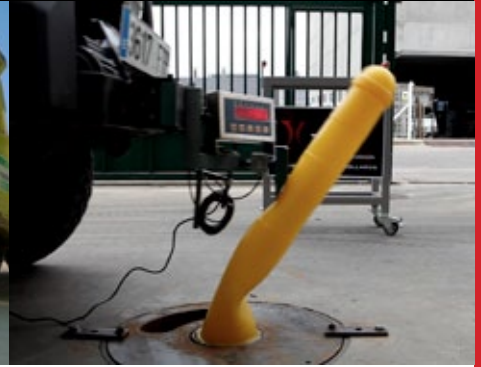




OFFICIAL DISTRIBUTOR CATALOGUE



www.sabacauchó.com
www.x-last.com



Stiffness tests

Resistance testing

Apparent strength tests

X-last[®], the safest and most durable bollard

After several years of research, Sabacaucho presents a new concept in bollards: the X-last[®] bollard.

Made of a new material, with exclusive properties, the **X-last[®] bollards have maximum resistance and flexibility**, which convert them into the safest and most durable bollards.

Thanks to their stiffness, they fully comply with the function of preventing vehicles from entering prohibited zones; but it is their flexibility which make them virtually impossible to be broken, and after being knocked down, **they return to their original position and form.**

These bollards cannot be broken or dented and are not affected by rust... and we can make them in attractive customised designs in record time, as shown with our LookArt[®] proposals.

X-last[®] bollards are guaranteed to last practically a lifetime and do not need to be replaced. That flexibility makes them **extra safe compared to other metal bollards** that are anchored to the ground and can cause serious harm to vehicles and people.

X-last[®], the safest, most durable, flexible and resistant bollard.

Our objective is to help you to redesign your streets with X-last[®] and make them safer, more practical and more modern and attractive.

DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





X-last[®], accessibility

Our products are in **accordance with the requirements for the accessibility of the public road network** (garbage dump) and the public places. We conceive the bollards geometry which (Heights and Diameters) is in compliance with the current abacuses and there design integrates reagent covers allowing the contrast of the product in its environment in order to increase their visibility. Information in conventional writing and/or Braille can be integrated during the molding on the said tactile parts of the bollards to facilitate the accessibility to all in our environment.

Access to the emergency vehicles

The shape memory bollard X-last[®] minimizes the damages caused in the human body during impacts while performing perfectly the function to prevent a vehicle of tourism from parking on a restricted zone. Due to their flexibility and resistance, they also allow the fire trucks to pass above without being obliged to remove them before or to change them after intervention.

The X-last[®] bollard is the safest, the most sustainable, the most flexible and most resistant bollard of the market.

DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:



SOS
TENIBI
LITY



X-last[®], the ecologic option

The X-last[®] bollard has 50% less impact on environment than the traditional metallic bollards.

For several years Sabacaucho, integrate as additional technical criterion **the sustainable development** and this from the phase of development of every product.

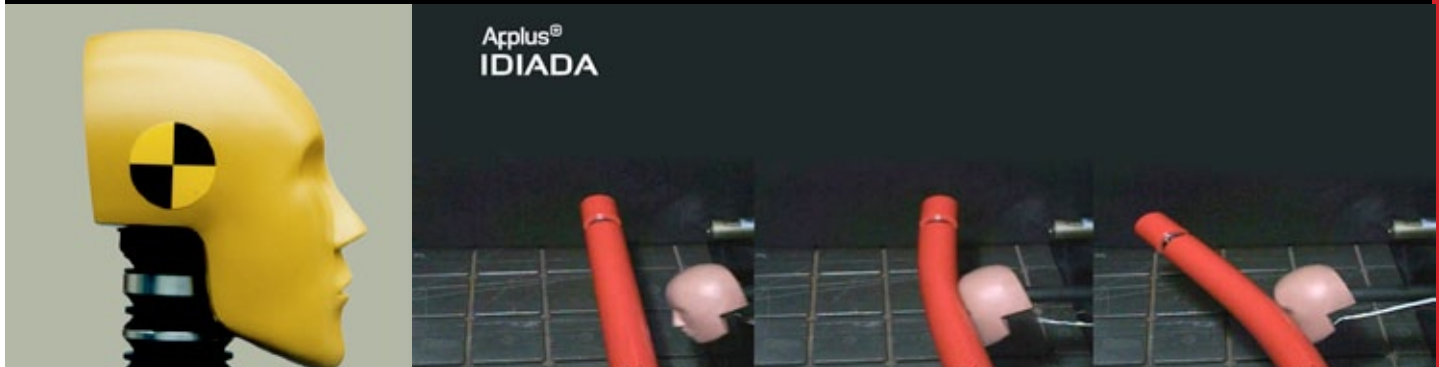
In our trial of development of product, besides the functional, aesthetic criteria, legal and specific characteristics imposed by every customer, we analyze the concept, the materials, the manufacturing process, and the evolution of the characteristics during its useful life expectancy. Also we investigate the alternatives of elimination of this product **while looking for the best compromise between cost, services(performances) and protection on the environment.**

The fruit of this work, brought to us to the realization of the X-last[®] Bollard which generates 50 % less impact on the environment than the conventional metallic bollards, according to the study of the **ACV (Analysis of the Life Cycle)** realized by the European foundation **INASMET-Tecnalia.**

DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





X-last[®], safety

X-Last[®] bollards save lives.

