





## POINTED AIR SINGLE RODS

Nomination	Dim. HxØ	Réf.	Weight/U (en kg)	Cond. U	Short Description	
	COPPER ROD 30	300x20	PTEC30	0,620	1	300 mm Single rod in naked copper with Thread M20
	COPPER ROD 50	500x20	PTEC50	0,980	1	500 mm Single rod in naked copper with Thread M20
	CHROME COPPER ROD 30	300x20	PTECC30	0,620	1	300 mm Single rod in chrome copper with Thread M20
	CHROME COPPER ROD 50	500x20	PTECC50	0,980	1	500 mm Single rod in chrome copper with Thread M20
	INOXIDIZABLE STEEL ROD 30	300x20	PTEAI30	0,620	1	300 mm Single rod in inoxidizable steel with Thread M20
	INOXIDIZABLE STEEL ROD 50	500x20	PTEAI50	0,980	1	300 mm Single rod in inoxidizable steel with Thread M20

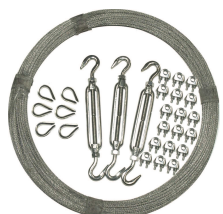


## CONDUCTOR CONNECTION FOR S.T.A.R.® OR SINGLE ROD

Nomination	Dim. HxLxl	Réf.	Weight/U (en kg)	Cond. U	Short Description
 LIGHTNING ROD – CONDUCTOR CONNECTION	10x50x50	RAPC01	0,400	1	Inoxidizable Steel Connection between the lightning rod and the conductor which can be screw down the lightning rod's base. Tapping M20. The conductor is set by tightening – inoxidizable fastenings supplied.





## S.T.A.R.® OR SINGLE ROD ADAPTATIONS AND BASES

Nomination	Dim. HxØint ou HxLxl	Réf.	Weight/U (en kg)	Cond. U	Short Description	
 ROUND CYLINDRICAL COVER	100x32	MAN-R01	0,600	1	Aluminium adaptation (it is possible to apply a colour/ carbon colour if no request) round section with an intern diameter of 30 mm (40 mm External diameter) - tridirectional tightening on the base thanks to inoxidizable fastenings which are supplied.	
 QUADRATE CYLINDRICAL COVER	300x60x60	MAN-C01	1,500	1	Inoxidizable Steel adaptation with a quadrate section of 50 mm intern sideway (60 mm external side) – four-directions tightening on the base thanks to inoxidizable fastenings which are supplied. (it is possible to put a colour/ carbon colour if no request)	
 COCK-WEATHERCOCK SCABBARD	75x80	FOU-CG1	1,500	1	Copper adaptation that allows fastening a lightning protection on a base (cross, for instance.) where a cock/weathercock has already been fastened. The weathercock will be fastened by brazing on the scabbard.	
 01 02 03	ELEVATION MAST 2,00 m (1° element)	2000x28	MAT-IE1 (inox) MAT-GE1 (galva)	3,500	1	Lightning rod's Inoxidizable or galvanised steel elevation mast (length: 2,00 m) and its adaptation for fastenings M20. (external diameter 34 mm)
	ELEVATION MAST 2,00 m (2° element)	2000x36	MAT-IE2 (inox) MAT-GE2 (galva)	4,500	1	Inoxidizable or galvanised steel elevation mast for the mast MAT-IE1 (length obtained: 3,60 m) - The masts stack themselves and are fastened thanks to a longitudinal tightening– inoxidizable fastenings supplied. (External diameter 42 mm)
	ELEVATION MAST 3,00 m (3° element)	3000x44	MAT-IE3 (inox) MAT-GE3 (galva)	6,000	1	Inoxidizable or galvanised steel elevation mast for the mast MAT-IE2 (height obtained : 6,00 m) -- The masts stack themselves and are fastened thanks to a longitudinal tightening .inoxidizable fastenings supplied. (external diameter 50 mm) No guying required for the entirety for a holdfast hold of 1 metre.

## S.T.A.R.® OR SINGLE ROD ADAPTATIONS AND BASES

Nomination	Dim. HxLxl	Réf.	Weight/U (en kg)	Cond. U	Short Description	
	ALUMINIUM ELEVATION MAST 1,50 m	1500x32	MAT-AL1	2,400	1	Aluminium Elevation mast (it is possible to apply a colour/ carbon colour if no request) 1,50 m (external diameter 34 mm) Mast to be preferred if the whole air terminal harmony (lightning protection + base) has to be protected. At most, 4 elements can be used without guying with a fixation's hold of 1 ml (height obtained: 5m).
	GUYWIRE KIT	-	KIT-HAU	2,550	1	Guy wire kit for masts, extreme base and wind or pose conditions. This kit is composed of : Twisted inoxidizable steel cables Ø2 mm (50 metres) Inoxidizable Steel cable joints (x 18) Hooks (x 3) Clamps (Shape of hearts) (x 6) Fixation star cable/mast(x 1)
	POLYAMIDE WATERPROOFING COLLAR	100x100x90	CON-PAL	0,150	1	Waterproofing collar in black polyamide which base is composed of two materials: aluminium and polyamide. Enables to ensure waterproofing around a mast until a 70 mm diameter.
	WATERPROOF SCREW	-	CON-VIS	-	100	Waterproof screw to be used with Polyamide Collar.
	ZINC WATERPROOFING COLLAR	120x90	CON-ZNC	0,220	1	Zinc waterproofing Collar. Enables to ensure waterproofing around a mast until a 70 mm diameter.
	SILICONE	Standard	CON-SIL	0,850	1	A Silicone tube in order to achieve waterproofing.

## ADAPTATIONS AND S.T.A.R.® OR SIMPLE ROD BASES

Nomination		Dim. HxØint ou HxLxI	Réf.	Weight/U (en kg)	Cond. U	Short description
	OFFSET in X flat	hickness. steel 10 mm	DPI-XP1 DPG-XP1	0,950	3	Offset mast fixings to set by tightening on the base. Material Inoxidizable or Galvanised Steel 40 mm offset between axes.
	OFFSET in X	Ømin. : 28 Ømax. : 60	DPI-X1 DPG-X1	0,950	3	Offset mast fixings to set by tightening on the base. Material Inoxidizable or Galvanised Steel 60mm offset between axes.
	ASYMMETRICAL OFFSET in X	hickness. steel 10 mm  Small diameter Ømin. : 28 Ømax : 60  Big diameter Ømin. : 32 Ømax : 140	DPI-XA1 DPG-XA1	1,250	3	Offset mast fixings to set by tightening on the base. Asymmetrical, this fixation allows to be set on 140mm diameter (maximum) base. Material Inoxidizable or Galvanised Steel
	MAST TRIPOD	H : 1200 Øint.: 100	TRPI-01 TRPG-01	7,000	1	Mast base for flat roof Material Inoxidizable or Galvanised Steel A concrete plate can be supplied to help to its carriage Hold : diam. 600 mm
LIGHT SELF-STANDING MAST		On request				Galvanised steel Lattice mast which height is situated between 6 to 30 metres.
FIBREGLASS MAST		On request				Fire-glass mast which height is situated between 8 to 15 metres.
TOWER		On request				Galvanised steel Lattice Tower which height is situated between 15 to 90 metres.



