

VOH411 Series Metric Manhole Cover

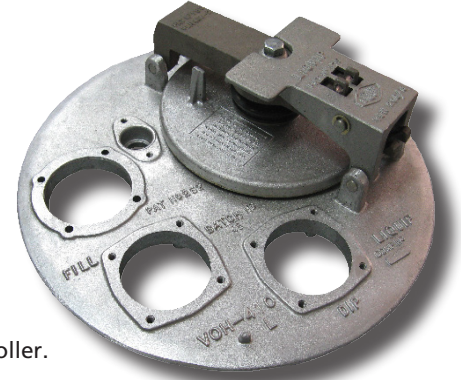
Liquip offers a unique manhole cover providing an easy access 422mm (16.6") entry to suit the specification of oil companies and transport fleets.

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>

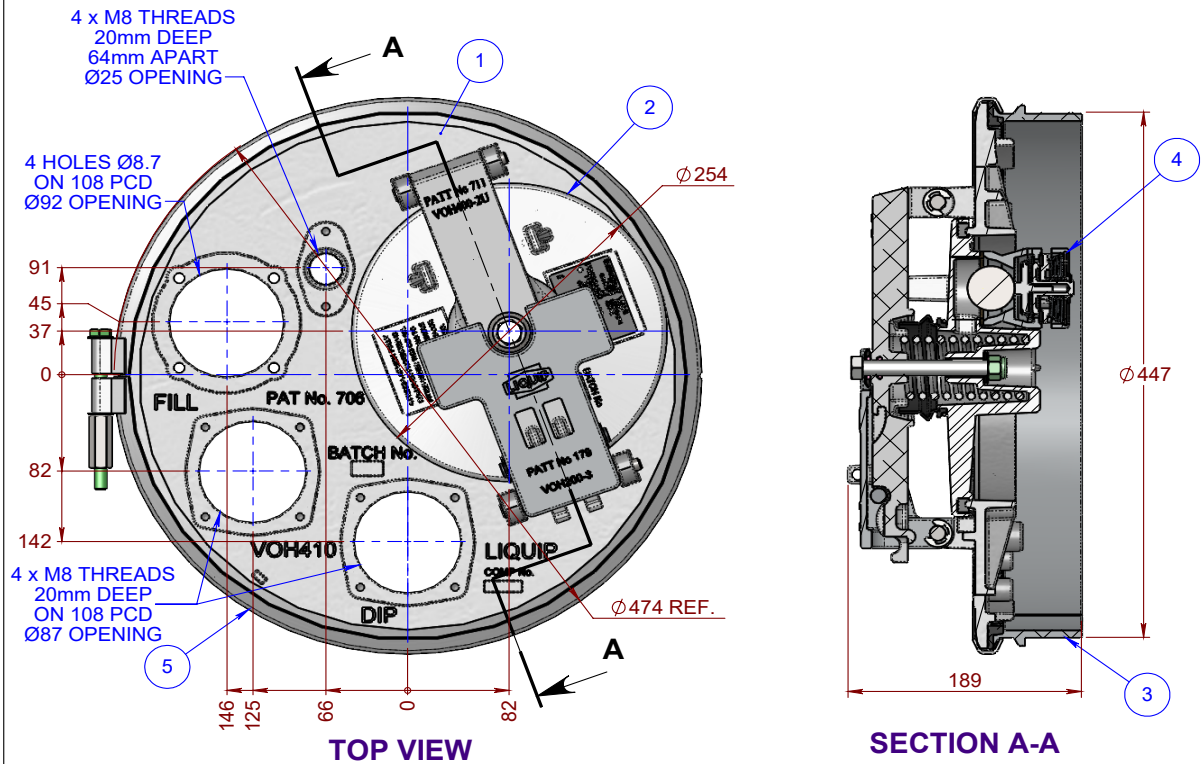
Adjustment or Service

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).

