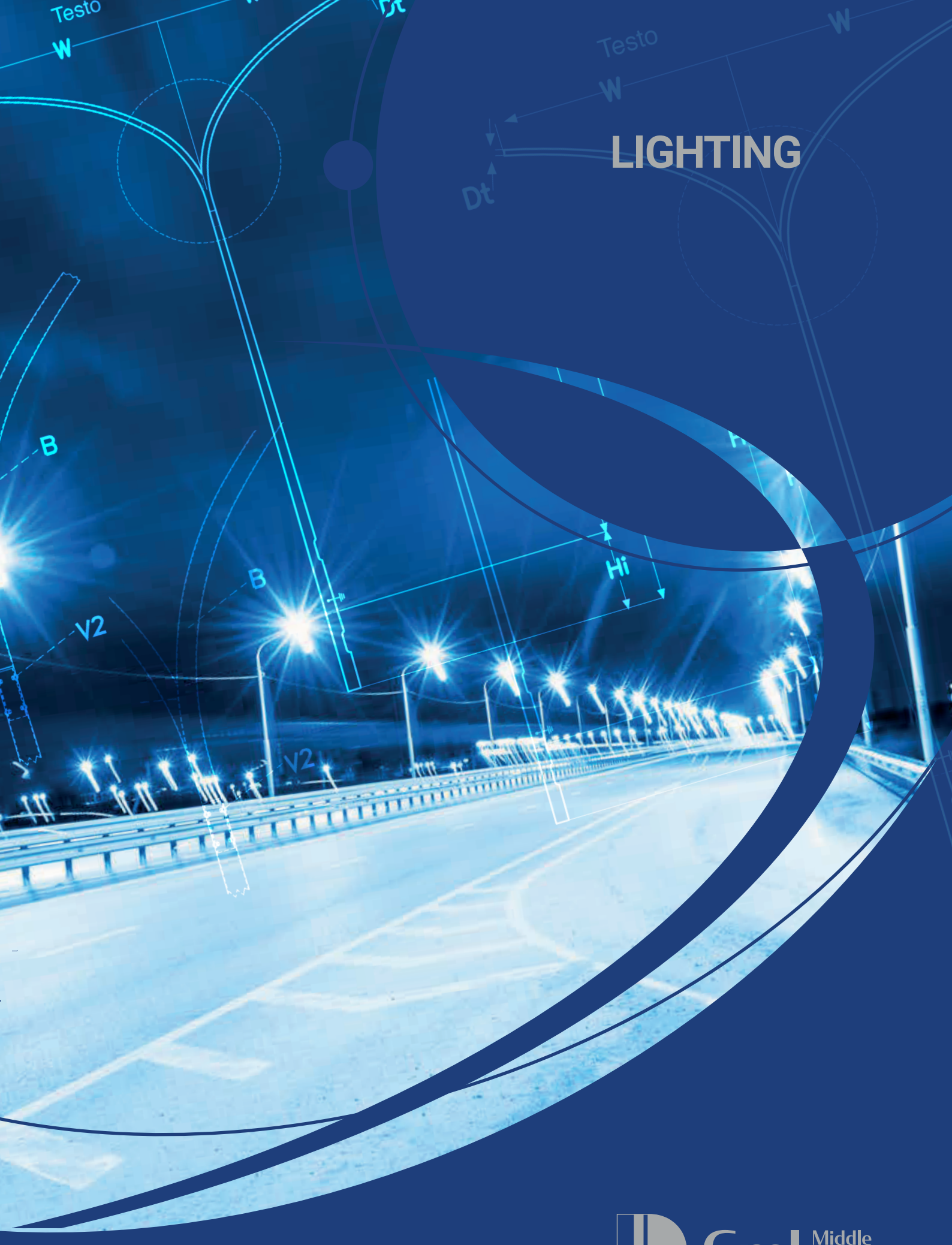
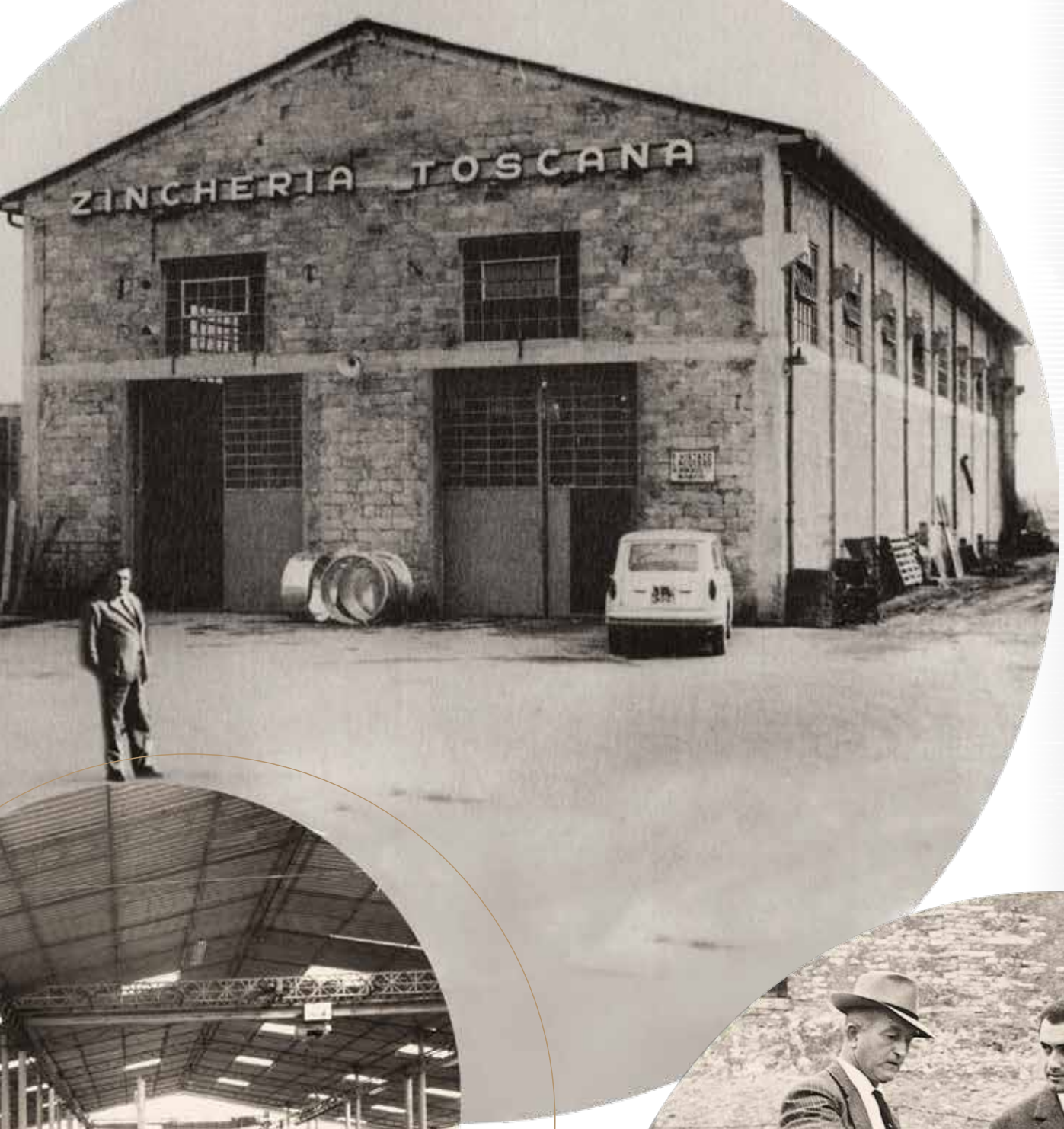
LIGHTING



Cml Middle East
سي ام ال الشرق الأوسط

Contents


ZINCHERIA TOSCANA

Our History

Our origins

Del Carlo Group is a conglomerate of four leading Italian companies in the fields of galvanization, industrial painting and the manufacturing of steel supports, with a total production area of 170,000 square meters.

The consolidated success of Del Carlo Group results from a long tradition for excellence, as well as a proven track record of market success evidenced by the longevity of the group's first hot- dip galvanizing unit and pole production factory which trace their roots all the way back to 1950 and 1960 respectively. The affinities and the values of the individual companies have merged to create a global group which is at present supporting some of the world's leading companies in the energy, telecommunication, railway and infrastructure sectors.

A GROUP IN CONSTANT EVOLUTION

Investment in research and development, application of advanced technologies, expertise and passion - these are the values that continue to support Del Carlo Group's evolution. Created through the vision and action of Lorenzo del Carlo, Del Carlo Group has since grown to become a reference in the Italian market within the sectors of public lighting, electricity transmission and distribution, railway infrastructures, galvanization and industrial painting.

Del Carlo Group's market leadership is assured by the dedication and competence of the expanded Del Carlo family, which in addition to its founder Lorenzo and son Alfredo includes passionate and enthusiastic managers.

A group of people united by common ideals where each individual is free to express their full potential and capabilities without reserve.

lorenzo del carlo metalzinco macofer cml

DEL CARLO GROUP IN THE WORLD

Local presence, global vision. Del Carlo Group is structured to assure a close relationship with clients worldwide while maintaining efficient and timely service.

The Group's multinational presence continues to grow beyond European borders - including emerging markets in Africa and the Middle East.

MACOFER

LORENZO DEL CARLO

METALZINCO

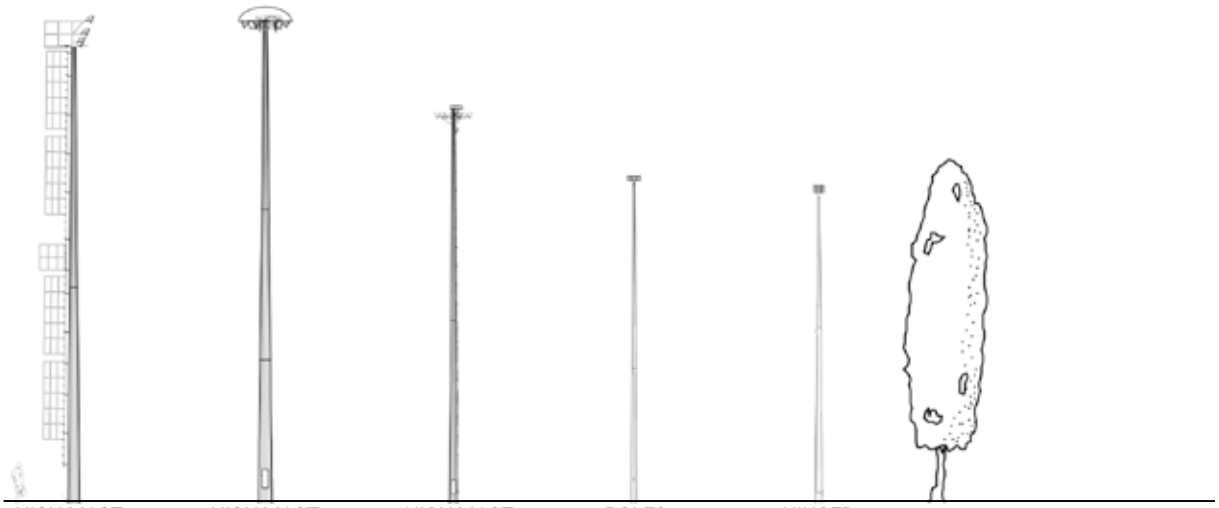
CML

Group's plants
Sales presence

COMPANY PROFILE

CML is the leading Italian company in the production of steel lighting poles and accessories. Our leadership in the sector is a result of continued improvements of our engineering and production processes as well as the development of innovative solutions. Starting from the production of centrifuged reinforced concrete poles for electrical energy transmission over 5 decades ago, CML has since diversified its product offerings to become a major European manufacturer of steel supports in the illumination sector. The keys to this success are CML's consistent emphasis on high quality and relentless focus on customer-oriented solutions and services. Today, we serve both, big and small installers of illumination plants and numerous companies working in the fields of urban lighting design as well as electrical wholesalers, electrical distribution companies and municipal utilities.

BIG STRUCTURES



HIGH MAST WITH FIXED PLATFORM

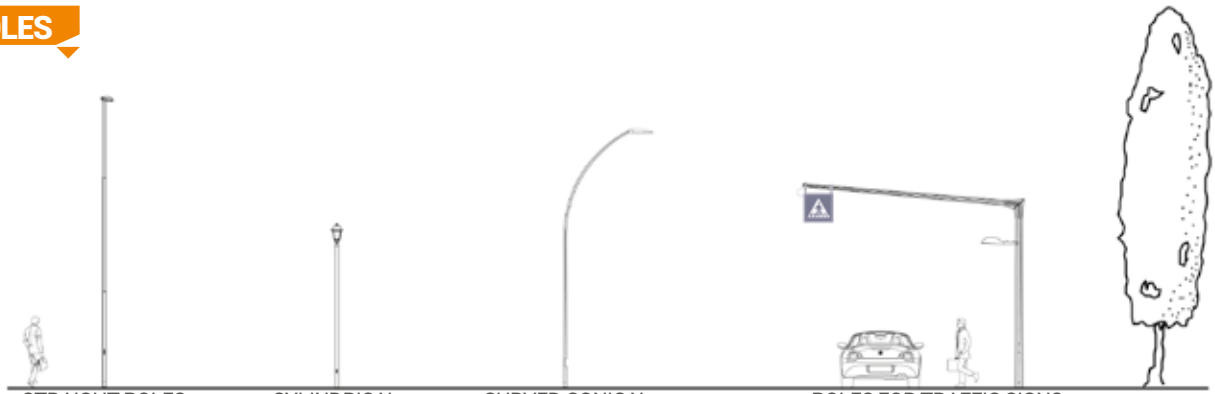
HIGH MAST WITH MOBILE CROWN

HIGH MAST WITH MOBILE CROWN AND RAIL

POLES FOR LARGE AREAS

HINGED POLES

POLES



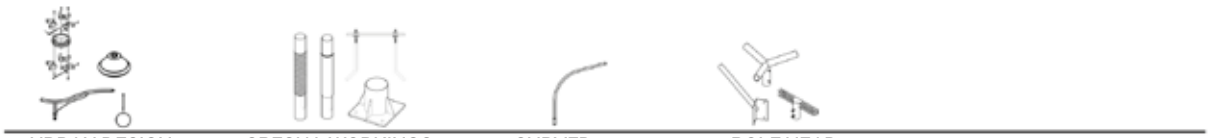
STRAIGHT POLES (STEPPED, CONICAL, OCTAGONAL)

CYLINDRICAL POLES

CURVED CONICAL POLES

POLES FOR TRAFFIC SIGNS (STEPPED, OCTAGONAL, POLYGONAL)

ACCESSORIES



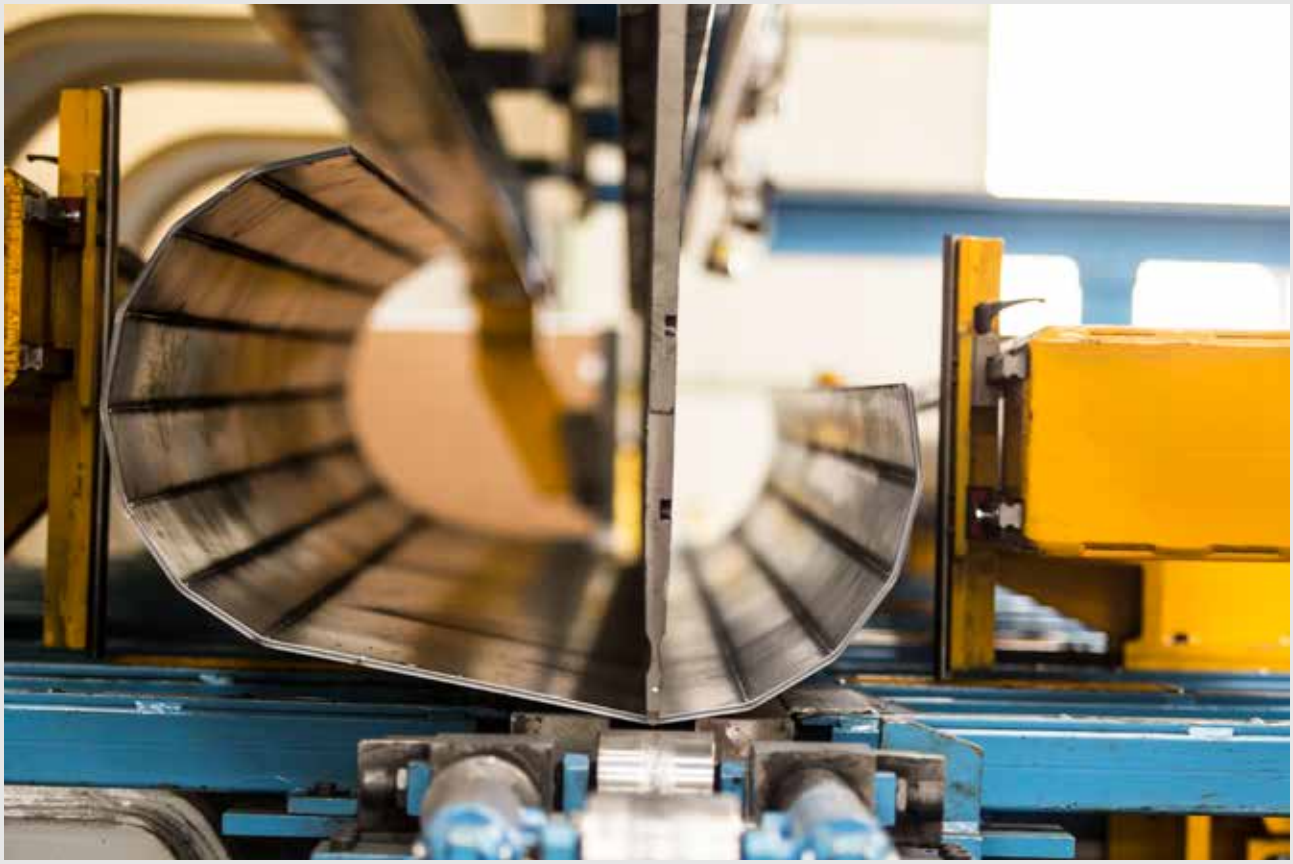
URBAN DESIGN ACCESSORIES

SPECIAL WORKINGS AND APPLICATIONS

CURVED ARMS

POLE HEAD FITTINGS, BRACKETS

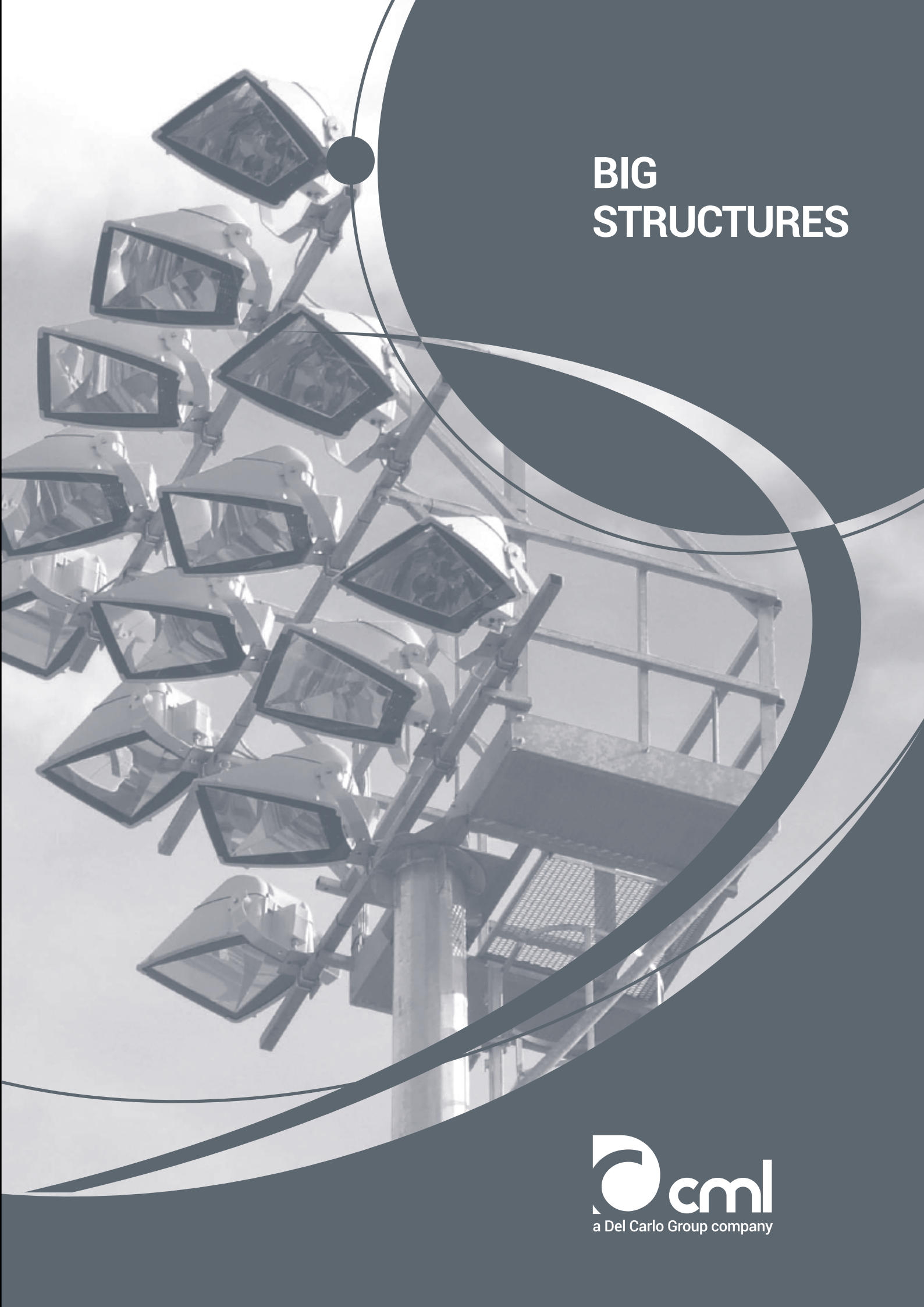
Steel sheet cutting with high definition plasma machine



Steel sheet stamping process in a 14 mt automatic bending machine

Automatic and manual weldings

sample finished product



BIG STRUCTURES

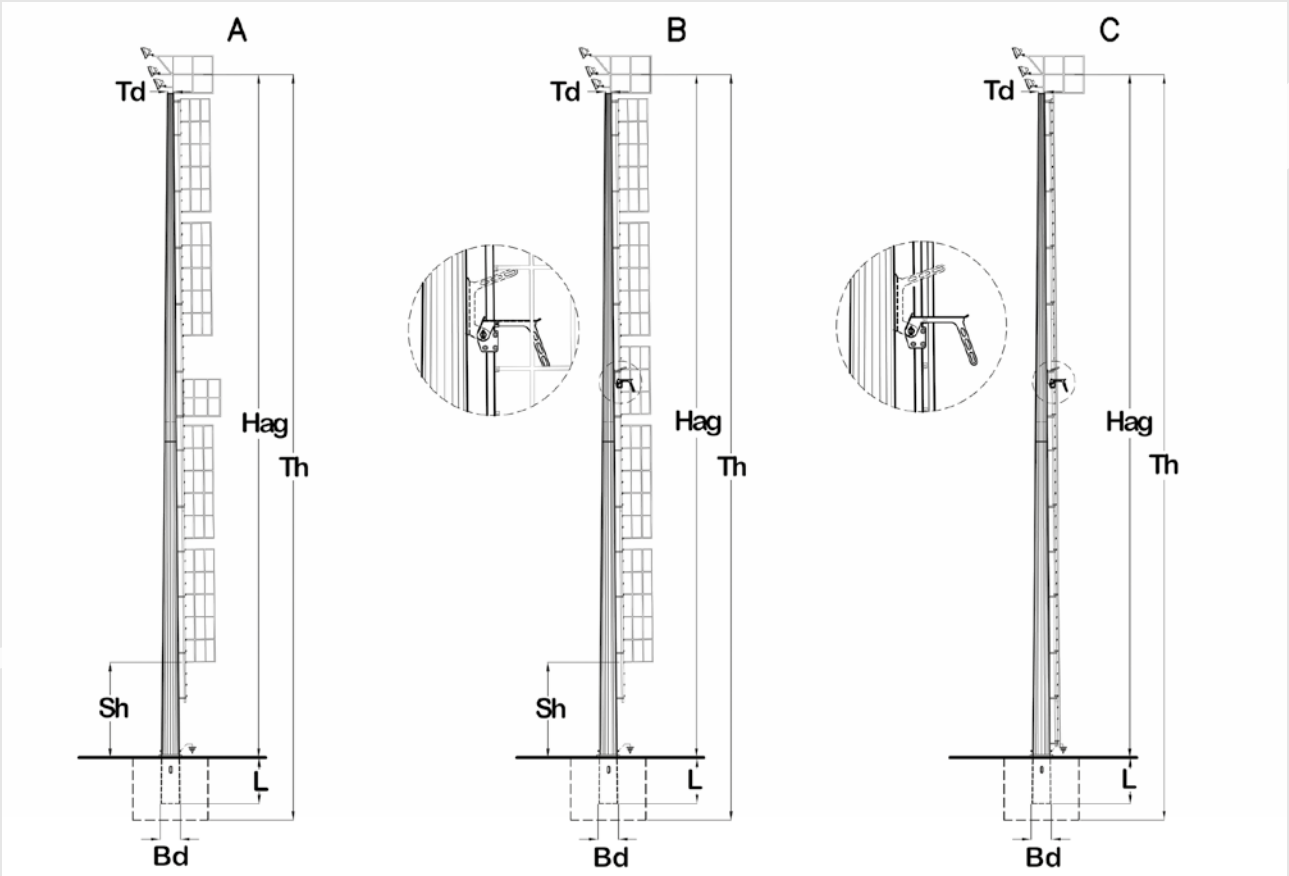
cml
a Del Carlo Group company


BURGER KING
KING DRIVE

HIGH MASTS WITH FIXED PLATFORM

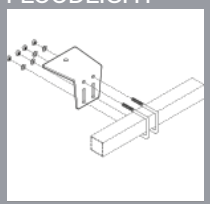
HIGH MASTS WITH FIXED PLATFORM

The high masts with fixed platform are structures designed and built to sustain floodlights and operating accessories.
The support structure is made of press-formed sheet steel longitudinally welded: the sections must be mounted by means of forced coupling. There is a platform on the top of the structure that delimits the working area and supports the floodlights. The fixed platform is accessed via a ladder fixed to the mast.
The ladder can either be a sailor ladder (with a protection cage), which corresponds to our models "A" and "B", or of the type "without protection" (equipped with an approved fall arrester), our model "C".
In order to allow the operator to rest during ascent or descent, the mast is equipped with one or two resting platforms positioned at a distance no more than 10 meters between each other.



