QUALITY

U.S.F. Fabrication, Inc.
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Western Plant: 2382 Rulon White Blvd., Ogden, UT 84404

Local: (305) 556-1661, Fax: (305) 882-1577
USA & Canada: (800) 258-6873

Website: www.usffab.com
E-Mail Address: service@usffab.com
International E-Mail Address: export@usffab.com

MADE IN USA

Warranty

U.S.F. Fabrication’s aluminum floor access doors are guaranteed to be free of defects in materials and workmanship for a period of ten (10) years from the date of purchase. Any part that fails under normal use will be furnished at no charge. This warranty is invalid if the product is modified, damaged, improperly installed or used in an application for which it is not intended.

SERVICE
GENERAL INFORMATION

ORDER BY CATALOG NUMBER:
EXAMPLE: Angle Frame, Pedestrian Loading, Single Door, 300 P.S.F., 30 x 48, Aluminum, Options (if required)

APS 300–30 X 48 ALUM. (OPTIONS)

FRAME TYPE:
A–ANGLE
T–TROUGH
B–BASIN COVER
R–ROUND
F–FLOODTIGHT

LOADING:
P–PEDESTRIAN
H–HEAVY DUTY

DOOR TYPE:
S–SINGLE
D–DOUBLE

MATERIAL
A X B DIMENSIONS
PEDESTRIAN LOAD RATING:
150 OR 300 P.S.F.
(APS/APD ALUM. ONLY)

FLOOR ACCESS DOOR INSTALLATION
Assure that the concrete (or other material) is completely under bottom face of frame. Also, the material used must be designed to support the specified loading.

ANGLE FRAME
TROUGH FRAME
Aluminum Floor Access Doors:

Angle Frames: (cast into concrete)
- APS150 & APS300: Single Door, Pedestrian Loading ..................................................... 4
- APD150 & APD300: Double Door, Pedestrian Loading ................................................... 6
- APS150 & APS300 with Trash Access Door: Pedestrian Loading ............................. 8
- AHS: Single Door, AASHTO H-20-44 Loading (Occasional Traffic) ...................... 10
- AHD: Double Door, AASHTO H-20-44 Loading (Occasional Traffic) ....................... 12

Trough Frames: (cast into concrete & water drainable frame)
- TPS: Single Door, Pedestrian Loading ................................................................. 14
- TPD: Double Door, Pedestrian Loading ............................................................... 16
- THS: Single Door, AASHTO H-20-44 Loading (Occasional Traffic) ...................... 18
- THD: Double Door, AASHTO H-20-44 Loading (Occasional Traffic) ..................... 20

Special Types:
- APS300 Retrofit: Single Door, Pedestrian Loading ............................................. 22
- APD300 Retrofit: Double Door, Pedestrian Loading ........................................... 24
- BPS: Basin Cover with Single Door, Pedestrian Loading ...................................... 26
- BPC: Basin Cover, Pedestrian Loading ................................................................. 28
- RPS: Round Angle Frame, Single Door, Pedestrian Loading ............................... 30
- W-APS: Floodtight/Gastight Angle Frame, Single Door, Pedestrian Loading ......... 32
- W-AHS: Floodtight/Gastight Angle Frame, Single Door, AASHTO H-20-44 Loading 34
- FPS: Floodtight/Gastight Angle Frame, Single Door, Pedestrian Loading .......... 36
- R-APS: Recessed Angle Frame, Single Door, Pedestrian Loading ......................... 38
- R-TPS: Recessed Trough Frame, Single Door, Pedestrian Loading ....................... 40
- SRR-I: Security Reservoir & Roof, Internal Mounting Flange ............................ 42
- SRR-E: Security Reservoir & Roof, External Mounting Flange ......................... 44

Steel Floor Access Doors:

Angle Frames: (cast into concrete)
- APS: Single Door, Pedestrian Loading ................................................................. 46
- APD: Double Door, Pedestrian Loading ............................................................... 48
- AHS: Single Door, AASHTO H-20-44 Loading (Occasional Traffic) ...................... 50
- AHD: Double Door, AASHTO H-20-44 Loading (Occasional Traffic) ..................... 52

Trough Frames: (cast into concrete & water drainable frame)
- TPS: Single Door, Pedestrian Loading ................................................................. 54
- TPD: Double Door, Pedestrian Loading ............................................................... 56
- THS: Single Door, AASHTO H-20-44 Loading (Occasional Traffic) ...................... 58
- THD: Double Door, AASHTO H-20-44 Loading (Occasional Traffic) ..................... 60

Non-occasional Traffic AASHTO H-20 Loading: (cast into concrete)
- P-AHS: Parking lot Traffic, Angle Frame, Single Door ....................................... 62
- P-AHD: Parking lot Traffic, Angle Frame, Double Door .................................... 64
- DT-AHS: Direct Traffic, Angle Frame, Single Door ............................................ 66
- DT-AHD: Direct Traffic, Angle Frame, Double Door .......................................... 68
- ALH: Angle Frame, Single & Double Doors, Aircraft Loading ......................... 70

Other Products:
- Airport Hatches, Covers & Grates ................................................................. 72
- Roadway Steel Grates & Cast Iron Covers ...................................................... 73
- Multiple Leaf Floor Access Doors .............................................................. 76
- Emergency Exit Doors ................................................................................. 77
- Optional Features for Access Doors ......................................................... 78
- Double Door Hinge Configurations ............................................................ 84
- Pump Station Accessories .......................................................................... 85
- Information Requirements for Retrofit Safety Nets & Grates ...................... 92
The angle frame floor access door is designed for interior and exterior applications where watertightness is not required.

**SPECIFICATIONS:** The floor access door shall be Model APS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 3/16 or 1/4-inch thick aluminum diamond plate reinforced respectively for a 150 or 300 p.s.f. live load. The frame shall be extruded aluminum with an integral anchor flange and door seat on all four sides. The floor access door shall be equipped with a flush lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have 316 stainless steel hinges with 316 stainless steel tamper resistant bolts/locknuts. A staple for a padlock shall be supplied for security. An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frame and cover. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**
- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Bituminous coating on frame surface in contact with concrete, see page 80
- Frame skirts for easy casting into a concrete top slab, see page 78
- Cushion for noise dampening, see page 79
- Fiberglass insulation with metal liner, see page 80
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Custom lettering, see page 79
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80
- Reading Lid, see page 76

### 150 P.S.F. LOADING

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**CUSTOM SIZES READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
EXTRUDED ANGLE FRAME WITH INTEGRAL SEAT & CONTINUOUS ANCHOR FLANGE

DIAMOND PLATE
- 3/16 FOR 150 P.S.F. (5 MM) (732 KGF/SQ. M)
- 1/4 FOR 300 P.S.F. (8 MM) (1464 KGF/SQ. M)

316 STAINLESS STEEL HINGES WITH TAMPER PROOF BOLTS

316 STAINLESS STEEL AUTOMATIC HOLD OPEN ARM WITH RED VINYL GRIP

STAPLE FOR PADLOCK

NOTE:
- MATERIAL: ALUMINUM WITH 316 STAINLESS STEEL NUTS & BOLTS, HINGES, AND HOLD OPEN ARM.
- LOADING: 150 OR 300 LBS. PER SQ. FOOT (732 OR 1464 KGF PER SQ. M)
The angle frame floor access door is designed for interior and exterior applications where watertightness is not required.

**SPECIFICATIONS:** The floor access door shall be Model APD as manufactured by U.S. Fabrication, Inc. with the size being specified on the plans. Door leaves shall be 3/16 or 1/4-inch thick aluminum diamond plate reinforced respectively for a 150 or 300 p.s.f. live load. The frame shall be extruded aluminum with an integral anchor flange and door seat on all four sides. The floor access door shall be equipped with a flush lifting handle that does not protrude above the cover, and 316 stainless steel hold open arms with red vinyl grips that automatically keep the covers in their upright, open positions. The door shall have 316 stainless steel hinges with 316 stainless steel tamper resistant bolts/locknuts. A staple for a padlock shall be supplied for security. An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frame and covers. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**

- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Bituminous coating on frame surface in contact with concrete, see page 80
- Frame skirts for easy casting into a concrete top slab, see page 78
- Cushion for noise dampening, see page 79
- Fiberglass insulation with metal liner, see page 80
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Custom lettering, see page 79
- Anodized finish, see page 80
- Stainless steel safety chains, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80
- Hinge covers on same long side, see page 84
- Reading Lid, see page 76

### 150 P.S.F. LOADING

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NOTE:
- MATERIAL: ALUMINUM WITH 316 STAINLESS STEEL NUTS & BOLTS, HINGES, AND HOLD OPEN ARM.
- LOADING: 150 OR 300 LBS. PER SQ. FOOT (732 OR 1464 KG. PER SQ. M)

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

OPTIMAL FEATURES
☐ S.S. HORIZONTAL SPRINGS
☐ S.S. SLAMLOCK
☐ BITUMINOUS PAINT ON AREA IN CONTACT WITH CONCRETE
☐ OTHERS (SEE PAGE 6): ________

APD (LOADING) (A) X (B)
The angle frame floor access door includes a trash access door and is designed for interior and exterior applications where watertightness is not required.

**SPECIFICATIONS:** The floor access door shall be Model APS with integral trash access door as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaves shall be 3/16 or 1/4-inch thick aluminum diamond plate reinforced respectively for a 150 or 300 p.s.f. live load. The frame shall be extruded aluminum with an integral anchor flange and door seat on all exterior sides. Each floor access door shall be equipped with a flush lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with a red vinyl grip that automatically keeps the cover in its upright, open position. The doors shall have 316 stainless steel hinges with 316 stainless steel tamper resistant bolts/locknuts. A staple for a padlock shall be supplied on each door for security. An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frames and covers. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**
- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Bituminous coating on frame surface in contact with concrete, see page 80
- Frame skirts for easy casting into a concrete top slab, see page 78
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Cushion for noise dampening, see page 79
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80
- Trash access door can be configured on APD double doors
- Reading Lid, see page 76

### 150 P.S.F. LOADING

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*Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete.

**CUSTOM SIZES READILY AVAILABLE**
We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: ALUMINUM WITH
  316 STAINLESS STEEL NUTS & BOLTS,
  HINGES, AND HOLD OPEN ARM.
- LOADING: 150 OR 300 LBS. PER SQ. FOOT.
  (732 OR 1464 KG. PER SQ. M)

316 STAINLESS STEEL AUTOMATIC
HOLD OPEN ARM
W/RED VINYL GRIP

STAPLE FOR
PADLOCK

TRASH ACCESS
DOOR

DIAMOND PLATE
- 3/16 FOR 150 P.S.F.
  (5 MM) (732 KG./SQ. M)
- 1/4 FOR 300 P.S.F.
  (6 MM) (1464 KG./SQ. M)

316 STAINLESS STEEL HINGES
WITH TAMPER PROOF BOLTS

OPTIONAL FEATURES
☐ S.S. HORIZONTAL SPRINGS
☐ S.S. SLAMLOCK
☐ BITUMINOUS PAINT ON AREA IN CONTACT WITH CONCRETE
☐ OTHERS (SEE PAGE 8): ________

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

APS (LOADING) (A) X (B)
WITH TRASH ACCESS DOOR
The heavy-duty angle type floor access door is designed for interior and exterior applications where watertightness is not required. It is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.

**SPECIFICATIONS:** The floor access door shall be Model AHS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick aluminum diamond plate reinforced for an AASHTO H-20-44 wheel load. Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H20-44. (The floor access door is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.) The frame shall be extruded aluminum with an integral anchor flange and door seat on all four sides. The floor access door shall be equipped with a flush lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. The door shall have stainless steel open horizontal springs to assist in opening the cover and reducing the force during closing. The door shall be equipped with a watertight 316 stainless steel slamlock with threaded plug, removable outside key, and fixed inside handle. The slamlock latches onto a 316 stainless steel striker plate that is bolted to the frame. All parts of the frame in contact with concrete shall have a coating of bituminous paint. An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frame and cover. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame including the seat on which the reinforcing rests shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**

- Enclosed, stainless steel horizontal springs for easy opening, see page 81
- Recessed staple and other locking devices, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80

**H-20 LOADING****

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<tr>
<th>MODEL</th>
<th>COVER THK</th>
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<th>OVERALL SIZE</th>
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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****AHS aluminum floor access doors are intended for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads (16,000 lbs. over 10” x 20” area + 30% impact factor). For parking lot applications, see P-AHS and P-AHD (pages 62 to 65). For direct traffic applications, see steel DT-AHS and DT-AHD (pages 66 to 69). For other direct traffic applications, see cast iron frames & covers (pages 74 to 75).
NOTE:
- MATERIAL: ALUMINUM WITH STAINLESS STEEL SPRINGS, 316 STAINLESS STEEL NUTS & BOLTS, HINGES, AND HOLD OPEN ARM.
- LOADING: DESIGNED FOR OFF-STREET LOCATIONS WHICH MAY OCCASIONALLY RECEIVE H-20 WHEEL LOADS.
- BITUMINOUS COATING IS APPLIED TO AREA OF FRAME IN CONTACT WITH CONCRETE.

OPTIONAL FEATURES

☐ RECESSED STAPLE FOR PADLOCK
☐ OTHERS (SEE PAGE 10): _______

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

AHS ____ X ____
(A) (B)
The heavy-duty angle type floor access door is designed for interior and exterior applications where watertightness is not required. It is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.

