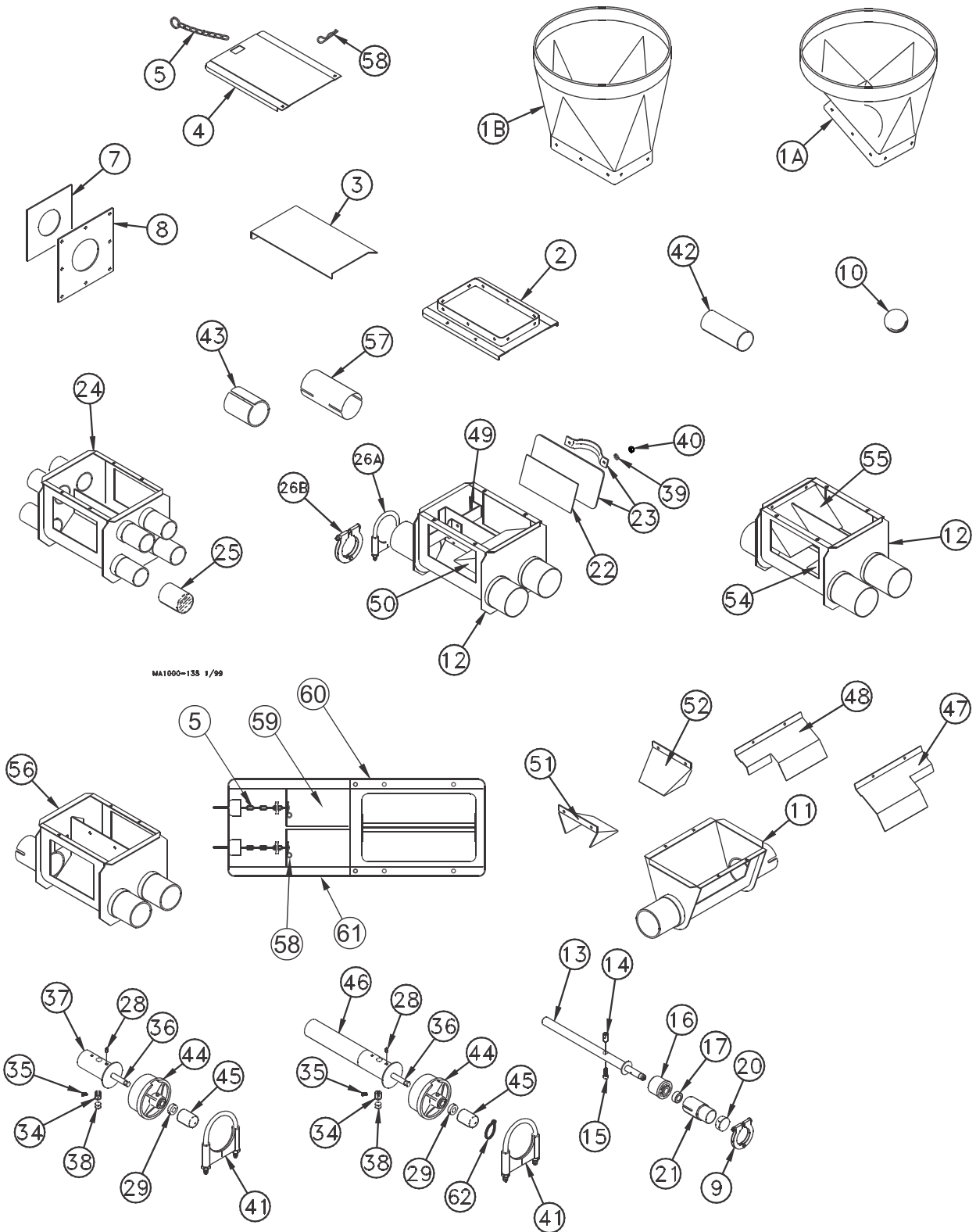


Item	Description	Part No.
1	Box	30860-3
2	Mounting Plate Support	41436
3	#10 Ext. Lock Washer	305
4	#10-32 Hex Screw	34662
5	Cup Washer	5775
6	Contactor	56577-230
7	#10-24 Pan Head Screw	46011
8	Lid	30859-2

The Contactor Box containing one (1) 56577-230 Contactor may be ordered under Part No. 24392-1.
 The Contactor Box containing two (2) 56577-230 Contactors may be ordered under Part No. 24392-2.
 The Contactor Box containing three (3) 56577-230 Contactors may be ordered under Part No. 24392-3.

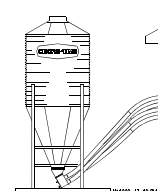
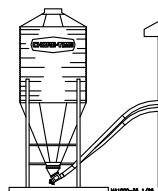
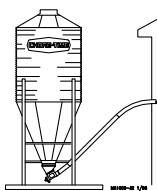
Boot Components Models 55, 75, 75 Plus, and HMC

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 Models 55, 75, 75 Plus, and HMC” on page 83 for the Parts Schematic.



