Overhead Contact Line support masts

THENEW TECHNICAL & AESTHETICAL SOLUTION





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# 

Overhead Contact Line support masts















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# The X profile for OCL masts

The new technical and aesthetical solution

The place of the tramway is expanding in the cities. The success of a tram line results from a complex equilibrium, linked to its socio-economic stakes, its accessibility, the mobility of inhabitants, the quality of its urban integration and the reflection between cgeneral contractor and construction managers.

A tram line also «promotes associated» elements of architecture and design essential to its proper functioning, such as stations and furniture to ensure the comfort and safety of users.

Among these emergences, the tramway poles have a significant visual impact on the urban landscape, due to the multiplicity of masts standing in the perspective of buildings and landscapes. Unfortunately, due to budget constraints, the design quality of these masts is sometimes neglected. So, with this in mind,, we have developed a new industrial

#### solution :

the X profile made of steel that combines economy, technique and aesthetics and which offers a great opportunities to the actors of the trams to reconcile these masts with their environment. The OCL X masts are suitable to all projects that impose a reasonable economy, while requiring quality and expressiveness.











# OCL X Sections

Sizing according to the requisite effort Table of sections and standards of effort

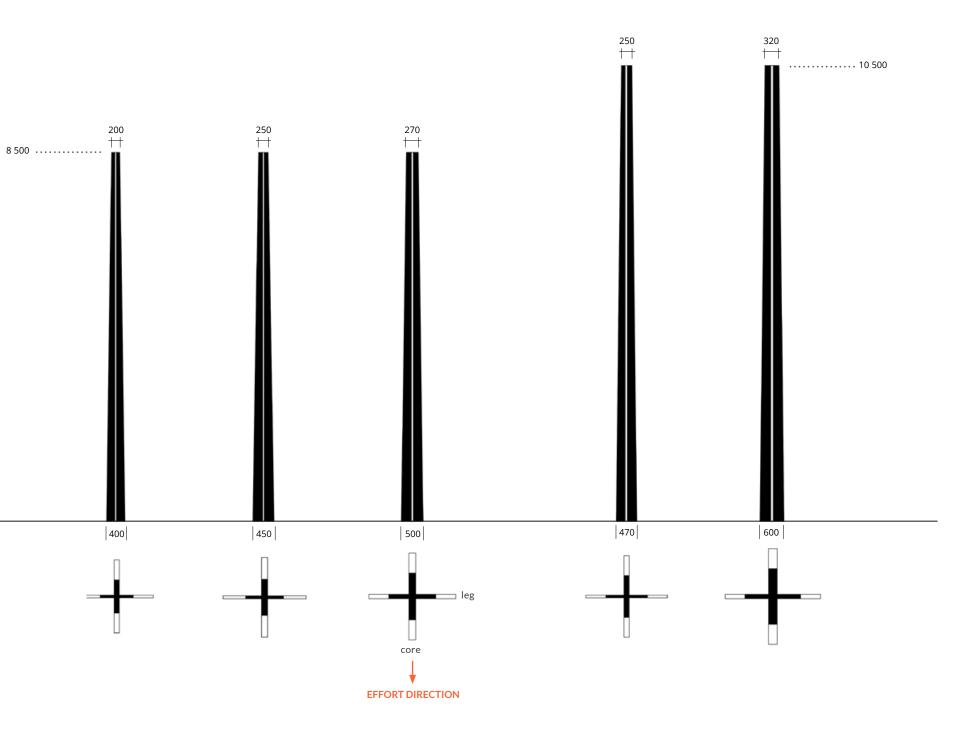
The OCL-X masts are defined in 2 standard heights : 8m50 / 10m50 et 5 classes d'efforts. They are dimensioned according to standard NF C 11-201/A1.

The top deflection of the mast is limited to 1.5% under the service load conditions without wind. The conical cross masts are composed of a main core and 2 legs. The resulting effort must be applied in the main axis of the mast.

(An angle of 30 ° maximum is allowed)

Height (mm)	Force (daN)	base width (mm)	top width (mm)	core width (mm)	legs width (mm)
8500	400	400	200	15	10
8500	800	400	200	25	15
8500	1200	400	200	35	20
8500	2200	450	250	40	25
8500	3200	500	270	40	30
10500	400	470	250	35	20
10500	800	470	250	35	20
10500	1200	470	250	35	20
10500	2200	600	320	40	30
10500	3200	600	320	40	30







# The 3 generics OCL X

Variations of the mast the most refined to the most expressive one

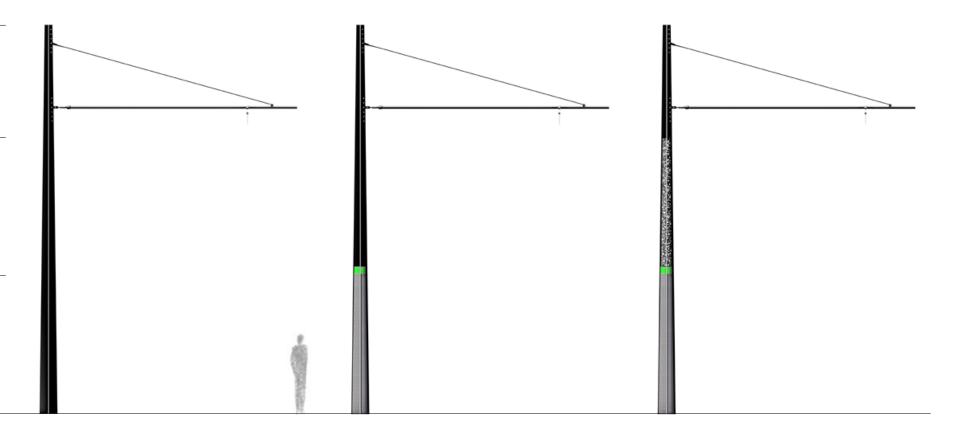
On the basis of the core X profile perfectly adapted to common sections of tram lines, round and square claddings are available in aluminum sheet, on the lower part up to 3 meters, and in the upper part up to 6 meters. These options offer a wide expressive potential that resonates with the identity of the places crossed. In this catalog, we offer various technical solutions and claddings that can be enriched and personalized by the owners and the project management.



