

SEE PAGE 5 FOR STRAIGHT BOOT FLOW PRO INSTALLATION & ASSEMBLY INSTRUCTIONS

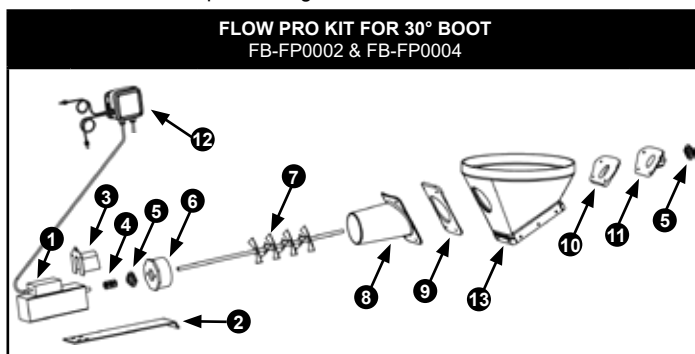
The Flow Pro® Bulk Bin Agitator provides gentle agitation to the upper boot/plastic transition area in bulk feed bins, and ensures a steady flow of feed is unloaded when feed delivery systems are active. Each Flow Pro kit is packaged carefully and compactly to ensure its safe arrival at minimum cost. Each kit was quality inspected prior to shipment and each carton was carefully packed to ensure that all necessary parts were present for installation.

#### UNPACKING

Upon receiving your shipment, check the cartons for in transit handling damage. ALERT THE DELIVERING CARRIER IMMEDIATELY if damage is discovered. Continue unpacking only after the carrier has acknowledged the damage and potential loss of contents.

#### NOTICE

All loss or damage in transit is the responsibility of the delivering carrier, NOT OSBORNE INDUSTRIES. To protect your rights in the event of damage or loss, **sign the delivery waybill only after the carrier has acknowledged in writing that damage or loss has occurred.** In the event that damage is revealed only after unpacking is complete, notify the delivering carrier immediately and request an inspection of the damaged merchandise before proceeding.



Item No.	Part No.	Description	Qty.
1	REM-3000	1/6 HP Gear Motor, 1 PH, 120/240 VAC	1
2	KB-FP0008	30° Boot Motor Mount Plate, ZP	1
3	SB-FP0004	Shaft Safety Cover/Motor Mounting Bracket, SS	1
4	RFM-5045	Shaft Coupling, 1/2" ID x 1-1/8" OD	1
5	RXC-0120	Bearing with Mounting Plates, 1/2" ID	2
6	KB-FP0010	Guide Cap, PVC	1
7	KB-FP0006	Agitator Shaft Assembly, Steel/SS Combo	1
8	KB-FP0003	Lower Plastic Guide for 30° Boot	1
9	KB-FP0005	Lower Plastic Guide Spacer for 30° Boot (included in FB-FP0002 only)	1
10	KB-FP0004	Upper Plastic Guide Spacer for 30° Boot (included in FB-FP0002 only)	1
11	KB-FP0002	Upper Plastic Guide for 30° Boot	1
12	KB-FPC001	Flow Pro Controller with Sensors	1
13	KB-FP0013	Upper Boot/Plastic Transition, 30° (included in FB-FP0004 only)	1

#### WARNING

SUPPLYING POWER AND MAKING ELECTRICAL CONNECTIONS FROM A NEARBY POWER SOURCE AND WIRING THE MOTOR TO CONTROLLER CAN EXPOSE YOU TO HAZARDOUS ELECTRICAL SHOCK. Disconnect all electrical power before making or changing electrical power connections. Only a qualified/licensed electrician should make or change electrical power connections following all applicable laws and electrical codes.

#### REQUIRED INSTALLATION TOOLS

Installation Tool Kit - KB-FP0014		
4-3/8-in. Hole Saw	8-in. Shaft Extension	Tool Arbor
Shaft Coupling	3/32-in. Hex Key	9/64-in. Hex Key
1-1/2-in. Hole Saw (Used only on 30° boot installation)	Cable Cutter (ordered separately - RFM-1095)	
Required Tools Not Provided in Installation Tool Kit		
Cordless Drill	1/4-in. Drill Bit	1/2-in. Drill Bit
7/16-in. Socket Wrench	5/16-in. Socket Wrench	3/8-in. Socket Wrench
Flathead Screwdriver	1/2-in. Wrench	

#### FASTENERS FOR FLOW PRO FOR 30° BOOTS

Item No.	Part No.	Description	Qty.
14	RFB-1670	Plastic Guide Mounting Bolt, 1/4 x 1-3/4-in.	8
15	RFN-1605	Plastic Guide Mounting Wellnut, 1/4-in.	8
16	RFB-0802	Motor Mount Plate Bolt with Lock Washer, 10-32 x 1/2-in.	6
17	RFW-0901	Motor Mount Plate Washer, #10	4
18	RFB-1301	Bearing Housing Mounting Bolt for Guide Cap, 1/4 x 3/4-in.	4
19	RFW-1301	Bearing Housing Spring Lock Washer for Guide Cap, 1/4-in.	4
20	RFS-0820	Self-Drilling Screw for Guide Cap, #14 x 1-in.	2
21	RXG-1001	Half Gasket for Lower Plastic Guide, 6-1/4-in. OD	2
22	RXG-1002	Half Gasket for Upper Plastic Guide, 2-1/8-in. OD	2
23	RFM-6301	Grommet for Motor/Cable Mounting Bracket, 1/4-in. OD	1
24	RFM-2015	Motor Mounting Support Cable	10 ft.
25	RFM-2016	Motor Mounting Support Cable Clamp	2
26	RFB-1750	Motor Mounting Cable Eyebolt, 1/4-20 x 2.5-in.	1
27	RFW-1700	Motor Mounting Cable Fender Washer, 1/4 x 1-1/4-in.	1
28	RFN-1600	Motor Mounting Cable Wellnut, 1/4 x 1-in.	1

#### FASTENERS & ACCESSORIES FOR FLOW PRO CONTROLLER

29	KB-FP0011	Feed Delivery System Sensor Mounting Bracket	1
30	RFD-1502	Feed Delivery System Sensor Hose Clamp, 1-7/8 to 5-in.	1
31	RFM-6521	Feed Delivery System Sensor Magnet, 5/16-in. OD	1
32	RFM-1072	Gate Slide Sensor Cable Clamp, 3/8-in.	1
33	RFS-0775	Gate Slide Sensor Cable Clamp Self-Drilling Screw, #10 x 3/4-in.	1
34	RFM-6520	Gate Slide Magnetic Strip, 1 x 6-in.	1
35	RFS-0820	Controller Mounting Self-Drilling Screws, #14 x 1-in.	2
36	REC-1005	Wire Nut Connector for Motor Wiring	6

#### BIN BOOT FASTENERS

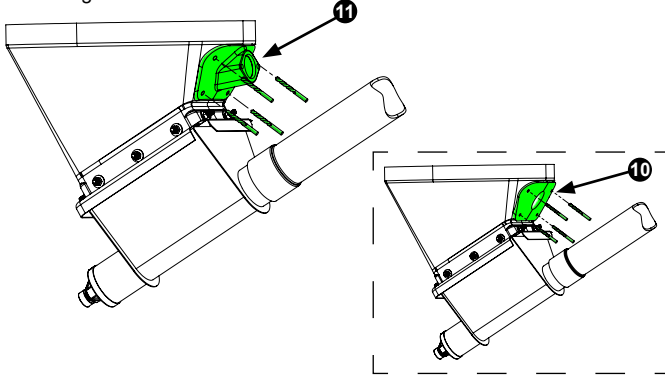
(Included in KB-FP0003 only)

37	RFB-2062	Bin Boot Bolts, 5/16 x 1-in.	20
38	RFN-2104	Bin Boot Nylon Nuts, 5/16-in.	20
39	RFW-1364	Bin Boot Nylon Washers, 5/16-in.	20

FOR NON-ASSEMBLED FLOW PRO AGITATORS (FB-FP0002), BEGIN ASSEMBLY WITH STEP 1.