ACCESSORIES

BRACKET FOR ONE FLOODLIGHT



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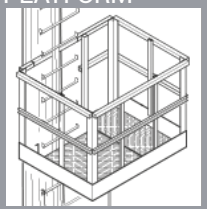
OBSTRUCTION LIGHTS

Page 19

RESTING PLATFORM



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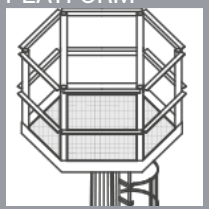
FIXED PLATFORM



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TP RANGE EMBEDDED HIGH MASTS VERSION “A” AND “B”

(INCLUDES: MASTS • LADDERS • PROTECTION CAGE• ANTI-INTRUSION DOOR)

HIGH MAST CODE	TOTAL HEIGHT TH, M	HEIGHT ABOVE GROUND HAG, M	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	No.OF SHAFTS	THICKNESS T, MM	WEIGHT W, KG
CTPI1600	17,2	16	1,2	380	140	2	4-4	710
CTPI1610	17,2	16	1,2	449	143	2	4-4	750
CTPI1620	17,2	16	1,2	489	163	2	4-4	810
CTPI1800	19,2	18	1,2	440	160	2	4-4	895
CTPI1810	19,2	18	1,2	489	163	2	4-4	935
CTPI1820	19,2	18	1,2	561	194	2	4-4	1.040
CTPI2000	21,5	20	1,5	500	180	2	4-4	1.030
CTPI2010	21,5	20	1,5	561	194	2	4-4	1.125
CTPI2020	21,5	20	1,5	622	194	2	4-4	1.196
CTPI2030	21,5	20	1,5	734	245	2	4-4	1.385
CTPI2500	26,7	25	1,7	640	200	3	5-4-4	1.750
CTPI2510	26,7	25	1,7	734	245	3	5-4-4	1.950
CTPI2520	26,7	25	1,7	734	245	3	5-5-4	2.065
CTPI2530	26,7	25	1,7	734	245	3	6-5-5	2.288
CTPI3000	32,0	30	2,0	690	240	3	6-5-5	2.550
CTPI3010	32,0	30	2,0	775	245	3	6-6-5	2.950
CTPI3020	32,0	30	2,0	867	245	3	8-6-6	3.720
CTPI3030	32,0	30	2,0	867	245	3	8-8-6	4.040

HIGH MASTS WITH BASE PLATE AND ANCHOR BOLTS VERSION “A” AND “B”

(INCLUDES: MASTS • LADDERS • PROTECTION CAGE
ANTI-INTRUSION DOOR • BASE PLATE • ANCHOR BOLTS • TEMPLATE)

HIGH MAST CODE	HEIGHT ABOVE GROUND HAG, M	BASE PLATE Ø BPD,MM	No. AND TYPE OF ANCHOR BOLTS No., M	BASE Ø BD, MM	TOP Ø TD, MM	No. SHAFTS	THICKNESS T, MM	WEIGHT W, KG
CTPF1600	16	540	16xM22	363	140	2	4-4	685
CTPF1610	16	600	16xM22	427	143	2	4-4	725
CTPF1620	16	670	16xM27	465	163	2	4-4	780
CTPF1800	18	600	16xM22	422	160	2	4-4	850
CTPF1810	18	670	16xM27	467	163	2	4-4	890
CTPF1820	18	740	16xM27	537	194	2	4-4	1.000
CTPF2000	20	680	16xM27	477	180	2	4-4	965
CTPF2010	20	740	16xM27	535	194	2	4-4	1.060
CTPF2020	20	830	16xM27	591	194	2	4-4	1.130
CTPF2030	20	940	16xM33	699	245	2	4-4	1.300
CTPF2500	25	850	16xM27	611	200	3	5-4-4	1.630
CTPF2510	25	940	16xM33	702	245	3	5-4-4	1.830
CTPF2520	25	940	16xM33	702	245	3	5-5-4	1.960
CTPF2530	25	940	16xM33	702	245	3	6-5-5	2.075
CTPF3000	30	940	16xM33	661	240	3	6-5-5	2.350
CTPF3010	30	940	32xM27	693	245	3	6-6-5	2.750
CTPF3020	30	1.050	32xM27	826	245	3	8-6-6	3.520
CTPF3030	30	1.070	32xM33	813	245	3	8-8-6	3.850

TP RANGE EMBEDDED HIGH MASTS VERSION “C”

INCLUDES: MAST • LADDER • RAILS FOR THE FALL ARRESTER
PROTECTION AGAINST ASCENT

HIGH MAST CODE	TOTAL HEIGHT TH, M	HEIGHT ABOVE GROUND HAG, M	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	No.OF SHAFTS	THICKNESS T, MM	WEIGHT W, KG
CTPI1600	17,2	16	1,2	380	140	2	4-4	750
CTPI1610	17,2	16	1,2	449	143	2	4-4	790
CTPI1620	17,2	16	1,2	489	163	2	4-4	850
CTPI1800	19,2	18	1,2	440	160	2	4-4	940
CTPI1810	19,2	18	1,2	489	163	2	4-4	980
CTPI1810	19,2	18	1,2	561	194	2	4-4	1.090
CTPI2000	21,5	20	1,5	500	180	2	4-4	1.080
CTPI2010	21,5	20	1,5	561	194	2	4-4	1.175
CTPI2020	21,5	20	1,5	622	194	2	4-4	1.245
CTPI2030	21,5	20	1,5	734	245	2	4-4	1.430
CTPI2500	26,7	25	1,7	640	200	3	5-4-4	1.815
CTPI2510	26,7	25	1,7	734	245	3	5-4-4	2.015
CTPI2520	26,7	25	1,7	734	245	3	5-5-4	2.130
CTPI2530	26,7	25	1,7	734	245	3	6-5-5	2.355
CTPI3000	32,0	30	2,0	690	240	3	6-5-5	2.630
CTPI3010	32,0	30	2,0	775	245	3	6-6-5	3.030
CTPI3020	32,0	30	2,0	867	245	3	8-6-6	3.800
CTPI3030	32,0	30	2,0	867	245	3	8-8-6	4.125

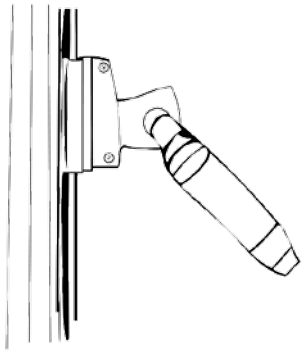
HIGH MASTS WITH BASE PLATE AND ANCHOR BOLTS VERSION “C”

INCLUDES: MAST • LADDER • ANCHOR BOLTS AND TEMPLATE
RAILS FOR THE FALL ARRESTER • PROTECTION AGAINST ASCENT

HIGH MAST CODE	HEIGHT ABOVE GROUND HAG, M	BASE PLATE Ø MM	No. AND TYPE OF ANCHOR BOLTS No., TYPE	BASE Ø BD, MM	TOP Ø TD, MM	No. SHAFTS	THICKNESS T, MM	WEIGHT W, KG
CTPF1600	16	540	16xM22	363	140	2	4-4	725
CTPF1610	16	600	16xM22	427	143	2	4-4	765
CTPF1620	16	670	16xM27	465	163	2	4-4	820
CTPF1800	18	600	16xM22	422	160	2	4-4	895
CTPF1810	18	670	16xM27	467	163	2	4-4	935
CTPF1820	18	740	16xM27	537	194	2	4-4	1.050
CTPF2000	20	680	16xM27	477	180	2	4-4	1.015
CTPF2010	20	740	16xM27	535	194	2	4-4	1.110
CTPF2020	20	830	16xM27	591	194	2	4-4	1.180
CTPF2030	20	940	16xM33	699	245	2	4-4	1.350
CTPF2500	25	850	16xM27	611	200	3	5-4-4	1.700
CTPF2510	25	940	16xM33	702	245	3	5-4-4	1.900
CTPF2520	25	940	16xM33	702	245	3	5-5-4	2.025
CTPF2530	25	940	16xM33	702	245	3	6-5-5	2.140
CTPF3000	30	940	16xM33	661	240	3	6-5-5	2.500
CTPF3010	30	940	32xM27	693	245	3	6-6-5	2.900
CTPF3020	30	1.050	32xM27	826	245	3	8-6-6	3.600
CTPF3030	30	1.070	32xM33	813	245	3	8-8-6	3.930

ANTI FALLING SYSTEM FOR TP HIGH MASTS OF TYPE “C”

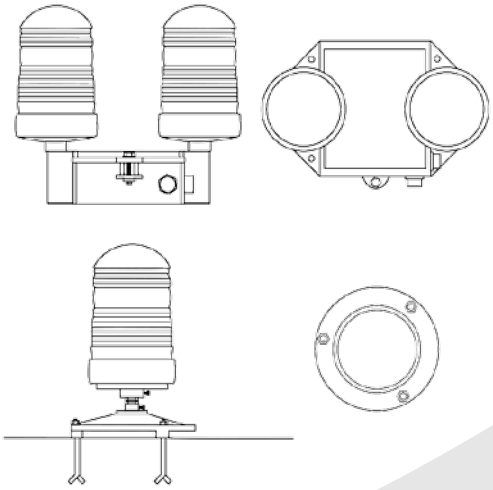
Our anti falling system with mini shock absorber is completely made of steel and is designed to move autonomously (no need for hands when ascending and/or descending).



OBSTRUCTION LIGHTS

Obstruction lights with fix red light can be fitted on top of the high masts in order to show the presence of an obstacle (the high mast itself) for flying vehicles. These special signs are usually used near airports, heliports or other areas. The obstruction light can be delivered both, with a single lamp or double lamp, with a second spare lamp as backup in case of failure of the first lamp, that turns on automatically thanks to a switching device.

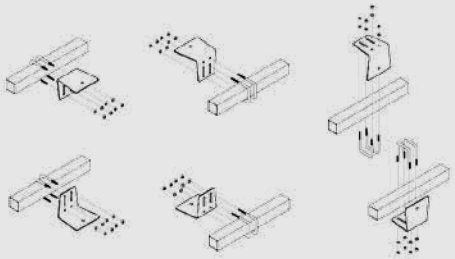
CODE	No. OF LAMPS
VTHPF21	1
VTHPF22	2



BRACKET FOR A FLOODLIGHT FOR THE PR, PQ, PE RANGE FIXED PLATFORMS

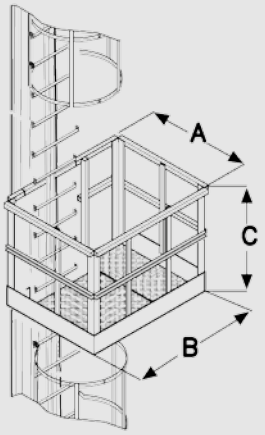
The fixing bracket is a useful multipurpose accessory for the fastening of the floodlight on the tubular crossarm of the fixed platform protection railings of the TP range high masts.

CODE	WEIGHT Kg
CSTFT50	1,6



RESTING PLATFORMS SUPPLIED WITH THE TP RANGE HIGH MASTS OF TYPE “A”

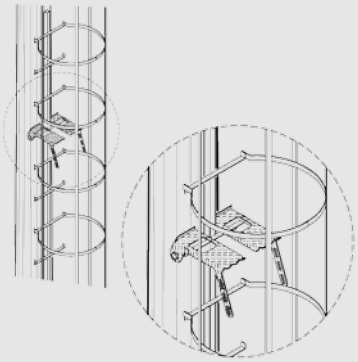
The high masts with ladder and fixed platform in the TP range version “A” must have resting platforms (as an alternative to the folding footboard of the RR range). The platform is realized with welded steel sections, has a walking surface with expanded metal, hinged access hatch and perimetrical panel. The lateral protection railing is made up of welded steel sections.



TR SERIES RESTING PLATFORM									
CODE	A MM	B MM	C MM	WEIGHT KG	QUANTITY FOR TYPE OF HIGH MAST TP-16	TP-18	TP-20	TP-25	TP-30
CTR	700	900	1.000	35	1	1	1	2	2

FOLDING FOOTBOARD SUPPLIED WITH THE TP RANGE TOWERS VERSION “B” AND “C”

The high masts with ladder and fixed platform in the TP range version “B” and “C” must have folding footboards (as an alternative to the resting platform of the TR range). The folding footboard is formed by two steps of embossed sheet fixed to the mast. When the steps are up, they do not invade the transit area and the operator can freely descend or ascend.



RR SERIES FOLDING FOOTBOARD								
CODE	STEP MM	SIZE MM	WEIGHT KG	QUANTITY FOR TYPE OF HIGH MAST TP-16	TP-18	TP-20	TP-25	TP-30
CRR1300	130	285	9	1	1	1	2	2

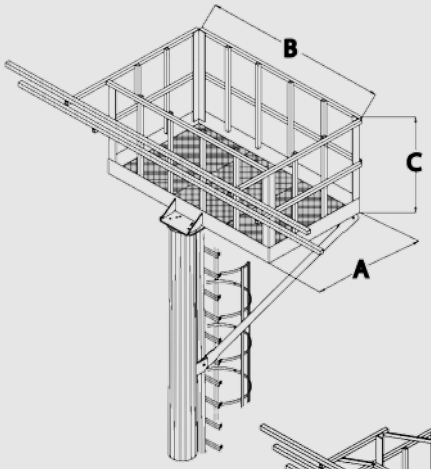
FIXED PLATFORM SUPPLIED WITH THE TP RANGE TOWERS VERSIONS “A”, “B” AND “C”

The high masts with ladder and fixed platform in the TP range must be equipped with the fixed platform to be installed on top of the mast.

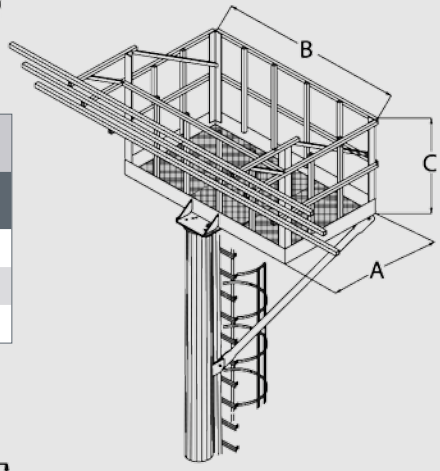
The service platform is made up of a base realized with a walking surface in expanded metal, hinged access hatch, perimetrical panel, footboard, lateral protections in bolted steel sections.

In order to fasten the floodlights, the front and perimetrical crossarms are provided: as a fixing accessory the STFT50 bracket can be used.

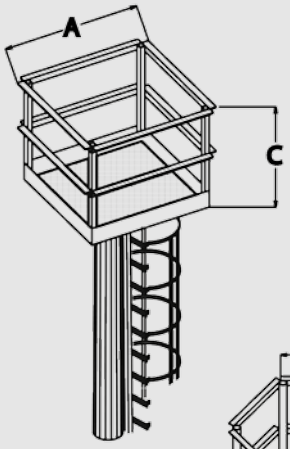
FIXED PLATFORM with rectangular plan, PR range				
CODE	A MM	B MM	C MM	WEIGHT KG
CPR10100	1000	1000	1000	135
CPR1510	1000	1500	1000	161
CPR2010	1000	2000	1000	187
CPR3010	1000	3000	1000	243



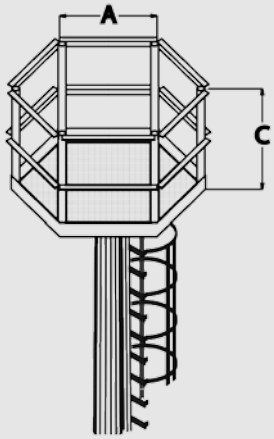
FIXED PLATFORM with rectangular plan at 3 levels, PR range				
CODE	A MM	B MM	C MM	WEIGHT KG
CPR15103	1000	1500	1000	180
CPR20103	1000	2000	1000	210
CPR30103	1000	3000	1000	270



FIXED PLATFORM with square plan, PQ range			
CODE	A MM	C MM	WEIGHT KG
CPQ1210	1200	1000	80
CPQ1610	1600	1000	105
CPQ2010	2000	1000	135

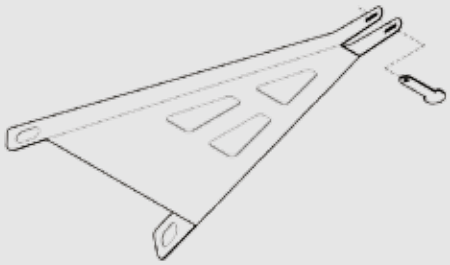


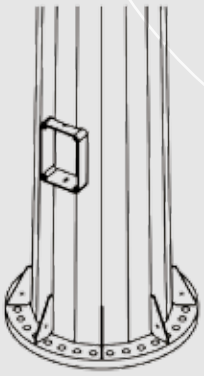
FIXED PLATFORM with hexagonal plan, PE range			
CODE	A MM	C MM	WEIGHT KG
CPE7501	750	1000	110
CPE1000	1000	1000	150
CPE1250	1250	1000	185



SUPPLIED ACCESSORIES

- Anti-ascent protection (No.1 for every lighting tower) padlock excluded.
- Portable ladder with hooks in order to attach it on the first step of the ladder (No. 1 for each site).





MATERIALS:

MAST SECTIONS: realized in S 355 JR (UNI EN 10025) press-formed sheet steel of different thicknesses, cold - shaped, longitudinally welded (using IIS certified welding)
ACCESSORIES: (fixed and resting platform, folding footboard, ladder, etc.): made of S 235 JR composite shaped and welded sections.

TREATMENTS:

All the high masts and metallic accessories are usually supplied hot - dip galvanized according to UNI EN ISO 1461.
The high mast and its accessories can be painted with colors and mode that have to be indicated at order.
In particular, for installations near to specific areas (airstrips, aircraft transit zones, etc.) the masts can be painted red/white according to the current legislation.

TECHNICAL DOCUMENTATION AND ACCESSORIES:

Together with the high masts, the supply includes appropriate documentation and any accessory described as follows:

EMBEDDED HIGH MASTS: documentation
- Foundation plinth scheme (with the order confirmation)
- Instruction manual for the installation (supplied with the high mast)
- "CE" user and maintenance manual (together with the administrative documents)
- Declaration of compliance of the high mast

HIGH MASTS WITH BASE PLATE AND ANCHOR BOLTS: documentation and accessories
- Scheme for the realization of the foundation plinth, template, anchor bolts, washers and nuts (with the order confirmation)
- Instruction manual for the installation (supplied with the high mast)
- "CE" user and maintenance manual (together with the administrative documents)
- Declaration of compliance of the high mast

GENERAL, LEGISLATION, DOCUMENTATION:

CML high masts with fixed platform are designed and built fully respecting the safety standards and further changes.
The standard series is designed for:
- Heights above ground of 16, 18, 20, 25 and 30 meters, no. 2 - 3 classes of predetermined resistance
- Installation in the areas 1÷9 indicated in the Eurocode UNI ENV 1991-2-4- al §10
- Direct embedment on the foundation
- Installation with base plate and anchor bolts

The main parts of the high masts are supplied disassembled as indicated below:
- Polygonal sections composing the mast: they are put one into the other and/or put one next to the other
- Resting platform: single piece
- Fixed platform: basement single piece; protections disassembled
- Ladder: 3 m single piece modular elements
- Protection cage: 3 m single piece modular elements
- Support brackets, bolts and accessories: loose
- Nuts and bolts: in appropriate boxes

HIGH MASTS WITH MOBILE CROWN

HIGH MASTS
WITH MOBILE CROWN

The high masts with mobile crown of the TC range are structures designed and built to sustain floodlights and operating accessories. The support structure is composed by tubular sections to form a truncated pyramid sheet steel and welded longitudinally: the masts must be mounted by means of forced coupling. The lifting head of the mobile luminaire ring is fixed onto the top of the structure.
The mobile luminaire ring is a composite circular structure with welded elements. The floodlights can be positioned at 360° (A), at 180° (B) or with other positioning modes linked to the lighting engineering design.

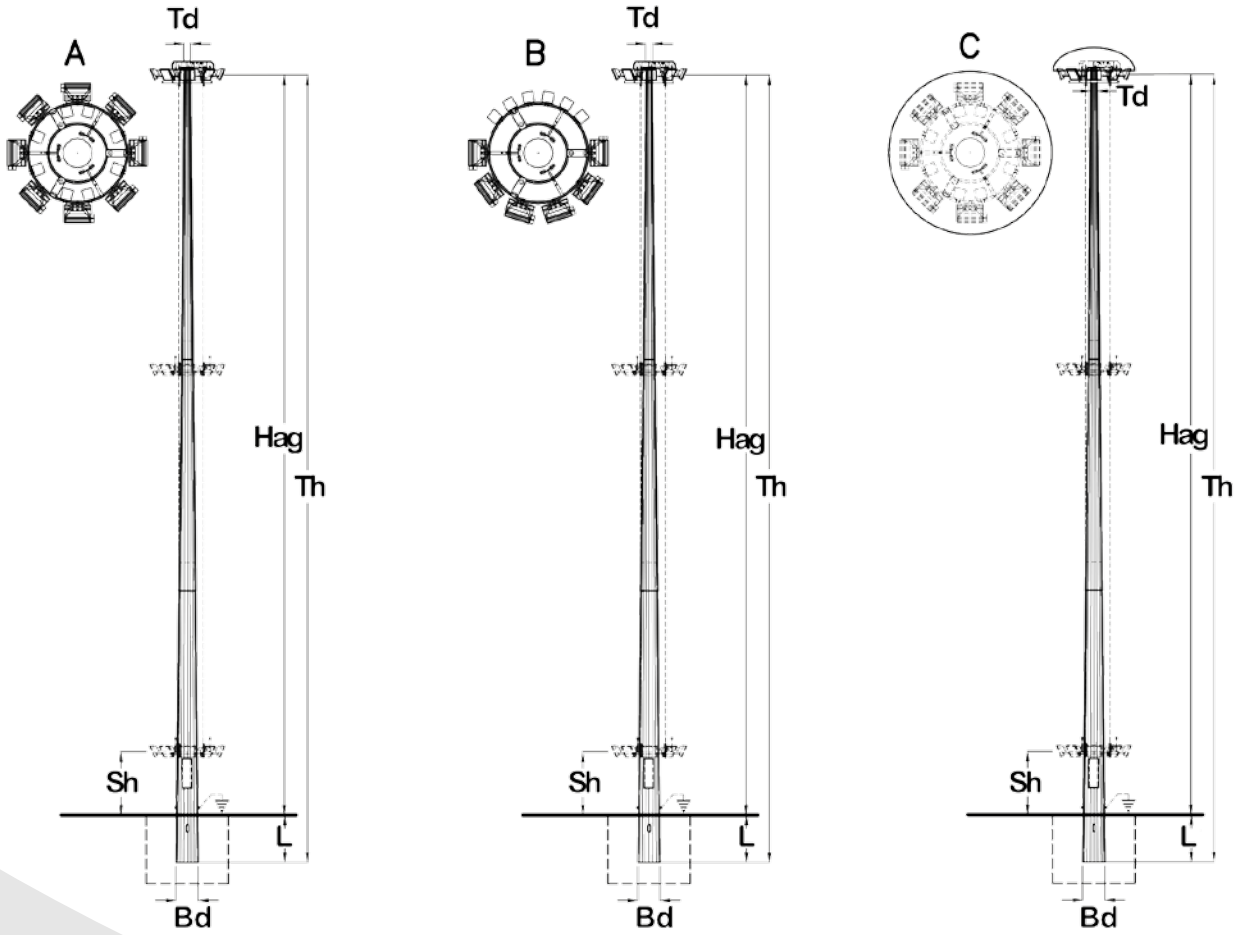
MATERIALS:
MAST SECTIONS: realized in S 355 JR (UNI EN 10025) press-formed sheet steel and welded using certified welding procedure
MOBILE CROWN: S 235 JR composite steel and/or cold-shaped sections
LIFTING ROPES: n° 3 made in AISI 304 stainless steel
CROWN COVERING : in S 235 JR sheet steel or in reinforced fibreglass with metal inserts

TREATMENTS:
Hot - dip galvanizing according to UNI EN 1461 of all the components

ELECTRICAL SYSTEM:
The high mast is suitable to accommodate no. 1, 2 or 3 cables for the power supply of the fitted floodlights: each cable is a multipolar one with 5 phases (3F+N+T) of appropriate section to the total electrical power, IMW interlocked plugs and sockets, junction box and IP55 accessories.

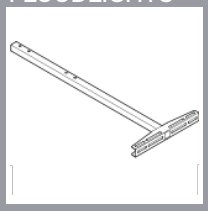
LIFTING SYSTEM
Certified chain winch (with a trolley or integrated), 400 Vca three-phase power, 48 Vca control panel.

TECHNICAL DOCUMENTATION
Instruction manual for the installation, "CE" user and maintenance manual of the whole structure and accessories, application of warning and identification plate.



ACCESSORIES

BRACKET FOR FLOODLIGHTS



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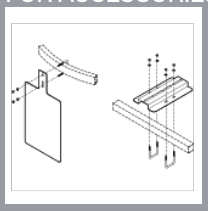
SUPPORT PLATE FOR ACCESSORIES



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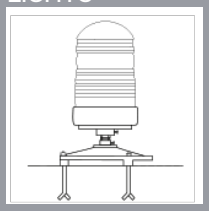
OBSTRUCTION LIGHTS



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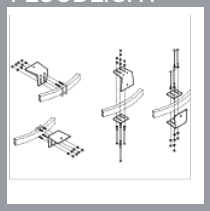
BRACKET FOR ONE FLOODLIGHT



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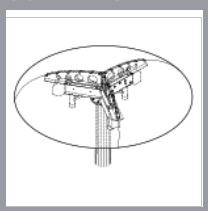
CROWN COVERING



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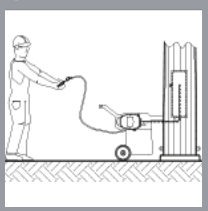
LIFTING UNIT



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TC RANGE EMBEDDED HIGH MASTS

HIGH MAST CODE	TOTAL HEIGHT TH, M	HEIGHT ABOVE GROUND HAG, M	EMBEDMENT L, MM	BASE Ø BD, MM	HEAD Ø TD, MM	No. SHAFTS	THICKNESS T, MM	WEIGHT W, KG
CTCI2010	21,5	20	1,5	503	180	2	4-4	880
CTCI2020	21,5	20	1,5	568	200	2	4-4	980
CTCI2030	21,5	20	1,5	671	240	2	4-4	1.135
CTCI2040	21,5	20	1,5	714	240	2	4-4	1.190
CTCI2510	26,7	25	1,7	573	180	3	4-4-4	1.200
CTCI2520	26,7	25	1,7	649	200	3	4-4-4	1.345
CTCI2530	26,7	25	1,7	767	240	3	4-4-4	1.590
CTCI2540	26,7	25	1,7	820	240	3	4-4-4	1.670
CTCI3010	31,9	30	1,9	654	180	3	5-4-4	1.690
CTCI3020	31,9	30	1,9	741	200	3	5-4-4	1.890
CTCI3030	31,9	30	1,9	873	240	3	5-4-4	2.235
CTCI3040	31,9	30	1,9	937	240	3	5-4-4	2.365
CTCI3510	37,2	35	2,2	723	180	4	5-5-4-4	2.225
CTCI3520	37,2	35	2,2	821	200	4	5-5-4-4	2.525
CTCI3530	37,2	35	2,2	969	240	4	5-5-4-4	3.000
CTCI3540	37,2	35	2,2	1.044	240	4	5-5-4-4	3.200

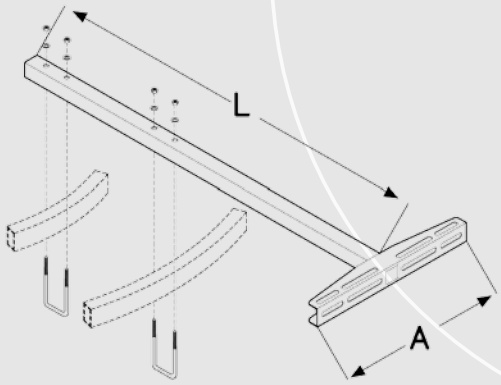
TC RANGE HIGH MASTS WITH BASE PLATE AND ANCHOR BOLTS

HIGH MAST CODE	HEIGHT ABOVE GROUND HAG, M	BASE PLATE Ø MM	No. AND TYPE OF ANCHOR BOLTS L, MM	BASE Ø BD, MM	TOP Ø TD, MM	No. SHAFTS	THICKNESS T, MM	WEIGHT W, KG
CTCF2010	20	710	16xM27	480	180	2	4-4	835
CTCF2020	20	769	16xM27	542	200	2	4-4	945
CTCF2030	20	867	16xM27	641	240	2	4-4	1.100
CTCF2040	20	867	16xM27	680	240	2	4-4	1.150
CTCF2510	25	774	16xM27	549	180	3	4-4-4	1.160
CTCF2520	25	850	16xM27	620	200	3	4-4-4	1.300
CTCF2530	25	975	16xM33	733	240	3	4-4-4	1.530
CTCF2540	25	1.030	16xM33	783	240	3	4-4-4	1.610
CTCF3010	30	870	16xM27	626	180	3	5-4-4	1.600
CTCF3020	30	955	16xM33	709	200	3	5-4-4	1.785
CTCF3030	30	1.104	16xM33	835	240	3	5-4-4	2.150
CTCF3040	30	1.164	16xM33	895	240	3	5-4-4	2.265
CTCF3510	35	935	16xM33	689	180	4	5-5-4-4	2.105
CTCF3520	35	1.042	16xM33	784	200	4	5-5-4-4	2.410
CTCF3530	35	1.200	16xM33	924	240	4	5-5-4-4	2.900
CTCF3540	35	1.350	16xM33	995	240	4	5-5-4-4	3.050

MULTIPURPOSE BRACKET FOR FLOODLIGHTS

The bracket is made up of steel sections and cold press-formed sheet steel. Slots of appropriate dimensions are provided for the fitting of the floodlights.
The floodlights can be mounted in three positions: on top, at the bottom and on the front.
The bracket allows the assembly of several floodlights in different positions.
The use of the bracket avoids any additional work on the mobile crown's tubular.

CODE	A MM	L MM	WEIGHT KG
CSTFC10	500	700	3.5
CSTFC20	500	1.200	4.7

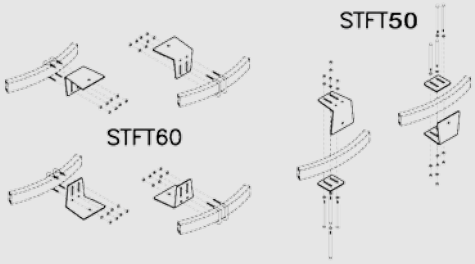


BRACKET FOR A MOBILE CROWN FLOODLIGHT

The bracket is made up of steel sections and cold press-formed sheet steel. Slots of appropriate dimensions are provided for the fitting of the floodlights.
The floodlights can be mounted in three positions: on top, at the bottom and on the front.
The bracket allows the assembly of several floodlights in different positions.
The use of the bracket avoids any additional work on the mobile crown's tubular.

The fixing bracket is a useful multipurpose accessory for fastening a floodlight to the peripheral tube of the mobile crown supplied with the TC range high masts.
The bracket fastening system allows to direct the floodlight according to the needs:
- on a horizontal plane - upwards or downwards, external or internal
- on a vertical plane - frontal.

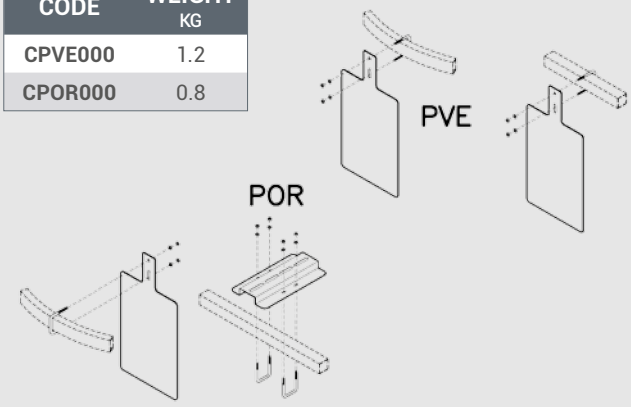
CODE	WEIGHT KG
CSTFT60	1.3
CSTFT50	1.6



SUPPORT PLATE FOR ACCESSORIES

The support plates for the accessories to be installed on the mobile crown of the TC range high masts are realized in shaped and cold press-formed sheet steel.
The PVE model is designed for a vertically fixed accessory.
The POR model is designed for a horizontally fixed accessory.

CODE	WEIGHT KG
CPVE000	1.2
CPOR000	0.8

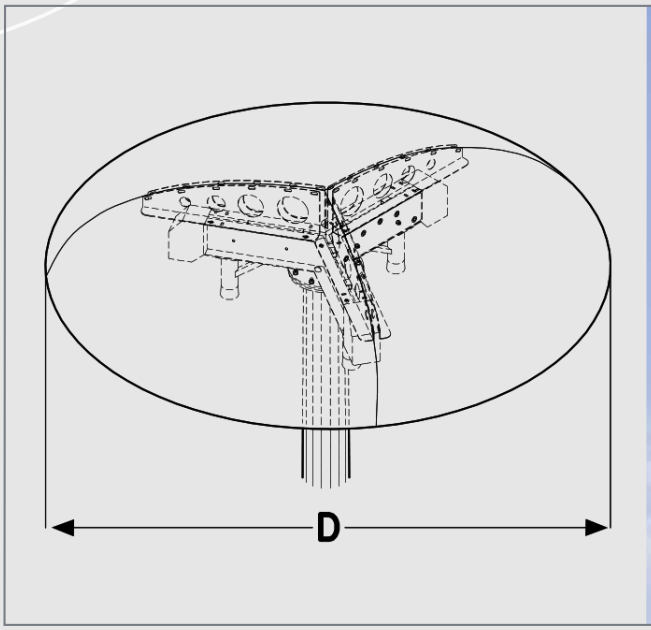


CROWN COVERING

A crown covering can be installed on the top of the high mast. The different types of covering can be supplied as monobloc or into three modular elements.

The CVTC2100, 2800, 4000 range coverings are made up of stratified fibreglass and are usually available in our warehouse in the colour grey RAL 7035 grey. It can be supplied in different colours on request.

