

VOH411 Series Metric Manhole Cover

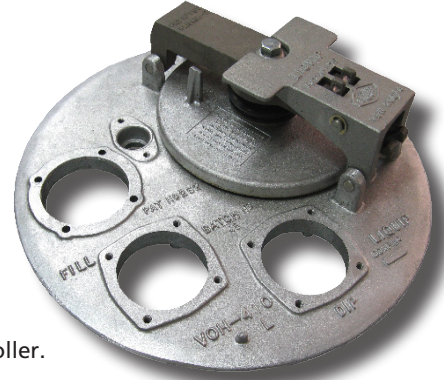
Liquip offers a unique manhole cover providing an easy access 422mm (16.6") entry to suit the specification of oil companies and transport fleets.

Now supplied in metric Liquip's VOH411 Series Manhole Covers are available in cast aluminium with four equipment mounting positions for the addition of overfill probes, vapour vents, dip & fill tubes and Diptronic® tank gauging.

Australian & CEN drop test approval makes these manholes ideal for both top and bottom loading. The VOH410 Series is a premier manhole cover in the industry.

Key Features

- Australian & CEN Drop tested to provide additional security in the event of a tanker roller.
- Cast aluminium lightweight & durable construction.
- Two stage opening mechanism enables internal pressure to be released before completely opening the manhole cover.
- Emergency pressure vent to enable bulk pressure release in event of a fire or rollover.
- Emergency vent doubles as an easy to open inspection hatch for top loading or visual inspection.
- Can be fitted with a 1" thermal pressure & vacuum vent complying with recognised industry codes (for thermal expansion purposes).
- Threaded mounting holes are metric and any mounting positions not utilised can be securely blanked off until required.
- Secure locking feature via Gravity Latch or Lockable bridge & Handle available.



