

INDUSTRIAL SWING DOOR

Installation Instructions/Operation and Maintenance Manual



Models:

SWG:S

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Monday - Friday

IMPORTANT! Read entire Instruction and Operations Manual to become familiar with the product.

NOTICE This product is a commercial product. The effectiveness of the product is directly related to the proper installation and operation of this product. Failure to properly maintain this product **will** affect performance.

Publication Notice

This manual has been compiled and published covering the latest product descriptions and specifications.

The contents of this manual and the specifications of this product are subject to change without notice.

PS Access Solutions[™] reserves the right to make changes without notice in the specifications and materials contained herein and shall not be responsible for any damages (including consequential) caused by reliance on the materials presented, including but not limited to typographical and other errors relating to the publication.

PS Access Solutions and/or its respective suppliers may make improvements and/or changes in the product(s)/service(s) offered and/or the program(s) at any time without notice.

Retain this manual for future reference.

If you would like to download a copy of this manual, please go to psaccesssolutions.com

Product registration is an essential step to protecting your product, register Online at psindustries.com/contact/register-your-product/



Safety Precautions

The following icons are used throughout this Manual.

A DANGER Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

A WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

A CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderated injury.

NOTICE Indicates manufacturer's statement of additional information.

IMPORTANT! Indicates a required action.

CRITICAL Indicates a vital component to product performance.

Product Information

NOTICE Unauthorized modification of or to the Product voids this Limited Warranty. Authorized modifications, received in writing from PS Industries® Incorporated, as long as the modification is accomplished in strict accordance with PS Industries' instructions, does not void warranty. If this product is modified or altered without manufactures permission, manufacturer is no longer responsible for the product design, engineering, or performance and owner assumes all responsibility. To request product modifications contact PS Industries Incorporated, 1150 S. 48th Street, Grand Forks, ND 58201, phone 877-446-1519, email: 4psinfo@psindustries.com

I. General Information

- A. This manual contains information regarding installation, operation, and maintenance of the PS Access Solutions' Industrial Swing Door.
- B. PS Access Solutions recommends that the owner implement a regular maintenance program to inspect the Industrial Swing Door as necessary.

II. Operation Guidelines

- A. Operation in a manner other than intended could result in damage or less than acceptable performance at time of need, for which the manufacturer will not be held responsible.
- B. Protect all finishes, weatherseals, and hardware. Always consult original Approved for Construction drawings for all installation dimensions, details, hardware, and specifications.

III. Safety Precautions

- A. Ensure opening is clear of all obstructions or debris, through the entire travel of the door.
- B. Comply with all OSHA and ANSI Safety Regulations and/or company safety policies when installing.
- C. Install only on surfaces capable of supporting all loading.
- D. Use the handles when contacting the door, staying clear of pinch points.
- E. Do not force panels or components if they do not operate freely.
- **WARNING** The Industrial Swing Door components MAY BE heavy, consult Approved for Construction drawings and included documents for weights and use appropriate lifting procedures and equipment.

IV. Storage Prior to Installation of Product

A. Store materials in a dry, ventilated location. If outdoor storage is required, block materials and tarp in a tent-like arrangement, elevated above the product with open sides to allow airflow.

V. Installation Site Preparation

NOTICE Before starting site preparation and installation of the PS Access Solutions' Industrial Swing Door, read the entire Operation and Maintenance Manual and review all installation instructions thoroughly.

- A. Clear work area of any debris.
- B. Ensure you have the necessary tools available.
- C. Obtain all required permits.
- D. Personnel: Determine the appropriate number of personnel required to perform installation and have them readily available at the project site.
- ▲ DANGER Ensure installation area is blocked off from personnel during installation, and mounting surface is capable of supporting all loading. Structural analysis of mounting surface is the responsibility of the owner.

Product Information

NOTICE Operation in a manner other than intended could result in damage or less than acceptable performance at time of need for which the manufacturer will <u>not</u> be held responsible.

VI. Operation

- A. Under normal operation, the PS Access Solutions' Industrial Swing Door operates as a normal industrial swing door.
 - 1. Door Closer (if provided): Although no physical interaction with the door closer is required to operate the door, it is important to be aware that the door closer will attempt to close the door once the latch mechanism has been released.
 - 2. Latching Mechanism: Typically, no physical interacting with the latching mechanism is necessary, as long as it is properly adjusted. (Refer to latching installation and adjustment documentation). Depending upon the environmental conditions present, the door may not completely latch and may require a person to physically push/pull the door to engage the latch.

