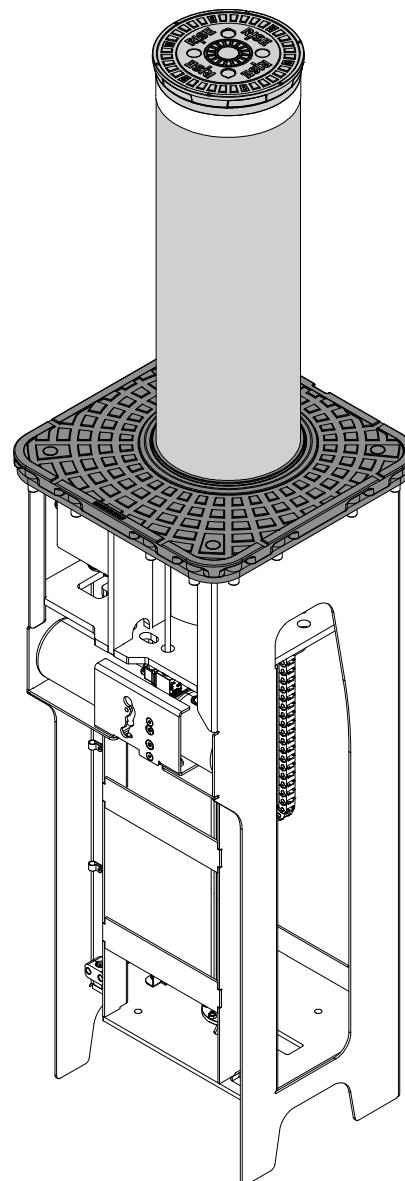




## MAXIMUM M30



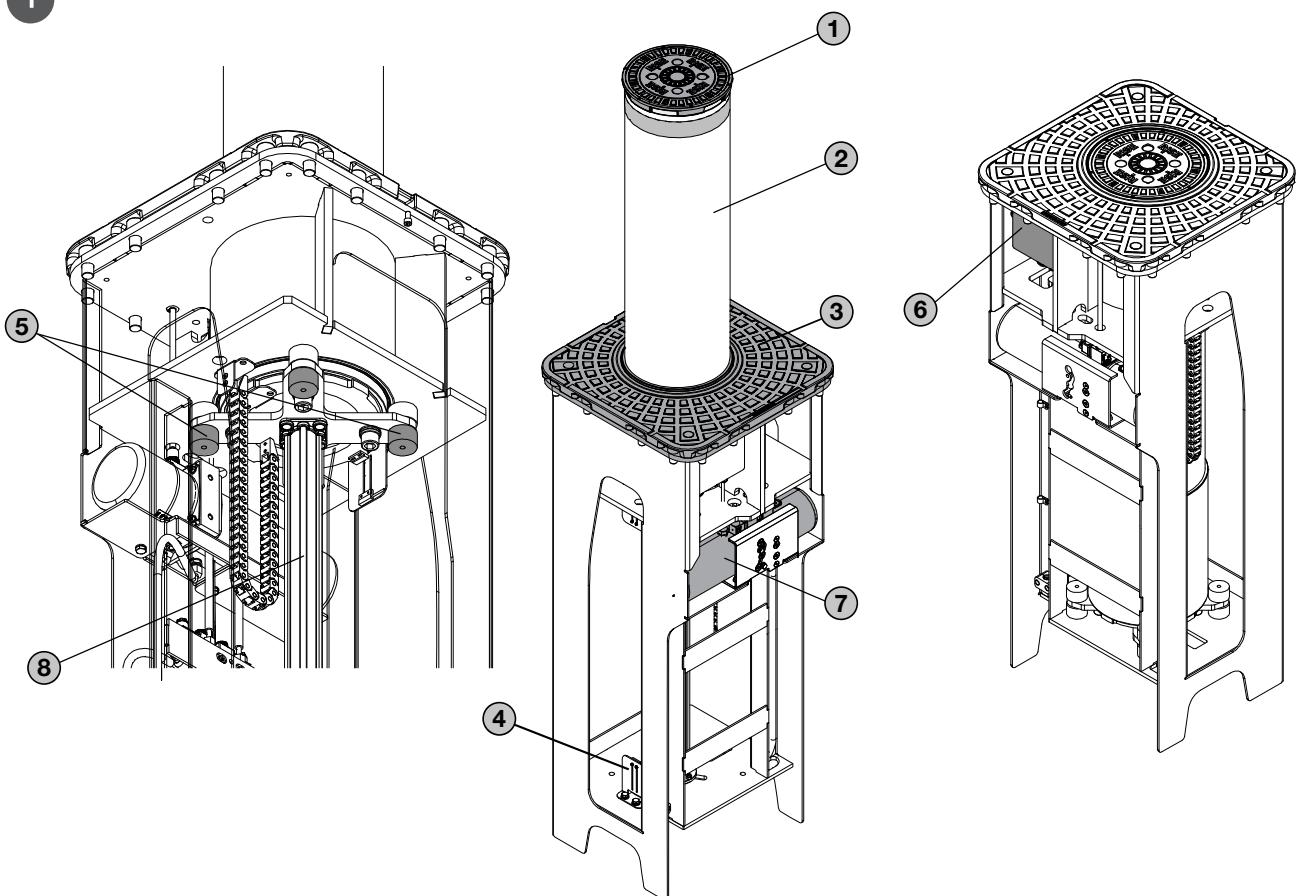
**Manuale di installazione**  
**Installation manual**

