

Primary Shut-Off Trap

Function and Operation:

The Masport Primary Shut-Off Trap is designed as a float-ball shut-off that prevents liquid in the tank from overflowing into the system and entering the Vacuum Pump. Liquid entering the Vacuum Pump can damage or destroy it.

When the vacuum tank becomes filled, the Primary Shut-Off Trap float ball will rise and seat against the float seat closing off the line between the Primary and Secondary Trap. In the event that the Primary Shut-Off Trap fails or the tank fills so rapidly that there is a lag time between tank filling and primary float ball sealing, the overflow will collect in the Secondary Moisture Trap and shut off its float mechanism before liquid enters the pump.

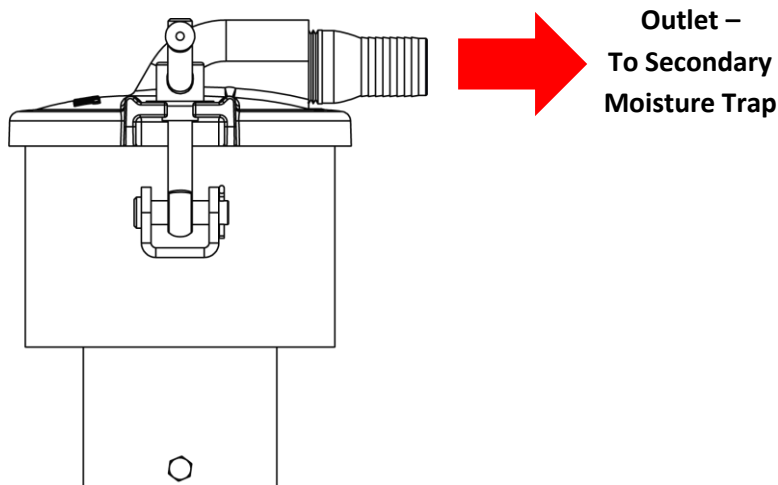
To ensure effective pump protection from contaminate overflow it is recommended that a Primary Shut-Off Trap is installed with a Secondary Moisture Trap (Scrubber).

Positioning:

The Masport Primary Shut-Off should be positioned at the highest point of the vacuum tank. When determining the final location of the Primary Shut-Off, consideration should be given to the location of the Secondary Moisture Trap (Scrubber), and the location of the Secondary Moisture Trap in relation to the Vacuum Pump. By carefully considering the placement of these components before installation, a reduction in plumbing, maintenance and operation costs can be achieved.

Plumbing:

As shown in the Recommend System Component Diagram, the Primary Shut-Off should be plumbed to the inlet of the Secondary Moisture Trap. The inlet of the Secondary Moisture Trap is located on the side of the Secondary Moisture Trap body.



Whatever the configuration of the vacuum system on your truck or trailer, all components and plumbing must be of adequate size or the system will not operate correctly.



Warning! Do not use a hose smaller than the porting size of the vacuum pump or the airflow will be restricted and the pump may overheat and be damaged.

If not included with the pump, a Vacuum Relief Valve should be installed between the Secondary Moisture Trap and the Vacuum Pump. This valve will serve to protect the pump from damage due to overheating in the event that the float-balls in either the Primary or Secondary Trap are activated by the tank being filled at a time when the operator is not immediately available to stop the system.

Service:

A periodic check on the float seat, float balls and ball cage assembly is recommended. The frequency of inspection is dependent on variables such as type of material moved and the overall duty cycle of the system.

It is recommended to initially check every two to three months in order to establish an inspection program based on wear characteristics specific to your individual application.



Warning! Do not attempt to remove the lid with pressure or vacuum on the system. Failure to do so could lead to equipment damage or catastrophic failure resulting in severe injury.