VII. Recommended Equipment and Tools for Installation:

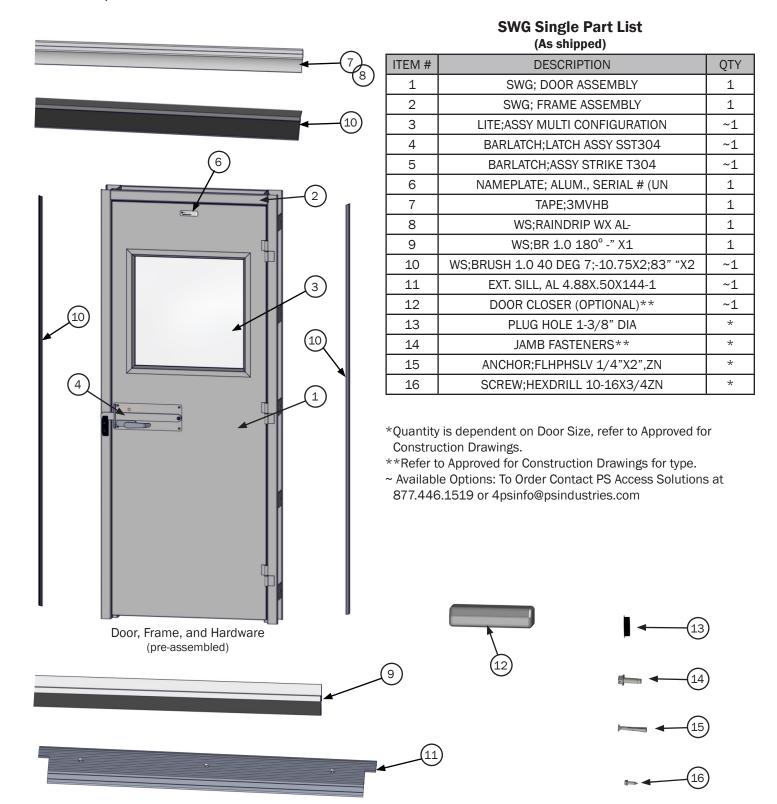
- A. Equipment:
 - 1. Welder
- B. Tools:
 - 1. One (1) Hammer Drill w/bits (see Anchor Manual for required bit size)
 - 2. One (1) Drill w/
 - a. Drill Bits
 - b. Taps for Closer (see Closer Manufacturer Install Instructions)
 - 3. One (1) Hammer
 - 4. One (1) Phillips Drive/Screwdriver
 - 5. One (1) Flat Head Drive/Screwdriver
 - 6. One (1) Socket Set w/Socket Extension
 - 7. One (1) Wrench Set
 - 8. One (1) Tape Measure
 - 9. One (1) Level
 - 10. One (1) Caulk Gun w/Caulking
 - 11. Painters Tape
 - 12. Paint Brush for Touch-up Paint
 - 13. Isopropyl Alcohol w/rags
 - 14. Shims, minimum 7 inch length

Product Information

VIII. Industrial Swing Door Part List

A. Review inventory to ensure all parts are present for assembly/installation. Refer to part list below.

NOTICE Due to the custom nature of each Industrial Swing Door they do not all look the same nor latch or operate exactly the same. Refer to this document and Approved for Construction Drawings for you specific installation and operation.

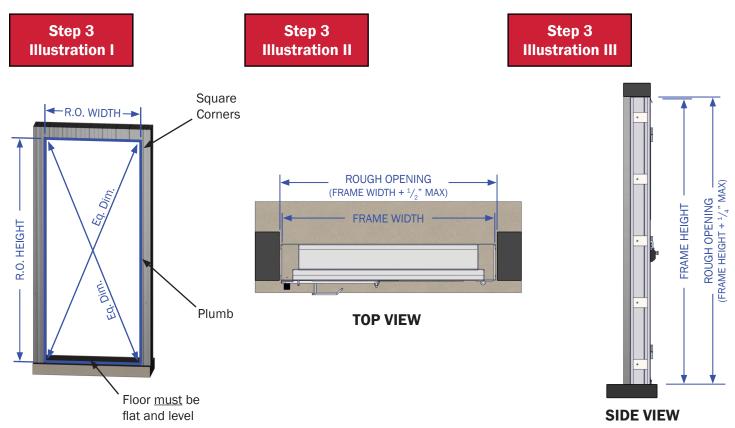


IX. Installation Preparation

NOTICE Only use Approved for Construction Drawings.