**I** Dissuasore idraulico automatico anti terrorismo  
**GB** Automatic anti-terrorism hydraulic bollard

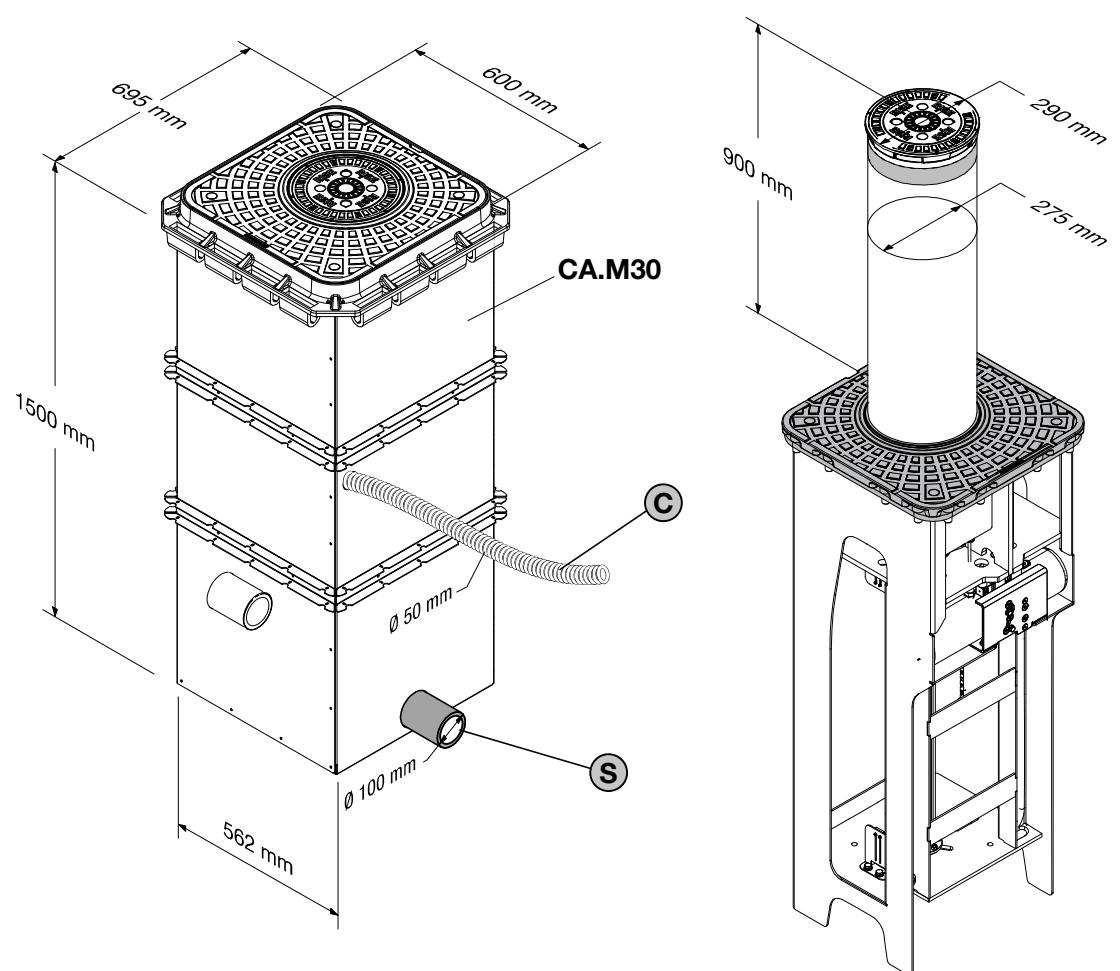
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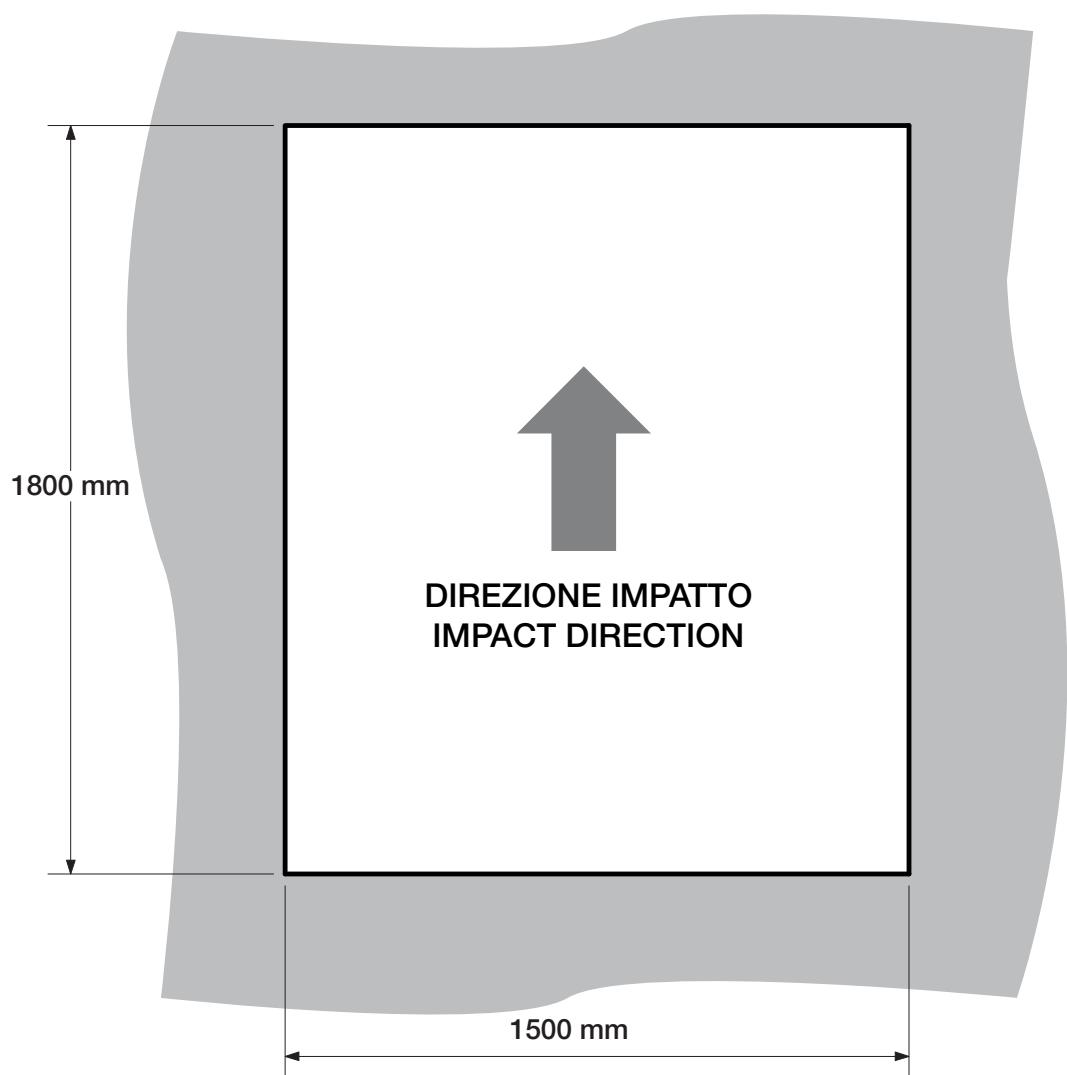
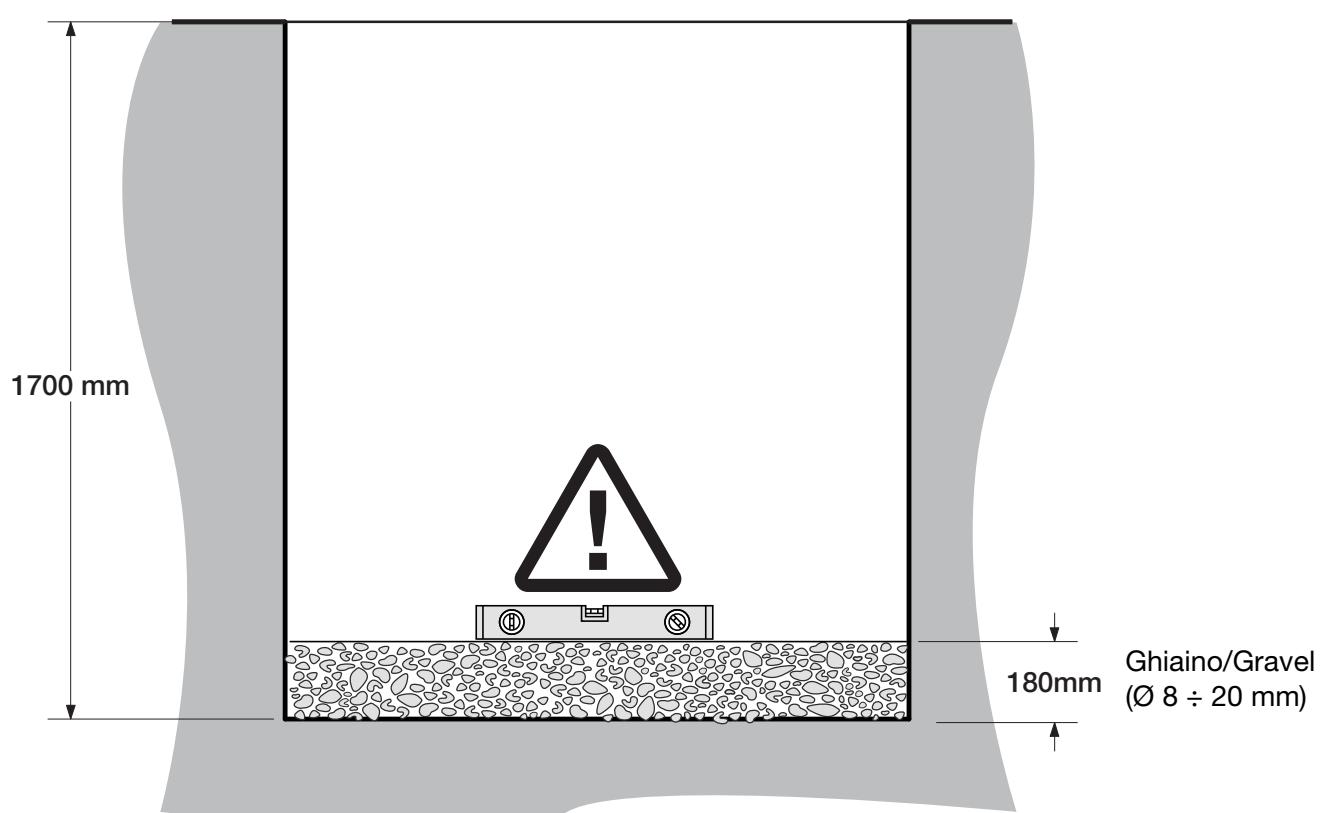