Item	Description	30 Degree Single Boot	30 Degree Twin Boot	30 Degree Quad Boot
-- ⁵	Complete System	8465 ⁵ /SS	8466 ⁵ /SS	8467 ⁵ /SS
-- ²	Lower Boot Assembly	9313/SS	9314/SS	9315/SS
1A ⁶	30 Degree Upper Boot	4347R ⁶	4347R ⁶	4347R ⁶
2 ³	Transfer Plate	4359	4359	4359
3 ³	Slide	4357	4357	36091
4 ³	Slide Shield	4876	4876	4876
5 ³	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/SS	----	----
13 ¹	Model 55 Anchor	39410	39410	39410
14 ¹	Auger Clamp	39205	39205	39205
15 ¹	Socket Head Screw	6850-7	6850-7	6850-7
16 ¹	Anchor Bearing	39407	39407	39407
17 ¹	Set Collar	1386	1386	1386
20	Cap	29523	29523	29523
21	Stub Tube	4163	4163	4163
22 ⁴	Back Plate Weldment	6298SS	6298/SS	6298/SS
23 ⁴	Clean-Out Cover	6301SS	6301/SS	6301/SS
24	Quad Boot Weldment	----	----	7980/SS
25	Outlet Cover	----	----	8026
26B	Tube Clamp	29520	29520	29520
39 ⁴	Sealing Washer	39-20155	39-20155	39-20155
40 ⁴	5/16-18 Lock Nut	2148	2148	2148
42	5” Stub Tube	8555	8555	8555
56	Twin Boot Body Weldment	----	7998/SS	----
58 ³	Hairpin	13906	13906	13906

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

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

³Items 2 through 5 and item 58 may be ordered under Chore-Time Part No. 6284 or 6284SS*.

⁴Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 or 6197SS* Clean-Out Cover Ass’y.

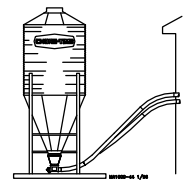
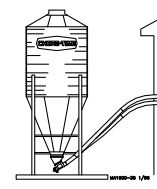
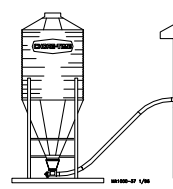
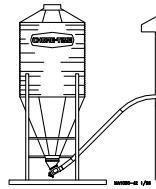
⁵All Complete Systems will come with transparent Red upper boot(s) unless specified with a “C” (i.e. Complete System # 8465C) This “C” indicates the Complete System will come with a transparent Clear upper boot.

⁶Upper 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).

*SS = Stainless Steel

Model 75 Boot Components

See “Boot Components Models 55, 75, 75 Plus, and HMC” on page 83 for the Parts Schematic.



Item	Description	30 Degree Single Boot	Straight-Out Single Boot	30 Degree Twin Boot	Straight-Out Twin Boot
-- ⁵	Complete System	6539 ⁵ or 6539SS ^{5*}	6540 ⁵ or 6540SS ^{5*}	6873 ⁵ or 6873SS ^{5*}	36801 ⁵ or 36801SS ^{5*}
-- ²	Lower Boot Assembly	36442 or 36442SS*	36589/ or 36589SS*	36389 or 36389SS*	36390 or 36390SS*
1A ⁶	30 Degree Upper Boot	4347R ⁶	----	4347R ⁶	----
1B ⁶	Straight Out Upper Boot	----	6093R ⁶	----	6093R ⁶
2 ³	Transfer Plate Weldment	4359	4359	4359	36641
3 ³	Slide	4357 or 4357SS*	4357 or 4357SS*	4357 or 4357SS*	----
4 ³	Slide Shield	4876	4876	4876	14827
5 ^{3,8}	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 or 36588SS*	36588 or 36588SS*	----	----
12	Twin Boot Body	----	----	36350 or 36350SS*	36350 or 36350SS*
22 ⁴	Back Plate Weldment	6298 or 6298SS*	6298 or 6298SS*	6298 or 6298SS*	6298 or 6298SS*
23 ⁴	Clean-Out Cover	6301 or 6301SS*	6301 or 6301SS*	6301 or 6301SS*	6301 or 6301SS*
26A	Tube Clamp Kit	6515	6515	6515	6515
28 ¹	5/16-18 x 3/8” Set Screw	1174	1174	1174	1174
29 ¹	5/8” Set Collar	1386	1386	1386	1386
34 ¹	Clamp Pin	4702	4702	4702	4702
35 ¹	5/16-18 x 1/2” Set Screw	5095	5095	5095	5095
36 ¹	Anchor Shaft	43281	43281	43281	43281
39 ⁴	Sealing Washer	39-20155 or 56308*	39-20155 or 56308*	39-20155 or 56308*	39-20155 or 56308*
40 ⁴	5/16-18 Wing Nut	2148 or 8938*	2148 or 8938*	2148 or 8938*	2148 or 8938*
41 ¹	Tube Clamp Kit	4141	4141	4141	4141
42 ⁷	2.75 x 3.0 Tube	6147	6147	6147	6147
44	Bearing Cap	35440	35440	35440	35440
45 ¹	Safety Cap	29702	29702	29702	29702
**46 ¹	Anchor Tube Weldment	6840	6840	6840	6840
47	S-O/S-T Single Baffle	----	35731 or 35731SS*	----	----
48	30° Single Baffle	35732 or 35732SS*	----	----	----
49	Cannon Ball Guard	----	----	35843 or 35843SS*	----
54	Twin End Baffle (75)	----	----	----	35845 or 35845SS*
55	Twin Outlet Baffle (75)	----	----	----	35846 or 35846SS*
58 ^{3,8}	Hairpin	13906	13906	13906	13906
59 ⁸	Slide	----	----	----	14821 or 14821SS*
60 ⁸	Transfer Plate Assembly	----	----	----	36642
61 ⁸	Slide Shield Assembly	----	----	----	14827
62	Cable Tie	56705	56705	56705	56705

¹These 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.

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

³Items 2 through 5 and item 58 may be ordered under Chore-Time Part No. 6284 or 6284SS*.

⁴Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 or 6197SS* Clean-Out Cover Ass’y.

⁵All 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).

⁶Upper 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).

⁷Stub Tube (Item 42) For Opposing Anchor.

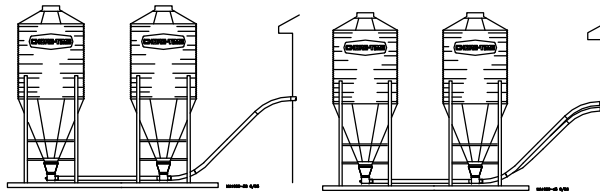
⁸Included in 36683 Twin Boot Slide Assembly.