- **STEP 1.** Review all Approved for Construction drawings sent with the crated Industrial Swing Door.
 - a. The Approved for Construction drawings are located inside a plastic bag inside the crate. Review all installation labels prior to installation.
- **STEP 2.** Inspect the existing mounting structure (walls and floor) to ensure it is the same as what is specified in the Approved for Construction Drawings. Anchors/fasteners are provided for the type of existing structure that is identified on the Approved for Construction Drawings. The customer/installer must verify that the anchors/fasteners used for installation, provided or other, are sufficient to transfer all service loads based on site specific conditions, unless otherwise noted.
- **STEP 3.** Measure the width and height of the existing rough opening to ensure there is clearance for the Door Frame to fit and not too much to exceed the max clearance tolerances.
 - a. Rough Opening Dimensions:
 - 1. Frame Width + $\frac{1}{2}$ max
 - 2. Frame Height + 1/4" max
 - b. Check opening for plumb. Use level to check both sides of opening and inside of opening (both sides, top, and bottom).
 - c. Check opening for square. Verify all four (4) corners with a framing square, compare with diagonal measurements.

CRITICAL All surfaces must be sound, flat/level, and without blemish for best performance. Concrete grinding may be required to ensure level sill. Permissible floor tolerance is +/- ¹/₁₆" over width of opening.



STEP 4. Ensure that the floor area that the door will swing over is level with or lower than the floor to which the door is mounted to prevent the bottom of the door surface from contacting the floor throughout its full range of swing.

X. Installation of Single Door

CRITICAL If required to fully grout Jambs and Header, grout Header prior to installing Door Panel and Frame into rough opening.

STEP 5. Place the Door Assembly in the Rough Opening.

a. Position centered inside opening, and flush with the exterior side of the wall.

Step 5
Illustration I



Step 5
Illustration II



- **STEP 6.** If necessary, shim under the hinge-side Jamb so that the bottom of the Jamb is level with or higher than the highest point of the floor to allow adequate clearance for alignment of the Door Threshold in subsequent steps.
- **STEP 7.** Center the Door Assembly horizontally in the rough opening, ensuring the clearance gap between the Frame and rough opening are equal from side to side, and the gaps do not exceed measurements stated in Step 3.
 - a. Ensure all anchor/fastener requirements as called out on Approved for Construction Drawings are followed. If none are specified, refer to Anchor Manufacturer's Installation Instructions.
 - b. Shim between the hinge-side Jamb and the wall behind the top anchor; install the top anchor snugly.

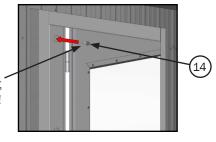


Step 7 Illustration II



Step 7
Illustration III

CRITICAL Do not torque fully yet!



NOTICE Frame can be welded in place if preferred. Tack in place, to allow for adjustments if needed. Design of welded connection is by others, NOT PS Access Solutions, unless otherwise noted.

CRITICAL At each anchor location, shims <u>must</u> be installed between the Jamb and the existing mounting structure before the anchors are torqued. Deformation or damage to the Jambs will occur if not shimmed properly! Ensure shims extend through the full length of Jamb and create a bearing surface to torque the anchors against.

- **STEP 8.** Precisely plumb the hinge-side Jamb front-to-back AND side-to-side.
 - a. Shim between the Jamb and the opening material behind the bottom anchor; install the bottom anchor snugly.
 - b. Recheck the Jamb's plumbness; torque top and bottom anchors per the Anchor Manufacturer's specifications.

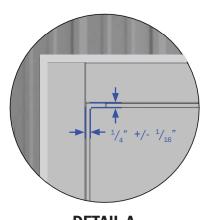


STEP 9. Adjust Frame for uniform Door edge clearance.