The Applied research automotive center (**IDIADA Automotive Technology**) has realized impacts test with X-last[®] bollards and metallic ones.

At a speed of 40 Km/h, which is a most common speed limit in cities centers, metallic bollards cause irreversible injuries on persons.

There is an international criterion which is used to evaluate injuries caused on the head of a person after impacts. This criterion is called **HIC** (Head Injury Criterion).

The maximum value beyond which there are irreversible injuries is **1000**.

At 40 km/h, the test made in IDIADA research center have proved that the HIC criterion obtained after the impact of a human head on a metallic bollard is 4600.

This is almost 5 times the international limit.

At the same impact speed, the results with the X-Last[®] bollard are spectacular, because the HIC criterion obtained after the impact of a human head is 460.

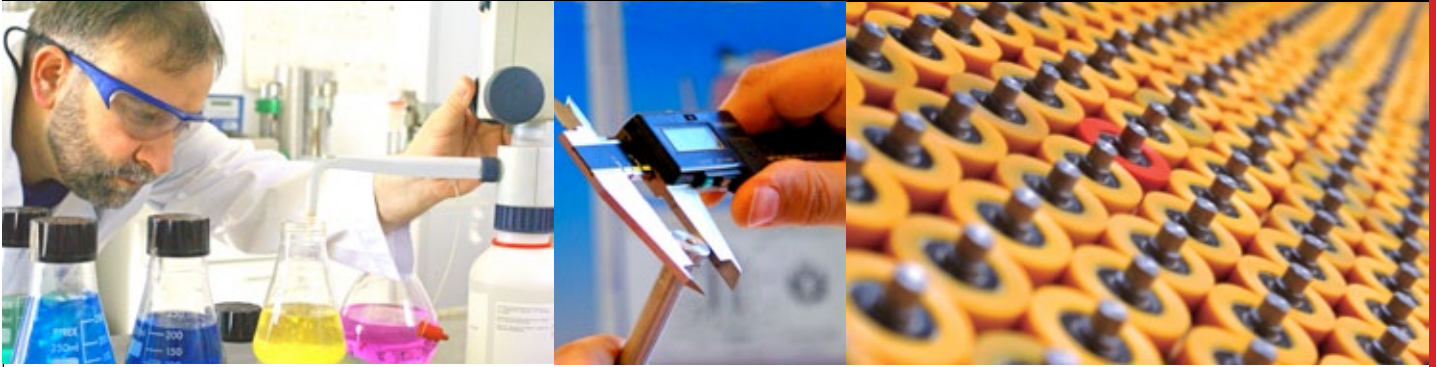
This is less than half of the international limit and **10 times less than the results on the metallic bollards.**

DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:



Constant



X-last[®], technology

In SABACAUCHO we invest in Research Development & Innovation, developing innovative solutions.

Founded in 1979, we solve problems related with flexibility, strength, sliding, abrasion, grip, elasticity, etc.

We create and provide solutions with the very highest resistance against tear, compression, breakage, abrasion, impact, humidity, water, dissolvent's, ageing, high temperatures, hydrocarbons, etc., in accordance with orders and/or specifications.

We make your problem our problem, and we solve it. Result of this philosophy, SABACAUCHO has designed an exclusive formula, X-last[®], a polymer composite including reinforcing nanoparticles, spectacular.

The X-last[®] formula obtains rigidity as high as that of a rigimer but with enough flexibility to be able to tolerate the impact of a car without breaking.

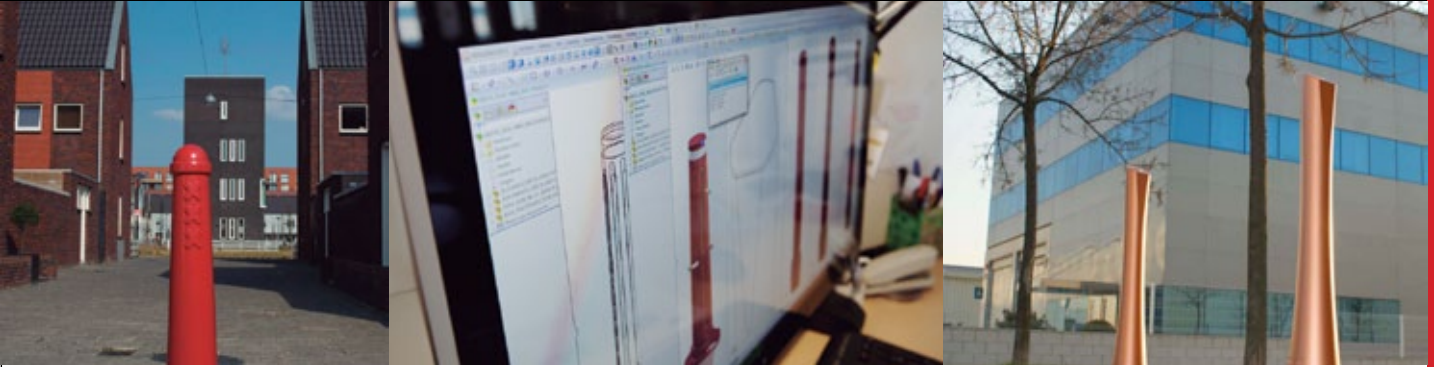
The quality and environmental management system of SABACAUCHO S.A.U, is certified in accordance with the ISO 9001:2008 and ISO 14001:2004 standards.

