Installation and Operators Manual



**FLEX-AUGER®** Reference Manual

# FLEX COCCECCE WERE AUGUST AUGU

**Installation and Operators Manual** 

#### **Chore-Time Limited Warranty**

Chore-Time Group, a division of CTB, Inc. ("Chore-Time") warrants the new CHORE-TIME FLEX-AUGER® 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 ("Component Part") as set forth in the table below. 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.

Component Part	<b>Extended Warranty Period</b>
RXL Fan (except motors and bearings)	Three (3) Years
TURBO® Fan (except motors and bearings)	Three (3) Years
TURBO® Fan fiberglass housing, polyethylene cone, and cast aluminum blade.	Lifetime of Product
TURBO® fan motor and bearings.	Two (2) Years
Chore-Time® Poultry Feeder Pan	Three (3) Years
Chore-Time® Rotating Centerless Augers (except where used in applications involving high moisture feed stuffs exceeding 17%)	Ten (10) Years
Chore-Time Steel Auger Tubes	Ten (10) Years
ULTRAFLO® Breeder Feeding System auger and feed trough.	Five (5) Years
ULTRAPAN® Feeding System augers .	Five (5) Years

#### 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

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#### **Safety and General Information**

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

#### Safety-Alert Symbol



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

#### **Understanding Signal Words**

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



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



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



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

#### **Follow Safety Instructions**

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

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

#### **Decal Descriptions**

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

This decal is placed on the 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.

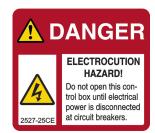
Ground all non-current carrying metal parts to guard against electrical shock.

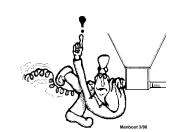
Electrical disconnects and over current protection are not supplied with the equipment.

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

Use caution when working with Auger. Springing Auger may cause personal injury.

# Moving Auger! Disconnect electrical power before working on system, equipment may start automatically. Otherwise severe personal injury will result.







#### Attention: Read the Manual

See the manual for detailed installation instructions.

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#### Selected CTB Licensed Trademarks and Trade Name Reference

This Reference Book contains references to certain registered trademarks, trademarks or service marks of CTB, Inc. and/or CTB IP, Inc. Please reference this page for the most up-to-date and appropriate spelling, capitalization, hyphenation and symbol (®, TM, or SM) to be used with each

The absence of a registered trademark, trademark, service mark or logo from this list does not constitute a waiver of CTB's trademark or other intellectual property rights concerning that mark or logo.

ACCU-CLICK™ ACCUTROL®

AGRI-TIME & DESIGN®

**ALL-OUT®** 

C-CENTRAL<sup>TM</sup>

C-COLLECT®

**CHORE-TIME & DESIGN®** 

**CHORE-TIME®** 

**CHORE-TRONICS & DESIGN®** 

**CHORE-TRONICS®** 

CTB & DESIGN®

**CTB®** 

**DURA-THERM<sup>TM</sup>** 

E-Z START®

FLEX AUGER & DESIGN®

FLEX-AUGER®

**HYFLO®** 

LEADERSHIP THROUGH INNOVATION®

LINEAR-LIFT<sup>TM</sup>

MADE TO WORK. BUILT TO LAST.®

MEAL-TIMETM

MODEL 2000<sup>TM</sup>

MODEL ATFTM

MODEL ATFTM PLUS

MODEL C2M<sup>TM</sup>

**MODEL C2®** 

**MODEL C2® PLUS** 

MODEL CTM

MODEL GTM

MODEL GTM PLUS

MODEL H2TM

MODEL H2TM PLUS

MULTI-LIFT®

MULTI-MODEL<sup>TM</sup>

**MULTIFLO®** 

**PDSTM** 

PRODUCT LEADERSHIPTM

**RELIA-FLOW®** 

**REVOLUTION®** 

**RLXTM** 

SENSOR PLUSTM

**SHAKER-PLATE®** 

**SHUR-LOCK®** 

**SMART<sup>SM</sup>** 

**SNAP-TOPTM** 

SUPER 6TM

SUPER-LIFT<sup>TM</sup>

**SUPER-SELECTOR®** 

**SUPER-VISOR®** 

TURBO-COOL<sup>TM</sup>

**TURBO®** 

**ULTRA-HPTM** 

ULTRA-JET™

**ULTRA-RAY®** 

**ULTRA-RAY® HI-BEAM** 

**ULTRA-RAY® LITE-BEAM** 

**ULTRA-RAY® PLUS** 

ULTRA-VECTIONTM

**ULTRAFLO®** 

**ULTRAPAN®** 

VANGUARD™

VANGUARD<sup>TM</sup> PLUS

**VOLUMATICTM** 

**WEIGH-MATIC®** 

#### **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 System	<u>Delivery Rates</u>
MODEL C2, C2 PLUS, H2, H2 PLUS, G and G PLU	US with 216 RPM Power Unit10.8 lbs or 4.89 kg/min.*
MODEL C2, C2 PLUS, H2, H2 PLUS, G and G PLU	US with 348 RPM Power Unit17.0 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.*
GENESIS Loop (per boot)	65.0 lbs or 29.48 kg/min
GENESIS Straight Line	
*Based on 40lbs/ft <sup>3</sup> density (64 kg/m <sup>3</sup> )	

#### 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	5.0 (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.

## Fill System Power Unit Selection Guide

230 V, 60 Hz, Single Phase Power Units									
	Model 75 Fill System				l 75 Plus Fill	System	Model 90 Fill System		
No. of Standard				M	425 RPM aximum Len	gth	348 RPM Maximum Length		
FLAG <sup>TM</sup> Lines	80'[24 m]	150'[46 m]	200'[61 m]	75'[23 m]	150'[46 m]	300'[91 m]	30'[9 m]	90'[27 m]	150'/46 m/
2	3259-51	3259-52	3259-49	3259-78	3259-79	3259-80			
3	3259-51	3259-52	3259-49						
4	3259-51	3259-52	3259-49						
5							3259-51	3259-52	3259-49
6							3259-51	3259-52	3259-49

	230/460 V, 60 Hz, Three Phase Power Units								
	Model 75	Fill System		Model 75 Pl	lus Fill Syster	m	Model 90 Fill System		
No. of FLAG <sup>TM</sup> Lines	348 RPM				348 RPM Maximum Length				
	80'[24 m]	150'[46 m]	200'[61 m]	75'[23 m]	150'[46 m]	300'[91 m]	30'[9 m]	90'[27 m]	150'[46 m]
2	3259-119	3259-119	3259-117	3259-120	3259-118	3259-140			
3	3259-119	3259-119	3259-117						
4	3259-119	3259-119	3259-117						
5							3259-119	3259-119	3259-117
6							3259-119	3259-119	3259-117

	220 V, 50 Hz, Single Phase Power Units						
	Model 75 F	ill System		Model 90 Fill System			
No. of Standard	. of 348 RPM			М	348 RPM aximum Le		
FLAG <sup>TM</sup> Lines	80'[24 m] 150'[46 m] 200'[61 m]		30'[9 m]	90'[27 m]	150'[46 m]		
2	3259-88	3259-88	3259-89				
3	3259-88	3259-88	3259-89				
4	3259-88	3259-88	3259-89				
5				3259-87	3259-88	3259-89	
6				3259-87	3259-88	3259-89	

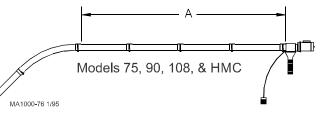
	220/380 V, 50 Hz, Three Phase Power Units						
	Model 75	Fill System		Mo	del 90 Fill S	ystem	
No. of Standard	o. of 348 RPM				348 RPM aximum Le		
FLAG <sup>TM</sup> Lines	80'[24 m]	150'[46 m]	200'[61 m]	30'[9 m]	90'[27 m]	150'[46 m]	
2	3259-103	3259-104	3259-105				
3	3259-103	3259-104	3259-105				
4	3259-103	3259-104	3259-105				
5				3259- 103	3259-104	3259-105	
6				3259- 103	3259-104	3259-105	

#### **FLEX-AUGER® System**

#### **System Information**

#### MODEL 55, 75, 90, HMC, and 108 FLEX-AUGER® Fill Systems (Standard)

All standard fill systems include enough components for horizontal length indicated. This is dimension "A" on the chart. For example: a 40' [12 m] length, order a Model 55, 75, 90, HMC, or 108-40 system. All standard systems, as referred to in system price assume use of a 30 degree boot (not included), and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level control, and include a 348 rpm power unit, control unit, hopper level u



elbows, PVC tube, PVC cement, suspension kits, contactor (if needed) and auger adequate for a 45 degree incline, rising to a 9' [2.7 m] elevation.

Models 55 through 108 systems utilize 5' [1.5 m] radius elbows requiring the bin to be centered 12' [3.7 m] from the building. Adequate elbows are supplied for closer bin placement to a maximum of 60 degree incline (utilizing 30 degree boot).

For each additional 45 degree elbow ordered for Model 55-108 systems, 5' [1.5 m] additional auger is required. On all systems, for each 90 degree of additional elbow, decrease maximum line length for each power unit size by 30' [9 m].

#### Extended Length Models 55 through 108 Systems

The extended length systems are supplied with adequate components to complete the system; including extension boot, 348 rpm power unit, PVC tube, PVC cement, suspension kits, and auger. Extended length systems require direct drive power units.

#### **Boots**

Select the correct boot for the system(s). All boots are shipped without a switch. If a switch is desired see component listing. Straight-out boots require 5' [1.5 m] additional auger and decrease maximum line length for each power unit size by 30' [9 m].

#### Tandem Bin Systems

Where extra feed storage, or dual rations are required, CHORE-TIME recommends the straight-through tandem system, or 90 degree two motor tandem system. Tandem systems are available on Models 75, 90, HMC, & 108 systems. For each straight-through tandem system (75, 90, HMC, & 108), decrease maximum line length for each power unit size by 50' /15 m].

#### **Feed Level Controls**

Select the proper feed level control for the application. The control unit does have a safety switch. This switch is **ONLY** a back-up and **MUST** have a feed level control used with it.

#### Time Control

A timing device is recommended for all systems—set for slightly longer than normal running time. This will prevent excess operation with an empty auger and also protect against other malfunctions. See control listing for options such as the auger/safety timer.

#### **High-Moisture Applications**

The Model HMC and 108 systems can be used to convey higher moisture content feeds. THE SYSTEM IS NOT TO BE USED TO CONVEY ANY PRODUCT ABOVE 27% MOISTURE! Warranty on a system used to convey high-moisture feeds (feeds of 18-27% moisture content) is one year for the date of installation.

#### Feed Delivery Rates

The FLEX-AUGER® feed delivery systems have different delivery rates that should be matched to the requirements of the application. The system should be sized so the **MAXIMUM** operating time is four hours per day (24 hours).

TO DETERMINE THE OPERATION TIME PER DAY: Multiply the number of animals by the feed consumption/head figures to get total feed consumption. Divide the total feed consumption by the stated delivery rate of the selected FLEX-AUGER delivery system to get operation time per day in minutes. Divide this by 60 to get the operation time per day in hours.

#### **FLEX-AUGER®**

#### **System Specifications**

System	Tube Diameter	<b>Delivery Rate*</b>	Feed Type	Max. Particle Size
MODEL 55	2-1/4" (55 mm)	15 lb/min (7 kg/min)	Mash, pellets, crumbles 18% moist. content	5/32" x 1/2" (4 mm x 13 mm)
MODEL 75	3" (75 mm)	50 lb/min (22 kg/min)	Mash, crumbles 18% moist. content	5/32" x 1/2" (4 mm x 13 mm)
MODEL 75 PLUS	3" (75 mm)	50 lb/min (22 kg/min)	Mash, crumbles 18% moist. content	1/4" x 5/8" 6 mm x 16 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 13 mm)
MODEL 108 MODEL 108 HI CAPACITY	4-1/2" (108 mm)	220 lb/min (100 kg/min) 250 lbs/min	High-moisture corn, small pellets, crumbles, mash 27% moist. content	3/16" x 1/2" (5 mm x 13 mm)
MODEL HMC	3-1/2" (90 mm)	50 lb/min (22 kg/min)	High-moisture corn, large pellets, crumbles, mash 27% moist. content	3/8" x 3/4" (10 mm x 20 mm)

<sup>\*</sup>Conveying capacity is based on feed with 40 pounds per cubic foot (640 kg. per cubic meter) density. Conveying capacities for all FLEX-AUGER® systems are determined using 348 RPM power units, except model 75 Plus, which uses 425 RPM Power Units.

#### **Horse Power Requirements**

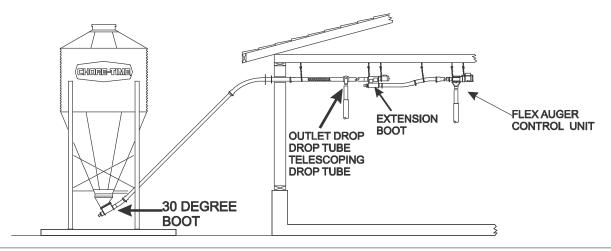
Horse power requirements are based on length of the FLEX-AUGER® systems and type of system installed, number of turns, tandem systems, etc. The charts included show maximum line lengths for FLEX-AUGER systems plus maximum lengths for systems using extension hoppers.

