



Pour nous, votre projet est unique.

UNIPROMET  solonature

CATALOGUE 2025

Wood and steel reinforced access control solutions

OUR MISSION

Enhance the safety and quality of open spaces and streets, in both urban and rural areas, ensuring they are fully embraced and utilized by their communities.



For everyone's benefit, wood is becoming an increasingly important part of our lives. It blends seamlessly into our surroundings, adding warmth to our public spaces and providing the ideal link between the urban landscape and nature.

When carefully selected and treated with respect, wood offers numerous advantages.

With this philosophy, we have developed our **solonature®** range of wooden urban and road infrastructure: natural, aesthetic and safe landscaping solutions designed to last.

WOOD AND STEEL

Aesthetics and physical strength: a combination that will last through time and resist wear



CRAFTSPEOPLE WHO LISTEN TO YOU

We're craftspeople owing to the fact that our experience with wood is part of the company's history, but also because we see each project as unique.

Creating a bespoke project, adapting landscaping to an existing configuration or need small batch manufacturing?

Our production sites are ready to meet your needs!

A MANUFACTURER WHO ENSURE YOUR SUPPLIES

Thanks to the size of our teams and our production capacity, we are able to post complete infrastructure projects and deal with large linear runs rapidly, making us a comprehensive industrial partner.

Unlike standardised ranges, **SOLOnature®** is committed to offering a range of quality products, uniquely designed. They combine the best of metal and wood, combining the physical properties of hot-dip galvanised steel with the aesthetic appeal of autoclaved Scots pine. This unique combination includes exclusive fencing, bollards, height restrictors and access control solutions.

SOLOnature® guarantees that products are built to last and are more resistant to accidents and vandalism.





A GENUINELY ENVIRONMENTALLY RESPONSIBLE AND LOCAL RANGE

Buying environmentally friendly means understanding what an environmentally friendly product is.

This is a product that **has less impact on the environment throughout its life cycle**, i.e. from the extraction of its raw materials to its design, transport, use and recycling.

An environmentally responsible product is one that **consumes less CO2** (the main greenhouse gas responsible for global warming) or requires **less water and energy** to manufacture.

To reduce your environmental footprint, it's best to buy a product from **materials sourced in Europe**. **Transport** is the second biggest contributor to greenhouse gas emissions after energy and electricity production! **SOLONature®** comes from sustainably managed forests and 85% of our raw materials are sourced within a 170 km radius of our factory in France.

Finally, a repaired product means **one less product to recycle, and therefore less pollution!** In the event of a product defect, you are covered by a legal warranty of at least 2 years in Europe.

SOLOSAR goes even further, **with a 10-year guarantee** against premature rotting of the wood components, **creating a sustainable, responsible and local investment**. **All our products are designed and assembled in Sarreguemines (Moselle) in France.**



THE BENEFITS OF AUTOCLAVED WOOD

Wood is by nature an **environmentally responsible and renewable material**. Forests play an important role in **maintaining biodiversity** and in combating desertification and global warming. It's not a tree, it's actually a carbon sink!

Transforming wood into a building material requires **little energy**. What's more, wood is a **modern building material**, perfectly capable of competing with other building materials in terms of technical, functional and aesthetic performance.

Here are at least 10 good reasons to choose wood:

1. natural and renewable

Europe's forests cover almost 140 million hectares (more than a third of the EU's surface area). Wood is **vastly under-exploited**. Forests have not been ravaged and have great production potential.

2. combating global warming and the greenhouse effect

Trees work like a **CO₂ pump**, helping to limit the greenhouse effect linked to the use of fossil fuels. Well-thought out use of our forests, time and space-wise, is therefore a simple solution for improving air quality.

3. totally recyclable and biodegradable

When impregnated in accordance with new European directives, autoclaved wood **is 100% recyclable** through normal waste channels, and construction waste (cuttings) is too. Unlike other materials.

4. helps manage biodiversity

Europe's forests are reforested responsibly, with a view to **preserving the biodiversity** of the original species.

5. amazing physical properties

The physical capabilities of wood are **impressive**. For example, a 3-metre long beam on two posts, to which a 20-tonne load must be applied, will weigh: 60 kg in wood, 80 kg in steel and 300 kg in reinforced concrete.

6. a national economic asset

From forestry to finished product, the timber industry in France generates **more than 500,000 direct and indirect jobs**. It represents more jobs than the automotive sector.

7. Faster production times than steel or concrete

The construction time must be taken into account when calculating the cost of a project. From this point of view, wood-based construction systems are very efficient. Thanks to their high added value in prefabrication, **they save a great deal of time**.

8. Ensures a clean worksite

Wood makes for a clean, safe, economical and environmentally-friendly building site.

9. production flexibility and truly bespoke

Available in all diameters and lengths, wood as a raw material means that **even small quantities can be made for customised production**.

10. limited maintenance costs

The **interchangeability of components** of the wood-based structure (an advantage of "dry" materials) means that these operations can be carried out faster and with less disruption, which has a positive impact on the cost of using the structures.



CLASS 4 AUTOCLAVED SCOTS PINE PROTECTION



All the Scots pine used to produce **solonature®** solutions is impregnated exclusively to **protection class 4 in accordance with standard EN 335**. Only autoclaved "vacuum and pressure" impregnation is truly effective, giving **our solutions a 10-year guarantee against premature rotting caused by fungal attack or wood-eating insects**.

The natural movement of wood

When the "free" water has completely disappeared, all that remains is the bound water that impregnates the wood fibres. Before impregnation, the moisture content of the wood must be less than 30% (level of fibre saturation). Below this level, the wood will shrink and warp. The aim of the treatment is to stabilise these variations and combat natural attack.

«Vacuum and pressure » autoclave

We impregnate Scots pine in a vacuum and pressure autoclave to achieve Class 4 protection to EN 335. When treated like this, it is a modern material that can compete with other building materials in terms of technical, functional and aesthetic performance.

100% chromium and arsenic free and complies with the European Biocide Directive

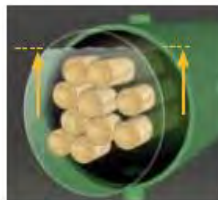
In compliance with the European Environmental Biocide Directive, our wood treatment process does not contain chromium or arsenic and complies with EN 335. Our products are manufactured without glues or solvents.

Protection at its core

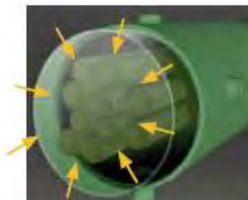
As a living material, wood breathes, shrinks and expands. After treatment, the wood may crack as a natural reaction to the autoclave process. This does not affect the quality or durability of the material, which is protected right to its core. Similarly, UV-sensitive wood may turn grey over time. Again, this does not affect the durability of the material.



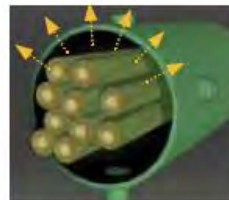
1. Vacuum phase



2. Addition of the impregnation product



3. Pressurisation



4. Final vacuum



Each component is fitted with a clip bearing a batch number and year of manufacture to guarantee the ten-year warranty.

COMPLETE SAFETY

FOR ALL ROAD USERS AND ROAD
TRAFFIC MANAGERS



The increased usage of open spaces by the public and the integration of soft mobility and alternatives to the car are now major challenges for all local authorities.

Just as parents put protective helmets on their children when out cycling, **SOLOnature®** access control solutions guarantee **peace of mind and total security for the road owner, installer and user.**

Because outdoor spaces are now shared by many different types of users, and in order to ensure that outdoor activities are always enjoyable, SOLOSAR places **safety and durability at the heart of all its product developments.**

For example, we work almost exclusively **with logs or half logs** to avoid roughness, sharp edges and protruding corners, and most of our solutions have **a 45° chamfer** for added safety.



WHY IS ACCESS CONTROL AN IMPORTANT TOPIC NOWADAYS?

New travel habits within villages and towns have changed the way we look at the community and mobility. Cycling, scooter riding, running and walking all require **open spaces to be shared by all**. To avoid anarchy and allow everyone to move around in safely, **SOLOMATURE®** access control solutions provide **security, guidance, direction and orientation**, making them the keystone of this new mobility paradigm.

Playgrounds, car parks, car sharing areas, cycle paths and footpaths all need **to be made safe** with solutions tailored to the real needs and budget of the local authority managing them.

In response to **environmental challenges**, wood - the most environmentally friendly material - is now obviously the choice. And as part of this collective awareness-raising process, we are also obviously on hand to help you bring sustainable, **environmentally-friendly** urban development and road projects to life.

People flow management

Physical and visual protection

Entry restrictions

Road limit marking



A MAJOR CHALLENGE TODAY

New travel habits within villages and towns have changed the way we look at the community and mobility. Cycling, scooter riding, running and walking all require open spaces to be shared by all. To avoid anarchy and allow everyone to move around in safely, SOLONATURE® access control solutions provide security, guidance, direction and orientation, making them the keystone of this new mobility paradigm.



solonature

SOLOSAR

Le savoir-faire de la solution de traitement

UNIPROMET



PRODUCT MATRIX

The entire **SOLO NATURE®** range,
arranged by solution type.

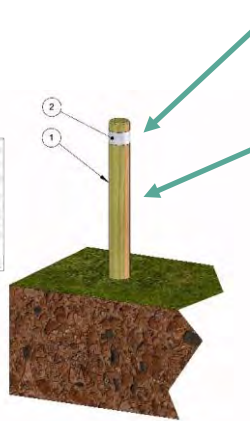


PRODUCT MATRIX

FIXED EMBEDDED BOLLARDS

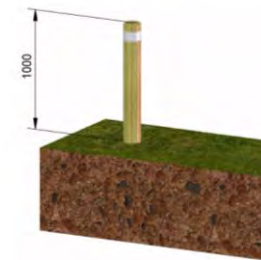
Ready-to-install fixed bollard

Solid wood
For installation in concrete block
Diam. : 140mm
Height 1000 mm above ground
With Cl. 2 reflective sheet
Pre-assembled



Reflective collar. Class 2
factory-assembled.

Solid wood bollard
Embedded

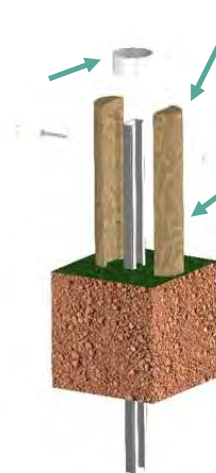


RICANTO bollard

With embedded or sunken steel C100 post into the ground for optimum strength without sacrificing the aesthetic appeal of the wood.
Height 700 mm above ground



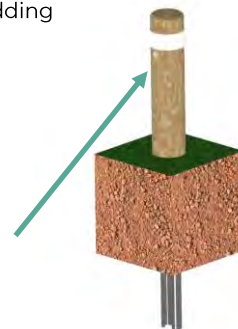
Reflective collar
Class 2
unassembled



Screws concealed
by HDPE cap

Solid wood cladding

Embedded or
sunken C100
post



PRODUCT MATRIX

REMOVABLE BOLLARDS

PREMIUM Bollard

Solid wood post ø140 with steel sleeve for embedding in concrete. Stainless steel handle. With 2 glass microbeads reflectors.



2 stainless steel handles

2-sided glass bead reflectors.

Hot-dip galvanised steel locking pin for padlock (optional).

Hot-dip galvanised steel insert plate
for log stabilisation

Hot-dip galvanised steel sleeve to be embedded in the ground.

REMOVABLE bollard

With steel sleeve for embedding into concrete. Completely removable log.



Reflective collar.
Class 2
unassembled

Ø140mm post

Connecting
plate

Sleeve

Pin
LG-173mm

Locking pin

Solid wood
bollard

Metal insert plate



PRODUCT MATRIX

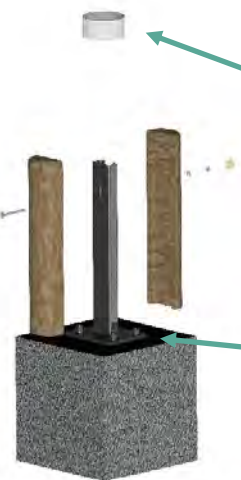
BOLLARDS ON BASE PLATES

RICANTO bollard on base plate

For optimum strength without sacrificing the aesthetic appeal of the wood.
Height 700 mm above ground.



Screws concealed by HDPE plug.

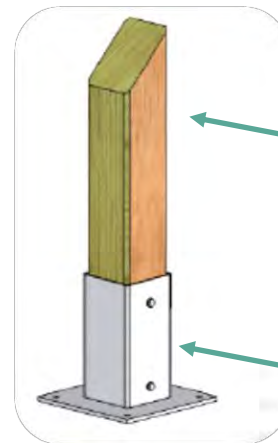


Reflective collar Class 2
unassembled

C100 post on base
plate

GUTENBERG bollard

With galvanised steel sheath.
Aesthetic shape and variable
height.



Angled and
chamfered square
(variable heights)

Dedicated metal
sleeve to be
embedded in the
ground

PRODUCT MATRIX

SINGLE OR DOUBLE LEAF SWING GATE BARRIERS

Narrow road. Moderate
risk of vandalism.



SINGLE LEAF SWING gate

Wood & steel

Horizontal wooden rail + steel bracing

Passage width 2 to 3 m

Double leaf swing gate available in widths of 5 or 6 m



DOUBLE LEAF SWING gate

Wood & steel

Horizontal wooden rail + steel bracing

Passage width **5 or 6 m**



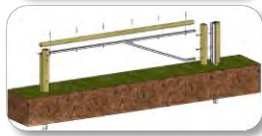
CHICANE Set

Wood & steel

1 combination of 2 locking gates on the swivel post

Standard passage width **2 m**

Available in 1 m or 1.50 m versions for narrow roads

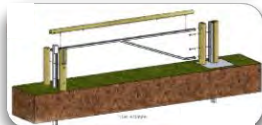


EDGE swing gate

wood & steel integrated

Horizontal wooden rail reinforced with steel tube

Passage width **3 to 4 m**



DURANCE swing gate

wood & steel integrated concealed padlock

Horizontal wooden rail reinforced with steel tube

Passage width **3.50 m**

**Lock
in open position**



Closed position with
optional fireman's
padlock



**Autoclaved solid wood
catch post and counter
catch post**

Wide roads. Increased
risk of vandalism.

SLIDING GATES



SOLOSAR
ÉQUIPEMENTS • ÉVALUATION • SÉCURITÉ • AMÉNAGEMENT



Increased risk
of vandalism.



REINFORCED SLIDING gate

Wood & steel

Ready-to-install pre-assembled posts
Passage width **3 m**

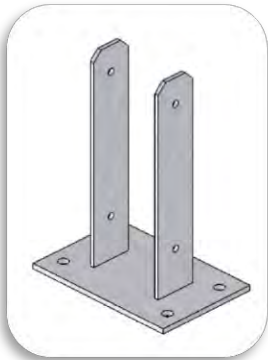


PRODUCT MATRIX

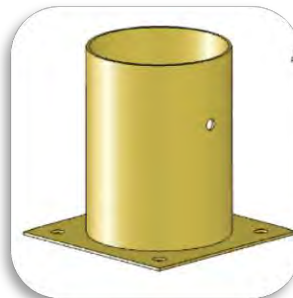
OPTIONS



Anchoring without concrete



Galvanised anchor sleeve to screw onto concrete bed



Galvanised or
powder-coated RAL
7008 anchor sleeve



Firemen's padlock +
hydrant key



Intelligent ASSA
ABLOY **electromechanical padlock**



Strip with **ULTRAGUARD™** highly-reflective coating

PRODUCT MATRIX

HEIGHT RESTRICTION PIVOTING GANTRIES

Standard
vehicle

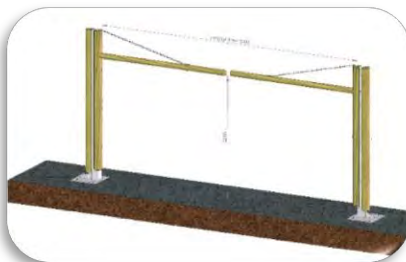
HGVs and
lorries



Wood & steel pivoting gantry Single leaf swing

Completely pre-assembled and ready to install on a concrete base. Easy to open.

Height 2.25 m - Passage width 2 or 3 m.



Wood & steel pivoting gantry double leaf swing

Completely pre-assembled and ready to install on a concrete base. Easy to open.

Height 2.25 m - Passage width 5 or 6 m.

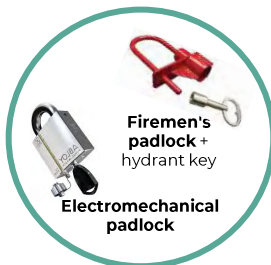


Wood & steel single or double leaf pivoting gantry special for HGVs

Completely pre-assembled and ready to install on a concrete base. Easy to open. Height 2.30 to 4 m (made to measure)

Passage width 5 or 6 m.

OPTIONS



Firemen's
padlock +
hydrant key

Electromechanical
padlock



Hanger kit

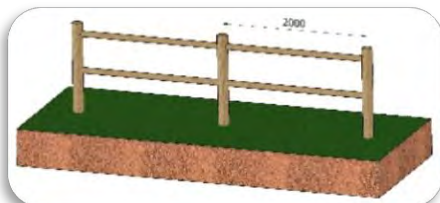
To fit a reflective strip (not supplied).

PRODUCT MATRIX

AUTOCLAVED SOLID WOOD FENCING

High fence

Low fence



ROMA fence

single - double - triple rail
Interlocking horizontal rails,
no need for screws or glue
just embed in solid concrete.
Made entirely of autoclaved
solid wood

Available in square post and steel
version (see TREVI model)



MILANO fence

Interlocking horizontal rails,
no need for screws or glue just
embed in solid concrete.
Made entirely from autoclaved
solid wood.

SOLOSAR pre-assembled
railing module to save time on
your site.



TORINO fence

**Interlocking horizontal
rails,** no need for screws or
glue just embed in solid
concrete.
Made entirely from
autoclaved solid wood.

SOLOSAR pre-assembled
railing module to save time
on your site.



LONDON fence

Machined tongue and
groove post

To be **sleeper-screwed** and
then embedded in concrete.
Made entirely from
autoclaved solid wood.

PRODUCT MATRIX

WOOD AND STEEL **ECO** FENCING

€ ECO

PREMIUM



TREVI fence

Interlocking horizontal rails, no need for screws or glue just embed in solid concrete.

Available as a round solid wood post (see ROMA model)



BRUXELLES fence

Needs sleeper-screwing - special Anti-parking post to be embedded in concrete.



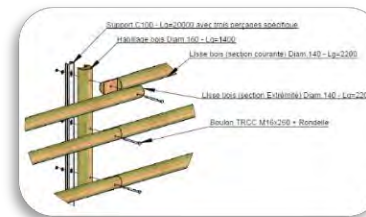
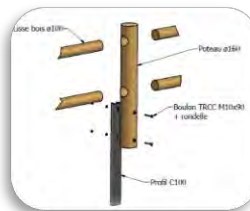
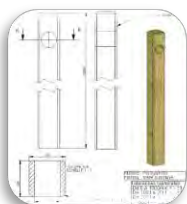
FLORENCE fence

Interlocking with U-shaped steel post to be embedded in concrete.
Available with **solid wood post** (see ROMA model)



TOULOUSE fence

C100 post to be rammed into the ground - triple rail and wood cladding. Fixed by carriage bolt
Height **1.10 m or 1.40 m**



PRODUCT MATRIX

WOOD AND STEEL FENCING WITH C100 STEEL POST

Low fence

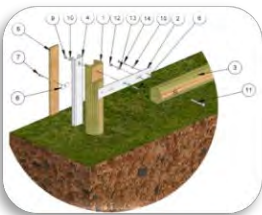
High fence



ARCACHON fence

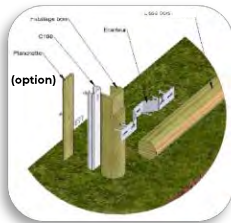
single-rail fence with C100 post
to be rammed into the ground -
2.50 m centre-to-centre distance.

Fixed by carriage bolt and
sleeper-screws - Height **700 mm**



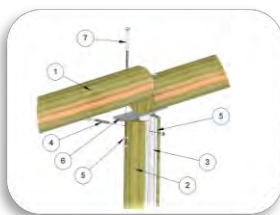
AMSTERDAM fence

Single-rail fence with C100 post to be embedded or on a base plate - 2, 2.50, 3 or 4 m centre-to-centre spacing. Fixed by carriage bolt and sleeper-screws - Height **700 mm**



DEAUVILLE fence

Single-rail fence with C100 post to be embedded or on a base plate - 2, 3 or 4 m centre-to-centre spacing. Fixed by carriage bolt - Height **875 mm**



CADIZ fence

C100 post to be embedded - double staggered rails. Fixed by TRCC - Height **1.20 m**



CONTENTS

- 01** Swing gate barriers
- 02** Height restriction gantries
- 03** Bollards
- 04** Fences
- 05** Wheel stops and cycle hoops
- 06** Retaining walls
- 07** Autoclaved logs and sawn timber
- 08** Bespoke projects



solonature

SOLOSAR
E. & F. SOLOSAR SA - 100% BOIS - 100% MADE IN FRANCE

UNIPROMET



01

WOOD AND STEEL GATE BARRIERS

ACCESS CONTROL BARRIERS

WHY INSTALL ACCESS CONTROL BARRIERS?

Cycle lanes are lanes reserved exclusively for non-motorised two or three-wheeled cycles. Traffic, parking and deliveries by other vehicles are therefore prohibited on cycle lanes.

Whatever the nature of the zone in question - 30 km/h zone, cycle and car-free zone, pedestrian area - these key elements of mobility must be clearly signposted and access to them controlled.

WHAT ARE ACCESS CONTROL BARRIERS USED FOR?

Their main purpose is to help mix traffic and separate or exclude certain vehicles, while allowing (controlled) access to road services for servicing, maintenance or renovation.

WHO DOES WHAT?

- **City or Municipal Governments:** the local city or municipal government is usually responsible for overseeing urban planning and public infrastructure, including access control barriers for public spaces, pedestrian zones, and traffic management.
- **Departments of Urban Planning:** These departments work on the design, location, and integration of access control systems to manage public spaces and security.
- **Public Safety Departments:** They may collaborate to implement barriers for public safety, particularly in high-risk areas like near government buildings, embassies, or public gatherings.
- In some cases, **national or regional authorities** provide guidelines or regulations for city infrastructure, including security barriers, especially when the barriers are part of critical infrastructure or high-security areas.

WHY BUILD ROADS FOR ALL USERS?

Street furniture must strike a delicate balance between the level of service and comfort offered to users and the fluidity and safety of pedestrian movement. The contrast can easily be increased by adding a different-coloured element, using paint or a retro-reflector, for example. Contact SOLOSAR for advice on these options, which can be integrated into all solutions in the **SOLOnature®** range.



ACCESS CONTROL BARRIERS

TECHNICAL ADVICE

SAFETY FIRST AND FOREMOST FOR ACCESS CONTROL BARRIERS?

The components must not have any rough edges or sharp parts. **SOLOnature®** horizontal rails are therefore made from logs to ensure safety and do not have any sharp edges or corners, but are rounded or chamfered on the upper part of the barrier in direct contact with users and on the vertical posts.

VERTICAL LOAD RESISTANCE OF RAIL AND SUBRAILS

A vertical load simulates one or more people sitting on top of the barrier or using a sub-rail as a step. During the development of its solutions, SOLOSAR regularly carries out crash tests to test the robustness of a component or assembly. Thanks to the duality of wood and steel, **SOLOnature®** products are more durable, resistant and less susceptible to vandalism.



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SOLOSAR
SOLUTIONS D'ACCÈS SÉCURISÉES

Pour tous vos projets et usages

UNIPROMET

GATES

Vocabulary of technical parts for swing gates

Counter catch post (Made entirely of solid wood or a mix of wood and steel, depending on the model) to lock the horizontal rail in the OPEN position.

Catch post (solid wood)
Used to receive the horizontal rail in the OPEN position

LEFT-HAND OPENING DIRECTION

RIGHT-HAND OPENING DIRECTION

Swing gate barrier in **OPEN** position

Embeddable post: wood and steel, fitted with male hinges to be embedded in the ground.

SWING assembly: a combination of wood and steel, consisting of a horizontal wooden rail, a steel frame and a post with female hinges.