- a. With the Panel in the closed position, inspect the gap between the Panel edge and the Frame.
- b. Shim the strike-side Jamb to make the Door edge gap uniform across the Header and the strike-side Jamb.
- c. Install the strike-side top anchor snugly.

Step 9 Illustration I





DETAIL A

Step 9 Illustration II Top Anchor Location Step 9 Illustration IV

CRITICAL Do not

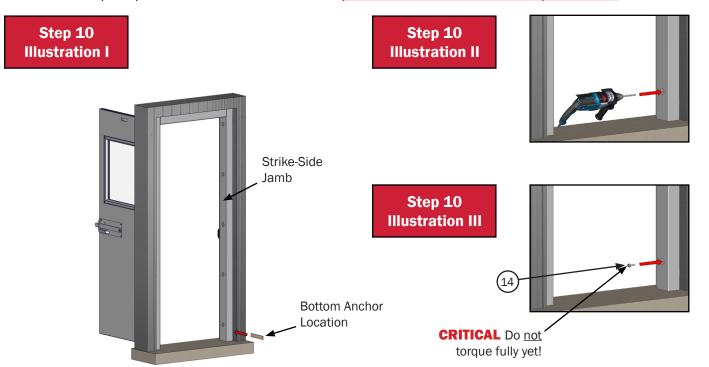
torque fully yet!

STEP 10. Install the bottom anchor on the strike-side Jamb snugly and recheck that the Frame and the Panel are plumb, square, and parallel with each other.

a. Torque top and bottom strike-side anchors per the Anchor Manufacturer's specifications.

Strike-Side

Jamb



STEP 11. Operate the Swing Door and double check the function and tolerances noted above.

NOTICE Frame can be welded in place if preferred. Design of welded connection is by others, <u>NOT</u> PS Access Solutions, unless otherwise noted.

STEP 12. Install the remaining Frame anchors and torque <u>per the Anchor Manufacturer's specifications</u>. a. Insert black plastic anchor plugs into anchor holes.

CRITICAL At each anchor location, shims <u>must</u> be installed between the Jamb and the existing mounting structure before the anchors are torqued. Deformation or damage to the Jambs will occur if not shimmed properly! Ensure shims extend through the full length of Jamb and create a bearing surface to torque the anchors against.

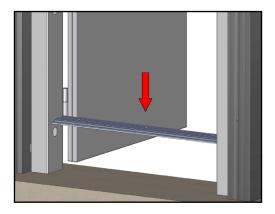


XI. Installation of Optional Threshold

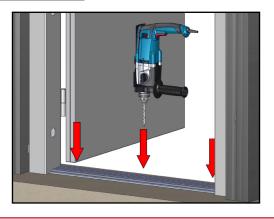
A. Clean area under and around Threshold to prevent debris from interfering with the following steps.

- **STEP 13.** Match drill holes through Threshold; <u>drill bit diameter as required per included Anchor Manufacturer's</u> technical manual and installation instruction guides.
 - a. Notch and field trim Threshold as needed.
 - b. It may be necessary to grind concrete the ensure the threshold is flush with the subsurface.
 - c. Make sure the threshold does NOT move while drilling holes for the anchors.

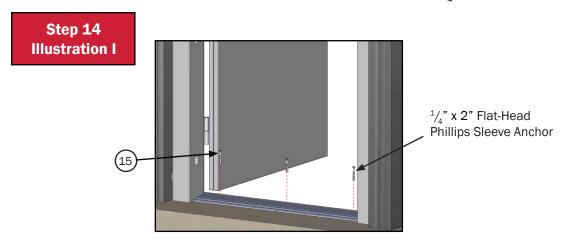
Step 13
Illustration I



Step 13
Illustration II



STEP 14. Remove all dust and debris from anchor holes, and install $\frac{1}{4}$ flat-head phillips sleeve anchors.