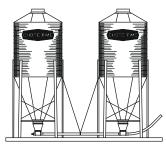
Note: Line length should be reduced by 20% for use on 208 volt 60 Hz.

	MODEL 5	5		MODEL 9	0
Motor	Maximum Line	Maximum	Motor	Maximum Line	Maximum
H.P	Length	Extension	H.P	Length	Extension
1/3	150' (46 m)	185' (56 m)	1/2	30' (9 m)	65' (20 m)
1/2	250' (76 m)	286' (87 m)	3/4	90' (27 m)	125' (38 m)
			1	150' (46 m)	185' (56 m)
	MODEL 7:	5		MODEL 10	8
Motor	Maximum Line	Maximum	Motor	Maximum Line	Maximum
H.P	Length	Extension	H.P	Length	Extension
1/2	80' (24 m)	125' (38 m)	3/4	50' (15 m)	75' (23 m)
3/4	150' (46 m)	185' (56 m)	1	100' (31 m)	135' (41 m)
1	200' (61 m)	245' (75 m)	1-1/2	150' (46 m)	185' (56 m)
	MODEL HM	1C	MO	DEL 108 HI C	Capacity
Motor	MODEL HM Maximum Line	IC Maximum	MO Motor	DEL 108 HI ( Maximum Line	Capacity  Maximum
Motor H.P	+			1	
	Maximum Line	Maximum	Motor	Maximum Line	Maximum
H.P	Maximum Line Length	Maximum Extension	Motor	Maximum Line Length	Maximum Extension
H.P 1/2 3/4	Maximum Line Length 30' (9 m) 90' (27 m) 150' (46 m)	Maximum Extension 55' (17 m) 105' (32 m) 185' (56 m)	Motor H.P	Maximum Line Length 50' (15 m)	Maximum Extension 75' (23 m)
H.P 1/2 3/4	Maximum Line Length 30' (9 m) 90' (27 m)	Maximum Extension 55' (17 m) 105' (32 m) 185' (56 m)	Motor H.P 1 1-1/2	Maximum Line Length 50' (15 m) 100' (315 m)	Maximum Extension 75' (23 m) 135' (41 m)
H.P 1/2 3/4	Maximum Line Length 30' (9 m) 90' (27 m) 150' (46 m)	Maximum Extension 55' (17 m) 105' (32 m) 185' (56 m)	Motor H.P 1 1-1/2	Maximum Line Length 50' (15 m) 100' (315 m)	Maximum Extension 75' (23 m) 135' (41 m)
1/2 3/4 1	Maximum Line Length 30' (9 m) 90' (27 m) 150' (46 m) MODEL 75 P	Maximum Extension 55' (17 m) 105' (32 m) 185' (56 m) LUS	Motor H.P 1 1-1/2	Maximum Line Length 50' (15 m) 100' (315 m)	Maximum Extension 75' (23 m) 135' (41 m)
H.P 1/2 3/4 1 Motor	Maximum Line Length 30' (9 m) 90' (27 m) 150' (46 m) MODEL 75 P Maximum Line	Maximum Extension 55' (17 m) 105' (32 m) 185' (56 m) LUS Maximum	Motor H.P 1 1-1/2	Maximum Line Length 50' (15 m) 100' (315 m)	Maximum Extension 75' (23 m) 135' (41 m)
H.P 1/2 3/4 1 Motor H.P	Maximum Line Length 30' (9 m) 90' (27 m) 150' (46 m) MODEL 75 P Maximum Line Length	Maximum Extension 55' (17 m) 105' (32 m) 185' (56 m) LUS Maximum Extension	Motor H.P 1 1-1/2	Maximum Line Length 50' (15 m) 100' (315 m)	Maximum Extension 75' (23 m) 135' (41 m)

This layout shows a 30 degree boot installation with one extension hopper and Flex auger control unit. The outlet drops show, drop tube with telescoping drop tube to allow the raising and lowering of the feed hoppers.

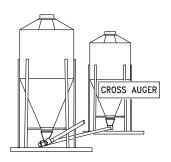
This layout may be used on Model 55, 75, 75 Plus, 90, HMC &108





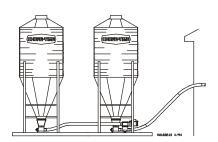
The layout at the left shows two feed bins with a straight through tandem . The auger passes through the intermediate bin allowing the feed to be pulled from either bin. Slides should not be pulled out of both bins, this could cause the auger to overload.

This layout may be used on Model 75, 75 Plus, 90, HMC &108



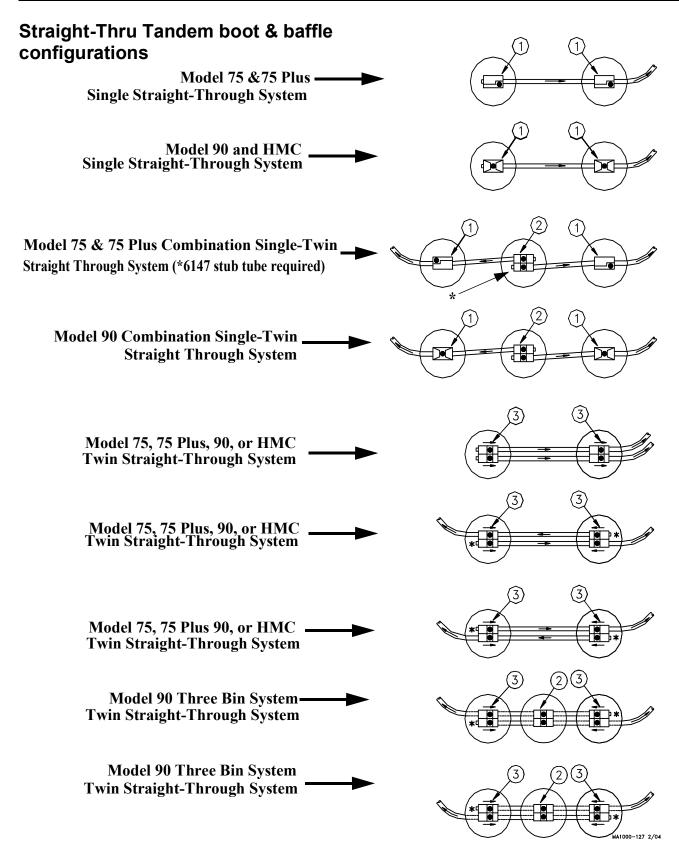
The 30 Degree Two Motor Tandem System to the left uses a motor to pull from the terminal bin into the intermediate bin.

This layout may be used on Model 75, 90, HMC



TWO MOTOR TANDEM SYSTEM MODEL 108

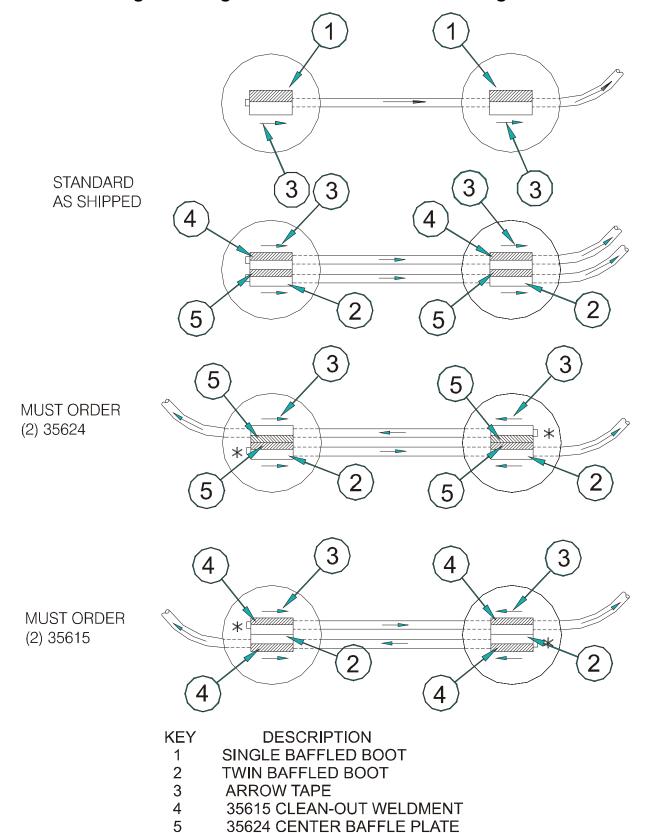
LAYOUT.CDR



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

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

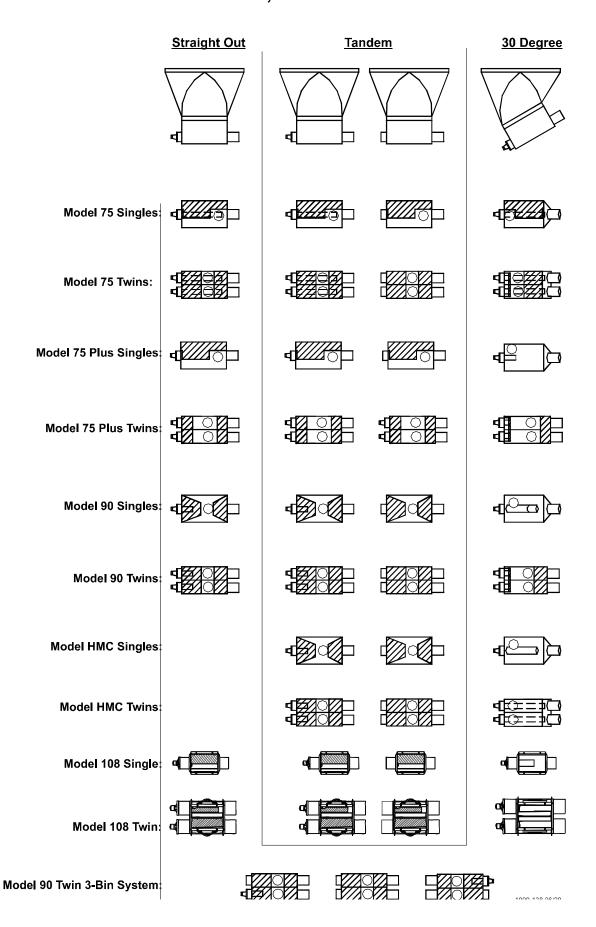
#### Model 108 Straight Through Tandem Boot & Baffle Configurations



\* INDICATES BEARING END

PLAN#2.CDR

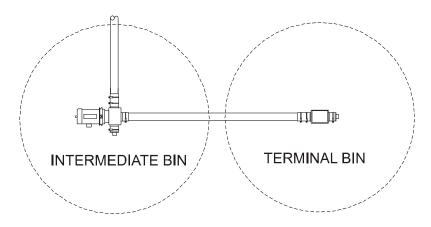
#### STANDARD FLEX-AUGER BOOTS, BAFFLE AND RESTRICTORS



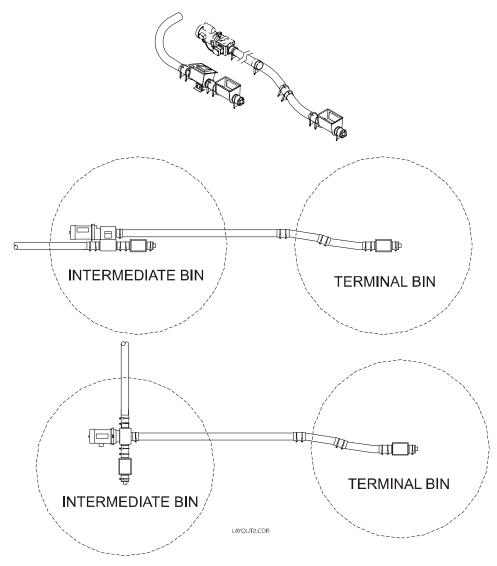
#### **Two-Motor Tandem Systems**

30 DEGREE TWO-MOTOR TANDEM

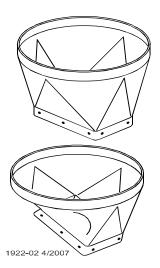
AVAILABLE IN MODEL 75, 90 AND HMC



MODEL 108 TWO-MOTOR TANDEM



#### **Boot Accessories**



Upper boot straight out. The upper boot provides a transfer from the bin to the lower boot.

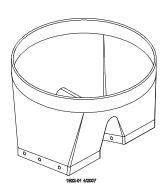
\*6093R is a Straight-Out Boot (Red)

\*6093C is a Straight-Out Boot (Clear)

The upper boot provides a transfer from the bin to the lower boot.

\*4347R is a 30 Degree Boot (Red)

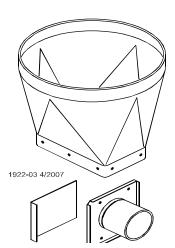
\*4347C is a 30 Degree Boot (Clear)



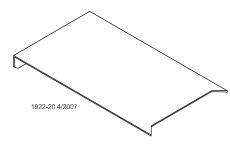
PigTek Horizontal Twin Upper Boot ST71001

Use with 3-32467 reinforced collar (7' 67° Bin)

Use with 3-32466 reinforced collar (9' 60° Bin)



Clean out valve kit: 13722

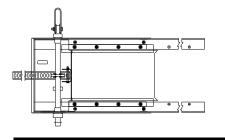


Optional Boot Slide: 4375SS-50

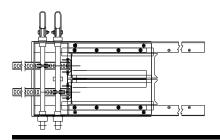
This slide is made of Stainless Steel and can be used in the 6284 slide and transfer kit.