ACCESS CONTROL BARRIERS

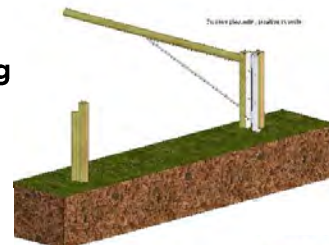
SINGLE LEAF SWING GATE

TECHNICAL INFO :

- ✓ **Steel components:** S235 JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood components:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Post:** pre-assembled wood and steel (UPN100 with Ø160 trim) Hinges **with grease nipple**
- ✓ **Passage width:** 2 m or 3 m (width) x 1 m (height)
- ✓ With solid wood post in closed position
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, reducing speed for cyclists, etc.
- ✓ Specify **opening direction** (right or left) when ordering
- ✓ Made-to-measure: please contact us

EXCLUSIVE PRODUCT BENEFITS :

- ✓ **Wood and steel:** robust, attractive and durable
 - ✓ **Reduced vandalism, controlled maintenance budget and total security**
 - ✓ **Installation:** post to be embedded in concrete block
 - ✓ **Rail and stiffener:** total control of verticality
 - ✓ **Locking (closed position):** by steel pin to be inserted into the horizontal rail and the wooden post. Fireman's padlock + key optional.
 - ✓ **Made in France (Moselle)**
 - ✓ Available in **double leaf swing**
- 



ACCESS CONTROL BARRIERS

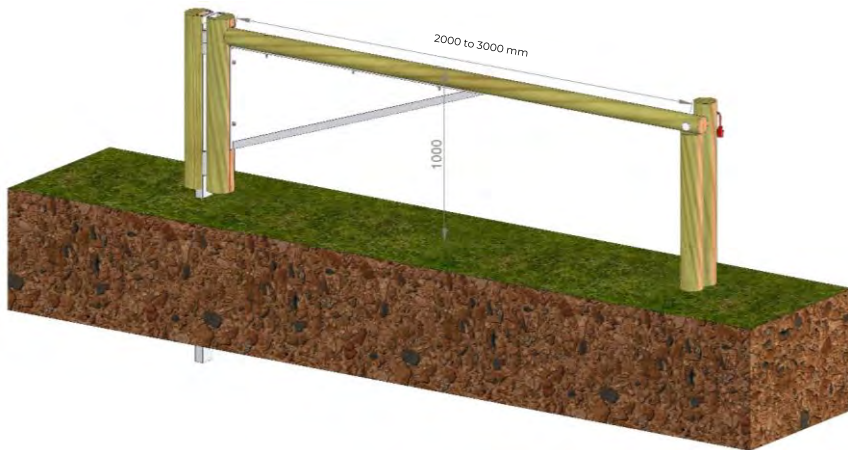
SINGLE LEAF SWING GATE

Wood and steel single-leaf gate



Diagram illustrating the closed position of a cable-stayed bridge. The bridge is shown in a closed position, with the span resting on the piers. The diagram shows the bridge structure, including the piers, the span, and the stay cables. A red arrow points to the span, and a blue arrow points to the piers.

Closed position with **optional** fireman's padlock



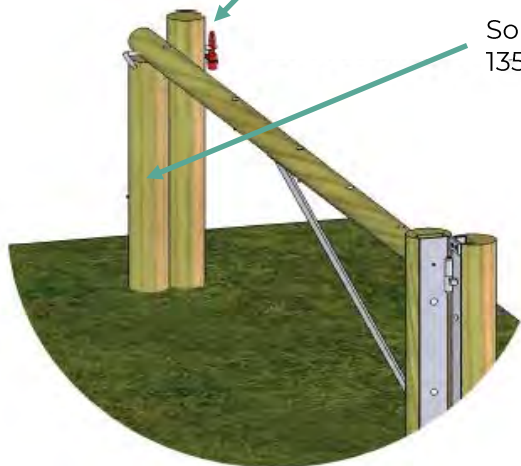
ACCESS CONTROL BARRIERS

SINGLE LEAF SWING GATE

- ✓ **OPTION 1 :** solid wood receiver post assembly for holding in the open position

Solid wood counter catch post 1500 mm long - diam. 140 mm with hole for pin and optional padlock to lock in open position.

Solid wood post, length 1350 mm - diam. 140mm



- ✓ **OPTION 2 :** fireman's padlock + hydrant key, red epoxy paint, for locking your barriers and gates.

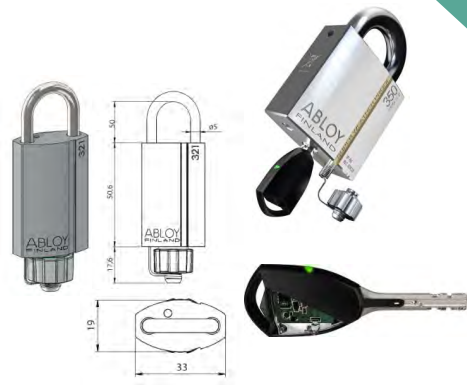


- 14 mm internal cross-section.
- Inside material of the triangle: brass
- Key supplied
- Can be quickly unlocked by firefighters thanks to its triangular lock (firefighters have this type of key).

ACCESS CONTROL BARRIERS

SINGLE LEAF SWING GATE

- ✓ **OPTION 3 :** Intelligent padlocks and keys for one-stop access management
 - ✓ Intelligent ASSA ABLOY **electromechanical** padlock.
 - ✓ 2 key variants: electromechanical or purely mechanical
 - ✓ The lock is operated from the outside by a CLIQ **electronic key** programmed by SOLOSAR.
 - ✓ The key can only be removed in the locked position
 - ✓ Designed to last and resist physical and electronic attack
 - ✓ CLIQ is an **electronic locking** system designed to provide **maximum flexibility and enhanced security**. Physical security is optimised by a series of tamper-proof electromechanical cylinders and padlocks, controlled by intelligent CLIQ programmable keys.
 - ✓ Material: stainless steel, corrosion-resistant even in harsh environments.
-
- ✓ **OPTION 4 :** Pre-galvanised steel strip with **ULTRAGUARD™** high-reflective coating
 - ✓ Pre-galvanised steel strip
 - ✓ Application of **ULTRAGUARD™** reflective coating
 - ✓ Strip ready to be fixed to any **SOLO NATURE®** gate



From road technology



ACCESS CONTROL BARRIERS

SINGLE LEAF SWING GATE

Wood and steel barrier



Made to measure



ACCESS CONTROL BARRIERS

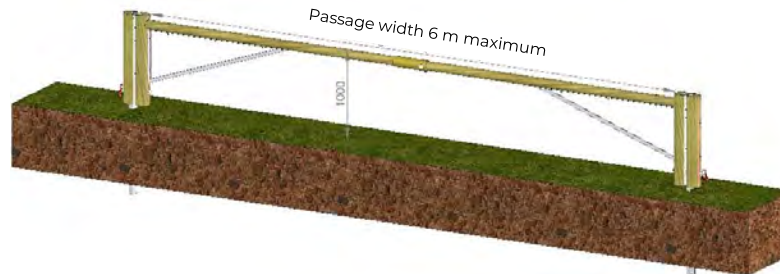
DOUBLE LEAF SWING GATE

TECHNICAL INFO :

- ✓ **Steel components:** S235 JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood components:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Central sleeve with locking pin supplied as standard**
- ✓ **Post:** pre-assembled wood-steel composite (UPN100 with Ø160 trim) Hinges with grease nipple
- ✓ **Passage width:** 5 m or 6 m (width) x 1 m (height)
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, reducing speed for cyclists, site entrances, etc.
- ✓ Made-to-measure: please contact us

EXCLUSIVE PRODUCT BENEFITS :

- ✓ **3-point locking on right and left pivots and central sleeve by pin**
- ✓ **Wood and steel:** robust, attractive and durable
- ✓ **Reduced vandalism, controlled maintenance budget and total security**
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **Rail and stiffener:** total control of verticality
- ✓ **Locking (closed position):** with RAL 7008 powder-coated steel sleeve and steel locking pin (fireman's padlock + key optional)
- ✓ **Made in France (Moselle)**
- ✓ Available in **single leaf**



ACCESS CONTROL BARRIERS

DOUBLE LEAF SWING GATE

wood and steel double-leaf barrier



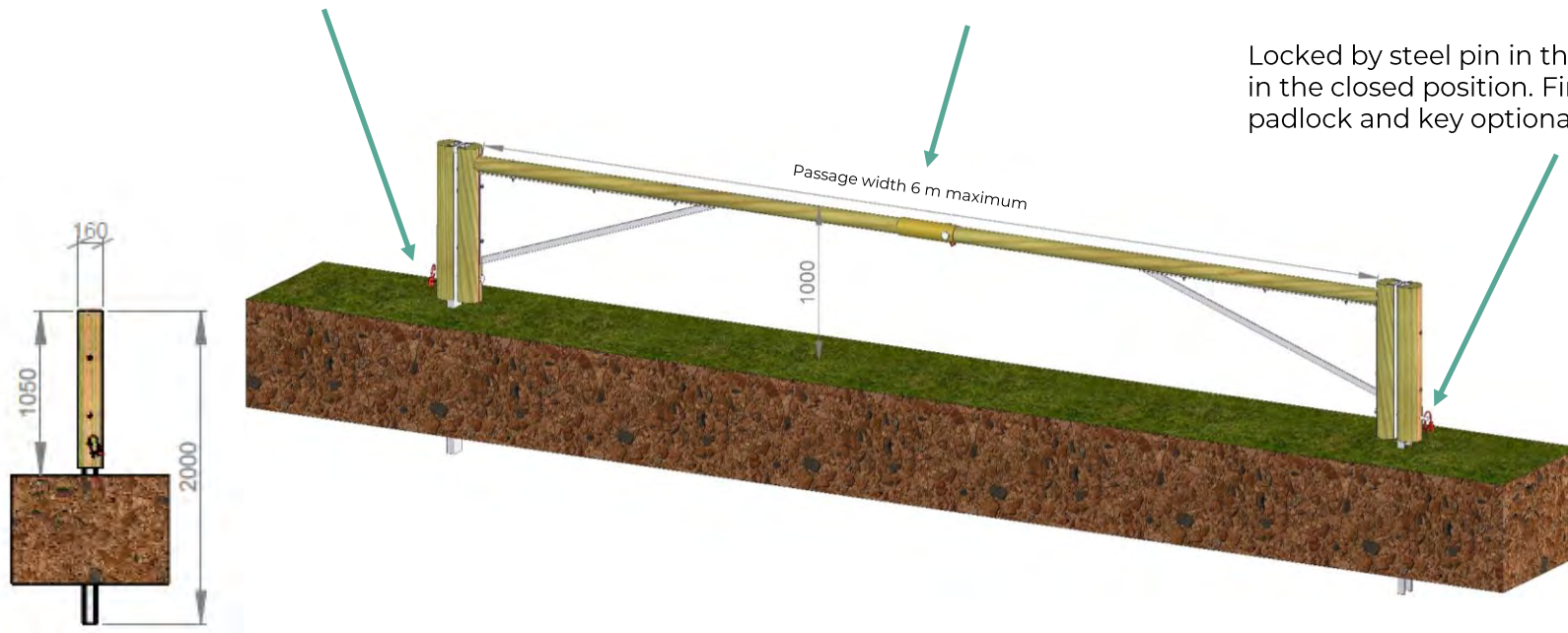
ACCESS CONTROL BARRIERS

DOUBLE LEAF SWING GATE - Working principle

Locked by steel pin in the left pivot in the closed position. Fireman's padlock and key optional.

Locking with lacquered sleeve
RAL 7008 and through pin for
joining the 2 horizontal rails.

Locked by steel pin in the left pivot
in the closed position. Fireman's
padlock and key optional.

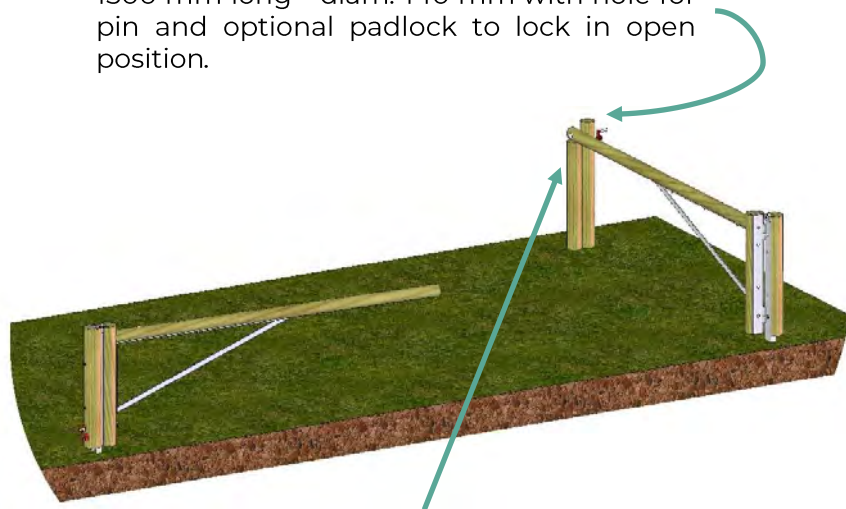


ACCESS CONTROL BARRIERS

DOUBLE LEAF SWING GATE

- ✓ **OPTION 1 :** solid wood receiver post assembly for holding in the open position

Counter catch post made of solid wood 1500 mm long - diam. 140 mm with hole for pin and optional padlock to lock in open position.



Catch post made of solid wood, length 1350 mm - diam. 140 mm

- ✓ **OPTION 2 :** fireman's padlock + hydrant key, red epoxy paint, for locking your barriers and gates.



- 14 mm internal cross-section.
- Inside material of the triangle: brass
- Key supplied
- Can be quickly unlocked by firefighters thanks to its triangular lock (firefighters have this type of key).

ACCESS CONTROL BARRIERS

DOUBLE LEAF SWING GATE

- ✓ **OPTION 3 :** Intelligent padlocks and keys for one-stop access management
- ✓ Intelligent ASSA ABLOY **electromechanical** padlock.
- ✓ 2 key variants: electromechanical or purely mechanical
- ✓ The lock is operated from the outside by a CLIQ **electronic key** programmed by SOLOSAR.
- ✓ The key can only be removed in the locked position
- ✓ Designed to last and resist physical and electronic attack
- ✓ CLIQ is an **electronic locking** system designed to provide **maximum flexibility and enhanced security**. Physical security is optimised by a series of tamper-proof electromechanical cylinders and padlocks, controlled by intelligent CLIQ programmable keys.
- ✓ Material: stainless steel, corrosion-resistant even in harsh environments.



- ✓ **OPTION 4 :** Pre-galvanised steel strip with **ULTRAGUARD™** high-reflective coating
- ✓ Pre-galvanised steel strip
- ✓ Application of **ULTRAGUARD™** reflective coating
- ✓ Strip ready to be fixed to any **SOLOnature®** gate



From road technology



ACCESS CONTROL BARRIERS

CHICANE GATE SET

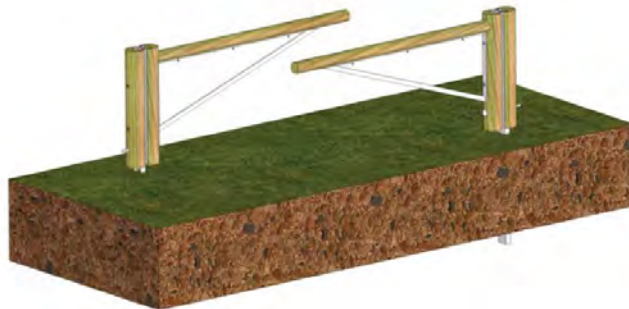
TECHNICAL INFO:

- ✓ **Steel components:** S235 JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood components:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Post:** pre-assembled wood and steel (UPN100 with Ø160 trim)
- ✓ Hinges with grease nipple
- ✓ **Passage width:** 2 m (width) x 1 m (height)
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** restricting access to motorised vehicles on green lanes, cycle lanes on the approach to a junction and other lanes dedicated to pedestrians, reducing speed for cyclists, etc.



EXCLUSIVE PRODUCT BENEFITS:

- ✓ **Narrowing effect to force users to reduce their speed on multifunctional cycle paths**
- ✓ **Wood and steel:** robust, attractive and durable
- ✓ Reduced vandalism, controlled maintenance budget and total security
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **Rail and stiffener:** total control of verticality
- ✓ **1-point locking (closed position):** by steel pin to be inserted in the pivoting post
- ✓ **Made in France (Moselle)**
- ✓ **IMPORTANT: the chicane set is sold in 2 pivoting half-barriers as shown in the diagram opposite.**



ACCESS CONTROL BARRIERS

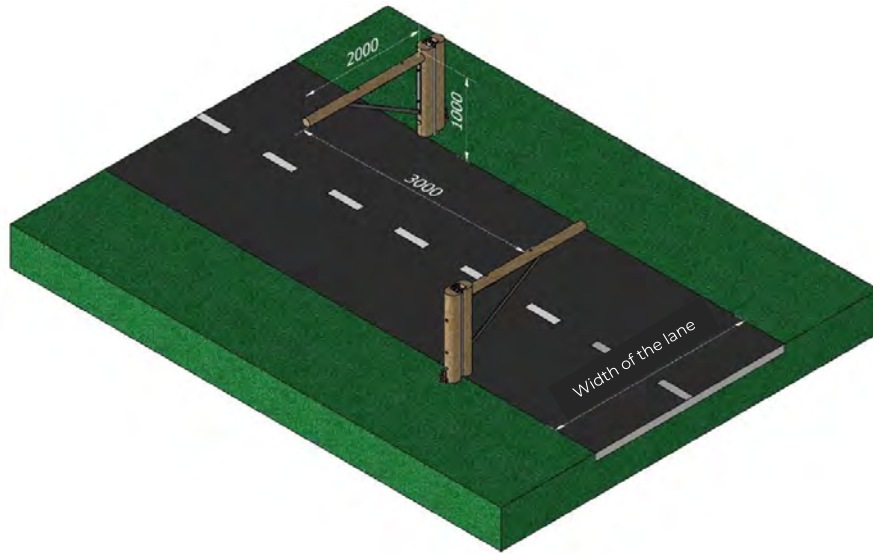
CHICANE GATE SET



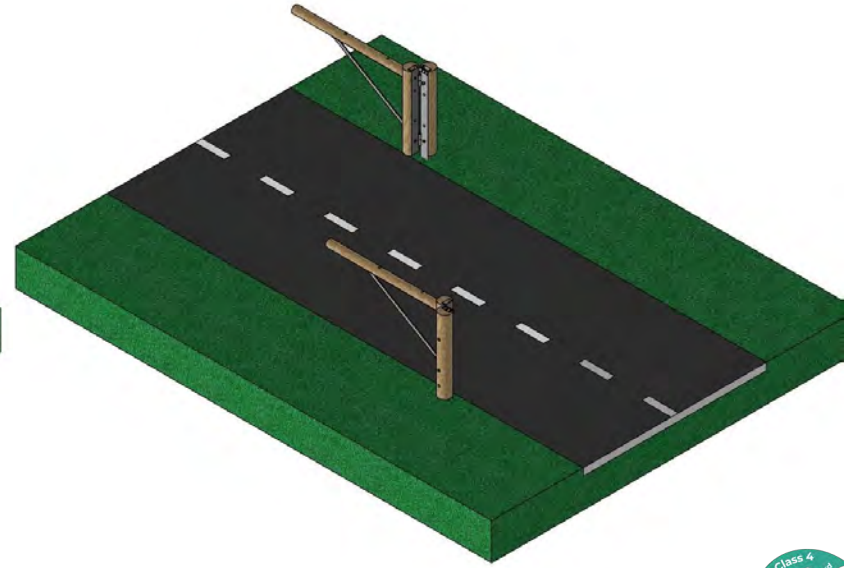
ACCESS CONTROL BARRIERS

CHICANE GATE SET - Working principle

Closed position - staggered assembly



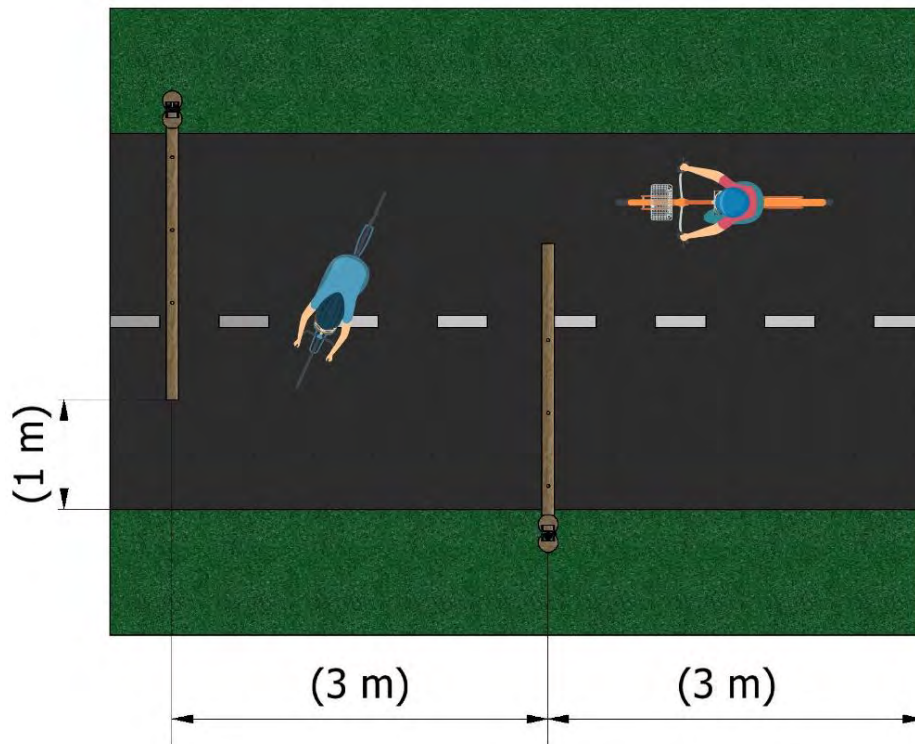
Open position



ACCESS CONTROL BARRIERS

CHICANE GATE SET - Working principle

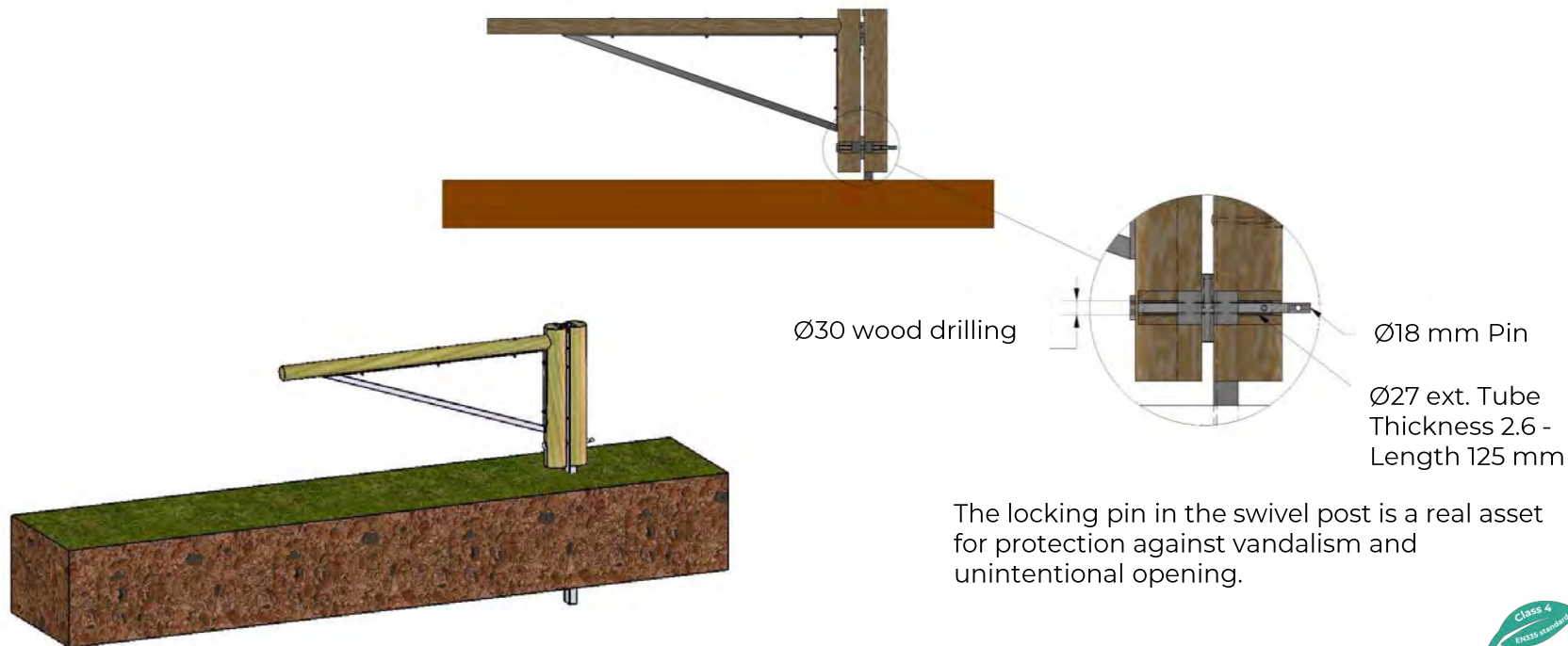
Dedicated layout for cyclists



Road traffic zone

ACCESS CONTROL BARRIERS

CHICANE GATE SET - Detailed plan



The locking pin in the swivel post is a real asset for protection against vandalism and unintentional opening.

ACCESS CONTROL BARRIERS

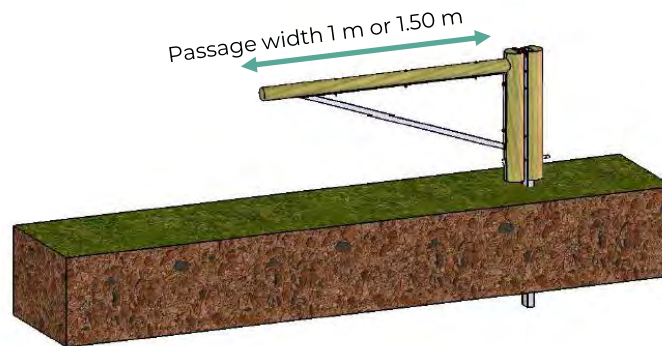
CHICANE GATE SET **SPECIAL FOR NARROW ROADS**

TECHNICAL INFO :

- ✓ **Steel components:** S235 JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood components:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Post:** pre-assembled wood and steel (UPN100 with Ø160 trim)
- ✓ Hinges with grease nipple
- ✓ **Passage width: 1.00 m or 1.50 m** (width) x 1 m (height)
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** restricting access to motorised vehicles on green lanes, cycle lanes on the approach to a junction and other lanes dedicated to pedestrians, reducing speed for cyclists, etc.