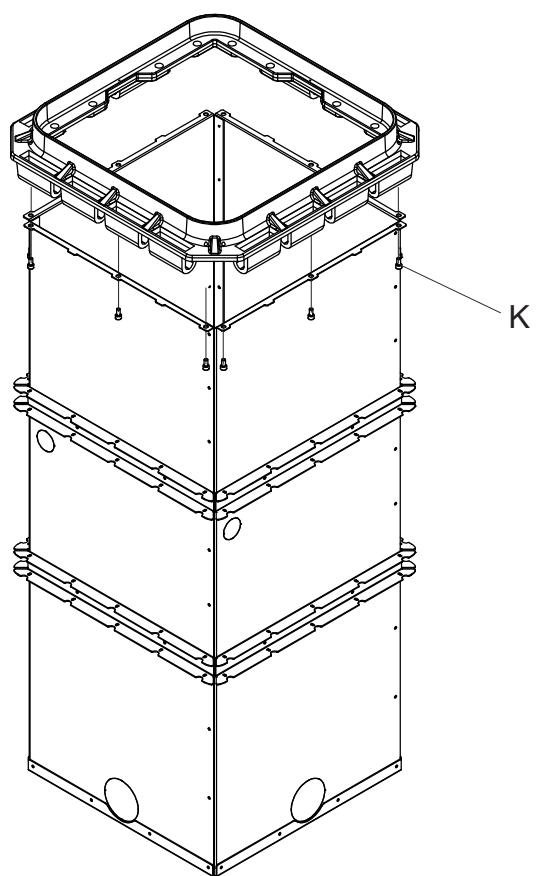
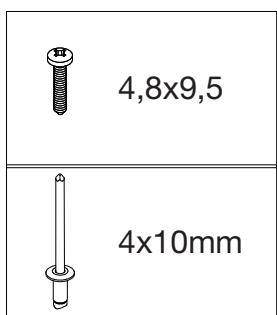
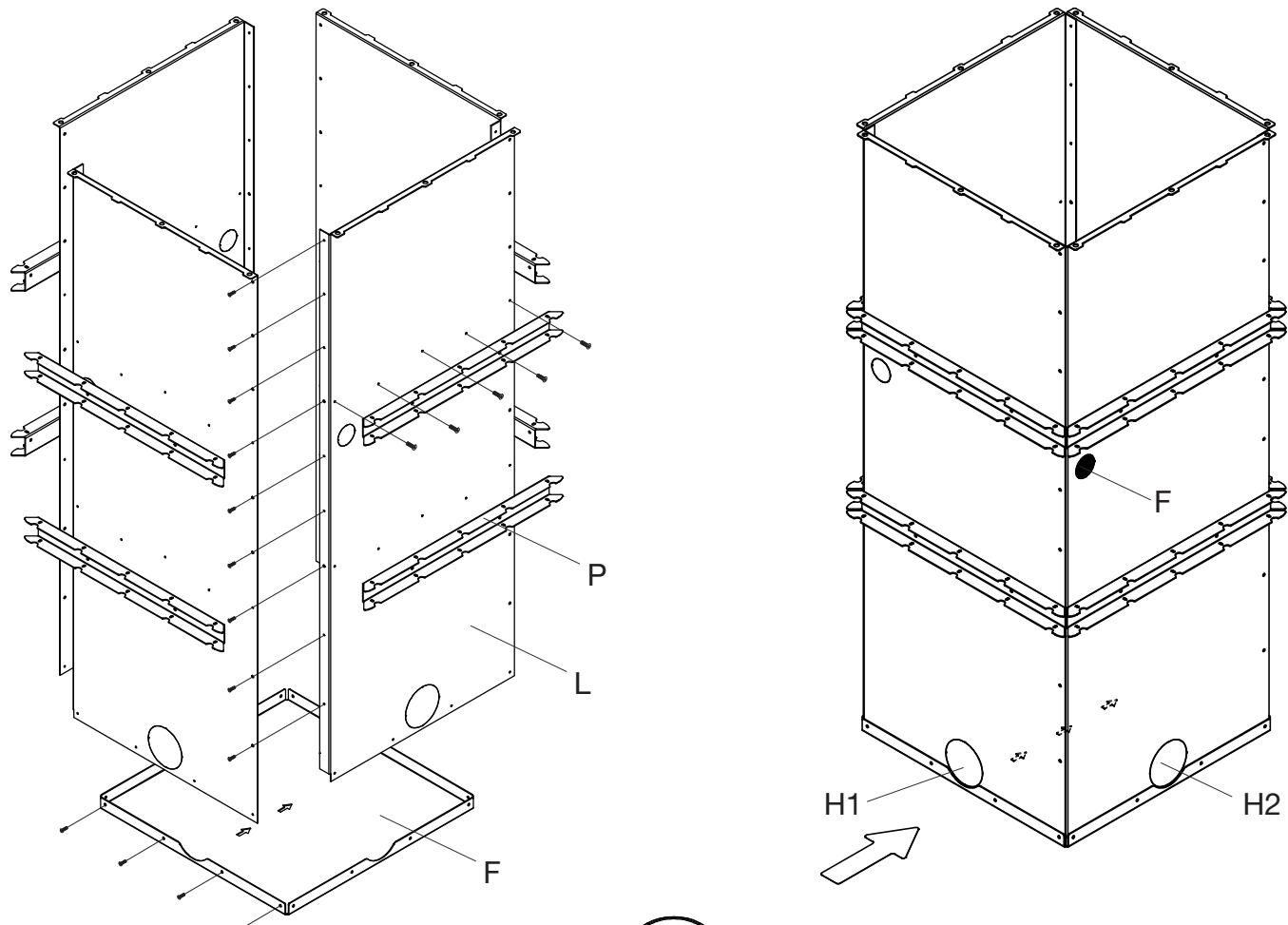
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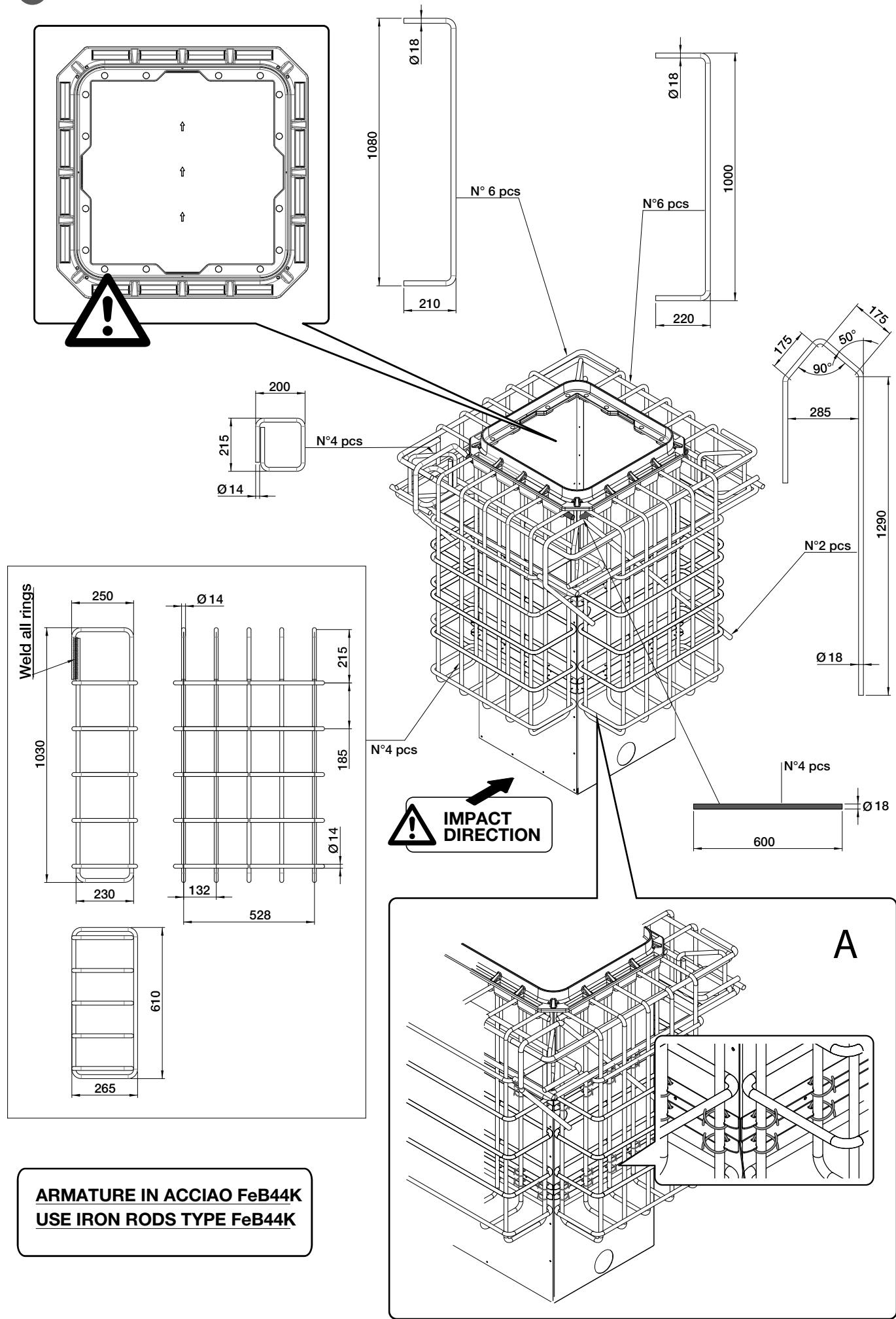


