



V1.2 JULY 2021



HTB SOLUTIONS CATALOG

UNDERGROUND CABLES GALLERIES & POSTS

Insulated gallows brackets
Clover cable attachment systems
Insulated poles and structures
Raceways
Hopper-lifted cable ladders
Common anti-mode covers
Firewall



MADE IN FRANCE



ISO 9001 PRODUCTION SITE

COMMET GROUP: COMPOSITES AND METALS SOLUTIONS AND APPLICATIONS

COMMET GROUP offers innovative technical solutions using quality composite materials and metals for demanding applications that meet all the constraints and standards in force.

EXPERTISE AT YOUR SERVICE

With its complementary skills in engineering, composites, metals and services, COMMET GROUP manages your construction sites from A to Z on French territory and internationally in many sectors of activity:

- Power generation and transmission
- Agro-industry, pharmaceuticals, chemicals
- Industry: steel, nuclear
- Environment: water treatment, waste recycling

Every year, COMMET GROUP invests in research, whether in terms of manufacturing processes, materials, means of finishing, but also in the human. This is why COMMET GROUP surrounds itself with the best technicians to carry out your projects.

« THERE IS NO WEALTH OR STRENGTH BUT MEN »
(Jean Bodin - 1576)

COMMET GROUP values the know-how and interpersonal knowledge of its employees, regardless of their ages, genders, origins and aspirations.

At COMMET GROUP, the important thing is to be part of a systems of sharing skills in order to bring the best to its customers, relying on the well-being and motivation of employees in their respective functions.

COMMET GROUP: COMMITTED AND RESPONSIBLE

Providing a healthy working environment, limiting our impact on the environment by taking inspiration from ISO 14001, standards, but also limiting the carbon impact, through less travel and promoting public transport are among our primary concerns.

As well as favoring local subcontracting work, maintaining a dense industrial fabric that will become the pool of jobs for our children tomorrow, giving start-ups a chance as soon as possible and promoting the entrepreneurial spirit.

COMMET GROUP: A TECHNICAL AND COMMERCIAL OPERATING COMPANY TO BEST SERVE WITH THE EXPERTISE OF EACH THE NEEDS OF ITS CUSTOMERS WHILE BEING RESPONSIBLE.



A SINGLE POINT OF CONTACT FOR A GLOBAL SOLUTION

ENGINEERING

Specific study underground connections and high voltage substation / Combing study
Special works / Feasibility Corbelling / Energy supply for industrial sites

COMPOSITES

Composite material
Safety equipment - Gratings / Fences / Walkways and structures / Stairs / Composite hatches / Railings

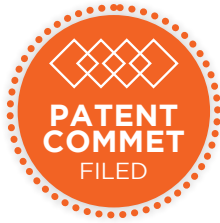
METALS

Metal construction / Industrial framework
Security: Walkways / Stairs / Gantries / Lifelines / Technical locksmith / Railings

SERVICES

Mechanical and electrical installation and assembly
Industrial maintenance Lifting Equipment / Scaffolding / Voltigeurs

COMMET GROUP: EXCLUSIVE DISTRIBUTOR OF THE COPOLY® BRAND



COPOLY

Patent filed FR1902985

RST/RTE Compliant Part 6 - 2019

COMMET Group puts all the experience and know-how of its teams and partners in the metals to associate them with COPOLY®.

The experience gained in the collective security of composite sites over many years allows COMMET Group to offer its customers the best solution at the best cost.

COPOLY® composite solutions are simple, cost-effective and durable, whatever your constraints.

Increasingly used for water treatment in industry, construction and many other fields, composite materials today fall into countless fields of application such as energy transport.

Combined with metals, they provide more robust mechanical performance

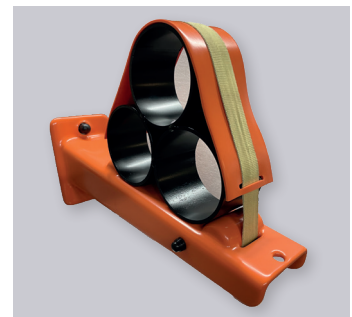
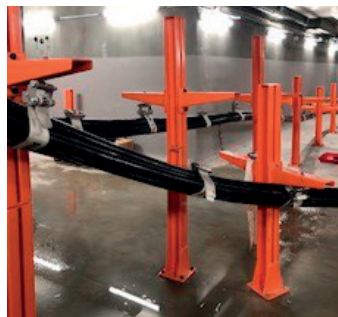
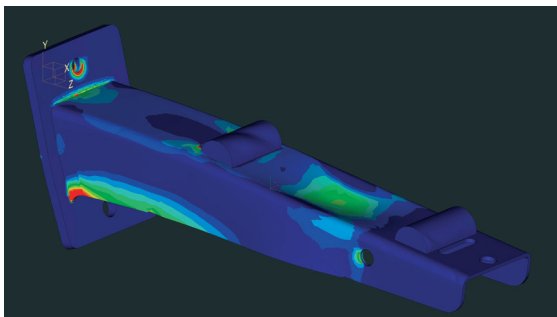
COPOPROTEC®, A PATENTED MATERIAL

The equipment of the COPOLY® brand is coated with Copoprotec® resin: shock protection, anti-corrosion, anti-slip and dielectric up to 10 kV minimum.

Copoprotec® resin is resistant to water, cold (-20 ° C), to the temperature of 80 ° C continuously and 120 ° C in peak, hydrocarbons, acids, fire resistance.

Self-extinguishing, which can be exposed to the flaming gases following the breakdown of a synthetically insulated HTB2 cable without catching fire, the Copoprotec® coating also has good resistance to abrasion, tearing and breakage.

It can also undergo several immersion cycles without altering its performance.



THE PERFORMANCES

RESISTANCE DIELECTRIC

10 kV avoiding short-circuit current flow through the bracket

RESISTANCE TO SLAMPING

HTB cable with un lcc31,5de31,5kA and a Tcc2 of 150 ms

UPGRADE TO THE LAND

Useless



COATING SELF EXTINGUISHING

Cladding Copoprotec® auto extinguihle. Power heat < 5 MJ/kg

RESISTANCE

Resistance to aggressions mechanical and agents

BREVET COMMET GROUP
REFERENCE FR1902985

DIELECTRIC HOLDING
10 YEARS WARRANTY

DESIGN AND PRODUCTION
ON-SITE ISO 9001 CERTIFIED

INSULATED GALLOWS BRACKETS 10 KV

Copoprotec® coating

HIGH VOLTAGE CABLE HOLDER

Copoprotec® isolated gallows brackets or consoles can support all types of HTB3-HTB2-HTB1/HTA/LV cables, whether in roadways, third-party structures such as road or rail bridges, tunnels or in power stations.

The Copoprotec coating® steel gallows provides a guaranteed dielectric resistance of 10kV but also an excellent resistance to shocks and chemical aggressions.

The Copoprotec® gallows range is divided into several lengths and two types of resistance to a vertical load (LIGHT 700 daN, HEAVY 1200 daN).

Copoprotec® insulated gallows are suitable for all types of equipment authenticated by RTE / CNER.

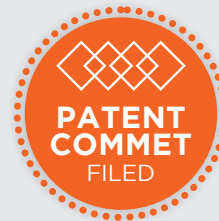
The design of the gallows can be adapted to the demand for lower or much higher loads, for specific lengths or particular supports (tubular voussoire for example).

