

Before You Begin

Read this entire manual.

Before starting the installation, verify the job site dimensions and the dimensions of the delivered materials against the PFlow Industries, Inc. General Arrangement (GA) drawing. Review and verify the enclosure positions and attachment fit-up to the gate post enclosure angle. If the site conditions do not match the GA drawing, please consult the PFlow Industries, Inc. Customer Support Department.



! DANGER

Falling gate hazard! The installation of this equipment requires a qualified installer with extensive knowledge and experience on how to rig and erect structural steel. Make sure to properly support, tie off, or temporarily brace the gate posts, gate panels, and gate assembly during installation. Do not depend on the gate post feet to support the gate posts while the gate is being positioned or assembled. Final bracing of the gate assembly must be to the Vertical Reciprocating Conveyor (VRC) or building structure. The use of structural angle is recommended.



Falling Hazard! The gate panel safety latch may not be operational while the gate is being installed. If you must leave a gate or gate panel unattended, put up barriers and signs warning personnel to stay clear.

! CAUTION



Lifting hazard! Components and accessories are heavy. To prevent serious personal injury, use the appropriate lifting apparatus, tie offs, or help when moving, lifting or assembling the components or accessories.

NOTICE

A qualified person is defined as a person who, by possession of a recognized degree or certificate of professional standing, or by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve problems relating to the subject matter and work.

Identify Components

Gate components, posts, panels, and header assembly have color coded tags. Each gate tag is a different color.

Level	Tag Color	Part	Weight
1st (bottom)	Green	J#-0101	380 lbs (172 kg)
2nd	Yellow	J#-0102	380 lbs (172 kg)
3rd	Red	J#-0103	380 lbs (172 kg)
4th	Blue	J#-0104	380 lbs (172 kg)
5th	Cream	J#-0105	380 lbs (172 kg)

The preferred method of installing a gate is to pre-assemble the full gate assembly on the floor, secure the pieces, and then stand it up. If for some reason pre-assembly is not possible, use these instructions as a general guide for the assembling, positioning, and securing of the gates.

Gate Installation

Floor Level Swing with Sliding Latch



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Tools Required

GA Drawing	Four (4) 4' Lifting Straps and Clevises
25' (7,62 m) Measuring Tape	Four (4) 6' Lifting Straps and Clevises
Come-Along	Four (4) Lifting Strap Sleeve
Extension Cords	Sledge Hammer
Hammer	C-Clamps, Four (4) 6" and Four (4) 8"
Temporary Anchors	Pry Bar
Welding Curtain	Hot Works Permit
Fire Extinguisher	Welding Machine and Equipment
4' (1,22 m) Level	Welding and Grinding PPE
Torpedo Level	1/2" x 4" Long Wedge Style Anchors
1/2" Concrete Drill Bit	Hammer Drill
Open or Box-end Wrenches to 1-5/16"	Carpenter Square
Chalk Line	Pencil
Fork Lift: 2,000 lb. (907 kg) Lifting Capacity (Minimum)	
Two (2) Chain Falls: 2,000 lb. (907 kg) Capacity (Minimum)	

Number of People

Two (2) people are recommended for this portion of the installation.

