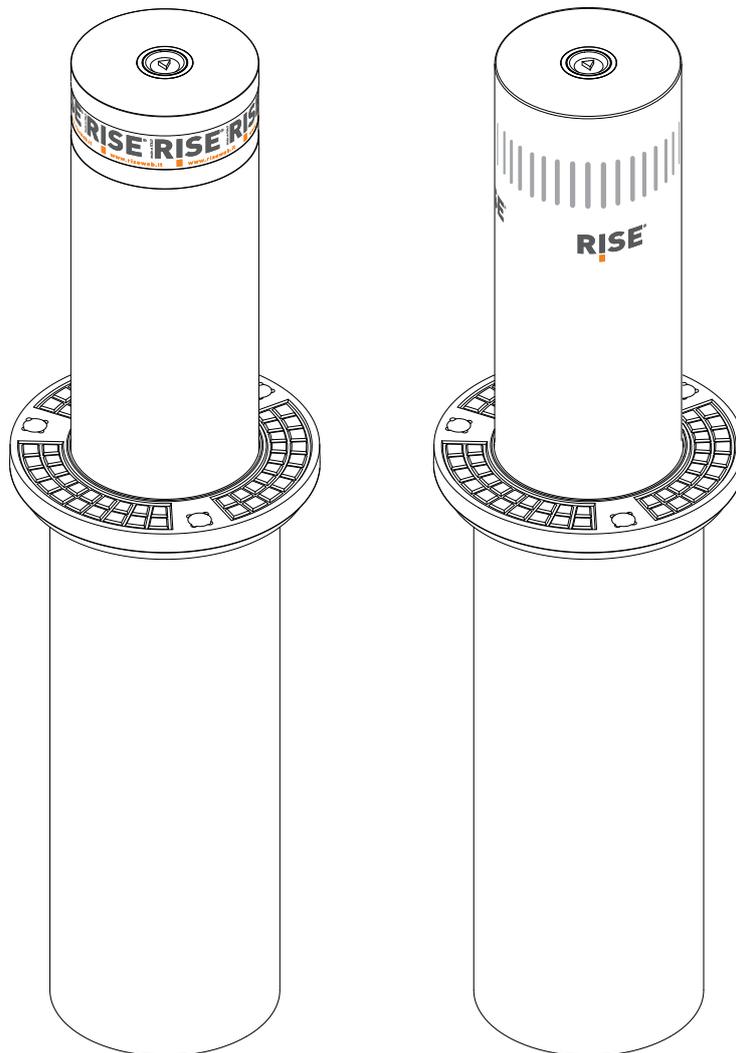


RISE

Rising
Bollards
Evolution

HYDRA 500/I



Manuale di installazione
Installation manual
Installationsanleitung
Manuel d'installation
Manual de instalación

- I** Dissuasore di sosta e passaggio
- GB** Parking and passage rising bollard
- D** Poller gegen unrechtmäßiges Parken und Durchfahren
- F** Borne escamotable anti-stationnement et anti-accès
- E** Disuasor de tránsito de aparcamiento y de paso

Made in Italy



The undersigned Mr. Luigi Benincà, legal representative of the company **Rise S.r.l.** - Via Maso, 27 - 36035 Marano Vicentino (VI) – in the capacity of manufacturer declares that the product:

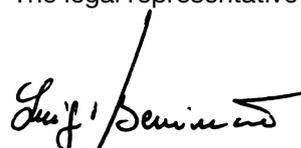
HYDRA 500/I

complies in all its components with Directives:

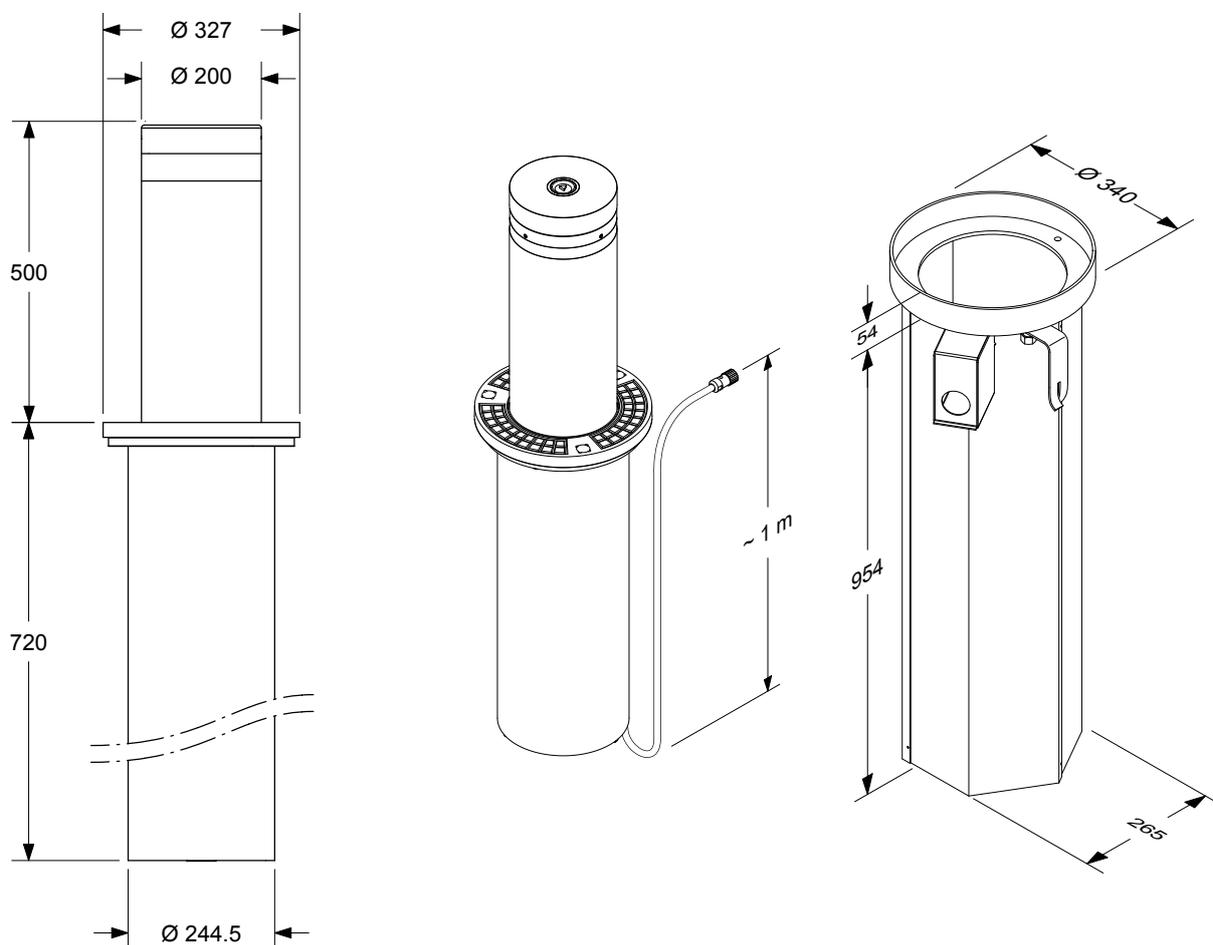
- EMC Directive 2004/108/EC
- Low Voltage Directive 2006/95/EC

Marano Vicentino, 15/07/2013.

