



IVERNA **2000**

Fundilock



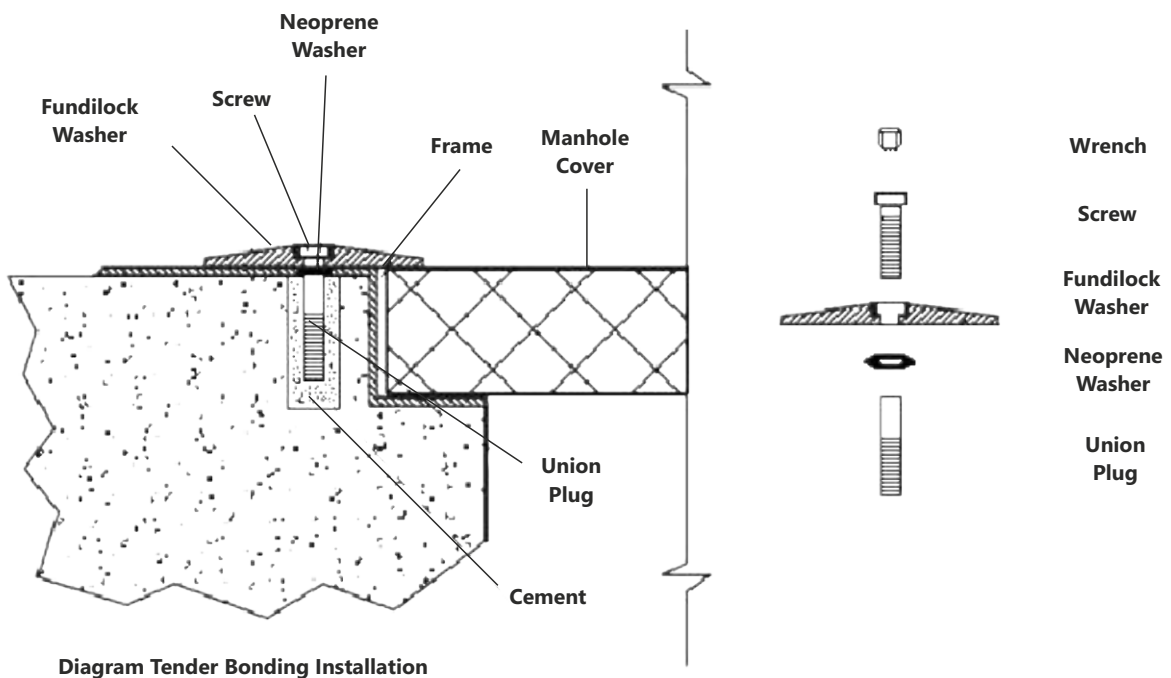
Characteristics

Antitheft system designed to secure any manhole cap, thanks to its geometry and availability of diameters and qualities. It is a patented and innovative product that is being installed in many places including USA and some European countries.

Nuclear power plants such as Ascó, Vandellós, Almaraz and Trillo as well as several city councils rely on Fundilock to tackle the security problem that exists with the theft of caps and what they protect, such as wiring, optic fiber, etc.

We can also manufacture unique wrenches and screws for orders greater than 1000 units. In this way, we make sure to have a unique system of wrench and screw, so that the designs are changed by countries and communities.

We currently manufacture Fundilock in 3 ranges for tender bonding.



Models	Protection level	Measures	Screw shape
SOLID STAINLESS STEEL AISI -304	Intense and heavy traffic	70/100/130/150 mm	Water drop / 3 Nipples
HIGH IMPACT POLYPROPYLENE with AISI-304 STAINLESS STEEL CORE	Moderate traffic	100/130/150 mm	Water drop / 3 Nipples
HIGH IMPACT POLYPROPYLENE with GALVANIZED STEEL CORE	Sporadic traffic and sidewalks	100/130/150 mm	Water drop / 3 Nipples



Installation - Fixation in tender bonding



1. We chose the size of washer suitable for installation. It has to be large enough to cover the frame and part of the lid that we want to protect. Available sizes (70mm, 100mm, 130mm and 150mm)

2. We choose the protection level of our kit, either high level (key and screw with 3 lugs) or higher (wrench and water drop screw). Eg For this installation we will choose water drop key kit of 100mm polypropylene with stainless steel core.



3. We look for the flattest area next to the lid and mark where we will make the installation holes, in such a way that we save the frame and block the maximum possible surface of the manhole cover. In this case we make the mark at 50mm from the point to be protected.



4. Drill vertically, first with a drill bit of 12mm to 100mm deep. Subsequently, we increase the hole with a 25mm drill bit for concrete.



Installation - Fixation in tender bonding



5. We vacuum the dust produced during drilling to clean the hole.



6. Fill the hole with bonding material (chemical block, chemical blister or cement for anchors like sikadur).



7. Insert the 12mm wide x 80mm long Fundilock union plug into the hole and press it so that it is incarcerated until it reaches a perfect leveling with the cover. Then, wait for it to set.



8. Place the neoprene washer and just above the polypropylene Fundilock washer, both aligned with the already set union plug. Take into account that the union plug is composed of a threaded rod welded to a socket that allows an insertion up to 25mm.



Installation - Fixation in tender bonding



9. Cut the safety screw enough with an emery stone so that it is inserted into the socket approximately 20mm - 25mm. Take into account 5mm of extra thickness of the washer. In this case we cut to 30mm from the bottom head of the screw.



10. Once we have the cut screw, we place it on top of the Fundilock washer that we already had aligned with the inserted union plug. We will take the special water drop key in this case to perform the tightening.



11. To tighten we can use both a wrench or a torque wrench. It is recommended a tightening torque of 44Nm.



12. Finally we have our Fundilock installed!



Notes for intallation

- The version in solid stainless steel has an extra model of reduced size of 70mm.
- When choosing the size of the washer, it must be chosen to cover the entire frame of the cover and at least 2cm from the lid itself. The more centimeters you cover, the more secure the system will be.
- When studying the best place to place the Fundilock, in the event of unevenness it will be necessary to pave with cement anchors until the exterior surface reaches the level of the cover. Otherwise, if it is a raised surface, it will be necessary to smooth it with diamond disk until leveling.
- During the drilling, you may find the steel frame, in that case, change the concrete drill bit for a steel drill and once it has been transferred, drill again with a concrete drill until you reach the required length of 100mm.
- If the lid to be protected is hinged, it will be enough to install a single Fundilock in the opening side, achieving a double lock in the opening system. Otherwise, two must be installed (one on each side), or up to four for maximum security. For even greater security, you can apply special Loctite glue to fix the screws.
- If there is a gap between the manhole cover and the base of the washer after installing the Fundilock, producing noise and shock between them, a rubber strip can be cut to improve the fit and also prevent someone from prying it out. We also supply 3mm sheet steel to level the Fundilock washer in the installation.





FUNDILOCK - Anti-theaf solution for manholes



Installations