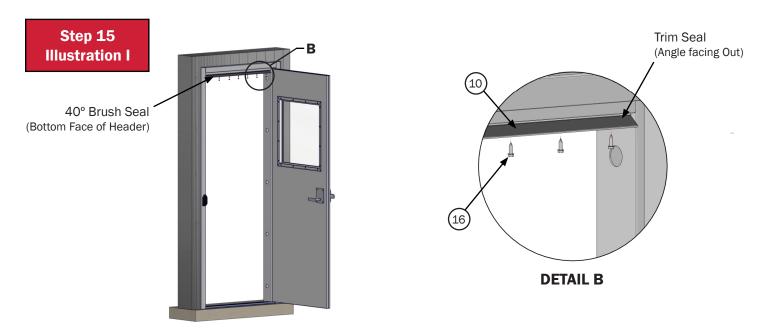
NOTICE If product is primer only or "first coat" finish option, it is recommended to apply a finish coat of paint once the product is installed. It may be preferred to touch up or apply finish coat before the weather seals are applied.

XII. Installation of Weatherseals

- A. Use only the supplied weather-strip screws for all Brush Seals.
- B. If additional sealing is required, design by others <u>NOT</u> PS Access Solutions.

STEP 15. Attach 40° Brush Seal to the bottom face of the swing frame.

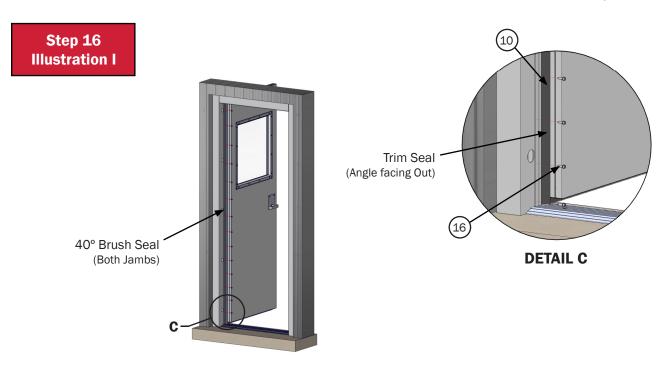
- a. Seal should extend to each Jamb and contact Panel.
- b. Field trim Brush Seal and attach using #10 x $^3/_4$ " self-drilling screws.
- c. Additional fasteners can be added, if desired.



STEP 16. Attach 40° Brush Seal to interior edge of each Jamb Assembly.

- a. Seals should extend from Header to floor and contact Panel.
- b. Field trim Brush Seal and attach using #10 x $^3/_4$ " self-drilling screws.
- c. Additional fasteners can be added, if desired.

CRITICAL Brush Seals should contact Door Panel, but NOT cause the Panel to not latch properly.

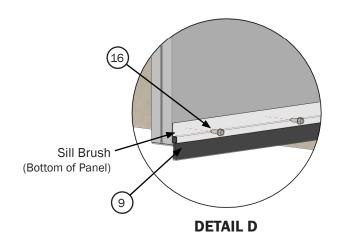


STEP 17. Attach Sill Brush to the bottom of the Panel Assembly.

- a. Sill brush should contact the floor/threshold, but <u>NOT</u> keep door from swinging freely.
- b. Field trim Sill Brush and attach using #10 x $^3\!/_{_4}"$ self-drilling screws.
- c. Additional fasteners can be added, if desired.

Step 17
Illustration I





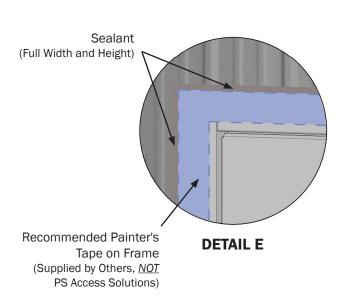
XIII. Application of Sealant

- A. Sealant is supplied by others, <u>NOT</u> PS Access Solutions.
- STEP 18. Apply a continuous bead of sealant to the joint between the Frame and rough opening.
 - a. Apply to top of frame (full width) and each side of jamb (full height) on both the interior and exterior.
 - b. Recommended use of painter's tape to keep frame clean. Be prepared for clean up with a rag and isopropyl alcohol.

IMPORTANT! Allow sealant to full set before proceeding. Closing door before urethane is dry will result in unsatisfactory gasket sealing surfaces (24 hours recommended).

Step 18
Illustration I

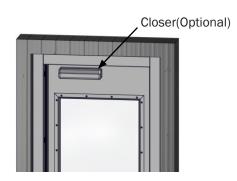




XIV. Installation of Optional Closer

STEP 19. If a Door Closer is being used, install with included template and installation instructions. a. Attach Closer, test closing operation, and adjust as needed to allow tight close.

