



Le potelet

Street furniture



AFNOR Cert. 68574

Bollards

Shape memory

New models

New Lengths	New models 76 line	New models Design line
Overall diameter: Ø76 mm All models between 1000 mm and 1500 mm	Groove - Reims - Ceano - Saturn	Wilmothé Grass



www.lepotelet.com



The entire range of LE POTELET shape memory bollards is quality-certified ORIGINE FRANCE GARANTIE.

Pro France and the Origine France Garantie quality label

- The Pro France association awards the Origine France Garantie quality label, the only label that currently guarantees **the French origin of a product**.
- **Its principle is simple:**
 - > At least 50% of the unit cost price of the product is acquired in France
 - > France is the place where the product acquires its essential characteristics
- **A transparent process:** after studying the application for certification and auditing the production sites, an independent approved certification organization (Afnor Certification for LE POTELET quality certification) approves the award of the quality label.

Le Potelet and Origine France Garantie

The quality certification audit has revealed that for its entire range of shape memory bollards LE POTELET manufactures 100% of its products in France.



The company

Created in 2008, LE POTELET has become a **leading manufacturer in France of shape memory bollards**.

Currently more than 500 towns and cities place their trust in us and continue to use our bollards.

From the biggest cities in France to rural districts, from standard creations to tramways, the shape memory bollard technology offers all our clients substantial and recurrent savings.

The shape memory bollard

Our shape memory bollards are made of **polyurethane elastomer**, the properties of which give them the combined qualities of **flexibility and robustness**.



Our range

From standard to special-purpose bollards, our range expands every year with new models. Drawing on our experience in the use of elastomer, we continue to develop other models such as the **CEANO** bollard, the **SATURN** bollard, the **GRASS** bollard or even the **WILMOTTE** bollard.

At present LE POTELET offers more than **40 different models** of bollard.



Technology and Quality

Our industrial site is **ISO 9001-certified** and has a production capacity of nearly **25,000 bollards per annum**.

Our shape memory bollards are produced in moulds and mould-holders belonging exclusively to LE POTELET.

The laboratory analyses the raw materials and their traceability throughout the industrial process.

A constant concern for quality and environmental protection thanks to a reduction of waste at source enables our industrial site to be **ISO 9001-certified**.

Our products are inspected and tested according to the following standards: **NF EN ISO 868 – NF EN ISO 527-1 – ISO 34-1 – DIN 53512 and ISO 11925-2**



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The 76 line

Shape Memory bollard

Ball-top model Ø 76



PRM version



Shape memory bollard Ball-top model Ø 76

Ref.: B110/76

The 76 line



Product:

- Material: polyurethane elastomer
- Overall length: 1100 mm
- Weight: 4 kg
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

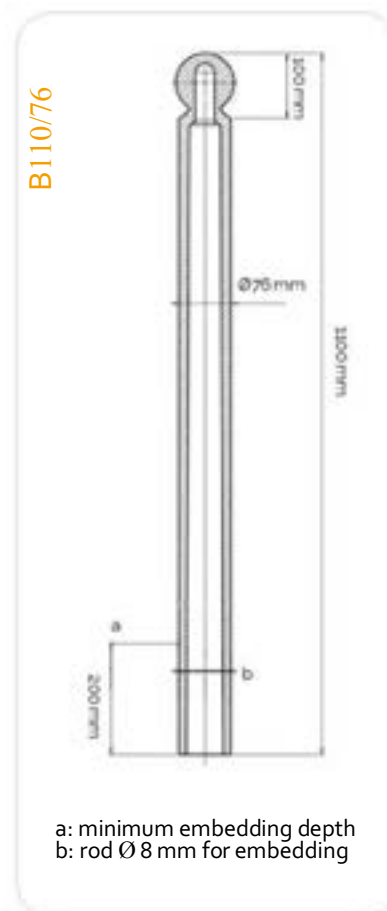
- By direct embedding with inserted reinforcing rod Ø 8 mm length 120 mm (supplied)
 - On removable base
 - On tapered metal footing
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.





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The 76 line

Shape Memory bollard

Ball-top model LM Ø 76



PRM version

Shape memory bollard

Ball-top model LM Ø 76

Ref.: B140/76 and B150/76

The 76 line



Product:

- Material: polyurethane elastomer
- Weight: 5.5 kg
- Overall length: 1400 mm and 1500 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

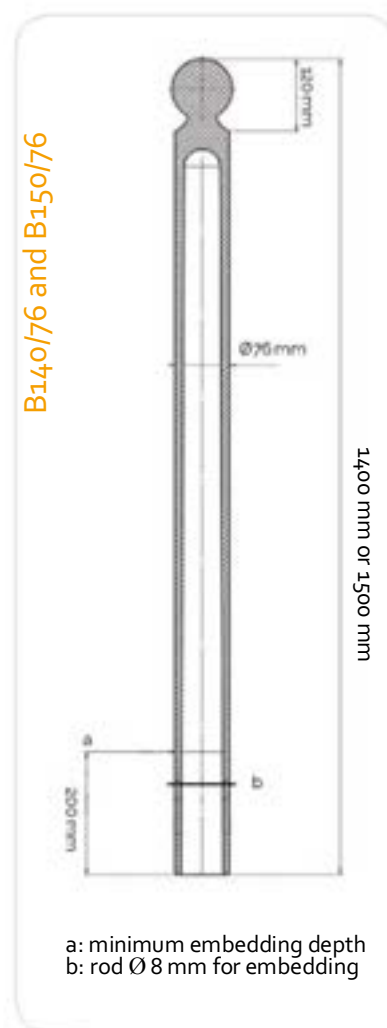
Fitting:

- By direct embedding with inserted reinforcing rod Ø 8 mm length 120 mm (supplied)
 - On removable base
 - On tapered metal footing
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).



The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.





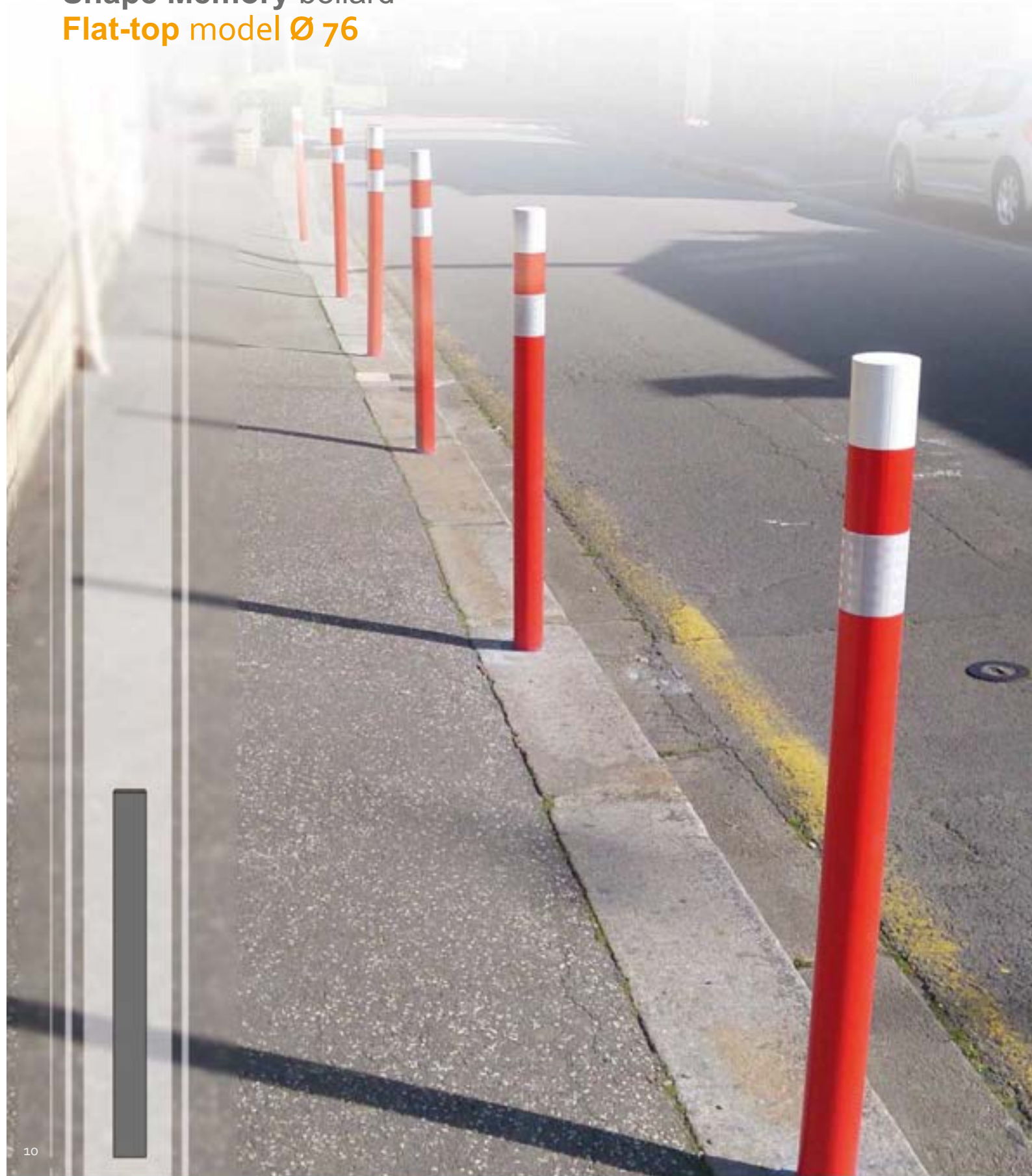
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The 76 line

