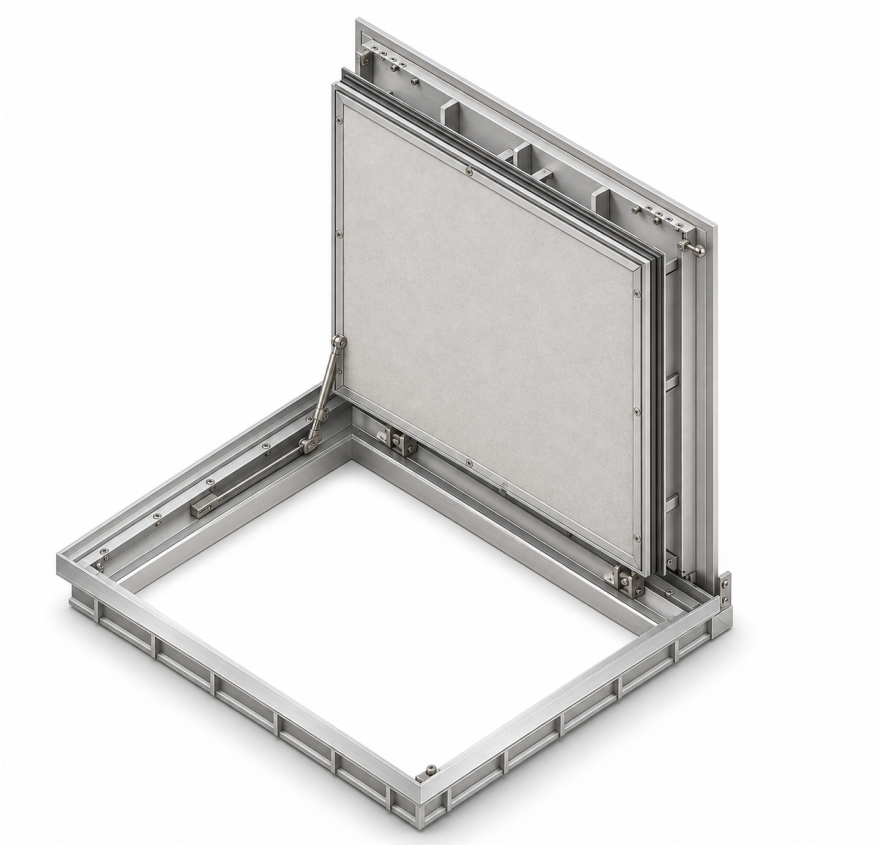
The Williams Brothers Corporation of America

FIRE-RATED ALUMINUM FLOOR HATCHES

INSTALLATION GUIDE

Operation & maintenance



Representative product visualization • configuration varies by model

WB FD 8500

FLUSH DIAMOND PLATE

WB FD 8500-XL

OVERSIZED FLUSH

WB FD-P 8550

RECESSED FOR FLOORING

01 / IDENTIFY YOUR DOOR

Start with the right series.

Confirm the model and size on the order and approved project drawing. [1-3]

STANDARD FLUSH

WB FD 8500

150 psf

1/4-inch reinforced aluminum diamond plate. The cover is the exposed walking surface.

OVERSIZED FLUSH

WB FD 8500-XL

300 psf

1/4-inch reinforced aluminum diamond plate for larger openings. Two-person opening and closing may be required.

RECESSED FOR FLOORING

WB FD-P 8550

150 psf

Reinforced aluminum cover with a 1-inch concrete recess or 1/8-inch tile recess. Confirm the ordered configuration.

DRY INTERIOR USE • PUBLISHED 2-HOUR FIRE RATING: NFPA 288 (ASTM E119) [1-3]

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02 / BEFORE INSTALLATION

Match the door to the opening.

Project checks supplement the manufacturer installation sequence on page 4.

Confirm before setting the frame

MODEL & SIZE	Match the delivered series, dimensions and handing to the approved project drawing.
OPENING DIMENSIONS	Use the actual clear opening and frame dimensions shown on the project drawing; they may differ.
FINISHED FLOOR	For 8500 / 8500-XL, coordinate the exposed cover with the floor elevation. For 8550, confirm the recess and finish build-up.
ASSEMBLY DETAILS	Confirm the insulation, thermal break, latch and hold-open configuration from the approved submittal for the supplied unit.

Storage & handling

- Store in a dry area free of dirt and debris, on the original shipping pallets.
- Use standard precautions when handling or moving palletized doors by forklift.

8500-XL / PLAN THE OPERATION

Because of the oversized cover, two people may be required to open and close the door. Plan the handling and operating approach for the delivered unit. [2]

Source note: Published documents show different insulation and hold-open details across versions. This guide does not prescribe one universal insulation thickness or arm material. Use the approved submittal for the supplied assembly.

03 / INSTALLATION • ALL THREE SERIES

Set. Secure. Pour. Finish.

Shared installation sequence from the supplied FD / FDP manufacturer manual. [4]

01

Prepare the formwork

Formwork must be flush to the inside of the frame.