The legal representative



Overall Dimensions



IMPORTANT!**READ THE FOLLOWING BEFORE PROCEEDING WITH THE INSTALLATION OF THE FOUNDATION CASES AND THE BOLLARDS**

- 1- Read the entire installation manual supplied with the product and follow the instructions as indicated therein.
- 2- Make sure the bottom of the excavation is draining, perform the drainage test as indicated in the following pages, and eventually install an electric pump. For more information see also our Youtube channel:
<http://www.youtube.com/user/RiseWeb>.

BOLLARDS ARE NOT DESIGNED TO WORK UNDERWATER

- 3- Use only original accessories RISE

If the product is not installed and used in accordance with the provided manual, if bollard work underwater and/or accessories used are not original RISE, the warranty becomes void.

General information and technical specifications

Thanks for choosing one of our retractable bollards Hydra.

Hydra is an automatic retractable bollard hydraulic-type with integrated hydraulic control unit.

This bollard has been designed for the residential market, however, despite being a basic product, has been designed with the same philosophy of quality, robustness and ease of installation that distinguishes all the other RISE's products.

Accessories:

HY.VA electrovalve for automatic lowering in case of power failure

HY.LED cap with 8 led lights

HY.VALED cap with 8 led lights and electrovalve for automatic lowering in case of power failure

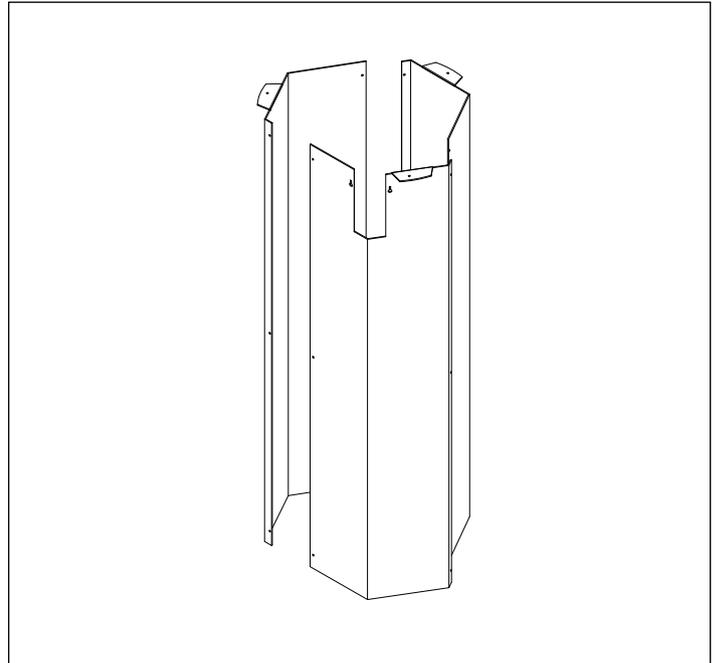
HY.BUZZ warning buzzer

HY.TERM thermostat for cold places

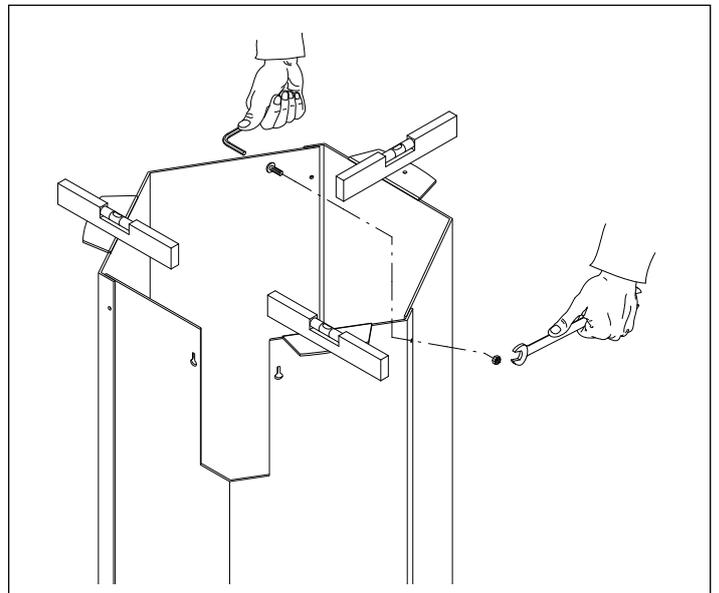
TECHINCAL DATA

MODEL	HYDRA 500/I
Power supply	230 Va.c. 50/60 Hz
Max. absorbed current	8 A
Max. torque	1200 N
Pump delivery	5 l/min
Max. oil pressure	17 bar
Raising time	5 s
Lowering time	5 s
Emergency lowering time	2 s (only with electrovalve)
Impact resistance	11.000 J (without permanent deformation)
Breakout resistance	180.000 J
Weight	HYDRA 500: 81 kg HYDRA 500I: 87 kg
Oil quantity	1,2 lt
Oil	BIO OIL
IP rating	IP 65
Capacitor	31.5 mF
Operation cycle	1000 cicli/24h
Operating temperature	-20°C / +50°C
Dimensions of cylinder	Diameter 200x500 mm - Thickness 8 mm
Ram shaft diameter	25mm
Finish	HYDRA 500: Cataphoresis + epoxy powder paint HYDRA 500I: Cataphoresis+ epoxy powder paint + stainless steel jacket AISI 316 1,2mm thickness
Dimensions of foundation case	Diameter 330x1008 mm