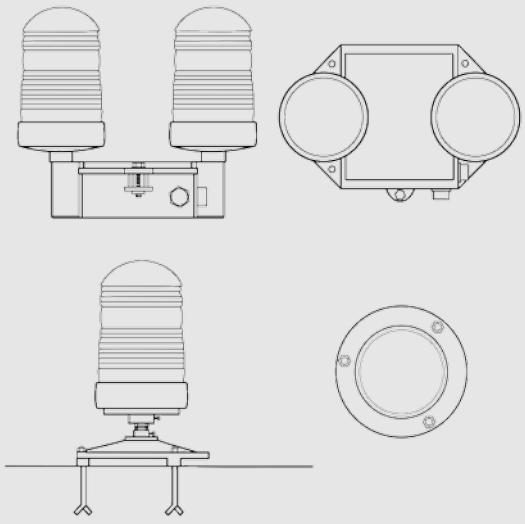
CODE	DIAMETER Ø MM	HEIGHT MM	WEIGHT KG	COVERING MATERIAL	ACCESSORIES MATERIAL
CATC-1100	1.100	120	32	GALVANIZED STEEL	GALVANIZED STEEL
CVTC-2100	2.100	525	34	FIBERGLASS	GALVANIZED STEEL
CVTC-2800	2.800	700	48	FIBERGLASS	GALVANIZED STEEL
CVTC-4000	4.000	1.000	64	FIBERGLASS	GALVANIZED STEEL



OBSTRUCTION LIGHTS

Obstruction lights with fix red light can be fitted on top of the high masts in order to show the presence of an obstacle (the high mast itself) for flying vehicles. These special signs are usually used near airports, heliports or other areas. The obstruction light can be delivered both, with a single lamp or double lamp, with a 2nd spare lamp as backup in case of failure of the first lamp, that turns on automatically thanks to a switching device.

CODE	No. OF LAMPS
VTHPF21	1
VTHPF22	2



INSTALLATION KIT FOR AN ADDITIONAL ELECTRIC CABLE FOR OBSTRUCTION LIGHTS

COMPLETE KIT FOR ELECTRIC CABLE FOR OBSTRUCTION LIGHTS		
CODE	**TYPE OF USE**	**TYPE OF CABLE**
VKCSO20	Complete kit for electrical cable for high masts Hag = 20m	4x1,5 mm^2
VKCSO25	Complete kit for electrical cable for high masts Hag = 25m	4x1,5 mm^2
VKCSO30	Complete kit for electrical cable for high masts Hag = 30m	4x1,5 mm^2
VKCSO35	Complete kit for electrical cable for high masts Hag = 35m	4x1,5 mm^2

INSTALLATION KIT FOR AN ADDITIONAL ELECTRIC CABLE

The technical solutions adopted for the construction of the mobile crown and the lifting head of the TC range high masts allow to install 1, 2 or 3 cables for the electric power supply of the installed floodlights.

The standard supply of the high masts includes 1 electric cable. If one or more power cables are needed, an installation kit can be supplied even after supply, that can be mounted also on top of the high mast.

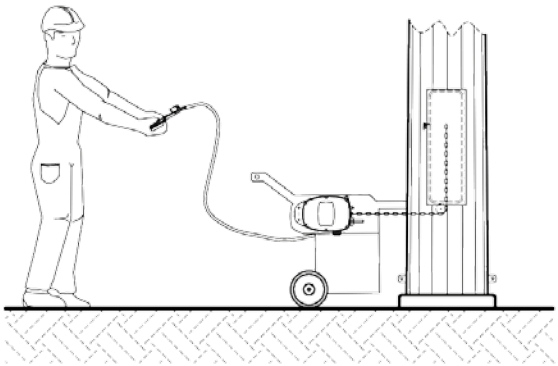
COMPLETE KIT FOR THE INSTALLATION OF AN ADDITIONAL ELECTRIC CABLE		
CODE	**TYPE OF USE**	**TYPE OF CABLE**
VKCE204	Complete kit for electrical cable for high masts Hag = 20m	5x4 mm^2
VKCE254	Complete kit for electrical cable for high masts Hag = 25m	5x4 mm^2
VKCE304	Complete kit for electrical cable for high masts Hag = 30m	5x4 mm^2
VKCS354	Complete kit for electrical cable for high masts Hag = 35m	5x4 mm^2
VKCS206	Complete kit for electrical cable for high masts Hag = 20m	5x6 mm^2
VKCS256	Complete kit for electrical cable for high masts Hag = 25m	5x6 mm^2
VKCS306	Complete kit for electrical cable for high masts Hag = 30m	5x6 mm^2
VKCS356	Complete kit for electrical cable for high masts Hag = 35m	5x6 mm^2

MOBILE LIFTING UNIT

The chain winch is installed on a trolley with idle wheels. The trolley can be easily moved into proximity of the high mast, appropriately hitched and put into operation. The control panel allows the operator to work at a safe distance from the high mast.

The mobile lifting unit is suitable for use on all TC range high masts within the limits of its capacity.

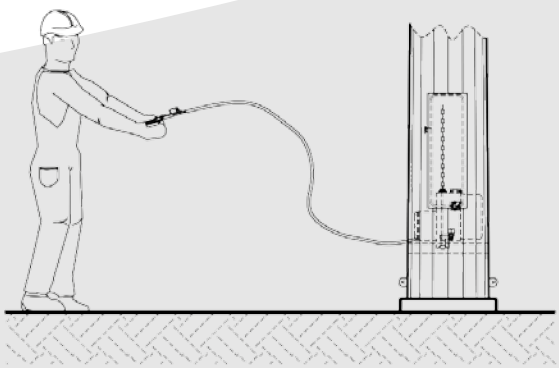
CODE	DESCRIPTION	NET WEIGHT LIFTED, KG
CKE25020C	lifting unit for high masts HAG = 20M	160
CKE25025C	lifting unit for high masts HAG = 25M	150
CKE25030C	lifting unit for high masts HAG = 30M	130
CKE25035C	lifting unit for high masts HAG = 35M	125
CKE50020C	lifting unit for high masts HAG = 20M	410
CKE50025C	lifting unit for high masts HAG = 25M	400
CKE50030C	lifting unit for high masts HAG = 30M	385
CKE50035C	lifting unit for high masts HAG = 35M	372
CKE100020C	lifting unit for high masts HAG = 20M	910
CKE100025C	lifting unit for high masts HAG = 25M	897
CKE100030C	lifting unit for high masts HAG = 30M	885
CKE100035C	lifting unit for high masts HAG = 35M	872



INTEGRATED LIFTING UNIT

The chain winch is installed inside the bottom of the high mast. The control panel allows the operator to work at a safe distance from the high mast. The integrated lifting unit is suitable for the use on the high mast where it is installed.

CODE	DESCRIPTION	NET WEIGHT LIFTED, KG
CKE25020I	lifting unit for high masts HAG = 20M	160
CKE25025I	lifting unit for high masts HAG = 25M	150
CKE25030I	lifting unit for high masts HAG = 30M	130
CKE25035I	lifting unit for high masts HAG = 35M	125
CKE50020I	lifting unit for high masts HAG = 20M	410
CKE50025I	lifting unit for high masts HAG = 25M	400
CKE50030I	lifting unit for high masts HAG = 30M	385
CKE50035I	lifting unit for high masts HAG = 35M	372
CKE100020I	lifting unit for high masts HAG = 20M	910
CKE100025I	lifting unit for high masts HAG = 25M	897
CKE100030I	lifting unit for high masts HAG = 30M	885
CKE100035I	lifting unit fo high masts HAG = 35M	872



MATERIALS:

- MAST SECTIONS: realized in S 355 JR (UNI EN 10025) press-formed sheet steel of different thicknesses, cold shaped, longitudinally welded (using certified welding)
- ACCESSORIES: (lifting heads, mobile crown, etc.): made of S 235 JR UNI 10025 press - formed sheet steel and welded sections.
- MOTORISED LIFTING UNIT: with load limiter, in accordance with the machinery directive
- LIFTING CABLE: in aisi 304 stainless steel, 133 wires, UNI 7293-74
- LIFTING CHAIN: calibrated, in accordance with ISO 3077-2 standard
- FIBERGLASS ELEMENTS (covering): elements made up of a stratification of glass fibres and polyester resin with steel inserts owned by the company.

TREATMENTS:

All the high masts and metallic accessories are usually supplied hot - dip galvanized according to UNI EN ISO 1461.
The fiberglass coverings can be finished with gelcoat in the standard colour GREY RAL 7035 (the colour can be changed on request).
The high mast and its accessories can be painted with colours and mode that have to be indicated at order.
In particular, for installations near to specific areas (airstrips, aircraft transit zones, etc.) the masts can be painted red/white according to the current legislation.

TECHNICAL DOCUMENTATION AND ACCESSORIES:

Together with the high masts, the supply includes appropriate documentation and any accessory described as follows:

EMBEDDED HIGH MASTS: documentation

- Foundation plinth scheme (with the order confirmation)
- Instruction manual for the installation (supplied with the high mast)
- "CE" user and maintenance manual (together with the administrative documents)
- Declaration of compliance of the high mast

HIGH MASTS WITH BASE PLATE AND ANCHOR BOLTS: documentation and accessories

- Scheme for the realisation of the foundation plinth, template, anchor bolts, washers and nuts (with the order confirmation).
- Instruction manual for the installation (supplied with the high mast)
- "CE" user and maintenance manual (together with the administrative documents)
- Declaration of compliance of the high mast.

GENERAL, LEGISLATION, DOCUMENTATION:

CML high masts with mobile crown are designed and built fully respecting the DPR 547 of 27-04-1955 and further changes.

The standard series is designed for:

- Heights above ground of 16, 18, 20, 25 and 30 meters, no. 2 - 3 classes of predetermined resistance
- Installation in the areas 1÷9 indicated in the Eurocode UNI ENV 1991-2-4- al §10
- Direct embedment on the foundation
- Installation with base plate and anchor bolts

The main parts of the high masts are supplied disassembled as indicated below:

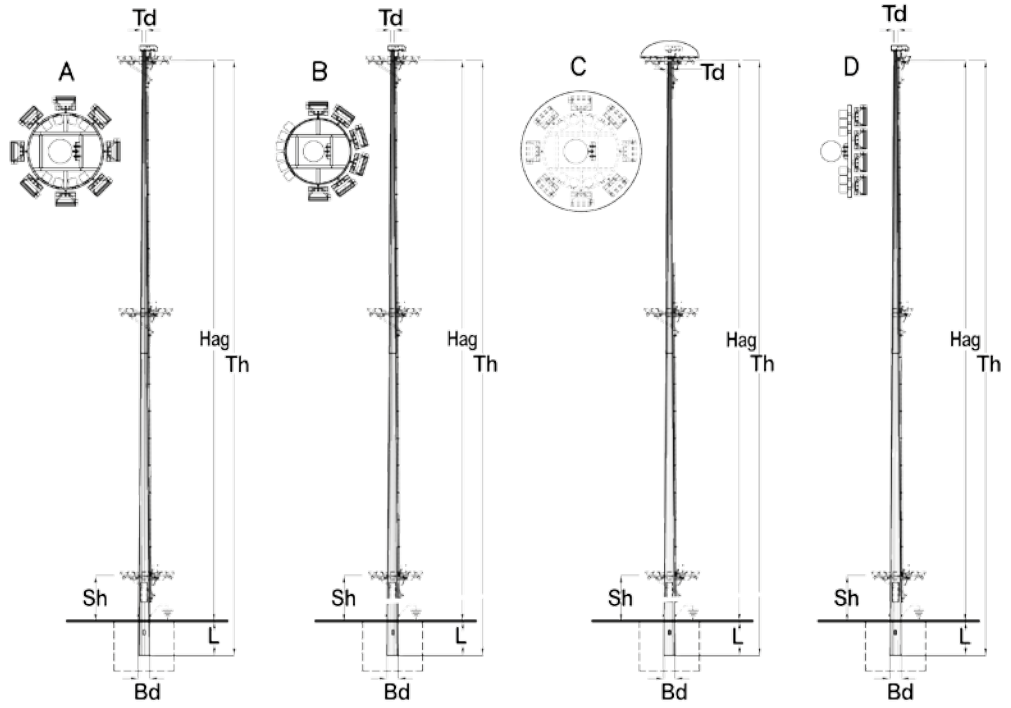
- Polygonal sections composing the mast: they are put one into the other and/or put one next to the other
- Mobile crown: mounted
- Lifting head: mounted
- Lifting unit: mounted
- Support brackets, bolts and accessories: loose
- Nuts and bolts: in appropriate boxes

HIGH MASTS WITH MOBILE CROWN AND RAIL

HIGH MASTS WITH MOBILE CROWN AND RAIL

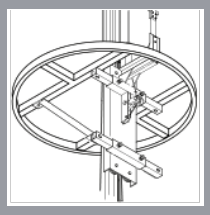
The TM range high masts with mobile crown and rail are structures designed and built to sustain floodlights and operating accessories. The support structure is made of press-formed sheet steel longitudinally welded: the sections must be mounted by means of forced coupling. The lifting head of the mobile crown is fixed on the top of the structure. The mobile crown is a composite structure with press-formed and welded elements. It has 4 idle wheels that slide up and down on a guiding rail fixed to the high mast.

The floodlights can be positioned at 360° (A), at 180° (B), aligned (D) or with other positioning modes linked to the lighting engineering design. In the working position the mobile ring is hitched to the lifting head of the tower.



ACCESSORIES

HIGH MAST FLOODLIGHT SUPPORT SYSTEM



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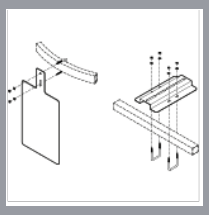
SUPPORT PLATE FOR ACCESSORIES



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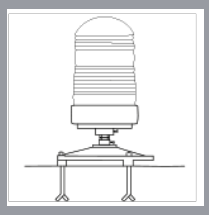
OBSTRUCTION LIGHTS



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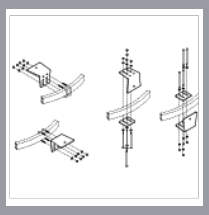
BRACKET FOR ONE FLOODLIGHT



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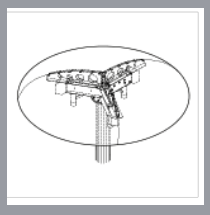
COVERING



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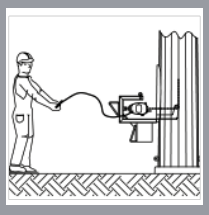
LIFTING UNITS



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TM RANGE EMBEDDED HIGH MASTS

HIGH MAST CODE	TOTAL HEIGHT TH, M	HEIGHT ABOVE GROUND HAG, M	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	No.OF SHAFTS	THICKNESS T, MM	WEIGHT W, KG
CTPI1600	17,0	16	1,0	351	130	2	4-4	555
CTPI1610	17,0	16	1,0	402	140	2	4-4	610
CTPI1620	17,0	16	1,0	464	160	2	4-4	685
CTPI1630	17,0	16	1,0	507	160	2	4-4	725
CTPI1800	19,2	18	1,2	380	130	2	4-4	640
CTPI1810	19,2	18	1,2	437	140	2	4-4	705
CTPI1820	19,2	18	1,2	505	160	2	4-4	795
CTPI1830	19,2	18	1,2	553	160	2	4-4	845
CTPI2000	21,5	20	1,5	430	130	2	4-4	740
CTPI2010	21,5	20	1,5	474	140	2	4-4	820
CTPI2020	21,5	20	1,5	548	160	2	4-4	925
CTPI2030	21,5	20	1,5	601	160	2	4-4	985
CTPI2510	26,7	25	1,7	546	140	3	4-4-4	1.140
CTPI2520	26,7	25	1,7	633	160	3	4-4-4	1.300
CTPI2530	26,7	25	1,7	700	160	3	4-4-4	1.400

TM RANGE HIGH MASTS WITH BASE PLATE AND ANCHOR BOLTS

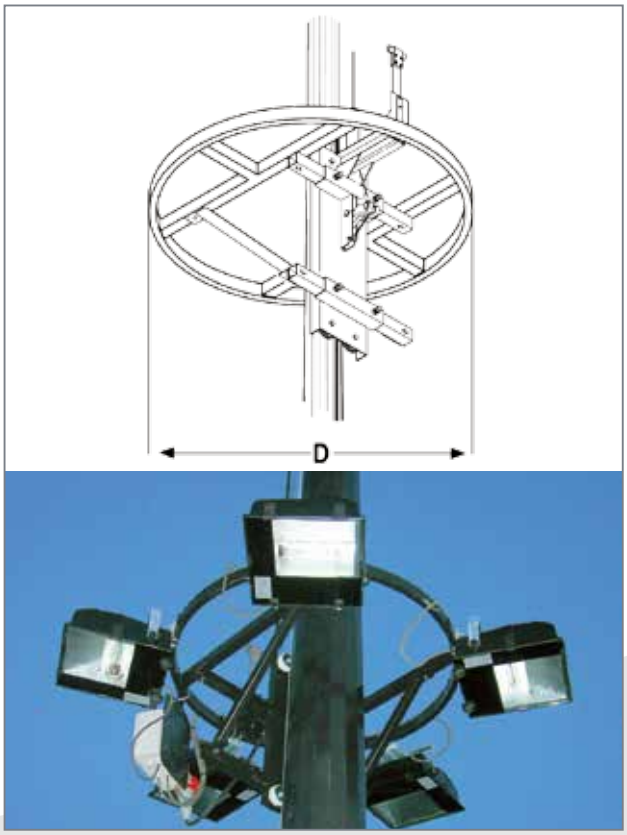
HIGH MAST CODE	HEIGHT ABOVE GROUND HAG, M	BASE PLATE Ø BP, MM	No. AND TYPE OF ANCHOR BOLTS L, MM	BASE Ø BD, MM	TOP Ø TD, MM	No.OF SHAFTS	THICKNESS T, MM	WEIGHT W, KG
CTPI1600	16	530	16xM22	338	130	2	4-4	545
CTPI1610	16	620	16xM22	386	140	2	4-4	600
CTPI1620	16	650	16xM22	446	160	2	4-4	670
CTPI1630	16	680	16xM27	482	160	2	4-4	705
CTPI1800	18	530	16xM22	364	130	2	4-4	620
CTPI1810	18	620	16xM22	418	140	2	4-4	685
CTPI1820	18	690	16xM27	483	160	2	4-4	770
CTPI1830	18	750	16xM27	528	160	2	4-4	815
CTPI2000	20	570	16xM22	409	130	2	4-4	700
CTPI2010	20	655	16xM22	450	140	2	4-4	780
CTPI2020	20	750	16xM27	521	160	2	4-4	880
CTPI2030	20	797	16xM27	570	160	2	4-4	955
CTPI2510	25	750	16xM27	520	140	3	4-4-4	1.100
CTPI2520	25	825	16xM27	602	160	3	4-4-4	1.235
CTPI2530	25	892	16xM27	665	160	3	4-4-4	1.350

SUPPORT SYSTEM FOR MOBILE CROWN AND RAIL

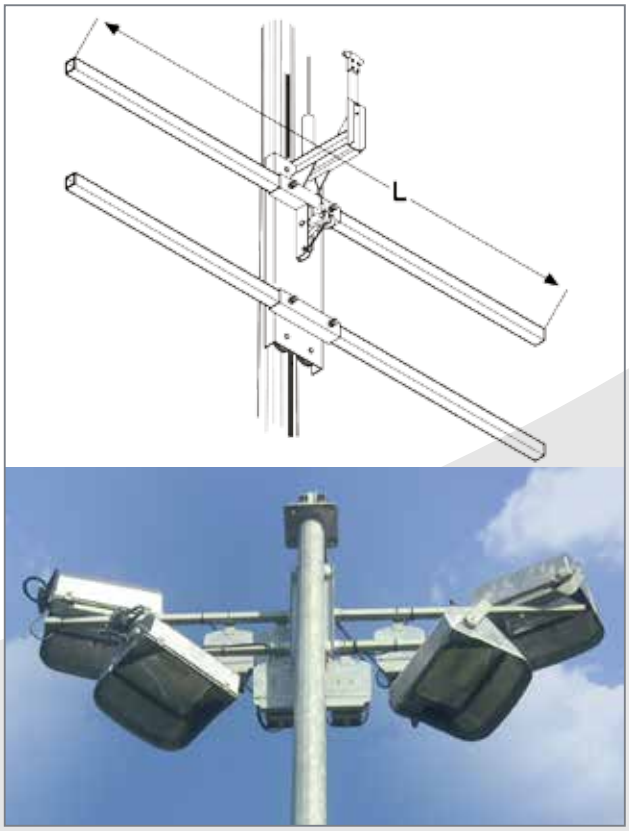
The mobile crown of the TM range high masts slides on a vertical guiding rail by means of 4 idle wheels.
Two support systems for the floodlights can be applied onto the mobile ring.
The mobile crown is lifted by the tow rope moved with the lifting units described below:

- circular luminaire ring for the radial position of the floodlights (CMTM).
- horizontal crossarms for the aligned positioning of the floodlights (TRTM)

The mobile crown is provided with a lifting, fall and safety protection system, and a hitching system for the fixing to the lifting head. The safety device is automatically activated if the rope breaks. The device is also automatically activated if the lifting rope is let go too fast.



CODE	D MM	WEIGHT KG
CCMTM	1.300	42

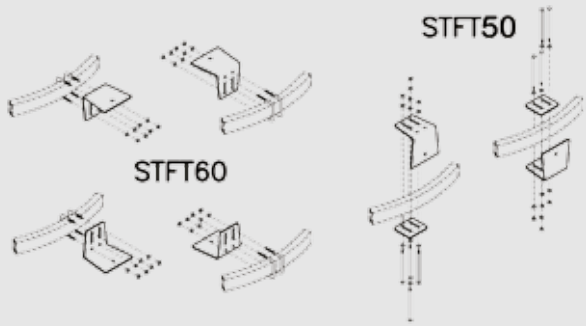


CODE	L MM	WEIGHT KG
CTRTM00	2.000	9

BRACKET FOR A FLOODLIGHT FOR LUMINAIRE RING

The fixing bracket is a useful multipurpose accessory for fastening a floodlight to the peripheral tube of the mobile crown supplied with the TM range high masts.
The bracket fastening system allows to direct the floodlight according to the needs:

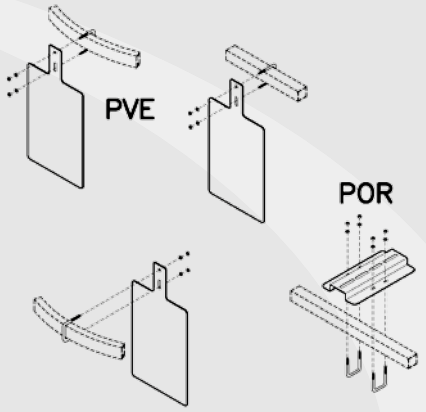
- on a horizontal plane - upwards or downwards, external or internal.
- on a vertical plane - frontal.



CODE	WEIGHT KG
CSTFT60	1.3
CSTFT50	1.6

SUPPORT PLATE FOR ACCESSORIES

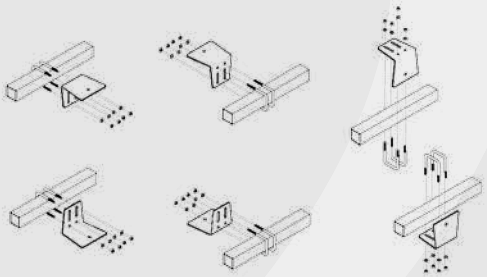
The support plates for the accessories to be installed on the mobile luminaire ring of the TM range high masts are realized in shaped and cold press-formed sheet steel.
The PVE model is designed for a vertically fixed accessory.
The POR model is designed for a horizontally fixed accessory.



CODE	WEIGHT KG
CPVE000	1.2
CPOR000	0.8

BRACKET FOR A FLOODLIGHT ON CROSSARM

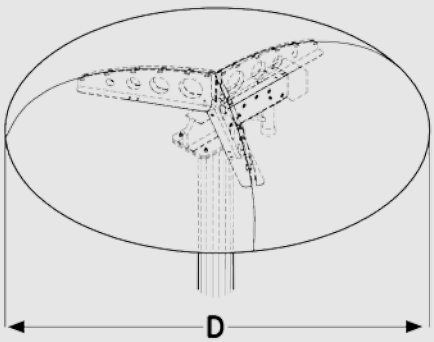
The STFT50 range fixing bracket is a useful multipurpose accessory for fastening a floodlight to the TRTM range crossarms fixed to the mobile crown of the TM range high masts.
The bracket fastening system allows to direct the floodlight fixing base as required:
- on a horizontal plane - upwards or downwards, external or internal
- on a vertical plane - frontal.



CODE	WEIGHT KG
CSTFT50	1.6
CSTFT50	1.6

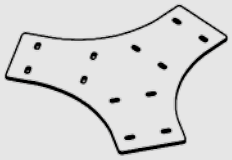
COVERING FOR THE HIGH MASTS WITH MOBILE RING

A crown covering can be installed on the top of the high mast. The different types of covering can be supplied as monobloc or into three modular elements. The covering is assembled with accessory brackets to be mounted on the lifting head.
The CVTM2100,2800 range coverings are made up of stratified fiberglass and are usually available in our warehouse in the colour grey RAL 7035 grey. It can be supplied in different colours on request.



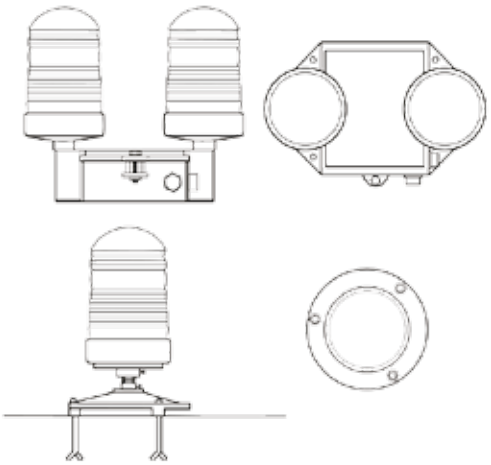
CODE	DIAMETER Ø MM	HEIGHT MM	WEIGHT KG	COVERING MATERIAL	ACCESSORIES MATERIAL
CATC-1100	1.100	120	32	GALVANIZED STEEL	GALVANIZED STEEL
CVTC-2100	2.100	525	34	VTR	GALVANIZED STEEL
CVTC-2800	2.800	700	48	VTR	GALVANIZED STEEL

ACCESSORY SUPPLIED WITH THE COVERING FOR TM TOWERS



OBSTRUCTION LIGHTS

Obstruction lights with fix red light can be fitted on top of the high masts in order to show the presence of an obstacle (the high mast itself) for flying vehicles. These special signs are usually used near airports, heliports or other areas. The obstruction light can be delivered both, with a single lamp or double lamp, with a 2nd spare lamp as backup in case of failure of the first lamp, that turns on automatically thanks to a switching device.



CODE	No. OF LAMPS
VTHPF21	1
VTHPF21	2

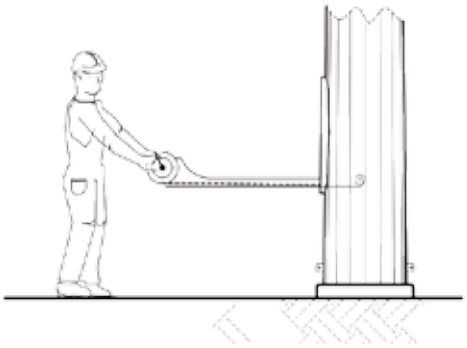
COMPLETE KIT FOR ELECTRIC CABLE FOR OBSTRUCTION LIGHTS		
CODE	TYPE OF USE	TYPE OF CABLE
VKCSO20	Complete kit for electrical cable for high masts • HAG = 20M	4x1,5 MM^2
VKCSO25	Complete kit for electrical cable for high masts • HAG = 25M	4x1,5 MM^2
VKCSO30	Complete kit for electrical cable for high masts • HAG = 30M	4x1,5 MM^2
VKCSO35	Complete kit for electrical cable for high masts • HAG = 35M	4x1,5 MM^2

MANUAL LIFTING UNIT

The device can be easily hitched to the base of the tower and put into service.

The winch is manually activated by the operator by a handle with adjustable arm.

The frame of the device is dimensioned in order to allow the operator to work at a safe distance from the high mast.

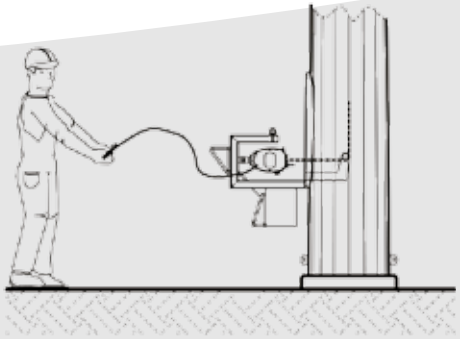


CODE	DESCRIPTION	NET WEIGHT LIFTED KG
CKM25016P	Lifting unit for high masts • HAG = 16M	194
CKM25018P	Lifting unit for high masts • HAG = 18M	192
CKM25020P	Lifting unit for high masts • HAG = 20M	190
CKM25025P	Lifting unit for high masts • HAG = 25M	186

EXTERNAL ELECTRIC LIFTING UNIT

The chain winch is installed in a trolley with idle wheels.

The trolley can be easily moved into proximity of the high mast, appropriately hitched and put into operation. The control panel allows the operator to work at a safe distance from the thigh mast.



CODE	DESCRIPTION	NET WEIGHT LIFTED KG
CKE25016P	Lifting unit for high masts • HAG = 16M	194
CKE2501P	Lifting unit for high masts • HAG = 18M	192
CKE25020P	Lifting unit for high masts • HAG = 20M	190
CKE25025P	Lifting unit for high masts • HAG = 25M	186

MATERIALS:
- MAST SECTIONS: realized in S 355 JR (UNI EN 10025) press-formed sheet steel of different thicknesses, cold - shaped, longitudinally welded (using certified welding)
- ACCESSORIES: (lifting heads, mobile crown, etc.): made of S 235 JR UNI 10025 press - formed sheet steel and welded sections.
- MOTORISED LIFTING UNIT: with load limiter, in accordance with the machinery directive
- LIFTING CABLE: in aisi 304 stainless steel, 133 wires, UNI 7293-74
- LIFTING CHAIN: calibrated, in accordance with ISO 3077-2 standard
- FIBERGLASS ELEMENTS (covering): elements made up of a stratification of glass fibres and polyester resin with steel inserts owned by the company.

