



## Developing Innovation

---

CATALOGUE 2019



COPPER THEFT



PASSIVE SAFETY



## Avoiding copper theft MANHOLESYSTEMS



**XPIDER**



**XPIDER SIM**



**XPIDER PRO**

- ✓ **Easy installation.**
- ✓ **Maintenance staff has quick access in case of incidence.**  
**Only remove the security screw to cable access.**
- ✓ **Tasks developed inside the manhole are not disturbed.**
- ✓ **Different manhole sizes available.**
- ✓ **Durability.**
- ✓ **Great mechanical resistance force is supported.**
- ✓ **Fully compatible with brick manhole kits, iron grid kit and inner walls kits.**

## **XPIDER**

**Prevents manhole opening by using a cover with zinc bath placed underneath the existing cover.**

Two L-shape fixing pieces installed in the manhole walls with two screws of 10 mm size. (Holes are marked in the mounting tool).

Two framing squares to support the cover.

T-shape piece which places in the two fixing pieces and the cover.

8 mm galvanized cover with two steel legs.

Six fixing screws, one stainless steel screw and cap.

Advisable in high risk areas (industrial areas, natural parks, etc.).



## **XPIDER SIM**

**Prevents manhole opening using the main existing cover.**

Two L-shape fixing pieces installed in the manhole walls with two screws of 10 mm size. (Holes are marked in the mounting tool).

Anti-rotation vase attached at the top of the cast iron cover previously perforated. (Hole machine is available for sale).

T-shape piece which places in the two fixing pieces and the vase.

Four fixing screws, one stainless steel screw and cap.



## **XPIDER PRO**

**Prevents manhole opening using a cover with zinc bath that dispenses with casting frame and cover.**

Two L-shape fixing pieces installed in the manhole walls with two screws of 10 mm size. (Holes are marked in the mounting tool).

T shape piece which places in the two fixing pieces and the cover.

10 mm cover and shock-resistant steel legs.

Four fixing screws, one stainless steel screw and cap.

Advisable in non-pedestrian areas (secondary roads, highways, etc.).





## Avoiding copper theft XPIDER SYSTEMS KITS

### FOR BRICK MANHOLES

PROVIDE GREATER SET RESISTANCE TO THE ASSEMBLY

FIXING KIT 1



FIXING KIT 2

### FOR MANHOLE BOTTOM

PREFABRICATED OR BRICK

IRON GRID KIT



### FOR INNER WALLS

PREFABRICATED OR BRICK

KIT SHIELD 1



KIT SHIELD 2

- ✓ Easy installation in any Xpider System.
- ✓ Tasks developed inside the manhole are not disturbed.

## BRICK MANHOLES:

### Fixing Kit 1

Extensible pipe fixed in the screws head in the inner screws of the lateral pieces, its function is to prevent screws from backing out of the walls.



### Fixing Kit 2

Rod with chains and tensioners that is fixed from the piping to the side pieces. Mechanism composed of a rod that is introduced into the interior of the piping and is attached with tensioning chains to the side pieces.



## MANHOLE BOTTOM:

**Iron grid Kit** prevents opening from excavations underneath manholes



Cut-out grid.

Grid with anti-lever leg.

Fixing screws join to the lateral pieces and grid.

Advisable for manholes located in slopes and embankments (roads).

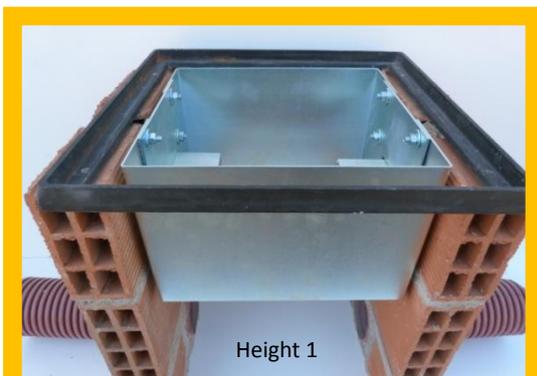
## INNER WALLS

**Prevent access from the sides of the manhole.**

Two U-shaped plates manufactured as the inside of the valve connected by two other fixing plates with screws, the whole set with zinc bath.

Depending on the need U-shaped plates can be manufactured in two heights.

### Kit shield 1



Composed of two short plates which close half of the manhole.

Suitable for manholes that are vulnerable at the top.

### Kit shield 2



Composed of a short plate and long plate.

Suitable for vulnerable manholes located on slopes or inclines.



## Avoiding copper theft CHANELLING

### SPAROS SYSTEM

The system consists in a set of elements which correctly disposed protect the manhole wiring.



*Sparos pieces*

Galvanized steel pipe protectors.

Installation made from the inside of the manhole.

The system can adapt to a 30° curvature.

