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INSTALLATION BLINDO



INFORMATION:

Customer:

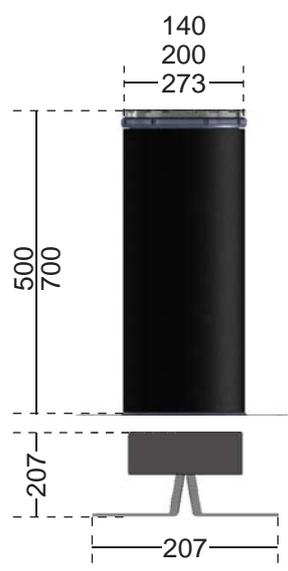
Installing Company:

Timbre&Signature

CAREFULLY READ THE MANUAL BEFORE USE



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TYPE OF BOLLARD	COD.	BLINDO300/12	BLINDO300/4	BLINDO300/4 I
HEIGHT OF CYLINDER	mm	500 / 700	500 / 700	500 / 700
THICKNESS OF FIXED CYLINDER	mm	12,5	4	4
DIAMETER OF FIXED CYLINDER	mm	273	273	273
TYPE MATERIAL OF CYLINDER		FE 510	FE 360	INOX304
FINISHING OF CYLINDER		POLYESTER PAINT		
TREATMENT OF CYLINDER		HOT GALVANIZED		SATIN
REFLECTIVE ADHESIVE STRIPE		•	•	•
RESISTANCE TO BREAKING	J	337.000	157.000	175.000
RESISTANCE TO DEFORMATION (JOULE)	J	18.000	8.000	8.000
TOTAL WEIGHT OF BOLLARD H500 (ALUMINIUM HEAD)	KG	61	22	26
TOTAL WEIGHT OF BOLLARD H700 (ALUMINIUM HEAD)	KG	78	29	34

BLINDO 300 H500	COD.	0342641	0341641	0341741
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REMOVABLE BOLLARD FIXED ON THE GROUND THROUGH BURIED FORMWORK, ALUMINIUM HEAD

BLINDO 300 H700	COD.	0342651	0341651	0341751
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REMOVABLE BOLLARD FIXED ON THE GROUND THROUGH BURIED FORMWORK, ALUMINIUM HEAD

TYPE OF BOLLARD	COD.	BLINDO200/12	BLINDO200/4	BLINDO200/4 I
HEIGHT OF CYLINDER	MM	500 / 700	500 / 700	500 / 700
THICKNESS OF FIXED CYLINDER	MM	12,5	4	4
DIAMETER OF FIXED CYLINDER	MM	200	200	206
TYPE MATERIAL OF CYLINDER		FE 510	FE 360	INOX304
FINISHING OF CYLINDER		POLYESTER PAINT		
TREATMENT OF CYLINDER		HOT GALVANIZED		SATIN
REFLECTIVE ADHESIVE STRIPE		•	•	•
RESISTANCE TO BREAKING	J	169.000	72.000	150.000
RESISTANCE TO DEFORMATION (JOULE)	J	10.000	3.000	9.000
TOTAL WEIGHT OF BOLLARD H500 (ALUMINIUM HEAD)	KG	35	14	19
TOTAL WEIGHT OF BOLLARD H700 (ALUMINIUM HEAD)	KG	51	19	24

BLINDO 300 H500	COD.	0342621	0341621	0341721
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REMOVABLE BOLLARD FIXED ON THE GROUND THROUGH BURIED FORMWORK, ALUMINIUM HEAD

BLINDO 300 H700	COD.	0342631	0341631	0341731
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REMOVABLE BOLLARD FIXED ON THE GROUND THROUGH BURIED FORMWORK, ALUMINIUM HEAD