TREATMENTS:
All the high masts and metallic accessories are usually supplied hot - dip galvanized according to UNI EN ISO 1461.
The fiberglass coverings can be finished with gelcoat in the standard colour GREY RAL 7035 (the colour can be changed on request).
The high mast and its accessories can be painted with colours and mode that have to be indicated at order.
In particular, for installations near to specific areas (airstrips, aircraft transit zones, etc.) the masts can be painted red/white according to the current legislation.

TECHNICAL DOCUMENTATION AND ACCESSORIES:
Together with the high mast, the supply includes appropriate documentation and any accessory described as follows:

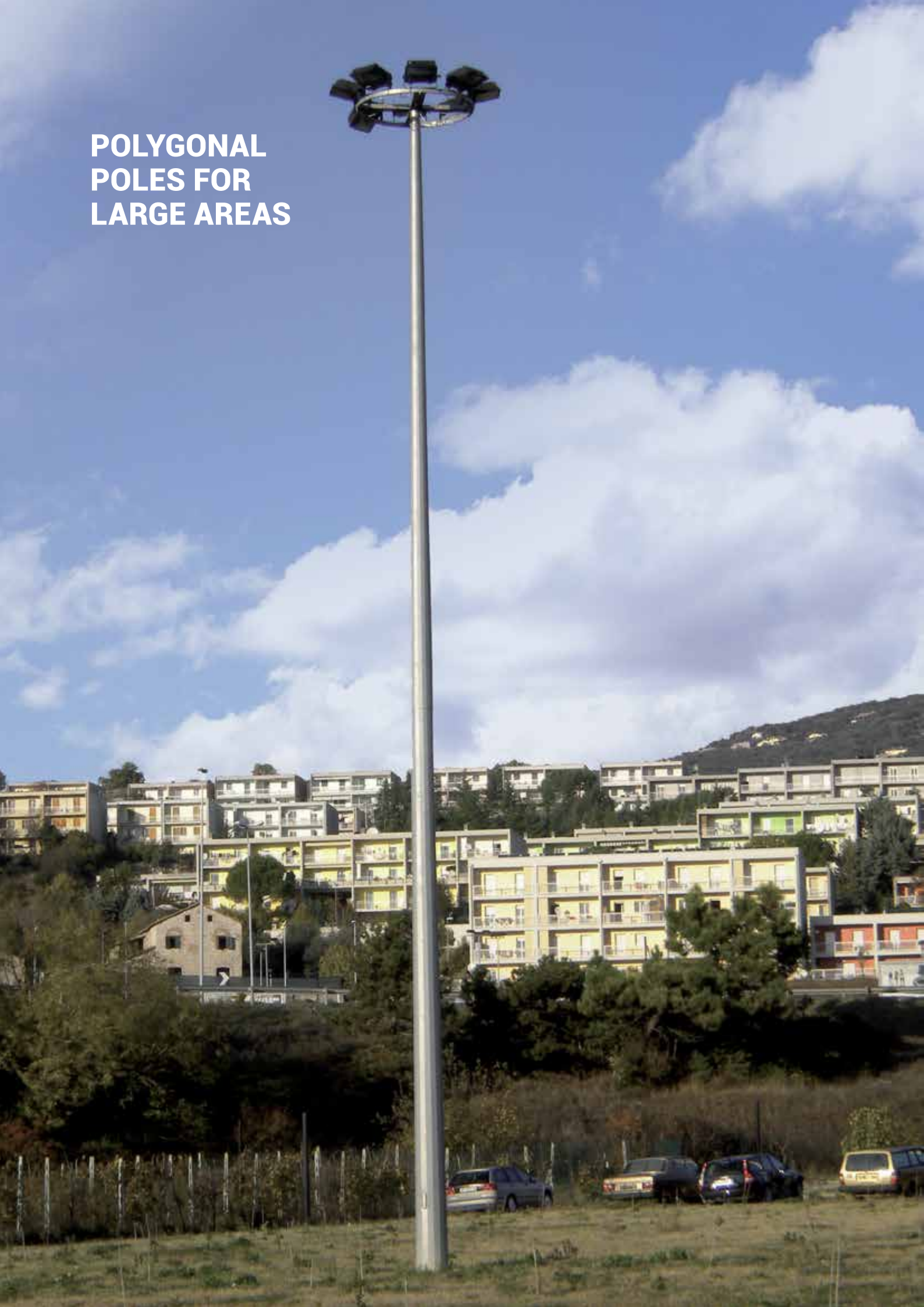
EMBEDDED HIGH MASTS: documentation
- Foundation plinth scheme (with the order confirmation)
- Instruction manual for the installation (supplied with the high mast)
- "CE" user and maintenance manual (together with the administrative documents)
- Declaration of compliance of the high mast

HIGH MASTS WITH BASE PLATE AND ANCHOR BOLTS: documentation and accessories
- Scheme for the realisation of the foundation plinth, template, anchor bolts, washer and nuts (with the order confirmation)
- Instruction manual for the installation (supplied with the high mast)
- "CE" user and maintenance manual (together with the administrative documents)
- Declaration of compliance of the high mast

GENERAL, LEGISLATION, DOCUMENTATION:
CML high masts with mobile crown with rail are designed and built fully respecting the DPR 547 of 27-04-1955 and further changes.
The standard series is designed for:
- Heights above ground of 16, 18, 20, 25 and 30 meters, no. 2 - 3 classes of predetermined resistance
- Installation in the areas 1÷9 indicated in the Eurocode UNI ENV 1991-2-4- al §10
- Direct embedment on the foundation
- Installation with base plate and anchor bolts

The main parts of the high masts are supplied disassembled as indicated below:
- Polygonal sections composing the mast: they are put one into the other and/or put one next to the other
- Mobile crown: mounted
- Lifting head: mounted
- Lifting unit: mounted
- Support brackets, bolts and accessories: loose
- Nuts and bolts: in appropriate boxes.

POLYGONAL POLES FOR LARGE AREAS



POLYGONAL POLES FOR LARGE AREAS

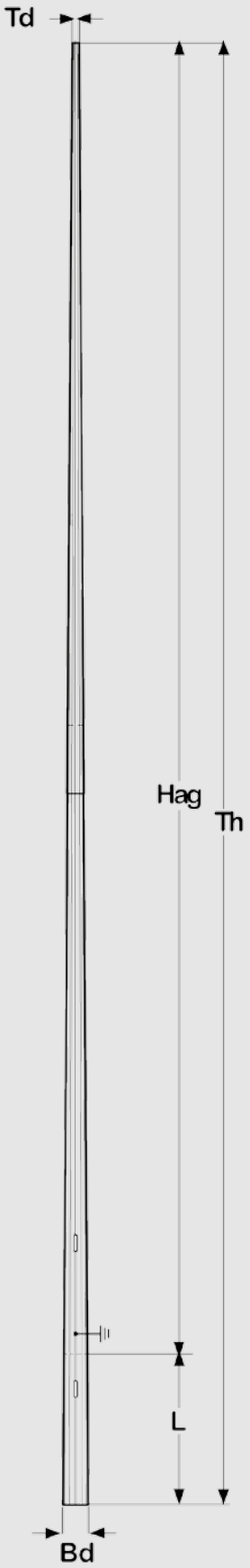
The GA range straight polygonal poles are supports designed and built to sustain one or more lamps or floodlights. The pole is obtained from trapezoidal sheet steel longitudinally bent in subsequent stages in order to obtain the pyramid section conformation with a polygonal base.
The structure is realized with 2 tapered tubular elements with polygonal sections (8 or 12 sides) that are joined through forced coupling during installation on site.

MATERIALS:
POLE SHAFTS: realized in S 235 JR (UNI EN 10025) press- formed sheet steel and using a certified welding procedure

WELD: Longitudinally through certified automatic procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.

TECHNICAL DOCUMENTATION: Instruction manual for the installation of the pole.



ACCESSORIES

BALL & PVC CAPS

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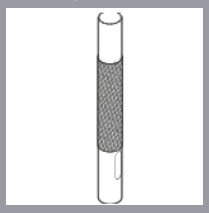
HEATSHRINK



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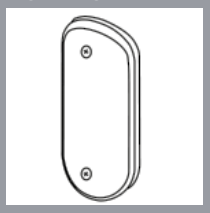
SLOT DOORS & TERMINAL BOARDS



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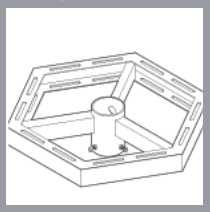

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WORKINGS

BASE PLATE

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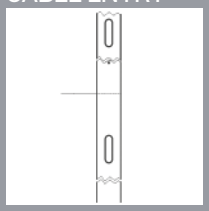
SLOTS FOR TERMINAL BOARD AND CABLE ENTRY



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EARTHING PLATE

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OCTAGONAL POLES FOR LARGE AREAS

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	THICKNESS T, MM	TOTAL WEIGHT OF THE POLE W, KG
CPOGA13	13.000	12.000	1.000	237	90	4-4	223
CPOGA14	14.000	13.000	1.000	250	90	4-4	248
CPOGA15	15.000	14.000	1.000	262	90	4-4	274
CPOGA16	16.000	15.000	1.000	274	90	4-4	301
CPOGA17	17.200	16.000	1.200	286	90	4-4	329

POLYGONAL POLES WITH 12 SIDES FOR LARGE AREAS

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	THICKNESS T, MM	TOTAL WEIGHT OF THE POLE W, KG
CPOGA13	13.000	12.000	1.000	315	110	4-4	290
CPOGA14	14.000	13.000	1.000	331	110	4-4	324
CPOGA15	15.000	14.000	1.000	348	110	4-4	359
CPOGA16	16.000	15.000	1.000	368	110	4-4	403
CPOGA17	17.200	16.000	1.200	384	110	4-4	441
CPOGA18	18.200	17.000	1.200	401	110	4-4	482
CPOGA19	19.200	18.000	1.200	417	110	4-4	524
CPOGA175	17.200	16.000	1.200	384	110	5-4	511
CPOGA185	18.200	17.000	1.200	401	110	5-4	562
CPOGA195	19.200	18.000	1.200	417	110	5-4	614

STEPPED POLES FOR LARGE AREAS

STRAIGHT STEPPED POLES FOR LARGE AREAS

The GA straight stepped poles are supports designed and built to sustain one or more floodlights.
The pole is realized with cylindrical tube elements with decreasing diameter towards the upper part, appropriately fitted (stepped) and welded in sequence.
The poles are made up of two coupled sections that must be blocked using no.6 bolts.

MATERIALS:
TUBE: tube realized in S 235 JR (UNI EN 10025) sheet steel according to the ERW certified procedure.

WELDS:
circumferential welding with certified automatic procedure.

TREATMENTS:
Hot - dip galvanization in compliance with UNI EN 1461 of all the components

REFERENCE STANDARDS:
The poles are produced in compliance with the UNI EN 40-5 and the related rules:
Dimension and tolerances: UNI EN 40-2; Materials: UNI EN 40-5; Specifications for characteristic loads: UNI EN 40-3-1; Verification by calculation: UNI EN 40-3-3. The poles are “CE” marked in accordance with the directive CEE 89/106 of 21/12/1988.

CE MARKING
Application of the “CE” plate on each pole.

TECHNICAL DOCUMENTATION:
Performance data table elaborated according to UNI EN 40-3-3, CE declaration of conformity for each batch supplied.

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	THICKNESS T, MM	TOTAL WEIGHT OF THE POLE W, KG
CGA1302	13.000	12.000	1.000	219	114	4-4-4-3-3	220
CGA1401	14.000	13.000	1.000	193	114	4-4-3-3	221
CGA1402	14.000	13.000	1.000	219	114	5-4-4-3-3	291
CGA1501	15.000	14.000	1.000	219	114	4-4-4-3-3	276
CGA1502	15.000	14.000	1.000	219	114	5-4-4-3-3	309
CGA1601	16.000	15.000	1.000	219	114	5-4-4-3-3	318
CGA1602	16.000	15.000	1.000	219	114	6-4-4-3-3	350

ACCESSORIES

BALL & PVC CAPS

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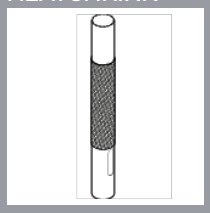
HEATSHRINK



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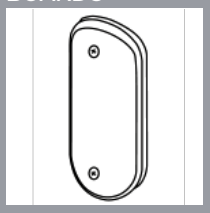
SLOT DOORS & TERMINAL BOARDS



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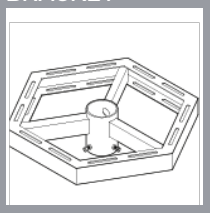

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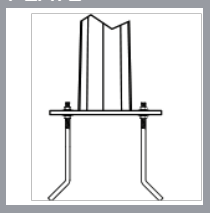
WORKINGS

BASE PLATE



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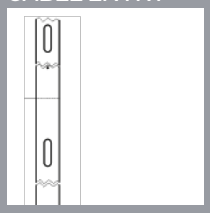
SLOTS FOR TERMINAL BOARD AND CABLE ENTRY



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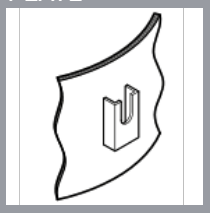
EARTHING PLATE



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HINGED POLES

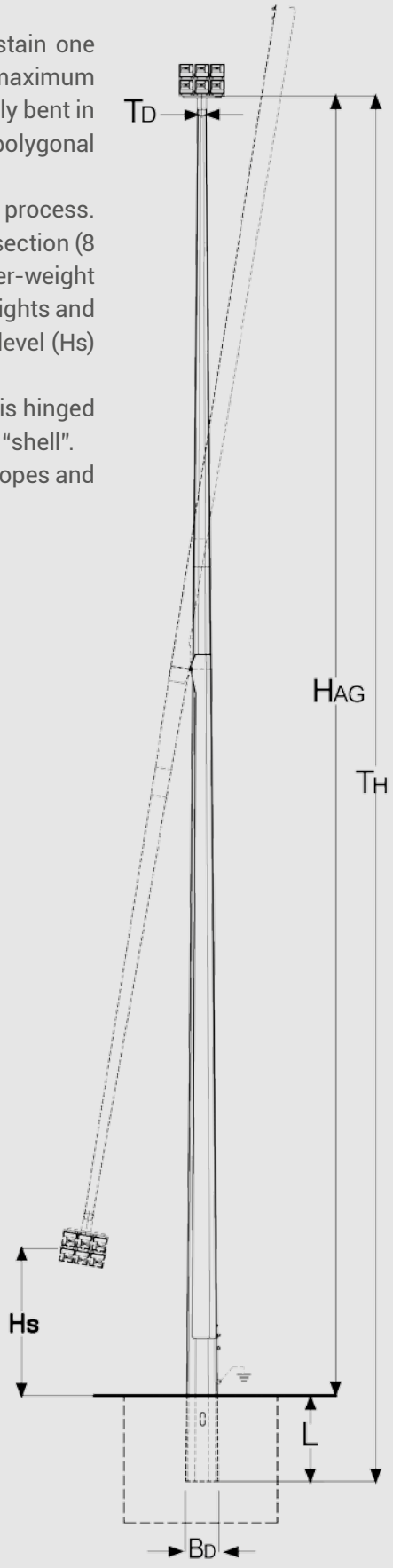
HINGED POLES

The PBA range hinged poles are supports designed and built to sustain one or more lamp or floodlight with pre-established total minimum and maximum weights. The pole is obtained from trapezoidal sheet steel longitudinally bent in subsequent stages in order to obtain the pyramid section form with polygonal base.

The longitudinal edges after bending are welded through an automatic process. The structure is made up of 1 tubular element with tapered polygonal section (8 or 12 sides) onto which the final part of the pole welded to the counter-weight element is hinged. To carry out assembly or maintenance on the floodlights and their accessories, the support bracket can be lowered to the working level (Hs) at 1600-1700 mm above the ground.

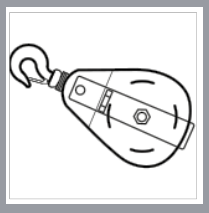
Descent is obtained by making the upper part of the mast turn, which is hinged onto the lower mast and balanced by a counter-weight element called “shell”.

The descent and ascent operations can be done manually via service ropes and a service pulley supplied as spare accessories.



ACCESSORIES

HANDLING KIT



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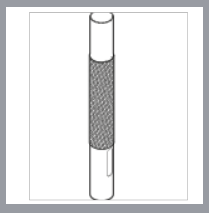
HEATSHRINK



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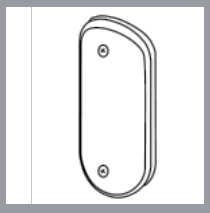
SLOT DOORS & TERMINAL BOARDS



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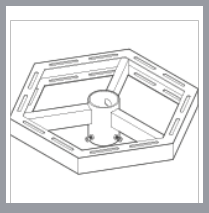

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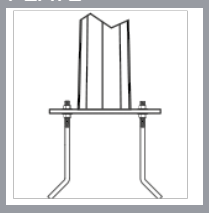
WORKINGS

BASE PLATE



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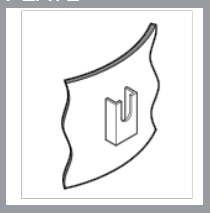
SLOTS FOR TERMINAL BOARD AND CABLE ENTRY

Page 98

EARTHING PLATE



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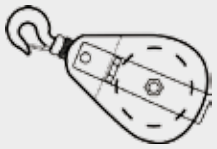
MATERIALS: SHAFT and SHELL: realized in S 235 JR or S 355 JR sheet steel (UNI EN 10025).
WELD: Longitudinal welding through certified automatic procedure.
SERVICE ROPE: No. 1 in polyester
PULLEY: With safety hook, CE marking
TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.
LIFTING UNIT: Manual, with control rope. Application of a pulley with one or more returns in order to reduce (if necessary) the operator's effort and to bring it back within the law 626 (max effort not more than 30 kg).
TECHNICAL DOCUMENTATION: Instruction manual for the installation of the pole, CE user's and maintenance manual of the whole structure, application of warning, identification and utilization parameters plates.

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	No. OF SIDES	THICKNESS T, MM	TOTAL WEIGHT OF THE POLE W, KG
CPOBA081	8.800	8.000	800	148	60	8	4	122
CPOBA082	8.800	8.000	800	163	75	8	4	140
CPOBA091	9.800	9.000	800	158	60	8	4	143
CPOBA092	9.800	9.000	800	173	75	8	4	162
CPOBA101	10.800	10.000	800	168	60	8	4	164
CPOBA102	10.800	10.000	800	183	75	8	4	186
CPOBA111	11.800	11.000	800	178	60	8	4	188
CPOBA112	11.800	11.000	800	193	75	8	4	211
CPOBA121	12.800	12.000	800	188	60	8	4	212
CPOBA122	12.800	12.000	800	203	75	8	4	238
CPOBA131	14.000	13.000	1.000	243	75	8	4	297
CPOBA132	14.000	13.000	1.000	342	90	12	4	398
CPOBA141	15.000	14.000	1.000	255	75	12	4	347
CPOBA142	15.000	14.000	1.000	360	90	12	4	457
CPOBA151	16.000	15.000	1.000	284	90	12	4	411
CPOBA152	16.000	15.000	1.000	402	110	12	4	561
CPOBA161	17.200	16.000	1.200	296	90	12	4	450
CPOBA162	17.200	16.000	1.200	420	110	12	4	617
CPOBA171	18.200	17.000	1.200	328	110	12	4	541
CPOBA172	18.200	17.000	1.200	438	110	12	4	675
CPOBA181	19.200	18.000	1.200	340	110	12	4	586
CPOBA182	19.200	18.000	1.200	456	110	12	4	736

HANDLING KIT FOR HINGED POLES

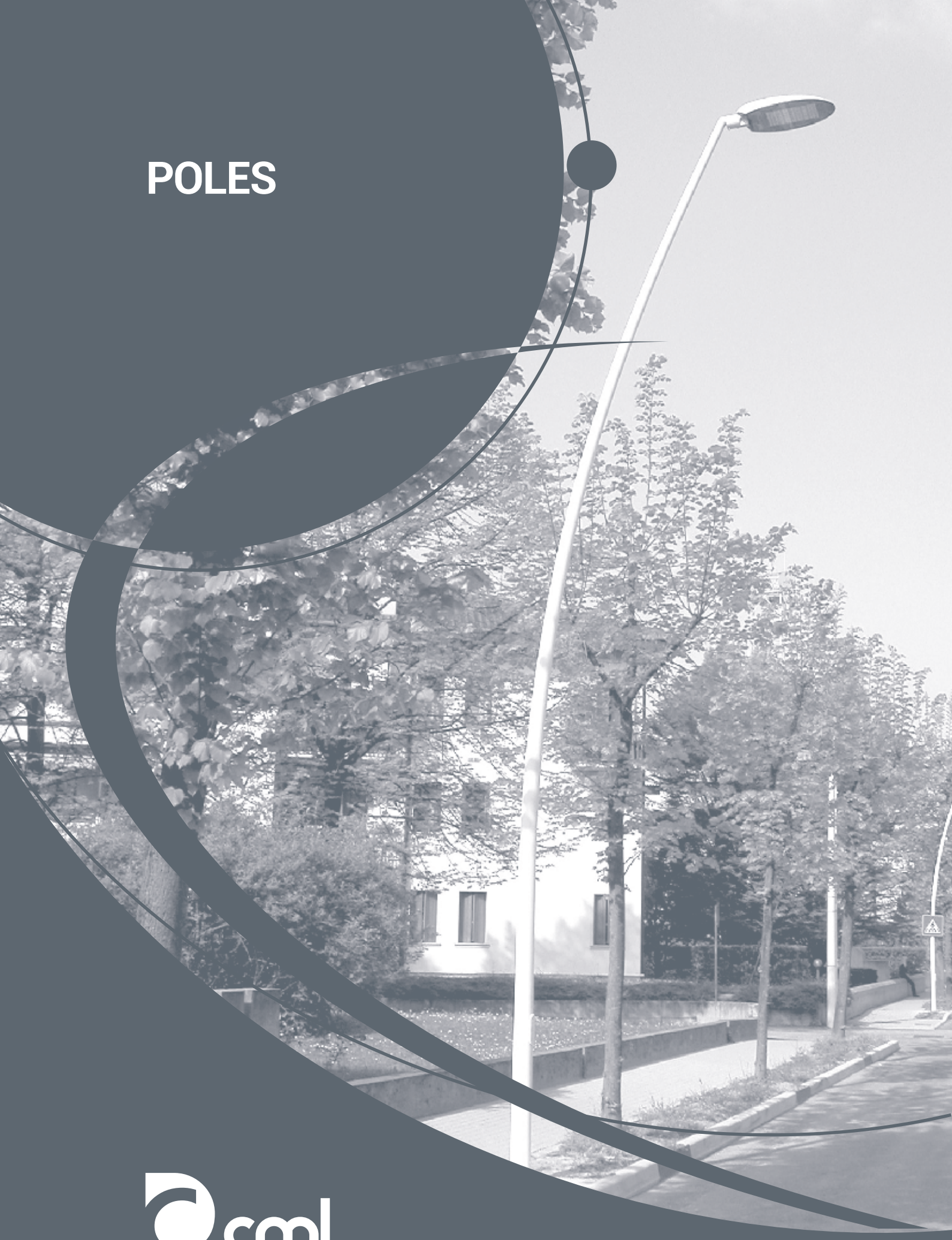
KIT CODE
VKITPBA



The handling kit for hinged poles helps during the lowering and rising of the mobile section. The use of this kit is recommended for every pole, in particular for all the .02 versions and for the poles with a higher weight and load.

ADDITIONAL WEIGHT
VCONTRPBA00

POLES



a Del Carlo Group company

STRAIGHT STEPPED POLES

STRAIGHT STEPPED POLES

The PR range straight stepped poles are supports designed and built to sustain one or more lamps or floodlights. The pole is made up of cylindrical tube elements with decreasing diameter towards the upper part, appropriately fitted (stepped) and welded in sequence.

MATERIALS: tube realized in S 235 JR (UNI EN 10025) sheet steel according to the ERW certified procedure.

WELD: circumferential welding through certified automatic procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components. Painting with polyester powder.

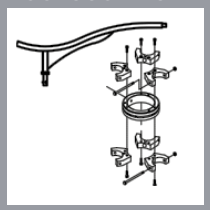
REFERENCE STANDARDS: The poles are produced in compliance with the UNI EN 40-5 and the related rules: Dimension and tolerances: UNI EN 40-2; Materials: UNI EN 40-5; Specifications for characteristic loads: UNI EN 40-3-1; Verification by calculation: UNI EN 40-3-3. The poles are "CE" marked in accordance with the directive CEE 89/106 of 21/12/1988.

CE MARKING Application of the "CE" plate on each pole.

TECHNICAL DOCUMENTATION: Performance data table elaborated according to UNI EN 40-3-3, CE declaration of conformity for each batch supplied.

ACCESSORIES

URBAN DESIGN ACCESSORIES



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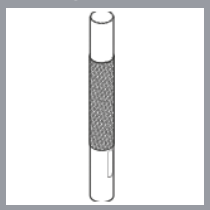
HEATSHRINK



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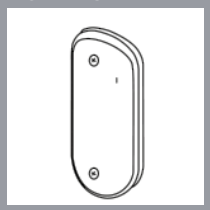
SLOT DOORS & TERMINAL BOARDS



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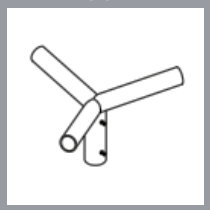
POLE HEAD FITTINGS



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BALLS & PVC CAPS

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STANDARD CURVED ARM

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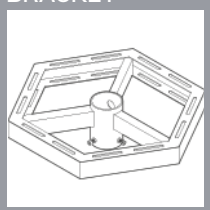
HEAD BRACKET



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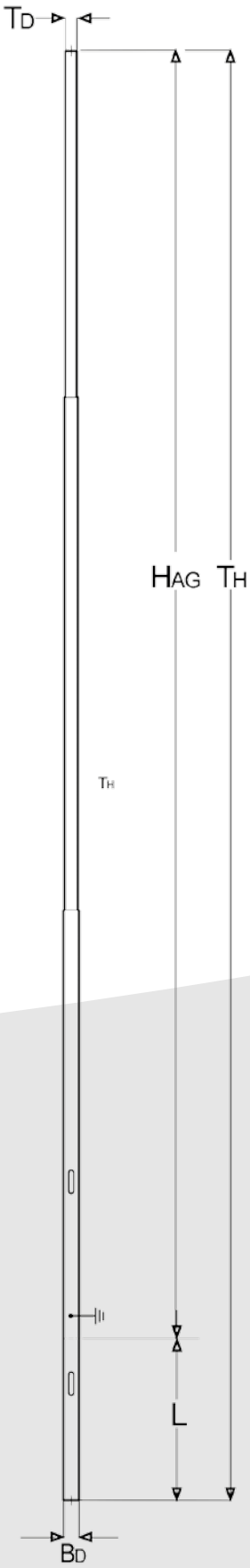
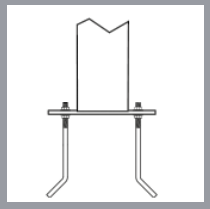


WORKINGS

BASE PLATE



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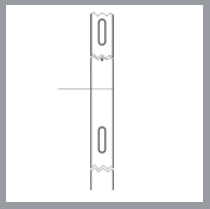
SLOTS FOR TERMINAL BOARD AND CABLE ENTRY



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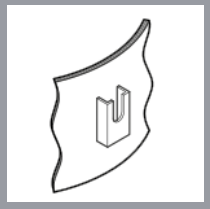
EARTHING PLATE



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POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	No. OF WELDED SHAFTS	THICKNESS T, MM	TOTAL WEIGHT OF THE POLE W, KG
CPR0350	3.500	3.000	500	76	60	2	3 - 3	18
CPR0400	4.000	3.500	500	89	60	3	3 - 3 - 3	23
CPR0410	4.000	3.500	500	76	60	2	3 - 3	20
CPR0450	4.500	4.000	500	89	60	3	3 - 3 - 3	26
CPR0460	4.500	4.000	500	76	60	2	3 - 3	23
CPR0500	5.000	4.500	500	89	60	3	3 - 3 - 3	28
CPR0550	5.500	5.000	500	89	60	3	3 - 3 - 3	31
CPR0600	6.000	5.500	500	102	60	3	3 - 3 - 3	35
CPR0610	6.000	5.500	500	114	70RED60	4	3 - 3 - 3 - 3	46
CPR0700	6.800	6.000	800	114	60	3	3 - 3 - 3	48
CPR0710	6.800	6.000	800	127	70RED60	4	3 - 3 - 3 - 3	58
CPR0720	6.800	6.000	800	139	70RED60	4	3 - 3 - 3 -3	59
CPR0730	6.800	6.000	800	139	70RED60	4	4 - 3 - 3 -3	70
CPR0740	6.800	6.000	800	152	89RED60	4	4 - 4 - 3 -3	84
CPR0750	6.800	6.000	800	168	89RED60	4	4 - 4 - 3 -3	91
CPR0760	6.800	6.000	800	193	114RED60	4	4 - 4 - 4 -3	113
CPR0770	6.800	6.000	800	219	114RED60	4	5 - 4 - 4 -3	138
CPR0800	7.800	7.000	800	114	60	4	3 - 3 - 3 - 3	52
CPR0810	7.800	7.000	800	127	70RED60	4	3 - 3 - 3 - 3	65
CPR0820	7.800	7.000	800	139	70RED60	4	3 - 3 - 3 - 3	66
CPR0830	7.800	7.000	800	139	70RED60	4	4 - 3 - 3 - 3	77
CPR0840	7.800	7.000	800	152	89RED60	4	4 - 4 - 3 -3	94
CPR0850	7.800	7.000	800	168	89RED60	4	4 - 4 - 3 -3	101
CPR0860	7.800	7.000	800	193	114RED60	4	4 - 4 - 4 -3	126
CPR0870	7.800	7.000	800	219	114RED60	4	5 - 4 - 4 -3	156
CPR0900	8.800	8.000	800	127	60	4	3 - 3 - 3 - 3	63
CPR0910	8.800	8.000	800	127	60	4	4 - 3 - 3 - 3	72
CPR0920	8.800	8.000	800	139	70RED60	4	3 - 3 - 3 - 3	72
CPR0930	8.800	8.000	800	139	70RED60	4	4 - 3 - 3 - 3	83
CPR0940	8.800	8.000	800	152	89RED60	4	4 - 4 - 3 -3	102
CPR0950	8.800	8.000	800	168	89RED60	4	4 - 4 - 3 -3	109
CPR0960	8.800	8.000	800	193	114RED60	4	4 - 4 - 4 -3	137
CPR0970	8.800	8.000	800	219	114RED60	5	5 - 4 - 4 - 3 - 3	175
CPR01000	9.800	9.000	800	127	60	5	3 - 3 - 3 - 3	71
CPR01010	9.800	9.000	800	127	60	5	4 - 3 - 3 - 3 -3	80
CPR01020	9.800	9.000	800	139	70RED60	5	3 - 3 - 3 - 3 -3	81
CPR01030	9.800	9.000	800	139	70RED60	5	4 - 3 - 3 - 3 -3	92
CPR01040	9.800	9.000	800	152	89RED60	5	4 - 4 - 3 - 3 -3	110
CPR1050	9.800	9.000	800	168	89RED60	5	4 - 4 - 3 -3 - 3	125
CPR1060	9.800	9.000	800	193	114RED60	5	4 - 4 - 4 -3 - 3	152
CPR1070	9.800	9.000	800	219	114RED60	5	5 - 4 - 4 -3 - 3	184
CPR1100	10.800	10.000	800	139	70RED60	5	3 - 3 - 3 - 3 - 3	87
CPR1110	10.800	10.000	800	139	70RED60	5	4 - 3 - 3 - 3 - 3	98
CPR1120	10.800	10.000	800	152	70RED60	5	4 - 4 - 3 - 3 - 3	112
CPR1130	10.800	10.000	800	168	89RED60	5	4 - 4 - 4 - 3 - 3	137
CPR1140	10.800	10.000	800	193	114RED60	5	4 - 4 - 4 - 4 - 3	165
CPR1150	10.800	10.000	800	219	114RED60	5	5 - 4 - 4 -3 - 3	194
CPR1200	11.800	11.000	800	152	70RED60	5	4 - 3 - 3 - 3 - 3	112
CPR1210	11.800	11.000	800	168	89RED60	5	4 - 4 - 4 - 3 - 3	153
CPR1220	11.800	11.000	800	193	114RED60	5	4 - 4 - 4 - 3 - 3	177
CPR1230	11.800	11.000	800	219	114RED60	5	5 - 4 - 4 -3 - 3	213
CPR1300	12.800	12.000	800	168	89RED60	5	4 - 4 - 4 -3 - 3	166
CPR1310	12.800	12.000	800	193	114RED60	5	4 - 4 - 4 -3 - 3	193
CPR1320	12.800	12.000	800	219	114RED60	5	5 - 4 - 4 -3 - 3	230

STRAIGHT STEPPED POLES FOR PHOTOVOLTAIC PANEL

POLES FOR PHOTOVOLTAIC PANEL

The straight stepped poles for support of the photovoltaic panel kit are supports designed and built to sustain a self-powered system made up from a lamp and one or more photovoltaic panels.