Patent pending
FR1902985

Brand
COPOLY I

Identified folder
RTE/CNER AE-BCS-16-
00004 ind 5 - 28/04/20

RST/RTE Compliant Part 6 - 2019



The methods of fixing and mounting insulated gallows are multiple (on the wall, on poles or self-supporting structures,...) and adapted to the configuration of the installation whether it is existing or new.

BE CAREFUL, DIELECTRIC PROTECTION IS NO LONGER GUARANTEED IF DRILLING OR CUTTING OPERATIONS ARE CARRIED OUT ON SITE.

GALLOWS FOR ALL APPLICATIONS AND SITUATIONS

ON INSULATED POSTS COPOPROTEC®



ON GALVANIZED POLES



IN GALLERY WITH OR WITHOUT SNAKING



INSULATED GALLOWS 10KV COPOPROTEC® COATING

RESISTANCE DIELECTRIC

10 kV avoiding short-circuit current flow through the gallows

RESISTANCE BREAKDOWN

HTB cable with un lcc de 31,5 kA and a Tcc of 150 ms

UPGRADE TO THE LAND

Useless



COATING SELF EXTINGUISHING

Cladding Copoprotec® auto extinguishable. Power heat < 5 MJ/kg

RESISTANCE

Resistance to aggressions mechanical and agents

HOW TO CHOOSE YOUR INSULATED GALLOWS 10 KV COPOPOTEC®?

The choice of a Copoprotec 10 kV isolated gallows is determined by:

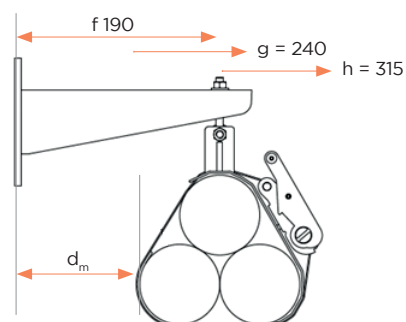
- ① the **forces to be supported** according to the type of cable (diameter, aluminum / copper, manufacturer, distance between gallows ...)
- ② **implementation efforts** (unwinding, snaking, etc...)
- ③ the **combing plan** to respect the minimum radii of curvature of the cables ($20 \times \varnothing$ cables)
- ④ the **distance to be respected so that the thermal effect of proximity is negligible** (IEC 60287-2-2 standard) and at least $\geq 0,5 \times$ cable diameter.

EXAMPLE

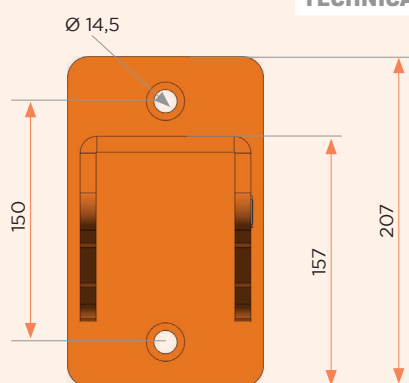
If the clover is suspended in $f = 190$,

- $d_m \geq 0,5 \varnothing$ câble
- \varnothing câble maximum = $\frac{190}{1.5} = 126$

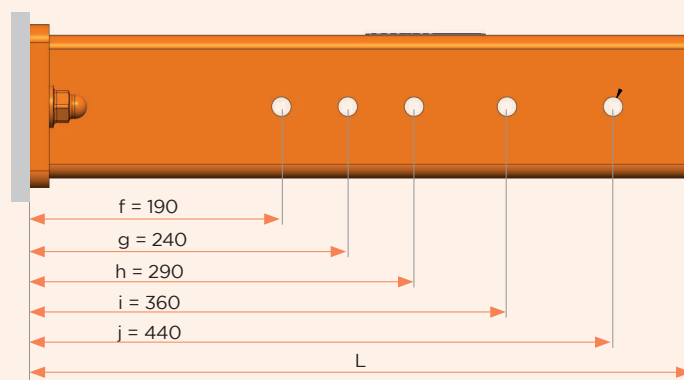
NOTE: This example is for illustrative purposes only. The final choice of distance shall comply with the requirements of RTE.



TECHNICAL DIAGRAMS EXAMPLE PC-COPO-DL



Gallows seen from the front



Gallows seen from above

TABLE OF REFERENCES

		REFERENCE	LENGTH L	POSITION OF THE CABLE SUSPENSION AXIS ON THE GALLOWS				
				f	g	h	i	j
LIGHT	Maximum load maximum 700 daN	PC-COPO-AL	220	190				
		PC-COPO-BL	350	190	240	315		
		PC-COPO-CL	450	190	265	310	415	
		PC-COPO-DL	500	190	240	290	360	440
HEAVY	Maximum load maximum 1200 daN	PC-COPO-AH	220	190				
		PC-COPO-BH	350	190	240	315		
		PC-COPO-CH	450	190	265	310	415	
		PC-COPO-DH	500	190	240	290	360	440

BREVET COMMET GROUP
REFERENCE FR1902985

DIELECTRIC HOLDING
10 YEARS WARRANTY

DESIGN AND PRODUCTION
ON-SITE ISO 9001 CERTIFIED

INSULATED STRAP FASTENER

EASYFLEX System

Easyflex is a fast and innovative solution for maintaining HTB cables alone or in jointed clover integrating with Copoprotect® gallows designed and patented by COMMET Group.

Consisting of safety features, Easyflex's integrated ratchet system allows it to withstand several breakdown efforts while maintaining the function of holding cables.

TOTAL PERFORMANCE

Thus, the link can be crossed by several consecutive short circuit currents without the fastener system being fusible and requiring replacement.

In the horizontal plane, the gallows permanently supports all or part of the axial force developed by the connection, on a suspension step, because of its expansion under the effect of temperature differences and transmitted by the fastener.

EASY, FAST AND TOOL-FREE ASSEMBLY AND DISASSEMBLY

Easyflex has been designed to allow a **much shorter assembly time** than the usual system of flanges or strap fasteners mounted on gallows. **The installation of an Easyflex fastener does not require any tools!**

ALL-IN-ONE SOLUTION

The ease of assembly and disassembly of the Easyflex fastening system makes it possible to quickly retain the cables, phase by phase or directly in clover, depending on the need during unwinding and adjustment operations.

In addition, the design of the device with progressive tightening, requires a very reduced stroke. Indeed, the **adjustment with non-return system** allows it to adapt to all variations and tolerances on the diameters of the cables while ensuring a good distribution of clamping forces on the surface of the cables without exceeding the permissible pressure.

MAXIMUM SAFETY AND SECURITY

Easyflex is fully integrated into the gallows, it has **no sharp angles** or **metal protruding parts** that can damage the sheath of a cable during handling, adjustment and implementation of the snaking (garland). The Copoprotect® coating provides the entire solution with **flexible mechanical protection** thanks to the elasticity of its coating (75 shores).

