

**15 years**

of common  
successes

# ELKO-BIS

SYSTEMY ODGROMOWE

Declaration of Conformity  
with PN-EN 50164-1:2010



## Company Catalogue



*We have been developing our technologies, quality of our lightning protection systems and service standards for 15 years. In celebration of our anniversary, we present the new image of Elko-Bis company.*



**[www.elkobis.com.pl](http://www.elkobis.com.pl)**

Our website has been prepared to be displayed on various devices. Due to that fact, you may use our offer base and contact us easily every time and everywhere.



# Instructions

## Product versions



The products are available in various versions. The list above the dimension table shall allow you to select the appropriate option.

### Abbreviations

OG	- hot galvanized element
OC	- galvanized
LA	- varnished
CU	- copper
MI	- copper-plated
NI	- stainless
AL	- aluminium
MS	- brass
PCV	- PCV
CU / OC	OC / CU - with brass spacer

## Colours

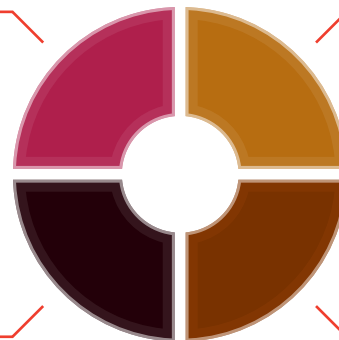


We coat our products with the varnish in four primary colours. It is possible to get the other colours selected by the customer, against the order.

*\*Actual colours may be slightly different from those presented as patterns.*

RAL 3011

RAL 8004



RAL 9005

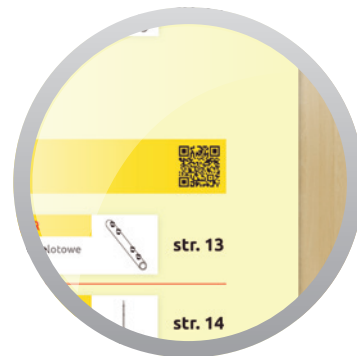
RAL 8017

## QR codes



There are the QR codes on some catalogue pages. The links included in them are the supplement to the presented contents.



To go to the particular web address, you should only scan the QR code using your smartphone.



## Finding the product



We have prepared two types of the table of content for your convenience:

-  by product groups
-  by catalogue numbers



## Packages






Most of our products are contained in a 50 pcs ergonomic package.



## Is there anything you have not found in our catalogue?

If you are looking for a non-standard solution, contact us:

-  +48 71 330 69 20
-  +48 71 330 69 26
-  [elkobis@elkobis.com.pl](mailto:elkobis@elkobis.com.pl)



## ELKO-BIS

SYSTEMY ODGROMOWE








The ELKO-BIS Systemy Odgromowe Company [ELKO-BIS Lightning Protection Systems] was established in 1998 in Wrocław, Poland. The effective commercial policy, high manufacturing and service standards as well as the choice of the best staff made it possible for the company to grow dynamically and become, very quickly, a leader in the lightning protection business in Poland. Presently, the ELKO-BIS lightning protection equipment is distributed via the best wholesale houses and shops in Poland and abroad, among others in Russia and Ukraine. The ELKO-BIS lightning protection system protects many prestigious building facilities and thousands of dwelling houses.

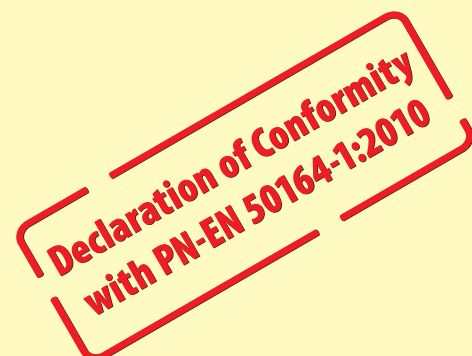
The offer of ELKO-BIS constitutes the full lightning protection equipment with accessories, enabling the choice of elements for each building facility: industrial, housing, historical and sacred, commercial and service, office, public utility, or sports facility.

The product range is split into product groups and the products are available in various material and colour versions. We select, pack and ship the goods within three days. We are specialized in supplies of non-typical solutions. We listen intently to the needs of our Customers since their satisfaction is our key objective. Our Customers allow us to attain successes every day.

We guarantee the top quality of our products and services, which has been confirmed among others by:

-  **EN 50164 standard Certificate of Compliance**
-  Safety Mark B
-  Declaration of Conformity with PN-EN 62305 series standards
-  Quality Management Certificate to ISO 9001:2008
-  Business Reliability Certificate

as well as by numerous awards of business industry fairs.





## Residential buildings

Examples of realizations with the use of ELKO-BIS components of lightning protection systems:

- 🔧 Olimpia Port Wrocław
- 🔧 Apartments in ul. Świt, Wrocław
- 🔧 Osiedle Maślice (Maślice Settlement)
- 🔧 Osiedle Partynice (Partynice Settlement)
- 🔧 Thousands of dwelling houses throughout Poland



**Olimpia Port Wrocław**

## Industrial and Commercial Facilities

Examples of realizations with the use of ELKO-BIS components of lightning protection systems:

- 🔧 Electrolux Poland Factory in Świdnica
- 🔧 Bonarka City Center in Cracow
- 🔧 Zott Polska Sp. Z o.o. Factory
- 🔧 CH Jantar (Jantar Trade Center) in Słupsk
- 🔧 Pasaż Grunwaldzki [Shopping Centre] in Wrocław
- 🔧 Kaufland Stores



**Kaufland Stores**



## Historical and sacred objects

Examples of realizations with the use of ELKO-BIS components of lightning protection systems:

- Centennial Hall in Wrocław (UNESCO World Heritage object)
- Wrocław Central Station
- Water Tower in Wrocław
- St. Michael Archangel Church in Wrocław
- St. Adalbert Church in Warsaw
- Chynów Palace

**Declaration of Conformity  
with PN-EN 50164-1:2010**



**Wrocław Central Station**

## Other objects

Examples of realizations with the use of ELKO-BIS components of lightning protection systems:

- "Czajka" Waste-water Treatment Plant in Warsaw
- Sochi 2014 Olympic Village – Russia
- Philharmonic Hall in Szczecin
- EURO 2012 Stadiums in Wrocław and Gdansk
- Capitol Musical Theatre in Wrocław
- "Dolna Odra" [Lower Oder] Power Plant in Szczecin



**EURO 2012 Stadium in Wrocław**

# Certificates, awards





SEP - BBJ



Firma nagrodzona Złotą Odznaką Honorową SEP  
Company granted with SEP Gold Honour Award



SEP - BBJ

**STOWARZYSZENIE ELEKTRYKÓW POLSKICH**  
**BIURO BADAWCZE DS. JAKOŚCI**

04-703 Warszawa, ul. Mieczysława Pożaryskiego 28  
tel.: +48 22 812 69 38; fax: +48 22 815 65 80; e-mail: bbj@bbj.pl

SEP - BB **CERTYFIKAT ZGODNOŚCI** SEP - BBJ

**CERTIFICATE OF CONFORMITY**

nr Z/12/034/12  
No. Z/12/034/12

**Dostawca:** ELKO-BIS SYSTEMY ODGROMOWE Sp. z o.o.  
(Name and address)  
ul. Swojczyńska 38E  
51-501 Wrocław, Poland

**Producent:** ELKO-BIS SYSTEMY ODGROMOWE Sp. z o.o.  
(Name and address)  
ul. Swojczyńska 38E  
51-501 Wrocław, Poland

**Nazwa wyrobu:** Elementy połączeniowe urządzenia piorunochronnego  
(Name of the product)  
Lightning protection connecting components.

**Typ (model):** [blurred text]  
(Type (model))

**Dane techniczne:** Odporność na oddziaływanie prądu pioruna: klasa II.  
(Technical data)  
Capability to withstand lightning current: class II.

**System certyfikacji:** 1b według Przewodnika IZO/IEC 67  
(Certification system)  
1b according to IZO/IEC Guide 67

Wymieniony powyżej wyrób spełnia wymagania norm(y) i/lub dokumentów normatywnych:  
Above-mentioned product complies with the safety requirements of the standard(s) and/or normative documents:

Norma(y)/dokumenty normatywne Standard(s)/normative documents	Raport(-y) z badań nr Test report(s) No.	Wydany(-e) przez Issued by
PN-EN 50164-1:2010 (EN 50164-1:2008)	IA-12.122/1	BBJ

Niniejszy certyfikat dotyczy wyłącznie wyrobów mających identyczne właściwości (dane techniczne) jak przedstawiony do badań wzór, i spełniających wymagania ww. norm(y) i/lub dokumentów normatywnych.  
This certificate covers only the products with characteristics (technical data) same as of the tested sample and those complying with the requirements of the aforesaid standard(s) and/or normative documents.



Kierownik Jednostki Certyfikującej  
Certification Body Manager  
*z upr. Brońwał*  
Teodor Pyszniak

Warszawa, 2012-12-28

**"SIMPFEST"**  
ZWIĄZOK ELEKTRYKÓW POLSKICH  
Odniole Badawcze i Certyfikacja Sp. z o.o.  
04-083 KATOWICE ul. Barbary 17  
www.ziep.org.pl

**CERTYFIKAT Nr 52010**  
Wzrost: 27.02.2012 11:42:00

Nazwa i adres posiadacza certyfikatu: "ELKO-BIS" Systemy Odgromowe  
Spółka z o.o.  
ul. Swojczyńska 38E  
51-501 Wrocław

Nazwa i adres produktu: "ELKO-BIS" Systemy Odgromowe  
Spółka z o.o.  
ul. Swojczyńska 38E  
51-501 Wrocław

Nazwa i typ wyrobu: [blurred text]

Opisany badany wyrobiec: [blurred text]

Nazwa i adres jednostki certyfikującej: [blurred text]

Typ (model): [blurred text]

Wzrost: 27.02.2012 11:42:00

Wzrost: 27.02.2012 11:42:00

Wzrost: 27.02.2012 11:42:00

Wzrost: 27.02.2012 11:42:00

**CERTYFIKAT**

**ELKO-BIS SYSTEMY ODGROMOWE**

ISO 9001:2008

ELKO - BIS Systemy Odgromowe Sp. z o.o.

www.elkobis.com.pl

Wzrost: 27.02.2012 11:42:00

Declaration of Conformity  
with PN-EN 50164-1:2010

**CERTYFIKAT WIARYGODNOŚCI BIZNESOWEJ**

Nadawany za najwyższą ocenę stabilności firmy w roku 2009 według Dun & Bradstreet Poland

**ELKO-BIS SYSTEMY ODGROMOWE R. KOHUT, SZ. KLACZAK SPÓŁKA JAWNA**

Numer DUNS: 36-807-9098

D&B Poland, międzynarodowa wywiadowcza grupa danych, ocenia wiarygodność i stabilność firmy na podstawie analizy wskaźników planując według programu D&B Trade®

analizy wskaźników finansowych ostatnich dziesięciu lat sprawozdań finansowych

spełniającej w Polsce bazy relacyjnych powiązań korporacyjnych i osobistych

Decide with Confidence

**DYPLOM NAGRODA "GRAND PRIX"**

IX Targów "ENERGETAB" 2012  
Wynikowe Usługi-Usługa Czworoosobowa w Toruniu

dlu  
ELKO-BIS Sp. z o.o.

za  
Bezawaryjność systemu ochrony odgromowej

Targi Budowlane i Energetyczne w Toruniu

**elektrotechnika**  
www.elektrotechnika.pl

V Międzynarodowe Targi Sprzętu Elektrycznego i Systemów Zabezpieczeń

**I NAGRODA**

dla firmy  
**ELKO - BIS**

za  
system odgromowych masztów wolnostojących

Warsawa, 26 września 2010

**elektrotechnika**  
www.elektrotechnika.pl

V Międzynarodowe Targi Sprzętu Elektrycznego i Systemów Zabezpieczeń

**I NAGRODA**

dla firmy  
**ELKO - BIS**

za  
system odgromowych masztów wolnostojących

Warsawa, 26 września 2010

**20. Międzynarodowe Energetyczne Targi Hiel „ENERGETAB 2010”**

**WYRÓŻNIENIE**

**ELKO-BIS**

System odgromowych masztów wolnostojących

zgłoszony przez firmę:  
**ELKO-BIS Systemy Odgromowe R. Kohut, Sz. Klaczak Spółka jawna**

Warszawa, 11 sierpnia 2010

**XIV MIĘDZYNARODOWE TARGI TARBU D WIOSNA**

**DYPLOM WYRÓŻNIENIA**

MIEDZIANY SYSTEM ZEWNĘTRZNEJ OCHRONY ODGROMOWEJ NA DOMKI JEDNORODZINNE

Producent i wystawca:  
**ELKO BIS s.c. WROCLAW**

WROCLAW 21 - 24.03.2009 r. HALA LUDOWA

**dypl**

**TARGI KIELCE**

VIII Międzynarodowe Targi Energetyki ENEX  
Targi Odnawialnych Źródeł Energii ENEX - NOWA ENERGIA  
16-18.03.2005

miedziany system zewnętrznego systemu odgromowej na domki jednorodzinne i zabudowy szeregowe

WYRÓŻNIENIE otrzymuje  
"ELKO-BIS" - Systemy Odgromowe R. Kohut, Sz. Klaczak Spółka jawna z Wrocławia

**ELTARG**  
Międzynarodowe Targi Katowickie

**WYRÓŻNIENIE**

Międzynarodowe Targi Katowickie w GRUPIE ELEKTROTECHNIKA

BIS firm  
**ELKO-BIS SYSTEMY ODGROMOWE Wrocław**

MIEDZIANY SYSTEM OCHRONY ODGROMOWEJ DOMÓW JEDNORODZINNYCH ORAZ OBIEKTÓW ZABYTKOWYCH

Warszawa, 27 lipca 2007

Certificates to be downloaded on our website:  
[www.elkobis.com.pl/certyfikaty](http://www.elkobis.com.pl/certyfikaty)
















*For us, attention to detail is essential. Due to that fact, ELKO-BIS products meet the highest standards.*



### Certificates:

-  EN 50164 standard Certificate of Compliance
-  Safety Mark B
-  Quality Management Certificate to ISO 9001:2008
-  Business Reliability Certificate
-  Masts Wind Resistance Tests

### Awards and distinctions:

-  Grand Prix of the MAINTENANCES–CHURCHES Fair in Toruń
-  1st Prize of the International Fair of Electric Fittings and Electricity Systems ELECTRICITY in Warsaw
-  Award of the Bielsko-Biala International Power Industry Fair ENERGETAB
-  Award of the International Power Industry Fair ENEX in Kielce
-  Award of the International Show of Construction Materials TARBUĐ in Wrocław
-  Award of the Katowice International Fair-ELTARG