The pole is made up of cylindrical tube elements with decreasing diameter towards the upper part, appropriately fitted (stepped) and welded in sequence.

If needed, every pole can be completed with its appropriate SF bracket, to be sold separately.

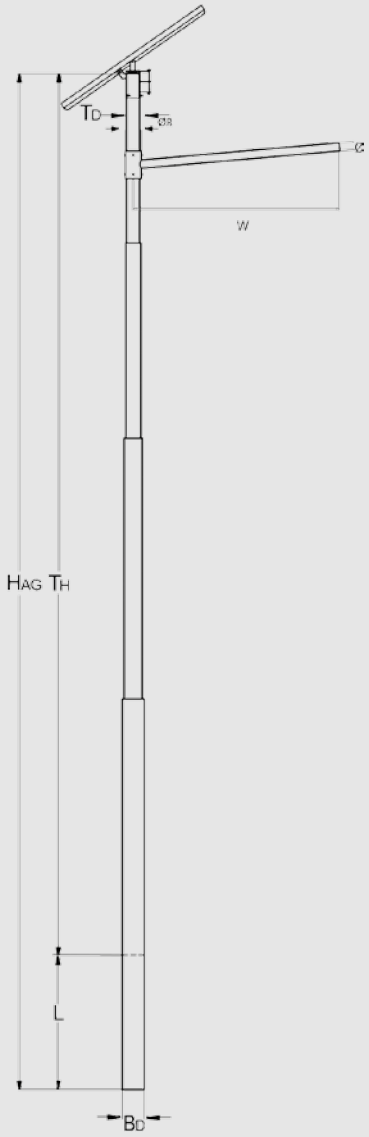
MATERIALS: TUBE: tube realized in S 235 JR (UNI EN 10025) sheet steel according to the ERW certified procedure.

WELD: circumferential welding through certified automatic procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.

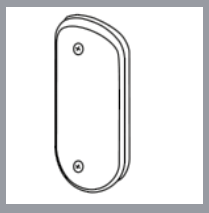
Painting with polyester powder.

REFERENCE STANDARDS: Dimension and tolerances: UNI EN 40-2; Materials: UNI EN 40-5; Specifications for characteristic loads: UNI EN 40-3-1; Verification by calculation: UNI EN 40-3-3-3.



ACCESSORIES

SLOT DOORS & TERMINAL BOARDS



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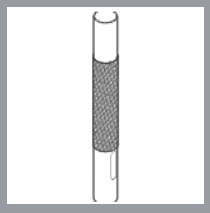
HEATSHRINK



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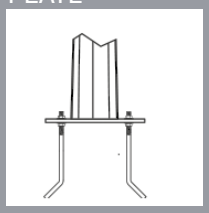
WORKINGS

BASE PLATE



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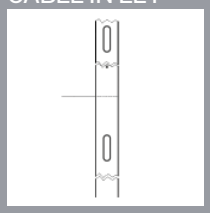
SLOTS FOR TERMINAL BOARD AND CABLE IN LET



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POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	No. OF PANELS THAT CAN BE MOUNTED	No. OF WELDED ELEMENTS	THICKNESS T, MM	TOTAL WEIGHT OF THE POLE W, KG
CP078PF1	7.800	7.000	800	152	89	1	4	4 - 4 - 3 - 3	91
CP078PF2	7.800	7.000	800	168	102	2	4	4 - 4 - 3 - 3	102

ARM CODE	OUTREACH W, MM	BRACKET DIAMETER ØMM	JUNCTION DIAMETER ØMM	INCLINATION ANGLE A,°	TOTAL WEIGHT OF THE BRACKET W, KG
CSF10PF1	1.000	60	102	5°	5,5
CSF15PF1	1.500	60	102	5°	7,8
CSF10PF2	1.000	60	114	5°	5,9
CSF15PF2	1.500	60	114	5°	8,2

STRAIGHT STEPPED POLES FOR OVERHEAD LINES

STRAIGHT STEPPED POLES FOR OVERHEAD LINES

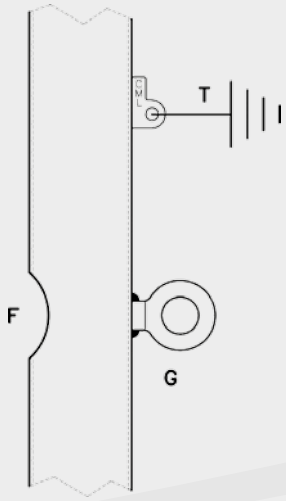
The PA range straight stepped poles are supports designed and built to sustain lamps or floodlights powered by an overhead cable line suspended at the eye-nut (G) put at the height Hs (equal to 6.000 mm). The pole is realized with cylindrical tube elements with decreasing diameter towards the upper part, appropriately fitted (stepped) and welded in sequence.
The eye-bolt (G) is welded at height Hs, where the overhead cable line support rope is suspended: a hole (F) is made at the same height for the passage of the lighting fixture power supply cable. The earthing plate (T) is at 100 mm from the eyebolt.

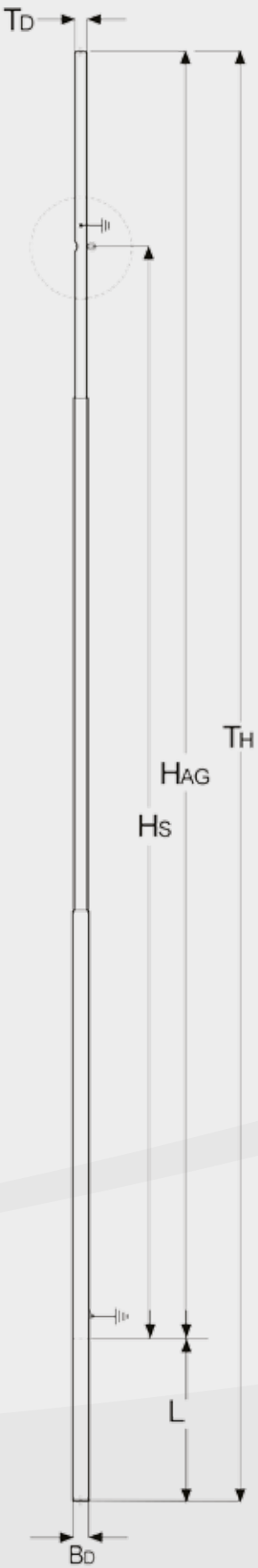
MATERIALS: TUBE: tube realized in S 235 JR (UNI EN 10025) sheet steel according to the ERW certified procedure.

WELD: Circumferential welding with certified automatic procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.

REFERENCE STANDARDS: The poles are calculated in order to resist to the load indicated in the chart, maintaining the deflection within the figures permitted by law.
In the following chart , for each type of pole, the pole's net limit performance is expressed in daN that can be applied to the eyebolt (G).loads: UNI EN 40-3-1; Verification by calculation: UNI EN 40-3-3-3.





ACCESSORIES

BALL & PVC CAPS

Page 97+100

STANDARD CURVED ARM

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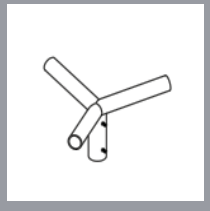
POLE HEAD FITTINGS



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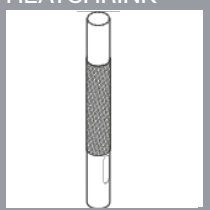
HEATSHRINK



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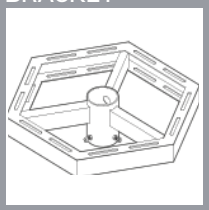
HEAD BRACKET



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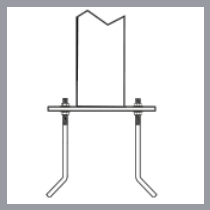
WORKINGS

BASE PLATE



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EARTHING PLATE

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POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	THICKNESS T, MM	LOAD, PERFORMANCE	TOTAL WEIGHT OF THE POLE W, KG
CPA7010	6.800	6.000	800	152	89RED60	4 - 4 - 3 - 3	88.3	84
CPA8020	6.800	6.000	800	168	89RED60	4 - 4 - 3 - 3	117.8	91
CPA7030	6.800	6.000	800	193	114RED60	4 - 4 - 3 - 3	157.0	113
CPA7040	6.800	6.000	800	219	114RED60	5 - 4 - 4 - 3	196.2	138
CPA8010	7.800	7.000	800	152	89RED60	4 - 4 - 3 - 3	78.5	94
CPA8020	7.800	7.000	800	168	89RED60	4 - 4 - 3 - 3	103.0	101
CPA8030	7.800	7.000	800	193	114RED60	4 - 4 - 3 - 3	152.0	126
CPA8040	7.800	7.000	800	219	114RED60	5 - 4 - 4 - 3	235.4	156
CPA9010	8.800	8.000	800	152	89RED60	4 - 4 - 3 - 3	58.9	102
CPA9020	8.800	8.000	800	168	89RED60	4 - 4 - 3 - 3	83.4	109
CPA9030	8.800	8.000	800	193	114RED60	4 - 4 - 4 - 3	137.4	137
CPA9040	8.800	8.000	800	219	114RED60	5 - 4 - 4 - 3 - 3	215.8	175
CPA1001	9.800	9.000	800	152	89RED60	4 - 4 - 3 - 3 - 3	68.7	110
CPA1002	9.800	9.000	800	168	89RED60	4 - 4 - 3 - 3 - 3	83.4	125
CPA1003	9.800	9.000	800	193	114RED60	4 - 4 - 4 - 3 - 3	127.5	152
CPA1004	9.800	9.000	800	219	114RED60	5 - 4 - 4 -3 - 3	196.2	184
CPA1101	10.800	10.000	800	152	89RED60	4 - 4 - 3 - 3 - 3	53.7	112
CPA1102	10.800	10.000	800	168	89RED60	4 - 4 - 4 - 3 - 3	68.4	137
CPA1103	10.800	10.000	800	193	114RED60	4 - 4 - 4 - 4 - 3	108.5	165
CPA1104	10.800	10.000	800	219	114RED60	5 - 4 - 4 -3 - 3	181.2	194

STRAIGHT CONICAL POLES

CONICAL POLES

The PC range straight conical poles are supports designed and built to sustain one or more lamps or floodlights. The pole is obtained from trapezoidal sheet steel longitudinally bent in subsequent stages in order to obtain the tapered section form. The longitudinal edges after bending are welded via an automatic process.

MATERIALS: SHAFT: tube realized in S 235 JR (UNI EN 10025) sheet steel according to the ERW certified procedure.

WELD: Longitudinal welding through certified automatic procedure.
TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.

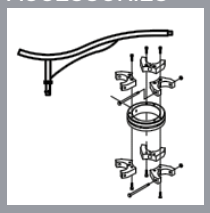
REFERENCE STANDARDS: The poles are produced in compliance with the UNI EN 40-5 and the related rules:
Dimension and tolerances: UNI EN 40-2; Materials: UNI EN 40-5; Specifications for characteristic loads: UNI EN 40-3-1; Verification by calculation: UNI EN 40-3-3. The poles are "CE" marked in accordance with the directive CEE 89/106 of 21/12/1988.

CE MARKING Application of the "CE" plate on each pole.

TECHNICAL DOCUMENTATION: Performance data table elaborated according to UNI EN 40-3-3, CE declaration of conformity for each batch supplied.

ACCESSORIES

URBAN DESIGN ACCESSORIES



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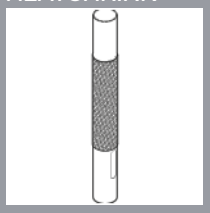
HEATSHRINK



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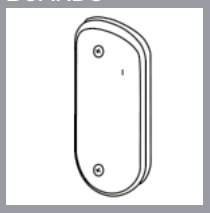
SLOT DOORS & TERMINAL BOARDS



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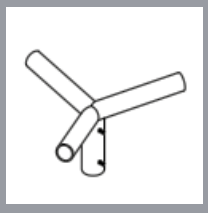
POLE HEAD FITTINGS



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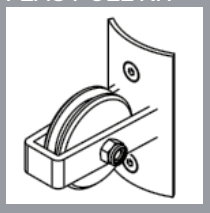
FLAG POLE KIT



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BALL & PVC CAPS

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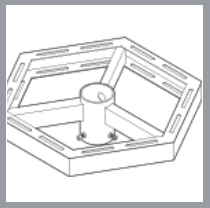
STANDARD CURVED ARM

Page 102-103

HEAD BRACKET



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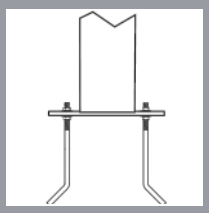
WORKINGS

BASE PLATE



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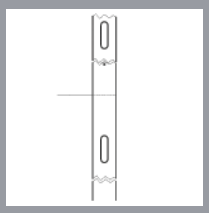
SLOTS FOR TERMINAL BOARD AND CABLE INLET



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EARTHING PLATE

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POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	THICKNESS T, MM	TOTAL WEIGHT OF THE POLE W, KG
CPC0335	3.500	3.000	500	95	60	3	21
CPC0340	4.000	3.500	500	100	60	3	25
CPC0345	4.500	4.000	500	105	60	3	28
CPC0350	5.000	4.500	500	110	60	3	32
CPC0355	5.500	5.000	500	115	60	3	37
CPC0360	6.000	5.500	500	120	60	3	41
CPC0368	6.800	6.000	800	128	60	3	48
CPC0368090	6.800	6.000	800	158	90	3	63
CPC0378	7.800	7.000	800	138	60	3	58
CPC0378090	7.800	7.000	800	168	90	3	76
CPC0388	8.800	8.000	800	148	60	3	68
CPC0388090	8.800	8.000	800	178	90	3	89
CPC0393	9.300	8.500	800	153	60	3	74
CPC0398	9.800	9.000	800	158	60	3	80
CPC0398090	9.800	9.000	800	188	90	3	103
CPC3130	10.300	9.500	800	163	60	3	86
CPC3108	10.800	10.000	800	168	60	3	92
CPC3108090	10.800	10.000	800	198	90	3	117
CPC3113	11.300	10.500	800	173	60	3	99
CPC3118	11.800	11.000	800	178	60	3	105
CPC3123	12.300	11.500	800	183	60	3	111
CPC3128	12.800	12.000	800	188	60	3	119
CPC0435	3.500	3.000	500	95	60	4	27
CPC0440	4.000	3.500	500	100	60	4	32
CPC0445	4.500	4.000	500	105	60	4	37
CPC0450	5.000	4.500	500	110	60	4	42
CPC0455	5.500	5.000	500	115	60	4	48
CPC0460	6.000	5.500	500	120	60	4	54
CPC0468	6.800	6.000	800	128	60	4	63
CPC0468090	6.800	6.000	800	158	90	4	84
CPC0478	7.800	7.000	800	138	60	4	76
CPC0478090	7.800	7.000	800	168	90	4	100
CPC0488	8.800	8.000	800	148	60	4	91
CPC0488090	8.800	8.000	800	178	90	4	117
CPC0493	9.300	8.500	800	153	60	4	98
CPC0498	9.800	9.000	800	158	60	4	107
CPC0498090	9.800	9.000	800	188	90	4	136
CPC4103	10.300	9.500	800	163	60	4	113
CPC4108	10.800	10.000	800	168	60	4	123
CPC4108090	10.800	10.000	800	198	90	4	155
CPC4113	11.300	10.500	800	173	60	4	130
CPC4118	11.800	11.000	800	178	60	4	141
CPC4123	12.300	11.500	800	183	60	4	148
CPC4128	12.800	12.000	800	188	60	4	160

STRAIGHT OCTAGONAL POLES

STRAIGHT OCTAGONAL POLES

The PO range straight octagonal poles are supports designed and built to sustain one or more lamps or floodlights.
The pole is obtained from trapezoidal sheet steel longitudinally bent in subsequent stages in order to obtain the pyramid section form with octagonal base. The longitudinal edges after bending are welded through an automatic process.

MATERIALS: SHAFT: realized in S 235 JR sheet steel (UNI EN 10025).

WELD: Longitudinal welding through certified automatic procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.

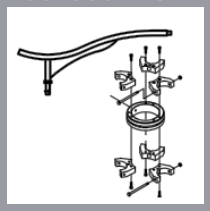
REFERENCE STANDARDS: The poles are produced in compliance with the UNI EN 40-5 and the related rules: Dimension and tolerances: UNI EN 40-2; Materials: UNI EN 40-5; Specifications for characteristic loads: UNI EN 40-3-1; Verification by calculation: UNI EN 40-3-3. The poles are "CE" marked in accordance with the directive CEE 89/106 of 21/12/1988.

CE MARKING Application of the "CE" plate on each pole.

TECHNICAL DOCUMENTATION: Performance data table elaborated according to UNI EN 40-3-3, CE declaration of conformity for each batch supplied.

ACCESSORIES

URBAN DESIGN ACCESSORIES



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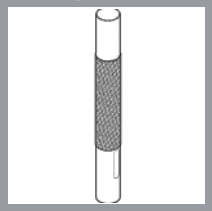
HEATSHRINK



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SLOT DOORS & TERMINAL BOARDS

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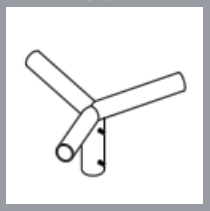
POLE HEAD FITTINGS



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FLAG POLE KIT

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BALL & PVC CAPS

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STANDARD CURVED ARM

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HEAD BRACKET

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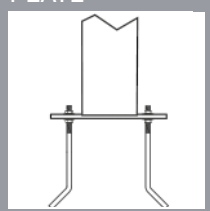
WORKINGS

BASE PLATE



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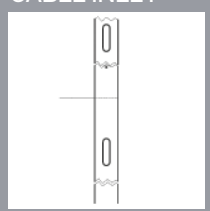
SLOTS FOR TERMINAL BOARD AND CABLE INLET



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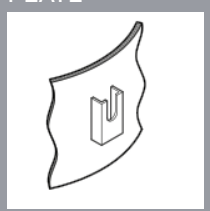
EARTHING PLATE



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POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	THICKNESS T, MM	TOTAL WEIGHT OF THE POLE W, KG
CPO0335	3.500	3.000	500	97	60	3	21
CPO0340	4.000	3.500	500	102	60	3	25
CPO0345	4.500	4.000	500	107	60	3	28
CPO0350	5.000	4.500	500	113	60	3	32
CPO0355	5.500	5.000	500	118	60	3	37
CPO0360	6.000	5.500	500	123	60	3	41
CPO0368	6.800	6.000	800	131	60	3	48
CPO0378	7.800	7.000	800	141	60	3	58
CPO0388	8.800	8.000	800	151	60	3	68
CPO0393	9.300	8.500	800	157	60	3	74
CPO0398	9.800	9.000	800	162	60	3	80
CPO3130	10.300	9.500	800	167	60	3	86
CPO3108	10.800	10.000	800	172	60	3	92
CPO3113	11.300	10.500	800	177	60	3	99
CPO3118	11.800	11.000	800	183	60	3	105
CPO3123	12.300	11.500	800	188	60	3	111
CPO0435	3.500	3.000	500	97	60	4	27
CPO0440	4.000	3.500	500	102	60	4	32
CPO0445	4.500	4.000	500	107	60	4	37
CPO0450	5.000	4.500	500	113	60	4	42
CPO0455	5.500	5.000	500	118	60	4	48
CPO0460	6.000	5.500	500	123	60	4	54
CPO0468	6.800	6.000	800	131	60	4	63
CPO0478	7.800	7.000	800	141	60	4	76
CPO0488	8.800	8.000	800	151	60	4	91
CPO0493	9.300	8.500	800	157	60	4	98
CPO0498	9.800	9.000	800	162	60	4	107
CPO4103	10.300	9.500	800	167	60	4	113
CPO4108	10.800	10.000	800	172	60	4	123
CPO4113	11.300	10.500	800	177	60	4	130
CPO4118	11.800	11.000	800	183	60	4	141
CPO4123	12.300	11.500	800	188	60	4	148
CPO4128	12.800	12.000	800	193	60	4	160

CYLINDRICAL POLES

CYLINDRICAL POLES

The PCL range straight cylindrical poles are supports designed and built to sustain one or more lamps or floodlights.
The pole is made up of a cylindrical tubular element.

MATERIALS: SHAFT: tube realized in S 235 JR (UNI EN 10025) sheet steel according to the ERW certified procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.

REFERENCE STANDARDS: The poles are produced in compliance with the UNI EN 40-5 and the related rules:
Dimension and tolerances: UNI EN 40-2; Materials: UNI EN 40-5; Specifications for characteristic loads: UNI EN 40-3-1; Verification by calculation: UNI EN 40-3-3. The poles are "CE" marked in accordance with the directive CEE 89/106 of 21/12/1988.

CE MARKING

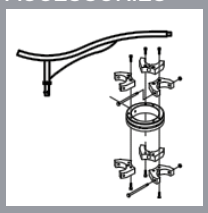
Application of the "CE" plate on each pole.

TECHNICAL DOCUMENTATION: Performance data table elaborated according to UNI EN 40-3-3, CE declaration of conformity for each batch supplied.

on the pole on which the arm is installed.

ACCESSORIES

URBAN DESIGN ACCESSORIES



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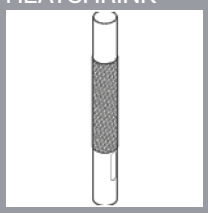
BALL & PVC CAPS

Page 97+100

HEATSHRINK



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FLAGPOLE KIT

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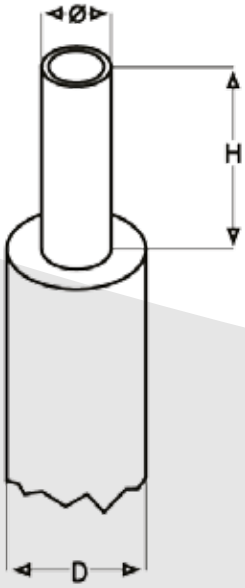
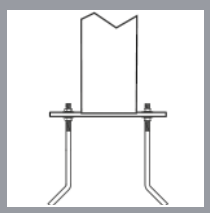


WORKINGS

BASE PLATE



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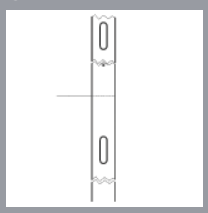
SLOTS FOR TERMINAL BOARD AND CABLE INLET



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EARTHING PLATE

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CYLINDRICAL POLE

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	POLES Ø BD, MM	THICKNESS T, MM	WEIGHT W, KG
CPCL0335	3.500	3.000	500	102	3	29
CPCL0340	4.000	3.500	500	102	3	33
CPCL0345	4.500	4.000	500	102	3	37
CPCL0350	5.000	4.500	500	102	3	41
CPCL0335	5.500	5.000	500	102	3	45
CPCL0360	6.000	5.500	500	102	3	49

CYLINDRICAL POLE WITH REDUCTION OF THE HEAD DIAMETER TO 60 MM

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	POLES Ø BD, MM	THICKNESS T, MM	WEIGHT W, KG
CPCL0335/60	3.500	3.000	500	102RED60	3	30
CPCL0340/60	4.000	3.500	500	102RED60	3	34
CPCL0345/60	4.500	4.000	500	102RED60	3	38
CPCL0350/60	5.000	4.500	500	102RED60	3	42
CPCL0335/60	5.500	5.000	500	102RED60	3	46
CPCL0360/60	6.000	5.500	500	102RED60	3	50

FLAGPOLES

FLAGPOLES

The PRA - PCA range flagpoles are used as flag or sign supports.
The pole can be realized as:
- PRA range, with cylindrical tube elements with decreasing diameter towards the upper part, appropriately fitted (stepped) and welded in sequence.
- PCA range, obtained from trapezoidal sheet steel longitudinally bent in subsequent stages in order to obtain the tapered section form. The longitudinal edges after bending are welded through an automatic process.

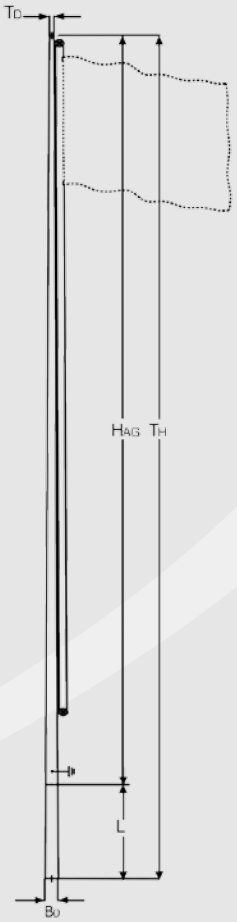
The pole has two idle pulleys onto which a closed-ring rope must be installed, which is adequately taut in order to sustain and move the flag, and a PVC cap to close the pole's end.

The standard workings at the base of the pole include the earthing plate .

MATERIALS: PRA RANGE TUBE: realized in S 235 JR (UNI EN 10025) sheet steel according to the ERW certified procedure.
PCA RANGE SHAFT: realized in S 235 JR sheet steel (UNI EN 10025).

WELD: Circumferential welding (PRA pole) or longitudinal welding (PCA poles) through certified automatic procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.



PRA RANGE STRAIGHT STEPPED FLAGPOLES

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	HEAD Ø TD, MM	THICKNESS T, MM	FLAG SIZE S,M2	WEIGHT W, KG
CPRA060	6.000	5.500	500	102	60	3	3.5	39
CPRA070	6.800	6.000	800	114	60	3	3.5	52
CPRA080	7.800	7.000	800	114	60	3	3.5	58
CPRA090	8.800	8.000	800	127	60	3	3.5	70
CPRA100	9.800	9.000	800	139	60	3	3.5	81
CPRA110	10.800	10.000	800	139	60	4	3.5	87
CPRA120	11.800	11.000	800	152	60	4	3.2	125

PCA RANGE CONICAL FLAGPOLES

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	HEAD Ø TD, MM	THICKNESS T, MM	FLAG SIZE S,M2	WEIGHT W, KG
CPCA060	6.000	5.500	500	120	60	3	4	41
CPCA070	6.800	6.000	800	128	60	3	4	48
CPCA080	7.800	7.000	800	138	60	3	4	58
CPCA090	8.800	8.000	800	148	60	3	4	68
CPCA100	9.800	9.000	800	158	60	3	4	80
CPCA110	10.800	10.000	800	168	60	3	3.6	92
CPCA120	11.800	11.000	800	178	60	3	3.6	105

BANNER POLES

CONICAL BANNER POLES

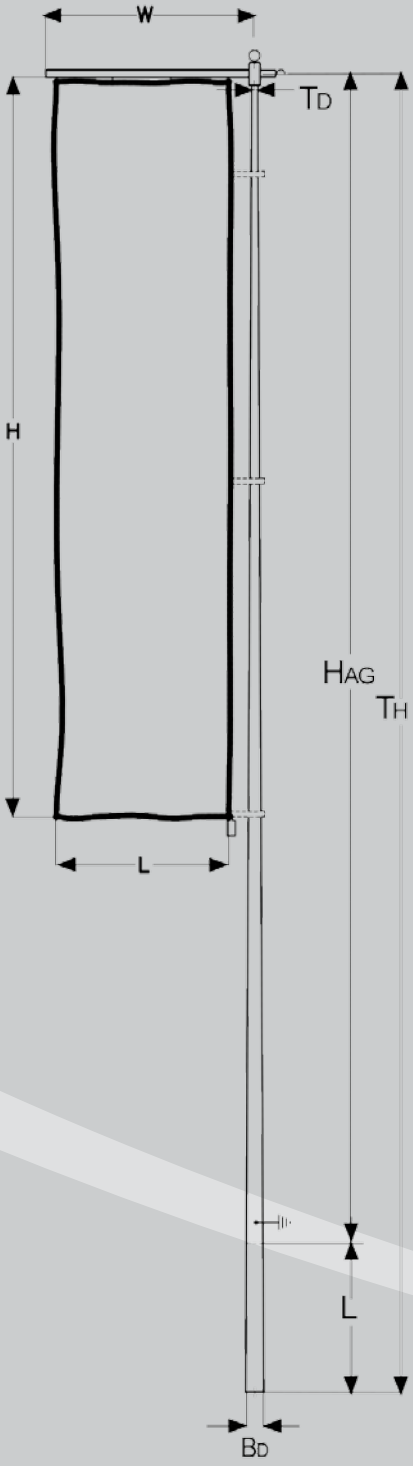
The PPS range conical poles for banners are obtained from trapezoidal sheet steel longitudinally bent in subsequent stages in order to obtain the tapered section form. The longitudinal edges after bending are welded through an automatic process. The pole is used as a support for the banner arm.