Patent pending

France FR20022791

Europe 21164302.8

Brand

COPOLY

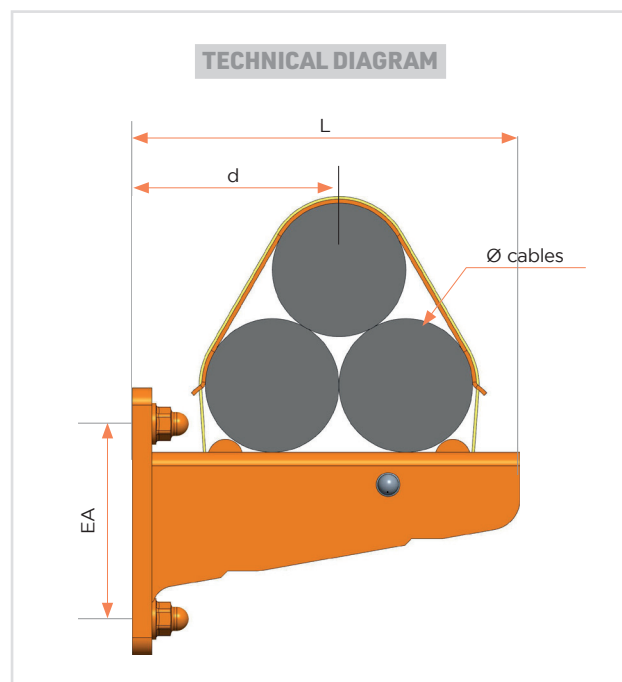
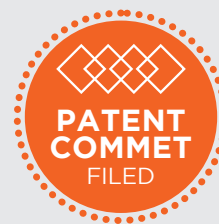
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RTE/CNER AE-BCS-20-0002

- 21/04/21

TESTED IEC 61914

RST/RTE Compliant Part 6 - 2019



**GALLOWS EQUIPPED WITH EASYFLEX STRAP FASTENERS
HAVE BEEN TESTED IN A COFRAC LABORATORY (IEC 61914 STANDARD)**

EASYFLEX SYSTEM STRAP INSULATED FASTENERS

TOTAL PERFORMANCE

All advantages of the Copoprotect® insulated gallows

RAPID ASSEMBLY

Easy to pitch with strap and integrated tensioner

OVERALL DIMENSIONS

Reduced

MAXIMUM SAFETY

No part protruding. Protection of cables

FLEXIBILITY

Adaptation to different diameters of cables

HOW TO CHOOSE YOUR EASYFLEX INSULATED STRAP FASTENER?

The choice of the Easyflex gallows is determined by:

- ① **the load to be supported:** two gallows variants are available, LIGHT (700 daN) or HEAVY (1200 daN)
- ② **the diameter of the cable,** its linear mass and the step between each Easyflex system

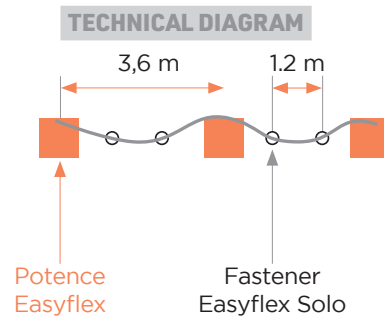
The choice of the Easyflex LIGHT or HEAVY strap is made according to the electrodynamic effort to be supported:

$$F = \frac{0,17 \times I_{cc \text{ peak}}^2}{\varnothing \text{ cable}}$$

EXAMPLE

- Cable 225 kV - 2000 m² AL
- I_{cc} 31,5 kA coefficient asymmetry 1,98
- Ø cable : 122 mm
- Linear mass : 15,2 kg/m
- I_{cc peak} = 1,98 x 31,5 kA = 62,4 kA

$$F = \frac{0,17 \times 62,42^2}{0,122} = 5\,426 \text{ N/m}$$



REFERENCE	WIDTH STRAP	WIDTH CROSS-CONNECT DEVICE PRESSURE ON CABLE	RESISTANCE MECHANISM STATIC TENSION JACK	RESISTANCE MECHANISM STATIC STRAP	EFFORT F ELECTRO-DYNAMICS SUPPORTED AND TESTED	HTB BEARING VALIDATED (ICC)
Easyflex LIGHT	35 mm	80 mm	1 000 daN	3 000 daN	917 daN/m	31.5 kA
Easyflex HEAVY	50 mm	80 mm	2 500 daN	6 000 daN	2 127 daN/m	40 kA

COMBINATION TO ORDER: : PC-COPO-120-130 L + EASYFLEX LIGHT

- Mass to be supported by the gallows: 15,2 x 3 x 3,6 = 164,16 kg
- Effort to be supported by the Easyflex strap: 5426 x 1,2 = 651 daN

NOTE: This example is for illustrative purposes only. The final choice of distance shall comply with the requirements of RTE.

TABLE OF REFERENCES

REFERENCE	ELIGIBLES CABLES		AXIS OF THE TRIPLE d(MM)	LENGTH L (MM)
	Min Ø (mm)	Max Ø (mm)		
PC-COPO-60-70	60	70	112	196
PC-COPO-70-80	70	80	128	224
PC-COPO-80-90	80	90	144	252
PC-COPO-90-100	90	100	160	280
PC-COPO-100-110	100	110	176	308
PC-COPO-110-120	110	120	192	336
PC-COPO-120-130	120	130	208	364
PC-COPO-130-140	130	140	224	392
PC-COPO-140-150	140	150	240	420
PC-COPO-150-160	150	160	256	448
PC-COPO-160-170	160	170	272	476

FOR A BETTER INTEGRATION OF OUR SYSTEM TO YOUR PROJECT, PLEASE INDICATE THE CHARACTERISTICS OF THE CABLE IMPLEMENTED

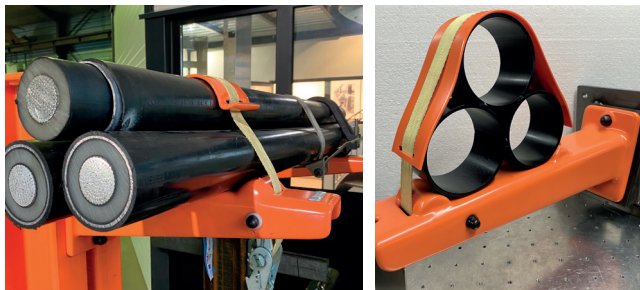
**BREVET COMMET GROUP
REFERENCE FR1902985**

**DIELECTRIC HOLDING
10 YEARS WARRANTY**

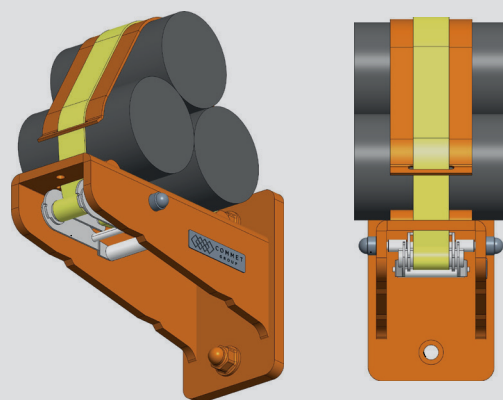
**DESIGN AND PRODUCTION
ON-SITE ISO 9001 CERTIFIED**

EASYFLEX LIGHT OR HEAVY MODEL

All-in-one solution, Easyflex is a system quick attachment of clover cables laid on Copoprotec® gallows able to withstand electrodynamic forces due to breakdown of the cable.