Gate Installation

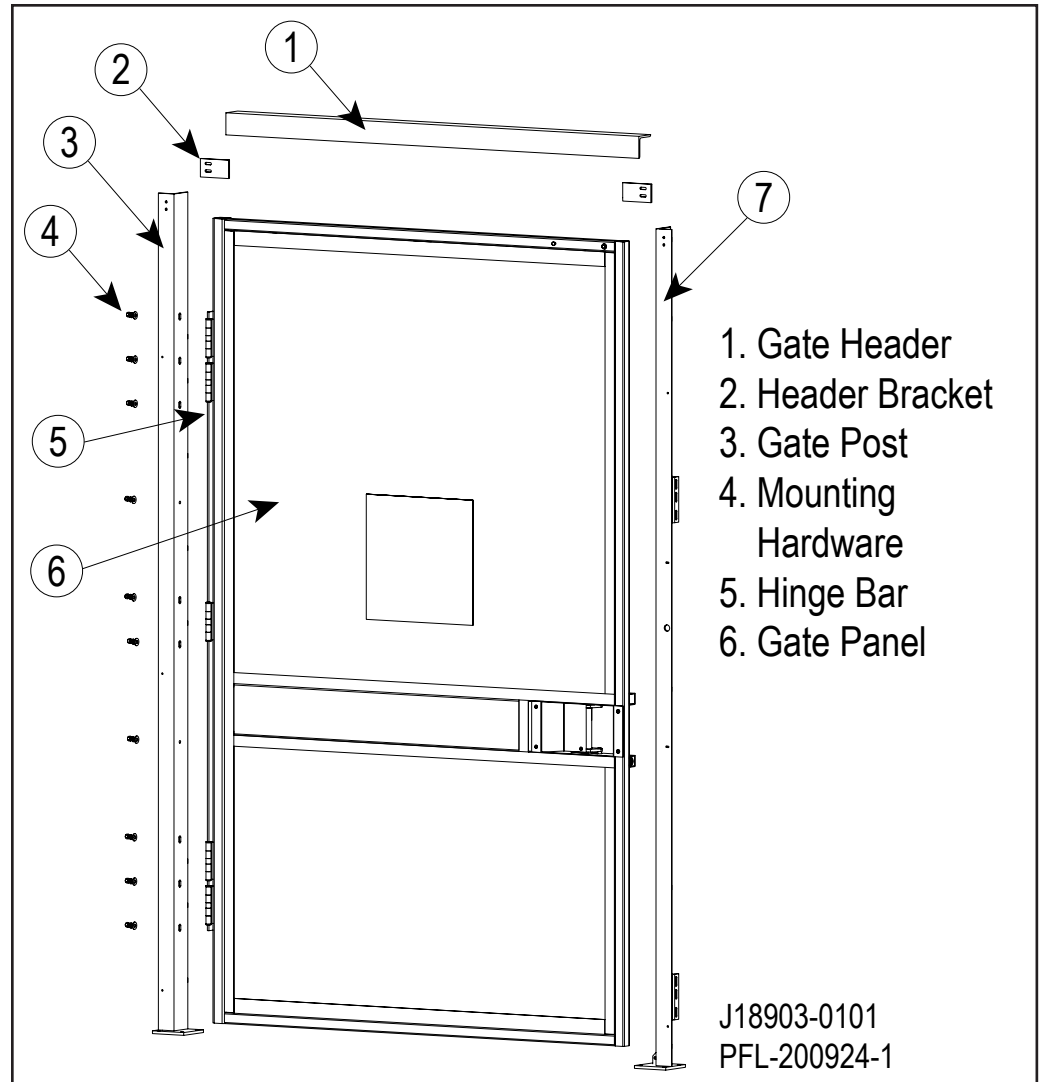
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Assemble the Sliding Latch Gate