EXCLUSIVE PRODUCT BENEFITS :

- ✓ **Wood and steel:** robust, attractive and durable
- ✓ **Reduced vandalism, controlled maintenance budget and total security**
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **Rail and stiffener:** total control of verticality
- ✓ **Locking (closed position):** by steel pin to be inserted in the solid wood post and fireman's padlock + key (see options)
- ✓ **Made in France (Moselle)**
- ✓ Available in **single leaf**



ACCESS CONTROL BARRIERS

CHICANE GATE SET **SPECIAL FOR NARROW ROADS**

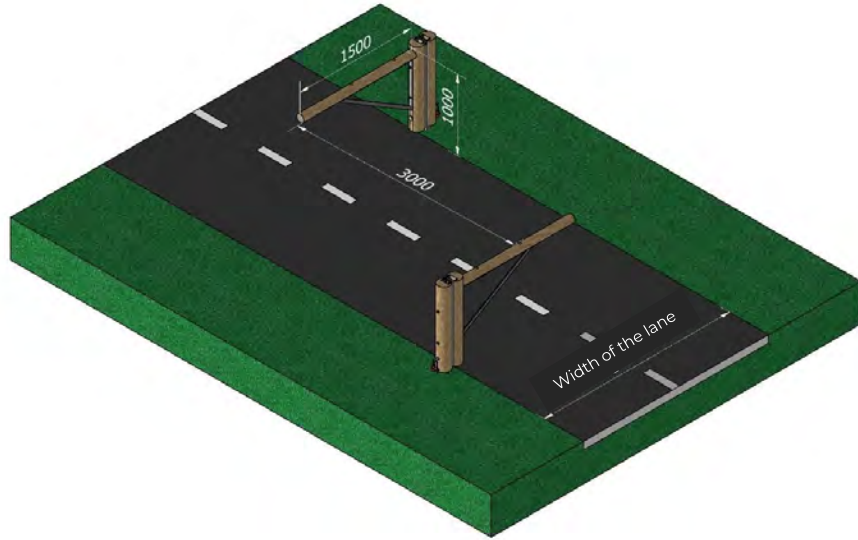


ACCESS CONTROL BARRIERS

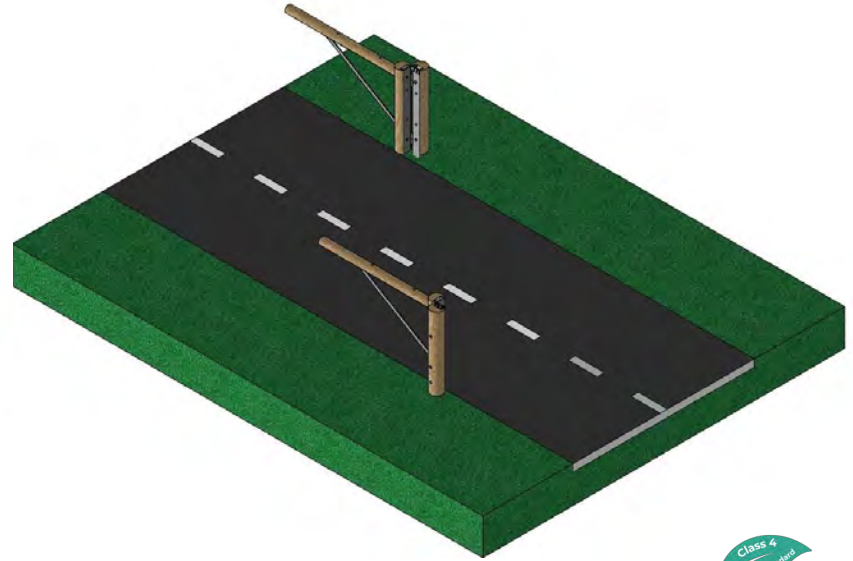
CHICANE GATE SET SPECIAL FOR NARROW ROADS

Working principle

Closed position - staggered assembly



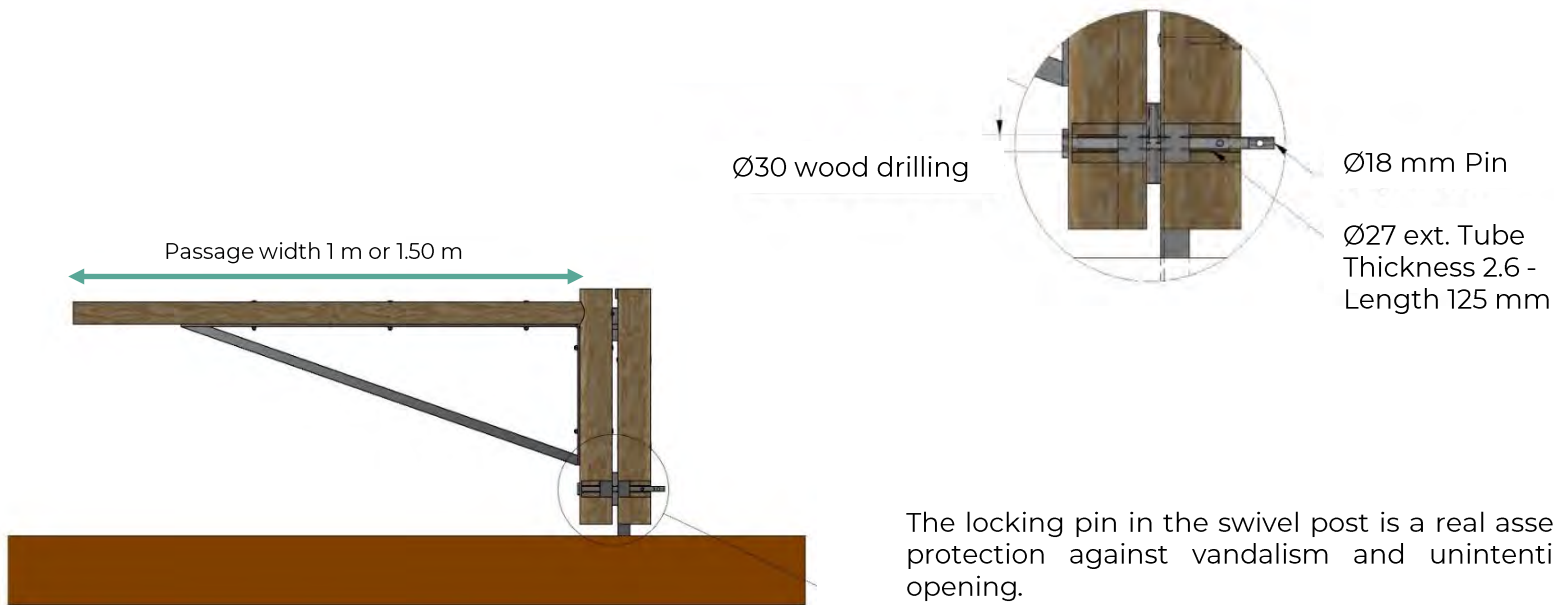
Open position



ACCESS CONTROL BARRIERS

CHICANE GATE SET SPECIAL FOR NARROW ROADS

Detailed plan

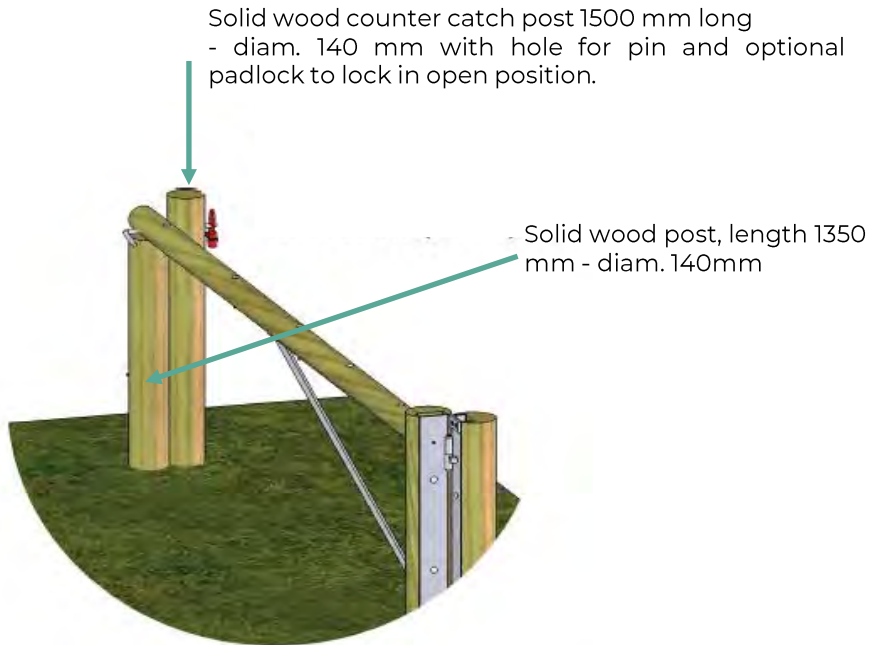


The locking pin in the swivel post is a real asset for protection against vandalism and unintentional opening.

ACCESS CONTROL BARRIERS

CHICANE GATE SET SPECIAL FOR NARROW ROADS

- ✓ **OPTION 1:** solid wood receiver post assembly for holding in the open position



- ✓ **OPTION 2 :** fireman's padlock + hydrant key, red epoxy paint, for locking your barriers and gates.

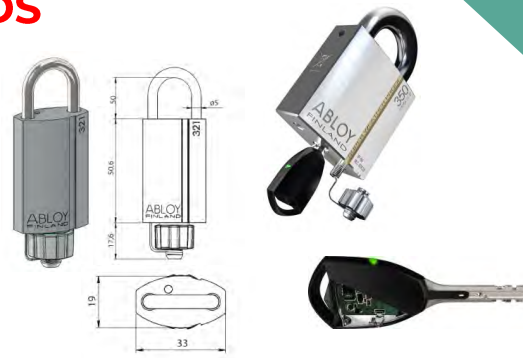


- 14 mm internal cross-section.
- Inside material of the triangle: brass
- Key supplied
- Can be quickly unlocked by firefighters thanks to its triangular lock (firefighters have this type of key).

ACCESS CONTROL BARRIERS

CHICANE GATE SET **SPECIAL FOR NARROW ROADS**

- ✓ **OPTION 3 :** Intelligent padlocks and keys for one-stop access management
- ✓ Intelligent ASSA ABLOY **electromechanical** padlock.
- ✓ 2 key variants: electromechanical or purely mechanical
- ✓ The lock is operated from the outside by a CLIQ **electronic key** programmed by SOLOSAR.
- ✓ The key can only be removed in the locked position
- ✓ Designed to last and resist physical and electronic attack
- ✓ CLIQ is an **electronic locking** system designed to provide **maximum flexibility and enhanced security**. Physical security is optimised by a series of tamper-proof electromechanical cylinders and padlocks, controlled by intelligent CLIQ programmable keys.
- ✓ Material: stainless steel, corrosion-resistant even in harsh environments.



- ✓ **OPTION 4 :** Pre-galvanised steel strip with **ULTRAGUARD™** high-reflective coating
- ✓ Pre-galvanised steel strip
- ✓ Application of **ULTRAGUARD™** reflective coating
- ✓ Strip ready to be fixed to any **SOLOnature®** gate



From road technology

ACCESS CONTROL BARRIERS

CHICANE GATE SET

TECHNICAL INFORMATION AND INSTALLATION

MAIN USE

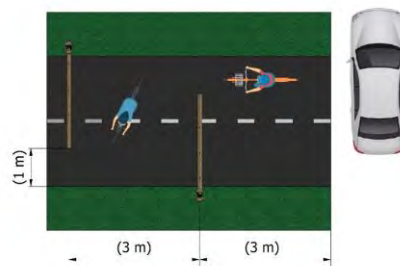
The main purpose of the chicane set is to warn cyclists that they are approaching a high-risk intersection and to encourage them to slow down before crossing the road. Its use is recommended for all cycle lanes that do not run alongside roads. However, if the aim is to block the way for cars and off-road vehicles, it is advisable to complete the installation with fixed or removable bollards.

LOCATION ON THE CYCLE PATH

It is important to leave a clearance of MINIMUM 3 m **before an intersection** to allow cyclists to slow down and get off their bikes. Then place the barriers about 3 m apart, to make it easier for bicycles with children's trailers to pass through, for example. Finally, leave a passage of at least 1m in the cycle lane to create a narrowing effect that forces cyclists to slow down to pass through the chicane.

INSTALLATION ON THE ROAD

To prevent cyclists from bypassing the chicane, we recommend installing the units at a maximum distance of 0.5 m from a fence or other barrier. If the fence is too far away or non-existent, we recommend installing fixed or removable bollards.



ACCESS CONTROL BARRIERS

The **SOLOnature®** Chicane Set is THE solution to **make cyclists slow down** or to **restrict access** to authorised vehicles only. Manufactured from solid wooden logs, the horizontal rails have no sharp angles or protrusions for the users.

Chicane barriers - Cycle lane (France)



ACCESS CONTROL BARRIERS

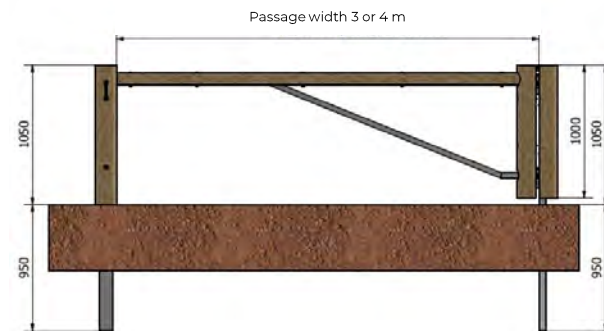
EDGE REINFORCED SWING BARRIER

TECHNICAL INFO :

- ✓ **Steel components:** S235 JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood components:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Post:** pre-assembled wood and steel (UPN100 with Ø160 trim)
- ✓ Hinges with grease nipple
- ✓ **Passage width:** 3 and 4 m (width) x 1.00 m (height)
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, reducing speed for cyclists, etc.

EXCLUSIVE PRODUCT BENEFITS :

- ✓ 40x40x5 mm square steel profile **integrated along the entire length of the wooden rail for extreme resistance to vandalism**
- ✓ **Wood and steel:** robust, attractive and durable
- ✓ **Less vandalism thanks to the anti-lift tab**
- ✓ **Controlled maintenance budget and constant safety**
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **Rail and stiffener:** total control of verticality
- ✓ **Locking (closed position):** by steel pin to be inserted in the steel and wood post and fireman's padlock + key (see options)
- ✓ **Made in France (Moselle)**



ACCESS CONTROL BARRIERS

EDGE REINFORCED SWING BARRIER

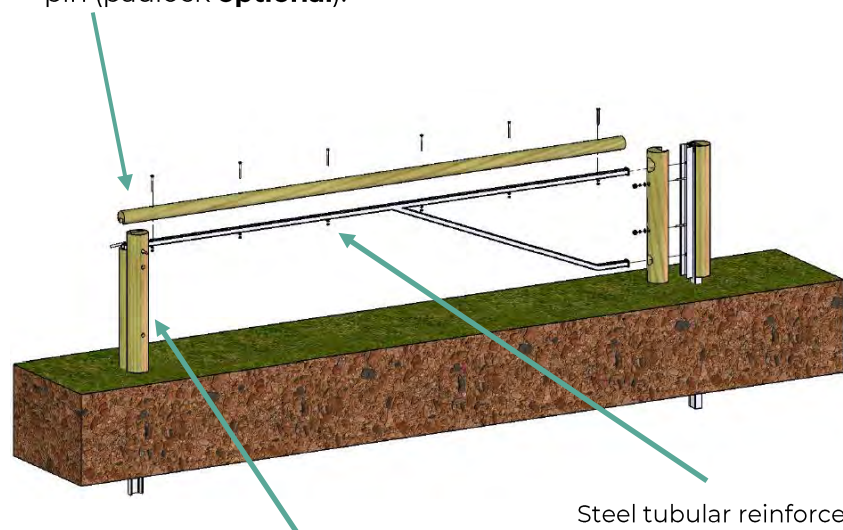
EDGE barriers



ACCESS CONTROL BARRIERS

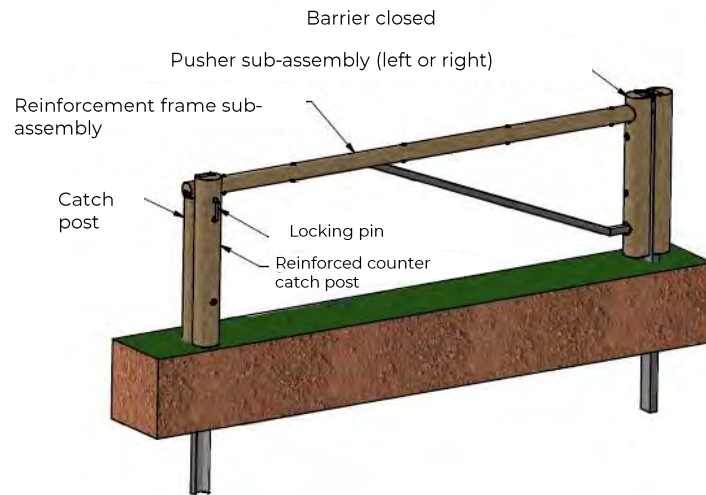
EDGE REINFORCED SWING BARRIER - Working principle

The horizontal rail is locked in the closed position by a steel link and pin (padlock **optional**).



Receiver post in closed position

Steel tubular reinforcement frame integrated along the entire length of the horizontal rail.



OPTIONS :

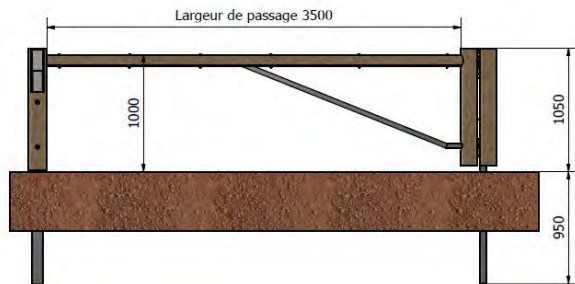
- a) Receiver module for locking in the open position
- b) Fireman's padlock + locking key

ACCESS CONTROL BARRIERS

HIGH REINFORCED SWING BARRIER DURANCE

TECHNICAL INFO :

- ✓ **Steel components:** S235 JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood components:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Post:** pre-assembled wood-steel composite (UPN100 with Ø160 trim) Hinges **with grease nipple**
- ✓ **Passage width:** 3.50 m (width) x 1 m (height)
- ✓ Made-to-measure: please contact us
- ✓ With solid wood and wood and metal support Posts in closed position
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, reducing speed for cyclists, etc.
- ✓ Specify **opening direction** (right or left) when ordering

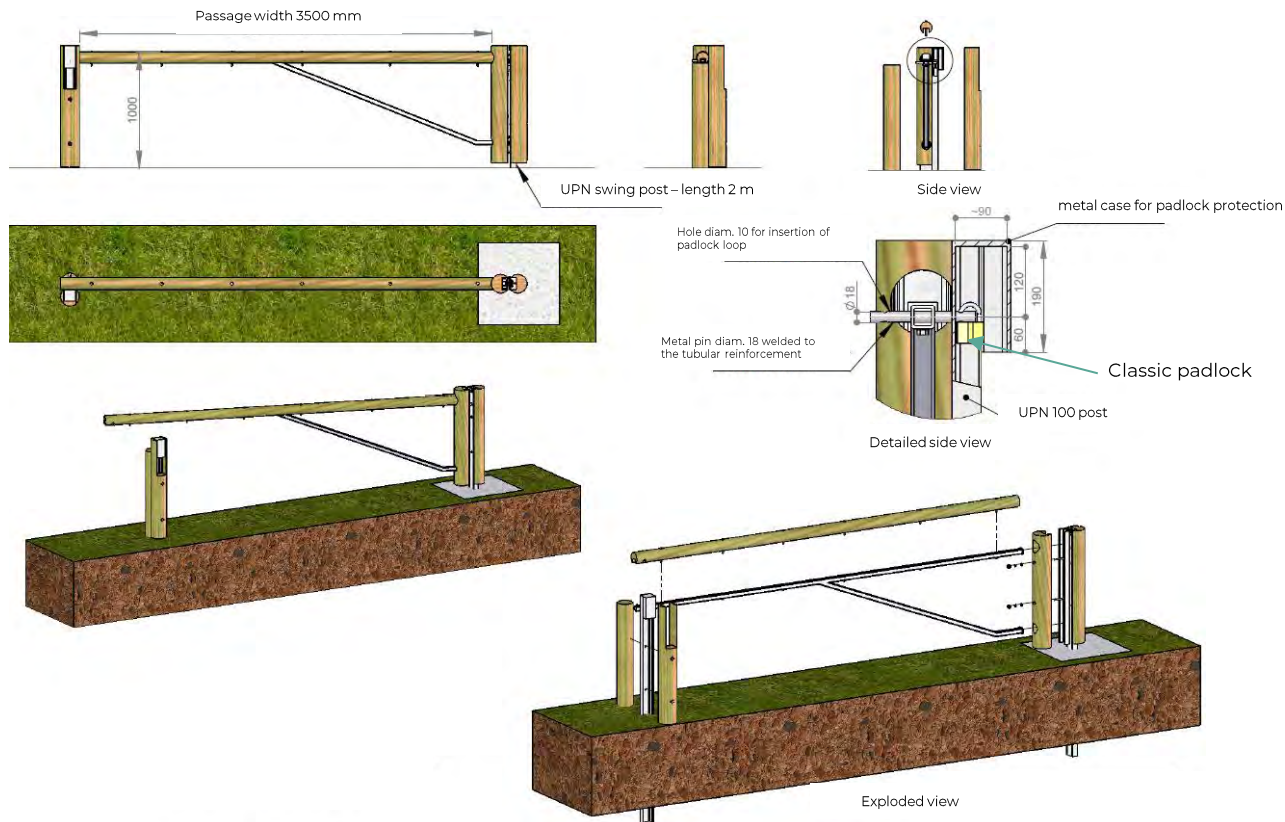


EXCLUSIVE PRODUCT BENEFITS :

- ✓ 40x40x5 mm square steel profile **integrated along the entire length of the wooden rail for extreme resistance to vandalism**
- ✓ **Steel case to conceal** the padlock for total security
- ✓ **Wood and steel:** robust, attractive and durable
- ✓ **Less vandalism thanks to the anti-lift tab**
- ✓ **Controlled maintenance budget and constant safety**
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **Rail and stiffener:** total control of verticality
- ✓ **Locking (closed position):** by steel pin to be inserted in the steel and wood counter-bearing and standard padlock + key (see options)
- ✓ **Made in France (Moselle)**

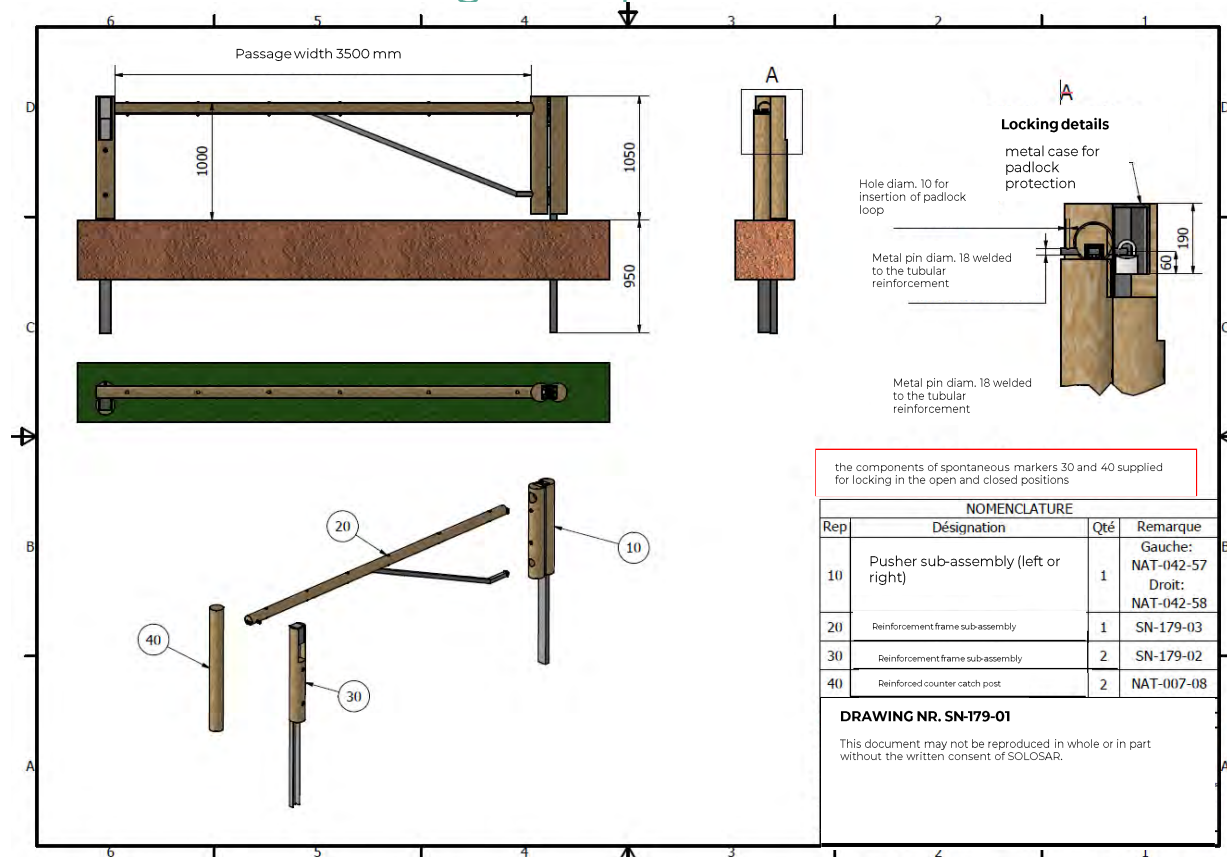
ACCESS CONTROL BARRIERS

HIGH REINFORCED SWING BARRIER DURANCE - Working Principle



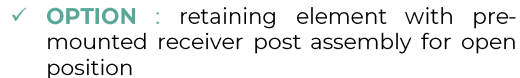
ACCESS CONTROL BARRIERS

DURANCE MODEL - Working Principle



- ✓ **Steel components:** S235JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood components:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Post:** pre-assembled post assembly (Lg 1750 mm Ø140)
- ✓ **Overall dimensions:** 2 m or 3 m (width) x 1 m (height)
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, reducing speed for cyclists, etc.