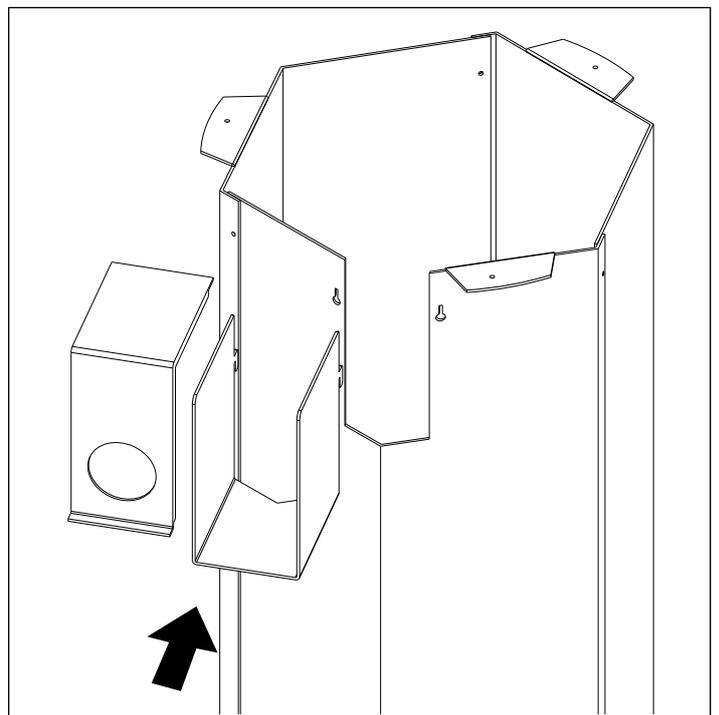
1 - Place the three side elements vertically as in the image alongside.



2 - Using the round head screws provided, assemble the hexagonal structure. It is very important to assemble the three elements vertically and on a surface that ensures excellent flatness so as to obtain a reliable support surface for the closing flange. **Attention: The screw head must be placed on the internal side of the foundation case.** See figure alongside.



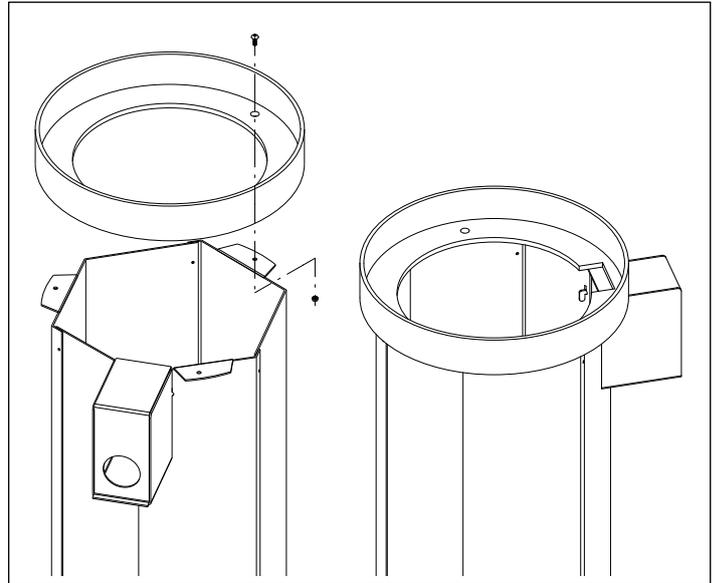
3 - Before fixing the upper flange, insert the metallic protection of the 50 mm diameter corrugated pipe which must be set in the ground to make the subsequent electrical connection with the control unit. See figures alongside.



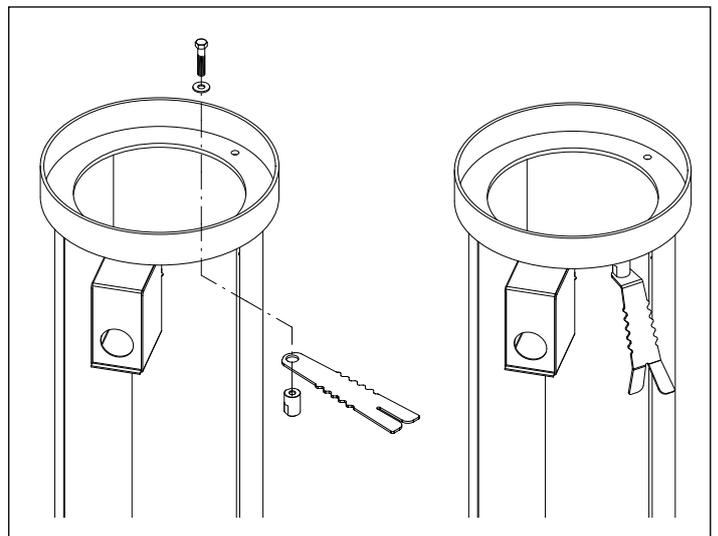
4 - Fix the upper flange using the round head screws provided.

Attention: The screw heads must be placed on the upper part of the flange (inside the case).

This way the foundation case is complete. See figure alongside.



5 - Fit the clamps as in the figure locking them in position with the washer and the M10 hexagonal head screw. Fold them according to the foundation.

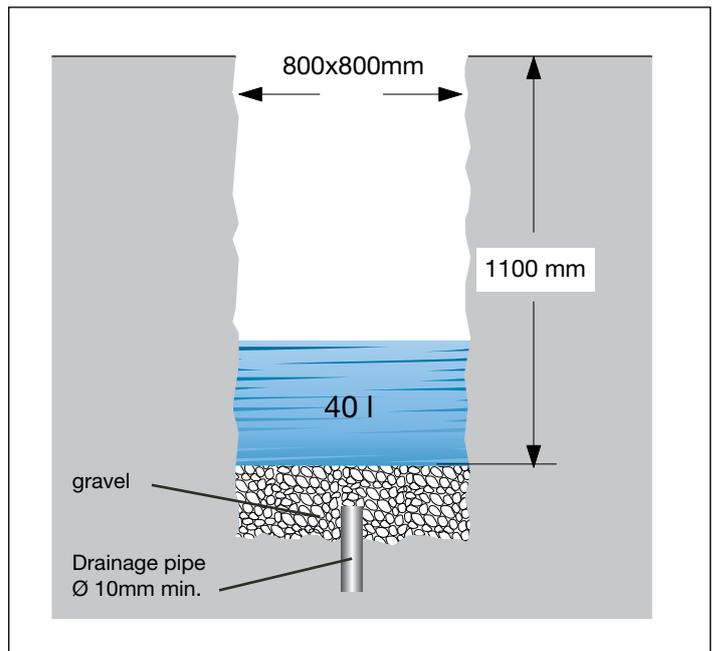


6 - Dig a hole in the ground with the dimensions shown in the image to the side and prepare a proper draining bottom.