If a solution is possible, SABACAUCHO will find it. With agility. Guaranteed results.

DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





X-last[®], designs

We offer you all models with different surface finishes. Being the producers, we can realize customized bollards, with specific designs, such as with the coat of arms of your city or company. Special finishes are available or, if you prefer, we can produce your own custom exclusive type.

Our objective is to help you to redesign our streets with X-last[®] and make them safer, more practical and more modern and attractive.

Colours: The whole RAL colour range.

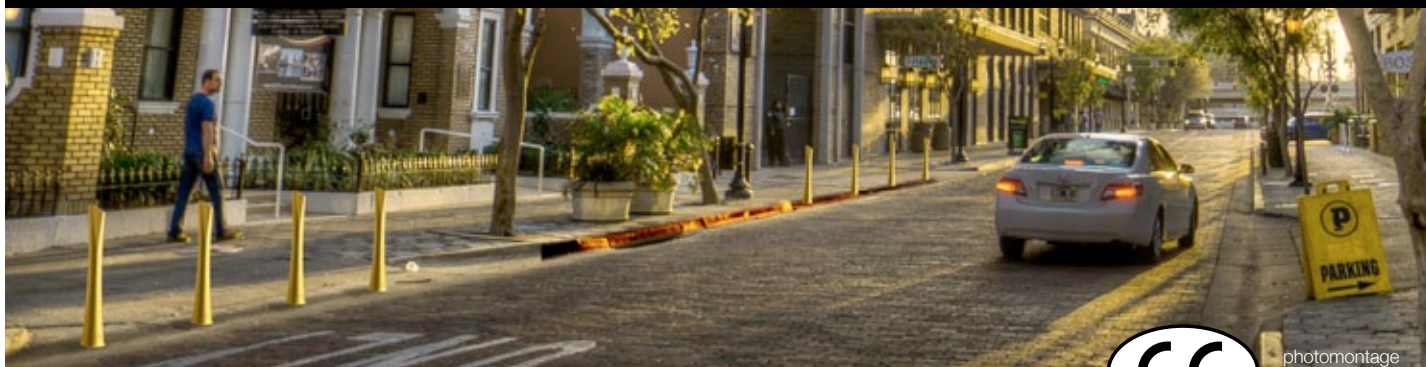
Finishes: Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

Types of Fastenings: With formwork base (removable), in formwork and attached directly to the ground or using screws with a metal or chemical plug.

DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





photomontage

Lookart[®] Diamond

metalize gold excellence
finishing example

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

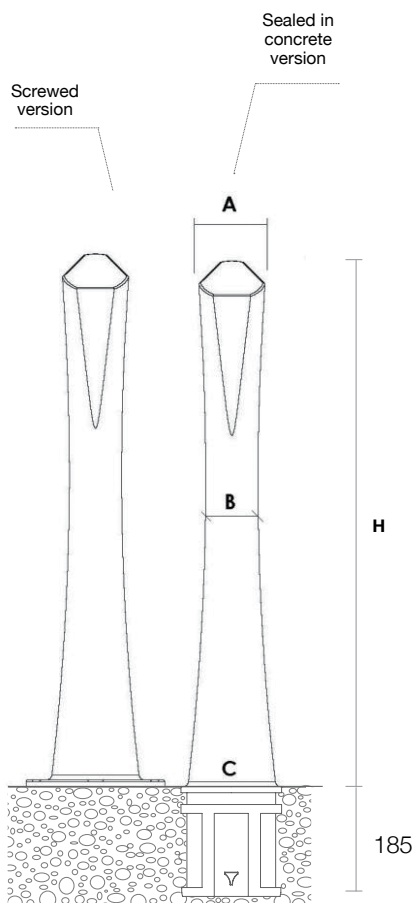
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 150 mm.

Dimensions in mm

A	B	C	H
110	90	150	900



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





Real Image

Boule

Metalized bicolor excellence
finishing example
(Black and palm color)

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

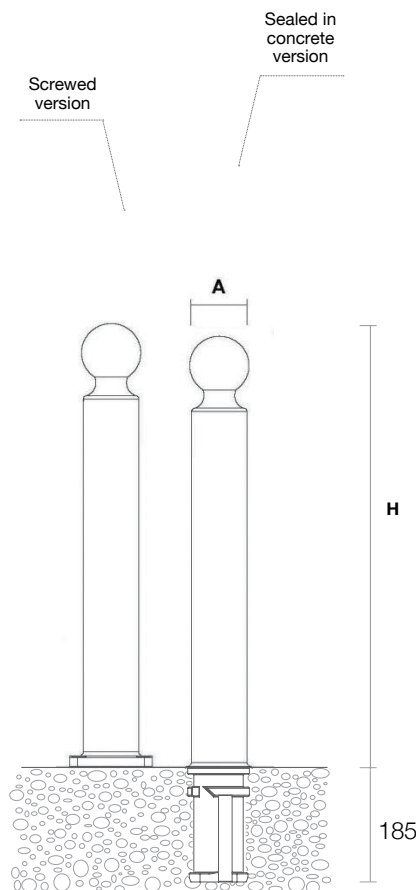
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 100 mm.

