

EQUIPTANK 2009

MAINTENANCE INSTRUCTION MANUAL



CONTENTS

➤ DN500 Manhole cover	3
➤ 4" Bottom Valve	4
➤ 4" API Loading and unloading valve	6
➤ 3" sequential pneumatic vapor recovery valve	8
➤ DN80 3" Support valve	10
➤ Vapor recovery adaptor	12
➤ Interlock	14
➤ Overfill sensor	16
➤ Socket	18

DN500 Manhole cover

Equiptank's PAF type DN500 Manhole cover, is fixed to the collar ring by means of 24 steel screws

The DN 10" loading mouth doubles as a safety valve.

This manhole cover complies with all the requirements for bottom loading and vapor recovery.

The Manhole cover incorporates the following elements:

8mm aluminium alloy bolted collar ring

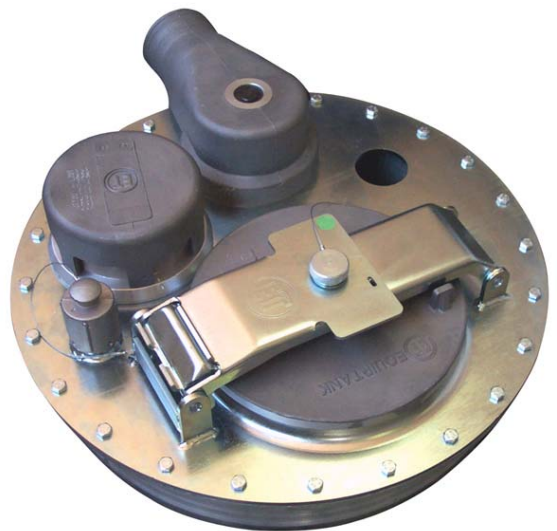
External safety valve.

Sequential vapor recovery valve ref. 60 10 00 S.

Pressure relieve cap Art. 100100.

Cover bridge block (closing system).

Fixing mechanism



Maintenance steps:

- loosen the 24 steel screws to lift up the cover.
- replace the collar ring gasket.
- place the cover over the gasket and insert the screws.
- tightened the 24 steel screws in a symetrical way in order to obtain a safe set up of the gasket.

4" Bottom Valve

Art. VF9402

The 4" sequential bottom valve's function is to allow the product to flow to and from the tank at loading and unloading.

This process is carried out by the pneumatic pressure applied inside the cylinder, which in turn pushes the saucer to obtain the opening of the valve.

It fits a steel mesh that prevents dirt from getting into the tank's interior



There's no need to detach the valve from the tank in order to give maintenance to the cylinder.

Easy maintenance, as most of its internal components are made of stainless steel.

It is recommended to give maintenance every 4 years, replacing the gaskets which look damaged.

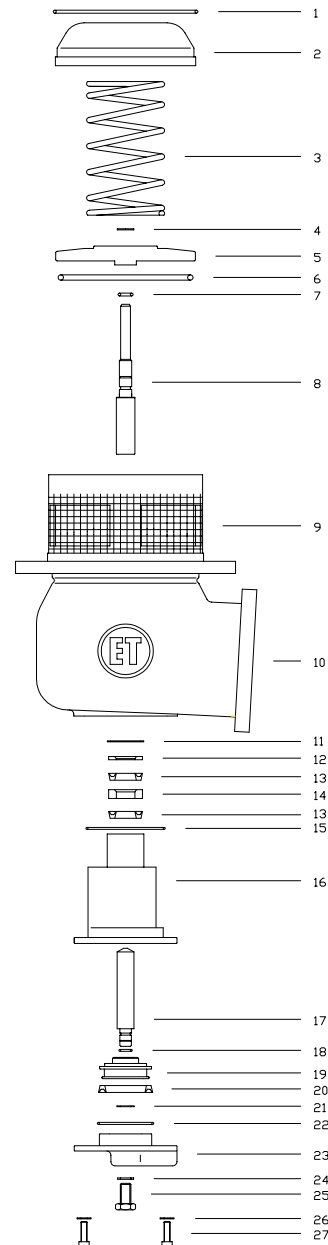
Maintenance gasket kits are available.