*SS=Stainless Steel.

**These Boots contain a Restrictor for use with pelleted feed. If mash or crumble feed is used, reduce the Restrictor. See “Restrictor Adjustment” on page 42.

Model 75 Boot Components (continued)

See “Boot Components Models 55, 75, 75 Plus, and HMC” on page 83 for the Parts Schematic.



Item	Description	Straight-Thru Single Tandem	Straight-Thru Twin Tandem
-- ⁵	Complete System	6541 ⁵ or 6541SS ^{5*}	35880 ⁵ or 35880SS ^{5*}
-- ²	Lower Boot Package	36590 or 36590SS*	36394 or 36394SS*
1A ⁶	30 Degree Upper Boot	----	----
1B ⁶	Straight Out Upper Boot	6093R ⁶	6093R ⁶
2 ³	Transfer Plate Weldment	4359	----
3 ³	Slide	4357 or 4357SS*	----
4 ³	Slide Shield	4876	----
5 ^{3,8}	Chain Assembly	27374	27374
7	Neoprene Seal	2613	2613
8	Seal Ring	2612	2612
10	Cannonball	3531	3531
11	Single Boot Body	36588 or 36558SS*	----
12	Twin Boot Body Weldment	----	36350 or 36350SS*
22 ⁴	Back Plate Weldment	6298 or 6298SS*	6298 or 6298SS*
23 ⁴	Clean-Out Cover	6301 or 6301SS*	6301 or 6301SS*
26A	Tube Clamp Kit	6515	6515
28 ¹	5/16-18 x 3/8" Set Screw	1174	1174
29 ¹	5/8" Set Collar	1386	1386
34 ¹	Clamp Pin	4702	4702
35 ¹	5/16-18 x 1/2" Set Screw	5095	5095
36 ¹	Anchor Shaft	43281	43281
39 ⁴	Sealing Washer	39-20155 or 56308*	39-20155 or 56308*
40 ⁴	5/16-18 Wing Nut	2148 or 8938*	2148 or 8938*
41	Tube Clamp Kit	4141	4141
42 ⁷	2.75 x 3.0 Tube	6147	6147
43	Insert	6524	6524
44 ¹	Bearing Cap	35440	35440
45 ¹	Safety Cap	29702	29702
**46 ¹	Anchor Tube Weldment	6840	6840
47	S-O/S-T Single Baffle	35731 or 35731SS*	----
54	Twin End Baffle (75)	----	35845 or 35845SS*
55	Twin Outlet Baffle (75)	----	35846 or 35846SS*
57	Tube Connector	6512	6512
58 ^{3,8}	Hairpin	13906	13906
59 ⁸	Slide	----	14821 or 14821SS*
60 ⁸	Transfer Plate Assembly	----	36642
61 ⁸	Slide Shield Assembly	----	14827
62	Cable Tie	56705	56705

¹These 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.

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

³Items 2 through 5 and item 58 may be ordered under Chore-Time Part No. 6284 or 6284SS.

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

⁵All 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).

⁶Upper 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).

⁷Stub Tube (Item 42) For Opposing Anchor.

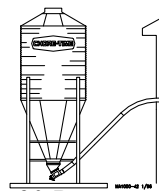
⁸Included in 36683 Twin Boot Slide Assembly.

*SS=Stainless Steel.

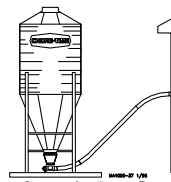
**These Boots contain a Restrictor for use with pelleted feed. If mash or crumble feed is used, reduce the Restrictor. See “Restrictor Adjustment” on page 42.

Model 75 Plus Boot Components (Continued from previous page)

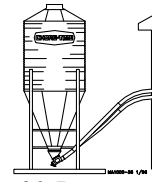
See “Boot Components Models 55, 75, 75 Plus, and HMC” on page 83 for the Parts Schematic.



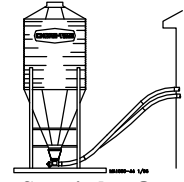
**30 Degree
Single Boot**



**Straight-Out
Single Boot**



**30 Degree
Twin Boot**



**Straight-Out
Twin Boot**

Item	Description	30 Degree Single Boot	Straight-Out Single Boot	30 Degree Twin Boot	Straight-Out Twin Boot
-- ⁵	Complete System	56422-3 ⁵ or 56422SS-3 ^{5*}	56422-2 ⁵ or 56422SS-2 ^{5*}	56424-3 ⁵ or 56424SS-3 ^{5*}	56424-2 ⁵ or 56424SS-2 ^{5*}
-- ²	Lower Boot Assembly	56386 or 56386SS*	56389/ or 56389SS*	56419 or 56419SS*	56421 or 56421SS*
1A ⁶	30 Degree Upper Boot	4347R ⁶	----	4347R ⁶	----
1B ⁶	Straight Out Upper Boot	----	6093R ⁶	----	6093R ⁶
2 ³	Transfer Plate Weldment	4359	4359	4359	36641
3 ³	Slide	4357 or 4357SS*	4357 or 4357SS*	4357 or 4357SS*	----
4 ³	Slide Shield	4876	4876	4876	14827
5 ^{3,8}	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 or 36588SS*	36588 or 36588SS	----	----
12	Twin Boot Body	----	----	36350 or 36350SS*	36350 or 36350SS*
22 ⁴	Back Plate Weldment	6298 or 6298SS*	6298 or 6298SS*	6298 or 6298SS*	6298 or 6298SS*
23 ⁴	Clean-Out Cover	6301 or 6301SS*	6301 or 6301SS*	6301 or 6301SS*	6301 or 6301SS*
26A	Tube Clamp Kit	6515	6515	6515	6515
28 ¹	5/16-18 x 3/8” Set Screw	1174	1174	1174	1174
29 ¹	5/8” Set Collar	1386	1386	1386	1386
34 ¹	Clamp Pin	56409	56409	56409	56409
35 ¹	5/16-18 x 1/2” Set Screw	5095	5095	5095	5095
36 ¹	Anchor Shaft	43281	43281	43281	43281
37	Anchor Tube Weldment	56387	56387	56387	56387
39 ⁴	Sealing Washer	39-20155 or 56308*	39-20155 or 56308*	39-20155 or 56308*	39-20155 or 56308*
40 ⁴	5/16-18 Wing Nut	2148 or 8938*	2148 or 8938*	2148 or 8938*	2148 or 8938*
41 ¹	Tube Clamp Kit	4141	4141	4141	4141
42 ⁷	2.75 x 3.0 Tube	6147	6147	6147	6147
44	Bearing Cap	35440	35440	35440	35440
45 ¹	Safety Cap	29702	29702	29702	29702
47	S-O/S-T Single Baffle	----	56464 or 56464SS*	----	----
48	30° Single Baffle	----	----	----	----
49	Cannon Ball Guard	----	----	35843 or 35843SS*	----
54	Twin End Baffle (75)	----	----	----	35845 or 35845SS*
55	Twin Outlet Baffle (75)	----	----	----	56491 or 56491SS*
58 ^{3,8}	Hairpin	13906	13906	13906	13906
59 ⁸	Slide	----	----	----	14821 or 14821SS*
60 ⁸	Transfer Plate Assembly	----	----	----	36642
61 ⁸	Slide Shield Assembly	----	----	----	14827
62	Cable Tie	56705	56705	56705	56705