**SPECIFICATIONS:** The floor access door shall be Model AHD as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaves shall be 1/4-inch thick aluminum diamond plate reinforced for an AASHTO H-20-44 wheel load. Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H20-44. (The floor access door is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.) The frame shall be extruded aluminum with an integral anchor flange and door seat on all four sides. The floor access door shall be equipped with a flush lifting handle that does not protrude above the cover, and 316 stainless steel hold open arms with red vinyl grips that automatically keep the covers in their upright, open positions. The door shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. The door shall have stainless steel open vertical springs to assist in opening the covers and reducing the force during closing. The door shall be equipped with a watertight 316 stainless steel slamlock with threaded plug, removable outside key, and fixed inside handle. The slamlock latches onto a 316 stainless steel striker plate that is bolted to the frame. All parts of the frame in contact with concrete shall have a coating of bituminous paint. An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frame and cover. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame including the seat on which the reinforcing rests shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**

- Enclosed, stainless steel vertical springs for easy opening, (also available with removable bolt-on spring housings) see page 81
- Recessed staple and other locking devices, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Anodized finish, see page 80
- Stainless steel safety chains, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80
- Hinge covers on same long side, see page 84 (springs would be horizontal)

**H-20 LOADING****

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<thead>
<tr>
<th>MODEL</th>
<th>COVER THK</th>
<th>FRAME OPENING***</th>
<th>CLEAR OPENING**</th>
<th>OVERALL SIZE</th>
<th>WEIGHT*</th>
</tr>
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<tbody>
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<td></td>
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<td>B in. (mm)</td>
<td>C in. (mm)</td>
<td>D in. (mm)</td>
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</table>

* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****AHD aluminum floor access doors are intended for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads (16,000 lbs. over 10’ x 20’ area + 30% impact factor). For parking lot applications, see P-AHS and P-AHD (pages 62 to 65). For direct traffic applications, see steel DT-AHS and DT-AHD (pages 66 to 69). For other direct traffic applications, see cast iron frames & covers (pages 74 to 75).

**CUSTOM SIZES READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
**NOTE:**
- MATERIAL: ALUMINUM WITH STAINLESS STEEL SPRINGS, 316 STAINLESS STEEL NUTS & BOLTS, HINGES, AND HOLD OPEN ARM.
- LOADING: DESIGNED FOR OFF-STREET LOCATIONS WHICH MAY OCCASIONALLY RECEIVE H-20 WHEEL LOADS.
- BITUMINOUS COATING IS APPLIED TO AREA OF FRAME IN CONTACT WITH CONCRETE.

**OPTIONAL FEATURES**

- [ ] RECESSED STAPLE FOR PADLOCK
- [ ] OTHERS (SEE PAGE 12): 

<table>
<thead>
<tr>
<th>U.S.F. FABRICATION, INC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIALEAH, FLORIDA</td>
</tr>
</tbody>
</table>

AHD ___ X ___

(A) (B)
The trough type floor access door with drainable frame is designed for interior and exterior applications where dirt and water are to be prevented from falling into the area below.

**SPECIFICATIONS:** The floor access door shall be Model TPS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick aluminum diamond plate reinforced for a 300 p.s.f. live load. The frame shall be extruded aluminum trough section with an integral anchor flange on all four sides. The frame shall include an EPDM odor reduction gasket that reduces the amount of odor that escapes from below the door and a 1 1/2-inch threaded drain coupling. The floor access door shall be equipped with a flush lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. A staple for a padlock shall be supplied for security. An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frame and cover. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**
- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Bituminous coating on frame surface in contact with concrete, see page 80
- Frame skirts for easy casting into a concrete top slab, see page 78
- Debris gasket, see page 79
- Fiberglass insulation with metal liner, see page 80
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Custom lettering, see page 79
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80
- Side drain coupling (instead of standard bottom drain)
- Reading Lid, see page 76

### 300 P.S.F. LOADING

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<th>CLEAR OPENING**</th>
<th>OVERALL SIZE</th>
<th>WEIGHT*</th>
</tr>
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<td>in. (mm)</td>
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<td>B in. (mm)</td>
<td>C in. (mm)</td>
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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete.

**CUSTOM SIZES READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
A L U M I N U M

HEAVY DUTY 316 STAINLESS STEEL HINGES WITH TAMPER PROOF BOLTS

316 STAINLESS STEEL AUTOMATIC HOLD OPEN ARM WITH RED VINYL GRIP

STAPLE FOR PADLOCK

1/4” EXTRUDED TROUGH SECTION W/INTEGRAL CONTINUOUS ANCHOR FLANGE & CROOVE FOR GASKET FRAME MAT’L: ALUMINUM 6063-T5

FRAME DETAIL

NOTE:
- MATERIAL: ALUMINUM WITH 316 STAINLESS STEEL NUTS & BOLTS, HINGES, AND HOLD OPEN ARM.
- LOADING: 300 LBS. PER SQ. FOOT.
  (1464 KG. PER SQ. M)

U.S.F. FABRICATION, INC. HIALEAH, FLORIDA

TPS _____ X _____
(A) (B)
ALUMINUM

The trough type floor access door with drainable frame is designed for interior and exterior applications where dirt and water are to be prevented from falling into the area below.

SPECIFICATIONS: The floor access door shall be Model TPD as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaves shall be 1/4-inch thick aluminum diamond plate reinforced for a 300 p.s.f. live load. The frame shall be extruded aluminum trough section with an integral anchor flange on all four sides. The frame shall include an EPDM odor reduction gasket that reduces the amount of odor that escapes from below the door and a 1 1/2-inch threaded drain coupling. The floor access door shall be equipped with a flush lifting handle that does not protrude above the cover and 316 stainless steel hold open arms with red vinyl grips that automatically keep the covers in their upright, open positions. The door shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. A staple for a padlock shall be supplied for security. An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frame and covers. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

OPTIONAL FEATURES

- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Bituminous coating on frame surface in contact with concrete, see page 80
- Frame skirts for easy casting into a concrete top slab, see page 78
- Debris gasket, see page 79
- Fiberglass insulation with metal liner, see page 80
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Custom lettering, see page 79
- Anodized finish, see page 80
- Stainless steel safety chains, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80
- Side drain coupling (instead of standard bottom drain)
- Hinge covers on same long side, see page 84
- Reading Lid, see page 76

300 P.S.F. LOADING

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<tr>
<th>MODEL</th>
<th>COVER THK A (in.)</th>
<th>FRAME OPENING B (in.)</th>
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<th>E (in.)</th>
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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete.

CUSTOM SIZES READILY AVAILABLE

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: ALUMINUM WITH
  316 STAINLESS STEEL NUTS & BOLTS,
  HINGES, AND HOLD OPEN ARM.
- LOADING: 300 LBS. PER SQ. FOOT.
  (1464 KG. PER SQ. M.)
TROUGH FRAME, HEAVY-DUTY, SINGLE DOOR

ALUMINUM

The heavy-duty trough type floor access door with drainable frame is designed for interior and exterior applications where dirt and water are to be prevented from falling into the area below. It is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.

SPECIFICATIONS: The floor access door shall be Model THS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick aluminum diamond plate reinforced for an AASHTO H-20-44 wheel load. Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H20-44. (The floor access door is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.) The frame shall be extruded aluminum trough section with an integral anchor flange on all four sides. The frame shall include an EPDM odor reduction gasket that reduces the amount of odor that escapes from below the door and a 1 1/2-inch threaded drain coupling. The floor access door shall be equipped with a lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. The door shall have stainless steel open horizontal springs to assist in opening the cover and reducing the force during closing. The door shall be equipped with a watertight 316 stainless steel slamlock with threaded plug, removable outside key, and fixed inside handle. The slamlock latches onto a 316 stainless steel striker plate that is bolted to the frame. All parts of the frame in contact with concrete shall have a coating of bituminous paint. An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frame and cover. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame including the seat on which the reinforcing rests shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

OPTIONAL FEATURES
- Enclosed, stainless steel horizontal springs for easy opening, see page 81
- Recessed staple and other locking devices, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Debris gasket, see page 79
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80
- Side drain coupling (instead of standard bottom drain)

H-20 LOADING****

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<tr>
<th>MODEL</th>
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<th>CLEAR OPENING**</th>
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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****THS Aluminum floor access doors are intended for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads (16,000 lbs. over 10” x 20” area + 30% impact factor). For parking lot applications, see P-AHS and P-AHD (pages 62 to 65). For direct traffic applications, see steel DT-AHS and DT-AHD (pages 66 to 69). For other direct traffic applications, see cast iron frames & covers (pages 74 to 75).

CUSTOM SIZES READILY AVAILABLE

We reserve the right to modify specifications and drawings without prior notice.
**ALUMINUM**

**U.S.F. FABRICATION, INC.**

TOLL FREE NUMBER: 1-800-258-6873

---

**NOTE:**
- MATERIAL: ALUMINUM WITH STAINLESS STEEL SPRINGS, 316 STAINLESS STEEL NUTS & BOLTS, HINGES, AND HOLD OPEN ARM.
- LOADING: DESIGNED FOR OFF-STREET LOCATIONS WHICH MAY OCCASIONALLY RECEIVE H-20 WHEEL LOADS.
- BITUMINOUS COATING IS APPLIED TO AREA OF FRAME IN CONTACT WITH CONCRETE.

---

**OPTIONAL FEATURES**

- RECESSED STAPLE FOR PADLOCK
- OTHERS (SEE PAGE 18): 

---

**U.S.F. FABRICATION, INC.**
HIALEAH, FLORIDA

THS (A) X (B)
**ALUMINUM**

The heavy-duty trough type floor access door with drainable frame is designed for interior and exterior applications where dirt and water are to be prevented from falling into the area below. It is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.

**SPECIFICATIONS:** The floor access door shall be Model THD as manufactured by U.S. Fabrication, Inc. with the size being specified on the plans. Door leaves shall be 1/4-inch thick aluminum diamond plate reinforced for an AASHTO H-20-44 wheel load. Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H20-44. (The floor access door is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.) The frame shall be extruded aluminum trough section with an integral anchor flange on all four sides. The frame shall include an EPDM odor reduction gasket that reduces the amount of odor that escapes from below the door and a 1 1/2-inch threaded drain coupling. The floor access door shall be equipped with a flush lifting handle that does not protrude above the cover and 316 stainless steel tamper resistant bolts/locknuts. The door shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. The door shall be equipped with a watertight 316 stainless steel slamlock with threaded plug, removable outside key, and fixed inside handle. The slamlock latches onto a 316 stainless steel striker plate that is bolted to the frame. All parts of the frame in contact with concrete shall have a coating of bituminous paint. An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frame and covers. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame including the seat on which the reinforcing rests shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**

- Enclosed, stainless steel vertical springs for easy opening, (also available with removable bolt-on spring housings) see page 81
- Recessed staple and other locking devices, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Debris gasket, see page 79
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Anodized finish, see page 80
- Stainless steel safety chains, see page 80
- Fall Through Prevention Systems, see page 81
- Slip resistant surface bonded to cover plate, see page 80
- Side drain coupling (instead of standard bottom drain)
- Hinge covers on same long side, see page 84
  (springs would be horizontal)

**H-20 LOADING****

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* Weight shown is from our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****THD Aluminum floor access doors are intended for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads (16,000 lbs. over 10” x 20” area + 30% impact factor). For parking lot applications, see P-AHS and P-AHD (pages 62 to 65). For direct traffic applications, see steel DT-AHS and DT-AHD (pages 66 to 69). For other direct traffic applications, see cast iron frames & covers (pages 74 to 75).

**CUSTOM SIZES READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
WATERTIGHT PLUG

REMovable KEY WRENCH

316 STAINLESS STEEL SLAMLOCK

HEAVY DUTY 316 STAINLESS STEEL HINGES WITH TAMPER PROOF BOLTS

316 STAINLESS STEEL AUTOMATIC HOLD OPEN ARM WITH RED VINYL GRIP

STAINLESS STEEL SPRINGS

1 1/2" (38 mm) DIA. DRAIN COUPLING

NOTE:

- MATERIAL: ALUMINUM WITH STAINLESS STEEL SPRINGS, 316 STAINLESS STEEL NUTS & BOLTS, HINGES, AND HOLD OPEN ARM.
- LOADING: DESIGNED FOR OFF-STREET LOCATIONS WHICH MAY OCCASIONALLY RECEIVE H-20 WHEEL LOADS.
- BITUMINOUS COATING IS APPLIED TO AREA OF FRAME IN CONTACT WITH CONCRETE.

1/4" EXTRUDED TROUGH SECTION W/INTEGRAL CONTINUOUS ANCHOR FLANGE & GROOVE FOR GASKET FRAME MAT'L: ALUMINUM 6063-T5

FRAME DETAIL

OPTIONAL FEATURES

☐ RECESSED STAPLE FOR PADLOCK
☐ OTHERS (SEE PAGE 20): ________

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

THD ____ X ____
(A) (B)
The retrofit angle frame floor access door is designed for interior and exterior applications where watertightness is not required and the frame is to be placed into an existing opening.

**SPECIFICATIONS:** The retrofit floor access door shall be Model APS RETROFIT as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick aluminum diamond plate reinforced for a 300 p.s.f. live load. The extruded aluminum angle frame shall have a horizontal flange with 9/16-inch diameter holes for bolting to the existing floor and an integral door seat on all four sides. The horizontal flange will have a beveled edge that slopes to the floor surface. The floor access door shall be equipped with a flush lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. A staple for a padlock shall be supplied for security. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**

- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Bituminous coating on frame surface in contact with concrete, see page 80
- Cushion for noise dampening, see page 79
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80
- All steel or stainless steel material (no beveled edge)
- Mounting holes on verticle/inside frame wall for security
- Reading Lid, see page 76

### 300 P.S.F. LOADING

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<th>MODEL</th>
<th>COVER THK</th>
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<th>CLEAR OPENING**</th>
<th>EXISTING OPENING</th>
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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application.

**CUSTOM SIZES READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
ANGLE FRAME, PEDESTRIAN LOADING, DOUBLE DOOR RETROFIT

ALUMINUM

The retrofit angle frame floor access door is designed for interior and exterior applications where watertightness is not required and the frame is to be placed into an existing opening.