- ✓ **Easy to install and attractively priced**
- ✓ **Autoclaved solid wood:** aesthetics and durability guaranteed for 10 years
- ✓ **Location:** wooden post to be embedded in concrete block
- ✓ **Autoclaved solid wood horizontal sliding rail**
- ✓ The **optional retaining element** makes manual sliding easy, so only 1 person is needed to open the barrier.
- ✓ **Locking (closed position):** by steel pin to be inserted in the Post and fireman's padlock + key (see options)
- ✓ **Made in France (Moselle)**



ACCESS CONTROL BARRIERS

REINFORCED SLIDING ARM

TECHNICAL INFO :

- ✓ **Steel components:** S235 JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood components:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Post:** pre-assembled wood and steel (UPN100 with Ø160 trim)
- ✓ **Overall dimensions:** 3 m (width) x 1 m (height)
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, reducing speed for cyclists, etc.

EXCLUSIVE PRODUCT BENEFITS :

- ✓ Wood and steel: robust, attractive and durable
- ✓ Benefits: less vandalism, lower maintenance costs and total security
- ✓ Installation: post to be embedded in concrete block
- ✓ Reinforced sliding horizontal rail in wood and steel
- ✓ Locking (closed position): by steel pin to be inserted in the pivoting post and fireman's padlock + key
- ✓ **OPTION :** solid wood receiver post assembly for holding in open position



- ✓ **OPTION :** retaining element with pre-mounted receiver post assembly for open position

ACCESS CONTROL BARRIERS

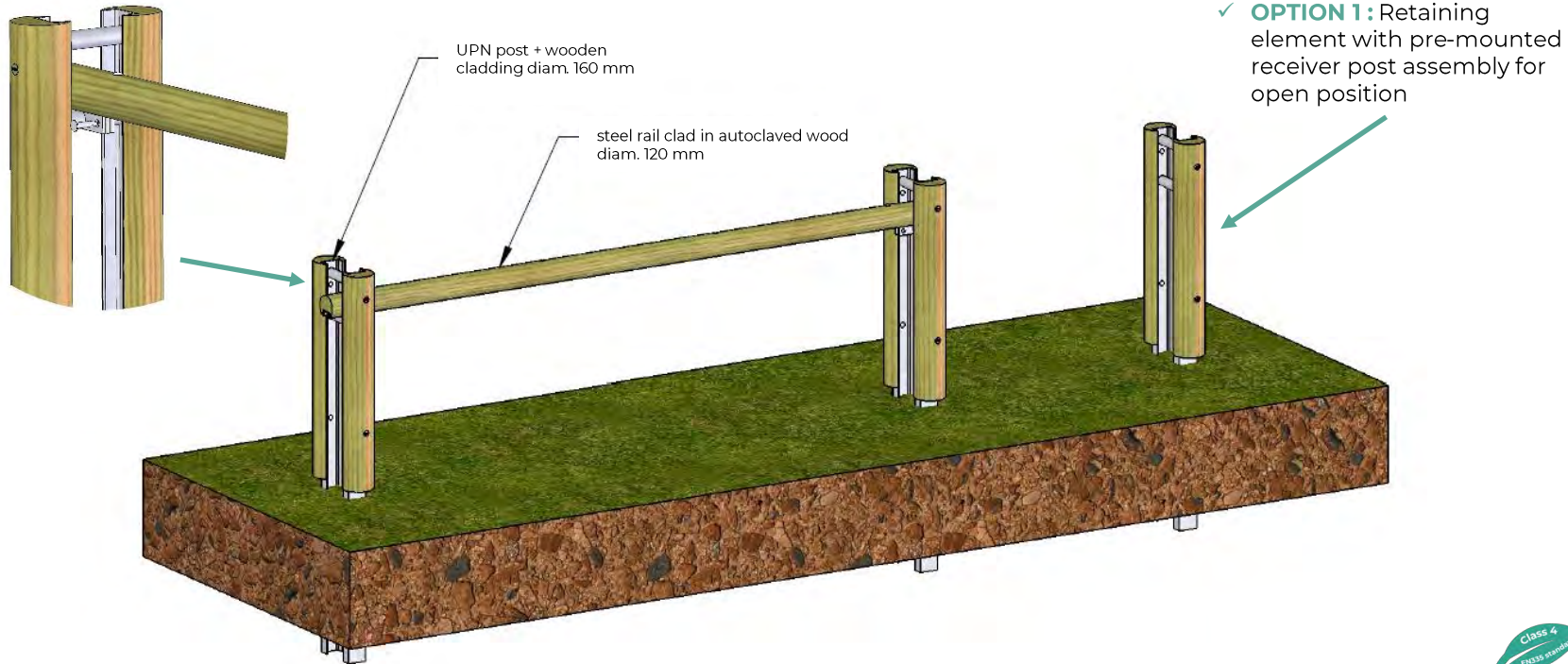
REINFORCED SLIDING ARM

The reinforced sliding model is ideal for sites subject to vandalism.



ACCESS CONTROL BARRIERS

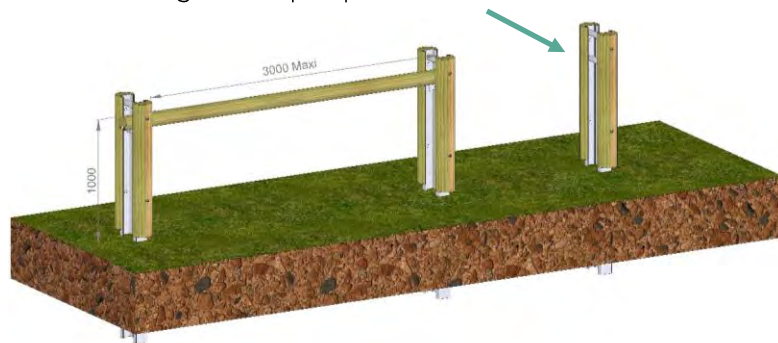
REINFORCED SLIDING ARM - Working principle



ACCESS CONTROL BARRIERS

REINFORCED SLIDING ARM

- ✓ **OPTION 1** : solid wood receiver post assembly for holding in the open position



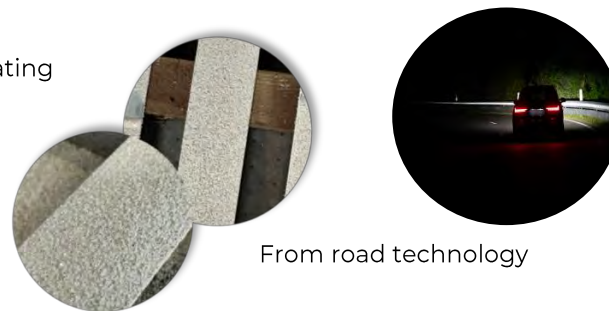
- ✓ **OPTION 2** : fireman's padlock + hydrant key, red epoxy paint, for locking your barriers and gates.



- 14 mm internal cross-section.
- Inside material of the triangle: brass
- Key supplied
- Can be quickly unlocked by firefighters thanks to its triangular lock (firefighters have this type of key).

- ✓ **OPTION 3** : Pre-galvanised steel strip with **ULTRAGUARD™** high-reflective coating

- ✓ Pre-galvanised steel strip
- ✓ Application of **ULTRAGUARD™** reflective coating
- ✓ Strip ready to be fixed to any **SOLOnature®** gate



From road technology



02

SWINGING HEIGHT RESTRICTION GANTRIES

SWINGING HEIGHT RESTRICTION GANTRIES

SINGLE-LEAF WOOD AND STEEL

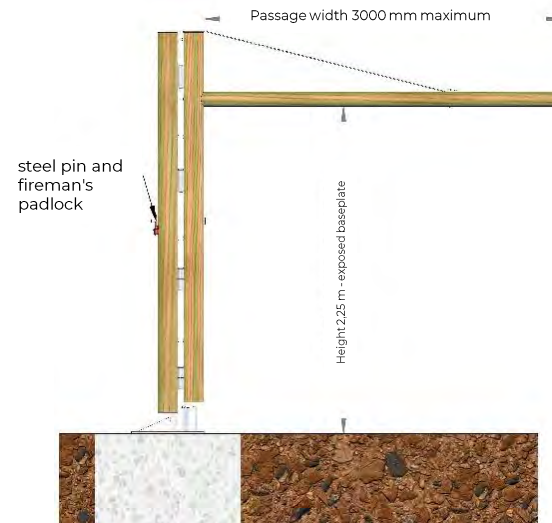
TECHNICAL INFO :

- ✓ **Steel components:** S235 JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood components:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Post:** pre-assembled wood-steel composite - steel post complete with Ø160 trim) - Hinges with grease nipple
- ✓ **Passage width:** 2 to 3 m (width) x 2.25 m (height)
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** restricting access to motorised vehicles in car parks and rest areas or site access.
- ✓ Specify the orientation of the tappet when ordering: **right or left**

EXCLUSIVE PRODUCT BENEFITS :

- ✓ **Wood and steel:** robust, attractive and durable
- ✓ **Reduced vandalism, controlled maintenance budget and total security**
- ✓ **Horizontal rail adjustable** in length **between 2 and 3 m** passage width
- ✓ **Installation:** post on base plate to be embedded in concrete (anchors not supplied)
- ✓ **Rail and stiffener:** total control of verticality
- ✓ **Locking (closed position):** by steel pin to be inserted in the pivoting post and fireman's padlock + key
- ✓ **Made in France** (Moselle)

→ Used to restrict oversize vehicle traffic (camper vans, caravans, etc.) on private roads, car park entrances, etc.



SWINGING HEIGHT RESTRICTION GANTRIES

SINGLE-LEAF WOOD AND STEEL

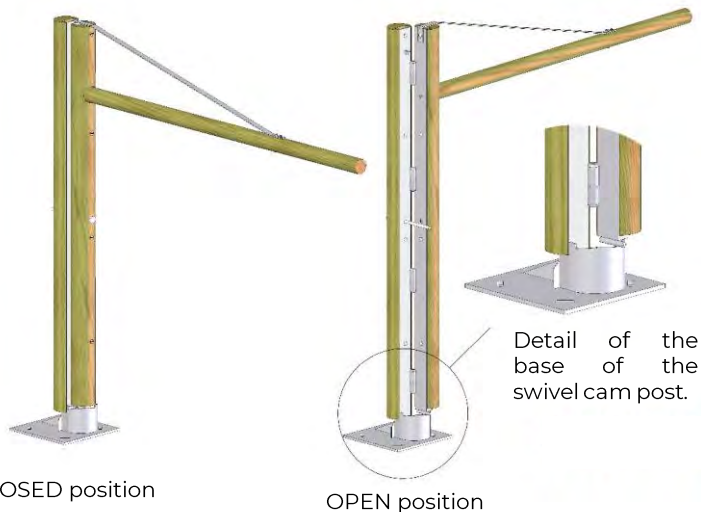
Single-leaf height restriction gantries



SWINGING HEIGHT RESTRICTION GANTRIES

SINGLE-LEAF WOOD AND STEEL

Working principle



CLOSED position

OPEN position

SOLOnature® gantries are THE solution when it comes to **height restricting access to a site.**



Dimensions - **surface mounted**

Dimensions - **buried base**



SWINGING HEIGHT RESTRICTION GANTRIES

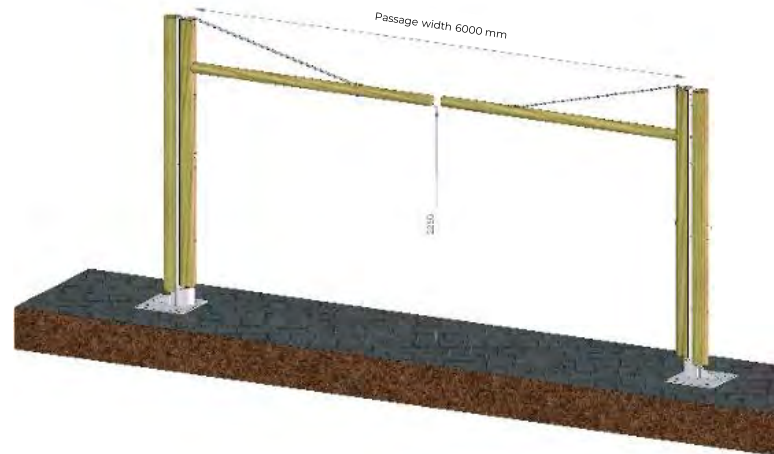
WOOD AND STEEL **DOUBLE LEAF**

TECHNICAL INFO :

- ✓ **Steel components:** S235 JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood components:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Post:** pre-assembled wood-steel composite - steel post complete with Ø160 trim) - Hinges with grease nipple
- ✓ **Passage width:** 5 to 6 m (width) x 2.25 m (height)
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** restricting access to motorised vehicles in car parks and rest areas or site access.

EXCLUSIVE PRODUCT BENEFITS :

- ✓ **Wood and steel:** robust, attractive and durable
- ✓ **Reduced vandalism, controlled maintenance budget and total security**
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **Rail and stiffener:** total control of verticality
- ✓ **Locking (closed position):** by steel pin to be inserted in the pivoting post and fireman's padlock + key
- ✓ Made in France



SWINGING HEIGHT RESTRICTION GANTRIES

WOOD AND STEEL **DOUBLE LEAF**

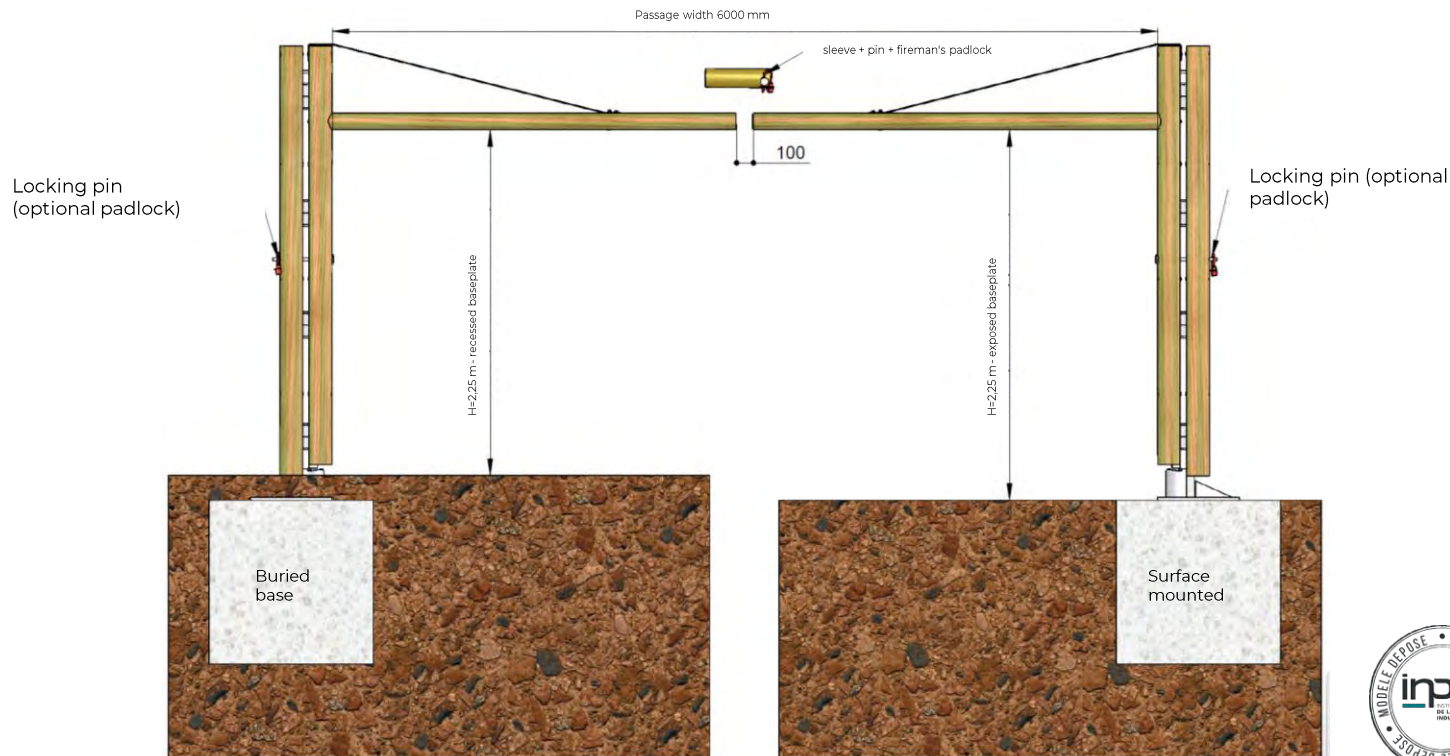
Double-leaf swing gantry height restrictors



SWINGING HEIGHT RESTRICTION GANTRIES

WOOD AND STEEL DOUBLE LEAF

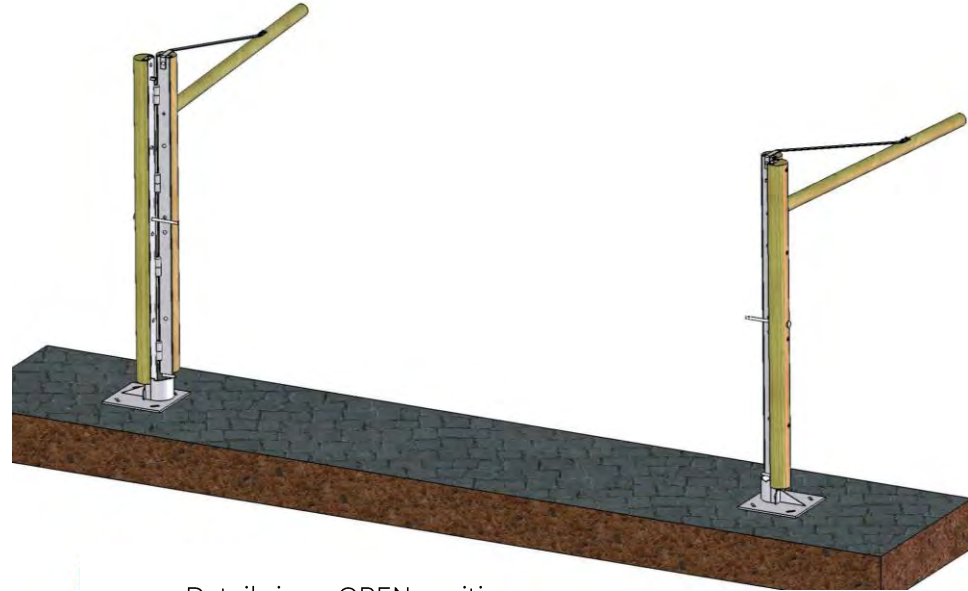
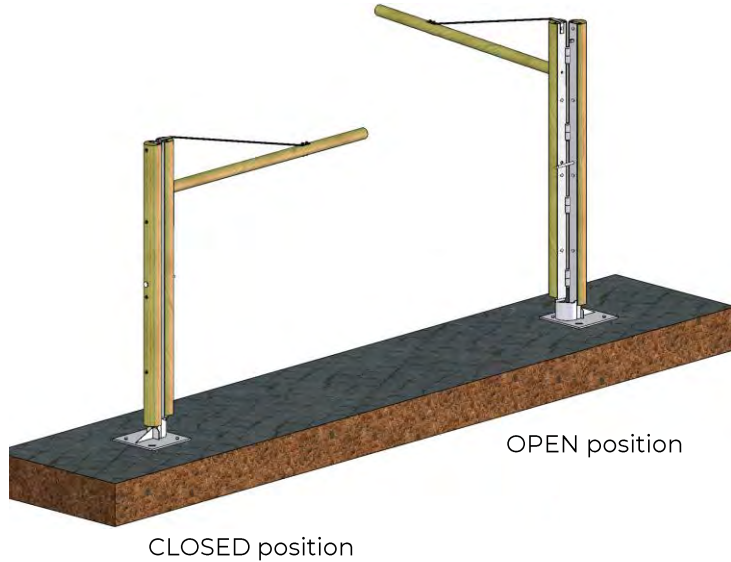
Working principle



SWINGING HEIGHT RESTRICTION GANTRIES

WOOD AND STEEL DOUBLE LEAF

Working principle



Detail view - OPEN position

SOLO NATURE® gantries are THE solution when it comes to height restricting access to a site.



SWINGING HEIGHT RESTRICTION GANTRIES

WOOD AND STEEL **DOUBLE LEAF**

SOLONATURE® gantries are THE solution when it comes to **height restricting access to a site.**

Double height restriction gantry - seaside resort



SWINGING HEIGHT RESTRICTION GANTRIES

WOOD AND STEEL DOUBLE LEAF

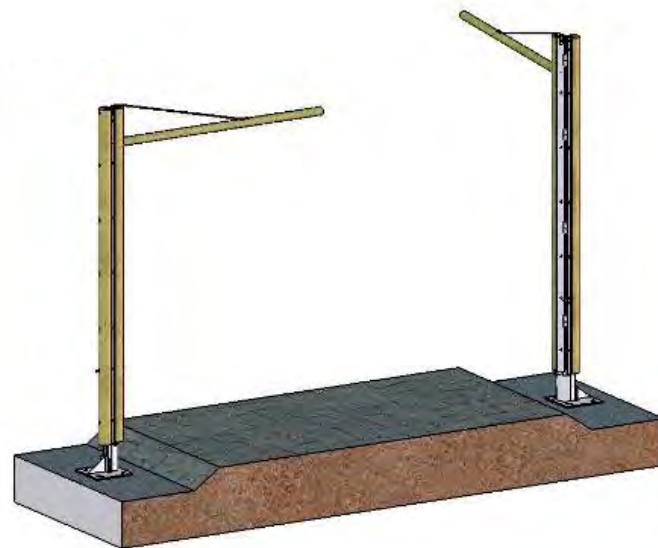
HGV SPECIAL

TECHNICAL INFO :

- ✓ **Steel components:** S235 JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood components:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Post:** pre-assembled wood-steel composite - steel post complete with Ø160 trim) - Hinges with grease nipple
- ✓ **Passage width:** 5 to 6 m (width) x **3.85 m** (height)
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** restricting access to motorised vehicles in car parks and rest areas or site access.