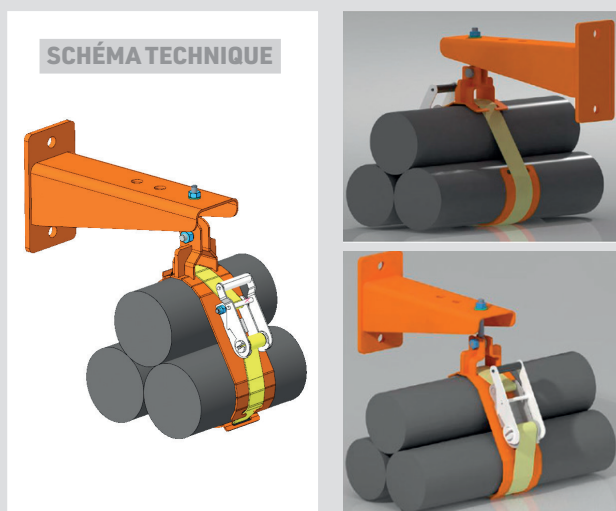


TECHNICAL DRAWINGS



EASYLIFT MODEL

SCHÉMA TECHNIQUE



The EasyLift model allows a simple and fast assembly under the gallows or suspended from the ceiling with a chain.

The EasyLift model has a pivot axis at the level of the grip of the Easyflex strap but also a possibility of rotation at the level of the fixing axis on the gallows.

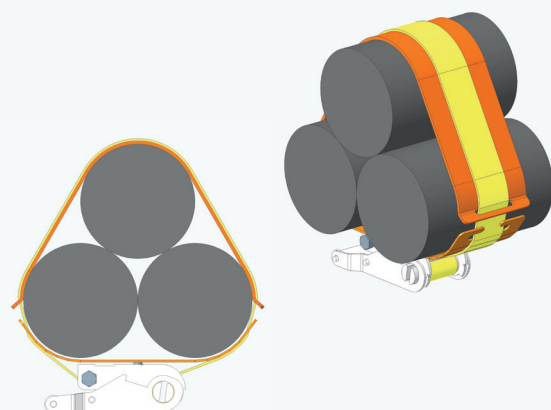
These two axes as well as the possibility of height adjustment on the gallows provide great flexibility to the assembly according to the actual configuration of the cables and their trajectory.

EASYFLEX SOLO LIGHT OR HEAVY MODEL

Fast intermediate fastening system of clover cables between two gallows, capable of withstanding the electrodynamic forces due to the breakdown of the cable (quantity to be installed variable according to the steps defined between two gallows and the electrodynamic force).



TECHNICAL DRAWINGS



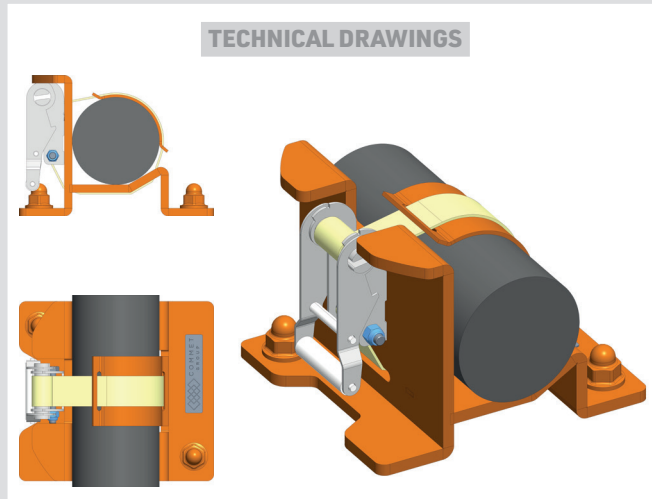
EASYBLOC MODEL

Fast system for holding clover or mono cables on insulated base for ground attachment available in EasyCurve.

The metal cradle coated with Copoprotec® insulating resin is designed to be perfectly adapted to each cable dimension.

The clamping forces of the Easyflex composite fiber strap tested in the COFRAC laboratory are thus distributed over a larger contact area of the cable.

The fixing to the ground is to be defined according to the nature of the floor by the installer. Standard holes are provided for M12. anchor studs.



EASYFLEX SNAKE LIGHT OR HEAVY MODEL

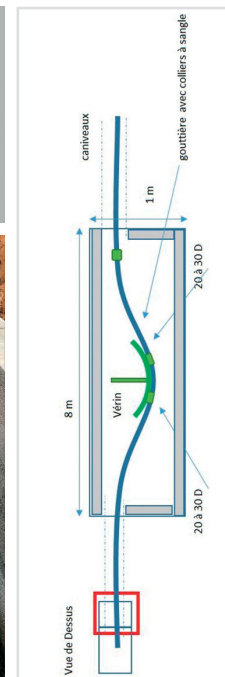
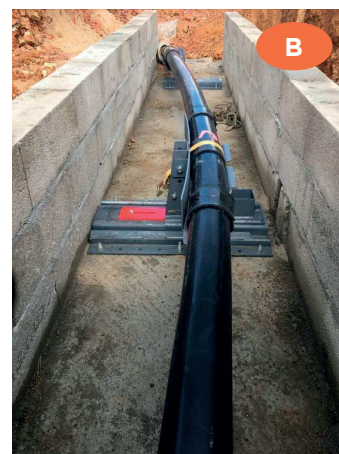
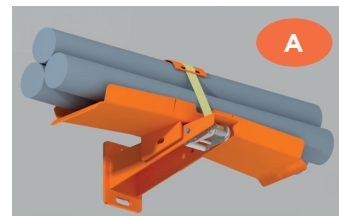
Fast system for holding clover cables on gallows with a curved gutter guaranteeing the radius of curvature of the cables and distributing the forces on the support.

This product is intended for large steps between two gallows with a snaking of the LS (garland pose) in order to counter and control the expansion efforts of the latter.

[A] The Easyflex Snake device guarantees a radius of curvature of the cables at least $20 \times \varnothing$ cable, at the gallows, for a suspension step on which the cables of the link can flare or when it is necessary to apply an initial boom to manage the expansion of the link.

HORIZONTAL EASYFLEX SNAKE [B] ▶

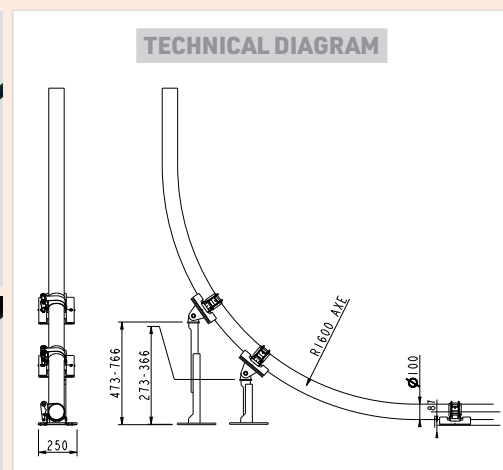
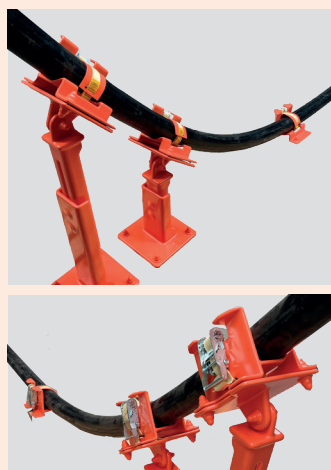
Application of the Easyflex Snake systems developed by COMMET Group in horizontal version, applied on a mechanical cylinder for the LA VAUPALIÈRE site



EASYCURVE MODEL

Fast systems to support cables using gallows or using the Easybloc model (Cf. CNER authentication folder).