Shape Memory bollard

Flat-top model Ø 76



Shape memory bollard Flat-top model Ø 76

Ref.: P100/76 and P110/76

The 76 line

Product:

- Material: polyurethane elastomer
- Weight: 3.7 kg and 4 kg
- Overall length: 1000 mm and 1100 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

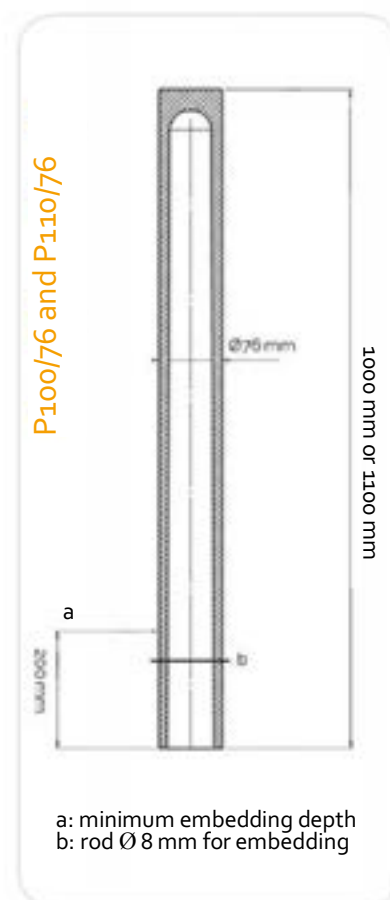
Fitting:

- By direct embedding with inserted reinforcing rod Ø 8 mm length 120 mm (supplied)
 - On removable base
 - On tapered metal footing
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast (P110/76 model)
- Premium finish: Akzo Nobel or similar colour chart

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



a: minimum embedding depth
b: rod Ø 8 mm for embedding





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The 76 line

Shape Memory bollard Flat-top model LM Ø 76



PRM version



Shape memory bollard Flat-top model LM Ø 76

Ref.: P140/76

The 76 line



Product:

- Material: polyurethane elastomer
- Weight: 5 kg
- Overall length: 1400 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

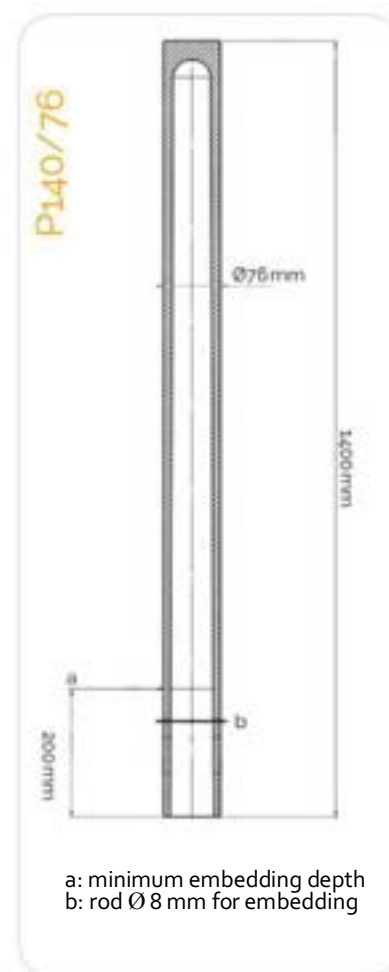
Fitting:

- By direct embedding with inserted reinforcing rod Ø 8 mm length 120 mm (supplied)
 - On removable base
 - On tapered metal footing
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).



The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.





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The 76 line

Shape Memory bollard Groove model Ø 76



Shape memory bollard

GROOVE model Ø 76 -- NEW MODEL

Ref.: G110/76

The 76 line



Product:

- Material: polyurethane elastomer
- Weight: 4 kg
- Overall length: 1100 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

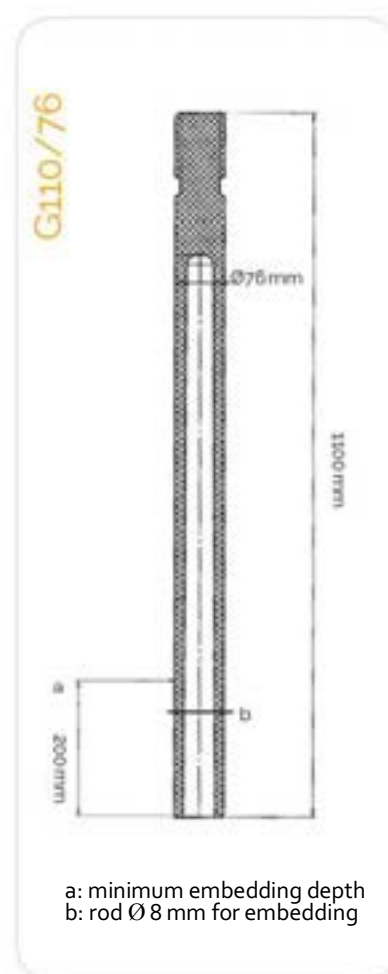
Fitting:

- By direct embedding with inserted reinforcing rod Ø 8 mm length 120 mm (supplied)
 - On removable base
 - On tapered metal footing
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).



a: minimum embedding depth
b: rod Ø 8 mm for embedding

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.

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The 76 line

Shape Memory bollard
Groove model LM Ø 76



Shape memory bollard

GROOVE model LM Ø 76 -- NEW MODEL

Ref.: G140/76 and G150/76

The 76 line



Product:

- Material: polyurethane elastomer
- Weight: 5 kg and 6.5 kg
- Overall length: 1400 mm and 1500 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

- By direct embedding with inserted reinforcing rod Ø 8 mm length 120 mm (supplied)
- On removable base
- On tapered metal footing

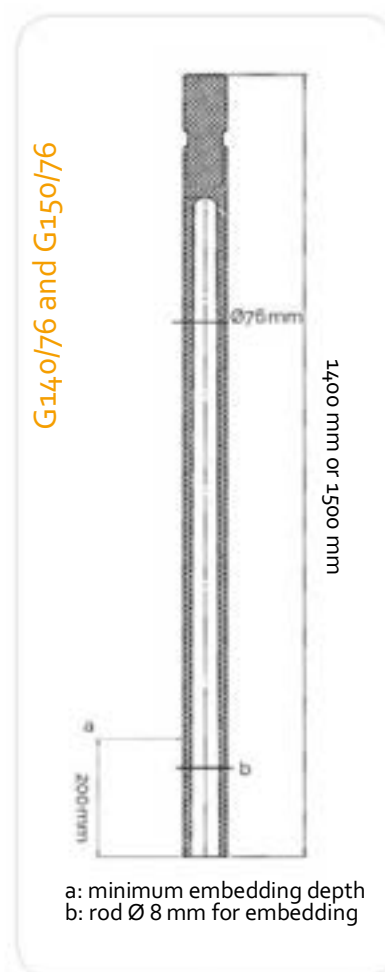
See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



LE POTELET
SHAPE MEMORY
BOLLARD





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The 76 line

Shape Memory bollard

Reims model Ø 76



PRM version

Shape memory bollard

Reims model Ø 76 -- NEW MODEL

Ref.: R110/76

The 76 line



Product:

- Material: polyurethane elastomer
- Weight: 4 kg
- Overall length: 1100 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

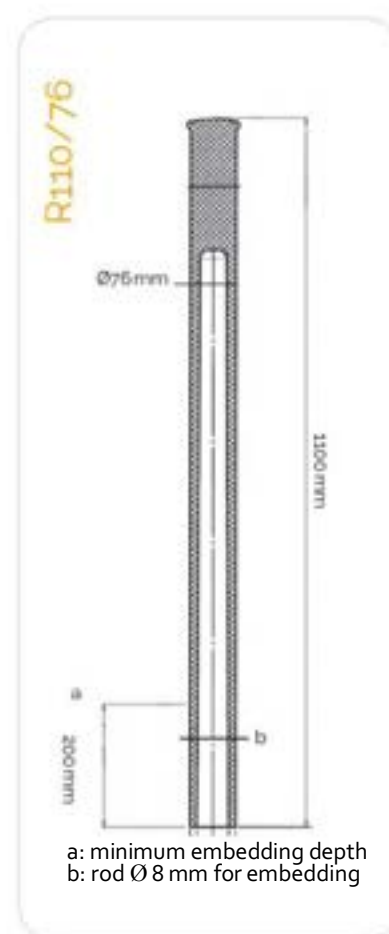
- By direct embedding with inserted reinforcing rod Ø 8 mm length 120 mm (supplied)
 - On removable base
 - On tapered metal footing
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.





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The 76 line

Shape Memory bollard Reims model LM Ø 76



PRM version



Shape memory bollard

Reims model LM Ø 76 -- NEW MODEL

Ref.: R140/76 and R150/76

The 76 line



Product:

- Material: polyurethane elastomer
- Weight: 5 kg and 6.5 kg
- Overall length: 1400 mm and 1500 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

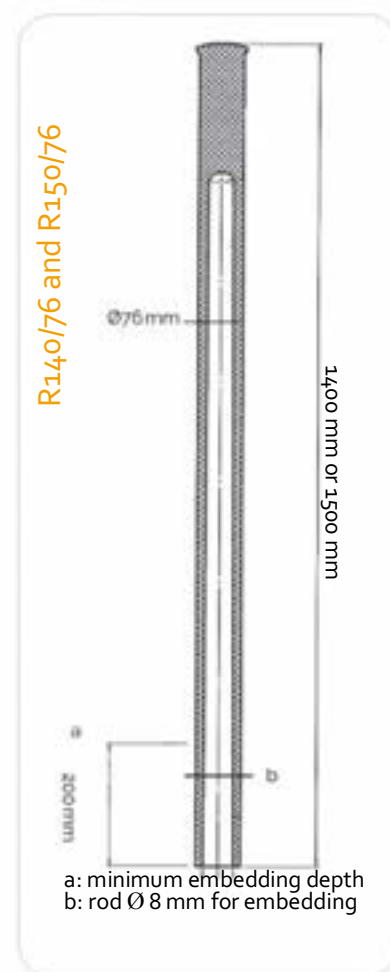
- By direct embedding with inserted reinforcing rod Ø 8 mm length 120 mm (supplied)
 - On removable base
 - On tapered metal footing
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.





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The 76 line

Shape Memory bollard

Ceano model Ø 76

Registered design, made in shape memory with the permission of GHM



PRM version



Shape memory bollard

Ceano model Ø 76 -- NEW MODEL

Ref.: CEANO 1400

The 76 line



Product:

- Material: polyurethane elastomer
- Weight: 5 kg
- Overall length: 1400 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

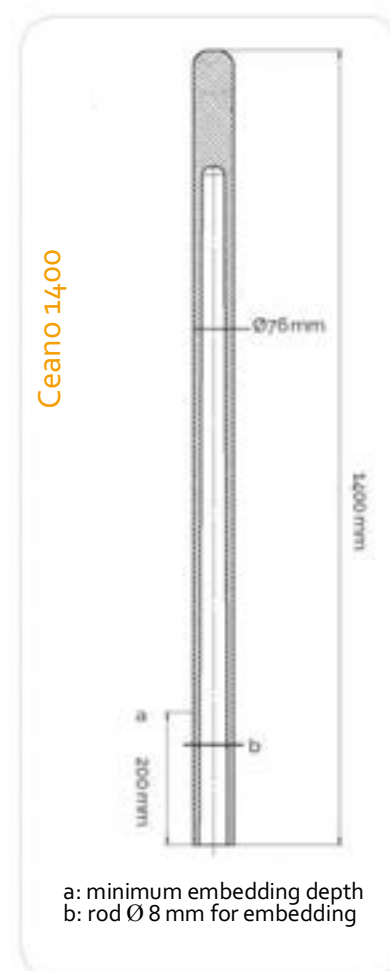
- By direct embedding with inserted reinforcing rod Ø 8 mm length 120 mm (supplied)
 - On removable base
 - On tapered metal footing
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



a: minimum embedding depth
b: rod Ø 8 mm for embedding





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The 76 line

Shape Memory bollard

Saturn model Ø 76

Registered design, made in shape memory with the permission of SERI



PRM version



Shape memory bollard

Saturn model Ø 76 -- NEW MODEL

Ref.: SATURN 1150 and SATURN 1450

The 76 line



Product:

- Material: polyurethane elastomer
- Weight: 4 kg and 5 kg
- Overall length: 1150 mm or 1450 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

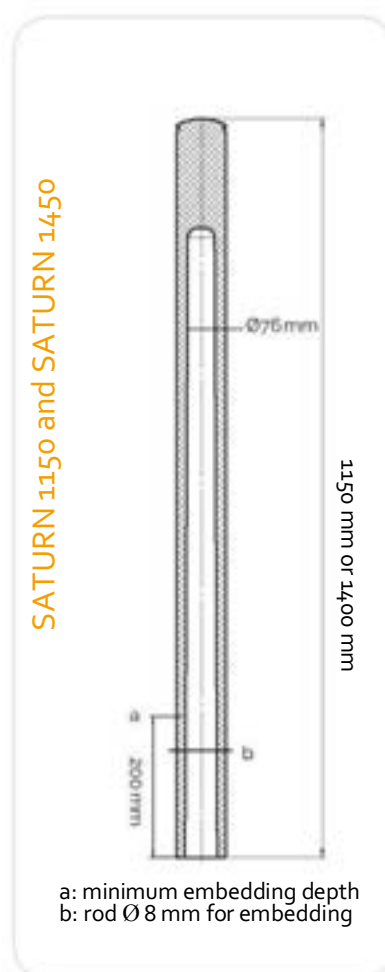
- By direct embedding with inserted reinforcing rod Ø 8 mm length 120 mm (supplied)
 - On removable base
 - On tapered metal footing
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



a: minimum embedding depth
b: rod Ø 8 mm for embedding





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The 80 line

Shape Memory bollard

Ball-top model Ø 80



Shape memory bollard

Ball-top model Ø 80

Ref.: B108/80

The 80 line



Product:

- Material: polyurethane elastomer
- Weight: 4 kg
- Overall length: 1080 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

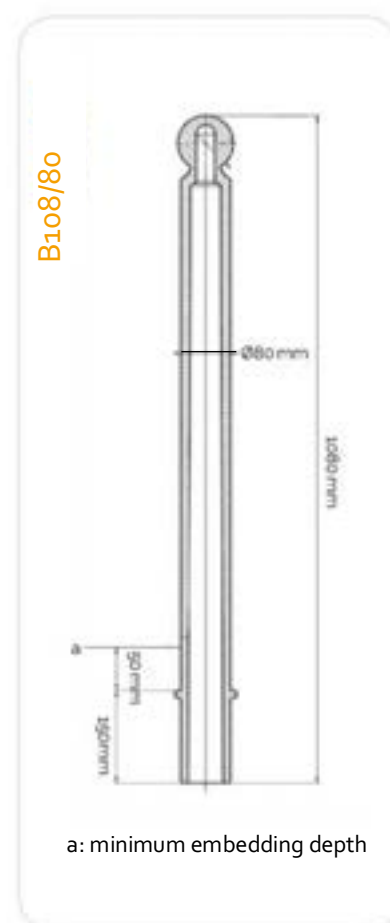
- By direct embedding
- On removable base
- On tapered metal footing without flange ring

See fitting instructions

Options:

- One or more strips of retro-reflective film Class 2
- Premium finish: Akzo Nobel or similar colour chart

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



a: minimum embedding depth

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SHAPE MEMORY
BOLLARD





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The go line

Shape Memory bollard

Ball-top model Ø 90



PRM version ...