If ordering 4357SS-50 it should be noted that an order of quantity (1) will result in 50 slides.

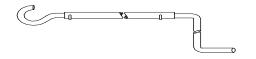
#### **Boot Slides**



Single manual slide actuator: 46934

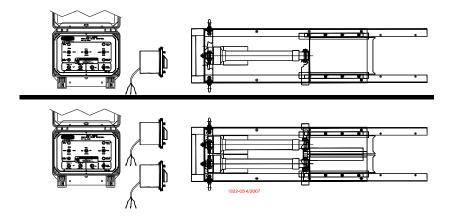


Twin manual slide actuator: 46935



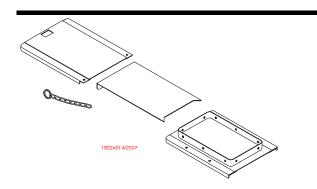
Telescoping drive handle: 47638

Telescopes from 5' to 8'



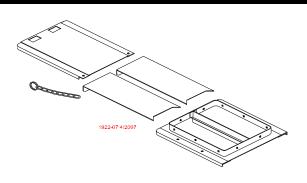
Single tandem auto slide kit: 47578

Twin tandem auto slide kit: 47580



Single slide and transfer kit: 6284. Used on all single and  $30^{\circ}$  twin boots.

\*Model 55 quad boot assembly uses 36093 shut off slide.



Twin slide and transfer kit: 36683. Used on Model 75, 90, HMC, and straight out twin boots.

#### **FLEX-AUGER® Boot Assembly**





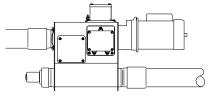
For clear upper boots add a "C" suffix to the Part No.. Example 8465C

Part No.	Description	MODEL
465/SS	Single 30 Degree Boot Assembly	55
4347R	30 Degree Upper Boot Transition	
9313/SS	Single 30 Degree Lower Boot Assembly	
3466/SS	Twin 30 Degree Boot Assembly	55
4347R	30 Degree Upper Boot Transition	
9314SS	Twin 30 Degree Lower Boot Assembly	
3467/SS	Quad 30 Degree Boot Assembly	55
4347R	30 Degree Upper Boot Transition	
9315	Quad 30 Degree Lower Boot Assembly	
539/SS	Single 30 Degree Boot Assembly	75
4347R	30 Degree Upper Boot Transition	
36442/SS	Single Lower Boot Assembly	
6540/SS	Single Straight-Out Boot Assembly	75
6093R	Straight-Out Upper Boot Transition	
36589/SS	Single Straight-Out Lower Boot Assembly	
6873/SS	Twin 30 Degree Assembly	75
4347R	30 Degree Upper Boot Transition	
36389/SS	Twin 30 deg.	
36801/SS	Twin Straight-Out Boot Assembly	75
6093R	Straight-Out Upper Boot Transition	
36390/SS	Twin Straight-Out Lower Boot Assembly	
5541/SS	Single Straight-Through Tandem System	75
6093R	Straight-Out Upper Boot Transition (2 Required)	
36590/SS	Single Straight-Through Lower Boot Package	
35880/SS	Twin Straight-Through Tandem System	75
6093R	Straight-Out Upper Boot Transition (2 Required)	
36394-1/SS-1	Twin Straight-Though Tandem Lower Boot Package	
7881	Single 30 Degree Two Motor Tandem System	75
3259-51	.50 Hp 60 Hz 348 RPM Power Unit	
4347R	30 Degree Upper Boot Transition	
6093R	Straight-Out Upper Boot Transition	
36589	Single Straight-Out Lower Boot Assembly	
9549	30 Degree Two Motor Tandem Lower Boot Assembly	
56422-3/SS	Single 30 Degree Boot Assembly	75 Plus
4347R	Upper Red Boot	1.2.2.2.2
56386/SS	Single 30 Degree Lower Boot	
56422-2/SS	Single Straight-Out 30 Degree Boot Assembly	75 Plus
6093R	Straight-Out Upper Boot Transition	
	Single Straight-Out Lower Boot (75 Plus)	
20202/33		
56389/SS 56424-3/SS	Twin 30 Degree Assembly	75 Plus
56424-3/SS	Twin 30 Degree Assembly  Upper Red Boot	75 Plus
<b>56424-3/SS</b> 4347R	Upper Red Boot	75 Plus
56424-3/SS 4347R 56419/SS	Upper Red Boot Twin 30 Degree Lower Boot (75 Plus)	
56424-3/SS 4347R 56419/SS 56424-2/SS	Upper Red Boot Twin 30 Degree Lower Boot (75 Plus) Twin 30 Degree Assembly	75 Plus
56424-3/SS 4347R 56419/SS 56424-2/SS 6093R	Upper Red Boot Twin 30 Degree Lower Boot (75 Plus)  Twin 30 Degree Assembly Straight-Out Upper Boot Transition	
56424-3/SS 4347R 56419/SS 56424-2/SS 6093R 56421/SS	Upper Red Boot Twin 30 Degree Lower Boot (75 Plus)  Twin 30 Degree Assembly Straight-Out Upper Boot Transition Twin 30 Degree Lower Boot (75 Plus)	75 Plus
56424-3/SS 4347R 56419/SS 56424-2/SS 6093R 56421/SS	Upper Red Boot Twin 30 Degree Lower Boot (75 Plus)  Twin 30 Degree Assembly Straight-Out Upper Boot Transition Twin 30 Degree Lower Boot (75 Plus)  Single Straight-Through Tandem Assembly	
56424-3/SS 4347R 56419/SS 56424-2/SS 6093R 56421/SS 6093R	Upper Red Boot Twin 30 Degree Lower Boot (75 Plus)  Twin 30 Degree Assembly Straight-Out Upper Boot Transition Twin 30 Degree Lower Boot (75 Plus)  Single Straight-Through Tandem Assembly Straight-Out Upper Boot Transition	75 Plus
56424-3/SS 4347R 56419/SS 56424-2/SS 6093R 56421/SS 6093R 56423/SS	Upper Red Boot Twin 30 Degree Lower Boot (75 Plus)  Twin 30 Degree Assembly Straight-Out Upper Boot Transition Twin 30 Degree Lower Boot (75 Plus)  Single Straight-Through Tandem Assembly Straight-Out Upper Boot Transition Single Straight-Through Tandem Lower Boot (75 Plus)	75 Plus 75 Plus
56424-3/SS 4347R 56419/SS 56424-2/SS 6093R 56421/SS 6093R 56423/SS 56424-1/SS	Upper Red Boot Twin 30 Degree Lower Boot (75 Plus)  Twin 30 Degree Assembly Straight-Out Upper Boot Transition Twin 30 Degree Lower Boot (75 Plus)  Single Straight-Through Tandem Assembly Straight-Out Upper Boot Transition Single Straight-Through Tandem Lower Boot (75 Plus)  Single Straight-Through Tandem Assembly	75 Plus
56424-3/SS 4347R 56419/SS 56424-2/SS 6093R 56421/SS 6093R 56423/SS 56424-1/SS 6093R	Upper Red Boot Twin 30 Degree Lower Boot (75 Plus)  Twin 30 Degree Assembly Straight-Out Upper Boot Transition Twin 30 Degree Lower Boot (75 Plus)  Single Straight-Through Tandem Assembly Straight-Out Upper Boot Transition Single Straight-Through Tandem Lower Boot (75 Plus)  Single Straight-Through Tandem Assembly Straight-Out Upper Boot Transition	75 Plus 75 Plus
56424-3/SS 4347R 56419/SS 56424-2/SS 6093R 56421/SS 6093R 56423/SS 6093R 56424-1/SS 6093R 56420-1/SS	Upper Red Boot Twin 30 Degree Lower Boot (75 Plus)  Twin 30 Degree Assembly Straight-Out Upper Boot Transition Twin 30 Degree Lower Boot (75 Plus)  Single Straight-Through Tandem Assembly Straight-Out Upper Boot Transition Single Straight-Through Tandem Lower Boot (75 Plus)  Single Straight-Through Tandem Assembly Straight-Out Upper Boot Transition Twin Straight-Through Tandem Lower Boot (75 Plus)	75 Plus 75 Plus 75 Plus
66424-3/SS 4347R 56419/SS 66424-2/SS 6093R 56421/SS 6093R 56423/SS 66424-1/SS 6093R	Upper Red Boot Twin 30 Degree Lower Boot (75 Plus)  Twin 30 Degree Assembly Straight-Out Upper Boot Transition Twin 30 Degree Lower Boot (75 Plus)  Single Straight-Through Tandem Assembly Straight-Out Upper Boot Transition Single Straight-Through Tandem Lower Boot (75 Plus)  Single Straight-Through Tandem Assembly Straight-Out Upper Boot Transition	75 Plus 75 Plus

(107/00	G' I - G( ' - I G) - A P A A I I	00
6187/SS 6093R	Single Straight-Out Boot Assembly Straight-Out Upper Boot Transition	90
36435/SS	Straight-Out Opper Boot Transition Single Straight-Out Lower Boot Assembly	
6874/SS	Twin 30 Degree Boot Assembly	90
4347R	30 Degree Upper Boot Transition	30
36391/SS	Twin 30 Degree Lower Boot Assembly	
6535/SS	Twin Straight-Out Boot Assembly	90
		90
6093R	Straight-Out Upper Boot Transition	
36398/SS	Twin Straight-Out Lower Boot Assembly	90
6281/SS	Single Straight-Though Tandem System	90
6093R 36434/SS	Straight-Out Upper Boot Transition (2 Required)	
6538/SS	Single Straight-Through Tandem Lower Boot Package	90
	Twin Straight-Through Tandem System	90
6093R	Straight-Out Upper Boot Transition (2 Required)	
36388-1/-1SS	Twin Straight-Though Tandem Lower boot Package	00
48660	Twin 3 Bin S-T Tandem System	90
6093R 48661	Straight-Out Upper Boot Twin 3- Bin Straight Through Lower Boot Package	
7882-2	Single 30 Degree Two Motor Tandem System	90
3259-51	.50 Hp 60 Hz 348 RPM Power Unit	90
3239-31 4347R	30 Degree Upper Boot Transition	1
434/K 40082/SS	Single Straight-Through Tandem System	HMC
		IIIVIC
6093R	Straight Out Upper Boot Transition (2 Required)	
40081/SS	Single Straight-Through Tandem Lower Boot Package  Single 30 Degree Boot Assembly	HMC
7921/SS		HMC
4347R	30 Degree Upper Boot Transition	
38507/SS	Single Lower Boot Assembly	HMC
7920/SS	Twin 30 Degree Boot Assembly	НМС
4347R	30 Degree Upper Boot Transition	
38506/SS	Twin 30 Degree Lower Boot Assembly	TIME
36795/SS	Twin Straight-Through Tandem System	HMC
6093R	Straight Out Upper Boot Transition	
36796/SS	Twin Straight-Through Tandem Lower Boot Package	777.56
25355	Single 30 Degree Two Motor Tandem System	HMC
38605	30 Degree Two Motor Tandem Lower Boot Assembly	
3259-51	.50 Hp 60 Hz 348 RPM Power Unit	
4347R	30 Degree Upper Boot Transition	
6093R	Straight Out Upper Boot Transition	
38507	Single Lower Boot Assembly	100
34339	Single 30 Degree Boot Assembly	108
4347R	30 Degree Upper Boot Transition	
34336	Single 30 Degree Lower Boot Assembly	
34340	Single 30 Degree Lower Boot Assembly Single Straight-Out Boot Assembly	108
<b>34340</b> 6093R	Single 30 Degree Lower Boot Assembly Single Straight-Out Boot Assembly Straight-Out Upper Boot Transition	108
34340 6093R 34341	Single 30 Degree Lower Boot Assembly Single Straight-Out Boot Assembly Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly	
34340 6093R 34341 34333	Single 30 Degree Lower Boot Assembly  Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System	108
34340 6093R 34341 34333 6093R	Single 30 Degree Lower Boot Assembly  Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition  Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System  Straight-Out Upper Boot Transition (2 Required)	
34340 6093R 34341 34333 6093R 34335	Single 30 Degree Lower Boot Assembly  Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System  Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly	
34340 6093R 34341 34333 6093R 34335 34341	Single 30 Degree Lower Boot Assembly  Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System  Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly	108
34340 6093R 34341 34333 6093R 34335 34341 47865	Single 30 Degree Lower Boot Assembly  Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System  Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit)	
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R	Single Straight-Out Boot Assembly  Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition  Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System  Straight-Out Upper Boot Transition (2 Required)  Single Straight-Through Lower Boot Assembly  Single Straight-Out Lower Boot Assembly  Single Two Motor Tandem System (Add .5 HP Power Unit)  Straight-Out Upper Boot Transition (2 Required)	108
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R 46800-5	Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit) Straight-Out Upper Boot Transition (2 Required) Control Unit	108
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R 46800-5 47864	Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit) Straight-Out Upper Boot Transition (2 Required) Control Unit Single Straight-Through Lower Boot Assembly	108
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R 46800-5 47864 34341	Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit) Straight-Out Upper Boot Transition (2 Required) Control Unit Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot (2 Required)	108
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R 46800-5 47864 34341 35625	Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit) Straight-Out Upper Boot Transition (2 Required) Control Unit Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot (2 Required) Twin 30 Degree Boot Assembly	108
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R 46800-5 47864 34341 35625 4347R	Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit) Straight-Out Upper Boot Transition (2 Required) Control Unit Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot (2 Required)  Twin 30 Degree Boot Assembly 30 Degree Upper Boot Transition	108
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R 46800-5 47864 34341 35625	Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit) Straight-Out Upper Boot Transition (2 Required) Control Unit Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot (2 Required) Twin 30 Degree Boot Assembly 30 Degree Upper Boot Transition Twin 30 Degree Lower Boot Assembly	108
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R 46800-5 47864 34341 35625 4347R 35613	Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit) Straight-Out Upper Boot Transition (2 Required) Control Unit Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot (2 Required)  Twin 30 Degree Boot Assembly 30 Degree Upper Boot Transition	108
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R 46800-5 47864 34341 35625 4347R 35613	Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit) Straight-Out Upper Boot Transition (2 Required) Control Unit Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot (2 Required)  Twin 30 Degree Boot Assembly 30 Degree Upper Boot Transition Twin 30 Degree Lower Boot Assembly  Twin Straight-Out Boot Assembly Straight-Out Upper Boot Transition	108
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R 46800-5 47864 34341 35625 4347R 35613	Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit) Straight-Out Upper Boot Transition (2 Required) Control Unit Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot (2 Required) Twin 30 Degree Boot Assembly 30 Degree Upper Boot Transition Twin 30 Degree Lower Boot Assembly Twin Straight-Out Boot Assembly	108
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R 46800-5 47864 34341 35625 4347R 35613 35626 6093R 35612	Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit) Straight-Out Upper Boot Transition (2 Required) Control Unit Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot (2 Required)  Twin 30 Degree Boot Assembly 30 Degree Upper Boot Transition Twin 30 Degree Lower Boot Assembly  Twin Straight-Out Boot Assembly Straight-Out Upper Boot Transition	108
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R 46800-5 47864 34341 35625 4347R 35613 35626 6093R	Single Straight-Out Boot Assembly  Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly  Single Straight-Through Tandem System Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit) Straight-Out Upper Boot Transition (2 Required) Control Unit Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot (2 Required) Twin 30 Degree Boot Assembly 30 Degree Upper Boot Transition Twin 30 Degree Lower Boot Assembly Straight-Out Boot Assembly Straight-Out Upper Boot Transition Twin Straight-Out Upper Boot Transition Twin Straight-Out Upper Boot Assembly	108 108 108
34340 6093R 34341 34333 6093R 34335 34341 47865 6093R 46800-5 47864 34341 35625 4347R 35613 35626 6093R 35612 35616	Single Straight-Out Boot Assembly Straight-Out Upper Boot Transition Single Straight-Out Lower Boot Assembly Single Straight-Through Tandem System Straight-Out Upper Boot Transition (2 Required) Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Straight-Out Lower Boot Assembly Single Two Motor Tandem System (Add .5 HP Power Unit) Straight-Out Upper Boot Transition (2 Required) Control Unit Single Straight-Through Lower Boot Assembly Single Straight-Out Lower Boot (2 Required) Twin 30 Degree Boot Assembly 30 Degree Upper Boot Transition Twin 30 Degree Lower Boot Assembly Straight-Out Boot Assembly Straight-Out Upper Boot Transition Twin Straight-Out Upper Boot Transition Twin Straight-Out Lower Boot Assembly Straight-Out Upper Boot Assembly Twin Straight-Out Lower Boot Assembly	108 108 108