Radii of curvature can be so optimized with a ground distance of easybloc model reduced to the maximum (cradle contact plane 37 mm from the ground mini) while preventing the cable from rubbing on the ground and a possibility of adjustment in height and angular through articulated poles.



INSULATED POLES AND VERTICAL STRUCTURES 10 kV

Copoprotec® coating

HIGH VOLTAGE CABLE HOLDER

The Copoprotec® range of insulated metal poles and structures can support all types of HTB3-HTB2-HTB1/HTA/BT cables, whether in cable galleries, third-party structures such as road or rail bridges, tunnels or in power stations.

The Copoprotec® coating on steel poles and structures provides them with a guaranteed dielectric resistance of 10kV but also excellent resistance to shocks and chemical aggressions.

The Copoprotec® range of poles and structures is divided into three product families:

- Posts
- Harrows
- Lifts under the hopper (cable ladders)

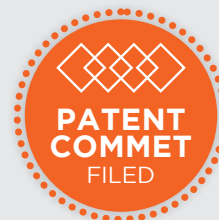
If necessary, the design of columns and structures can be adapted to demand for specific loads and lengths or particular supports.

Patent pending
FR1902985

Brand
COPOLY I

Identified folder
RTE/CNER AE-BCS-16-00004 ind 5 - 28/04/20

RST/RTE Compliant Part 6 - 2019



BE CAREFUL, DIELECTRIC PROTECTION IS NO LONGER GUARANTEED IF DRILLING OR CUTTING OPERATIONS ARE CARRIED OUT ON SITE

MULTIPLE FIXING AND MOUNTING MODES

There are many ways of fixing and mounting the posts and insulated metal structures (on the wall, on the ground self-supporting, etc.) and adapted to the configuration of the installation, whether existing or new.

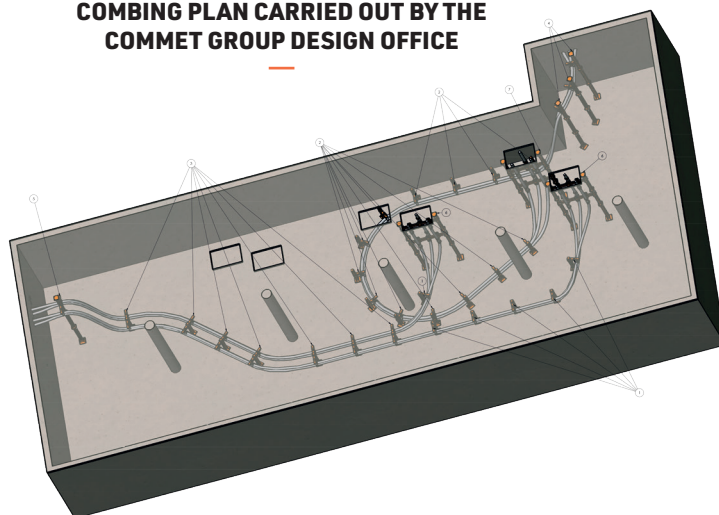
COMMET GROUP can also offer assembly assistance to facilitate implementation.

A DESIGN OFFICE AT YOUR SERVICE

The insulated vertical structures are carried out according to the existing room, the number and the mass of the connections to be supported.

To this end, COMMET GROUP also has a **design office specializing in the design of solutions** adapted to theoretical or actual combing plans after taking possible dimensions by us on site in the HTB galleries, PSEM or PIM substation.

COMBING PLAN CARRIED OUT BY THE
COMMET GROUP DESIGN OFFICE



COPOPOTEC® INSULATED VERTICAL POSTS AND STRUCTURES

RESISTANCE DIELECTRIC

10 kV avoiding short-circuit current flow through the gallows

RESISTANCE BREAKDOWN

HTB cable with un lcc de 31,5 kA and a Tcc of 150 ms

UPGRADE TO THE LAND

Useless



COATING SELF EXTINGUISHING

Cladding Copoprotec® auto extinguiible. Power heat < 5 MJ/kg

RESISTANCE

Resistance to aggressions mechanical and agents

BREVET COMMET GROUP
REFERENCE FR1902985

DIELECTRIC HOLDING
10 YEARS WARRANTY

DESIGN AND PRODUCTION
ON-SITE ISO 9001 CERTIFIED

HOW TO CHOOSE YOUR VERTICAL POSTS ON THE FLOOR OR CEILING?

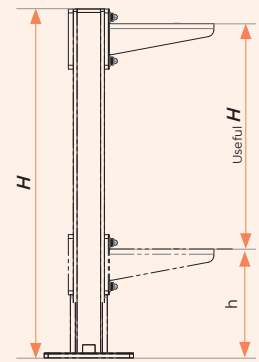
These posts are fully compatible with the other products in the **COMMET** catalog, namely **Copoprotec®** jib cranes, **Easyflex** strap clamping systems, etc

The choice of posts is therefore made according to the desired useful stroke **H** and the load provided on the post.

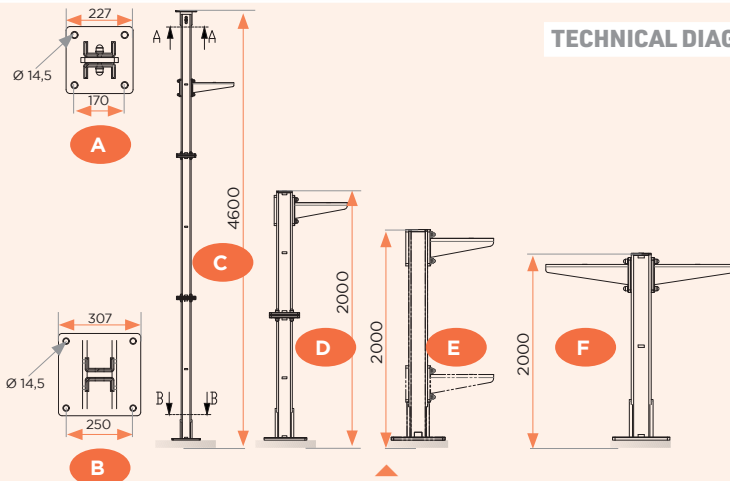
Specific connection plates integrated into the posts make assembly simple while maintaining dielectric insulation.

The **COMMET GROUP** design office can offer verification of the loads supported by the structure according to your project.

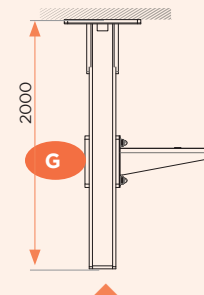
TECHNICAL DIAGRAM



TECHNICAL DIAGRAM



For a height greater than 1800 mm (max height of a post in one piece), multiple combinations are possible to reach the expected final height.



Depending on the configuration, it is also possible to opt for solutions fixed to the ceiling directly.

TABLE OF REFERENCES

REFERENCE	HEIGHT H	POSITION OF A JIB h		USEFUL H
		FROM	TO	
PS-600L	600	374	550	176
PS-800L	800	374	750	376
PS-1000L	1000	374	950	576
PS-1200L	1200	374	1150	776
PS-1400L	1400	374	1350	976
PS-1600L	1600	374	1550	1176
PS-1800L	1800	374	1750	1376



HTB PROTECTION

The Copoprotec® coating is deployed by **COMMET GROUP** for multiple applications in SEMCs and galleries.