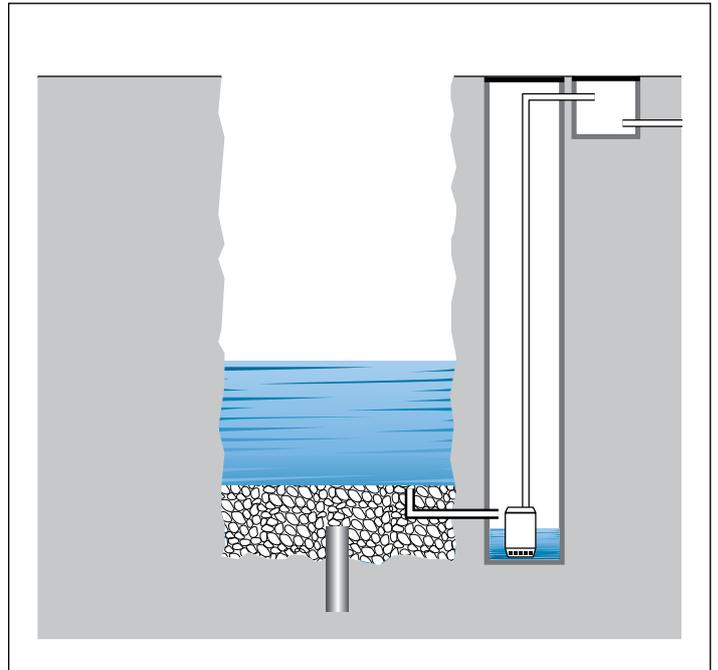
Before inserting the foundation case in the excavation run the **TEST OF DRAINAGE**.

The TEST OF DRAINAGE is ESSENTIAL to assess the level of permeability of the soil and adopt the most appropriate measures to let the water that enters into the case to be absorbed in the shortest possible time.

- Pour 40 liters of water into the excavation and wait for 25 minutes.



7 - If the water takes more than 25 minutes to be absorbed by the ground, it will be necessary to proceed with the laying of pipes to convey water in a tub and possibly aspire it by an electric pump.



8 - Insert the foundation case in the excavation.

Attention: The case must rest on the bottom of the excavation and must be perfectly vertical - check this by placing a level on the upper flange.

Important: In order to make inserting the case easier, preparation for the corrugated sheath must be 200mm from the flooring surface, as shown in figure.

Insert the 50 mm diameter corrugated sheath in the case using the metal guide.

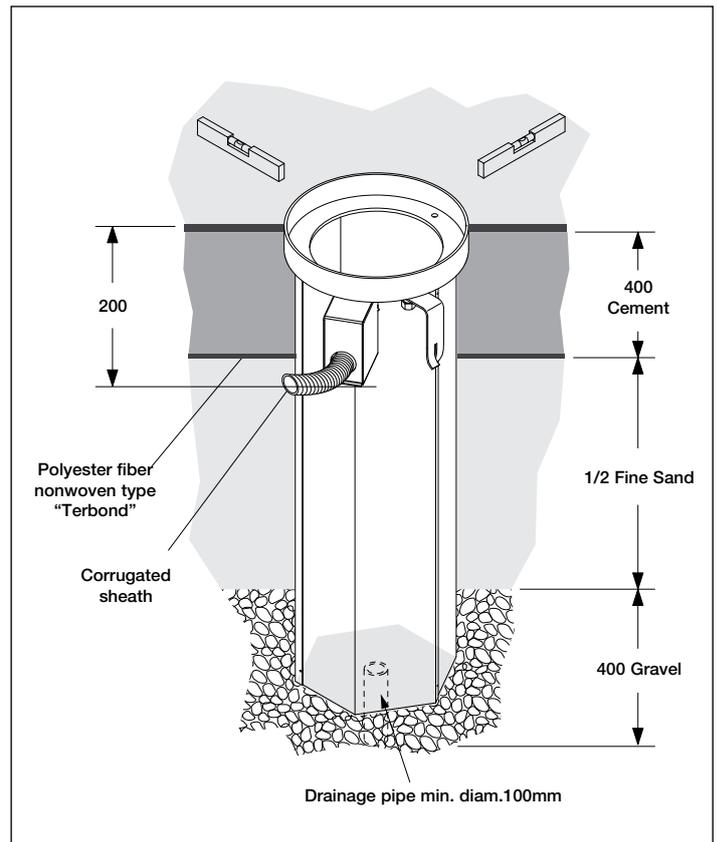
The corrugated pipe must enter a maximum of 2/3 cm inside of the metal protection, so that it does not interfere when the bollard is later inserted. Provide the layer of gravel. Provide the layer of sand

Roll over the entire surface a layer of polyester fiber nonwoven type "Terbond"

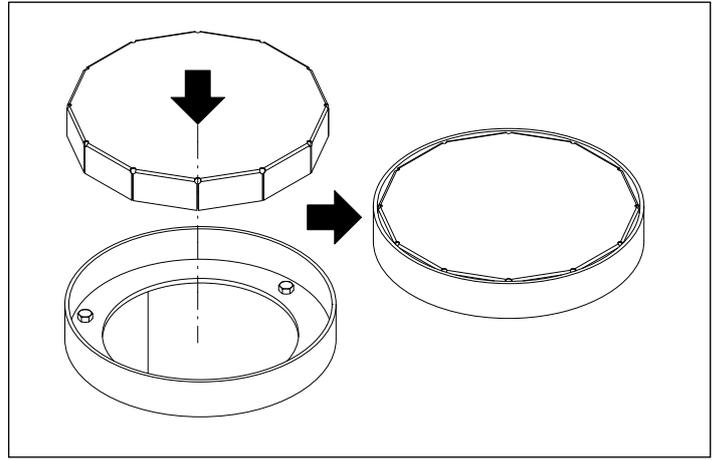
Use the following composition of concret to cement the foundation case:

- Minimum content of cement 300kg/metro3.
- Concrete type CEM III-IV
- Max. supply water/concrete = 0,6
- Exposure class XC2
- Max diameter of aggregating = 32mm

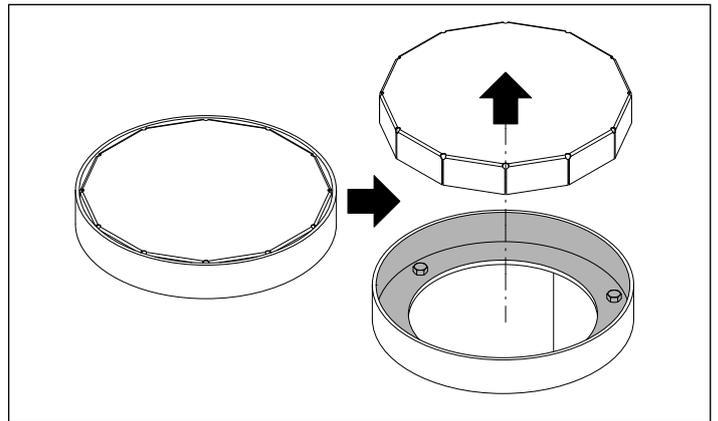
Attention: Make sure, during the cast, that the fixing plug located under the cramp-iron is completely covered by concrete. Using a spirit level, check if the flange plane is horizontal.