VOH411 MANHOLE ASSEMBLY



ITEM 2: MODEL SHOWN WITH PLAIN HANDLE, 30kPa SPRING & LABEL FOR PVV104M (SUB-ASSEMBLY VOH501-32A)
 VARIANTS: PLAIN HANDLE, 24kPa (3 PSI) SPRING & LABEL FOR PVV104M (SUB-ASSEMBLY VOH501-32B)
 PLAIN HANDLE, 30kPa SPRING & LABEL FOR PVV104UM (SUB-ASSEMBLY VOH501-32U)
 LOCKABLE HANDLE, 30kPa SPRING & LABEL FOR PVV104M (SUB-ASSEMBLY VOH501-33A)
 LOCKABLE HANDLE, 24kPa (3 PSI) SPRING & LABEL FOR PVV104M (SUB-ASSEMBLY VOH501-33B)
 LOCKABLE HANDLE, 30kPa SPRING & LABEL FOR PVV104UM (SUB-ASSEMBLY VOH501-32U)

ITEM 3: MODEL SHOWN WITH ROLLED ALUMINIUM COAMING VOH300-15
 VARIANTS: ROLLED ALUMINIUM COAMING VOH300-15P (PLAIN FOR CURVED WALKWAYS)
 MILD STEEL COAMING VOH300-17
 COAMING SUPPLIED SEPARATELY

ITEM 4: PRESSURE VACUUM VENT REQUIRED IS DETERMINED BY CONFIGURATION OF ITEM 2.

NOT SHOWN: GRAVITY LATCH SUB-ASSEMBLY (ADD IF REQUIRED - VOH501-34Z)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY	MATERIAL
1	VOH411-1	MANHOLE 18" TO AS2809 AUST STANDARD	1	ALUMINIUM
2	VOH501-32A	EMERGENCY VENT PLAIN BRIDGE & HANDLE	1	ALUMINIUM
3	VOH300-15	COAMING EXTRUDED ALUMINIUM	1	ALUMINIUM
4	PVV104M	PRESSURE AND VACUUM VENT	1	ALUMINIUM
5	VOH401-35Z	CLAMPBAND AND SEAL SUB-ASSEMBLY	1	STEEL & H.A.N

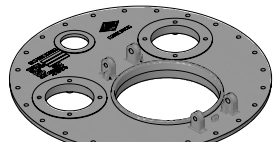
MANHOLE COVER



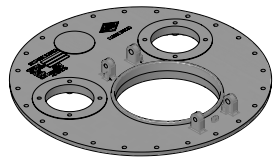
VOH411 VOH411-1 MANHOLE COVER



VOH451 VOH451-1 MANHOLE COVER



VOH501D VOH501D-1 DIE CAST WITH Ø 60.8 PROBE MOUNT

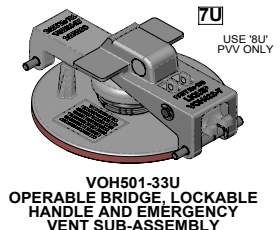
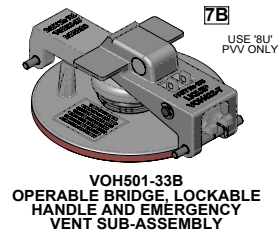
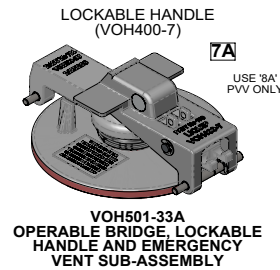
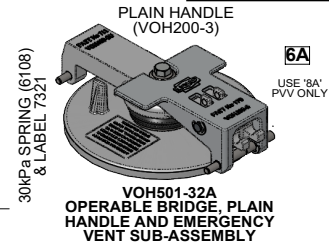


VOH501E VOH501E-1 WITHOUT PROBE MOUNT

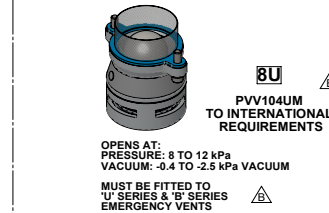
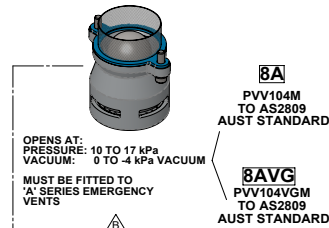


VOH750 VOH750-1 MANHOLE COVER

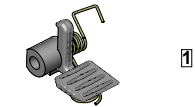
EMERGENCY VENT AND BRIDGE ARRANGEMENT



PRESSURE / VACUUM VENT



GRAVITY LATCH



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

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.		COUNT IN DT	1
IF IN DOUBT, ASK! DO NOT SCALE OFF DRAWING		A1	Sheet 1 of 1
DRAWING NO		DRAWING NO	ISSUE
V90204		B	1