4" Bottom valve

Art. VF9402

Cylinder maintenance steps:

- Loosen the 4 screws (n° 27).
- Detach the cylinder set which is made up of the cylinder head (n° 23) and the cylinder (n° 16) and separate them
- Push the axle (n° 17) in order to give maintenance to the interior shaft seal.
- Pull out the seeger (n° 11) to replace the seals (n° 13).
- When reassembling, lubricate the interior body of the cylinder and insert the axle (n° 17) with the piston (n° 19).
- Fit the cylinder head (n° 23) with the replaced gasket (n° 22) to the cylinder body and assemble it to the valve using the screws (n° 27).



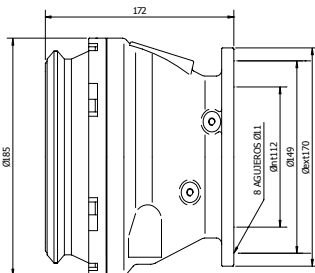
The gasket kit reference KJ9400 includes the following positions: 6; 7; 13; 15; 18; 20; 22.

4" API loading and unloading valve

Art. 741000

The API loading and unloading valve's function is to allow the product to flow to the tank, but also to allow for its unloading, by means of an adaptor.

The API valve's adaptor can be replaced, but only if the API is taken apart from the tanker.



It is recommended to give maintenance every 4 years, replacing the gaskets which look damaged.

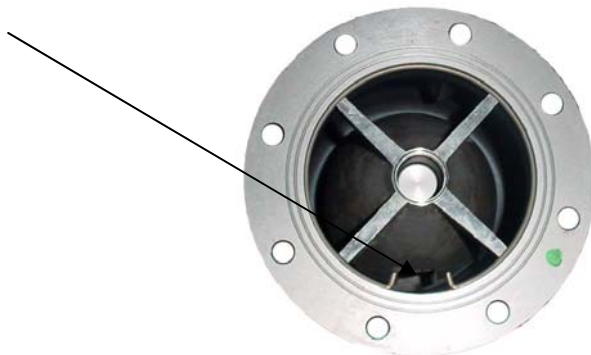
Maintenance gasket kits are available.

4" API loading and unloading valve

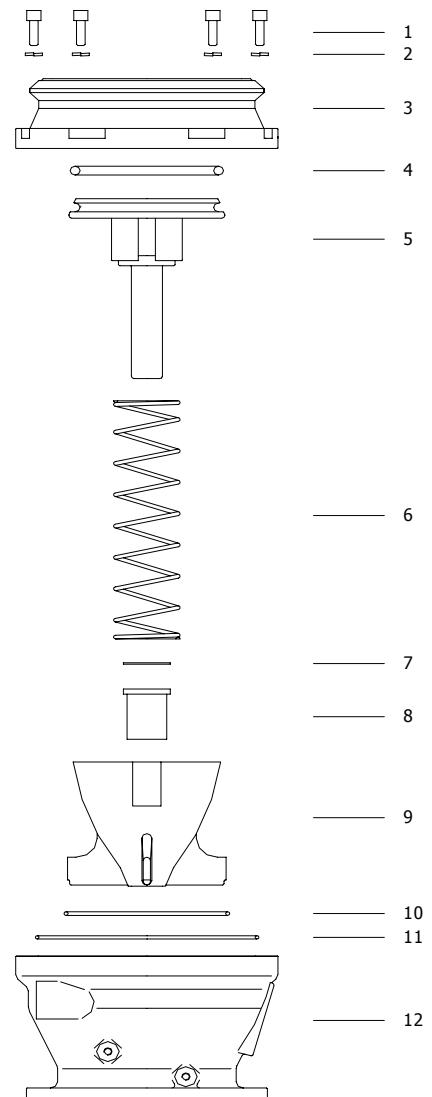
Art. 741000

Maintenance steps:

- Loosen the 8 M10 screws that holds it to the truck.
- Once detached from the tanker, place it on a flat surface and remove the retaining ring (n° 10) making sure that the shutter guide does not come off (n° 9).
- Remove the shutter (n° 5) and replace the gasket (n° 4). Check that the seating of the adaptor (n° 3) is clean.
- When reassembling watch out for the position of the shutter guide regarding the retaining ring.



The gasket kit reference KJ7410 includes the following positions: 4; 11; + 740078 (flange gasket).