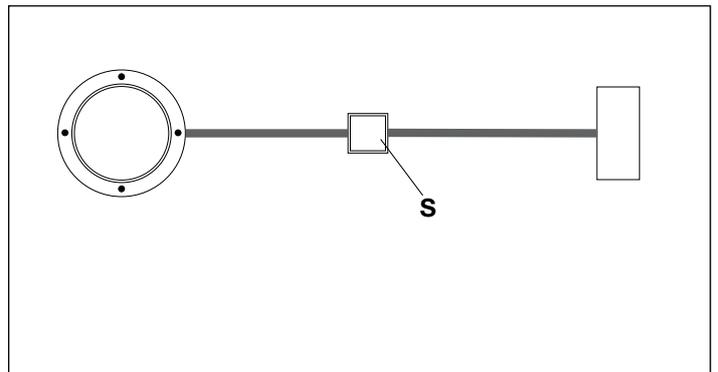
9 - After positioning the case, **make sure that the open recess is covered**, for the entire amount of time that the rising bollard is not inserted, **with covering that is suitable to avoid accidents that may involve persons or property**. A sheet metal cover is available as an option. See figures alongside.



10 - Before inserting the bollard into its housing, remove the previously placed closing or cover making sure that the anchorage housing of the bollard, represented by the grey area, is cleaned carefully. See figures alongside.



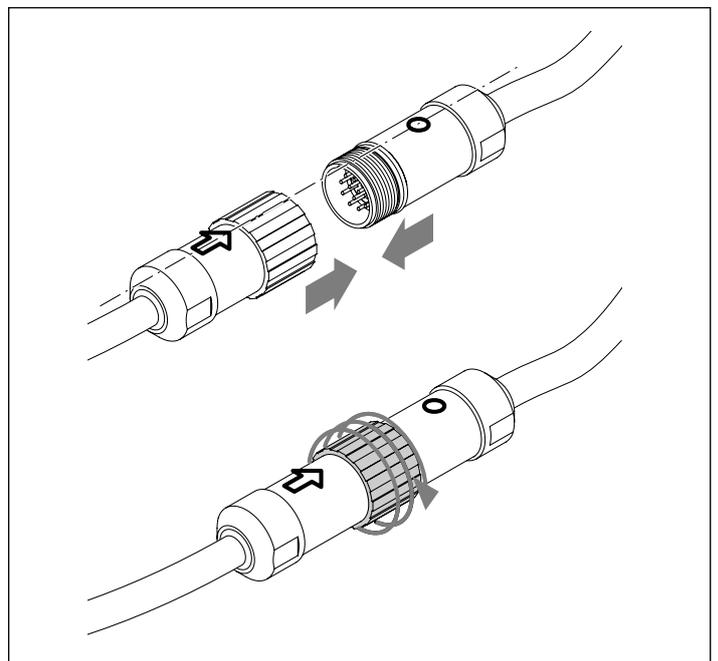
11 - Plan for a junction box in proximity (max 2/3m) of the bollard (Ref. S), where about 1m of extra cable should be left. While inserting the bollard, thanks to this junction box it will be possible to recover/release the cable. When laying the conduit, try to keep the path as straight as possible, avoiding sharp corners. See figures alongside.



12 - **Attention: The bollard is equipped with a short segment of connection cable equipped with a male IP68 connector. Different size extension cords are available, equipped with a female IP68 connector, for connecting to the control unit.** Bring the two parts of the connector together, aligning the arrow with the circle as shown, then fully screw down the fixing nut.

IMPORTANT: You must close the connector fully and in the correct manner to avoid bending the electrical contacts and to ensure a waterproof seal. Check the connector and the illustrations carefully before proceeding. Do not force the two parts of the connector for any reason. The connector, when correctly put together, guarantees IP68 protection. The manufacturer cannot guarantee against faults and malfunctions in the event of incorrect connection of the connector.

You are advised to check movement of the connector in the sheathing by simulating the movement of the cable in the bollard, using specific products if necessary.



13 - The cable must be recovered while the bollard comes near the foundation case (ref A).

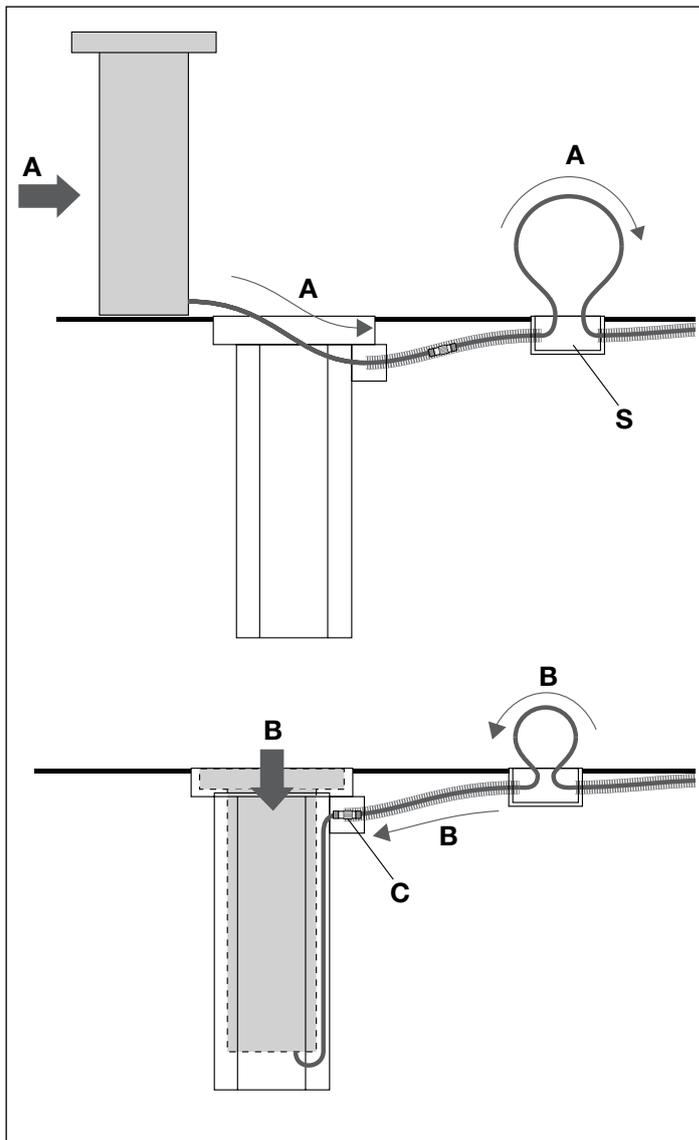
Important: In this phase the connector must be free to slide inside of the corrugated sheath. For this reason is it necessary for the segment between the bollard and the junction box to be connected by a sheath with a diameter of 50 mm, correctly placed, without joints or cross section reductions.