## HOLDFAST AND MAST BASES FOR S.T.A.R.® OR SIMPLE ROD

Nomination	Dim.	Réf.	Weight/U (en kg)	Cond. U	Short Description
 OFFSET TO FASTEN	th steel 10 mm Ømin. : 28 Ømax. : 60	DPG-FIXH2 DPG-FIXH2 DPI-FIXH3 DPG-FIXH3 DPI-FIXH5 DPG-FIXH5	2,000	3	Offset mast fixings to set by cementing in the base or tightening by par plywood and fastenings (on request). Have to be used by group of 3 to ensure vertical height and mast carriage
 OFFSET TO FASTEN		DPI-FIXV2 DPG-FIXH2 DPI-FIXH3 DPG-FIXH3 DPI-FIXV5 DPG-FIXV5	2,000	3	Material: Inoxidizable or Galvanised Steel 200 mm offset between axes : *-* 2 300 mm offset between axes : *-* 3 500 mm offset between axes : *-* 5
 OFFSET TO CEMENT		DPI-SEL DPG-SEL	2,000	3	Offset mast fixings to set by cementing (total length : 200mm) Material : Inoxidizable or Galvanised Steel
 MAST OFFSET		DPI-MA14 DPG-MA14 DPI-MA24 DPG-MA24	2,300	3	Offset mast fixings to set by tightening on the base. Material: Inoxidizable or Galvanised Steel Between axes 140 mm : *-*14 Between axes 240 mm : *-*24
 THREADED OFFSET		DPI-FIL DPG-FIL	1,420	3	Offset mast fixings to screw down (M10) (length of threaded rod 400 mm) Material: Inoxidizable or Galvanised Steel
 FLAT OFFSET		DPI- PLA DPG- PLA	1,850	3	Offset mast fixings to set by cementing in the base Material: Inoxidizable or Galvanised Steel
 OFFSET in U		DPI-ENU DPG-ENU	1,900	2	Offset mast fixings to set by cementing in the base Material: Inoxidizable or Galvanised Steel
 CHROME PLUGS	M10	FIX-CHB	0,200	1	Chrome plug with expansion (M10) for DEP-*** fixations, built (Concrete, Stone, Loaded Brick)
 CHIMNEY HOLDFASTS	Ømin. : 28 Ømax. : 60	DP-CHE	3,400	1	Offset mast fixings for Chimney with strapping (5 m) Material : Galvanised Steel.



# LIGHTNING RODS & GROUNDING ACCESSORIES

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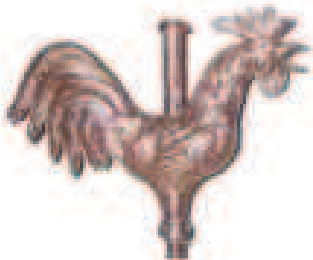




Products' index has to be read :

- Inoxidizable Steel : \*I-\*
- Gavanised Steel : \*G-\*

**All the fastening materials and lightning rods S.T.A.R or simple rods' bases are produced in inoxidizable steel or galvanised steel (except if it is mentioned something else) in our engineering factory. Please can you specify the material you wish by choosing the corresponding product's reference, when you ask price.**

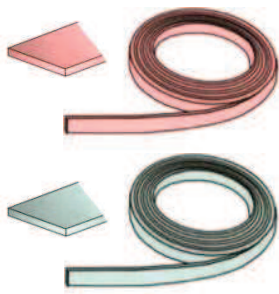
Our engineering factory and our research industry are here to realise any special request.

## COCKS AND WEATHERCOCKS BASES ADAPTED TO S.T.A.R.® OR SIMPLE ROD


Nomination	Dim. Hxl	Réf.	Weight/U (en kg)	Cond. U	Short Description	
	COCK-WEATHERCOCK	530x520	GIR-COQ53	4,000	1	Coppered- Cock-Weathercock scale: 53cm with screw tightening on the base and lightning rod adaptation M20. Inoxidizable steel ball-bearing and brass pebbles.
	COCK-WEATHERCOCK	630x520	GIR-COQ63	4,500	1	Coppered- Cock-Weathercock scale: 63cm with screw tightening on the base and lightning rod adaptation M20. Inoxidizable steel ball-bearing and brass pebbles.
	COCK-WEATHERCOCK	730x520	GIR-COQ73	5,000	1	Coppered- Cock-Weathercock scale: 73cm with screw tightening on the base and lightning rod adaptation M20. Inoxidizable steel ball-bearing and brass pebbles.
	WEATHERCOCK STEEPLE AND CARDINAL POINTS	450x300	GIR-FLEPC	2,800	1	Coppered- Cock-Weathercock scale: 73cm with screw tightening on the base and lightning rod adaptation M20. Immovable Coppered and brass-cardinal points. Inoxidizable steel ball-bearing and brass pebbles.
	We remain at your entire disposal in order to create on request any coppered-weathercock adapted to the bases.					

## CONDUCTORS AND EARTHING

### LADEN PLANE CONDUCTORS

Coil delivery	Section mm <sup>2</sup>	Width x ep. mm	Réf.	Weight/m (en kg)	Cond. mètre	Materials
 <p><b>COND-P****</b></p>	60	30 x 2	COND-PC60	0,534	70 à 80	Naked Copper
	60	30 x 2	COND-PCE60	0,534	70 à 80	Tinned Copper
	105	30 x 3,5	COND-PAG	0,850	50 à 60	Galvanised Steel
	105	30 x 3,5	COND-PAI	0,825	50 à 60	Stainless Steel


### ROUND LADEN CONDUCTORS


Coil delivery	Ø mm	Réf.	Weight/m (en kg)	Cond. mètre	Materials
 <p><b>COND-R****</b></p>	6	COND-RC6	0,250	110 à 130	Naked copper
	8	COND-RC8	0,448	90 à 110	Naked copper
		COND-RCE8	0,448	90 à 110	Tinned Copper
		COND-RAG8	0,395	120 à 130	Galvanised Steel
		COND-RAI8	0,395	120 à 130	Stainless Steel
		COND-RAL8	0,135	110 à 150	Aluminium



## EQUIPOTENTIAL CONDUCTORS


### WOVEN CONDUCTORS

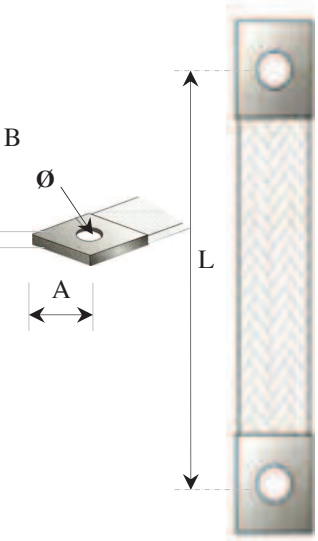
ROUND WOVEN CABLE	Section mm <sup>2</sup>	Réf.	Weight/m (en kg)	Cond. mètre	Materials
 <b>EQ-TR***</b>	25	EQ-TRC25	0,223	50 ou 100	Naked electrolytic copper
	29	EQ-TRC29	0,258	50 ou 100	Naked electrolytic copper
	35	EQ-TRC35	0,312	50 ou 100	Naked electrolytic copper
	50	EQ-TRC50	0,445	50 ou 100	Naked electrolytic copper
	75	EQ-TRC75	0,667	50 ou 100	Naked electrolytic copper
	150	EQ-TRC150	1,335	50 ou 100	Naked electrolytic copper
Coil delivery – For other sections ask us – annealing copper available					

 <b>EQ-TRCE**</b>	5	EQ-TRCE05	0,045	50 ou 100	Tinned Copper
	8	EQ-TRCE08	0,071	50 ou 100	Tinned Copper
	10	EQ-TRCE10	0,089	50 ou 100	Tinned Copper
	16	EQ-TRCE16	0,142	50 ou 100	Tinned Copper
	25	EQ-TRCE25	0,223	25 ou 50	Tinned Copper
	50	EQ-TRCE50	0,445	25 ou 50	Tinned Copper
Coil delivery – For other sections ask us.					