SPECIFICATIONS: The retrofit floor access door shall be Model APD RETROFIT as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaves shall be 1/4-inch thick aluminum diamond plate reinforced for a 300 p.s.f. live load. The extruded aluminum angle frame shall have a horizontal flange with 9/16-inch diameter holes for bolting to the existing floor and an integral door seal on all four sides. The horizontal flange will have a beveled edge that slopes to the floor surface. The floor access door shall be equipped with a flush lifting handle that does not protrude above the cover, and 316 stainless steel hold open arms with red vinyl grips that automatically keep the covers in their upright, open position. The door shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. A staple for a padlock shall be supplied for security. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

OPTIONAL FEATURES

- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Bituminous coating on frame surface in contact with concrete, see page 80
- Cushion for noise dampening, see page 79
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Anodized finish, see page 80
- Stainless steel safety chains, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80
- All steel or stainless steel material (no beveled edges)
- Hinge covers on same long side, see page 84
- Mounting holes on verticle/inside frame wall for security
- Reading Lid, see page 76

300 P.S.F. LOADING

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<tr>
<th>MODEL</th>
<th>COVER THK</th>
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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application.

CUSTOM SIZES READILY AVAILABLE

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: ALUMINUM WITH 316 STAINLESS STEEL NUTS & BOLTS, HINGES, AND HOLD OPEN ARM.
- LOADING: 300 LBS. PER SQ. FOOT. (1464 KG. PER SQ. M.)

OPTIMAL FEATURES
☐ S.S. HORIZONTAL SPRINGS
☐ S.S. SLAMLOCK
☐ BITUMINOUS PAINT ON AREA IN CONTACT WITH CONCRETE
☐ OTHERS (SEE PAGE 24): ________

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

EXISTING FLOOR OPENING

APD
RETROFIT

A (C-1") B (H-1")

316 STAINLESS STEEL HINGES WITH TAMPER PROOF BOLTS
The basin cover is designed for interior and exterior applications where watertightness is not required and the cover is to be bolted down to the basin.

**SPECIFICATIONS:** The basin cover shall be Model BPS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Cover plate and door leaf shall be 1/4-inch thick aluminum diamond plate reinforced for a 300 p.s.f. live load. The cover shall have six 5/8-inch diameter holes equally spaced around the perimeter to bolt it down to the existing structure. The access door shall be equipped with a flush lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. A staple for a padlock shall be supplied for security. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**
- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Bituminous coating on frame surface in contact with concrete, see page 80
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Custom lettering, see page 79
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Covers to fit square or rectangular basins
- Holes for vents, pipe couplings and other hardware
- Slip resistant surface bonded to cover plate, see page 80
- Reading Lid, see page 76
- All steel or stainless steel material

**300 P.S.F. LOADING**

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</table>

* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application.

**CUSTOM SIZES READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: ALUMINUM WITH
  316 STAINLESS STEEL NUTS & BOLTS,
  HINGES, AND HOLD OPEN ARM.
- LOADING: 300 LBS. PER SQ. FOOT.
  (1464 KG. PER SQ. M)

316 STAINLESS STEEL AUTOMATIC HOLD OPEN ARM
W/RED VINYL GRIP

STAPLE FOR PADLOCK

1/4" (6 MM) DIAMOND PLATE

(6) 5/8" (16 MM) DIA.
MOUNTING HOLE FOR (6)
1/2" (13 MM) DIA. ANCHOR
BOLT (BY OTHERS)

316 STAINLESS STEEL HINGES WITH TAMPER PROOF BOLTS

OPTIONAL FEATURES
☐ S.S. HORIZONTAL SPRINGS
☐ S.S. SLAMLOCK
☐ BITUMINOUS PAINT ON AREA IN CONTACT WITH CONCRETE
☐ OTHERS (SEE PAGE 26):

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

BPS ___

(B)
ALUMINUM

The basin cover is designed for interior and exterior applications where watertightness is not required. This economical design has the cover bolted directly to the basin without a frame, hold open arm or springs, which allows the cover to open a full 180 degrees.

SPECIFICATIONS: The basin cover shall be Model BPC as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Cover plate shall be 1/4-inch thick aluminum diamond plate reinforced for a 300 p.s.f. live load. The fixed section of the cover shall have three 5/8-inch diameter holes equally spaced on the perimeter to bolt it down to the existing structure. The access door shall be equipped with a flush lifting handle that does not protrude above the cover. The door shall have a 304 stainless steel continuous hinge and 316 stainless steel tamper proof bolts/locknuts, which allow the cover to open a full 180 degrees. A staple for a padlock shall be supplied for security. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

OPTIONAL FEATURES

- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Custom lettering, see page 79
- Anodized finish, see page 80
- Covers to fit square or retangular basins
- Holes for vents, pipe couplings and other hardware
- Slip resistant surface bonded to cover plate, see page 80
- All steel or stainless steel material

### 300 P.S.F. LOADING

<table>
<thead>
<tr>
<th>MODEL</th>
<th>COVER THK</th>
<th>COVER O.D.</th>
<th>STRUCTURE I.D.</th>
<th>CLEAR OPENING**</th>
<th>WEIGHT*</th>
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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application.

CUSTOM SIZES READILY AVAILABLE

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: ALUMINUM WITH 316 STAINLESS STEEL NUTS & BOLTS AND HINGES.
- LOADING: 300 LBS. PER SQ. FOOT.
  (1464 KG. PER SQ. M.)
The round floor access door is designed for interior and exterior applications where watertightness is not required and the frame is to be cast into concrete.

**SPECIFICATIONS:** The round floor access door shall be Model RPS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick aluminum diamond plate reinforced for a 300 p.s.f. live load. The frame shall be extruded aluminum with an integral anchor flange and door seat. The floor access door shall be equipped with a flush lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. A staple for a padlock shall be supplied for security. An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frame and cover. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**
- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Bituminous coating on frame surface in contact with concrete, see page 80
- Cushion for noise dampening, see page 79
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Anodized finish, see page 80
- Hatch Safety Net, Fall Through Prevention System, see pages 82-83
- Holes for vents, pipe couplings and other hardware
- Slip resistant surface bonded to cover plate, see page 80
- All steel or stainless steel material
- Reading Lid, see page 76

**300 P.S.F. LOADING**

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<thead>
<tr>
<th>MODEL</th>
<th>COVER THK</th>
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<td>C in. (mm)</td>
<td>D in. (mm)</td>
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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application.
FLUSH LIFTING HANDLE

1/4" (6 mm) DIAMOND PLATE

EXTRUDED ANGLE FRAME WITH INTEGRAL SEAT & CONTINUOUS ANCHOR FLANGE

316 STAINLESS STEEL HINGES WITH TAMPER PROOF BOLTS

NOTE:
- MATERIAL: ALUMINUM WITH 316 STAINLESS STEEL NUTS & BOLTS, HINGES, AND HOLD OPEN ARM.
- LOADING: 300 LBS. PER SQ. FOOT. (1464 KG. PER SQ. M.)

OPTIONAL FEATURES
- S.S. HORIZONTAL SPRINGS
- S.S. SLAMLOCK
- BITUMINOUS PAINT ON AREA IN CONTACT WITH CONCRETE
- OTHERS (SEE PAGE 30): _______

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

RPS (B)
The watertight (floodtight/gastight) angle frame floor access door is designed for interior and exterior applications where water and gastightness are required.

**SPECIFICATIONS:** The watertight (floodtight/gastight) floor access door shall be Model W-APS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick aluminum diamond plate reinforced for a 1560 p.s.f. live load (capable of holding up to 25 ft. head of water). The bottom of the cover shall have a continuous groove to securely hold a 9/16-inch diameter EPDM gasket around its perimeter. The cover shall have 316 stainless steel floodtight cam locks to compress the gasket so that the door will not leak from standing water. The frame shall be 3/8-inch thick material with 3/16" x 1-1/2" strap anchors welded around the frame for casting into concrete. The floor access door shall be equipped with a flush floodtight handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have 316 stainless steel hinges with 316 stainless steel flat head bolts. An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frame and cover. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**

- Stainless steel horizontal springs for easy opening, see page 81
- Recessed cylinder lock, see page 78
- Bituminous coating on frame surface in contact with concrete, see page 80
- Frame skirts for easy casting into a concrete top slab, see page 78
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Stainless steel horizontal springs for easy opening, see page 81
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80
- All steel or stainless steel material

**1560 P.S.F. LOADING****

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<td>D in. (mm)</td>
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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****Pedestrian loading and capable of holding 25 ft. head of water.

**CUSTOM SIZES READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: ALUMINUM WITH 316 STAINLESS STEEL NUTS & BOLTS, CAM LOCKS, HINGES AND HOLD OPEN ARM.
- LOADING: 1560 LBS. PER SQ. FOOT (7611 KG. PER SQ. M) (CAPABLE OF HOLDING UP TO 25 FT. HEAD OF WATER)

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

W - APS X (FLOODTIGHT/GASTIGHT) (A) (B)
The heavy-duty watertight (floodtight/gastight) angle frame floor access door is designed for interior and exterior applications where water and gastightness are required. It is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.

**SPECIFICATIONS:** The watertight (floodtight/gastight) floor access door shall be Model W-AHS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick aluminum diamond plate reinforced for an AASHTO H-20-44 wheel load (capable of holding up to 25 ft. head of water). Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H20-44. (The floor access door is designed for off-street locations that may occasionally receive AASHTO H-20 wheel loads.) The bottom of the cover shall have a continuous groove to securely hold a 9/16-inch diameter EPDM gasket around its perimeter. The cover shall have 316 stainless steel floodtight cam locks to compress the gasket so that the door will not leak from standing water. The frame shall be 3/8-inch thick material with 3/16" x 1-1/2" strap anchors welded around the frame for casting into concrete. The floor access door shall be equipped with a flush floodtight handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have 316 stainless steel hinges with 316 stainless steel flat head bolts. The door shall have stainless steel open horizontal springs to assist in opening the cover and reducing the force during closing. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame including the seat on which the reinforcing rests shall be supported by concrete or other material designed to support the specified load. All parts of the frame in contact with concrete shall have a coating of bituminous paint. An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frame and cover. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**

- Enclosed, stainless steel horizontal springs for easy opening, see page 81
- Recessed cylinder lock, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80
- All steel or stainless steel material

**H-20 LOADING****

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<th>CLEAR OPENING**</th>
<th>OVERALL SIZE</th>
<th>WEIGHT* Lbs. (KG)</th>
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<td>37 3/8 (949)</td>
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<tr>
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*Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****W-AHS aluminum floor access doors are intended for off-street locations that may occasionally receive AASHTO H-20 wheel loads (16,000 lbs. over 10" x 20" area + 30% impact factor), and capable of holding 25 ft. head of water. Call Customer Service for direct traffic applications.

**CUSTOM SIZES READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: ALUMINUM WITH STAINLESS STEEL SPRINGS, 3/16 STAINLESS STEEL NUTS & BOLTS, CAM LOCKS, HINGES AND HOLD OPEN ARM.
- LOADING: DESIGNED FOR OFF-STREET LOCATIONS WHICH MAY OCCASIONALLY RECEIVE H-20 WHEEL LOADS. (CAPABLE OF HOLDING UP TO 25 FT. HEAD OF WATER)
- BITUMINOUS COATING IS APPLIED TO AREA OF FRAME IN CONTACT WITH CONCRETE.

OPTIONAL FEATURES

☐ STAPLE FOR PADLOCK
☐ OTHERS (SEE PAGE 34): ________

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

W—AHS (FLOODTIGHT/GASTIGHT) (A) X (B)
**ALUMINUM**

The floodtight floor access door is designed for interior and exterior applications where water may rise above the surface opening.

**SPECIFICATIONS:** The floodtight floor access door shall be Model FPS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick aluminum diamond plate reinforced for a 625 p.s.f. live load (capable of holding up to 10 ft. head of water). The frame shall be 3/8-inch thick aluminum angle with a horizontal leg to allow for bolting to the top slab. The hatch shall be fitted with 316 stainless steel pressure locks to hold the cover securely on a U-shaped neoprene gasket riveted to the frame to minimize water intrusion. The floor access door shall be equipped with a lifting handle, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. Hinges shall be fabricated with aluminum lugs and 316 stainless steel pins. A staple for a padlock shall be supplied for security. Installation shall be in accordance with the manufacturer’s attached instructions with others being responsible for providing an effective seal between the frame and the concrete. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**

- Stainless steel horizontal springs for easy opening, see page 81
- Bituminous coating on frame surface in contact with concrete, see page 78
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83

**625 P.S.F. LOADING****

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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****Pedestrian loading and capable of holding 10 ft. head of water.

**CUSTOM SIZES READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: ALUMINUM WITH 316 STAINLESS STEEL NUTS & BOLTS AND HOLD OPEN ARM.
- LOADING: 625 LBS. PER SQ. FOOT.
  (3049 KG. PER SQ. M.)

OPTIONAL FEATURES

☐ S.S. HORIZONTAL SPRINGS
☐ BITUMINOUS PAINT ON AREA IN CONTACT WITH CONCRETE
☐ OTHERS (SEE PAGE 36): __________

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

FPS ____ X ____
(A) (B)
The recessed angle frame floor access door is designed for interior and exterior applications where watertightness is not required. It has a 1/8-inch recess to receive tile or carpet.

**SPECIFICATIONS:** The recessed floor access door shall be Model R-APS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick aluminum smooth plate reinforced for a 150 p.s.f. live load; and, have a 1/8-inch recess to receive tile or carpet. Both cover and frame shall have a metal lip around the entire perimeter defining the recess. The frame shall be extruded aluminum with an integral door seat on all four sides which has a groove to receive a cushion for noise dampening. The floor access door shall be equipped with a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have hinges that are not visible when the door is closed. The door shall have 316 stainless steel torsion bars to assist in opening the door and reducing the force during closing. The door shall be equipped with a watertight 316 stainless steel slamlock with threaded plug, removable outside key, and fixed inside handle. The slamlock latches onto a 316 stainless steel striker plate that is bolted to the frame. All parts of the frame in contact with concrete shall have a coating of bituminous paint. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**

- Recessed cylinder lock, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Anodized finish, see page 80
- Fiberglass insulation with metal liner, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Double door cover

**150 P.S.F. LOADING**

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*Weight shown is of our standard hatch only, and does not include any optional features. **Dimensions of recessed area in the cover that receive the tile. ***Also referred to as “Concrete Opening” when door is cast into concrete.