Dimensions in mm

A	H
100	800
100	900
100	1050
100	1200



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





fotomontaje

Boule D80

Bicolor excellence finishing
example (RAL 8019 + RAL 9016)

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

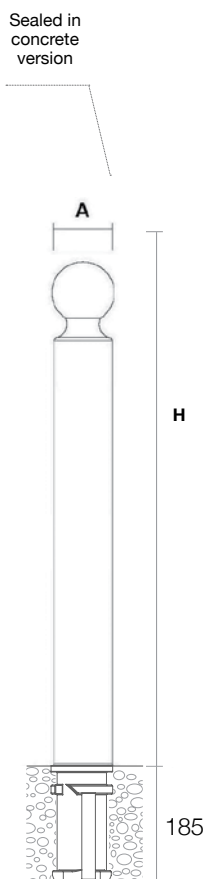
Types of Fastenings

With socket (removable) or attached directly to the ground.

Compatible with removable bollard base ø 80 mm.

Dimensions in mm

A	H
80	800
80	900
80	1050
80	1100
80	1200



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:



Constant



photomontage

Nantes

Maroon premium finishing
example (similar to RAL 3011)

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

Types of Fastenings

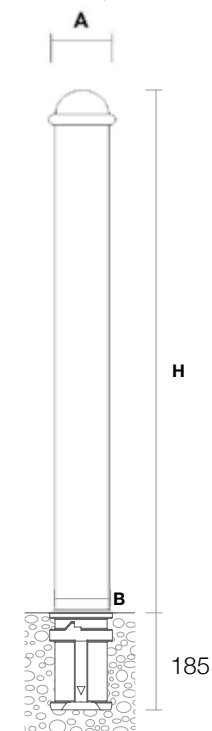
With socket (removable) or attached directly to the ground.

Compatible with removable bollard base ø 100 mm.

Dimensions in mm

A	B	H
90	100	1000

Sealed in concrete version



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:



Constant



real image

Gorge

Black premium finishing
example

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

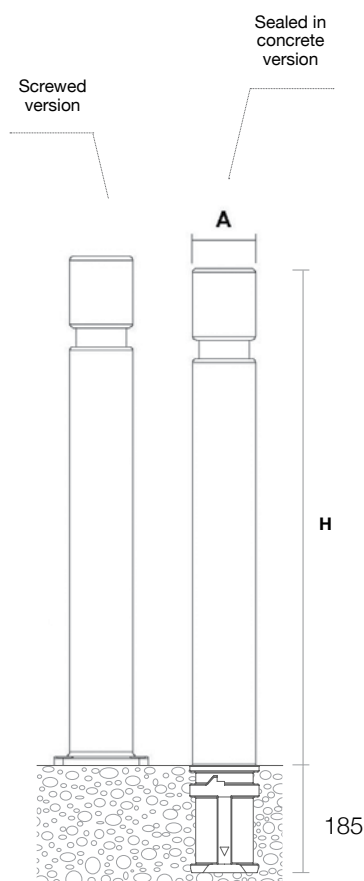
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 100 mm.

Dimensions in mm

A	H
100	800
100	900
100	1050
100	1200



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





photomontage

Black premium finishing
example

Gorge D80

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

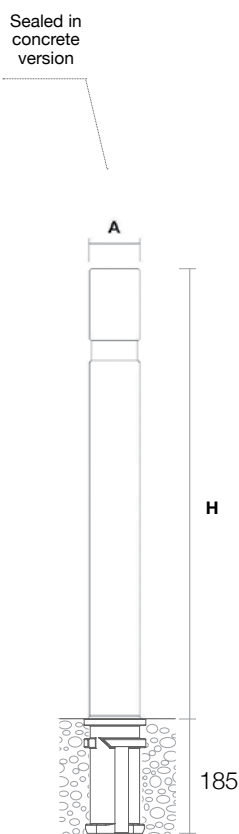
Types of Fastenings

With socket (removable) or attached directly to the ground.

Compatible with removable bollard base ø 80 mm.

Dimensions in mm

A	H
80	800
80	900
80	1050
80	1100
80	1200



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





Class

Green premium finishing
example (RAL 6024)

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

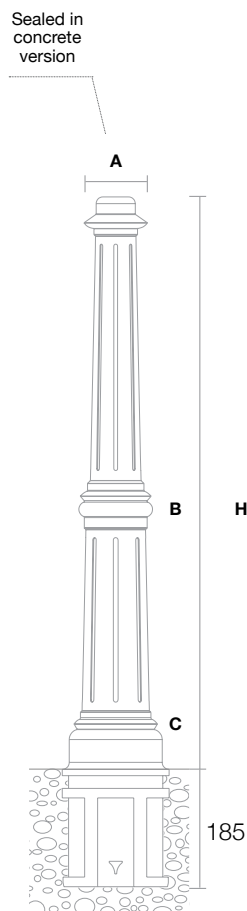
Types of Fastenings

With socket (removable) or attached directly to the ground.

Compatible with removable bollard base ø 150 mm.

Dimensions in mm

A	B	C	H
100	115	150	900



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:



Constant



real image

Baliza

Red premium finishing
example (RAL 3020)

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

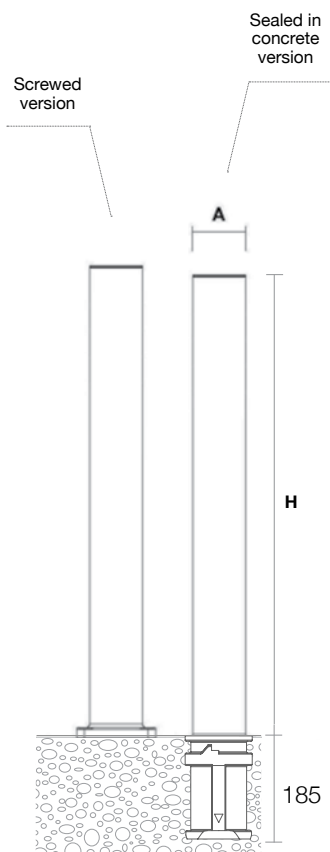
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base \varnothing 100 mm.