¹These components may be ordered as a Model 75 Plus Anchor Bearing Assembly under Chore-Time Part No. 56417.

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

³Items 2 through 5 and item 58 may be ordered under Chore-Time Part No. 6284 or 6284SS*.

⁴Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 or 6197SS* Clean-Out Cover Ass’y.

⁵All Complete Systems will come with transparent Red upper boot(s) unless specified with a “C” (i.e. Complete System # 56422-3C) This “C” indicates the Complete System will come with transparent Clear upper boot(s).

⁶Upper 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).

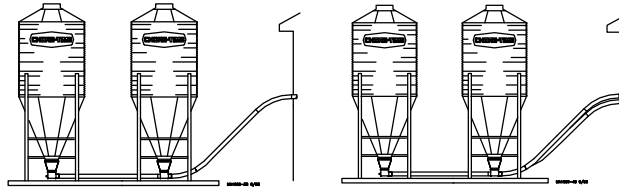
⁷Stub Tube (Item 42) For Opposing Anchor.

⁸Included in 36683 or 36683SS Twin Boot Slide Assembly.

*SS = Stainless Steel.

Model 75 Plus Boot Components (continued)

See “Boot Components Models 55, 75, 75 Plus, and HMC” on page 83 for the Parts Schematic.



Item	Description	Straight-Thru Single Tandem	Straight-Thru Twin Tandem
-- ⁵	Complete System	56422-1 ⁵ or 56422SS-1 ⁵	56424-1 ⁵ or 56424SS-1 ^{5*}
-- ²	Lower Boot Package	56423 or 56423SS*	56490 or 56490SS*
1A ⁶	30 Degree Upper Boot	----	----
1B ⁶	Straight Out Upper Boot	6093R ⁶	6093R ⁶
2 ³	Transfer Plate Weldment	4359	----
3 ³	Slide	4357 or 4357SS*	----
4 ³	Slide Shield	4876	----
5 ^{3,8}	Chain Assembly	27374	27374
7	Neoprene Seal	2613	2613
8	Seal Ring	2612	2612
10	Cannonball	3531	3531
11	Single Boot Body	36588 or 36588SS*	----
12	Twin Boot Body Weldment	----	36350 or 36350SS*
22 ⁴	Back Plate Weldment	6298 or 6298SS*	6298 or 6298SS*
23 ⁴	Clean-Out Cover	6301 or 6301SS*	6301 or 6301SS*
26A	Tube Clamp Kit	6515	6515
28 ¹	5/16-18 x 3/8” Set Screw	1174	1174
29 ¹	5/8” Set Collar	1386	1386
34 ¹	Clamp Pin	56409	56409
35 ¹	5/16-18 x 1/2” Set Screw	5095	5095
36 ¹	Anchor Shaft	43281	43281
37 ¹	Anchor Tube Weldment	56387	56387
39 ⁴	Sealing Washer	39-20155 or 56308*	39-20155 or 56308*
40 ⁴	5/16-18 Wing Nut	2148 or 8938*	2148 or 8938*
41	Tube Clamp Kit	4141	4141
42 ⁷	2.75 x 3.0 Tube	6147	6147
43	Insert	6524	6524
44 ¹	Bearing Cap	35440	35440
45 ¹	Safety Cap	29702	29702
47	S-O/S-T Single Baffle	56488 or 56488SS*	----
54	Twin End Baffle (75 Plus)	----	35845 or 35845SS*
55	Twin Outlet Baffle (75 Plus)	----	56491 or 56491SS*
57	Tube Connector	6512	6512
58 ^{3,8}	Hairpin	13906	13906
59 ⁸	Slide	----	14821 or 14821SS*
60 ⁸	Transfer Plate Assembly	----	36642
61 ⁸	Slide Shield Assembly	----	14827
62	Cable Tie	56705	56705

¹These components may be ordered as a Model 75 Plus Anchor Bearing Assembly under Chore-Time Part No. 56417.

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

³Items 2 through 5 and item 58 may be ordered under Chore-Time Part No. 6284 or 6284SS.

⁴Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 or 6197SS Clean-Out Cover Ass’y.

⁵All Complete Systems will come with transparent Red upper boot(s) unless specified with a “C” (i.e. Complete System # 56422-1C) This “C” indicates the Complete System will come with transparent Clear upper boot(s).