The cable must be gradually released while the bollard descends in the case, (Ref. B)

Once the insertion has been completed, the connector must be in proximity of the metal protection (ref C).

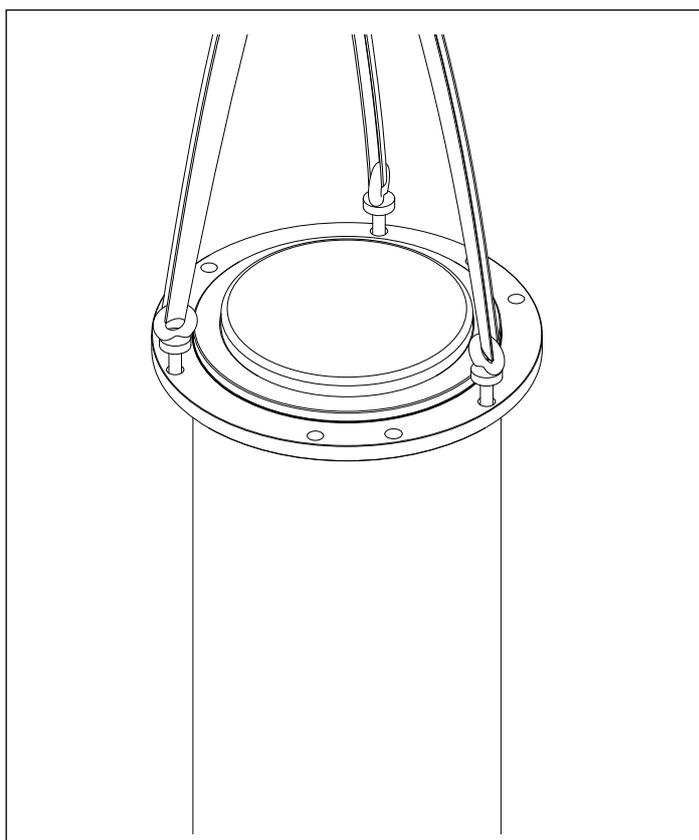
Pay attention to the electrical cable, it must be free inside the case housing and it must not be crushed.

See figures alongside.



14 - Use three eyebolts with M16 studs to lift the bollard.

See figures alongside.



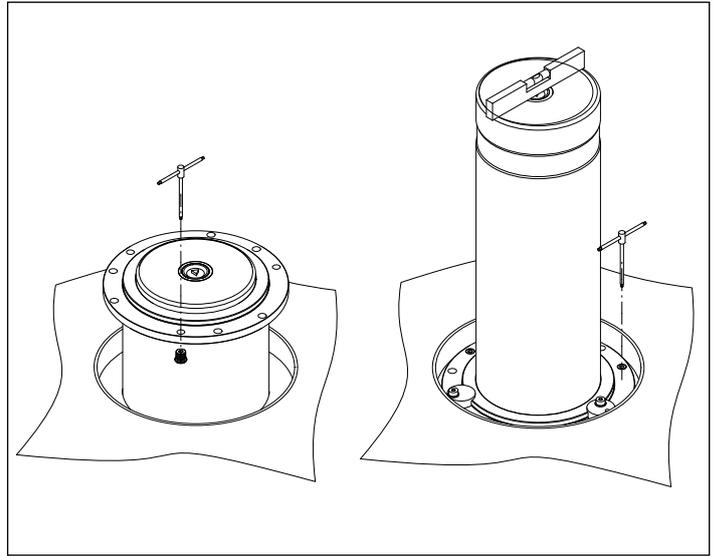
15 - After positioning the bollard inside the case, remove the lifting eye-bolts.

Position the blocks on the pipe guide ring. The blocks are necessary in order to lift the bollard without the treadable flange.

Connect the bollard to the control unit and then lift it electrically. Refer to instructions supplied with the control unit.

With the bollard completely lifted, adjust its level. Completing this adjustment with the bollard lifted makes it possible to verify, even visually, that the cylinder is perfectly vertical, a necessary condition for the automation to operate properly.

See figure alongside.

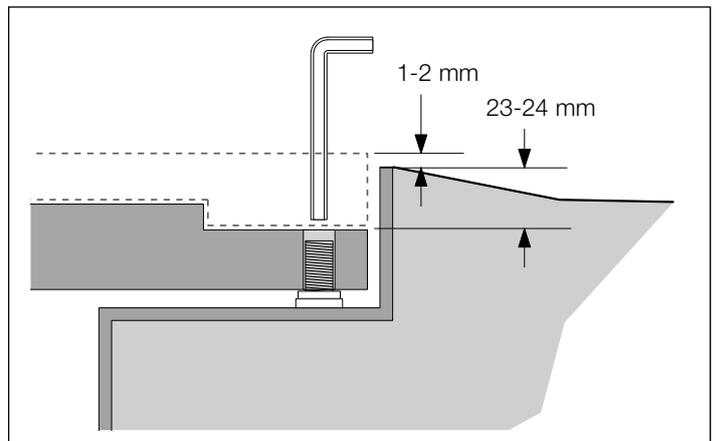


16 - Verify that the distance between the bollard flange and the upper edge of the case/flooring is equal to 23-24 mm.

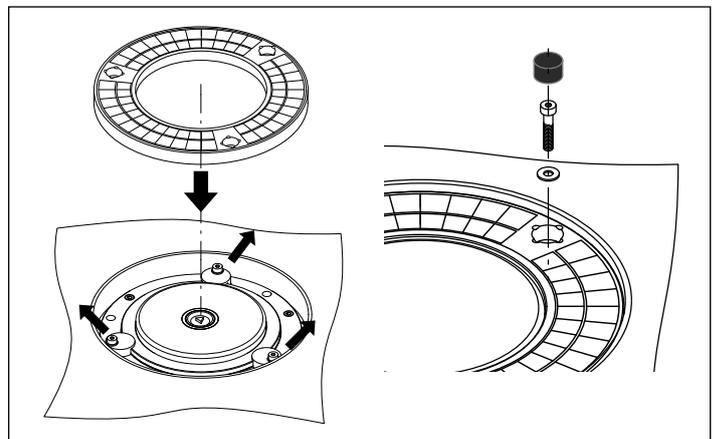
By respecting this distance the treadable flange will be slightly raised compared (1/2mm) to the flooring, limiting the amount of dirt that may infiltrate the inside of the bollard.

In an effort to reduce possible infiltrations, if the flooring allows it, plan on a slight slope around the foundation case.

See figures alongside.