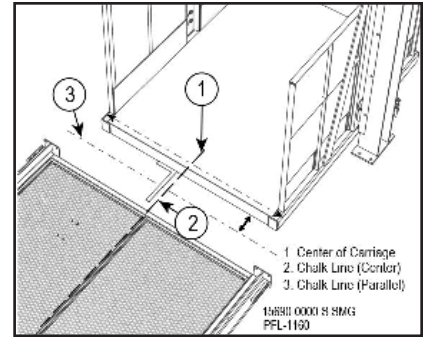


Sliding Gate Layout
Figure 1

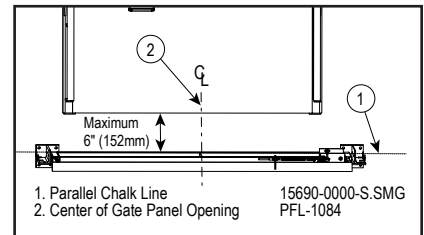
1. Lay the gate posts (item 3 and item 7) on the floor parallel to each other. See Figure 1.
2. Place the gate header (item 1) at the top of the gate posts and bolt or clamp to the gate posts with the header bracket provided (item 2).
3. Position the back side of the gate panel (item 6) between the parallel gate posts and align with the hinge bars (item 5).
4. Attach the gate post (item 3) to the gate panel hinge bar (item 5).
5. Square up the frame and door.
6. Confirm that the spacing between the panel, posts, and header are even throughout.
7. Wrap straps around the gates from side to side to hold in place while the panel is lifted into place.

Align the Sliding Latch Gate

1. Locate and mark the center of the gate panel on the gate panel with a pencil. See Figure 2.
2. Measure the outside edge to the outside edge of the carriage to locate the center line. Mark the center line with a pencil on the top of the carriage deck.
3. Position a carpenter square on the edge of the carriage to extend the center line onto the floor 10" (254mm) away from the carriage.
4. Mark a chalk line on the floor to ensure the center of the panel is on the center line of the carriage.
5. When the measurement from the back side of the gate panel to the carriage has been determined, snap a chalk line to identify the position of the gate panel parallel to the carriage. See Figure 3.



Establish Center and Parallel Line
Figure 2



Gate Alignment
Figure 3

NOTE *The ideal position of the gate panel is a maximum of 6" (152mm) from the inside of the gate panel to the front edge of the carriage. Local codes may have specific requirements concerning this distance.*



Raise and Secure the Sliding Latch Gate Assembly

Anchor the Gate Post Base Plates

Plumb and Square the Gate

Install Support Braces

Verify the Gate Panel Swing

⚠ DANGER

Falling gate hazard! Be sure to properly support, tie off, or temporarily brace the gate posts, gate panels, and gate assembly during installation. Do not depend on the gate post feet to support the gate posts while the gate is being positioned or assembled. Final bracing of the gate assembly must be to the Vertical Reciprocating Conveyor (VRC) or building structure. The use of structural angle is recommended.

1. Raise and secure the gate assembly.
2. Align the center of the gate to the center of the carriage. See Figure 3.
3. Align the back side of the gate panel on the parallel chalk line. See Figure 2.
4. Drill and anchor the gate post base plates to the floor with 1/2" anchors, 4" (102mm) long.

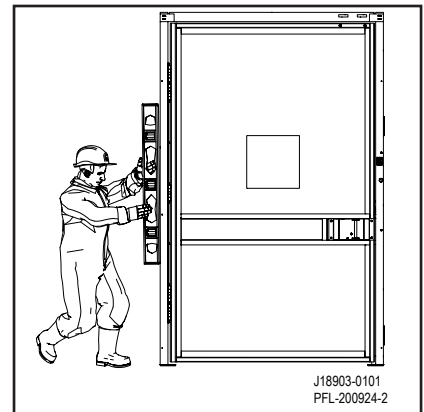
⚠ DANGER

Falling gate hazard! The anchor hole depth should always be deeper than the length of the anchor bolt. The recommended wedge anchor size is 1/2" diameter by 4" (102mm) long.

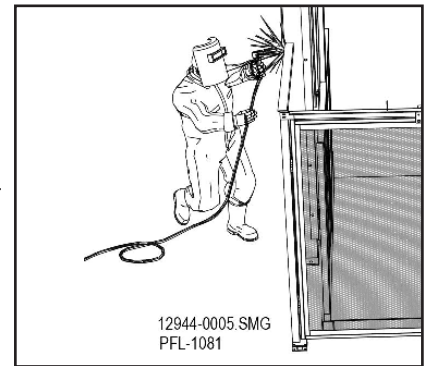
Plumb and square the gate posts using a level that is 4' (1,22 m) or longer. See Figure 4.