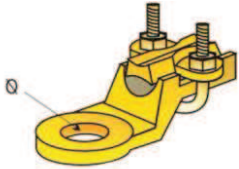
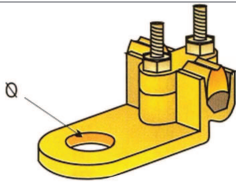
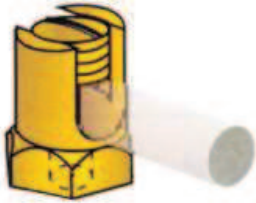
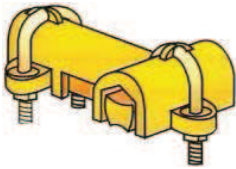
## EQUIPOTENTIAL CONDUCTORS

### WOVEN CONDUCTORS

FLAT BRAID	Section mm <sup>2</sup>	Width x ep. mm	Réf.	Weight/m (en kg)	Cond. meter	Materials
 <p><b>EQ-TPCE**</b></p>	5	8 x 1,1	EQ-TPCE05	0,045	50 ou 100	Tinned Copper
	8	8 x 1,5	EQ-TPCE08	0,071	50 ou 100	Tinned Copper
	10	10 x 1,5	EQ-TPCE10	0,089	50 ou 100	Tinned Copper
	16	15 x 2	EQ-TPCE16	0,142	50 ou 100	Tinned Copper
	25	25 x 2	EQ-TPCE25	0,223	25 ou 50	Tinned Copper
	50	30 x 3,5	EQ-TPCE50	0,445	25 ou 50	Tinned Copper
Coil delivery – For other sections ask us.						

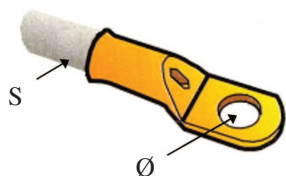
SHUNTS	Section mm <sup>2</sup>	Lenght available (L) mm	Réf.	AxBxØ	Cond. U	Materials-current allowed
	10	100-150-200-250-300	EQ-SH10	11x3,2x6,5	50 ou 100	Tinned Copper - 75 A
	16	100-150-200-250-300	EQ-SH16	17x3,5x8,5	50 ou 100	Tinned Copper - 120 A
	25	100-150-200-250-300	EQ-SH25	26x4x8,5	25 ou 50	Tinned Copper - 150 A
	35	100-150-200-250-300	EQ-SH35	30x4x10,5	25 ou 50	Tinned Copper - 190 A
	50	150-200-250-300-400-500	EQ-SH50	33x4,5x10,5	25 ou 50	Tinned Copper - 250 A
	70	200-250-300-400-500	EQ-SH70	32x5x12,5	10 ou 25	Tinned Copper - 290 A
	Special production available by request.					

## EQUIPOTENTIAL CONNECTIONS

	Sections allowed mm <sup>2</sup>	Ø	Réf.	Weight/U (en kg)	Cond. U	Materials
	6-70	12	REQ-RD70	0,070	25	Copper alloy
	25-120	12	REQ-RD120	0,135	25	Copper alloy
	35-150	12	REQ-RD150	0,135	25	Copper alloy
	6-70	8	REQ-RP70	0,080	25	Copper alloy
	25-120	12	REQ-RP120	0,180	25	Copper alloy
	6-25	Fixation par M8	REQ-RV25	0,018	25	Copper alloy
	10-35		REQ-RV35	0,030	25	Copper alloy
	35-60		REQ-RV60	0,048	25	Copper alloy
	50-95		REQ-RV95	0,070	25	Copper alloy
	70-120		REQ-RV120	0,089	25	Copper alloy
	95-150		REQ-RV150	0,115	25	Copper alloy
	10-70		REQ-RT70	0,100	25	Copper alloy
	25-120		REQ-RT120	0,200	25	Copper alloy

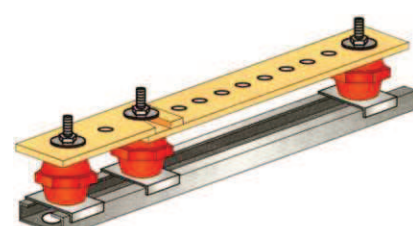

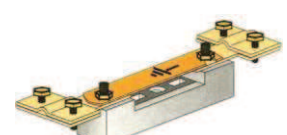
## CLAMPS TO SET

Section (S) mm <sup>2</sup>	Ø mm	Réf.	Weight /100U (en kg)	Cond. U	Materials
10	4,30	CO-1004	0,490	100	Copper alloy.
	5,30	CO-1005	0,540	100	
	6,50	CO-1006	0,550	100	
	8,50	CO-1008	0,600	100	
	10,50	CO-1010	0,720	100	
	13,00	CO-1013	0,660	100	
16	5,30	CO-1605	0,680	100	
	6,50	CO-1606	0,700	100	
	8,50	CO-1608	0,770	100	
	10,50	CO-1610	0,790	100	
	13,00	CO-1613	0,800	100	
25	5,30	CO-2505	1,050	100	
	6,50	CO-2506	1,060	100	
	8,50	CO-2508	1,240	100	
	10,50	CO-2510	1,330	100	
	13,00	CO-2513	1,300	100	
	15,00	CO-2515	1,400	100	
35	5,30	CO-3505	1,330	100	
	6,50	CO-3506	1,400	100	
	8,50	CO-3508	1,450	100	
	10,50	CO-3510	1,600	100	
	13,00	CO-3513	1,650	100	
	15,00	CO-3515	1,650	100	
50	6,50	CO-5006	1,800	100	
	8,50	CO-5008	1,950	100	
	10,50	CO-5010	2,200	100	
	13,00	CO-5013	2,310	100	
	15,00	CO-5015	2,410	100	
	17,00	CO-5017	2,500	100	
70	8,50	CO-7008	3,280	100	
	10,50	CO-7010	3,380	100	
	13,00	CO-7013	3,580	100	
	15,00	CO-7015	3,850	100	
	17,00	CO-7017	4,000	100	
95	8,50	CO-9508	4,300	100	
	10,50	CO-9510	4,450	100	
	13,00	CO-9513	4,650	100	
	15,00	CO-9515	4,870	100	
	17,00	CO-9517	5,850	100	








## EQUIPOTENTIAL BARS

	L	Holes number	Réf.	Weight/U (en kg)	Cond. U	Materials
	 <p>58 mm 9 x 25 mm</p>	280	6	BAR-D280	1,250	1
420		10	BAR-D420	1,750	1	
595		15	BAR-D595	2,250	1	
770		20	BAR-D770	2,800	1	
945		25	BAR-D945	3,350	1	
	350	6	BAR-C350	1,650	1	Copper plane 50 x 5mm assembled on fibreglass/polyester insulators. Supplied with a cut.
	490	10	BAR-C490	2,150	1	
	665	15	BAR-C665	2,650	1	
	840	20	BAR-C840	3,200	1	
	1015	25	BAR-C1015	3,750	1	
	Insulators sold singly by request					
<b>EARTHING CLIP</b>	Dim. mm	Section maxi. mm <sup>2</sup>	Réf.	Weight/U (en kg)	Cond. U	Earthing clip Copper and polyester alloy
	120x30x40	35	BAR-T35	0,120	1	
	150x34x65	70	BAR-T70	0,270	1	

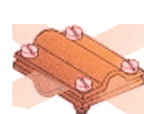
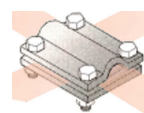
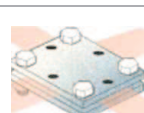
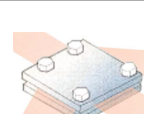
## CONDUCTORS BASES AND HOLDFASTS

Nomination	Dim. mm	Réf.	Weight/U (en kg)	Cond. U	Short description	
 PYRAMID CONCRETE BLOCK	140x140x80	PLOBET-P1	1	10	Concrete – plastic cover-for the paths. Horizontal. Suitable for flat or round conductor.	
 CUBE CONCRETE BLOCK	100x100x70	PLOBET-C1	1	10	Concrete – plastic cambium-for the paths. Horizontal.	
 GRAVEL BLOCK	H : 50 Ø : 100	PLOT-GRA	0,100	10	PVC base stabilize with gravel's weight (terrace roof). Suitable for flat or round conductor.	
 TAR STRIP ALUMINIUM	200x4x50	AGR-RUBE	1	10	Tar- aluminium strip. To be put on the steel tub.	
 TILE STAPLE CONDUCTOR 30x2	150x50x9 ép. 1	AGR-TUIL1	0,045	50	Inertial strips' holdfasts on tile or slate roof.	
 PLASTIC STAPLE	50x10x8	AGR-PL1	0,025	100	Plastic base to be screwed down in the base without offset. Suitable for flat or round conductors.	
 SWERVED PLASTIC STAPLE	50x10x8 dép. 20 mm	AGR-PLD1	0,022	100	Plastic base to be screwed down in the base with offset. Suitable for flat or round conductors.	
 CLIP CONDUCTOR 30x2	50x10x8	CLIP-PLA	0,0025	100	Stainless steel clip to be settled on the base thanks to screws or rivets.	
	GALVANISED STEEL CRAMP	35x30x5	CRA-AG30	0,020	100	Galvanised steel holdfast cramp
	GALVANISED STEEL CRAMP	35x40x5	CRA-AG40	0,020	100	Galvanised steel holdfast cramp
	GALVANISED STEEL CRAMP	35x50x5	CRA-AG50	0,020	100	Galvanised steel holdfast cramp
	STAINLESS STEEL CRAMP	35x30x5	CRA-AI30	0,020	100	Stainless steel holdfast cramp
	STAINLESS STEEL CRAMP	35x40x5	CRA-AI40	0,020	100	Stainless steel holdfast cramp
	STAINLESS STEEL CRAMP	35x50x5	CRA-AI50	0,020	100	Stainless steel holdfast cramp

## ...CONDUCTORS BASES AND HOLDFASTS

Nomination	Dim. mm	Réf.	Weight/U (en kg)	Cond. U	Short description
 LEAD PLUGS	Ø5x30	CHEV-PB6	0,005	100	Lead plugs for holdfast cramp.
 HORIZONTAL BASE	30x40x15	SUP-PL1	0,155	25	Galvanised steel base to screw down in the base
 ROUND CONDUCTOR CLIP	H = 20 mm	CLIP-RON	0,014	50	Stainless steel clip for round conductor 8 mm diameter.

## MECHANICAL CONNECTIONS

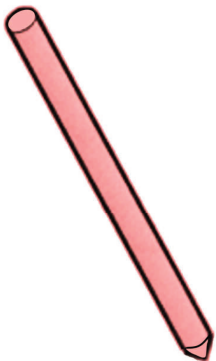
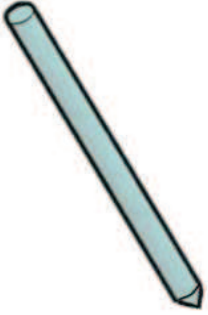
Nomination	Dim. HxWxl (in mm)	Réf.	Weight/U (en kg)	Cond. U	Short Description
 COPPER CONNECTION	18x50x50	RAC-CU	0,130	10	Mechanical connection for flat conductors and/or round ones in naked copper. Provided with stainless screw tightening.
 TIN COPPER CONNECTION	18x50x50	RAC-CE	0,140	10	Mechanical connection for flat conductors and/or round ones in tin copper. Provided with stainless screw tightening.
 INOXIDIZABLE STEEL CONNECTION	18x50x50	RAC-IN	0,230	10	Mechanical connection for flat conductors and/or round ones in stainless steel. Provided with stainless screw tightening.
 FLAT INOXIDIZABLE STEEL	12x50x50	RAC-PL	0,310	10	Mechanical connection for flat conductors in stainless steel. Provided with stainless screw tightening.
 CROW'S FOOT OFFSET INOXIDIZABLE STEEL	12x60x60	RAC-PO	0,600	10	Mechanical connection for flat conductors which allows conductors departure for a crow's foot earthing. Provided with stainless screw tightening.

## DOWN CONDUCTORS AND EARTHING SPECIAL COMPONENTS

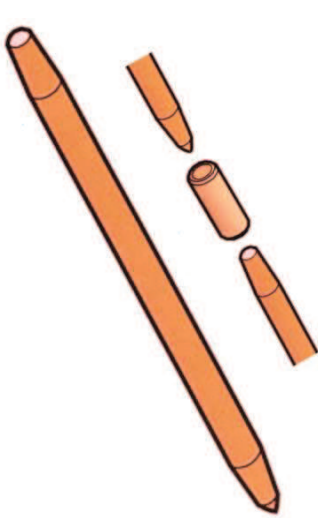
Nomination	Dim. (mm) HxLxI	Réf.	Weight/U (en kg)	Cond. U	Short description
 <p>ISOLATING SPARK GAPS</p>	94 x Ø 45,9	ED-ECL	0,355	1	Balancing in the potential of ground which are not interlinked. Aerial masts, protection discharge spout, metal constructions (stem M8)
 <p>RACCORD CHENEAU</p>	30x70x60	ED-RC01	0,300	1	Mechanical connection galvanised steel. Allows equipotential balance (same potential) of the conductor and the rain gutter it crosses.
 <p>STROKE COUNTER</p>	70x50x60	ED-CMPT	0,750	1	Stroke counter to be connected in series to the downward conductor. A counter's raising occurs each time we notice a strike's impulse. Treaty IP65. 8mm diameter Conductor tin copper Sensitivity 200A, admissible current 100kA (8/20µs)
 <p>CONTROLL SEAL</p>	Ø 50 mm ep. 20 mm	ED-JC01	0,115	1	The controll Seal allows disconnect the downward conductor from the earthing on order to measure the ohmic resistance of the latter. Prescriptive stamping. Provided with stainless screw tightening M5.
 <p>PROTECTION SHEATH</p>	2000x10 (ext.) ep. 1 mm	ED-GP01	0,900	1	The protection sheath allows the overall plane conductor protection against whatever mechanical shock covering from the ground 2 meters high. Provided with 3 holdfast strips with their stainless screws and polyamide plugs.
 <p>CAST IRON INSPECTION HOUSING</p>	110x250x250	ET- REGF	14,000	1	The Inspection housing can be used for buried connections between conductors.




## EARTH RODS

NOT ABLE TO BE LENGTHENED	Diameter mm	Length mm	Réf.	Weight/U (en kg)	Cond. U	Materials
 <p><b>PIQNA-***</b></p>  <p><b>PIQNA-***I</b></p>	14	1000	PIQNA-1410	1,300	5	Steel – Copper 50 µm
	14	2000	PIQNA-1420	2,550	5	Steel – Copper 50 µm
	16	1000	PIQNA-1610	1,300	5	Steel– Copper254 µm respects UL SPEC 467
	16	1500	PIQNA-1615	1,900	5	Steel – Copper 254 µm respects UL SPEC 467
	16	2000	PIQNA-1620	2,550	5	Steel – Copper 254 µm respects UL SPEC 467
	16	2500	PIQNA-1625	3,200	5	Steel – Copper 254 µm respects UL SPEC 467
	16	3000	PIQNA-1630	3,800	5	Steel - Copper 254 µm respects UL SPEC 467
	19	1000	PIQNA-1910	1,850	5	Steel– Copper 254 µm respects UL SPEC 467
	19	1500	PIQNA-1915	2,700	5	Steel– Copper 254 µm respects UL SPEC 467
	19	2000	PIQNA-1920	3,700	5	Steel – Copper 254 µm respects UL SPEC 467
	19	2500	PIQNA-1925	4,550	5	Steel– Copper 254 µm respects UL SPEC 467
	19	3000	PIQNA-1930	5,400	5	Steel– Copper 254 µm respects UL SPEC 467
	16	1000	PIQNA-1610I	1,500	5	Stainless Steel
	16	1500	PIQNA-1615I	2,250	5	Stainless Steel
	16	2000	PIQNA-1620I	3,000	5	Stainless Steel
	16	2500	PIQNA-1625I	3,750	5	Stainless Steel
	16	3000	PIQNA-1630I	4,500	5	Stainless Steel

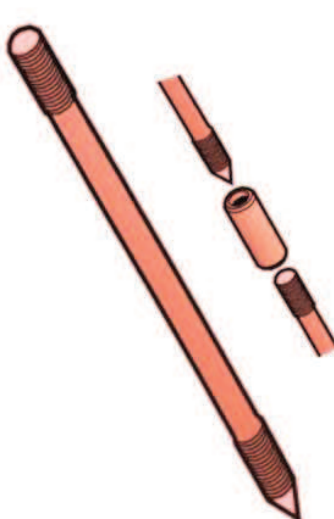
## EARTH RODS

ABLE TO BE LENGTHENED THANKS TO CONE-SHAPED CYLINDRICAL COVERS	Diameter mm	Length mm	Réf.	Weight/m (en kg)	Cond. mètre	Materials
 <p>PIQAC-****</p>	16	1000	PIQAC-1610	1,300	5	Steel- Copper 254 µm respects UL SPEC 467
	16	1500	PIQAC-1615	1,900	5	Steel - Copper 254 µm respects UL SPEC 467
	16	2000	PIQAC-1620	2,550	5	Steel- Copper 254 µm respects UL SPEC 467
	16	2500	PIQAC-1625	3,200	5	Steel - Copper 254 µm respects UL SPEC 467
	16	3000	PIQAC-1630	3,800	5	Steel - Copper 254 µm respects UL SPEC 467
	19	1000	PIQAC-1910	1,850	5	Steel - Copper 254 µm respects UL SPEC 467
	19	1500	PIQAC-1915	2,700	5	Steel- Copper 254 µm respects UL SPEC 467
	19	2000	PIQAC-1920	3,700	5	Steel- Copper 254 µm respects UL SPEC 467
	19	2500	PIQAC-1925	4,550	5	Steel- Copper 254 µm respects UL SPEC 467
	19	3000	PIQAC-1930	5,400	5	Steel - Copper 254 µm respects UL SPEC 467


## CONE-SHAPED CYLINDRICAL COVERS

	Diameter mm	Height mm	Réf.	Weight/m (en kg)	Cond. mètre	Materials
	int. : 16	70	MANC-C16	0,100	5	High mechanical resistance copper alloy (does not corrode)
	int. : 19	70	MANC-C19	0,150	5	High mechanical resistance copper alloy (does not corrode)

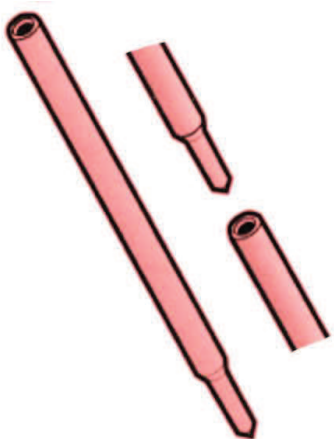
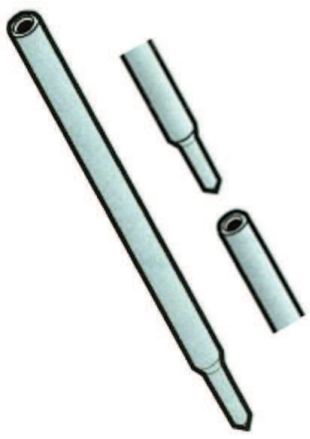
## EARTH RODS

ABLE TO BE LENGTHENED THANKS TO THREADED CYLINDRICAL COVERS	Diameter mm	Length mm	Réf.	Weight/U (en kg)	Cond. U	Materials
 <p>PIQAF-****</p>	16	1000	PIQAF-1610	1,300	5	Steel – Copper 254 µm respects UL SPEC 467
	16	1500	PIQAF-1615	1,900	5	Steel – Copper 254 µm respects UL SPEC 467
	16	2000	PIQAF-1620	2,550	5	Steel – Copper 254 µm respects UL SPEC 467
	16	2500	PIQAF-1625	3,200	5	Steel – Copper 254 µm respects UL SPEC 467
	16	3000	PIQAF-1630	3,800	5	Steel – Copper 254 µm respects UL SPEC 467
	19	1000	PIQAF-1910	1,850	5	Steel – Copper 254 µm respects UL SPEC 467
	19	1500	PIQAF-1915	2,700	5	Steel – Copper 254 µm respects UL SPEC 467
	19	2000	PIQAF-1920	3,700	5	Steel – Copper 254 µm respects UL SPEC 467
	19	2500	PIQAF-1925	4,550	5	Steel – Copper 254 µm respects UL SPEC 467
	19	3000	PIQAF-1930	5,400	5	Steel – Copper 254 µm respects UL SPEC 467

## THREADED CYLINDRICAL COVERS

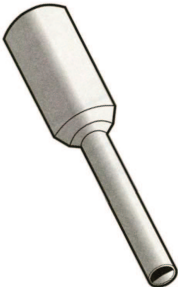


	Diameter mm	Height mm	Réf.	Weight/U (en kg)	Cond. U	Materials
	int. : 16	70	MANC-F16	0,100	5	High mechanical resistance copper alloy (does not corrode)
	int. : 19	70	MANC-F19	0,150	5	High mechanical resistance copper alloy (does not corrode)

