



**TECHNICAL MANUAL**

Translated from French original notice

**Rev 05**

## Document revision

Revision no.	Date	Written by	Checked by	Subject
01	2009-01-15	MFy		First edition.
02	2009-06-03	MFy		Change resistance, add weight.
03	2009-08-26	MFy		EC certificate update.
04	2010-01-04	MFy		EC certificate update.
05	2012-03-23	MFy		Maintenance detailed.

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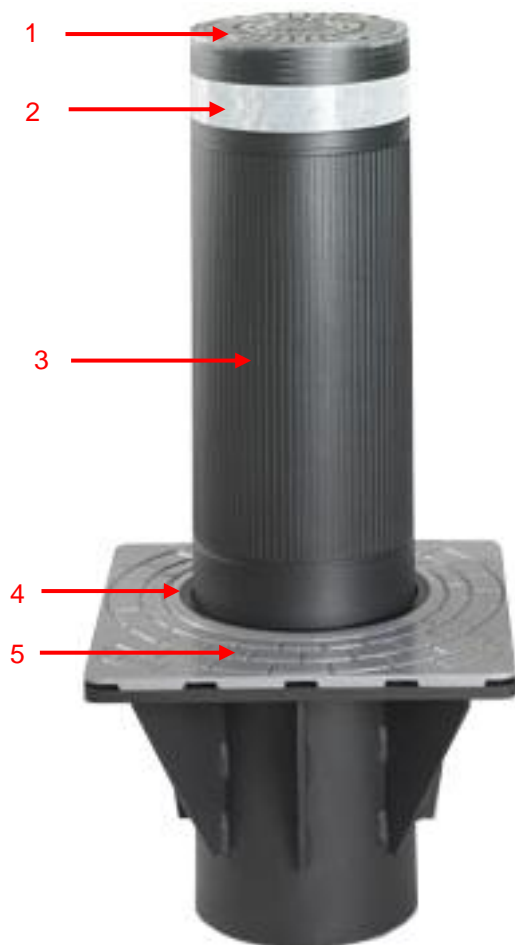
## 1. SAFETY WARNINGS

- This manual must be available for any person involved with the equipment: installer, maintenance operator, end user, etc.
- This equipment is intended for blocking vehicle access and cannot be assigned any other usage without risk to the users or the integrity of the equipment.  
Automatic Systems cannot be held accountable for damage resulting from inappropriate usage of the equipment.
- The contractor ensures that the local standards are respected during the installation of the equipment.
- All operations performed on the equipment must be undertaken by qualified personnel. All operations that are not authorised or that are carried out on this product by an unqualified technician shall automatically lead to the denial of the manufacturer's warranty.
- After a collision, even if there is no visible damage, the equipment must be checked carefully by a certified technician.

## 2. DESCRIPTION

### 2.1. Location of the components

|



1. Upper ring.
2. Reflective band.
3. Obstacle.
4. Sealing ring.
5. Lower ring (under which is located the nameplate with serial number).
6. Sealing casing.



## 3. INSTALLATION

### 3.1. Storing the equipment before installation

Before installation, ensure that the equipment does not receive any hits, leave it in its original packaging, and place it in a dry area protected from dust, heat and the weather.

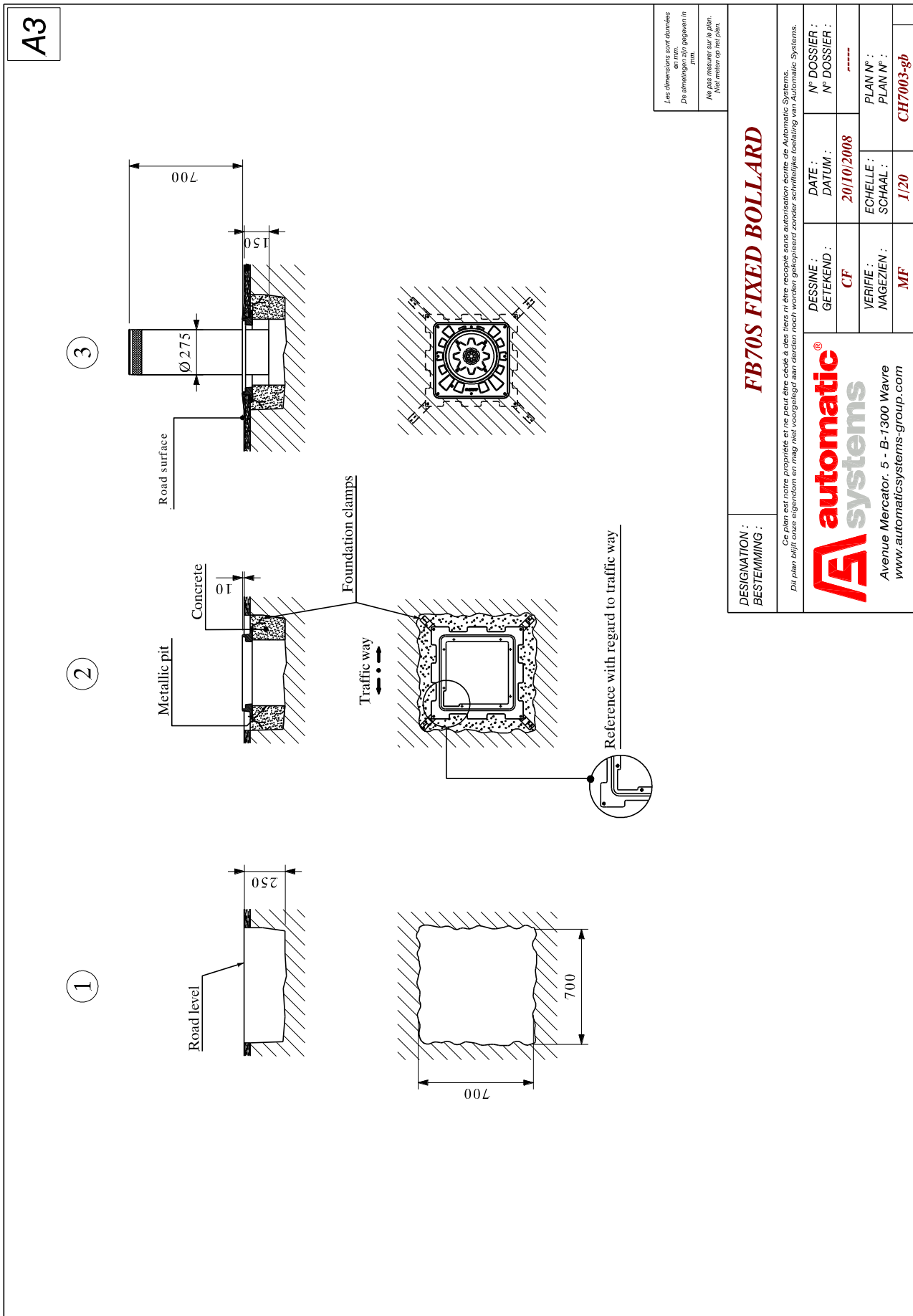
Store between: -30 and +80°C.

The bollard can be transported either in a horizontal or vertical position.

### 3.2. List of tools required

- Standard toolkit.
- Set of Allen keys.

### 3.3. Installation plan



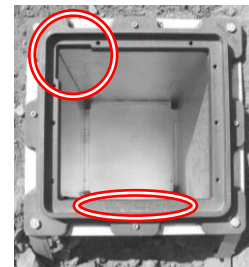
<b>DESIGNATION : BESTEMMING :</b>		<b>FB70S FIXED BOLLARD</b>	
Ce plan est notre propriété et ne peut être cédé à des tiers ni être récopié sans autorisation écrite de Automatic Systems. Dit plan blijft onze eigendom en mag niet vooorgelegd aan derden noch worden gereproduceerd zonder schriftelijke toestemming van Automatic Systems.			
DESSINE :	DATE :	N° DOSSIER :	N° DOSSIER :
GETEKEND :	DATUM :	CF	20/10/2008
VERIFIE :	ECHELLE :	MF	1/20
NAGEZIEN :	SCHAAL :		
	PLAN N° :		CH7003-gb
	PLAN N° :		

**automatic systems**  
 Avenue Mercator. 5 - B-1300 Wavre  
[www.automaticsystems-group.com](http://www.automaticsystems-group.com)

### 3.4. Positioning of the sealing casing

Please refer to the installation plan, Ch.3.3.