EXCLUSIVE PRODUCT BENEFITS :

- ✓ **Enables oversize HGVs to be banned from rest areas**
- ✓ **Wood and steel:** robust, attractive and durable
- ✓ **Reduced vandalism, controlled maintenance budget and total security**
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **Rail and stiffener:** total control of verticality
- ✓ **Locking (closed position):** by steel pin to be inserted in the pivoting post and fireman's padlock + key
- ✓ Made in France



SWINGING HEIGHT RESTRICTION GANTRIES

WOOD AND STEEL DOUBLE LEAF

HGV SPECIAL



SWINGING HEIGHT RESTRICTION GANTRIES

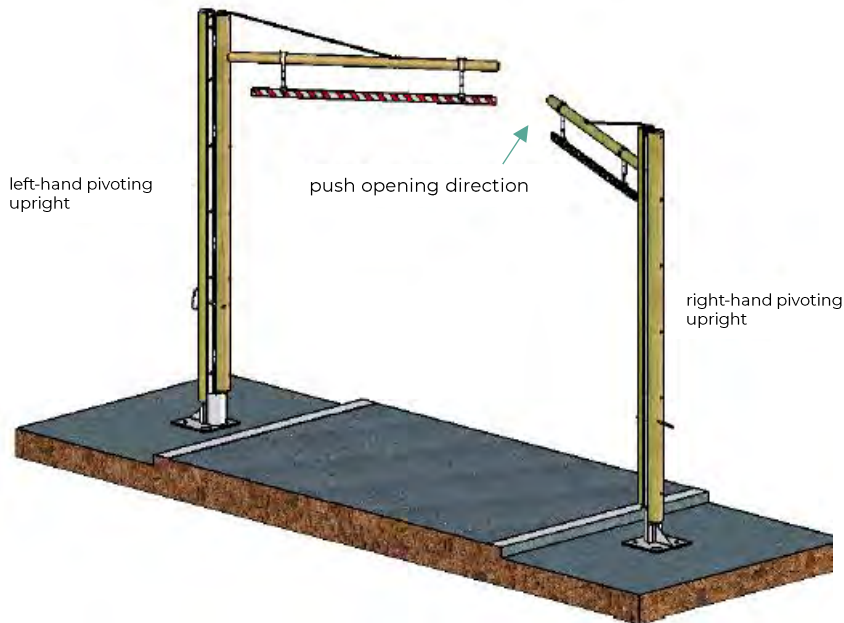
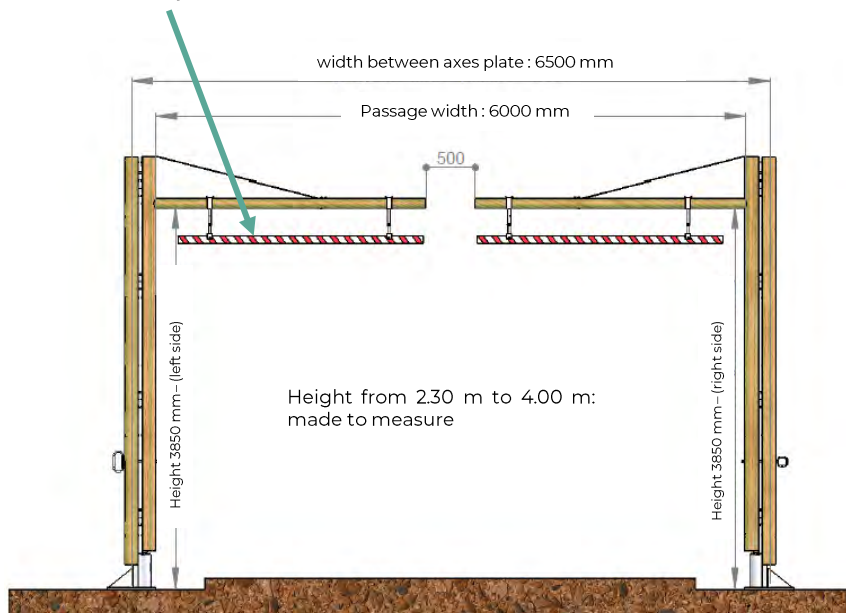
WOOD AND STEEL DOUBLE LEAF

HGV SPECIAL

Working principle

Optional hanger for retroreflective headband. Not supplied.

Grip handle with extended loop for pin removal with hard gloves



SWINGING HEIGHT RESTRICTION GANTRIES

WOOD AND STEEL DOUBLE LEAF

HGV SPECIAL

Gantry - COFIROUTE motorway service areas (France)



SWINGING HEIGHT RESTRICTION GANTRIES

WOOD AND STEEL DOUBLE LEAF

HGV SPECIAL

Special HGV height restrictor base plate



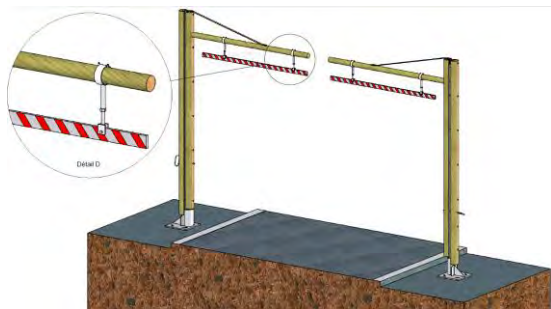
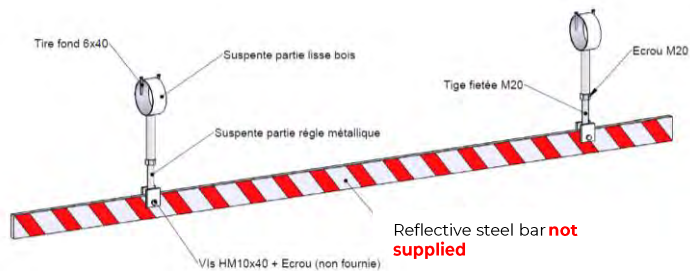
Grip handle with enlarged loop for removal of the pin with rigid gloves by road and motorway operators.



SWINGING HEIGHT RESTRICTION GANTRIES

OPTIONS

- ✓ **OPTION 1** : adjustable steel hanger kit to reduce passage height temporarily or permanently



Example of use



Hanger detail

- ✓ **OPTION 2** : fireman's padlock + hydrant key, red epoxy paint, for locking your barriers and gates.

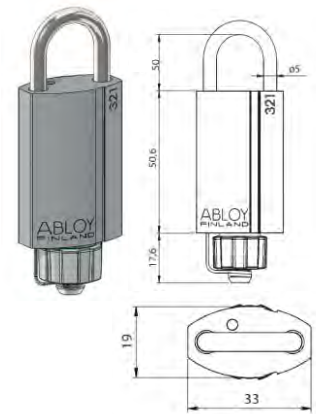


- 14 mm internal cross-section.
- Inside material of the triangle: brass
- Key supplied
- Can be quickly unlocked by firefighters thanks to its triangular lock (firefighters have this type of key).

SWINGING HEIGHT RESTRICTION GANTRIES

OPTIONS

- ✓ **OPTION 3** : Intelligent padlocks and keys for one-stop access management
- ✓ Intelligent ASSA ABLOY **electromechanical** padlock.
- ✓ 2 key variants: electromechanical or purely mechanical
- ✓ The lock is operated from the outside by a CLIQ **electronic key** programmed by SOLOSAR.
- ✓ The key can only be removed in the locked position
- ✓ Designed to last and resist physical and electronic attack
- ✓ CLIQ is an **electronic locking** system designed to provide **maximum flexibility and enhanced security**. Physical security is optimised by a series of tamper-proof electromechanical cylinders and padlocks, controlled by intelligent CLIQ programmable keys.
- ✓ Material: stainless steel, corrosion-resistant even in harsh environments.



solonature

SOLOSAR

Le bois traité par SOLAR est certifié par le CEN

UNIPROMET



03

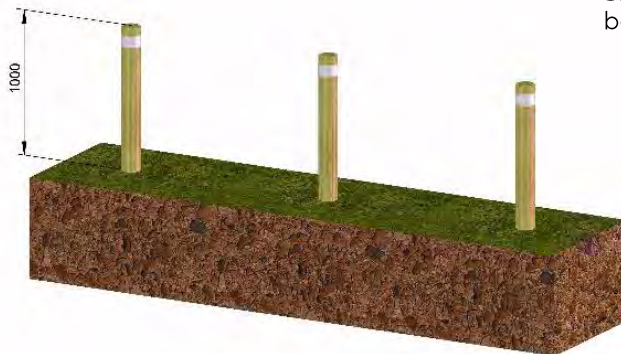
**FUNCTIONAL AND
AESTHETIC
ROLL ARDS**

BOLLARDS

FIXED ROUND BOLLARDS - ACCESS CONTROL

TECHNICAL INFO :

- ✓ **Solid wood log:** class 4 autoclaved Scots pine to EN 335, guaranteed 10 years against rot
- ✓ **reflective film:** class 2 - nailed to the log
- ✓ **Overall dimensions:** diam. 140 mm x 1.50 m (height)
- ✓ 10x45° chamfer
- ✓ Made-to-measure: cut to size, different diameters, ... please consult us
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other pedestrian-only routes, isolating obstacles,



EXCLUSIVE PRODUCT BENEFITS :

- ✓ Solid wood: aesthetics and durability
- ✓ Benefits: constant safety reinforced **by factory-fitted reflective film**
- ✓ Installation: to be embedded in concrete block
- ✓ Installation tip: lay in dry concrete - check straightness with a spirit level
- ✓ **In compliance with the Order of 18 September 2012** relating to technical requirements for the accessibility of roads and public spaces
- ✓ **SIMILAR PRODUCTS:** removable bollards, reinforced bollards

BOLLARDS

FIXED ROUND BOLLARDS - ACCESS CONTROL



BOLLARDS

FIXED ROUND BOLLARDS - ACCESS CONTROL

Fixed bollards to be embedded in the ground



Permanent stock



BOLLARDS

FIXED ROUND BOLLARDS - ACCESS CONTROL

140 mm fixed bollards with vertical glass microbead reflector (optional)



140mm fixed bollards



BOLLARDS

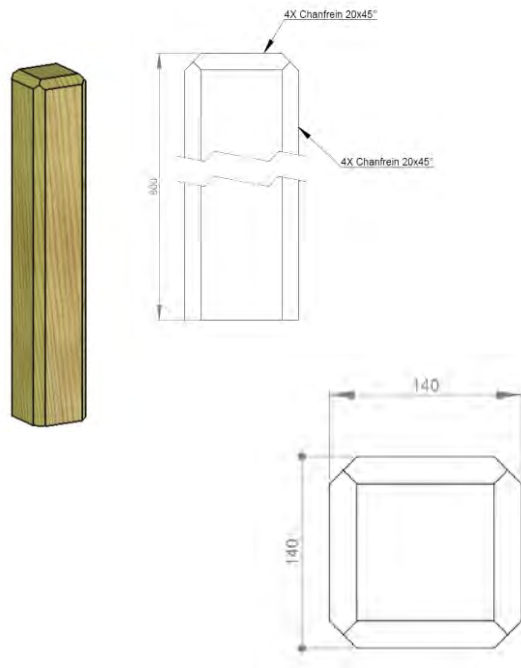
SOLID WOOD **SQUARE** BOLLARDS - ACCESS CONTROL

TECHNICAL INFO :

- ✓ **Solid sawn timber:** autoclaved Scots pine class 4 solid log to EN 335, guaranteed 10 years against rotting
- ✓ **Overall dimensions:** diam. 140 mm x 140 mm (variable height to order)
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, isolating obstacles, etc.

EXCLUSIVE PRODUCT BENEFITS :

- ✓ Solid wood: aesthetics and durability
- ✓ Benefits: Constant safety enhanced **by optional reflector**
- ✓ Installation: to be embedded in concrete block
- ✓ Installation tip: lay in dry concrete - check straightness with a spirit level
- ✓ **SIMILAR PRODUCT:** round, removable or reinforced bollards



BOLLARDS

SOLID WOOD SQUARE BOLLARDS - ACCESS CONTROL



- ✓ **OPTION :** Glass microbead reflectors with high single-sided reflectivity.




GUTENBERG FIXED BOLLARDS - ACCESS CONTROL

- ✓ **Steel components:** S235JR hot-dip galvanised to ISO 1461
- ✓ **Solid sawn timber:** autoclaved Scots pine class 4 to EN 335, guaranteed not to rot for 10 years
- ✓ **Overall dimensions:** 140 mm x 140 mm x **900 to 2500 mm** (height)
- ✓ Made-to-measure: cut to size, different diameters, ... please consult us
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, isolating obstacles, etc

- ✓ Solid wood: aesthetics and durability
- ✓ Benefits: total safety enhanced **by reflective strip (optional)**
- ✓ Installation: to be embedded in concrete block
- ✓ Installation tip: lay in dry concrete - check straightness with a spirit level
- ✓ **SIMILAR PRODUCTS:** round, removable and reinforced bollards

A diagram of a wooden post with a metal base. The post is made of wood and has a green arrow pointing to its top. The base is a metal plate with two screws.



BOLLARDS

GUTENBERG FIXED BOLLARDS - ACCESS CONTROL

GUTENBERG bollard - industrial estate (Germany)



BOLLARDS

WOOD AND METAL **RICANTO** FIXED BOLLARDS - WITH CONCEALED METAL C100 FOR EMBEDDING OR ON BASE PLATE

TECHNICAL INFO :

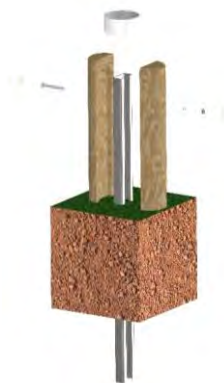
- ✓ **Reinforced bollard with invisible C100 steel post with class 2 reflective film for on-site installation**
- ✓ **Steel components:** S235 JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood components:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Overall dimensions:** diam. 160 mm x 700 mm (height)
- ✓ **Post:** to be sunk into the ground OR embedded in a concrete bed
- ✓ **Made-to-measure:** please contact us
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, isolating obstacles, etc.

EXCLUSIVE PRODUCT BENEFITS :

- ✓ Solid wood: aesthetics and durability
- ✓ Benefits: total safety reinforced **by the reflective film supplied**
- ✓ Installation: to be embedded in concrete or anchored mechanically or chemically (base plate)
- ✓ Installation tip: lay in dry concrete - check straightness with a spirit level



RICANTO **on platinum**



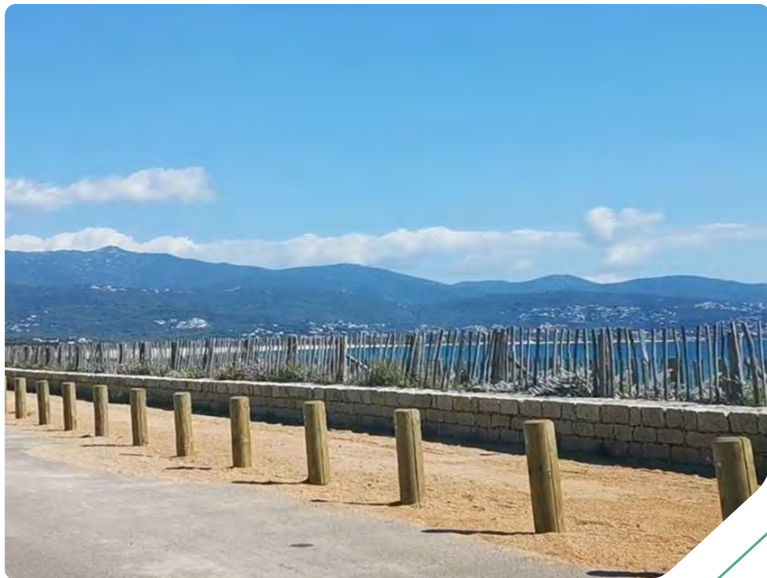
RICANTO C100 **to embed**



BOLLARDS

WOOD AND METAL **RICANTO** FIXED BOLLARDS - WITH CONCEALED METAL C100 FOR EMBEDDING OR ON BASE PLATE

RICANTO bollards - Corsica coastline



RICANTO bollards - Netherlands

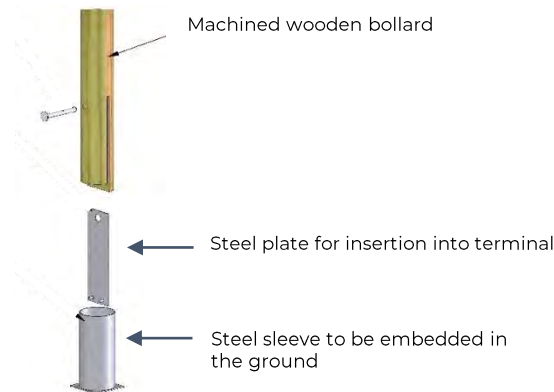
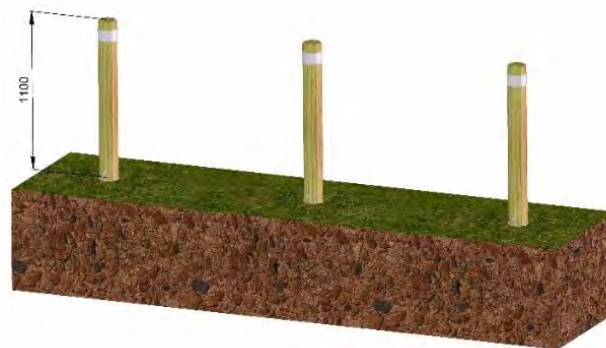


BOLLARDS

STANDARD REMOVABLE BOLLARD - ACCESS CONTROL

TECHNICAL INFO :

- ✓ **Removable bollard with class 2 reflective film pre-assembled with 2 nails**
- ✓ **Steel components:** S235JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood log:** class 4 autoclaved Scots pine to EN 335, guaranteed 10 years against rot
- ✓ **With reflective film cl. 2 pre-assembled with 2 nails**
- ✓ **Overall dimensions:** diam. 140 mm x 1400 mm (height) (1.10m above ground)
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, isolating obstacles, etc.



EXCLUSIVE PRODUCT BENEFITS :

- ✓ Solid wood: aesthetics and durability
- ✓ Benefits: constant safety reinforced **by factory-fitted reflective film**
- ✓ Installation: to be embedded in concrete block



BOLLARDS

STANDARD REMOVABLE BOLLARD - ACCESS CONTROL



Bollard with removable base



BOLLARDS

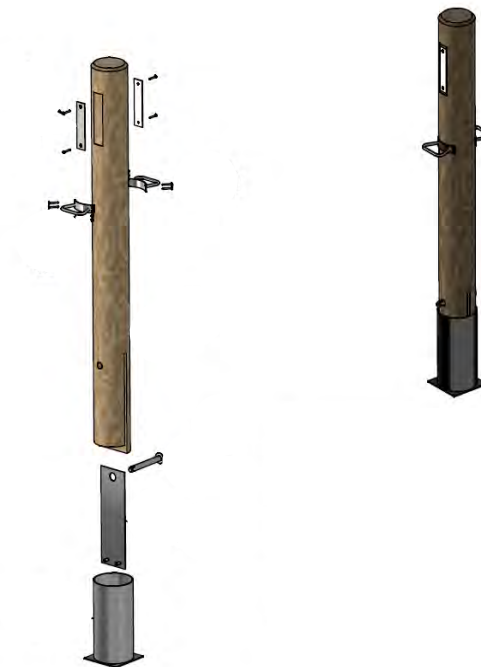
PREMIUM REMOVABLE BOLLARD - ACCESS CONTROL

TECHNICAL INFO :

- ✓ **Steel components:** S235JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood log:** class 4 autoclaved Scots pine to EN 335, guaranteed 10 years against rot
- ✓ **2 factory-fitted stainless steel grab handles**
- ✓ **2 factory-fitted 180x40 reflectors with highly reflective glass beads**
- ✓ **Overall dimensions:** diam. 140 mm x 1500 mm (height) (1.30m above ground)
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, isolating obstacles, etc.

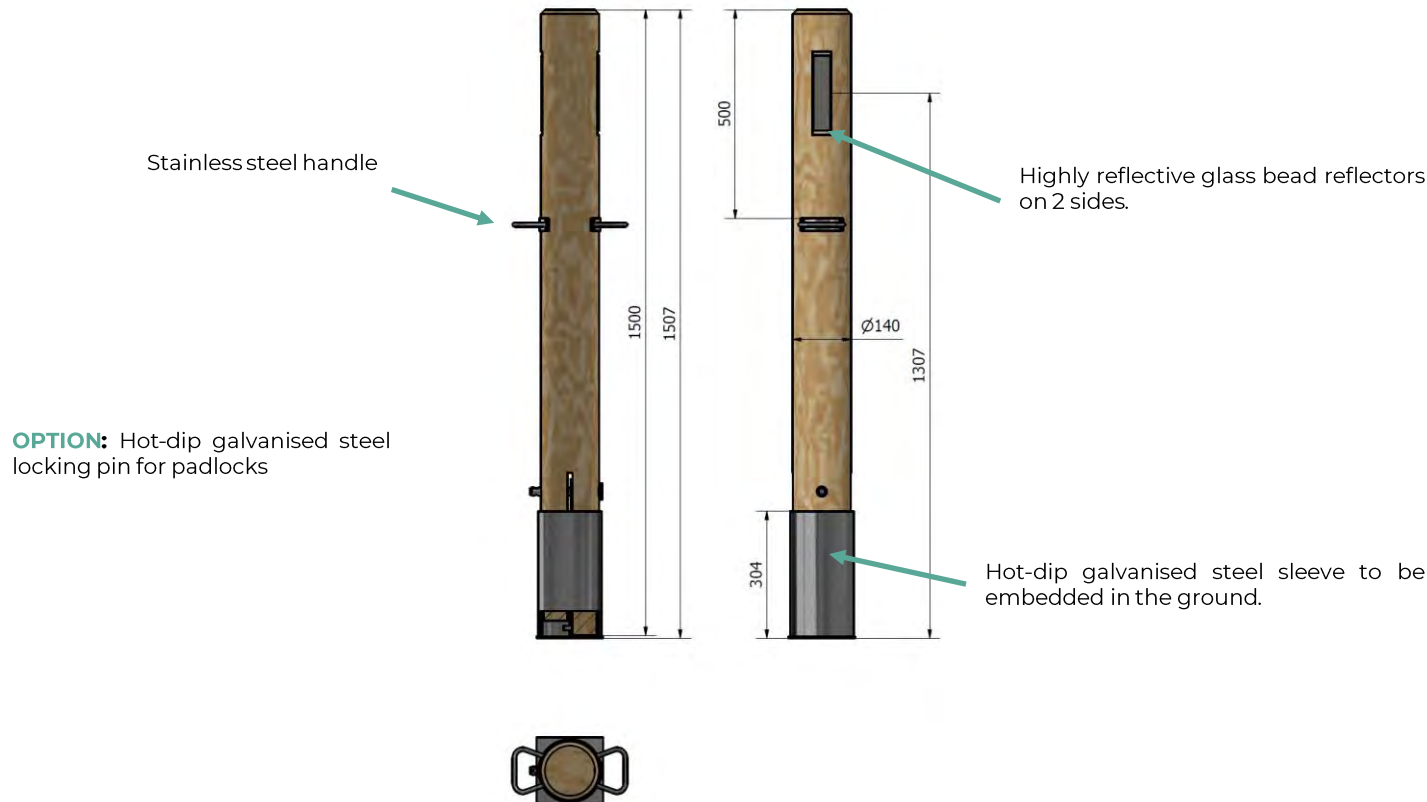
EXCLUSIVE PRODUCT BENEFITS :

- ✓ Solid wood: aesthetics and durability
- ✓ Benefits: Total safety reinforced **by factory-fitted two-sided reflective reflector**
- ✓ Installation: to be embedded in concrete block



BOLLARDS

PREMIUM REMOVABLE BOLLARD - ACCESS CONTROL



BOLLARDS

PREMIUM REMOVABLE BOLLARD - ACCESS CONTROL



Premium Bollard with removable base



BOLLARDS

PREMIUM REMOVABLE BOLLARD - ACCESS CONTROL

Working principle

Highly reflective glass bead reflectors on 2 sides.

Stainless steel handle

Highly reflective glass bead
reflectors on 2 sides.

Stainless steel handle

Hot-dip galvanised steel insert plate
for log stabilisation

Hot-dip galvanised steel sleeve to be embedded in the ground.

Hot-dip galvanised steel
locking pin for padlock
(optional).

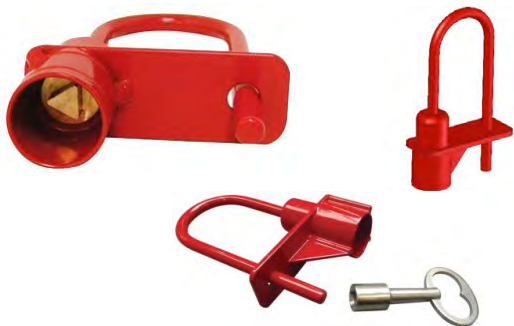
Ground level



BOLLARDS

LOCKING OPTIONS FOR SOLONATURE® BOLLARDS

- ✓ **OPTION 1 :** fireman's padlock + hydrant key, red epoxy paint, for locking your barriers and gates.



- 14 mm internal cross-section.
- Inside material of the triangle: brass
- Key supplied
- Can be quickly unlocked by firefighters thanks to its triangular lock (firefighters have this type of key).