3" Sequential pneumatic vapor recovery valve

Art. 601000S

This valve allows for the recovery of vapors produced by the fuel inside the tanker, thus avoiding contaminat gas emissions to the atmosphere.

It is fitted to the manhole cover by means of 8 M10 screws. It is connected to the vapor recovery system by means of a tube (see picture).



Of easy maintenance, as most of its internal components are made of stainless steel.

It is recommended to give maintenance every 4 years, replacing the gaskets which look damaged.

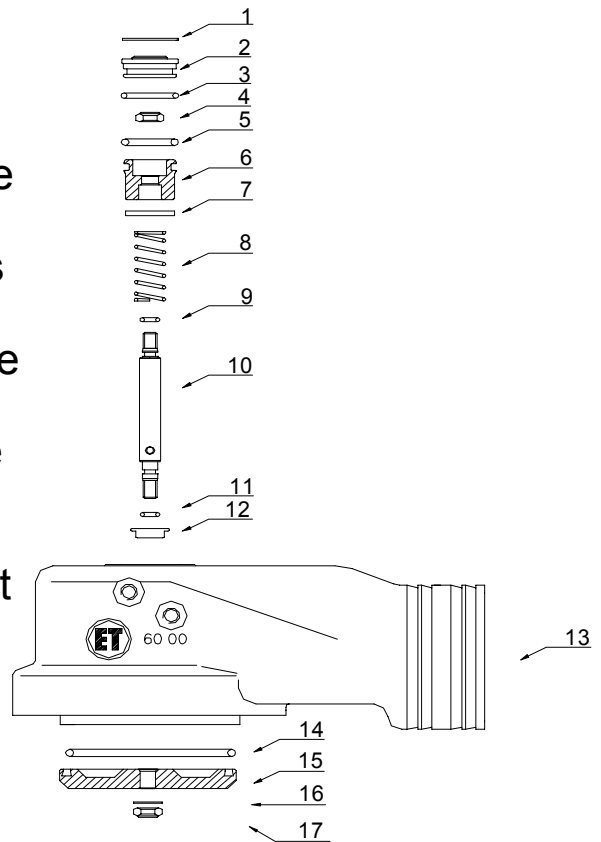
Maintenance gasket kits are available.

3" Sequential pneumatic vapor recovery valve

Art. 601000S

Maintenance steps:

- Remove the valve from the manhole cover.
- Put enough air pressure to open the saucer and block it through the hole of the axle.
- Loosen the nut (n° 17) that holds the saucer to the axle.
- Stop air pressure and remove the (n° 1) the top part.
- Once the seeger is out, push the axle (10) and the rest of the components will come out.
- Fix the axle with a clamp, whitout scratching it, and remove the nut (6).
- Replace the damaged gaskets.
- Reassemble in the same way as when disassembling. Do not tighten the nut completely (17) for better closing.



The gasket kit reference KJ6010S includes the following positions: 3; 5; 7; 9; 14 + 600043 (flange gasket).

DN80 3" Support valve

Art. 651000

The 3" Support valve's function is to allow air into the tanker in order to obtain a better unloading by gravity, and at the same time avoiding the empty effect inside the tanker.

It is fitted by means of 8 holes with M10 nuts.

Usually there's one per truck.



Of easy maintenance, since the steps to follow are very similar to those of the vapor recovery valve.

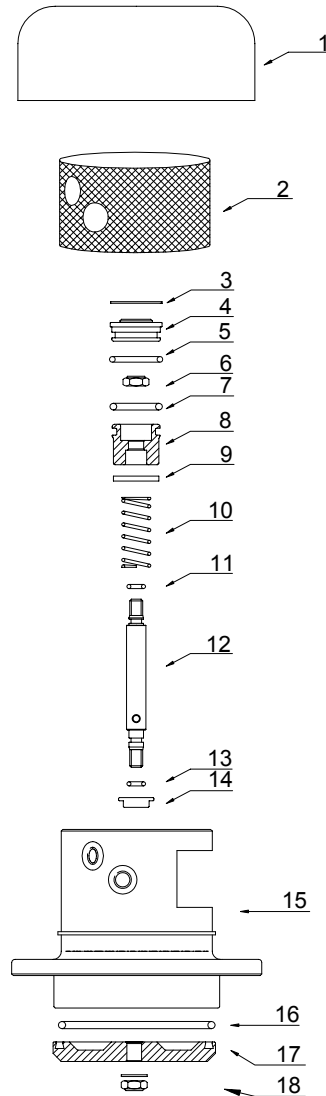
Maintenance gasket kits are available.