Lid Installation:

When replacing the lid, follow the below procedure:

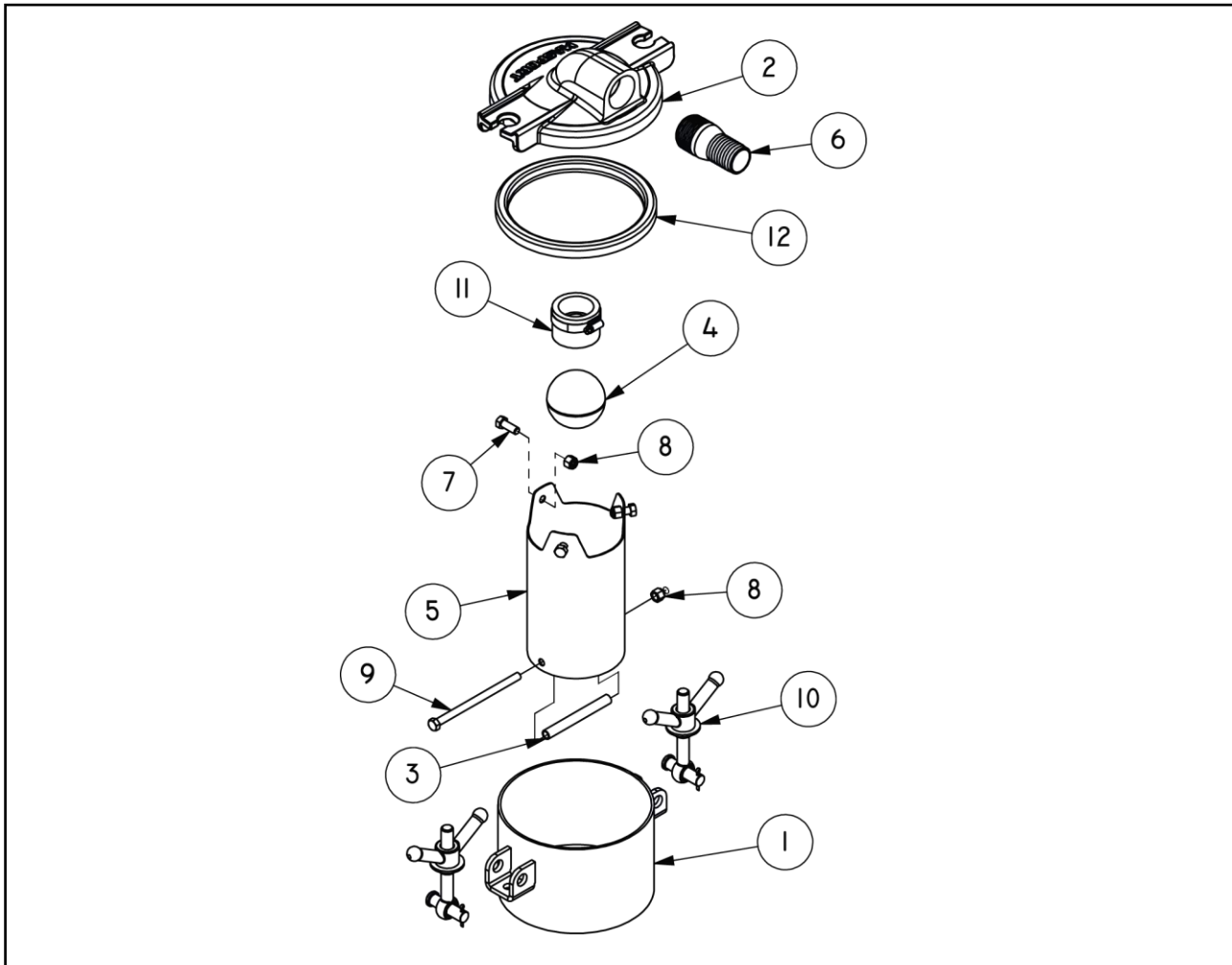
- ▶ Seat the lid onto the gasket and tighten the wingnuts.
- ▶ Start the vacuum pump and draw a vacuum on the tank
- ▶ As the vacuum increases in the tank external pressure will force the lid down. The wingnuts can then be tightened further as the lid has been pulled down into place by the vacuum.

This procedure will ensure a consistent pressure on the gasket.

Replacement Parts:

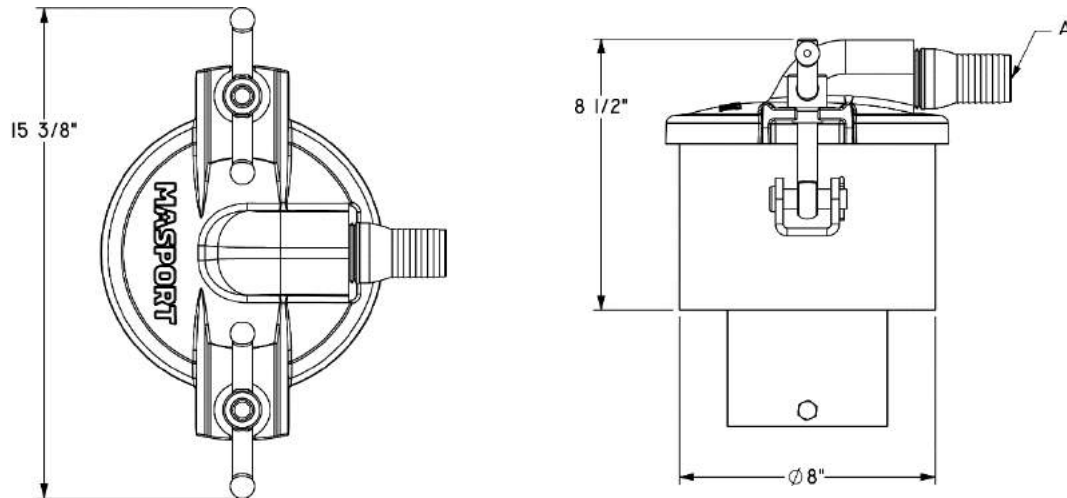
All replacement parts are readily available. Please contact an authorized Masport distributor or Masport directly.

Exploded View – 1 ½" & 2":



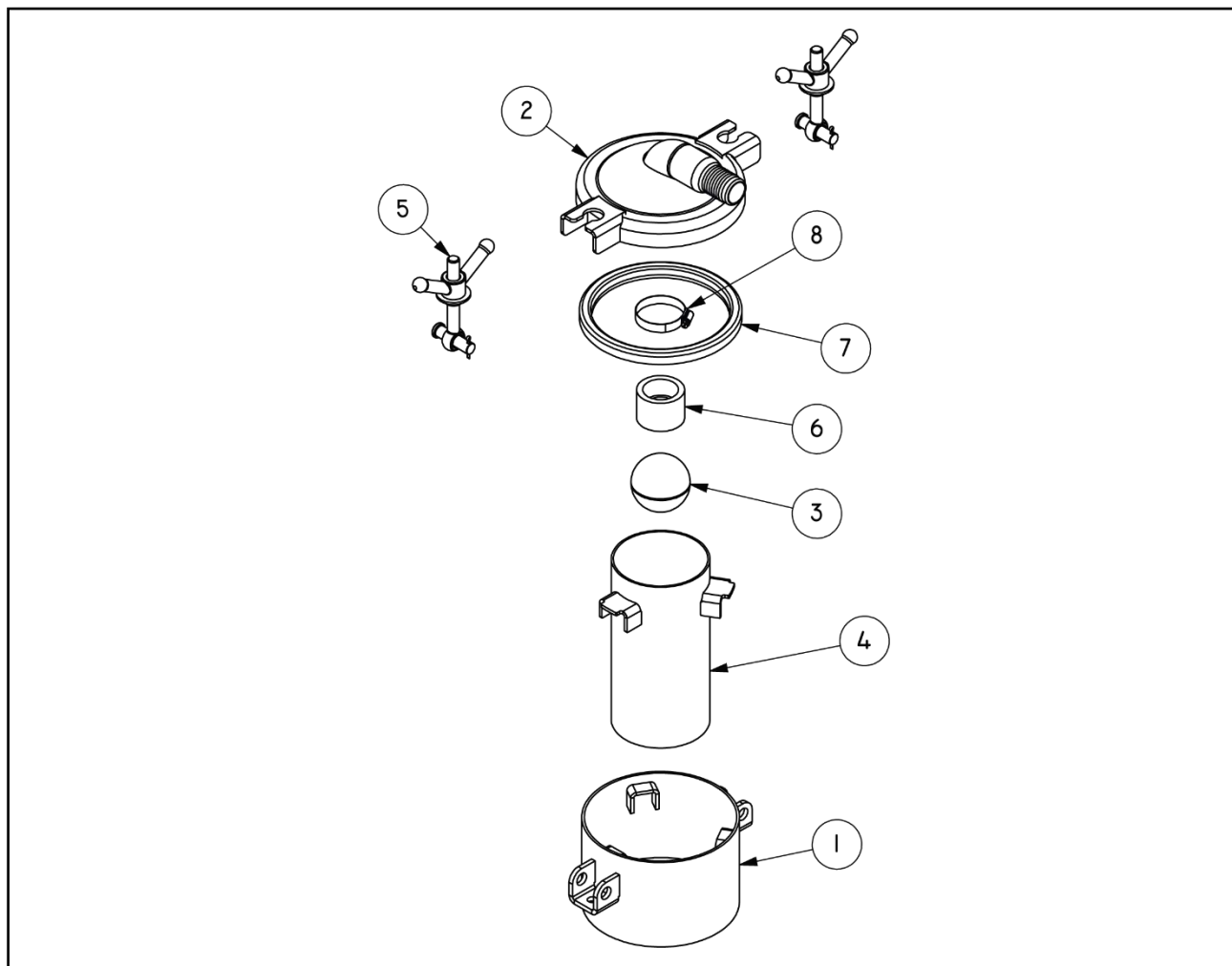
		1 ½" Hose Barb	1 ½" BSP	2" Hose Barb
Ref	Description	16326	16336	16329
1	Primary Collar	18366	18366	18366
2	Primary Lid	18577	18577	18577
3	Tubing	24291	24291	24291
4	Float Ball	28005	28005	28005
5	Primary Cage	28213	28213	28213
6	Hose Barb	30154		30172
7	3/8" x 1" Bolt	32265	32265	32265
8	3/8" Nut	32287	32287	32287
9	3/8" x 6" Bolt	32328	32328	32328
10	Wing Nut Assembly	32608	32608	32608
11	Float Seat	36113	36113	36113
12	Gasket	36516	36516	36516