- ✓ **OPTION 2 :** intelligent padlocks and keys for unique access management

- Intelligent ASSA ABLOY **electromechanical** padlock.
- 2 key variants: electromechanical or purely mechanical
- The lock is operated from the outside by a CLIQ **electronic key** programmed by SOLOSAR.
- The key can only be removed in the locked position
- Designed to last and resist physical and electronic attack
- CLIQ is an **electronic locking** system designed to provide **maximum flexibility and enhanced security**. Physical security is optimised by a series of tamper-proof electromechanical cylinders and padlocks, controlled by intelligent CLIQ programmable keys.
- Material: stainless steel, corrosion-resistant even in harsh environments.



solonature

SOLOSAR
Équipement en bois - Bois de construction

Pour tous vos projets de bois

UNIPROMET



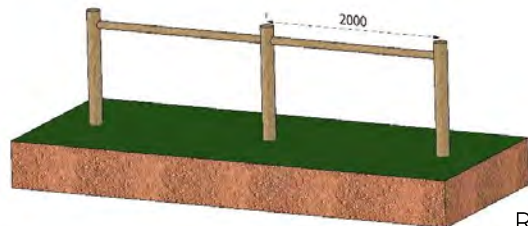
04

FENCES

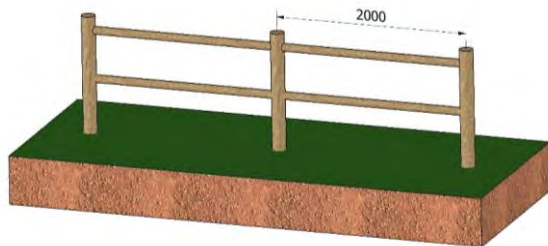
HIGH INTERLOCKING FENCES

ROMA

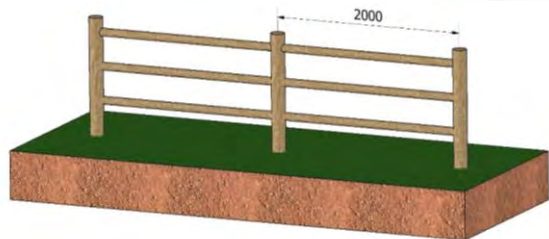
Working principle



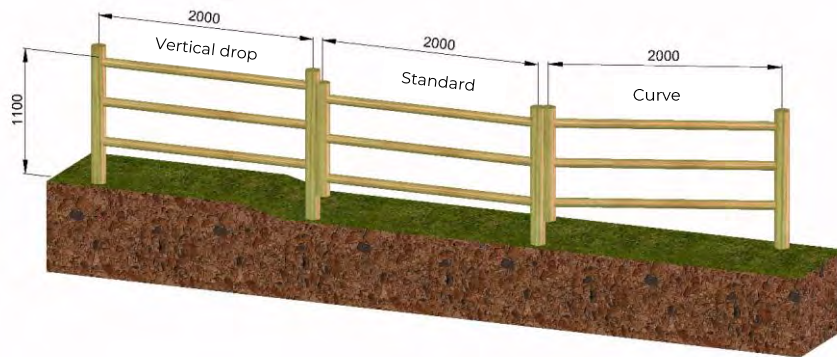
ROMA single rail



ROMA double rail



ROMA triple rail



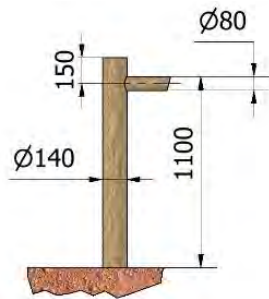
Examples of configurations using on-site wood recutting. Easy to create curves by doubling the wooden posts.

HIGH INTERLOCKING FENCES

ROMA SINGLE RAIL

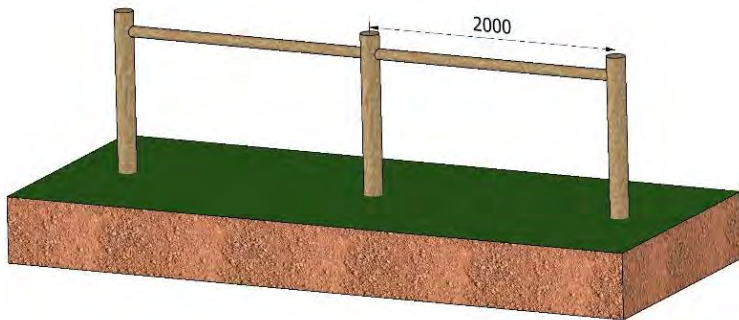
TECHNICAL INFO :

- ✓ **Solid wood components:** Class 4 autoclaved Scots pine to EN 335, guaranteed not to rot for 10 years
- ✓ **Height above ground:** 1100mm
- ✓ **Posts:** Ø140 mm log, length 1500 mm, for embedding
- ✓ **Post centre-to-centre distance: 2m**
- ✓ **Diameter of horizontal rail:** 80mm
- ✓ Supplied as a ready-to-install kit.
- ✓ Made-to-measure: please contact us
- ✓ **Classic, economical fencing for natural sites**



ADVANTAGES AND BENEFITS :

- ✓ **Made from quality Scots pine**
- ✓ **10-year guarantee** against premature rotting
- ✓ Modular design thanks to double posts for curves.
- ✓ Installation without screws or glue
- ✓ Economic




HIGH INTERLOCKING FENCES

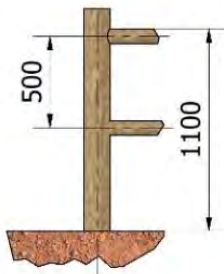
ROMA SINGLE RAIL



ROMA DOUBLE RAIL

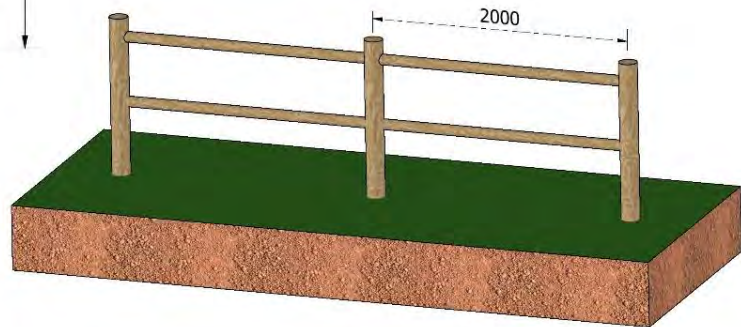
TECHNICAL INFO :

- ✓ **Solid wood components:** Class 4 autoclaved Scots pine to EN 335, guaranteed not to rot for 10 years
 - ✓ **Height above ground, top rail:** 1100mm
 - ✓ **Posts:** Ø140 mm log, length 1500 mm, for embedding
 - ✓ **Post centre-to-centre distance:** 2m
 - ✓ **Diameter of horizontal rail:** 80mm
 - ✓ Supplied as a ready-to-install kit.
 - ✓ Made-to-measure: please contact us
 - ✓ **Classic, economical fencing for natural sites**
- 



ADVANTAGES AND BENEFITS :

- ✓ **Made from quality Scots pine**
- ✓ **10-year guarantee** against premature rotting
- ✓ Modular design thanks to double posts for curves.
- ✓ Installation without screws or glue
- ✓ Economic



HIGH INTERLOCKING FENCES

ROMA DOUBLE RAIL

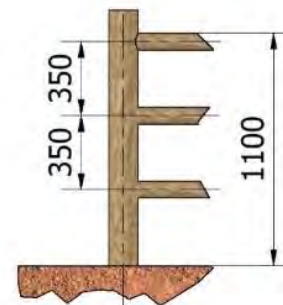


HIGH INTERLOCKING FENCES

TRIPLE RAIL ROMA

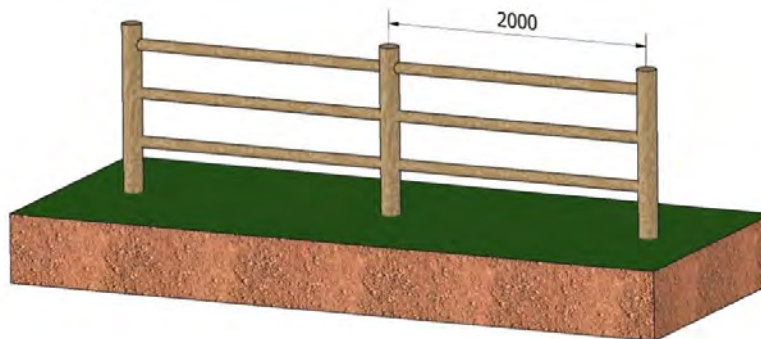
TECHNICAL INFO :

- ✓ **Solid wood components:** Class 4 autoclaved Scots pine to EN 335, guaranteed not to rot for 10 years
- ✓ **Height above ground, top rail:** 1100mm
- ✓ **Posts:** Ø140 mm log, length 1500 mm, for embedding
- ✓ **Post centre-to-centre distance:** 2m
- ✓ **Diameter of horizontal rail:** 80mm
- ✓ Supplied as a ready-to-install kit.
- ✓ Made-to-measure: please contact us
- ✓ **Classic, economical fencing for natural sites**
- ✓ **Also available with square post: see TREVI model**



ADVANTAGES AND BENEFITS :

- ✓ **Made from quality Scots pine**
- ✓ **10-year guarantee** against premature rotting
- ✓ Modular design thanks to double posts for curves.
- ✓ Installation without screws or glue
- ✓ Economic



HIGH INTERLOCKING FENCES

TRIPLE RAIL ROMA



HIGH INTERLOCKING FENCES

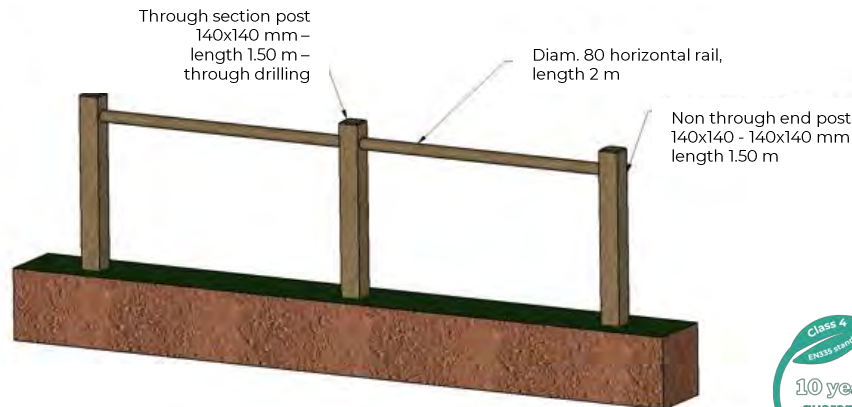
TREVI - SOLID WOOD SQUARE POST

TECHNICAL INFO :

- ✓ **Solid wood components:** Class 4 autoclaved Scots pine to EN 335, guaranteed not to rot for 10 years
- ✓ **Height above ground, top rail:** 1100mm
- ✓ **Post centre-to-centre:** square 140x140 mm, length 1500 mm, for embedding
- ✓ **Post:** 2m
- ✓ **Diameter of horizontal rail:** 80mm
- ✓ Delivered ready to install.
- ✓ Made-to-measure: please contact us
- ✓ **Classic, cost-effective fencing for natural sites with or without slopes**
- ✓ Round post version available: see ROMA model

ADVANTAGES AND BENEFITS :

- ✓ **Made from quality Scots pine**
- ✓ **10-year guarantee** against premature rotting
- ✓ Modular design thanks to double posts for curves.
- ✓ Installation without screws or glue
- ✓ Economic



HIGH INTERLOCKING FENCES

TREVI - SOLID WOOD SQUARE POST



TREVI square posts in autoclaved solid wood (Italy)



Technical drawing of a wooden fence section. The drawing shows a cross-section of the fence with a height dimension of 1100 and two segments of length 2000.



HIGH INTERLOCKING FENCES

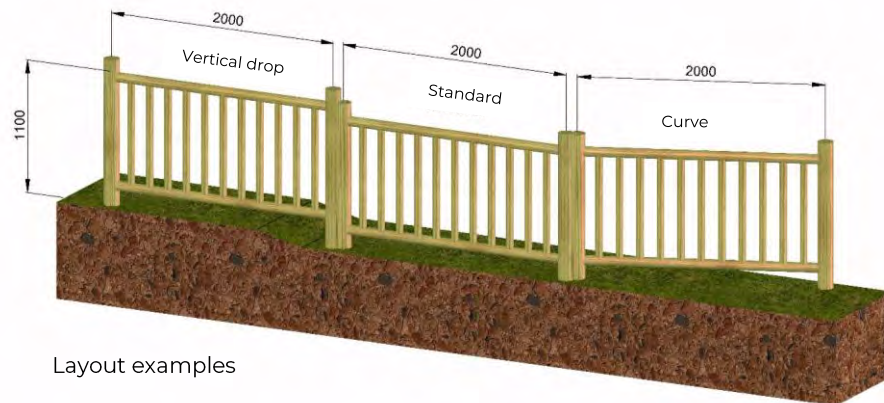
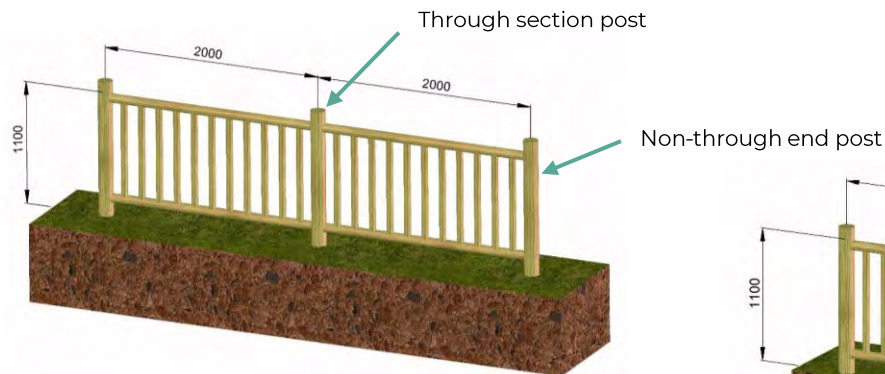
MILANO



HIGH INTERLOCKING FENCES

MILANO

Working principle



Layout examples

HIGH INTERLOCKING FENCES

MILANO



MILANO fence with reinforced steel post (Belgium)

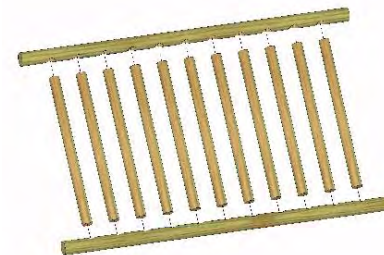


HIGH INTERLOCKING FENCES

TORINO

TECHNICAL INFO :

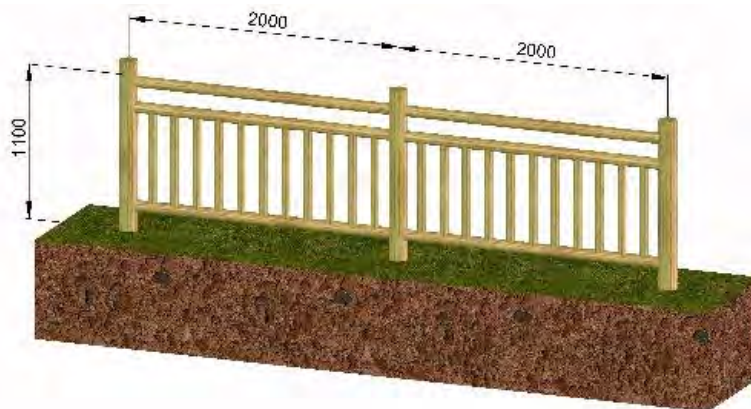
- ✓ **Solid wood components:** Class 4 autoclaved Scots pine to EN 335, guaranteed not to rot for 10 years
- ✓ **Height above ground, top rail:** 1100mm
- ✓ **Posts:** Ø140 mm log, length 1500 mm, for embedding
- ✓ **Post centre-to-centre distance:** 2m
- ✓ **Diameter of horizontal rail:** 80mm
- ✓ **Bar diameter:** 60mm
- ✓ **SOLOSAR pre-assembles the bars**
- ✓ Made-to-measure: please contact us



We pre-assemble the railing module so that you don't waste any time on your site.

ADVANTAGES AND BENEFITS :

- ✓ **Made from quality Scots pine**
- ✓ **10-year guarantee** against premature rotting
- ✓ Modular design thanks to double posts for curves.
- ✓ Installation without screws or glue
- ✓ Economic



HIGH INTERLOCKING FENCES

TORINO



HIGH INTERLOCKING FENCES

TORINO

TORINO fencing with steel anchors to ensure rigidity and easy removal of wooden posts.
See all our **anchoring solutions** in the ANCHORAGES section.

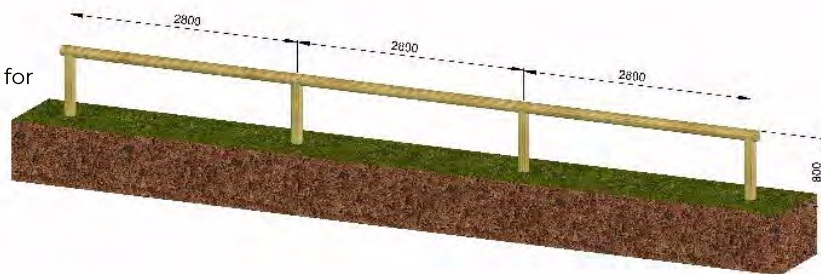


LOW FENCES WITH SLEEPER SCREWS

LONDON

TECHNICAL INFO :

- ✓ **Solid wood components:** Class 4 autoclaved Scots pine to EN 335, guaranteed not to rot for 10 years
- ✓ **Height above ground:** 800mm
- ✓ **Post centre-to-centre distance:** 2.8m
- ✓ **Posts:** Ø140 mm log, length 1300 mm, tongue and groove machining, for embedding
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** limits passage but not visibility



ADVANTAGES AND BENEFITS :

- ✓ **Made from quality Scots pine**
- ✓ **10-year guarantee** against premature rotting
- ✓ **Total adjustment of post spacing** by re-drilling the horizontal rail
- ✓ Economical thanks to the 2.80 m centre-to-centre distance



Aesthetic joint between post and rail using "tongue and groove" machining



LOW FENCES WITH SLEEPER SCREWS

LONDON

London fence - detail of tongue and groove machining



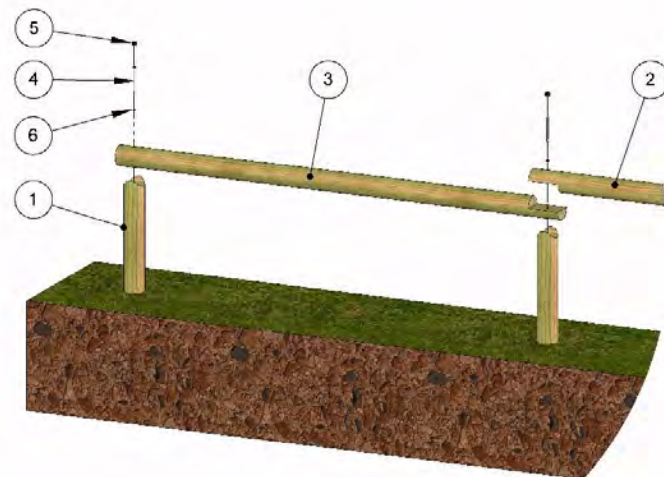
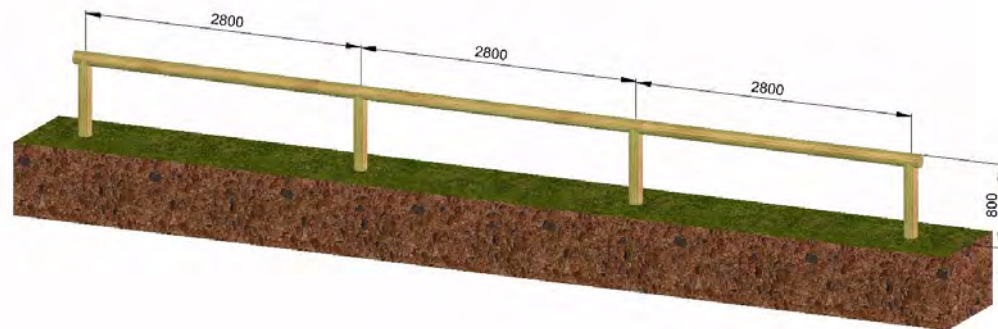
London fence - large linear (Portugal)



LOW FENCES WITH SLEEPER SCREWS

LONDON

Working principle



ANTI-PARKING FENCES

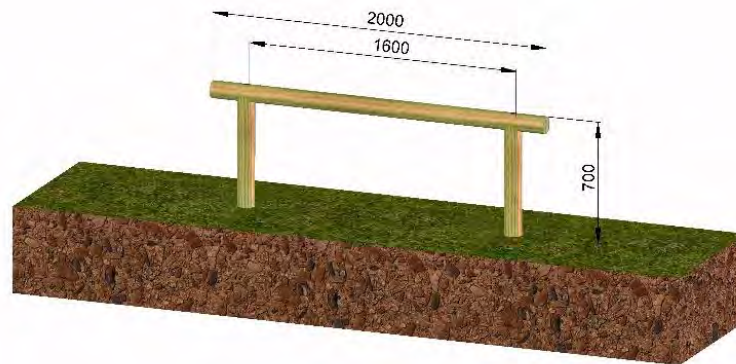
BRUXELLES

TECHNICAL INFO :

- ✓ **Solid wood components:** Class 4 autoclaved Scots pine to EN 335, guaranteed not to rot for 10 years
- ✓ **Height above ground:** 700mm
- ✓ **Post centre-to-centre distance:** 1.8m
- ✓ **Posts:** Ø100 mm log, length 1000 mm, tongue and groove machining, for embedding
- ✓ **Overall length:** 2m
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** limits passage but not visibility

ADVANTAGES AND BENEFITS:

- ✓ **Made from autoclaved solid Scots pine**
- ✓ **Total adjustment of post spacing** by re-drilling the horizontal rail
- ✓ Post



ANTI-PARKING FENCES

BRUXELLES

Made-to-measure on a Bruxelles base (Norway)



HIGH WOOD AND METAL FENCES

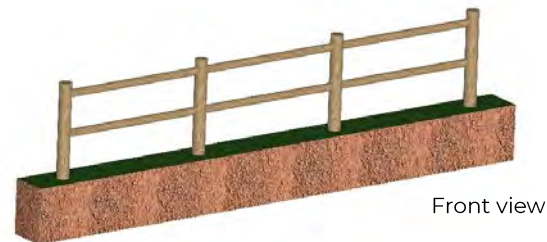
FLORENCE DOUBLE RAIL

TECHNICAL INFO :

- ✓ **Steel components:** S235JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood logs:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rot
- ✓ **Height above ground, top rail:** 1100mm
- ✓ **Posts:** Ø160 mm log, to be fixed on a C100 Post, to be embedded in the ground
- ✓ **Post centre-to-centre distance:** 2m
- ✓ **Diameter of horizontal rail:** 100mm
- ✓ Supplied as a ready-to-install kit.
- ✓ Made-to-measure: please contact us
- ✓ **Classic, economical fencing for natural sites**

ADVANTAGES AND BENEFITS :

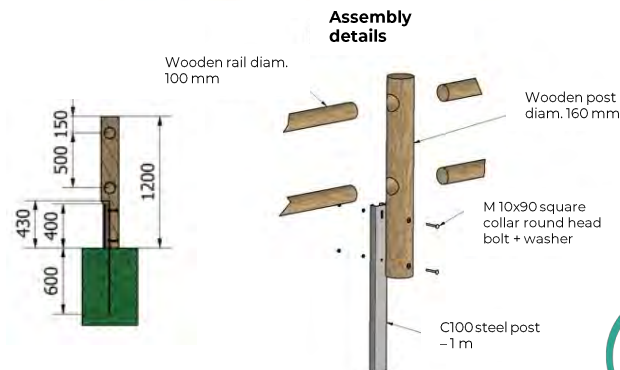
- ✓ **wood and steel:** ensures **robustness** by adding components at stress and connection points, **aesthetics** and **durability**
- ✓ **Reduced vandalism, controlled maintenance budget and total security**
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **Made in France**
- ✓ **Similar products:** model ROMA



Front view



Rear view



HIGH WOOD AND METAL INTERLOCKING FENCES

FLORENCE



Made-to-measure on a FLORENCE base (Spain)

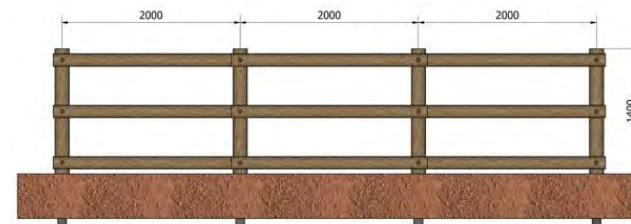


WOOD AND METAL HIGH FENCES

TOULOUSE

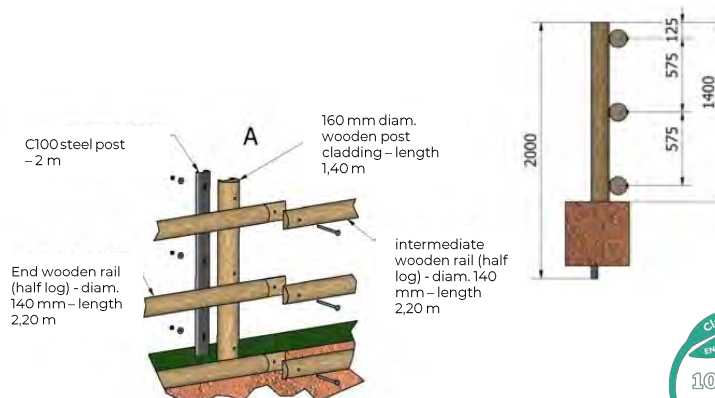
TECHNICAL INFO :

- ✓ **Steel components:** S235JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood logs:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rot
- ✓ **Height above ground:** 1400mm
- ✓ **Posts:** Ø160 mm log, to be fixed on a C100 Post, to be embedded in the ground
- ✓ **Post centre-to-centre distance:** 2m
- ✓ **Diameter of horizontal rail:** 140mm
- ✓ Supplied as a ready-to-install kit.
- ✓ Made-to-measure: please contact us
- ✓ **High fencing to ensure safety for all users (pedestrians, cyclists, horse riders)**