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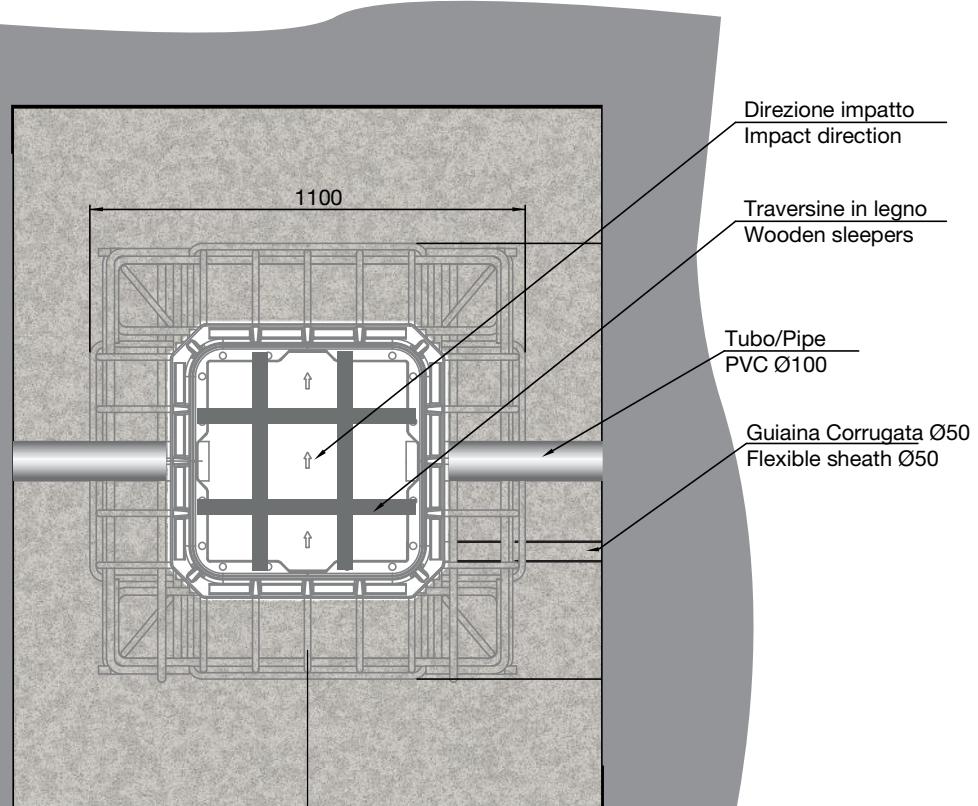
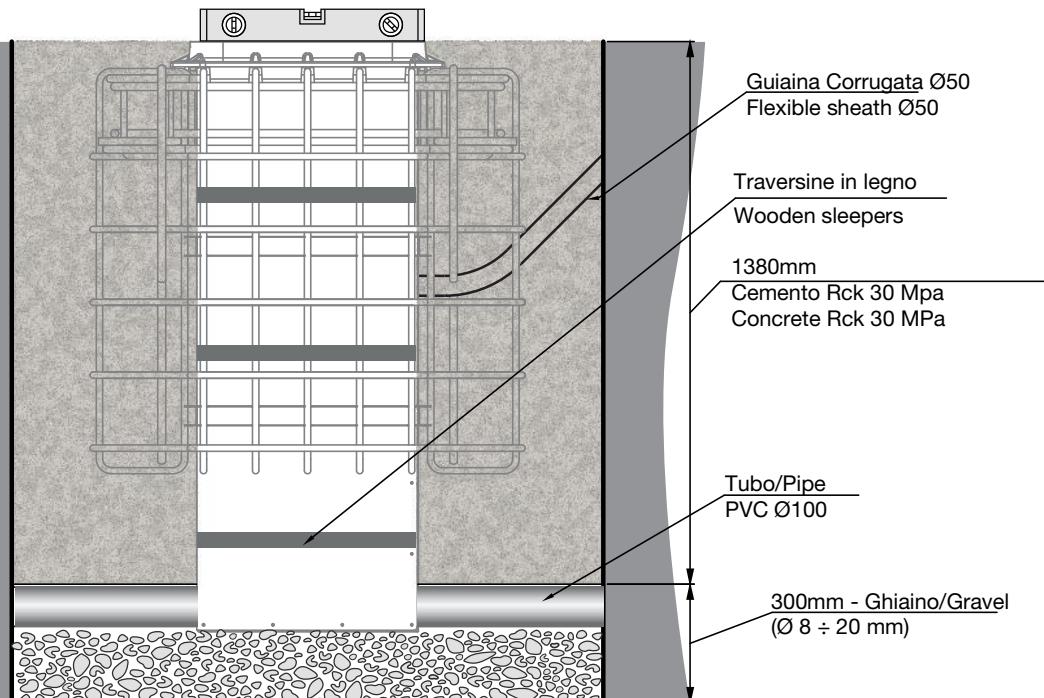


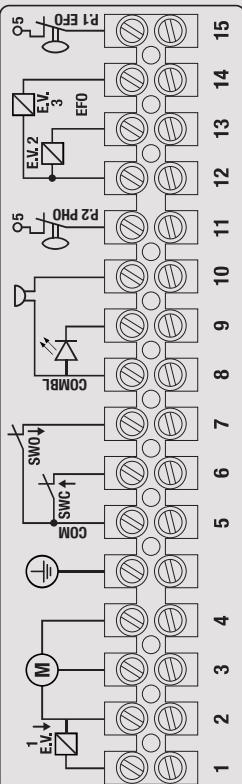
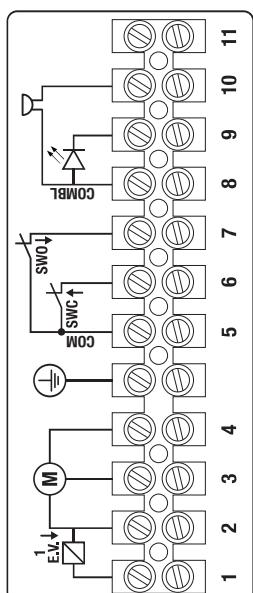
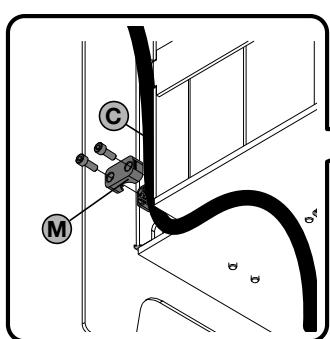
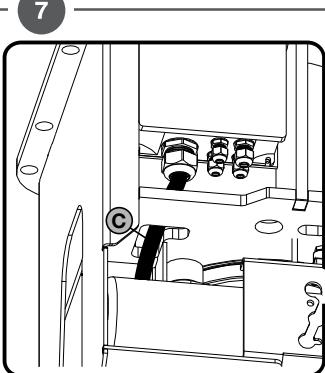