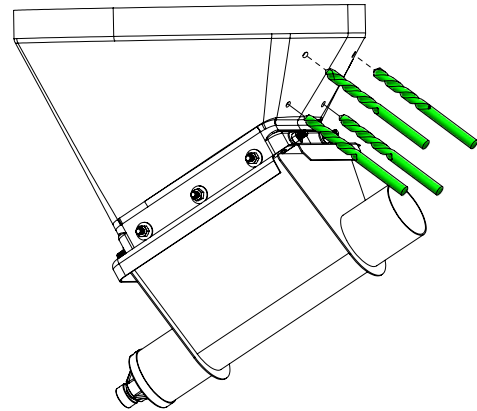
FOR ASSEMBLED FLOW PRO AGITATORS (FB-FP0004), BEGIN ASSEMBLY BY ENSURING BEARING SET SCREWS ARE TIGHT & MOUNT UPPER BOOT/PLASTIC TRANSITION TO BIN USING BIN BOOT FASTENERS (ITEMS 37-39). THEN, PROCEED WITH STEP 13.

1. Align upper agitator guide (Item 11) along the top of the upper boot/plastic transition as shown. Using a cordless drill and 1/4-in. drill bit, drill four (4) holes through the upper boot/plastic transition using the agitator guide as a guide.



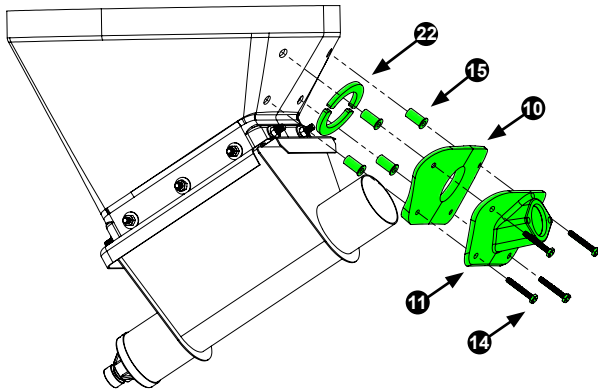
NOTE: A plastic spacer (Item 10) is provided for installation on certain boots where the plastic agitator guides do not fit the contour of the upper boot/plastic transition. Use spacers as drilling guide in these cases.

2. Remove the agitator guide (Item 11) or plastic spacer (Item 10) and enlarge the holes in upper boot/plastic transition using a 1/2-in. drill bit.

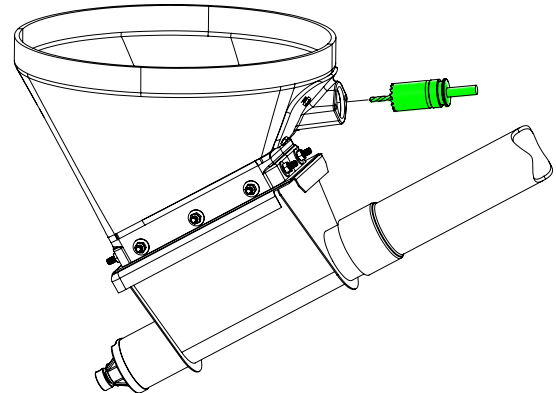


3. Assemble the agitator guide (Item 11), spacer (Item 10), if required, and half gaskets (Item 22) as shown using four (4) 1/4 x 1-3/4-in. bolts (Item 14) and 1/4-in. rubber wellnuts (Item 15).

Hand-tighten rubber wellnuts onto bolts until wellnuts bulge slightly. Install the agitator guide assembly onto upper boot/plastic transition and tighten bolts into wellnuts until fully secure using a 7/16-in. socket.

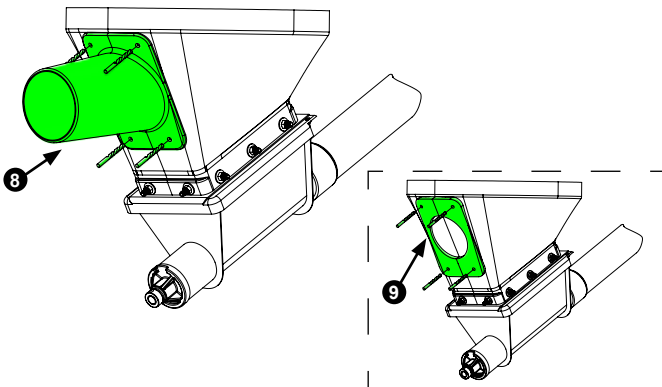


4. Using a 1-1/2-in. hole saw, drill a hole into the upper boot/plastic transition using the upper agitator guide as a guide.



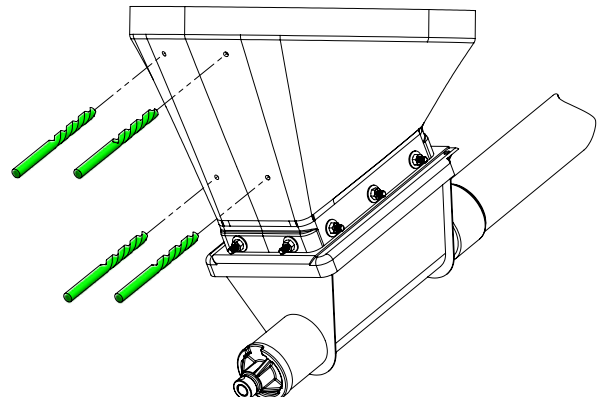
**IMPORTANT NOTE:** Use hole saw in a counter-clockwise direction to allow for smoother cutting.

5. Align the lower agitator guide (Item 8) along the top of the upper boot/plastic transition as shown. Using a 1/4-in. drill bit, drill four (4) holes through the upper boot/plastic transition using the agitator guide as a guide.



