



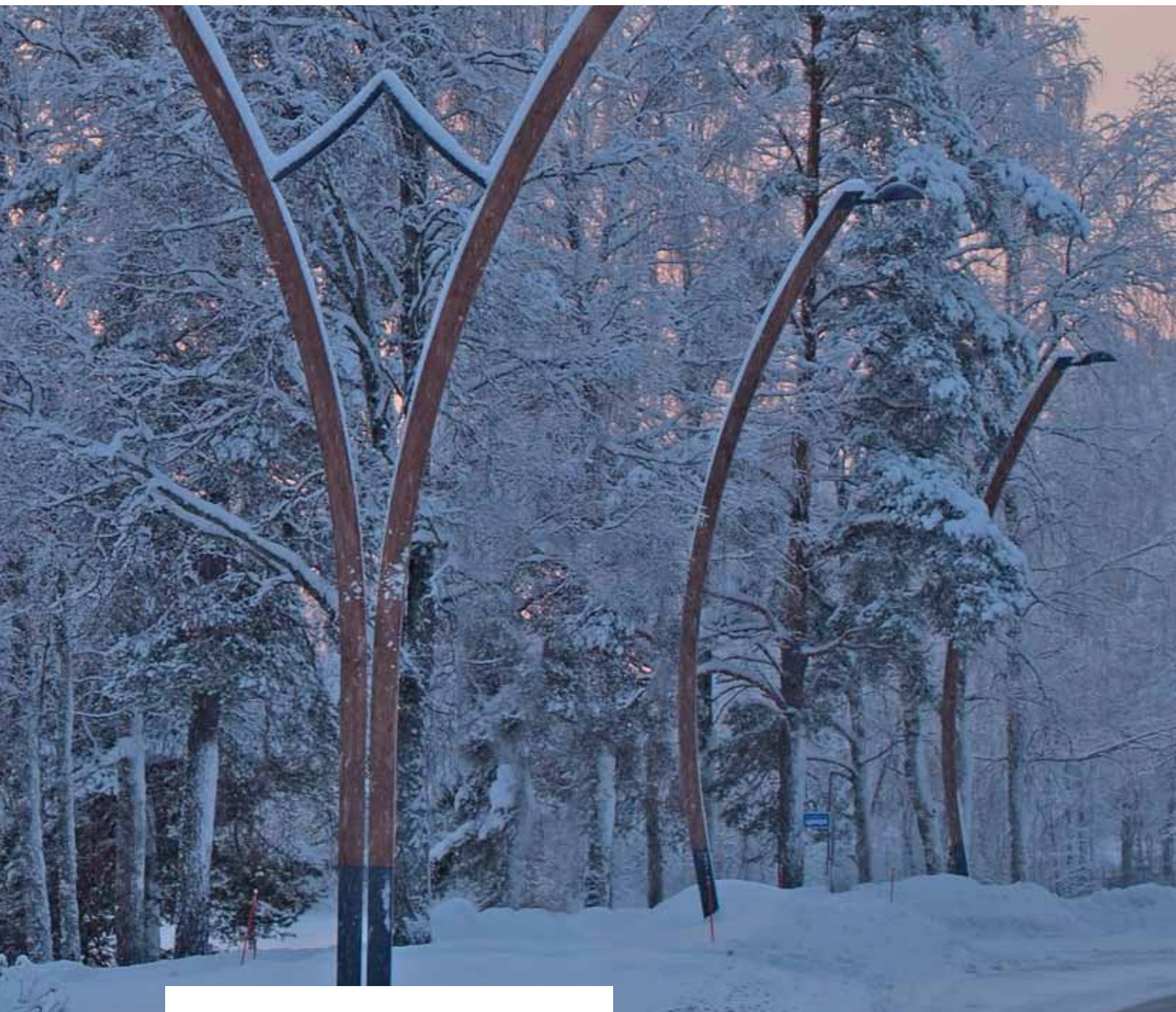
# WOOD Collection

# Kangasniemi

Finland







Wiljam Sarjalan tie.  
Kangasniemi, Finland.

Kangasniemi is a town with a population of  
6,000 ... continued on page 106.



## Valmont, a continued Technological watch.

From the start, as a manufacturer of structures, Valmont has focused on various materials ...

### Steel, first.

Originally used in the manufacture of irrigation systems, this technological know-how was used in 1950 to start the pole activity within the group.

### Followed by Aluminium.

In 1963, a response to other technical constraints with Sermeto in France.

### Today Glued-laminated Timber.

Through its Tehomet subsidiary located in the heart of the Finnish forest.



### And Tomorrow...

Other technologies will naturally be added to our know-how to improve our urban spaces...

[www.write-your-story.com](http://www.write-your-story.com)





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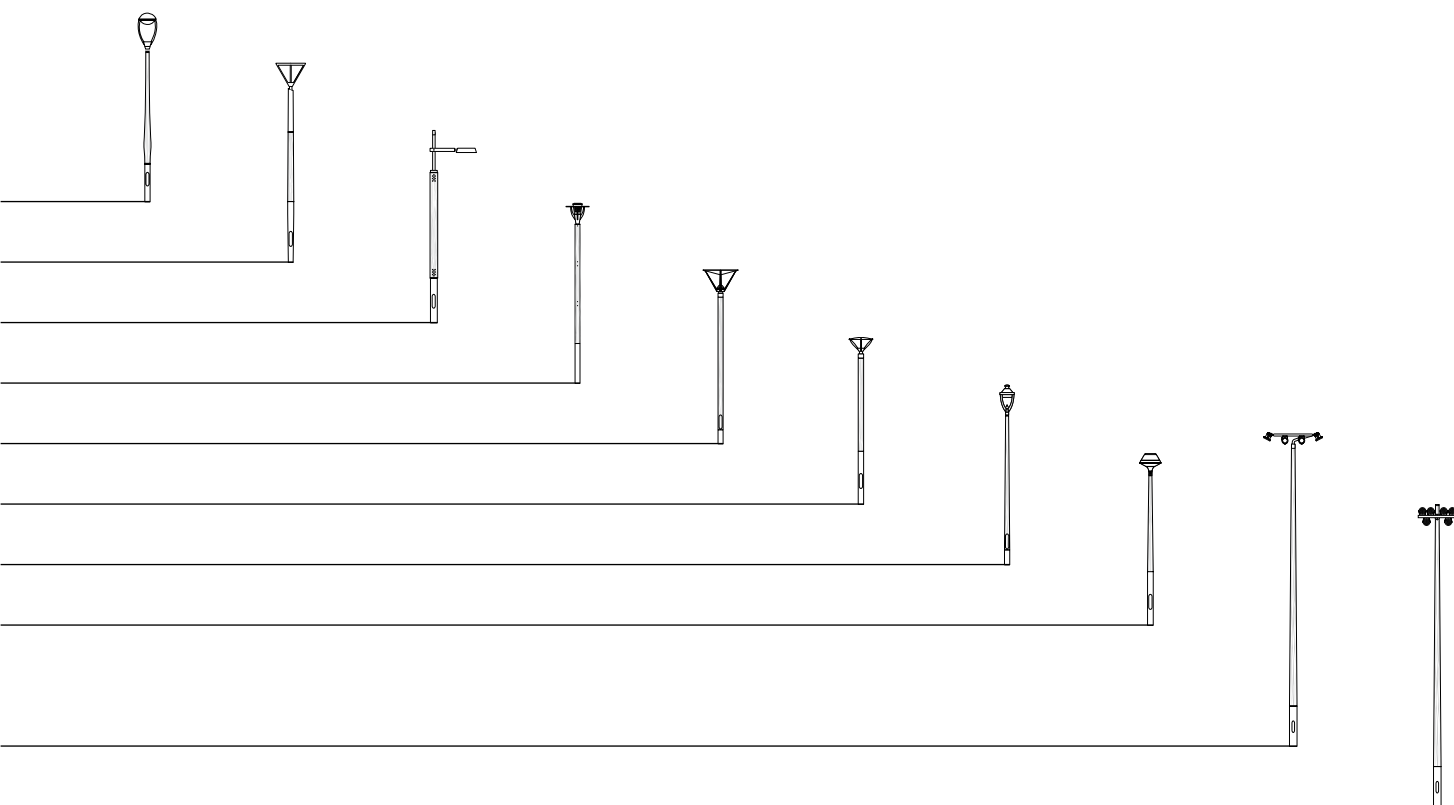
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Urban<sub>spaces</sub>

large Area







## Towards Sustainable Development...

Conceptually, Sustainable Development has three constituents :

### Environmental, Social & Economic chart.

Valmont is gradually structuring its process. Its progress in each area is presented below.



### Economic.

With the acquisition of its first subsidiary in 1989, the group promotes local production for local consumption.

**Thus, 95% of products manufactured in Europe are distributed in Europe.**

The same goes for the North American and Asian markets.

With its subcontractors, the group entities are implementing contracts taking into account the capacity of the partner without jeopardising its overall activity.

### Social.

Employees of various subsidiaries and managerial staff are recruited locally.

The company management complies with local social regulations as well as international human rights law. As a result, child labour is not tolerated in our production units.

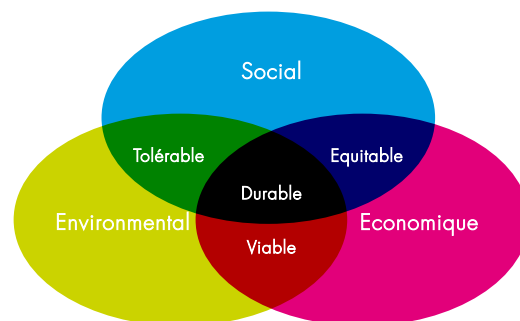
Each production unit has:

\*A **Training** policy available to all employees.

\*A policy for **Continuous Improvement**.

Each employee is able to contribute to the optimisation of his/her position both in terms of ergonomics, organisation or procedures.

Sustainable Development is a model of resource use that aims to meet human needs while preserving the environment so that these needs can be met not only in the present but also for Future Generations ...





## Environmental.

Improvements are visible throughout the life cycle of our products, from extraction of raw material up to recycling at the end of the product life...

### Supply.

\* **25%** of Steel used is produced from recycled Steel.

\* **30%** of the Aluminium used is produced from recycled Aluminium.

\* **100%** of the Wood used is produced in sustainably managed **PEFC** forests.

### Design.

\* Use of High Strength steel in production in order to optimise the quantities of material required for a given use.

\* Ongoing optimisation of the volume of materials needed for the development of a product, in compliance with the current calculation standards.

### Production.

\* The Powder Coating process line in Charmeil has reduced its environmental impact to "0".

\* The Finnish wooden pole factory is heated by using only production scraps and dust from its production.

\* Water-based wood stains and polyester powders meet European requirements on VOCs <sup>(1)</sup>.

(1) Volatile Organic Compounds.

\* **"ZEP"** (Zero Emission Pole) allows CO<sub>2</sub> emissions during the production of masts and poles to be neutralised.

### Logistic.

\* Product delivery is organised in rounds in order to optimise shipping and reduce its impact.

### End of Life.

\* On request, Valmont commits to pick-up poles at the end of their operational life. This will be done during delivery rounds...





## Where poles grow...

One of the largest and oldest forestry industries in the world...

Finland's geographical location and environment have naturally led this country to manage its main resource (86% of the territory is covered in forests).

The majority of these forests privately owned with only 20% owned by the state.

Around 95% of this exemplary management is organised around the **PEFC** label which guarantees regeneration of forest resources and conservation of biodiversity.

[www.pefc.org](http://www.pefc.org)



The quality of this environmental management has promoted the development of wood harvests.

This has had an impact on the Finnish economy:

\*45 000 direct jobs.

\*20,5% of energy is provided by wood produced locally.

\*20% of exported goods.

This is definitely a "Green" economy which meets the global challenges of Sustainable Development...





PEFC Forest. Finland.

The severe weather conditions encountered at these latitudes reduce the number of species, the main ones being:

\***Spruce**

(46% of the forest cover)

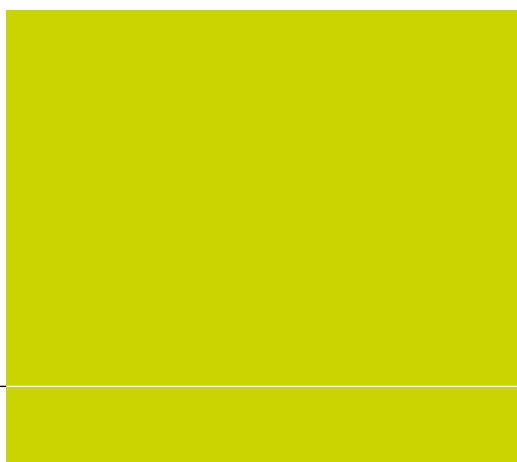
\***Scotch Pine**

(38% of the forest cover)

\***Birch**

(16% of the forest cover)

Scotch Pine has a slow growth at these latitudes. Its structural quality is therefore increased, making it suitable for the production of our poles, while meeting our environmental requirements...





When men are taking care of future generations !

The forest is a renewable resource provided it is managed in a fully sustainable manner...

To do so, two ecolabels, FSC<sup>(1)</sup> and PEFC<sup>(2)</sup> have been created.

With over 30 member countries and more than 220 million hectares of forest, the PEFC certification program is the most widespread in the world.

This program ensures that the rate at which the forests are harvested does not exceed their regeneration capacity...



It is awarded by the certifying body **INSPECTA** and covers the entire pole production line from cutting the tree to shipping the product to your site.

With this full traceability, we are able to provide the geographical location where the wood used was cut for each pole produced.

With the addition of this label, the product you purchase is guaranteed to be produced with wood coming from forests which are fully managed in a sustainable way.

PEFC, a Sustainable Management of the Forest....

[www.pefc.org](http://www.pefc.org)

PEFC certificate attached.

(1) Forest Stewardship Council.

(2) Program for the Endorsement of Forest Certification.

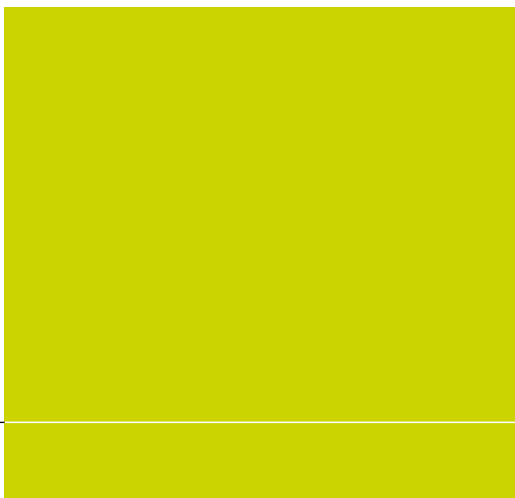


Saplings. Finland.



INSPECTA, is an international provider of inspection, testing, monitoring and certification services in Northern Europe.

[www.inspecta.com](http://www.inspecta.com)



Throughout its life cycle, from the extraction of raw material up to its final recycling, every product has an environmental impact.

There are several factors which have a negative impact on the environment :

- \* Greater greenhouse gas emissions.
- \* Energy consumption.
- \* Production of hazardous waste.
- \* Impact on air (toxicity, acidification).
- \* Impact on water (acidification, toxicity).
- \* Depletion of the ozone layer.
- \* ...

The scale of the task and the requirement set in the Kyoto agreement (required lower greenhouse gas emissions), has brought Valmont to focus initially on the carbon footprint of its products.



The volume of greenhouse gas emissions is calculated throughout the life cycle of the product and converted into CO2 equivalent to work out the carbon footprint.

This varies according to the product assessed (diameter, height, materials ...). Thus, in some cases, the choice of an alternative glued-laminated timber may reduce the carbon footprint of your project by up to 40%.

For an independent assessment, the Valmont group has worked with the engineering consultancy REJLERS.

Valmont is therefore able to provide the carbon footprint for each one of their products.







As part of its Continuous Improvement Policy and as new products are designed, Valmont is committed to reducing the impact...

Improvements :

- \*By using High Tensile Steel for optimised designs.
- \*By using waste Recycling or Treatment in the plants.
- \*By optimising delivery rounds.

Our Goal is to reach the lowest Environmental Footprint possible on all your projects, whatever the material ...





## Controlled Design as an introduction...

Controlled design is a technique aimed at limiting environmental degradation factors. However, despite the implementation of such an approach, every production method inevitably has an environmental impact, however small it may be.

In 2009.

In order to pursue their efforts at reducing greenhouse gas emissions, Valmont started working alongside the **Treesfortravel** organisation. Together, they have set up a parallel process aimed at compensating the residual CO2 associated with the production of Valmont's poles.

[www.treesfortravel.info](http://www.treesfortravel.info)



Today.

Valmont is taking part in a program for planting **Jatropha** shrubs in Mali. The growth of these shrubs will absorb the equivalent CO2 emitted during the production of your poles.

The activity thus generated will be used to create a local social and economic balance.

## Why Jatropha ?

These shrubs have been chosen by the organisation for their many environmental benefits :

- \*The crop requires little care and water. (they can live for 3 years without water).
- \*Their deep roots help fight erosion.
- \*Jatropha hedges protect crops against animals.
- \*Their fruit are harvested in the first year after planting.



Zero Emission Pole  
by valmont 



ZEP certificate attached.





Jatropha. Mali.

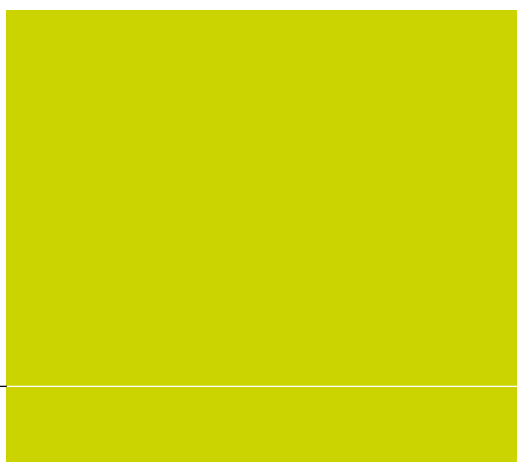
## A valuable and useful fruit :

- \*In traditional medicine.
- \*In agriculture to feed livestock.

\*For their oil as raw material for the development of a biofuel known as "Green Gold".

Thanks to Valmont's recent commitment, 19,540 shrubs (i.e. the equivalent of 977 tons of CO<sub>2</sub>) were planted and allowed for many jobs to be created.

This commitment is currently optional for the sale of our standard products. We have chosen to include it systematically to the manufacture and sale of equipment in our Wood Collection.



As a leader in the field of Urban Lighting Equipment, Valmont has always been able to integrate the different skills associated with the use of each material.

With regards to wood, depending on the species (Scotch Pine) and the location where the wood was grown, it was obvious that the Finnish know-how should be trusted to develop this activity.

Tehomet Oy was founded in 1979 in Kangasniemi and has become part of the Valmont group in spring 2007.

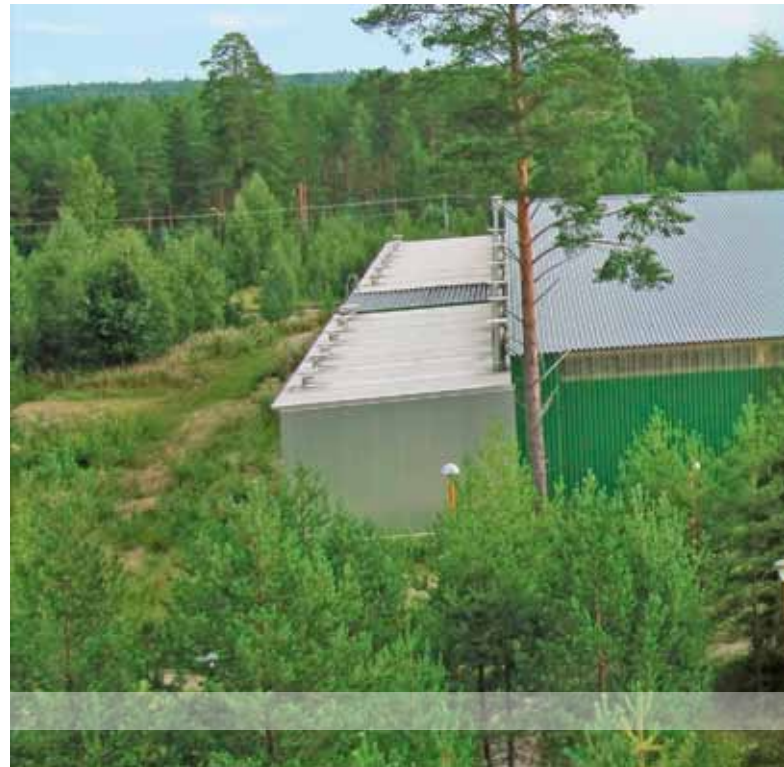


It is based in Parikkala, a town with a population of 5,800 located in the region of South Karelia near the Russian border.



The Production site for our **Wood Collection** is located at the Heart of the Forest.

It is equipped with all the necessary technology for the production of lighting poles and employs a local skilled workforce for all operations of production of its products.



In addition, the Production site was designed in a environmentally friendly way.

- \*The building and roof structure are constructed using local glued-laminated timber.

- \*It is equipped with the latest sawdust extractor and reuses 100% of the production waste (shavings and sawdust) in its fully independent heating system.

- \*The presentation area is integrated into the forest...





This business project is part of a much larger project :

The town of Parikkala is a member of the CANEMU Project (Carbon Neutral Municipalities) bringing together five Finnish cities with the goal of reducing CO2 emissions by 80% by 2020 to 2030.

This goes far beyond the requirements of the Kyoto conference...





## Tree Species.

The tree species is selected according to the use intended for the product.

Depending on its use, timber is classified according to five risk categories.

In the case of Urban Lighting, the pole is exposed to the weather elements.

Three risk categories are provided for these cases :

### \*Class 3.

Timber frequently subjected to moisture without water logging.

### \*Class 4.

Timber in permanent contact with fresh water.

### \*Class 5.

Timber in permanent contact with sea water.

The Scotch Pine was selected as a species listed as a **Class 3** timber when it is isolated from the ground in the structure, for the following reasons :

- \*Availability in terms of volume.
- \*Mechanical strength.
- \*Ease of gluing.
- \*Constant quality.
- \*Reliable PEFC traceability.
- \*...



## Glued-laminated wood.

The use of Glued-laminated Wood is an obvious choice for the following reasons :

- \*Height of the poles to be manufactured (from 0.8 m to 18m).
- \*Calculation standards for public lighting poles (EN40, CUAP).
- \*Electrical standards (among other things NF C17-200 to prevent access to cables during the service life of the product).
- \*Service life required for any equipment installed in public space (25 years).

Depending on the end product, there are again many types of glued-laminated wood available.

[www.finnforest.com](http://www.finnforest.com)



Scotch Pine Trunks PEFC certified.

The Glued-laminated timber Technology selected will depend on the manufacturer's specifications and priorities.

This is defined upstream during Product design...



## Our Technical selection.

The specifications set by Valmont are focused on the following characteristics :

### Quality of Glulam timber.

The beams, from which our poles are made are all, are designed and certified as **GL28h**.

According to standard EN338, this defines the allowable stresses and properties of glued-laminated timber in 12% humidity.

There are among others, four strength classes GL24, 28, 32 and 36h, in order of increasing strength.

The thickness of the planks making up the beam will not exceed 34 mm, in compliance with standard EN40 and the CUAP, for "combined wood and metal urban lighting".

	GL24h	GL28h	GL32h	GL36h
Deflection N/mm <sup>2</sup>	24	28	32	36
Tension N/mm <sup>2</sup>	16,5	19,5	22,5	26
Compression N/mm <sup>2</sup>	24	26,5	29	31
Density Kg/m <sup>3</sup>	380	410	430	450

### Adhesive.

The glue used for assembling the square-edged timber (1) is described as white glue.

The main advantage of this is that the adhesive seam does not show on the products.

The use of this adhesive has been tested for load-bearing structures (approved by the Norsk Treteknisk Institute in Norway, the French "Centre Technique du Bois et de l'Ameublement", the University of Materialprüfungsanstalt in Germany and SKH/KOMO in the Netherlands).