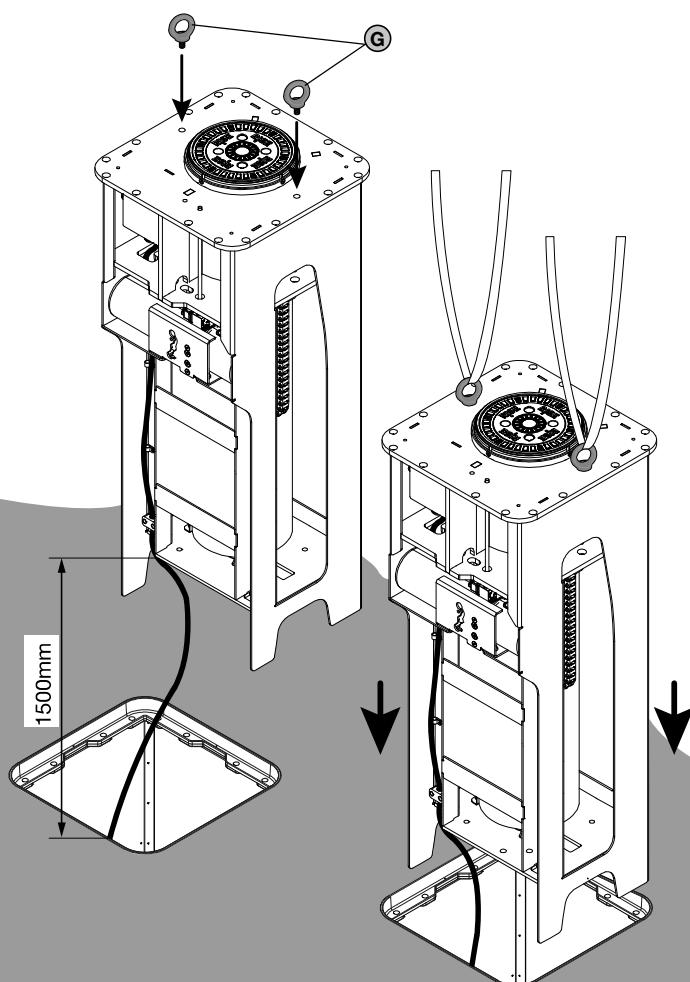


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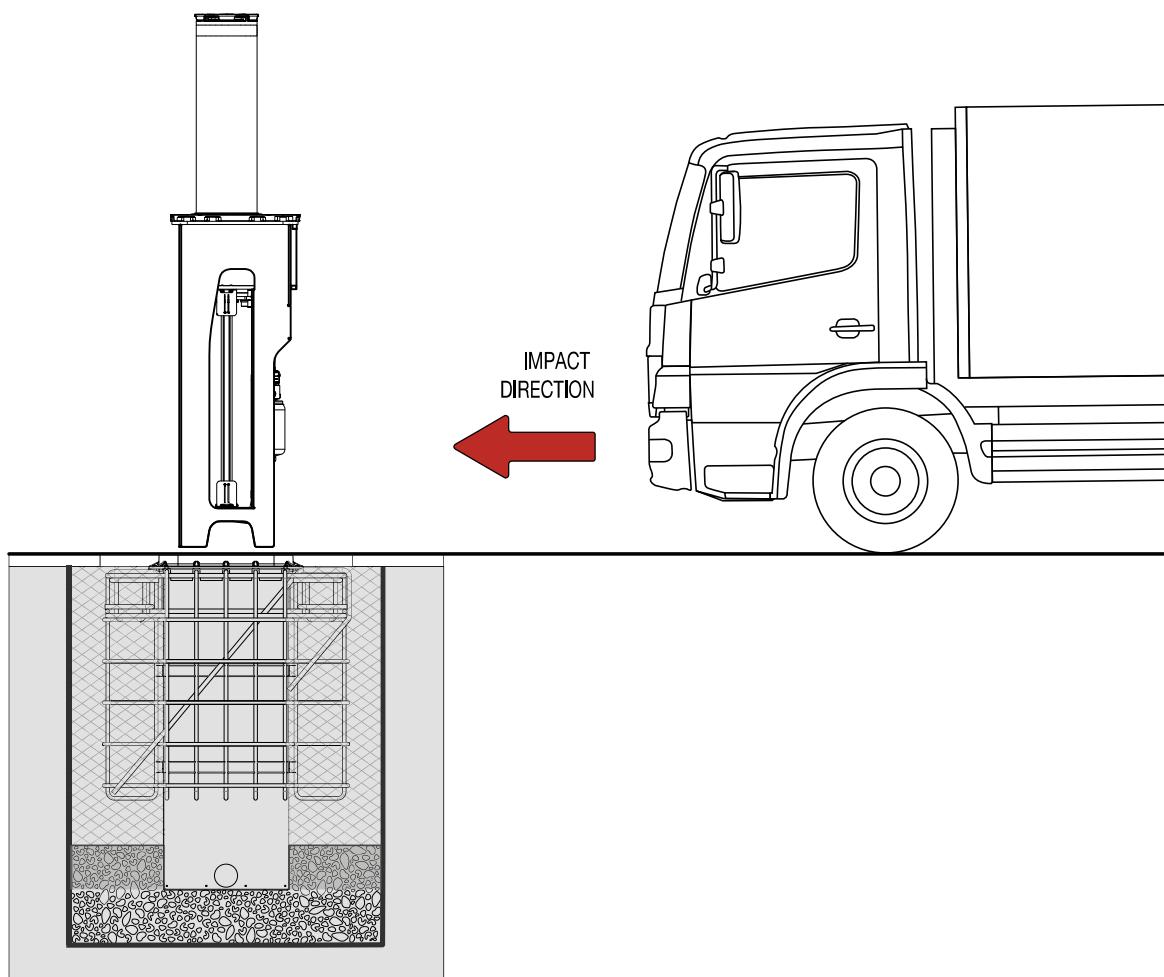