SAFETY AND SPEED OF IMPLEMENTATION

COMMET GROUP offers **light and modular** HTB hopper protections according to the dimensions of the hoppers. The metal feet with 10 kV Copoprotec® insulated covering provide **robustness and ease of installation without the need for earthing**.

To allow quick access to the equipment during checking and maintenance operations, **the composite panels are retractable**.

If necessary, we come to the site to take the measurements and adapt the dimensions of the panels, contact us!



HARROWS

In the case of heavy loads or a high number of cables, it is possible to combine Copoprotec® posts with crossbars perfectly suited to the design of the posts and guaranteeing the maintenance of the electrical insulation.

The choice of crossbars is simply made by the desired width L.

CROSS ARM	
REFERENCE	WIDTH L
TRV-600L	600
TRV-800L	800
TRV-1000L	1000
TRV-1200L	1200
TRV-1400L	1400
TRV-1600L	1600

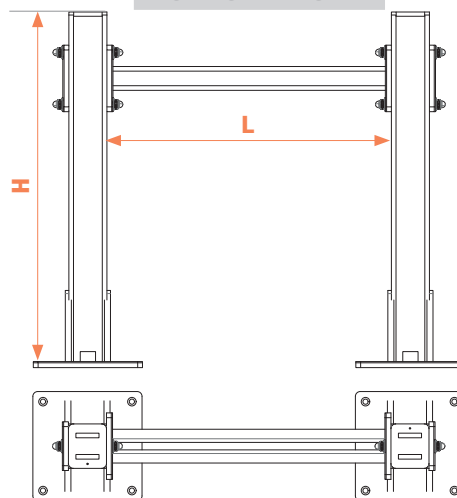
LIFTS UNDER HOPPER

The posts and structures isolated are composed of cable ladders under the hopper.

The choice of posts and cross members is made according to the height under the ceiling, the opening of the hopper and the load support depending on the number and type of cables but also equipment provided on the structure such than tori whose weight can approach 100 kg by torus.

REFERENCE	L WIDTH OF HOPPER	H HEIGHT SUB-CEILING
RST-H3150-L800	800	3150
RST-H3150-L1500	1500	3150
RST-H3150-L2000	2000	3150
RST-H3150-L2500	2500	3150
RST-H3150-L3000	3000	3150
RST-H3500-L800	800	3500
RST-H3500-L1500	1500	3500
RST-H3500-L2000	2000	3500
RST-H3500-L2500	2500	3500
RST-H3500-L3000	3000	3500
RST-H4000-L800	800	4000
RST-H4000-L1500	1500	4000
RST-H4000-L2000	2000	4000
RST-H4000-L2500	2500	4000
RST-H4000-L3000	3000	4000
RST-H4500-L800	800	4500
RST-H4500-L1500	1500	4500
RST-H4500-L2000	2000	4500
RST-H4500-L2500	2500	4500
RST-H4500-L3000	3000	4500

TECHNICAL DIAGRAM

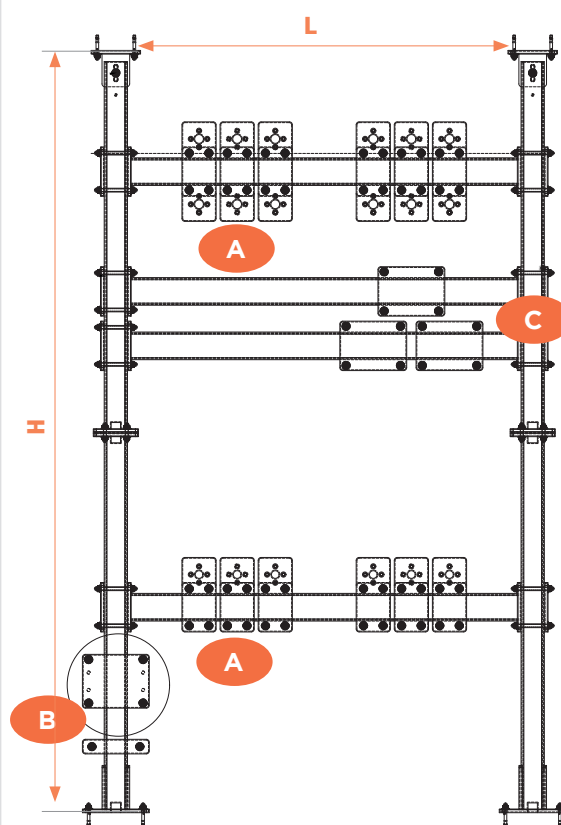


SPECIAL FIXING

THE MATERIAL FOR FIXING THE CROSSMER ON THE POSTS IS SPECIFIC AND DELIVERED AS A KIT FOR EACH CROSSMOUNT ORDERED

COMMET GROUP PROVIDES ASSEMBLY ASSISTANCE

TECHNICAL DIAGRAM



ACCESSORIES AND FIXING EQUIPMENT ON HARROWS AND HOPPER LIFTS

In order to facilitate the assembly of cables on poles, harrows and hopper lifts, COMMET GROUP has developed numerous fixing accessories adaptable to the multiple configurations and materials authenticated by RTE.

SINGLE OR DOUBLE BRACKET FOR MOUNTING THE CABLE HOLDING COLLAR

Tailor-made



TORUS SUPPORT PLATE

Earth core cable on pole
Réf. STCMC



TORUS SUPPORT PLATE

Toroid for measuring a phase on a transom
Réf. STCM



IVV MINERAL PROTECT® ANTI-COMMON MODE SCREENS

**HYPER HOODS
OF LIGHT WEIGHT**

COMMET GROUP has developed an exclusive range of common anti-fashion screens.

Designed to resist flames in general and in particular those generated by a breakdown of HTB cable or a peripheral fire in a technical room such as a gallery of HTB cables, the screens have obtained **the best possible classification in terms of reaction to fire according to Euroclass EN ISO 13501-6** either Aca (incombustible), s1 (no production of smoke), d0 (no production of flaming droplets); or an M0 classification according to the French standard NF P92-507.

The fire behavior of these screens is completely comparable to non-combustible raw materials such as steel, stone, glass, concrete, plaster while being lighter (<5 kg / m²) and mechanically resistant to breakdown.

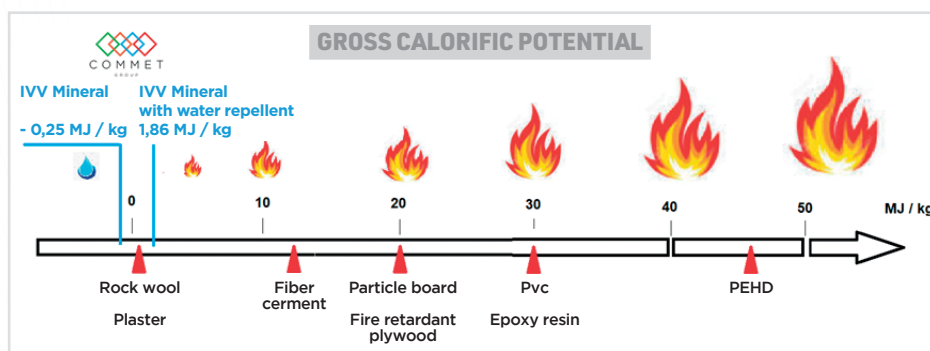
Thanks to **materials 100% residues** no drivers of current put in artwork and at their geometrical features IVV MINERAL PROTECT® anti-common mode screens provide **unprecedented mechanical and dielectric protection** while allowing cables to dissipate their heat energy through natural ventilation.