**CUSTOM SIZES READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
**EXTRUDED FRAME WITH INTEGRAL SEAT, CONTINUOUS ANCHOR FLANGE & GROOVE FOR CUSHION (TYPICAL 3 SIDES)**

**EXTRUDED COVER EDGE**

1/8” (3 MM) RECESS

1/4” (6 MM) SMOOTH PLATE

**WATERTIGHT PLUG**

REMOVABLE KEY WRENCH

**EXTRUDED FRAME WITH INTEGRAL SEAT & GROOVE FOR CUSHION**

**EXTRUDED HINGES**

**316 STAINLESS STEEL TORSION BARS**

**316 STAINLESS STEEL SLAM LOCK**

0.165" (4 MM) DIA. CUSHION

**316 STAINLESS STEEL AUTOMATIC HOLD OPEN ARM WITH RED VINYL GRIP**

**NOTE:**
- MATERIAL: ALUMINUM WITH 316 STAINLESS STEEL NUTS & BOLTS, SLAM LOCK, TORSION BARS & HOLD OPEN ARM.
- LOADING: 150 LBS. PER SQ. FT. (732 KG. PER SQ. M)
- BITUMINOUS COATING IS APPLIED TO AREA OF FRAME IN CONTACT WITH CONCRETE.

**U.S.F. FABRICATION, INC.**

**HIALEAH, FLORIDA**

R-APS (C) X (D)
ALUMINUM

Therecessedtroughframeflooraccessdoorwithdrainableframeisdesignedforinteriorandexteriorapplicationswhere dirt and water are to be prevented from falling into the area below. The cover has a 1-inch recess to receive tile or concrete.

SPECIFICATIONS: The recessed floor access door shall be Model R-TPS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick aluminum smooth plate reinforced for a 300 p.s.f. live load; and, have a 1-inch recess to receive tile or concrete. If recess is to be filled with concrete or other cast material, the door is furnished with anchor clips and wire mesh. Both the cover and frame shall have a metal lip around the entire perimeter defining the recess. The trough frame shall be fabricated from 1/4-inch aluminum and shall have an anchor flange on all four sides. The frame shall drain water out through a 1 1/2-inch pipe coupling. The floor access door shall be equipped with a flush aluminum lifting handle that does not protrude above the cover and, a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have a continuous 316 stainless steel hinge that is flush with the top of the cover. The door shall have stainless steel vertical compression springs to assist in opening the door and reducing the force during closing. The door shall be equipped with a watertight 316 stainless steel slamlock with threaded plug, removable outside key, and fixed inside handle. The slamlock latches onto a 316 stainless steel striker plate that is bolted to the frame. All parts of the frame in contact with concrete shall have a coating of bituminous paint. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

OPTIONAL FEATURES

- Recessed cylinder lock, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Side drain coupling (instead of standard bottom drain)
- Double door cover
- Adjust springs for wood or tile fill in recess area

300 P.S.F. LOADING

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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete.

CUSTOM SIZES READILY AVAILABLE

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: ALUMINUM WITH SPRINGS,
  316 STAINLESS STEEL NUTS & BOLTS,
  SLAMLOCK, HINGES & HOLD OPEN ARM.
- LOADING: 300 LBS. PER SQ. FOOT.
  (1464 KG. PER SQ. M)
- BITUMINOUS COATING IS APPLIED TO AREA
  OF FRAME IN CONTACT WITH CONCRETE.
The SRR-I angle frame access door is designed for exterior applications where dirt and water are to be prevented from falling into the area below.

**SPECIFICATIONS:** The security reservoir & roof door shall be Model SRR-I as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 3/16-inch thick aluminum diamond plate reinforced for 150 p.s.f. live load. The frame shall be 3/16-inch aluminum structural angle with 7/16-inch diameter holes for bolting to curb or roof deck and have an extruded U-shaped EDPM rubber weatherseal gasket where the cover closes on the frame. The access door shall be equipped with a 316 stainless steel slamming with fixed exterior and interior handles and interior padlock staple. A 316 stainless steel hold open arm with push/pull handle shall automatically keep the cover in its upright, open position. The door shall have a mill finish and hinges fabricated with aluminum lugs and 316 stainless steel pins. The door shall have stainless steel horizontal compression springs to assist in opening the door and reducing the force during closing. Installation shall be in accordance with the manufacturer’s attached instructions with others being responsible for providing an effective seal between the frame and the mounting surface. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**

- 3/16-inch thick aluminum smooth plate cover
- Exterior padlock staple
- Removable exterior slamlock handle with choice of slotted plug or tamper resistant plug
- Cylinder deadbolt lock keyed exterior, interior or both
- Indicator switch to signal when cover is not fully closed
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Custom lettering, see page 79

### 150 P.S.F. LOADING

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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application.

**CUSTOM SIZES READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: ALUMINUM WITH 316 STAINLESS STEEL SLAMLOCK, NUTS & BOLTS, HINGE PINS AND HOLD OPEN ARM.
- LOADING: 150 LBS. PER SQ. FOOT. (732 KG. PER SQ. M.)
The SRR-E angle frame access door is designed for exterior applications where dirt and water are to be prevented from falling into the area below.

**SPECIFICATIONS:** The security reservoir & roof door shall be Model SRR-E as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 3/16-inch thick aluminum diamond plate reinforced for 150 p.s.f. live load. The frame shall be 3/16-inch aluminum structural angle with 7/16-inch diameter holes for bolting to curb or roof deck and have an extruded U-shaped EDPM rubber weatherseal gasket where the cover closes on the frame. The access door shall be equipped with a 316 stainless steel slamlock with fixed exterior and interior handles and interior padlock staple. A 316 stainless steel hold open arm with push/pull handle shall automatically keep the cover in its upright, open position. The door shall have a mill finish and hinges fabricated with aluminum lugs and 316 stainless steel pins. The door shall have stainless steel horizontal compression springs to assist in opening the door and reducing the force during closing. Installation shall be in accordance with the manufacturer’s attached instructions with others being responsible for providing an effective seal between the frame and the mounting surface. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of ten years.

**OPTIONAL FEATURES**

- 3/16-inch thick aluminum smooth plate cover
- Exterior padlock staple
- Removable exterior slamlock handle with choice of slotted plug or tamper resistant plug
- Cylinder deadbolt lock keyed exterior, interior or both
- Indicator switch to signal when cover is not fully closed
- Anodized finish, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Custom lettering, see page 79

**150 P.S.F. LOADING**

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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application.
ANG LE FRAM E, PED ESTRIAN LO ADING, SING LE DO OR

STEEL

The angle frame floor access door is designed for interior and exterior applications where watertightness is not required.

SPECIFICATIONS: The floor access door shall be Model APS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick steel diamond plate reinforced for a 300 p.s.f. live load. The frame shall be 1/4-inch thick steel angle with anchors welded to frame for casting into concrete. The floor access door shall be equipped with a flush steel lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have tamper resistant hinges with recessed stainless steel pins and lugs. A staple for a padlock shall be supplied for security. The floor access door shall be furnished with one coat of shop primer. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

OPTIONAL FEATURES

- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Nut rails with stainless steel sliding nuts for attaching cable holders, bracket & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Stainless steel safety chains with aluminum support posts, see page 80
- Hot dipped galvanized finish
- Mill finish (no shop primer)
- All 304 stainless steel material
- All 316 stainless steel material
- Slip resistant surface bonded to cover plate, see page 80
- Reading Lid, see page 76
- Fall Through Prevention Systems, see pages 82-83

300 P.S.F. LOADING

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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete.

CUSTOM SIZES READILY AVAILABLE

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: STEEL WITH
  316 STAINLESS STEEL NUTS &
  BOLTS AND HOLD OPEN ARM.
- LOADING: 300 LBS. PER SQ. FOOT.
  (1464 KG. PER SQ. M)
- FINISH: ONE COAT SHOP PRIMER.

OPTIONAL FEATURES
☐ S.S. HORIZONTAL SPRINGS
☐ S.S. SLAMLOCK
☐ OTHERS (SEE PAGE 46): _______

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

APS (A) X (B)
ANGLE FRAME, PEDESTRIAN LOADING, DOUBLE DOOR

STEEL

The angle frame floor access door is designed for interior and exterior applications where watertightness is not required.

SPECIFICATIONS: The floor access door shall be Model APD as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaves shall be 1/4-inch thick steel diamond plate reinforced for a 300 p.s.f. live load. The frame shall be 1/4-inch thick steel angle with anchors welded to frame for casting into concrete. The floor access door shall be equipped with a flush steel lifting handle that does not protrude above the cover, and 316 stainless steel hold open arms with red vinyl grips that automatically keep the covers in their upright, open positions. The door shall have tamper resistant hinges with recessed stainless steel pins and lugs. A staple for a padlock shall be supplied for security. The floor access door shall be furnished with one coat of shop primer. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

OPTIONAL FEATURES

- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Nut rails with stainless steel sliding nuts for attaching cable holders, bracket & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79

- Stainless steel safety chains, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Hot dipped galvanized finish
- Mill finish (no shop primer)
- All 304 stainless steel material
- All 316 stainless steel material
- Slip resistant surface bonded to cover plate, see page 80
- Hinge covers on same long side, see page 84
- Reading Lid, see page 76

300 P.S.F. LOADING

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* Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete.

CUSTOM SIZES READILY AVAILABLE

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: STEEL WITH
  316 STAINLESS STEEL NUTS &
  BOLTS AND HOLD OPEN ARM.
- LOADING: 300 LBS. PER SQ. FOOT.
  (1464 KG. PER SQ. M)
- FINISH: ONE COAT SHOP PRIMER.
STEEL

The heavy-duty angle type floor access door is designed for interior and exterior applications where watertightness is not required. It is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.

SPECIFICATIONS: The floor access door shall be Model AHS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick steel diamond plate reinforced for an AASHTO H-20-44 wheel load. Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H20-44. (The floor access door is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.) The frame shall be 1/4-inch thick steel angle with anchors welded to frame for casting into concrete. The floor access door shall be equipped with a flush steel lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have tamper resistant hinges with recessed stainless steel pins and lugs. The door shall have stainless steel open horizontal springs to assist in opening the cover and reducing the force during closing. The door shall be equipped with a watertight 316 stainless steel slamlock with threaded plug, removable outside key, and fixed inside handle. The slamlock latches onto a 316 stainless steel striker plate that is bolted to the frame. The floor access door shall be furnished with one coat of shop primer. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame including the seat on which the reinforcing rests shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

OPTIONAL FEATURES

- Enclosed, stainless steel horizontal springs for easy opening, see page 81
- Recessed staple and other locking devices, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Hot dipped galvanized finish
- Mill finish (no shop primer)
- All 304 stainless steel material
- All 316 stainless steel material
- Slip resistant surface bonded to cover plate, see page 80

<table>
<thead>
<tr>
<th>MODEL</th>
<th>COVER THK</th>
<th>FRAME OPENING***</th>
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<th>OVERALL SIZE</th>
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*Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****AHS steel floor access doors are intended for off-street locations that may occasionally receive AASHTO H-20 wheel loads (16,000 lbs. over 10” x 20” area + 30% impact factor). For parking lot applications, see P-AHS and P-AHD (pages 62 to 65). For direct traffic applications, see steel DT-AHS and DT-AHD (pages 66 to 69). For other direct traffic applications, see cast iron frames & covers (pages 74 to 75).

CUSTOM SIZES READILY AVAILABLE

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: STEEL WITH STAINLESS STEEL SPRINGS, 316 STAINLESS STEEL NUTS & BOLTS AND HOLD OPEN ARM.
- LOADING: DESIGNED FOR OFF-STREET LOCATIONS WHICH MAY OCCASIONALLY RECEIVE H-20 WHEEL LOADS.
- FINISH: ONE COAT SHOP PRIMER.
STEEL

The heavy-duty angle type floor access door is designed for interior and exterior applications where watertightness is not required. It is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.

SPECIFICATIONS: The floor access door shall be Model AHD as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaves shall be 1/4-inch thick steel diamond plate reinforced for an AASHTO H-20-44 wheel load. Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H20-44. (The door access door is designed for off-street locations that may occasionally receive AASHTO H-20 wheel loads.) The frame shall be 1/4-inch thick steel angle with anchors welded to frame for casting into concrete. The floor access door shall be equipped with a flush steel lifting handle that does not protrude above the cover, and 316 stainless steel hold open arms with red vinyl grips that automatically keep the covers in their upright, open positions. The door shall have tamper resistant hinges with recessed stainless steel pins and lugs. The door shall have stainless steel open vertical springs to assist in opening the covers and reducing the force during closing. The door shall be equipped with a watertight 316 stainless steel slamlock with threaded plug, removable outside key, and fixed inside handle. The slamlock latches onto a 316 stainless steel striker plate that is bolted to the frame. The floor access door shall be furnished with one coat of shop primer. Installation shall be in accordance with the manufacturer's attached instructions. The entire frame including the seat on which the reinforcing rests shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

OPTIONAL FEATURES

- Enclosed, stainless steel vertical springs for easy opening, (also available with removable bolt-on spring housings) see page 81
- Recessed staple and other locking devices, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Nut rails with stainless steel sliding nuts for attaching cable holders, bracket & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Stainless steel safety chains, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Hot dipped galvanized finish
- Mill finish (no shop primer)
- All 304 stainless steel material
- All 316 stainless steel material
- Slip resistant surface bonded to cover plate, see page 80
- Hinge covers on same long side, (springs would be horizontal) see page 84
- Hinging coverson same long side, (springs would be horizontal) see page 84
- Frameskirtsforeasycastingintoaconcretetopslab,seepage78
- Nutrailswithstainlesssteelslidingnutsforattaching
cable holders, bracket & other hardware, seepage85
- Fiberglassinsulationwithmetalliner,seepage80
- Customlettering,see page 79

H-20. LOADING****

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<th>MODEL</th>
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*Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as "Actual Opening" which can vary to suit application. ***Also referred to as "Concrete Opening" when door is cast into concrete. ****AHD Steel floor access doors are intended for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads (16,000 lbs. over 10” x 20” area + 30% impact factor). For parking lot applications, see P-AHS and P-AHD (pages 62 to 65). For direct traffic applications, see steel DT-AHS and DT-AHD (pages 66 to 69). For other direct traffic applications, see cast iron frames & covers (pages 74 to 75).