DN80 3" Support valve

Art. 651000

Maintenance steps

- Take apart the hood (1) of the valve.
- Detach the valve from the tanker.
- Put enough air pressure to open the saucer and block it through the hole of the axle.
- Loosen the nut (n° 18) that holds the saucer to the axle.
- Stop air pressure and remove the seeger (3) from the top part.
- once the seeger is out, push the axle (12) and the rest of the components will come out.
- Fix the axle with a clamp, whitout scratching it, and remove the nut (6).
- Replace the damaged gaskets.
- Reassemble in the same way as when disassembling. Do not tighten the nut completely (18) for better closing.



The gasket kit reference KJ6510 includes the following positions: 5; 7; 9; 11; 16 + 650091 (flange gasket).

Vapor recovery adaptor

Art. 680000

The vapor recovery adaptor's function is to unload the fuel gases produced at the gantry at the moment of loading.

It is fitted to the tanker by means of a 4" threaded BSP.

Usually there's only one per truck.



Of easy maintenance due to its simple operation.

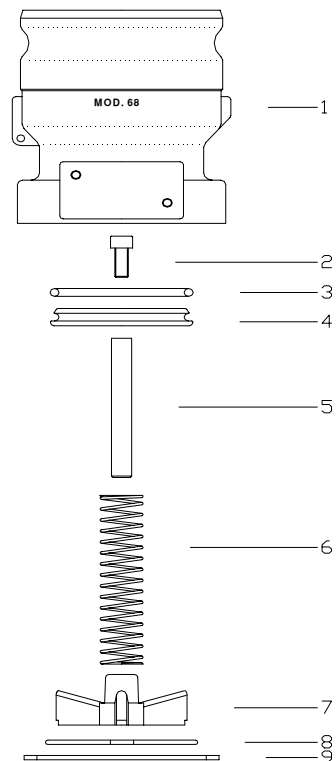
Maintenance gasket kits are available.

Vapor recovery adaptor

Art. 680000

Maintenance steps

- Take apart the vapor recovery adaptor from the tanker by means of the 4" threaded BSP
- Detach the retaining ring (n° 8).
- Pull out the axle (n° 5) to be able to replace the saucer's (4) gasket (3).
- Insert the set with the new gasket and place the retaining ring (n° 8)
- Reassemble by means of the thread.



The gasket kit reference KJ6800 includes the following positions: 3; 9.

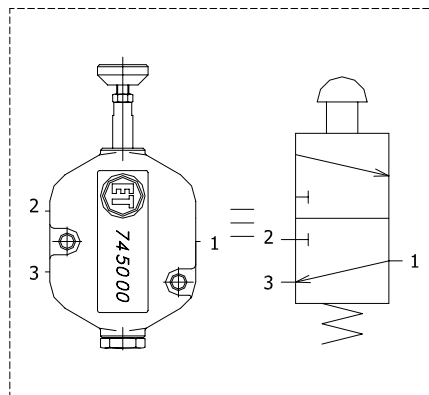
Interlock

Art. 745000

The interlock valve is a mechanical 3/2 way valve actuated by means of a push button.

The interlock's function is to order the vapor recovery valve and the bottom valve to act.

It is fitted on the API loading and unloading valve.



Of simple operation.

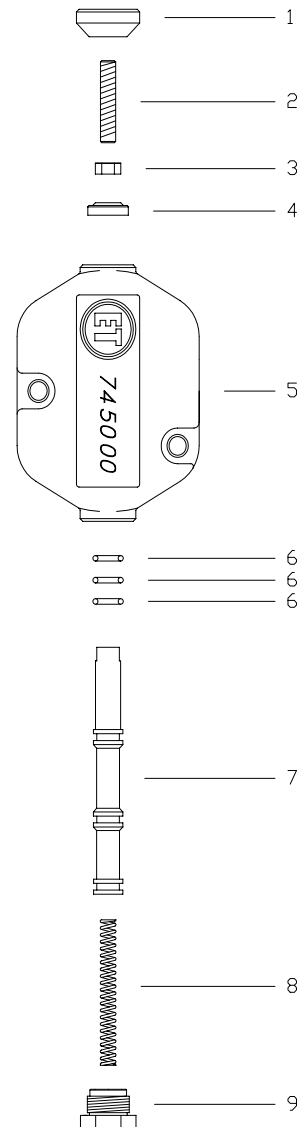
Different repair kits are available.