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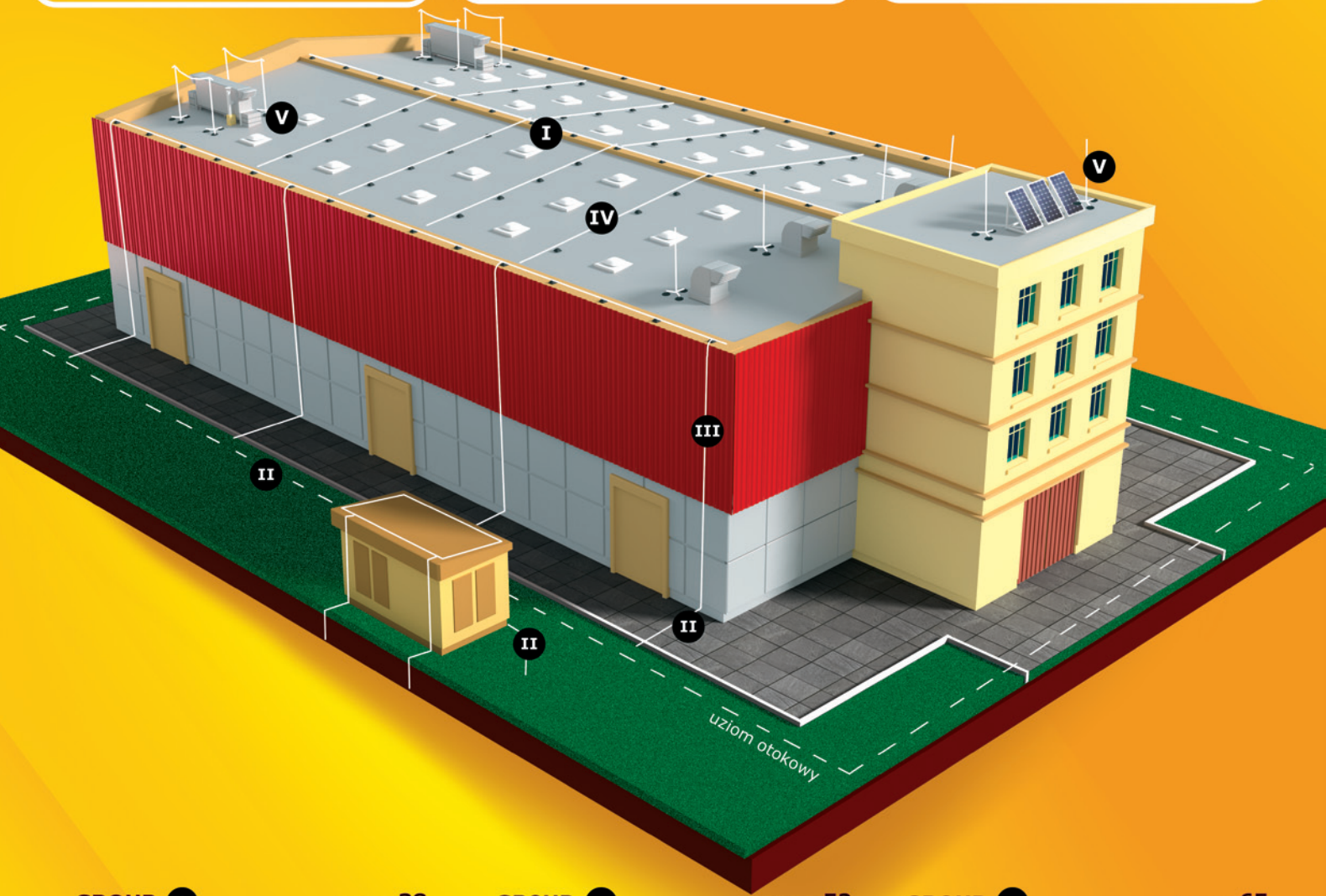
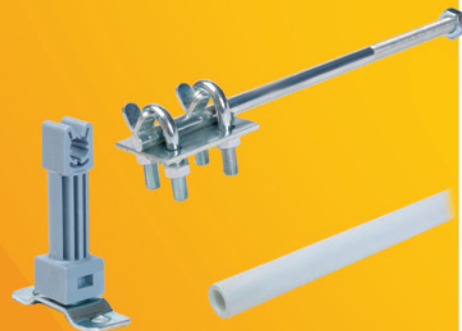
### Connectors and Clamps



### Earthing



### Down-conductor system - wall holders



### Air Termination System



### Air Termination: Masts, Rods



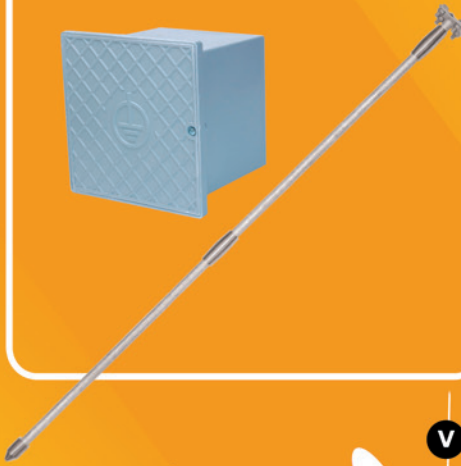
### Accessories and Tools



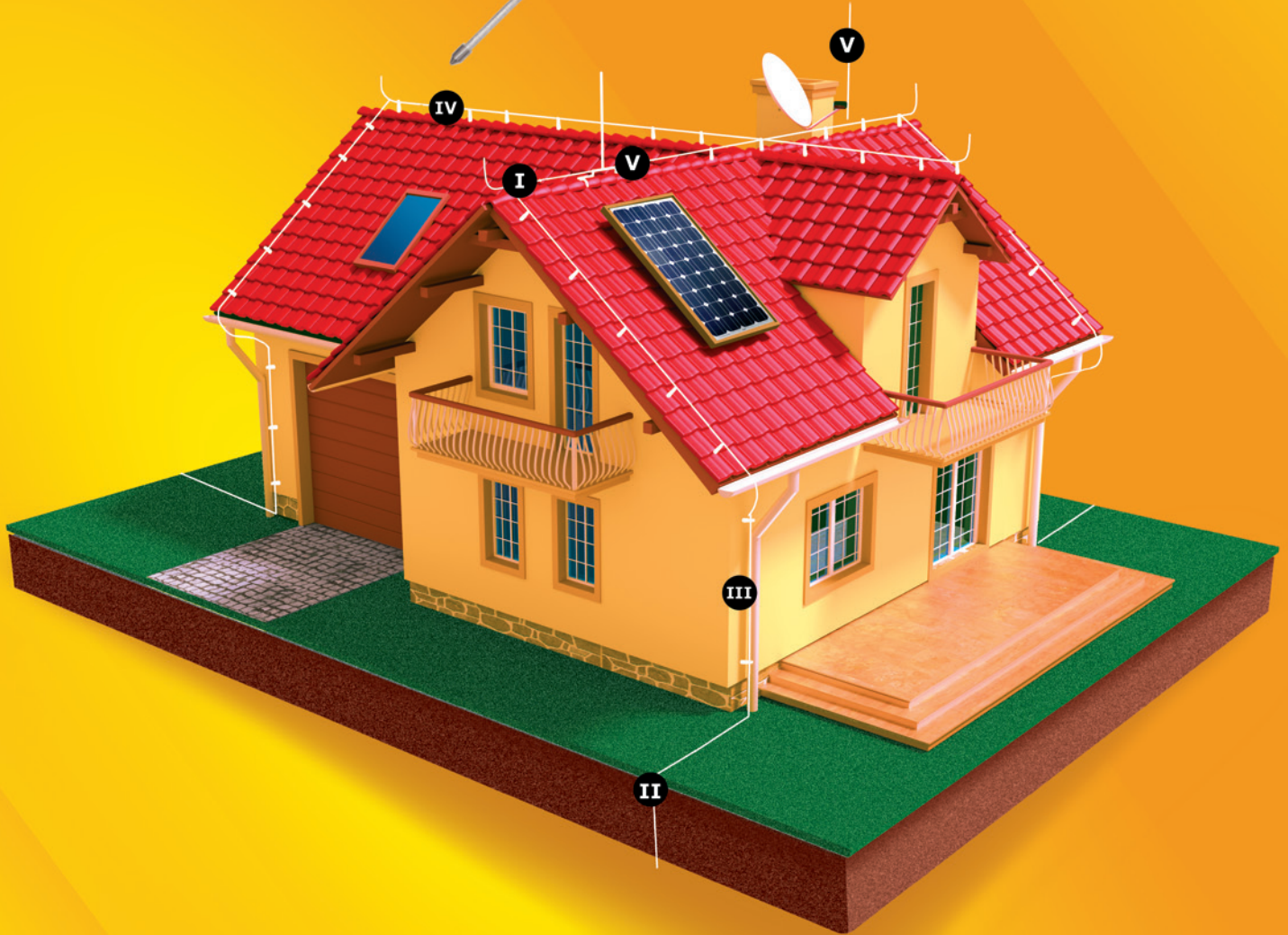
### Connectors and Clamps



### Earthing



### Down-conductor system - wall holders



### Air Termination System



### Air Termination: Masts, Rods



### Accessories and Tools



# Why ELKO-BIS?



**In the market of lightning protection systems, there are a lot of manufacturers. They compete with each other, very often by offering cheaper products. What is their quality?**

**You should consider if such manufacturers:**

1. will protect your business correctly
2. use new technologies in production process, which result in adequate quality
3. hold the required attestations and certificates
4. will provide You with professional information connected with Your installation
5. will verify or prepare the design of lightning arrester system
6. will ensure punctual deliveries to the construction site
7. are communicative and can efficiently solve each problem.

Valid Public Procurement Act, in which the price is the only criterion, for couple of years has resulted in troubles for contractors in realization of tender investments. Broad social discussion on that issues aims at essential changes. It occurs very often, that after winning a tender, the contractor gets into serious troubles connected with underestimation of its offer. In such situation, a contractor tries to employ various methods of saving of its profits. Many times it takes the form of using of low quality materials or materials which do not meet the criteria of authorization to use. When the investment supervision is correct, such materials are questioned and removed from the construction site. It also occurs frequently that incorporation of such materials into the installations result in defects and faults which are found during the construction process or guarantee period. In that situation, instead of the expected profit from their work, the contractors may incur losses and in extreme cases that may lead to bankruptcy of the company.

**We have the assets by which we create the success of our Customers:**

1. Our products have necessary attestations and certificates, including:
  - tests for the resistance of joints to lightning impact – class H,
  - tests of resistance of lightning arrester masts.
2. We are the support for our partners in the knowledge of standards in force, including the PN EN 62305 standard, by systematic trainings and up-to-date information.
3. We have the efficient system of technical consulting, we can find solutions for various non-typical systems.
4. We verify and prepare the designs by consulting them with persons who hold construction license.
5. We have high stock levels which ensure continuity and punctuality of deliveries for our Customers.

**That's why ELKO-BIS!!!**

Declaration of Conformity  
with PN-EN 50164-1:2010

# Content

by product groups



## GROUP I

### Connectors and Clamps

<b>1.1÷2</b> Cross joint 4-openings		<b>2.1÷2</b> Cross joint 2-openings		<b>page 17</b>
<b>3.1÷1S</b> Gutter joint		<b>4.1</b> Cotrol joint 4-openings		<b>page 18</b>
<b>5.1</b> Cotrol joint 2-openings		<b>6.1</b> Control joint wire-wire		<b>page 19</b>
<b>7.1</b> Universal joint 2-elements		<b>7.1R÷2R</b> Fair lead joint		<b>page 19</b>
<b>8.1</b> Universal joint 3-elements		<b>9.1÷2</b> Ground joint		<b>page 20</b>
<b>14.1÷5</b> Universal joint branched		<b>54.1</b> T-joint		<b>page 21</b>
<b>55.1÷2</b> Cross joint 1-opening		<b>56.1</b> Control joint AL/ZN		<b>page 21</b>
<b>57.1</b> Wedge joint		<b>72.1</b> Labelling joints		<b>page 22</b>

## GROUP II

### Earthing



<b>41.1÷10</b> Grounding electrode complete 3-meters		<b>42.1÷5</b> Grounding electrode element		<b>page 23</b>
<b>41.1.1T</b> Grounding electrode complete "terra-grom"		<b>40.1</b> Bar grounding electrode		<b>page 24</b>
<b>40.3</b> Profile grounding electrode		<b>40.1</b> Bar grounding electrode		<b>page 24</b>
<b>40.3</b> Profile grounding electrode		<b>71.1</b> Electrode bracket grounding for hoop iron		<b>page 25</b>
<b>73.1÷2</b> Grounding connection		<b>74.1</b> Hoop iron holder with pressing bolt		<b>page 26</b>
<b>74.2÷2.1</b> Hoop iron holder		<b>39.1÷2</b> Grounding wire casing		<b>page 27</b>
<b>49.1</b> Ground control joint casing		<b>50.1</b> Housing of ground check joint		<b>page 27</b>
<b>64.1÷6</b> Grounding clamping ring		<b>92.1</b> Equipotenential rail		<b>page 28</b>
<b>92.1</b> Equipotenential rail		<b>Denso tape</b>		<b>page 28</b>

# Content

## by product groups

Declaration of Conformity  
with PN-EN 50164-1:2010



### GROUP III

#### Down-conductor system - wall holders

Grounding wire		<b>DR 10 OC/PCV</b> Grounding wire in PCV insulation		page 29
<b>12.1÷800</b> Holder with a pin (screwed in)		<b>12.1÷4/P</b> Holder with a pin (screwed in) with plastic		<b>12.1.1÷4.1</b> Wire holder with a pin
<b>12.3/B, 12.8/B</b> Holder with pin (screwed in) for hoop iron		<b>12.4 K</b> Holder with a pin angle (screwed in)		<b>24.1÷2 (GW)</b> Distance holder hit or screwed in
<b>63.1÷2</b> Distance holder twisted		<b>63.1/P</b> Distance holder twisted with plastic		<b>64.1÷2/U-Ni</b> Stainless universal clamping ring
<b>64.08, 64.10</b> Drainage pipe holder		<b>64.08/P, 64.10/P</b> Drainage pipe holder with plastic		<b>104.1, 105.1÷2</b> Installation pipe
<b>26.0÷3</b> Pull holder		<b>13.1</b> Pull joint control		<b>27.1</b> Bow pull holder
<b>28.1÷2</b> Pull pipe		<b>28.3÷4</b> Pull bar		<b>32.1÷6</b> Turnbuckle "eye-eye"
<b>34.1÷6</b> Turnbuckle "hook-hook"		<b>35.1÷6</b> Turnbuckle "hook-eye"		<b>68.1÷2/B, SZ</b> Control box for facades
<b>68.3</b> Inspection door		<b>68.4/K, B, BR, SZ</b> Control box for facades		page 37

### GROUP IV

#### Air Termination System



<b>10.1÷3</b> Angle holder / Under tile holder		<b>11.1÷3</b> Angle holder screwed / Under tile holder screwed		page 38
<b>10.1/P</b> Angle holder with plastic		<b>10.2÷4/Z</b> Under tile holder with a tap		<b>10.2÷4/Z/P</b> Under tile holder with a tap with plastic
<b>11.2÷4/Z</b> Under tile holder with a tap screwed		<b>10.5</b> Under tile holder with a lock		<b>11.5</b> Under tile holder with a lock screwed
<b>10.6</b> Under tile holder universal		<b>11.6</b> Under tile universal holder screwed		<b>59.1B</b> Universal holder
				page 41

