SECTION 08 31 00

ACCESS HATCHES WITH INTEGRAL FALL PROTECTION

FSP Series — Single, Double, Triple, or Quadruple Leaf, Heavy-Duty Aluminum

Manufacturer: Everest Access Systems/Access Systems USA
www.everest-us.com | sales@everest-us.com | 908-323-1665

Everest FSP Series aluminum access hatches are engineered for effortless operation—the counterbalanced design makes even large multi-leaf covers easy to lift with one hand. The extruded aluminum frame and captive rubber seal create a watertight closure without surface hardware. Suitable for new construction or retrofit, FSP Series covers can be cast in place or set into existing openings with a near-flush profile that minimizes trip hazard. An integrated four-sided fall protection barrier is built into the lid itself, deploying full 360° perimeter protection the moment the hatch is opened. Available in single, double, triple, or quadruple leaf configurations to meet project-specific access requirements, FSP Series hatches comply with ASTM C1802 Class 2 (300 psf) and OSHA 29 CFR 1910.23. Manufactured in the USA and available with Build America, Buy America Act (BABA) compliance documentation. For more information, visit www.everest-us.com or call 908-323-1665.

PART 1 – GENERAL

1.01 SUMMARY

- This section specifies top-hung, heavy-duty aluminum access hatches in single, double, triple, or quadruple leaf configurations incorporating an integral four-sided safety barricade/fall protection system (FSP Series).
- Related Sections: Coordinate with applicable sections covering concrete work, structural openings, fall protection, and safety requirements.

1.02 REFERENCES

- ASTM C1802 – Standard Specification for Access Covers and Frames for Utility Structures
  - Class 2 Loading: 300 psf minimum in closed position
  - Class H20 loading available for accidental traffic areas – consult Everest technical department
- OSHA 29 CFR 1910.23 – Walking-Working Surfaces; Fall Protection
- ANSI/ASSE Z359 – Fall Protection Code
- ASTM B209 – Aluminum and Aluminum-Alloy Sheet and Plate

1.03 SUBMITTALS

Submit the following in accordance with Division 01 General Requirements:

- Product Data: Manufacturer's technical data sheets, load ratings, and material specifications for all components.
- Shop Drawings: Plans, elevations, sections, and details. Include frame dimensions, hinge locations, hardware, and integral barricade system in open and closed positions.

- Certification: Documentation confirming ASTM C1802 Class 2 compliance and applicable fall protection standards.
- Manufacturer's Qualifications: Evidence of at least five (5) years of experience manufacturing aluminum access hatches with integrated fall protection systems.
- BABA Compliance Documentation (if applicable): Build America, Buy America Act certification from manufacturer upon request.

1.04 QUALITY ASSURANCE

- Manufacturer Qualifications: Products shall be manufactured by a firm with demonstrated experience producing heavy-duty aluminum access hatches with integral fall protection systems for municipal and utility applications.
- BABA Compliance: Products are available with Build America, Buy America Act compliance documentation. Confirm requirements with manufacturer.
- Pre-Installation Conference: Conduct a pre-installation meeting including the contractor, installer, and manufacturer's representative prior to installation.

1.05 DELIVERY, STORAGE, AND HANDLING

- Deliver materials in manufacturer's original packaging with labels intact.
- Store units off the ground, protected from moisture, dirt, and damage.
- Do not use aluminum products as stepping surfaces prior to installation.

1.06 WARRANTY

- Manufacturer warrants its FSP and TSP Series Aluminum Access Covers against defects in materials and workmanship under normal use and service for a period of five (5) years from the date of original invoice.
- Coverage: Manufacturer shall, at its sole discretion, repair or replace any Product determined to be defective. Warranty applies to the original purchaser only and is non-transferable unless otherwise agreed in writing.
- Structural Warranty: The aluminum frame and cover are warranted against structural failure under rated load conditions for the full warranty period, provided installation, use, and maintenance comply with manufacturer specifications.
- Remedy Limitations: Warranty obligations are limited to repair or replacement of defective Products or components. Labor, removal, reinstallation, freight, and access costs are excluded unless otherwise agreed in writing.
- Exclusions: This warranty does not cover Products modified or repaired by others; damage from improper installation, misuse, or negligence; exposure to conditions beyond design intent; normal wear and tear of finishes, seals, hardware, and moving parts; or impact damage and loading beyond rated capacity.
- Limitation of Liability: To the fullest extent permitted by law, manufacturer shall not be liable for indirect, incidental, special, or consequential damages. Total liability shall not exceed the original purchase price.
- Payment Condition: Warranty coverage is contingent upon full payment of the original invoice.
- For the complete warranty document, contact manufacturer.

PART 2 – PRODUCTS

2.01 MANUFACTURER

- Manufacturer: Everest Access Systems
- Website: www.everest-us.com
- Email: sales@everest-us.com
- Phone: 908-323-1665

Note to Specifier: Substitutions must be approved in writing by the Engineer of Record prior to bid. Substitutes must demonstrate equivalent compliance with all specified performance, material, and load requirements.