TYPE OF BOLLARD	COD.	BLINDO140/12	BLINDO140/4	BLINDO140/4 I
HEIGHT OF CYLINDER	MM	500 / 700	500 / 700	500 / 700
THICKNESS OF FIXED CYLINDER	MM	12,5	4	4
DIAMETER OF FIXED CYLINDER	MM	140	140	140
TYPE MATERIAL OF CYLINDER		FE 510	FE 360	INOX304
FINISHING OF CYLINDER		POLYESTER PAINT		
TREATMENT OF CYLINDER		HOT GALVANIZED		SATIN
REFLECTIVE ADHESIVE STRIPE		•	•	•
RESISTANCE TO BREAKING	J	79.000	39.000	79.000
RESISTANCE TO DEFORMATION (JOULE)	J	4.000	2.000	3.000
TOTAL WEIGHT OF BOLLARD H500 (ALUMINIUM HEAD)	KG	26	8	13
TOTAL WEIGHT OF BOLLARD H700 (ALUMINIUM HEAD)	KG	35	10	15

BLINDO 300 H500	COD.	0342601	0341601	0341701
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REMOVABLE BOLLARD FIXED ON THE GROUND THROUGH BURIED FORMWORK, ALUMINIUM HEAD €

BLINDO 300 H700	COD.	0342611	0341611	0341711
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REMOVABLE BOLLARD FIXED ON THE GROUND THROUGH BURIED FORMWORK, ALUMINIUM HEAD €

WARNING

The company MAC SRL reserves the right to make, at any time, without undertaking to update this publication, possible changes of components, essential parts or supplies that will be considered advantageous for its improvement or for any other need.

The reproduction, even partial, and the spreading of this document, by any means, are not allowed without the permission of the author.

Any infringement will be punished in ways and times foreseen by Law.

The company MAC SRL is the exclusive owner of the registration of the trade mark MAC srl fixed on CE conformity labels and seals and warning signals.

Any removal, cancellation, change or alteration of the mark MAC srl affixed on the bollard is forbidden.

WARNINGS FOR THE INSTALLATION

The installation must be entrusted to BUILDING AND/OR ELECTRIC COMPANIES SPECIALIZED IN INSTALLATION.

The person involved in the installation of the bollard must have an appropriate formation and must be well-informed about the work he is about to do.

The operator must use proper means fit for the installation in safety conditions. He/She must use working tools in perfect state of use as foreseen by the respective builders.

The operator must also know the laws that protect himself and the people exposed, in subject of machines and environment of use; the operator will have to consider carefully the place where the bollard must be installed so that the operations do not lead to dangers of residual nature, furthermore the operator must take care that the movable parts are free from obstacles and the movements are linear.

Before start moving the bollard, it must be verified the efficiency of the means of lifting and the lifting force of the means of lifting. During the operations of lifting up and displacement of the bollards, it is necessary to adopt safety measures to avoid any possible dangerous movement that could cause accidents or damages to people and materials. During the lifting up avoid sudden movements that could damage the bollard.

For the lifting up of the bollard or its parts, it is necessary to use means having a minimum force higher than the claimed weight. During the movements keep the bollard as lower as possible for better stability.

The lifting up operations must be done by expert staff. Make sure that nobody is in the dangerous zone

NOTE:



At the end of the installation the specialized firm must complete the form, written in the first page, with all the identification data, stamp and signature.

Furthermore, he/she must complete the form "product codes" at page 12 of the "Mechanical Maintenance Manual".

On the contrary the company MAC SRL reserves all its right to recede from the guarantee terms.

D.P.I. FOR THE OPERATOR RESPONSIBLE FOR THE MECHANICAL MAINTENANCE

Form N°1: INDIVIDUAL PROTECTION DEVICES FOR THE OPERATOR RESPONSIBLE FOR THE MAINTENANCE		
Pictogram	Description	Description of the operation for general controls
	SHOES	Use safety shoes to avoid the risks produced by the falling of materials during the operations of maintenance (especially during the dismantlement of parts).
	PROTECTION GLOVES	Hand protection gloves in case of manipulation of objects that can cause damage.
	SUITABLE CLOTHES	Suitable clothes (for example the overall): it is forbidden to use clothes with large sleeves or appendixes that can be held back by mechanical devices.
	GLASSES	Keep at your own disposal:
		Accident-prevention glasses, in case that grinding operations or similar operations are necessary.
	GLASSES FOR WELDING	Protective glasses for welding, in case it is necessary to make operations of welding.