### Design of the shaft.

The poles are sized in compliance with current standards and the CUAP.

They are produced from a single beam. The planks on both sides of the beam are glued so as to direct the core outwards. This prevents the cracks on the surface due to the aging of the wood







Mäntylampi, Finland.

This single glued-laminated technology is used to :

- \* Minimise the fissile character of wood.
- \* Use a less visible adhesive.
- \* Optimise production costs and therefore meet the customer's demands for more accurate costs.
- \* Prevent heart shakes by using at least a double thickness plank before the central recess.

## Base.

Metal bases are provided on all our products.

They are used to separate the wood from the ground by at least 200mm to meet the requirements for all kinds of finished ground.

The bases are manufactured in hot dip galvanised and power coated S235 steel.

By the sea, a marine coating is available on request.



# WoodStain

Our Technical selection.

## Wood Stain for poles.

From a manufacturing point of view, our products are designed, sized and manufactured for a minimum product life of 25 years in compliance with the 1985 European Directive.

To prevent our wood products from aging prematurely, we chose a water-based wood stain produced by **Teknos**.

[www.teknos.com](http://www.teknos.com)

As this coating is elastic, it adapts to the dimensional changes in the wood, reducing the damage done by surface moisture which may cause small cracks and accelerated aging.



## Its environmental impact in terms of emission of harmful gases.

Our water-based solution has a better environmental impact than its solvent-based counterparts.

The wood stain selected complies with European Directive 2004-42-EC on the limitation of emissions of Volatile Organic Compounds.

\*The VOCs for the 5 coats equate to 100g/l.

\*In comparison, VOCs from solvent-based products vary between 300 and 400g/l.

This choice anticipates on future directives which aim at banning solvent use outdoors (already in application indoors).

## Application process.

The process adopted by Valmont is a manual application using a brush for better penetration.

## The five successive coats provide the required thickness for maximum protection.

\*The first layer permeates the wood and prevents the development of fungi and mold.

\*The translucent pigmented solution is then applied to provide colour.

\*Finally three protective coats are then applied to optimise UV protection.

It is best to use a dark colour to increase the lifetime of the surface coating.





Application of translucent colored coat

## Maintenance.

To maintain the original visual appearance of the stain, the following steps are required on site :

- \*Prepare the wood for staining by simply cleaning the surface (Do not sand the pole to avoid removing the lower coats).  
When the surface is dry, work is possible

- \*Apply a coat of stain finish using a brush.

## Recommendations.

- \*Only work in good weather conditions.

- \*Outdoor temperatures must remain between 12 C and 16 C.

- \*Depending on the site location and excluding exposed areas (constant reverberation, sand, water...), this procedure will be repeated every 5 to 8 years



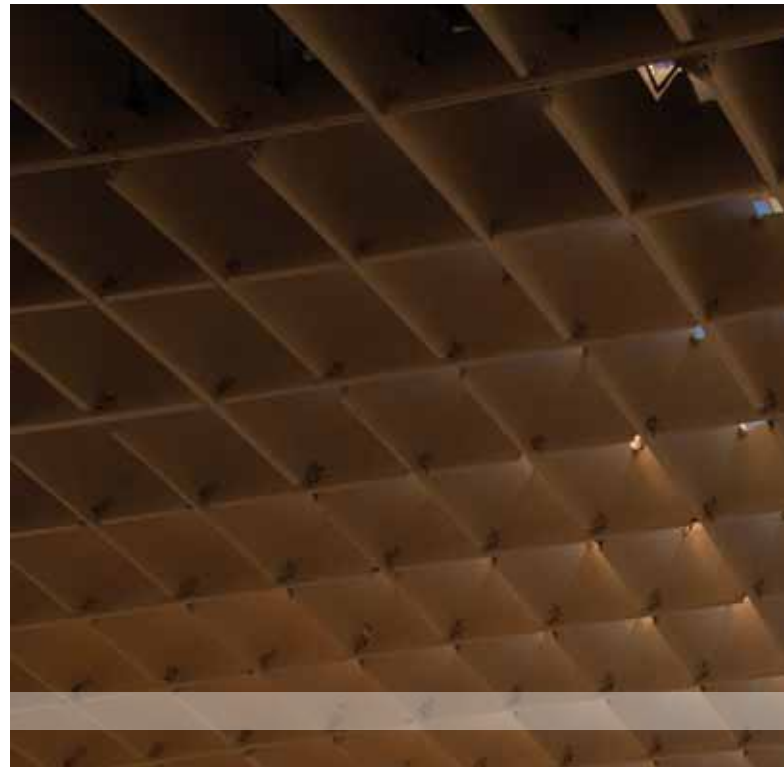
The mixed nature of these products, combining Metal and Wood, offers great versatility...

Just as in Architecture, Product Design can indeed be applied on different levels, to various material combinations, surface appearances, free shapes...

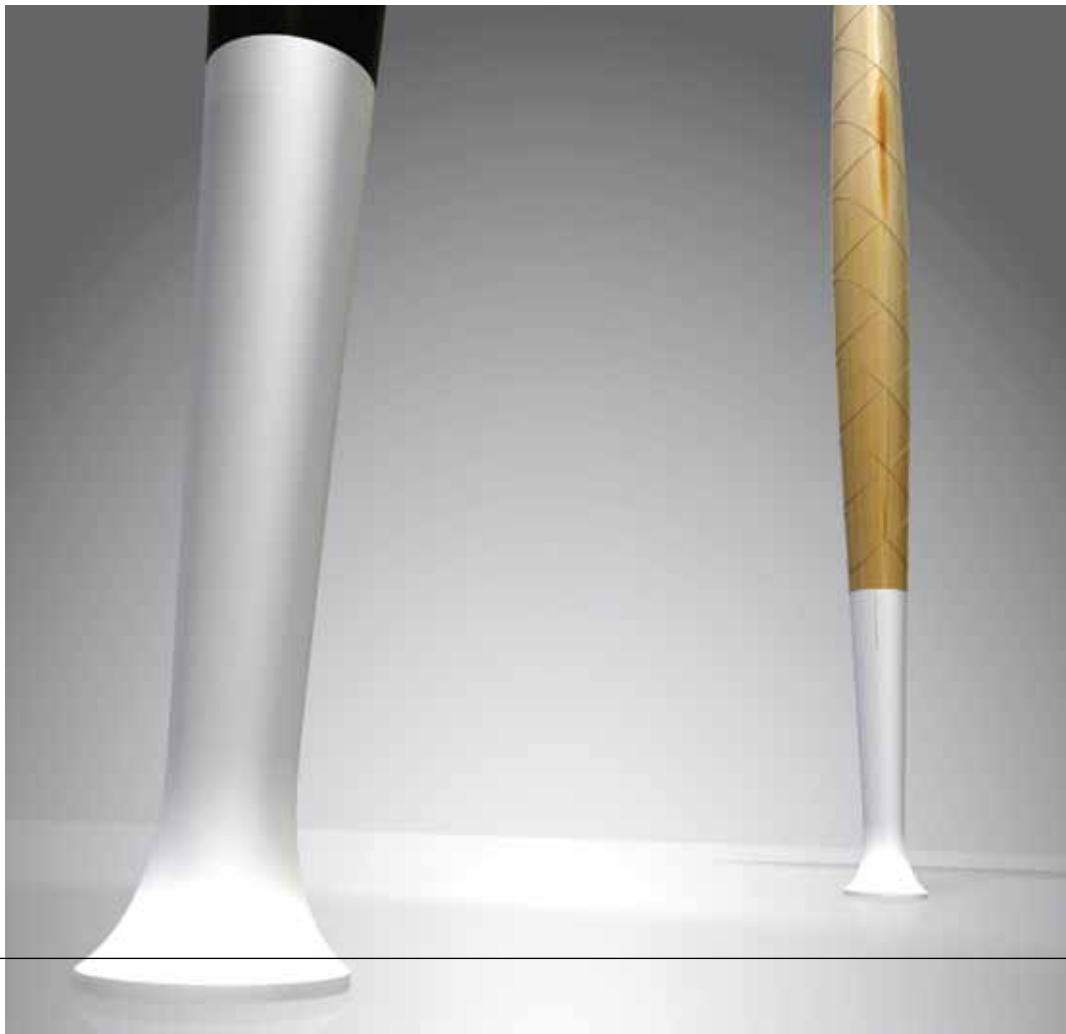
\*The bases can be the subject of an exercise in style. Their shape and their material can be varied giving the object a certain decorative character.

\*The shaft is also very adaptable. Its shape may give it a technical, sensual or even organic character...

\*The colours chosen will provide the finishing touches for integrating the product in its environment or on the contrary, will strengthen its presence by a simple contrast effect.



\*The appearance of the wood surface can tell a story. Arabesques, graphics... dancing with lights and shadows, at night and during daytime...

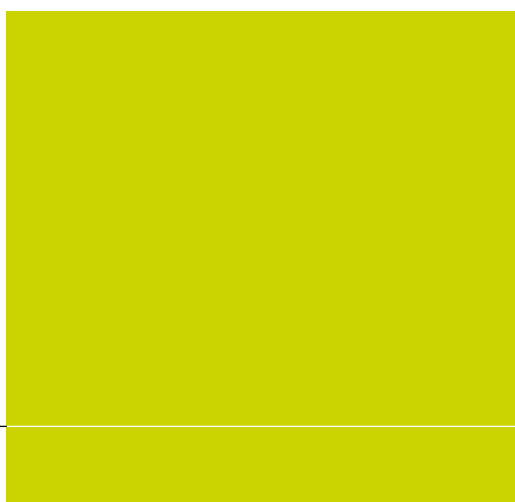






Metropol Parasol. Séville. Espagna.

This Mix of materials opens the door to creativity, allowing the designer to create a unique site revealing its true identity...



# Engineering

## Teamwork...

The different Valmont subsidiaries pool their expertise in various fields such as Technical Calculations, R&D, Design and Computer Graphics.

## Calculations.

Each production unit has experts acting as consultants if needed, over 100 technicians and engineers including our Wood experts.

A standard for Combined Wood/Metal Products is currently being prepared at a European level.

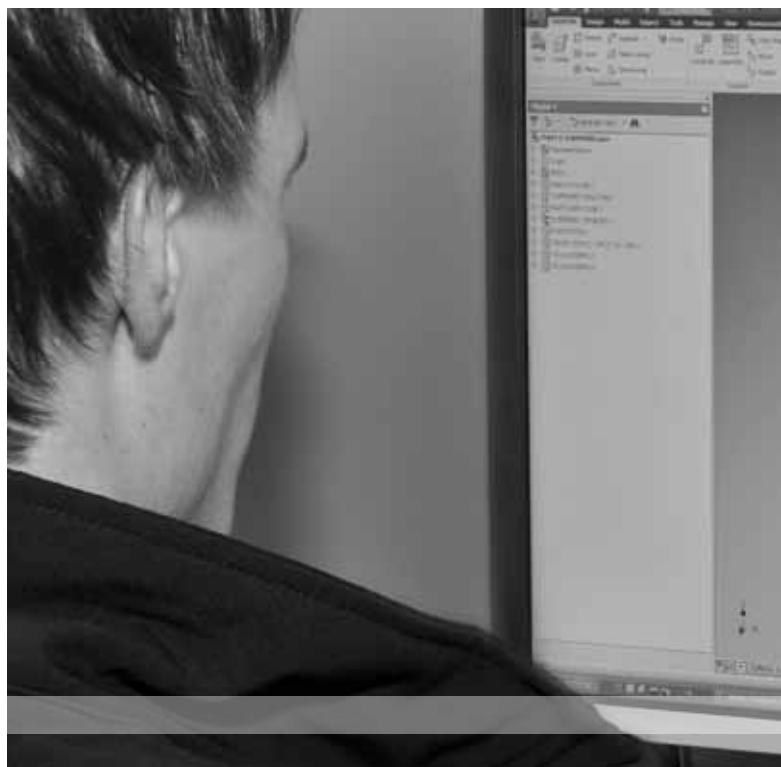
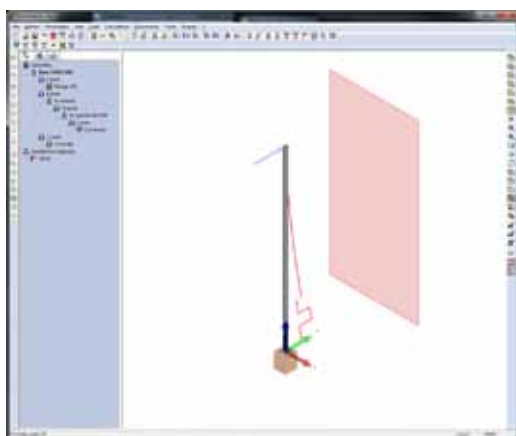
In the absence of specific regulations for this combination of materials (product standard), all pole calculations are based on regulations related to Urban Lighting, namely :

- ★ Eurocodes 5.
- ★ EN40.
- ★ CUAP. "Combined Wood/Metal products"

Valmont has been using its own calculation software "Paul" since 1998.

Naturally, an extension to this program was necessary to integrate characteristics related to the products from our Wood Collection and to the combination of materials.

The "Paul Combined" version has been calibrated with the results from our strength tests.



## Research & Development.

For its Wood collection, Valmont has relied on its long-term collaboration with two Finnish Centres of Expertise recognised throughout Europe :

★ The VTT Technical Research Centre.  
[www.vtt.fi](http://www.vtt.fi)

The expertise of this Engineering Department covers various sectors including the forest industry.

It provides assistance to industries in various fields such as R & D, Audit, Certification and Process Control.

★ The Mikkeli University of Applied Sciences.  
[www.mamk.fi](http://www.mamk.fi)

As this university specialises in the fields of Materials Technology and the Environment, our products are tested in their laboratory dedicated to Wood Technology.



Engineering Department. Kangasniemi. Finland.

## Design.

Design has become an integral part of our daily lives. It fully contributes to our well-being as a group and as individuals. It was therefore naturally been transposed into public spaces.

Because of this, Valmont has been recruiting Product Designers since 2006 for its daily and future development, in order to :

- \*Consider potential innovations in-house.
- \*Provide continuous improvement to existing products.
- \*Meet the customers' specific needs.
- \*Develop our external communication tools (print, web ...).
- \*Protect the group brand.

Thanks to their knowledge of tools and industrial processes, materials and trends, they have now become an essential interface between customers, sales teams, engineering offices and production facilities...

## Computer graphics.

As Valmont's activity is to provide supports for lighting equipment, its products are designed to fit all lanterns and floodlights on the market...

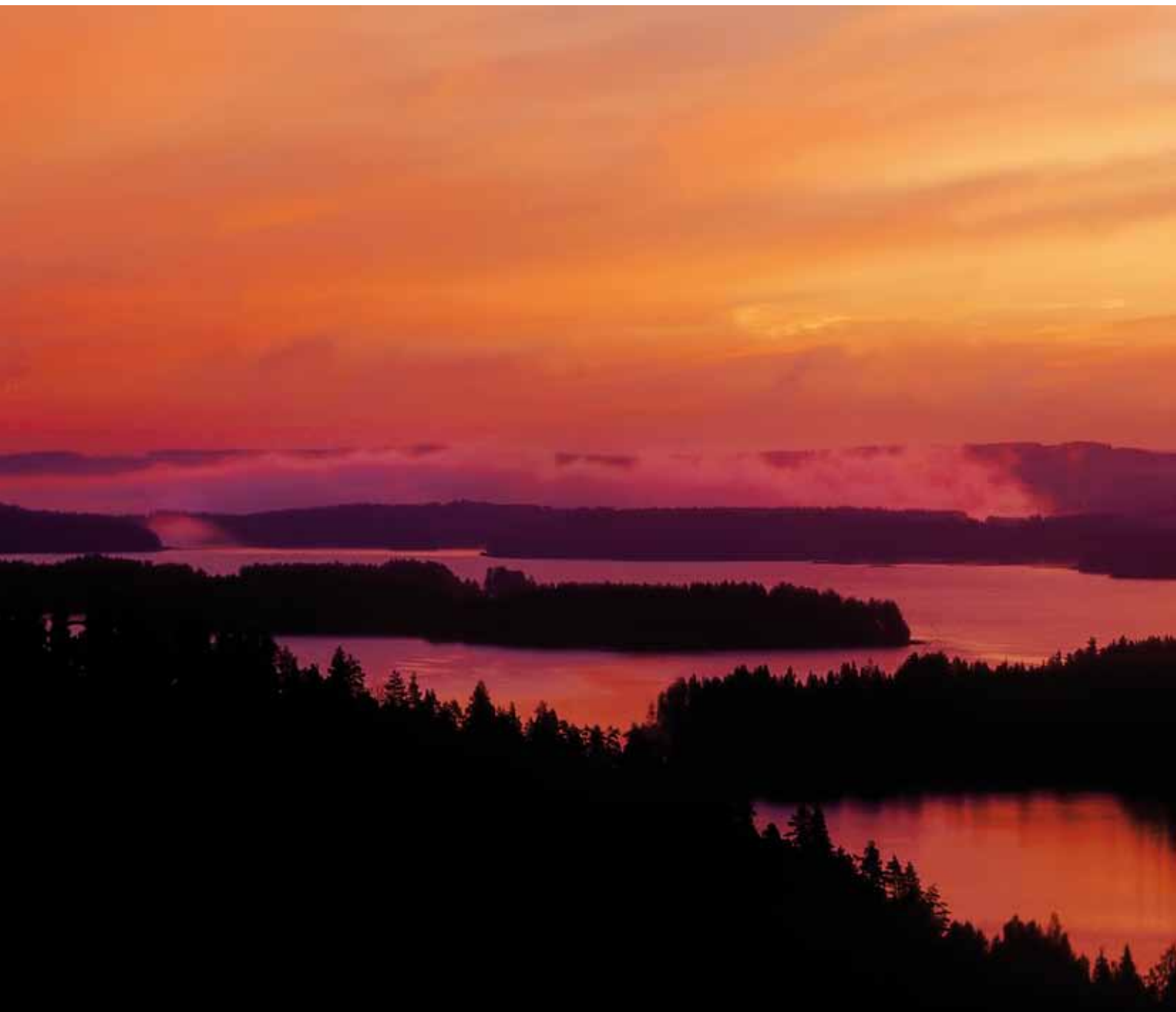


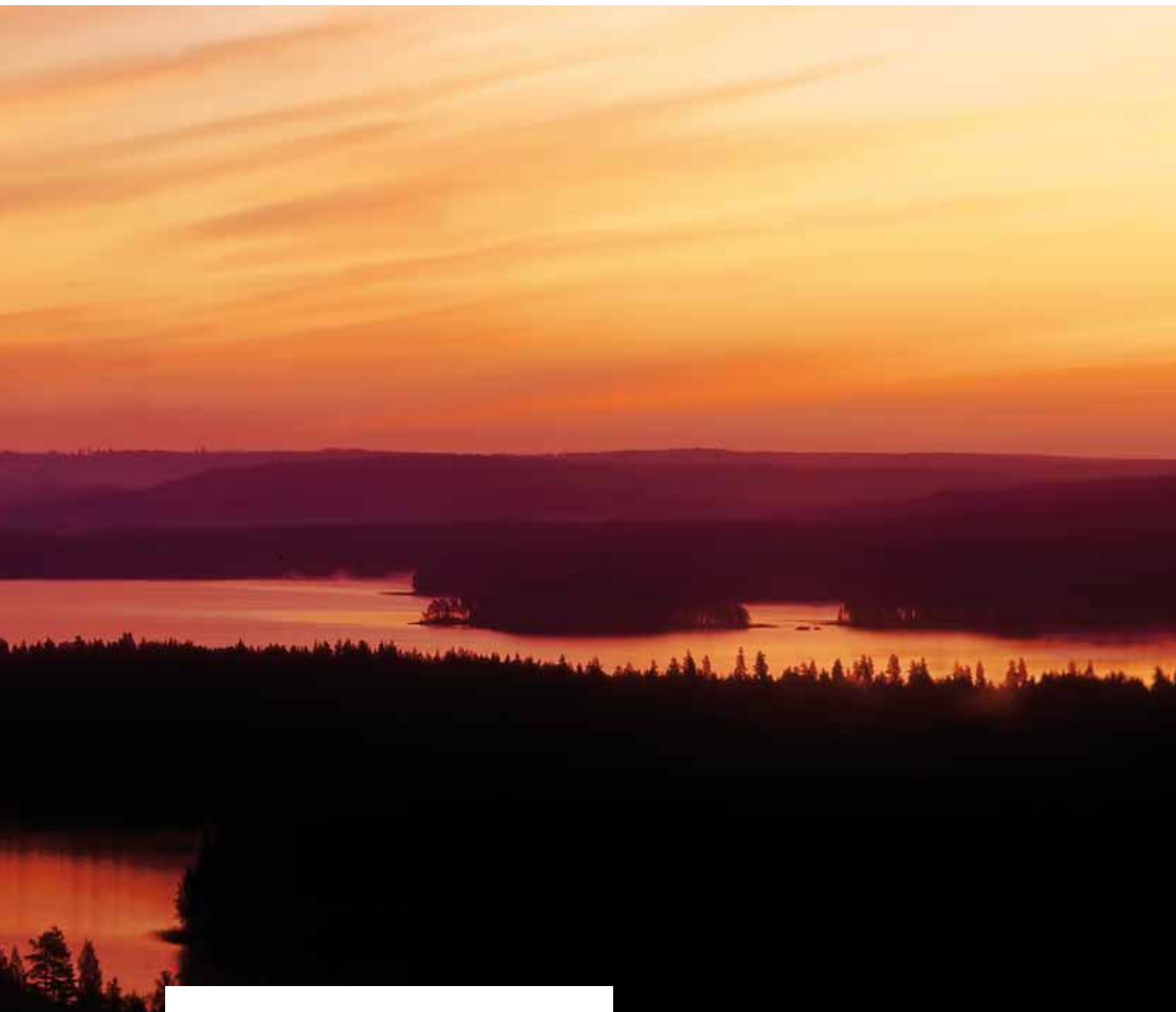
This is truly a great tool to find the right match between product and project.

Computer graphics is now an essential tool for visualising the considered combinations. It is also used to check their impact within the development concerned.



# Finland





The lakeland region, in Finnish "Järvi-Suomi", is an area in the eastern centre of Finland.

This characteristic has given Finland its nickname of the "Land of thousand lakes..."

# WOOD

Collection





# Urban<sub>spaces</sub>

# Lempeä

Range of conical lighting equipment with a circular cross-section with a curved and grooved shaped.

Shaft manufactured in glued-laminated wood, certified GLULAM GL28h. Type I white adhesive.

Water-based wood stain finish, five coats, VOCs <100g/l.

Cylindrical base and flush pole cap, in hot dip galvanised and powder coated S235 steel.

PEFC certified lighting

The range is designed and developed according to Eurocodes 5, standard EN40 and CUAP 01-06/07 "Combined Wood-Metal Urban Lighting".