1. Measure the distance from the gate post to the Vertical Reciprocating Conveyor (VRC) column.
2. Cut two (2) 1-1/2" x 1-1/2" (38mm x 38mm) steel angle support braces and weld to each gate post and to the VRC columns or wall. See Figure 5.
3. Remove all straps.

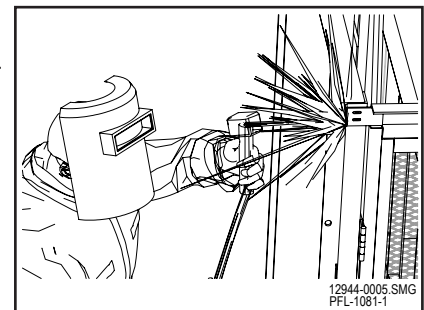
1. Verify the gate panel swing for proper operation and site operational clearance.
2. Verify that the sliding latch engages with the gate frame properly.
3. Confirm that the gate is plumb and square.
4. Weld the gate header to the gate posts. See Figure 6.



*Plumb the Gate
 Figure 4*



*Weld Support Braces
 Figure 5*



*Weld Gate Header to Gate Posts
 Figure 6*

Gate Installation

Floor Level Swing with Sliding Latch



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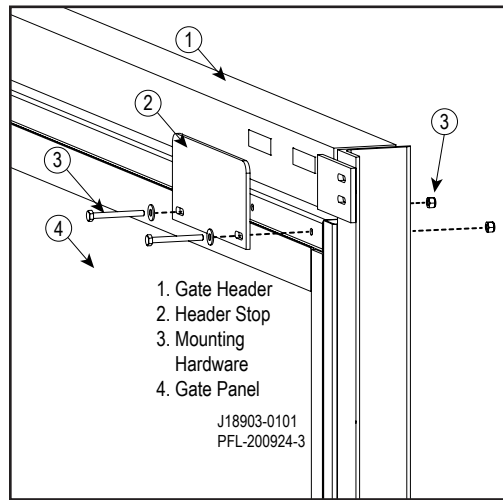
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Attach Door Upper Stop Plate

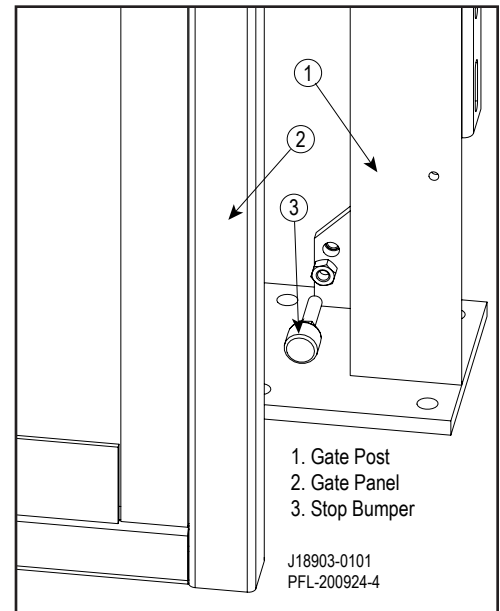
1. Attach header stop (item 2) to the top of the gate panel (item 4) using the mounting hardware (item 3). See Figure 7.
2. Tighten screws.

Attach Door Lower Stop Bumper

1. Attach door lower stop bumper (item 3) to the base plate of the gate post (item 1) with hex nuts. See Figure 8.
2. Tighten hex nuts.



Attach Door Upper Stop Plate
Figure 7



Attach Door Lower Stop Bumper
Figure 8

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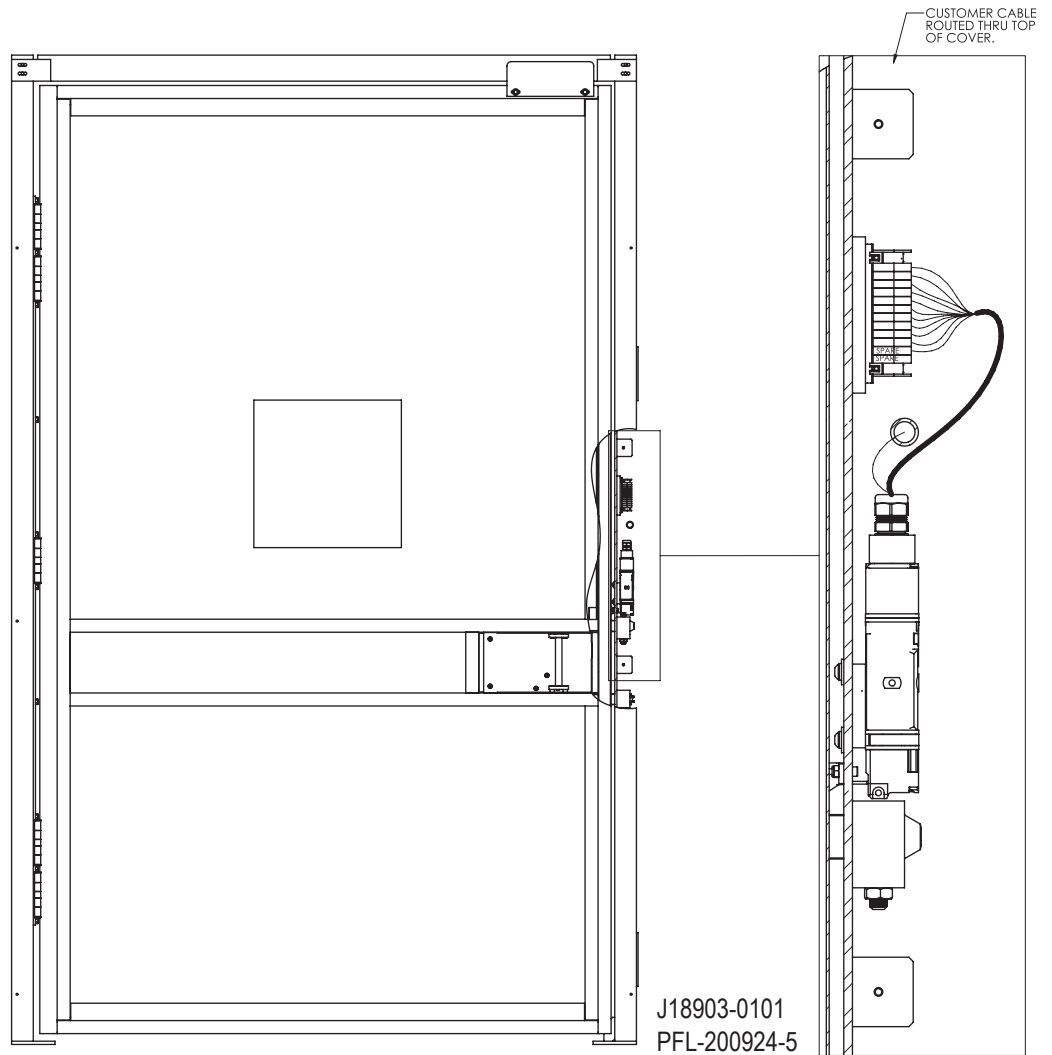
NOTE The wires from the control panel to the sliding latch gate are not supplied by PFlow Industries, Inc.

Complete Electrical Wiring

1. Remove the access panel from the sliding latch gate frame. See Figure 9.
2. Route the door switch cable through the top of the cover.
3. Connect wires to the mini terminal per the wiring layout on the job specific gate assembly drawing.

NOTICE All spare wires must be crimp-capped.

4. Replace access panel.



Complete Electrical Wiring to Door Interlock
Figure 9

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