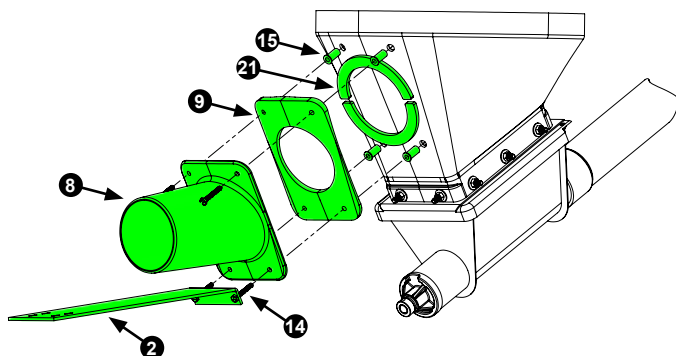
NOTE: A plastic spacer (Item 9) is provided for installation on certain boots where plastic agitator guides do not fit the contour of upper boot/plastic transition. Use spacers as drilling guide in these cases.

6. Remove the agitator guide (Item 8) or plastic spacer (Item 9) and enlarge the holes in upper boot/plastic transition using a 1/2-in. drill bit.

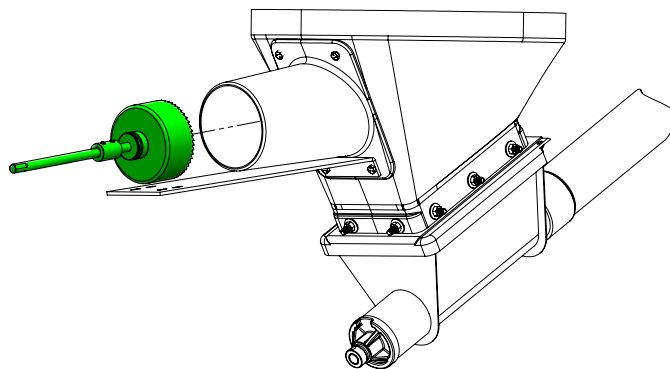


7. Assemble the motor mount plate (Item 2), agitator guide (Item 8), spacer (Item 9), if required, and half gaskets (Item 21) as shown using four (4) 1/4 x 1-3/4-in. bolts (Item 14) and 1/4-in. rubber wellnuts (Item 15).

Hand-tighten rubber wellnuts onto bolts until wellnuts bulge slightly. Install the agitator guide assembly onto upper boot/plastic transition and tighten bolts into wellnuts until fully secure using a 7/16-in. socket.

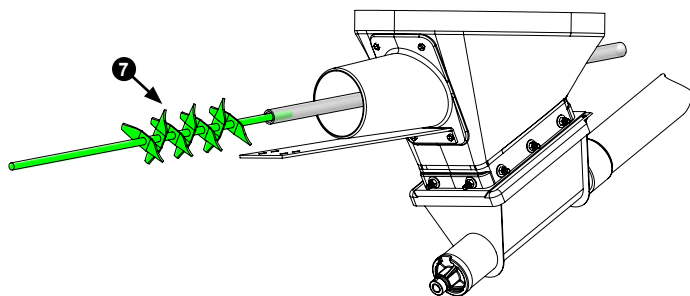


8. Using a 4-3/8-in. hole saw, drill a hole into the upper boot/plastic transition using the upper agitator guide as a guide.



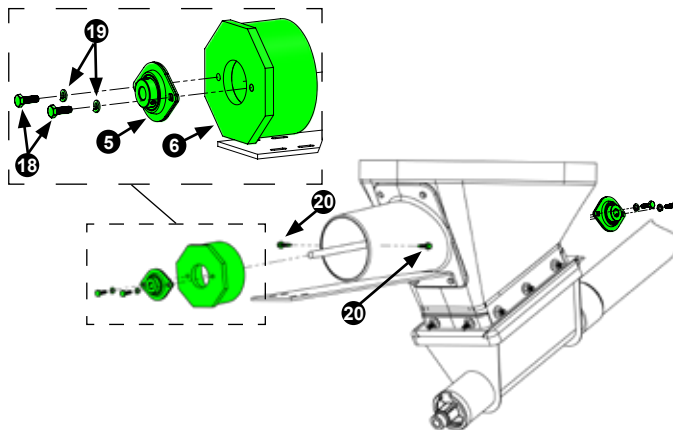
**IMPORTANT NOTE:** Use hole saw in a counter-clockwise direction to allow for smoother cutting.

9. Insert the agitator shaft assembly (Item 7) into the lower boot/plastic transition through the plastic guides.



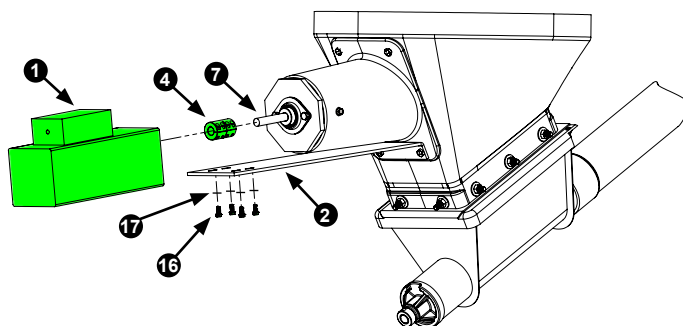
NOTE: For bins with feed, sliding a 3/4 to 1-in. ID pipe through the opposite end of the boot and over the shaft assembly to guide the assembly through the feed may allow for easier installation.

10. Loosely secure bearing with mounting plates (Item 5) onto PVC guide cap (Item 6) using 1/4 x 3/4-in. bolts (Item 18) and 1/4-in. spring lock washer (Item 19), but do not fully tighten. Secure second bearing with mounting plates on upper plastic guide (Item 11) in similar manner.



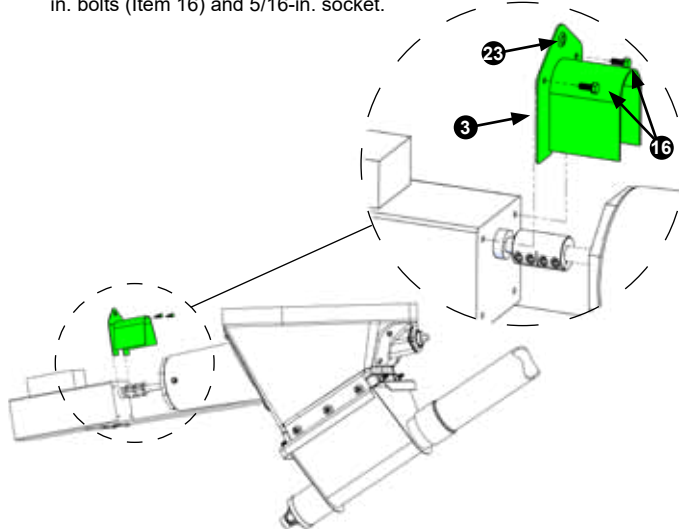
Slide PVC guide cap on agitator shaft assembly and into lower plastic guide. Secure to plastic guide using two (2) #14 x 1-in. self-drilling screws (Item 20) and 3/8 socket.

11. Slide the shaft coupling (Item 4) onto the agitator shaft assembly (Item 7) and onto the motor shaft at the opposite end of the coupling. Attach the motor (Item 1) to the motor mount plate (Item 2) using four (4) 10-32 x 1/2-in. bolts (Item 16), #10 washers (Item 17), and a 5/16-in. socket.