Interlock

Art. 745000

Maintenance steps

- Remove the interlock from the API loading and unloading valve.
- Loosen the brass nut (n° 9) in order to replace the gaskets (n° 6) that go with the axle (n° 7)
- When reassembling the axle (n° 7) lubricate the gaskets (n° 6) for a smooth operation
- Tighten the nut (n° 9) and fix the interlock to the API valve.



Overfill sensor

Art. DT5.03M

The overfill sensor's function is to avoid an excessive loading of fuel.

Of easy maintenance.

There's no need to remove the sensor from the manhole cover.

Different spare parts are available:

Ref. 7815042C	Cane length 5"
Ref. 7815043C	Cane length 15"
Ref. 7815044C	Cane length 7"
Ref. 7815050C	Cane length 12"

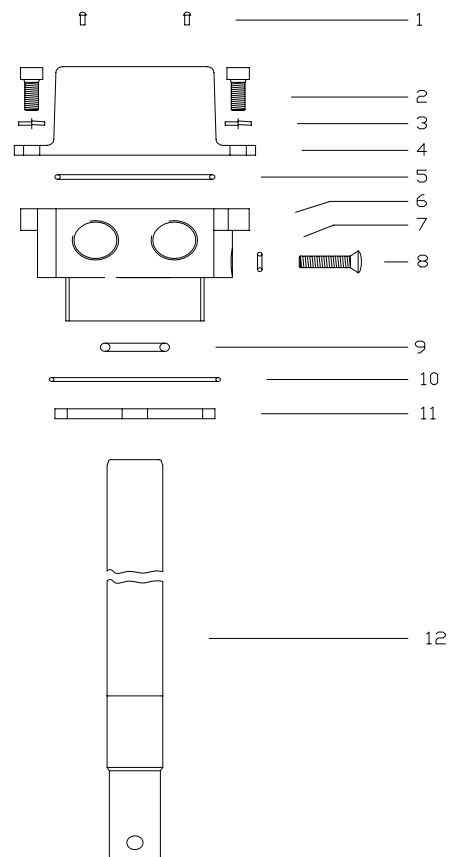


Overfill sensor

Art. DT5.03M

Maintenance steps

- Loosen the screws (n° 2) to pull out the cap (n° 4)
- Once the top is out, mark the distance at which the top part of the sensor is positioned with regards to the sensor's casing. (see picture)
- Loosen the screw (n°8) to pull out the cane with the sensor (n° 12).
- Mark the set (n° 12) of the new sensor and connect the cables (respecting the colors).
- Lubricate the gasket (n° 9) and insert the set (n° 12).
- Tighten the screw (n° 8).
- Fit the gasket (n° 5) in its housing, put the top part (n° 4) and tighten the screws).

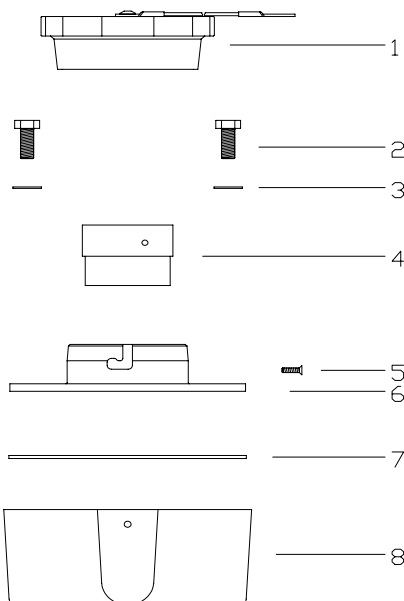


Socket

Art. BE10.03M

The socket's function is to allow loading of fuel at the gantry.

It has two elements that may suffer wear.



Maintenance steps:

- Loosen the screws (n°2) to replace the cap (n° 1).
- Replace the socket base (n° 6)
- Place the cap (n° 1) on the socket base (n° 3) and tighten the screws (n° 2).