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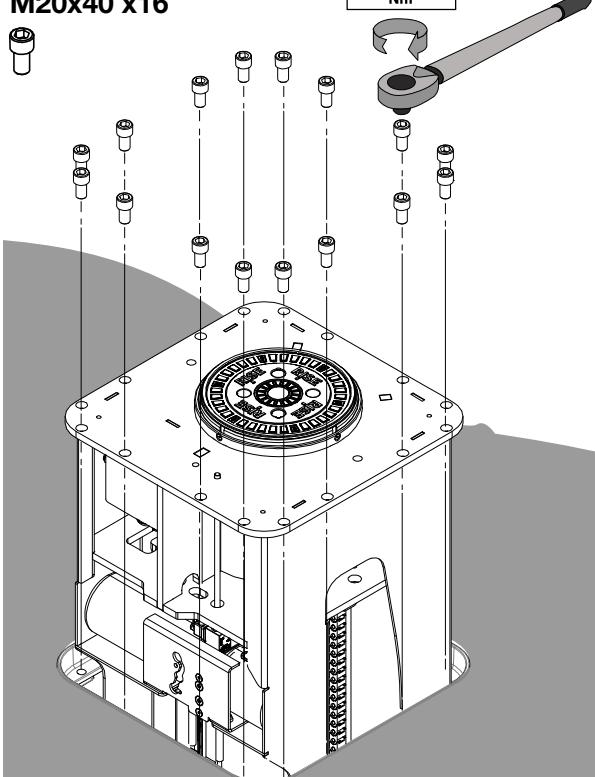
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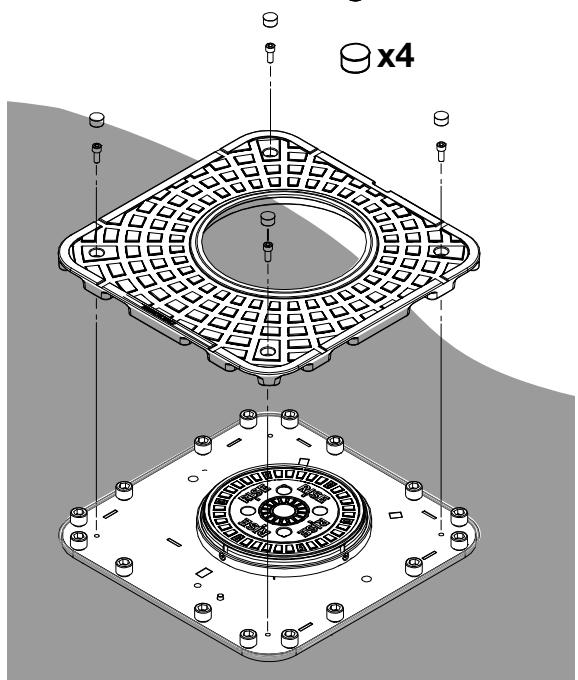
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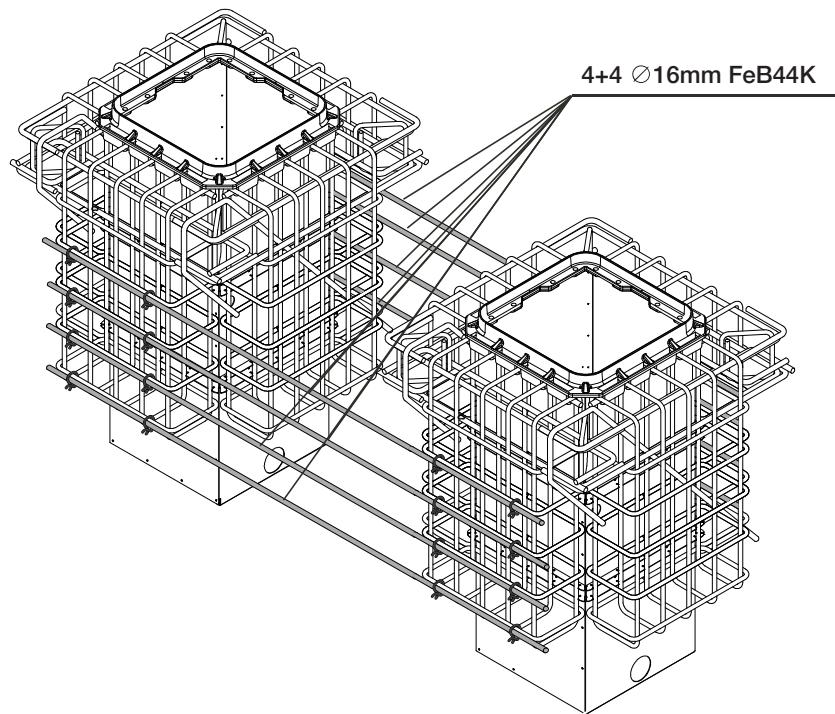
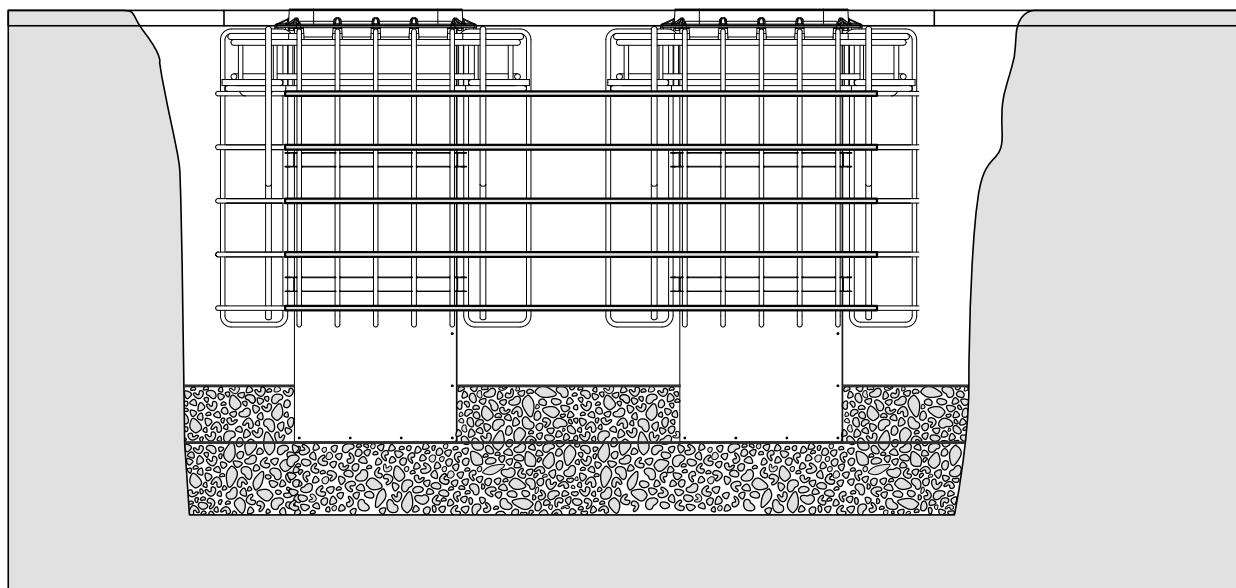
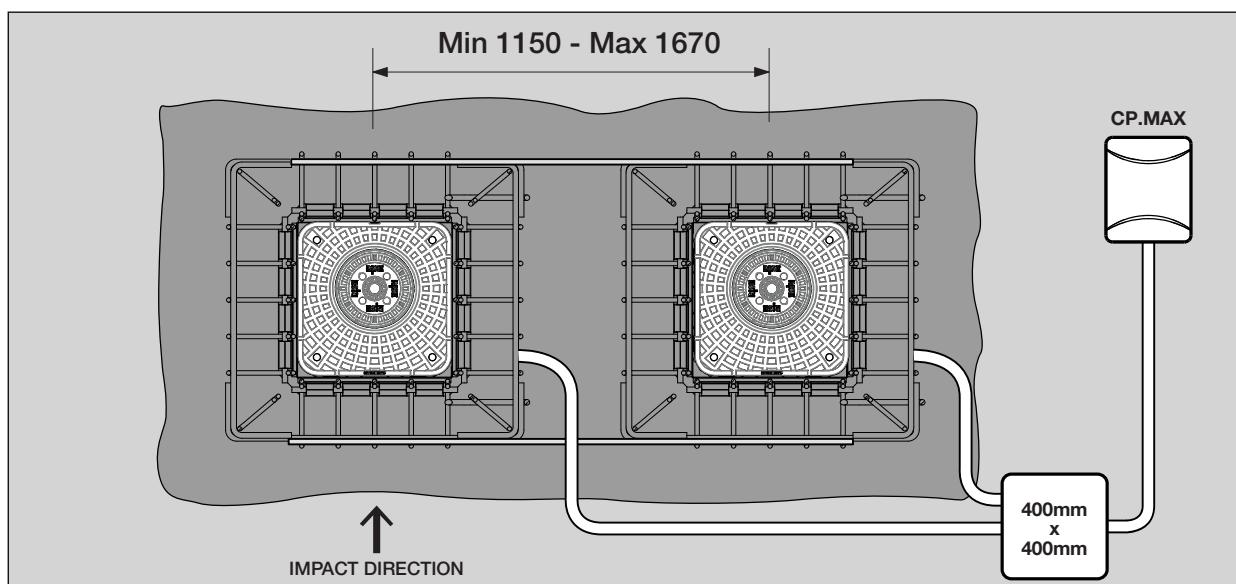
**M20x40 x16**