A ZEP contract for CO2 compensation is supplied



Design by GREENCH



Imagery not contractual



# Lempeä

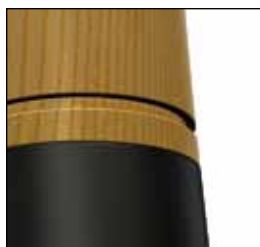
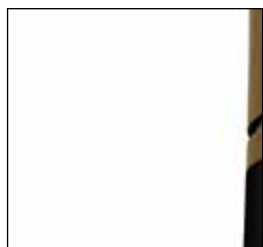
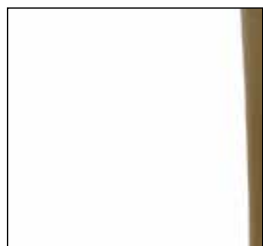
## | Lempeä Park |

### Descriptions.

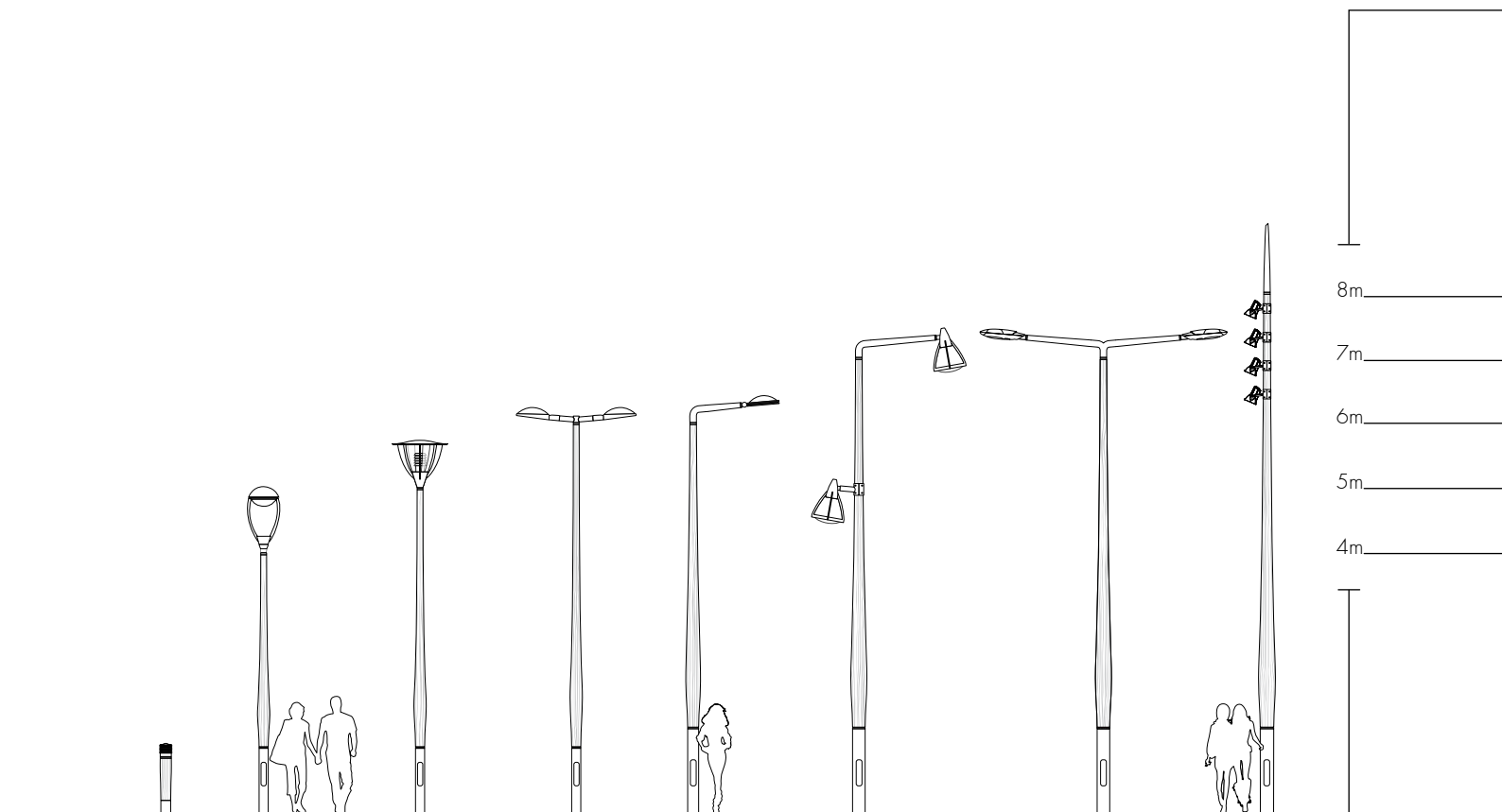
Cylindrical-conical curved and grooved assembly.  
Height range: 4 to 5m.

### Specifications.

Flush pole cap, ext. Ø 90mm.  
Glued-laminated wood GL28h, PEFC.  
Galvanised Steel S235 base.



Lempeä Park 4m.



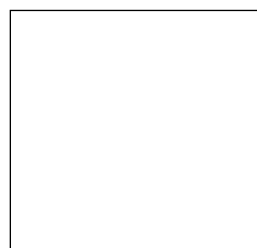
## | Lempeä |

### Descriptions.

Cylindrical-conical curved and grooved assembly  
Height range: 6 to 8m.

### Specifications.

Galvanised Steel bracket. Outreach 0.6 and 1.20m  
Glued-laminated wood GL28h, PEFC.  
Galvanised Steel S235 base.



Brackets Informations page 86

# Lempeä

## | Lempeä Bollard lighting |

### Description.

Cylindrical-conical curved and grooved assembly.  
Aluminium lighth head.

### Specifications.

IP65.

Glued-laminated wood GL28h, PEFC.

Galvanised Steel S235 base.



Lempeä Bollard Lighting.







## Lempeä Dimensions

Height (m)	Top (mm)	Base (mm)	Base Section Height (mm)	Space for coupling (mm)				Flange (mm)		Embedding (mm)	
				Height	Width	Distance	Internal Dimensions	Bolt spacing	Width	Concrete	Ground
4	90	140	1100	400	85	300	100 x 85	200	250	500	800
5	90	140	1100	400	85	300	100 x 85	200	250	500	800
6	100	168	1400	400	85	500	115 x 85	200	250	500	800
7	100	193	1400	400	85	500	130 x 85	300	350	600	1200
8	100	193	1400	400	85	500	130 x 85	300	350	600	1200

\* For further information on **Lempeä** bollards (SGS curves, light sources, sockets ...), contact your local agent.

Dimensions and technical data for guidance only.

Valmont reserves the right to modify and improve its products from the Wood Collection as deemed necessary, for technical or aesthetic reasons, immediately and without prior notice.

# Seka

Range of conical and Reversed Conical lighting.

Shaft manufactured in glued-laminated wood, certified GLULAM GL28h. Type I white adhesive.

Water-based wood stain finish, five coats, VOCs <100g/l.

Reversed conical base and flush pole cap, in hot dip galvanised and powder coated S235 steel.

PEFC certified lighting

The range is designed and developed according to Eurocodes 5, standard EN40 and CUAP 01-06/07 "Combined Wood-Metal Urban Lighting".

A ZEP contract for CO2 compensation is supplied





Imagery not contractual



# Seka

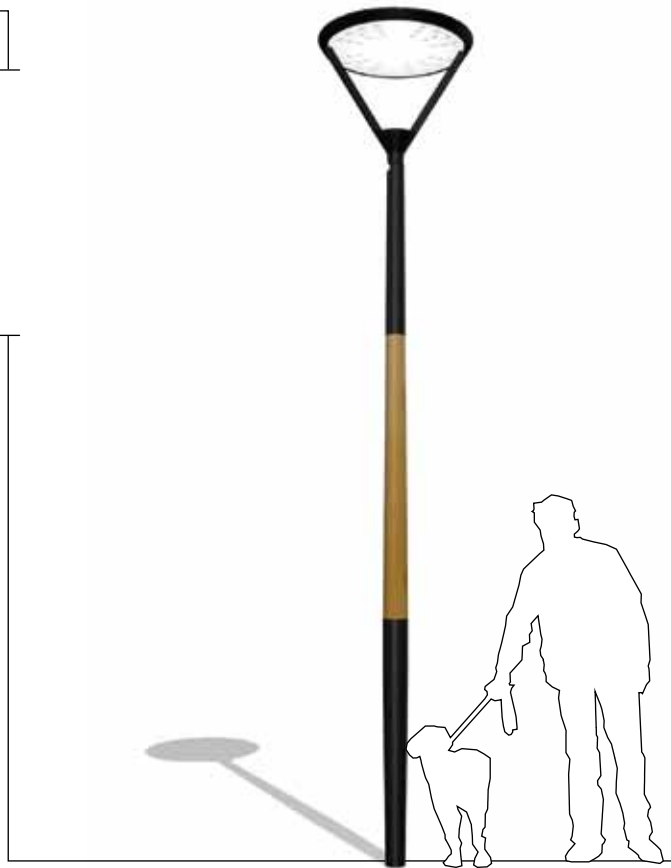
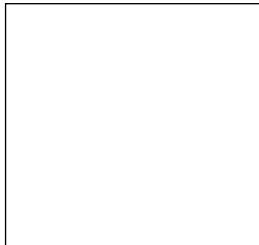
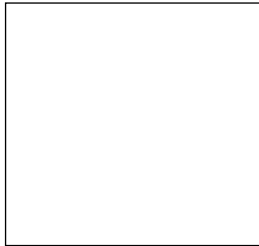
## | Seka Park |

### Descriptions.

Reversed conical and conical assembly.  
Height range: 4 to 6m.

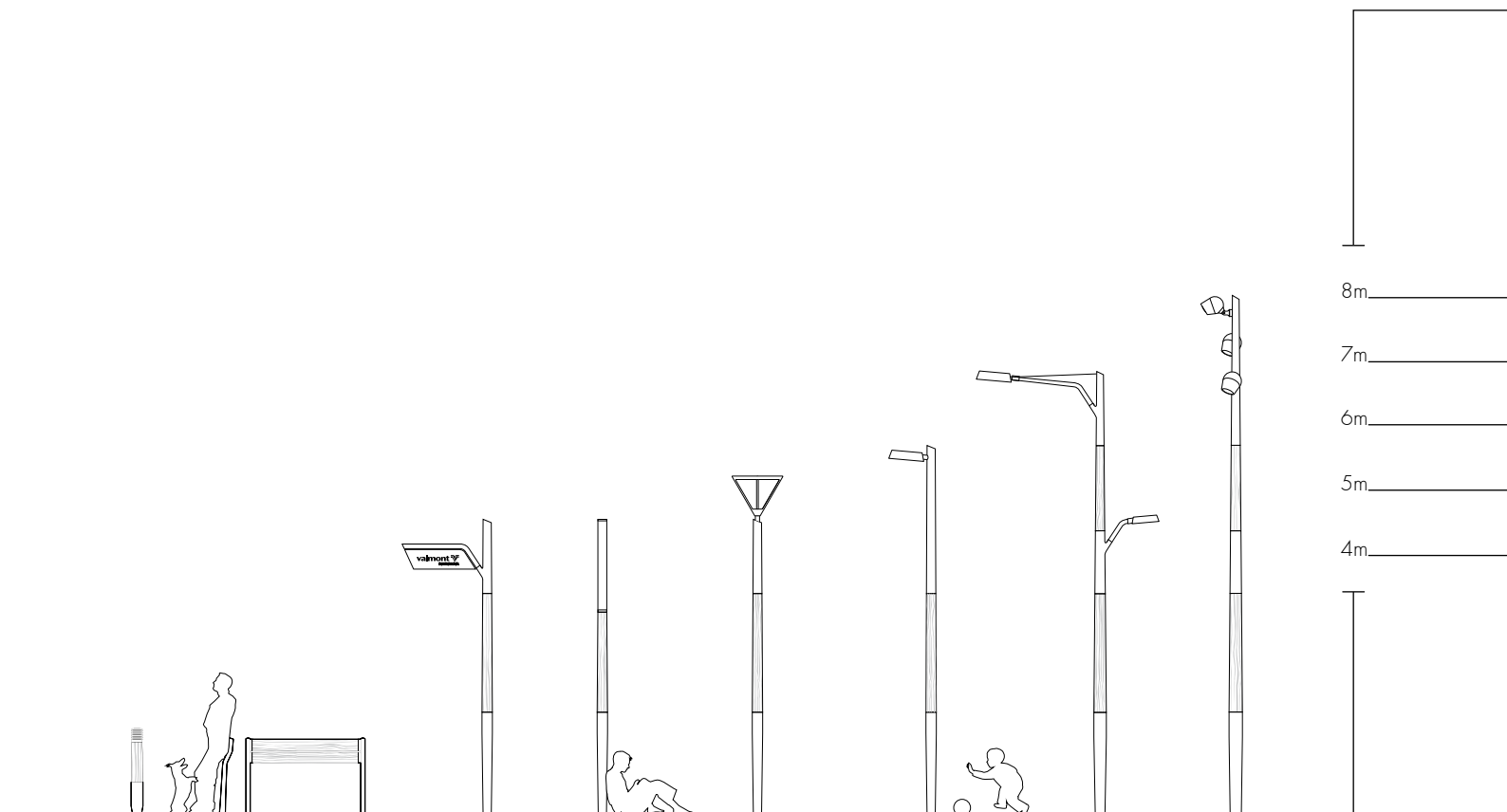
### Specifications.

Flush pole cap, ext. Ø 90mm.  
Glued-laminated wood GL28h, PEFC.  
Galvanised Steel S235 base.



Seka Park 4m.





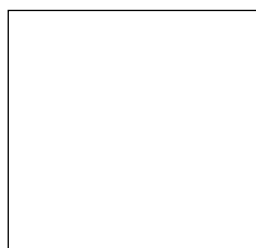
## | Seka |

### Descriptions.

Reversed conical and conical assembly.  
Height range: 6 to 8m

### Specifications.

Galvanised Steel bracket. Outreach 0.6 and 1.20m  
Glued-laminated wood GL28h, PEFC.  
Galvanised Steel S235 base.



Brackets Informations page 86

# Seka

## | Seka Bollard lighting |

### Descriptions.

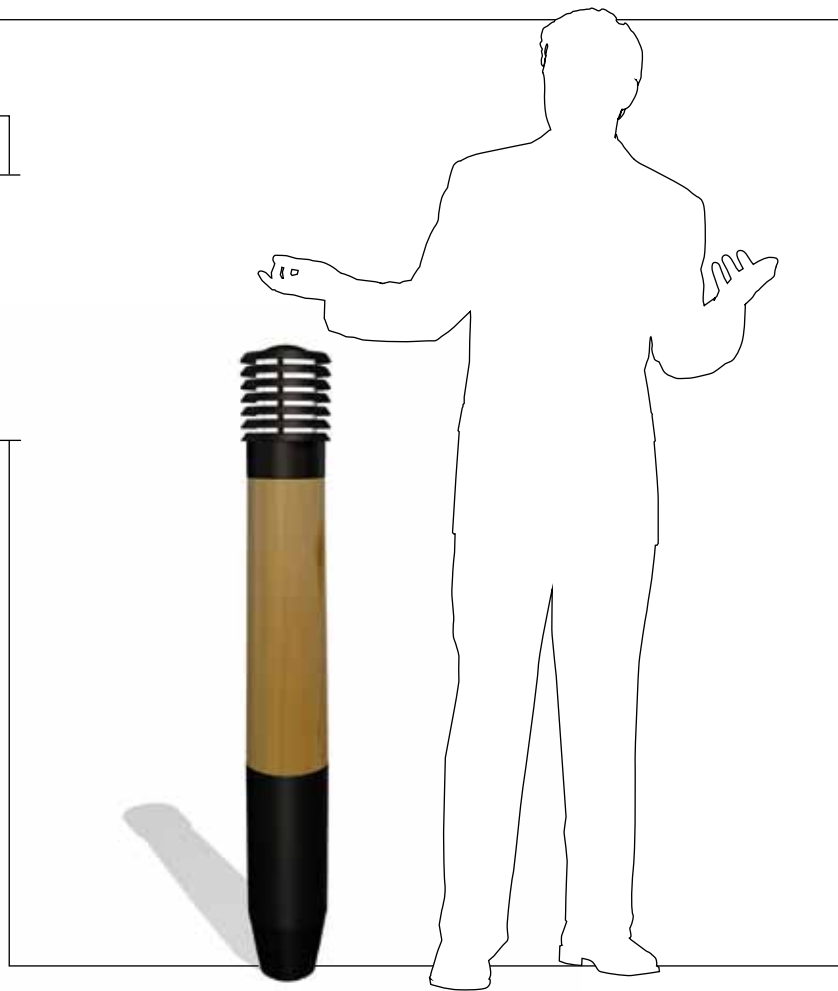
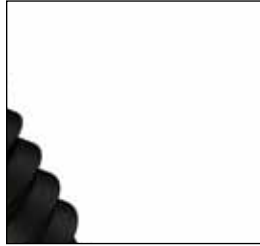
Reversed conical and conical assembly.  
Aluminium lighth head.

### Specifications.

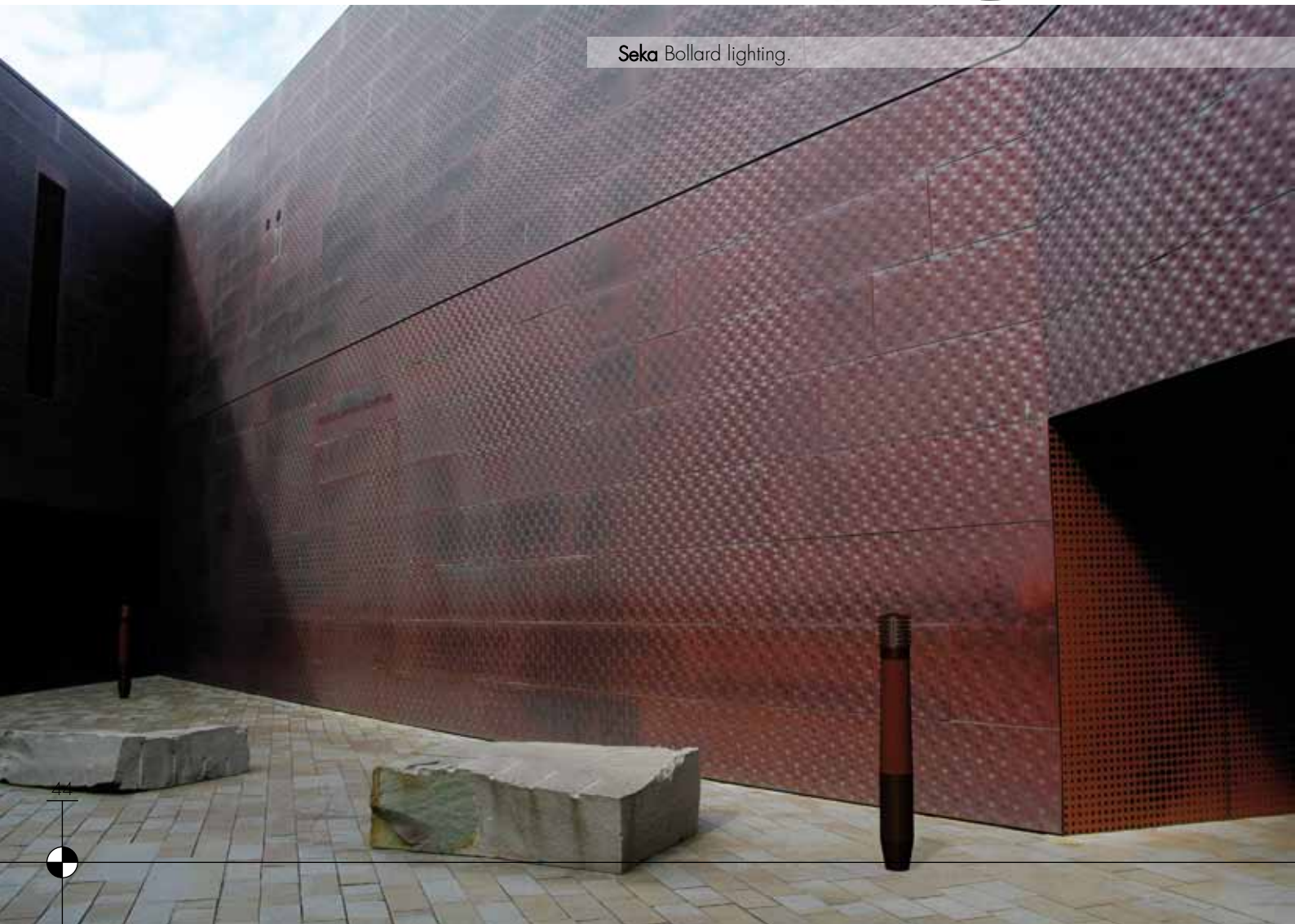
IP65.

Glued-laminated wood GL28h, PEFC.

Galvanised Steel S235 base.



Seka Bollard lighting.







## Seka Dimensions

Height (m)	Top (mm)	Base (mm)	Base Section Height (mm)	Space for coupling (mm)				Flange (mm)		Embedding (mm)	
				Height	Width	Distance	Internal Dimensions	Bolt spacing	Width	Concrete	Ground
4	90	140	1400	400	85	500	100 x 85	200	250	500	800
5	90	140	1400	400	85	500	100 x 85	200	250	500	800
6	90	168	1400	400	85	500	115 x 85	200	250	500	800
7	100	193	1400	400	85	500	130 x 85	300	350	600	1000
8	100	193	1400	400	85	500	130 x 85	300	350	600	1000

\* For further information on **Seka** bollards (SGS curves, light sources, sockets ...), contact your local agent.

Dimensions and technical data for guidance only.

Valmont reserves the right to modify and improve its products from the Wood Collection as deemed necessary, for technical or aesthetic reasons, immediately and without prior notice.

# Soikio

Range of profiled poles.

Shaft manufactured in glued-laminated wood, certified GLULAM GL28h. Type I white adhesive.

Water-based wood stain finish, five coats, VOCs <100g/l.

Rectangular base and flush pole cap, in hot dip galvanised and powder coated S235 steel.

PEFC certified lighting

The range is designed and developed according to Eurocodes 5, standard EN40 and CUAP 01-06/07 "Combined Wood-Metal Urban Lighting".

A ZEP contract for CO2 compensation is supplied





Design by GREENCH

Imagery not contractual



# Soikio

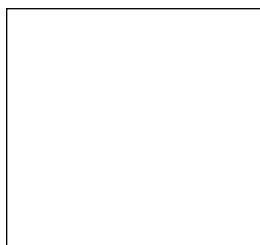
| Soikio |

## Descriptions.

Profile shaft assembly.  
Height range: 4 to 6m.

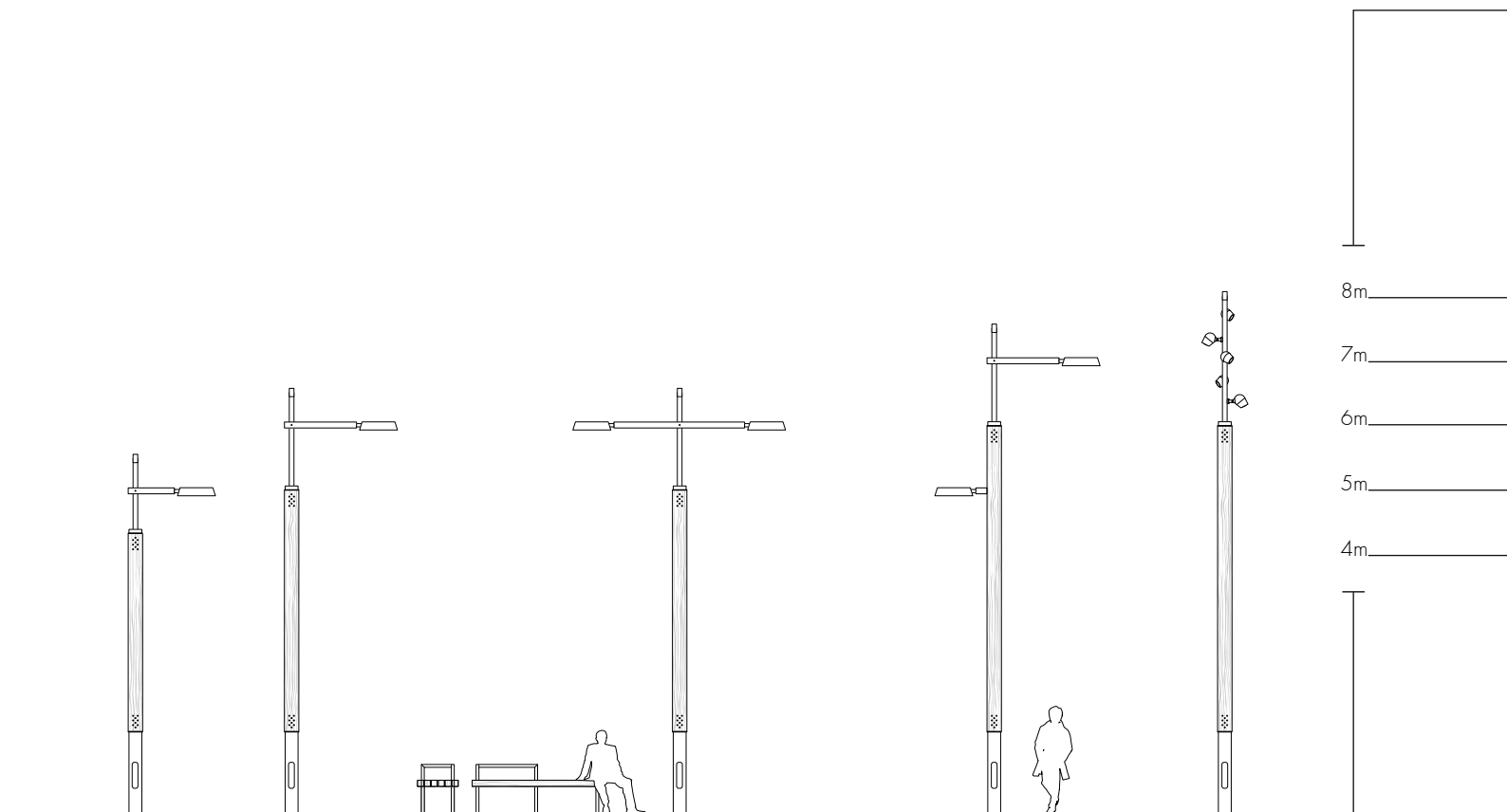
## Specifications.