The arm is made up of a tubular profile with a square or rectangular section joined with two bushings. An ornamental metal ball is mounted on the top of the pole. When the banner is hit by wind it transmits the thrust to the rotating arm that aligns itself to the wind's direction.

MATERIALS: SHAFT: realized in S 235 JR sheet steel (UNI EN 10025).

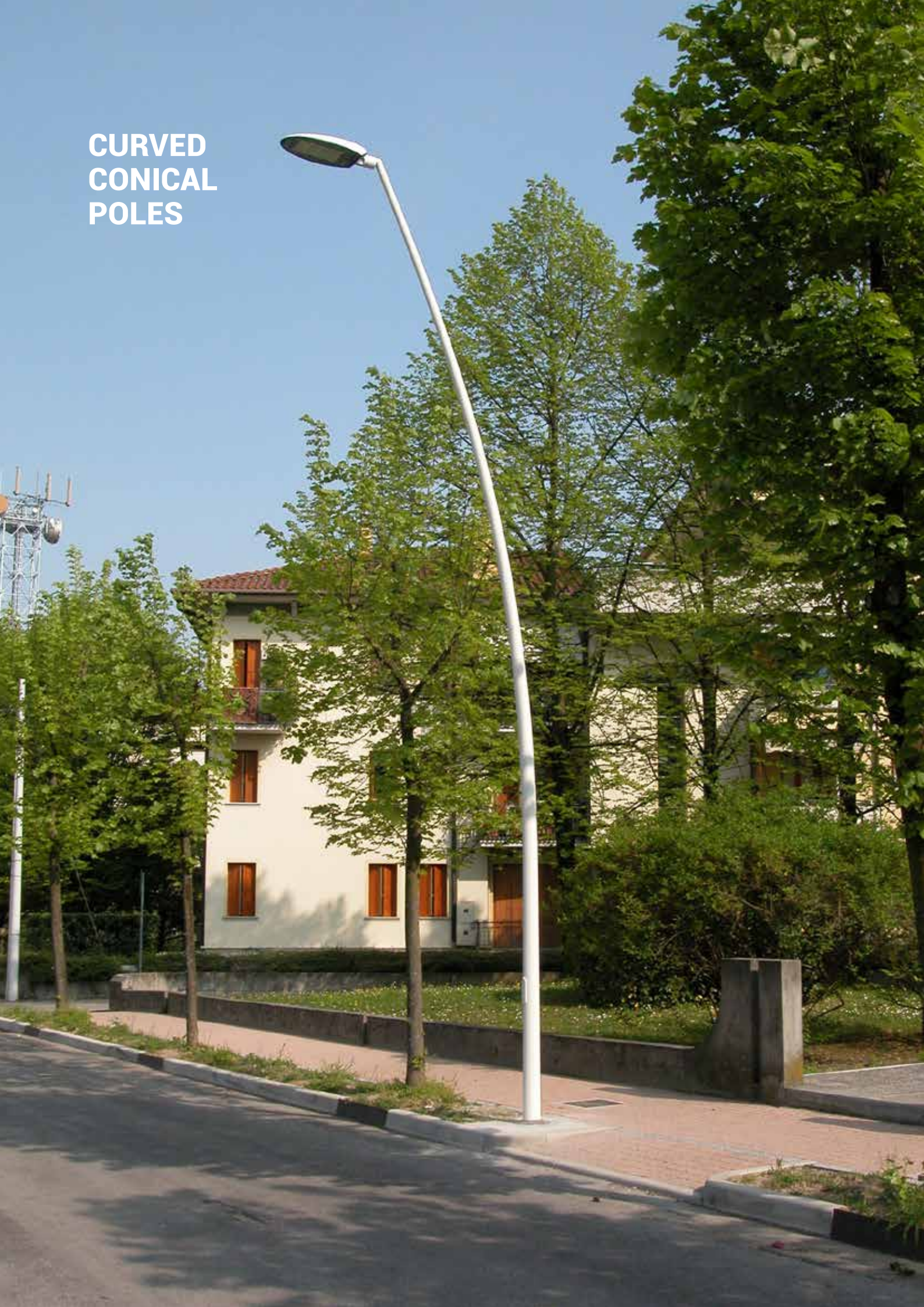
WELD: Longitudinal welding through certified automatic procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.



POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	OUTREACH W, MM	WEIGHT W, KG
CPPS088	8.800	8.000	800	148	60	1.500	98
CPPS098	9.800	9.000	800	158	60	1.500	115
CPP108	10.800	10.000	800	168	60	1.500	131

CURVED CONICAL POLES



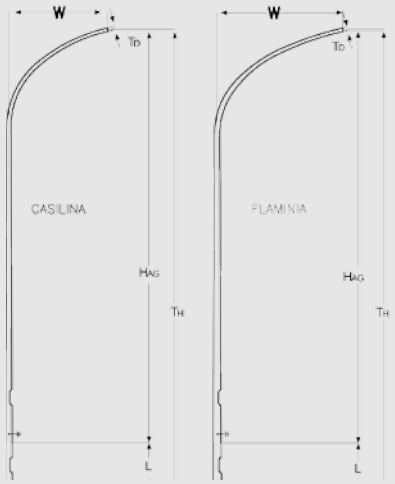
CURVED CONICAL POLES

The PC range curved conical poles are supports designed and built to sustain one lighting fixture.
The pole is obtained from trapezoidal sheet steel longitudinally bent in subsequent stages in order to obtain the tapered section form. The longitudinal edges after bending are welded through an automatic process. Then, the pole is cold bent on templates with suitable shape and size in order to obtain the curve as shown in the indicated model.

MATERIALS: SHAFT: realized in S 235 JR sheet steel (UNI EN 10025).

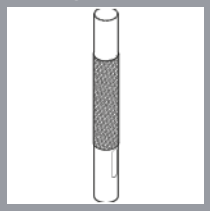
WELD: Longitudinal welding through certified automatic procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.



ACCESSORIES

HEATSHRINK



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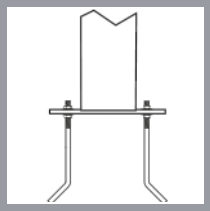
WORKINGS

BASE PLATE



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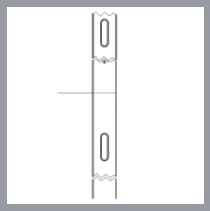
SLOTS FOR TERMINAL BOARD AND CABLE INLET



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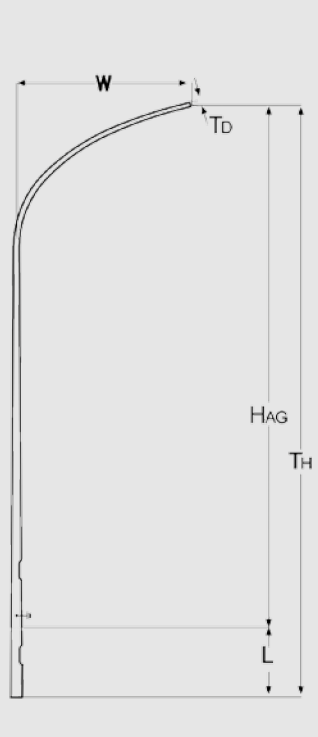
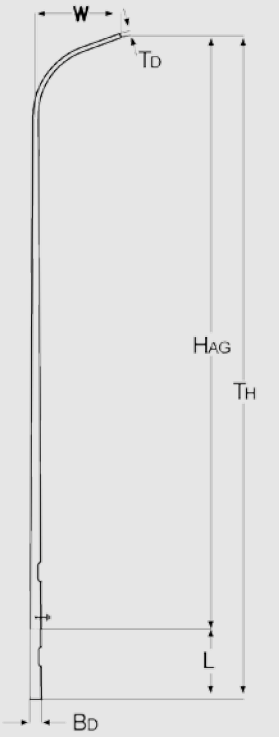
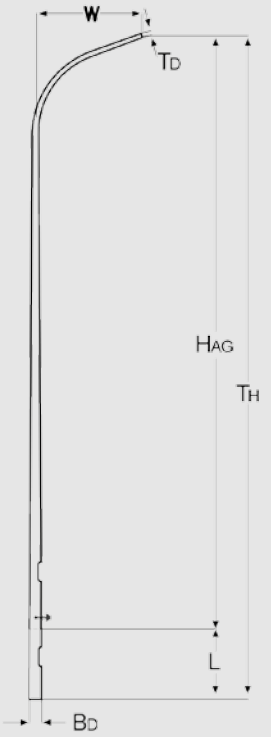


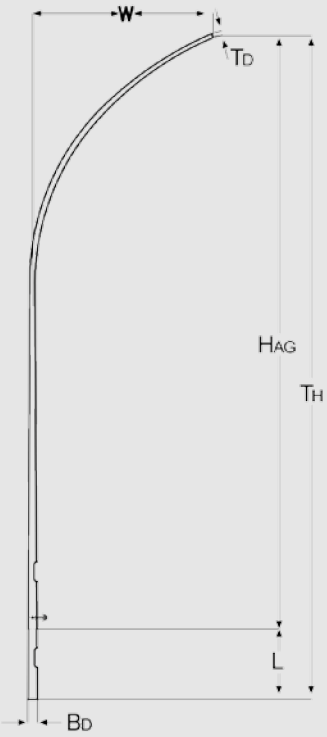
CALABRIA • BASILICATA
OSTIENSE • PRENESTINA



UMBRIA • ABRUZZO
MOLISE



MARCHE



SEMPIONE • LIGURIA

CURVED CONICAL POLES WITH SINGLE ARM THICKNESS 3MM

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	THICKNESS T, MM	OUTREACH W, MM	MODEL	TOTAL WEIGHT OF THE POLE W, KG
CPC37.10	7.900	7.100	800	148	60	3	1.750	CASILINA	68
CPC37.20	8.000	7.200	800	153	60	3	2.250	FLAMINIA	74
CPC37.80	8.600	7.800	800	153	60	3	1.200	ABRUZZO	74
CPC37.8.1	8.600	7.800	800	153	60	3	1.200	MOLISE	74
CPC38.00	8.800	8.000	800	163	60	3	2.500	CALABRIA	86
CPC38.0.1	8.800	8.000	800	163	60	3	2.500	BASILICATA	86
CPC38.30	9.100	8.300	800	163	60	3	2.500	SEMPIONE	86
CPC38.80	9.600	8.800	800	163	60	3	1.200	UMBRIA	86
CPC39.00	9.800	9.000	800	173	60	3	2.500	OSTIENSE	99
CPC39.70	10.500	9.700	800	173	60	3	1.500	MARCHE	99
CPC39.7.1	10.500	9.700	800	178	60	3	2.500	LIGURIA	105
CPC310.0	10.800	10.000	800	183	60	3	2.500	PRENESTINA	113

CURVED CONICAL POLES WITH SINGLE ARM THICKNESS 4MM

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø BD, MM	TOP Ø TD, MM	THICKNESS T, MM	OUTREACH W, MM	MODEL	TOTAL WEIGHT OF THE POLE W, KG
CPC47.10	7.900	7.100	800	148	60	4	1.750	CASILINA	90
CPC47.20	8.000	7.200	800	153	60	4	2.250	FLAMINIA	98
CPC47.80	8.600	7.800	800	153	60	4	1.200	ABRUZZO	98
CPC47.8.1	8.600	7.800	800	153	60	4	1.200	MOLISE	98
CPC48.00	8.800	8.000	800	163	60	4	2.500	CALABRIA	113
CPC48.8.1	8.800	8.000	800	163	60	4	2.500	BASILICATA	113
CPC48.30	9.100	8.300	800	163	60	4	2.500	SEMPIONE	113
CPC48.80	9.600	8.800	800	163	60	4	1.200	UMBRIA	113
CPC49.00	9.800	9.000	800	173	60	4	2.500	OSTIENSE	130
CPC49.70	10.500	9.700	800	173	60	4	1.500	MARCHE	130
CPC49.7.1	10.500	9.700	800	178	60	4	2.500	LIGURIA	141
CPC410.0	10.800	10.000	800	183	60	4	2.500	PRENESTINA	150

CURVED CONICAL POLES WITH DOUBLE ARM

The symmetrical arm is made with the same construction method as the curved conical pole (E), it must then be applied to the pole itself.

The arm is welded (S) to the curved part of the pole (B) as outlined in the figure. Some of the models with double arm can be assembled through coupling using screws (V1 and V2).

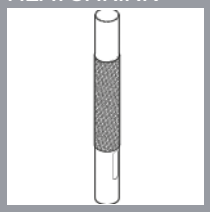
MATERIALS: realized in S 235 JR sheet steel (UNI EN 10025).

WELD: Longitudinal welding through certified automatic procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.

ACCESSORIES

HEATSHRINK



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SLOT DOORS & TERMINAL BOARDS

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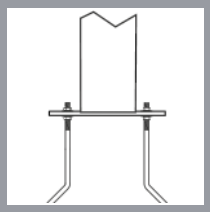
WORKINGS

BASE PLATE



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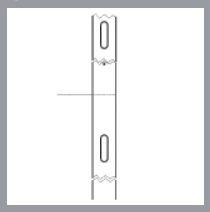
SLOTS FOR TERMINAL BOARD AND CABLE ENTRY



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EARTHING PLATE

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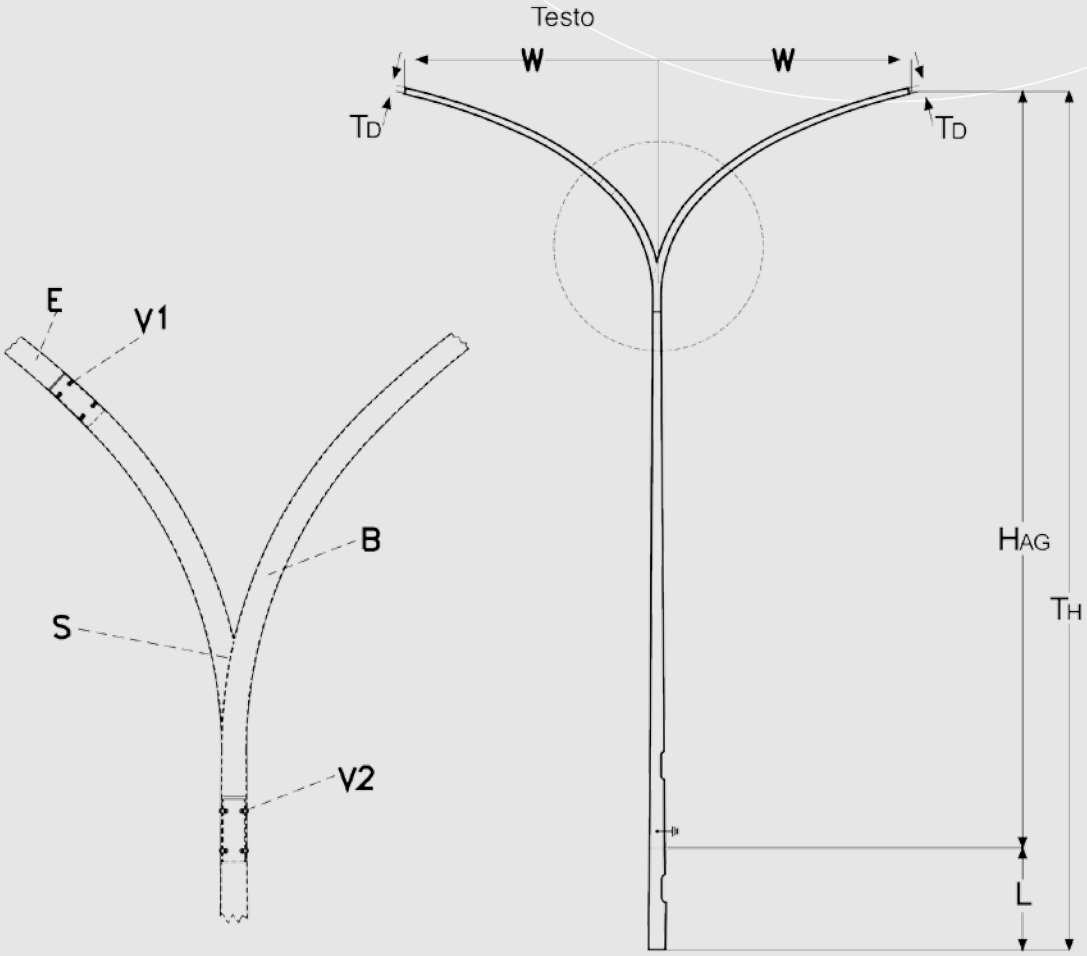


STEPPED TRAFFIC SIGNAL POLES

STEPPED TRAFFIC SIGNAL POLES

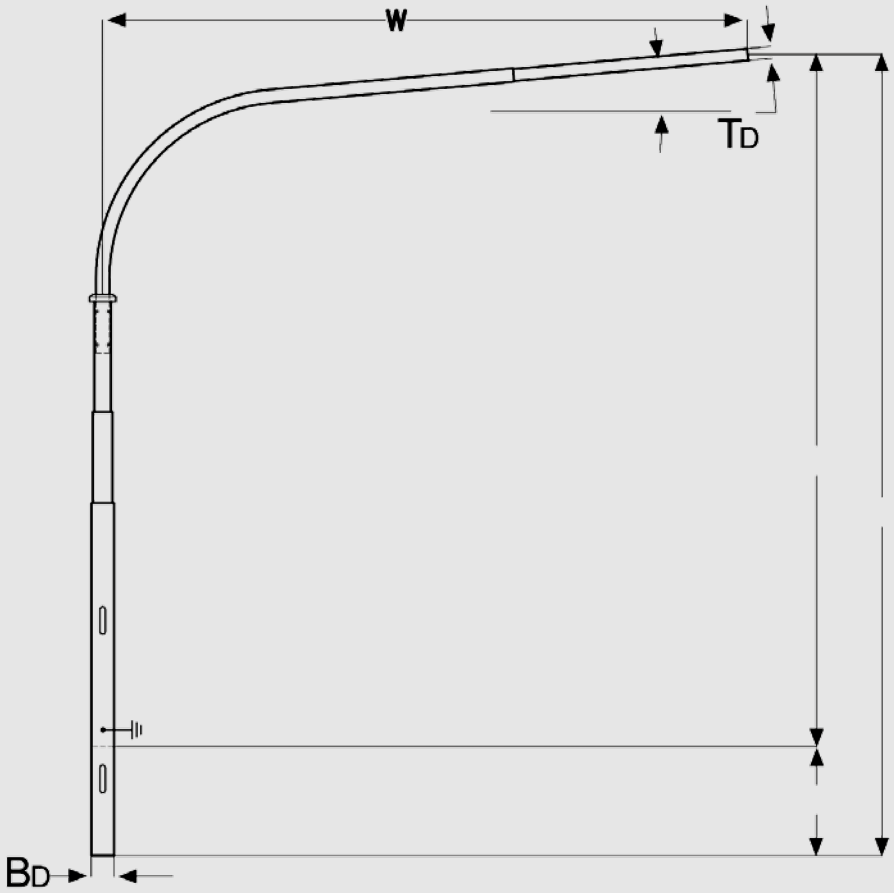
The PRP range stepped traffic signal poles are designed and built to support:
- traffic lights on roads
- signs for crosswalks
- signs and advertising boards
- electric or electronic static equipment.

The pole is made up of tubular elements with decreasing diameter towards the upper part, appropriately fitted (stepped) and welded in sequence.
The arm is made up of ERW tube that is appropriately shaped and/or stepped.

MATERIALS OF THE SHAFT AND ARM: tube realized in S 235 JR (UNI EN 10025) sheet steel according to the ERW certified procedure.

WELD: circumferential welding with certified automatic procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.



ACCESSORIES

CROSSWALK SIGNS

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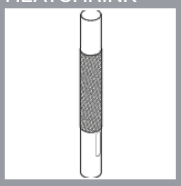
HEATSHRINK



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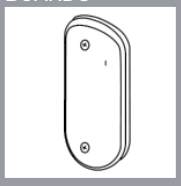
SLOT DOORS & TERMINAL BOARDS



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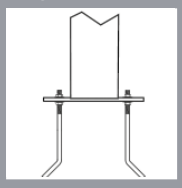
WORKINGS

BASE PLATE



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EARTHING PLATE

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PRP SERIES STEPPED TRAFFIC SIGNAL POLES WITH CURVED ARM

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø THICKNESS BD, MM	TOP Ø TD, MM	OUTREACH W, MM	WEIGHT W, KG
CPRP - 4	7.500	6.700	800	168x4	102	4.000	147
CPRP - 5	7.500	6.700	800	193x4	114-102	5.000	180
CPRP - 6	7.500	6.700	800	219x4	114-102	6.000	228

OCTAGONAL TRAFFIC SIGNAL POLES

OCTAGONAL TRAFFIC SIGNAL POLES

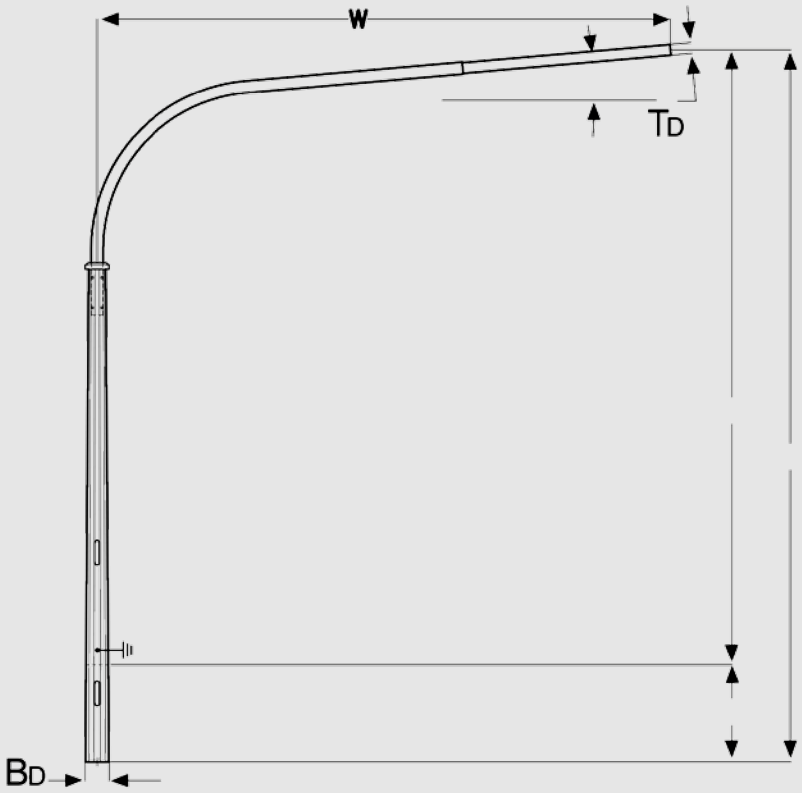
The POP range octagonal traffic signal poles are designed and built to support:
- traffic lights on roads
- signs for crosswalks
- signs and advertising boards
- electric or electronic static equipment.

The pole is obtained from trapezoidal sheet steel longitudinally bent in subsequent stages in order to obtain the pyramid section form with octagonal base.
The longitudinal edges after bending are welded through an automatic process. The arm is realized made up cylindrical tube elements with decreasing diameter, appropriately fitted (stepped) and welded in sequence.

MATERIALS OF THE SHAFT AND ARM: SHAFT: realized in S 355 JR sheet steel (UNI EN 10025); ARM: tube realized in S 235 JR (UNI EN 10025) sheet steel according to the ERW certified procedure.

WELD: Longitudinal and circumferential welding through certified automatic procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.



ACCESSORIES

CROSSWALK SIGNS

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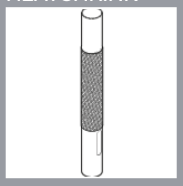
HEATSHRINK



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SLOT DOORS & TERMINAL BOARDS

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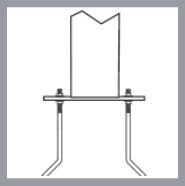
WORKINGS

BASE PLATE



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EARTHING PLATE

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POP SERIES OCTAGONAL TRAFFIC SIGNAL POLES WITH CURVED ARM

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø THICKNESS BD, MM	TOP Ø TD, MM	OUTREACH W, MM	WEIGHT W, KG
CPOP - 4	7.500	6.700	800	180x4	102	4.000	165
CPOP - 5	7.500	6.700	800	200x4	114-102	5.000	180
CPOP - 6	7.500	6.700	800	220x4	114-102	6.000	201

POLYGONAL TRAFFIC SIGNAL POLES

POLYGONAL TRAFFIC SIGNAL POLES

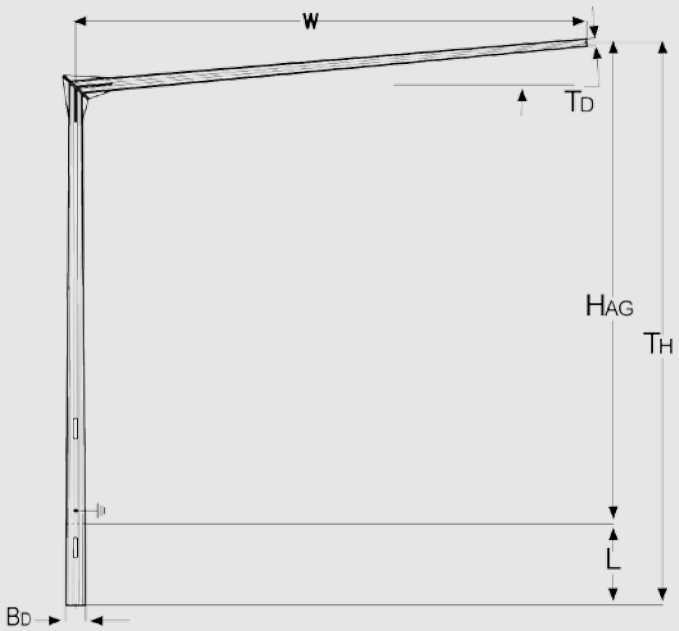
The PPP range polygonal traffic signal poles are designed and built to support:
- traffic lights on roads
- signs for crosswalks
- signs and advertising boards
- electric or electronic static equipment.

The pole is obtained from trapezoidal sheet steel longitudinally bent in subsequent stages in order to obtain the pyramid section form with a 12 sided polygonal base.
The longitudinal edges after bending are welded through an automatic process.
The arm is disassembled and is fixed onto the top of the support pole with the oblique flange and TDE nuts.

MATERIALS OF THE SHAFT AND ARM: SHAFT AND ARM: realized in S 235 JR or S355 JR sheet steel (UNI EN 10025..

WELD: Longitudinal welding through certified automatic procedure.

TREATMENTS: Hot - dip galvanization in compliance with UNI EN 1461 of all the components.