ADVANTAGES AND BENEFITS :

- ✓ The **highest** fence in the **SOLOnature®** range
- ✓ **Fall protection railing effect**
- ✓ **Suitable for all road users:** cyclists, pedestrians and horse riders
- ✓ **wood and steel:** ensures **robustness** by adding components at stress and connection points, **aesthetics** and **durability**
- ✓ **Reduced vandalism, controlled maintenance budget and total security**
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **Made in France**



WOOD AND METAL FENCES METAL POST - WOOD CLADDING

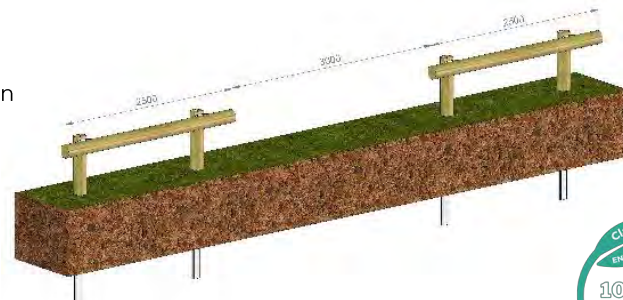
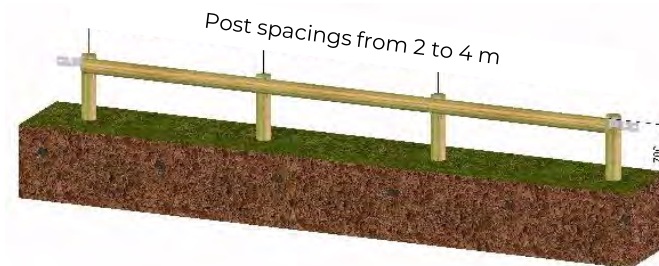
AMSTERDAM

TECHNICAL INFO :

- ✓ **Steel components:** S235JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood logs** ø160mm: class 4 autoclaved Scots pine to EN 335, guaranteed not to rot for 10 years
- ✓ **Post:** C100 galvanised steel - thickness 5 mm - to be sunk or embedded in the ground OR on a plate to be spiked into the asphalt or concrete slab
- ✓ **Solid wood ø160mm post cladding: steel front panel concealed by** machined wooden log
- ✓ 4 models: **post spacing 2, 2.50 and 3 m and 4 m**
- ✓ **Height above ground: 700mm**

ADVANTAGES AND BENEFITS :

- ✓ **The best-seller** of all **SOLOnature®** fences
- ✓ **Wood and steel:** ensures **robustness** by adding components at stress and connection points, **aesthetics** and **durability**
- ✓ Suitable for **all types of site**, knock-in version with variable centre-to-centre distances
- ✓ **Reduced vandalism, controlled maintenance budget and total security**
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **The distance between the posts can be adjusted** by re-drilling the top rail
- ✓ **Made in France**
- ✓ **Similar products:** DEAUVILLE, DINARD or AMSTERDAM models



WOOD AND METAL FENCES METAL POST - WOOD CLADDING

AMSTERDAM



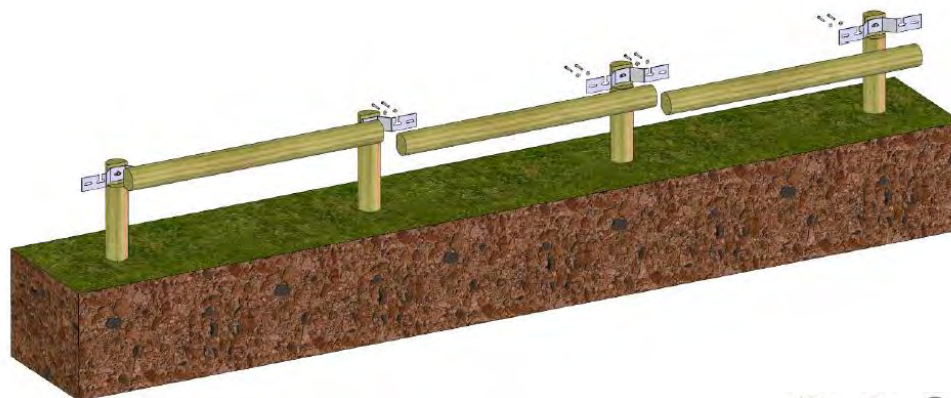
Amsterdam barriers - Car parks and cycle paths (Switzerland)



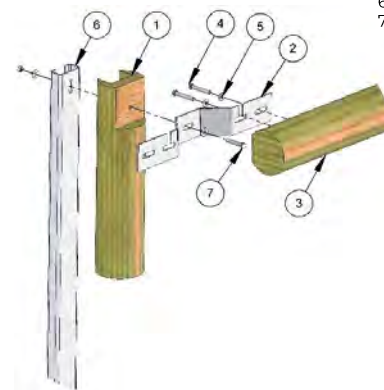
WOOD AND METAL FENCES METAL POST - WOOD CLADDING

AMSTERDAM

Working principle



- 1 : wooden cladding cover
- 2 : steel spacer
- 3 : horizontail wooden rail
- 4 : bolts
- 5 : washers
- 6 : C100 steel post
- 7 : 12x70 bolt



WOOD AND METAL FENCES METAL POST - WOOD CLADDING

ARCACHON

TECHNICAL INFO :

- ✓ **Steel components:** S235JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood logs ø160mm:** class 4 autoclaved Scots pine to EN 335, guaranteed 10 years against rotting
- ✓ **Post:** C100 galvanised steel - thickness 5 mm - to be sunk or embedded in the ground or on a plate to be spiked into the asphalt or concrete slab (optional)
- ✓ **Ø160mm post cladding: steel masking on front** using machined wooden logs
- ✓ **3 models: post spacing 2, 2.50 and 3 m**
- ✓ **Height above ground:** 700mm
- ✓ Flat steel splice for durable connection of components



ADVANTAGES AND BENEFITS :

- ✓ Solid wood: aesthetics and durability
- ✓ Benefits: constant safety reinforced by factory-fitted reflective film
- ✓ Installation: to be embedded in concrete block
- ✓ Installation tip: lay in dry concrete - check straightness with a spirit level
- ✓ **Similar products:** DEAUVILLE, DINARD or AMSTERDAM models



WOOD AND METAL FENCES METAL POST - WOOD CLADDING

ARCACHON

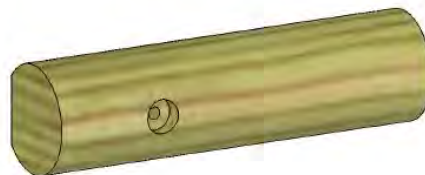
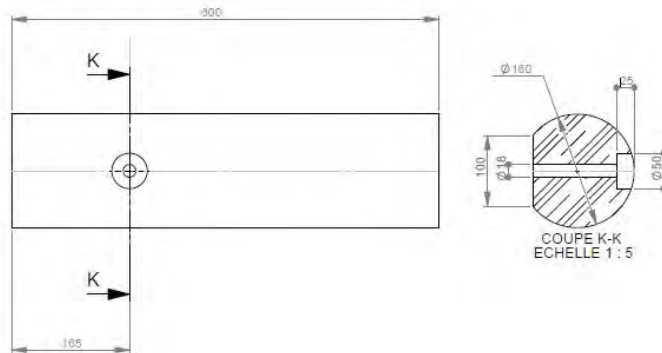


WOOD AND METAL FENCES METAL POST - WOOD CLADDING

ARCACHON

Treatment of ends

Straight - solid wood round end



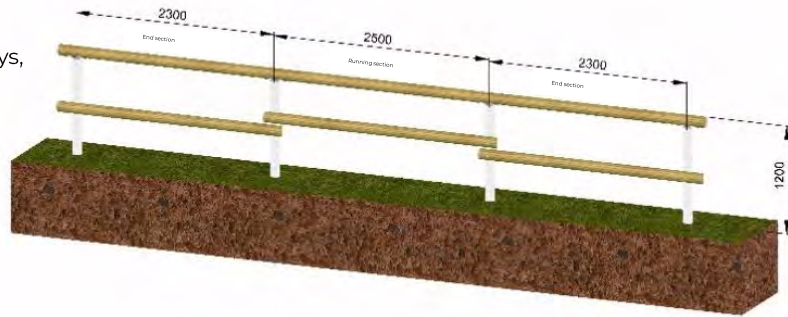
CADIZ

TECHNICAL INFO :

- ✓ **Steel components:** S235JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood logs:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rot
- ✓ **Top rail:** ø 120 mm
- ✓ **Intermediate rail:** ½ log ø 120 mm
- ✓ **Dimensions above ground:** 1200mm
- ✓ **Post centre-to-centre distance:** 2.50m
- ✓ **Posts:** C100 knock-in galvanised steel or C100 on base plate
- ✓ **Made-to-measure:** please contact us
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, isolating obstacles, etc.

ADVANTAGES AND BENEFITS :

- ✓ **Wood and steel:** robust, attractive and durable
- ✓ Suitable for **all types of site**, with knock-in or base-mounted versions and variable centre-to-centre distances
- ✓ **Reduced vandalism, controlled maintenance budget and total security**
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **The distance between the posts can be adjusted** by re-drilling the top rail
- ✓ **Made in France**



HIGH WOOD AND STEEL FENCES

CADIZ

CADIZ model (Luxemburg)



HIGH WOOD AND STEEL FENCES

CADIZ

- ✓ **OPTION 1 :** Powder coating of posts. All RAL colours



- ✓ **OPTION 2 :** Plunging end section



WOOD AND STEEL FENCES

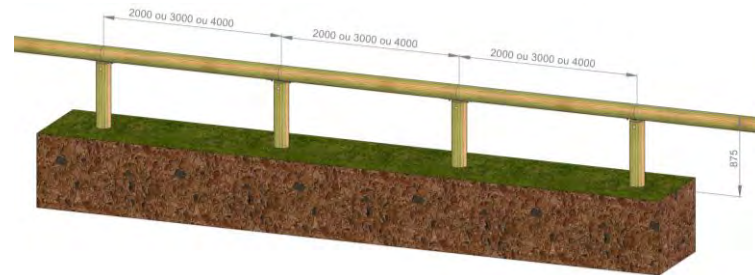
DEAUVILLE

TECHNICAL INFO :

- ✓ **Steel components:** S235JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood logs ø160mm:** class 4 autoclaved Scots pine to EN 335, guaranteed 10 years against rotting
- ✓ **Available centre-to-centre distance:** 2 m, 3 m or 4 m
- ✓ **Height:** 875mm
- ✓ **Optional:** C100 steel Post on base plate
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** restricting access to motorised vehicles on greenways, cycle paths and other routes dedicated to pedestrians, isolating obstacles, etc.

ADVANTAGES AND BENEFITS :

- ✓ **Wood and steel:** robust, attractive and durable
- ✓ Suitable for **all types of site**, with knock-in or base-mounted versions and variable centre-to-centre distances
- ✓ **Reduced vandalism, controlled maintenance budget and total security**
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **The distance between the posts can be adjusted** by re-drilling the top rail
- ✓ **Made in France**



WOOD AND STEEL FENCES

DEAUVILLE



WOOD AND STEEL FENCES

DEAUVILLE

Treatment of ends

The ends can be produced using a variety of processes :

- Lowered end - requires an end plate (picture 1)
- Addition of a 600 mm long wooden terminal (picture 2)
- Reduction in the centre-to-centre distance between end posts. Requires drilling the wooden rail. (picture 3)



Picture 1



Picture 2



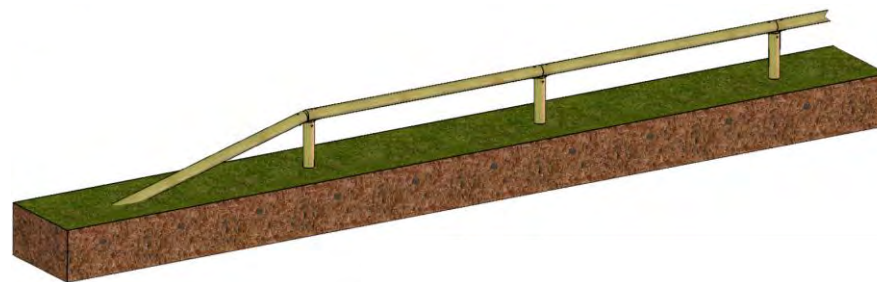
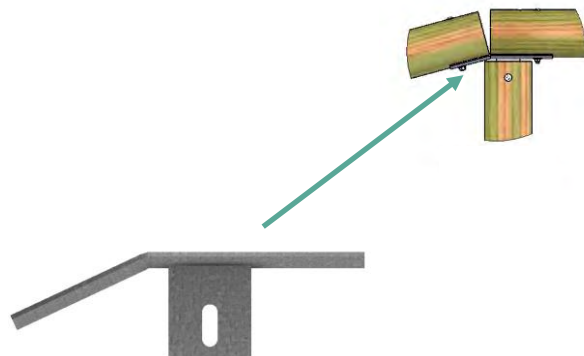
Picture 3

WOOD AND STEEL FENCES

DEAUVILLE

Treatment of ends

End of line
4 metres

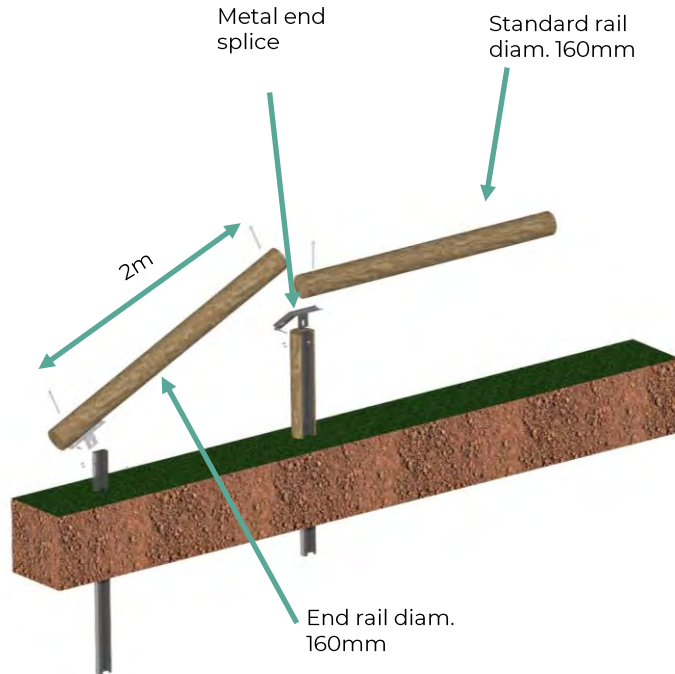


WOOD AND STEEL FENCES

DEAUVILLE

Treatment of ends

- ✓ **OPTION 1: 2-Metre** plunging end of line

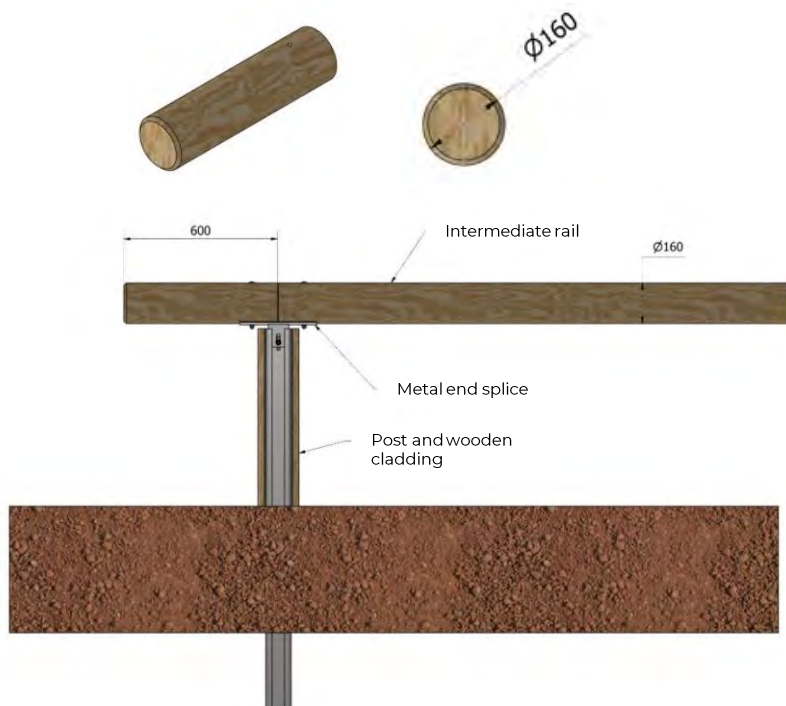


WOOD AND STEEL FENCES

DEAUVILLE

Treatment of ends

- ✓ **OPTION 2 : straight** thread end - autoclaved solid log end



WOOD AND STEEL FENCES

DEAUVILLE

DEAUVILLE fence in single units - Car park (Belgium)



DEAUVILLE fence - Cycle paths (France)

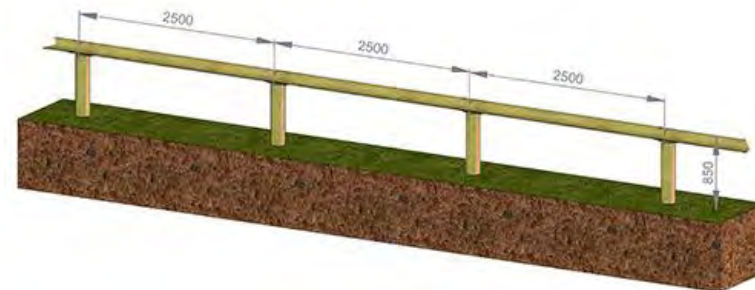


WOOD AND STEEL FENCES

DINARD

TECHNICAL INFO :

- ✓ **Steel components:** S235JR hot-dip galvanised to ISO 1461
- ✓ **Solid wood logs:** class 4 autoclaved Scots pine to EN 335, guaranteed not to rot for 10 years
- ✓ **Rail diameter:** 140mm
- ✓ **Size above ground:** 855mm
- ✓ **Post centre-to-centre distance:** 2.5m
- ✓ **Posts:** C100 knock-in galvanised steel or on base plate + Ø 160 mm wooden cladding
- ✓ Made-to-measure: please contact us
- ✓ **Typical application:** provides aesthetic access control while restricting passage, but not visibility.



ADVANTAGES AND BENEFITS :

- ✓ **Wood and steel:** robust, attractive and durable
- ✓ Suitable for **all types of site**, with knock-in or base-mounted versions and variable centre-to-centre distances
- ✓ **Reduced vandalism, controlled maintenance budget and total security**
- ✓ **Installation:** post to be embedded in concrete block
- ✓ **Post spacing can be fully adjusted** by re-drilling the top rail
- ✓ **Made in France**



WOOD AND STEEL FENCES

DINARD

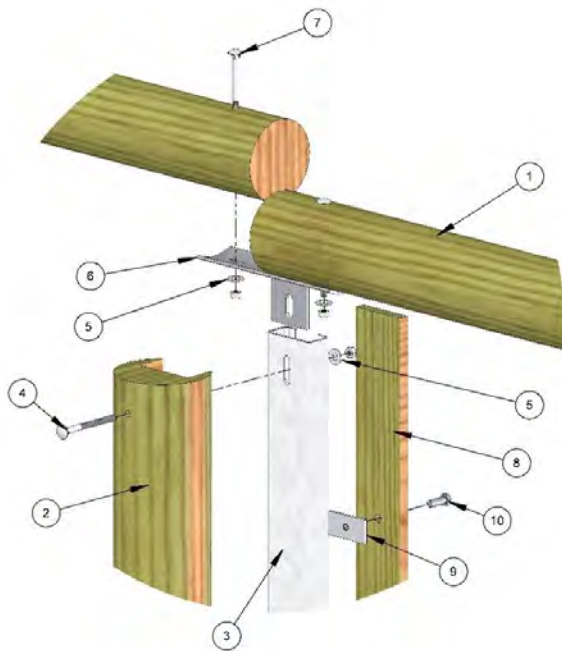
DEAUVILLE fence (Luxembourg)



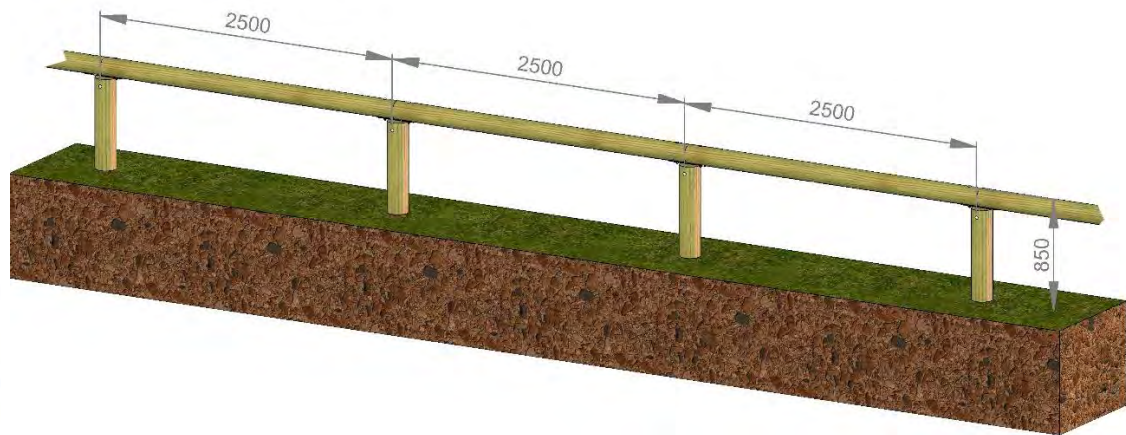
WOOD AND STEEL FENCES

DINARD

Working principle



- 1 : horizontal wooden rail
- 2 : wooden cladding cover
- 3 : C100 steel post
- 4 : bolts
- 5 : washers
- 6 : metal splice
- 7 : bolts
- 8 : Wooden back cover
- 9 : rectangular washer
- 10 : bolt

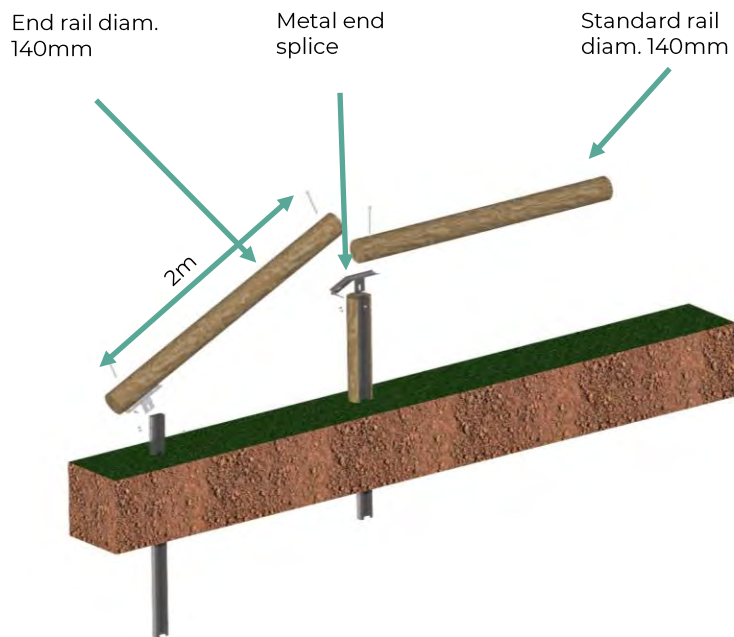


WOOD AND STEEL FENCES

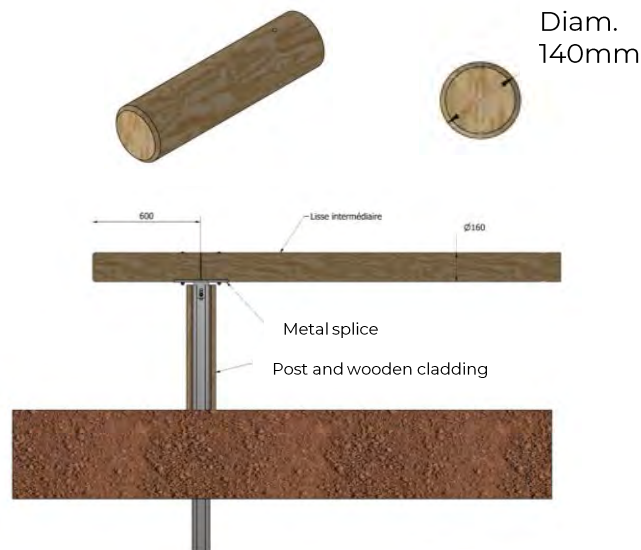
DINARD

Treatment of ends

✓ **OPTION 1: 2-Metre** plunging end of line



✓ **OPTION 2: straight** thread end - autoclaved solid log end



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E. SA. IMHOTEP E. SA. IMHOTEP - UNIPROMET

Pour nous, votre projet est unique.

UNIPROMET



05

ANCHORING OF WOODEN POSTS

ANCHORING WOOD POSTS

The choice of fixing system depends not only on the nature of the product but also on the structure and texture of the soil.