Galvanised Steel bracket. Outreach 0.6 et 1m  
Glued-laminated wood GL28h, PEFC.  
Rectangular galvanised Steel S235 base.



Soikio 6m.





#### | Soikio Aarki |

##### **Descriptions.**

Profile shaft assembly.  
Height range: 4 to 6m.

##### **Specifications.**

Rectangular galvanised steel S235 extension  
Glued-laminated wood GL28h, PEFC.  
Rectangular galvanised Steel S235 base.



Brackets informations page 87

# Soikio

## | Soikio Bench |

### Descriptions.

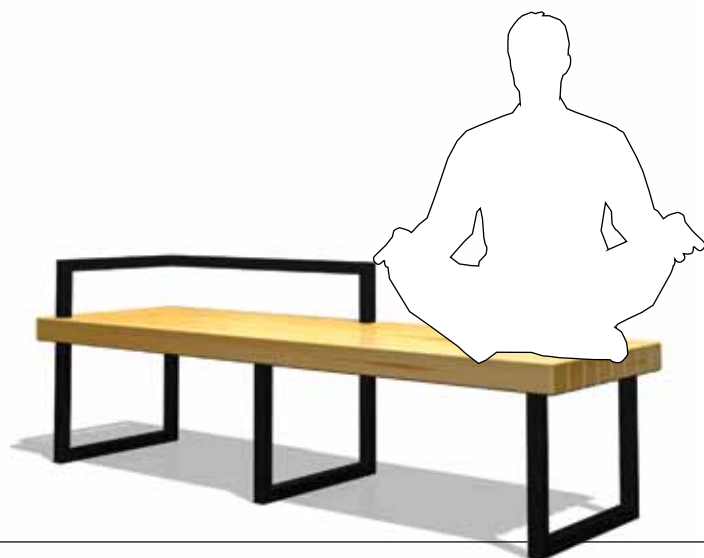
Park bench.

Design according NF P99-610.

### Specifications.

Glued-laminated wood GL28h, PEFC.

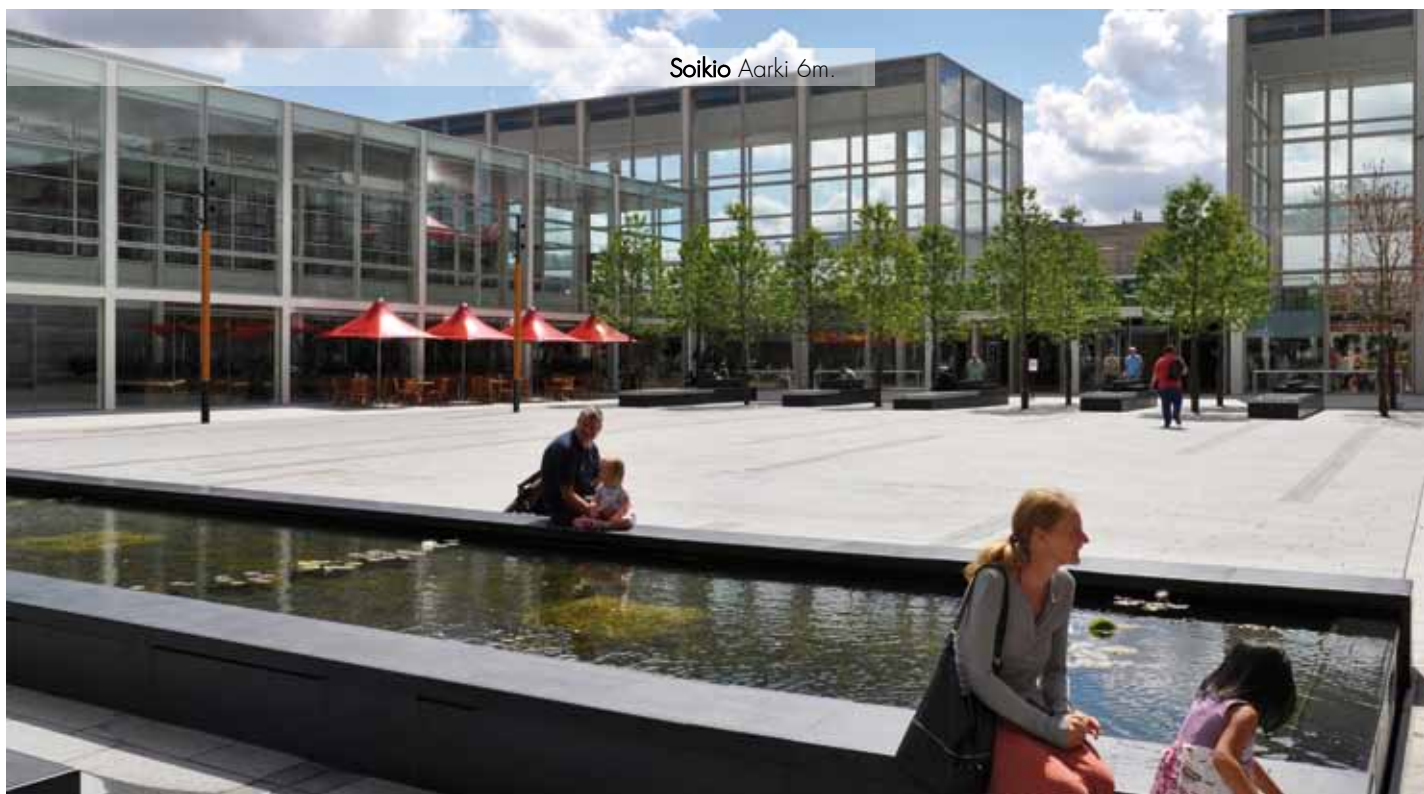
Galvanised Steel S235 Structure.














Soikio Park bench.







## Soikio Dimensions

											
Height (m)	Top (mm)	Base (mm)	Base Section Height (mm)	Space for coupling (mm)				Flange (mm)		Embedding (mm)	
				Height	Width	Distance	Internal Dimensions	Bolt spacing	Width	Concrete	Ground
5	120 x 70	200 x 120	1400	400	85	500	100 x 85	300	350	500	800
6	120 x 70	200 x 120	1400	400	85	500	115 x 85	300	350	500	800
7	120 x 70	200 x 120	1400	400	85	500	130 x 85	300	350	600	1000
8	120 x 70	200 x 120	1400	400	85	500	130 x 85	300	350	600	1000

Dimensions and technical data for guidance only.

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# Ontelo

Range of elliptical shaft with interior groove.

Shaft manufactured in glued-laminated wood, certified GLULAM GL28h. Type I white adhesive.

Water-based wood stain finish, five coats, VOCs <100g/l.

Elliptical base and flush pole cap, in hot dip galvanised and powder coated S235 steel.

PEFC certified lighting

The range is designed and developed according to Eurocodes 5, standard EN40 and CUAP 01-06/07 "Combined Wood-Metal Urban Lighting".

A ZEP contract for CO2 compensation is supplied





design by GREENCH

Imagery not contractual



# Ontelo

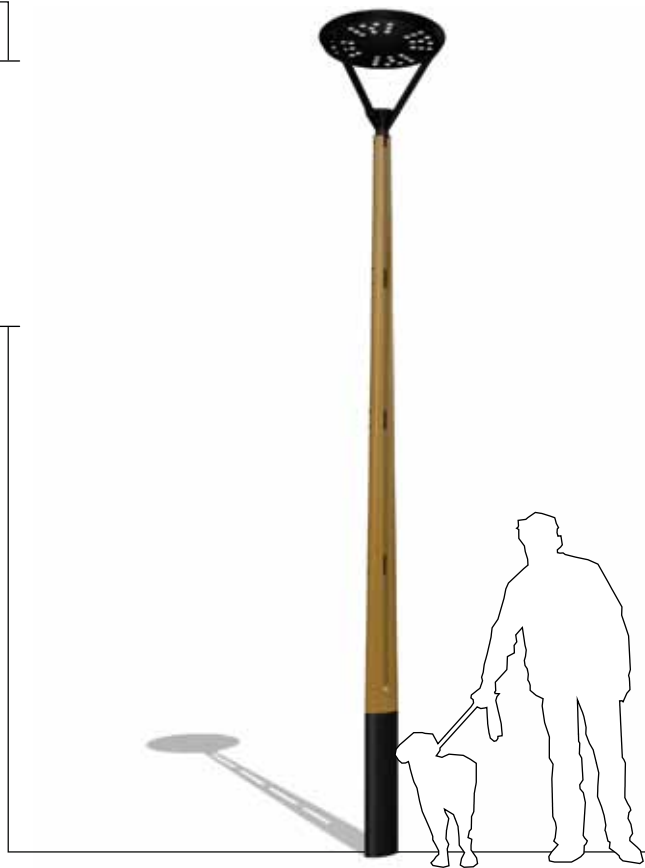
## | Ontelo Park |

### Descriptions.

Elliptical shaft with interior groove assembly.  
Height range: 4 to 5m.

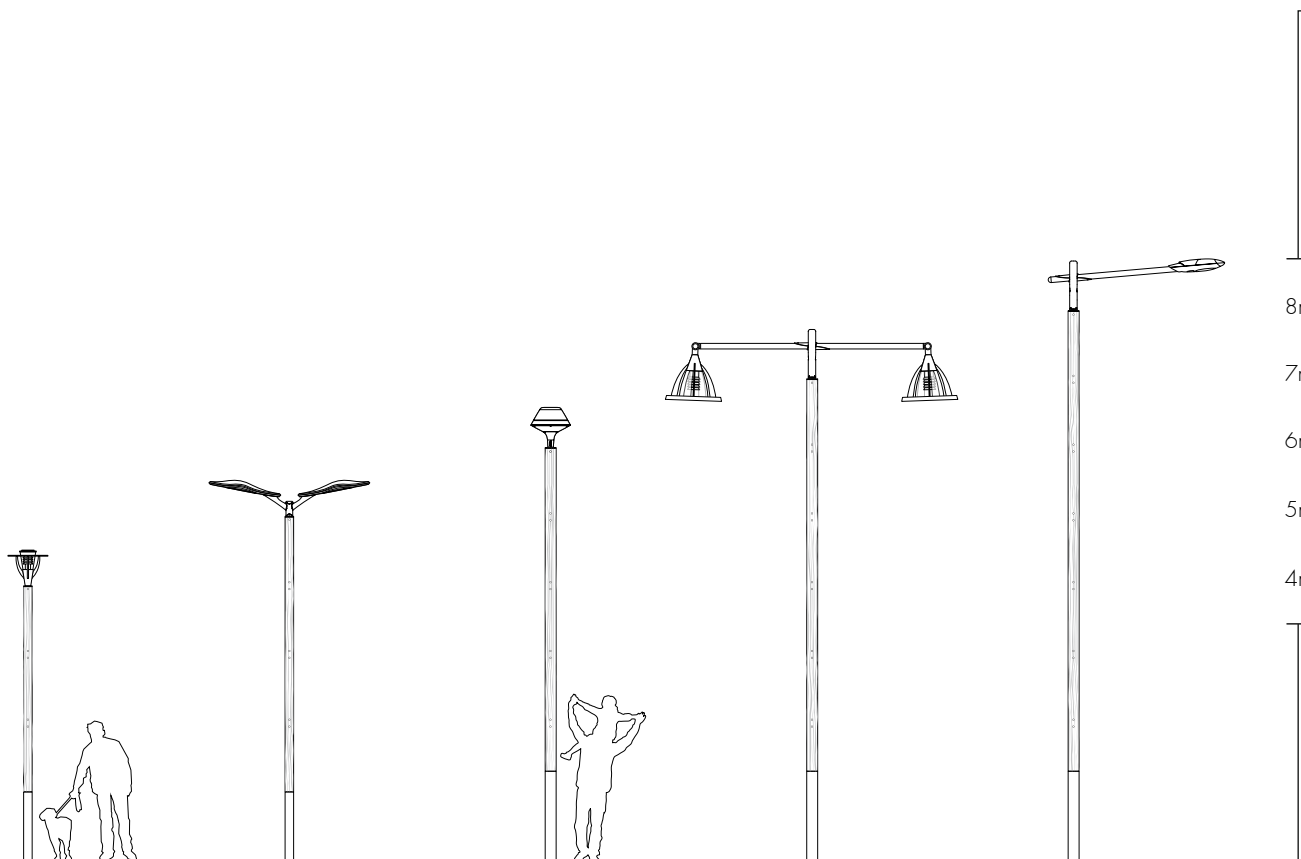
### Specifications.

Flush pole cap, ext. Ø 125mm ext.  
Glued-laminated wood GL28h, PEFC.  
Elliptic galvanised Steel S235 base.



Ontelo Park 5m.





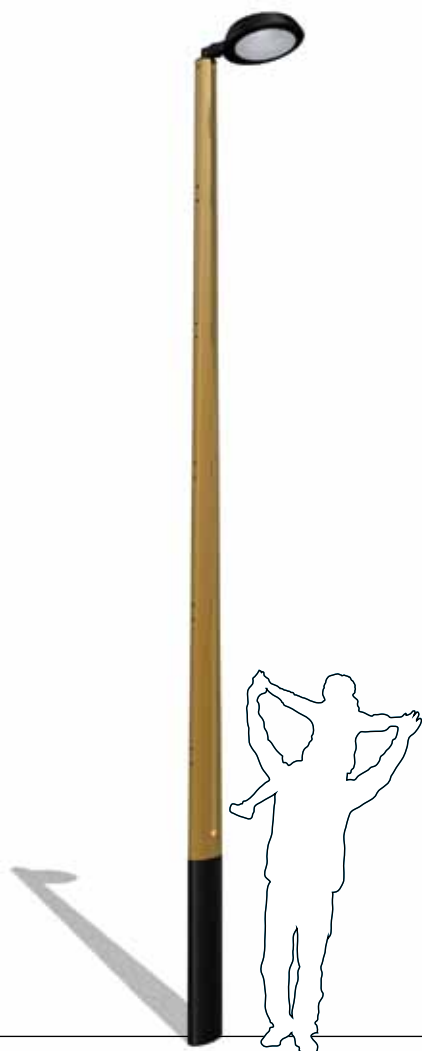
## | Ontelo |

### Descriptions.

Elliptical shaft with interior groove assembly.  
Height range: 6 to 8m.

### Specifications.

Flush pole cap, ext. Ø 160mm ext.  
Glued-laminated wood GL28h, PEFC.  
Elliptic galvanised Steel S235 base.



# Ontelo

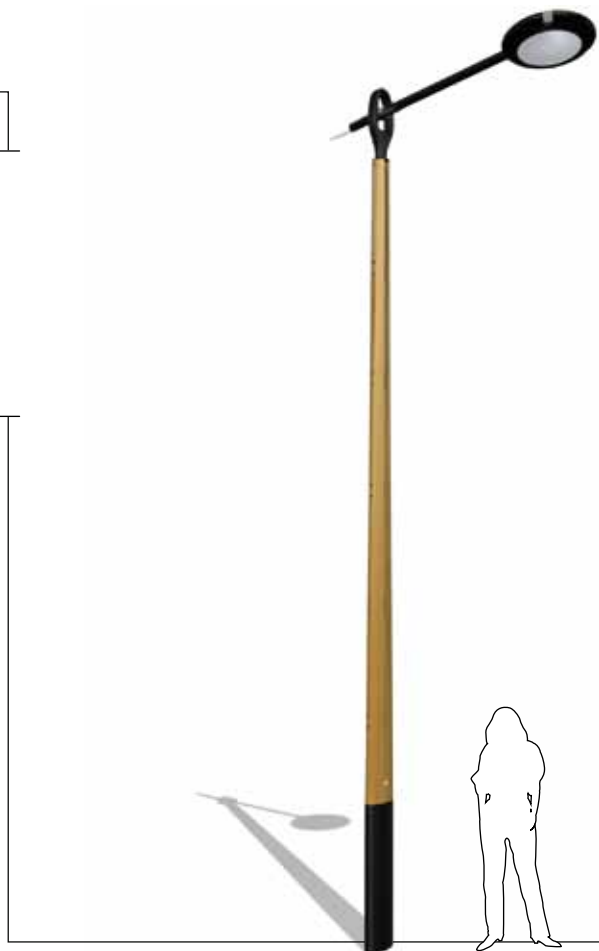
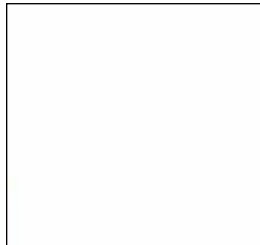
## | Ontelo Ago |

### Descriptions.

Elliptical shaft with interior groove assembly.  
Height range: 6 to 8m.

### Specifications.

Ago Aluminium bracket. Outreach 0.75 and 1.2m  
Glued-laminated wood GL28h, PEFC.  
Elliptic galvanised Steel S235 base.

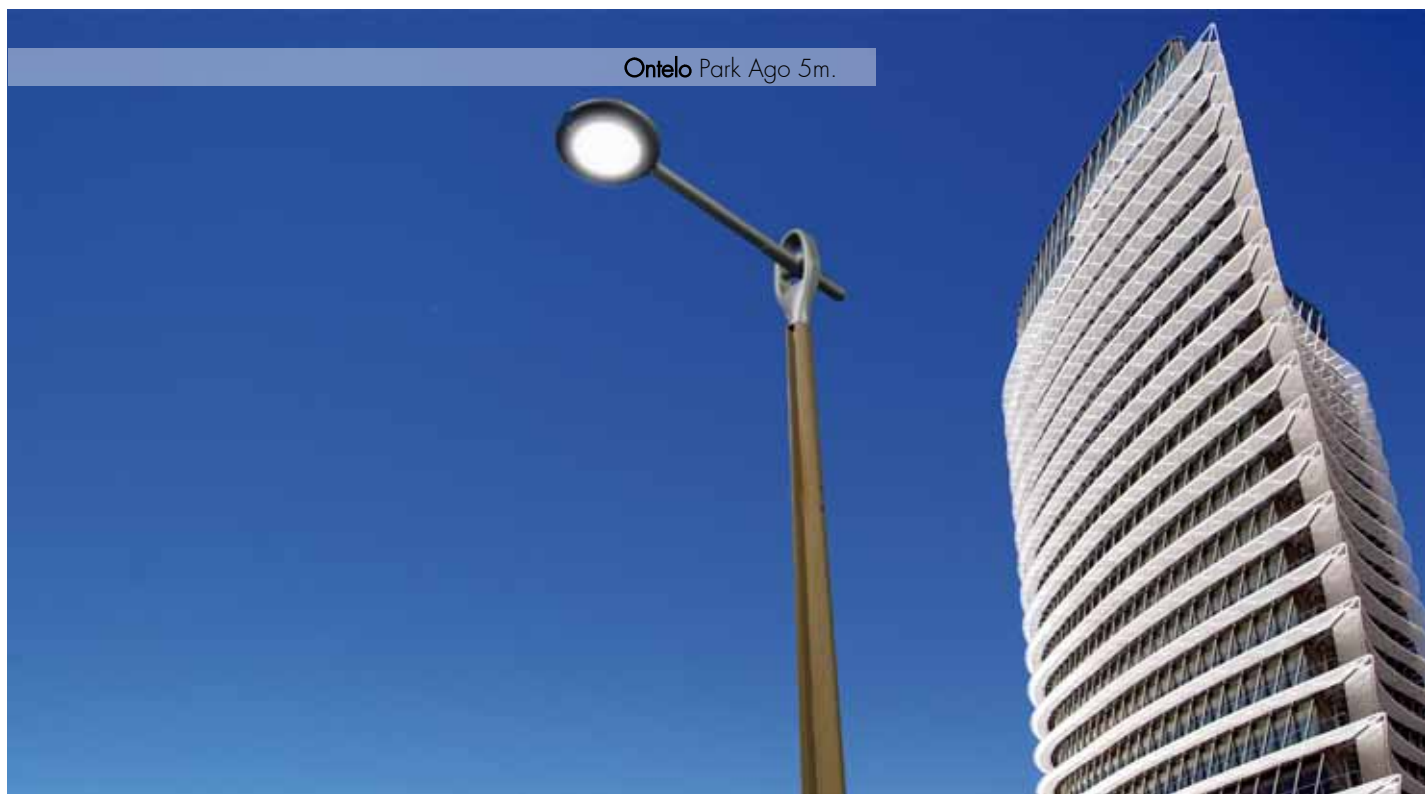


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## Ontelo Park 5m.



Ontelo Park Ago 5m.



## Ontelo Dimensions

Height (m)	Top (mm)	Base (mm)	Base Section Height (mm)	Space for coupling (mm)				Flange (mm)		Embedding (mm)	
				Height	Width	Distance	Internal Dimensions	Bolt spacing	Width	Concrete	Ground
4	125	250 x 125	1100	400	100	300	100 x 200	300	350	500	800
5	125	250 x 125	1100	400	100	300	100 x 200	300	350	500	800
6	160	320 x 160	1400	500	120	500	120 x 300	300	350	500	1000
7	160	320 x 160	1400	500	120	500	120 x 300	300	350	600	1200
8	160	320 x 160	1400	500	120	500	120 x 300	300	350	600	1200

Dimensions and technical data for guidance only.

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# Ruka

Range of square lighting.

Shaft manufactured in glued-laminated wood, certified GLULAM GL28h. Type I white adhesive.

Water-based wood stain finish, five coats, VOCs <100g/l.

Square base and flush pole cap, in hot dip galvanised and powder coated S235 steel.

PEFC certified lighting

The range is designed and developed according to Eurocodes 5, standard EN40 and CUAP 01-06/07 "Combined Wood-Metal Urban Lighting".