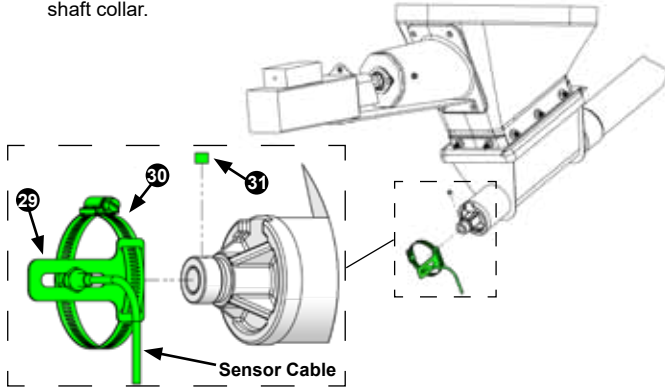


Adjust coupling and agitator shaft until both shafts extend approximately half-way through the coupling. Fully tighten bearing mounting plates installed in previous step with a 7/16-in. socket and the set screw in the bearings using a 3/32-in. hex key. Then, tighten the bolts in shaft coupling using a 9/64-in. hex key.

12. Install plastic grommet (Item 23) onto the shaft safety cover/motor cable mount (Item 3) and attach the assembly on the motor using 10-32 x 1/2-in. bolts (Item 16) and 5/16-in. socket.

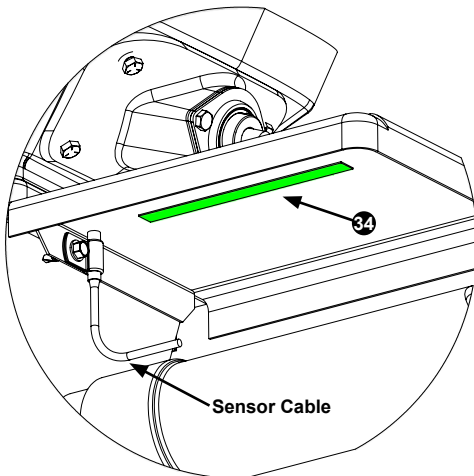


13. Install the feed delivery system sensor mounting bracket (Item 29) on the hose clamp (Item 30) and tighten onto the feed delivery system's auger bearing using a flathead screwdriver or 5/16-in. socket. Place sensor magnet (Item 31) on top of set screw on feed delivery system's auger shaft collar.

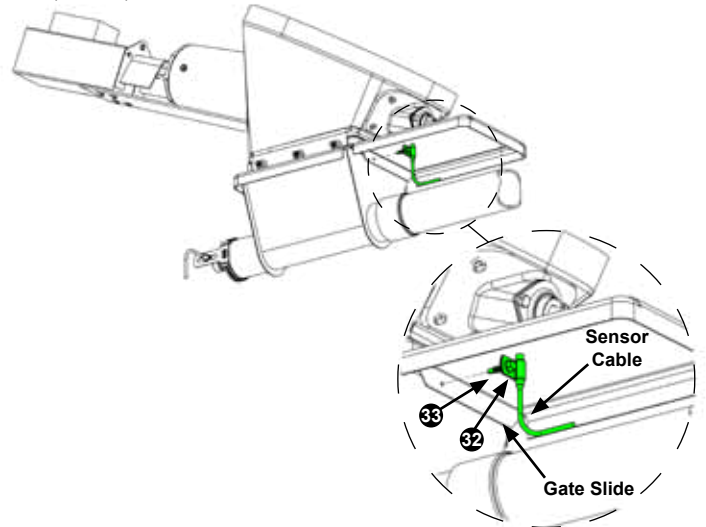


Install the feed delivery system sensor (included with Item 12) onto the sensor mounting bracket using the nuts included on the sensor. Adjust the position of the sensor on the mounting bracket until it aligns with the magnet and is within approximately 1/4-in. of the magnet. Gently tighten the nuts on the sensor with a 1/2-in. wrench.

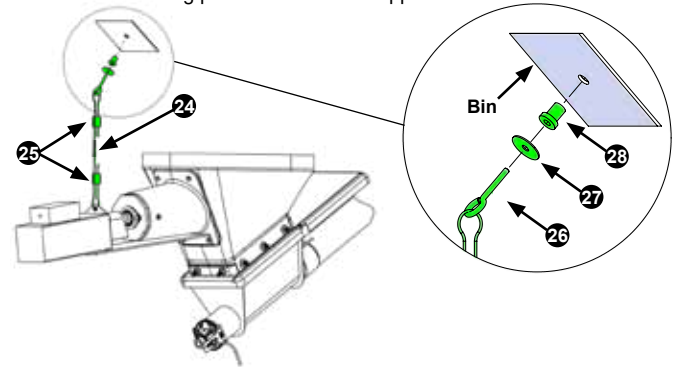
15. Remove paper backing and attach the magnetic strip (Item 34) to the bottom of the slide cover, aligning it with the gate slide sensor. Ensure the magnetic strip is located such that the gate slide sensor can detect it when the gate slide is fully open.



14. Attach the gate slide sensor (included with Item 12) to the gate slide using the 3/8-in. cable clamp (Item 32) and #10 x 3/4-in. self-drilling screw (Item 33) and a 5/16-in. socket.

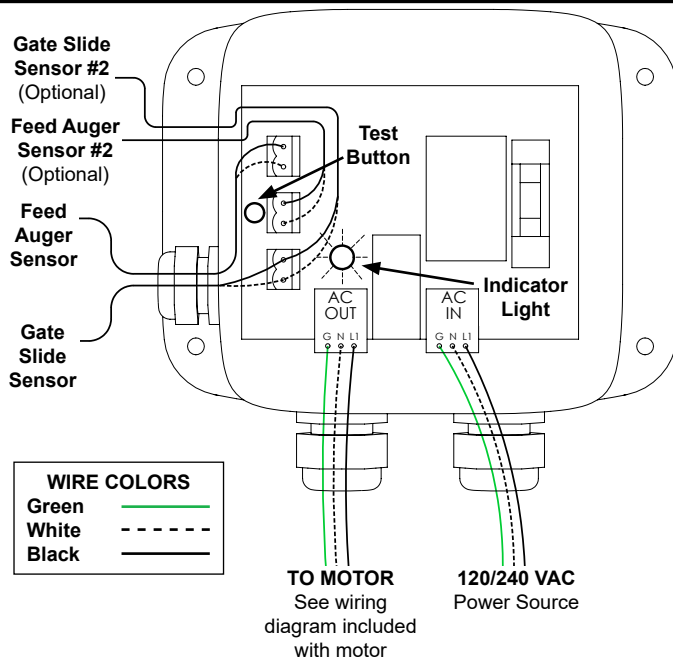


16. Use a 1/2-in. drill bit to drill a hole through the bin's bottom cone directly above the motor. Install 1/4 x 1-in. rubber wellnut (Item 28), 1/4-in. fender washer (Item 27), and 1/4-20 x 2-1/2-in. eye bolt (Item 26) in the hole to create mounting point for the motor support cable.