⁶Upper 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).

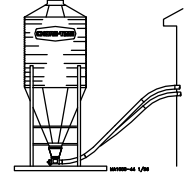
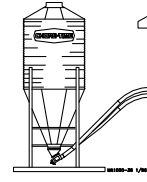
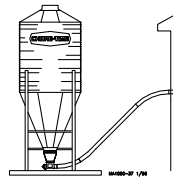
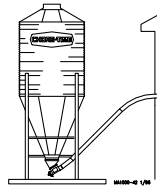
⁷Stub Tube (Item 42) For Opposing Anchor.

⁸Included in 36683 or 36683SS Twin Boot Slide Assembly.

*SS=Stainless Steel.

Model 90 Boot Components

See “Boot Components Models 55, 75, 75 Plus, and HMC” on page 83 for the Parts Schematic.



Item	Description	30 Degree Single Boot	Straight-Out Single Boot	30 Degree Twin Boot	Straight-Out Twin Boot
-- ⁵	Complete System	6161 ⁵ or 6161SS ^{5*}	6187 ⁵ or 6187SS ^{5*}	6874 ⁵ or 6874SS ^{5*}	6535 ⁵ or 6535SS ^{5*}
-- ²	Lower Boot Assembly	9301 or 9301SS*	36435 or 36435SS*	36391 or 36391SS*	36398 or 36398SS*
1A ⁶	30 Degree Upper Boot	4347R ⁶	----	4347R ⁶	----
1B ⁶	Straight Out Upper Boot	----	6093R ⁶	----	6093R ⁶
2 ³	Transfer Plate Weldment	4359	4359	4359	----
3 ³	Slide	4357 or 4357SS*	4357 or 4357SS*	4357 or 4357SS*	----
4 ³	Slide Shield	4876	4876	4876	----
5 ^{3,7}	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 or 28873SS*	36433 or 36433SS*	----	----
12	Twin Boot Body	----	----	36354 or 36354SS*	36354 or 36354SS*
22 ⁴	Back Plate Weldment	6298 or 6298SS*	6298 or 6298SS*	6298 or 6298SS*	6298 or 6298SS*
23 ⁴	Clean-Out Cover	6301 or 6301SS*	6301 or 6301SS*	6301 or 6301SS*	6301 or 6301SS*
26A	Tube Clamp Kit	6721	6721	6721	6721
28 ¹	5/16-18 x 3/8” Set Screw	1174	1174	1174	1174
29 ¹	5/8” Set Collar	1386	1386	1386	1386
34 ¹	Clamp Pin	4702	4702	4702	4702
35 ¹	5/16-18 x 1/2” Set Screw	5095	5095	5095	5095
36 ¹	Anchor Shaft	43281	43281	43281	43281
37 ¹	Anchor Tube Weldment	----	26048	26048	26048
38 ¹	Clamp Spacer	5009	5009	5009	5009
39 ⁴	Sealing Washer	39-20155 or 56308*	39-20155 or 56308*	39-20155 or 56308*	39-20155 or 56308*
40 ⁴	5/16-18 Wing Nut	2148 or 8938*	2148 or 8938*	2148 or 8938*	2148 or 8938*
41	Tube Clamp Kit	6721	6721	6721	6721
44 ¹	Bearing Cap Assembly	34830	34830	34830	34830
45 ¹	Safety Cap	29702	29702	29702	29702
46 ¹	Anchor Tube Weldment	6833	----	----	----
49	Cannonball Guard	----	----	35843 or 35843SS*	----
50	Twin End Baffle (90)	----	----	36026 or 36026SS*	----
51	Single Inlet Baffle (90)	----	35998 or 35998SS*	----	----
52	Single Outlet Baffle (90)	----	35999 or 35999SS*	----	----
54	Twin Inlet Baffle (90)	----	----	----	36000 or 36000SS*
55	Twin Outlet Baffle (90)	----	----	----	36001 or 36001SS*
58 ^{3,7}	Hairpin	13906	13906	13906	13906
59 ⁷	Slide	----	----	----	14821 or 14821SS*
60 ⁷	Transfer Plate Assembly	----	----	----	36642
61 ⁷	Slide Shield Assembly	----	----	----	14827
62	Cable Tie	56705	56705	56705	56705

¹These 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).

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

³Items 2 through 5 and item 58 may be ordered under Chore-Time Part No. 6284 or 6284SS.

⁴Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 or 6197SS Clean-Out Cover Ass’y.

⁵All 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).

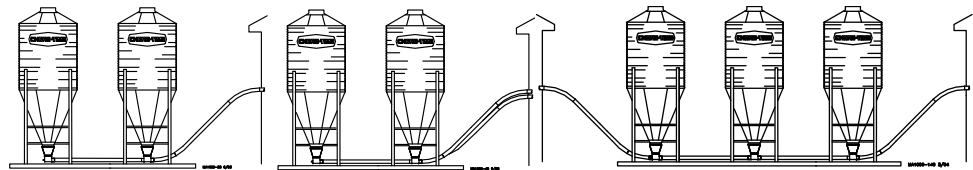
⁶Upper boot Part No.’s will have a suffix “R” for transparent Red upper boots (i.e., 4347R) or will have a suffix “C” for transparent Clear upper boots (i.e. 4347C).

⁷Included in 36683 Twin Boot Slide Assembly.

*SS=Stainless Steel.

Model 90 Boot Components (continued)

See “Boot Components Models 55, 75, 75 Plus, and HMC” on page 83 for the Parts Schematic.