220  
**200**  
 Nm

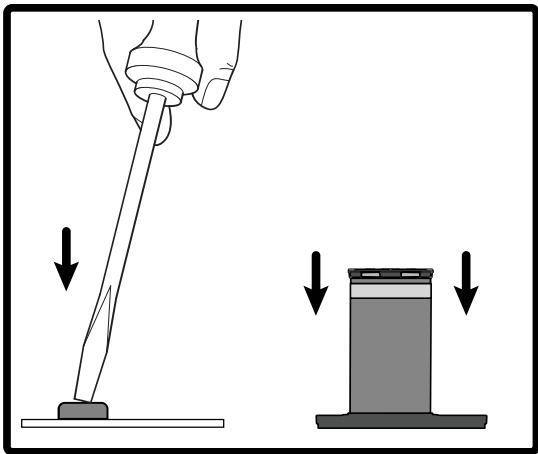
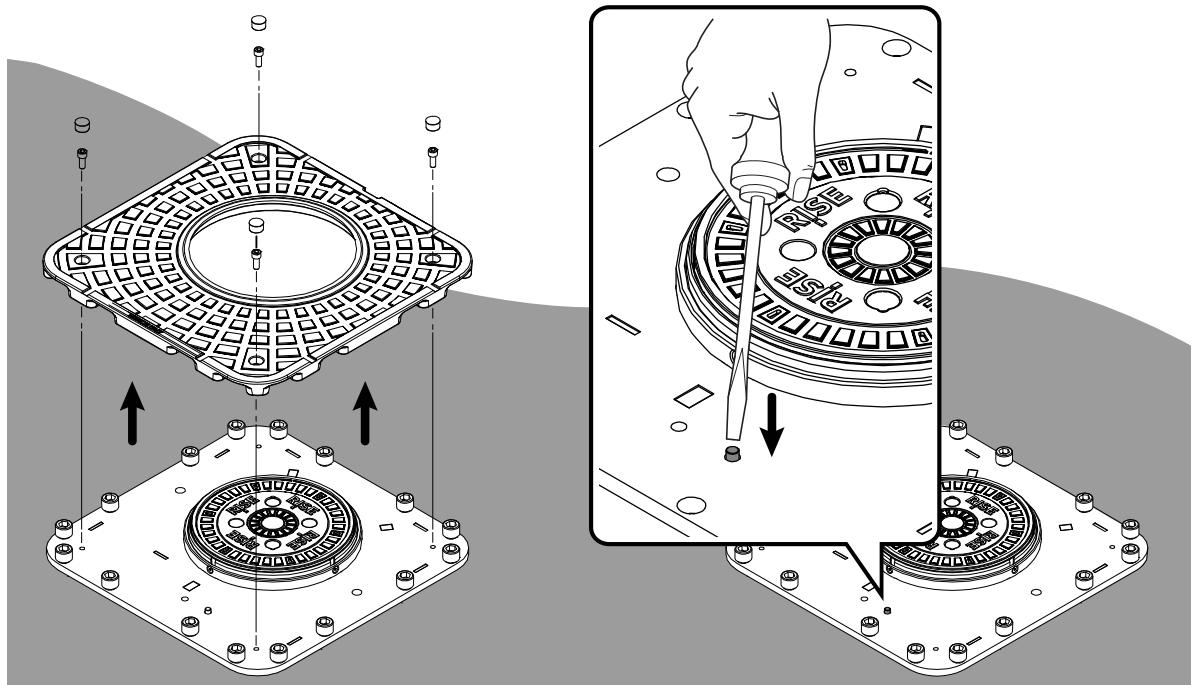


12

**M10x25 x4****x4**

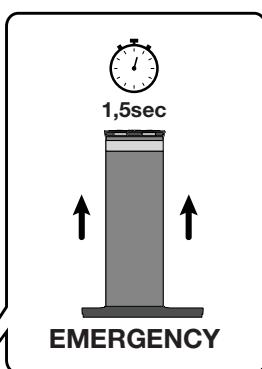
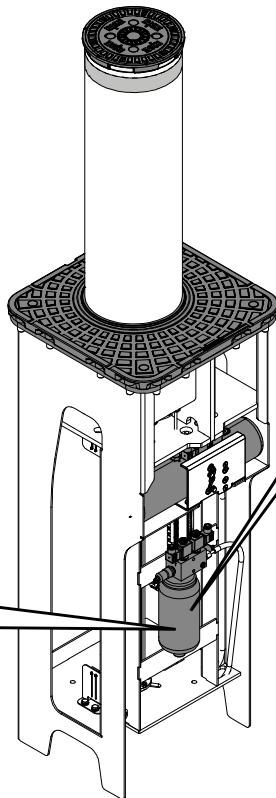
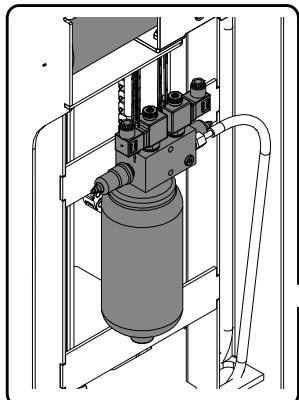


14



15

**EFO**  
Emergency Fast Operation  
(MAX M30 EFO /  
MAX M30 EFO-I)



## 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 of 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.

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.

### 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.

TECHNICAL DATA	MODELS						
	MAX M30	MAX M30 - I	MAX M30 EFO	MAX M30 EFO - I			
Cylinder height	900 mm						
Cylinder diameter	275 mm						
Cylinder material	Acciaio S355JR EN 10210	Acciaio INOX AISI 316	Acciaio S355JR EN 10210	Acciaio INOX AISI 316			
Ascent time	4.5 seconds						
Descent speed	4.5 seconds						
Supply	230V 50Hz (versions with special power supply on request)						
Power consumption	1000W						
Hydraulics	integrated						
Load class according to EN 124	D400 (40 tons)						
Manual lowering in case of blackout	Manual release under the box cover						
Automatic lowering in case of blackout	Optional						
Obstacle detection in ascent	Optional						
Capacitor	31,5 µF	50 µF					
Emergency ascent (Efo Emergency fast operation)	NO	SI					
Emergency ascent time	4,5 seconds	1,5 seconds					
Daily cycles	3500						
Total cycles	3000000						
Certifications	IWA 14-1:2013 V/7200 [N3C] /48/90: -0.8 PAS68:2013 V/7500 [N3] /48/90: -0.5 ASTM F2656 Rating C730/7200 - P1 (-0.8)						
Resistance to breakthrough	250,000 J						
Impact resistance	850,000 J						
Operating temperature	-40°C ÷ +60°C for temperatures below -10°C (the optional heater accessory must be used)						
Degree of protection	IP67						
Weight (without foundation box)	340 kg	350 kg	348 kg	358 kg			

### General information

Automatic anti-terrorism hydraulic bollard with certifications:

- IWA 14-1:2013 V/7200 [N3C] /48/90: -0.8
- PAS68:2013 V/7500 [N3] /48/90: -0.5
- ASTM F2656 Rating C730/7200 - P1 (-0.8)

Available with a painted steel tube or lined with an electropolished AISI 316 stainless steel jacket, and in an EFO (Emergency Fast Operation) version that allows a rapid ascent time of 1.5s.

Optional accessories include a buzzer and heater for particularly cold climates

The MAX.CP control unit enables the management of two MAXIMUM M30 bollards for the protection of particularly large entrances.