A ZEP contract for CO<sub>2</sub> compensation is supplied





Imagery not contractual

# Ruka

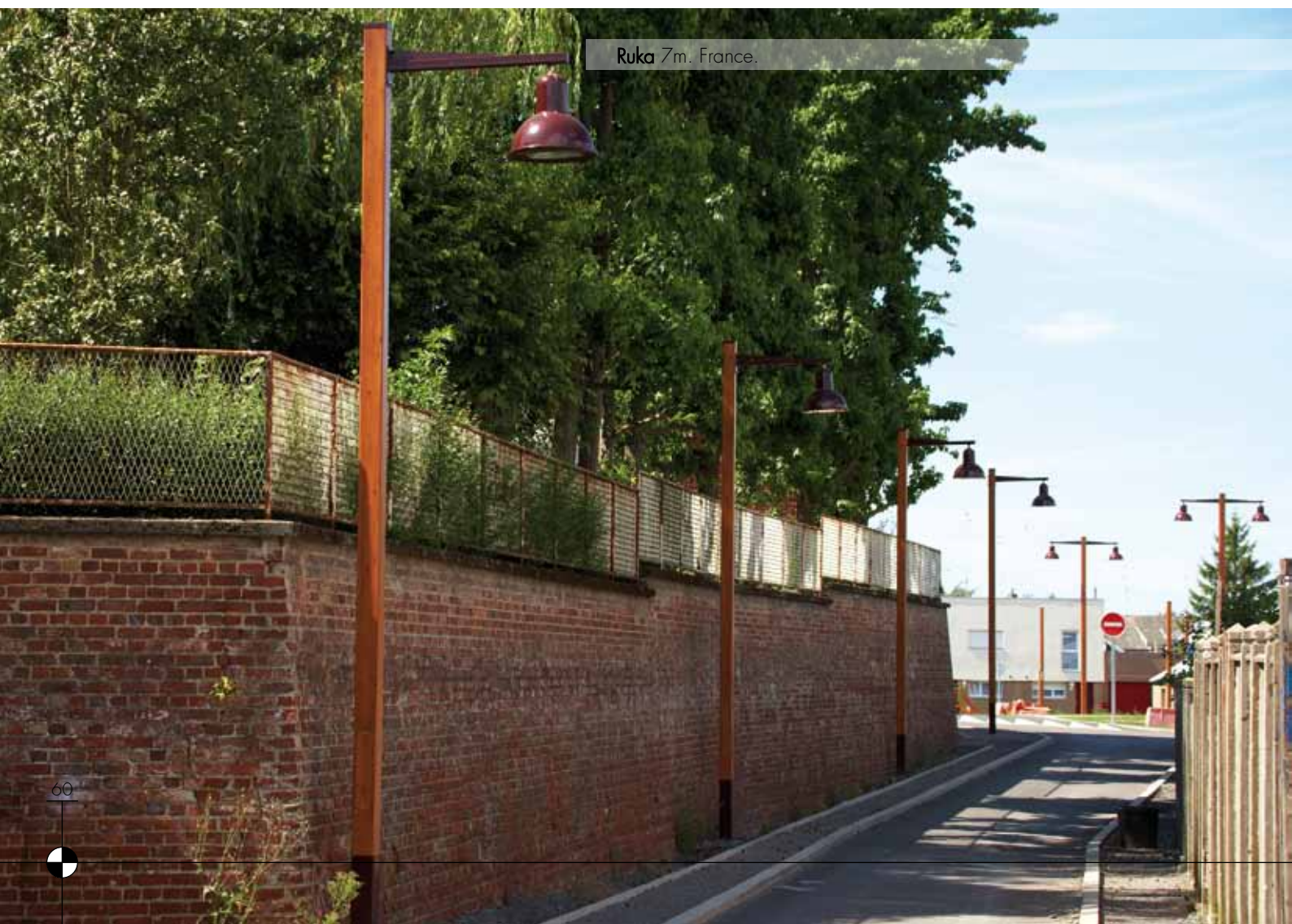
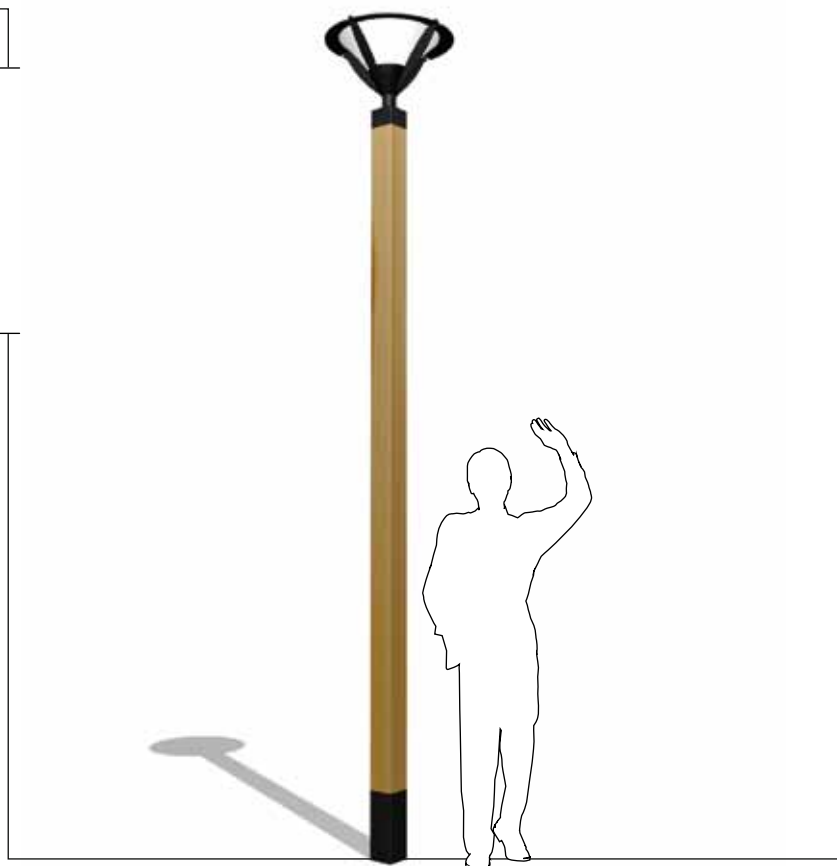
| Ruka Park |

## Descriptions.

Square assembly.  
Height range: 4 to 6m.

## Specifications.

Flush pole cap.  
Glued-laminated wood GL28h, PEFC.  
Square galvanised Steel S235 base.





#### | Ruka Tikka |

##### **Descriptions.**

Square assembly.  
Height range: 6 to 8m.

##### **Specifications.**

Galvanised steel bracket. Outreach 0.6 and 1.2m  
Glued-laminated wood GL28h, PEFC.  
Square galvanised Steel S235 base.



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# Ruka

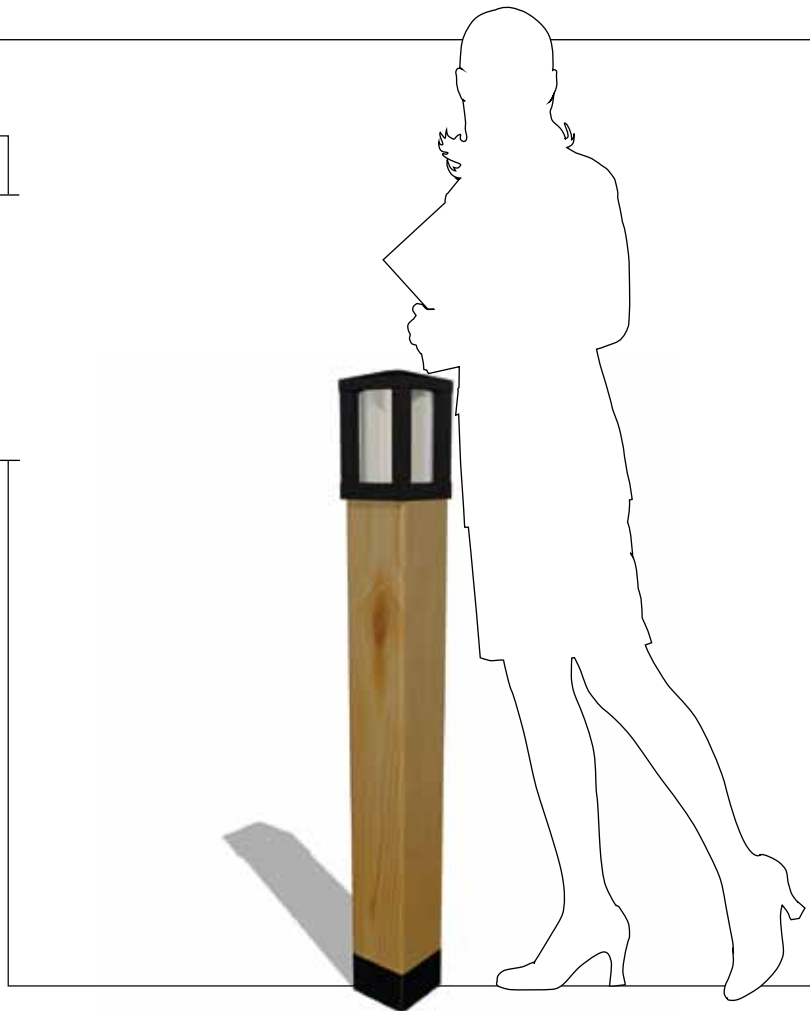
| Ruka Bollard lighting |

## Descriptions.

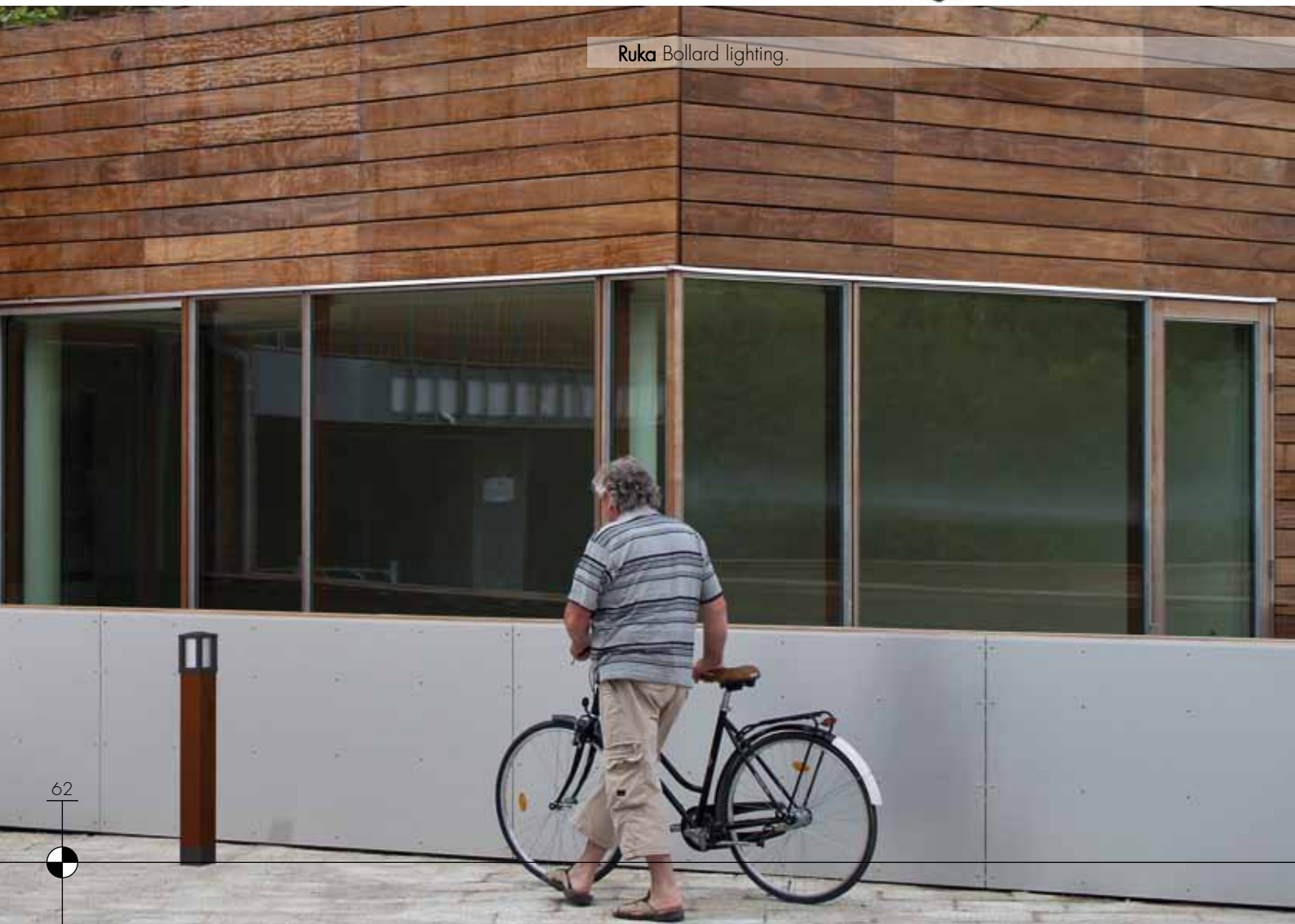
Square assembly.  
Aluminium lighth head.

## Specifications.

P65.  
Glued-laminated wood GL28h, PEFC.  
Square galvanised Steel S235 base.



Ruka Bollard lighting.





Ruka 4m. Finland.

## Ruka Dimensions

Height (m)	Top (mm)	Base (mm)	Base Section Height (mm)	Space for coupling (mm)				Flange (mm)		Embedding (mm)	
				Height	Width	Distance	Internal Dimensions	Bolt spacing	Width	Concrete	Ground
4	140	140	400	400	85	500	90 x 85	200	250	500	800
5	140	140	400	400	85	500	90 x 85	200	250	500	800
6	140	140	400	400	85	500	90 x 85	200	250	500	800
6	160	160	1400	400	85	500	100 x 85	200	250	500	800
7	160	160	1400	400	85	500	100 x 85	300	350	600	1000
8	180	180	1400	400	85	500	100 x 85	300	350	600	1000

\* For further information on **Ruka** bollards (SGS curves, light sources, sockets ...), contact your local agent.

Dimensions and technical data for guidance only.

Valmont reserves the right to modify and improve its products from the Wood Collection as deemed necessary, for technical or aesthetic reasons, immediately and without prior notice.

# Inari

Range of round lighting.

Shaft manufactured in glued-laminated wood, certified GLULAM GL28h. Type I white adhesive.

Water-based wood stain finish, five coats, VOCs <100g/l.

Cylindrical base and flush pole cap, in hot dip galvanised and powder coated S235 steel.

PEFC certified lighting

The range is designed and developed according to Eurocodes 5, standard EN40 and CUAP 01-06/07 "Combined Wood-Metal Urban Lighting".

A ZEP contract for CO2 compensation is supplied







# Inari

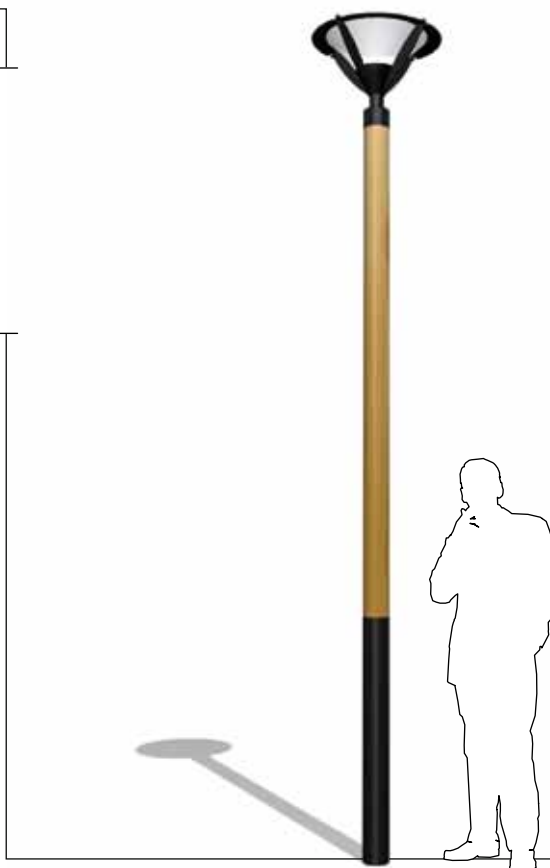
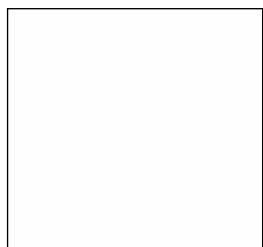
| Inari Park |

## Descriptions.

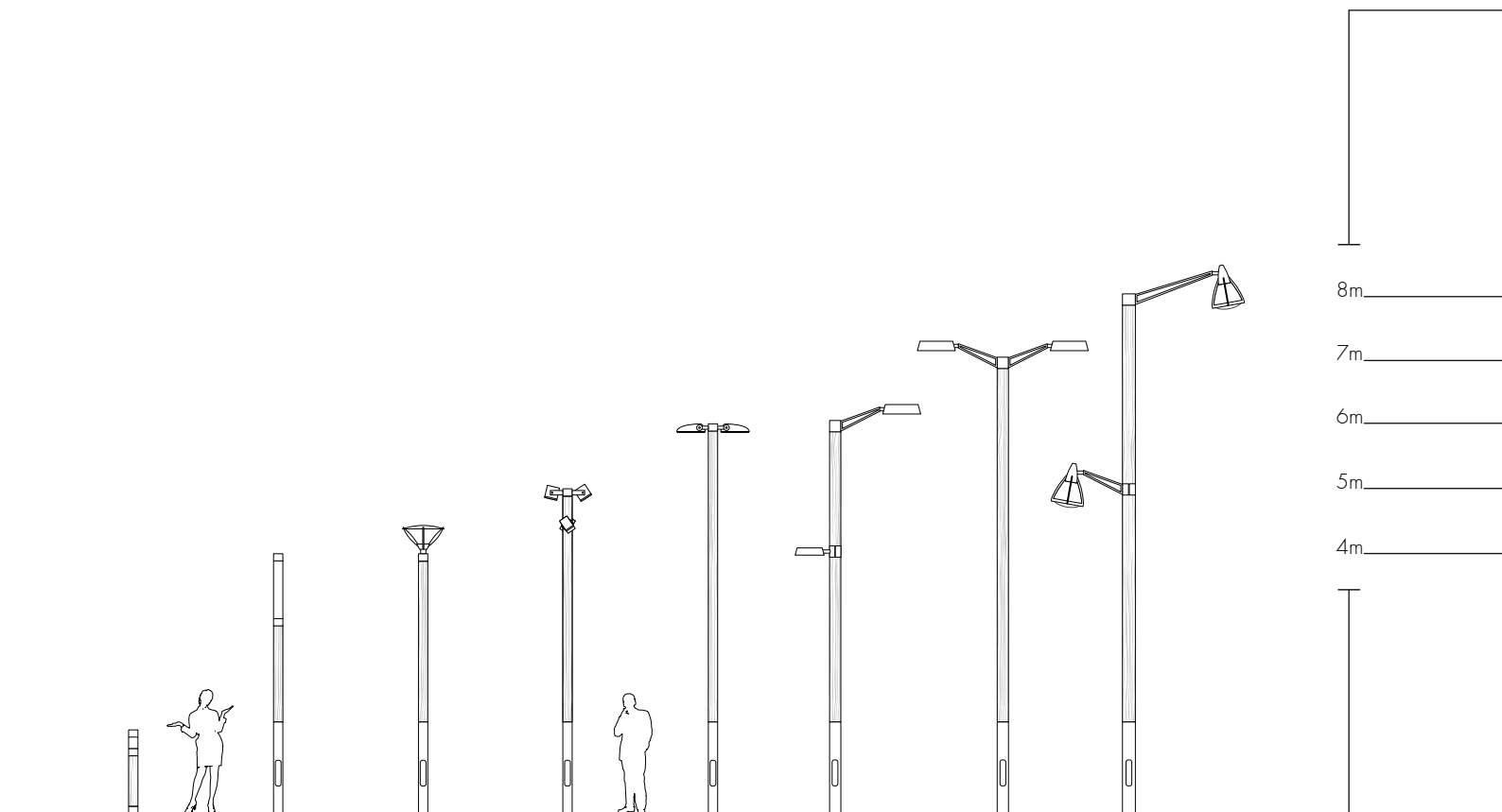
Round assembly.  
Height range: 4 to 6m.

## Specifications.

Flush pole cap, ext. Ø 140mm ext.  
Glued-laminated wood GL28h, PEFC.  
Round galvanised Steel S235 base.



Inari Park 4m. Holland.



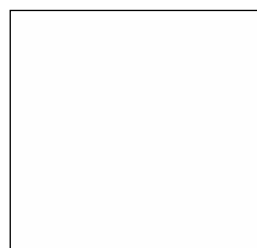
#### | Inari Gull |

##### **Descriptions.**

Round assembly.  
Height range: 6 to 8m.

##### **Specifications.**

Galvanised steel bracket. Outreach 0.6 and 1.2m  
Glued-laminated wood GL28h, PEFC.  
Round galvanised Steel S235 base.



Brackets Informations page 88



# Inari

| Inari Bollard lighting |

**Descriptions.**  
Round assembly.  
Aluminium lighth head.

**Specifications.**  
IP65.  
Glued-laminated wood GL28h, PEFC.  
Galvanised Steel S235 base.



Inari Park 5m. Poland.







Inari Park 4m. Holland.

## Inari Dimensions

Height (m)	Top (mm)	Base (mm)	Base Section Height (mm)	Space for coupling (mm)				Flange (mm)		Embedding (mm)	
				Height	Width	Distance	Internal Dimensions	Bolt spacing	Width	Concrete	Ground
4	140	140	1400	400	85	500	100 x 85	200	250	500	800
5	140	140	1400	400	85	500	100 x 85	200	250	500	800
6	140	140	1400	400	85	500	100 x 85	200	250	500	800
6	168	168	1400	400	85	500	115 x 85	200	250	500	800
7	168	168	1400	400	85	500	115 x 85	300	350	600	1200
8	193	193	1400	400	85	500	130 x 85	300	350	600	1200

\* For further information on **Inari** bollards (SGS curves, light sources, sockets ...), contact your local agent.

Dimensions and technical data for guidance only.

Valmont reserves the right to modify and improve its products from the Wood Collection as deemed necessary, for technical or aesthetic reasons, immediately and without prior notice.



# Koli

Range of square conical lighting.

Shaft manufactured in glued-laminated wood, certified GLULAM GL28h. Type I white adhesive.

Water-based wood stain finish, five coats, VOCs <100g/l.

Square base and flush pole cap, in hot dip galvanised and powder coated S235 steel.

PEFC certified lighting

The range is designed and developed according to Eurocodes 5, standard EN40 and CUAP 01-06/07 "Combined Wood-Metal Urban Lighting".