Item	Description	Straight-Thru Single Tandem	Straight-Thru Twin Tandem	Twin Straight-Thru Three Bin System
-- ⁵	Complete System	6281 ⁵ or 6281SS ^{5*}	6538 ⁵ or 6538SS ^{5*}	48660 ⁵
-- ²	Lower Boot Package	36434 or 36434SS*	36388 or 36388SS*	48661
1B ⁶	Straight Out Upper Boot	6093R ⁶	6093R ⁶	6093R ⁶
2 ³	Transfer Plate Weldment	4359	----	----
3 ³	Slide	4357 or 4357SS*	----	----
4 ³	Slide Shield	4876	----	----
5 ³	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 or 36433SS*	----	----
12	Twin Boot Body Weldment	----	36354 or 36354SS*	36354
22 ⁴	Back Plate Weldment	6298 or 6298SS*	6298 or 6298SS*	6298
23 ⁴	Clean-Out Cover	6301 or 6301SS*	6301 or 6301SS*	6301
26A	Tube Clamp Kit	6721	6721	6721
28 ¹	5/16-18 x 3/8” Set Screw	1174	1174	1174
29 ¹	5/8” Set Collar	1386	1386	1186
34 ¹	Clamp Pin	4702	4702	4702
35 ¹	5/16-18 x 1/2” Set Screw	5095	5095	5095
36 ¹	Anchor Shaft	43281	43281	43281
37 ¹	Anchor Tube Weldment	26048	26048	26048
38 ¹	Clamp Spacer	5009	5009	5009
39 ⁴	Sealing Washer	39-20155 or 56308*	39-20155 or 56308*	39-20155 or 56308*
40 ⁴	5/16-18 Wing Nut	2148 or 8938*	2148 or 8938*	2148 or 8938*
41	Tube Clamp Kit	6721	6721	6721
44 ¹	Bearing Cap Assembly	34830	34830	34830
45 ¹	Safety Cap	29702	29702	29702
51	Single Inlet Baffle (90)	35998 or 35998SS*	----	----
52	Single Outlet Baffle (90)	35999 or 35999SS*	----	----
54	Twin Inlet Boot Baffle (90)	----	36000 or 36000SS*	36000
55	Twin Outlet Boot Baffle (90)	----	36001 or 36001SS*	36001
58 ³	Hairpin	13906	13906	13906
59 ⁷	Slide	----	14821 or 14821SS*	14821
60 ⁷	Transfer Plate Assembly	----	36641	36641
61 ⁷	Slide Shield Assembly	----	14827	14827
62	Cable Tie	56705	56705	56705

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

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

³Items 2 through 5 and item 58 may be ordered under Chore-Time Part No. 6284 or 6284SS*.

⁴Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 or 6197SS* Clean-Out Cover Ass’y.

⁵All 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).

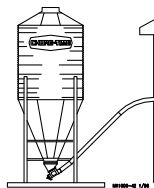
⁶Upper boot Part No.’s will have a suffix “R” for transparent Red upper boots (i.e. 4347R) or will have a suffix “C” for transparent Clear upper boots (i.e. 4347C).

⁷Included in 36683 Twin Boot Slide Assembly.

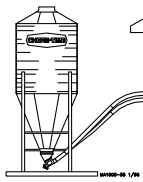
*SS=Stainless Steel.

Model HMC Boot Components

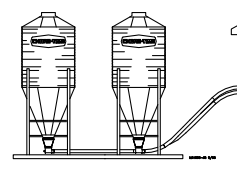
See “Boot Components Models 55, 75, 75 Plus, and HMC” on page 83 for the Parts Schematic.



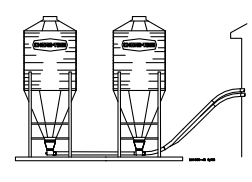
30 Degree Single Boot



30 Degree Twin Boot



Single Straight-Thru Tandem



Straight-Thru Twin Tandem

Item	Description	30 Degree Single Boot	30 Degree Twin Boot	Single Straight-Thru Tandem	Straight-Thru Twin Tandem
-- ⁵	Complete System	7921 ⁵ or 7921SS ^{5*}	7920 ⁵ or 7921SS ^{5*}	40082 ⁵ or 40082SS ^{5*}	36795 ⁵ or 36795SS ^{5*}
-- ²	Lower Boot Ass’y/Package	38507 or 38507SS*	38506 or 38506SS*	40081 or 40081SS*	36796 or 36796SS*
1A ⁶	30 Degree Upper Boot	4347R ⁶	4347R ⁶	----	----
1B ⁶	Straight-Through Upper Boot	----	----	6093R ⁶	6093R ⁶
2 ³	Transfer Plate Weldment	4359	4359	4359	----
3 ³	Slide	4357 or 4357SS*	4357 or 4357SS*	4357 or 4357SS*	----
4 ³	Slide Shield	4876	4876	4876	----
5 ^{3,7}	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 or 28873SS*	----	36433 or 36433SS*	----
12 ⁴	Twin Boot Body	----	28878 or 28878SS*	----	36354 or 36354SS*
22 ⁴	Back Plate Weldment	6298 or 6298SS*	6298 or 6298SS*	6298 or 6298SS*	6298 or 6298SS*
23	Clean-Out Cover	6301 or 6301SS*	6301 or 6301SS*	6301 or 6301SS*	6301 or 6301SS*
26	Tube Clamp Kit	6721	6721	6721	6721
28 ¹	5/16-18 x 3/8” Set Screw	1174	1174	1174	1174
29 ¹	5/8” Set Collar	1386	1386	1386	1386
34 ¹	Clamp Pin	4702	4702	4702	4702
35 ¹	5/16-18 x 1/2” Set Screw	5095	5095	5095	5095
36 ¹	Anchor Shaft	43281	43281	43281	43281
37 ¹	Tube Anchor Weldment	----	----	36393	36393
39 ⁴	Sealing Washer	39-20155 or 56308*	39-20155 or 56308*	39-20155 or 56308*	39-20155 or 56308*
40 ⁴	5/16-18 Wing Nut	2148 or 8938*	2148 or 8938*	2148 or 8938*	2148 or 8938*
41	Tube Clamp Kit	6721	6721	6721	6721
44 ¹	Bearing Cap Assembly	34830	34830	34830	34830
45 ¹	Safety Cap	29702	29702	29702	29702
46 ¹	Anchor Tube Weldment	6840	6840	----	----
51	Single Inlet Baffle (HMC)	----	----	38638 or 38638SS*	----
52	Single Outlet Baffle (HMC)	----	----	38639 or 38639SS*	----
54	Twin Inlet Boot Baffle (HMC)	----	----	----	36797 or 36797SS*
55	Twin Outlet Boot Baffle (HMC)	----	----	----	36798 or 36798SS*
58 ^{3,7}	Hairpin	13906	13906	13906	13906
59 ⁷	Slide	----	----	----	14821 or 14821SS*
60 ⁷	Transfer Plate Assembly	----	----	----	36641
61 ⁷	Slide Shield Assembly	----	----	----	14827
62	Cable Tie	56705	56705	56705	56705