# Content





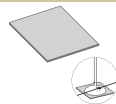



## by product groups

<b>96.0÷1</b> Wire holder "fixed"		<b>96.0/P</b> Seam holder with plastic		<b>96.0/D</b> Universal seam holder, large		<b>page 42</b>
<b>96.0/M</b> Universal seam holder, small		<b>59.1</b> Rigide tile holder universal G5		<b>59.2</b> Rigide tile holder universal with plastic G6		<b>page 43</b>
<b>59.1 MAX</b> Rigide tile holder universal G5 MAX		<b>59.2 MAX</b> Rigide tile holder universal with plastic G6 MAX		<b>20.1</b> Peak holder		<b>page 44</b>
<b>20.1/P</b> Peak holder with plastic		<b>29.1</b> Concrete holder		<b>29.1K</b> Concrete holder for cable culverts		<b>page 45</b>
<b>30.1</b> Concrete holder in plastic		<b>30.1.1÷3</b> Concrete holder in plastic		<b>30.2</b> Concrete holder in plastic		<b>page 46</b>
<b>30.2/W</b> Concrete holder in plastic high		<b>30.2/P</b> Concrete holder in plastic with plastic		<b>30.3</b> Plastic holder		<b>page 47</b>
<b>30.3/P, 30.3/M</b> Fastening strip		<b>15.1</b> Roof holder with a plate		<b>15.1/P</b> Roof holder with a plate with plastic		<b>page 48</b>
<b>16.1</b> Roof holder with a plate MAX		<b>16.1/P</b> Roof holder with a plate MAX with plastic		<b>17.1÷3</b> Roof holder special		<b>page 49</b>
<b>22.1</b> Cross holder with a plate		<b>87.1</b> Lateral pull holder		<b>87.2</b> Straight pull holder		<b>page 50</b>
<b>88.1</b> Horizontal pull holder		<b>101.1</b> Compensation joint		<b>101.2</b> Elastic copper tinned joint		<b>page 51</b>

## GROUP V



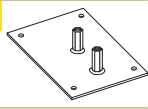


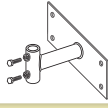
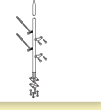


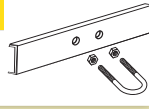
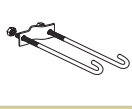



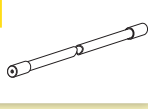
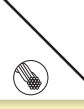


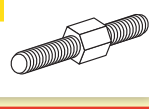

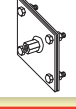


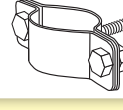
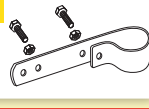


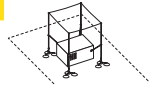
### Air Termination Masts, Isolated Masts, Air Termination Rods



<b>43.1÷2</b> Grounding mast with concrete foundation		<b>43.3÷4</b> Grounding mast with concrete foundation		<b>page 52</b>		
<b>65.4÷7</b> Grounding mast on a tripod		<b>65.8÷10</b> Grounding mast on five-point base		<b>43.82</b> Concrete foundation washer		<b>page 53</b>
<b>65.R, 65.R.1</b> Adjustment set for grounding mast		<b>43.010÷040</b> Aluminium mast		<b>43.70</b> Mast stabilizer		<b>page 54</b>

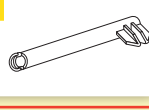
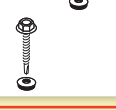


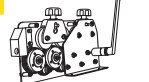
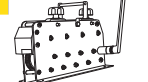
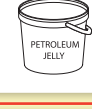
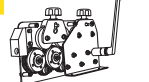
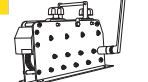
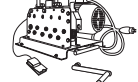
# Content

## by product groups

<b>43.1÷4/M</b> Grounding mast on metal foundation		<b>65.4÷7/M</b> Grounding mast on metal foundation		<b>43.13÷14</b> Grounding mast foundation small		page 55
<b>43.9</b> Grounding mast foundation		<b>62.1÷6</b> Mast		<b>60.1÷2</b> Mast holder		
<b>70.10÷30</b> Chimney spire		<b>71.10/1</b> Ridge tile spire, single		<b>71.10, 71.15</b> Ridge tile spire, double		page 57
<b>60.4</b> Cybant holder		<b>60.6</b> Mast special holder		<b>66.1</b> Adapter for grounding mast lighting pole		
<b>65.4÷7/Zi</b> Grounding mast on a tripod with insulated air terminal		<b>65.4.1÷7.1/Zi</b> Grounding mast with insulated air terminal		<b>79.075÷200</b> Insulation bar		page 59
<b>80.100</b> Grounding rope Aldrey 50mm <sup>2</sup>		<b>80.100</b> Insulated bracket of vertical air terminal		<b>80.1÷3</b> Bar end		
<b>81.1</b> Straight connector		<b>82.1</b> Joint connector		<b>84.1</b> Bar holder, flat		page 61
<b>84.3</b> Bar holder, flat, big		<b>84.2</b> Wire holder		<b>83.4, 83.6</b> Bar holder, round		
<b>60.5</b> Fixing clamping ring		<b>77.1÷3</b> Universal pipe clamping ring, single		<b>67.1÷3</b> Universal pipe clamping ring, double		page 63
<b>Example of insulation bars usage</b>						

## GROUP VI Accessories and Tools



<b>86.1</b> Holder for wire straightening		<b>98.1, 99.1÷2</b> Washer, farmer screw		page 65		
<b>94.10, 94.20</b> Gluing mass		<b>93.1÷2</b> FIX ALL fixing adhesive				
<b>100.1</b> 9-roll wire straightener		<b>100.2</b> Hoop iron straightener		<b>95.1</b> Petroleum jelly		page 66
<b>100.1</b> 9-roll wire straightener		<b>100.2</b> Hoop iron straightener		<b>100.1÷2EL</b> Wire (hoop iron) straightener with electric drive		



# Content

## by product groups



<b>61.8</b>		<b>102.1</b>		<b>106.1</b>		<b>page 68</b>
Digital discharge meter		Zinc spray		Protective spark gap		

<b>85.1</b>		<b>page 69</b>
Holder for concrete foundations		




## GROUP VII

### Other Products



<b>44.1</b>		<b>45.1</b>		<b>page 70</b>
Extension arm pipe		Fixed extension arm		

<b>46.1</b>		<b>58.1÷2</b>		<b>37.1÷6</b>		<b>page 71</b>
Rotary expull arm		Extension arm holder		Distance bracket with rubber insert		

<b>107.1</b>		<b>108.1</b>		<b>75.1÷18</b>		<b>page 72</b>
Distance bracket for vortex pole		Outrigger clamp for vortex pole		Hook bolt		

<b>69.1÷2</b>		<b>47.1÷8</b>		<b>48.1÷8</b>		<b>page 73</b>
Installation probe		Metal holder UJ		Metal holder UD		

<b>36.1÷9</b>		<b>page 74</b>
Rope clamping ring		

**Declaration of Conformity**  
with PN-EN 50164-1:2010

# Content

## by catalogue numbers

No cat.	Name	Page	No cat.	Name	Page
1.1÷2	Cross joint 4-openings	17	16.1	Roof holder with a plate MAX	49
2.1÷2	Cross joint 2-openings	17	16.1/P	Roof holder with a plate MAX with plastic	49
3.1÷15	Gutter joint	18	17.1÷3	Roof holder special	49
4.1	Cotrol joint 4-openings	18	20.1	Peak holder	44
5.1	Cotrol joint 2-openings	18	20.1/P	Peak holder with plastic	45
6.1	Control joint wire-wire	19	22.1	Cross holder with a plate	50
7.1	Universal joint 2-elements	19	24.1÷2 (GW)	Distance holder hit or screwed in	31
7.1R÷2R	Fair lead joint	19	26.0÷3	Pull holder	34
8.1	Universal joint 3-elements	20	27.1	Bow pull holder	34
9.1÷2	Ground joint	20	28.1÷2	Pull pipe	35
10.1÷3	Angle holder / under tile holder	38	28.3÷4	Pull bar	35
10.1/P	Angle holder with plastic	39	29.1	Concrete holder	45
10.2÷4/Z	Under tile holder with a tap	39	29.1K	Concrete holder for cable culverts	45
10.2÷4/Z/P	Under tile holder with a tap with plastic	39	30.1 (D PL)	Concrete holder in plastic	46
10.5	Under tile holder with a lock	40	30.1.1÷3	Concrete holder in plastic	46
10.6	Under tile holder universal	41	30.2	Concrete holder in plastic	46
11.1÷3	Angle holder screwed / Under tile holder screwed	38	30.2/P	Concrete holder in plastic with plastic	47
11.2÷4/Z	Under tile holder with a tap screwed	40	30.2/W	Concrete holder in plastic high	47
11.5	Under tile holder with a lock screwed	40	30.3	Plastic holder	47
11.6	Under tile universal holder screwed	41	30.3/P, 30.3/M	Fastening strip	48
12.1÷800	Holder with a pin (screwed in)	30	32.1÷6	Turnbuckle "eye-eye"	35
12.1.1÷4.1	Wire holder with a pin	30	34.1÷6	Turnbuckle "hook-hook"	36
12.1÷4/P	Holder with a pin (screwed in) with plastic	30	35.1÷6	Turnbuckle "hook-eye"	36
12.3/B, 12.8/B	Holder with pin (screwed in) for hoop iron	31	36.1÷9	Rope clamping ring	74
12.4 K	Holder with a pin angle (screwed in)	31	37.1÷6	Distance bracket with rubber insert	71
13.1	Pull joint control	34	39.1÷2	Grounding wire casing	27
14.1÷5	Universal joint branched	20	40.1	Bar grounding electrode	24
15.1	Roof holder with a plate	48	40.3	Profile grounding electrode	25
15.1/P	Roof holder with a plate with plastic	48	41.1.1T	Grounding electrode complete "terra-grom"	24

No cat.	Name	Page	No cat.	Name	Page
41.1÷10	Grounding electrode complete 3-meters	23	60.5	Fixing clamping ring	63
42.1÷5	Grounding electrode element	23	60.6	Mast special holder	58
43.010÷040	Aluminium mast	54	61.8	Digital discharge meter	68
43.70	Mast stabilizer	54	62.1÷6	Mast	56
43.1÷2	Grounding mast with concrete foundation	52	63.1÷2	Distance holder twisted	32
43.1÷4/M	Grounding mast on metal foundation	55	63.1/P	Distance holder twisted with plastic	32
43.13÷14	Grounding mast foundation small	55	64.08, 64.10	Drainage pipe holder	33
43.3÷4	Grounding mast with concrete foundation	52	64.08/P, 64.10/P	Drainage pipe holder with plastic	33
43.82	Concrete foundation washer	53	64.1÷2/U Ni	Stainless universal clamping ring	32
43.9	Grounding mast foundation	56	64.1÷6	Grounding clamping ring	28
44.1	Extension arm pipe	70	65.4÷7	Grounding mast on a tripod	53
45.1	Fixed extension arm	70	65.4÷7/M	Grounding mast on metal foundation	55
46.1	Rotary expull arm	71	65.4÷7/Zi	Grounding mast on a tripod with insulated air terminal	59
47.1÷8	Metal holder UJ	73	65.4.1÷7.1 /Zi	Grounding mast with insulated air terminal	59
48.1÷8	Metal holder UD	73	65.8÷10	Grounding mast on five-point base	53
49.1	Ground control joint casing	27	65.R, 65.R.1	Adjustment set for grounding mast	54
50.1	Housing of ground check joint	27	66.1	Adapter for grounding mast lighting pole	58
54.1	T-joint	21	67.1÷3	Universal pipe clamping ring, double	63
55.1÷2	Cross joint 1-opening	21	68.1÷2/B, SZ	Control box for facade	36
56.1	Control joint AL/ZN	21	68.3	Inspection door	37
57.1	Wedge joint	22	68.4/K, B, BR, SZ	Control box for facade	37
58.1÷2	Extension arm holder	71	69.1÷2	Installation probe	73
59.1	Rigde tile holder universal G5	43	70.10÷30	Chimney spire	57
59.1B	Universal holder	41	71.1	Electrode bracket grounding for hoop iron	25
59.1 MAX	Rigde tile holder universal G5 MAX	44	71.10, 71.15	Ridge tile spire, double	57
59.2	Rigde tile holder universal with plastic G6	43	71.10/1	Ridge tile spire, single	57
59.2 MAX	Rigde tile holder universal with plastic G6 MAX	44	72.1	Labelling joints	22
60.1÷2	Mast holder	56	73.1÷2	Grounding connection	26
60.4	Cybant holder	58	74.1	Hoop iron holder with pressing bolt	26

# Content

## by catalogue numbers

No cat.	Name	Page	No cat.	Name	Page
74.2+2.1	Hoop iron holder	26	101.1 (DD, DB, BB)	Compensation joint	51
75.1+18	Hook bolt	72	101.2	Elastic copper tinned joint	51
77.1+3	Universal pipe clamping ring, single	63	102.1	Zinc spray	68
79.075+200	Insulation bar	59	104.1, 105.1+2	Installation pipe	33
80.100	Insulated bracket of vertical air terminal	60	106.1	Protective spark gap	68
80.1+3	Bar end	60	107.1	Distance bracket for spun pole	72
81.1	Straight connector	61	108.1	Extension arm clamp for spun pole	72
82.1	Joint connector	61	aldrey	Grounding rope Aldrey 50mm <sup>2</sup>	60
83.4, 83.6	Bar holder, round	62	B	Hoop iron	25
84.1	Bar holder, flat	61	denso	Denso tape	28
84.2	Wire holder	62	DR	Grounding wire	29
84.3	Bar holder, flat, big	62	DR 10 OC/PCV	Grounding wire in PCV insulation	29
85.1	Holder for concrete foundations	69		Grounding electrode "terra-grom" element	24
86.1	Holder for wire straightening	65		Example of insulation bars usage	64
87.1	Lateral pull holder	50			
87.2	Straight pull holder	50			
88.1	Horizontal pull holder	51			
92.1	Equipotenential rail	28			
93.1+2	FIX ALL fixing adhesive	66			
94.10, 94.20	Gluing mass	66			
95.1	Petroleum jelly	66			
96.0+1	Wire holder "fixed"	42			
96.0/P	Seam holder with plastic	42			
96.0/D	Universal seam holder, large	42			
96.0/M	Universal seam holder, small	43			
98.1, 99.1+2	Washer, farmer screw	65			
100.1	9-roll wire straightener	67			
100.1+2 EL	Wire (hoop iron) straightener with electric drive	67			
100.2	Hoop iron straightener	67			

# GROUP I

## Connectors and Clamps

Declaration of Conformity  
with PN-EN 50164-1:2010



GROUP I  
Connectors and Clamps

IN GROUP I there may be found, among others:

	1.1	- Cross joint 4-openings	page 17
	3.1	- Gutter joint	page 18
	4.1	- Cotrol joint 4-openings	page 18

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

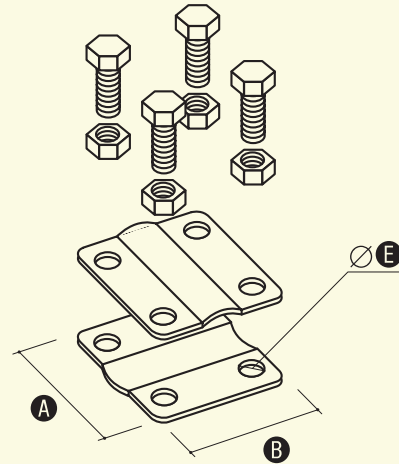
GROUP VII  
Other Products

### Cross joint 4-openings

OC OG CU MS  
CU/OC OC/CU

It is used for cross joining of grounding wire.

CATALOGUE NUMBER	A	B	E	BOLT
1.1	57	57	9	4xM8/20
1.2	57	57	9	4xM8/30

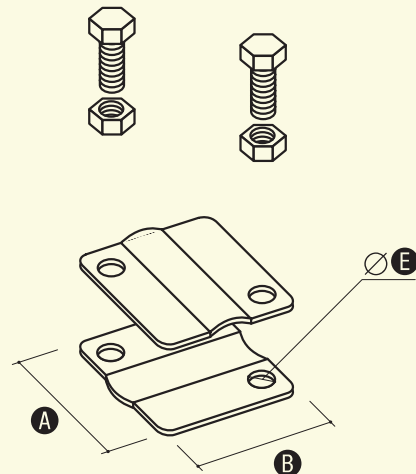


### Cross joint 2-openings

OC CU MS

It is used for cross joining of grounding wire.