#### **Extension Hoppers**

#### Model 55, 75, 75 Plus, 90, 108



Part No	Description
7944/SS	Model 75 Extension Hopper 1.5 Hp 1PH/3PH
56471/SS	11 1
7869	Model 90 Extension Hopper 1.5 Hp 1PH/3PH
40170	Model 55 Extension Hopper 1.5 Hp 1PH/3PH
7849	Model HMC Extension Hopper 1.5 Hp 1PH



#### **Model 108 Extension Boot Kit**

Part No	Description
47862-1	1,10 001 100 E1101B10H E 001 1E1
47862-3	Model 108 Extension Boot Kit 3 Phase

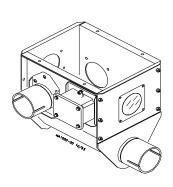


#### **FLAG Extension Boot**

FLAG Extension boot must be ordered by components.

Part No	Description
35727/SS	Single Boot
46800-1/46800-27	Control Unit
45970/SS	Adapter Plate
34779/SS	Boot Switch





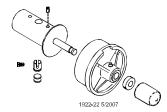
Part No	Description
9549	Model 75 Two Motor
9349	Tandem Boot
0549	Model 90 Two Motor
9548	Tandem Boot
38605	Model HMC Two Motor
30003	Tandem Boot

#### Auger, Bearing Assemblies, Driver Assemblies



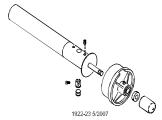
#### **Augers**

Part No.	Description
7961	Model 55 Auger 1.52 O.D. (38.6 mm)
4744	Model 75 Auger 2.38 O.D. (60.45 mm)
56383	Model 75 Plus 2.038 O.D. (51.77mm)
6942	Model 90 Auger 2.71 O.D. (68.83mm)
30108	Model 108 Auger 3.56 O.D. (90.42mm)



#### **Non-Restricted Anchor Bearing Assembly**

Part No.	Description
37347	Model 75
56417	Model 75 Plus
35345	Model 90
37241	Model HMC
35766	Model 108



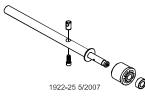
#### **Restricted Anchor Bearing Assembly**

Part No.	Description
37346	Model 75
35343	Model 90
35344	Model HMC
35767	Model 108



#### **Cap Assembly**

•	
Part No.	Description
35440	Model 75
34830	Model 90
34830	Model HMC
30314	Model 108



#### **Bearing Assembly**

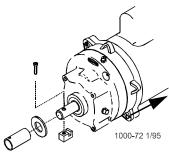
Part No.	Description
39405	Model 55 Boot Bearing
39408	FLAG Anchor Bearing



#### **Bearing Safety Cap**

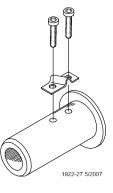
Part No.	Description
29702	Bearing Safety Cap
35410	Bearing Cap Kit (Replaces metal cap Model HMC and 90)
37351	Bearing Cap Kit (Replaces metal cap Model 75)



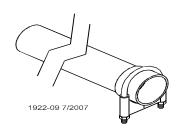


		Model 55	FLAG
Item	Description	Part No	Part No
1	Drive Tube	2920	30932
2	Drive Block	4642	4642
3	Screw	5083-8	5083-4
4	Washer	1484	1484

vv asiici	1707	1707
Part No.	Description	on
6862	Model 75 & I	HMC
56416	Model 75 P	lus
6861	Model 90	)
30313	Model 10	8



#### FLEX-AUGER® Tubes and Elbows (Including connectors and clamp kits)



#### **Steel Tubing**

2088	Model 75 10' Tube with belled end
5091	Model 90 10' Tube with belled end
34411	Model 108 10' Tube with belled end
	PVC Tubing
7955	Model 55/MULTIFLO 10' Tube

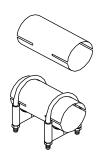
7955 Model 55/MULTIFLO 10' Tube 6516 Model 75 10' Tube 6293 Model 90 & HMC 10' Tube 34547 Model 108 10' Tube



#### **PVC Elbows**

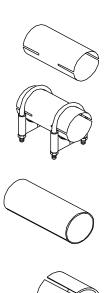
7357	Model 90 & HMC Elbow 45 degree
7285	Model 75 Elbow 45 degree
34546	Model 108 Elbow 45 degree
	<b>Hardened Steel Elbows</b>
14324	Model 75 Hardened Steel Elbow 45 degree
6472	Model 90 Hardened Steel Elbow 45 degree
34406	Model 108 Hardened Steel Elbow 45 degree

Model 55 Elbow 45 degree



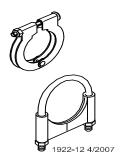
#### **Steel Tube Connectors**

6512	Model 75 Tube Connector only
0312	(Steel Connector/PVC Pipe)
2106	Model 75 Tube Connector only
5088	Model 90 Tube Connector only
30277	Model 108 Tube Connector only
6525	Model 75 Tube Connector w/clamps
0323	(Steel Connector/PVC Pipe)
2103	Model 75 Tube Connector w/clamps
6595	Model 90 Tube Connector w/clamps
34419	Model 108 Tube Connector w/clamps



#### **Coupler PVC**

	· <b>I</b> · -
8029	Model 55 MULTIFLO & FLAG Coupler (PVC)
7084	Model 75 Coupler (PVC)
7085	Model 90 & HMC Coupler (PVC)
34557	Model 108 Coupler (PVC)
	<b>Tube Inserts</b>
6524	Model 75 Tube Insert (Steel)
34337	Model 108 Tube Insert (PVC)



#### **Tube Clamps**

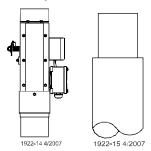
29520	Model 55 Tube Clamp (Bearing Clamp)
29515	Model 55 and MULTIFLO Tube Clamp
35726	Model 55 Tube Clamp (FLAG Boot Outlet)
6515	Model 75 Tube Clamp (PVC)
4141	Model 75 Tube Clamp (Steel)
6721	Model 90 and HMC Tube Clamp (PVC or Steel)
14373	Model 108 Tube Clamp 5" (PVC)
34338	Model 108 Tube Clamp 4.25" (Steel)

#### **Outlet Drops and Accessories**



Part No	Description	Usage
43455C	Model 55 Outlet with clamp ring	Model 55,
43455R	Model 55 Outlet with retainer	MULTIFLO
43475C	Model 75 Outlet with clamp ring	Model 75
43475R	Model 75 Outlet with retainer	Model 13
43490C	Model 90 Outlet with clamp ring	Model 90
43490R	Model 90 Outlet with retainer	Widdel 90
34358	Model 108 Drop Kit	Model 108
29174	Model 75 Electric outlet drop	Model 75
28417	Model 90 Electric outlet drop	Model 90

#### **Drop Tubes**



Part No	Description	Usage
1932	1 \	Model 55, 75, MULTIFLO
6381	Plastic drop tube (3.75" x 12')	Model 90, HMC
9900	Plastic drop tube (5" x 12')	Model 108 control units
	Telescoping drop tube (3.568" x 6')	
14366-6381	Telescoping drop tube (4.125" x 6')	Model 90 & HMC
14366-9900	Telescoping drop tube (5.25" x 6')	Model 108
14367	Drop tube support kit	Model 55, 75, 90, 108

#### Flex Tubes

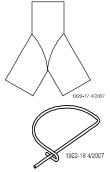


Part No	<u> </u>	Usage
13265-1		Model 55, 75, MULTIFLO
13265-2	SS Flex metal tube (3 3/8" x 25')	Model 90, HMC
13265-3	SS Flex metal tube (5" x 25')	Model 108
7497	Galv. Flex metal tube (3" x 50')	Model 55, 75, MULTIFLO
6383	Galv. Flex metal tube (3 1/2" x 50')	Model 90, HMC
1931	Galv. Flex metal tube (3" x 18")	Model 55, 75, MULTIFLO
6382	Galv. Flex metal tube (3 1/2" x 18")	Model 90, HMC

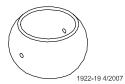
#### **Suspension Kits**

Part No	Description	Usage
5043	Suspension kit	Model 75, 90, HMC, 108
6372	Suspension kit	Model 55, MULTIFLO

#### **Accessories**

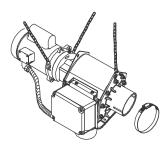


Part No	Description	Usage
39187	WYE Outlet 3 x 3 x 3	Model 55, 75, MULTIFLO
6303	PVC cement (1/2 pint)	All PVC tubing
6303-4	PVC cement (1 quart)	An i ve tubing
41657	Lock pin	Model 55, 90
41440	Lock pin	Model 90, 108
41717	Flex joint ring	Model 55, 75
42201	Flex joint ring	Model 90, HMC



#### **Control Units**

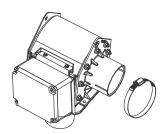
#### **Direct Drive**



Part Number	Description	Electrical Specs
46800-1	MODEL 55 CONTROL UNIT	220V-50/60HZ-1 PH
46800-2	MODEL 75 CONTROL UNIT	220V-50/60HZ-1 PH
46800-37	MODEL 75 PLUS CONTROL UNIT	220V-50/60HZ-1 PH
46800-3	MODEL HMC CONTROL UNIT	220V-50/60HZ-1 PH
46800-4	MODEL 90 CONTROL UNIT	220V-50/60HZ-1 PH
46800-5	MODEL 108 CONTROL UNIT	230V-50/60HZ-1 PH