Step 19
Illustration I



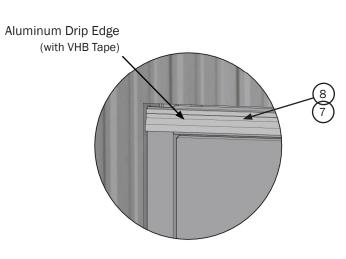
XV. Aluminum Drip Edge Instructions

STEP 20. Apply Aluminum Drip Edge, if installed outside or on the exterior.

- a. Ensure the surface is clean.
- b. Locate Drip Edge to ensure door can swing freely underneath.
- c. Peel backing off tape (VHB tape already applied to drip edge) and stick drip edge to the face of the Header.

Step 20 Illustration I





DETAIL F

STEP 21. Finalized Product Installation.

- a. Manually test the Industrial Swing Door for full opening and closing operation.
- b. Adjust components as necessary for smooth operation.
- c. Caulk as required. Supplied by others, $\underline{\textit{NOT}}$ PS Access Solutions.

Replacment Parts List

XVI. Replacement Parts List

A. This Replacement Parts List is for the Standard Industrial Swing Door.

NOTICE Due to the custom nature of each Industrial Swing Door they do not all look the same nor latch or operate exactly the same. Refer to this document and Approved for Construction Drawings for you specific installation and operation.

TO ORDER PARTS CONTACT PS ACCESS SOLUTIONS AT 877.446.1519 or 4psinfo@psindustries.com

	Finish Options
304 SS	304 Stainless Steel
316 SS	316 Stainless Steel
MS	Mild Steel
ZN	Zinc

Replacement Parts List			Replacement Parts List				
ITEM #	DESCRIPTION	QTY	PART #	ITEM #	DESCRIPTION	QTY	PART #
1	SWG;RIGHT DOOR ASSEMBLY	1	DOOR-ASM	4.6	NUT;NYLOCK 3/8"16 SS	1	502176
1	SWG;LEFT DOOR ASSEMBLY	1	DOOR-ASM	4.7	WASHER;NYLON,FLAT, .406X1X.062	1	501955
1.1	SWG;RIGHT PANEL STRUCTURE	1	PANEL R-	4.8	SPRING PIN 3/16 X 3/4 SS	1	509992
1.1	SWG;LEFT PANEL STRUCTURE	1	PANEL L-	4.9	RIVET; 3/16 DIA X 3/8 GRIP SS	8	501442
1.2	SWG;HINGELIFTOFF SST	3	506240	4.10	WASHER;NYLON,1/2"IDX1 ODX.080T	2	501934
1.3	NUT;HEX 1/2"13 SS	3	501100	4.11	WASHER;NYLON, 17/32X7/8X3/16	1	511596
2	SWG; FRAME ASSEMBLY	1	FRM-ASSY-	5	BARLATCH;ASSY STRIKE T304	~1	500272
2.1	SWG;T2 WELDED FRAME ASSY	1	T2-FRM-	5.1	BARLATCH;BEVELED NYLON STRIKE	1	509569
2.1.1	SWG;T2 FRAME JAMB	1	T2-JMB-L-	5.2	BARLATCH;STRIKE SHIM T304	2	502585
2.1.2	SWG;T2 FRAME JAMB	1	T2-JMB-R-	5.3	SCREW;FLPHMACH1/4"20X2SS	2	501472
2.1.3	SWG;TYPE 2 HEADER	1	T2-HDR-	6	NAMEPLATE;ALUM., SERIAL # (UN	1	503057
2.1.4	SWG;TYP2 JMB GSST 3/8"ANCHR MS	10	510280	7	TAPE;3MVHB 2 SIDED X1	*1	TAPE-
3	LITE;ASSY MULTI CONFIGURATION	~1	**	8	WS;RAINDRIP "	*1	R-DRIP-
3.1	LITE;FRAME LOPRO PCG 49	1	**	9	WS;BR 1.0 180° X1	*1	R-501986-
3.2	LITE;GLASS, 1/4" TEMP	1	**	10	WS;BRUSH 1.0 40 DEG 7;-10.75X2;83" "-X2	*1	501998-
3.3	GASKET MED. DENSITY VINYL 1/8	2	500724-	11	EXT. SILL, AL 4.88X.50X144-1	~1	THOLD-
3.4	INSULATION;POLYST	1	500815-	12	CLOSER;TDC40HOA-AL	~1	514467
4	BARLATCH;LATCH ASSY SST304	~1	510342	12	CLOSER;TDC40-AL	~1	514468
4.1	BARLATCH;PLATE W/KEEPERT304	1	500273	13	PLUG HOLE 1-3/8" DIA	*	501272
4.2	BARLATCH;MAIN 3/8X1-1/2 T304	1	500276	14	JAMB FASTENERS	*	**
4.3	BARLATCH;HANDLE W/PIVOT T304	1	500274	15	ANCHOR;FLHPHSLV 1/4" X 2",ZN	*	508132
4.4	BARLATCH;HANDLE W/SLEEVE T304	1	500275	16	SCREW;HEXDRILL10-16X3/4ZN	*	501497
4.5	BARLATCH;BACKPLATE 12GA T304	1	500268				