## EARTH RODS


SELF-STANDING	Diameter mm	Length mm	Réf.	Weight/U (en kg)	Cond. U	Materials
 <p><i>PIQAA-****</i></p>	16	1000	PIQAA-1610	1,300	5	Steel – Copper 254 µm respects UL SPEC 467
	16	1500	PIQAA-1615	1,900	5	Steel – Copper 254 µm Respects UL SPEC 467
	16	2000	PIQAA-1620	2,550	5	Steel– Copper 254 µm respects UL SPEC 467
	16	2500	PIQAA-1625	3,200	5	Steel – Copper 254 µm respects UL SPEC 467
	16	3000	PIQAA-1630	3,800	5	Steel – Copper 254 µm respects UL SPEC 467
	19	1000	PIQAA-1910	1,850	5	Steel – Copper 254 µm respects UL SPEC 467
	19	1500	PIQAA-1915	2,700	5	Steel– Copper 254 µm respects UL SPEC 467
	19	2000	PIQAA-1920	3,700	5	Steel – Copper 254 µm respects UL SPEC 467
	19	2500	PIQAA-1925	4,550	5	Steel – Copper 254 µm respects UL SPEC 467
	19	3000	PIQAA-1930	5,400	5	Steel – Copper 254 µm respects UL SPEC 467
 <p><i>PIQAA-**** I</i></p>	19	1000	PIQAA35-1910	1,850	5	Steel – Copper 350 µm
	19	1500	PIQAA35-1915	2,700	5	Steel – Copper 350 µm
	19	2000	PIQAA35-1920	3,700	5	Steel – Copper 350 µm
	16	1000	PIQAA-1610I	1,500	5	Stainless Steel
	16	1500	PIQAA-1615I	2,250	5	Stainless Steel
	16	2000	PIQAA-1620I	3,000	5	Stainless Steel



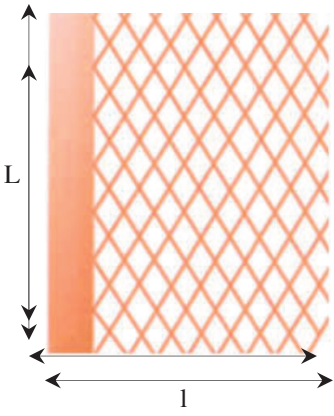
## DRIVING-IN EQUIPMENT

	Nomination	Réf.	Weight/U (en kg)	Cond. U	Short description
	SLIPPERY SLEDGE	MF-MAS	10,000	1	Slippery Sledge fitted to rods' driving-in up to a 19mm diameter.
	SHORT SLEDGE	MF-B01	0,400	1	Short Sledge for driving-in (up to the 19 mm diameter) for rods.
	SHORT SLADGE PAA	MF-B02	0,450	1	Short Sledge driving-in for self-standing rods ( <i>PIQAA</i> -****)

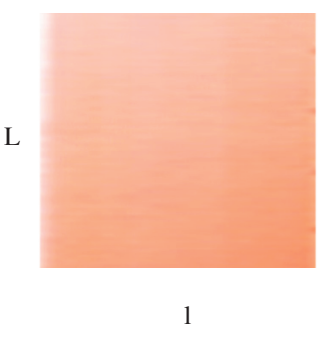
## RODS –CONDUCTORS CONNECTION

	Nomination	Dim. mm	Réf.	Weight/U (en kg)	Cond. U	Short Description
	CLAMP ROD	40x40x15	COS-P01	0,120	5	Brass connection clamp for strip and rods from 14 to 19mm

## GROUND GRILLS

	Dimensions		Réf.	Weight/U (en kg)	Cond. U	Material - Meshes
	Width x Length (en mm)	Section (en mm)				
	2000 x 8800	3 x 3	GRT-2088	53,000	1	Copper – 115 x 55
	2000 x 1000	3 x 3	GRT-2010	9,000	1	Copper – 115 x 55
	1000 x 1000	3 x 3	GRT-1010	4,500	1	Copper– 115 x 55
	700 x 1000	3 x 3	GRT-0710	3,000	1	Copper – 115 x 55
Roll delivery						

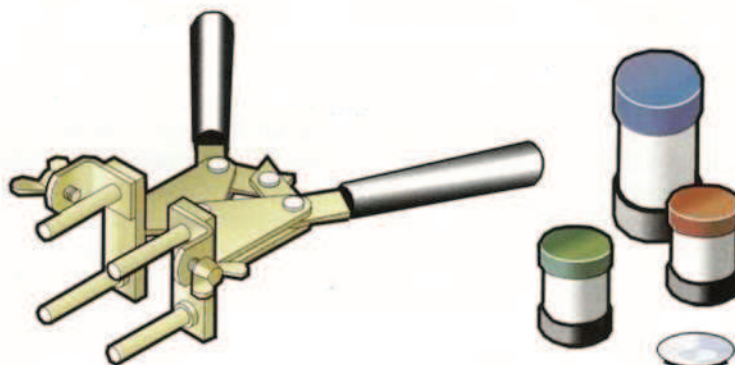
## GROUND PLATES

	Dimensions		Réf.	Weight/U (en kg)	Cond. U	Material
	Width x Length (en mm)	Thickness (en mm)				
	2000 x 1000	2	PLC-2010	36,000	1	Copper
	1000 x 1000	2	PLC-1010	18,000	1	Copper
	1000 x 670	2	PLC-1067	12,000	1	Copper

## ALUMINIUM-THERMAL WELDING



**Moule :**  
Le moule est fabriqué à partir d'un bloc de graphite. Un couvercle métallique protège contre les projections de matières incandescentes.

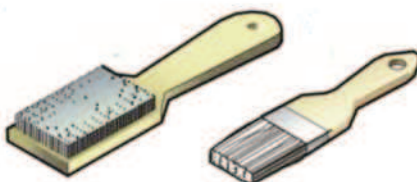


**Pince-support :**  
Utilisée pour maintenir le moule, permettre son ouverture et sa fermeture ainsi que le positionnement des éléments à souder. Le type de pince dépend de la taille et de la forme du moule.

**Cartouche et disque obturateur :**  
La cartouche contient la poudre de soudage (couvercle de couleur) et la poudre d'allumage (couvercle noir). Le disque métallique est introduit dans le creuset afin d'obturer le trou de coulée avant de déposer la poudre de soudage.



**Allumeur AL-FI :**  
Utilisé pour la mise à feu de la poudre d'allumage.



**Brosse à Cardes BR-CA :**  
Utilisée pour un parfait nettoyage des pièces métalliques à souder.

**Pinceau de moule BR-PC :**  
Utilisé pour le nettoyage du moule après chaque soudure.



**Curette-pige R- :**  
Sa forme est spécialement étudiée pour enlever le laitier aluminothermique du creuset et du trou de coulée du moule.



The use of aluminothermic welding is specific to each site and each user, you will find in the tables below our guidance of dimensions and layout, as materials to implement in order to choose the references that are best suited for welding. We will then be able to offer the mussels and associated accessories.