ZOOM ON IVV MINERAL PROTECT® TECHNOLOGY PATENTED BY COMMET GROUP

In addition to **slowing the combustion of a high voltage cable**, IVV MINERAL PROTECT® material protects **other phases and other LS HTB in confined spaces** such as underground galleries.

Developed by COMMET Group, IVV MINERAL PROTECT® technology is the result of an **eco-design approach** that respects the environment, both in the manufacturing processes and in the materials used: maximum reduction in carbon footprint during production, no usual hydrocarbon-based resin, total recyclability of the 100% mineral materials used and absence of products that may emit dangerous gases, in particular in closed environments such as galleries.

Higher Calorific Value (PCS) tests carried out in the COFRAC fire test laboratory, have shown that the technology IVV MINERAL PROTECT® had **better fire behavior than the non-combustible materials used in the construction of buildings.**



IVV MINERAL PROTECT® ANTI-COMMON MODE SCREENS

EXCLUSIVE PERFORMANCE

Fire retardant and protection of other Cables
NEGATIF PCS

QUICK INSTALLATION

NO CONSIGNEMENT
Lightweight and easy to implement

MAXIMUM SAFETY

Protection mechanical and total dielectric

NATURAL FIBRES

Adapted geometry to multiples configurations of the network

ATTENTION UNSUITABLE

To the galleries flooded or with runoff on displays

IVV MINERAL PROTECT® MATERIAL
BREVET COMMET GROUP
FR 1904086

5 YEARS WARRANTY AGAINST
ANY DEFECTS IN MATERIAL
OR MANUFACTURING

ECO-DESIGNED PRODUCTS
ON SITE CERTIFIED
ISO 9001

ADAPTABLE SOLUTIONS IN THE GALLERY AND IN HOPPER LIFTS

COMMET GROUP's range of IVV MINERAL PROTECT® screens responds to both linear parts of LS galleries and more complicated parts at the entrance or exit of the gallery (trifurcation).

U-shaped hoods with adjustable or fixed dimensions are generally more appropriate at the ends of galleries or in linear passages with wall interruptions (ventilation bay, ventilation shafts, etc.)

In the case of a gallery entrance or exit with crossings of cables or trifurcations, retractable hood solutions are available in the COMMET catalog.

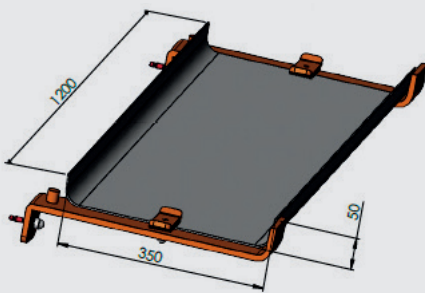
These solutions can also be recommended for the protection of sensitive or risky areas such as, for example, gallery junction areas.

A RANGE OF SCREENS FOR ALL CONFIGURATIONS AND FIXED OR ADJUSTABLE DIMENSIONS

L-SHAPES AND OR TRAY

Suitable for linear parts of galleries and more input or output complexes gallery (trifurcation)

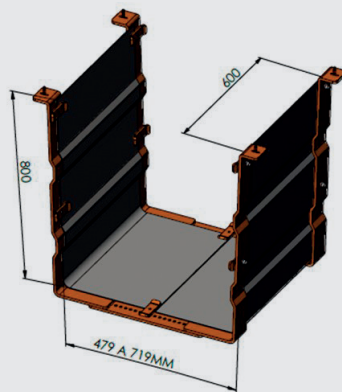
Adjustable or fixed dimensions



U-SCREEN

Ideal at the ends of galleries or in linear passages with wall interruptions (bay ventilation, ventilation shafts, etc.).

Adjustable or fixed dimensions



CUSTOM SCREEN

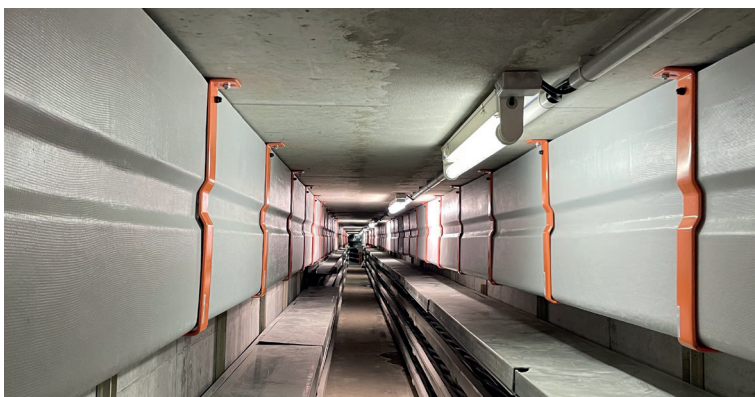
Study, design and manufacture at COMMET GROUP according to your needs: range, load, inclination according to the verticality of the wall or fixing supports, between axes, adaptation to existing equipment, etc.

**CONTACT US TO
DISCUSS ON YOUR
PROJECTS!**

AN INTEGRATED DESIGN OFFICE TO SUPPORT YOU

COMMET GROUP has an **in-house engineering office** at your disposal to design tailor-made IVV MINERAL PROTECT® screens according to your needs :

- inclination according to the verticality of the wall or the fixing brackets, between axes
- range, desired load
- adaptation on existing equipment
- L-shaped or tablet-shaped
- etc.



LIFTS UNDER HOPPER IVV MINERAL PROTECT®

**HYPER HOODS
OF LIGHT WEIGHT**

The innovative half-shell design of IVV MINERAL PROTECT® anti-common mode screens designed and manufactured by COMMET Group allows:

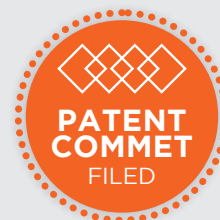
- to adapt to the rising curves of the PSEM
- ensure the firewall while ensuring ventilation and heat dissipation of live cables
- to carry out the installation without touching the live cables

The geometry of the covers is designed according to the cable diameters and the bending radius.

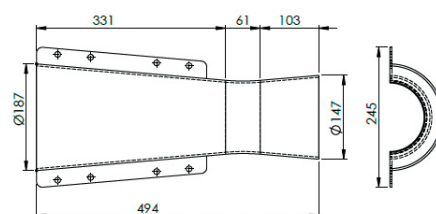
Patent pending
FR1904086

Brand
COPOLY

Identified folder
RTE/CNER AE-BCS-20-0004 of 01/02/21



TECHNICAL DIAGRAM



**CONSULT US
TO STUDY YOUR
PROJECT ACCORDING TO
THE DIAMETER OF YOUR
CABLES AND THE RADIUS
RADIUS OF CURVATURE.**

IVV MINERAL PROTECT® ANTI-COMMON MODE SCREENS

EXCLUSIVE PERFORMANCE

Fire retardant
and protection
of other Cables
NEGATIF PCS

QUICK INSTALLATION

NO CONSIGNEMENT
Lightweight and
easy to implement

MAXIMUM SAFETY

Protection
mechanical
and total
dielectric

NATURAL FIBRES

Adapted geometry
to multiples
configurations of
the network

ATTENTION UNSUITABLE

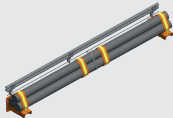

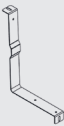
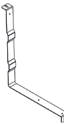
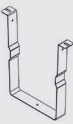
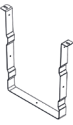
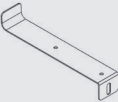
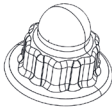
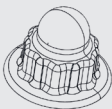
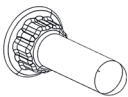
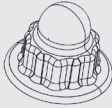