8,50 M -----

6M \_\_\_\_

3M \_\_\_\_





X profile without cladding for common sections



Lower round and square cladding Protection + pattern



Upper and lower round and square cladding Protection + pattern







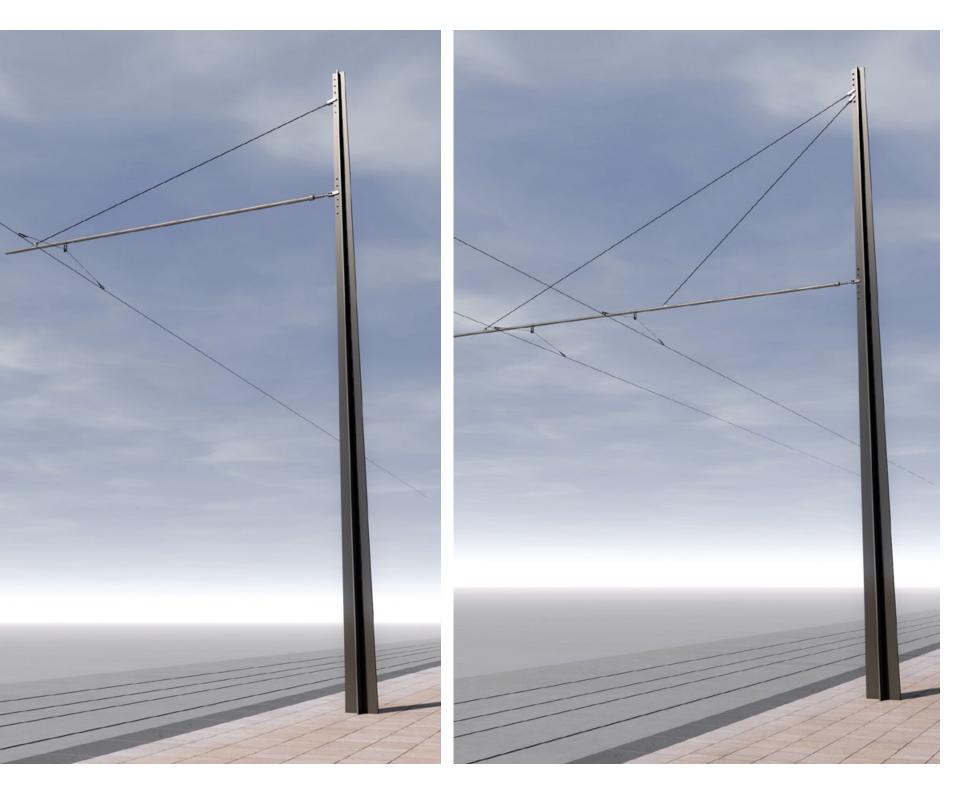
### OCL X basic lateral

X profile without cladding for common sections

STRUCTURE - X Steel S355. Machine-Welded conical structure. Stainless steel connecting piece between the X profile and the arm. Surface Preparation: Steel grit Blasting SA2.5. Bi-Component Epoxy Primer. Polyurethane finish Bi-components. Durability 12-15 years in C3 exterior.



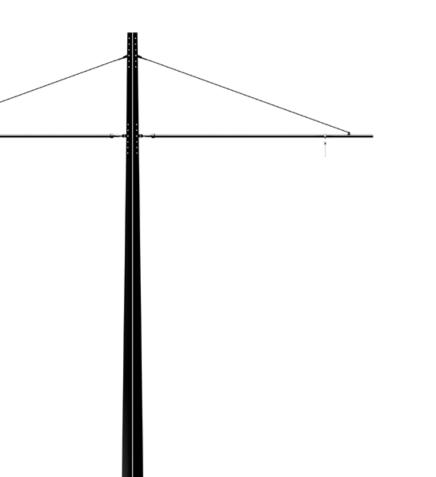




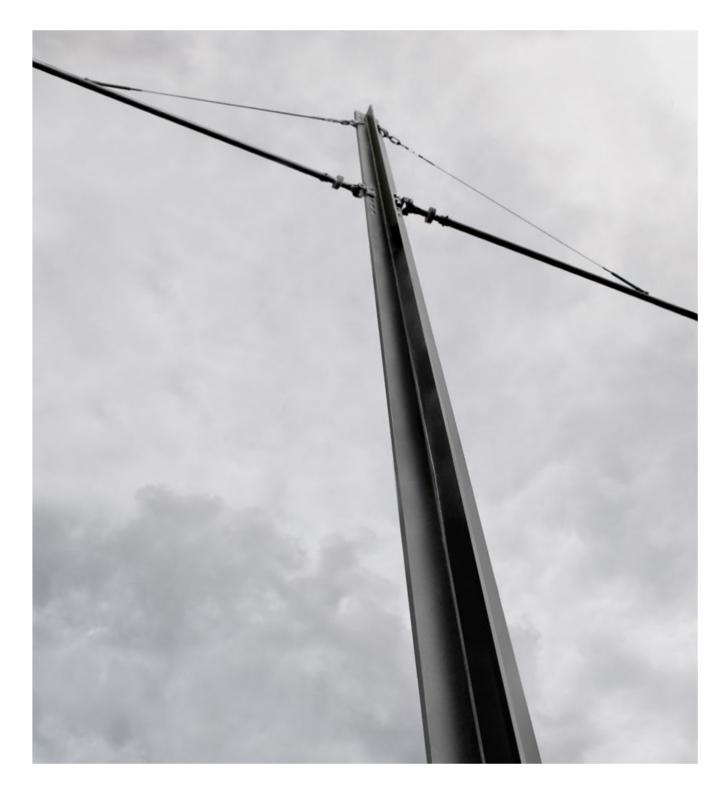
### OCL X basic axial

X profile without cladding for common sections

STRUCTURE - X
Steel S355.
Machine-Welded conical structure.
Stainless steel connecting piece between
the X profile and the arm.
Surface Preparation: Steel grit Blasting SA2.5.
Bi-Component Epoxy Primer.
Polyurethane finish Bi-components.
Durability 12-15 years in C3 exterior.







### cladding PERFORATIONS





### OCL XLround perforated

Lower section cladded with the aluminium round perforated sheet accessory & lighted beacon

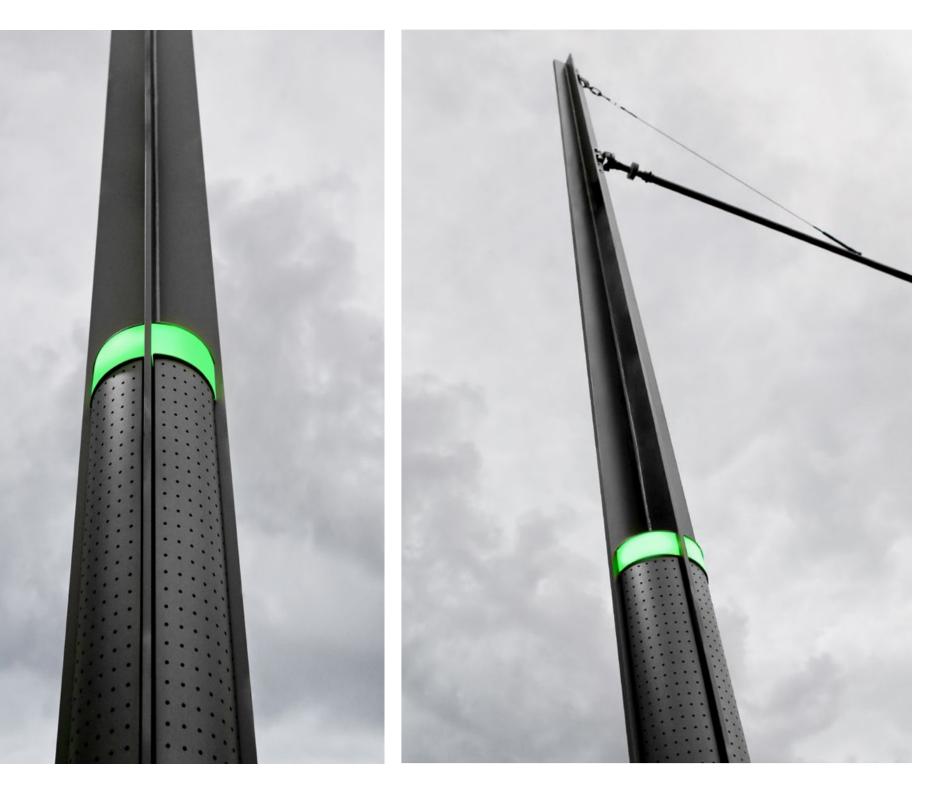
STRUCTURE - X Steel S355. Machine-Welded conical structure. Stainless steel connecting piece between the X profile and the arm. Surface Preparation: Steel grit Blasting SA2.5. Bi-Component Epoxy Primer. Polyurethane finish Bi-components. Durability 12-15 years in C3 exterior.

#### CLADDING

Lower perforated round-conical cladding in aluminium, thickness 3mm with powder coating finish. Inspection door equipped with anti-theft magnetic lock, clipped on the structure without visible screws. RGBW LED beaconing through a diffusing PMMA panel.







### OCL XLround axial perforated

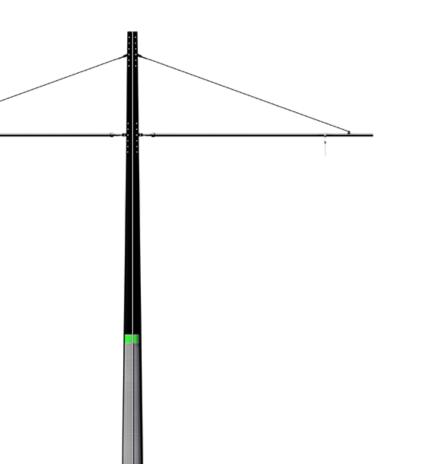
Lower section cladded with the aluminium round perforated sheet accessory & lighted beacon

STRUCTURE - X
Steel S355.
Machine-Welded conical structure.
Stainless steel connecting piece between the X profile and the arm.
Surface Preparation: Steel grit Blasting SA2.5.
Bi-Component Epoxy Primer.
Polyurethane finish Bi-components.
Durability 12-15 years in C3 exterior.

#### CLADDING

Lower perforated round-conical cladding in aluminium, thickness 3mm with powder coating finish. Inspection door equipped with anti-theft magnetic lock, clipped on the structure without visible screws. RGBW LED beaconing through a diffusing PMMA panel.







### OCL XXLround perforated

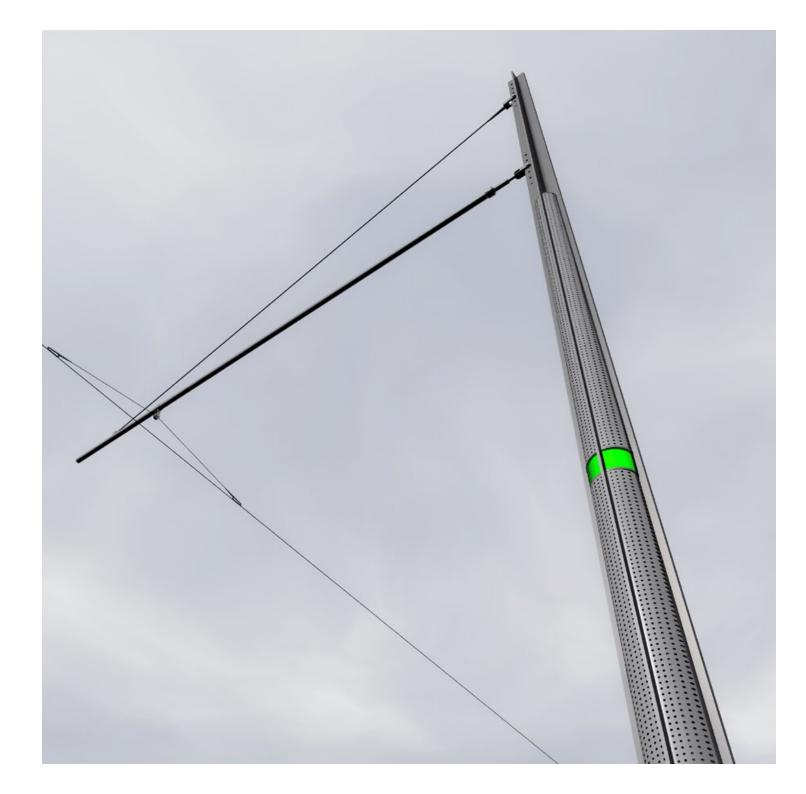
Upper and lower sections cladded with the aluminium round perforated sheet accessory & lighted beacon.