With Stainless Steel Components			
Part Number	Description	Electrical Specs	
46800-27	MODEL 55 CONTROL UNIT	220V-50/60HZ-1 PH	
46800-28	MODEL 75 CONTROL UNIT	220V-50/60HZ-1 PH	
46800-35	MODEL 75 PLUS CONTROL UNIT	220V-50/60HZ-1 PH	
46800-29	MODEL HMC CONTROL UNIT	220V-50/60HZ-1 PH	
46800-30	MODEL 90 CONTROL UNIT	220V-50/60HZ-1 PH	

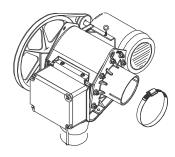
#### **Three Phase**



Part Number	Description	Electrical Specs
46800-6	MODEL 75 CONTROL UNIT	3 PHASE
46800-7	MODEL 75 CONTROL UNIT	3 PHASE
46800-38	MODEL 75 PLUS CONTROL UNIT	3 PHASE
46800-8	MODEL HMC CONTROL UNIT	3 PHASE
46800-9	MODEL 90 CONTROL UNIT	3 PHASE
46800-10	MODEL 108 CONTROL UNIT	3 PHASE

With Stainless Steel Components			
Part Number	Description	<b>Electrical Specs</b>	
46800-31	MODEL 75 CONTROL UNIT	3 PHASE	
46800-32	MODEL 75 CONTROL UNIT	3 PHASE	
46800-36	MODEL 75 PLUS CONTROL UNIT	3 PHASE	
46800-33	MODEL HMC CONTROL UNIT	3 PHASE	
46800-34	MODEL 90 CONTROL UNIT	3 PHASE	

#### **Belt Drive Units**



Part Number	Description	Electrical Specs
46800-11	MODEL 55 CONTROL UNIT	220V-50/60HZ-1 PH
46800-12	MODEL 75 CONTROL UNIT	220V-50/60HZ-1 PH
46800-13	MODEL HMC CONTROL UNIT	220V-50/60HZ-1 PH
46800-14	MODEL 90 CONTROL UNIT	220V-50/60HZ-1 PH
46800-15	MODEL 108 CONTROL UNIT	220V-50/60HZ-1 PH

#### Bin Fill Cap Kits

#### Intermediate fill cap kits

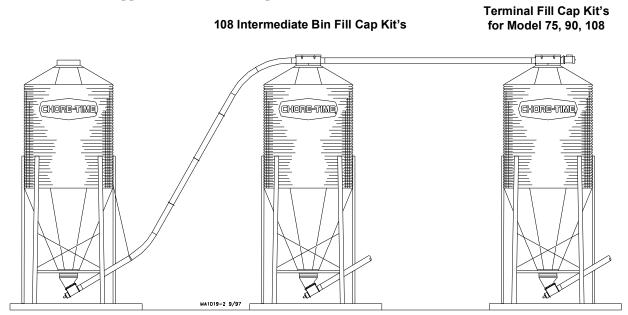
The intermediate bin fill cap kit allows direct filling of an intermediate hopper bin. The fill cap lid is removable to allow feed truck filling if desired. The intermediate caps have shut-off slides to allow the intermediate bin to be bypassed when full.

The intermediate fill caps do not have level switches supplied and are manually operated shut-off slides.

#### Terminal bin fill cap kits

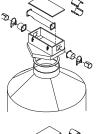
The terminal bin fill cap kits allow direct filling of a terminal hopper bin with a FLEX-AUGER when desired. The fill cap lid is removable to allow feed truck filling if desired.

No level switches are supplied with these fill cap kits.



#### INTERMEDIATE BIN FILL CAP KITS

#### TERMINAL BIN FILL CAP KITS



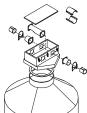
#### SINGLE INTERMEDIATE FILL **CAP KITS**

PART NO **DESCRIPTION** 40527 MODEL 108 FILL CAP KIT



#### SINGLE FILL CAP KITS

PART NO **DESCRIPTION** <sup>©</sup>P<sub>∞</sub> 6563 MODEL 75 FILL CAP KIT 25806 MODEL 90 FILL CAP KIT 34635 MODEL 108 FILL CAP KIT



#### TWIN INTERMEDIATE FILL **CAP KITS**

PART NO DESCRIPTION 40526 MODEL 108 FILL CAP KIT



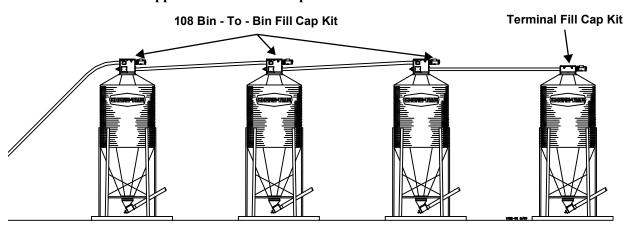
#### TWIN FILL CAP KITS

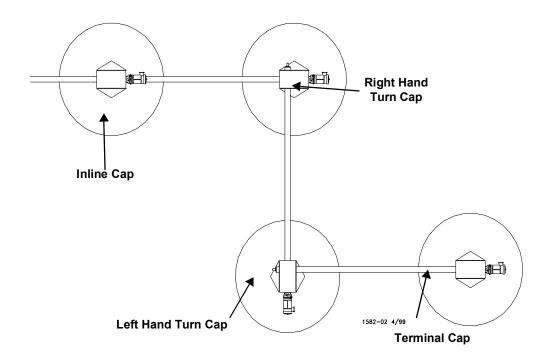
PART NO DESCRIPTION 27133 MODEL 90 FILL CAP KIT 35008 MODEL 108 FILL CAP KIT

#### Model 108 Bin-to-Bin fill cap kits

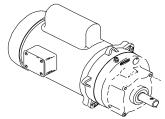
The Model 108 Bin-to-Bin fill cap kit is designed to accommodate filling or bypassing a hopper bin in a multiple bin application. The last bin in a series will use a terminal bin fill cap kit. The Bin-to-Bin fill cap kits replace the existing lid or lids on top of an intermediate bin in a multiple bin fill system. The Bin-to-Bin fill cap kit will allow in line, right had or left hand turns in the fill system layout. The Model 108 Bin-to-Bin fill cap use's an electronic control to determine which bins to bypass and which bins to fill.

#### No level switches are supplied with these fill cap kits.



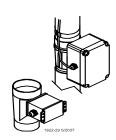


#### **Power Units**



				Con 10		
Part No	HP	<b>RPM</b>	Phase	Hz	Voltage	Usage
3259-34	1/3	348	Single	60	230	55, FLAG <sup>TM</sup>
3259-67	1/2	129	Single	60	230	<b>MULTIFLO®</b> Fill
3259-50	1/2	216	Single	60	230	75, 90, HMC, 108
3259-39	1/2	348	Single	60	230	$55, FLAG^{TM}$
3259-51	1/2	348	Single	60	230	75, 90, HMC
3259-77	1/2	425	Single	60	230	75, 90, HMC
3259-134	1/2	348	Three	60	220/380	55
3259-136	3/4	216	Single	60	230	75, 90, HMC, 108
3259-78	3/4	425	Single	60	230	75, 75 Plus, 90, HMC
3259-122	3/4	584	Single	60	230	ULTRAFLO® Breeder Fill
3259-119	3/4	348	Three	60	230/460	75, 90, HMC, 108
3259-120	3/4	425	Three	60	230/460	75, 75 Plus, 90, HMC
3259-52	3/4	348	Single	60	230	75, 90, HMC, 108
3259-49	1	348	Single	60	230	75, 90, HMC, 108
3259-79	1	425	Single	60	230	75, 75 Plus, 90, HMC, 108
3259-123	1	584	Single	60	230	ULTRAFLO® Breeder Fill
3259-135	1	348	Three	60	220/380	75, 90, HMC, 108
3259-117	1	348	Three	60	230/460	75, 90, HMC, 108
3259-118	1	425	Three	60	230/460	75 Plus, 108
3259-137	1 1/2	584	Three	60	220/380	ULTRAFLO® Breeder Fill
3259-152	1	584	Three	60	220/380	ULTRAPAN® Breeder Fill
3259-66	1 1/2	348	Single	60	230	108
3259-80	1 1/2	425	Single	60	230	75 Plus, 108
3259-124	1 1/2	584	Single	60	230	ULTRAFLO® Breeder Fill
3259-139	1 1/2	348	Three	60	230/460	108
3259-140	1 1/2	425	Three	60	230/460	75 Plus, 108
3259-121	2	425	Single	60	230	108
3259-109	1/2	180	Single	50	220	<b>MULTIFLO®</b>
3259-98	1/2	348	Single	50	220	55, FLAG™
3259-102	1/2	180	Three	50	220/380	MULTIFLO® Fill
3259-100	1/2	348	Three	50	220/380	55, FLAG™
3259-88	3/4	348	Single	50	220	75, 90, HMC, 108
3259-104	3/4	348	Three	50	220/380	75, 90, HMC, 108
3259-89	1	348	Single	50	220	75, 90, HMC, 108
3259-148	1	580	Single	50	220	ULTRAPAN® Breeder Fill
3259-105	1	348	Three	50	220/380	75, 90, HMC, 108
3259-150	1	580	Three	50	220-240/340-400	ULTRAPAN® Breeder Fill
3259-149	1 1/2	580	Single	50	220	ULTRAPAN® Breeder Fill
3259-106	1 1/2	348	Three	50	220/380	108
3259-170	2	425	Three	60	208-230/460	108
3259-151	1 1/2	580	Three	50	220-240/2380-400	ULTRAPAN® Breeder Fill

#### **Proximity Drop Tube Switches**





Universal Drop Tube Switch W/SENSOR PLUS and Safety Timer 49264

230V - 50/60 hz 1 PH

46316 Drop Tube Switch W/SENSOR PLUS 230V - 50/60 hz 1 PH

46663 Drop Tube Switch W/SENSOR PLUS & Safety Timer 230V - 50/60 hz 1 PH

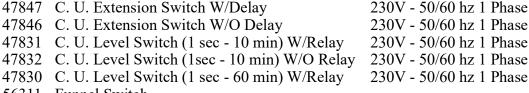
53140 Drop Tube Switch w/relay and probe

53141 Drop Tube Switch with safety timer and probe

56310 Drop Tube Switch



#### **Control Level Switches**

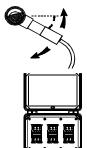


56311 Funnel Switch



#### **Boot Switches**

6143	Boot Switch & Plate Assembly (Single)
6411	Boot Switch & Plate Assembly (Twin)
34780/SS	Boot Switch (Prox Switch Single Boot) W/Cannon Ball Guard
34779/SS	Boot Switch (Prox Switch Twin Boot) W/O Cannon Ball Guard
37553	Upper Boot Switch (Prox Switch)

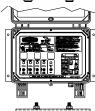


#### Sleeve Switch MULTIFLO®

40508 MULTIFLO Proximity Sleeve Switch (W/Overide Timer)

#### **Contactor Box**

24392-1 Watertight Contactor Box (1 contactor)	208/240V - 50/60 hz 1 Phase
24392-2 Watertight Contactor Box (2 contactors)	208/240V - 50/60 hz 1 Phase
24392-3 Watertight Contactor Box (3 contactors)	208/240V - 50/60 hz 1 Phase



#### Time Clock

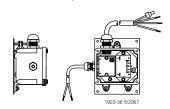
26230	Time Clock and Contactor (Plastic Box)	220V - 50/60 hz 1 Phase
34574	4 Channel Time Clock (AGRI-TIME®)	230V - 50/60 hz 1 Phase
50200	O.T. C. (A.C.D.L.THATES)	

50388 8 Timer Control (AGRI-TIIME®)



#### **Auger Timer**

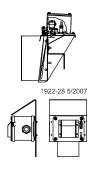
46662 Auger Safety Timer



#### **Delay Relays**

28702 Delay Relay (for 30370 Drop Feeder Controls) 30953 Delay Relay (for FLAG Fill System Motor)

#### **Switches and Timers**



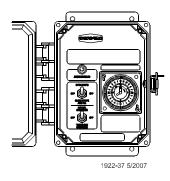
#### **Hopper Level Switches**

14550	Hopper Level Control	230V - 50/60 hz 1 Phase
2912	Hopper Level Control	110V - 50/60 hz 1 Phase
27761	Hopper Level Control	230V - 50/60 hz 3 Phase

42613 Hopper Level Switch W/SENSOR PLUS

46910 Panel Switch W/SENSOR PLUS

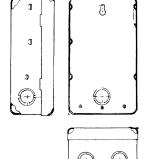
56284 Hopper Level Switch



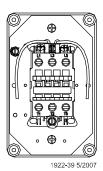
#### **Drop Feeder Control**

28999 Drop Feeder Control (Use with 28990-9, 28990-18) 220V 60 hz 1 Ph





1977 Time Clock (24 hour/115 Volt) Metal Box 3710 Time Clock (24 hour/230 Volt) Metal Box



#### **Single Contactors**

42549 Single Contactor 230 VAC Coil 50/60 Hz 44853 Single Contactor 110 VAC Coil 50/60 Hz



# FLEX-AUGER® SYSTEMS

# **MULTIFLO**<sup>®</sup> System

#### **MULTIFLO®** System

#### Information

#### **General Information**

The MULTIFLO® feed delivery system will convey dry meal, crumbles, or pellet feeds with particle size up to 3/16" [5 mm] in diameter. The MULTIFLO system is not recommended for high-moisture feeds.