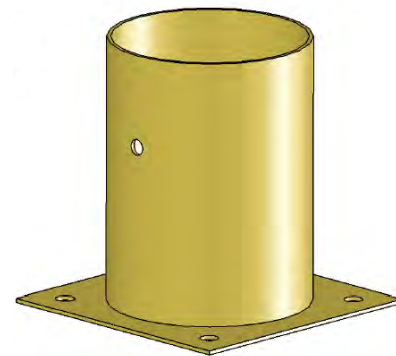


Powder-coated sleeve RAL 7008

STEEL SHEATH

Steel : S235JR hot-dip galvanised to ISO 1461

Available in a **galvanised finish** or **powder-coated** to RAL 7008 allows the product to be replaced in the event of vandalism or for seasonal installations. Ideal for **flat, hard floors**.



ANCHORING WOOD POSTS

The choice of fixing system depends not only on the nature of the product but also on the structure and texture of the soil.



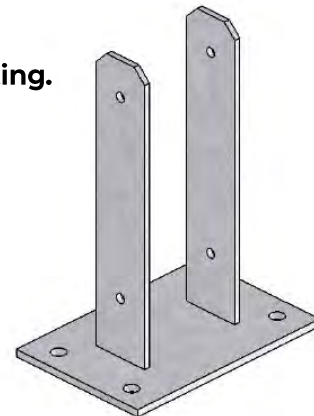
Example of hot-dip galvanised anchoring

STEEL ANCHOR ON PLATE

Steel : S235JR hot-dip galvanised to ISO 1461
Available in **galvanised** or **powder-coated** RAL 7008 finish.

Steel anchors can also be used to replace the product in the event of vandalism. Ideal for **loose floors**.

Prevents the post from rotating.



ANCHORING BOLLARDS OR LOGS WITHOUT CONCRETE

The 1st concrete-free ground fixing solution (SOLO^{NATURE}® bollard posts and fences)

The issue of "carbon footprint" is more important than ever today.

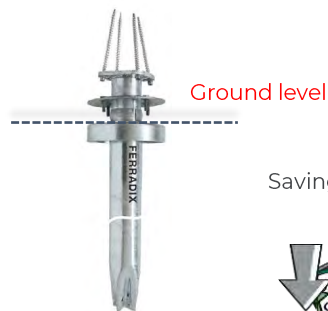
That's why we are offering WOOD by Ferradix®: the first floor fixing without concrete **without concrete** for our wooden posts, bollards and fences SOLO^{NATURE}® in a sustainable and environmentally friendly way.

WOOD post with 4 screws for wood inserts

1.
Respect for the
environment



2.
Quick and easy to fit



3.
Savings on site



4.
Aesthetics



Steel anchor piles



CITY
for **hard** floors,
concrete and
cobblestones



ALPHA
for **loose**, natural and
asphalt floors

ANCHORING BOLLARDS OR LOGS WITHOUT CONCRETE

The 1st concrete-free ground fixing solution (**SOLOnature®** bollard posts and fences)



SOLOnature® fixed bollard with ALPHA anchoring piles **for loose ground** and WOOD post screwed into the log.



Adjustable height above ground (minimum 5 cm) to prevent the wood section from coming into contact with ground humidity.

ANCHORING BOLLARDS OR LOGS WITHOUT CONCRETE



Examples of projects

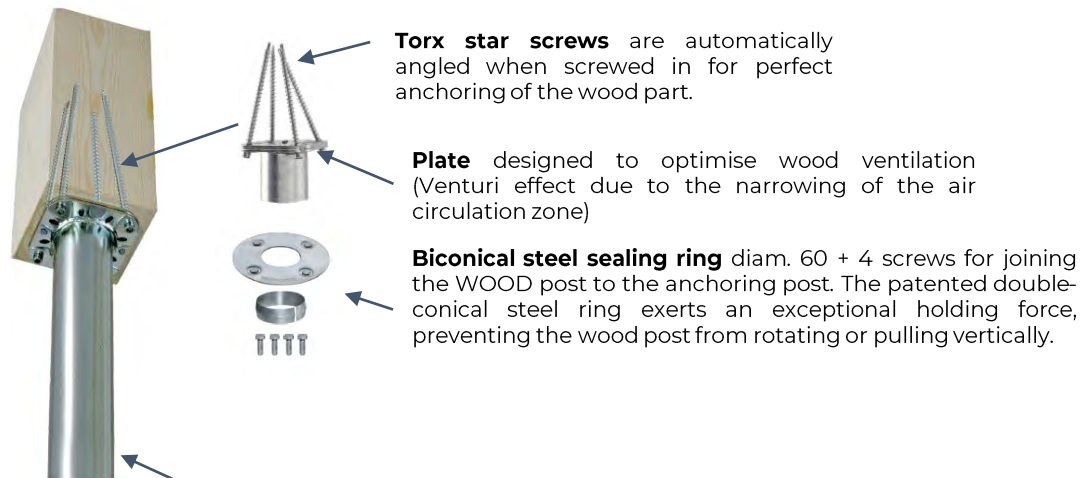


Adjustable height above ground (minimum 5 cm) to prevent the wood section from coming into contact with ground humidity.

ANCHORING BOLLARDS OR LOGS WITHOUT CONCRETE - WOOD POST

Concrete production currently accounts for over 8% of man-made CO² emissions, more than global air traffic. By using our anchor piles without concrete, you can save up to 190 kg of concrete per pile.

The **WOOD** post is fixed into the wooden posts or logs and then inserted into the **CITY** or **ALPHA** anchoring piles. It allows logs to be screwed together and protects them from damp. Made entirely of hot-dip galvanised steel.



Tube diam. 60mm
Length 350 mm for CITY piles (see next page)
or
400 or 600 mm for ALPHA piles (see next page)



ANCHORING BOLLARDS OR LOGS WITHOUT CONCRETE - ANCHORING PILES



ALPHA anchoring piles
without concrete.

For **loose**, natural and asphalt floors






CITY anchoring piles
Addition of 20% of concrete

For **hard** floors, concrete and paved



Hot-dip galvanised steel components

- **ALPHA** drive-in anchor piles for natural and asphalt soils → length 40 cm or 60 cm (depending on loose soil) and diam. 60mm
- **CITY** drive-in anchor piles for hard concrete and paving slabs → length 30 cm and diam. 60mm

		
ALPHA for diam. 60 Length 600 mm	ALPHA for diam. 60 Length 400 mm	CITY for diam. 60 Length 300 mm
For very loose, uncompacted natural soil	For compacted natural soil	



ANCHORING BOLLARDS OR LOGS WITHOUT CONCRETE - CITY ANCHORING PILES

The 1st concrete-free ground fixing solution (**SOLOnature®** bollard posts and fences)

Saving on concrete is so easy:

1. Decoré
2. Drive in city anchor pile and light addition of concrete
3. Insert the WOOD post and tighten the biconical ring
4. Done!



CITY anchoring piles

Addition of 20% of concrete

For **hard** floors, concrete and paving only 30 cm long - ideal for urban environments

Biconical steel sealing ring diam. 60 + 4 screws for joining the WOOD post to the anchoring post. The patented double-conical steel ring exerts an exceptional holding force, preventing the wood post from rotating or pulling vertically.



ANCHORING BOLLARDS OR LOGS WITHOUT CONCRETE - ALPHA ANCHORING PILES

The 1st concrete-free ground fixing solution (**SOLOnature®** bollard posts and fences)

100% concrete-free installation:

1. Drive in the ALPHA anchor pile
2. Insert the WOOD post and tighten the biconical ring
3. Done!



ALPHA for diam. 60

Length **400 mm**

For compacted natural soil



ALPHA for diam. 60

Length **600 mm**

**For very loose,
uncompacted natural soil**



Biconical steel sealing ring diam. 60 + 4 screws for joining the WOOD post to the anchoring post. The patented double-conical steel ring exerts an exceptional holding force, preventing the wood post from rotating or pulling vertically.



ALPHA anchoring piles

without concrete
for **loose**, natural and asphalt floors



ANCHORING BOLLARDS OR LOGS WITHOUT CONCRETE

INSTALLATION METHOD



Stage 1: demarcation of the insertion area by impression or decoring



Stage 2: drive down the hole in the ground - check axial alignment



Stage 3: drive in the anchor piles using a pneumatic hammer and dedicated installation tool.



Step 4: Insert the anchor piles into the ground



Stage 5: intermediate check of the straightness of the pile in the ground



Biconical ring

06

WHEELS STOPS AND BICYCLE LOOPS

NON-INTRUSIVE PHYSICAL WARNING FOR PARKING SPACES

WHEEL STOP

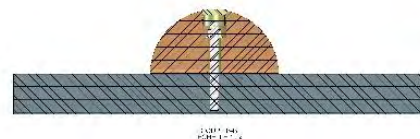
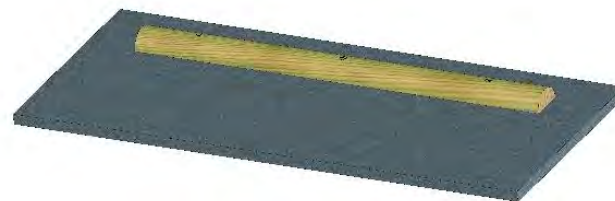
TECHNICAL INFO :

- ✓ **Solid wood components:** Class 4 autoclaved Scots pine to EN 335, guaranteed not to rot for 10 years
- ✓ **Overall dimensions:** 2m x 1/2 Ø160mm, 3 countersunk holes
- ✓ **Anchoring:** chemical or mechanical (not supplied)
- ✓ **Typical application:** The economical solution for marking out parking spaces



✓ OPTIONS :

- Mechanical anchoring: hard ground and sound concrete
- Chemical anchoring: if concrete, weathered or loose soil



Wheel stop

- Length : 2 m
- Half log diam. 160 mm
- Mechanical or chemical anchoring



NON-INTRUSIVE PHYSICAL WARNING FOR PARKING SPACES

WHEEL STOP



TECHNICAL INFORMATION - ANCHORING

WHEEL STOP

✓ **OPTION 1:** ready-to-install chemical anchoring kit **for asphalt**

- 1 cartridge of chemical anchorant. With mixer - 300 ml. Universal anchorant **for asphalt** (asphalt). Gun not supplied. **For +/- 60 anchors.**
- 3 hex M12x80 galvanised screws
- 3 M 12 Washers
- 3 ATP zinc-plated steel female plugs for anchoring - 12 mm thread - length: 120 mm - drill diam. 18 mm x 125 mm deep.



Special cap to prevent resin intrusion into the thread and provide a flush finish.

✓ **OPTION 2:** ready-to-install standard chemical anchoring kit **for hard floors**

- 1 cartridge of chemical anchorant. With mixer - 300 ml. Universal sealer for **concrete or non-cracked hard ground**. Gun not supplied. **For +/- 60 anchors.**
- 3 zinc-plated M12x130 anchoring rods
- 3 Washers + 3 M12 nuts



HOOP FOR ALL BICYCLES WOOD AND METAL

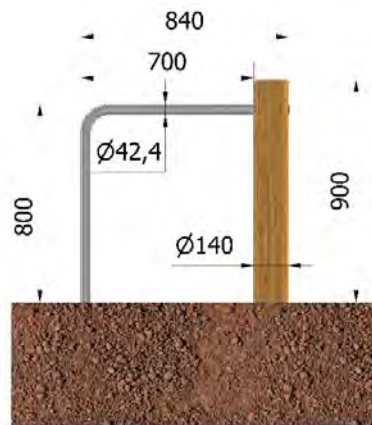
2-SPACE BICYCLE HOOP

TECHNICAL INFO :

- ✓ **Curved hoop** made of hot-dip galvanised S235 JR **steel** to ISO 1461
- ✓ **Solid wood log**: class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rotting
- ✓ **Dimensions**: 900mm (height) x 840 mm (width)
- ✓ **Post**: to be embedded in the ground in a concrete bed
- ✓ Option: sleeve to be embedded in the ground
- ✓ Made-to-measure: please contact us

BENEFITS AND ADVANTAGES :

- ✓ Solid wood: **aesthetics and durability**
- ✓ Benefits: vandal-resistant steel
- ✓ Installation: to be embedded in concrete block
- ✓ Installation tip: lay in dry concrete - check straightness with a spirit level



HOOP FOR ALL BICYCLES WOOD AND METAL

2-SPACE BICYCLE HOOP



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07

RETAINING WALL

READY-TO-INSTALL KIT RETAINING WALL

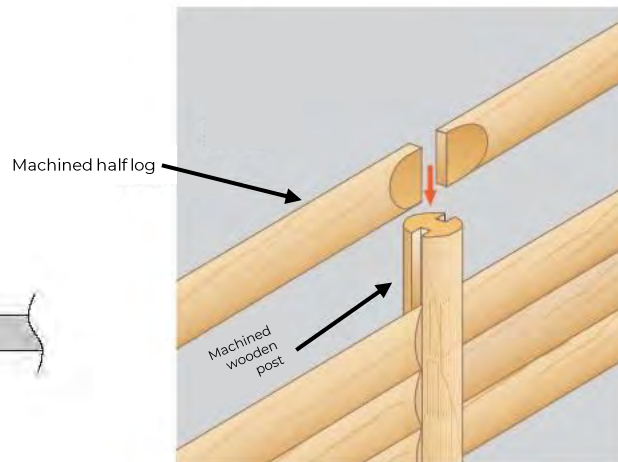
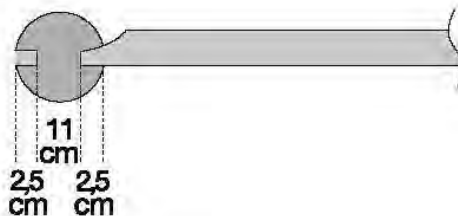
RETAINING WALL

TECHNICAL INFO :

- ✓ **Solid wood logs:** class 4 autoclaved Scots pine to EN 335, guaranteed for 10 years against rot
- ✓ **Contact us to discuss the technical details of your project with our design office.**

BENEFITS AND ADVANTAGES :

- ✓ **Made from quality Scots pine**
- ✓ **10-year guarantee** against premature rotting
- ✓ Modular design by varying the centre-to-centre distance
- ✓ Installation without screws or glue
- ✓ Post to be embedded in concrete
- ✓ Economical and sustainable



READY-TO-INSTALL KIT RETAINING WALL

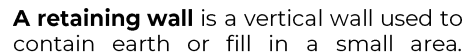
RETAINING WALL





- ✓ Total length required
- ✓ Number of 90° angles
- ✓ Desired height above ground
- ✓ Special features of the site

- ✓ Create fairly deep beds 40 (L)x40 (W) x50 (D)
- ✓ Pour concrete and embed the protected posts in the concrete (not too liquid)
- ✓ Leave to dry for at least 1 week (note: in very hot weather, it is not ideal to create concrete beds)
- ✓ Install the wooden planks (without glue or screws)
- ✓ Place a waterproof membrane behind the finished wall from the base to the top of the wall
- ✓ Cover with topsoil. Fill with soil up to 20 cm from the top of the retaining wall.
- ✓ Do not plant invasive species in the immediate vicinity (bamboo, etc.)



It can also be used to protect roads and paths from landslides, structure a natural bank or limit erosion by run-off.

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SOLOSAR
SAISONNIER

UNIPROMET



08

**LOGS AND SAWN
TIMBER CLASS 4 SCOTS
PINE**

LOGS AND SAWN TIMBER

SAWN TIMBER



9627250	Planed sawn timber 4 chamfers 2.0 x 9.5 x L=2500 cm
9627300	Planed sawn timber 4 chamfers 2.0 x 9.5 x L=300 cm
9627400	Planed sawn timber 4 chamfers 2.0 x 9.5 x L=400 cm
9639250	Planed sawn timber 4 chamfers 2.0 x 14.5 x L=250 cm
9639300	Planed sawn timber 4 chamfers 2.0 x 14.5 x L=300 cm
9639400	Planed sawn timber 4 chamfers 2.0 x 14.5 x L=400 cm
9685250	Planed sawn timber 4 chamfers 2.6 x 9.5 x L=250 cm
9685300	Planed sawn timber 4 chamfers 2.6 x 9.5 x L=300 cm
9685400	Planed sawn timber 4 chamfers 2.6 x 9.5 x L=400 cm
9691250	Planed sawn timber 4 chamfers 2.6 x 14.5 x L=250 cm
9691300	Planed sawn timber 4 chamfers 2.6 x 14.5 x L=300 cm
9691400	Planed sawn timber 4 chamfers 2.6 x 14.5 x L=400 cm
9695300	Planed sawn timber 4 chamfers 2.6 x 19.5 x L=300 cm
9695400	Planed sawn timber 4 chamfers 2.6 x 19.5 x L=400 cm
9722300	Planed sawn timber 4 chamfers 3.4 x 7.0 x L=300 cm
9722400	Planed sawn timber 4 chamfers 3.4 x 7.0 x L=400 cm
9724300	Planed sawn timber 4 chamfers 3.4 x 14.5 x L=300 cm
9724400	Planed sawn timber 4 chamfers 3.4 x 14.5 x L=400 cm

Dimensions are expressed in **thickness x width x length**

9745300	Planed sawn timber 4 chamfers 3.4 x 19.5 x L=300 cm
9745400	Planed sawn timber 4 chamfers 3.4 x 19.5 x L=400 cm
9781300	Planed sawn timber 4 chamfers 4.5 x 9.0 x L=300 cm
9781400	Planed sawn timber 4 chamfers 4.5 x 9.0 x L=400 cm
9791300	Planed sawn timber 4 chamfers 4.5 x 14.5 x L=300 cm
97911400	Planed sawn timber 4 chamfers 4.5 x 14.5 x L=400cm
9842300	Planed sawn timber 4 chamfers 7.0 x 7.0 x L=300 cm
9842400	Planed sawn timber 4 chamfers 7.0 x 7.0 x L=400cm
9886300	Planed sawn timber 4 chamfers 9.0 x 9.0 x L=300 cm
9886400	Planed sawn timber 4 chamfers 9.0 x 9.0 x L=400cm
9817300	Planed sawn timber 4 chamfers 5.8 x 12.0 x L=300 cm
9817400	Planed sawn timber 4 chamfers 5.8 x 12.0 x L=400 cm
9923300	Planed sawn timber 4 chamfers 11.5 x 11.5 x L=300 cm

Autoclaved Scots pine cl. 4 - **planed and chamfered boards**

LOGS

Scots pine logs - chamfered - autoclaved class 4

1208100	Milled log diam. 8 L=100cm
1208125	Milled log diam. 8 L=125cm
1208150	Milled log diam. 8 L=150cm
1208175	Milled log diam. 8 L=175cm
1208200	Milled log diam. 8 L=200cm
1208250	Milled log diam. 8 L=250cm
1208300	Milled log diam. 8 L=300cm
1208400	Milled log diam. 8 L=400cm
1210050	Milled log diam. 10 L=50cm
1210075	Milled log diam. 10 L=75cm
1210100	Milled log diam. 10 L=100cm
1210125	Milled log diam. 10 L=125cm
1210150	Milled log diam. 10 L=150cm
1210175	Milled log diam. 10 L=175cm
1210200	Milled log diam. 10 L=200cm
1210250	Milled log diam. 10 L=250cm
1210300	Milled log diam. 10 L=300cm
1210400	Milled log diam. 10 L=400cm
1210500	Milled log diam. 10 L=500cm



1212050	Milled log diam. 12 L=50cm
1212075	Milled log diam. 12 L=75cm
1212100	Milled log diam. 12 L=100cm
1212125	Milled log diam. 12 L=125cm
1212150	Milled log diam. 12 L=150cm
1212175	Milled log diam. 12 L=175cm
1212200	Milled log diam. 12 L=200cm
1212250	Milled log diam. 12 L=250cm
1212300	Milled log diam. 12 L=300cm
1212400	Milled log diam. 12 L=400cm
1212500	Milled log diam. 12 L=500cm
1214050	Milled log diam. 14 L=50cm
1214075	Milled log diam. 14 L=75cm
1214100	Milled log diam. 14 L=100cm
1214125	Milled log diam. 14 L=125cm
1214150	Milled log diam. 14 L=150cm
1214175	Milled log diam. 14 L=175cm
1214200	Milled log diam. 14 L=200cm
1214250	Milled log diam. 14 L=250cm
1214300	Milled log diam. 14 L=300cm
1214400	Milled log diam. 14 L=400cm
1214500	Milled log diam. 14 L=500cm

Dimensions are expressed in **diameter x length**

LOGS



Scots pine logs - chamfered - autoclaved class 4



1216050	Milled log diam. 16 L=50cm
1216075	Milled log diam. 16 L=75cm
1216100	Milled log diam. 16 L=100cm
1216125	Milled log diam. 16 L=125cm
1216150	Milled log diam. 16 L=150cm
1216175	Milled log diam. 16 L=175cm
1216200	Milled log diam. 16 L=200cm
1216250	Milled log diam. 16 L=250cm
1216300	Milled log diam. 16 L=300cm
1216400	Milled log diam. 16 L=400cm
1216500	Milled log diam. 16 L=500cm
1218050	Milled log diam. 18 L=50cm
1218075	Milled log diam. 18 L=75cm
1218100	Milled log diam. 18 L=100cm
1218125	Milled log diam. 18 L=125cm

Dimensions are expressed in **diameter x length**

LOGS AND SAWN TIMBER

½ LOGS

½ Scots pine logs - autoclaved class 4



3308200	1/2 log diam. 8 L=200cm
3308250	1/2 log diam. 8 L=250cm
3308300	1/2 log diam. 8 L=300cm
3308400	1/2 log diam. 8 L=400cm
3310200	1/2 log diam. 10 L=200cm
3310250	1/2 log diam. 10 L=250cm
3310300	1/2 log diam. 10 L=300cm
3310400	1/2 log diam. 10 L=400cm
3310500	1/2 log diam. 10 L=500cm
3312200	1/2 log diam. 12 L=200cm
3312250	1/2 log diam. 12 L=250cm
3312300	1/2 log diam. 12 L=300cm
3312400	1/2 log diam. 12 L=400cm
3312500	1/2 log diam. 12 L=500cm
3314300	1/2 log diam. 14 L=300cm
3314400	1/2 log diam. 14 L=400cm
3314500	1/2 log diam. 14 L=500cm

Dimensions are expressed in **diameter x length**



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08

BESPOKE PROJECTS

BESPOKE SOLUTIONS

OUR BESPOKE CREATIONS: DON'T HESITATE TO CONTACT US

Bespoke Amsterdam barriers with motorcycle screen - **Fontainebleau Motorised Gendarmerie School (France)**



BESPOKE CREATIONS

OUR BESPOKE CREATIONS: DON'T HESITATE TO CONTACT US

C100 cycle barrier on customised plate - **Strasbourg**



BESPOKE CREATIONS

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Height restriction gantry with central locking for - **Portugal**



BESPOKE CREATIONS

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Special fencing and gates without sharp edges for a Primary school - **Germany**



BESPOKE CREATIONS

OUR BESPOKE CREATIONS: DON'T HESITATE TO CONTACT US

Wooden crosspiece for a staircase in a sheltered environment - **Spain**

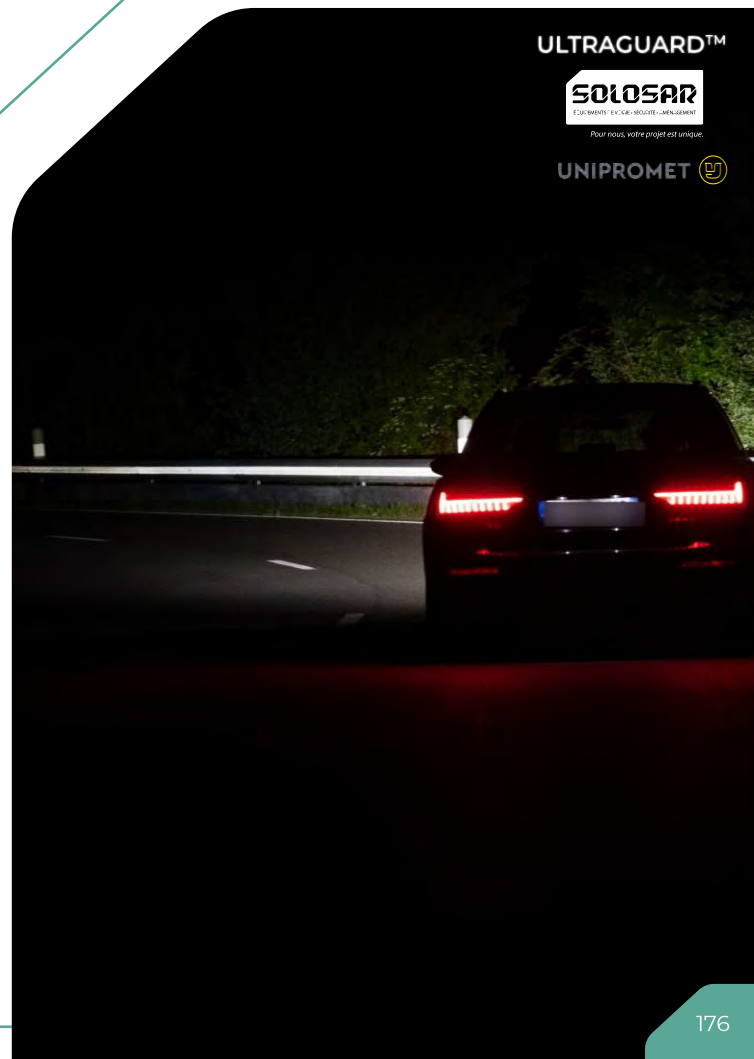


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