Dimensional Data – 1 ½" & 2":



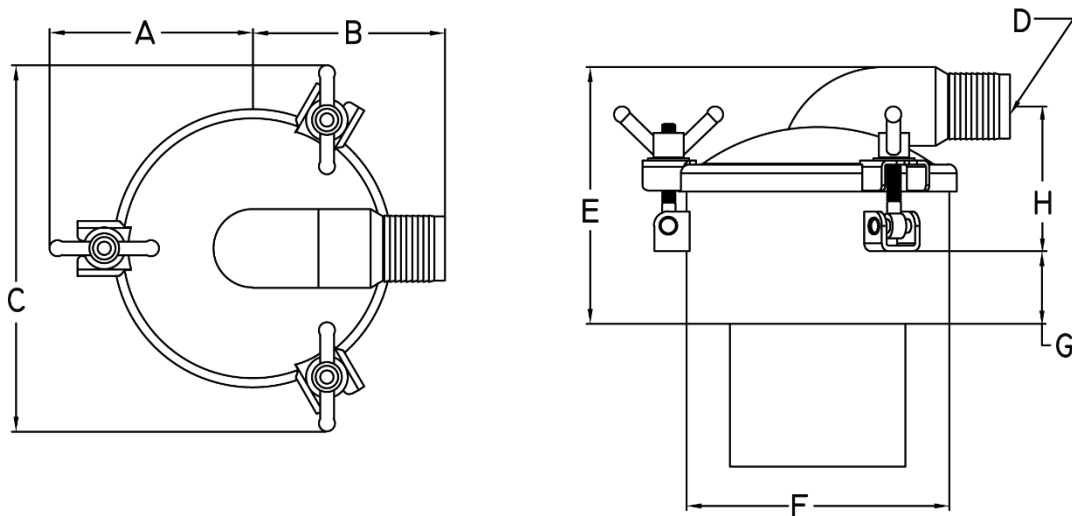
Ref	1 ½" Hose Barb 16326	1 ½" NPT/BSP 16315	2" Hose Barb 16331
A	1 1/2" Hose Barb	1 ½" Female NPT/BSP	2" Hose Barb

Exploded View – 3”:



Ref	Description	3" Hose Barb 16331	3" BSP 16335
1	Primary Collar	18368	18368
2	Primary Lid	18572	18575
3	Float Ball	28003	28003
4	Primary Cage	28211	28211
5	Wingnut Assembly	32608	32608
6	Float Seat	36107	36107
7	Gasket	36518	36518
8	Hose Clamp	24320	24320

Dimensional Data – 3”:



Ref	3" Hose Barb 16331	3" BSP 16335
A	9 9/32"	9 9/32"
B	8 3/4"	8 3/4"
C	16 23/32"	16 23/32"
D	3" Hose Barb	3" Male BSP
E	11 1/2"	11 1/2"
F	12"	12"
G	3 5/16"	3 5/16"
H	6 3/8"	6 3/8"