#### NOTE: MAXIMUM OF 2 HOURS OPERATING TIME PER DAY.

#### The Fill System

Each MULTIFLO system loop is charged with a FLEX-AUGER® fill system. Appropriate Flex-Augers for this purpose would be a Model 55 with standard power unit or Model 75 and HMC FLEX-AUGER with 129 rpm power units. The high speed MULTIFLO is filled with a Model 75 FLEX-AUGER with a standard power unit. These Flex-Augers are ordered from the Flex-Auger price list.

#### The MULTIFLO® Boot

The MULTIFLO boots are supplied with adapter plates to make a connection between FLEX-AUGER and control units or an outlet and the boot. Terminal boots are utilized under control units and intermediate boots are utilized under outlet assemblies.

#### **Tube and Elbows**

Determine the amount of 90 degree elbows and tube required for the installation. NOTE: MAXIMUM OF FOUR 90° ELBOWS PER SYSTEM.

#### Power Unit(s)

Order the appropriate number of power units based on the <u>effective</u> length of 400' [122 m] per power unit. The power unit requirement is determined by the **effective length** of the system (not actual length). **Effective Length=** Total length of the straight line system + 30' [9 m] for each 90 degree elbowMAXIMUM 1200' [366 M] EFFECTIVE LENGTH SYSTEMS - Example: Three power units with 1080' [329 m] straight line length and four 90° elbows.

#### **Control Switch**

The proximity sleeve switch is used on the MULTIFLO circulating feed system as the control to allow operation and shut-off without unnecessary recirculation. The proximity sleeve switch is designed to allow the circuit to dispense feed until it is filled. The proximity sleeve switch controls the MULTIFLO circuit motor(s). The fill system motor incorporates an override timer to allow the system to purge itself at the next operation time. One proximity sleeve switch is required for each loop or circuit.

#### **Component Parts**

Order the service section, bridge clamp, suspension kits, and PVC cement based on system length from component parts listing.

#### **Accessories**

Order the appropriate outlet and control accessories according to the system's intended usage.

## Planning the MULTIFLO® System

Planning for the MULTIFLO<sup>®</sup> installation should be coordinated with planning for the FLEX-AUGER<sup>®</sup> feed delivery system installation so the advantages of each system can be used effectively. See the FLEX-AUGER operator's manual for information regarding the FLEX-AUGER feed delivery system.

Chains, "S" Hooks, and screw hooks are provided to suspend the system at least every 5' (1.5 m). The elbows should be supported in at least 2 places.

Important: Keep the system as straight and level as possible.

#### **MULTIFLO® Boot Placement**

The MULTIFLO Side Draw Boot placement is determined by were the FLEX-AUGER feed delivery system is terminated. Installation of the FLEX-AUGER feed delivery system should be planned with this in mind. The MULTIFLO Side Draw Boot is directional.

Important: It is not recommended to place the MULTIFLO Boot directly adjoining an elbow. Try to locate the boot a few feet prior to/or after an elbow in the system.

#### **Determine Where to Install Power Units**

Note placement of the power units See "Examples of MULTIFLO® System Layout" on page 33..

See "MULTIFLO® Effective Length Calculation" on page 36. to determine the Effective Length of the system.

# The "Effective Length" between Power Units must not exceed 400' (122 m) regardless of the number or position of elbows

Power Units should be placed evenly around the system keeping:

- Single Power Units opposite the boot
- Boot approximately centered between two power units in multiple power unit systems (See "Examples of MULTIFLO® System Layout" on page 33. Examples 2-4)
  - The "Effective Length" per power unit should be kept as equal (even) as possible.

If possible, install the Power Units in a straight section of tube and not adjacent to an elbow. See Example 1 on page 33.

#### **Outlet Drop Size and Placement**

A 1-1/2" (38 mm) hole is required at each outlet drop or drop feeder location. The last drop feeder before the control unit should not be more than 3' (1 m) from the control unit.

DO NOT install outlet drops on elbows, feed is required to cushion the auger here. The maximum angle of the outlet drop is 30 degrees.

#### **Examples of MULTIFLO® System Layout**

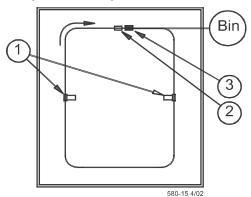
**Example 1** shows a typical MULTIFLO<sup>®</sup> installation. Feed is bought into the building with a FLEX-AUGER<sup>®</sup> Delivery System to the MULTIFLO boot. Notice how the motor is spaced opposite the boot around the MULTIFLO system.

**Example 2** shows a FLEX-AUGER system suppling four different MULTIFLO loops. This system could be used to feed rooms in a sow farrowing operation. Notice the Intermediate Boots are located under the Outlet Assemblies in the first three rooms.

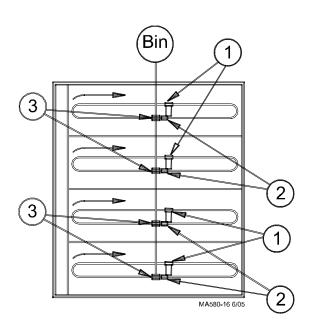
**Example 3** shows a FLEX-AUGER Feed Delivery System with a twin boot supplying two similar sized MULTIFLO loops. As with all FLEX-AUGER to MULTIFLO systems adapter plates were installed on the FLEX-AUGER control units to attach the control units to the MULTIFLO boots. The Adapter Plates are supplied with the MULTIFLO boots.

**Example 4** shows a FLEX-AUGER Feed Delivery System filling multiple MULTIFLO loops. This configuration requires outlet assemblies on the fill system to fill loops 1 and 2 and the fill system control unit would be over loop 3.

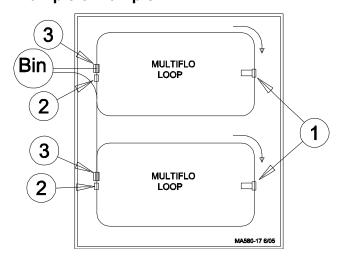
#### Example 1Example 2

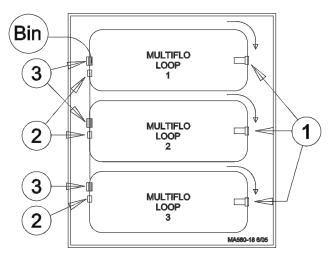


Item	Description
1	Power Unit
2	Level Switch
3	MULTIFLO Boot



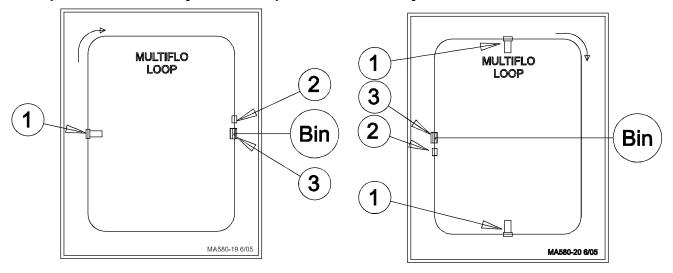
#### **Example 3Example 4**





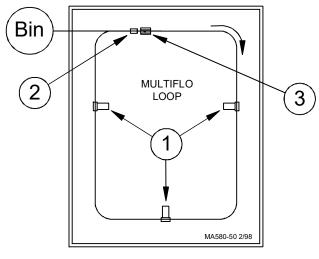
Diagrams below show possible power unit locations in relation to the FLEX-AUGER fill system.

#### **Example 5 One Motor SystemExample 6 Two Motor System**



Item	Description	
1	Power Unit	
2	Level Switch	
3	MULTIFLO Boot	

#### **Example 7 Three Motor System**



Item	Description
1	Power Unit
2	Level Switch
3	MULTIFLO Boot

Remember, these are examples only. The MULTIFLO System's versatility will provide almost unlimited combinations of delivery system designs. **Follow these guidelines for placement of components.** 

#### MULTIFLO® SPECIFICATIONS

The MULTIFLO® Feed Delivery System is a closed "loop" system which pulls the auger through the tube. The system is used primarily in nurseries, gestation, and dairy houses. It is recommended for systems with running times of less than 2 hours per day and no high moisture corn.

Read all instructions carefully and familiarize yourself with the components before beginning to install the MULTIFLO® system. Determine approximate layout of the system where each component will be placed, how much space it will require, how it will be suspended, and so forth. be careful to plan the system so it does not interfere with ventilation, watering systems, or other equipment in the building. "Examples of MULTIFLO® System Layout" on page 33 shows some possible MULTIFLO® "layouts". These are to be used as examples only.

#### **Auger Information**

7961MF Auger is specifically designed for use in MULTIFLO<sup>®</sup> Systems. It differs from standard 7961 Auger used with Model 55 Feeding Systems, the 7961MF Auger contains no factory brazes. MULTIFLO<sup>®</sup> Auger should be connected using an Auger Connector when it is necessary to join sections of the 7961MF Auger. However, the welding or brazing technique is acceptable. Remember, brazing MULTIFLO<sup>®</sup> auger is considerably different than for other Chore-Time Flex-Auger systems (see MULTIFLO manual MA580).

#### **Auger Specifications**

Auger Tube: 55 mm PVC Tube

Elbows: 90 degree, 2" (51 mm) I.D. two piece nylon elbow w/24" (610 mm) center line radius. The maximum number of 90 degree elbows allowed for each MULTIFLO® loop is 4.

Auger: 7961MF for systems 400' (122 m) of shorter, auger should be one piece. Maximum length auger for shipment is 400' (122 m). It is important to specify length of the system when ordering auger. Auger for longer systems will be sent in most desirable section lengths. Example: for a 450' (137 m) MULTIFLO® System, it would be better to use two 225' (69 m) sections of auger than one 400' (122 m) section and one 50' (15 m) section. Specify system length and Chore-Time will supply the best available combination of auger. Handle auger carefully. Store flat if it is to be stored for a period of time prior to installation.

Auger Drive: Helical Gear.

Power Unit: Standard 1/2 HP, 62 RPM Direct Drive, 230 V, 60 Hz; 220 V, 50 Hz, Single Phase; 380 V, 50 Hz, 3 Phase

Hi-Speed 3/4 HP, 95 RPM Direct Drive, 230 V, 60 Hz, Single Phase

**Power Unit Capacity:** 400' (122 m) Effective Length. Effective Length is based on feed with 40 lb/cu.ft (64 kg/cu. meter) density.

System Capacity: 1200' (366 m) Effective Length (with three Power Units-maximum)

**Delivery Capacity:** 

Standard: 15 lb/min (6.8 kg/min) with Model 55 FLEX AUGER® Fill System

Standard: 18 lb/min (8.1 kg/min) with Model 75 or HMC FLEX AUGER® Fill System @ 129 RPM

Hi-Speed: 50 lb/min (22.6 kg/min) with Model 75 or HMC FLEX AUGER® Fill System @ 348 RPM

Feed Types: Ground feeds, crumbles, and pellets up to/including 3/16" dia. x 1/2" long (4.7 x 12.7 mm), not to exceed 18% moisture. The MULTIFLO® system is not recommended for high moisture feed.

#### **MULTIFLO® Effective Length Calculation**

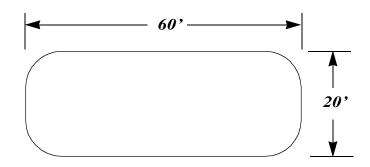
The Effective Length if a MULTIFLO System is calculated an shown. Before beginning to install the system, determine the Effective Length of the system.

Important: You must know the Effective Length before placing the power units, service section area, and other system components.