ACCESSORIES

CROSSWALK SIGNS

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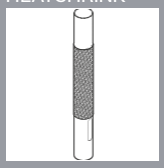
HEATSHRINK



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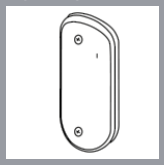
SLOT DOORS & TERMINAL BOARDS



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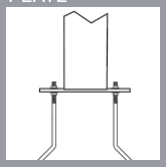
BASE PLATE



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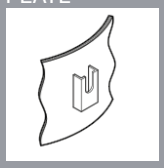

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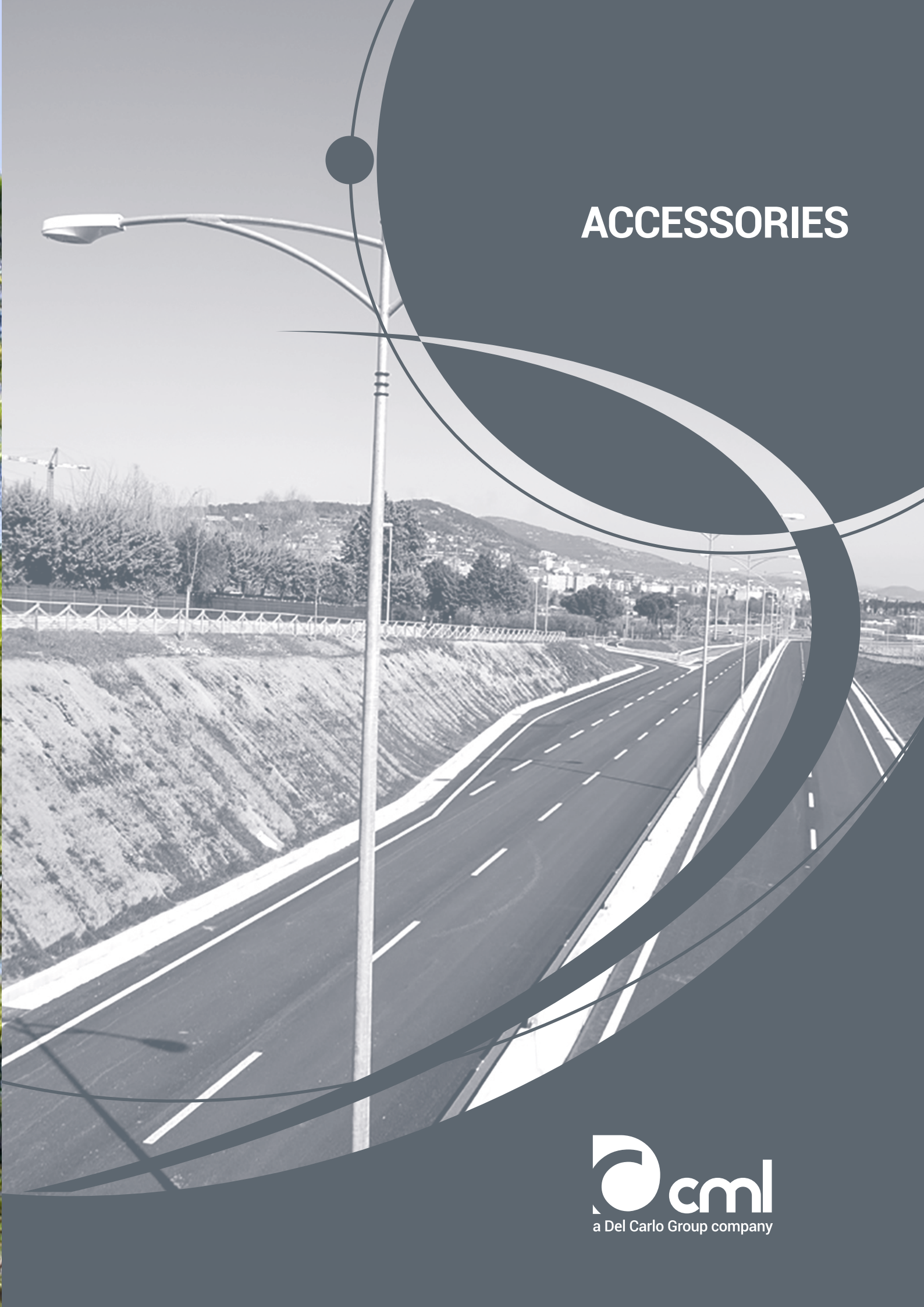
PPP SERIES POLYGONAL TRAFFIC SIGNAL POLES

POLE CODE	TOTAL HEIGHT OF THE POLE TH, MM	HEIGHT ABOVE GROUND HAG, MM	EMBEDMENT L, MM	BASE Ø THICKNESS BD, MM	TOP Ø TD, MM	OUTREACH W, MM	WEIGHT W, KG
CPPP - 4.0	7.500	6.600	900	190x4	80x4	4.000	170
CPPP - 5.0	7.500	6.600	900	200x4	80x4	5.000	195
CPPP - 6.0	7.500	6.600	900	220x4	90x4	6.000	225
CPPP - 6.0.2	7.500	6.600	900	220x4	110x4	6.000	240
CPPP - 4	7.500	6.600	900	210x4	90x4	4.000	185
CPPP - 5	7.500	6.600	900	220x4	90x4	5.000	205
CPPP - 6	7.500	6.600	900	240x4	100x4	6.000	240
CPPP - 6.2	7.500	6.600	900	240x4	125x4	6.000	265

N.B. *The .2 and .02 ranges are calculated for the arrangement of n° 2 traffic lights on the arm.*



ACCESSORIES

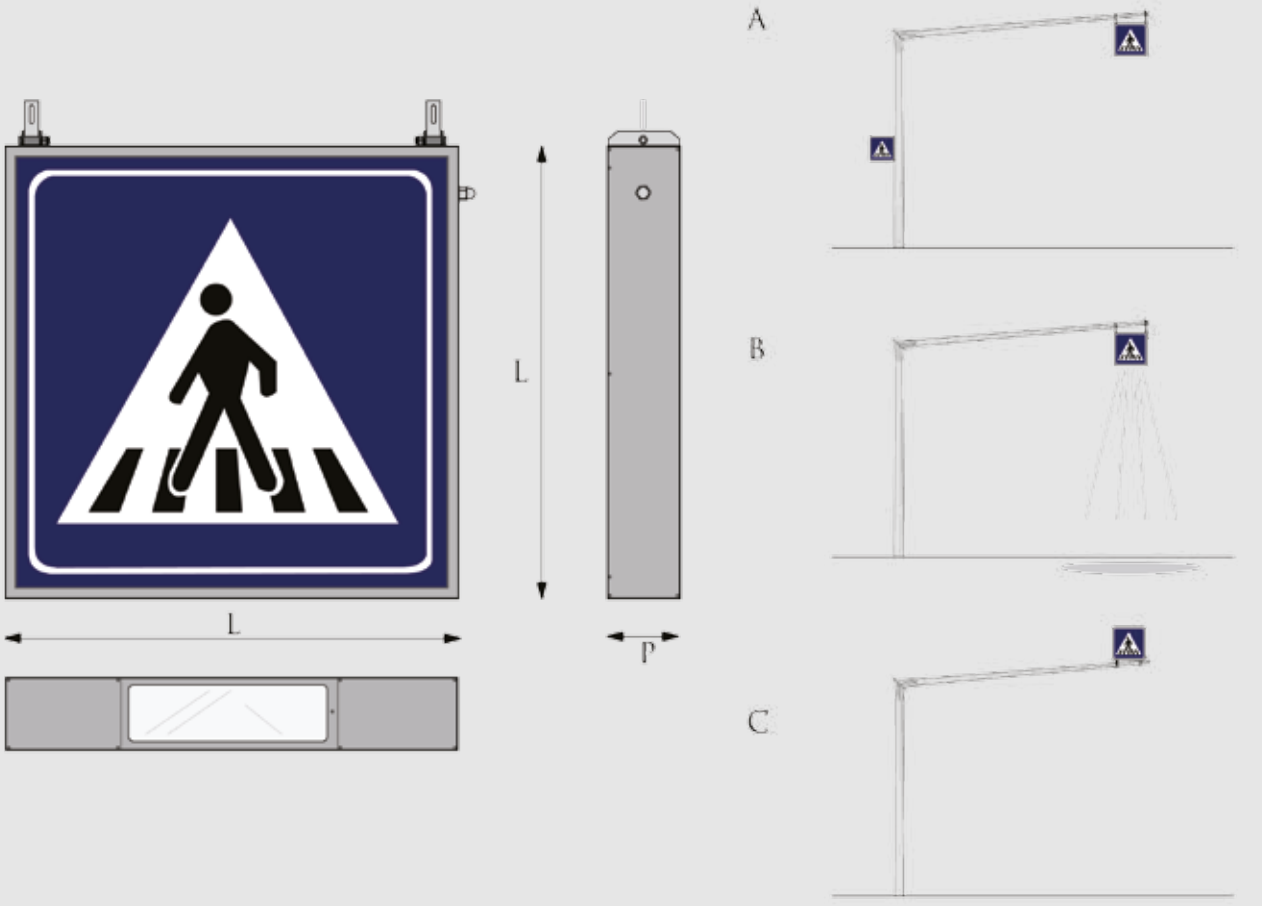
cml
a Del Carlo Group company

CROSSWALK SIGNS

The crosswalk sign CML can deliver is made of an anodized aluminium shell, thickness 10 mm, completed with 2 plexiglass crosswalk signs printed in 3 colours on the inner side.

The signs can be delivered without any kind of illumination, illuminated from the inside by 4 led tubes fitted inside the panel, or these panels can also be fitted with a symmetrical 55 v led light bar inside and under the panel frame in order to illuminate the pedestrian crossing.

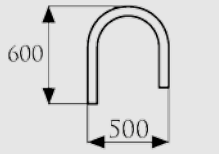
The installation on the traffic sign poles designed and produced by CML can be done according to the configurations shown below. The crosswalk signs are delivered with special fastening collars (except for the fixed one) and 12 meters of electric wire.



ⓐ Configuration with lit panel hanging beneath the arm and side panel with no illumination.
ⓑ Configuration with lit panel hanging beneath the arm, complete with SAP Projectors for pedestrian crossing.
ⓒ Configuration with lit panel fixed above the arm.

CODE	TYPE OF INSTALLATION	SIDE L MM	INTERNAL ILLUMINATION WATT	ILLUMINATION OF PEDESTRIAN CROSSING WATT	TYPE OF LIGHT BEAM	ISOLATION CLASS
VTABSLP/SP/LED	HANGING AND MOBILE	1000	Led 30W	-	-	2
VTABSLP/LED	HANGING AND MOBILE	1000	Led 30W	2 LAMPS 70W	SIMM	2
VTABSLP/60/LED	SIDE PANEL	600	Led 30W	-	-	2
VTABSLP/RIF	SIDE PANEL	600	-	-	-	-

ARMS FOR URBAN DESIGN



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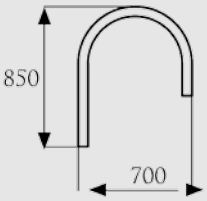
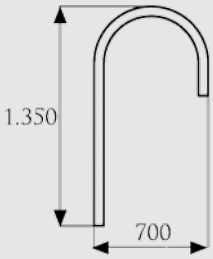


ARM CODE
S1



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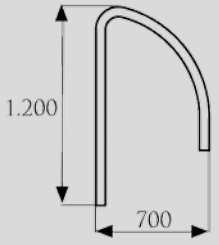

ARM CODE
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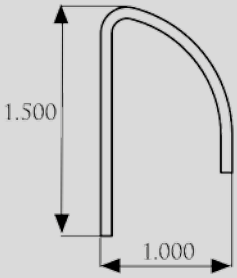

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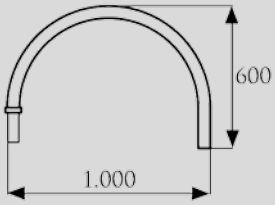

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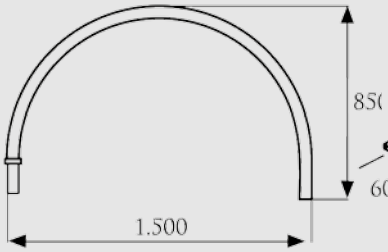

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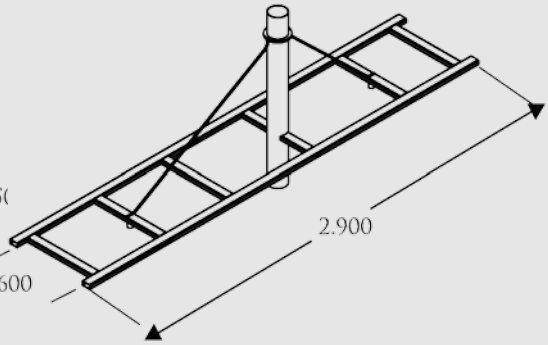

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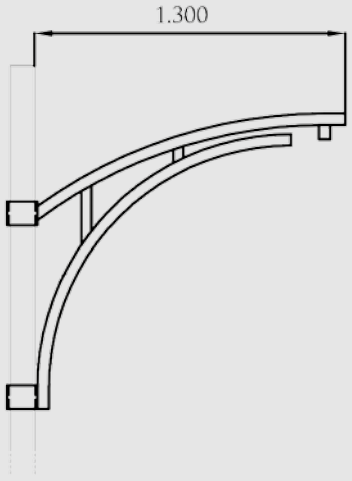

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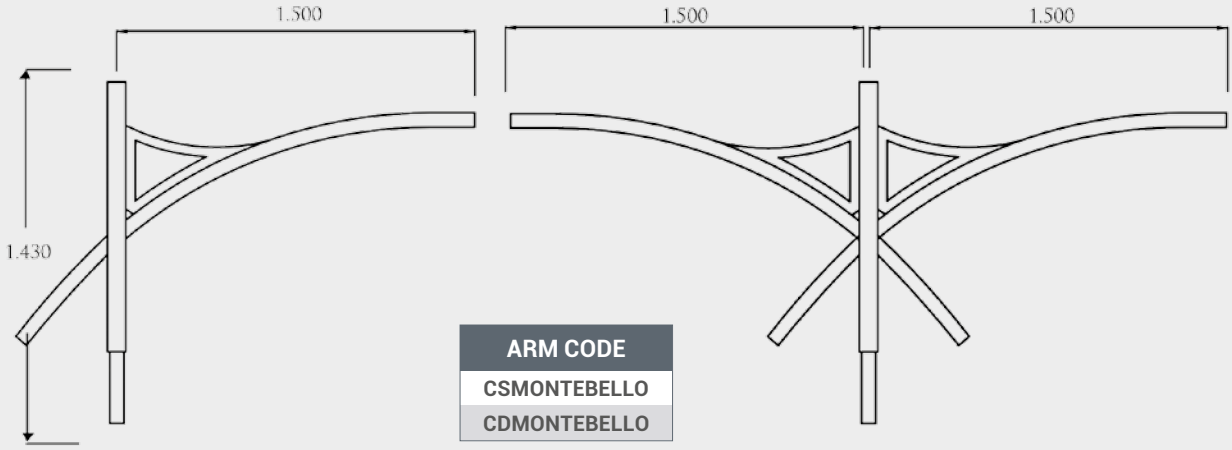

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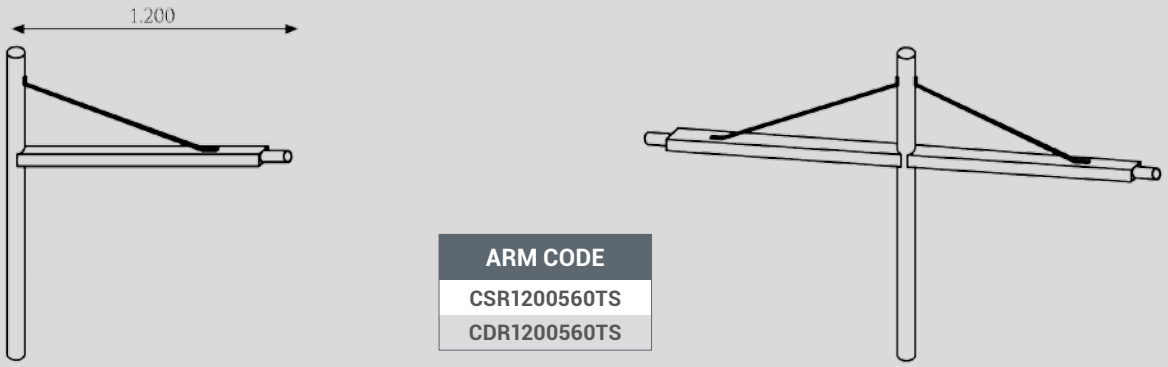
CDMONTEBELLO



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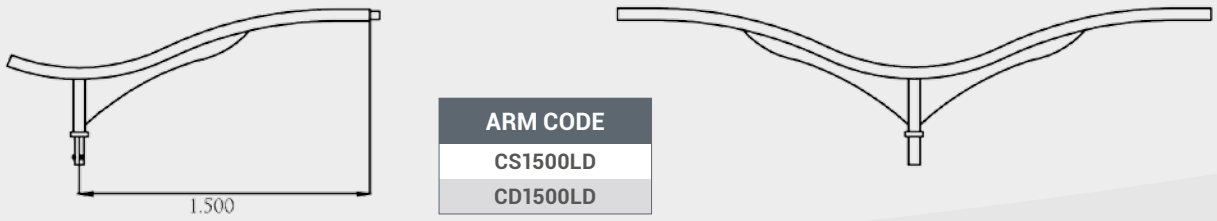

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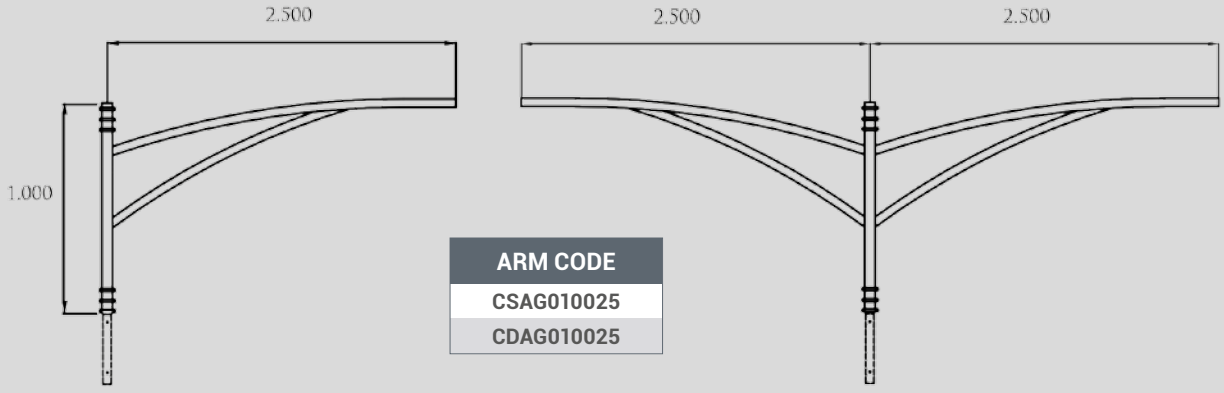

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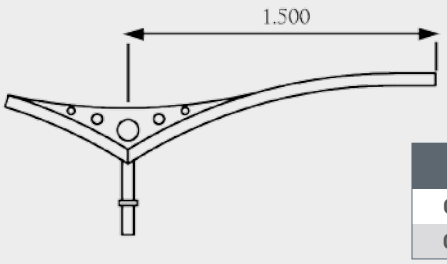

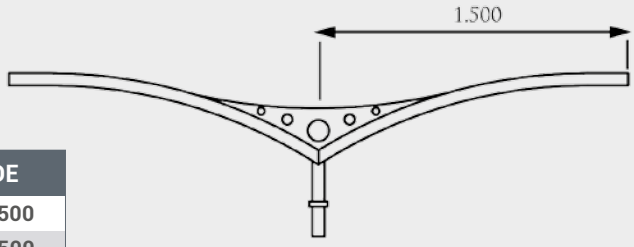

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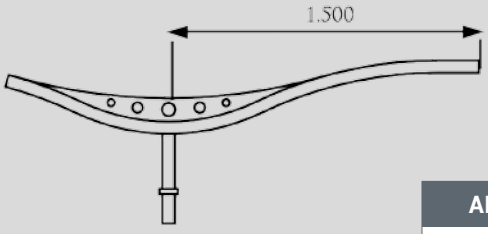

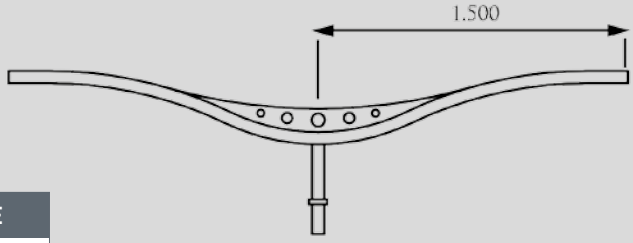

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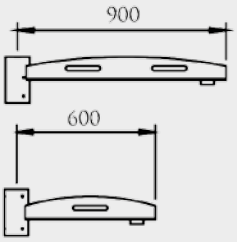
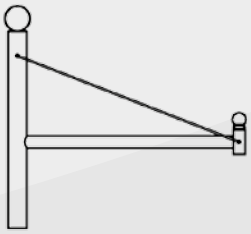
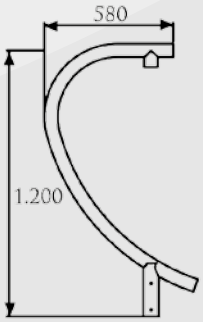
CDAMGCU1500



ARM CODE
CS090AAFC1024
CS060AAFC1024



ARM CODE
CS09002TS



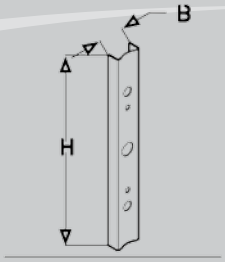
ARM CODE
CS058H1200RAFF

FASTENING SYSTEMS FOR URBAN DESIGN ARMS

The urban design arm can be fixed to the standard range poles through an especially designed fastening system consisting of a shaped channel welded on the arm (CNL range).
This fastening system has a specific working on the arm and allows to fix 1 to 3 arms on the pole. It has to be ordered together with the arm.

CHANNEL TO BE WELDED ON THE ARM

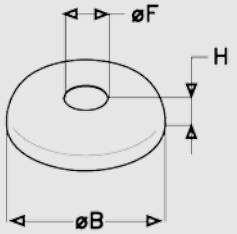
CODE	WIDTH DB, MM	HEIGHT H, MM	WEIGHT W, KG
CCNL300	40	300	0.4
CCNL400	40	400	0.5
CCNL500	40	500	0.6



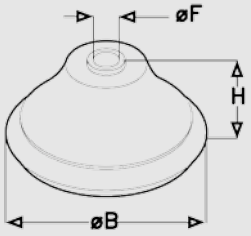
BASES FOR URBAN DESIGN POLES

The poles for urban design can be equipped with a sheet steel base (CLB range) or a cast iron base (BSM range) to improve the aesthetics of the pole in the joint area.

CODE	DIAMETER ØB, MM	HEIGHT H, MM	HOLE DIAMETER FOR POLE WITH BASE ØF / ØB, MM	WEIGHT W, KG
CCLB100	244	60	90/130	3.5
CCLB200	273	70	130/160	4.5
CCLB300	324	85	160/190	6.0

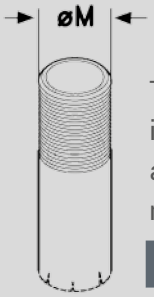


CODE	DIAMETER ØB, MM	HEIGHT H, MM	HOLE DIAMETER FOR POLE WITH BASE ØF / ØB, MM	WEIGHT W, KG
CBSM100	345	180	89/127	8.5



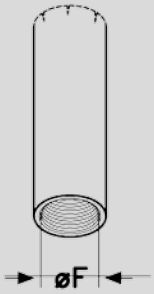
MALE/FEMALE THREADED FITTINGS FOR URBAN DESIGN ARMS

Male or female threaded fittings with suitable pitch for the corresponding connections of the lighting fixture can be applied to the entire range of arms for urban design.



The male threaded reduction is applied to the end of the arm. The thread pitch "ØM" must be specified.

PROCESSING CODE	RAFM



The female threaded reduction is applied to the end of the arm. The thread pitch "ØF" must be specified

PROCESSING CODE	RAFF

KIT CODE	BALL DIAMETER ØB, MM	WEIGHT OF THE KIT W, KG
VSF102	100	0.25
VSF114	120	0.25

STANDARD WORKINGS AT THE BASE OF THE POLES

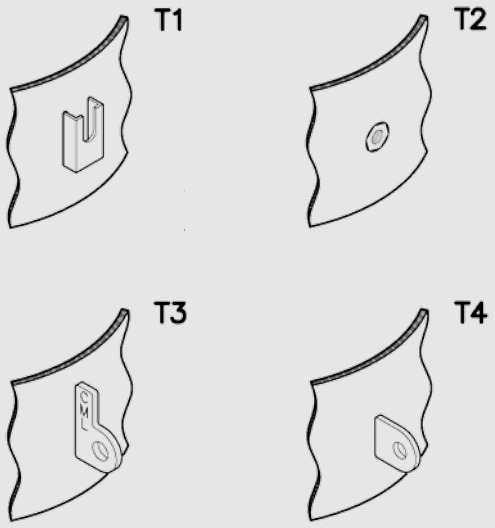
The poles are usually equipped with the following workings:

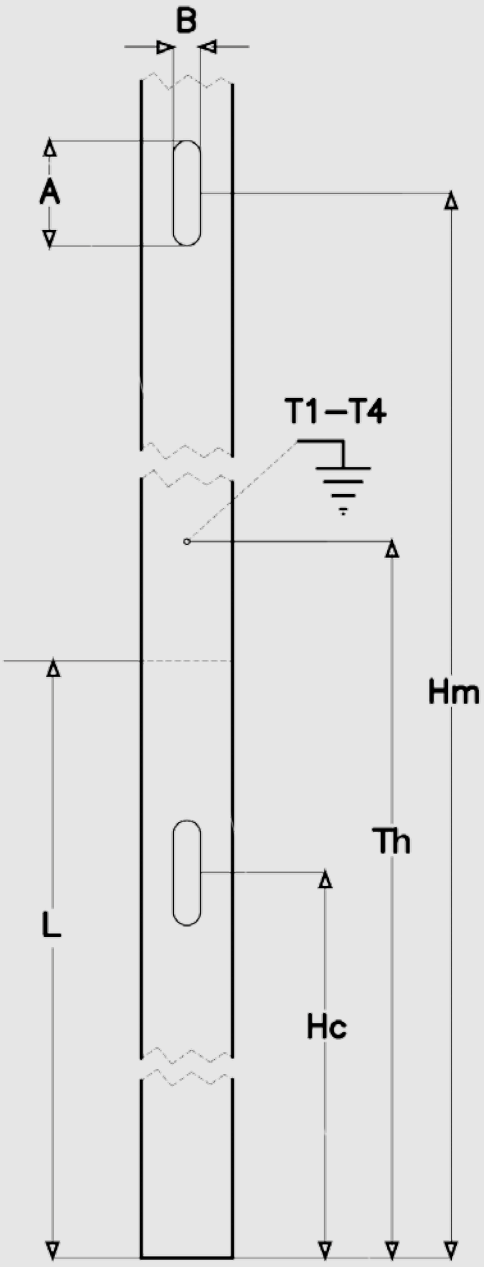
Slot for terminal board: cut without deburring on the perimeter of the pole at the height (Hm) measured from the bottom of the pole.

Slot for cable entry: cut without deburring on the perimeter of the pole at the height (HC) measured from the bottom of the pole.

Earthing plate: connection to the pole's earthing plant can be done as follows:

- in the form of a pocket (T1)
- with passing or threaded hole (T2)
- in the form of flag with CML logo (T3)
- in the form of a flag (T4).





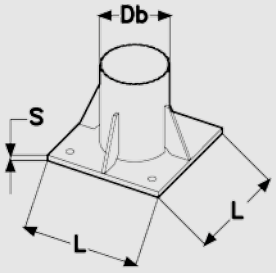
DIMENSIONS OF THE WORKINGS AT THE BASE OF THE POLE

TYPE OF APPLICATION	SLOT DIMENSION A,MM	SLOT DIMENSION ØB, MM	EMBEDMENT L, MM	EARTHING HEIGHT TH, MM	TERMINAL BOARD SLOT HEIGHT HM, MM	CABLE ENTRY SLOT HEIGHT HC, MM
FOR POLES WITH HEIGHT UP TO 6 METRES	132	38	500	600	1.500	350
FOR POLES WITH HEIGHT OVER 6 METRES UP TO 12.80 METRES	186	45	800	900	1.800	600
FOR POLES WITH HEIGHT OVER 12.80 METRES UP TO 16 METRES	186	45	1.000	1.100	2.000	700
FOR POLES WITH HEIGHT OVER 16 MT	186	45	1.200	1.300	2.200	800

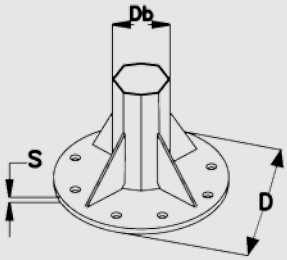
SPECIAL WORKINGS - SUPPLY OF ACCESSORIES

LIST OF WORKINGS THAT CAN BE APPLIED TO STANDARD PRODUCTION

WELDED BASE PLATE				
PLATE CODE	WIDTH L,MM	THICKNESS T,MM	POLE BASE MAX DIAMETER DB,MAX	PLATE WEIGHT W,KG
CPB2000	200	10	110	3,10
CPB2500	250	10	128	4,9
CPB3000	300	10	152	7,1
CPB3500	350	12	194	11,5
CPB4000	400	12	219	15,10



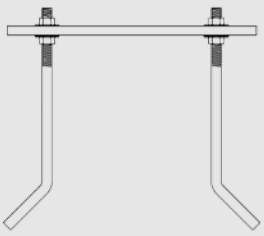
WELDED BASE PLATE FOR POLYGONAL POLE FOR LARGE AREAS				
PLATE CODE	WIDTH L,MM	THICKNESS T,MM	POLE BASE MAX DIAMETER DB,MAX	PLATE WEIGHT W,KG
CPBC400	400	20	250	12
CPBC430	430	20	274	14
CPBC500	500	25	350	20
CPBC600	600	25	397	30



ANCHOR BOLTS KIT FOR ONE PLATE (No. 4 ANCHOR BOLTS + NUTS + FLAT WASHERS)				
KIT CODE	SUITABLE FOR CODE PLATE	THREAD PITCH	LENGTH MM	WEIGHT OF THE KIT W,KG
KIT-TIR-PB-200	PB 200	M14	330	2
KIT-TIR-PB-250/300	PB 250/300	M18	500	4.8
KIT-TIR-PB-350	PB 350	M22	600	8
KIT-TIR-PB-400	PB 400	M27	700	14.4

ANCHOR BOLTS KIT FOR OCTAGONAL GA POLES (No. 8 ANCHOR BOLTS + NUTS+ FLAT WASHERS)				
KIT CODE	SUITABLE FOR CODE PLATE	THREAD PITCH	LENGTH MM	WEIGHT OF THE KIT W,KG
KIT-TIR-PB-400/430	PBC 400/430	M22	600	16

ANCHOR BOLTS KIT FOR POLYGONAL GA POLES (No. 12 ANCHOR BOLTS + NUTS+ FLAT WASHERS)				
KIT CODE	SUITABLE FOR CODE PLATE	THREAD PITCH	LENGTH MM	WEIGHT OF THE KIT W,KG
KIT-TIR-PB-500/600	PBC 500/600	M27	700	43.2

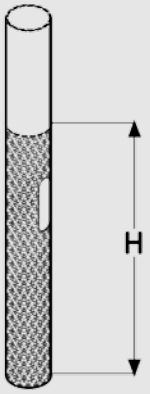


SPECIAL WORKINGS - SUPPLY OF ACCESSORIES

BITUMINOUS COATING

The bituminous coating is applied on the external surface height h = embedment height of the pole + 100mm
ØB pole = maximum diameter of the base of the pole.

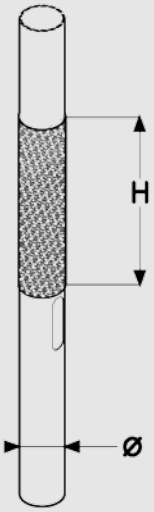
MANUFACTURING CODE	ØB POLE MM
BIT1000	115
BIT2000	148
BIT3000	178
BIT4000	219
BIT6000	300
BIT6000	500



HEATSHRINK

The polyolefine heatshrink sheet is applied to the finished pole.
Height H = 450 mm
ØB pole = maximum diameter of the base of the pole.