STRUCTURE - X
Steel S355.
Machine-Welded conical structure.
Stainless steel connecting piece between the X profile and the arm.
Surface Preparation: Steel grit Blasting SA2.5.
Bi-Component Epoxy Primer.
Polyurethane finish Bi-components.
Durability 12-15 years in C3 exterior.

#### CLADDING

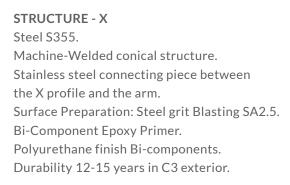
Upper and lower perforated round-conical cladding in aluminium, thickness 3mm with powder coating finish. Inspection door equipped with anti-theft magnetic lock, clipped on the structure without visible screws. RGBW LED beaconing through a diffusing PMMA panel.





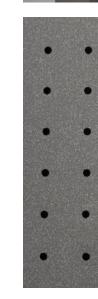
# OCL XLsquare perforated

Aluminium square perforated sheet accessory on the lower part & lighted beacon



#### CLADDING

Lower perforated square-conical cladding in aluminium, thickness 3mm with powder coating finish. Inspection door equipped with anti-theft magnetic lock, clipped on the structure without visible screws. RGBW LED beaconing through a diffusing PMMA panel.



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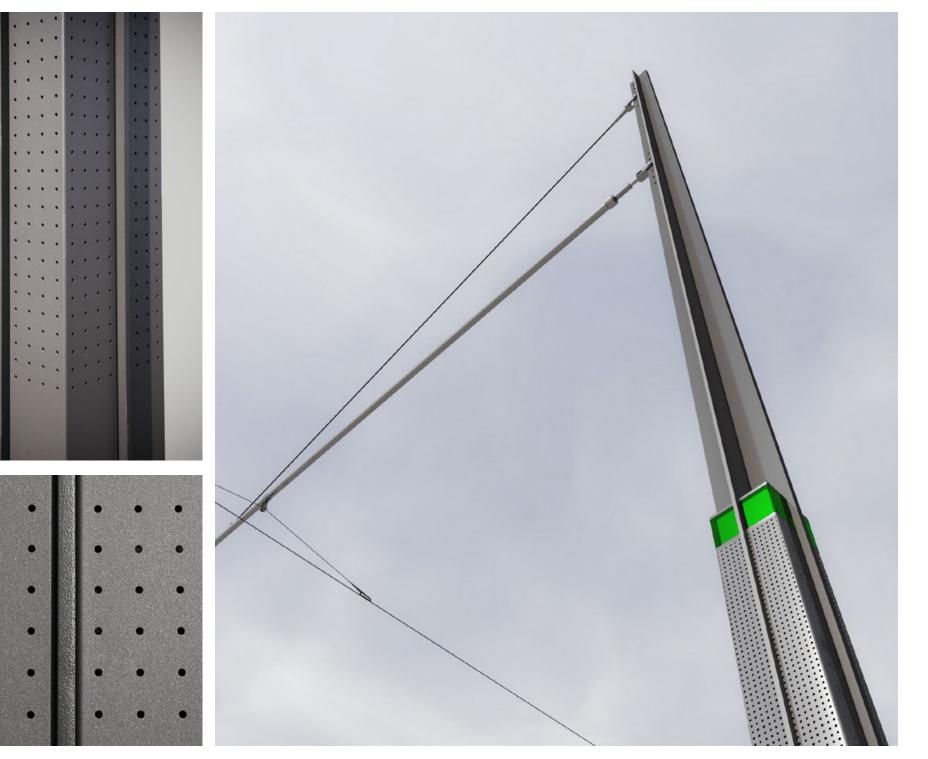
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### OCL XXL square perforated

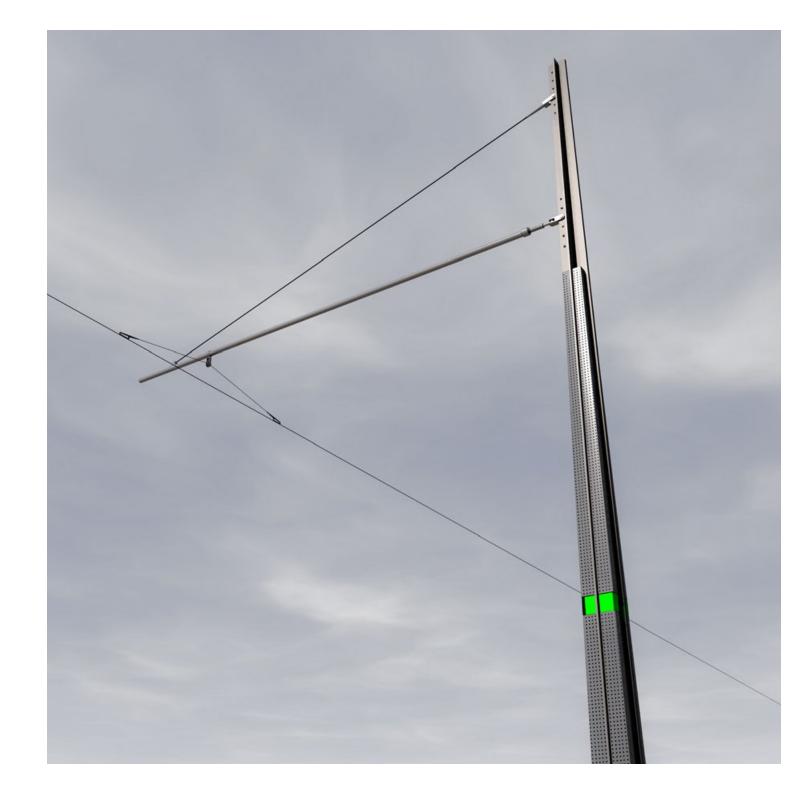
Aluminium square perforated sheet accessory on the upper and lower parts & lighted beacon

STRUCTURE - X
Steel S355.
Machine-Welded conical structure.
Stainless steel connecting piece between the X profile and the arm.
Surface Preparation: Steel grit Blasting SA2.5.
Bi-Component Epoxy Primer.
Polyurethane finish Bi-components.
Durability 12-15 years in C3 exterior.