¹These 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).

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

³Items 2 through 5 and item 58 may be ordered under Chore-Time part no. 6284 or 6284SS*.

⁴Items 22, 23, 39, & 40 may be ordered under Chore-Time Part No. 6197 or 6197SS* Clean-Out Cover Ass’y.

⁵All 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).

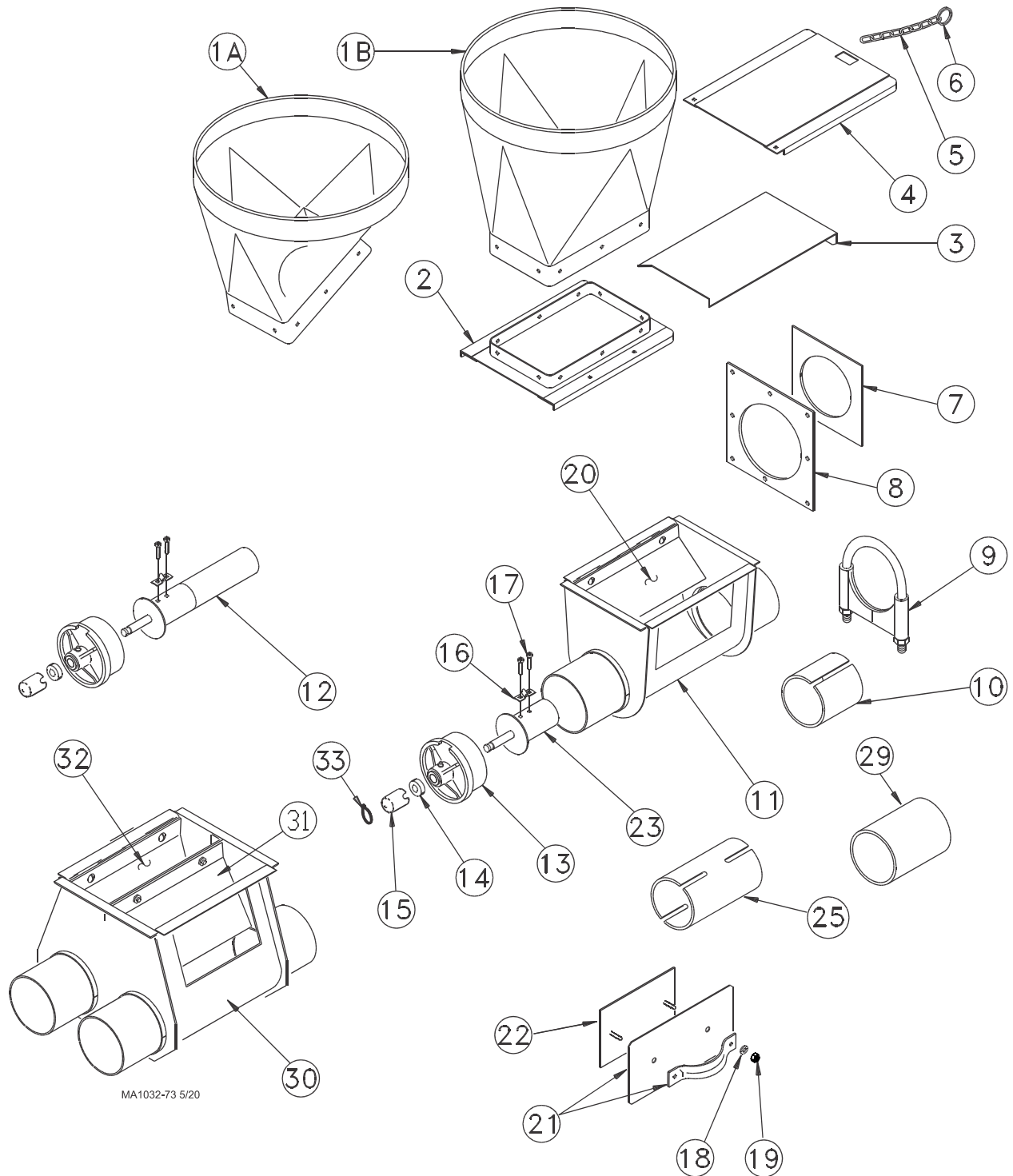
⁶Upper boot Part No.’s will have a suffix “R” for transparent Red upper boots (i.e. 4347R) or will have a suffix “C” for transparent Clear upper boots (i.e. 4347C).

⁷Included in 36683 Twin Boot Slide Assembly.

*SS = Stainless Steel.

Model 108 Boot Components

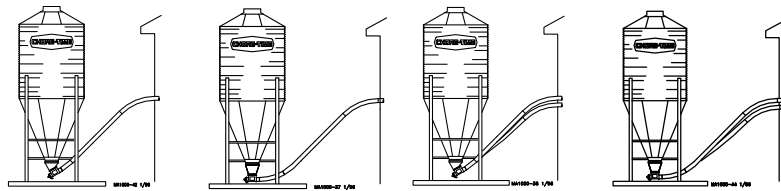
The item numbers below are associated with the following two pages.