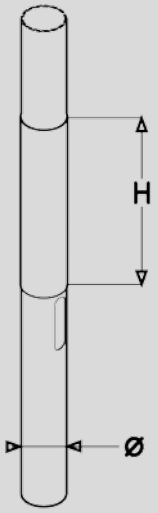
HEATSHRINK CODE	Ø POLE MM
PLA0090	116
PLA0100	126
PLA0115	141
PLA0125	156
PLA0160	184
PLA0170	201
PLA0200	233
PLA0280	311
PLA0315	356
PLA0400	446



REINFORCEMENT OF THE JOINT SECTION

A remarkable increase of the resistance to corrosion in the joint area is obtained by welding a section of tube on the exterior of pole base
Height H = 300mm
for poles with heights up to 6 metres.
Height H = 500mm
for poles with heights up to 6 metres
Ø pole = Ø max pole base

MANUFACTURING CODE	ØB POLE MM
RINF-1	115
RINF-2	148
RINF-3	178
RINF-4	193

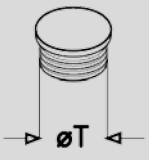


PVC CAPS TO COVER THE HOLES

The ends of the poles and the arms can be closed using polyethylene L.D. caps with lamellar inserts specific for carpentry tubes

NOTE: *it is necessary to indicate he exact diameter in order.*

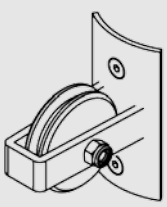
MANUFACTURING CODE	ØB POLE MM
VT-01	33 ÷ 48
VT-02	60 ÷ 89
VT-03	102 ÷ 121
VT-04	127 ÷ 159



FLAGPOLE KIT

The poles can be adapted for use as "flagpoles" by applying the kit made up from n°2 pulleys mounted on a support to be welded to the poles.

MANUFACTURING CODE	PULLEY
KA - 01	2



NUT WELDED TO THE POLE ON THE THROUGH - HOLE

On the pole it is possible to apply nuts welded to the wall, on through - hole, in order to fasten elements using screws.

MANUFACTURING CODE	THREAD
D - SA	M10

SLOT DOORS AND TERMINAL BOARDS

CONCHIGLIA BRAND (CLASS 2 ISOLATION)

CODE	ITEM	SLOT DIMENSION MM	FEATURES
VSMY000/CML	SLOT DOOR SMY	132 x 38	ALUMINIUM
VSMW000/CML	SLOT DOOR SMW	186 x 45	ALUMINIUM
VSPP000	SLOT DOOR SPP	132 x 38	NYLON
VSPV000	SLOT DOOR SPV	186 x 45	NYLON
VSMVOTT	SLOT DOOR SMW/OTT	186 x 45	ALUM. FOR OCTONOGAL FORES
VSMWP00	SLOT DOOR SMW/P	186 x 45	ALUM. FOR FLAT SURFACE
VMVY4061F-C	TERMINAL BOARD MVY 406/1	132 x 38	4X6MM² + 1 FUSE-HOLDER
VMVY4062F-C	TERMINAL BOARD MVY 406/2	132 x 38	4X6MM² + 2 FUSE-HOLDERS
VMVV4161F-C	TERMINAL BOARD MVV 416/1	186 x 45	4X16MM² + 1 FUSE-HOLDER
VMVV4162F-C	TERMINAL BOARD MVV 416/2	186 x 45	4X16MM² + 2 FUSE-HOLDERS
VSMWR01/0CML	SLOT DOOR RESET R01	186 x 45	DB 88 /116MM (ST.STEPPED) E 103/134MM (CONICAL)
VSMWR02/19ACML	SLOT DOOR RESET R02	186 x 45	DB 118/168MM (STRAIGHT STEPPED) AND 136/186MM (CONICAL)
VMVR10A	TERMINAL BOARD RESET 10/A	186 x 45	4X10MM² + 1 FUSE HOLDER DB 88/94MM (STRAIGHT STEPPED) AND 103/109MM (CONICAL)
VMVR11A	TERMINAL BOARD RESET 11/A	186 x 45	4X10MM² + 1 FUSE HOLDER DB 95/105MM (STRAIGHT STEPPED) AND 110/120MM (CONICAL)
VMVR12A	TERMINAL BOARD RESET 12/A	186 x 45	4X10MM² + 1 FUSE HOLDER DB 106/116MM (STRAIGHT STEPPED) E 121/134MM (CONICAL)
VMVR19A	TERMINAL BOARD RESET 19/A	186 x 45	4X16MM² + 1 FUSE HOLDER DB 118/168MM (STRAIGHT STEPPED) E 136/186MM (CONICAL)

ZIPPO BRAND (CLASS 2 ISOLATION)

CODE	ITEM	SLOT DIMENSION MM	FEATURES
VSMY001/CML	SLOT DOOR NIRIS PICO	132 x 38	ALUMINIUM
VSMW001/CML	SLOR DOOR NIRIS GICO	186 x 45	ALUMINIUM
VSPP001	SLOT DOOR PICO	132 x 38	NYLON
VSPV001	SLOT DOOR GICO	186 x 45	NYLON
VSMVOT1	SLOT DOOR OTCO	186 x 45	ZAMA, FOR OCTAGONAL POLES.
VSMPP01	SLOT DOOR PICO	132 x 38	ZAMA, FOR FLAT SURFACE
VSMWP01	SLOT DOOR GICO	186 x 45	ZAMA, FOR FLAT SURFACE
VMVY4061F-Z	TERMINAL BOARD PICO 406/1	132 x 38	3X10MM² + 1 FUSE HOLDER
VMVY4062F-Z	TERMINAL BOARD PICO 406/2	132x 38	4X6MM² + 2 FUSE HOLDERS
VMVV4161F-Z	TERMINAL BOARD GICO 416/1	186 x 45	4X16MM² + 1 FUSE HOLDER
VMVV4162F-Z	TERMINAL BOARD GICO 416/2	186 x 45	4X16MM² + 2 FUSE HOLDERS

CURVED ARM

The arm is made up of a curved tube according to the requested radius: the lower part of the arm is arranged for the coupling to the support pole.

The standard arrangements are:

A1 forming of a cylinder (øA=70mm) with 3+3 threaded holes for the fastening on the pole head using STEI screws

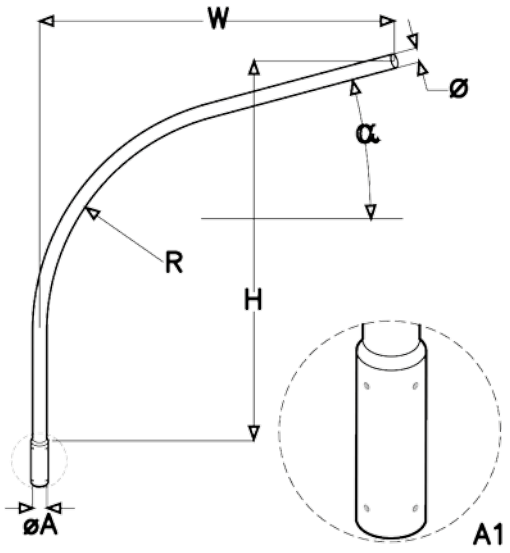
A2 supply of double bracket for wall fixing with a sleeve and nut for fastening the arm using STEI screws

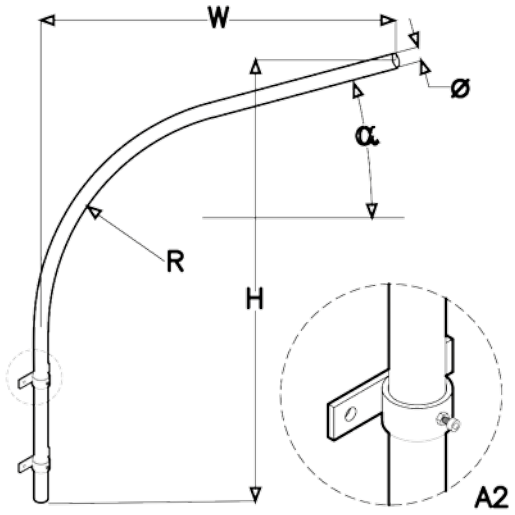
A3 application of a corner profile to attach to the support pole using a steel band (e.g. “band - it”)

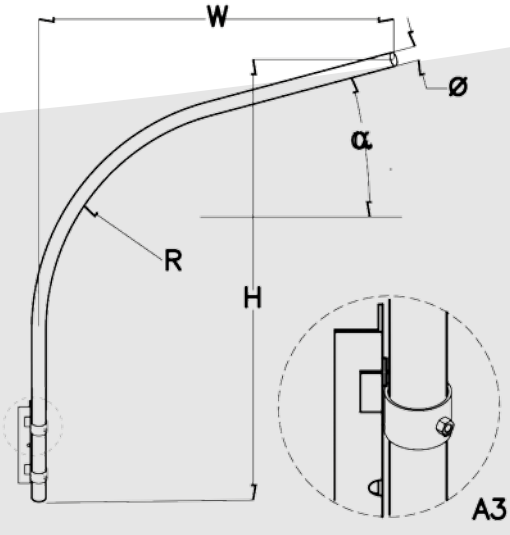
The curved arm brackets (type A1) can be realized in the version:

- single arm bracket (as per figure)
- double arm bracket (the two curved sections can be positioned, in plan, at 90° or at 180° one to the other)
- triple arm bracket (the three curved sections are positioned, in plan, at 120° one to the other)

To allow the handling, transport and galvanizing of the double and triple arm brackets, some elements may be disassembled.







CURVED ARM: SINGLE (VERSION A1)

ARM CODE	ARM HEIGHT ABOVE THE POLE H, MM	OUTREACH W, MM	CURVING RADIUS R, MM	BRACKET DIAMETER Ø, MM°	ANGLE OF INCLINATION A,°	WEIGHT OF BRACKET W, KG
SE1010I5	1.000	1.000	500	60 x 3	5°	9
SE1015I5	1.000	1.500	500	60 x 3	5°	11
SE1020I5	1.000	2.000	500	60 x 3	5°	13
SE1515I5	1.500	1.500	1.000	60 x 3	5°	13
SE1520I5	1.500	2000	1.000	60 x 3	5°	14
SE1525I5	1.500	2.500	1.000	60 x 3	5°	16
SE2015I5	2.000	1.500	1.000	60 x 3	5°	15
SE2020I5	2.000	2.000	1.000	60 x 3	5°	16
SE2025I5	2.000	2.500	1.000	60 x 3	5°	18

CURVED ARM: DOUBLE (VERSION A1)

ARM CODE	ARM HEIGHT ABOVE THE POLE H, MM	OUTREACH W, MM	CURVING RADIUS R, MM	BRACKET DIAMETER Ø, MM°	ANGLE OF INCLINATION A,°	WEIGHT OF BRACKET W, KG
DE1010I5	1.000	1.000	500	60 x 3	5°	15
DE1015I5	1.000	1.500	500	60 x 3	5°	19
DE1020I5	1.000	2.000	500	60 x 3	5°	22
DE1515I5	1.500	1.500	1.000	60 x 3	5°	22
DE1520I5	1.500	2000	1.000	60 x 3	5°	26
DE1525I5	1.500	2.500	1.000	60 x 3	5°	30
DE2015I5	2.000	1.500	1.000	60 x 3	5°	24
DE2020I5	2.000	2.000	1.000	60 x 3	5°	28
DE2025I5	2.000	2.500	1.000	60 x 3	5°	32

CURVED ARM: TRIPLE (VERSION A1)

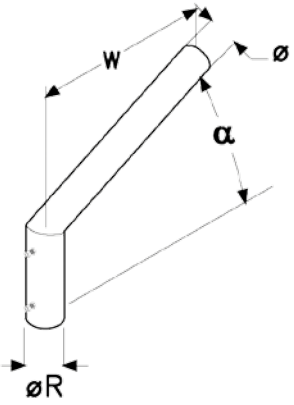
ARM CODE	ARM HEIGHT ABOVE THE POLE H, MM	OUTREACH W, MM	CURVING RADIUS R, MM	BRACKET DIAMETER Ø, MM°	ANGLE OF INCLINATION A,°	WEIGHT OF BRACKET W, KG
TE1010I5	1.000	1.000	500	60 x 3	5°	21
TE1015I5	1.000	1.500	500	60 x 3	5°	27
TE1020I5	1.000	2.000	500	60 x 3	5°	31
TE1515I5	1.500	1.500	1.000	60 x 3	5°	31
TE1520I5	1.500	2000	1.000	60 x 3	5°	37
TE1525I5	1.500	2.500	1.000	60 x 3	5°	44
TE2015I5	2.000	1.500	1.000	60 x 3	5°	33
TE2020I5	2.000	2.000	1.000	60 x 3	5°	40
TE2025I5	2.000	2.500	1.000	60 x 3	5°	46

ADAPTATION OF THE ARM TO MODEL A2 OR A3

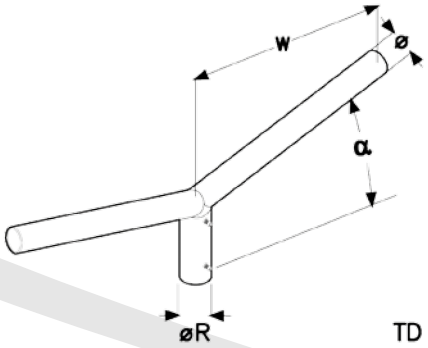
ARM CODE	THE AMOUNTS INDICATED AT THE SIDE REFER TO THE INTEGRATION TO BE APPLIED TO THE PRICE OF THE CURVED ARM IN THE STANDARD VERSION FOR THE CHANGE OF THE FIXING SYSTEM.
VERSION A2	SUPPLIED WITH A PAIR OF BRACKETS
VERSION A3	APPLICATION OF ANGULAR FOR FASTENING WITH “BAND-IT”

POLE HEAD BRACKET

The pole head bracket is made up of a straight ERW tube welded to a cylinder with 2 threaded holes (or welded nuts) for the fastening on the head of the pole using TE screws.
The brackets can be realized in version:
- single head bracket (figure "TS")
- double head bracket (the two brackets can be positioned, in plan, at 90° or at 180°)
- triple head bracket (the brackets are positioned, in plan, at 120° one to the other, figure "TT")
- quadruple head bracket (the brackets are positioned, in plan, at 90° one to the other).



TS



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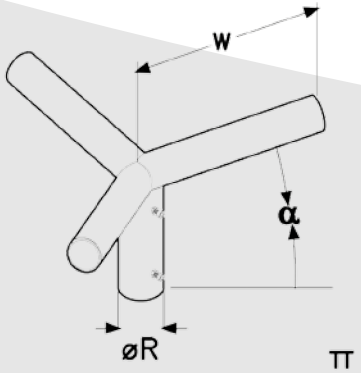

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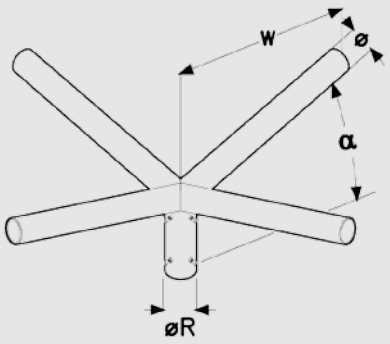


POLE HEAD BRACKET: SINGLE

BRACKET CODE	OUTREACH W, MM	JUNCTION DIAMETER ØR, MM	BRACKET DIAMETER Ø, MM°	ANGLE OF INCLINATION A,°	HEAD BRACKET WEIGHT P, KG
CTS0250I5	250	70	60 x 3	5°	2.5
CTS0500I5	500	70	60 x 3	5°	3.6
CTS1000I5	1.000	70	60 x 3	5°	6
CTS1500I5	1.500	70	60 x 3	5°	8

POLE HEAD BRACKET: DOUBLE AT 90°

BRACKET CODE	OUTREACH W, MM	JUNCTION DIAMETER ØR, MM	BRACKET DIAMETER Ø, MM°	ANGLE OF INCLINATION A,°	HEAD BRACKET WEIGHT P, KG
CTD025090I5	250	70	60 x 3	5°	3.6
CTD050090I5	500	70	60 x 3	5°	6
CTD100090I5	1.000	70	60 x 3	5°	10
CTD150090I5	1.500	70	60 x 3	5°	15

POLE HEAD BRACKET: DOUBLE AT 180°

BRACKET CODE	OUTREACH W, MM	JUNCTION DIAMETER ØR, MM	BRACKET DIAMETER Ø, MM°	ANGLE OF INCLINATION A,°	HEAD BRACKET WEIGHT P, KG
CTD0250I5	250	70	60 x 3	5°	3.6
CTD0500I5	500	70	60 x 3	5°	6
CTD1000I5	1.000	70	60 x 3	5°	10
CTD1500I5	1.500	70	60 x 3	5°	15

POLE HEAD BRACKET: TRIPLE AT 120°

BRACKET CODE	OUTREACH W, MM	JUNCTION DIAMETER ØR, MM	BRACKET DIAMETER Ø, MM°	ANGLE OF INCLINATION A,°	HEAD BRACKET WEIGHT P, KG
CTTD0250I5	250	70	60 x 3	5°	5
CTTD0500I5	500	70	60 x 3	5°	8
CTTD1000I5	1.000	70	60 x 3	5°	15
CTTD1500I5	1.500	70	60 x 3	5°	22

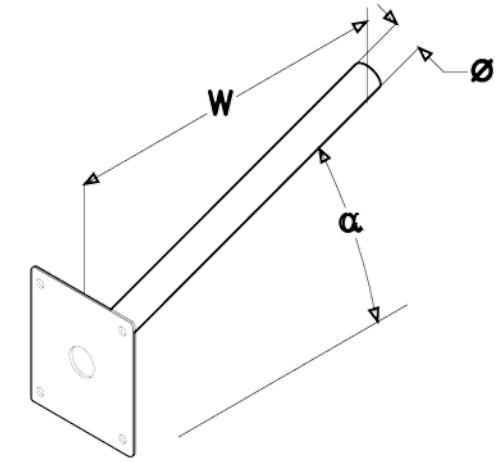
POLE HEAD BRACKET: QUADRUPLE AT 90°

BRACKET CODE	OUTREACH W, MM	JUNCTION DIAMETER ØR, MM	BRACKET DIAMETER Ø, MM°	ANGLE OF INCLINATION A,°	HEAD BRACKET WEIGHT P, KG
CTQ0250I5	250	70	60 x 3	5°	6
CTQ0500I5	500	70	60 x 3	5°	10
CTQ1000I5	1.000	70	60 x 3	5°	19
CTQ1500I5	1.500	70	60 x 3	5°	28

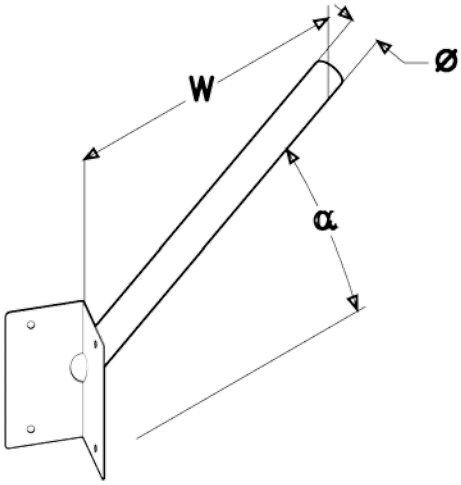
HEAD BRACKET WITH WALL PLATE

For the support of the street light pole in proximity of masonry or reinforced concrete walls CML has designed and realized brackets with a plate. The bracket with a plate is realized through ERW straight welded tube:

- A1 to a flat sheet steel bracket for wall fastening using screws and screw plugs (or equivalent systems)
- A2 to a sheet steel bracket bent at 90° for wall fastening in correspondence to an edge using screws and screw plugs (or equivalent systems).



A1



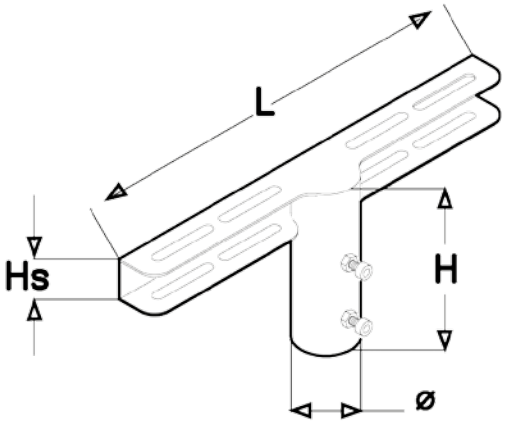
A2

POLE CODE	OUTREACH W, MM	TYPE OF PLATE	BRACKET DIAMETER Ø, MM°	ANGLE OF INCLINATION A,°	WEIGHT P, KG
CPMP250I5	250	A1	60 x 3	5°	3.3
CPMA250I5	250	A2	60 x 3	5°	5.5

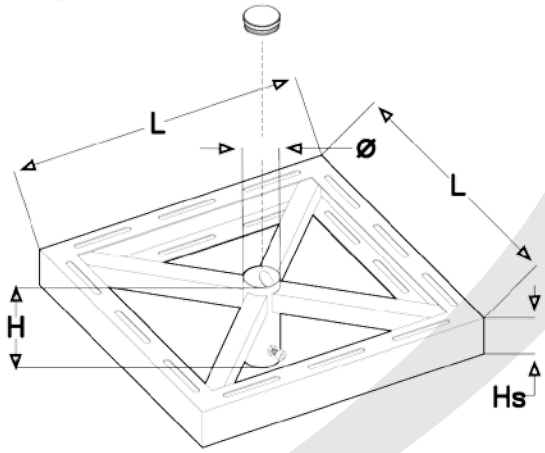
CROSS ARM BRACKET

The brackets are realized in steel sheets with slots (except for the circular bracket), press-formed and welded to a cylinder with 2 or 3 threaded holes (or welded nuts) for the fastening on the pole head using TE screws. The square, hexagonal and circular brackets are connected through a welded tubular to a central cylinder. The slots allow to install the floodlights above or below the sides of the bracket. After the wiring, the central cylinder is closed using a suitable cap supplied with the bracket.

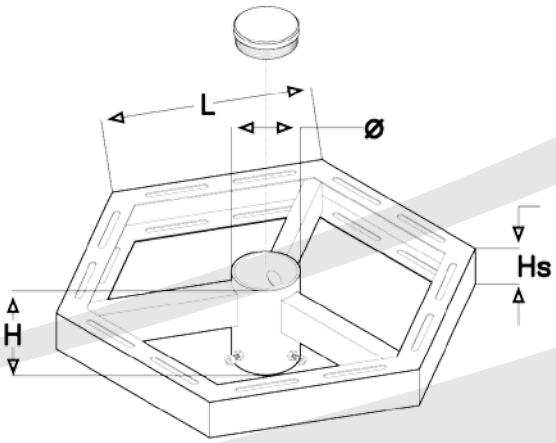
straight cross arm bracket



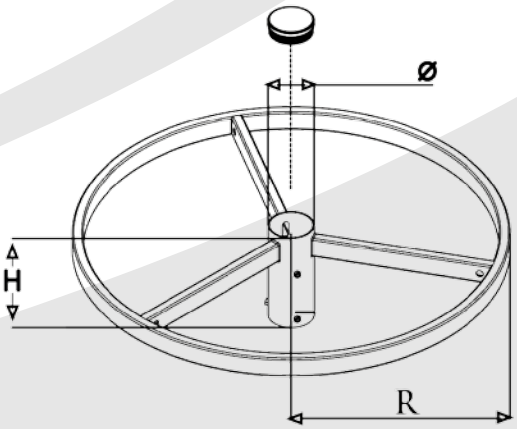
square cross arm bracket



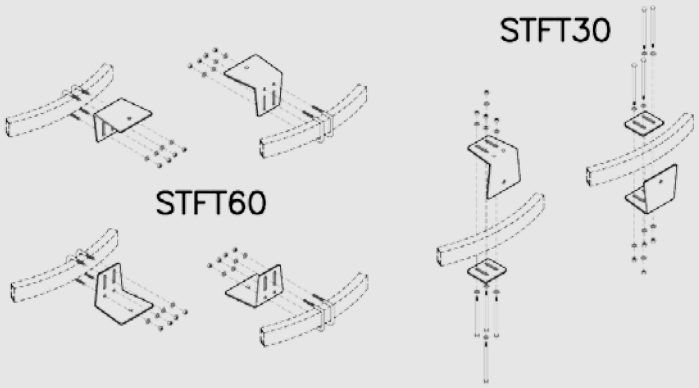
hexagonal cross arm bracket



circular cross arm bracket



accessory for circular bracket



STRAIGHT CROSS ARM BRACKET

CODE	WIDTH L, MM	HEIGHT OF THE BRACKET HS, MM	JUNCTION DIAMETER Ø, MM°	JUNCTION HEIGHT H, MM	WEIGHT P, KG
CMA0370	300	50	70	180	2,1
CMA0570	500	50	70	180	3
CMA1070	1.000	60	70	180	7
CMA1570	1.500	70	70	220	10.5
CMA2070	2.000	80	70	240	14.5
CMA10127	1.000	60	127	250	8.5
CMA15127	1.500	70	127	280	12
CMA20127	2.000	80	127	300	16

SQUARE CROSS ARM BRACKET

CODE	WIDTH L, MM	HEIGHT OF THE BRACKET HS, MM	JUNCTION DIAMETER Ø, MM°	JUNCTION HEIGHT H, MM	WEIGHT P, KG
CMA06Q70	600	60	70	300	16
CMA06Q127	600	60	127	300	17.5

HEXAGONAL CROSS ARM BRACKET

CODE	WIDTH L, MM	HEIGHT OF THE BRACKET HS, MM	JUNCTION DIAMETER Ø, MM°	JUNCTION HEIGHT H, MM	WEIGHT P, KG
CMA06E70	600	60	70	300	17.5
CMA06E127	600	60	127	300	20.5

CIRCULAR CROSS ARM BRACKET

CODE	DIAMETER D, MM	HEIGHT OF THE BRACKET HS, MM	JUNCTION DIAMETER Ø, MM°	JUNCTION HEIGHT H, MM	WEIGHT P, KG
CMA06C70	600	60	70	300	23
CMA06C127	600	60	127	300	24

ACCESSORY FOR CIRCULAR BRACKET

CODE	WEIGHT P, KG
CSTFT60	1.3
CSTFT50	1.6

CERTIFICATIONS

The seriousness of CML is guaranted by the certifications that the individual units have obtained in terms of product, production processes, safety.

IGQ

ISTITUTO ITALIANO DI GARANZIA DELLA QUALITÀ

Certificate of constancy of performance

1608 CPR P038

Steel lighting columns

C.M.L. Srl

Strada Castel del Piano - Pila 06132 Castel del Piano PG-IT

Castel del Piano PG-IT

EN 40-5:2002

constancy of performance of the construction product

This is a translation of certificate N. IT13/0141

SGS

C.M.L. S.r.l.

ISO 9001 / UNI EN ISO 9001:2015

Design and manufacturing of steel poles and high mast for public lighting and electric lines.

SGS

ACCREDIA

CERTIFICATO DI CONFORMITA'

DEL CONTROLLO DI PRODUZIONE IN FABBRICA

2309/CPR/0268

COMPONENTI STRUTTURALI IN ACCIAIO

C.M.L. S.R.L.

Partita IVA: 03513810543

Via della Bonifica snc – 53043 – Chiusi (SI)

EN 1090-1:2009+A1:2011

AJA

DNV·GL

MANAGEMENT SYSTEM CERTIFICATE

Certificate No: 10000333081-MSC-ACCREDIA-ITA

Initial certification date: 14 February 2020

Valid: 14 February 2020 - 13 February 2023

This is to certify that the management system of

C.M.L. S.r.l.
Via della Bonifica, 9 - Località Le Biffe - 53043 CHIUSI (SI) - Italy

has been found to conform to the Environmental Management System standard:
ISO 14001:2015

This certificate is valid for the following scope:
Manufacture of metal structures and assembled parts of galvanized and / or pre-painted steel structures through the plasma cutting, bending, welding and mechanical finishing phases
(IAF 17)
Evaluated according to the requirements of Technical Regulations RT-09

Place and date: Vimercate (MB), 14 February 2020

ACCREDIA

For the issuing office: DNV GL - Business Assurance Via Energy Park, 14, - 20871 Vimercate (MB) - Italy

Zeno Beltrami
Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV GL Business Assurance Italia S.r.l., Via Energy Park, 14 - 20871 Vimercate (MB) - Italy. TEL: +39 68 99 905. www.dnvgl.it

DNV·GL

MANAGEMENT SYSTEM CERTIFICATE

Certificate No: 10000333081-MSC-ACCREDIA-ITA

Initial certification date: 14 May 2020

Valid: 14 May 2020 - 13 May 2023

This is to certify that the management system of

C.M.L. S.r.l.
Via della Bonifica, 9 - Località Le Biffe - 53043 CHIUSI (SI) - Italy

has been found to conform to the Occupational Health and Safety Management System standard:
ISO 45001:2018

This certificate is valid for the following scope:
Manufacture of metal structures and assembled parts of galvanized and / or pre-painted steel structures through the plasma cutting, bending, welding and mechanical finishing phases (IAF 17)

Place and date: Vimercate (MB), 14 May 2020

ACCREDIA

For the issuing office: DNV GL - Business Assurance Via Energy Park, 14, - 20871 Vimercate (MB) - Italy

Zeno Beltrami
Management Representative

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PRODUCTS AND SERVICES

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TRANSMISSION AND DISTRIBUTION

ILLUMINATION

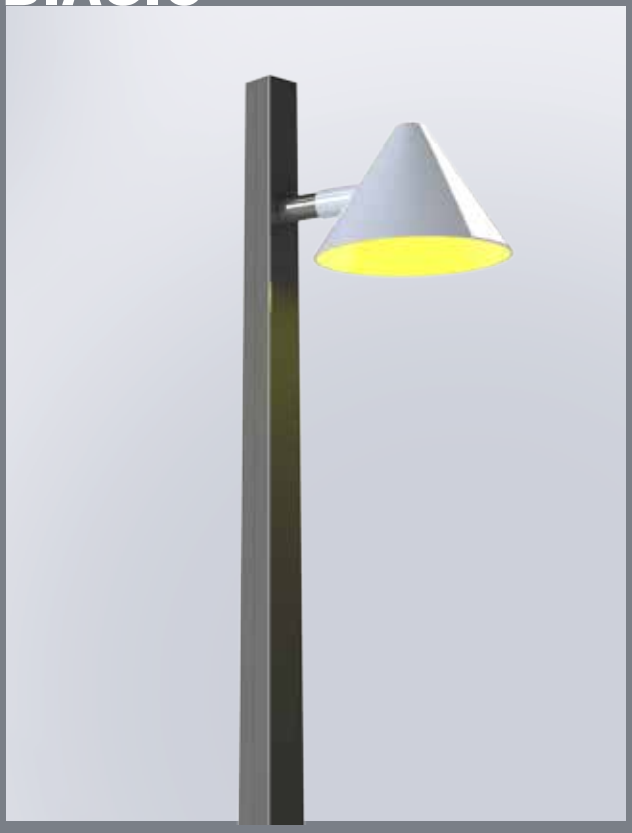
TELECOMMUNICATIONS

RAILWAYS

PAINTING

SUPPORTSERVICES

BIAGIO



BRIGITTA

MARIA

EMMA

LDL Holding

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info@macofer.com

https://youtu.be/F86p7WLYEzw

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