#### CLADDING

Upper and lower perforated square-conical cladding in aluminium,, thickness 3mm with powder coating finish. Inspection door equipped with anti-theft magnetic lock, clipped on the structure without visible screws. RGBW LED beaconing through a diffusing PMMA panel.







### Flower





# OCL XLround Flower engraved

Aluminium round-conical accessory, with Flower pattern engraving on the lower part & lighted beacon

STRUCTURE - X Steel S355. Machine-Welded conical structure. Stainless steel connecting piece between the X profile and the arm. Surface Preparation: Steel grit Blasting SA2.5. Bi-Component Epoxy Primer. Polyurethane finish Bi-components. Durability 12-15 years in C3 exterior.

#### CLADDING

Lower engraved round-conical cladding in aluminium,, thickness 3mm with powder coating finish. Inspection door equipped with anti-theft magnetic lock, clipped on the structure without visible screws. RGBW LED beaconing through a diffusing PMMA panel.









### OCL XXLround Flower engraved

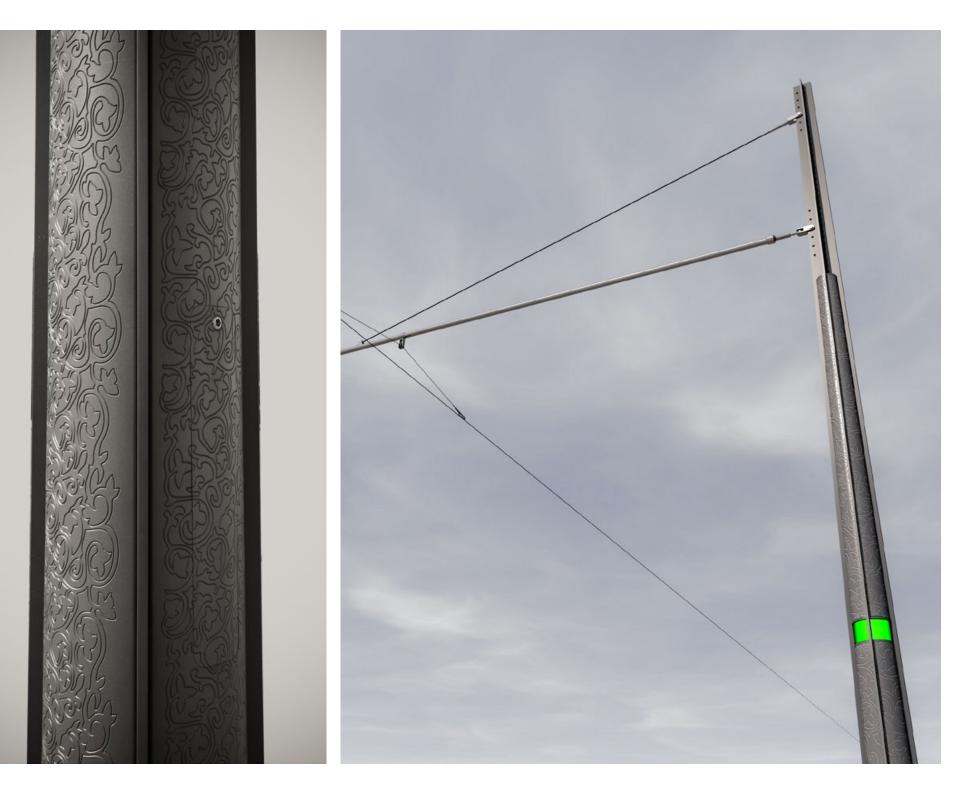
Aluminium round-conical accessory, with Flower pattern engraving on the upper and lower parts & lighted beacon

STRUCTURE - X
Steel S355.
Machine-Welded conical structure.
Stainless steel connecting piece between
the X profile and the arm.
Surface Preparation: Steel grit Blasting SA2.5.
Bi-Component Epoxy Primer.
Polyurethane finish Bi-components.
Durability 12-15 years in C3 exterior.

#### CLADDING

Upper and lower engraved round-conical cladding in aluminium, thickness 3mm with powder coating finish. Inspection door equipped with anti-theft magnetic lock, clipped on the structure without visible screws. RGBW LED beaconing through a diffusing PMMA panel.





cladding WOOD







OCL XXL wooden square

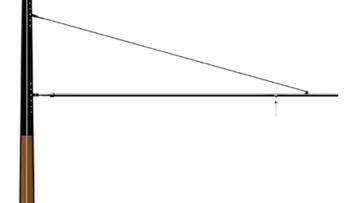
mixed square cladding on the lower and upper sections, composed of a perforated aluminium sheet & glued laminated wood