1. Dig a hole 70 cm x 70 cm and around 25 cm deep with regards to the road surface.
2. Place the casing on the gravel, in such a way that:
  - The marker on the frame is in the bottom left in the direction of traffic (see illustration opposite).
  - The upper level of the frame extends 10 mm beyond the road surface, in order to limit the entry of rainwater.
  - The casing is in a vertical line.
3. Attach the anchorage to the 4 corners of the casing (they must point downwards) and pour concrete in such as a way as to embed the anchor points.  
Reserve space for the road surface.
4. When the concrete has dried, finish by replacing the road surface around the bollard.
5. Place the bollard into the casing.
6. Screw the bollard into the casing.
7. Screw the lower ring into the bollard.



*Repères pour sens de passage*



*Ancrage*

### 3.5. Maintenance

- Clean the painted parts by means of a soft cloth impregnated with a non-aggressive detergent. For the countries with a lot of sun, it is also advised to treat with a glossing product.
- Clean the stainless steel parts/options to prevent deposition of metallic particles (approved product reference 0/6031/000).

**Note:** The frequency of maintenance must be adjusted to the conditions of use of the equipment, in particular when it is located in an oxidizing atmosphere: near the sea, industrial environment, etc.



## 4. TECHNICAL SPECIFICATIONS

- Height of the moving obstacle above the ground: 700 mm.
- Diameter of the moving obstacle: 275 mm.
- Maximum impact resistance, with permanent warping: 630,000 joules.
- Maximum relative humidity: 95% without condensation.
- Obstacle weight:  $\pm 120$  kg.
- Casing weight:  $\pm 30$  kg.
- IP67.
- Compliant with CE standards.

## 5. CERTIFICATE OF COMPLIANCE

### Déclaration CE de conformité

Nous, soussignés,

AUTOMATIC SYSTEMS s.a.  
Avenue Mercator, 5  
B-1300 WAVRE  
Belgique

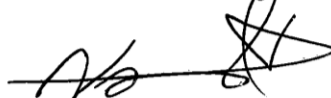
Déclarons que la machine

**Borne fixe haute sécurité  
FB70S**

est conforme aux dispositions des Directives, normes  
et autres spécifications suivantes:

- Directive Sécurité des Machine 2006/42/CE.
- Directive Basse Tension 2006/95/CE.
- Directive Compatibilité électromagnétique 2004/108/CE.
- EN 12100-1: 2003 Sécurité des machines- Terminologie de base et méthodologie.
- EN 12100-2: 2003 Sécurité des machines- Principes techniques et spécifications.
- EN 60204-1: 2006 Sécurité des machines, Equipement des machines- Règles générales.
- EN 61000-6-3: 2001 Compatibilité électromagnétique- Norme générique émission- Résidentiel, commercial, industrie légère.
- EN 61000-6-2: 2001 Compatibilité électromagnétique- Norme générique immunité- Résidentiel, commercial, industrie lourde.

Fait à WAVRE,  
le : 2009-12-03  
Nom du signataire : Denis VANMOL  
Fonction : Directeur du développement  
Signature :



### EC declaration of conformity

We, undersigned,

AUTOMATIC SYSTEMS s.a.  
Avenue Mercator, 5  
B-1300 WAVRE  
Belgium

Herewith declare that the machinery

**High security fixed bollard  
FB70S**

is in accordance with the conditions of the following  
Directives, standards and other specifications:

- Machinery Directive 2006/42/CE
- Low-voltage Directive 2006/95/CE
- Electromagnetic compatibility Directive 2004/108/EC
- EN 12100-1: 2003 Machinery – Basic terminology and methodology.
- EN 12100-2: 2003 Machinery – Technical principles and specifications.
- EN 60204-1: 2006 Safety of machinery. Electrical equipment of machines. General requirements.
- EN 61000-6-3: 2001 Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial and light-industrial environments.
- EN 61000-6-2: 2001 Electromagnetic compatibility (EMC). Generic standards. Immunity standard for industrial environments.

Made in WAVRE  
Date: 2009-12-03  
Name : Denis VANMOL  
Function : Director of Development  
Signature :







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