2.02 PERFORMANCE REQUIREMENTS

- Closed-Position Load Rating: ASTM C1802, Class 2 – 300 psf minimum live load.
- H20 Traffic Loading: Available for installations in accidental traffic areas. Confirm availability with manufacturer prior to specification.
- Guardrail Strength: Integral safety barricade handrail shall withstand a minimum 200 pounds of force applied both downward and horizontally at the top rail.
- Guardrail Height: Minimum 39 inches above finished floor/grade when in deployed position.

2.03 MATERIALS

A. Door Panel

- Material: 1/4-inch (6 mm) thick aluminum plate, Alloy 5052-H114
- Surface Pattern: Diamond (checker) plate for slip resistance

B. Frame

- Configuration: Heavy-duty top-hung design for flush mounting
- Profile: Curved extruded aluminum profile, Alloy 6061-T6
- Seal: Captive continuous rubber compression seal to minimize water infiltration

C. Hardware

- Hinge: Continuous double-knuckle aluminum hinge with stainless steel pin
- Hold-Open Device: Automatic hold-open arm to secure door in fully open position during use
- Locking: Recessed padlock hasp on door in closed position (padlock by others)
- All exposed hardware: Type 316 stainless steel

2.04 INTEGRAL SAFETY BARRICADE SYSTEM

- System Type: Integrated aluminum fall protection barricade; four-sided guardrail system that deploys automatically when hatch is opened.
- Material: Extruded aluminum framing members, Alloy 6005-T6, with Type 316 stainless steel hardware and fasteners
- Guardrail Height (deployed): Minimum 39 inches above access opening floor elevation
- Strength: Handrail capable of withstanding 200 lbs of force applied downward and horizontally simultaneously
- Storage (closed position): System folds compactly within hatch envelope when door is closed; functions as fall arrestor in closed position to prevent accidental entry

- Finish: Powder coat – Safety Yellow or Safety Orange (OSHA-compliant high-visibility color; specify color at time of order)

2.05 FINISH

- Aluminum components: Mill finish unless otherwise noted. Coordinate with manufacturer for optional anodized or painted finishes.
- Hardware: Type 316 stainless steel – natural/satin finish.

PART 3 – EXECUTION

3.01 EXAMINATION

- Verify that rough opening dimensions, elevations, and supporting structure are within acceptable tolerances per manufacturer's requirements prior to installation.
- Verify that adjacent construction will not interfere with operation of hatch or deployment of the integral safety barricade.
- Do not proceed with installation until unsatisfactory conditions are corrected.

3.02 PREPARATION

- Coordinate with structural and concrete work trades to ensure frames are set level, plumb, and square within the opening.
- Confirm that sleeve or curb (if required) is installed and cured prior to setting frame.
- Cast-in-Place Option: Where indicated on drawings, frame may be set directly in concrete formwork prior to pour. Verify frame is braced level and square, with anchor lugs or embed channels engaged per manufacturer's cast-in-place instructions. Protect interior of frame from concrete intrusion during placement.

3.03 INSTALLATION

- Install access hatch in accordance with manufacturer's published installation instructions and approved shop drawings.
- Set frame level (±1/8 inch tolerance) and anchor securely to supporting structure using approved fasteners. Fasteners shall be stainless steel unless otherwise specified.
- Do not field cut, weld, or drill aluminum components without written approval from manufacturer.
- Verify that hatch door operates smoothly through full range of motion (open and closed) and that automatic hold-open arm engages and releases correctly.
- Verify that integral safety barricade deploys fully to minimum 39-inch height when door is opened and folds completely within hatch envelope when door is closed.
- Verify padlock provision is functional and accessible.

3.04 FIELD QUALITY CONTROL

- Installer Inspection: After installation, inspect all components for damage, misalignment, or improper operation. Correct deficiencies before project closeout.
- Owner/Engineer Inspection: Provide access for Owner and Engineer of Record to inspect installed units and witness operational testing.
- Load Test: [Optional] Load testing may be specified by the Engineer of Record. Coordinate with manufacturer for testing protocol.

3.05 PROTECTION

- Protect installed hatches and barricade systems from damage during subsequent construction activities.
- Do not use access hatches as material passageways or for construction traffic unless specifically reviewed and approved by manufacturer.
- Remove temporary protection only after surrounding construction is complete.

3.06 ADJUSTING AND CLEANING

- Adjust hatch door for smooth operation with uniform seal compression along all four sides.
- Confirm automatic hold-open arm operates correctly without excessive force.

- Clean all aluminum surfaces using a mild detergent solution and soft cloth. Do not use abrasive cleaners, steel wool, or acids.
- Lubricate hinge pins and hardware in accordance with manufacturer's maintenance recommendations.

3.07 CLOSEOUT

- Provide Owner with manufacturer's operation and maintenance manual.
- Demonstrate proper operation and deployment of the integral safety barricade to Owner's representative.
- Record as-installed hatch locations on record drawings.

END OF SECTION 08 31 00