### Description

Figure 1 shows the main parts of the automation:

- 1 Head with flashing LED
- 2 275 mm diameter cylinder
- 3 Box cover
- 4 Adjustable magnetic limit switch sensor
- 5 Stop buffers
- 6 Electrical connection junction box
- 7 Hydraulic power unit
- 8 Hydraulic cylinder

### Dimensions

Figure 2 shows the main overall dimensions, foundation box included.

There are 3 openings in the foundation box:

1 Hole for 50 mm corrugated sheath for the passage of connection cables (ref. C)

2 Holes for water drainage, use a 100mm diameter PVC pipe (ref. S). The pipe can be connected to a water drainage system in case the drainage of the foundation is not sufficient (See "Drainage test").

### Preparation of the excavation

Referring to Figure 3, prepare an excavation of 1800x1500 mm with a depth of 1700 mm.

The excavation must be rectangular **with the side 1800 mm in the intended impact direction**.

Prepare a gravel bed of 180 mm, we recommend gravel with a grain size of 8/20 for good drainage.

Make sure that the gravel is well compacted.

**Pay attention to the dimensions and levelling of the foundation.**

### Drainage test

Before inserting the foundation box in the excavation, carry out the test described below, which is **INDISPENSABLE** for assessing the level of permeability of the soil and taking the most suitable measures to ensure that water does not stagnate in the excavation but is absorbed as quickly as possible.

Pour 40 litres of water into the excavation and wait 25 minutes. If the water takes longer than 25 minutes to be absorbed, despite the drainage system, it will be necessary to lay pipes to channel the water into a tank and, if necessary, to pump it out using an electric pump.

#### **Foundation box assembly.**

Assemble the CA.M30 foundation box referring to Fig. 4. Fasten the individual parts (bottom F, sides L and profiles P), using the self-tapping screws 4.8x9.5 supplied.

Alternatively, 4x10 mm Ø rivets can be used, which are also supplied.

Open the 50 mm Ø hole for the passage of the corrugated cable duct.

Only open the highlighted hole (F) which refers to the direction of impact of the casing.

Also open the most appropriate drainage holes (H1/H2).

Then fix frame K to the case using the 12 M8x13 screws supplied.

#### **Foundation cage.**

Figure 5 shows the foundation cage in all its individual parts.

Strict adherence to the quantities, dimensions and cross-sections indicated must be ensured, if necessary using personnel qualified in reinforced concrete foundations.

The foundation cage must be adequately fastened to the CA.M30 casing using the holes provided in the casing and highlighted in detail "A" of Fig.5.

#### **Laying the foundation box**

Proceed with the insertion of the foundation box (Fig. 6) inside the excavation, checking that:

- the positioning dimension is correct
- the crate is perfectly horizontal (use a level)
- the expected direction of impact is correct.

Prepare the passage of the 50mm Ø corrugated sheath for the passage of the connection cable to the control unit.

Even if the drainage test is unsuccessful, provide a 100mm Ø drainage pipe for draining the box onto the foundation gravel.

Place an additional layer of gravel of another 120mm until the drainage pipes are covered.

In order to avoid possible deformations of the CA.M30 box due to the pressure of the casting, it is advisable to insert 550 mm long wooden sleepers (approx. 50x50 mm section) as indicated in Figure 6 (ref. -L), which must be removed once the casting has been strengthened.

Proceed with casting the concrete in the excavation, using concrete Rck 30 Mpa.

The concrete must be properly compacted, taking into account the possible thickness of the pavement in the casting level.

Wait a few days for the concrete to set before installing the bollard in the foundation box, protecting the box with a waterproof sheet in the meantime.

#### **Electrical connections.**

With reference to figure 7, prepare the electrical connections using a 16x1.5mm<sup>2</sup> multipolar cable for all models.

#### **Only use cables that are suitable for the type of use required by the installation and that comply with current local regulations.**

Secure the cable with clamp M at the base of the bollard.

Inside the junction box B there is a terminal board (Fig.8) for connecting the bollard to the MAX.CP control unit.

The terminal block is different depending on the bollard version:

- 16 terminals for the version equipped with EFO
- 11 terminals for the version equipped with EFO

For further information, refer to the instructions supplied with the MAX.CP control unit.

#### **Installation of the bollard.**

As shown in figure 9, to allow the bollard to be inserted inside its foundation box, it is necessary to provide at least 1.5m of extra connecting cable (ref. C) from the base of the bollard to the beginning of the foundation box.

Use the two G eyebolts supplied to lift the bollard and install it inside the foundation box, paying attention to the cable as it descends. Figure 10 shows the insertion position of the bollard in the foundation box in relation to the intended direction of impact.

Secure the bollard to the foundation box using the 16 M20x40 stainless steel screws using a torque spanner set to 200 Nm, as shown in Figure 11.

Fasten the box cover to the bollard by means of the 4 M10x25 screws and their caps as shown in figure 12.

#### **Installation of two bollards**

In the case of particularly large gates, it is possible to install two or more bollards as shown in figure 13.

The MAX.CP control unit is able to pilot two M30 bollards.

In this type of installation it is important to connect the single foundation cages together using 8 FeB 44K 16 diameter bars, as shown in figure 13.

We recommend maintaining a minimum distance between the bollards of 1150mm and a maximum distance of 1670mm.

#### **Emergency manual release**

If necessary, the bollard can be lowered manually to allow vehicles to pass.

For safety reasons, the manual release system is placed under the cover of the bollard, which must therefore be removed by removing the 4 cover caps and the 4 M10x25 screws.

Turn the highlighted bolt using a screwdriver or another similar tool, the bollard will start to descend, if necessary it is possible to exert pressure on the cylinder to facilitate the descent.

The unlocking system does not require a reset.



## Dichiarazione di Conformità UE (DoC)

Nome del produttore: **Rise S.r.l**

Indirizzo: **Via della Tecnica, 10 - 36010 Velo d'Astico (VI) - Italia**

Telefono: **+39 0444 751401**

Indirizzo e-mail: **info@riseweb.it**

*Dichiara che il documento è rilasciato sotto la propria responsabilità e appartiene al seguente prodotto:*

**Tipo di prodotto: Dissuasore antiterrorismo**

**Modello/Tipo: MAXIMUM M30**

*Il prodotto sopraindicato risulta conforme alle disposizioni imposte dalle seguenti direttive:*

**Direttiva 2014/30/EU**

**Direttiva 2011/65/EU**

**Direttiva 2014/35/EU**

*Sono state applicate le norme armonizzate e le specifiche tecniche descritte di seguito:*

**EN 61000-6-2:2005, EN 61000-6-3:2007 + A1:2011**

**EN 60335-1:2012 + A11:2014; EN 60335-2-103:2015**

*Il Certificato di Conformità di questo documento corrisponde all'ultima revisione disponibile al momento della stampa e può risultare differente per esigenze editoriali dall'originale disponibile presso il produttore.*

Benincà Luigi, Responsabile legale.

Velo d'Astico, 16/02/2021.



## EU Declaration of Conformity (DOC)

Manufacturer's name: **Rise S.r.l**

Postal Address: **Via della Tecnica, 10 - 36010 Velo d'Astico (VI) - Italia**

Telephone number: **+39 0444 751401**

E-mail address **info@riseweb.it**

*Declare that the DOC is issued under our sole responsibility and belongs to the following product:*

**Model/Product: Anti-terrorism bollard**

**Type: MAXIMUM M30**

*The object of the declaration described above is in conformity with the relevant Union harmonization legislation:*

**Directive 2014/30/EU**

**Directive 2011/65/EU**

**Directive 2014/35/EU**

*The following harmonized standards and technical specifications have been applied:*

**EN 61000-6-2:2005, EN 61000-6-3:2007 + A1:2011**

**EN 60335-1:2012 + A11:2014; EN 60335-2-103:2015**

*The Certificate of Conformity in this document corresponds to the latest revision available at the time of printing and may differ for editorial reasons from the original available from the manufacturer.*

Benincà Luigi, Responsabile legale.

Velo d'Astico, 16/02/2021.







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[www.riseweb.it](http://www.riseweb.it) - [info@riseweb.it](mailto:info@riseweb.it)