Loop motor support cable (Item 24) through grommet hole on motor/cable mounting bracket and secure cable using cable clamp (Item 25). Loop opposite end of motor support cable through eye bolt and secure using second cable clamp (Item 25). Ensure there is no slack in the cable and motor is fully supported, then cut and discard excess cable leaving a 6-in. "tail" at each end.

### CONTROLLER & MOTOR WIRING INSTRUCTIONS



17. Install the controller box (Item 12) in a suitable location (like on a supporting cross-beam on the bin) using #14 x 1-in. self-drilling screws (Item 35) and 3/8-in. socket.
18. Supply power to the controller and wire the motor into the controller box using suitable power cable (not provided) and wire nut connectors (Item 36) through the strain reliefs on the controller box. See wiring diagram at left. Removing the four screws that mount the printed circuit board (PCB) to the enclosure and gently removing the PCB from the enclosure may allow for easier wiring of power cables. **IMPORTANT: Only licensed electricians should make or change electrical power connections following all applicable laws and electrical codes.**
19. Test the operation of the Flow Pro agitator by pressing the test button on the PCB. Once proper operation has been verified, close the controller box to seal out moisture and debris.

### OPTIONAL WIRING - CONTROLLER SENSOR KIT FOR DUAL UNLOADERS

20. Wire the sensors in the controller sensor kit for dual unloaders (KB-FPC002) into the controller box through available strain reliefs following the wiring diagram at left. Follow steps 13-15 to install the sensor mounting parts and magnets on the second unloader.

**OPERATING INSTRUCTIONS. READ CAREFULLY.**

The Flow Pro Bulk Bin Agitator provides gentle agitation to feed inside a bulk bin's upper boot/plastic transition using an agitator shaft assembly connected to a 100-RPM gear motor. Although the system was tested and proven effective at minimizing feed bridging or clumping issues with a variety of feedstuffs, some ultra high-fat and high-moisture feeds can bridge above the Flow Pro agitator. Agitation above the Flow Pro agitator may be required.

Flow Pro is designed to operate only when feed delivery systems are active. Sensors monitor activity of the feed delivery system by (1) detecting the rotating feed delivery system auger using a sensor and small magnet, and (2) detecting the presence of an open gate slide using a magnetic strip. Sensors should be positioned no more than 1/4-in. away from the magnets for best detection. Use the test button on the printed circuit board inside the controller box to test operation. The LED light on the circuit board indicates available power to the controller and agitator motor.

**BINS IN TANDEM** and non-typical applications where bins are allowed to sit full without being unloaded for a period of time may require additional agitation to get feed flowing at the beginning.

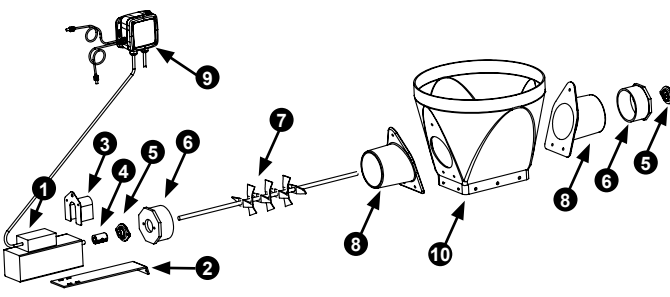
**CAUTION:** Exercise caution around rotating motor and agitator shaft. Keep hands free and clear of rotating motor shaft and agitator shaft and ensure protective cover is in place at all times.



**FLOW PRO® FOR STRAIGHT BOOT**  
**Installation & Assembly Instructions**  
 FB-FP0001 and FB-FP0003

**SEE PAGE 1 FOR 30° BOOT FLOW PRO INSTALLATION & ASSEMBLY INSTRUCTIONS**

**FLOW PRO KIT FOR STRAIGHT BOOT**  
 FB-FP0001 & FB-FP0003



Item No.	Part No.	Description	Qty.
1	REM-3000	1/6 HP Gear Motor, 1 PH, 120/240 VAC	1
2	KB-FP0008	Straight Boot Motor Mount Plate, ZP	1
3	SB-FP0004	Shaft Safety Cover/Cable Mounting Bracket, SS	1
4	RFM-5045	Shaft Coupling, 1/2" ID x 1-1/8" OD	1
5	RXC-0120	Bearing with Mounting Plates, 1/2" ID	2
6	KB-FP0010	Guide Cap, PVC	2
7	KB-FP0006	Agitator Shaft Assembly, Steel/SS Combo	1
8	KB-FP0001	Plastic Guide for Straight Boot	2
9	KB-FPC001	Flow Pro Controller with Sensors	1
10	KB-FP0012	Upper Boot/Plastic Transition, Straight <i>(Included in KB-FP0003 only)</i>	1

**REQUIRED INSTALLATION TOOLS - SEE PAGE 1**

FASTENERS & ACCESSORIES FOR FLOW PRO			
Item No.	Part No.	Description	Qty.
11	RFB-1670	Plastic Guide Mounting Bolt, 1/4 x 1-3/4-in.	6
12	RFN-1605	Plastic Guide Mounting Wellnut, 1/4-in.	6
13	RFB-0802	Motor Mount Plate Bolt w/ Lock Washer, 10-32 x 1/2-in.	6
14	RFW-0901	Motor Mount Plate Washer, #10	4
15	RFB-1301	Bearing Housing Mounting Bolt for Guide Cap, 1/4 x 3/4-in.	4
16	RFW-1301	Bearing Housing Spring Lock Washer for Guide Cap, 1/4-in.	4
17	RFS-0820	Self-Drilling Screw for Guide Cap, #14 x 1-in.	4
18	RXG-1001	Half Gasket for Plastic Guide, 6-1/4-in. OD	4
19	RFM-6301	Grommet for Motor/Cable Mounting Bracket, 1/4-in. OD	1
20	RFM-2015	Motor Mounting Support Cable	10 ft.
21	RFM-2016	Motor Mounting Support Cable Clamp	2
22	RFB-1750	Motor Mounting Cable Eyebolt, 1/4-20 x 2.5-in.	1
23	RFW-1700	Motor Mounting Cable Fender Washer, 1/4 x 1-1/4-in.	1
24	RFN-1600	Motor Mounting Cable Wellnut, 1/4 x 1-in.	1

**FASTENERS & ACCESSORIES FOR FLOW PRO CONTROLLER - SEE PAGE 1**

**BIN BOOT FASTENERS - SEE PAGE 1**  
*(Included in KB-FP0003 only)*



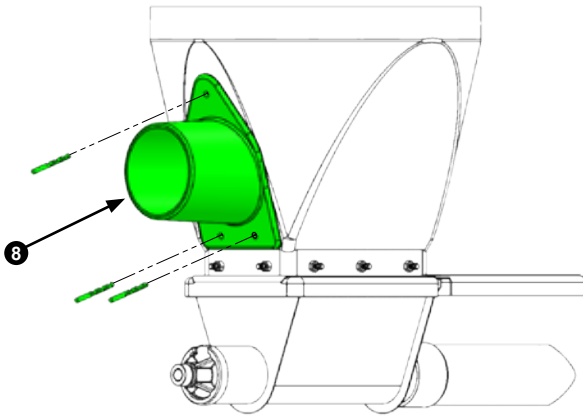
**P.O. Box 388 • Osborne, KS 67473 U.S.A.**  
**Phone: 1-800-255-0316 • Fax: 1-785-346-2194**  
**sales@osborne-ind.com • www.osbornelivestockequipment.com**