CATALOGUE NUMBER	A	B	E	BOLT
2.1	57	57	9	4xM8/20
2.2	57	57	9	4xM8/30



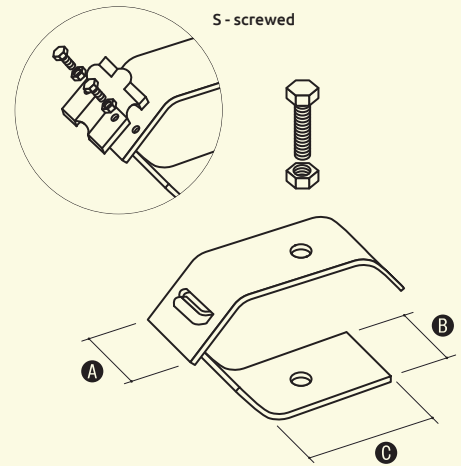
## Gutter joint

OG OC LA CU

NI MS

For fastening the grounding wire to the gutter. The 3.1 S screwed version enables leading the wire also along the gutter.

CATALOGUE NUMBER	A	B	C	BOLT
3.1	40	40	40	M6/30
3.1S	40	40	40	M6/30



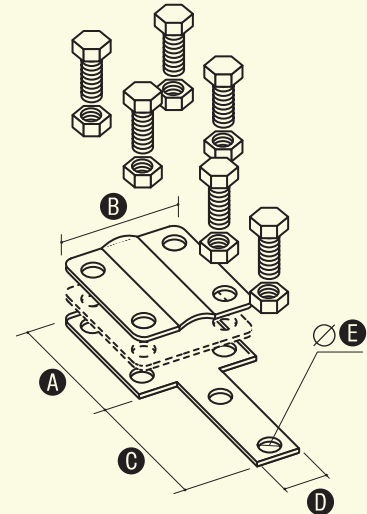
## Cotrol joint 4-openings

OG OC CU

CU/OC OC/CU

It is used for control joints of grounding wire with hoop iron. In case CU wire is joined with OC hoop iron brass washer should be used. In this it is labelled as follows: 4.1 CU/OC or CU/OC.

CATALOGUE NUMBER	A	B	C	D	E	BOLT
4.1	57	57	57	25	9	6xM8/16



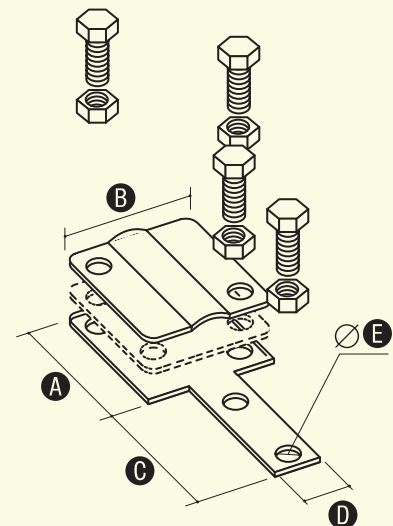
## Cotrol joint 2-openings

OC CU

CU/OC OC/CU

It is used for control joints of grounding wire with hoop iron. In case CU wire is joined with OC hoop iron brass washer should be used. In this it is labelled as follows: 5.1 CU/OC or CU/OC.

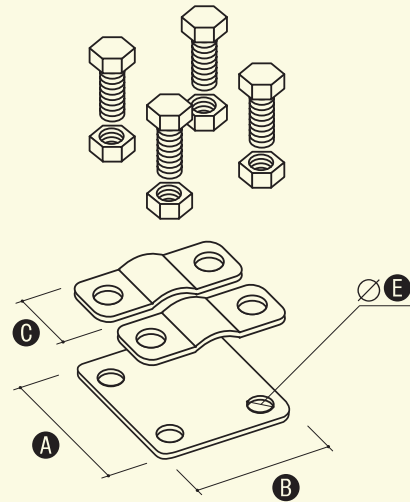
CATALOGUE NUMBER	A	B	C	D	E	BOLT
5.1	57	57	57	25	9	4xM8/16



## Control joint wire-wire

It is used for control joints of grounding wires.

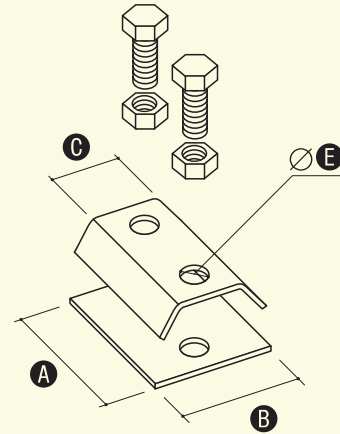
CATALOGUE NUMBER	A	B	C	E	F
6.1	57	57	20	9	4xM8/16



## Universal joint 2-elements

Used for grounding wire connecting.

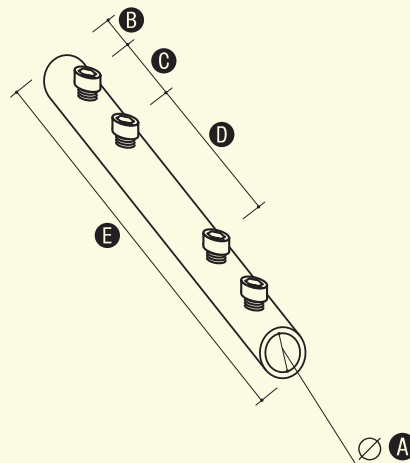
CATALOGUE NUMBER	A	B	C	E	BOLT
7.1	57	40	20	9	2xM8/20



## Fair lead joint

It is used for construction of connections wire/wire or aluminium masts.

CATALOGUE NUMBER	A	B	C	D	E	BOLT
7.1 R	10	15	25	50	130	M6x20
7.2 R	16	25	26	51	150	M6x20

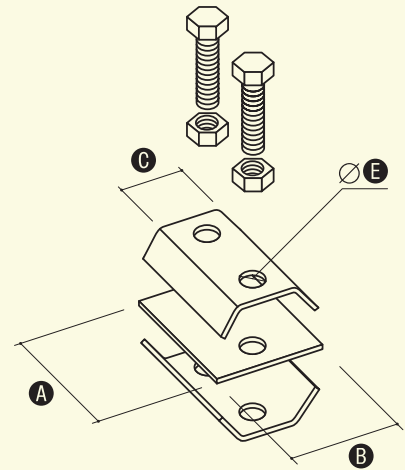


## Universal joint 3-elements

OG OC CU MS

Used for grounding wire connecting.

CATALOGUE NUMBER	A	B	C	E	BOLT
8.1	57	40	20	9	2xM8/30

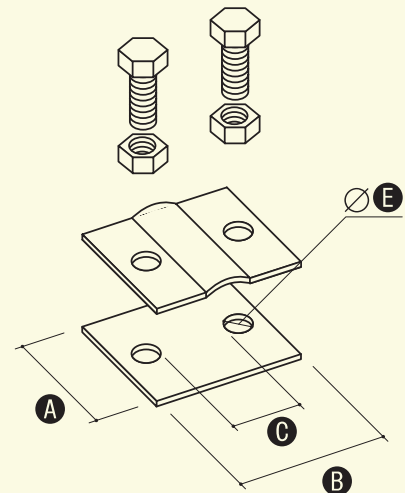


## Ground joint

OC CU

Used for grounding wire connecting with hoop iron or of hoop iron with hoop iron.

CATALOGUE NUMBER	A	B	C	E	BOLT
9.1	40	57	30	9	2xM8/16
9.2	40	70	40	9	2xM8/16

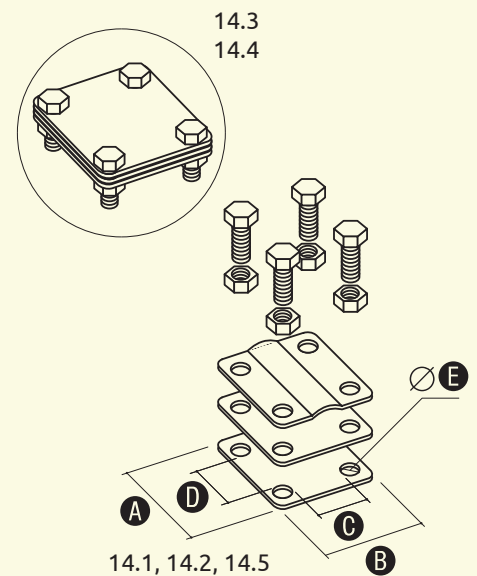


## Universal joint branched

OC CU  
CU/OC OC/CU

It is used for passage and cross joining of wire and hoop iron.

CATALOGUE NUMBER	A	B	C	D	E	BOLT
14.1	57	57	30	30	9	4xM8/25
14.2	57	80	55	30	9	4xM8/25
14.3	80	70	41,5	51,5	10,5	4xM10/30
14.4	100	100	67	67	11	4xM10/30
14.5	57	57	30	30	9	4xM8/50

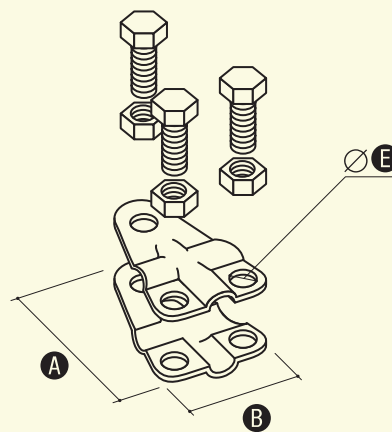




## T-joint

Used for grounding wire connecting.

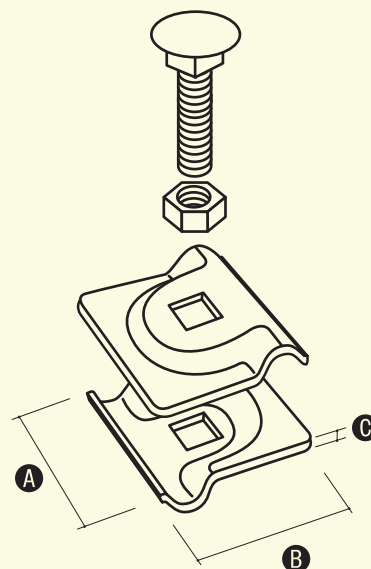
CATALOGUE NUMBER	A	B	E	BOLT
54.1	52	45	9	M8/20



## Cross joint 1-opening

It is used for cross or passage joining of grounding wire.

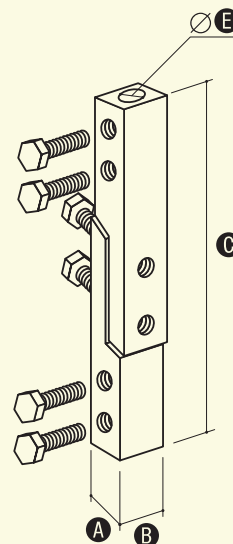
CATALOGUE NUMBER	A	B	C	BOLT
55.1	45	45	2	M8/30
55.2	45	45	2,5	M10/35



## Control joint AL/ZN\*

It is used for control joints of wire-wire or wire-hoop iron type.

CATALOGUE NUMBER	A	B	C	E	BOLT
56.1	20	25	150	12	6xM8/16



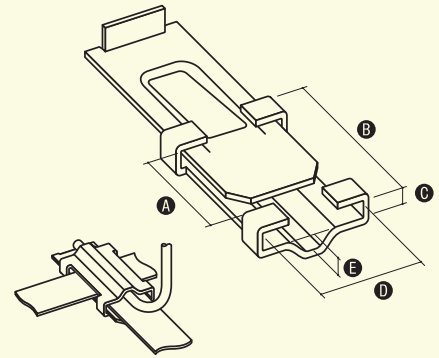
\*) While supply lasts.

## Wedge joint

OC

It is used for fixed connections hoop iron - hoop iron or hoop iron - wire without the need to screw or weld.

CATALOGUE NUMBER	A	B	C	D	E
57.1	50	85	12	50	13

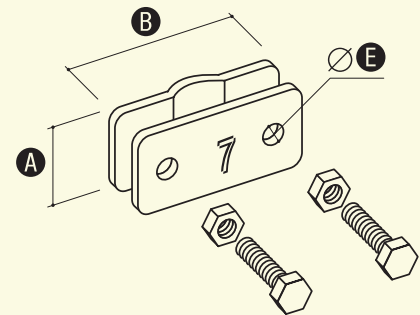


## Labelling joints

CU AL

It is used for grounding labelling.

CATALOGUE NUMBER	A	B	E	BOLT
72.1	20	57	7	2xM6/16



# GROUP II

## Earthing

Declaration of Conformity  
with PN-EN 50164-1:2010



GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

GROUP VII  
Other Products

IN GROUP II there may be found, among others:

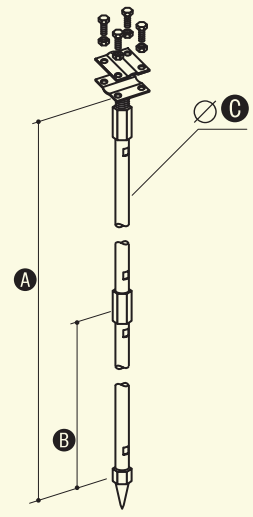
	41.1	- Grounding electrode complete 3-meters	page 23
	41.1.1 T	- Grounding electrode complete "terra-grom"	page 24
	50.1	- Housing of ground check joint	page 27

### Grounding electrode complete 3-meters

OC MI

It is used to construct vertical hitch grounding electrodes. Additional use of individual elements of grounding electrode allows for free increase of its length and improvement of grounding efficiency.

CATALOGUE NUMBER	A	B	C	D
41.1	3000	1000	16	4xM8/16
41.1.1	3000	1500	16	4xM8/16
41.10	3000	1000	20	4xM8/16
41.10.1	3000	1500	20	4xM8/16



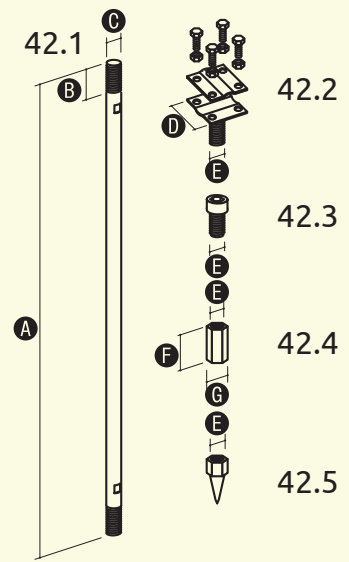
### Grounding electrode element

OC MI

42.1 Bar grounding electrode 42.2 Screwed in terminal  
42.3 Head 42.4 Joint 42.5 Peak

Individual elements are used for construction of complete grounding electrode of required length.