Liquip's VOH41x Double Drop Tested Manhole Cover shown

Specifications

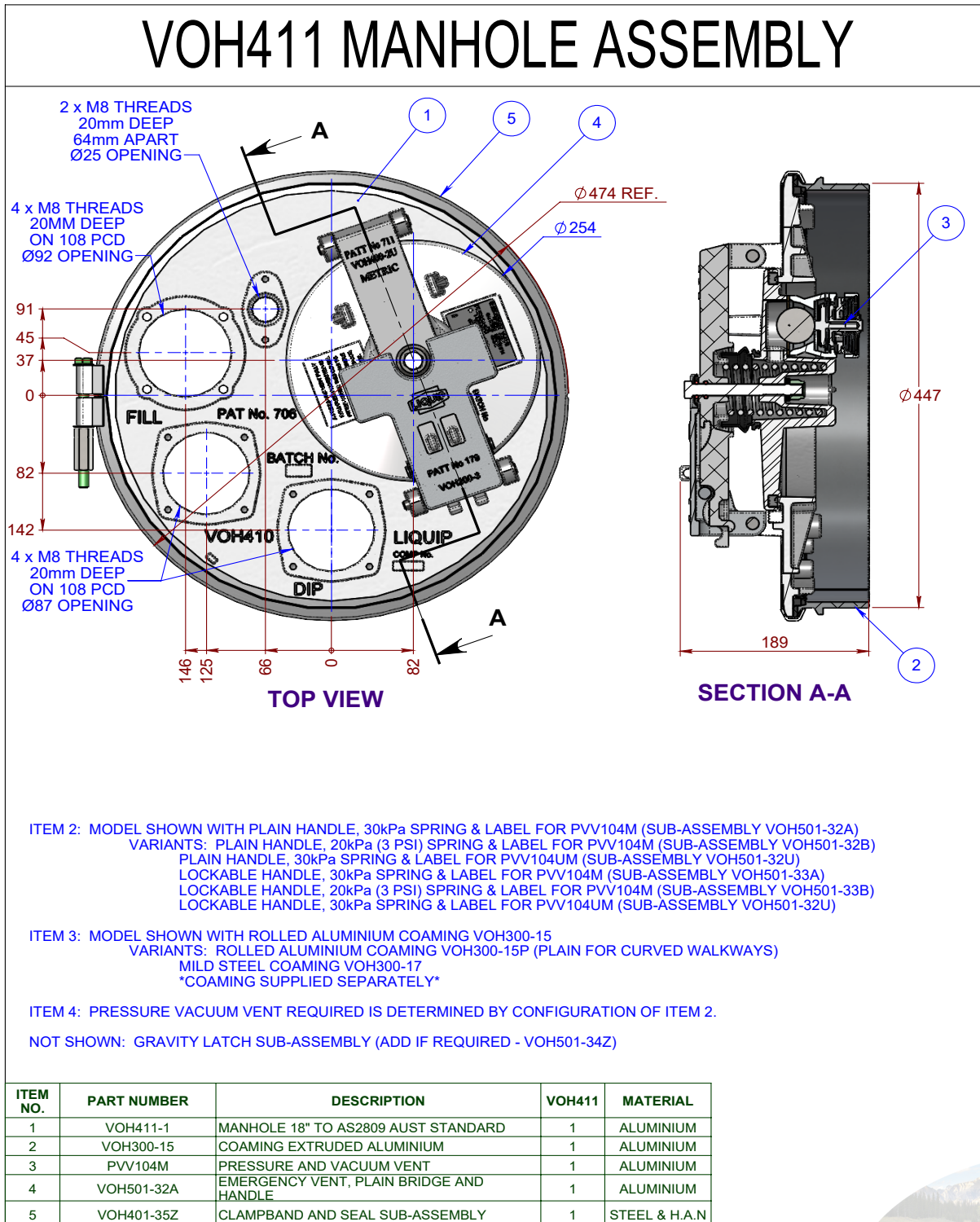
Installation	447mm hole.
Regulations	Passes the Australian & CEN drop Tests.
Mounting	A single clamp-band fits around the circumference of the manhole cover and the corresponding coaming which is tightened using a single bolt. Care must be taken to fit this clamp band according to instructions to ensure manhole cover integrity.
Weight	8.3kg (without coaming & mounted accessories)
Associated Equipment (Metric threaded parts compatible with VOH411 Hatches)	<p>5288: Z/P flat washer M10 (VOH300U-16 clamp bands). 5385: Z/P screw M10 x 130 (VOH300U-16 clamp bands). 5390: Washer Fibre Red - M8 (VOH200-5M, PVV104MZ, AVV3.0-10M). 5391: Set screw M8 x 30 (VOH22M). AVV3.0-10M: Vapour Recovery Blank Kit (Metric). DFV150M-MOUNTZ: DFV150 level gauge mount kit (Metric). DTA80M: Dip tube adaptor c/w NBR Cork gasket (Metric). DTA80M-1ATZ: Dip tube adaptor c/w Teflon gasket (Metric). DTA80M-1VZ: Dip tube adaptor c/w Viton gasket (Metric). FTA80M: Fill tube adaptor c/w NBR Cork gasket (Metric). FTA80M-1ATZ: Fill tube adaptor c/w Teflon gasket (Metric). PH100-3M: Nut Clampband (VOH300U-16 clamp bands). PVV104M: Pressure Vacuum Vent - Aust Spec (Metric). PVVREPKIT-M: PVV104M repair kit (Metric). PVV104UM: Pressure Vacuum Vent - UK Spec (Metric). UG101: Ullage Gauge. VOH-16M: Dip & Fill Blank Kit (Metric). VOH200-14M: Overfill Probe Blank Kit (Metric). VOH-22M: PVV204 Mount Kit to Dip/Fill point (Metric). VOH200-5M: Overfill Probe Housing assembly c/w NBR Cork gasket (Metric). VOH200-5ATM: Overfill Probe Housing assembly c/w Teflon gasket (Metric). VOH400-10: Lock Key. VOH300-15: Aluminium Coaming, with locating ribbing. VOH300-15P: Aluminium Coaming, without locating ribbing. VOH300-17: Mild Steel Coaming - Not Drop Test Approved. VOH300U-16: Clampband to suit VOH411 hatch. VOH300-7: VOH411 Main Seal (Nitrile).</p>

Adjustment or Service

Periodically check the seal in emergency vent for wear and main seal between cover & coaming.

Ordering Information

- **VOH4116A8N0:** Aluminium 18" manhole cover assembly (metric thread).
- **VOH4116A8N0Z:** VOH4116A8N0 comes with clamp band assembly and PVV blanking plate.
- **VOH4116A8A0Z:** VOH4116A8N0 comes with clamp band assembly and PVV104M (Pressure Vacuum Vent).