02

Secure the unit

Secure the unit to the formwork using standard construction practices.

03

Close before pouring

Keep the cover in the closed position when pouring concrete.

04

Finish at the frame

Finish the concrete flush with the top of the unit framework.

05

Leave in framework

Leave the unit in the framework for not less than 24 hours.

06

Clean the assembly

Clean all excess concrete from the frame and cover seat.

ALL THREE SERIES

8550 FINISH COORDINATION: PAGE 5

04 / FINISH COORDINATION

Flush surface or recessed finish?

Coordinate floor elevations using the approved project detail. [1-3]

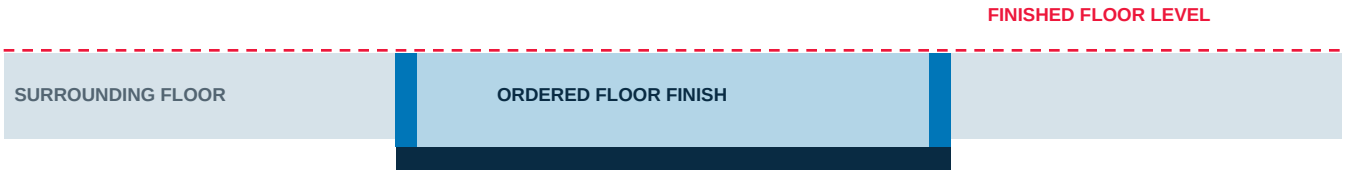
WB FD 8500 / WB FD 8500-XL



Flush diamond-plate cover

The aluminum diamond-plate cover forms the exposed walking surface. Coordinate the surrounding floor with the top of the framework, following the approved detail and the installation sequence on page 4.

WB FD-P 8550



Recessed cover for a coordinated finish

Confirm the ordered recess: 1 inch for concrete or 1/8 inch for tile. Where the recess receives concrete or other cast material, the product page specifies anchor clips and wire mesh. Coordinate the finish material and build-up with the approved submittal before filling the cover.

The structural installation pour and the recessed cover finish are separate coordination items. Use the approved finish specification and supplied manufacturer directions for the cover infill.

Diagrams are schematic and not to scale. They show finish relationships only; they do not define frame geometry, support, anchorage, clearances or fire-resistance construction.

05 / OPERATION & CARE

Ready to open. Ready to close.

Operating features vary by supplied configuration. [1-4]

Know the supplied hardware

The published series include spring lift assistance, a hold-open arm and a fusible-link closing mechanism. The hold-open assembly supports the cover at 90 degrees; the closing mechanism is designed to close and latch when heat breaks the fusible link.

Use the operating directions supplied with the unit for latch release and hold-open release. For 8500-XL doors, two-person opening and closing may be required. If operating directions are missing, contact WB before using the door.

Maintain each time the door is operated

1. Apply graphite to the interior of all locking devices.
2. Apply a light coating of machine oil to all hinges and hardware.
3. Remove all debris from the cover seat and around hinges.
4. Check and tighten any loose hardware.

SUGGESTED INSTALLER HANDOVER CHECKS

Confirm the area is clear, the cover seat is clean, and the supplied latch and hold-open features operate according to the unit instructions. Record the installed model and size. Provide this guide and the approved submittal to the owner.

06 / MANUFACTURER LIMITED WARRANTY

Warranty terms.

Manufacturer warranty reproduced from the supplied manual. [4]

U.S.F. Fabrication, Inc., hereafter called the “Company,” extends the following limited warranty to Buyer hereafter referred to as “Customer”. The commencement date of this warranty is the date of first purchase by Customer from the Company of the complained of Product and extends for the noted period depending on the Product purchased as follows: Steel hatches and access doors: 5 years. Aluminum hatches and access doors: 10 years. All other products and miscellaneous fabrication items: 1 year

1. Coverage

The Company expressly warrants to the Customer that the product purchased from Company (“Product”) will be free from defects in materials and workmanship. Any implied warranties, to the extent they exist and are legally enforceable, for merchantability, workmanship, or fitness for intended use on any Product shall terminate on the same date as the above stated express warranty commences. This warranty gives you specific legal rights, and you may have other rights that vary from state to state.

2. Company’s Obligations

If a covered defect occurs during the warranty period, the Company agrees to replace or pay the Customer the reasonable cost of replacing the defective item. The Company’s total liability under this warranty is limited to the purchase price of the Product. The choice among replacement or payment is the Company’s. Any steps taken by the Company to correct defects shall not act to extend the term of this warranty. The Company shall pay standard freight charges for warranty components.