Dimensions in mm

A	H
100	660
100	770
100	900
100	1050
100	1200



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





real image

Baliza Reflector

Red premium finishing
example (RAL 3020)

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

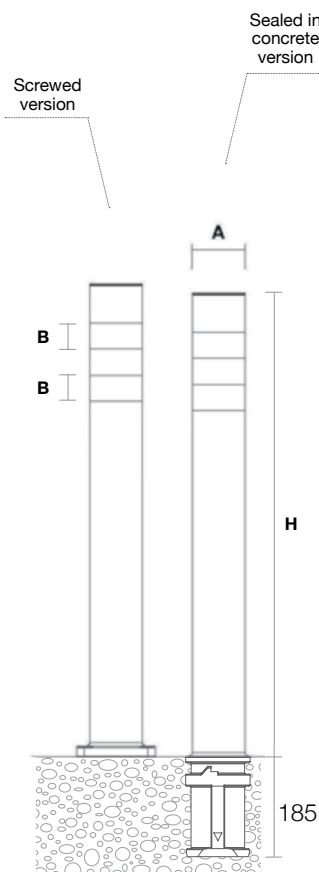
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 100 mm.

Dimensions in mm

A	B	H
100	50	660
100	50	770
100	50	900
100	50	1050
100	50	1200



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





photomontage

Baliza D80

Gray excellence finishing
example (RAL 7035)

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

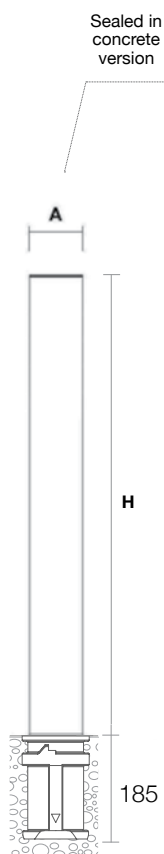
Types of Fastenings

With socket (removable) or attached directly to the ground.

Compatible with removable bollard base ø 80 mm.

Dimensions in mm

A	H
80	800
80	900
80	1000
80	1100
80	1200



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





photomontage

Baliza D150

Black premium
finishing example

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

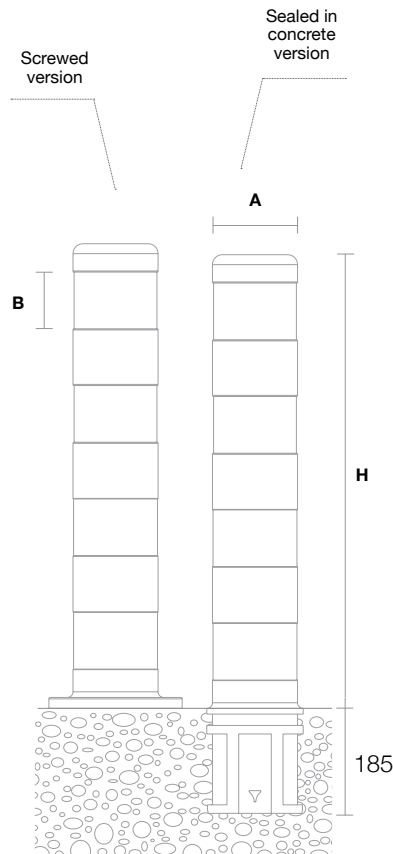
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 150 mm.

Dimensions in mm

A	B	H
150	100	800



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





real image

Gola

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

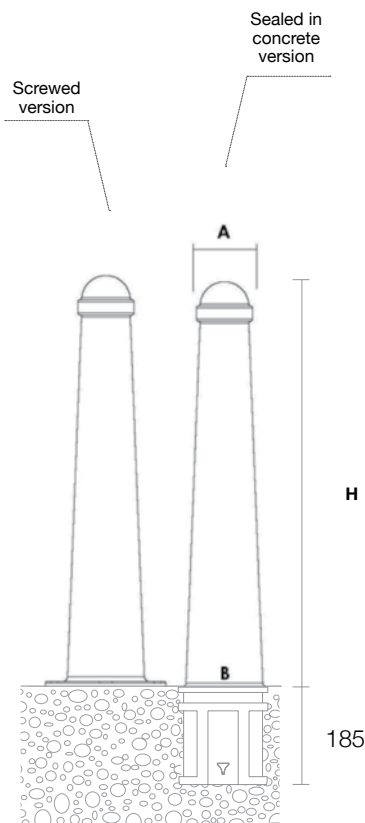
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 150 mm.