In case the maintenance is made within one of these working areas:

- Productive ambient (firm)
- Construction site

The personnel must use the required D.P.I. in these environments of working.

DELIVERY OF THE BOLLARD

The whole material is carefully controlled and tested by the builder before the shipment. At the receipt make sure that it has not had damages during the transport and that nothing has been tampered or taken off.

In case that you find damages in the bollard or missing parts inform immediately the carrier and the builder producing photographic documents.

At the moment of unpacking, throw away the components considering the National Laws of Solid Waste.



LIFTING UP AND TRANSPORT

The lifting up and the transport of the bollard must be done with proper equipment, in compliance with the work safety Law, in force in the area of installation.

The eyebolts and the ropes must: have a lifting power major than the weight of the bollard; be in good state of maintenance and have the marking CE.



WARNING

As regards the transport of the bollard, it is necessary to use means having minimum capacity higher than the weight of the bollard (the weight of the bollard is on the identification plate).

Before starting the handling it is necessary to verify the efficiency of the means of lifting and their capacity.

During the operations of lifting and displacement of the bollard it is necessary to adopt any possible caution to avoid dangerous movements that could cause accidents or damages to people and/or material and objects.

Avoid sudden movements that could damage the bollard.

The operations of movement of the bollard must be done by personnel with experience.



WARNING

During the lifting the bollard must be always in a stable and safe position.

During the lifting all the surrounding area is to be considered dangerous zone.

Untill the bollard is not completely lifted check its correct balance.

The lifting must be done with continuity, without sudden movements.

INSTALLATION OF THE BOLLARD



WARNING

The following described procedures of installation must not be done by the final user or by a not specialized building firm.



DANGER OF CRUSHING

During the operations of installation it is necessary to adopt any possible caution to avoid movements that can cause accidents or damages to people and/or materials and objects.



WARNING

This symbol is used in these instructions when the unrespect or the wrong interpretation of the information, prescriptions or procedures, regarding the installation, can cause damages to the bollard.



All images in this manual are merely indicative, to keep the description as clear as possible.

CHECK

The consistency of the ground has not to be friable.



If friable it is necessary to realize a bigger dig to stabilize the bollard, in order to avoid the exit of the concrete plinth after a smash.

Make sure that the placing position of the bollard is not in a drainage area.

It is necessary to install a sewage system for the water harvesting, in rainy places or places where the ground is not draining.



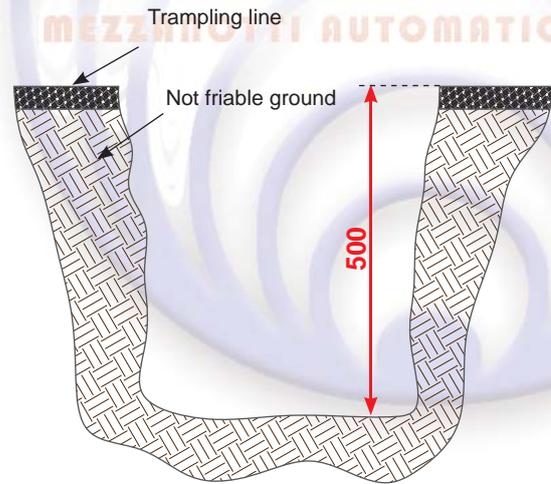
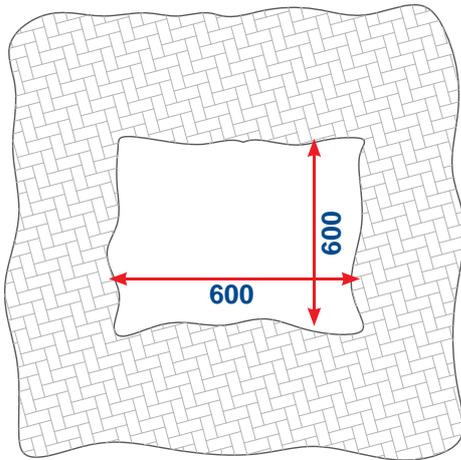
All these decisions must be kept by a qualified technician.