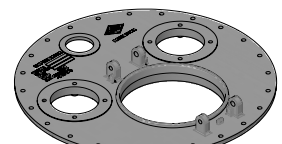
MANHOLE COVER



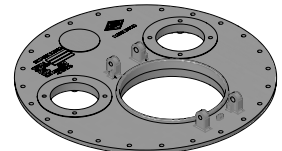
VOH411 VOH411-1 MANHOLE COVER



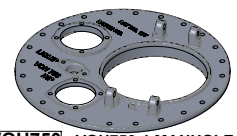
VOH451 VOH451-1 MANHOLE COVER



VOH501D VOH501D-1 DIE CAST WITH Ø 60.8 PROBE MOUNT



VOH501E VOH501E-1 WITHOUT PROBE MOUNT



VOH750 VOH750-1 MANHOLE COVER

EMERGENCY VENT AND BRIDGE ARRANGEMENT

PLAIN HANDLE (VOH200-3) **6A**
 USE '8A' PVV ONLY

30kPa SPRING (6108) & LABEL 7321

VOH501-32A OPERABLE BRIDGE, PLAIN HANDLE AND EMERGENCY VENT SUB-ASSEMBLY

6AVG
 USE '8AVG' PVV ONLY

30kPa SPRING (6108) & LABEL 7321

VOH501-32AVG OPERABLE BRIDGE, PLAIN HANDLE AND EMERGENCY VENT SUB-ASSEMBLY

6B
 USE '8U' PVV ONLY

24kPa SPRING (4464) & LABEL 7322

VOH501-32B OPERABLE BRIDGE, PLAIN HANDLE AND EMERGENCY VENT SUB-ASSEMBLY

6U
 USE '8U' PVV ONLY

30kPa SPRING (6108) & LABEL 7324

VOH501-32U OPERABLE BRIDGE, PLAIN HANDLE AND EMERGENCY VENT SUB-ASSEMBLY

LOCKABLE HANDLE (VOH400-7) **7A**
 USE '8A' PVV ONLY

VOH501-33A OPERABLE BRIDGE, LOCKABLE HANDLE AND EMERGENCY VENT SUB-ASSEMBLY

7B
 USE '8U' PVV ONLY

VOH501-33B OPERABLE BRIDGE, LOCKABLE HANDLE AND EMERGENCY VENT SUB-ASSEMBLY

7U
 USE '8U' PVV ONLY

VOH501-33U OPERABLE BRIDGE, LOCKABLE HANDLE AND EMERGENCY VENT SUB-ASSEMBLY

PRESSURE / VACUUM VENT

8A
 PVV104M TO AS2809 AUST STANDARD

8AVG
 PVV104VGM TO AS2809 AUST STANDARD

OPENS AT: PRESSURE: 10 TO 17 kPa VACUUM: 0 TO -4 kPa VACUUM
 MUST BE FITTED TO 'A' SERIES EMERGENCY VENTS

8U
 PVV104UM TO INTERNATIONAL REQUIREMENTS

OPENS AT: PRESSURE: 8 TO 12 kPa VACUUM: -0.4 TO -2.6 kPa VACUUM
 MUST BE FITTED TO 'U' SERIES & 'B' SERIES EMERGENCY VENTS

8N
 NO PVV104 FITTED

8O
 PVV104-2 BLANKING PLATE
 4250 GASKET NBR CORK
 6269 WASHER SPRING
 55024 CAPSCREW M8 x 30

GRAVITY LATCH

1

IF GRAVITY LATCH IS REQUIRED ADD FOLLOWING PARTS:
 1 x VOH700-12 GRAVITY LATCH
 1 x 0096 E-CLIP 1/2"
 1 x 4446 SPRING f. GRAVITY LATCH

0 GRAVITY LATCH NOT FITTED

VOH 451 6A 8A 0

METRIC ASSEMBLIES

PART NUMBER EXAMPLE FOR VOH451 SERIES MANHOLE, CLAMPBAND STYLE WITH BRIDGE AND PLAIN HANDLE, 30kPa SPRING, PVV104M, NO GRAVITY LATCH. COAMINGS, SEAL AND CLAMPBAND ASSEMBLIES TO BE ORDERED SEPARATELY, SEE LIQUIP DRAWING V90803 FOR PART NUMBERS.

A	RELEASED FOR PRODUCTION	DT	26/08/2020	19-027
B	UPDATED PVV SETTINGS AS PER MDC	HT	29-Sep-21	20-022
REV	REVISION DESCRIPTION	BY	DATE	MDC REF

DRAWING TITLE: COVER MANHOLE 20" TO CEN REGULATIONS 24 BOLT CW DIN 80 FLANGE MOUNTS		LIQUIP PART	VOH500D-1
MATERIAL: ALUMINIUM AA601		DRAWN	06/01/03
HEAT TREATMENT: TREAT TO T6		ASSY DWG	VOH500
PROTECTIVE TREATMENT: NONE		PART No.	608A
REMOVE ALL SHARP EDGES AND BARRS		SCALE	1-10
THIS IS CONFIDENTIAL INFORMATION		MASS	6.24
THIS DRAWING AND DESIGN IS THE PROPERTY OF LIQUIP INTERNATIONAL PTY LTD. IT MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WHATSOEVER AND/OR PASSED ON TO ANY THIRD PARTY WITHOUT WRITTEN AUTHORITY.		CROWN BY	DT
IF IN DOUBT, ASK! DO NOT SCALE OFF DRAWING		A1	Sheet 1 of 1
DRAWING NO		DRAWING NO ISSUE	
V90204		V90204 B	