Dimensions in mm

A	B	H
110	150	800



Yellow excellence finishing
example (RAL 1016)

DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





real image

Gola Reflector

Green premium finishing
example (RAL 6024)

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

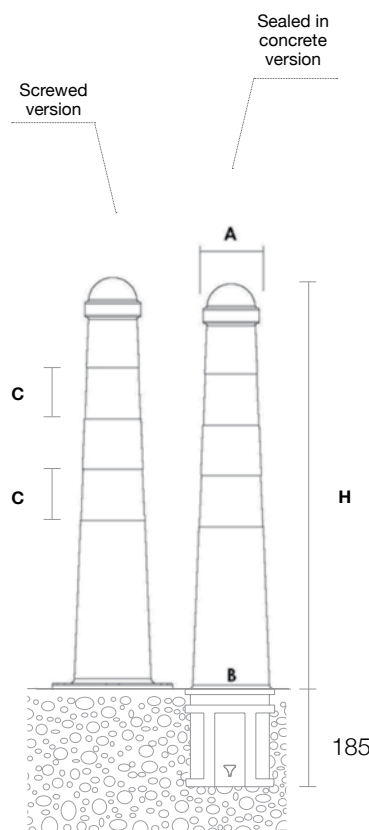
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 150 mm.

Dimensions in mm

A	B	C	H
110	150	100	800



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:



Constant



real image

Kreta

Black premium finishing
example

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

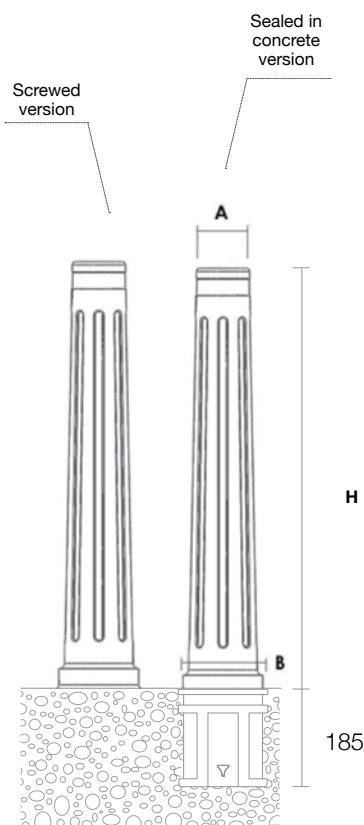
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 150 mm.

Dimensions in mm

A	B	H
100	150	800



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





photomontage

Krola

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

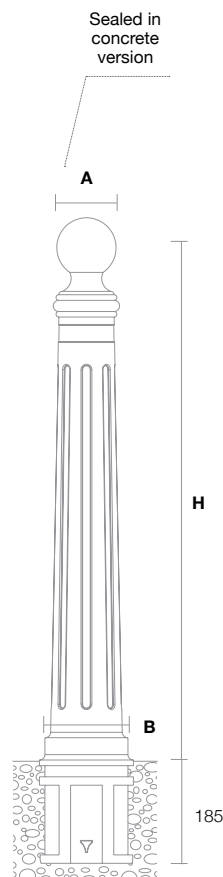
Types of Fastenings

With socket (removable) or attached directly to the ground.

Compatible with removable bollard base ø 150 mm.

Dimensions in mm

A	B	H
110	150	970



Metalized bicolor excellence finishing example (Black + copper metalized)



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:



Constant



photomontage

Wat

Dark grey excellence finishing
exemple (RAL 7016)

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

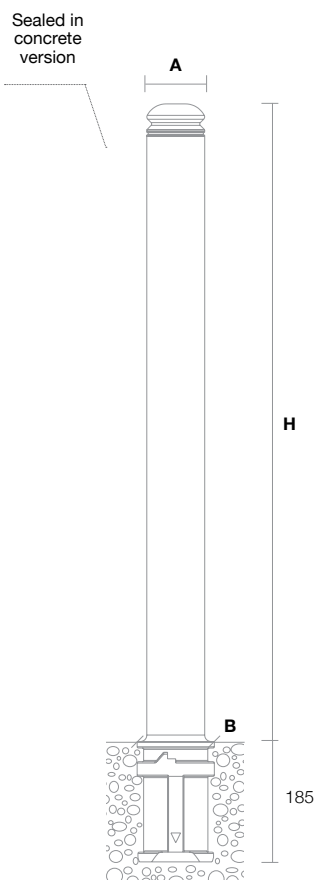
Types of Fastenings

With socket (removable) or attached directly to the ground.

Compatible with removable bollard base ø 100 mm.

Dimensions in mm

A	B	H
90	100	980



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:



Constant



photomontage

O-bus

Translucent white excellence
finishing example

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

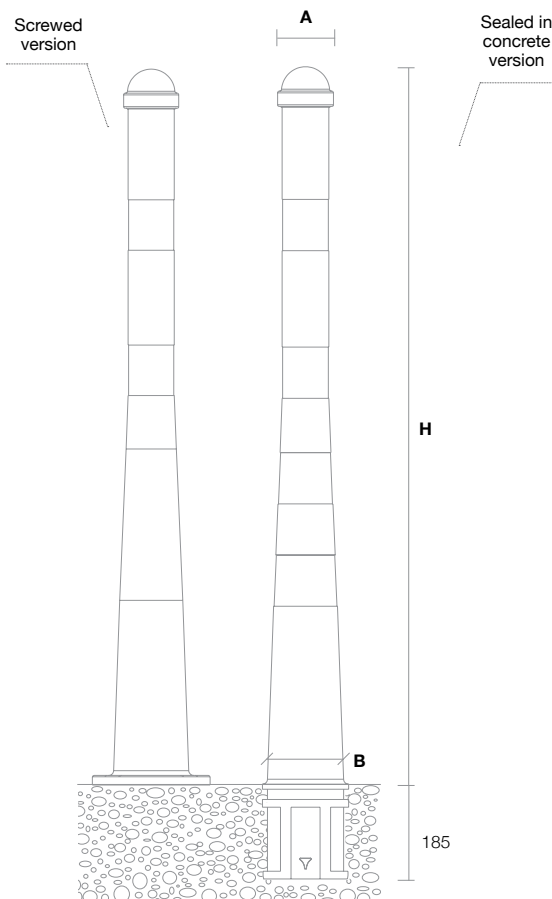
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 150 mm.