# Effective Length = Total Feet (meters) of Straight Lengths PLUS

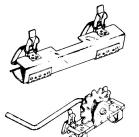
Number of 90° Elbows x 30' (9.1 m)

#### **Example with 90° Elbow:**



60' x 2 = 120', 20' x 2 = 40': given straight line length of 160' 4 (90 degree elbows) x 30' = 120': given elbow length of 120 Straight line length (160') + elbow length (120') = Effective Length (280')

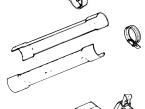
# **MULTIFLO®** Components



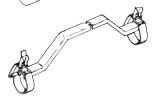
8264 MULTIFLO Auger Brazing Fixture



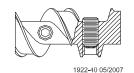
8697 MULTIFLO Hand Crank Assembly 9349 MULTIFLO Installation Kit (Includes: 8697 qty 3, 8264 qty 1)



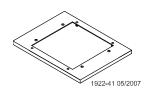
8710 MULTIFLO Service Section (1 per curcuit)



8227 MULTIFLO Bridge Clamp



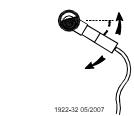
24961-2 MULTIFLO Auger Connector (2 per bag)



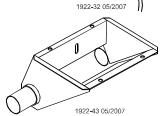
45970 Adapter Plate Assembly



29872 Transfer Cover Plate



40508 MULTIFLO Proximity Sleeve Switch W/Overide Timer

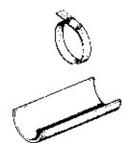


**14411 MULTIFLO Terminal Boot** 

47581 MULTIFLO Intermediate Boot

46325 MULTIFLO Hi Speed Terminal Boot

47582 MULTIFLO Hi Speed Intermediate Boot

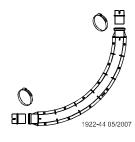


8719 Closure Kit (Includes: 8718 Closure qty 1, 8643 Clamp qty 2)



### **Drive Units**

41013 1/2 Hp - 62 RPM Power Unit & Driver Assembly 230V-60hz - 1 Ph 41014 .4 Hp - 62 RPM Power Unit & Driver Assembly 220V-50hz - 1 Ph 28830 1/2 Hp - 62 RPM Power Unit & Driver Assembly 220/380V-50hz - 3 Ph 46311 3/4 Hp - 95 RPM Power Unit & Driver Assembly 230V-60hz - 1 Ph



MULTIFLO® Elbows
47950 MULTIFLO Elbow Kit
46779 Elbow Half
46778 MULTIFLO Adapter
47947 MULTIFLO Elbow Hardware Kit



40507 MULTIFLO 90 Degree Elbow (Includes: (1) 39204 Elbow, (2) 39200 Elbow Couplers, (2) 8643 Band Clamps)



39204 Hardened Steel 90 Degree Elbow



39200 Elbow Connector (used with 39204)



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8643 Band Clamp (used with 39204 and 39200)



MULTIFLO® PVC Tubing and Auger

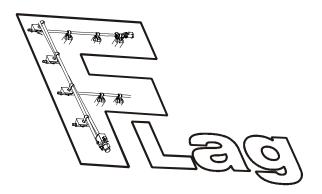
7955 Model 55, MULTIFLO Tube 10' [3 m]



7961MF MULTIFLO Auger



# FLEX-AUGER® SYSTEMS



# FLEX COCCECCO SERVICE AUGUST A

# **FLAG™** System

### **System information**

### **General information**

The FLAG<sup>TM</sup> System is designed for applications that require several distribution lines from one source location. The FLAG system consists of multiple FLAG feeder lines that are supplied by a Model 75 or Model 90 FLEX-AUGER® fill system. The FLAG system application is recommenced for low capacity delivery requirements such as Drop Feeding.

### **Specifications**

The FLAG<sup>TM</sup> System is designed to convey dry meal, crumbles, or pellet feeds with particle size up to 1/8"[4 mm] in diameter and is not recommended for high-moisture feeds. The feed delivery rate of an individual line is 20 lbs/min [9 kg/min]. Maximum line length is 400'[122 m].

### The Fill System

The FLAG<sup>TM</sup> System is supplied with feed from a Model 75 or Model 90 FLEX-AUGER® Fill System. Depending on the application, there are options for the type of fill system layout that can be used including dead end, return, circulating, and return-to-bin. The appropriate FLEX-AUGER size for this purpose depends on the number of FLAG lines to be supplied. **See "Fill System Power Unit Selection Guide" on page 7.** for determining the proper size to provide sufficient feed, without over-charging the system.

Part No. 30953 Delay/relay kit is recommended for use with the FLAG Fill System to avoid potential short cycling.

### Transfer boot and switch

The transfer boots for the FLAG<sup>TM</sup> System are available in a single and twin configuration. When using a dead end fill system, Part No. 45970 adaptor plate will be needed to connect the control unit to the last transfer boot. It is advisable to use the Part No. 34779 proximity boot switch for all FLAG lines that may operate more than 10 minutes without feed. The boot switch will prevent excessive empty auger operation time.

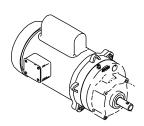
### Auger

The FLAG<sup>TM</sup> System can be used in straight line applications only. The Part No. 25058F auger can be ordered in lengths from  $50'/15 \, m/$  to  $400'/122 \, m/$ .

### **Controls**

The selection of available controls to operate the FLAG<sup>TM</sup> System will be based on the type of application. For a manual dumped Drop Feeding system, use the Part No. 47805-0 series interval timer(s) or the Part No. 46662 run/safety timer. For an automatic Drop Feeding system, use the Part No. 28999 control panel.

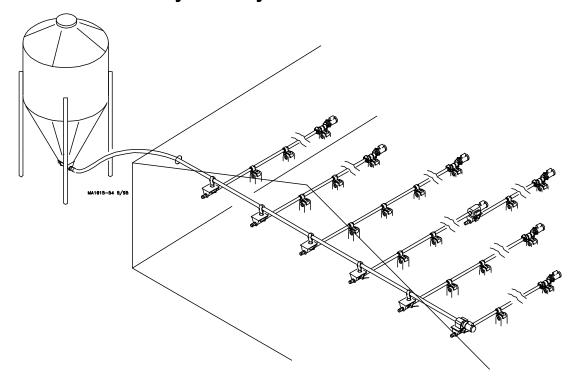
### FLAG™ line power unit selection guide



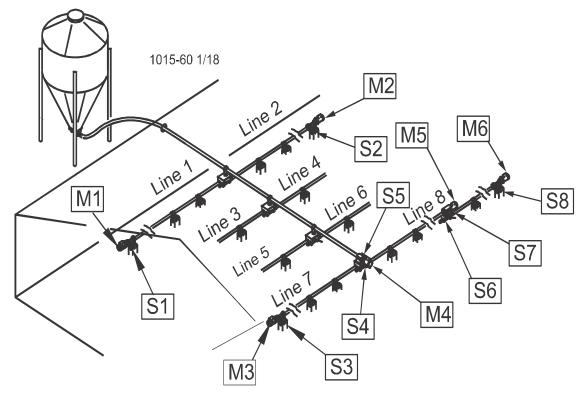
230 Volt	60 Hz 1 Phase		
Up to 200'[61 m]	200'[61 m] to 400'[122 m]		
3259-34	3259-39		
	220 Volt 50 Hz 1 Phase		
Up t	Up to 400'[122 m]		
	3259-98		
220/380 Volt 50 Hz 3 Phase			
Up to 400'[122 m]			
3259-100			

# **FLAG™** System Layouts

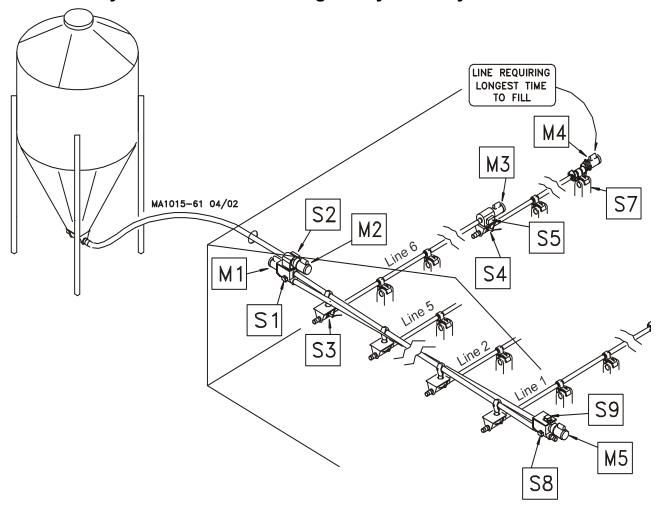
# Standard FLAG™ System Layout



# Alternate Layout Twin Boot FLAG™ System Layout



# Alternate Layout FLAG™ Circulating Fill System Layout



# **FLAG™** System Boot Options



### **Terminal Boots**

The terminal boot is used on the last FLAG<sup>TM</sup> Line to fill on a dead end fill system. This line acts as the control line to shut off the fill system.

The delay relay kit will minimize short cycling of the fill system motor.

35727/SS (Std.) Single Transfer Boot Assembly

56552/SS Single Terminal Model 75 Plus Hi Cap

52678/SS Single Terminal Model 75 Hi Cap

45970/SS Adapter Plate

34779/SS Boot Switch (if required)

30953 Delay Relay Kit







### **Transfer Boot with Proximity Switch**

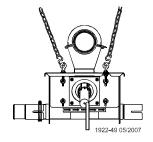
The proximity boot switch allows the FLAG line only to run when there is feed present. The boot switch should be used on any FLAG lines that might run empty longer than 10 minutes.

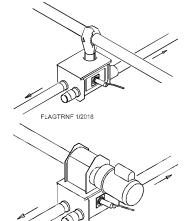
35727/SS Single Transfer Boot Assembly 34779/SS Boot Switch



35942/SS (Std.)Twin Transfer Boot 34779/SS Boot Switch (if required) 2 required







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### **Center Twin Terminal Boot**

35942/SS (Std.) Twin Transfer Boot 45970/SS Adapter Plate 34779/SS Boot Switch (if required) 2 required 30953 Delay Relay Kit



# **Extension Boots**

The extension boot option allows extending the FLAG line/lines longer than 400' [121.9 m].

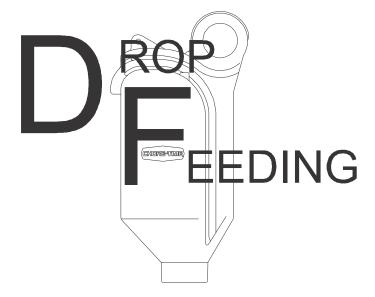
Standard		
35727/SS	Single Transfer Boot	
45970SS	Adapter Plate	
34779/SS	Boot Switch	
46800-1/-27	Control Unit	

75 Hi-Cap		
52677/SS	Hi-Cap Intermediate Boot	
45970SS	Adapter Plate	
34779/SS	Boot Switch	
46800-2/-28	Control Unit	

75 Plus Hi-Cap		
56553/SS	Hi-Cap Intermediate Boot	
45970SS	Adapter Plate	
34779/SS	Boot Switch	
46800-37/-35	Control Unit	



# FLEX-AUGER® SYSTEMS



# **Drop Feeding System**

### **System Information**

### The Feed Delivery System

Determine the required FLEX-AUGER® System for the application. The Drop Feeding System can be used with the FLEX-AUGER Models 55, 75, and HMC, plus the MULTIFLO® and FLAG<sup>TM</sup> Systems. The FLEX-Auger control unit and hopper switch are not required for a Drop Feeding application.

### **Drop Feeders and Drop Feeder Control Units**

Order the required number of drop feeders fro the system. Note: Each drop feeder control unit also functions as a drop feeder. One Drop Feeder control unit is required fro each FLEX-AUGER® or FLAG<sup>TM</sup> line. Drop Feeder control units are available with mechanical or electronic switches.

When the Part No. series 30370-0 mechanical control units are used with a manual trip system, a Part No. 28702 delay relay will be needed for each line unless a run timer or interval timer(s) are utilized. The Part No. series 34800-0 electronic Drop Feeder controls have built-in delays.

### **Feeding Control Options**

The Drop Feeding system may be dumped manually or automatically depending on the application. For manual dumped systems; the Part No. 6306 manual trip lever (for up to 40 feeders) or the Part No. 29428 drum winch (for up to 200 feeders) can be used.

For automatic dumped systems use the Part No. 28990-9 linear actuator (for up to 120 feeders) or the 28990-18 linear actuator (for up to 240 feeders). The linear actuator(s) are used with the Part No. 28999 Drop Feeder control panel. One Part No. 28999 Drop Feeder control panel will operate up to four actuators. A contactor is required for the Drop Feeder control to operate the fill systems. An additional contactor is required if more than one actuator is used.

### **Drop Tubes**

Order, as needed, the appropriate drop tube and drop tube clamps (see listing).

### Cable

For manually activated systems, order enough cable for the length of each feeding system line. For automatically activated systems, order enough 1/8" [3.2 mm] cable for each line plus order 3/16" [4.8 mm] master cable to be used from the linear actuator to the feeder line cables.

Note: HMC Drop Feeding systems are not to be used for feeds above 27% moisture.

# **Drop Feeding System Layouts**

### **Linear Actuator Installations**

Note: The linear actuator is optional and must be ordered separately. Information included in this manual is for planning and reference purposes only. The linear actuator instruction manual includes comprehensive planning, installation, parts listing, switch adjustment information, and wiring diagrams. The linear actuator installation manual is shipped with the linear actuator.

The Part No. 28990-9 linear actuator has the capability of operating up to 120 Drop Feeders.

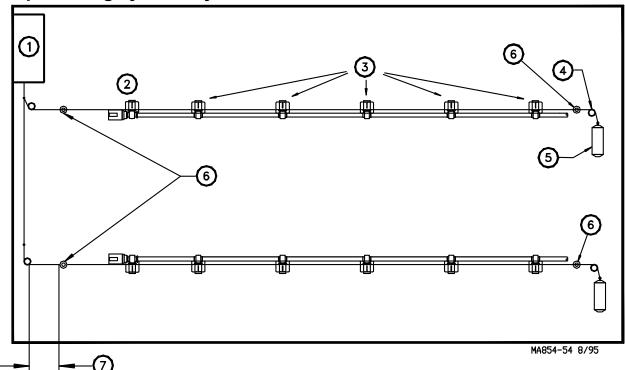
The Part No. 28990-18 linear actuator has the capability of operating up to 240 Drop Feeders.

When installing a linear actuator, allow room at the end of the system for the weight kit to move freely.