3. Customer’s Obligation

The Company must be notified in writing by the Customer of the existence of any defect before the Company is responsible for the correction of that defect. Written notice of a defect must be received by the Company prior to the expiration of the warranty on that Product and no action at law or in equity may be brought by the Customer against the Company for failure to remedy or repair any defect about which the Company has not received timely notice in writing. The Customer must provide the Company with access to the defective Product during the Company’s normal business hours and Customer may not commence any repair without first obtaining Company’s written consent. Customer shall indemnify and hold Company and its affiliates, divisions, officers, owners, employees and agents harmless from any and all claims, actions, costs, losses, damages, liabilities, penalties and other expenses, including reasonably attorney’s fees and costs, resulting from death, bodily injury, property damage or other claims, including those of third parties, relating to or arising from the Customer’s negligence, actions or inactions with respect to the Product sold by Company or any failure of Customer to install, service or maintain the Product in accordance with stated specifications and in a commercially reasonable fashion.

06 / MANUFACTURER LIMITED WARRANTY

Warranty terms, continued.

Manufacturer warranty reproduced from the supplied manual. [4]

4. Exclusions

The following items are excluded from this limited warranty:

a. Defects in any item that was not part of the original Product as supplied by the Company.

b. Any defect caused by or worsened by negligence, improper maintenance, lack of maintenance, tampering, accident, abuse, misapplication, improper action or inaction, or willful or malicious acts by any party other than the Company, its employees, agents, or trade contractors.

c. Normal wear and tear.

d. Loss or damage caused by acts of God, including but not limited to fire, explosion, smoke, water, and circumstances that are not reasonably foreseeable.

e. Any defect or damage caused by nuisance, as well as careless or negligent transport.

f. Any damage to the extent it is caused or made worse by the failure of anyone other than the Company or its employees, agents, or trade contractors to comply with the requirements of this warranty.

g. Failure of Customer to take timely action to minimize loss or damage or failure of Customer to give the Company timely notice of the defect.

h. Insect, animal or storage damage.

i. Special, incidental, consequential, punitive or business loss damages.

06 / MANUFACTURER LIMITED WARRANTY

Warranty terms, continued.

Manufacturer warranty reproduced from the supplied manual. [4]

5. Exclusive Warranty

THIS WARRANTY IS LIMITED, NON-TRANSFERABLE AND CUSTOMER'S SOLE AND EXCLUSIVE WARRANTY REGARDING THE PRODUCT AND IS IN LIEU OF ANY OTHER WARRANTY, WHETHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER WARRANTY OF QUALITY. ALL WARRANTIES OTHER THAN THIS LIMITED WARRANTY (INCLUDING ALL IMPLIED WARRANTIES LISTED IN THE PREVIOUS SENTENCE) ARE EXPRESSLY EXCLUDED AND DISCLAIMED. TO THE EXTENT LOCAL LAW PROVIDES THAT ANY IMPLIED WARRANTIES MAY NOT BE EXCLUDED OR DISCLAIMED, THOSE WARRANTIES ARE LIMITED IN DURATION TO THE SHORTER OF (i) THE DURATION OF THE EXPRESS WARRANTY PROVIDED IN THIS LIMITED WARRANTY OR (ii) THE SHORTEST DURATION REQUIRED BY LOCAL LAW. COMPANY'S TOTAL LIABILITY FOR ALL CLAIMS OF ANY KIND WILL NOT EXCEED THE PURCHASE PRICE PAID TO COMPANY FOR THE PRODUCT IN QUESTION.

6. Dispute Resolution

The Customer shall promptly contact the Company's warranty department regarding any claims and both Customer and Company shall agree on a day and time to discuss the issue. If discussions between the parties do not resolve such matter, either party may, upon written notice to the other party, submit the issue to mediation before a jointly selected certified and neutral mediator at a location mutually agreed upon by the parties. The expenses of the mediator shall be shared equally by Company and Customer but each party shall bear its own legal fees and costs. If the mediator declares an impasse, then the parties shall seek resolution of the matter through a court of competent jurisdiction within Miami-Dade County, Florida, with the prevailing party in any such action being entitled to recover its reasonable attorney's fees and costs from the other party.

07 / SUPPORT & PROJECT RECORD

Your project. Your reference set.

The Williams Brothers Corporation of America

WILLIAMS BROTHERS PRODUCT SUPPORT

800-255-5515 | 540-636-4444

1330 Progress Drive • Front Royal, VA 22630 | WBdoors.com

PROJECT / OWNER

MODEL / SIZE

ORDER / DRAWING NUMBER

INSTALLER / DATE

Reference library

[1] WB FD 8500 • Product page + linked submittal

[2] WB FD 8500-XL • Product page + linked submittal

[3] WB FD-P 8550 • Product page + linked submittal

[4] Supplied manufacturer manual: FD 10-30-21.pdf. Installation, storage, handling, maintenance and manufacturer warranty. Original footer: USFF Operations & Maintenance Manual, 8/1/12; © 2013 Eagle Manufacturing Group. All rights reserved.

Prepared for WB FD 8500, WB FD 8500-XL and WB FD-P 8550 aluminum series. Reference pages checked November 11, 2026. Use the approved project submittal and supplied unit instructions for final assembly details and any options or custom construction.