The installation or dismantling is performed from the inside of the manhole.

The number of pieces and length of the system is not determined.

700Kg of mechanical force is supported by the pieces.





## Avoiding copper theft

# LAMPPOST

## CLOXED AND CLOXED C SYSTEM

**Blocking devices that stop the opening of all kind of lamppost covers.**

Galvanized steel piece fixed in the inside of the lamppost with a single screw.  
Security 6 mm iron closing lid with anti-lever plate.

Security stainless steel screw with a nylon cap.



Cloxed C



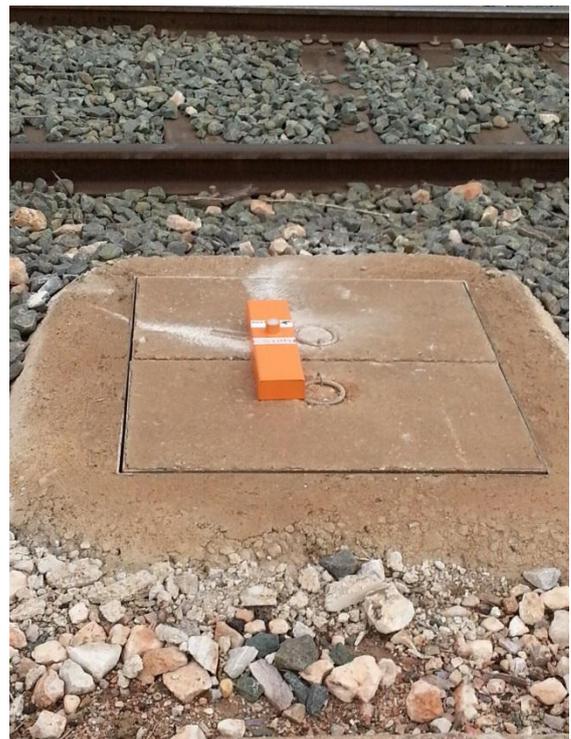
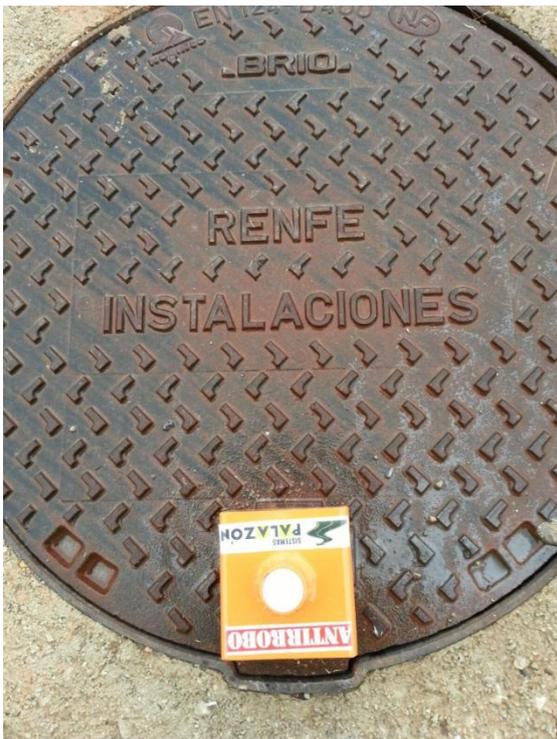
Cloxed

- ✓ Easy installation and durability.
- ✓ Maintenance staff has quick access in case of incidence and tasks developed inside are not disturbed.
- ✓ Different manhole sizes available.



## Avoiding copper theft RAILWAYS

Different systems that prevent unauthorized personnel from accessing manholes.



**Focus on passive safety**  
**PASSIVE SAFETY EN12767**



**SP SYSTEM (Unique in the market)**

**The SP system is a galvanized base installed in the traffic signs and lampposts base. The system allows the transformation of these elements into passive safety structures.**

Under an impact of a vehicle the system is dismantled releasing the post or column.

The guides inside of the base make possible a controlled parallel displacement of the lamppost or signal, preventing other vehicles from getting involved in the accident. This feature is an innovation in breakaway systems.