The linear actuator uses a 3/16" [4.8 mm] stainless steel master cable and a 1/8" [3.2 mm] stainless steel cable for the balance of the system. The maximum length of 1/8" [3.2 mm] stainless steel cable allowed per line is 200' [61 m]. If installing a 28990-18 linear actuator, allow enough room to install the double-back cable hook-up, as specified in the linear actuator installation manual. One anti-cable wrap ball should be installed on each horizontal length of 1/8" [3.2 mm] that runs between two pulleys.

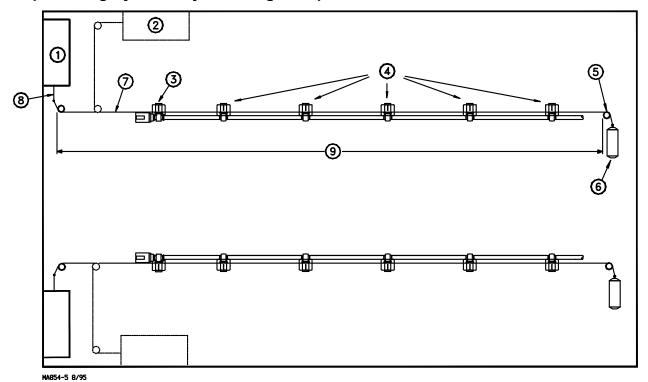
Note: On long cable runs, it may be necessary to install two anti-cable wrap balls to prevent cable from twisting.

### **Drop Feeding system layout**



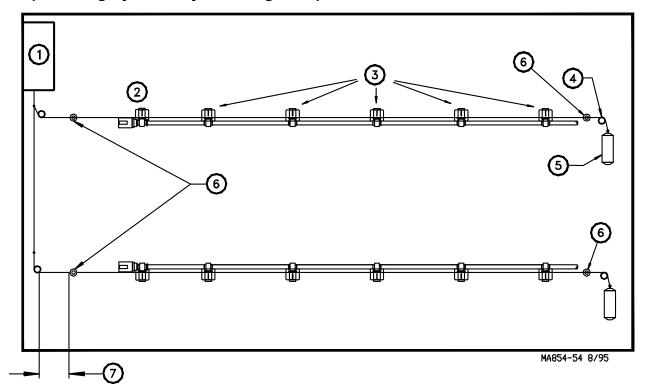
Item	Description
1	Linear Actuator
2	Drop Feeder Control Unit
3	Drop Feeder
4	Pulley
5	Weight
6	Anti-Cable Wrap Ball
7	This distance must be greater than cable travel
8	3/16" Master Cable
9	1/8" Cable

### **Drop Feeding System Layout Using Multiple Linear Actuators**



Item Description Linear Actuator Linear Actuator (optional location) 3 Drop Feeder Control Unit Drop Feeder 4 5 Pulley 6 Weight 1/8" [3.1 mm] Stainless Steel Cable 8 3/16" [4.7 mm] Stainless Steel Cable 9 200' [61 m] Maximum

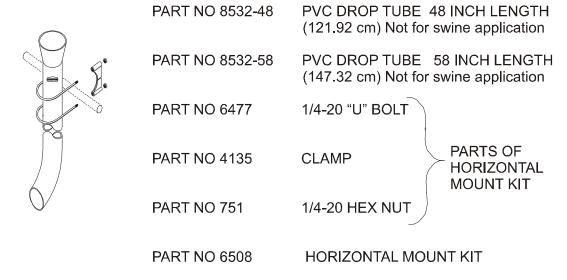
# **Drop Feeding System Layout Using Multiple Linear Actuators**

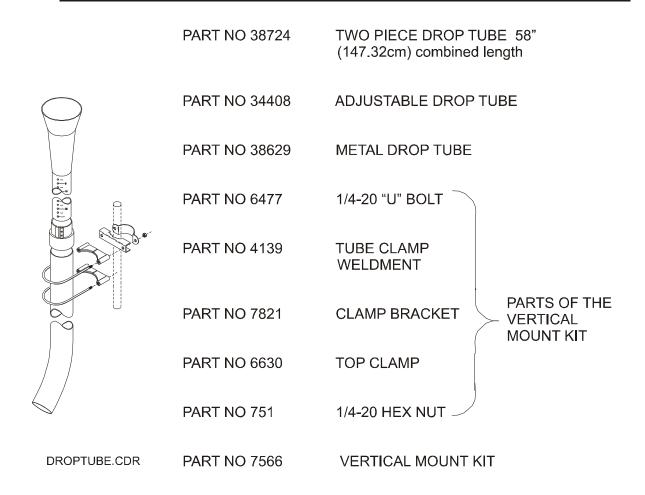


Item	Description
1	200' [61 m] Maximum
2	Pulley
3	Weight
4	Linear Actuator
5	3/16" [4.7 mm] Master Cable
6	1/8" [3.1 mm] Cable

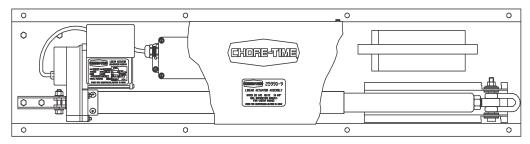
# **Drop Feeding System Components**

### **Drop Tube and Mount Kits**





### **Drop Feeder Actuator**



### LINEAR ACTUATOR

PART NO 28990-9 LINEAR ACTUATOR 220V-60HZ-1PH

120 MAX DROP FEEDER

PART NO 28990-18 LINEAR ACTUATOR 220V-60HZ-1PH

240 MAX DROP FEEDER



PART NO 6306 MANUAL TRIP LEVER

**OPERATES 30-40 FEEDERS** 

PART NO 29428 DOUBLE DRUM WINCH

**OPERATES UP TO 200 FEEDERS** 

PART NO 2884-1 DRIVE TUBE (USE WITH 29428)

PART NO 2885 DRIVE HANDLE (USE WITH 2884-1)

PART NO 9720 ANTI-CABLE WRAP KIT

PART NO 26051 WEIGHT KIT

THIS KIT IS USED TO PROVIDE TENSION FOR THE MAIN CABLE

THAT OPENS THE OUTLET

P

DROPACC,CDR

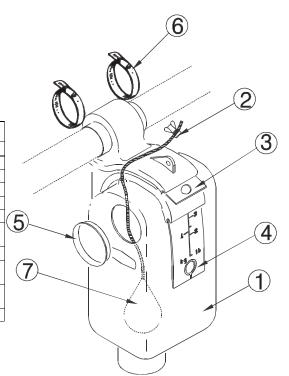
TJC 1/24/98

# **Drop Feeders**

Drop Feeder		
Part No.	Description	
30361-1	MODEL 55 Drop Feeder	
30361-2	MODEL 75 Drop Feeder	
30361-3	MODEL HMC Drop Feeder	

Drop Feeder Components		
Item	Part No.	Description
1	30373-1	MODEL 55 Drop Feeder Body
	30373-2	MODEL 75 Drop Feeder Body
	30373-3	MODEL HMC Drop Feeder Body
2	13057	Cable Clamp (Used to connect dump ball assembly to main cable)
3	26138	Shut-off Slide (Used to keep a feeder from filling)
4	33884	Adjustment Slide (Used to set the amount of feed to be dispensed from each feeder)
5	9965	Hole Plug (Used to cover access hole)
6	8643	Hose Clamp (Used to secure the drop feeder to the tube Model 55)
	6183	Hose Clamp (Used to secure the drop breeder to the tube Model 75 and HMC)
7	6296	Dump Ball Assy (Used with all Drop Feeders)

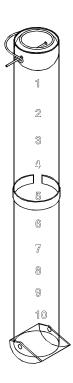
<b>Electrical Parts for Drop Feeder Control Units</b>		
Part No.	Description	
28702	Delay Kit (Delays motor start-up to allow manual trip lever to function on mechanical control units)	
28904	240 Volt Relay (For proximity switch application)	
34255	Proximity Switch	
23779	1/2" Liquid Tight Connector	
7114	Actuator Switch (For 30370 Control Units)	



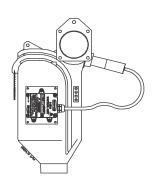
# **Farrowing Drop**

Farrowing Drop	
Part No.	Description
44058	11 lb. Farrowing Drop Feeder Kit

Manually operated Drop Feeder For: Model 55 or Model 75 Outlet Assembly



### **Drop Feeder Control Units**



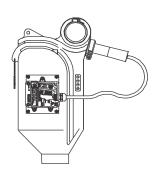
# DEAD END (TERMINAL) DROP FEEDER CONTROL UNITS

PART NO 34800-10 220V-50/60HZ-1PH MODEL 55 DROP FEEDER CONTROL UNIT (COMPLETE)

PART NO 34800-11 220V-50/60HZ-1PH MODEL 75 DROP FEEDER CONTROL UNIT (COMPLETE)

PART NO 34800-12 220V-50/60HZ-1PH MODEL HMC DROP FEEDER CONTROL UNIT(COMPLETE)

# DROP FEEDER CONTROLS AND INTERMEDIATE CONTROLS WITH PROXIMITY SWITCHES

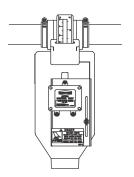


THE DROP FEED CONTROL UNIT CONTROLS THE DELIVERY AUGER MOTOR.

PART NO 34800-7 220V-50/60HZ-1PH MODEL 55 INTERMEDIATE DROP FEEDER CONTROL UNIT (COMPLETE) / MULTIFLO CONTROL UNIT

PART NO 34800-8 220V-50/60HZ-1PH MODEL 75 INTERMEDIATE DROP FEEDER CONTROL UNIT (COMPLETE)

PART NO 34800-9 220V-50/60HZ-1PH MODEL HMC INTERMEDIATE DROP FEEDER CONTROL UNIT (COMPLETE)



# MECHANICAL DROP FEEDER END CONTROL UNITS

**PART NO 30370-1** 220V-50/60HZ-1PH MULTIFLO DROP FEEDER CONTROL UNIT (COMPLETE)

PART NO 30370-2 220V-50/60HZ-1PH MODEL 55 DROP FEEDER CONTROL UNIT (COMPLETE)

PART NO 30370-3 220V-50/60HZ-1PH MODEL 75 DROP FEEDER CONTROL UNIT (COMPLETE)

PART NO 30370-4 220V-50/60HZ-1PH MODEL HMC DROP FEEDER CONTROL UNIT

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# **Suspension Components**

### **CABLES**

**PART NO 4973** 3/32 INCH 7X7 GALV

CABLE

**BREAK STRENGTH 920#** 

**PART NO 7130** 3/32" 7 X 7 STAINLESS

STEEL CABLE

**BREAK STRENGTH 910#** 

**PART NO 8580** 

1/8" 7 X 7 STAINLESS

STEEL CABLE

BREAK STRENGTH 1,700#

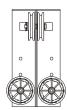
**PART NO 27975** 1/8 INCH 7X7 GALV CABLE **BREAK STRENGTH 1,799#** 

PART NO 1213 3/16 INCH 7X7 GALV. CABLE BREAK STRENGTH 3,700#

PART NO 13976 3/16 INCH 7 X 19 GALV

CARLE

**BREAK STRENGTH 4.200#** 



PART NO 27111 TWO-WAY PULLEY KIT 90 DEGREE



PART NO 27302 DOUBLE PULLEY



PART NO 7886 PULLEY ASSEMBLY

### **CEILING SUPPORT**



**PART NO 1214** STANDARD SCREW

HOOK WORKING

LOAD 200 #

LARGE SCREW **PART NO 2041** 

> HOOK WORKING LOAD 200 #

DROPSUSP.CDR

### **CABLE CLAMPS**



PART NO 732 CABLE CLAMP FOR

3/16 INCH CABLE

PART NO 14898

CABLE CLAMP FOR

1/8 INCH CABLE

**PART NO 13057** 

PLASTIC CABLE CLAMP FOR 1/8

INCH CABLE AND

ROPE

**(1)(0)=0** 

**PART NO 6478** 

SPLIT BOLT FOR

3/32 INCH CABLE



PART NO 2617 MASTER PULLEY



LARGE PULLEY PART NO 2500

WORKING LOAD

1.000#



PART NO 2501 **DOUBLE EYE** 

**PULLET** 

WORKING LOAD

1,000 #



PART NO 2502 DOUBLE PULLEY



PART NO 3004 SMALL PULLEY

WORKING LOAD 200 #



PART NO 28649 SPLIT PULLEY

WORKING LOAD 200#



PART NO 723 "S" HOOK SMALL

MAX WORKING LOAD 52 #

PART NO 2805 "S" HOOK 9 GA. MAX WORKING

LOAD 96 #

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# MADE TO WORK. BUILT TO LAST.®

### **Revisions to this Manual**

Page No.	Description of Change	ECO
Various	Several updates. Updated for CE	34835
7	Added 75 Plus Info	

For additional parts and information, contact your nearest Chore-Time distributor or representative.

Find your nearest distributor at: www.choretime.com/contacts

CTB, Inc. PO Box 2000

Milford, Indiana 46542-2000 USA Phone (574) 658-4101 Fax (877) 730-8825

Email: choretime@choretime.com Internet: www.choretime.com