To the galleries
flooded or with
runoff on
displays





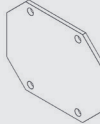
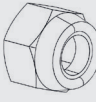

IVV MINERAL PROTECT® MATERIAL
BREVET COMMET GROUP
FR 1904086

**5 YEARS WARRANTY AGAINST
ANY DEFECTS IN MATERIAL
OR MANUFACTURING**





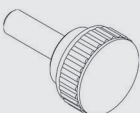
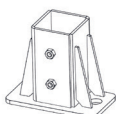
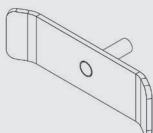
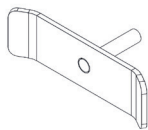
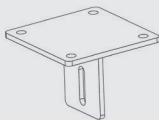
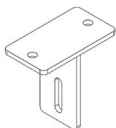

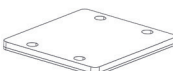
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ON SITE CERTIFIED
ISO 9001

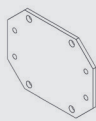
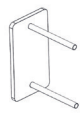


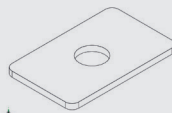
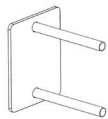
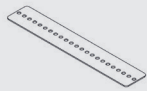
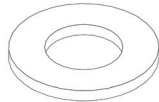

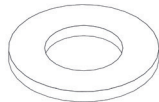


ACCESSORIES


REFERENCE	DESIGNATION	WORKPIECE
CONSULT US	Equipotentiality systems of GSC and tube holder HDPE for optical fiber or low voltage	
ARC-DEMI-U-H800-P350	Arch 1/2 U H800 x P350	
ARC-L-H600-P400	L-arch - H600 x P400	
ARC-L-H800-P650	L-arch - H800 x P650	
ARC-U-H600-L400	U-shaped arch H600 x L400	
ARC-U-H800-L600	U-shaped arch H800 x L600	
ARC-PLA-TEAU-P400	Platform arch - P400	
CE-COPO-M10	Copoprotec nut cover M10	
CE-COPO-M12	Copoprotec nut cover M12	
CE-COPO-M12-L	Copoprotec nut cover M12 -L	
CE-COPO-M8	Copoprotec nut cover M8	
CE-PEHD-M10	M10 HDPE nut cover	

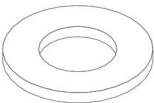
REFERENCE	DESIGNATION	WORKPIECE
CE-PEHD-M12	M12 HDPE nut cover	
CE-PEHD-M8	M8 HDPE nut cover	
CANON-M10-10	Insulating barrel M10 x 10	
CANON-M12-11	Insulating barrel M12 x 11	
CANON-M12-14	Insulating barrel M12 x 14	
CANON-M12-8	Insulating barrel M12 x 8	
CANON-M16-12	Insulating barrel M16 x 12	
CANON-M16-8	Insulating barrel M16 x 8	
CP-TORE	Tore counter plate	
EF-M10	Lock Nut M10	
EF-M12	Lock Nut M12	
EF-M8	Lock Nut M8	


ACCESSORIES

REFERENCE	DESIGNATION	WORKPIECE
E-M10-ZN	Nut M10 Zn	
E-M12-ZN	Nut M12 Zn	
E-M16-ZN	Nut M16 Zn	
E-M8-ZN	Nut M8 Zn	
VM-M8-25	Bakelite knurled screw M8 x 25	
EPP-HTB	Pro pole base hTB tection	
FC-30	Hood fixing x 30mm	
FC-40	Hood fixing x 40mm	
FH-DOUBLE	Double high binding	
FH-SIMPLE	Simple high fixing	
FA-SE	Fixation Rear of support baseplate	
PLA-F-P	Finishing plate for post	

REFERENCE	DESIGNATION	WORKPIECE
PLA-T-TCMC	TC MC Torus Plate	
PLA-TF	Plate with threaded rod	
PLA-SER	Plate of clamping	
PLA	Plate	
PLA-SIMPLE	Simple wafer	
PLA-DOUBLE	Double wafer	
LI-ARC-DE-MI-460-80	Connecting plate for 1/2 460x80 arch	
R-M12-PA6.6L	Washer M12 PA6.6 L	
R-M12-PA6.6M	Washer M12 PA6.6 M	
R-M12-ZN-L	M12 ZN L washer	
R-M12-ZN-M	Washer M12 ZN M	
R-M8-PA6.6	M8 washer PA6.6	

REFERENCE	DESIGNATION	WORKPIECE
R-M10-PA6.6	M10 washer PA6.6	

R-M12-PA6.6	M12 washer PA6.6	
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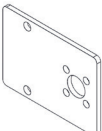
R-M16-PA6.6	M16 washer PA6.6	
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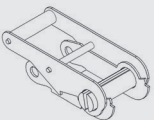
SAN-H-1200	Heavy Strap Length 1200mm	
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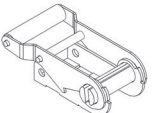
SAN-L-1200	Light Strap Length 1200mm	
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SUP-COL-DOUBLE-300	Collar base support double EA300mm	
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SUP-COL-DOUBLE-400	Collar base support double EA400mm	
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SUP-COL-SIMPLE	Single collar base brackets	
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TEND-H	Heavy tensioner	
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TEND-L	Light tensioner	
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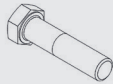
TF-COPO-M12-L130	Threaded rod M12 - L 130 COPO	
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TF-COPO-M12-L170	Threaded rod M12 - L 170 COPO	
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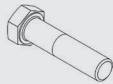
TF-COPO-M12-L190	Threaded rod M12 - L 190 COPO	
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REFERENCE	DESIGNATION	WORKPIECE
VIS-H-M10-25	Vis H M10 x 25	

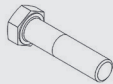
VIS-H-M10-40	Vis H M10 x 40	
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VIS-H-M12-40	Vis H M12 x 40	
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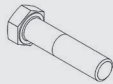
VIS-H-M12-45	Vis H M12 x 45	
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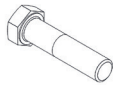
VIS-H-M12-50	Vis H M12 x 50	
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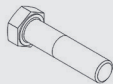
VIS-H-M12-55	Vis H M12 x 55	
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VIS-H-M12-70	Vis H M12 x 70	
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VIS-H-M12-90	Vis H M12 x 90	
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VIS-H-M12-95	Vis H M12 x 95	
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VIS-H-M12-100	Vis H M12 x 100	
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VIS-H-M8-120-P	Screw H M8 x 120 thread partial	
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TECHNICAL INFORMATION?

NEED A CUSTOMIZED
SOLUTION?

**COMMET GROUP IS
AT YOUR SERVICE!**

www.commet-group.com



CONTACT

11 RUE CHARLES PICARD
Z.I LES JONQUIÈRES
57365 ENNERY

TEL +33 (0)3 87 00 66 05

CONTACT@COMMET-GROUP.COM



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