A ZEP contract for CO2 compensation is supplied





Design by TEHOMET

Imagery not contractual

# Koli

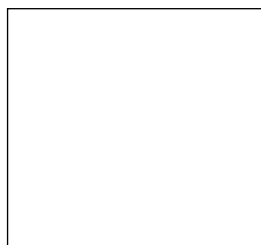
## | Koli Park |

### Descriptions.

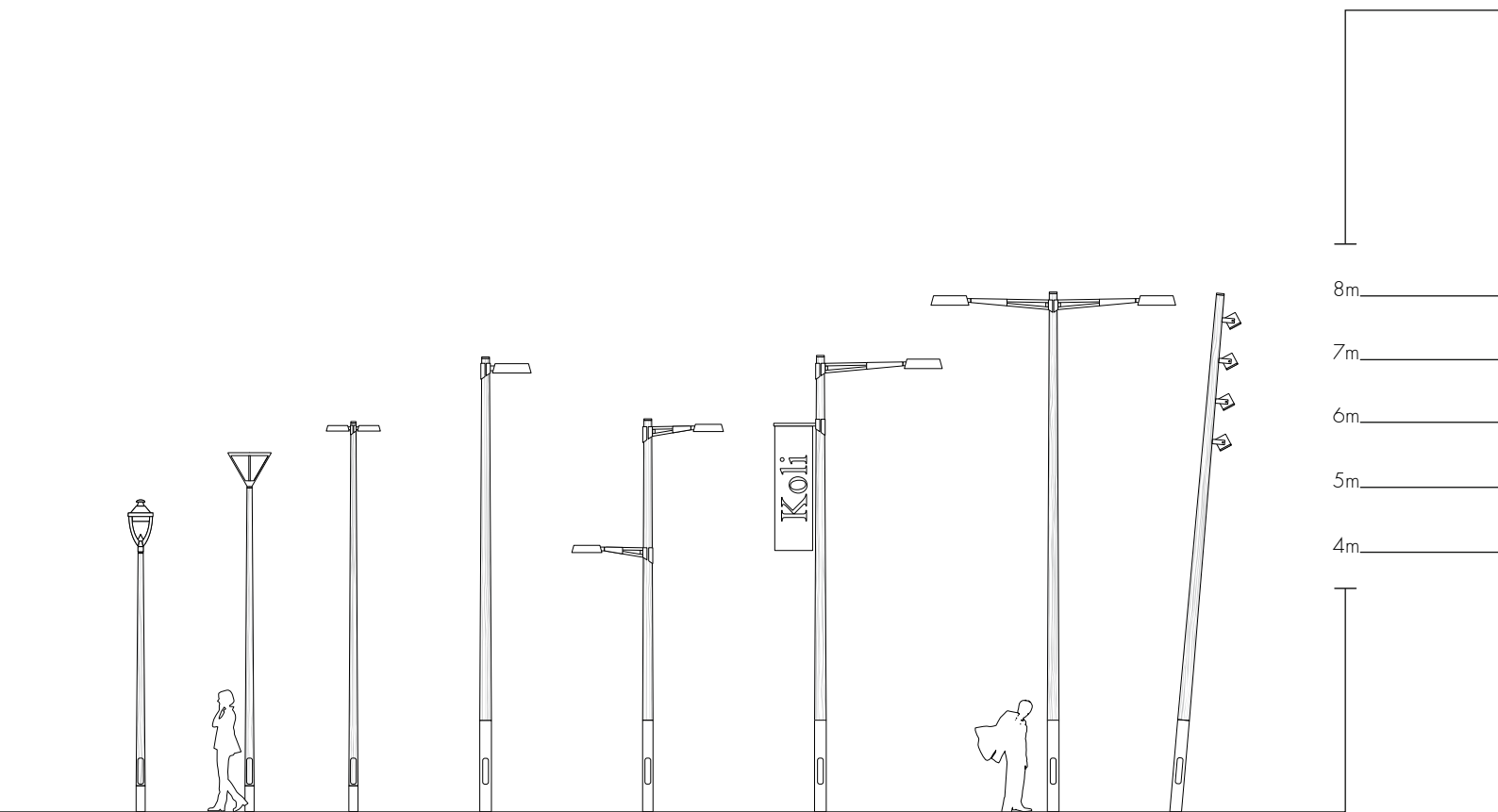
Square conical assembly.  
Height range: 4 to 6m.

### Specifications.

Flush pole cap, galvanized steel S235.  
Glued-laminated wood GL28h, PEFC.  
Square galvanised Steel S235 base.



Koli Park 4m. Holland.



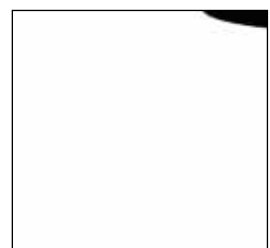
#### | Koli Swallow |

##### **Descriptions.**

Square conical assembly.  
Height range: 6 to 8m.

##### **Specifications.**

Galvanised steel bracket. Outreach 0.6 and 1.2m  
Glued-laminated wood GL28h, PEFC.  
Square galvanised Steel S235 base.



Brackets Informations page 90



# Koli

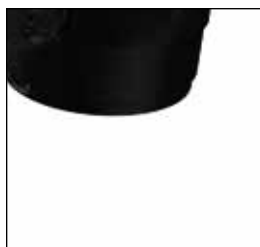
| Koli incliné |

## Descriptions.

Square conical assembly. Inclination 5°.  
Height range: 6 to 8m

## Specifications.

Flush pole cap, galvanized steel S235.  
Glued-laminated wood GL28h, PEFC.  
Square galvanised Steel S235 base.



Koli leaning 8m.





Koli Park 4m.

## Koli Dimensions

Height (m)	Top (mm)	Base (mm)	Base Section Height (mm)	Space for coupling (mm)				Flange (mm)		Embedding (mm)	
				Height	Width	Distance	Internal Dimensions	Bolt spacing	Width	Concrete	Ground
4	80	140	400	400	85	500	90 x 85	200	250	500	800
5	80	140	400	400	85	500	90 x 85	200	250	500	800
6	80	140	400	400	85	500	90 x 85	200	250	500	800
6	120	160	1400	400	85	500	100 x 85	200	250	500	800
7	120	180	1400	400	85	500	100 x 85	300	350	600	1200
8	120	180	1400	400	85	500	100 x 85	300	350	600	1200

Dimensions and technical data for guidance only.

Valmont reserves the right to modify and improve its products from the Wood Collection as deemed necessary, for technical or aesthetic reasons, immediately and without prior notice.

# Pallas

Range of round conical lighting.

Shaft manufactured in glued-laminated wood, certified GLULAM GL28h. Type I white adhesive.

Water-based wood stain finish, five coats, VOCs <100g/l.

Cylindrical base and flush pole cap, in hot dip galvanised and powder coated S235 steel.

PEFC certified lighting

The range is designed, and developed according to Eurocodes 5, standard EN40 and CUAP 01-06/07 "Combined Wood-Metal Urban Lighting".

A ZEP contract for CO2 compensation is supplied







# Pallas

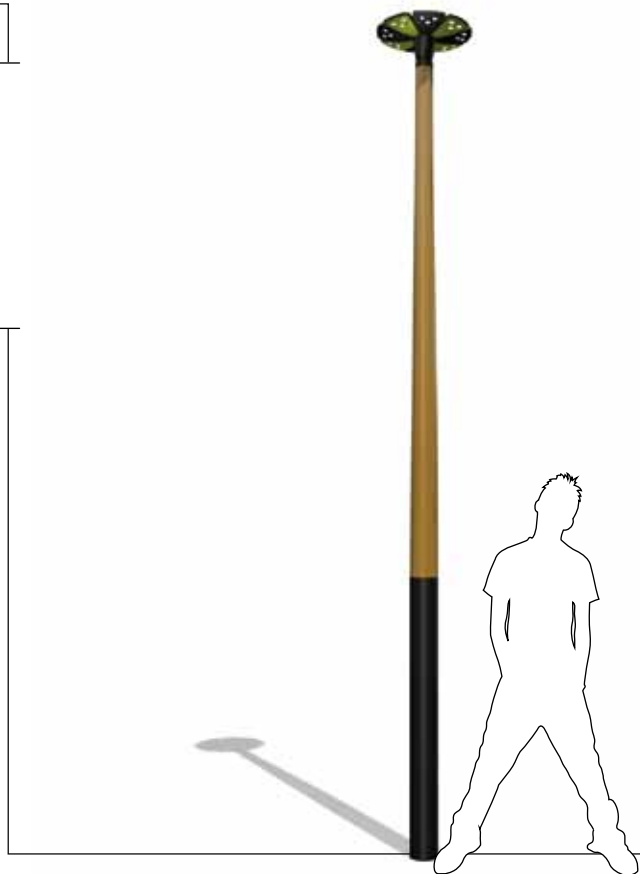
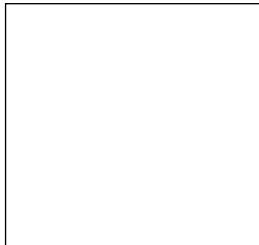
| Pallas Park |

## Descriptions.

Round conical assembly.  
Height range: 4 to 6m.

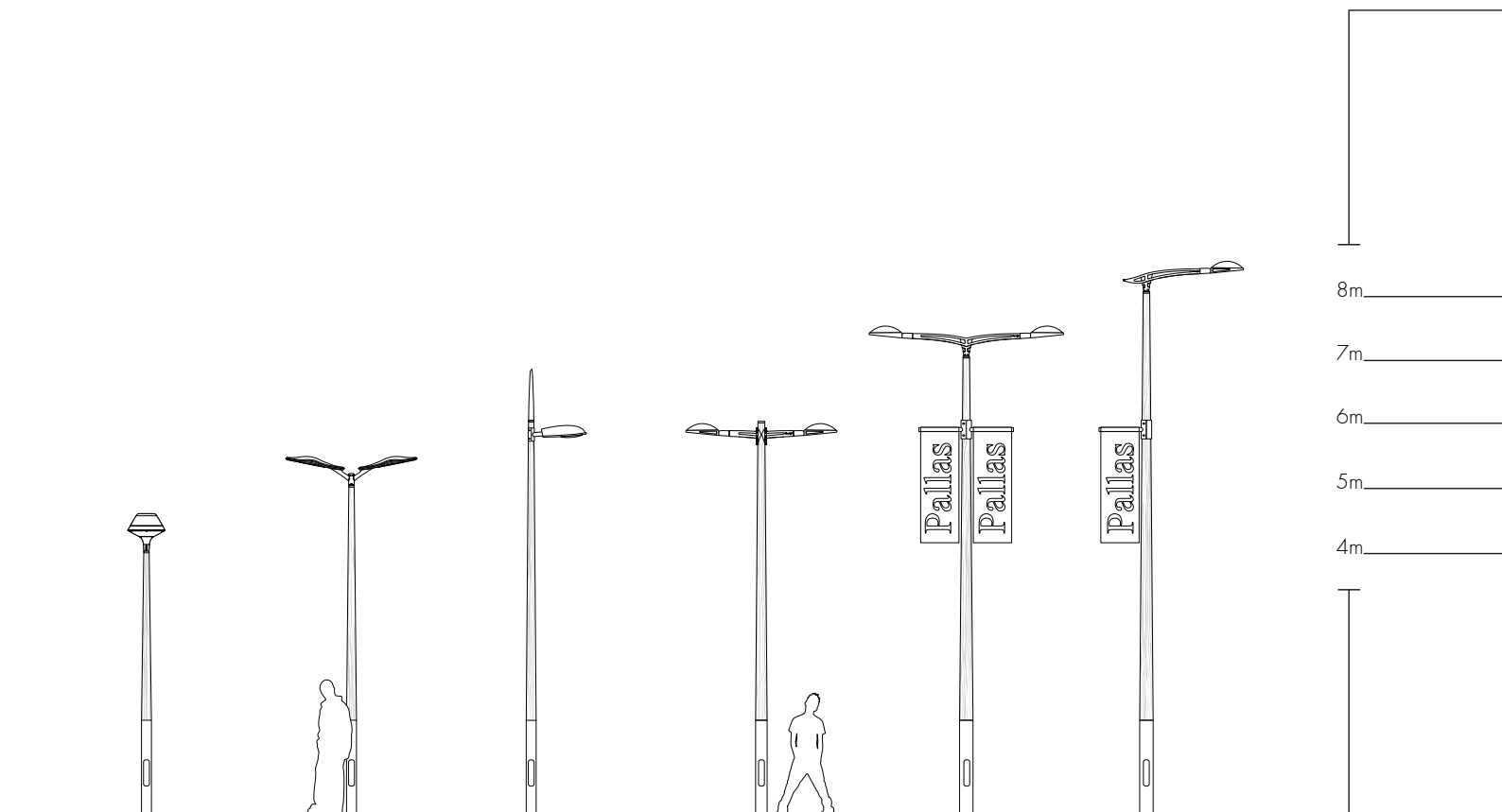
## Specifications.

Flush pole cap, ext. Ø 90mm.  
Glued-laminated wood GL28h, PEFC.  
Round galvanised Steel S235 base.



Pallas Park 4m. France.





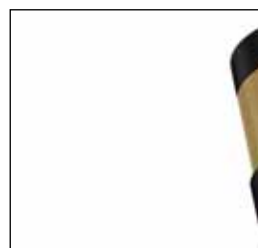
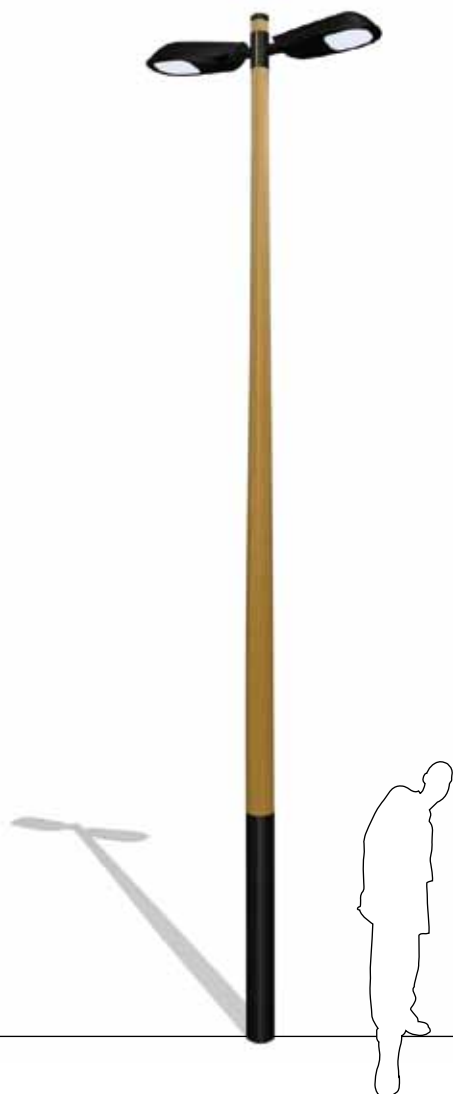
#### | Pallas |

##### **Descriptions.**

Round conical assembly.  
Height range: 6 to 8m.

##### **Specifications.**

Flush pole cap, ext. Ø 100mm.  
Glued-laminated wood GL28h, PEFC.  
Round galvanised Steel S235 base.



# Pallas

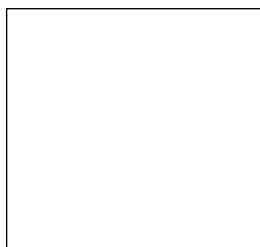
## | Pallas Ceedji |

### Descriptions.

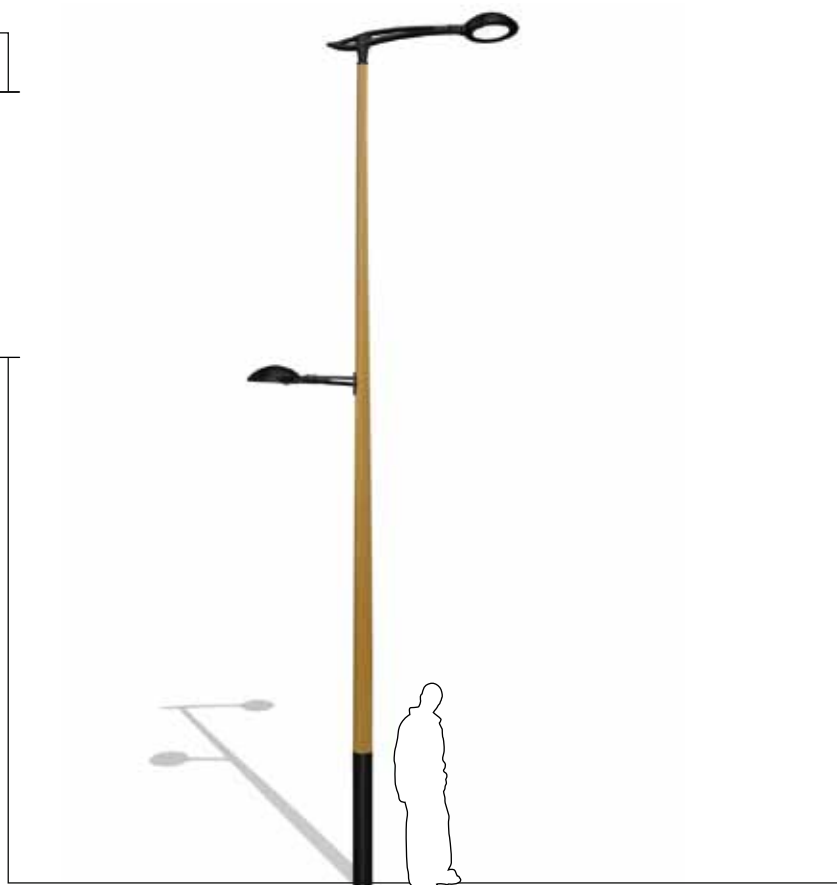
Round conical assembly.  
Height range: 6 to 8m.

### Specifications.

Ceedji Aluminium bracket. Outreach 0.4 and 0.8m  
Glued-laminated wood GL28h, PEFC.  
Round galvanised Steel S235 base.



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Pallas 8m. France.





Pallas 7m. France.

## Pallas Dimensions

Height (m)	Top (mm)	Base (mm)	Base Section Height (mm)	Space for coupling (mm)				Flange (mm)		Embedding (mm)	
				Height	Width	Distance	Internal Dimensions	Bolt spacing	Width	Concrete	Ground
4	90	140	1400	400	85	500	100 x 85	200	250	500	800
5	90	140	1400	400	85	500	100 x 85	200	250	500	800
6	90	140	1400	400	85	500	115 x 85	200	250	500	800
6	100	168	1400	400	85	500	115 x 85	200	250	500	800
7	100	193	1400	400	85	500	130 x 85	300	350	600	1000
8	100	193	1400	400	85	500	130 x 85	300	350	600	1000

Dimensions and technical data for guidance only.

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# Finland





In this region, lakes cover approximately 25% of the area.

The other 75% are mainly covered in forests and sparsely populated. Kuopio and Jyväskylä are the two main urban centres.

The lakeland region is a natural haven and the source of an essential raw material, wood.

# WOOD

Collection



# Brackets

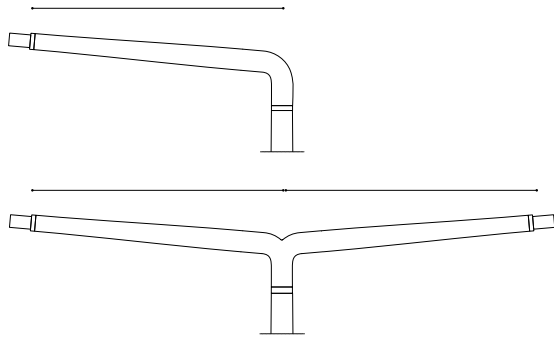


# Lempeä

Design by GREENCH

## Descriptions.

Fluoformed galvanised Steel S235 bracket.  
Outreach 1,2m and 0,6m.  
Single. Double. Pedestrian bracket.  
Designed according to EN40.  
Powder coating.

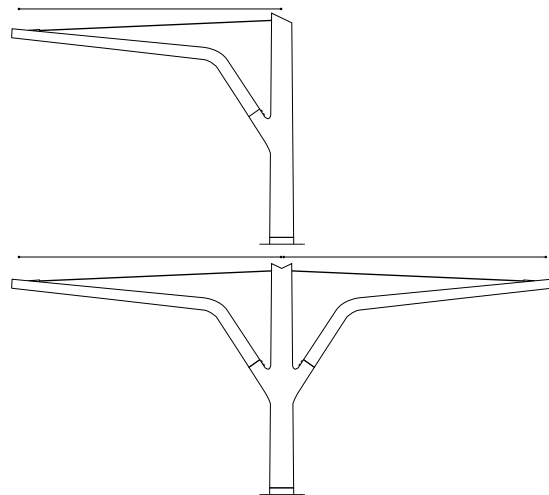


# Seka

Design by CHRIS

## Descriptions.

Fluoformed galvanised Steel S235 bracket.  
Outreach 1,2m and 0,4m.  
Single. Double. Pedestrian bracket.  
Designed according to EN40.  
Powder coating.

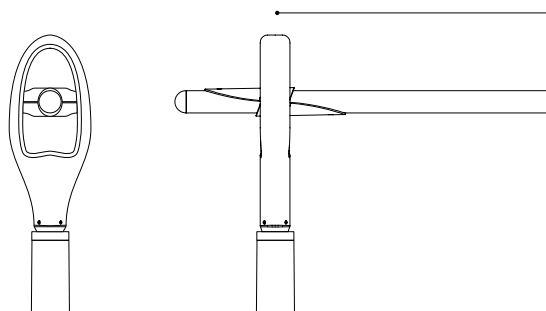


Design by GREENCH

# Ago

## Descriptions.

Cast Aluminium bracket.  
Outreach 1m and 0,6m.  
Inclination 0°, 5°, 10°, 15°.  
Single. Double.  
Designed according to EN40.  
Powder coating

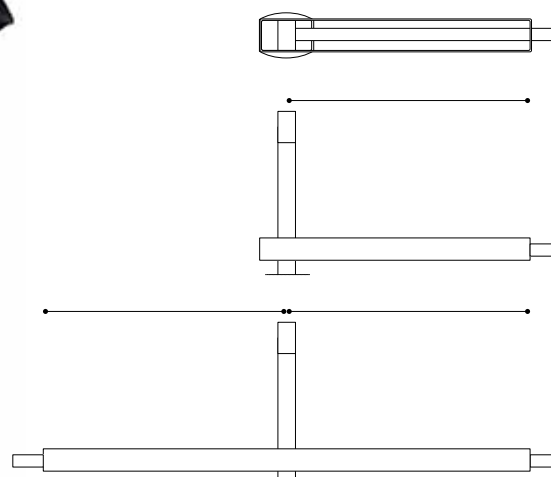


Design by GREENCH

# Soikio

## Descriptions.

Galvanised Steel S235 bracket.  
Outreach 1m and 0,6m.  
Single. Double. Pedestrian bracket.  
Designed according to EN40.  
Powder coating

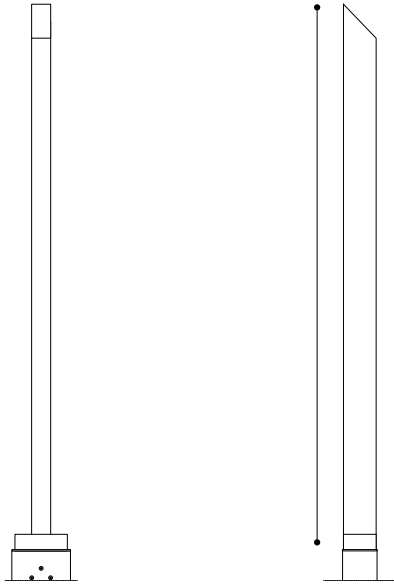


# Aarki

Design by GREENCH

## Descriptions.

Galvanised Steel S235 extension.  
Hight 1,5m and 2m.  
Designed according to EN40.  
Powder coating.

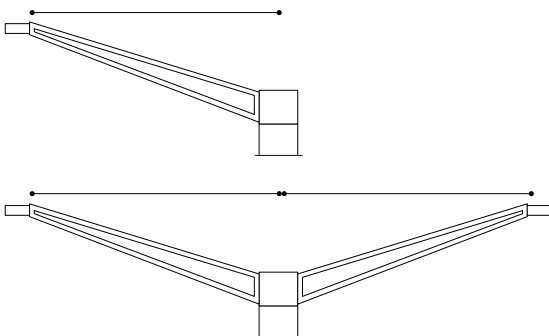


# Gull

Design by TEHOMET

## Descriptions.

Galvanised Steel S235 bracket.  
Outreach 1,2m and 0,6m.  
Single. Double. Pedestrian bracket.  
Designed according to EN40.  
Powder coating.

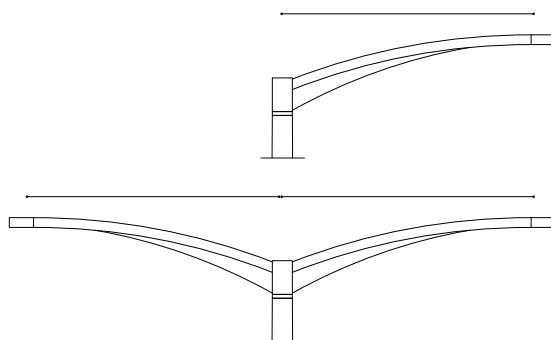


Design by TEHOMET

# Merganser

## Descriptions.

Galvanised Steel S235 bracket.  
Outreach 1,2m and 0,6m.  
Single. Double.  
Designed according to EN40.  
Powder coating.