CATALOGUE NUMBER	A	B	C	D	E	F	G	BOLT
42.1	1000	22,5	16	-	-	-	-	-
42.1.1	1500	22,5	16	-	-	-	-	-
42.10	1000	22,5	20	-	-	-	-	-
42.10.1	1500	22,5	20	-	-	-	-	-
42.2	-	-	-	16	16	16	-	4xM8/20
42.2.1	-	-	-	20	20	20	-	4xM8/20
42.3	-	-	-	16	16	16	-	-
42.3.1	-	-	-	20	20	20	-	-
42.4	-	-	-	16	16	16	24	-
42.4.1	-	-	-	20	20	20	24	-
42.5	-	-	-	16	16	16	-	-
42.5.1	-	-	-	20	20	20	-	-

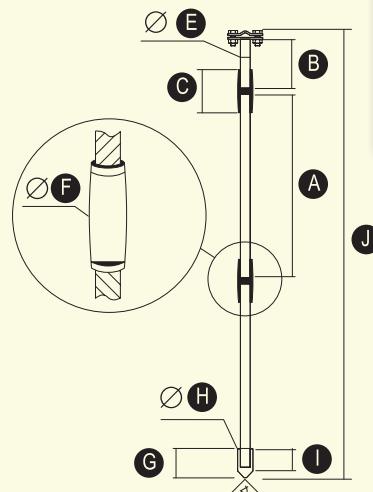


## Grounding electrode complete "terra-grom®"

OG

Used to make vertical grounding electrodes. Applied models are protected by patent law. Innovative by the way two or more grounding electrodes can be joined. It is done by a brass fitting (sleeve). While hammering together galvanized rods (100 µm) one squeezes into the interior of the crimped brass adaptor making indissoluble connection.

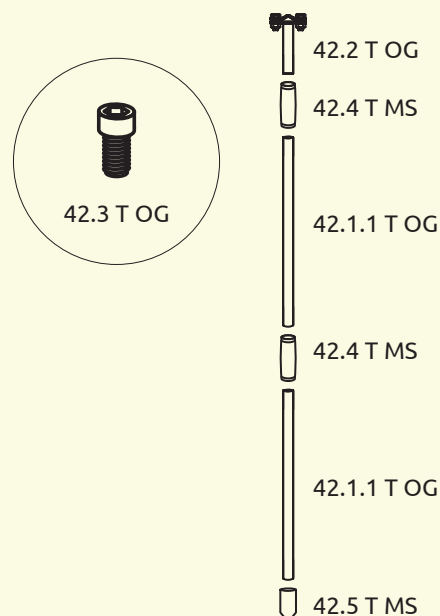
CATALOGUE NUMBER	A	B	C	D	E	F	G	H	I	J	◀	BOLT
41.1.1 T	1500	50	70	57	16	25	47	25	36	3000	87°	4XM8/20



  
THE DESIGN  
PROTECTED BY  
PATENT LAW

## Grounding electrode "terra-grom" element

CATALOGUE NUMBER	description
42.1.1 T OG	bar
42.2 T OG	clamp
42.3 T OG	head (for striking the bar)
42.4 T MS	connector
42.5 T MS	peak

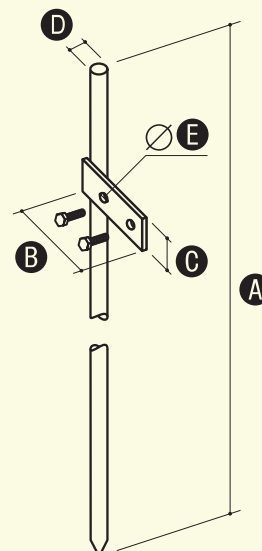


## Bar grounding electrode

OG

Is used for construction of groundings.

CATALOGUE NUMBER	A	B	C	D	E	BOLT
40.1	2000	100	40	16	11	2xM10/20

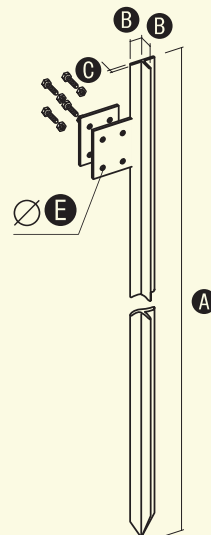


## Profile grounding electrode

OG

Is used for construction of groundings.

CATALOGUE NUMBER	A	B	C	E	BOLT
40.3	2000	30	4	9	4xM8/20
40.4	3000	30	4	9	4xM8/20

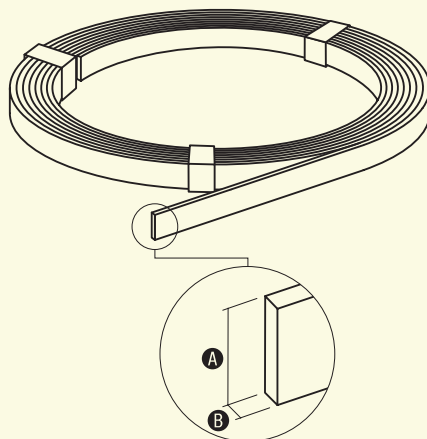


## Hoop iron

OG CU

On sale discs of weight 50-100 kg or confectioned in discs ~20 kg.

CATALOGUE NUMBER	A	B					
		2	3	4	5	3	4
		GALVANIZED Weight of 1 r.m. (kg)			COOPER Weight of 1 r.m. (kg)		
B 20x...	20	0,320	0,480	0,640	0,800	0,503	0,710
B 25x...	25	0,400	0,600	0,800	1,000	0,670	0,890
B 30x...	30	0,480	0,721	0,961	1,200	0,800	1,070
B 35x...	35	0,561	0,840	1,122	1,397	-	-
B 40x...	40	0,640	0,961	1,185	1,601	-	-
B 45x...	45	0,721	1,081	1,438	1,805	-	-
B 50x...	50	0,800	1,200	1,601	1,999	-	-

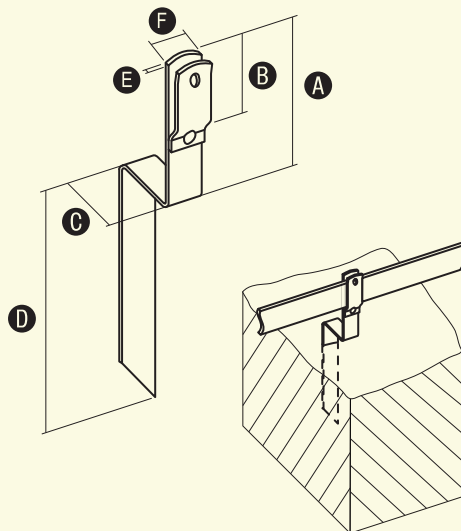


## Electrode bracket grounding for hoop iron

OC

It is used for routing hoop iron in excavation pit at grounding of foundation or circular electrodes.

CATALOGUE NUMBER	A	B	C	D	E	F
71.1	85	45	40	140	2	25



GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

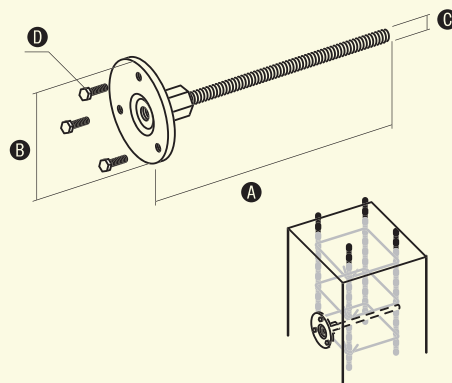
GROUP VII  
Other Products

## Grounding connection

OC

It is used for connection with building reinforcement.

CATALOGUE NUMBER	A	B	C	D
73.1	200	85	10	3xM6/16
73.2	200	85	12	3xM6/16

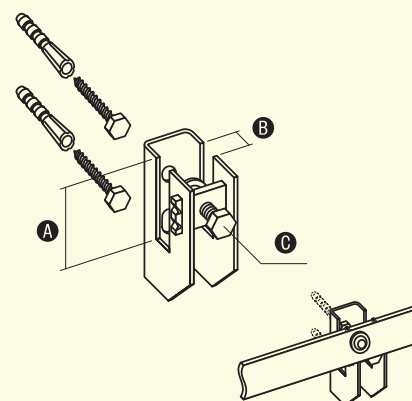


## Hoop iron holder with pressing bolt

OG OC CU

It is used to route hoop iron on object walls.  
74.1 - intended for hoop iron of max. dimensions 50x5.

CATALOGUE NUMBER	A	B	BOLT C
74.1	40	9	M8/20

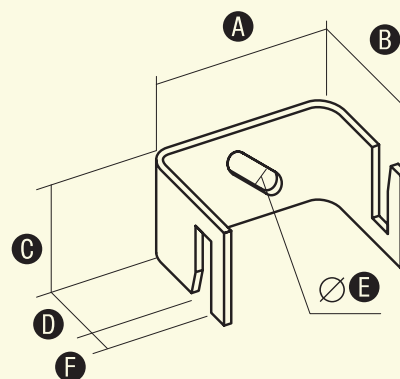


## Hoop iron holder

OC LA CU

It is used to route hoop iron on object walls.  
74.2 – intended for hoop iron of max. dimensions 30x4.  
74.2.1 - intended for hoop iron of max. dimensions 50x4.

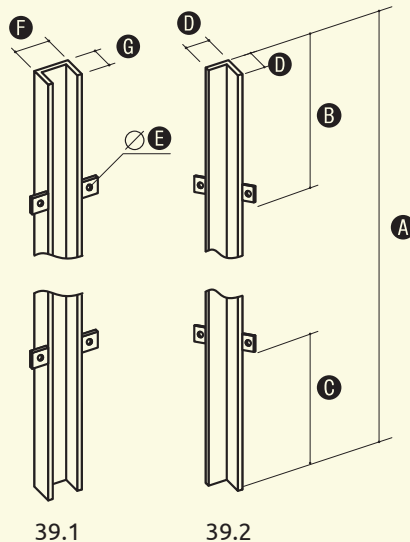
CATALOGUE NUMBER	A	B	C	D	E	F
74.2	45	32	25	20	7	6
74.2.1	70	35	44	19	8	6



## Grounding wire casing

Protecting element of grounding wire or hoop iron.

CATALOGUE NUMBER	A	B	C	D	E	F	G
39.1	1400	250	250	40	9	40	20
39.2	1400	250	250	40	9	40	20



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Air Termination System

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Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

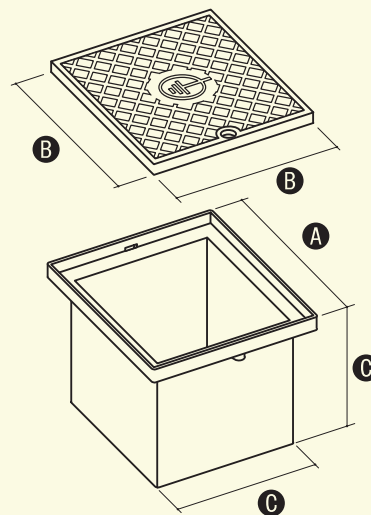
GROUP VII  
Other Products

## Ground control joint casing

PCV

Used at assembly of control joints and output conductors under facade or in the ground.

CATALOGUE NUMBER	A	B	C
49.1	200	193	166



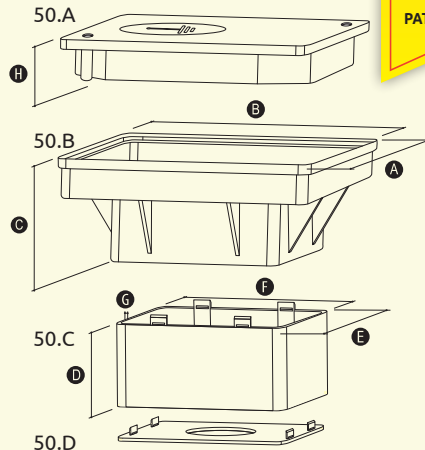
\*) See also boxes 68.1 – 68.4.

## Housing of ground check joint

PCV

Intended for assembly of check joints. High mechanical durability confirmed by tests allows to use it also at not hardened areas and in communication routes of small traffic. Modular construction allows for adjustment of depth by application of additional element 50.C. It can be used for protection of other electric devices.

CATALOGUE NUMBER	ELEMENT TYPE	A	B	C	D	E	F	G	H
50.1	set	300	300	120	93	200	200	5	33
50.A	cover								
50.B	base	300	300	120					
50.C	spreader				93	200	200	5	33
50.D	bottom								



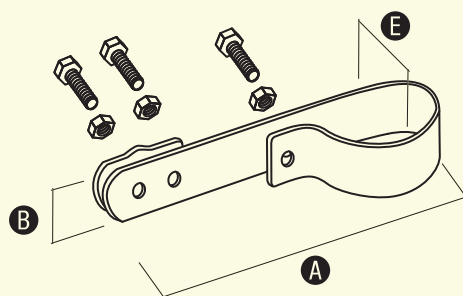
  
THE DESIGN  
PROTECTED BY  
PATENT LAW

\*) See also boxes 68.1 – 68.4.

## Grounding clamping ring

It is used for equalizing connections on pipes.

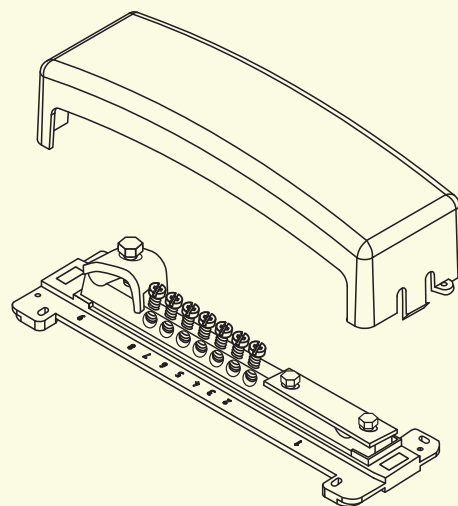
CATALOGUE NUMBER	A	B	C	BOLT
64.1	105	26	Ø21	2xM6/16 + 1xM6/20
64.2	120	26	Ø28	
64.3	123	26	Ø34	
64.4	126	26	Ø44	
64.5	134	26	Ø48	
64.6	153	26	Ø60	



## Equipotenential rail

It is used for construction of equalizing connections.

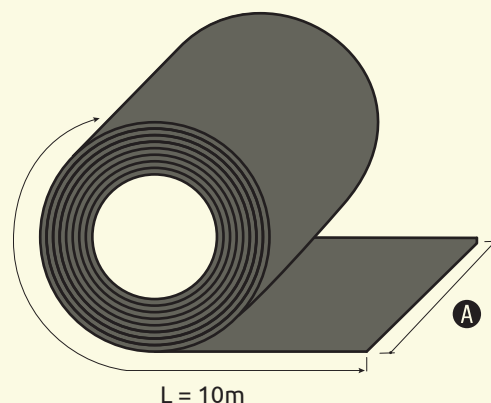
CATALOGUE NUMBER	APPLICATION
92.1	7 x 16 mm <sup>2</sup> 1 x 50 mm <sup>2</sup> 1 x hoop iron



## Denso tape

Tape made of fabric saturated with impregnation mass. It protects metal joints against earth and electrolytic corrosion.

CATALOGUE NUMBER	A
DENSO	100





# GROUP III

## Down-conductor system - wall holders

Declaration of Conformity  
with PN-EN 50164-1:2010



GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

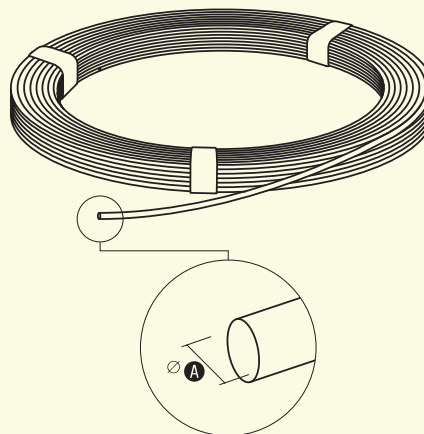
GROUP VII  
Other Products

W GRUPIE III znajdziesz m.in.:

	12.1	- Holder with a pin (screwed in)	page 30
	32.1	- Turnbuckle "eye-eye"	page 35
	68.4	- Control box for facade	page 37

### Grounding wire

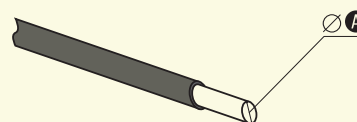
On sale discs of weight 50 -100 kg or confectioned in discs ~20 kg.