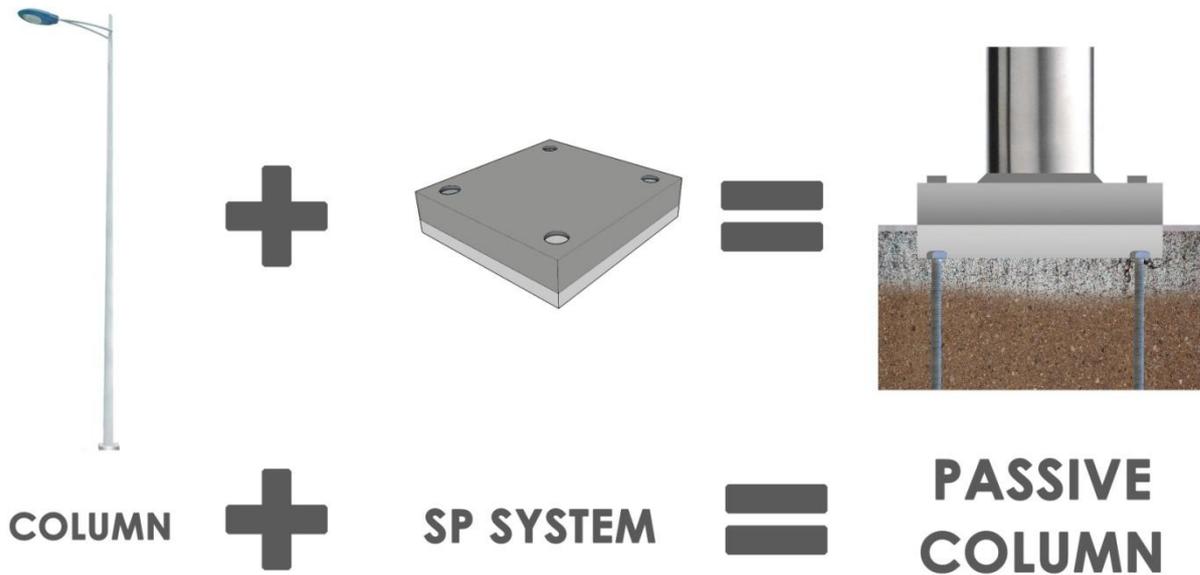


### ***SP System***

The system avoids serious crash damages against rigid elements such as columns or posts reducing the impact and harmfulness in such accidents.

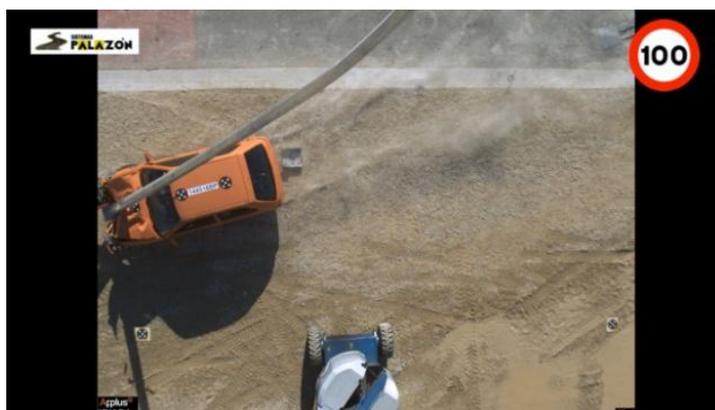
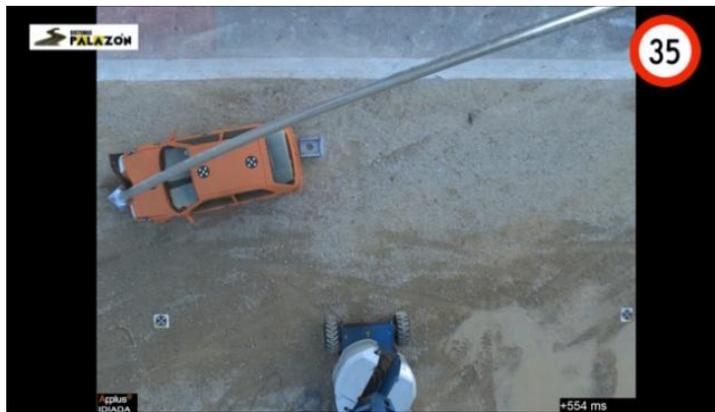
The base can be applied in existing lampposts and signs on our roads and also in new constructions.

Installation is very easy; the system is placed in the lampposts traditional anchor bolts.



The materials used in the manufacture of SP System are very economic. After a collision the system retains its functionality and is reusable.

- ✓ **Impact and harmfulness reduction.**
- ✓ **Social costs reduction.**
- ✓ **To be used in old and new installations.**
- ✓ **Easy assembling.**
- ✓ **Reusable after an impact.**
- ✓ **Sustainable.**
- ✓ **Economic price.**
- ✓ **No maintenance needed.**
- ✓ **Guardrails not needed.**
- ✓ **Versatility**



Crash test done in IIDIADA Applus



**NORATEX ABEE**

**Δημοτικός φωτισμός & τηλεδιαχείριση**

17°Χλμ. Λ. Σπάτων

15351 Παλλήνη

Τηλ: 210 6030221

Κιν: 6944536700

Email: [neofitos.ch@noratex.gr](mailto:neofitos.ch@noratex.gr)

Web site: [www.noratex.gr](http://www.noratex.gr)