^{*}Quantity is dependent on Door Size, refer to Approved for Construction Drawings.

^{**}Refer to Approved for Construction Drawings for type.

[~] Available Options: To Order Contact PS Access Solutions at 877.446.1519 or 4psinfo@psindustries.com

Inspection and Maintenance

XVII. Inspection and Maintenance

- A. Environmental conditions may affect the maintenance and repair requirements of the product, and recommended preventative maintenance frequency.
- B. If any of the inspection items are found to not meet the standard IMMEDIATELY "TAG OUT" the Industrial Swing Door removing it from active use and guard the opening until repairs are completed.
- **NOTICE** PS Access Solutions recommends that the owner implement a regular and preventative maintenance program to inspect and maintain Industrial Swing Door at a minimum, in accordance with the recommendations in the table below.
- ▲ **WARNING** While performing maintenance and inspection ensure personnel utilize appropriate fall protection equipment and procedures.

	Recommended Preventative Maintenance							
ITEM	FREQUENCY	ITEM DESCRIPTION	WHAT TO INSPECT	STANDARD	REPAIR ACTION			
1	Each Use	General Housekeeping	Threshold and area in full swing of door.	Threshold and full-swing area must be kept free of debris and obstructions.	Clean threshold and jambs free of any debris and keep the area clean throughout the operating area of the door.			
			Gaskets and Seals	Gaskets and Seals must be free of all debris.	Clean all gaskets and seals with a soft rag with warm water and dry off with paper towel.			
2	Monthly	Panel	Panel for corrosion or damage.	To protect the structural integrity and provide engineered flood protection.	Touch up finishes, or replace as necessary.			
			Panel alignment and free movement.	Refer to the Approved for Construction Drawings.	Adjust door panel as necessary.			
3	Monthly	Frame	Frame for corrosion or damage.	To protect the structural integrity and provide engineered protection.	Touch up finishes, or refinish as necessary.			
4	Each Use	Threshold	Sealing surface for damage.	Sealing surface must be free from damage (dents,chips, gouges, etc).	Replace as needed.			
5	Each Use	Lock/Latch	Latch engages smoothly and securely	Ensure the door hardware is installed and adjusted as to not interfere with proper door closing and latching.	Periodically lubricate hardware and other components accordingly to manufacturer's instructions.			
			Hardware latching and locking.	Latching must operate with minimal effort and positively secure door in position.	Repair or replace hardware immediately.			
6	Each Use	Weatherseals	Inspect weatherseals for signs of deformation and damage. Inspect gasket surfaces for imperfections.	All weatherseals must have proper positioning, and continuous adhesion with hatch panel.	Repair or replace if damage or deterioration to seals has occurred. Use only Factory approved Materials.			
7	Monthly	Labels	Presence and readability of all labels.	Manufacturer's labels in place and legible.	Replace. Contact manufacturer for FREE replacement labels.			
8	Monthly & Before Load Conditions	Installation tolerances and general wind performance inspections.	General assessment of product function and tolerance.	Ensure product meets the criteria in the Installation and Inspection Checklist included in this manual.	Refer to installation instructions or contact manufacture.			











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Product Registration: psindustries.com/contact/register-your-product