CATALOGUE NUMBER	A	GALVANIZED OC Weight of 1 r.m. (kg)	COPPER CU Weight of 1 r.m. (kg)	ALUMINIUM AL Weight of 1 r.m. (kg)	COPPER-PLATED MI Weight of 1 r.m. (kg)
DR 6	6	0,220	0,252	-	-
DR 7	7	0,302	0,343	-	-
DR 8	8	0,395	0,447	0,13	0,395
DR 10	10	-	-	0,20	-

### Grounding wire in PCV insulation

Confectioned wire on sale.



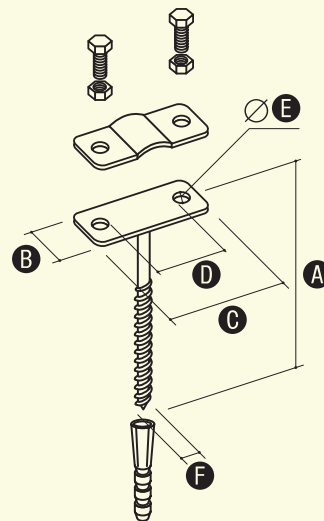
CATALOGUE NUMBER	A	PVC COATING	Weight of 1 r.m. (kg)
DR 10 OC/PVC	10	1,5	0,62

## Holder with a pin (screwed in)

OG OC MI NI

It is used to route grounding wire or hoop iron on object walls.  
Fixed with a spacer.

CATALOGUE NUMBER	A *	B	C	D	E	F	BOLT
12.1	100	20	57	30	7	10	2xM6/16
12.2	120	20	57	30	7	12	2xM6/16
12.3	160	20	57	30	7	12	2xM6/16
12.4	250	20	57	30	7	12	2xM6/16
12.6	400	20	57	30	7	12	2xM6/16
12.8	160	25	80	50	7	12	2xM6/16
12.800	800	25	80	50	7	12	2xM6/16



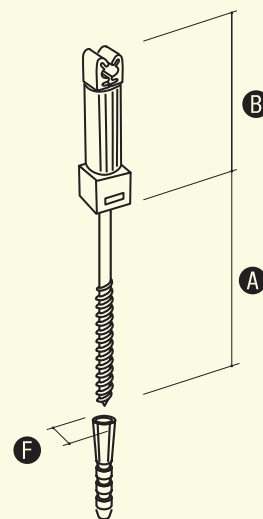
\*) Dimension is subject to change.

## Holder with a pin (screwed in) with plastic

OC

It is used to route grounding wire on object walls.  
Fixed with a spacer.

CATALOGUE NUMBER	A	B	F
12.1/P	50	70	10
12.2/P	65	70	12
12.3/P	105	70	12
12.4/P	190	70	12

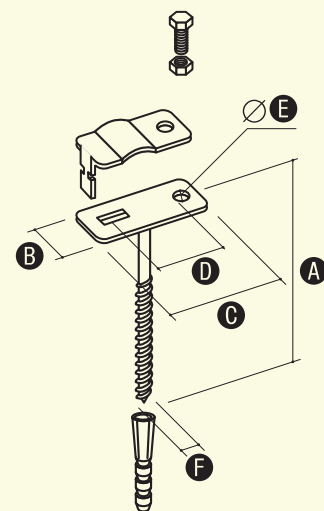


## Wire holder with a pin

OG OC

It is used to route grounding wire on object walls.  
Fixed by screwing in.

CATALOGUE NUMBER	A *	B	C	D	E	F	BOLT
12.1.1	100	20	42	30	7	10	M6/16
12.2.1	120	20	42	30	7	12	M6/16
12.3.1	160	20	42	30	7	12	M6/16
12.4.1	250	20	42	30	7	12	M6/16



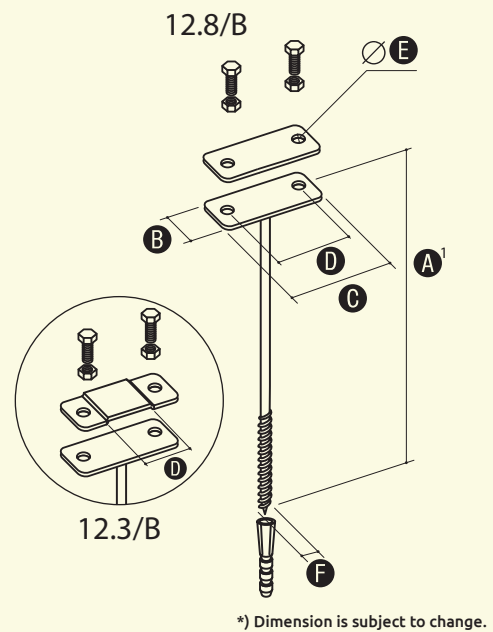
\*) Dimension is subject to change.

## Holder with pin (screwed in) for hoop iron

OG OC MI NI

It is used for routing hoop iron to object walls. Fixed to the ground with spacer pin.

CATALOGUE NUMBER	A *	B	C	D	E	F	BOLT
12.3/B	160	25	80	40	7	12	2xM6/16
12.8/B	160	25	80	50	7	12	2xM6/16

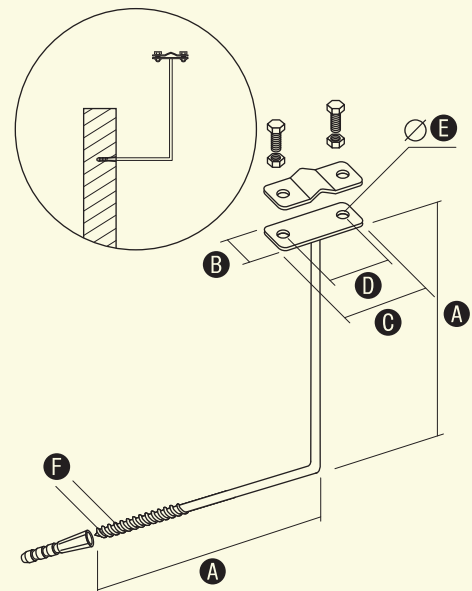


## Holder with a pin angle (screwed in)

OG OC LA CU

It is used for routing grounding wire on object walls e.g. on fire-walls. Fixed to the ground with spacer pin.

CATALOGUE NUMBER	A	B	C	D	E	F	BOLT
12.4 K	200	20	57	30	7	12	2xM6/16

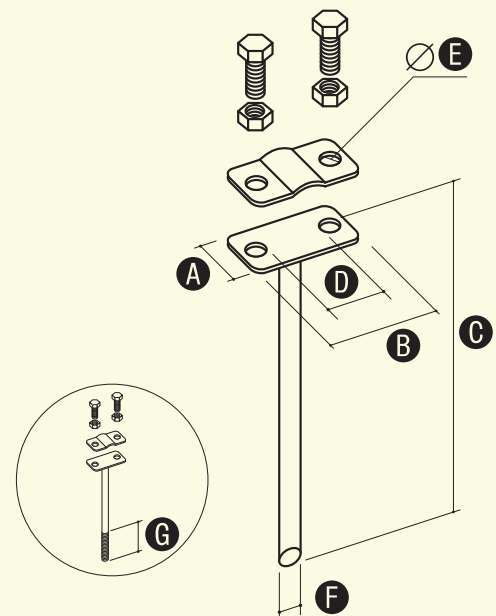


## Distance holder hit or screwed in

OC LA CU

It is used to route grounding wire or hoop iron on object walls. Fixed by hitting.

CATALOGUE NUMBER	A	B	C	D	E	F	G	BOLT
24.1	20	57	160	30	7	8	-	2xM6/16
24.2	20	57	250	30	7	8	-	2xM6/16
24.1/GW	20	57	160	30	7	8	80	2xM6/16
24.2/GW	20	57	250	30	7	8	80	2xM6/16

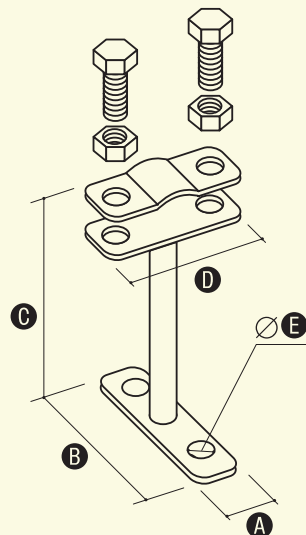


## Distance holder twisted

OC CU

It is used to route grounding wire or hoop iron on object walls. Fixed by screwing.

CATALOGUE NUMBER	A	B	C	D	E	BOLT
63.1	20	57	100	57	7	2xM6/16
63.2	20	57	50	57	7	2xM6/16

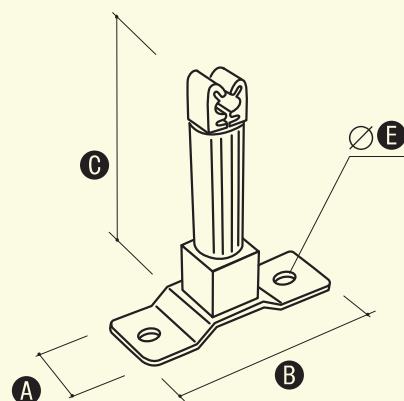


## Distance holder twisted with plastic

OC LA CU

It is used to route grounding wire on object walls. Fixed by screwing.

CATALOGUE NUMBER	A	B	C	E
63.1/P	20	55	70	7

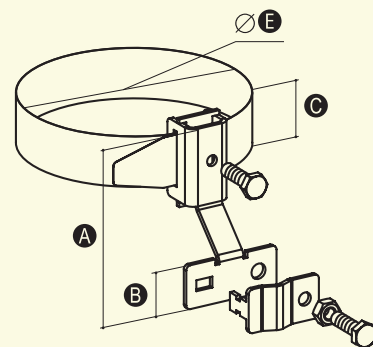


## Stainless universal clamping ring

NI

It is used to fix grounding wire to drainage pipe.

CATALOGUE NUMBER	A	B	C	E *	BOLT
64.1/U Ni	75	21	24	- 80	2xM6/20
64.2/U Ni	75	21	24	80-160	2xM6/20



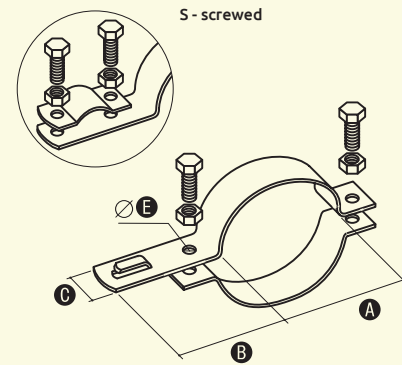
\*) We also make bigger sizes upon request.

## Drainage pipe holder

OC LA CU NI

It is used to fix grounding wire to drainage pipe.

CATALOGUE NUMBER	A	B	C	E
64.08	80	80	26	7
64.10	100	80	26	7

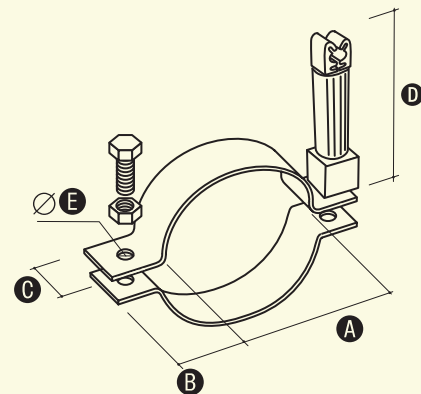


## Drainage pipe holder with plastic

LA CU NI

It is used to fix grounding wire to drainage pipe.

CATALOGUE NUMBER	A	B	C	D	E
64.08/P	80	25	26	70	7
64.10/P	100	25	26	70	7

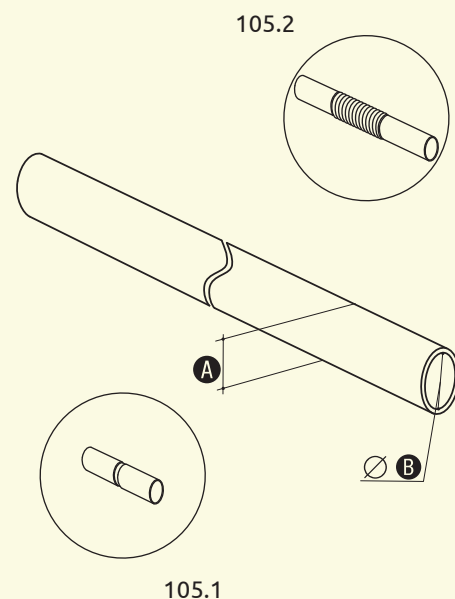


## Installation pipe

PCV

It is used to route grounding wire in or under the plaster. For connection of pipes two joints can be used: straight (105.1) and flexible (105.2). For fixing the pipes one of the following metal holders is required: UJ (47.3) or UD (48.3). The pipe is available in 2 m and 3 m pieces.

CATALOGUE NUMBER	TYPE	A	B
104.1	pipe	20	12
105.1	joint		
105.2	joint		



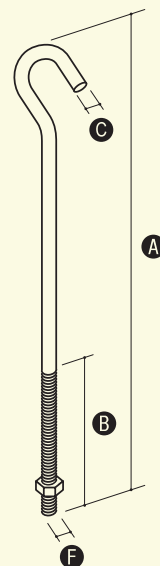
\*) For the installation, use 47.3 or 48.3 – page 73.

## Pull holder

OC MI

It is used for making pulls of grounding wire. Holder L-200, L-300 is recommended to use together with pull pipe (ct. no 28.1÷4). Longer (L-500, L-700) are used for pulls at fire walls.

CATALOGUE NUMBER	A	B	C	F
26.0	200	75	8,6	10
26.1	300	75	8,6	10
26.2	500	75	8,6	10
26.3	700	75	8,6	10

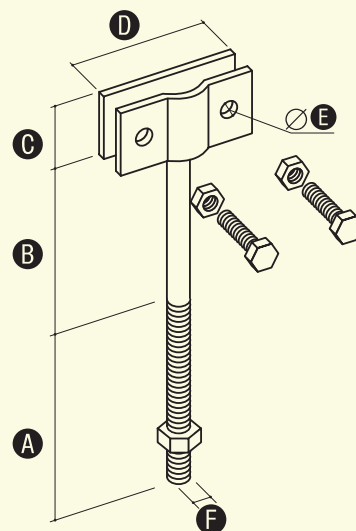


## Pull joint control

OC MI

It is used for making pulls of grounding wire. It is recommended to use together with pull pipe (cat. no. 28.1÷4) (see also 27.1).