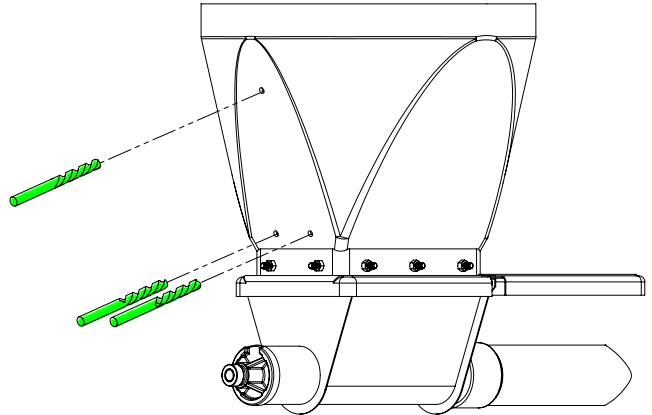
FOR NON-ASSEMBLED FLOW PRO AGITATORS (FB-FP0001), BEGIN ASSEMBLY WITH STEP 1.

FOR ASSEMBLED FLOW PRO AGITATORS (FB-FP0003), BEGIN ASSEMBLY BY ENSURING BEARING SET SCREWS ARE TIGHT & MOUNT UPPER BOOT/PLASTIC TRANSITION TO BIN USING BIN BOOT FASTENERS (ITEMS 37-39). THEN, PROCEED WITH STEP 11.

1. Align an agitator guide (Item 8) along the base of the upper boot/plastic transition as shown. Using a cordless drill and 1/4-in. drill bit, drill three (3) holes through the upper boot/plastic transition using the agitator guide as a guide.

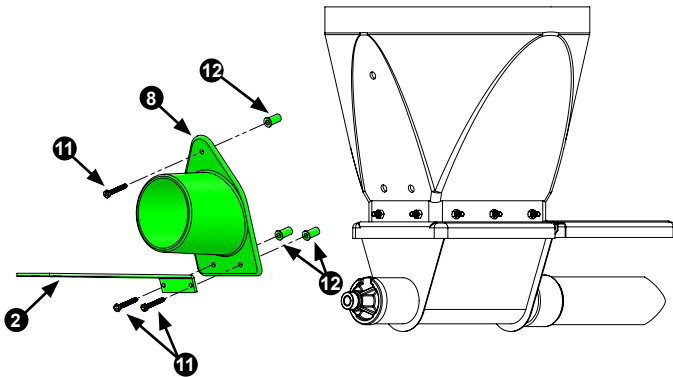


2. Remove the agitator guide (Item 8) and enlarge the holes in upper boot/plastic transition using a 1/2-in. drill bit.



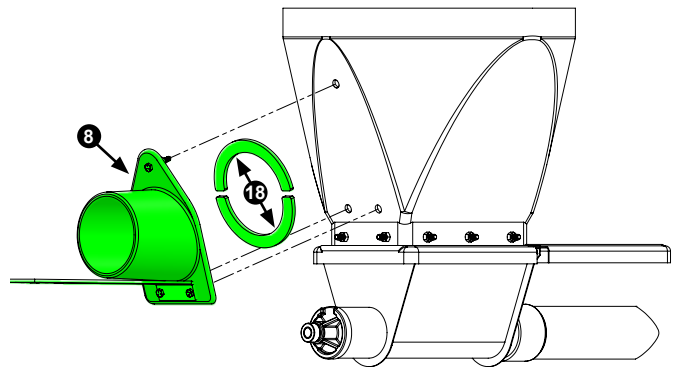
3. Assemble the agitator guide (Item 8) and motor mount plate (Item 2) as shown using three (3) 1/4 x 1-3/4-in. bolts (Item 11) and 1/4-in. rubber wellnuts (Item 12).

Hand-tighten rubber wellnuts onto bolts until wellnuts bulge slightly.

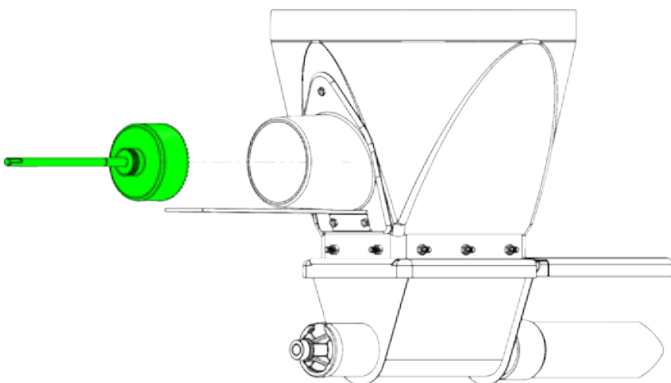


4. Install two (2) half gaskets (Item 18) around back opening of the agitator guide (Item 8) and attach the agitator guide and motor mount assembly to the upper boot/plastic transition.

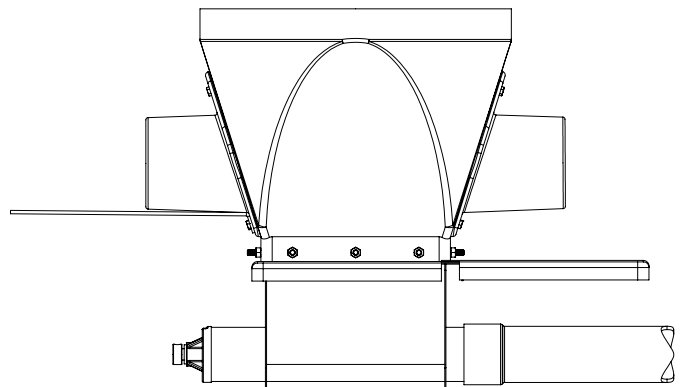
Fully tighten bolts into the wellnuts in the upper boot/plastic transition with a 7/16-in. socket until fully secure.



5. Using a 4-3/8-in. hole saw, drill a hole into the upper boot/plastic transition using the agitator guide as a guide.

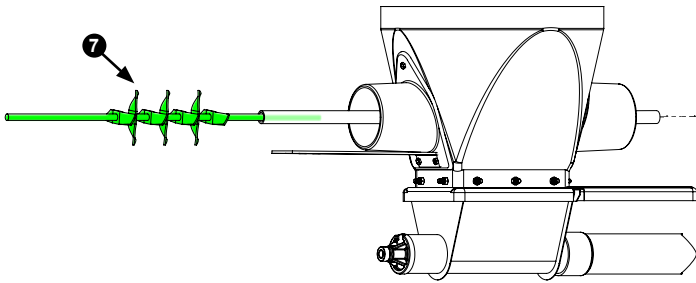


6. Repeat steps 1-5 (omitting assembly of motor mount plate) for the opposite side of the upper boot/plastic transition.



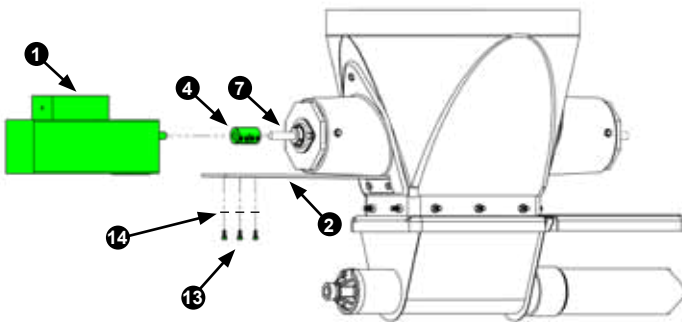
**IMPORTANT NOTE:** Use hole saw in a counter-clockwise direction to allow for smoother cutting.