Flat-top	1232
Groove	1135
Domed	1124
Nantes	1129
Le Perreux	1281
Courcouronnes	1127

Shape memory bollard

Ball-top model Ø 90

Ref.: B135/90

The go line



Product:

- Material: polyurethane elastomer
- Weight: 5.3 kg
- Overall length: 1350 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

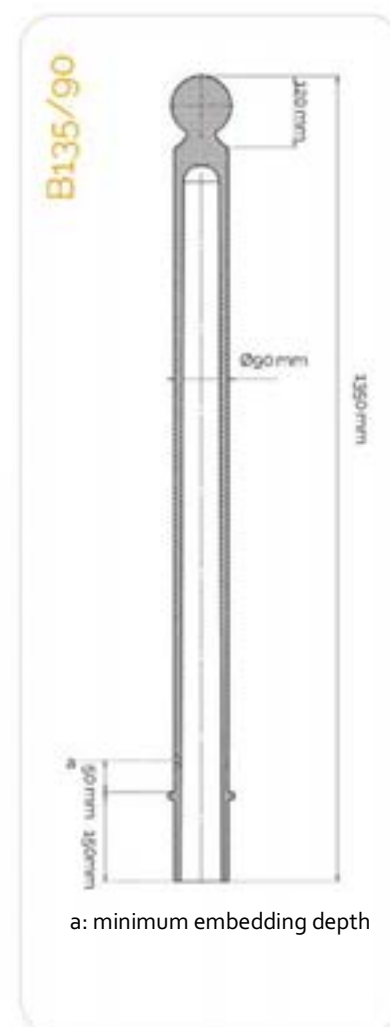
Fitting:

- By direct embedding
 - On removable base
 - On tapered metal footing without flange ring
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).



a: minimum embedding depth

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.





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The go line

Shape Memory bollard

Flat-top model Ø 90



PRM version



Shape memory bollard

Flat-top model Ø 90

Ref.: P123/90

The go line



Product:

- Material: polyurethane elastomer
- Weight: 4.7 kg
- Overall length: 1232 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

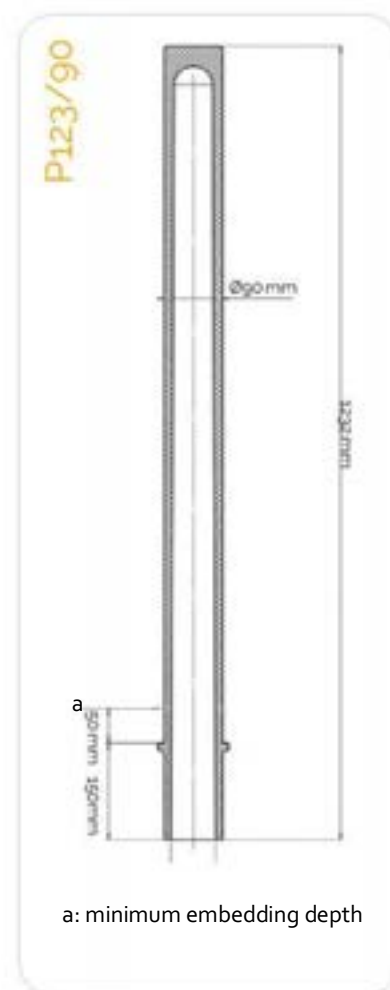
- By direct embedding
 - On removable base
 - On tapered metal footing without flange ring
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- High-contrast top with stainless steel look
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.





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The go line

Shape Memory bollard

Groove model Ø 90



PRM version



Shape memory bollard Groove model Ø 90

Ref.: G135/90

The go line



Product:

- Material: polyurethane elastomer
- Weight: 5.6 kg
- Overall length: 1355 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

- By direct embedding
- On removable base
- On tapered metal footing without flange ring

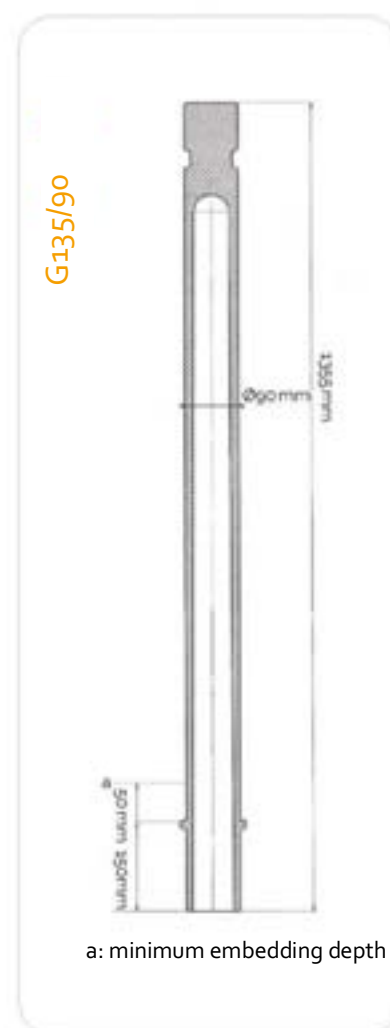
See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



a: minimum embedding depth





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The go line

Shape Memory bollard

Domed model Ø 90



PRM version



Shape memory bollard Domed model Ø 90

Ref.: M124/90

The go line



Product:

- Material: polyurethane elastomer
- Weight: 4.7 kg
- Overall length: 1242 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

- By direct embedding
- On removable base
- On tapered metal footing without flange ring

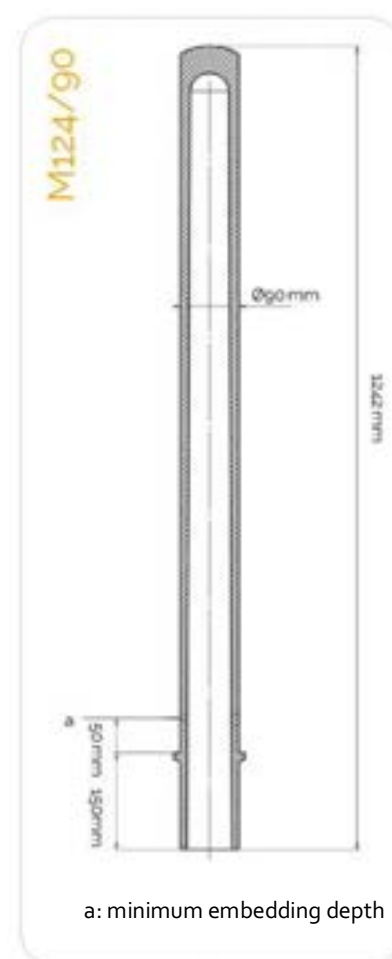
See fitting instructions

Options:

- One or more strips of retro-reflective film Class 2
- PRM version with different coloured head for visual contrast
- High-contrast top with stainless steel look
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.





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The go line

Shape Memory bollard

Nantes model Ø 90



PRM version



Ball-top	1350
Flat-top	1232
Groove	1355
Domed	1242
Le Perreux	1281
Courcouronnes	1273

Shape memory bollard Nantes model Ø 90

Ref.: N129/90

The go line



Product:

- Material: polyurethane elastomer
- Weight: 5 kg
- Overall length: 1295 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

- By direct embedding
- On removable base
- On tapered metal footing without flange ring

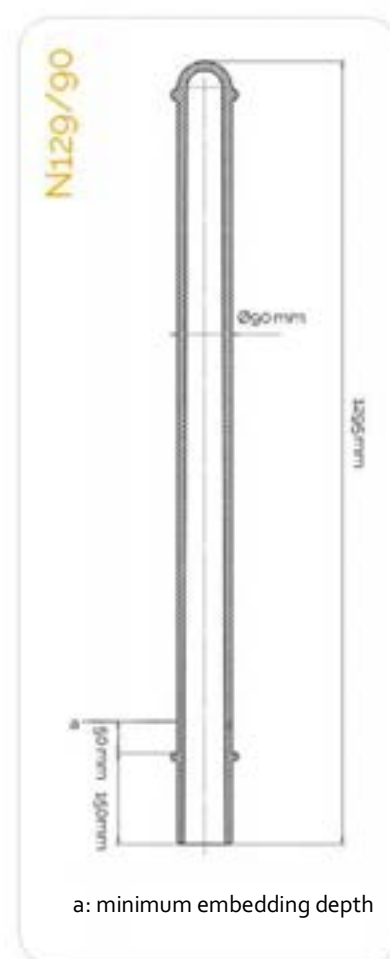
See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



a: minimum embedding depth





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The go line

Shape Memory bollard

Le Perreux model Ø 90



PRM version



Ball-top	1350
Flat-top	1232
Groove	1355
Domed	1242
Nantes	1296
Courcouronnes	1273