CATALOGUE NUMBER	A	B	C	D	E	F	BOLT
13.1	75	70	40	57	9	10	2xM8/16

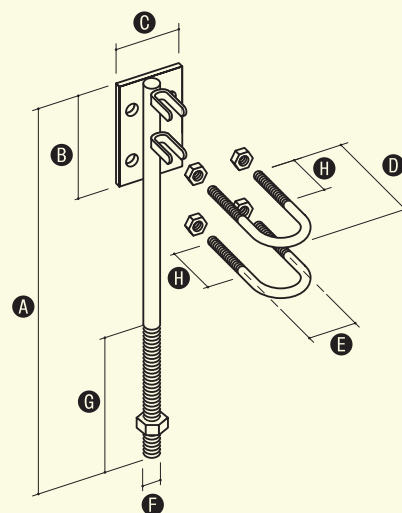


## Bow pull holder

OC MI

It is used for making pulls of grounding wire. It is recommended to use together with pull pipe (cat. no 28.1÷4).

CATALOGUE NUMBER	A	B	C	D	E	F	G	H
27.1	250	60	44	48	25	10	75	22

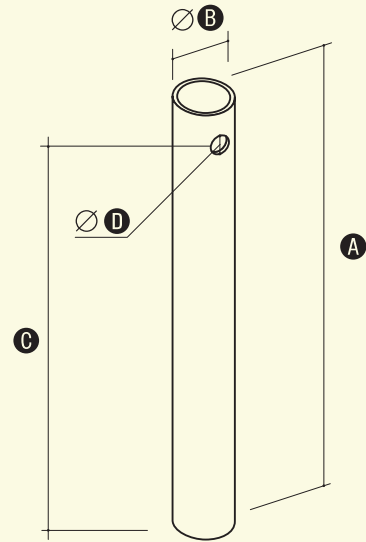


## Pull pipe

OC LA MI

It is used for making pulls of grounding wire.

CATALOGUE NUMBER	A	B	C	D
28.1	300	27	280	11
28.2	400	27	380	11

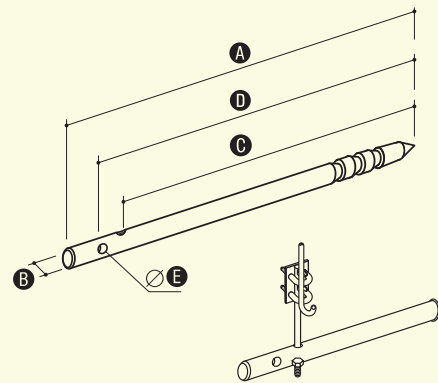


## Pull bar

OC MI

It is used for making pulls of grounding wire.

CATALOGUE NUMBER	A	B	C	D	E
28.3	300	20	260	280	10,5
28.4	400	20	360	380	10,5

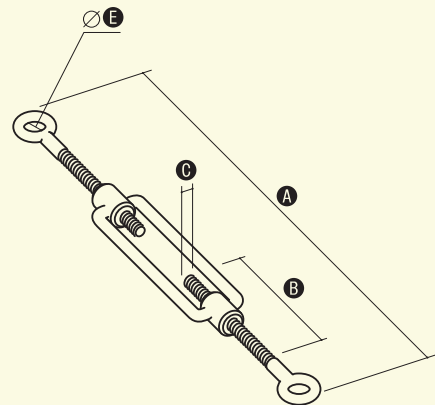


## Turnbuckle "eye-eye"

OC

It is used for making pulls.

CATALOGUE NUMBER	A	B	C	E
32.1	167-247	80	M6	9
32.2	179-254	84	M8	10
32.3	210-295	105	M10	14
32.4	230-310	115	M12	16
32.5	250-340	122	M14	18
32.6	330-440	165	M16	22



GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

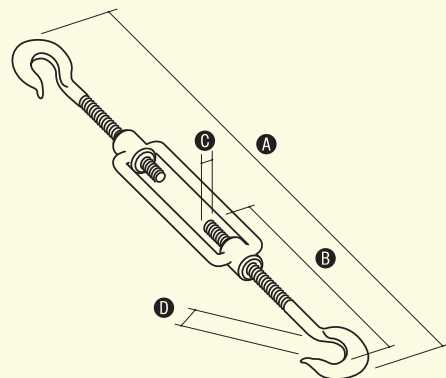
GROUP VII  
Other Products

## Turnbuckle "hook-hook"

OC

It is used for making pulls.

CATALOGUE NUMBER	A	B	C	D
34.1	180-260	85	M6	8,5
34.2	195-270	85	M8	11
34.3	230-315	112	M10	13,5
34.4	250-330	117	M12	15,5
34.5	280-370	122	M14	8,5
34.6	320-430	138	M16	19

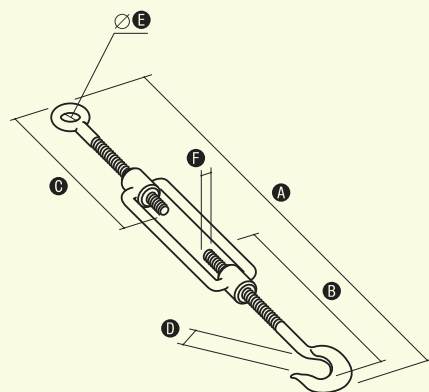


## Turnbuckle "hook-eye"

OC

It is used for making pulls.

CATALOGUE NUMBER	A	B	C	D	E	F
35.1	170-252	85	80	8,5	9	M6
35.2	182-257	85	84	11	10	M8
35.3	213-298	112	105	13,5	14	M10
35.4	238-318	117	115	15,5	16	M12
35.5	263-353	122	122	8,5	18	M14
35.6	320-430	138	165	19	22	M16



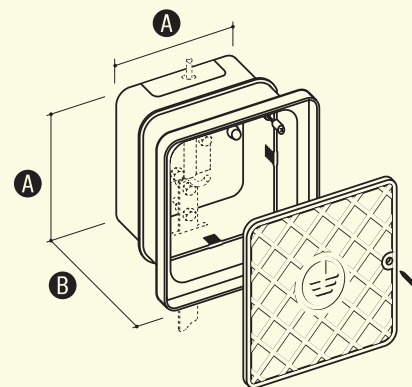
\*) Other dimensions upon Customer order.

## Control box for facade

PCV

Used at assembly of control joints and output conductors under facade. Made of PCV.

CATALOGUE NUMBER	COLOUR*	A	B	BOLT
68.1/B	WHITE	140	60	2xscrew
68.2/B	WHITE	140	100	2xscrew
68.1/SZ	GRAY	140	60	2xscrew
68.2/SZ	GRAY	140	100	2xscrew



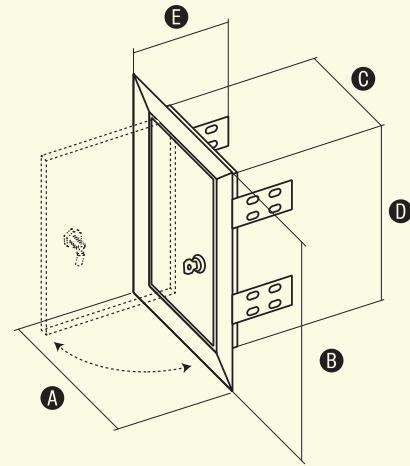


## Inspection door

LA NI CU

Used at assembly of control joints and output conductors under facade.

CATALOGUE NUMBER	A	B	C	D	E
68.3	200	250	150	200	70

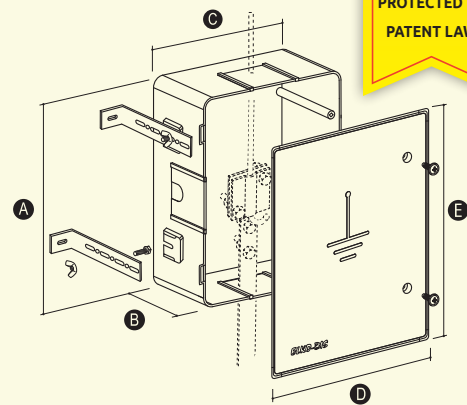


## Control box for facade

PCV

It is used for assembly of control joints and discharge ducts under facade. It is made of PCV. It has a unique system of regulation of foundation depth.

CATALOGUE NUMBER	COLOUR*	FUNDATION DEPTH	A	B	C	D	E
68.4/K	CREAM	85-142	230	85	150	168	250
68.4/B	WHITE						
68.4/BR	BROWN						
68.4/SZ	GRAY						



THE DESIGN  
PROTECTED BY  
PATENT LAW

\*) The colour might slightly differ from the pattern.  
See also 49.1 i 50.1 on page 27.

GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

GROUP VII  
Other Products




# GROUP IV

## Air Termination System

Declaration of Conformity  
with PN-EN 50164-1:2010



IN GROUP IV there may be found, among others:

 59.1B - Universal holder	page 41
 96.0 - Wire holder "fixed"	page 42
 30.1 - Concrete holder in plastic	page 46

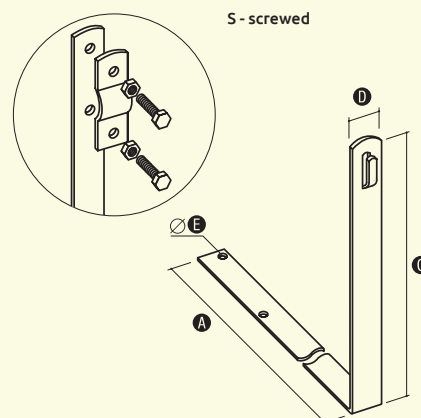
Lightning protection system does not substitute the snow protection grips!

### Angle holder (10.1, 10.1.1)

OG OC LA CU

### Under tile holder (10.2, 10.3, 10.2.1, 10.3.1)

It is used to route grounding wire on flat roofs or tiled roofs.  
Fixed with screws or nails.



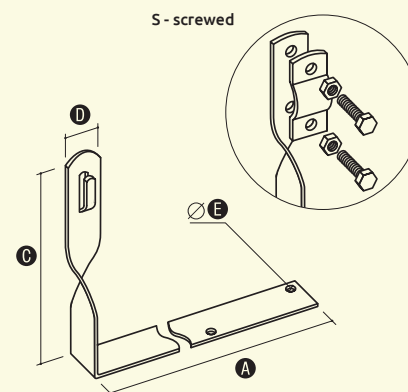
CATALOGUE NUMBER	A	C	D	E
10.1	100	150	25	5
10.2	330	150	25	5
10.3	415	150	25	5
10.1.1	100	100	25	5
10.2.1	330	100	25	5
10.3.1	415	100	25	5

### Angle holder screwed y (11.1, 11.1.1)

OG OC LA CU

### Under tile holder screwed (11.2, 11.3, 11.2.1, 11.3.1)

It is used to route grounding wire on flat roofs or tiled roofs.  
Fixed with screws or nails.



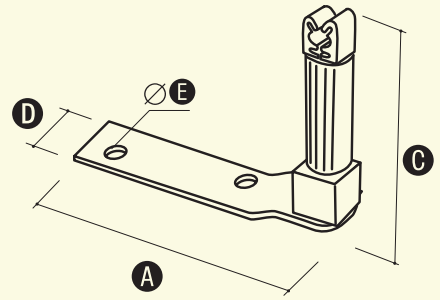
CATALOGUE NUMBER	A	C	D	E
11.1	100	150	25	5
11.2	330	150	25	5
11.3	415	150	25	5
11.1.1	100	100	25	5
11.2.1	330	100	25	5
11.3.1	415	100	25	5

## Angle holder with plastic

OC LA CU

It is used to route grounding wire on flat roofs or tiled roofs. Fixed with screws or nails. The holder is universal – plastic element can be turned by 90°.

CATALOGUE NUMBER	A	C	D	E
10.1/P	120	70	25	5

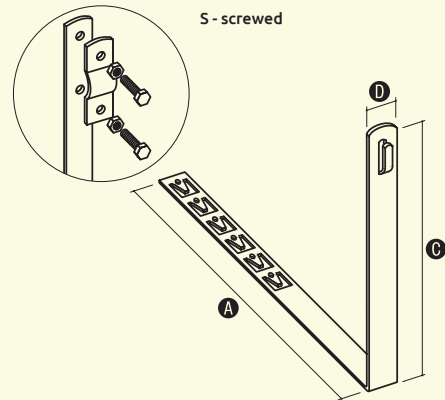


## Under tile holder with a tap

OC LA CU

It is used to route grounding wire on tiled roofs. A tap prevents the holder sliding off from underneath the tile.

CATALOGUE NUMBER	A	C	D
10.2/Z	330	150	25
10.3/Z	415	150	25
10.4/Z	450	150	25
10.2.1/Z	330	100	25
10.3.1/Z	415	100	25
10.4.1/Z	450	100	25

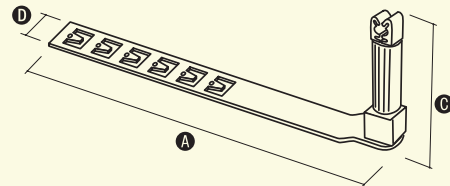


## Under tile holder with a tap with plastic

OC LA CU

It is used to route grounding wire on tile roofs. A tap prevents holder against sliding off from underneath the tile. The holder is universal – plastic element can be turned by 90°.

CATALOGUE NUMBER	A	C	D
10.2/Z/P	330	70	25
10.3/Z/P	415	70	25
10.4/Z/P	450	70	25



GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

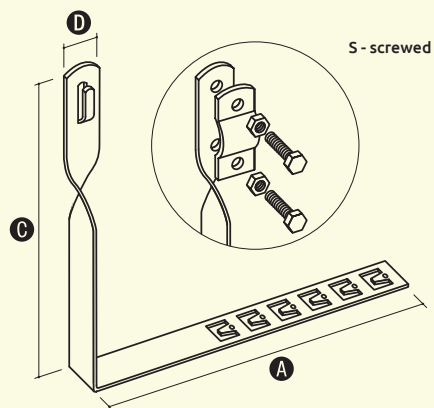
GROUP VII  
Other Products

## Under tile holder with a tap screwed

OC LA CU

It is used to route grounding wire on tiled roofs. A tap prevents the holder sliding off from underneath the tile.

CATALOGUE NUMBER	A	C	D
11.2/Z	330	150	25
11.3/Z	415	150	25
11.4/Z	450	150	25
11.2.1/Z	330	100	25
11.3.1/Z	415	100	25
11.4.1/Z	450	100	25

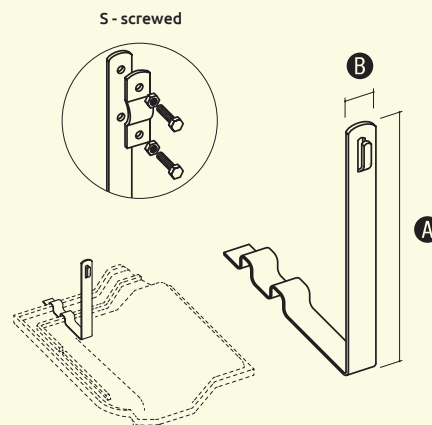


## Under tile holder with a lock

OC LA CU NI

It is used to route grounding wire on tiled roofs with a lock.

CATALOGUE NUMBER	A	B
10.5	150	26
10.5.1	100	26



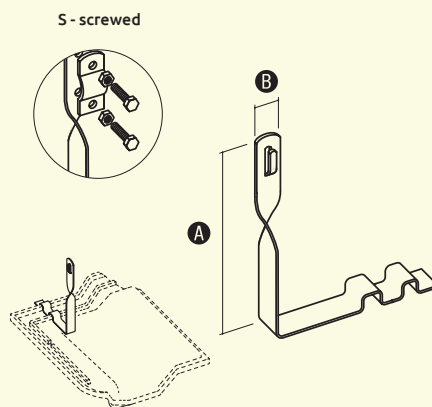
Check the roofing tile profile on page 75.

## Under tile holder with a lock screwed

OC LA CU NI

It is used to route grounding wire on tiled roofs with a lock.