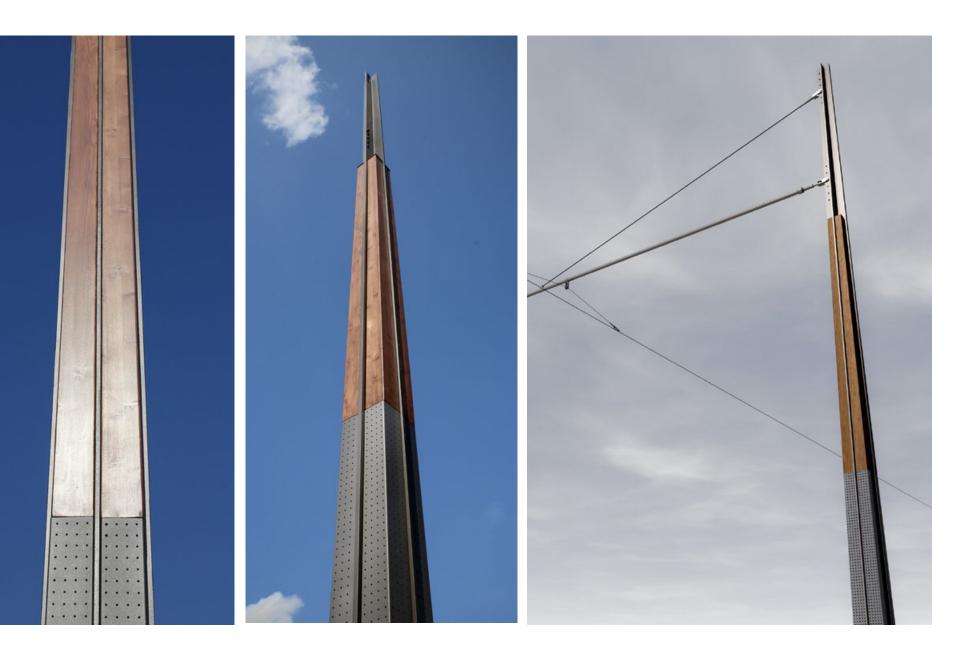
STRUCTURE - X
Steel S355.
Machine-Welded conical structure.
Stainless steel connecting piece between the X profile and the arm.
Surface Preparation: Steel grit Blasting SA2.5.
Bi-Component Epoxy Primer.
Polyurethane finish Bi-components.
Durability 12-15 years in C3 exterior.

#### CLADDING

Lower square-conical perforated cladding in aluminium, thickness 3mm with powder coating finish, without visible screws. Upper square conical cladding in stained wood, clipped on aluminum structure, without visible screws







OCL XXL wooden round

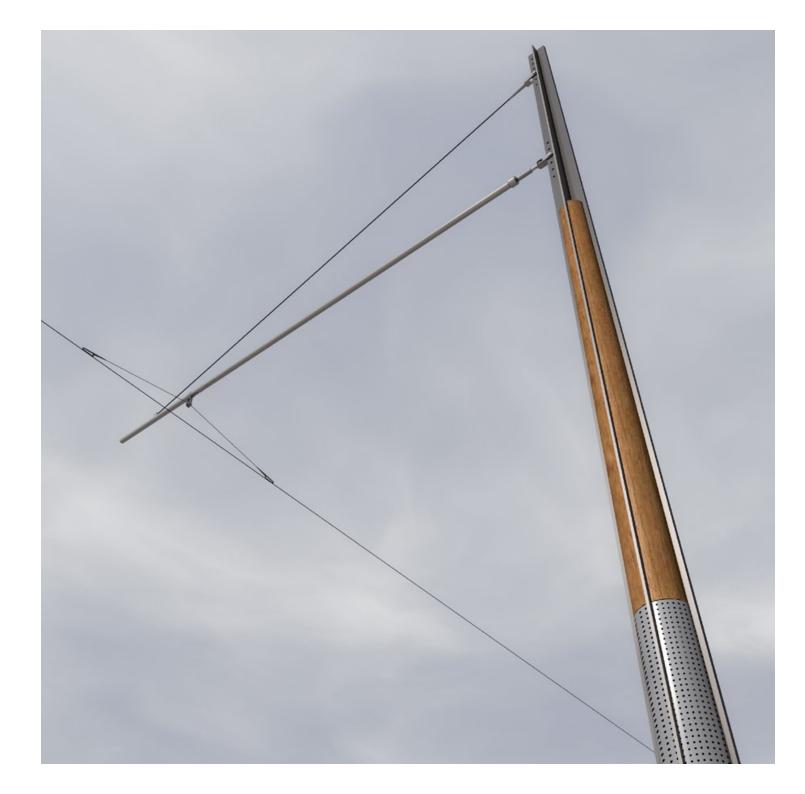
mixed round cladding on the lower and upper sections, composed of a perforated aluminium sheet & glued laminated wood

STRUCTURE - X
Steel S355.
Machine-Welded conical structure.
Stainless steel connecting piece between the X profile and the arm.
Surface Preparation: Steel grit Blasting SA2.5.
Bi-Component Epoxy Primer.
Polyurethane finish Bi-components.
Durability 12-15 years in C3 exterior.

#### CLADDING

Lower round-conical perforated cladding in aluminium, thickness 3mm with powder coating finish, without visible screws. Upper round-conical cladding in stained wood, clipped on aluminum structure, without visible screws.





### cladding DECORATIVE PATTERNS

# Flower light





### OCL XXLround Flower light

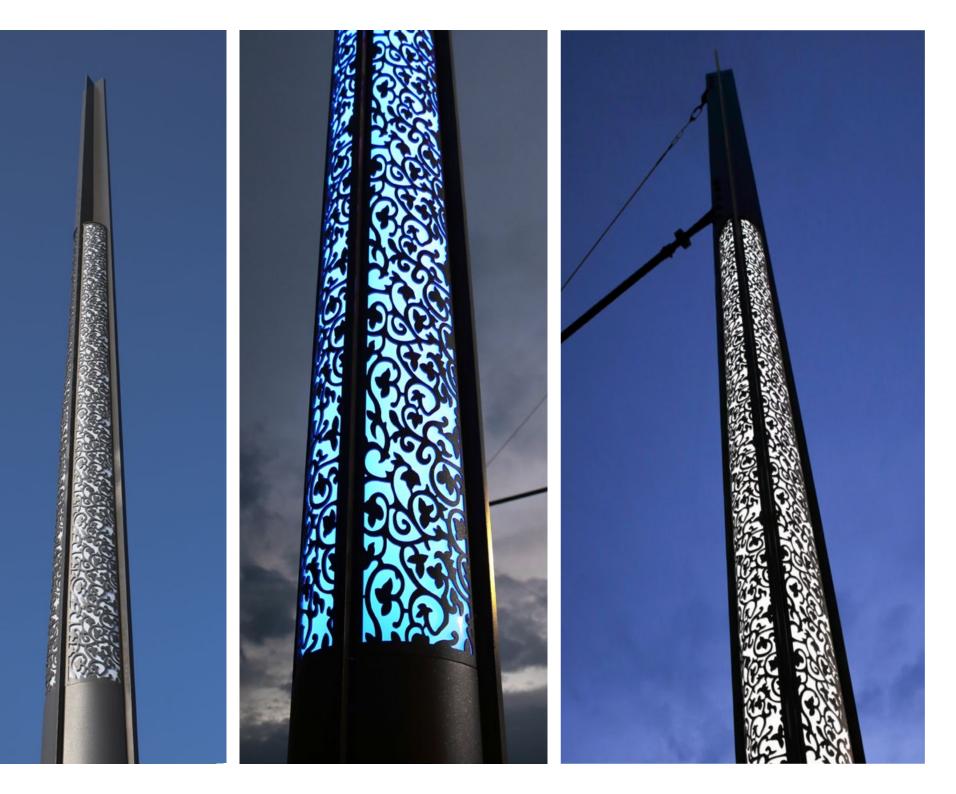
Round-cladding with laser cut pattern and diffusing PMMA panel. Programmable RGBW LED backlighting.