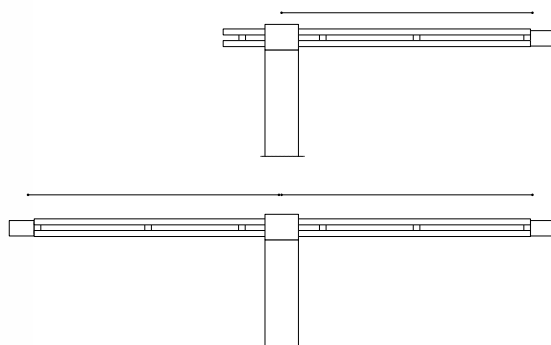


Design by TEHOMET

# Tikka

## Descriptions.

Galvanised Steel S235 bracket.  
Outreach 1,2m and 0,6m.  
Single. Double. Pedestrian bracket.  
Designed according to EN40.  
Powder coating.



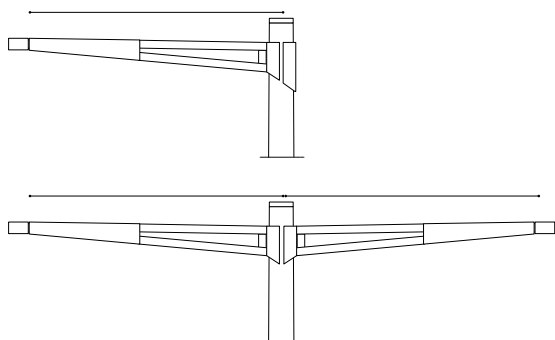


# Swallow

Design by TEHOMET

## Descriptions.

Galvanised Steel S235 bracket.  
Outreach 1,2m and 0,6m.  
Single. Double. Pedestrian bracket.  
Designed according to EN40.  
Powder coating.

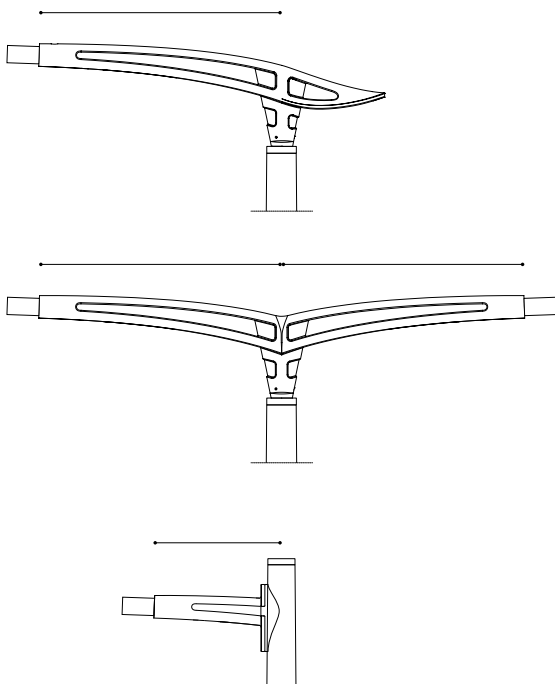


# Ceedji

Design by GREENCH

## Descriptions.

Openwork Cast Aluminium bracket.  
Outreach 0,8m and 0,4m.  
Single. Double. Pedestrian bracket.  
Designed according to EN40.  
Powder coating.



In order to better meet your project needs, Valmont offers Designer services.

Feel free to contact them through your local agent  
...

# Finland







Lakes in Finland are often linked to one another through a variety of rivers and form a very complex lake system.

The vast majority of these lakes originate from the successive ice ages when the ice caps covered Northern Europe..



# WOOD

Collection



# large Area

# Kartio

Range of round conical lighting.

Shaft manufactured in glued-laminated wood, certified GLULAM GL28h. Type I white adhesive.

Water-based wood stain finish, five coats, VOCs <100g/l.

Cylindrical base and flush pole cap, in hot dip galvanised and powder coated S235 steel.

PEFC certified lighting

The range is designed and developed according to Eurocodes 5, standard EN40 and CUAP 01-06/07 "Combined Wood-Metal Urban Lighting".

A ZEP contract for CO2 compensation is supplied





Imagery not contractual



# Kartio

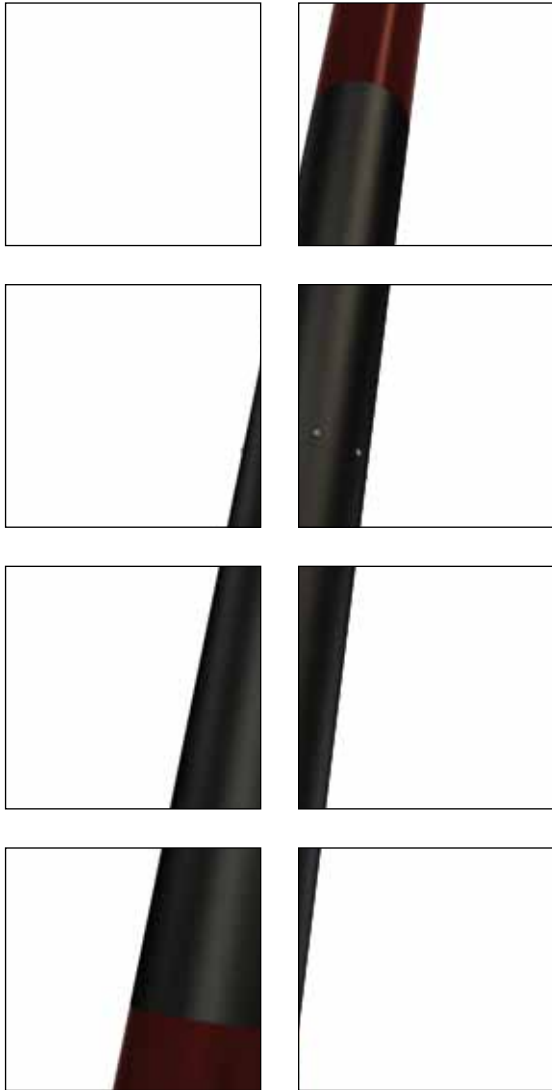
## | Kartio |

### Descriptions.

Round conical assembly.  
Height range: 12 to 18m.

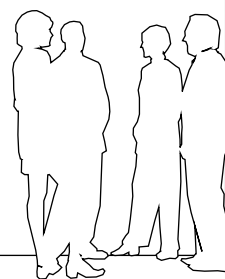
### Specifications.

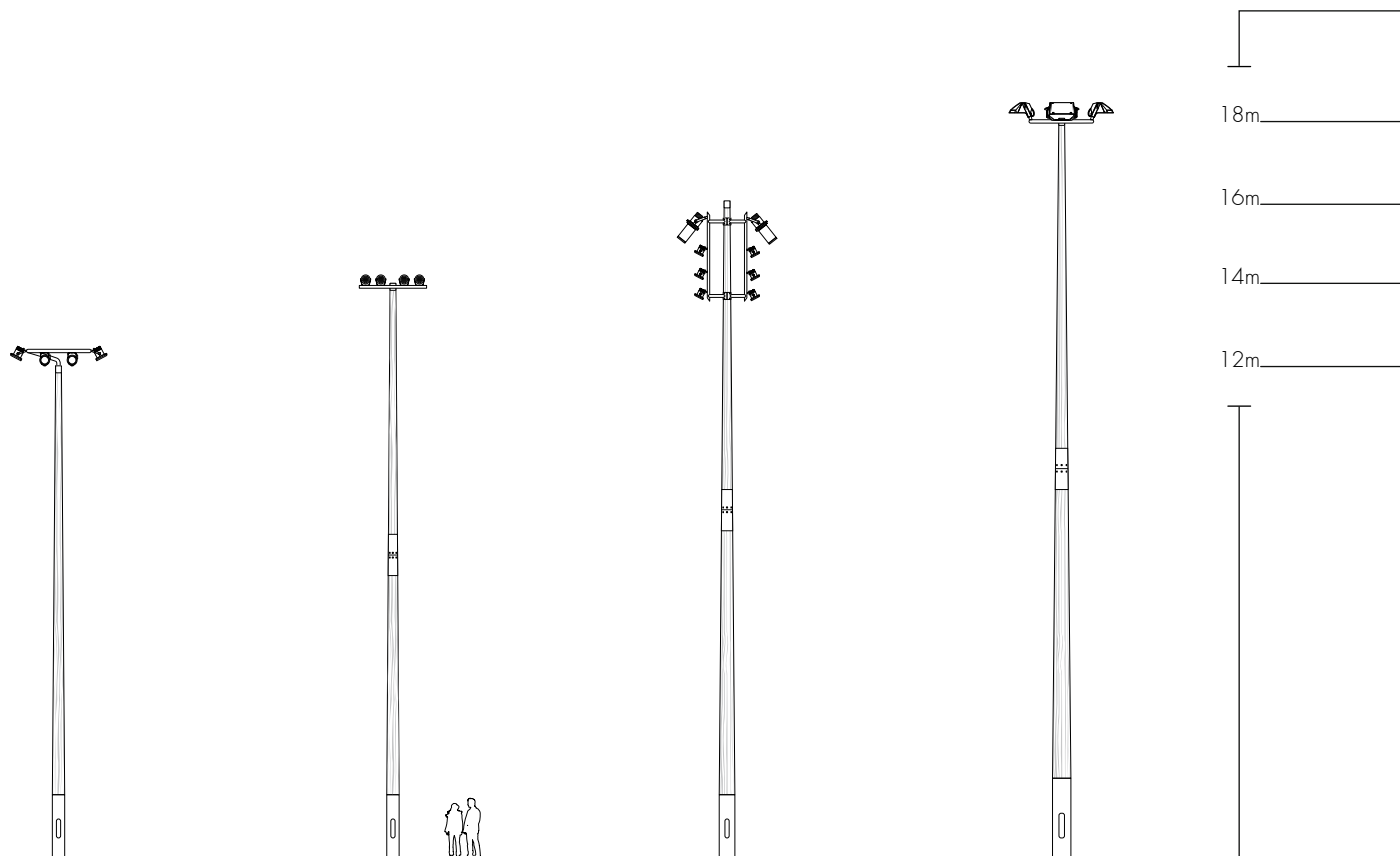
Galvanised Steel S235 cap.  
Glued-laminated wood GL28h, PEFC.  
Round galvanised Steel S235 base.



### NOTE :

For easier shipping and lower CO2 emissions, the Kartio models with a height above 12 m are split into two components which are assembled on site. Assistance for assembly can be provided.





## Kartio Dimensions

Height (m)	Top (mm)	Base (mm)	Base Section Height (mm)	Space for coupling (mm)			Internal Dimensions	Flange (mm)		Embedding (mm)	
				Height	Width	Distance		Bolt spacing	Width	Concrete	Ground
12	160	300	1600	500	120	500	270 x 120	400	500	1000	1700
14	160	300	1600	500	120	500	270 x 120	400	500	1000	2000
16	160	360	2000	500	120	500	320 x 120	500	600	1200	2000
18	160	420	2000	500	120	500	370 x 120	500	600	1200	2000

\*For further information on Kartio range and his accessories (light supports, banner support ...), contact your local agent.

Dimensions and technical data for guidance only.

Valmont reserves the right to modify and improve its products from the Wood Collection as deemed necessary, for technical or aesthetic reasons, immediately and without prior notice.

# Neliö

Range of round square conical lighting.

Shaft manufactured in glued-laminated wood, certified GLULAM GL28h. Type I white adhesive.

Water-based wood stain finish, five coats, VOCs <100g/l.

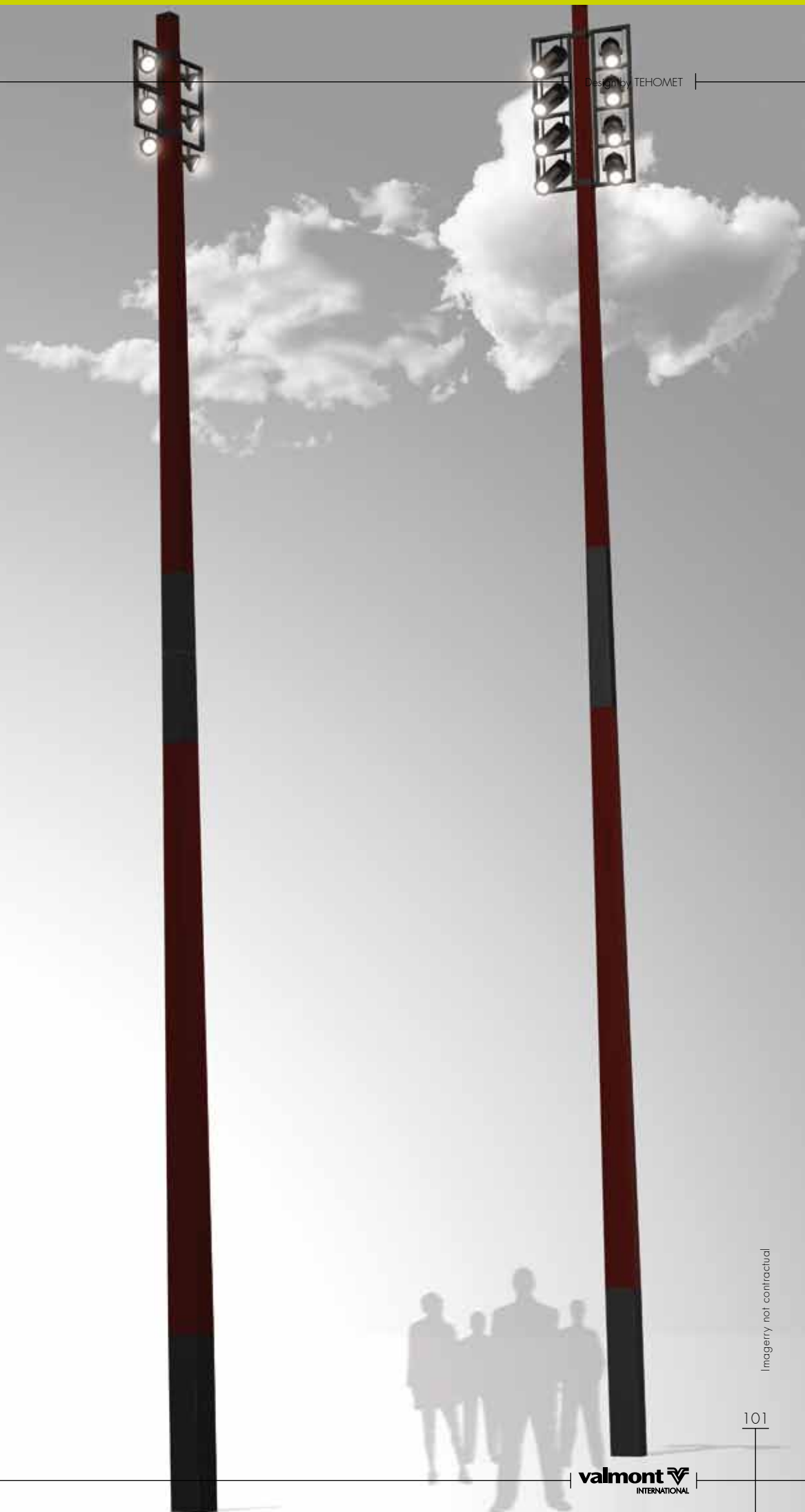
Square cylindrical base and flush pole cap, in hot dip galvanised and powder coated S235 steel.

PEFC certified lighting

The range is designed and developed according to Eurocodes 5, standard EN40 and CUAP 01-06/07 "Combined Wood-Metal Urban Lighting".

A ZEP contract for CO2 compensation is supplied







# Neliö

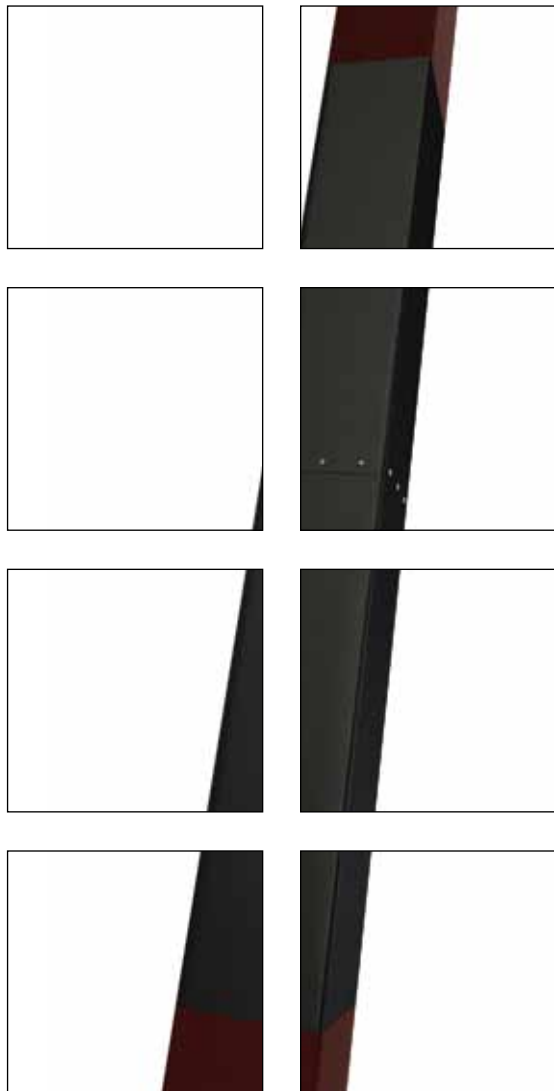
## | Neliö |

### Description.

Square conical assembly.  
Height range: 12 to 18m.

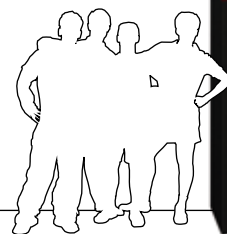
### Specifications.

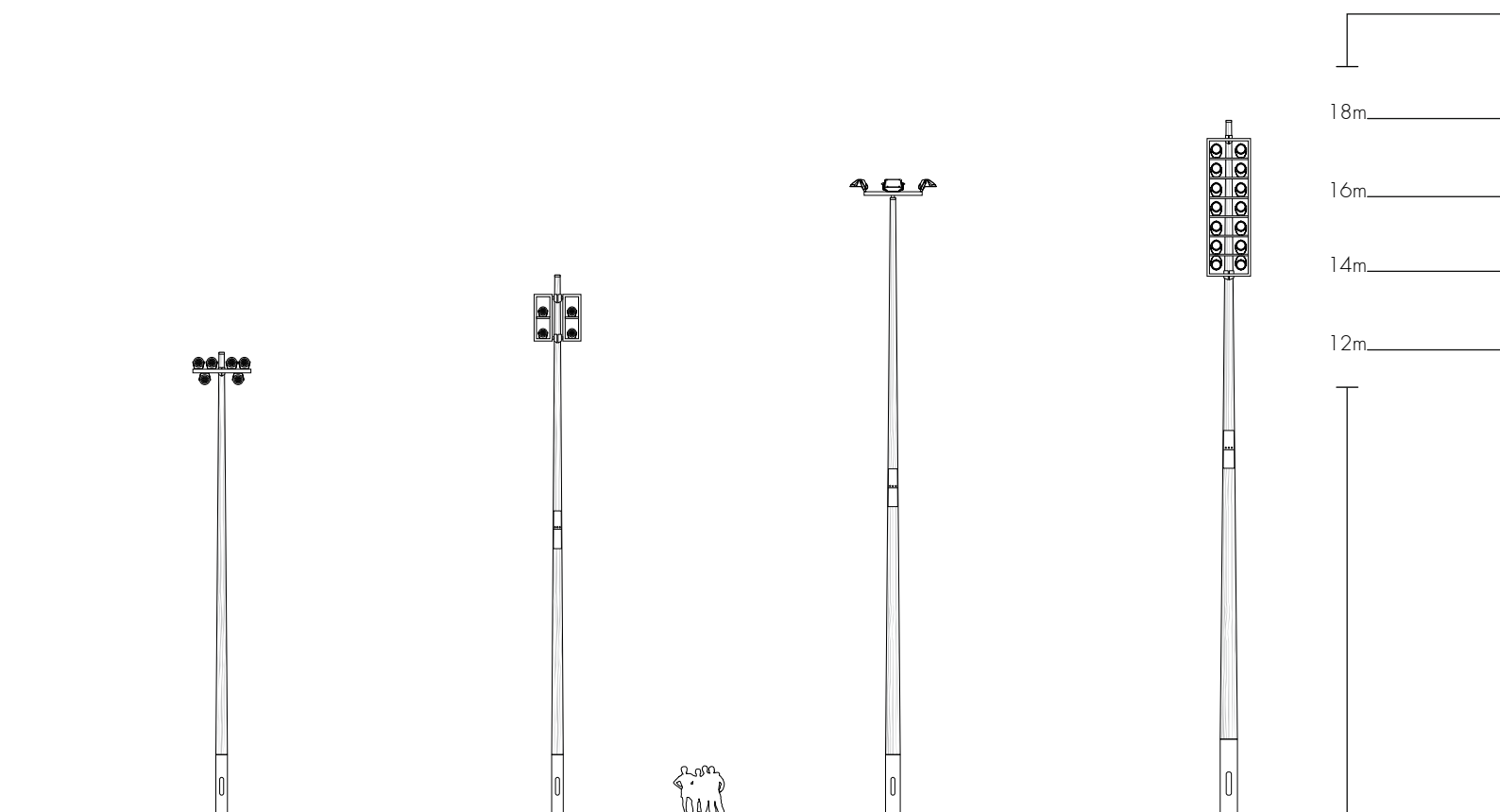
Galvanised Steel S235 cap.  
Glued-laminated wood GL28h, PEFC.  
Square galvanised Steel S235 base.



### NOTE :

For easier shipping and lower CO2 emissions, the Neliö models with a height above 12 m are split into two components which are assembled on site. Assistance for assembly can be provided.





## Neliö Dimensions

Height (m)	Top (mm)	Base (mm)	Base Section Height (mm)	Space for coupling (mm)			Internal Dimensions	Flange (mm)		Embedding (mm)	
				Height	Width	Distance		Bolt spacing	Width	Concrete	Ground
12	160	300	1600	500	120	500	270 x 120	400	500	1000	1700
14	160	300	1600	500	120	500	270 x 120	400	500	1000	2000
16	160	350	2000	500	120	500	320 x 120	500	600	1200	2000
18	160	400	2000	500	120	500	370 x 120	500	600	1200	2000

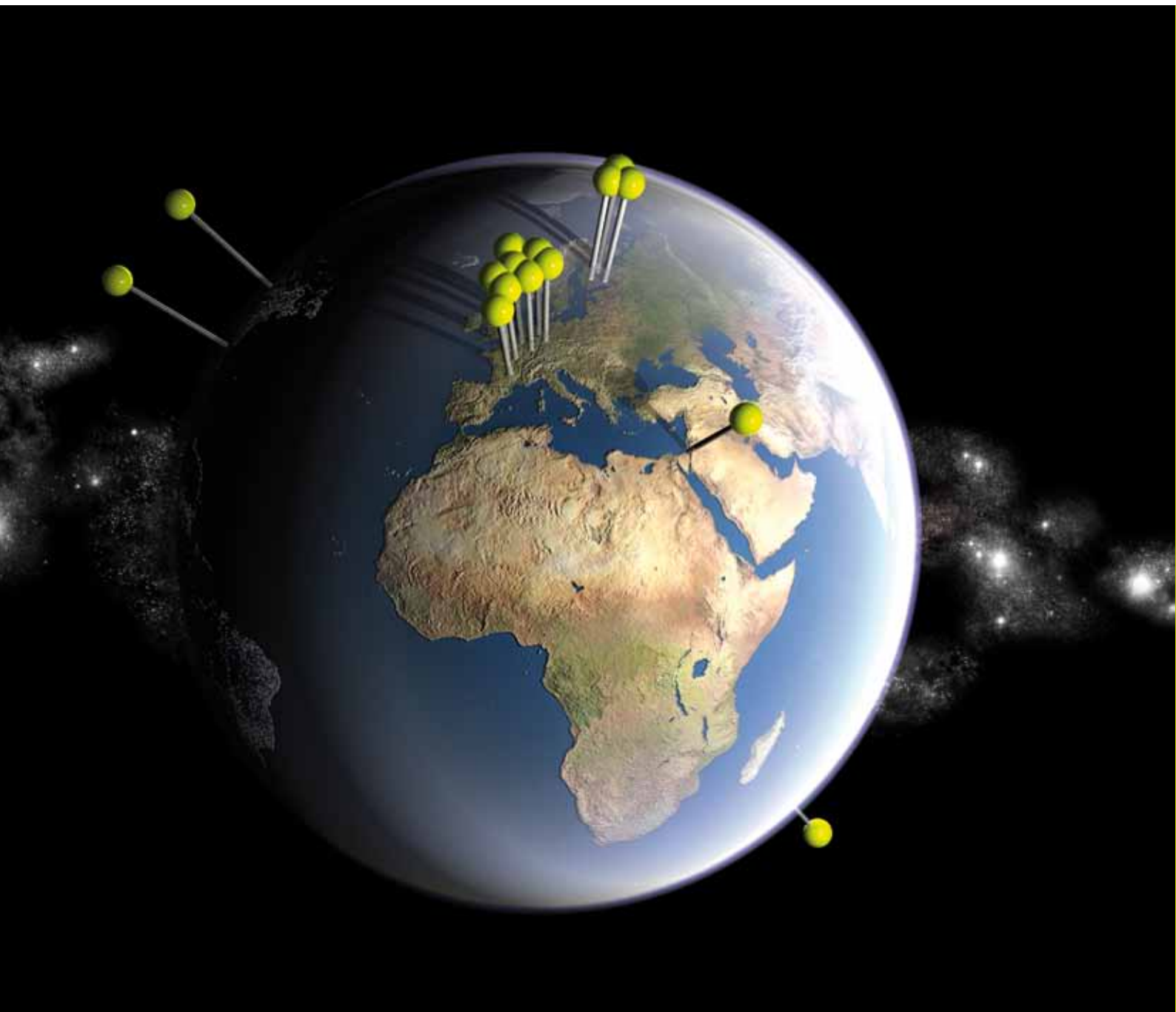
\*For further information on Neliö range and his accessories (light supports, banner support ...), contact your local agent.