MA1032-73 5/20

Model 108 Boot Components (Continued)

See “Model 108 Boot Components” on page 92 for the Parts Schematic.



Item	Description	30 Degree Boot System	Straight Out Single Boot Syst.	30 Degree Twin Boot Syst.	Straight Out Twin Boot System
--	Complete System	34339	34340	35625	35626
-- ²	Lower Boot Assembly	34336	34341	35613	35612
1A	30 Degree Upper Boot	4347R/C	----	4347 R/C	----
1B	Straight Out Upper Boot	----	6093R/C	----	6093R/C
2	Transfer Plate Assembly	4925	4925	4925	4925
3	Slide	4357	4357	4357	4357
4	Slide Shield	4876	4876	4876	4876
5	Chain	2128-250	2128-250	2128-250	2128-250
6	Ring	1706	1706	1706	1706
7	Neoprene Seal	34334	34334	34334	34334
8	Seal Ring	8117	8117	8117	8117
9	Tube Clamp (for STEEL systems)	34338	34338	34338	34338
9 ³	Tube Clamp (for PVC systems)	14373	14373	14373	14373
10	Tube Insert	34337	34337	34337	34337
11	Boot Body Weldment	30386	30385	----	----
12 ⁵	Anchor Weldment	30311	----	30311	----
13 ⁵	Bearing Cap Assembly	30314	30314	30314	30314
14 ⁵	5/8" Set Collar	1386	1386	1386	1386
15 ⁵	Safety Cap	29702	29702	29702	29702
16 ⁵	Anchor Clamp	7703	7703	7703	7703
17 ⁵	5/16-18 x 7/8 Soc.Hd Cap Screw	6850-1	6850-1	6850-1	6850-1
18 ¹	Sealing Washer	39-20155	39-20155	39-20155	39-20155
19 ¹	5/16-18 Lock Nut	2148	2148	2148	2148
20	Baffle	----	14239	----	----
21 ¹	Cover Weldment	6301	6301	6301	6301
22 ¹	Back Plate Assembly	6298	6298	6298	6298
23 ⁵	Anchor Weldment	----	34369	----	34369
25 ^{4,3}	Model 108 Connector	30277	30277	30277	30277
29 ³	Tube Connector (for PVC systems)	34557	34557	34557	34557
30	Twin Boot Body Weldment	----	----	35617	35617
31	Center Baffle Plate	---	----	----	35624
32	Baffle Weldment	----	----	----	35615
33	Cable Tie	56705	56705	56705	56705

¹These components may be ordered under Chore-Time Part No. 6197 Clean-Out Cover Assembly.

²Items 2 through 32 make up the Lower Boot Assemblies.

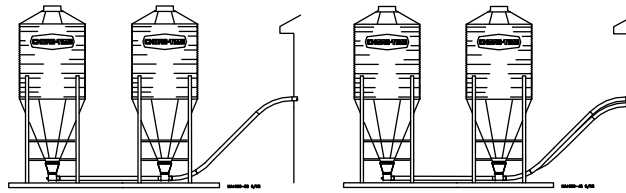
³These items are not included in the package and must be ordered separately.

⁴The Model 108 Connector may be ordered with two (2) 34338 Tube Clamps under Chore-Time Part No. 34419 Connector w/Clamps.

⁵Items 12–17 may be ordered as an Anchor & Bearing Assembly (Restricted) under Chore-Time Part No. 35767. Items 13–17 and item 23 may be ordered as an Anchor & Bearing Assembly (Unrestricted) under Chore-Time Part No. 35766.

Model 108 Boot Components (Continued)

See “Model 108 Boot Components” on page 92 for the Parts Schematic.



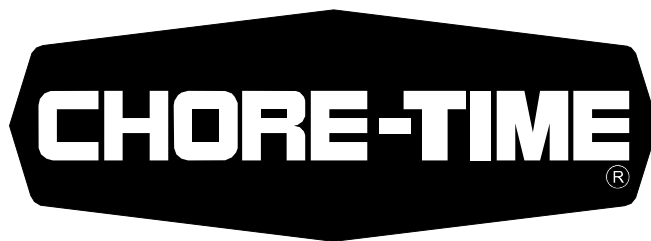
Item	Description	Single-Boot System	Twin-Boot System
--	Complete System	34333	35616
-- ¹	Straight-Out Lower Boot Assembly	34341	35612
-- ²	Straight-Thru Lower Boot Assembly	34335	35611
1B	Straight Out Upper Boot	6093R/C	6093R/C
2	Transfer Plate Assembly	4925	4925
3	Slide	4357	4357
4	Slide Shield	4876	4876
5	Chain	2128-250	2128-250
6	Ring	1706	1706
10	Tube Insert	34337	34337
11	Boot Body Weldment	30385	----
18 ³	Sealing Washer	39-20155	39-20155
19 ³	5/16-18 Lock Nut	2148	2148
20	Baffle	14239	----
21 ³	Cover Weldment	6301	6301
22 ³	Back Plate Assembly	6298	6294
30	Twin Boot Weldment	----	35617
31	Center Baffle Plate	---	35624
32	Baffle Weldment	----	35615

¹Refer to the Straight-Out Boot Systems on the previous page for miscellaneous Straight-Out Lower Boot Assembly components.

²Items 2 through 32, as listed above, make up the Straight-Thru Lower Boot Assemblies.

³These items may be ordered as an assembly under Chore-Time Part No. 6197.

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MADE TO WORK.

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Revisions to this Manual

Page No.	Description of Change	ECO
	Combined all Flex Auger Manuals into one.	35659

**For additional parts and information, contact your nearest Chore-Time distributor or representative.
Find your nearest distributor at: www.choretime.com/contacts**

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