7. Insert the agitator shaft assembly (Item 7) into the upper boot/plastic transition through the plastic guides.



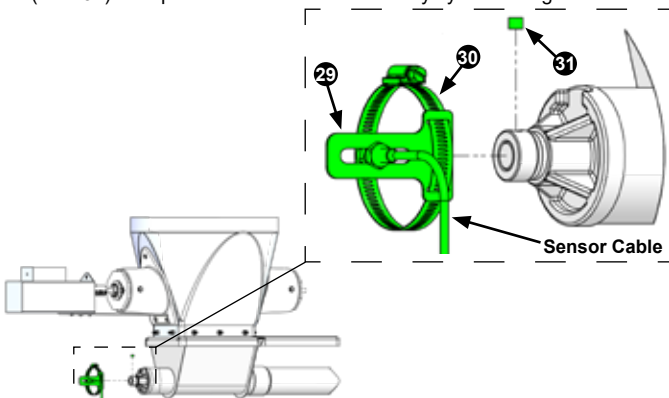
NOTE: For bins with existing feed, slide a 3/4 to 1-in. ID pipe through the opposite end of the boot and over the shaft assembly to guide the assembly through the feed for easier installation.

9. Slide the shaft coupling (Item 4) onto the agitator shaft assembly (Item 7) and onto motor shaft at the opposite end of the coupling. Attach the motor (Item 1) to the motor mount plate (Item 2) using four (4) 10-32 x 1/2-in. bolts (Item 13), #10 washers (Item 14), and a 5/16-in. socket.



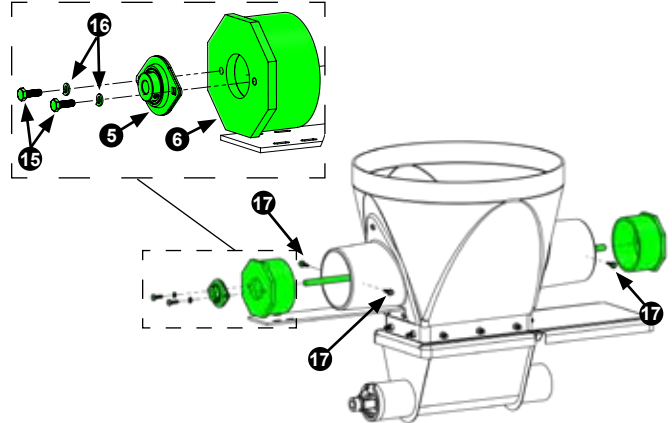
Adjust coupling and agitator shaft until both shafts extend approximately half-way through the coupling. Fully tighten bearing mounting plates installed in previous step with a 7/16-in. socket and the set screw in the bearings using a 3/32-in. hex key. Then, tighten the bolts in the shaft coupling using a 9/64-in. hex key.

11. Install feed delivery system sensor mounting bracket (Item 29) on hose clamp (Item 30) and tighten onto the feed delivery system's auger bearing using a flathead screwdriver or 5/16-in. socket. Place sensor magnet (Item 31) on top of set screw on feed delivery system's auger shaft collar.



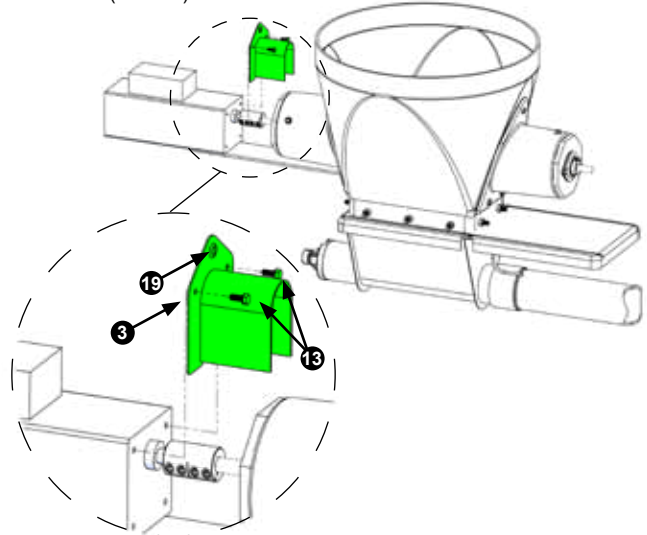
Install feed delivery system (auger) sensor (included with Item 9) onto sensor mounting bracket using the nut included with the sensor. Adjust the position of the sensor on the mounting bracket until it aligns with the magnet and is within approximately 1/4-in. of the magnet. Gently tighten the nuts on the sensor with a 1/2-in. wrench.

8. Loosely secure bearing with mounting plates (Item 5) onto the PVC guide cap (Item 6) using 1/4 x 3/4-in. bolts (Item 15) and 1/4-in. spring lock washer (Item 16), but do not fully tighten. Repeat for the second PVC guide cap.

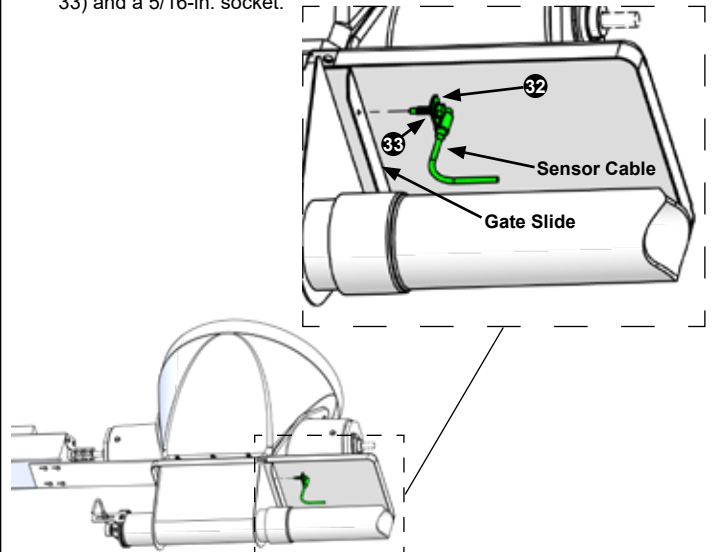


Slide PVC guide cap on agitator shaft assembly and into plastic guides. Secure cap to plastic guide through the pre-drilled holes in the guide using two (2) #14 x 1-in. self-drilling screws (Item 17) and 3/8 socket. Repeat process for second PVC guide cap.