STRUCTURE - X
Steel S355.
Machine-Welded conical structure.
Stainless steel connecting piece between the X profile and the arm.
Surface Preparation: Steel grit Blasting SA2.5.
Bi-Component Epoxy Primer.
Polyurethane finish Bi-components.
Durability 12-15 years in C3 exterior.

#### CLADDING

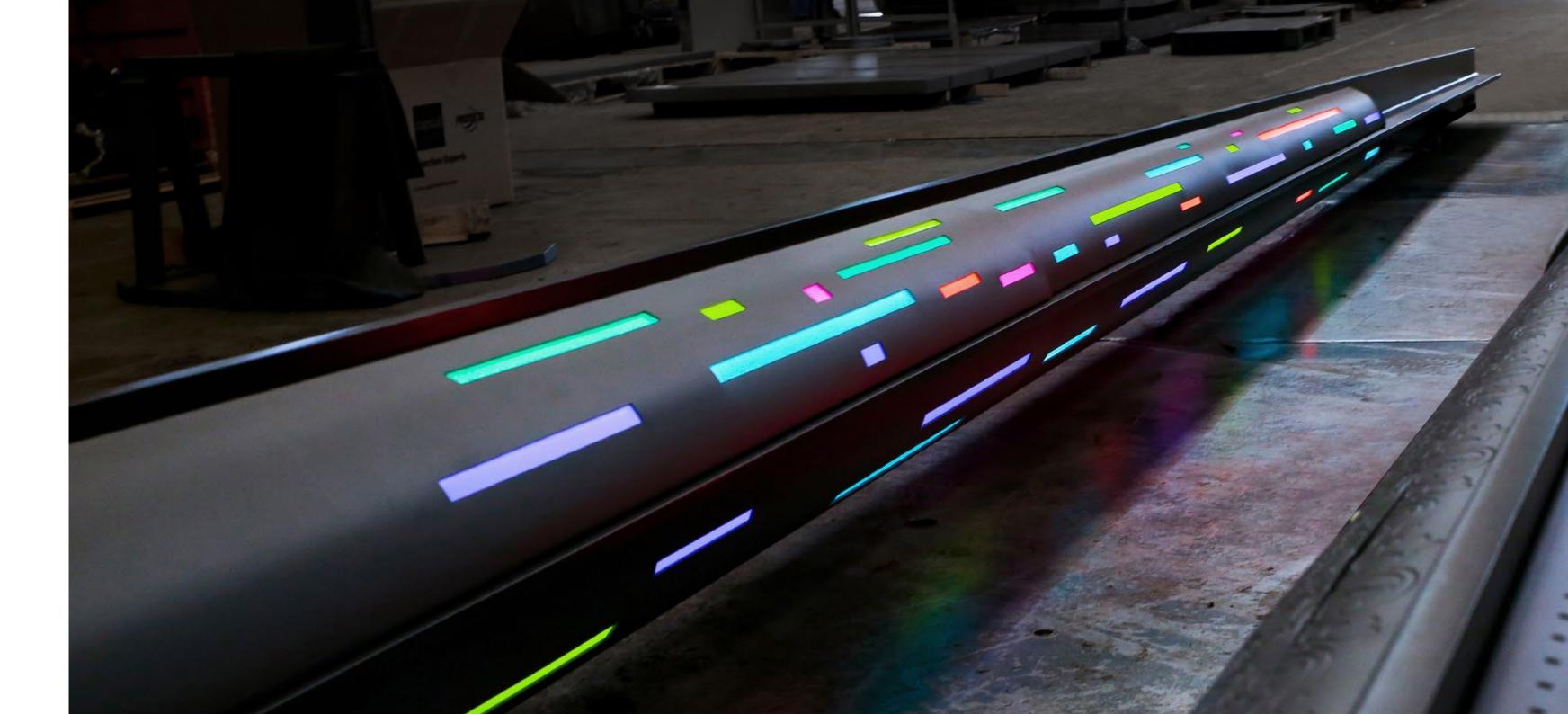
Lower and upper round-conical cladding in aluminium, thickness 3mm with laser cut pattern and powder coating finish. Inspection door equipped with anti-theft magnetic lock, clipped on the structure without visible screws RGBW LED beaconing through a diffusing PMMA panel.





### cladding GEOMETRIC CUTTING

# Traffic light





# OCL XXLround Traffic light

Round-cladding with laser cut pattern and diffusing PMMA panel. Programmable RGBW LED backlighting.

STRUCTURE - X Steel S355. Machine-Welded conical structure. Stainless steel connecting piece between the X profile and the arm. Surface Preparation: Steel grit Blasting SA2.5. Bi-Component Epoxy Primer. Polyurethane finish Bi-components. Durability 12-15 years in C3 exterior.

#### CLADDING

Lower and upper round-conical cladding in aluminium, thickness 3mm with laser cut pattern and powder coating finish. Inspection door equipped with anti-theft magnetic lock, clipped on the structure without visible screws RGBW LED beaconing through a diffusing PMMA panel.







### THE MIXED MASTS







# OCL X mixed with lighting

### Integration of catalog lanterns or bespoke luminaires

STRUCTURE - X
Steel S355.
Machine-Welded conical structure.
Stainless steel connecting piece between the X profile and the arm.
Surface Preparation: Steel grit Blasting SA2.5.
Bi-Component Epoxy Primer.
Polyurethane finish Bi-components.
Durability 12-15 years in C3 exterior.