Dimensions and technical data for guidance only.

Valmont reserves the right to modify and improve its products from the Wood Collection as deemed necessary, for technical or aesthetic reasons, immediately and without prior notice.

# WOOD

Collection



# Projects



# Kangasniemi

Finland





**Wiljam Sarjalan tie.**  
Kangasniemi, Finland

**Kangasniemi** is a town with a population of 6,000 located in Eastern Finland and part of the South Savonia region.



**Wiljam Sarjala (1901-1977).**

He was a prominent politician in the region of Kangasniemi. He was president of the local council and has achieved a great deal for children's education...



Bow 9m. Single & Double.

Harvested wood Location +60°52'32.88"N, +27°56'45.24"E

Project Location +61°59' 37.21"N, +26°38' 59.48"E



# Valkenburg

The Netherlands





## Valkenburg Station. The Netherlands.

**Valkenburg** is a town with a population of 6,200 in the South of the Limburg province, in the South-eastern Netherlands.



**Valkenburg** is known as a touristic destination, mainly for its Underground Christmas market and its railway station which is the country's oldest and is still in use.



Pallas 8m Urdia & Ro'dia. Inari Park 4m.

Harvested wood Location +61°3'51.12"N, + 27°34'44.40"E

Project Location +50°51'57.03"N, +5°49'42.48"E







**Karisto.**  
Lahti, Finland.

**Lahti** is a city with a population of 100,000 situated on the shore of Lake Vesjärvi, and is the capital city of the Päijät-Häme region.



**Karisto** is an 850-hectare eco-district in the city of Lahti with only wooden constructions.



Sumpsa 8m & 6m.

Harvested wood Location +61°3'51.12"N, + 27°34'44.40"E

Project Location +60°58'28.23"N, +25°46'18.74"E



# Den Helder

The Netherlands





**Den Helder.**  
The Netherlands.

**Den Helder** is a city with a population of 58,000 located in the northernmost point of the North Holland peninsula.



**Den Helder** is home to the Royal Navy since the 19th century, but also to the Koninklijk Instituut Marine, the Royal Netherlands Naval College.



Harvested wood Location +61°26'57.84"N, + 27°2'18.36"E

Project Location +52°56'07.09"N, +4°46'59.21"E



# Omaha

USA





## TD Ameritrade Park. Omaha, USA.

**Omaha** is a city with a population of 409,000 in the state of Nebraska, in the Midwest, on the banks of the Missouri river.



**TD Ameritrade Park** is a baseball park and is the home field of the College World Series until at least 2035.

It was opened on the 19th April 2011 with a game between Creighton and Nebraska. TD Ameritrade Park replaced the Johnny Rosenblatt Stadium as the CWS stadium.



Special **Baseball** 4,5m.

Harvested wood Location +61°27'32.76"N, + 28°48'15.12"E

Project Location +41°16'58.95"N, 95°0'18.09"O







**Ketunkolo.** Kangasniemi, Finland.

**Kangasniemi** is a town with a population of 6,000 located in Eastern Finland and part of the South Savonia region.



**Ketunkolo** is the main residence of an important industry leader in the Kangasniemi region.



Special lighting Bollard 1,2m.

Harvested wood Location + 61°29'13.92"N, + 61°29'13.92"E

Project Location +61°59'35.91"N, +26°38'46.13"E



# Seloncourt

France





FC Sochaux.  
Seloncourt. France.

**Seloncourt** is a town with a population of 5,900 located in the Doubs department in the Franche-Comté region in Eastern France.



The training centre for the FC Sochaux Montbéliard professional football club is located in **Seloncourt**, more specifically at the Bonnot Castle.



Special **Inari** 6,6m.

Harvested wood Location + 64°8'40.56"N, + 30°4'12.00"E

Project Location +47°27'41"N, +6°51'32"E



# Queenstown

Mobyale Zimurde







## Marine Parade. Queenstown. NZ.

**Queenstown** is a resort town with a population of 23,000 in the Otago region in New Zealand, in the South-western part of the South Island.



The Queenstown **Marine Parade** is located on the shores of Lake Wakatipu, a long thin z-shaped lake with spectacular views of nearby mountains.



Special Inari 5m.

Harvested wood Location + 61°13'50.88"N, +26°32'9.96"E

Project Location +45°1'59.64"S, +168°39'39.86"E



# Haifa

Israel





## Hecht sea side Park. Haifa. Israël.

**Haifa** is an Israeli coastal city with a population of 280,000 on the coast of the Mediterranean Sea.



**Hecht Park** is the longest stretch of green space in the city of Haifa. It links the beaches to the city from Dado beach to the Oceanographic Centre.



Special **Ruka** Park 4,5m.

Harvested wood Location	+ 61°29'13.92"N, + 61°29'13.92"N
Project Location	+32°48'17.25"N, +34°58'44.05"E

# Anvers

Belgium

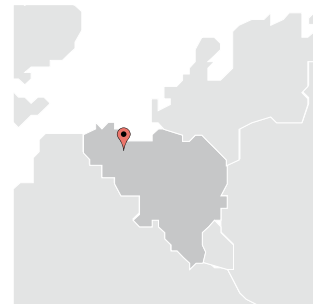






**Meir Palace.**  
Anvers. Belgium.

**Antwerp** is a port with a population of 480,000 located in Flanders and is the capital city of the Antwerp province, one of the three Belgium regions.



The **Meir Palace**, built in 1745, was the residence of the Kings of Belgium during their stay in Antwerp.



Harvested wood Location + 61°3'51.12"N, + 27°34'44.40"E

Project Location +51°13'06.00"N, +4°24'24.00"E



# Saint-Louis

USA





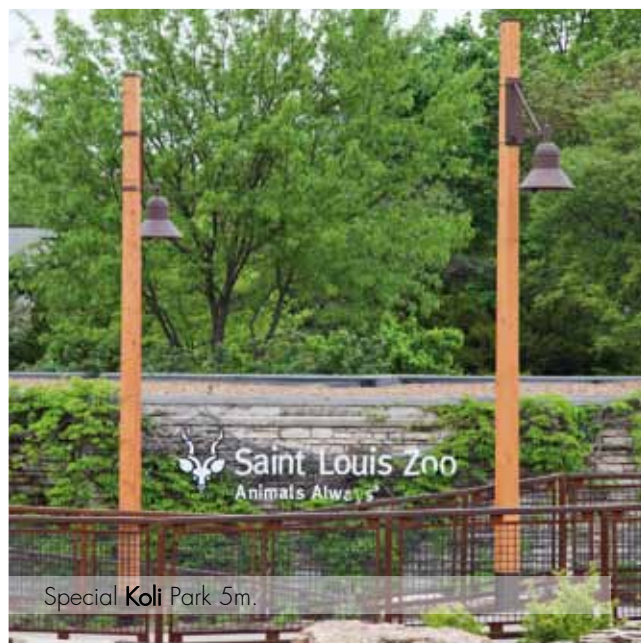


Zoo.  
Saint-Louis. USA.

**Saint Louis** is a city with a population of 350,000 in Missouri, approximately 470 km from Chicago.



The Saint Louis **Zoo** was established for the Saint Louis World's Fair. It is now recognised as a leading zoo in research on species conservation. It has many animals such as the Polar Bear, the African Wild Ass or the Cheetah.



Special Koli Park 5m.

Harvested wood Location + 64°12'13.32"N, + 29°14'53.16"E

Project Location +38°38'00.62"N, +90°17'29.98"O







## The Mercureaux road. Besançon. France.

**Besançon** is a city with a population of 117,900 located in the Doubs in the Franche-Comté region. It is part of the Rhine-Rhône metropolis.



With this **Mercureaux road**, it is easier to cross the city from North to South.



Harvested wood Location + 64°18'46.08"N, + 28°31'10.20"E

Project Location +47°12'54.17"N, +6°01'19.86"E







## Seegarten Sörpesee. Sundern. Germany.

**Sundern** is a town with a population of 30,000 located in the North Rhine-Westphalia, approximately 10 km from Arnsberg.



The **Sörpesee** is an artificial lake used by water sportsmen and campers.



Harvested wood Location +62°22'43.32"N, +26°47'58.20"E

Project Location +51°21'4.41"N, +7°57'24.71"E



# Issoire

France





**La coulée verte.**  
Issoire. France.

**Issoire** is a town with a population of 14,900 located in the Puy de Dôme in the Auvergne region.



**"La coulée verte"** is used by pedestrians and cyclists as it links the town centre to the Mas amusement park.  
No more excuses for using a car!

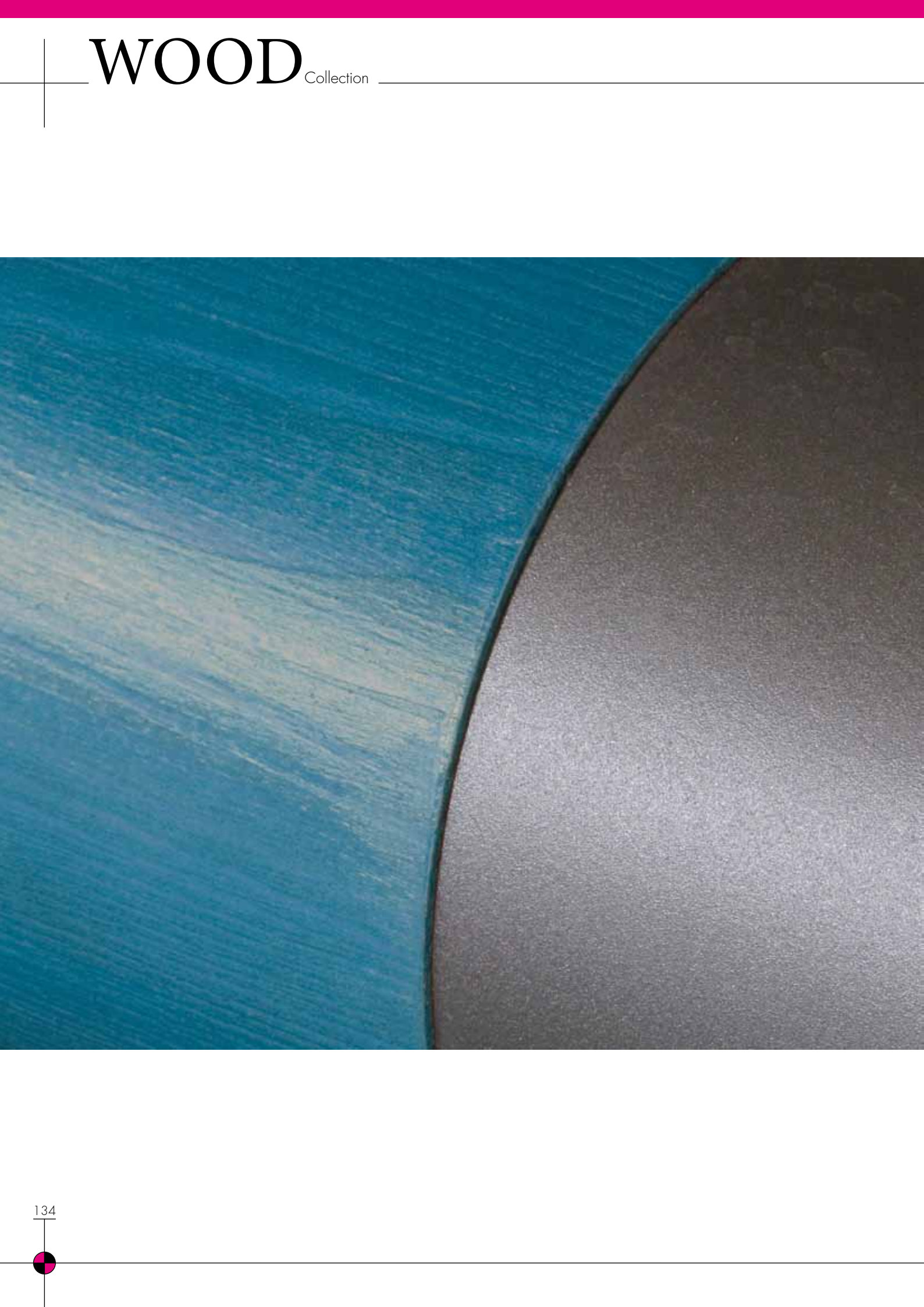


Inari Park 5m.

Harvested wood Location + 64°8'40.56"N, + 30°4'12.00"E

Project Location +47°27'41"N, +6°1'32"E





# WOOD

Collection





*The final touch.....*

## Wood stain...

Whether to enhance the natural character of the product or to give it a more contemporary look, the wood stains are used to bring out the material quality while protecting it from the environment...



Onyx.



Slate.



Topaz.



Saffron.



Cinnamon.



Nutmeg.



Cocoa.

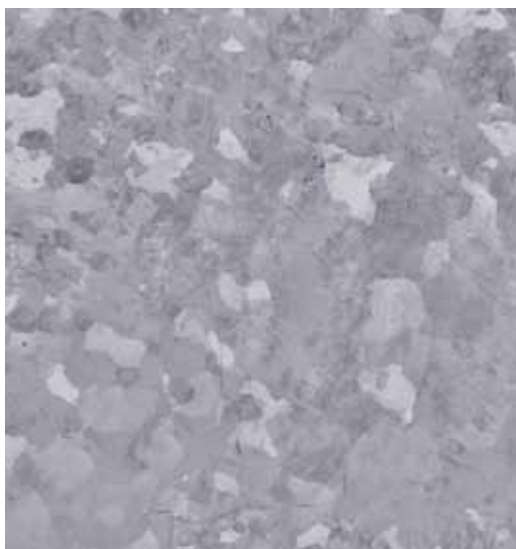


Caramel.



Vanilla.

Due to printing techniques, the nuances presented may differ from reality.



## Powder coating...

From frosted shades with a sandy texture to silvery metallic colours, and of course a variety of RAL shades, the finish of galvanised steel components has a direct impact on the appearance of the final product...



City 02.



Fjord 04.



Fjord 05.



Canyon 01.



Canyon 02.



City 01.



Toundra 01.



City 03.



Toundra 02.

Due to printing techniques, the nuances presented may differ from reality.



# Atmospheres

## Mineral...

Graphic overtones of the elements...

### Wood Colour Chart :

Onyx/ Slate/ Topaz.

### Metal Colour Chart :

City 02/ Fjord 04/ Fjord 02.



## Spicy...

Shades with warm tones...

### Wood Colour Chart :

Saffron/ Cinnamon/ Nutmeg.

### Metal Colour Chart :

Canyon 01/ Canyon 02/ City 01.



## Sweet...

Softness from the combination of safe tones...

### Wood Colour Chart :

Cocoa/ Caramel/ Vanilla.

### Metal Colour Chart :

Toundra 01/ City 03/ Toundra 02.







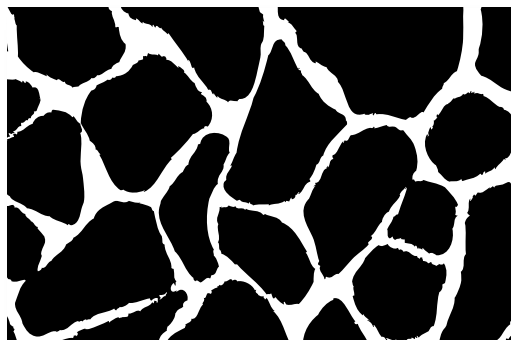
## Laser engraving...

Whether to state the project identity or to provide a unique appearance, laser engraving offers the finishing touch which will customise your product from our Wood Collection...

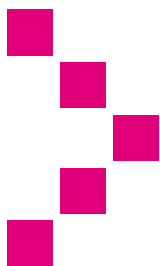
Using your city's logo or a repeated design, your product will be a reflection of your creativity...

### Specifications :

- \* Files in black & white, jpeg format.
- \* Maximum size 135x135mm on a flat surface (square-section).
- \* Maximum size 100x135mm on a flat surface (circular-section).

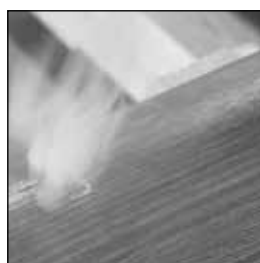
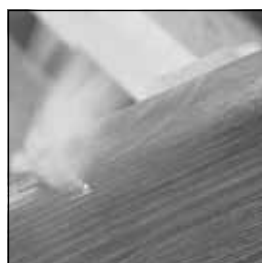
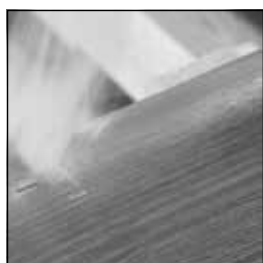
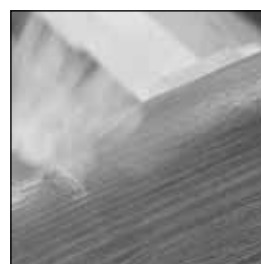
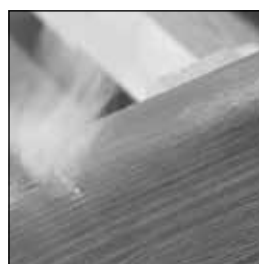
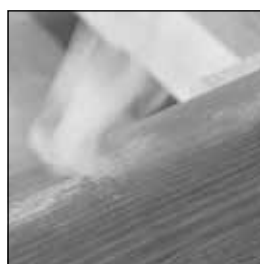
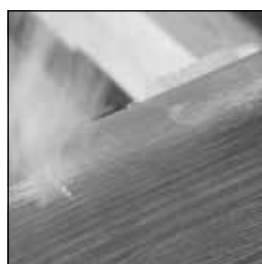
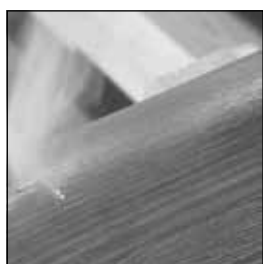
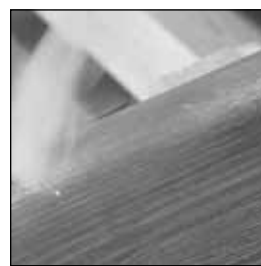
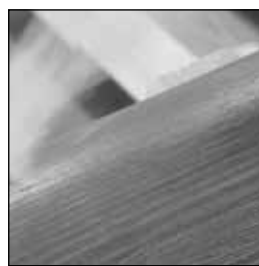






**Example.**

Laser engraving the  
Tehomet logo...





# WOOD

Collection



# Appendices



## INSPECTA CERTIFICATE

No. 5674-01

Inspecta Certification has granted this certificate to

**Tehomet Oy  
Parikkala**

The certificate verifies that the chain of custody of  
wood-based raw material complies with standards

**PEFC COC:2006 (Technical Documentation Annex 4)  
PEFC LOGO USE:2008 (ST 2001)**

Certification covers

**Manufacturing of decorative wooden lighting columns.**

The certificate is valid on condition that the chain of custody remains  
in compliance with the aforementioned standards and the General Regulations ABC 750.  
The validity of the certificate can be checked on the Internet at [www.sertifiointi.fi](http://www.sertifiointi.fi)

The certificate is issued on 2009-08-14.

The certificate is valid until 2014-08-14.

Anne Qvintus, Managing Director



INSPECTA CERTIFICATION, P.O. BOX 94, MIESTENTIE 3, FI-02151 ESPOO

**Sample**

  
**Certificate**

Signatory declares that **Trees for Travel**  
neutralizes the emissions of gas of :

**Valmont International**  
For the sale of ZEP / Zero Emission Poles  
(climate neutral masts & brackets ) to

For this purpose the emissions of an amount of:  
**XXXX kg CO<sub>2</sub>**

are sustainable set in the Climate Nut Project in Mali,  
and by doing so the emissions in making the ZEP / Zero Emission Pole (in aluminum, steel or wood)  
do not contribute to the enhancement of the greenhouse effect.

Order number Valmont: D2034971 - D2034971  
Project: EnBW - XXXXXXXXXXXX

  
Dieren, 23 januari 2011  
Trees for Travel Stichting

**Sample**

  
[www.treesfortravel.nl](http://www.treesfortravel.nl)

  
drs. ing. W.R.G. Hagedoorn  
president



Certificatenummer 00ZZ002/Z/10062302



## EC DECLARATION OF CONFORMITY

The undersigned, representing the

**Metsäliitto Cooperative  
Finnforest, Kuningaspalkki**

P.O. Box 26  
FI-19601 HARTOLA

and

**Hartola mill**

herewith declares that the

**Glued laminated timber**

Characteristic	Performance declaration
Species	Spruce, Pine
Range of thickness	90 - 315 mm
Range of height	180 - 2050 mm
Adhesive	Type I
Mechanical properties	GL28h
Natural durability against biological attack	4
Reaction to fire	D-s2, d0
Formaldehyde emission	E2

is in conformity with the provisions of the EC Directive 89/106/CEE (Construction Products Directive - CPD) when intended to be used for structural applications, and that Annex ZA of

**EN 14080:2005**

has been applied.

The notified body VTT has issued the EC-Certificate of conformity  
0809-CPD-0527.

Hartola 13.1.2010

Jan Räsänen  
Mill Manager





## Certification

This is to certify that the glued laminated timber manufactured by Metsäliitto Cooperative Finnforest at the Kuningaspalkki mill located in Hartola Finland fulfils the requirements given in the European standard EN 386 for service class 3. This certification is restricted to glulam that is:  
marked with the CE-mark making reference to the EC-certificate of conformity 0809-CPD-0527 or alternatively marked with the VTT certificate number 167/02, made of lamellas of which the maximum thickness is 35 mm and made of lamellas of which the pith at the both outermost lamellas are orientated outwards.

HARTOLA 20.1.2010  
  
Jan Räsänen  
Mill Manager

Metsäliitto Osuuskunta Kuningaspalkki Kurpanpellontie FI-19600 HARTOLA	Puhelin 01046 56199 Telekopio 01046 56190 Alv FI01163004	Metsäliitto Osuuskunta Tuulikuja 2 02100 Espoo, Finland	Y-tunnus 0116300-4 Kotipaikka Helsinki
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