CUSTOM SIZES READILY AVAILABLE

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
-MATERIAL: STEEL WITH STAINLESS STEEL SPRINGS, 316 STAINLESS STEEL NUTS & BOLTS AND HOLD OPEN ARM.
-LOADING: DESIGNED FOR OFF-STREET LOCATIONS WHICH MAY OCCASIONALLY RECEIVE H-20 WHEEL LOADS.
-FINISH: ONE COAT SHOP PRIMER.

STAINLESS STEEL SPRINGS

316 STAINLESS STEEL AUTOMATIC HOLD OPEN ARM WITH RED VINYL GRIP

WATERTIGHT PLUG

REMOVABLE KEY WRENCH

FLUSH LIFTING HANDLE

DIAMOND PLATE

1/4" (6 MM)

316 STAINLESS STEEL SLAMLOCK

STAINLESS STEEL TAMPER PROOF HINGES

ANCHOR WELDED TO FRAME

OPTIONAL FEATURES

☐ RECESSED STAPLE FOR PADLOCK
☐ OTHERS (SEE PAGE 52): ______

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

AHD (A) X (B)
TROUGH FRAME, PEDESTRIAN LOADING, SINGLE DOOR

STEEL

The trough type floor access door with drainable frame is designed for interior and exterior applications where dirt and water are to be prevented from falling into the area below.

SPECIFICATIONS: The floor access door shall be Model TPS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick steel diamond plate reinforced for a 300 p.s.f. live load. The trough frame shall be fabricated from 1/4-inch thick steel and shall have a continuous anchor flange on all four sides. The frame shall drain water out through a 1 1/2-inch pipe coupling. The floor access door shall be equipped with a flush steel lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. A staple for a padlock shall be supplied for security. The floor access door shall be furnished with one coat of shop primer. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

OPTIONAL FEATURES

- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Odor reduction gasket, see page 79
- Nut rails with stainless steel sliding nuts for attaching cable holders, bracket & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, sees pages 82-83
- Side drain coupling (instead of standard bottom drain)
- Hot dipped galvanized finish
- Mill finish (no shop primer)
- All 304 stainless steel material
- All 316 stainless steel material
- Slip resistant surface bonded to cover plate, see page 80
- Reading Lid, see page 76

300 P.S.F. LOADING

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<th>CLEAR OPENING** C in. (mm)</th>
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*Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as "Actual Opening" which can vary to suit application. ***Also referred to as "Concrete Opening" when door is cast into concrete.

CUSTOM SIZES READILY AVAILABLE

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: STEEL WITH
  316 STAINLESS STEEL NUTS & BOLTS,
  HINGES, AND HOLD OPEN ARM.
- LOADING: 300 LBS. PER SQ. FOOT
  (1464 KG. PER SQ. M)
- FINISH: ONE COAT SHOP PRIMER.

OPTIONAL FEATURES
☐ S.S. HORIZONTAL SPRINGS
☐ S.S. SLAMLOCK
☐ OTHERS (SEE PAGE 54):

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

TPS (A) X (B)
The trough type floor access door with drainable frame is designed for interior and exterior applications where dirt and water are to be prevented from falling into an area below.

**SPECIFICATIONS:** The floor access door shall be Model TPD as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaves shall be 1/4-inch thick steel diamond plate reinforced for a 300 p.s.f. live load. The trough frame shall be fabricated from 1/4-inch thick steel and shall have a continuous anchor flange on all four sides. The frame shall drain water out through a 1 1/2-inch pipe coupling. The floor access door shall be equipped with a flush steel lifting handle that does not protrude above the cover, and 316 stainless steel hold open arms with red vinyl grips that automatically keep the covers in their upright, open positions. The door shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts/locknuts. A staple for a padlock shall be supplied for security. The floor access door shall be furnished with one coat of shop primer. Installation shall be in accordance with the manufacturer’s attached instructions. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

**OPTIONAL FEATURES**

- Stainless steel horizontal springs for easy opening, see page 81
- 316 Stainless steel watertight slamlock and other locking devices, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Odor reduction gasket, see page 79
- Nut rails with stainless steel sliding nuts for attaching cable holders, bracket & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Stainless steel safety chains, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Side drain coupling (instead of standard bottom drain)
- Hot dipped galvanized finish
- Mill finish (no shop primer)
- All 304 stainless steel material
- All 316 stainless steel material
- Slip resistant surface bonded to cover plate, see page 80
- Hinge covers on same long side, see page 84
- Reading Lid, see page 76

### 300 P.S.F. LOADING

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<th>MODEL</th>
<th>COVER THK</th>
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<th>CLEAR OPENING**</th>
<th>OVERALL SIZE</th>
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*Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as "Actual Opening" which can vary to suit application. ***Also referred to as "Concrete Opening" when door is cast into concrete.

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: STEEL WITH 316 STAINLESS STEEL NUTS & BOLTS, HINGES, AND HOLD OPEN ARM.
- LOADING: 300 LBS. PER SQ. FOOT. (1464 KG. PER SQ. M)
- FINISH: ONE COAT SHOP PRIMER.

OPTIONAL FEATURES
☐ S.S. HORIZONTAL SPRINGS
☐ S.S. SLAMLOCK
☐ OTHERS (SEE PAGE 56): ________

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

TPD (A) X (B)
The heavy-duty trough type floor access door with drainable frame is designed for interior and exterior applications where dirt and water are to be prevented from falling into the area below. It is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.

**SPECIFICATIONS:** The floor access door shall be Model THS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf shall be 1/4-inch thick steel diamond plate reinforced for an AASHTO H-20-44 wheel load. Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H20-44. (The floor access door is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.) The trough frame shall be fabricated from 1/4-inch thick steel and shall have a continuous anchor flange on all four sides. The frame shall drain water out through a 1 1/2-inch pipe coupling. The floor access door shall be equipped with a flush lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright, open position. The door shall have 316 stainless steel hinges with 316 stainless steel tamper resistant bolts/locknuts. The door shall have stainless steel open horizontal springs to assist in opening the cover and reducing the force during closing. The door shall be equipped with a watertight 316 stainless steel slamlock with threaded plug, removable outside key, and fixed inside handle. The slamlock latches onto a 316 stainless steel striker plate that is bolted to the frame. The floor access door shall be furnished with one coat of shop primer. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame including the seat on which the reinforcing rests shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

**OPTIONAL FEATURES**

- Enclosed, stainless steel horizontal springs for easy opening, see page 81
- Recessed staple and other locking devices, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Odor reduction gasket, see page 79
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Side drain coupling (instead of standard bottom drain)
- Hot dipped galvanized finish
- Mill finish (no shop primer)
- All 304 stainless steel material
- All 316 stainless steel material
- Slip resistant surface bonded to cover plate, see page 80
- Custom lettering, see page 79

**H-20 LOADING****

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<th>MODEL</th>
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*Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as "Actual Opening" which can vary to suit application. ***Also referred to as "Concrete Opening" when door is cast into concrete. ****This floor access door is intended for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads (16,000 lbs. over 10" x 20" area + 30% impact factor). For parking lot applications, see P-AHS and P-AHD (pages 62 to 65). For direct traffic applications, see steel DT-AHS and DT-AHD (pages 66 to 69). For other direct traffic applications, see cast iron frames & covers (pages 74 to 75).
NOTE:
- MATERIAL: STEEL WITH STAINLESS STEEL SPRINGS,
  316 STAINLESS STEEL NUTS & BOLTS AND HOLD OPEN ARM.
- LOADING: DESIGNED FOR OFF-STREET LOCATIONS WHICH
  MAY OCCASIONALLY RECEIVE H-20 WHEEL LOADS.
- FINISH: ONE COAT SHOP PRIMER.

1/4” (6 mm) DIAMOND PLATE

1 1/2” (38 mm) DIA. DRAIN COUPLING

REMOVABLE KEY WRENCH

WATERTIGHT PLUG

HEAVY DUTY 316 STAINLESS STEEL HINGES WITH TAMPER PROOF BOLTS

OPTIONAL FEATURES

☐ RECESSED STAPLE FOR PADLOCK
☐ OTHERS (SEE PAGE 58):

U.S.F. FABRICATION, INC. 
HIALEAH, FLORIDA

THS ___ X ___

(A) (B)
The heavy-duty trough type floor access door with drainable frame is designed for interior and exterior applications where dirt and water are to be prevented from falling into the area below. It is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.

**SPECIFICATIONS:** The floor access door shall be Model THD as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaves shall be 1/4-inch thick steel diamond plate reinforced for an AASHTO H-20 wheel load. Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H20-44. (The floor access door is designed for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads.) The trough frame shall be fabricated from 1/4-inch thick steel and shall have a continuous anchor flange on all four sides. The frame shall drain water out through a 1 1/2-inch pipe coupling. The floor access door shall be equipped with a flush steel lifting handle that does not protrude above the cover, and 316 stainless steel hold open arms with red vinyl grips that automatically keep the covers in their upright, open positions. The door shall have 316 stainless steel hinges with 316 stainless steel tamper resistant bolts/locknuts. The door shall have stainless steel open vertical springs to assist in opening the covers and reducing the force during closing. The door shall be equipped with a watertight 316 stainless steel slamlock with threaded plug, removable outside key, and fixed inside handle. The slamlock latches onto a 316 stainless steel striker plate that is bolted to the frame. The floor access door shall be furnished with one coat of shop primer. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame including the seat on which the reinforcing rests shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

**OPTIONAL FEATURES**

- Enclosed, stainless steel vertical springs for easy opening, (also available with removable bolt-on spring housings) see page 81
- Recessed staple and other locking devices, see page 78
- Frame skirts for easy casting into a concrete top slab, see page 78
- Odor reduction gasket, see page 79
- Nut rails with stainless steel sliding nuts for attaching cable holders, bracket & other hardware, see page 85
- Fiberglass insulation with metal liner, see page 80
- Custom lettering, see page 79
- Stainless steel safety chains, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Side drain coupling (instead of standard bottom drain)
- Hot dipped galvanized finish
- Mill finish (no shop primer)
- All 304 stainless steel material
- All 316 stainless steel material
- Slip resistant surface bonded to cover plate, see page 80
- Hinge covers on same long side, (springs would be horizontal) see page 84

### H-20 LOADING****

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<th>MODEL</th>
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*Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as "Actual Opening" which can vary to suit application. ***Also referred to as "Concrete Opening" when door is cast into concrete. ****THD steel floor access doors are intended for off-street locations that may occasionally receive AASHTO H-20-44 wheel loads (16,000 lbs. over 10’ x 20’ area + 30% impact factor). For parking lot applications, see P-AHS and P-AHD (pages 62 to 65). For direct traffic applications, see steel DT-AHS and DT-AHD (pages 66 to 69). For other direct traffic applications, see cast iron frames & covers (pages 74 to 75).

**CUSTOM SIZES READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: STEEL WITH STAINLESS STEEL SPRINGS, 316 STAINLESS STEEL NUTS & BOLTS AND HOLD OPEN ARM.
- LOADING: DESIGNED FOR OFF-STREET LOCATIONS WHICH MAY OCCASIONALLY RECEIVE H-20 WHEEL LOADS.
- FINISH: ONE COAT SHOP PRIMER.

HEAVY DUTY 316 STAINLESS STEEL HINGES WITH TAMPER PROOF BOLTS

WATERTIGHT PLUG

316 STAINLESS STEEL SLAMLOCK

1 1/2" (38 MM) DIA. DRAIN COUPLING

1/4" (6 MM) DIAMOND PLATE

316 STAINLESS STEEL AUTOMATIC HOLD OPEN ARM WITH RED VINYL GRIP

STAINLESS STEEL SPRINGS

OPTIONAL FEATURES

☐ RECESSED STAPLE FOR PADLOCK
☐ OTHERS (SEE PAGE 60): __________

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

THD ____ X ____

(A) (B)
PARKING LOT TRAFFIC
ANGEL FRAME, HEAVY-DUTY, SINGLE DOOR

STEEL

The heavy-duty angle type floor access door is designed for interior and exterior applications where watertightness is not required. It is designed for AASHTO H-20-44 wheel loads in parking lots and alleyways where traffic speeds will not exceed 15 mph.

SPECIFICATIONS: The floor access door shall be Model P-AHS as manufactured by U.S.F. Fabrication, Inc., with the size being specified on the plans. Door leaf shall be 1/4-inch thick steel diamond plate reinforced for an AASHTO H-20-44 wheel load. Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H-20-44. The frame shall be 1/4-inch thick steel angle with anchors welded to the frame for casting into concrete. In the closed position, the cover shall be bolted to the frame with 316 stainless steel bolts. (The bolts must be securely fastened whenever the cover is closed to insure safe and proper performance of the door.) The floor access door shall be equipped with a flush steel lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically locks the cover in its upright, open position. A steel skirt shall be welded to the frame to provide a combined height equal to the depth of the concrete slab. The door shall have tamper resistant hinges with recessed stainless steel pins and lugs. The door shall have open, stainless steel, horizontal, compression springs to assist in opening the cover and reducing the force during closing. The floor access door shall have a hot-dipped galvanized finish. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame, including the seat on which the reinforcing rests, shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

OPTIONAL FEATURES

- Enclosed stainless steel springs, see page 81
- Oversized recessed padlock box, see page 78
- Skirts for concrete slabs deeper than 12 inches
- Nut rails with stainless steel sliding nuts for attaching hardware, see page 85
- Custom lettering, see page 79
- Stainless steel safety chains and posts, see page 80
- All 304 stainless steel material
- All 316 stainless steel material
- Slip resistant surface bonded to cover plate, see page 80

H-20 LOADING****

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*Weight shown is for our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****P-AHS steel floor access doors are intended for parking lot traffic locations where the posted speed does not exceed 15 mph and will receive AASHTO H-20-44 wheel loads (16,000 lbs. over 10” x 20” area + 30% impact factor). For direct traffic applications, see steel DT-AHS and DT-AHD (pages 66 to 69). For other direct traffic applications, see cast iron frames & covers (pages 74 to 75).

CUSTOM SIZES READILY AVAILABLE

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: STEEL WITH STEEL SKIRT, STAINLESS STEEL SPRINGS & HINGES, 316 STAINLESS STEEL NUTS & BOLTS AND HOLD OPEN ARM.
- LOADING: DESIGNED FOR H-20 WHEEL LOADS IN PARKING LOTS & ALLEYWAYS WHERE TRAFFIC SPEEDS WILL NOT EXCEED 15 MPH.
- FINISH: HOT DIP GALVANIZED AFTER FABRICATION.
- IT IS ESSENTIAL THAT ALL BOLTS ARE IN PLACE WHENEVER COVER IS EXPOSED TO TRAFFIC.

OPTIONAL FEATURES

(SEE PAGE 62)

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

P = AHS _____ X _____
(A) (B)
The heavy-duty angle type floor access door is designed for interior and exterior applications where watertightness is not required. It is designed for AASHTO H-20-44 wheel loads in parking lots and alleyways where traffic speeds will not exceed 15 mph.

SPECIFICATIONS: The floor access door shall be Model P-AHD as manufactured by U.S.F. Fabrication, Inc., with the size being specified on the plans. Door leaves shall be 1/4-inch thick steel diamond plate reinforced for an AASHTO H-20-44 wheel load. Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H-20-44. The frame shall be 1/4-inch thick steel angle with anchors welded to the frame for casting into concrete. In the closed position, the covers shall be bolted to the frame with 316 stainless steel bolts. (The bolts must be securely fastened whenever the covers are closed to insure safe and proper performance of the door.) The floor access door shall be equipped with a flush steel lifting handle that does not protrude above the cover, and 316 stainless steel hold open arms with red vinyl grips that automatically lock the covers in their upright, open positions. A steel skirt shall be welded to the frame to provide a combined height equal to the depth of the concrete slab. The door shall have tamper resistant hinges with recessed stainless steel pins and lugs. The door shall have open, stainless steel, vertical, compression springs to assist in opening the covers and reducing the force during closing. The floor access door shall have a hot-dipped galvanized finish. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame, including the seat on which the reinforcing rests, shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

OPTIONAL FEATURES

- Enclosed stainless steel springs, see page 81
- Oversized recessed padlock box, see page 78
- Skirts for concrete slabs deeper than 12 inches
- Nut rails with stainless steel sliding nuts for attaching hardware, see page 85
- Custom lettering, see page 79
- Stainless steel safety chains and posts, see page 80
- Fall Through Prevention Systems, see pages 82-83
- All 304 stainless steel material
- All 316 stainless steel material
- Slip resistant surface bonded to cover plate, see page 80

H-20 LOADING****

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*Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****P-AHD steel floor access doors are intended for parking lot traffic locations where the posted speed does not exceed 15 mph and will receive AASHTO H-20-44 wheel loads (16,000 lbs. over 10” x 20” area + 30% impact factor). For direct traffic applications, see steel DT-AHS and DT-AHD (pages 66 to 69). For other direct traffic applications, see cast iron frames & covers (pages 74 to 75).
NOTE:
- MATERIAL: STEEL WITH STEEL SKIRT, STAINLESS STEEL SPRINGS & HINGES, 316 STAINLESS STEEL NUTS & BOLTS AND HOLD OPEN ARM.
- LOADING: DESIGNED FOR H-20 WHEEL LOADS IN PARKING LOTS & ALLEYWAYS WHERE TRAFFIC SPEEDS WILL NOT EXCEED 15 MPH.
- FINISH: HOT DIP GALVANIZED AFTER FABRICATION.
- IT IS ESSENTIAL THAT ALL BOLTS ARE IN PLACE WHENEVER COVER IS EXPOSED TO TRAFFIC.

OPTIONAL FEATURES
(SEE PAGE 64)

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

P - AHD (A) X (B)
STEEL

The heavy-duty angle type floor access door is designed for interior and exterior applications where watertightness is not required. It is designed to receive AASHTO H20-44 wheel loads on two-lane streets with opposing traffic where the posted speed limit does not exceed 35 miles per hour. Areas where these doors cannot be used include—but are not limited to—roadways inside or leading into: seaport facilities, military bases, airports, landfills, freight terminals, bus terminals and any other area where there is continuous commercial vehicle traffic.

SPECIFICATIONS: The floor access door shall be Model DT-AHS as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Cover shall be 1/2-inch thick steel diamond plate reinforced for an AASHTO H20-44 wheel load. Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H20-44. The frame shall be 1/2-inch thick steel angle with anchors welded to frame for casting into concrete. In the closed position the cover shall be bolted to the frame with 316 stainless steel allen-head bolts to allow for H20-44 direct traffic loading—an allen-head socket with torque wrench will be provided with the door.

The allen-head bolts must be tightened to 25 foot pounds of torque and securely fastened using Loctite 242 whenever the cover is closed to insure safe and proper performance of the door. For security the cover shall have a recessed staple for a padlock. The floor access door shall be equipped with a flush steel lifting handle that does not protrude above the cover, and hold open arms that automatically keep the cover in its upright, open position. A steel skirt shall be welded to the frame to provide a combined height equal to the depth of the concrete slab. The door shall have tamper resistant hinges with recessed stainless steel pins and lugs. The door shall have open, stainless steel, horizontal springs to assist in opening the door and reducing the force during closing. The floor access door shall have a hot-dipped galvanized finish. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame, including the seat on which the reinforcing rests, shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

OPTIONAL FEATURES

- Skirts for concrete slabs deeper than 12 inches
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Custom lettering, see page 79
- Stainless steel safety chains with aluminum support posts, see page 80
- Fall Through Prevention Systems, see pages 82-83

H-20 LOADING****

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*Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****DT-AHS steel floor access doors are designed for AASHTO H20-44 wheel loads (16,000 lbs. over 10” x 20” area + 30% impact factor) in locations and traffic conditions as above described. For other direct traffic applications, see cast iron frames & covers (pages 74 to 75).

CUSTOM SIZES READILY AVAILABLE

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
- MATERIAL: STEEL WITH STEEL SKIRT & HOLD OPEN ARM, STAINLESS STEEL SPRINGS & HINGES, 316 STAINLESS STEEL NUTS & BOLTS.
- LOADING: DESIGNED TO RECEIVE H-20 WHEEL LOADS IN TWO-WAY STREETS WITH OPPOSING TRAFFIC WHERE THE POSTED SPEED LIMIT DOES NOT EXCEED 35 MPH.
- IT IS ESSENTIAL THAT ALL BOLTS ARE IN PLACE WHENEVER COVER IS EXPOSED TO TRAFFIC.
- BOLTS MUST BE TIGHTENED TO 25 FT/LBS OF TORQUE & FASTENED USING LOCTITE 242.

OPTIONAL FEATURES
(SEE PAGE 66) ______________
________________________________________

U.S.F. FABRICATION, INC.
HIALEAH, FLORIDA

DT-AHS ___ X ___

(A) (B)
The heavy-duty angle type floor access door is designed for interior and exterior applications where watertightness is not required. It is designed to receive AASHTO H20-44 wheel loads on two-lane streets with opposing traffic where the posted speed limit does not exceed 35 miles per hour. Areas where these doors cannot be used include—but are not limited to—roadways inside or leading into: seaport facilities, military bases, airports, landfills, freight terminals, bus terminals and any other area where there is continuous commercial vehicle traffic.

**SPECIFICATIONS:** The floor access door shall be Model DT-AHD as manufactured by U.S. Fabrication, Inc. with the size being specified on the plans. Covers shall be 1/2-inch thick steel diamond plate reinforced for an AASHTO H20-44 wheel load. Upon request, manufacturer shall provide structural calculations showing that the door design meets the loading requirements of AASHTO H20-44. The frame shall be 1/2-inch thick steel angle with anchors welded to frame for casting into concrete. In the closed position the covers shall be bolted to the frame with 316 stainless steel allen-head bolts to allow for H20-44 direct traffic loading—an allen-head socket with torque wrench will be provided with the door. The **allen-head bolts must be tightened to 25 foot pounds of torque and securely fastened using Loctite 242 whenever the cover is closed to insure safe and proper performance of the door.** For security both covers shall have a recessed staple for a padlock. The floor access door shall be equipped with flush steel lifting handles that do not protrude above the covers, and hold open arms that automatically keep the covers in their upright, open positions. A steel skirt shall be welded to the frame to provide a combined height equal to the depth of the concrete slab. The door shall have tamper resistant hinges with recessed stainless steel pins and lugs. The door shall have open, stainless steel, bolt-on, vertical compression springs to assist in opening the covers and reducing the force during closing. The floor access door shall have a hot-dipped galvanized finish. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame, including the seat on which the reinforcing rests, shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

**OPTIONAL FEATURES**

- Skirts for concrete slabs deeper than 12 inches
- Nut rails with stainless steel sliding nuts for attaching cable holders, brackets & other hardware, see page 85
- Custom lettering, see page 79
- Stainless steel safety chains, see page 80
- Fall Through Prevention Systems, see pages 82-83
- Hinge covers on same long side (allows springs to be horizontal), see page 84

**H-20 LOADING****

<table>
<thead>
<tr>
<th>MODEL</th>
<th>COVER THK</th>
<th>FRAME OPENING***</th>
<th>CLEAR OPENING**</th>
<th>OVERALL SIZE</th>
<th>WEIGHT*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in. (mm)</td>
<td>A in. (mm)</td>
<td>B in. (mm)</td>
<td>C in. (mm)</td>
<td>D in. (mm)</td>
</tr>
<tr>
<td>DT-AHD 1/2 (13)</td>
<td>30 (762)</td>
<td>48 (1219)</td>
<td>30 (762)</td>
<td>46 (1168)</td>
<td>40 (1016)</td>
</tr>
<tr>
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<td>54 (1372)</td>
<td>30 (762)</td>
<td>52 (1321)</td>
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<td>48 (1219)</td>
<td>36 (914)</td>
<td>46 (1168)</td>
<td>46 (1168)</td>
</tr>
<tr>
<td>DT-AHD 1/2 (13)</td>
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<td>60 (1524)</td>
<td>36 (914)</td>
<td>58 (1473)</td>
<td>46 (1168)</td>
</tr>
<tr>
<td>DT-AHD 1/2 (13)</td>
<td>42 (1067)</td>
<td>48 (1219)</td>
<td>42 (1067)</td>
<td>45 (1143)</td>
<td>52 (1321)</td>
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<td>DT-AHD 1/2 (13)</td>
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<td>69 (1753)</td>
<td>58 (1473)</td>
</tr>
<tr>
<td>DT-AHD 1/2 (13)</td>
<td>42 (1067)</td>
<td>72 (1829)</td>
<td>48 (1219)</td>
<td>69 (1753)</td>
<td>58 (1473)</td>
</tr>
</tbody>
</table>

*Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****DT-AHS steel floor access doors are designed for AASHTO H20-44 wheel loads (16,000 lbs. over 10” x 20” area + 30% impact factor) in locations and traffic conditions as above described. For other direct traffic applications, see cast iron frames & covers (pages 74 to 75).
NOTE:
- MATERIAL: STEEL WITH STEEL SKIRT & HOLD OPEN ARM, STAINLESS STEEL SPRINGS & HINGES, 316 STAINLESS STEEL NUTS & BOLTS.
- LOADING: DESIGNED TO RECEIVE H-20 WHEEL LOADS IN TWO-WAY STREETS WITH OPPOSING TRAFFIC WHERE THE POSTED SPEED LIMIT DOES NOT EXCEED 35 MPH.
- IT IS ESSENTIAL THAT ALL BOLTS ARE IN PLACE WHENEVER COVER IS EXPOSED TO TRAFFIC.
- BOLTS MUST BE TIGHTENED TO 25 FT/LBS OF TORQUE & FASTENED USING LOCTITE 242.
The aircraft load floor access door is designed for areas that receive loads up to 280 p.s.i. over the entire surface of the cover and where watertightness is not required. It is designed for taxi ways and air sides at airports (not runways), marine ports and other areas of extremely heavy and severe loading conditions.

**SPECIFICATIONS:** The floor access door shall be Model ALH as manufactured by U.S.F. Fabrication, Inc. with the size being specified on the plans. Door leaf (leaves) shall be 1/2-inch thick ASTM A36 structural steel diamond plate reinforced with ASTM A572 or A588 structural steel. Hatches with reinforcing rib spans of up to 24 inches shall be designed to carry a maximum load of 280 p.s.i. uniformly distributed over the entire cover. For hatches with rib spans over 24 inches, the load capacity decreases linearly by 25 p.s.i. per foot. The frame shall be 3/8-inch thick material with 1/4” x 2” anchor straps welded to the frame for casting into concrete. The floor access door shall be equipped with a flush steel lifting handle(s) that does (do) not protrude above the cover, and steel automatic hold open arm(s) and door stop(s) to automatically keep the cover(s) in the upright, open position. The door shall have heavy-duty tamper resistant hinges with recessed stainless steel pins and lugs. The corners of the cover (s) shall be bolted to the frame with 3/4-inch diameter stainless steel bolts for security as well as to prevent the cover(s) from rattling. The door shall be equipped with stainless steel springs to assist in the opening of the door and reduce the force during closing. The floor access door shall have a hot dip galvanized finish. Installation shall be in accordance with the manufacturer’s attached instructions. The entire frame including the seat on which the reinforcing rests shall be supported by concrete or other material designed to support the specified load. The door shall be manufactured and assembled in the United States. Manufacturer shall guarantee the door against defects in materials and workmanship for a period of five years.

**OPTIONAL FEATURES**

- Frame skirts for easy casting into a concrete top slab, see page 78
- Custom lettering, see page 79
- Fall Through Prevention Systems, see pages 82-83
- Slip resistant surface bonded to cover plate, see page 80

**AIRCRAFT LOADING - 280 P.S.I.****

<table>
<thead>
<tr>
<th>MODEL</th>
<th>FRAME OPENING***</th>
<th>CLEAR OPENING**</th>
<th>OVERALL SIZE</th>
<th>HEIGHT</th>
<th>WEIGHT*</th>
</tr>
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<tbody>
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<td></td>
<td>A in. (mm)</td>
<td>B in. (mm)</td>
<td>C in. (mm)</td>
<td>D in. (mm)</td>
<td>E in. (mm)</td>
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<tr>
<td>ALH</td>
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<td>24 (610)</td>
<td>21 (533)</td>
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<tr>
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<tr>
<td>ALH</td>
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<td>30 (762)</td>
<td>28 (711)</td>
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<tr>
<td>ALH</td>
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<td>28 (711)</td>
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<td>ALH</td>
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<td>48 (1219)</td>
<td>28 (711)</td>
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<td>36 (914)</td>
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<tr>
<td>ALH</td>
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<td>36 (914)</td>
<td>34 (864)</td>
<td>36 (914)</td>
<td>42 (1067)</td>
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<td>48 (1219)</td>
<td>48 (1219)</td>
<td>42 (1067)</td>
<td>58 (1473)</td>
</tr>
</tbody>
</table>

*Weight shown is of our standard hatch only, and does not include any optional features. **Also referred to as “Actual Opening” which can vary to suit application. ***Also referred to as “Concrete Opening” when door is cast into concrete. ****Load criteria are based on a linear reduction from 280 p.s.i. for a 2 foot span to 80 p.s.i. for a 10 foot span (Ref. FAA AC 150/5320-6c).

◆ The ALH 48 x 48 is manufactured as a double door hatch with vertical springs.

**CUSTOM SIZES & LOADING READILY AVAILABLE**

We reserve the right to modify specifications and drawings without prior notice.
NOTE:
1–MATERIAL: STEEL A36 WITH STEEL A572 OR A588 COVER RIBLES, STAINLESS STEEL SPRINGS & HINGES AND 316 STAINLESS STEEL NUTS & BOLTS.
2–FINISH: HOT DIP GALVANIZED AFTER FABRICATION.
3–ALL WELDS ARE CONTINUOUS.
4–DESIGN CRITERIA: LOADING BASED ON A LINEAR REDUCTION FROM 280 PSI FOR 2 FOOT SPANS TO 80 PSI FOR 10 FOOT SPANS.
U.S.F. Fabrication, Inc. is fully engaged in producing quality products that meet the demanding load requirements of modern airports. Shown below are some of these products which are designed to withstand extra heavy-duty (280 p.s.i.) loading—exceeding current FAA specifications for wheel loads. (We have designed products that will withstand loads up to 350 p.s.i.) These products can be used at airports, seaports and other areas subjected to extra heavy-duty loading. Inquire about custom sizes, special loading and different type metal alloys (steel or stainless steel) that are required for your specific application.

**Airside Hatches**

- High Strength Steel Reinforcing
- Spring Assist
- Stainless Steel Hardware & Hinges
- Automatic Hold - Open Arm
- Box Type Reinforcing
- Optional: Floodtight/Gastight
- Optional: Bolted for Security
- Optional: Safety Device

**Covers & Grating**

- Cast Iron Rings with Steel Galvanized Covers
- Multiple Cover Assemblies for Valve Pits
- Frames and Grates
- Catch Basin with Peripheral Trough
U.S.F. Fabrication, Inc. manufactures a wide range of metal grating for pedestrian, H20 traffic and airport (280 p.s.i.) loading requirements. We manufacture welded bar grates, riveted reticuline grates, and special grates for roadway applications. Our metal grating is approved for use by a growing list of Departments of Transportation—including, Florida, Georgia, Alabama, Louisiana, North Carolina, and New York. Please e-mail at www.usffab.com or call us at 800-258-6873 for more information on these products.

Grates can be made with steel angle frames that are galvanized or painted to your specifications. Facilities for bolting can be added where application requires grates to be secured. Grates can be fabricated to your dimensional and load bearing specifications.
# U.S. FOUNDARY CAST IRON
## RINGS & COVERS – H-20 LOADING

<table>
<thead>
<tr>
<th>MODEL</th>
<th>CLEAR OPENING</th>
<th>NO. OF COVERS</th>
<th>CLEAR OPENING OF ACCESS LID</th>
<th>WEIGHT IN LBS.</th>
<th>OUTSIDE DIAMETER</th>
<th>DEPTH</th>
<th>DRAWING NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LID</td>
<td>RING</td>
<td>COVER</td>
<td>TOTAL</td>
</tr>
<tr>
<td>USF 1315 &amp; AZ *</td>
<td>35 1/8 DIA.</td>
<td>1</td>
<td>N/A</td>
<td>N/A</td>
<td>510</td>
<td>475</td>
<td>985</td>
</tr>
<tr>
<td>USF 1315 &amp; BK-M</td>
<td>35 1/8 DIA.</td>
<td>2</td>
<td>19 7/8 DIA.</td>
<td>105</td>
<td>510</td>
<td>315</td>
<td>930</td>
</tr>
<tr>
<td>USF 1341 &amp; AH-M</td>
<td>48 DIA.</td>
<td>2</td>
<td>19 1/4 DIA.</td>
<td>105</td>
<td>325</td>
<td>760</td>
<td>1190</td>
</tr>
<tr>
<td>USF 1341 &amp; AG-M</td>
<td>48 DIA.</td>
<td>2</td>
<td>19 3/4 DIA.</td>
<td>105</td>
<td>325</td>
<td>675</td>
<td>1105</td>
</tr>
</tbody>
</table>

*WATERTIGHT MODEL AVAILABLE – USF 1315 & AZ-BWT (DRAWING# 8014042)*

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![Diagram of USF 1315 & BK-M Ring and Cover](image1.png)

![Diagram of USF 1341 & AG-M Ring and Cover](image2.png)
## U.S. Foundry Cast Iron
### Hatches & Covers – H-20 Loading

<table>
<thead>
<tr>
<th>Model</th>
<th>Clear Opening</th>
<th>No. of Covers</th>
<th>Hinge Location</th>
<th>Weight in Lbs.</th>
<th>Outside Dims.</th>
<th>Depth</th>
<th>Drawing Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>USF 7641-JJ</td>
<td>23 3/4 X 23 3/4</td>
<td>1</td>
<td>LENGTH SIDE</td>
<td>140</td>
<td>32 X 30 1/4</td>
<td>4</td>
<td>8100003</td>
</tr>
<tr>
<td>USF 7643-JY</td>
<td>24 X 36</td>
<td>1</td>
<td>LENGTH SIDE</td>
<td>170</td>
<td>32 3/8 X 42</td>
<td>4</td>
<td>8100006</td>
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<tr>
<td>USF 7644-KA</td>
<td>30 X 30</td>
<td>1</td>
<td>LENGTH SIDE</td>
<td>245</td>
<td>37 X 37</td>
<td>4</td>
<td>8100007</td>
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<tr>
<td>USF 7645-KC</td>
<td>29 3/4 X 47 3/4</td>
<td>2</td>
<td>LENGTH SIDE</td>
<td>290</td>
<td>37 3/4 X 54</td>
<td>4</td>
<td>8100009</td>
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<tr>
<td>USF 2150-JS</td>
<td>42 X 60</td>
<td>2</td>
<td>NO HINGE</td>
<td>350</td>
<td>51 1/2 X 68 1/2</td>
<td>4</td>
<td>8013664</td>
</tr>
</tbody>
</table>

**USF 7643-JY**

**USF 7645-KC**
For situations that require special door configurations, U.S.F. Fabrication has a custom design for you. Our multiple leaf floor access doors are available in aluminum, steel and stainless steel, and can be designed to support any of your load requirements. All of our standard hatch options are also available.

**TRIPLE DOOR HATCHES**

Permanently beam supported hatch.

**FOUR DOOR HATCHES**

Removable center beam hatch.

Hatch is shipped in 2 sections and bolted together in the field when both length and width exceed 88".

**READING LIDS**

**TRASH ACCESS DOORS**

(See page 8)
EMERGENCY EXIT DOORS

These doors are designed for emergency egress from rapid transit systems, tunnels or other underground areas in emergency situations.

STREET ACCESS FOR FIRE DEPT.

HAND RAIL

1/4" (6 mm) DIAMOND PLATE

DOOR OPEN

S.S. SPRINGS

PUSH BAR FOR EMERGENCY EXIT

EMERGENCY EXIT STAIRWAY
LOUCKING DEVICES

STAINLESS STEEL SLAMLOCK

RECESSED CYLINDER LOCK

STAPLE FOR PADLOCK

BOLT LOCK

STAINLESS STEEL HASP & STAPLE

RECESSED STAPLE FOR PADLOCK
(OVERSISED TYPES ALSO AVAILABLE)

FRAME SKIRTS

Eliminate expensive and time consuming wood forming by using U.S.F. Fabrication’s frame skirts.

ALUMINUM OR STEEL PLATE WELDED TO FRAME

TO SUIT CONCRETE SLAB DEPTH
DEBRIS GASKET

An aluminum trough frame door can include an additional EPDM gasket to facilitate proper drainage by reducing the amount of dirt and debris that pass through the gap between the cover and frame into the trough.

EXTRUDED ALUMINUM TROUGH FRAME

ODOR REDUCTION GASKET

An extruded neoprene gasket can be attached to a steel trough frame door to create a seal whenever the cover is closed. This feature helps reduce the amount of noxious odors escaping from the vault area below the hatch.

STEEL TROUGH FRAME

CUSHION

Our extruded aluminum angle frame can be fitted with a cushion for noise dampening.

CUSTOM LETTERING & STAMPING

We can label your access door with neat and permanent lettering. (Metal stamping is also available for I.D. purposes)
SAFETY CHAINS

A safety barrier shall be provided on three accessible sides of the hatch when the door is in the open position. The barrier shall consist of three lengths of 3/16 inch diameter stainless steel welded loop chain which are attached by stainless steel S-hooks to two removable aluminum posts in the front corners of the hatch frame as well as to the outward corners of the door leaf.

DOUBLE DOOR

A safety barrier shall be provided on two accessible sides of the hatch when the doors are in the open position. The barrier shall consist of two lengths of 3/16 inch diameter stainless steel welded loop chain which are attached by stainless steel S-hooks to the opposing outward corners of each door leaf.

- **Insulation:** An insulating material shall be installed under the door’s cover plate.

- **Bituminous Paint:** A bituminous coating shall be applied to areas of the aluminum frame that come in contact with concrete.

- **Anodized Finish:** All aluminum parts of the hatch shall be anodized as specified by the customer.

- **Slip Resistant Surface Bonded to Cover Plate:**
The cover surface of the hatch shall be manufactured of a slip resistant plate which has a minimum of .6 coefficient of friction.
SPRING MECHANISMS

U.S.F. Fabrication’s spring mechanisms are computer designed to meet your lift requirements. We use stainless steel as standard material for long trouble free operation. Our standard open spring design allows for quick continual inspection and easy maintenance of the door’s springs.

ANGLE FRAME

TROUGH FRAME

OPEN HORIZONTAL SPRINGS

The horizontal arrangement is the standard design for pedestrian hatches and heavy duty single door hatches. They eliminate the casting problems caused by the spring assembly hanging below the slab.

STANDARD

BOLT-ON

OPEN VERTICAL SPRINGS

The vertical arrangement of springs is standard for heavy duty double door hatches, and can be used on our other hatch designs. Vertical springs can be either welded or bolted to the door’s frame. Bolt-on vertical springs can be removed to facilitate casting the door into concrete where the springs’ housings extend below the top—slab. The springs are bolted back in place after the concrete has cured. (Bolt-on springs have proven to be both a labor and material cost saver to precasters.)

ENCLOSED HORIZONTAL SPRINGS

ENCLOSED VERTICAL SPRINGS

ENCLOSED SPRINGS

We can supply stainless aluminum enclosures on horizontal and vertical springs if you wish to enclose the springs.
FALL THROUGH PREVENTION SYSTEMS

HATCH SAFETY GRATE

DESCRIPTION: The Hatch Safety Grate smoothly rotates to its open, upright position and locks in place by a hold-open rod. The aluminum grate has an OSHA safety orange finish. Hardware components are made of stainless steel to resist corrosion.

FEATURES: When in its closed position, the Hatch Safety Grate provides fall-through prevention while allowing limited accessibility into the vault for maintenance purposes and visibility for inspections (nominal 4 x 6 inch grate openings). When opened, it acts as an additional barrier to the access door opening. Finally, since the hatch cover cannot be shut without first closing the Hatch Safety Grate, this fall-through system is always in its closed position when the next operator opens the hatch’s cover. USF Fabrication safety grates operate independently of the cover’s reinforcing so that the cover continues to meet its specified load and deflection requirements, even if the grate is damaged or removed. (Grate is designed for 300 p.s.f. loading.)

RETROFIT: The Hatch Safety Grate can be retrofitted onto the vault walls under an access door that is already in service. While it can be made to fit the custom dimensions of most floor access hatches, there are size limitations for this alternative. (See worksheet on page 92.)

For large openings USF Fabrication makes Dual Safety Grate that hinges on opposite sides of hatch frame, and Double Safety Grate that hinges on same side of hatch frame. These configurations can place a barrier on three sides of the hatch’s opening. A safety chain can be employed to block the fourth side of the opening.

HATCH SAFETY NET

DESCRIPTION: The Hatch Safety Net is made of super strong polyester netting which attaches to aluminum angle anchors on the frame by stainless steel hardware that resist corrosion. The Hatch Safety Net is the most economical fall-through prevention alternative.

FEATURES: The lightweight design of the Hatch Safety Net makes it easily retractable in floor and roof openings. When closed, it provides fall-through prevention, the greatest visibility for inspections, and the most accessibility for limited maintenance (e.g., float adjustments) in the space below. When necessary, the net can be easily unhooked to permit full access into the confined space. (Complies with OSHA standard 1926.502, Drop Test.)

RETROFIT: The Hatch Safety Net can be economically and easily retrofitted into existing openings. It can be manufactured to fit the custom dimensions of almost any type floor access hatch, roof scuttle, automatic fire vent or skylight with minimal reduction of their clear opening. (See worksheet on page 92.)
**EFFECT OF SAFETY GRATE ON HATCH CLEAR OPENINGS**

**SINGLE SAFETY GRATE**

CLEAR OPENING = B - 6" for hatch spans up to 48"  
(For 49" to 60" use B - 7")

**DUAL SAFETY GRATE**

CLEAR OPENING = B - 6" for hatch spans up to 96"  
(For 97" to 120" use B - 7")

**SINGLE DOOR HATCH**

(Also applies to double door hatch when hinged on the same side)

**DUAL STYLE SAFETY GRATE CANNOT BE USED ON STANDARD DOUBLE DOOR HATCHES**

CLEAR OPENING = A - 6" for hatch spans up to 48"  
(For 49" to 60" use A - 7")

**NOTES:**

1. Contact customer service for triple door hatches
2. Safety grates cannot be installed in 4-door hatches

**STANDARD DOUBLE DOOR HATCH (HINGED OPPOSITE SIDES) WITH DOUBLE SAFETY GRATE**
DOUBLE DOOR HINGE CONFIGURATIONS

U.S.F. Fabrication gives you a choice of how you want your doors hinged.

DOUBLE DOOR
HINGED ON SHORT SIDE

DOUBLE DOOR
HINGED ON LONG SIDE

DOUBLE DOOR HINGED ON THE SAME SIDE
HOISTS
(2000 LBS. LOAD CAPACITY)

STAINLESS STEEL CABLE
30 FT. (9.144 M) LG. WITH QUICK CONNECTION TO DRUM
ZINC PLATED WINCH WITH DISC BRAKE

16”
(406 MM)

STAINLESS STEEL LATCHING EYE HOOK

SWAGE CLAMPS

6 SCH. 40 PIPE

BOOM PIVOTS
APPROX. 240 DEGREES

42” MIN.
(1066 MM)

44”
(1117 MM)

54”
(1372 MM)

60” MAX.
(1524 MM)

406 MM

NOTES:
-MATERIAL: STEEL WITH STAINLESS STEEL CABLE, HOOK, CLAMPS, BOLTS & NUTS.
-FINISH: HOT DIP GALVANIZED AFTER FABRICATION.
-LOAD CAPACITY: 2000 LBS. (908 KG);
-APPROX. WEIGHT: 410 LBS. (186 KG);
-CUSTOM SIZES ALSO AVAILABLE

PORTABLE HOIST (2000 LBS.)

OPTIONAL FEATURES:

☐ FLOOR MOUNTED ☐ 304 STAINLESS STEEL
☐ FLUSH MOUNTED ☐ 316 STAINLESS STEEL

NUT RAIL

The sliding nut in our nut rail option makes it easy to hang and align all your hardware.

HATCH FRAME

HARDWARE

SLIDING NUT
NUT RAIL
HOISTS
(500 & 1000 LBS. LOAD CAPACITY)

30 FT. (9.144 M) LG. WITH QUICK CONNECTION TO DRUM
ZINC PLATED WINCH WITH DISC BRAKE

500 LBS. HOIST (2 1/2 SCH. 40 PIPE)
1000 LBS. HOIST (3 1/2 SCH. 40 PIPE)

3/4 SCH. 40 PIPE HANDLE WITH BLACK VINYL GRIP FOR ROTATING HOIST

STAINLESS STEEL CABLE

MISC

SECTION A–A

DRAIN HOLE

WALL MOUNTED

DRAIN HOLE

FLUSH MOUNTED

NOTES:
- MATERIAL: STEEL WITH STAINLESS STEEL CABLE, HOOK, CLAMPS, NUTS & BOLTS.
- FINISH: HOT DIP GALVANIZED AFTER FABRICATION.
- LOAD CAPACITY: 500 LBS. (227 KG.), 1000 LBS. (454 KG.)
- APPROX. WEIGHT: 81 LBS. (37 KG.), 125 LBS. (57 KG.)
- CUSTOM SIZES ALSO AVAILABLE

PORTABLE HOIST

OPTIONAL FEATURES:
- FLOOR MOUNTED
- FLUSH MOUNTED
- WALL MOUNTED

304 STAINLESS STEEL
316 STAINLESS STEEL

DIMENSION CHART

<table>
<thead>
<tr>
<th>SOCKET TYPE</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>9&quot;</td>
<td>10&quot;</td>
</tr>
<tr>
<td>1000</td>
<td>(229 MM)</td>
<td>(254 MM)</td>
</tr>
<tr>
<td>500</td>
<td>8&quot;</td>
<td>10&quot;</td>
</tr>
<tr>
<td>1000</td>
<td>(203 MM)</td>
<td>(254 MM)</td>
</tr>
<tr>
<td>500</td>
<td>9&quot;</td>
<td>10&quot;</td>
</tr>
<tr>
<td>1000</td>
<td>(229 MM)</td>
<td>(254 MM)</td>
</tr>
</tbody>
</table>
GUIDE RAIL BRACKETS

U.S.F. Fabrication makes guide rail brackets to specific dimensions to match all pump manufacturers.

UNIVERSAL INTERMEDIATE GUIDE RAIL BRACKET

Our universal brackets are designed to fit 4”, 6” or 8” ductile iron pipes. They are available in stainless steel for 2” or 3” pump guide rails.

DOUBLE UPPER
GUIDE RAIL BRACKET

CHAI 
H 
 RUBBER

INTERMEDIATE
GUIDE RAIL BRACKET

GUIDE RAIL BRACKET:
☐ SINGLE UPPER
☐ DOUBLE UPPER
☐ INTERMEDIATE

MATERIAL:
☐ STAINLESS STEEL 304
☐ STAINLESS STEEL 316
☐ OTHER ________

DIMENSIONS:
A= ________  C= ________ (GIVE PIPE SIZE)
B= ________  D= ________ (GIVE PIPE SIZE)
U.S.F. Fabrication makes ladders for mounting on any diameter basin. Just supply us with the diameter and desired offset.

FLOOR MOUNTED LADDER
(WALL MOUNTED ALSO AVAILABLE IN WHOLE FOOT INCREMENTS)

SAFETY EXTENSIONS IN RAISED POSITION

RETROFIT SAFETY POST
(SHORTEST LADDER FOR USE WITH SAFETY POST IS 72" LG.)

SECTION A-A
(SAFETY POST IN LOWERED POSITION)

SECTION A-A
(SAFETY POST IN RAISED POSITION)

LADDER:
- FLOOR MOUNTED
- WALL MOUNTED

MATERIAL:
- ALUMINUM
- STEEL GALVANIZED
- STAINLESS STEEL 304
- STAINLESS STEEL 316

DIMENSIONS:
- LENGTH ______
- BASIN DIA. ______
- OFFSET ______

SAFETY OPTIONS:
- SAFETY EXTENSIONS
- RETROFIT SAFETY POST
MIXER MAST

SPECIFICATIONS

The mixer mast assemblies shall be manufactured from type 304 or 316 stainless steel and shall be sized to fit the specified vault depth. The mast shall be 2" or 4" square tubing with 1/8" or 3/16" wall thickness as required by the mixer manufacturer. The mast shall be supplied with factory welded rotation sockets at the top, bottom and intermediate levels and shall work in conjunction with wall mounted brackets that secure the unit to the vault wall with stainless steel wedge anchor bolts. Each socket shall be lined with a PVC insert to insure smooth mast rotation. Intermediate brackets shall be spaced at intervals specified by the mixer manufacturer. The upper bracket of the mast assembly shall be supplied with a positioner plate that enables the operator to position and lock the mast and mixer at any one of 14 different operating angles. Each mast assembly shall include a lined hoist socket, turn post to rotate the mast utilizing the hoist socket, static cable assembly, and floor mounted pivoting base bracket designed to allow for slope in the tank floor. If required, wall bracket extensions shall be supplied by the mast manufacturer. Mast manufacturer shall warranty the product against defects in material and workmanship for a period of 5 years. Mixer mast assembly shall be manufactured in the USA by U.S.F. Fabrication, Inc. (800) 258-6873.

MATERIAL

304SS □
316SS □

MAST SIZE
(TUBING)

2" SQ. □
4" SQ. □

SQUARE TUBE
WALL THICKNESS

1/8" (.125") □
3/16" (.188") □

[A] INTERMEDIATE * BRACKET SET

QUANTITY
NONE

[B] WALL EXTENSION BRACKET

QUANTITY
LENGTH
IN.
NONE

OTHERS ●

SKETCHES □
INSTRUCTIONS □

* USF FABRICATION RECOMMENDS USING 1 INTERMEDIATE MAST BRACKET AND WALL BRACKET AT 10 FT. INTERVALS.

● CUSTOMER PROVIDED ATTACHMENTS.
LIFTING BAILS & CABLE HOLDERS

3/16" (5 MM) DIA. HOOKS
(3/8" (10 MM) DIA. FOR
HEAVY DUTY HOLDER)

CABLE HOLDER
(CUSTOM SIZES AVAILABLE)

PUMP LIFTING BAIL
(CUSTOM SIZES AVAILABLE)

SNAP-IN SLOTS

FLOAT HOLDER
(CUSTOM SIZES AVAILABLE)

DEBRIS BASKET WITH RAILS

OFFSET TO SUIT

ANGLE RAILS

RAIL LENGTH TO SUIT

STANDARD SIZE
(CUSTOM SIZES AVAILABLE)

DEBRIS BASKET
- STANDARD (8 X 18 X 28)
- OTHER ___ X ___ X ___

MATERIAL:
- ALUMINUM
- ST. STEEL 304
- OTHER

RAILS
- LENGTH _______
- BASIN DIA. _______
- OFFSET _______

MATERIAL:
- ALUMINUM
- ST. STEEL 304
- OTHER
CONTROL PANEL PEDESTALS

TAPPED HOLES FOR CONDUITS

MOUNTING HOLES TO MATCH APPLICATION

MOUNTING PLATE
(CUSTOM SIZES AVAILABLE)

GASKETED COVER WITH SCREENED VENT

SQUARE TUBING

ALUMINUM PEDESTAL
(CUSTOM SIZES AVAILABLE)

ANCHOR BOLTS

U.S.F. Fabrication uses stainless steel 316 alloy as standard material for anchoring hardware.

2 3/4” MIN. THREAD
(70 MM)

12”
(305 MM)

10”
(254 MM)
OR
12”
(305 MM)

2 1/2” THREAD
(63 MM)

2 1/2”
(63 MM)

ANCHOR BOLTS

ADJUSTABLE ANCHOR BOLT

J-BOLT

ADJUSTABLE

☐ 3/4” DIAMETER
☐ 1” DIAMETER

J-BOLT

☐ 5/8” DIA. X 10” LG.
☐ 3/4” DIA. X 10” LG.
☐ 5/8” DIA. X 12” LG.
☐ 3/4” DIA. X 12” LG.
Company:___________________________  Contact Person:____________________
Ph:_____________, Fx:_____________  Email:____________________________

1. USFFab retrofit safety devices are designed for installation into existing openings where the door frame is already cast into concrete. Mark below which type device you want:
   ___ Retrofit safety net  ___ Retrofit grate

2. Rate the condition of the concrete where the safety net or grate will be installed.
   ___ Good (no chipping or cracks)  ___ Poor (chipping and/or cracks—provide photos)

3. What is the thickness in inches of the concrete slab?_________

4. If the hatch has two covers (i.e. double door), are the covers hinged on—
   ___ Opposite sides of the frame (see hinge depiction in below sketch)
   ___ Same side of frame (see hinge depiction in below sketch)

5. In appropriate sketch below—
   a. Enter the frame’s inside A & B dimensions (Measure distance between opposite points on frame that are flush with the concrete.)
   b. Show locations of any obstructions—e.g., guide rail brackets, cable holders, and etc. (consider sending photos if necessary/helpful).

6. When the hatch is closed, mark below how the door’s springs extend:
   ___ Vertically to cover  ___ Horizontally with cover  ___ No Springs

7. Indicate if the net or grate is for a:____pump station  ____valve box  ____other

8. For estimating freight cost, provide city, state and zip code of the shipping destination.
___________________________________________________________________________

9. Contact the USF Fab Customer Service Dept. (800-258-6873) for any of the following special requirements: (a) hatches with more than two covers, (b) insufficient concrete slab depth for anchoring angle supports, and (c) extra large openings.