Shape memory bollard

Le Perreux model Ø 90

Ref.: LP128/90

The go line



Product:

- Material: polyurethane elastomer
- Weight: 5.4 kg
- Overall length: 1280 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

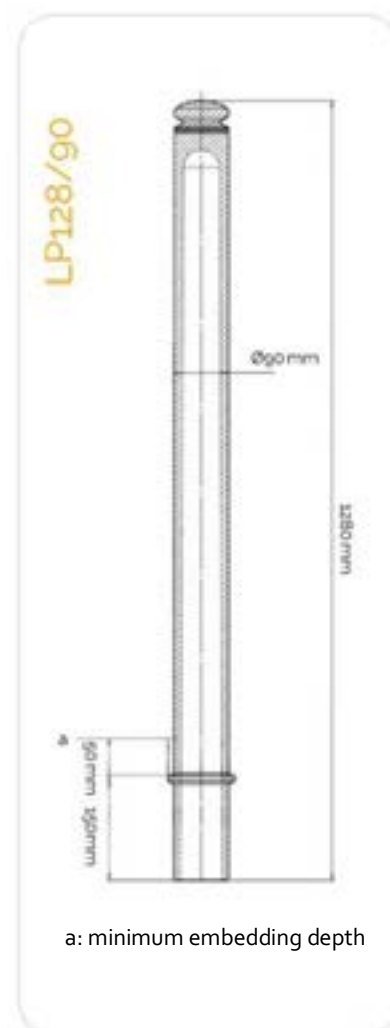
- By direct embedding
 - On removable base
 - On tapered metal footing without flange ring
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



a: minimum embedding depth





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The go line

Shape Memory bollard Courcouronnes model Ø 90



PRM version



Other references available in 90 mm diameter	Ball-top	1350
	Flat-top	1232
	Groove	1355
	Domed	1242
	Nantes	1295
	Le Perreux	1280

Shape memory bollard Courcouronnes model Ø 90

Ref.: H127/90

The go line



Product:

- Material: polyurethane elastomer
- Weight: 5 kg
- Overall length: 1273 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

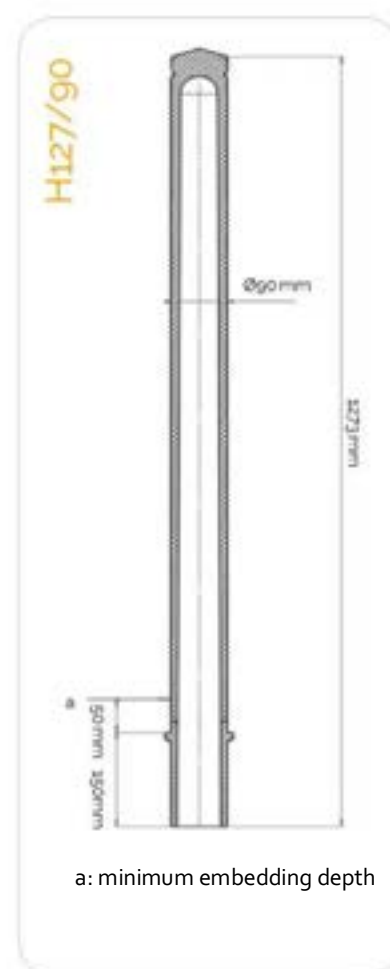
- By direct embedding
 - On removable base
 - On tapered metal footing without flange ring
- See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- High-contrast top with stainless steel look
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



a: minimum embedding depth

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SHAPE MEMORY
BOLLARD





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The 100 line

Shape Memory bollard

Ball-top model LM Ø 100



PRM version



Flat-top	1100 1200
Groove	1000 1250 1400
Domed	1100 1200

Shape memory bollard

Ball-top model LM Ø 100

Ref.: TB125/100 and TB140/100

The 100 line



Product:

- Material: polyurethane elastomer
- Weight: 4.5 kg and 6.7 kg
- Overall lengths: 1250 mm or 1400 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

- By direct embedding
 - On removable base
 - On tapered metal footing without flange ring
- See fitting instructions

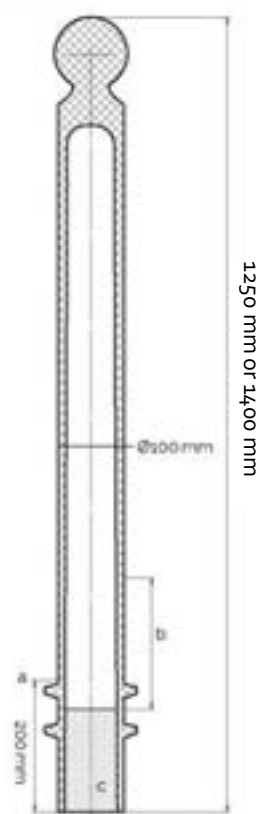
Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.

TB125/100 and TB140/100



- a: minimum embedding depth for the 1400 mm version
b: minimum embedding depth for the 1250 mm version
c: Part removed in the 1250 mm version





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The 100 line

Shape Memory bollard

Flat-top model Ø 100



PRM version



Ball-top	1250
	1400
Groove	1000
	1250
	1400
Domed	1100
	1200

Shape Memory bollard

Flat-top model Ø 100

Ref.: TP110/100 and TP120/100

The 100 line



Product:

- Material: polyurethane elastomer
- Weight: 4 kg and 4.5 kg
- Overall lengths: 1100 mm and 1200 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

- By direct embedding
- On removable base
- On tapered metal footing without flange ring

See fitting instructions

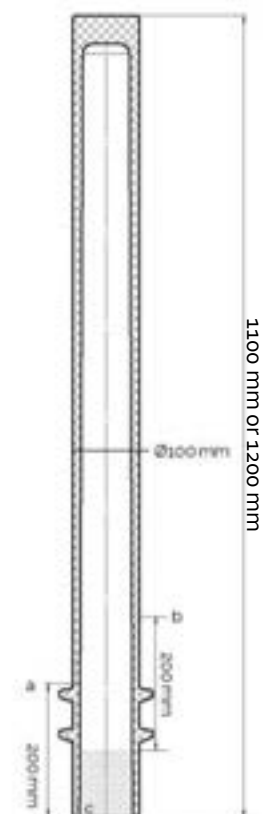
Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.

TP110/100 and TP120/100



- a: minimum embedding depth for the 1200 mm version
b: minimum embedding depth for the 1100 mm version
c: Part removed in the 1100 mm version