Dimensions in mm

A	B	H
110	150	1400



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





photomontage

Nuvo

Black premium
finishing example

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

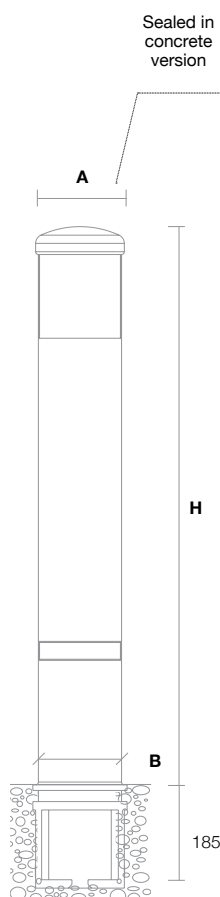
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 150 mm.

Dimensions in mm

A	B	H
160	150	1000



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





photomontage

Nuvo Reflector

Black premium
finishing example

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

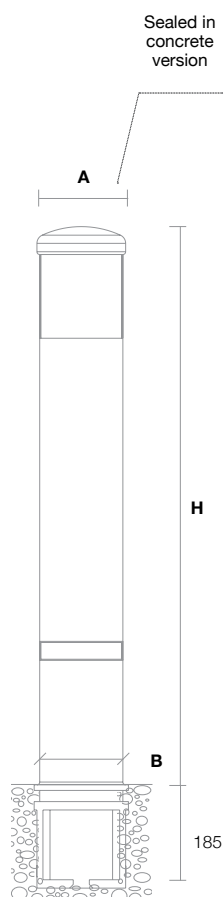
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 150 mm.

Dimensions in mm

A	B	H
160	150	1000



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





photomontage

Nuvoo Signal

Yellow premium
finishing example

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

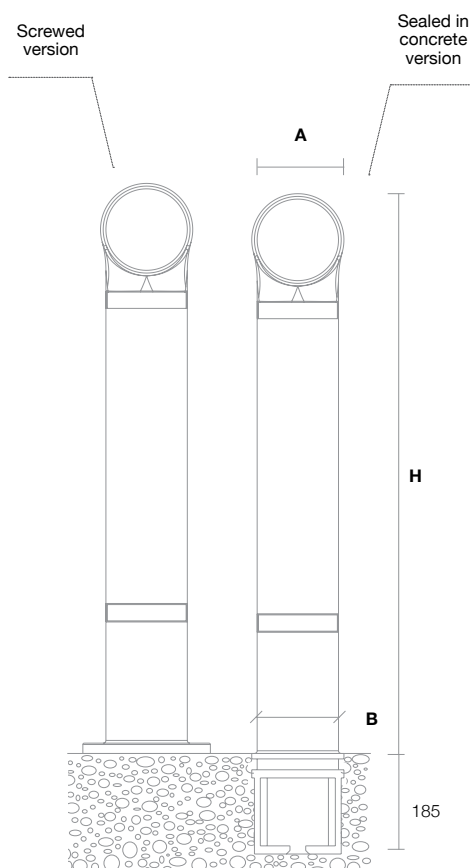
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 150 mm.

Dimensions in mm

A	B	H
170	150	1030



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





photomontage

Kuay

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

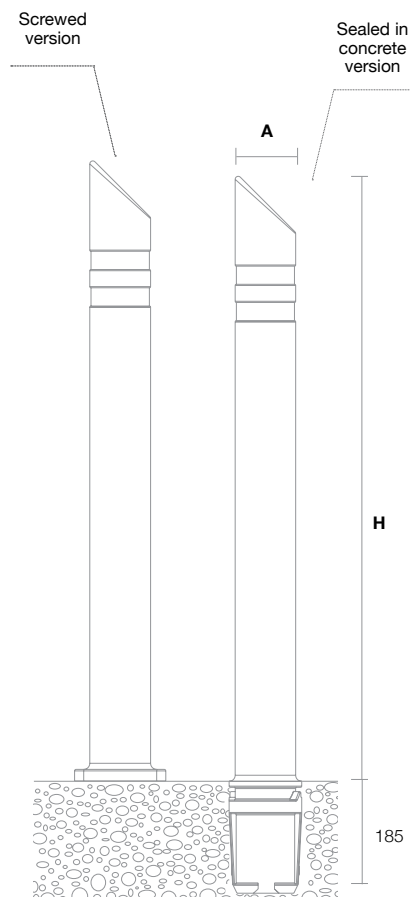
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 100 mm.

Dimensions in mm

A	H
100	1000



Gray metalized steel excellence finishing example

DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





photomontage

Babyk

Red premium finishing example

Colors

The whole RAL color range.

Finishes

Please enquire (metallic, matt, glossy). Possibility of customizing them with the city's coat-of-arms. Option of applying reflective or metallic tape.