For a good installation of our product, proceed according to the following points:

1

Make a dig of 1100x900 (LIBRA200) on the ground until a depth of 510mm



2



Put 40 liters of water in the dig to verify the drainage. If after ten minutes the dig is empty there's no need to install a sewerage system.

In that case go on to point 4.

Each case must be assessed, taking in account the importance of ground and weather conditions which involve the surrounding area at the installation site.

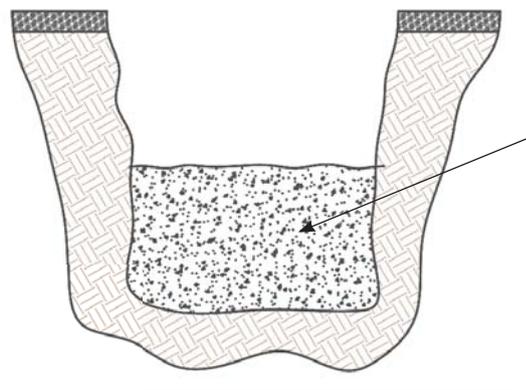
Possibly build a sewer system.



3

Enter beton in the dig until a height of 300mm.

WARNING: the beton base must be perfectly leveled (to gain a good support of the bollard).



4

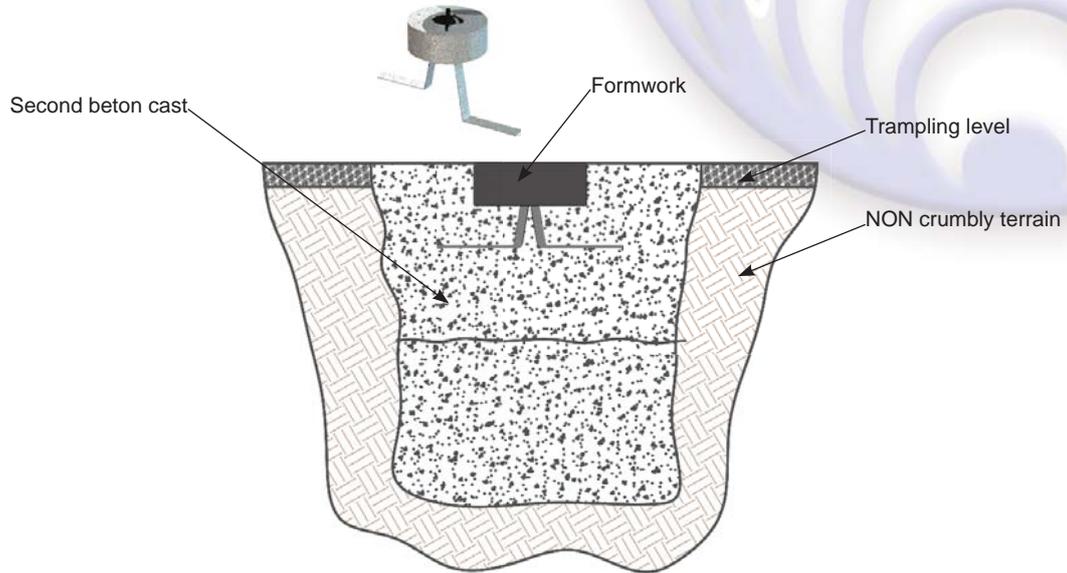


Set the provided formwork on the concrete base taking care to position it perpendicularly.

Put the concrete all around in the pit.

WARNING: Verify that the concrete sticks to the walls of the formwork.

WARNING: The second concrete cast can reach the trampling level.



5



Place the bollard above the formwork, insert the anchor of the pipe in the fissure of the formwork, turn the pipe counterclockwise (in that way the pipe can't be extracted); finally turn the equipment unlock key in order that the rotation of the pipe is not allowed.