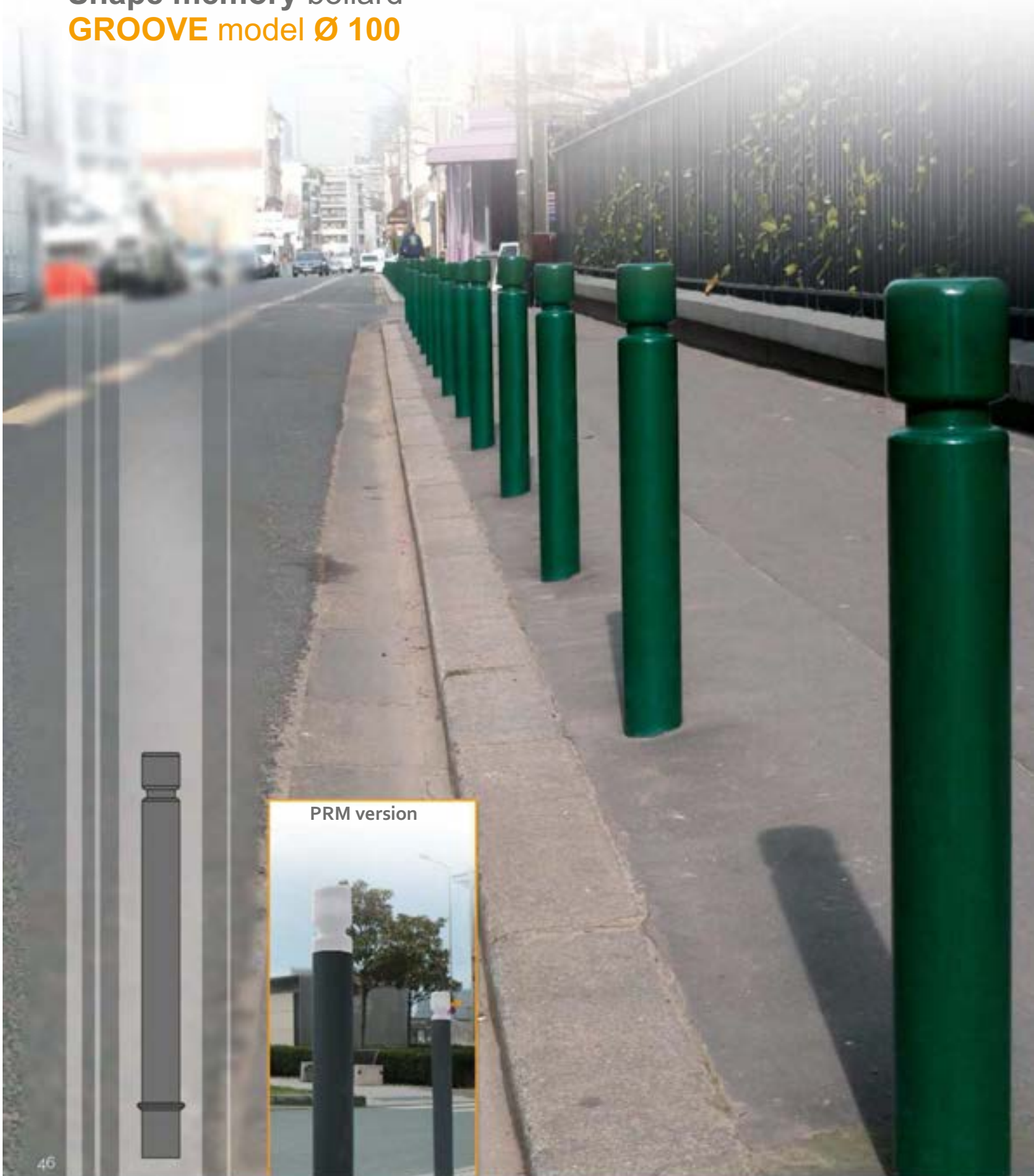
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The 100 line

Shape memory bollard **GROOVE** model Ø 100



PRM version



Ball-top	1250
	1400
Flat-top	1100
	1200
Domed	1100
	1200

Shape Memory bollard Groove model Ø 100

Ref.: TG100/100

The 100 line



Product:

- Material: polyurethane elastomer
- Weight: 4.5 kg
- Overall length: 1000 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

- By direct embedding
- On removable base
- On tapered metal footing without flange ring

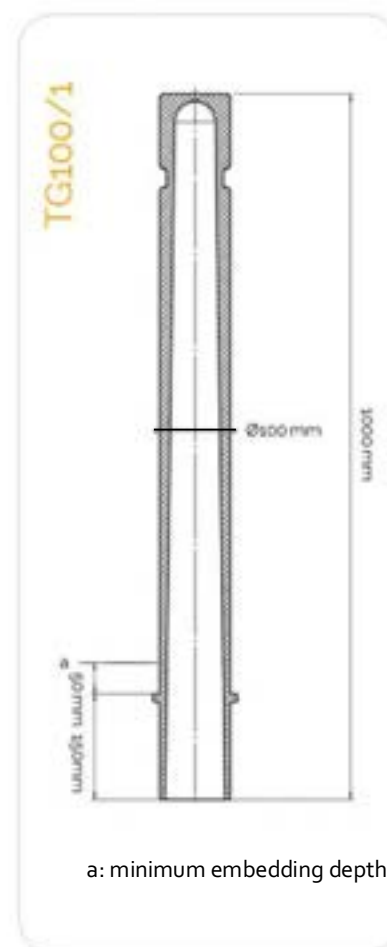
See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



a: minimum embedding depth





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The 100 line

Shape memory bollard

GROOVE model LM Ø 100



PRM version



Flat-top	100
	1200
Groove	1000
	1250
	1400
Domed	1100
	1200

Shape Memory bollard

Groove model LM Ø 100

Ref.: TG125/100 and TG140/100

The 100 line



Product:

- Material: polyurethane elastomer
- Weight: 4.5 kg and 6.7 kg
- 2 overall lengths possible: 1250 mm or 1400 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

- By direct embedding
- On removable base
- On tapered metal footing without flange ring

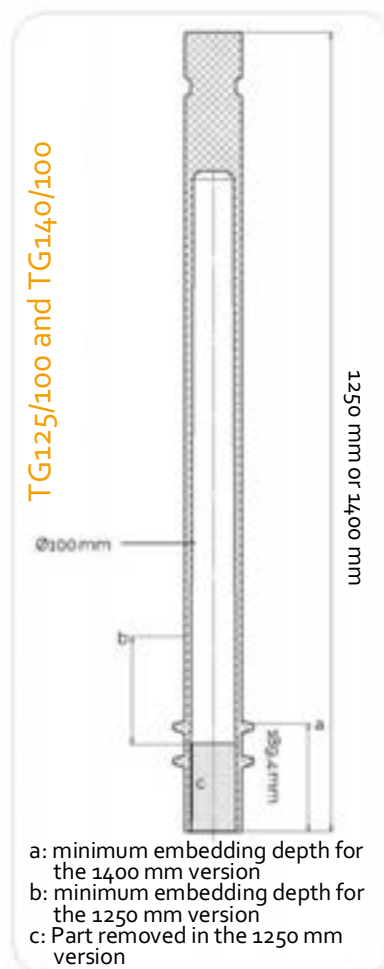
See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



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The 100 line

Shape memory bollard

Domed model Ø 100



PRM version



Shape Memory bollard Domed model Ø 100

Ref.: TM110/100 and TM120/100



Product:

- Material: polyurethane elastomer
- Weight: 4 kg and 4.5 kg
- 2 Overall lengths possible: 1100 mm and 1200 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

- By direct embedding
- On removable base
- On tapered metal footing without flange ring

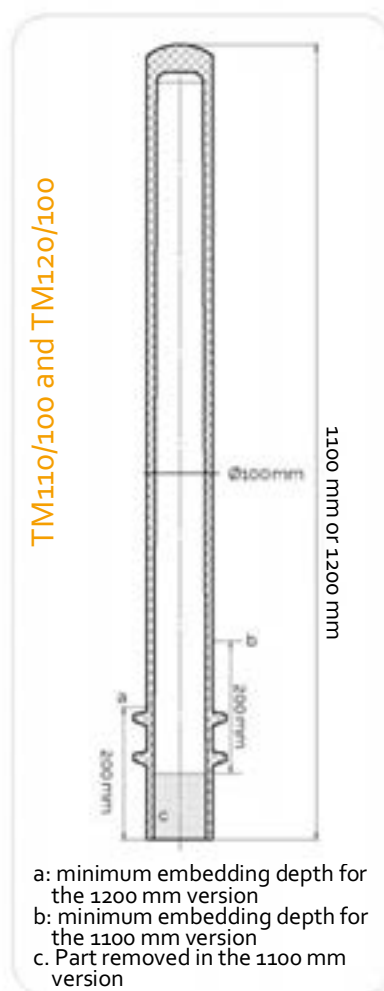
See fitting instructions

Options:

- One or more strips of retro-reflective film class 2
- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



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Design line

Shape Memory bollard Tree Trunk model



PRM version

Shape Memory bollard Tree Trunk model

Ref.: Tree Trunk 1200 and Tree Trunk 1350

Design line



Product:

- Material: polyurethane elastomer
- Weight: 6.3 kg
- Overall length: 1200 mm and 1350 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

- By direct embedding
- On removable base
- On tapered metal footing without flange ring

See fitting instructions

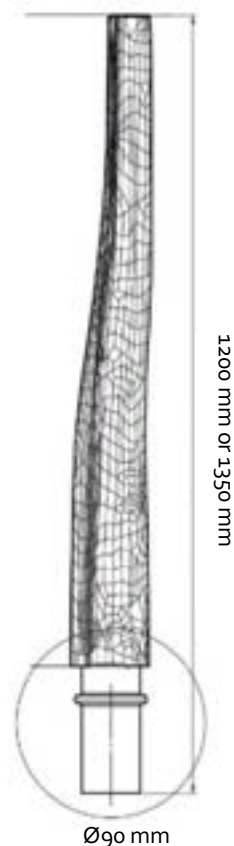
Options:

- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.