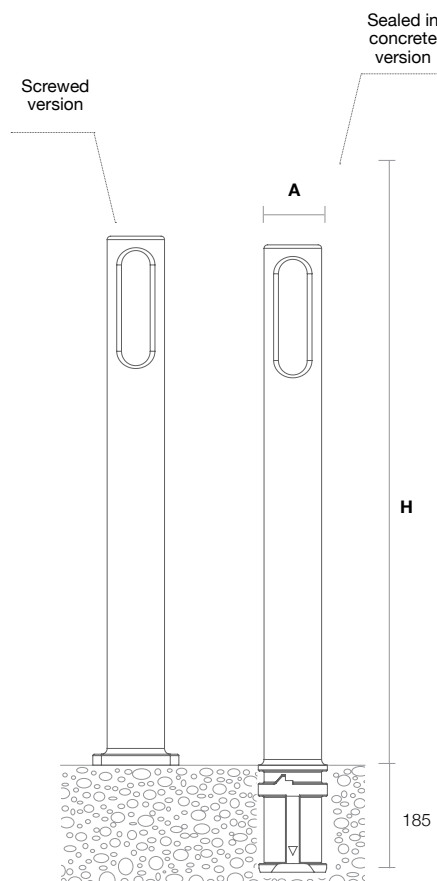
Types of Fastenings

With socket (removable), attached directly to the ground or using screws with a metal or chemical plug.

Compatible with removable bollard base ø 100 mm.

Dimensions in mm

A	H
100	900



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





Base D100 TX

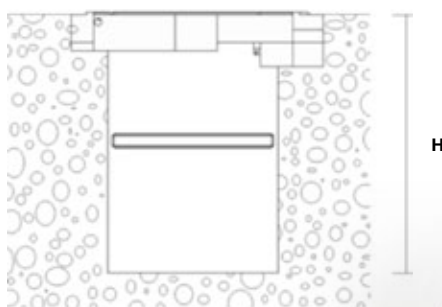
Removable bollard base with outer cover

Premium:
Color black

Excellence:
Consult.

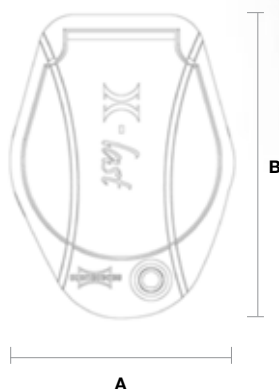
Other finishes and textures: Consult

different locks available: View



Dimensions in mm

A	B	H
150	210	215



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





Base D80

Removable bollard base with inner cover

Premium: Color black

Excellence:

Consult.

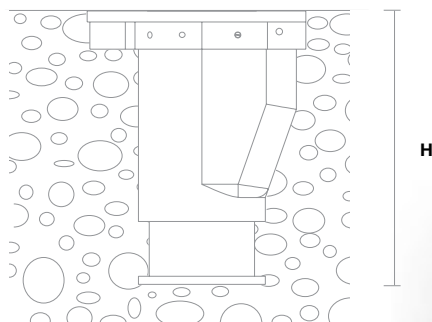
Other finishes and textures:

Consult

Different locks

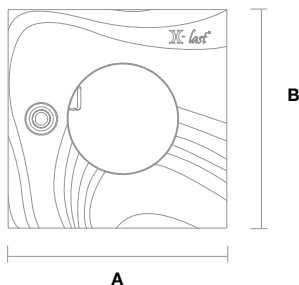
available: Consult

New system locking lid and the bollard.



Dimensions in mm

A	B	H
200	200	250



DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:





Base D100

Removable bollard base with inner cover

Premium: Color black

Excellence:

Consult.

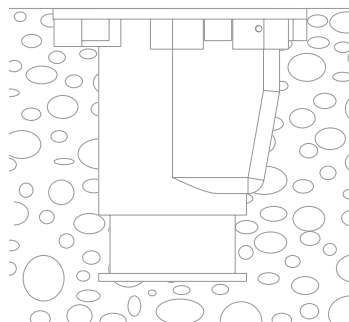
Other finishes and textures:

Consult

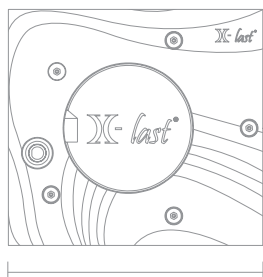
Different locks

available: Consult

New system locking lid and the bollard.



H



B

A

Dimensions in mm

A	B	H
237	220	255

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Certified company in:





Base D150

Removable bollard base with inner cover

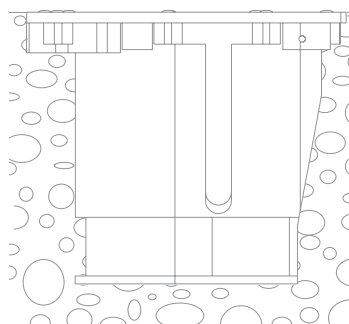
Premium: Color black

Excellence:
Consult.

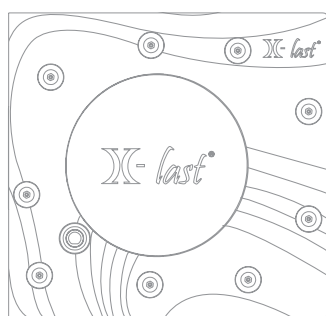
Other finishes and textures:
Consult

Different locks available: Consult

New system locking lid and the bollard.



H



B

A

Dimensions in mm

A	B	H
300	285	255

DOC-PIL-01-02-ENG-CNT ED.B REV.1

Certified company in:

