

### Vault Access Covers



*Cavotec wants to contribute to a future world that is cleaner, safer and more efficient by providing innovative connection solutions for ships, aircraft and mobile equipment today.*

*Cavotec has led the market for in-ground fuel systems for aircraft for more than four decades. Our experienced engineers design advanced, customised and fully integrated systems for the global airports sector.*

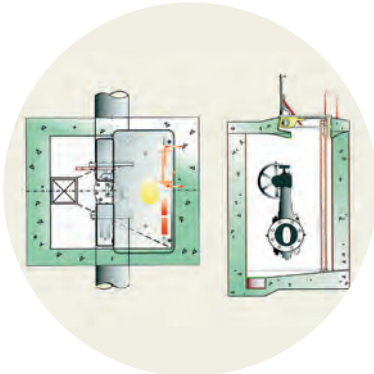
*Cavotec's range of Vault Access Covers provide easy access to concrete vaults for operational maintenance requirements of In-Ground Pit Systems. The Vault Access Covers are dimensioned for easy entrance and exit of personnel. This allows for easier routine maintenance access or emergency access for confined entry requirements.*



DAB-38 Vault Access Cover



DAB-741 Vault Access Cover



Typical Valve Chamber (Plan and Section View)

#### Benefits

- Easy operation and maintenance access with patented designed waterproof cover door. This door design has been aircraft load-rated and can be operated with one hand. It also features a fail-safe cover, an optional access ladder/handrail and a step-down platform.
- Reduction in operational and maintenance cost with the waterproof cover (optional) which reduces the need for a drainage system and/or frequency of pit sumping.
- Improved operational safety thanks to automatic cover latches which eliminate jet blast and vehicle-bounce cover openings.
- Easier Pit Assembly location and identification due to a special abrasion, corrosion and chemical resistant color-coded cover service lettering inserts.
- White pigmented GRP with internal gel-coat finish (US-non standard) ensures maximum reflection of light facilitating maintenance and cleaning inside the Pit Assembly.
- Enhanced operational safety with specifically designed orange safety cover panels which alert personnel to open covers.

#### Features

- Hinged cover requiring only maximum 12kg weight, which opens to 90 degrees. Once opened beyond 80 degrees it locks in position - hold open bar has to be physically lifted to close cover.
- Waterproof pit lid seal (UV - and fuel resistant Nitrile) for long life - easily replaceable. Seal has a dual action of keeping both dirt and debris out of the gap between the door edge and frame edge and providing a waterproof seal between the lid and frame. Seal independently tested to NEMA standards - including:
  - Salt Fog Test
  - Humidity and Temperature Cycle Test
  - Immersion Test (ability to hold a 150mm head of water for 1 hour)
  - Icing Test
  - Wash-down Test