Tree Trunk 1200 and Tree Trunk 1350





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Design line

Shape memory bollard

Wilmotte model

Registered design, made in shape memory with the permission of Lyon Métropole and WILMOTTE and INDUSTRIES



PRM version



Shape Memory bollard Wilmotte model

Ref.: Wilmotte 1177 and Wilmotte 1400 -- New model

The Design line



Product:

- Material: polyurethane elastomer
- Weight: 3 kg and 4 kg
- Overall length: 1177 mm and 1400 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

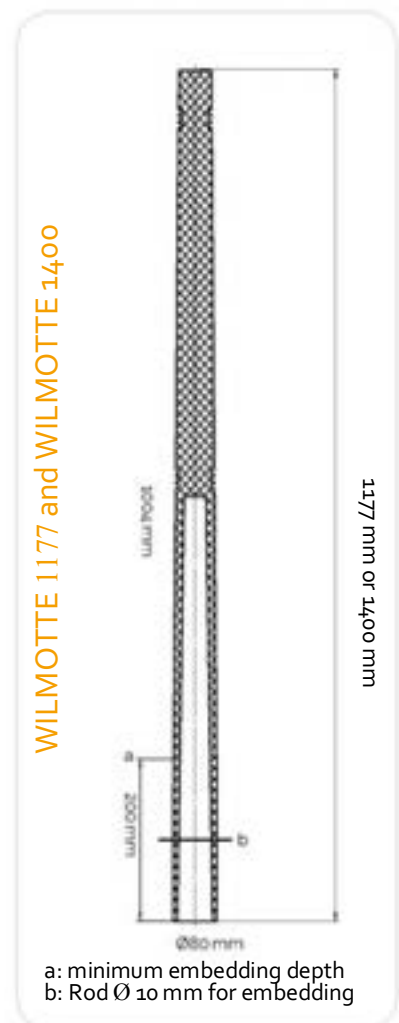
- By direct embedding with inserted reinforcing rod \varnothing 10 mm length 120 mm
- See fitting instructions

Options:

- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



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Design line

Shape memory bollard

Grass model

Registered design, made in shape memory with the permission of Angers Loire Métropole



PRM version



Shape Memory bollard

Grass model -- NEW MODEL

Ref.: Grass 1200 and Grass 1400

Design line



Product:

- Material: polyurethane elastomer
- Weight: 5 kg and 5.7 kg
- Overall length: 1200 mm and 1400 mm
- Bulk-dyed + protective lacquering (a choice of RAL colours)
- Packed in individual cover

Fitting:

- By direct embedding
- On removable base
- On tapered metal footing without flange ring

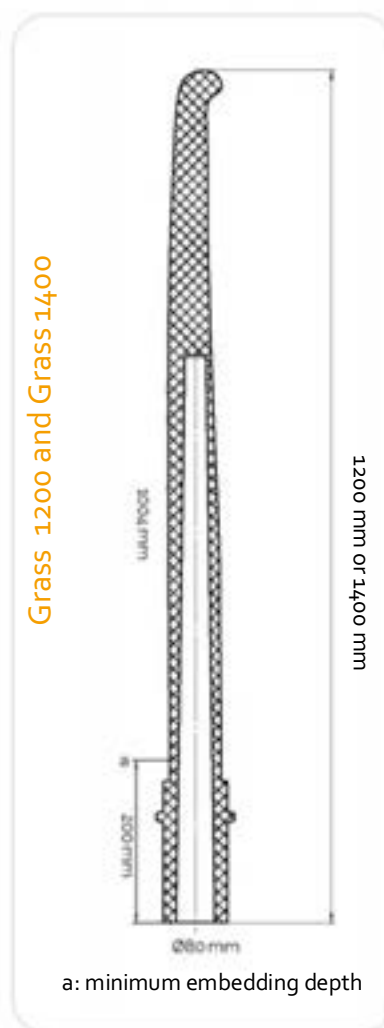
See fitting instructions

Options:

- PRM version with different coloured head for visual contrast
- Premium finish: Akzo Nobel or similar colour chart

All our models are compliant with the ministerial order of 2 October 2012 (PRM chart).

The product parameters tested according to standards **NF EN ISO 868** (hardness), **NF EN ISO 527-1** (stress, tensile strength, elongation at break), **ISO 34-1** (propagated and non-propagated tear strength), **DIN 53512** (rebound resilience) and **ISO 11925-2** (reaction to fire) are available on request.



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SHAPE MEMORY
BOLLARD





Options

RAL STANDARD



RAL 3004
Purple Red



RAL 6005
Moss Green



RAL 6009
Fir Green



RAL 7011
Silver Grey



RAL 7012
Basalt Grey



RAL 7015
Slate Grey



RAL 7016
Anthracite Grey



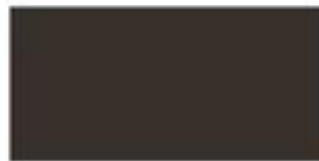
RAL 7022
Umbra Grey



RAL 7024
Graphite Grey



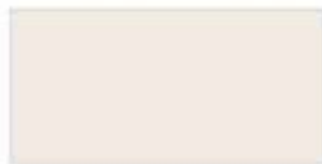
RAL 8017
Chocolate Brown



RAL 8019
Grey Brown



RAL 9005
Jet Black



RAL 9010
Pure White

The printed or on-screen RAL colours are shown only as a rough guide.
Only the standardized colour charts are contractually binding. The rendering differs according to the material.

PRM version

For visual contrast

Different coloured cap



With one or more retro-reflective strips added

Height of the strip and position as you choose

White film class 2, standard height 10 cm

Other heights and colours on request



High-contrast top with stainless steel look

For a premium finish

Available for the caps of the Flat and Domed bollards, Courcouronnes, Reims, Ceano and Saturn.



Premium finish

Lacquering: Akzo Nobel or similar type shades



Examples of special products

In front of schools



Industry



Machining

Machining to remove the flange ring for metal fastener.

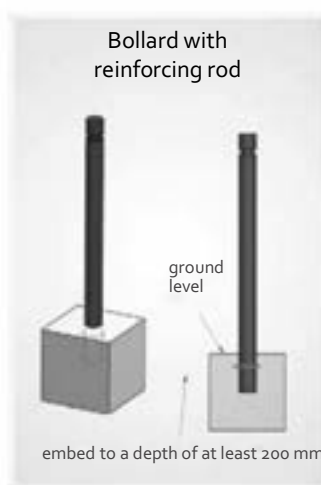
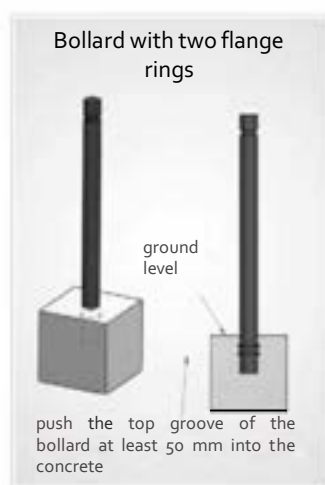
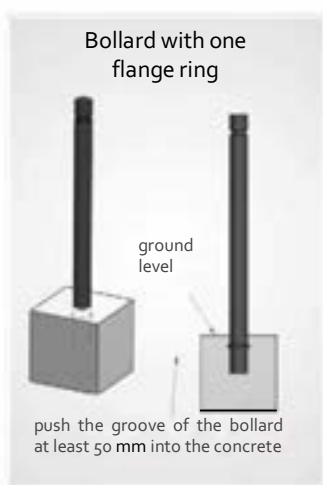


The Fastening Systems

Shape memory bollards: direct embedding

FITTING BY EMBEDDING IN CONCRETE:

- Dig out a trench
 - Check the nature of the soil
 - Make a foundation block
- > *Mediocre soil:* MA type: 0.5 x 0.5 x 0.5
 - > *Good soil:* MA type: 0.4 x 0.4 x 0.4
 - Embed the bollard as shown in the diagram



If you are drilling a hole to fit the bollard, we advise drilling a hole at least 1.5 times the diameter of the bollard.

WARNING

For bollards with 1 or 2 flange rings, these rings must be sunk into the anchor block as shown in the above diagrams.

Removable base

Features:

- This system allows for regular removal
- Removable base made of hot-galvanized steel
- Product comprising 2 parts
 - > A base unit to embed with a locking device
 - > A grip jaw to insert into the base unit
- Locked with an 11 mm triangular key
- Available for bollard diameters 76, 80, 90 and 100 mm



Fitting:

- Dig out a trench
- Place the base unit in the concrete or bedding mixture
- Insert the bollard into the grip jaw
- Place the assembly in the embedded base then lock with the 11 mm key supplied
- If the bollard is missing, fold over the grip jaw and lock with the key.



Tapered metal footing

Features:

- Anchor footing allowing occasional removal and requiring no civil engineering work if the bollard needs changing
- An anchoring kit includes: one anchoring system 300 mm long, one clamping plate, one polymer seal ring, bolting
- Available for bollard diameters 76, 80, 90 and 100 mm



Footing 76



Footing 80



Footing 90

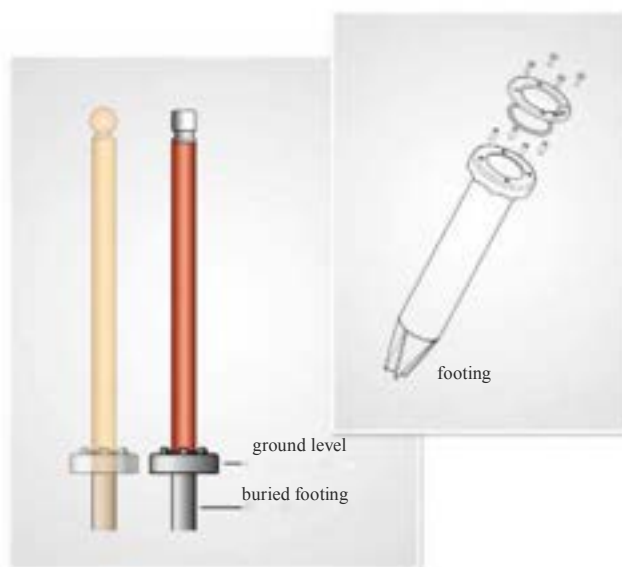


Footing 100

Fitting:

- Fit the anchor by using a pneumatic drill or embed it
- Slide the seal ring between the clamping plate and the base of the bollard
- Insert the bollard and lock it in place with the clamping plate

For your information, footings are also available in diameter 60 mm, dimensions 80x40 mm and 80x80 mm for posts bearing signs, police signs in particular.



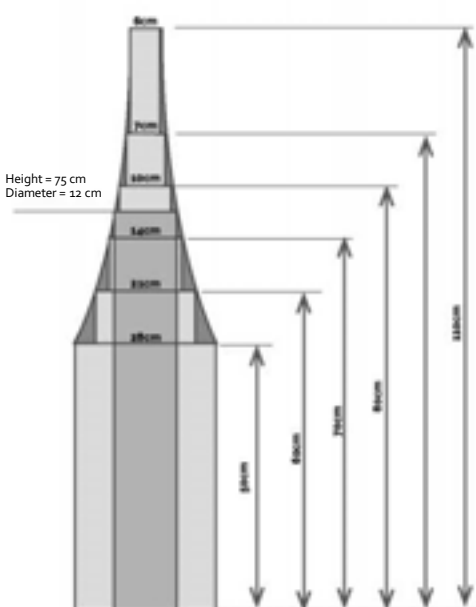
Regulation concerning Persons with Restricted Mobility

To walk around in town, blind and visually impaired persons have to develop their own ways of perceiving the environment. They rely on their senses of hearing and touch and on mnemonics, which help them form a visual representation of their environment.

Implementing the law of 11 February 2005 on equal rights and opportunities, the participation and citizenship of persons with disabilities and its article 45, article 1 of decree 2006-1658 of 21 December 2006 states: "Street furniture, in particular bollards and posts, even when cantilevered, must be easily detectable by blind and visually impaired persons."

The ministerial order of 15 January 2007 clarifying the text among other things stipulates that street equipment and furniture placed on pedestrian paths should occupy a minimum volume. The obstacle detection chart in appendix 3 of the ministerial order, revised on 18 September 2012, prescribes the minimum dimensions of bollards and posts according to their height.

The dimensions of these items must comply with the above obstacle detection chart and show a contrast.



1) Dimensions

"The dimensions of bollards and posts are determined in accordance with the diagram opposite and take into account the following clarifications:

- the height is measured from the surface of the path;
- the overall width, the smallest of the dimensions, or the diameter are measured in the horizontal plane

The height must be at least 50 cm. If the bollard or post is 50 cm high, its width or diameter must be at least 28 cm.

If the bollard or post is higher than 50 cm, the width or minimum diameter of its base is inversely proportional to its height. For instance:

- the height of the post is 1.10 m at the very least for a diameter or width of 6 cm;
- a bollard with a width or diameter of 21 cm is at least 60 cm high"

2) Contrast

Contrast is useful for the visually impaired, helping them better perceive street furniture.

As a general rule, the item of street furniture should contrast strongly with its immediate surroundings. Examples:

- A light-coloured bollard contrasts with a dark ground
- A dark bollard contrasts with a light-coloured building

If there is not enough contrast with the surroundings, the body of the bollard or post should contrast strongly with the top over a height of 100 mm in the most common cases.



General Terms of Sale

- General clause

Orders accepted by LE POTELET imply unqualified acceptance of these general terms and cancel any general or supplementary clauses issued by the customer.

- Orders and prices

Orders must be placed in writing after a quotation has been returned and accepted. All orders are the subject of an order confirmation; any claims or modifications to orders must be made in writing within three days of the date of the order confirmation.

If the order is produced using special, non-standard plans not compliant with the currently valid catalogue, it is up to the customer to ascertain that it has the project-related reproduction rights.

Prices are stated exclusive of tax and, barring special conditions, are those stated in the price list enclosed with the catalogue at the time of ordering.

- Carriage and delivery

The cost of carriage must be approved for each order and, barring a special agreement, carriage is payable by the customer.

Goods travel at the risk of the consignee, and even they are if shipped carriage paid, it is up to the consignee to make all necessary observations and confirm reservations by registered letter with acknowledgement of receipt sent to the carrier.

If the goods do not match the order, this must be notified by registered letter with acknowledgement of receipt within three days of receipt, after which time no claims will be admissible.

Delivery lead times are stated as a rough guide; if they are not met, no compensation of any kind will be forthcoming and the order cannot be cancelled.

We shall not be held liable in cases of force majeure, such as total or partial strikes, fire, natural disaster, exceptional climatic events or any other unavoidable or unforeseeable event.

- Payment

Barring an agreed provision to the contrary, invoices are payable in full at the company's registered office.

Payment facilities may be arranged subject to the company's agreement, and may be withdrawn at any time.

Invoices made out to the State, local and regional authorities and their public corporations, are payable in accordance with the terms and conditions stipulated by the law on the modernization of the economy no. 2008-776 of 4 August 2008, including the clauses on late payment interest.

- Late payment

Non-payment or late payment will by rights, in addition to the suspension of any new deliveries, entail payment of interest for days overdue at one and a half times the current official rate.

- Reservation of title

Pursuant to law no. 80335 of 12 May 1980, LE POTELET retains full title to the goods until full payment for them has been made, including any payable interest for late payment.

Delivered goods remain under the responsibility of the customer; in the event of theft or damage, the customer may neither pledge them nor use them as collateral.

- Warranty

In respect of the warranty, LE POTELET undertakes to replace any part it deems defective free of charge. It is up to the customer to provide evidence of the reality of the noted defects and irregularities.

This warranty will not apply for defects or damage caused by vandalism, lack of upkeep, misuse, poor storage conditions, accidents, natural disasters or alterations made to the initial product.

- Intellectual property

LE POTELET retains full ownership of all designs, drawings or plans it may publish in its catalogues or publications in any form or medium whatsoever, and prohibits anyone from using them without its express consent, reserving the option of bringing legal proceedings before the competent courts to exercise its rights.

- Dispute and jurisdiction

In the event of a dispute, whatever the grounds or claims for third-party contributions, irrespective of the number of defendants, French law alone will apply and the Commercial Court of Nantes shall have sole competence.

MORE THAN 500 TOWNS AND CITIES

SARL LE POTELET

Share capital: €20,000