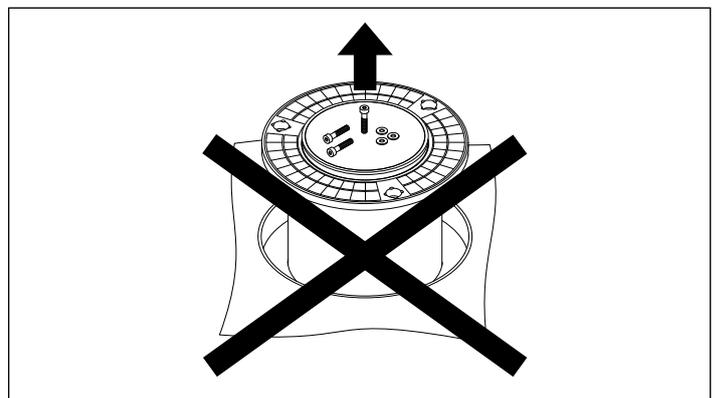
17 - With the treadable flange check the final level with respect to the external floor. If required, using the M16 stainless steel dowels, raise the level and adjust the level positioning. Insert the washers and the M10 hexagonal head screws. Cover the holes with the rubber caps provided. Carry out the electrical connection carefully following the diagram supplied with the control unit. See figures alongside.



ATTENTION - DANGER



**NEVER ACTIVATE THE RISING BOLLARD
BEFORE HAVING FIXED THE TREADABLE
FLANGE!**



18 - Emergency unlocking system.

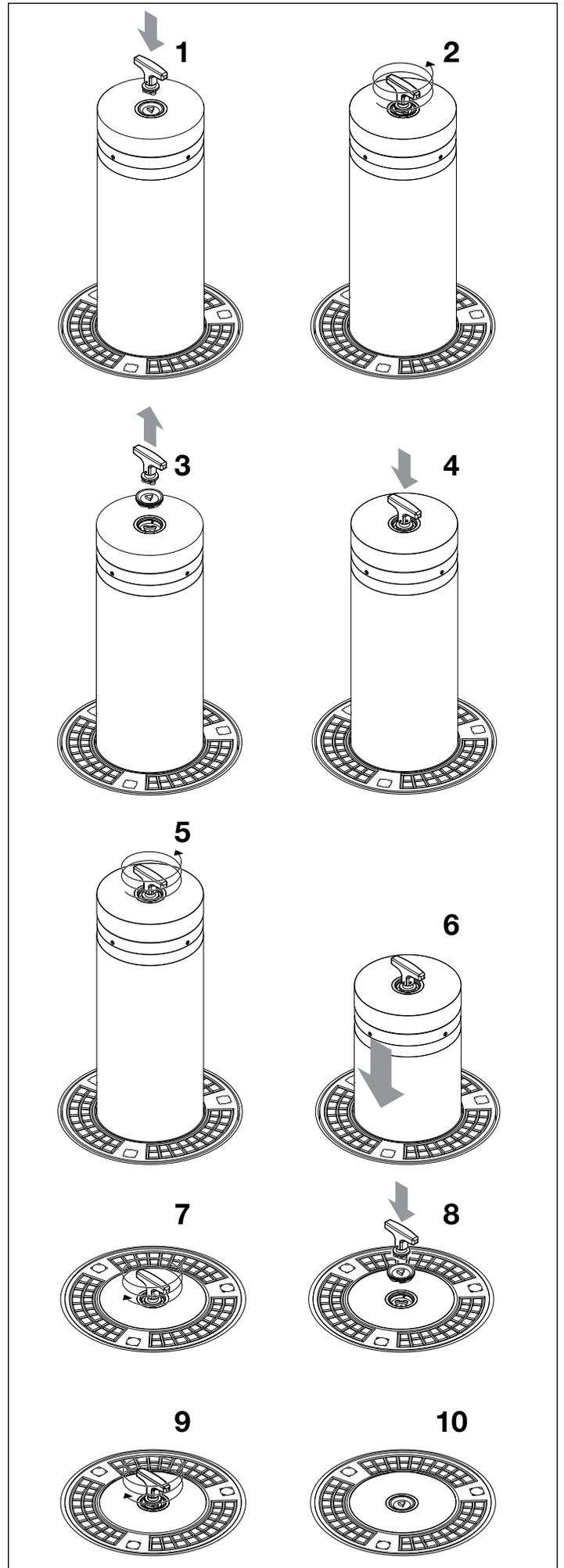
In case of power failure or emergency it is possible to lower the bollard by means of the special unlock key supplied with the bollard

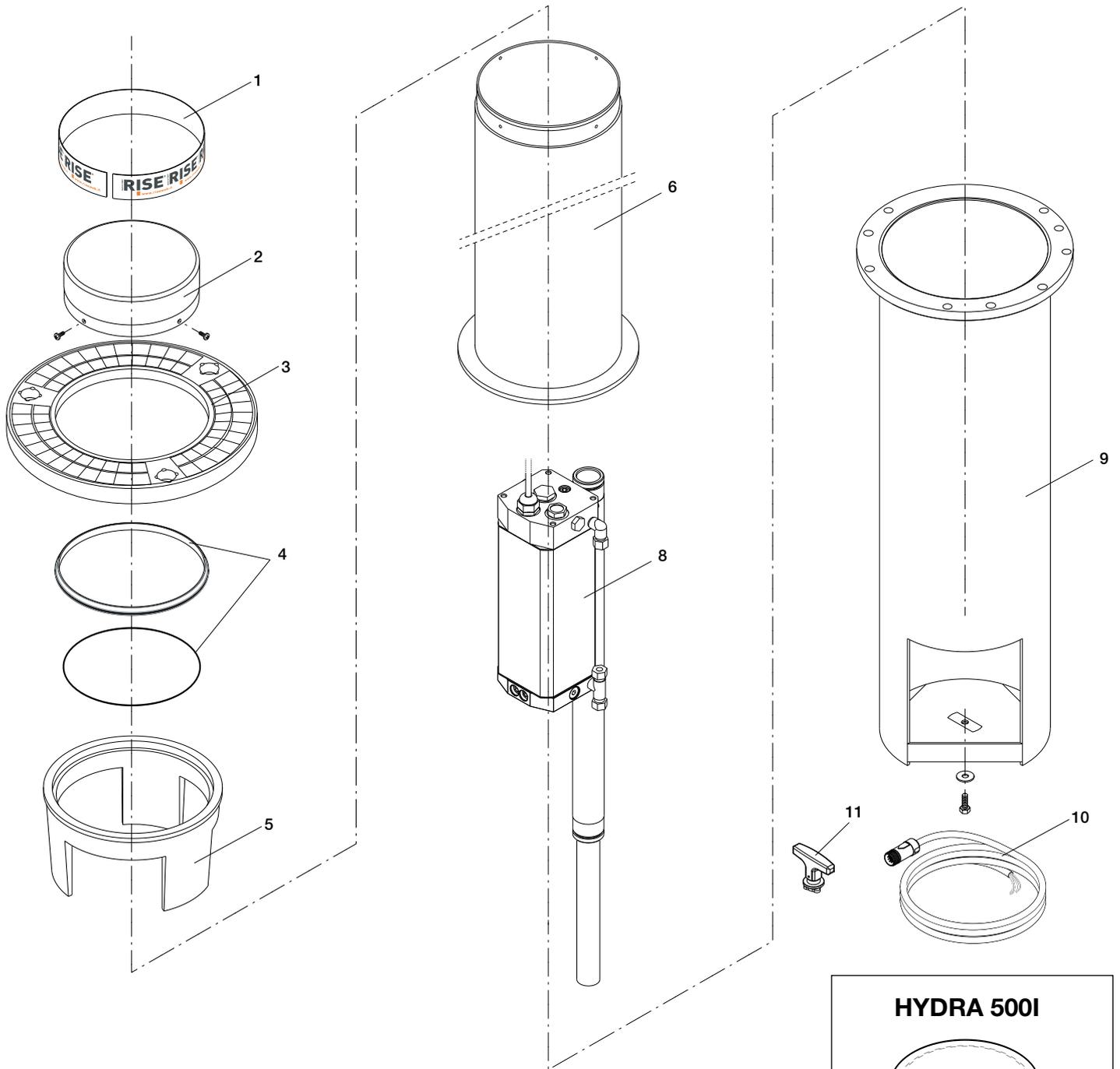
The unlock key has a double function, remove the covering plug and unlock the bollard