## COPPER CONDUCTORS DIMENSIONS

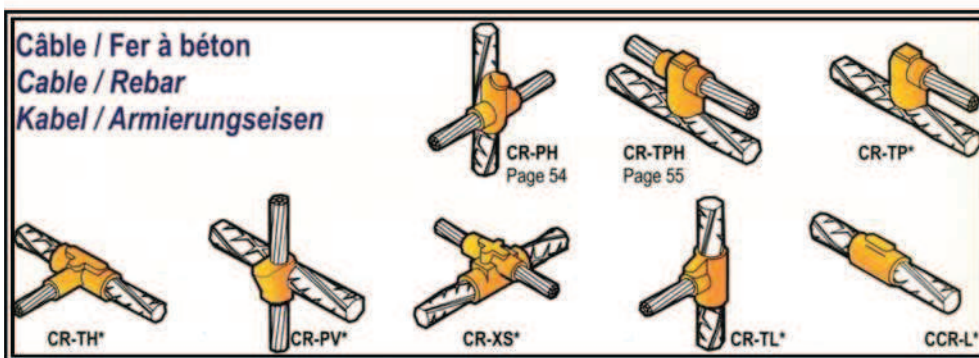
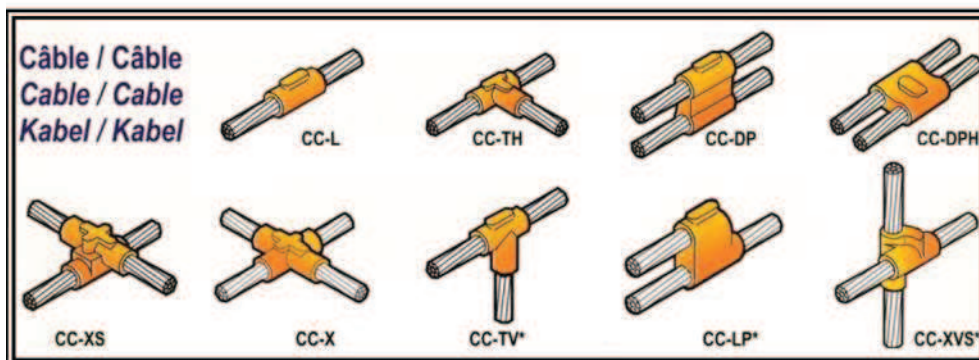
Section Cross section mm <sup>2</sup>	Composition Composition Nr x Ø mm	Diamètre Diameter Ø mm
10	7 x 1.40	4.1
	19 x 0.80	4.2
	37 x 0.60	4.2
16	7 x 1.68	5.1
	19 x 1.03	5.2
	37 x 0.75	5.2
25	7 x 2.13	6.4
	19 x 1.30	6.5
	37 x 0.90	6.4
29	19 x 1.40	7.0
35	7 x 2.53	7.6
	19 x 1.53	7.7
	37 x 1.10	7.7
50	7 x 3.00	9.0
	19 x 1.83	9.2
	37 x 1.31	9.2
70	7 x 3.56	10.7
	19 x 2.17	10.9
	37 x 1.55	10.9
95	19 x 2.50	12.5
	37 x 1.81	12.7
	61 x 1.40	12.6
120	19 x 2.84	14.2
	37 x 2.03	14.2
	61 x 1.60	14.4
150	19 x 3.18	15.9
	37 x 2.25	16.0
	61 x 1.77	15.9
185	37 x 2.52	17.7
	61 x 1.96	17.7
240	37 x 2.83	19.8
	61 x 2.25	20.3
300	37 x 3.21	22.5
	61 x 2.50	22.5
400	61 x 2.89	26.0
500	91 x 2.65	29.1

## CONCRETE IRON DIMENSIONS

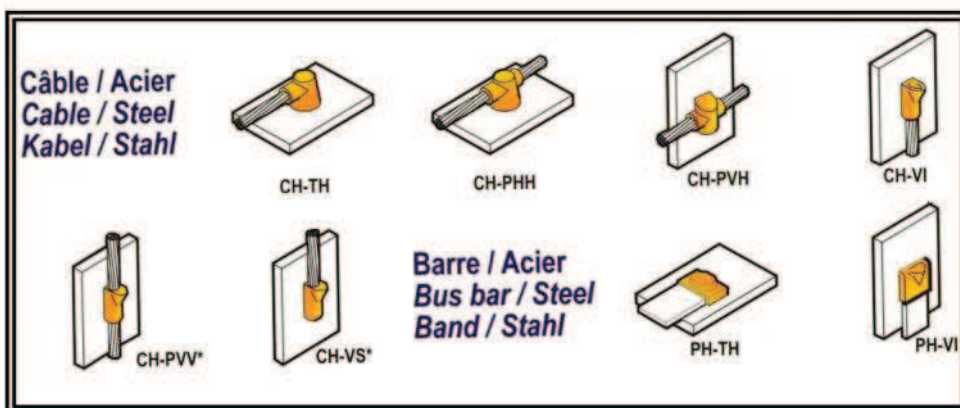
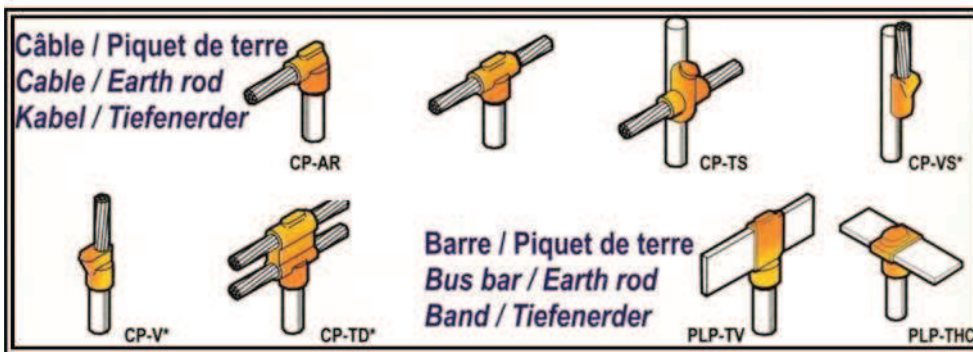
Taille nominale Nominal size Ø mm	Diamètre Diameter Ø mm
6	7.2
8	9.6
10	12.0
12	14.4
14	16.8
16	19.2
20	24.0
25	30.0
32	38.4



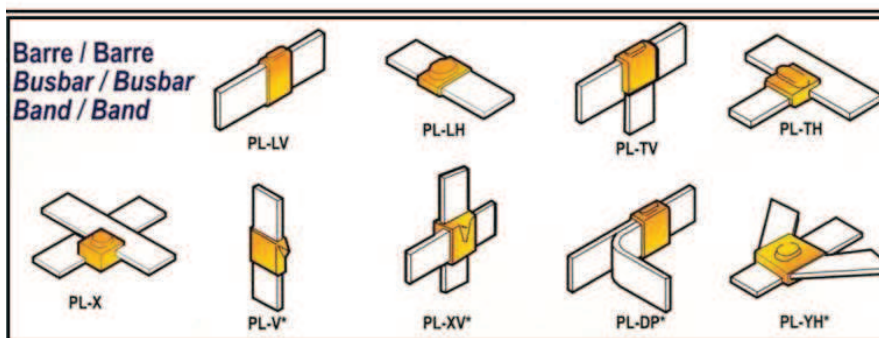
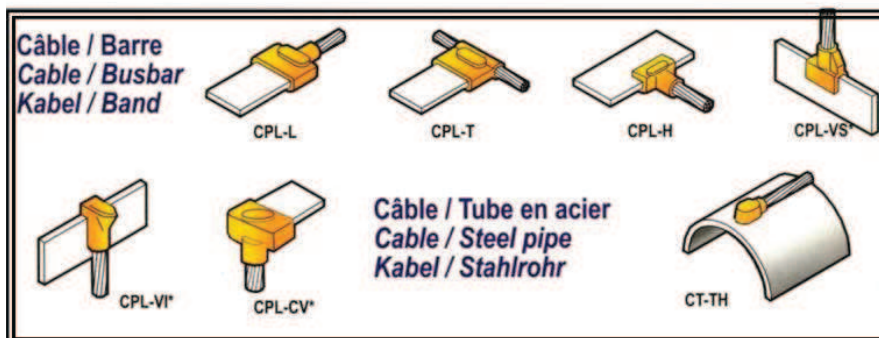
# LIGHTNING RODS & GROUNDING ACCESSORIES