#### CLADDING

Lower engraved round-conical cladding in aluminium, thickness 3mm with powder coating finish. Inspection door equipped with anti-theft magnetic lock, clipped on the structure without visible screws RGBW LED beaconing through a diffusing PMMA panel.

#### LIGHTING ARM

Lateral bracket in machine-welded aluminum, powder coated, fixed on the steel structure





# OCL X mixed with lighting

Integration of catalog lanterns or bespoke luminaires







# multifunctional OCL X

examples of signage elements integration







Multifunctional OCL X example with suspended luminaire.



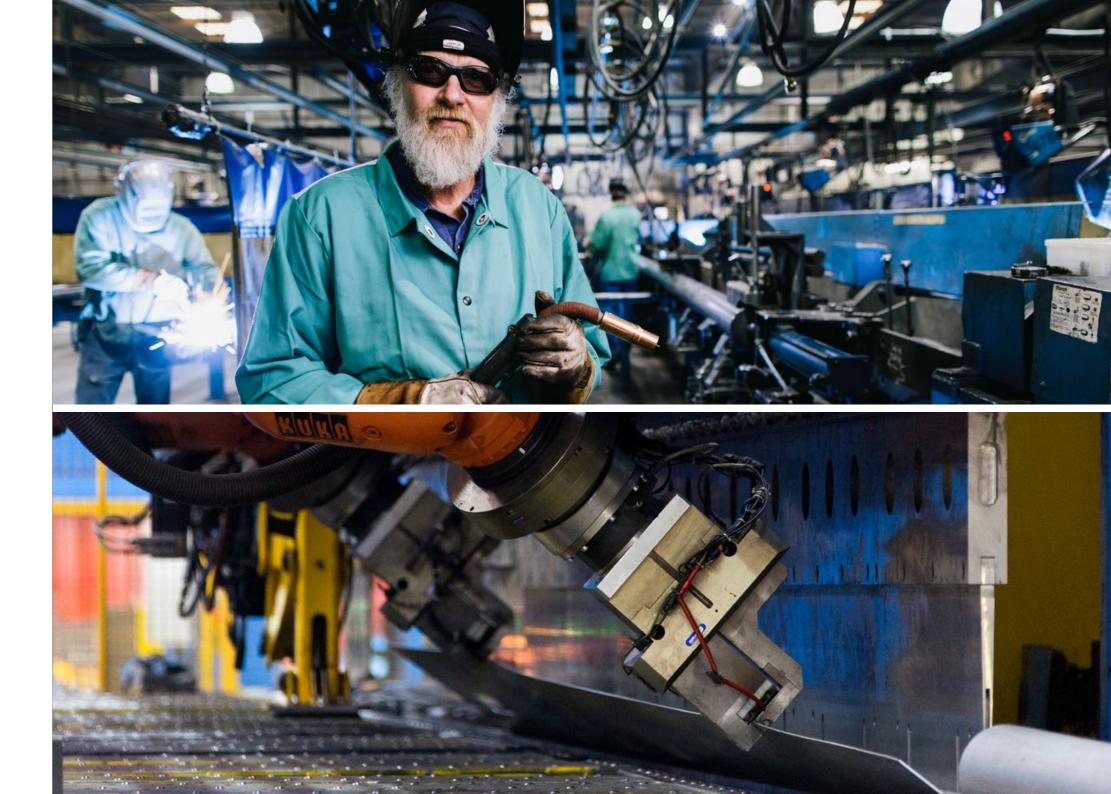
### **A TEAM**

The strength of Valmont France lies above all, in the team spirit that drives more than 300 employees.

A state of mind deeply ingrained in the DNA of the company and which can be summed up in a few words «Satisfy and respect our customers».

### **VISION & STRATEGY**

More than a half century of massive investments in people, technologies, industrial equipment, computing and robotics has enabled Valmont France to become the French leader in designing and manufacturing of Urban Lighting Fixtures in Steel, Aluminum & Wood.





### **OUR HISTORY**

FROM THE STATUS OF CHALLENGER TO THE ONE OF LEADER ON HIS MARKET

1956 : Creation of S.E.R.M.E.T.O. in Cusset (03) by Mr. ROUGIER.

1974 : Creation of the commercial network SERMETO.

1985 : Purchase of the aluminum factory TUBALCO (Rive de Gier (42)) belonging to PECHINEY-CEGEDUR.

1989 : Acquisition of the majority of the shares by the VALMONT INDUSTRIES group.

2004 : Fusion of the Charmeil and Rive de Gier sites into a new entity : Valmont France.

2008-2009 : Robotization of major production steps (welding flange & folding).

2009 : Creation of an integrated polyester paint application plant (zero rejection).

2010 : Implementation of Lean Management process Continuous improvement.

2013 : Implementation of CSR & QSE.

2014 : Launching of a dynamic around Urban Hybridization.

- 2015 : First catalog (Functional Collection) with CO<sup>2</sup> emission integrated.
- 2016 : Realization of the important NDIA project in Qatar.





### SUSTAINABLE DEVELOPMENT

Valmont is gradually implementing a CSR (Corporate Social Responsibility) approach integrating the 3 components of sustainable development : Economic Societal Environmental

Environmentar

Our goal is also to obtain the lowest possible carbon footprint across all materials. Valmont is already able to provide the CO2 footprint for each of its products. Moreover, with its geographical location in the center of the territory, Valmont France limits its CO2 emissions pertaining to transportation.

Once the carbon footprint is evaluated, Valmont offers its customers the option of neutralizing  $CO^2$  with the choice of a carbon offset.



«FLOWER 2018» . Courtesy Sovann Kim.

### OUR MARKETS

LIGHTING Functional masts and candelabra / High mast / Decorative / Tailor-made.

MOBILITY A.C.L. Supports (Aerial Contact Line) / S.L.T. (Tricolor Illuminated Signage).

TELECOM Monotube and Lightpole.

ENERGIES LV-MV-VHV supports

### OUR LOCATIONS

Valmont is comprised of more than 80 production sites and employs over 10,000 people who share the same goal of excellence, on six continents. Valmont France is part of the Infrastructure Products Division (ESS), which has more than 3,000 employees, making it the largest segment of the Valmont Group.





### LEGAL NOTICE

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