### Technical characteristics

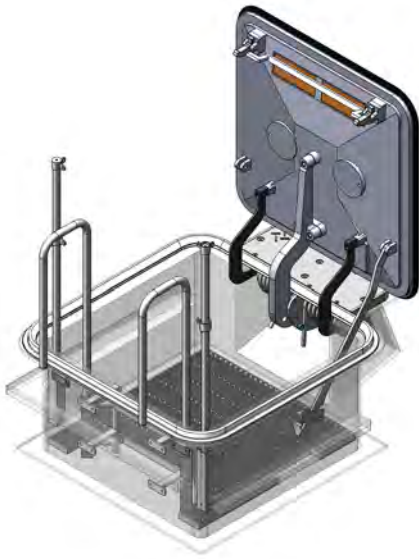
	DAB-38	DAB-725	DAB-741
Dimensions opening L/W/H, mm [in]	965x965 [38x38]	1905x635 [75x25]	1905x1041 [75x41]
<b>Materials</b>			
Cover	Cast aluminium, No. A356.2, per ASTM B26/B26M and ASTM B917/B917M.		
Frame	Cast aluminium, No. A356.2, per ASTM B26/B26M and ASTM B917/B917M.		
Pit form	Isophalic Glass fibre reinforced plastic (GRP) 12mm thick		
Cover seal	Aviation fuel resistant Nitrile to BS 2751		
<b>Protective coatings</b>			
Inner surfaces of pit form	Isophthalic gelcoat 'WHITE'		
Outer surfaces of pit form	Isophthalic flowcoat 'WHITE'		
<b>Fabrication and testing</b>			
Load Testing of Covers	Load test with 900 KN test load in compliance with FAA AC 150/5320-6F Appendix 3 Part D		
<b>Quality assurance</b>			
	Quality Management System complying with ISO 9001-2000		
<b>Accessories</b>			
The following accessories can be provided as part of the cover assembly if included in the model number:- (*)			
<b>Handrail</b>			
Option EX	Extension Handrail Assembly (No One Rung) (Powder Coated)		
Option EXG	Extension Handrail Assembly (No One Rung) (Galvanised)		
Option EXS	Extension Handrail Assembly (No One Rung) (Stainless Steel)		
Option EXA	Extension Handrail Assembly (No One Rung) (Aluminium)		
<b>One-Rung Ladder</b>			
Option XHL1R	One-Rung Ladder Extension Handrail Assembly (Powder Coated)		
Option XHL1RG	One-Rung Ladder Extension Handrail Assembly (Galvanised)		
Option XHL1RS	One-Rung Ladder Extension Handrail Assembly (Stainless Steel)		
Option XHL1RA	One-Rung Ladder Extension Handrail Assembly (Aluminium)		
<b>Safety Post and Chain Assembly</b>			
Option PS	Safety Post and Chain Assembly (Powder Coated)		
Option PSG	Safety Post and Chain Assembly (Galvanised)		
Option PSS	Safety Post and Chain Assembly (Stainless Steel)		
Option PSA	Safety Post and Chain Assembly (Aluminium)		
<b>Grating Platform</b>			
Option G	Grating Platform (Removable)		
Option GH	Grating Platform (Hinged)		

**(\*) Example**

Model DAB-741WPEY-VA-XHL1RS-PSS-GH-600D - DAB-741 Cover Assembly with pit form 600mm depth, complete with Stainless Steel One Rung Ladder/Extension Handrail, Stainless Steel Safety Chain/Post Assembly, and Hinged Aluminium Grating Platform.

**Technical dimensions**

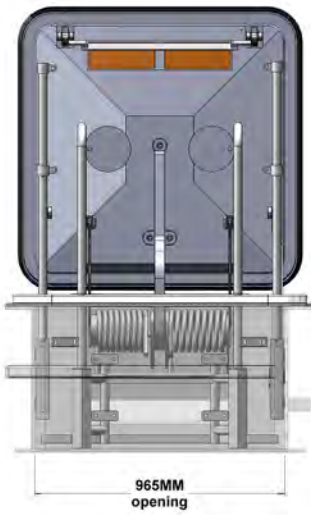
Unit: Millimeters



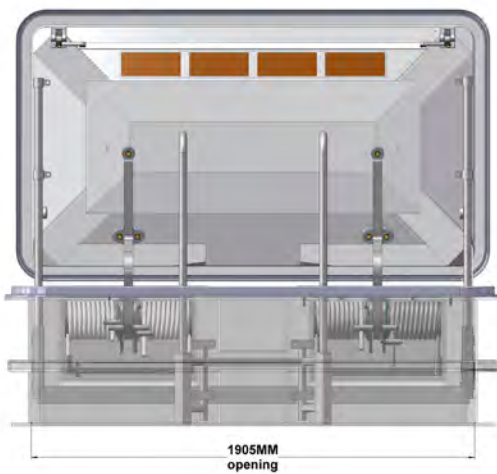
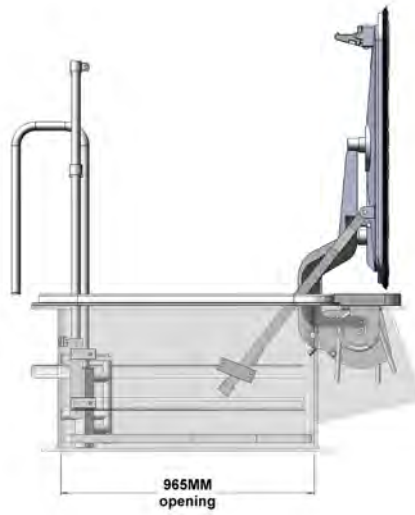
*DAB-38 Vault Access Cover*