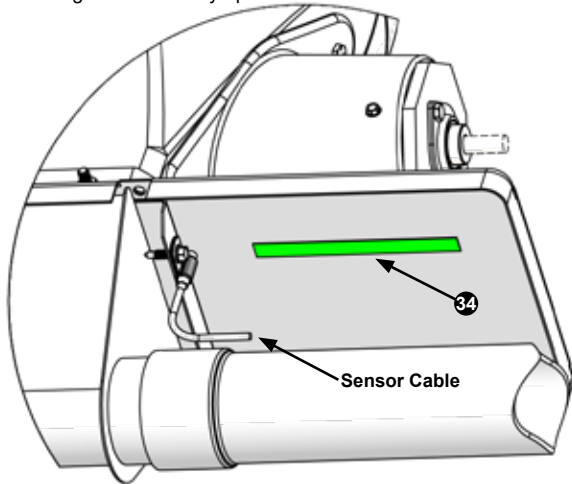
10. Install plastic grommet (Item 19) onto the shaft safety cover/motor cable mount (Item 3) and attach the assembly on the motor using 10-32 x 1/2-in. bolts (Item 13) and 5/16-in. socket.



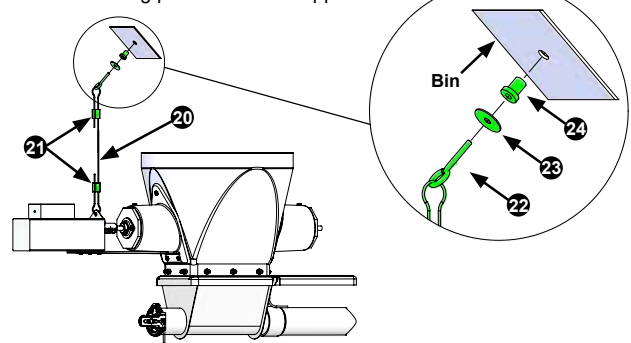
12. Attach gate slide sensor (included with Item 9) to gate slide using the 3/8-in. cable clamp (Item 32) and #10 x 3/4-in. self-drilling screw (Item 33) and a 5/16-in. socket.



13. Remove paper backing and attach the magnetic strip (Item 34) to the bottom of the slide cover, aligning it with the gate slide sensor. Ensure the magnetic strip is located such that the gate slide sensor can detect it when the gate slide is fully open.

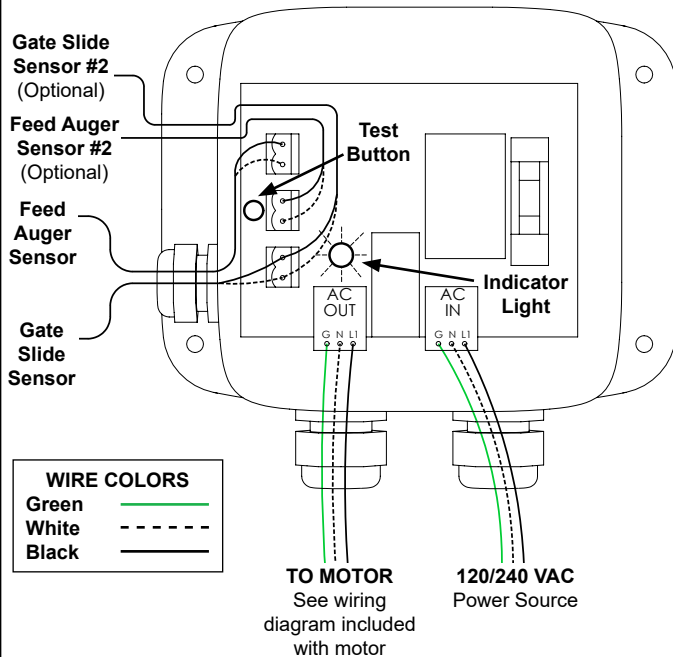


14. Use a 1/2-in. drill bit to drill a hole through the bin's bottom cone directly above the motor. Install 1/4 x 1-in. rubber wellnut (Item 24), 1/4-in. fender washer (Item 23), and 1/4-20 x 2-1/2-in. eye bolt (Item 22) in the hole to create mounting point for motor support cable.



Loop motor support cable (Item 20) through grommet hole on shaft safety cover/cable mounting bracket (Item 3) and secure cable using cable clamp (Item 21). Loop opposite end of motor support cable through eye bolt and secure using second cable clamp (Item 21). Ensure there is no slack in the cable and motor is fully supported, then cut and discard excess cable leaving a 6-in. "tail" at each end.

### CONTROLLER & MOTOR WIRING INSTRUCTIONS



15. Install the controller box (Item 9) in a suitable location (like on a supporting cross-beam on the bin) using #14 x 1-in. self-drilling screws (Item 35) and 3/8-in. socket.
16. Supply power to the controller and wire the motor into the controller box using suitable power cable (not provided) and wire nut connectors (Item 36) through the strain reliefs on the controller box. See wiring diagram at left. **IMPORTANT: Only licensed electricians should make or change electrical power connections following all applicable laws and electrical codes.**
17. Test the operation of the agitator by pressing the test button on the printed circuit board. Once proper operation has been identified, close and seal the controller box.

### OPTIONAL WIRING - CONTROLLER SENSOR KIT FOR DUAL UNLOADERS

18. Wire the sensors in the controller sensor kit for dual unloaders (KB-FPC002) into the controller box through available strain reliefs following the wiring diagram at left. Follow steps 11-13 to install the sensor mounting parts and magnets on the second unloader.

### OPERATING INSTRUCTIONS. READ CAREFULLY.

The Flow Pro Bulk Bin Agitator provides gentle agitation to feed inside a bulk bin's upper boot/plastic transition using an agitator shaft assembly connected to a 100-RPM gear motor. Although the system was tested and proven effective at minimizing feed bridging or clumping issues with a variety of feedstuffs, some ultra high-fat and high-moisture feeds can bridge above the Flow Pro agitator. Agitation above the Flow Pro agitator may be required.

Flow Pro is designed to operate only when feed delivery systems are active. Sensors monitor activity of the feed delivery system by (1) detecting the rotating feed delivery system auger using a sensor and small magnet, and (2) detecting the presence of an open gate slide using a magnetic strip. Sensors should be positioned no more than 1/4-in. away from the magnets for best detection. Use the test button on the printed circuit board inside the controller box to test operation. The LED light on the circuit board indicates available power to the controller and agitator motor.

**BINS IN TANDEM** and non-typical applications where bins are allowed to sit full without being unloaded for a period of time may require additional agitation to get feed flowing at the beginning.

**CAUTION:** Exercise caution around rotating motor and agitator shaft. Keep hands free and clear of rotating motor shaft and agitator shaft and ensure protective cover is in place at all times.



P.O. Box 388 • Osborne, KS 67473 U.S.A.  
 Phone: 1-800-255-0316 • Fax: 1-785-346-2194  
 sales@osborne-ind.com • www.osbornelivestockequipment.com