# LIGHTNING RODS & GROUNDING ACCESSORIES



# LIGHTNING RODS & GROUNDING ACCESSORIES



## GROUND GAUGE



Dimensions L x l x Epaisseur (en mm)	Réf.	Poids/U (en kg)	Cond. U	Descriptif
240x250x100	MES-PRO	4,250	1	Mesureur de terre spécifique. Compact et léger, il est fourni avec sa valisette de transport dans laquelle sont logés ses 3 câbles équipés et ses 2 piquets de mesures. Il convient parfaitement pour toutes mesures de prise de terre.

### Technical features

<i>Mesure de résistance de terre par courant constant :</i>	800 Hz, 2 mA 0-200 V CA, 40 ~ 500 Hz
<i>Calibres :</i>	0-20 $\Omega$ (res. 0,01 $\Omega$ ) 0-200 $\Omega$ (res. 0,01 $\Omega$ ) 0-2000 $\Omega$ (res. 0,01 $\Omega$ )
<i>Alimentation :</i>	6 piles de 1,5 V
<i>Fonctions :</i>	Mesure de prise de terre Indication de circuit ouvert Mémoire de mesure
<i>Conformité :</i>	Norme IEC 1010 Catégorie de surtension III





# LIGHTNING RODS & GROUNDING ACCESSORIES

## PRICE ENQUIRY FORM

Customer Code :		<i>Cf. your last invoice</i>	
e-mail :		@	
Society :			
Name contact :			
Firstname contact :			
Adress :			
County Code :		City :	
Country :			
Phone. :			
Telecopy :			
<b>Delivery:</b> <i>(Specify if it is a different address)</i>			
<b>Society :</b>			
<b>Adress:</b>			
<b>County Code:</b>		<b>City :</b>	
<b>County :</b>			
Comments :			





# LIGHTNING RODS & GROUNDING ACCESSORIES

## PURCHASE CONDITIONS

- 1- **Generalities :** All the orders that come from a quotation made by LPS FRANCE is addressed to LPS FRANCE – BP 80055 – F-33460 CUSSAC FORT MEDOC - RCS Bordeaux 521 876 433 and thus triggers the acceptance of the customer of our sale general conditions herein and despite whatever opposite clause from his part.
- 2- **Orders:** They must be certified by written word thanks to the purchase attached to the quotation or thanks to numbered purchase orders coming from your service or society. They must contain all the usual, legal information, linked to the ordering party.
- 3- **Price:** The prices indicated on our offers or quotations are valid during 6 months (six) and according to the quantity that is foreseen on the quotation. They are changeable if the quantities asked do not stick to those in the quotation. LPS FRANCE® allows itself to modify the prices according to the construction's index, BT 47 index in particular. In the framework of a basic supplies' order, that does not include the installation, our prices are duty-free, sold free alongside ship, concerning the metropolis, for orders upper than 305,00 Euros net duty-free (for lower amounts, the transport will have to be paid by the purchaser). Concerning the delivery outside the Metropolis, our prices are Ex-works (the customer has in charge the transport from our factory) and the transport expenses will have to be paid by the purchaser only, except if LPS FRANCE mentions the contrary.
- 4- **Delivery delay:** LPS FRANCE society will stick to the delay foreseen, so far as possible, (9 to 10 weeks as from the purchase orders' reception). However, the purchaser can't oppose to a potential delay. The recipient is in charge of the delivery risks, whatever the sales and transport conditions are. In case of contest for delay, loss or damage of the goods, it is the role of the recipient to have recourse to third party.
- 5- **Transport:** According to article 105 of commercial code, the goods are travelling to the riskiness of the purchaser, recipient who must check the state of the goods in the presence of the deliverer. In case of damage, it is compulsory to mention it on the freight forwarder's written document with the maximum of precision, followed by a registered letter addresses to the freight forwarder within 48 hours. If the goods are totally unusable, refuse it. The latter will be replaced within the best extension.  
If you sign the freight deliverer's without any reservation, that means you recognise having received the goods in a good state and from that moment, no recourse or repayment is possible anymore, neither replacement of the pieces will be possible.
- 6- **Payment:** Body corporate of public law will settle payment through administrative transfer 60 days in date of reception of the works or material. Concerning all other orders, 30% of the total amount of the quotation and chosen options will be compelled. This down payment will be settled cash at the order's certification. The payment will be settled either cash at the reception of the works, or by bank draft 30 days at the end of the month for the remaining to be paid. The lack of the bank draft at the date planned or the change of their due date without previous agreement of our society will automatically trigger the suppression of payment's easy terms. The loss of payment of at least one of the due date will trigger, by rights, the payability of the interests and of the inherent expenses as well as the cessation of the orders in process. Every payment that comes after the payment date which is on the invoice, will be mark-up with a 1.5% penalty for each month past due, having for known that all entered month will be due integrally. The invoicing date is the goods' delivery date, or the date when the goods will be available in our factory, but also at the reception of the works. Body corporate of public law will settle the payment thanks to administrative transfer 60 days at the date of reception of the works or material.
- 7- **Reserve of property:** Concerning supplies' order only, the supplied goods' ownership will only be transferred to the buyer after the whole payment of the price, the supplier allowing himself the right to claim the said goods in the conditions foreseen by the law n°80-335 of May 12<sup>th</sup> 1980. All the expenses which would follow from the implementation of this clause would be at the charge of the buyer.
- 8- **Warranty-liability limit:** There is a five (5) years warranty on the supplies, but it is effective only in a normal use of the material. All return of material must be first accepted by LPS FRANCE.  
Our responsibility is limited to the only starting value of the supplied pieces and recognized as flawed without being linked to any other indemnity towards the buyer such as expenses of dismantling, reassembly, diagnostics, evaluation, loss of use, or other expenses.  
The return expenses must be paid by the customer. It is specialized that LPS FRANCE society won't be responsible for damages directly or indirectly induced by the material the customer has got, it can be awry or not.
- 9- **Return of the goods:** Except a mistake of our part, no piece will be taken back, neither swapped – beyond 15 days from the invoicing date.  
Contact us to obtain a return authorization and know the conditions to complete this return in the best conditions. In no case we will accept returns of pieces in cash on delivery or in freight due or bad-packed.  
The returns are limited only to pieces in their first packaging and in perfect state of commercialization, which means not assembled.
- 10- **Jurisdiction:** In case of disagreement, Bordeaux Tribunal de Commerce (France) are the only interested for the issue.