See figures alongside and proceed as indicated, in order to unlock the bollard:

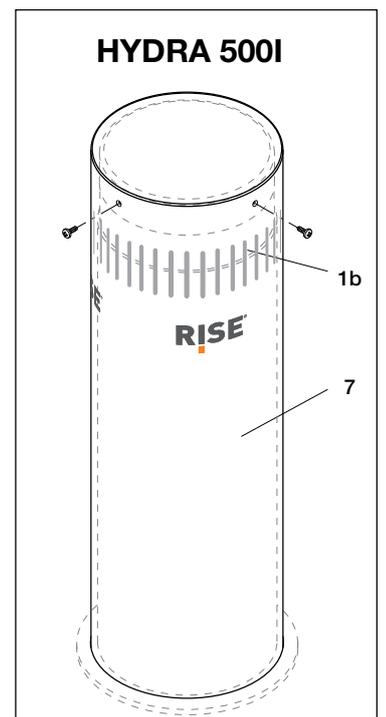
- Insert the unlock key in the plug (1), turn it anticlockwise (2) and remove the covering plug (3)
- Insert the key paying attention to the shape of the lobes (4), and turn the release pin anticlockwise by a few turns (5)
- After 2/3 turns of the key the bollard starts lowering (6). Let it lower completely, if necessary you can push it down.
- When the bollard is lowered completely, turn the unlock key clockwise (7)
- Put the covering plug (8) (9) turning the key clockwise (9), take out the unlock key (10)

The bollard is now fully lowered; when the main power returns, the bollard resumes normal operation.





HYDRA 500		
N.	Descrizione	Cod.
1	Retro reflector sticker	R9686001
1b	Retro reflector sticker (500l)	R9686038
2	Cylinder cover	R9686049
3	Treadable flange	R9686005
4	Flange gasket + O-ring	R9686006
5	Mechanical stop collar	R9686009
6	Mobile cylinder	R9686050
7	Inox jacket (500l)	R9686051
8	Integrated hydraulic control unit	R9686052
9	Fixed cylinder	R9686053
10	Connection cable with IP68 connector	R9686054
11	Unlock key	R9686055



SAFETY STANDARDS

ATTENTION:

Carefully read the instructions manual in all of its parts and keep it in a safe location for any future consultation. Not following the standards and warnings included in the present manual or an incorrect installation may damage persons or property.

- This product has been designed and manufactured exclusively for the use indicated in this documentation. Any non-conforming use may damage the product or be a source of danger for persons and/or property.
- Do not install the product in an explosive atmosphere: the presence of flammable gasses or vapours is a source a serious danger.
- Installation must be completed in observance of current standards.
- For installation in countries outside of the EEC, besides national reference regulations, the above mentioned standards and warnings must be obeyed in order to obtain a suitable level of safety.
- Verify that the system has been earthed according to Good Practice standards and the metal parts must be connected to it.
- For each system, a suitable sign is recommended.
- Do not stand in the movement area of the bollard.
- Do not leave packaging materials (plastic, polystyrene, wood ...) within reach of children because they may be a potential source of danger.
- Do not allow children to play with the commands or in proximity of the bollard.
- In the case of functioning anomalies do not attempt to repair the fault but contact a specialised technician. Only use original RISE Srl accessories.
- Do not modify any components that are part of the RISE system. Any modification, alterations or tampering with the RISE system, or the use of non original RISE accessories, will cause the product warranty to lapse and RISE Srl declines any responsibility with regards to safety and proper system operation.
- The installer must provide the user with all information necessary for system use and maintenance along with manual and emergency manoeuvres. He must deliver them and the user must request the booklet containing warnings and use and maintenance standards.
- The bollard must be completely lowered before transiting through the controlled passage area.
- **Anything that is not specifically planned for in these instructions is not allowed.**

ATTENTION: PRECAUTIONS FOR USE

In case of flooding or significant precipitation that causes obvious drainage problems, avoid using the bollard until normal conditions have been restored.

MANUAL EMERGENCY MANOEUVRE

In case of power failure or malfunction it is possible to unlock the bollard by means of the special key supplied with the bollard (see the description of the unlock system in the next pages).

The accessory HY.VA for automatic lowering in case of power failure is available.

MAINTENANCE

- Absolutely avoid attempting to carry out repairs: you could cause accidents; for such operations call a specialised technician. Maintenance to bollards, control units and the entire system must be completed exclusively by specialised technical personnel. The RISE bollards do not require any special maintenance, periodically checking that the area around the bollard is sufficiently clean and, as needed, the gaskets at the base of the bollard should be replaced. Programmed routine controls of the entire system are recommended only in cases of intense product use in order to ensure correct operation and long product life. For other instructions regarding product maintenance consult the technical manuals supplied with the bollards and control units.

DISPOSAL

If the bollard is withdrawn from service, the current laws and regulations in force concerning the separate waste disposal and the recycling of the various components (metals, plastics, electric cables etc.) must be respected; it is advisable to contact your installer or a specialised company, authorised for the purpose.

ATTENTION

All RISE products are covered by an insurance policy that answers for any damage to things or persons caused by manufacturing defects.