*DAB-741 Vault Access Cover*



*DAB-38 Vault Access Cover*



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## Assembly specification

### Pit cover assembly shall have:

- All primary metal cast aluminium, alloy No. A356.2, per ASTM B26/B26M and ASTM B917/B917M, with no exceptions.
- Service lettering that is of abrasion/corrosion/chemical-resistant colour coded, polyester powder coated.
- High visibility orange panels on top side and underside for safety.
- A cover assembly that is completely removable.
- A prototype test report available and the test conducted by an independent testing company in the following manner: cover loading over each of two, spaced at a maximum of 915mm [36"] on centres for pit with inside length greater than 1,524 mm [60"], 1,291 sq. cm. (200 sq. in.) footprints shall result in a minimum 70 kg/sq. cm (1,000 psi) rating with a maximum 3.81 mm (0.150") full load deflection at centre indicators and deflection "rebound" within 0.254 mm (0.010") after load release.
- D.O.T. AC 1 50/5320-6F compliance.
- No visual shrink porosity cavity areas, fillers, weldments and no paint to hide them.
- Load bearing mating flange surfaces of the pit and cover that are flat to within 1.27 mm (0.050") total indicator reading.
- Hand-holes at a minimum 45mm (1.75") depth and 50cu.cm (7.5 cu. in.) volume, and integral, automatic latch.
- Latch with no above-grade protrusions whether in use or not.
- A one-piece cover door that opens to 90 degrees with a maximum 12 kg. (25 lb.) lift, and close with a minimum 23 kg. (50 lb.) push, using torsion actuated mechanisms.
- A cover that does not "pop" open when a latch is released, and shall be designed to fail-safe open once lifted beyond the 80 degree point in the opening arc. Once in the 90 degree position, cover remains fully open by gravity.
- A hold-open bar provided that automatically locks the cover in the full-open position, and releases with one-hand operation.

### Pit cover seal shall have:

- Capability to automatically engage pit flange when cover is seated in the closed position without any secondary latching motions. Seal shall be affixed without mechanical fasteners, with a minimum field life of 1 year, and be ozone/UV resistant.
- A sealing surface separate from load-bearing surface.
- A prototype environmental test report that is submitted and the test conducted by an independent testing company in the following categories and standards: Totally submerged cover shall pass less than 100 grams of water per hour following:
  - a) hot (160° F) and cold (-40° F) cycling conforming to Mil Std- 810;
  - b) seal contamination (door seal & mating frame sealing surface coated with sand and soil mixture);
  - c) approved submersion and hose down tests equal to NEMA 250.

## Customisation

The cover sizes shown are only a typical representation. If your project has different requirements or a special application, please contact us for a custom Cover design.

## Other Cavotec products

- Commercial Fuel Hydrant Pit Assembly
- Military Fuel Hydrant Pit Assembly
- Prefabricated Surge Suppressor Pits
- Prefabricated Isolation Valve Pits
- Rolling Covers
- Rolling Cover Pit Assembly
- Off-Apron Pit Assembly
- Test Well Pit Assembly
- Cathodic Protection System Test Chambers
- Leak Detection System Pull Box Pits
- Emergency Fuel System Shutdown Posts
- Prefabricated Cable Draw Pits