CATALOGUE NUMBER	A	B
11.5	150	26
11.5.1	100	26



Check the roofing tile profile on page 75.

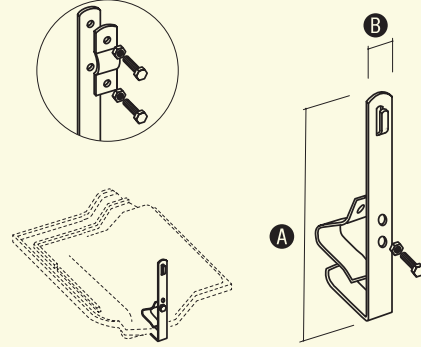
## Under tile holder universal

OC LA CU NI

It is used to route grounding wire on tiled roofs with a lock.

CATALOGUE NUMBER	A	B
10.6	150	25

S - screwed



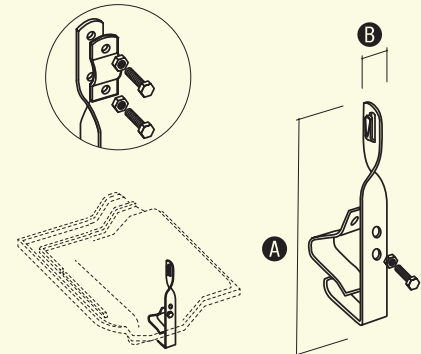
## Under tile universal holder screwed

OC LA CU NI

It is used to route grounding wire on tiled roofs with a lock.

CATALOGUE NUMBER	A	B
11.6	150	25

S - screwed



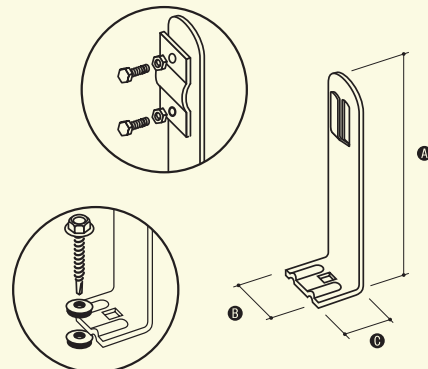
## Universal holder

OC LA CU

It is used to route grounding wire from  $\varnothing 6$  to  $\varnothing 8$  on roofs covered with roofing sheets or tar board shingles. Fixed with special screw with gaskets – not on our offer . (To be ordered separately).

CATALOGUE NUMBER	A	B	C
59.1B	115	26	35

S - screwed



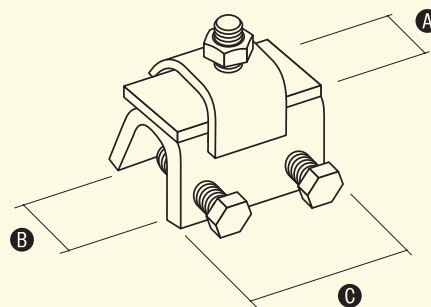
Manner of assembly

## Wire holder "fixed"

OG OC CU NI

It is used to route grounding wire along joints of roof overlapping metal sheets.

CATALOGUE NUMBER	A	B	C	BOLT
96.0	20	12	40	3 x M8 /25
96.1	20	25	40	2 x M8/25 1 x M10/25

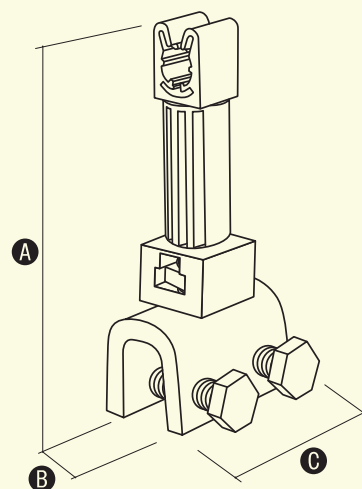


## Seam holder with plastic

OG OC CU

Used for routing of grounding wire along welt connections of covering metal sheets. Plastic ending provides distance and insulation. It may be used for Ø 6-8mm wire. Quick and easy fixing. Rotating plastic end.

CATALOGUE NUMBER	A	B	C
96.0/P	90	12	40

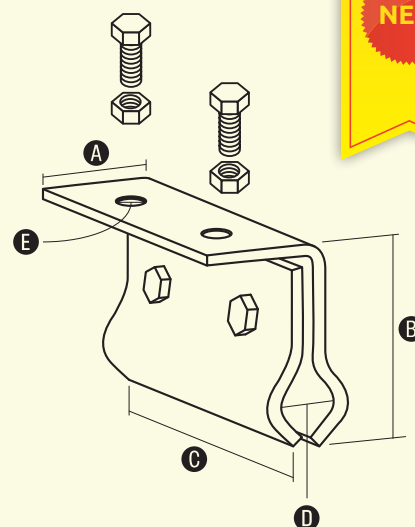


## Universal seam holder, large

OC

Used as fastening or supporting element for installation of lightning protection system.

CATALOGUE NUMBER	A	B	C	D	E	BOLT
96.0/D	45	70	110	Ø16 ÷ Ø30	Ø8,5	2xM8/40



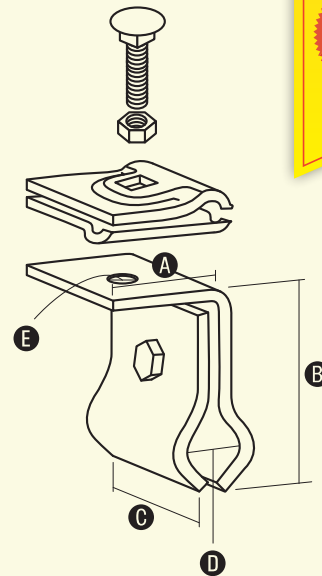
## Universal seam holder, small

OC

NEW

Used for routing of grounding wire and auxiliary as fastening or supporting element for installation of lightning protection system on atypical constructions.

CATALOGUE NUMBER	A	B	C	D	E	BOLT
96.0/M	45	70	55	Ø16 ÷ Ø30	Ø8,5	M8/30

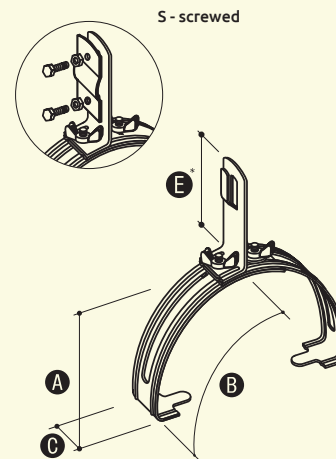


## Rigde tile holder universal G5

OC LA CU

It is used to route grounding wire on roof peaks tiled roofs. Fixed to ridge tile by screwing.

CATALOGUE NUMBER	A	B	C	E *	BOLT
59.1	65	125- 205	26	115	2xM6/16



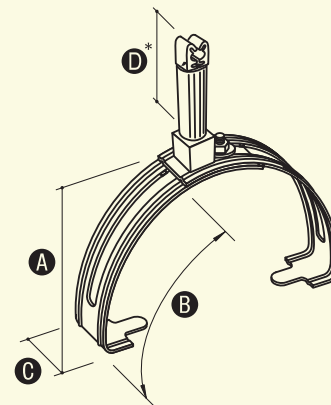
\*) Other dimensions upon Customer order. There are also available ridge tile spires – see page 57.

## Rigde tile holder universal with plastic G6

OC LA CU NI

It is used to route grounding wire on peaks of tiled roofs. Fixed to ridge tile by screwing.

CATALOGUE NUMBER	A	B	C	D *	BOLT
59.2	65	125- 205	26	70	M6/16



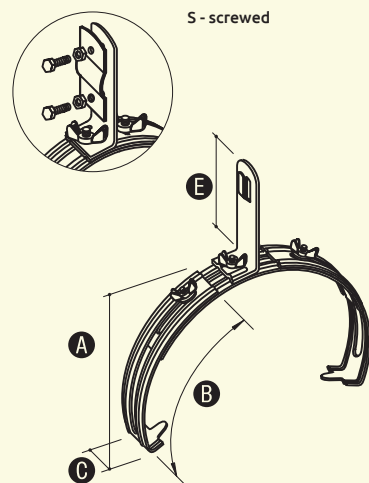
\*) Other dimensions upon Customer order. There are also available ridge tile spires – see page 57.

## Rigide tile holder universal G5 MAX

OC LA CU

It is used to route grounding wire from Ø 6 to Ø 8 on roof peaks covered with ceramics or metal sheet tiles. Fixed to ridge tile by screwing.

CATALOGUE NUMBER	A	B	C	E *	BOLT
59.1 MAX	160	240 - 300	26	115	2xM6/16



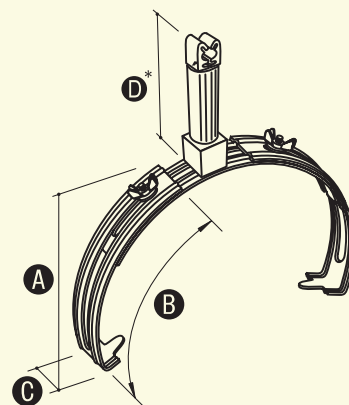
\*) Inne wymiary na zamówienie Klienta  
There are also available ridge tile spires – see page 57.

## Rigide tile holder universal with plastic G6 MAX

OC LA CU NI

It is used to route grounding wire from Ø 6 to Ø 8 on peaks of ceramic covered or metal sheet tile covered roofs. Fixed to ridge tile by screwing.

CATALOGUE NUMBER	A	B	C	D *	BOLT
59.2 MAX	160	240 - 300	26	70	2xM6/16



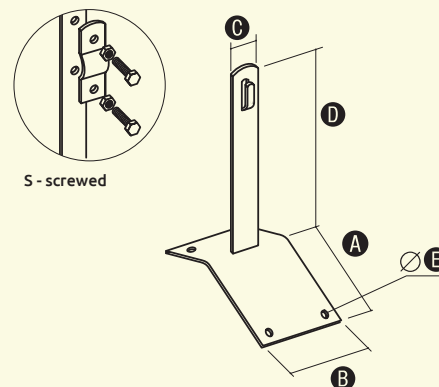
\*) Other dimensions upon Customer order.  
There are also available ridge tile spires – see page 57.

## Peak holder

OC LA CU

It is used to route grounding wire on roof peaks. Fixed with screws or nails.

CATALOGUE NUMBER	A	B	C	D	E
20.1	70	57	25	150	5
20.1.1	70	57	25	100	5



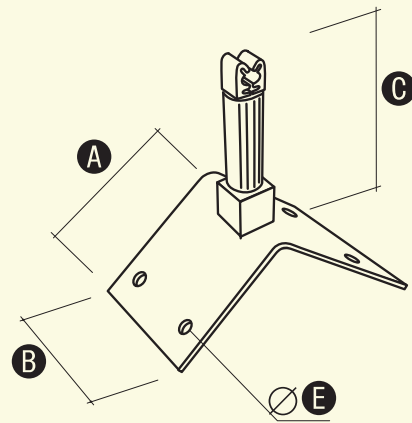


## Peak holder with plastic

OC LA CU

It is used to route grounding wire on roof peaks.  
Fixed with screws or nails.

CATALOGUE NUMBER	A	B	C	E
20.1/P	70	57	70	5

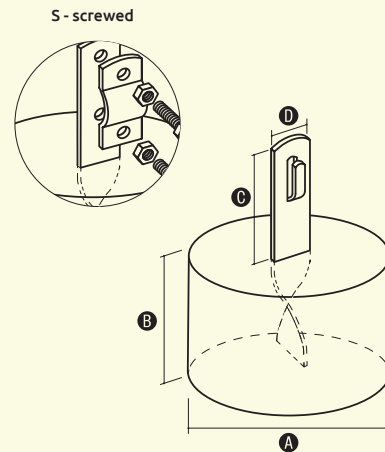


## Concrete holder

CU NI

It is used to route grounding wire on flat roofs.  
Fixed by gluing (glue, pitch). Also in screwed version.

CATALOGUE NUMBER	A	B	C	D	E *
29.1	105	70	70	26	~1,3



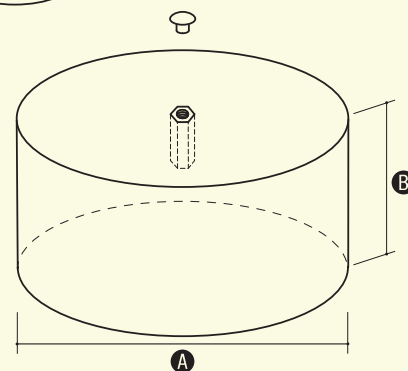
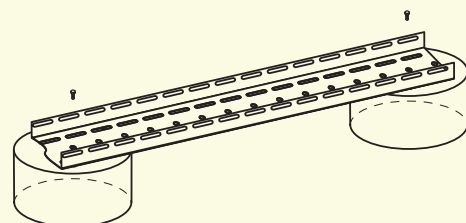
\*) Weight in kg.  
Use 94.10 for gluing - page 66.

## Concrete holder for cable culverts

OC

It is used for routing of cable culverts on flat roofs. Fixed to the ground by gluing (glue, cement). It is possible to screw in the holders 84.2. Impregnated with chlorinated rubber layer.

CATALOGUE NUMBER	A	B	C *	GWINT
29.1K	180	80	~5	M8



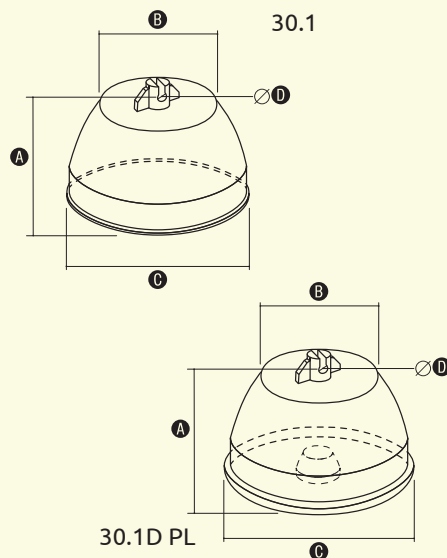
\*) Weight in kg.

## Concrete holder in plastic

PCV

Intended for insertion of grounding wire on flat roofs. Attached to the ground by gluing (glue, gluing mass). Wire of 6-8mm diameter can be used (also 10 mm upon order). Version 30.1 – concrete foundation, version 30.1 D PL – plastic foundation.

CATALOGUE NUMBER	A	B	C	D	E *
30.1	75	70	130	6-8	~1,1
30.1D PL	75	70	138	6-8	~1,1



\*) Weight in kg.

## Concrete holder in plastic

PCV

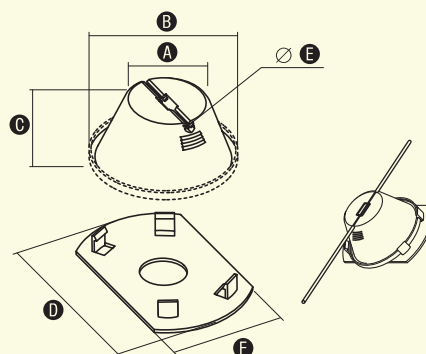
Available in versions:

30.1.1 (concrete foundation - equivalent 30.1)

30.1.2 (plastic foundation - equivalent 30.2)

It is used to route grounding wire on flat roofs. Fixed by gluing (glue, pitch). Can also be fixed with locking washer (30.1.3) glued with a strip of tar board (similar as holder 30.3) or screwing to the ground.

CATALOGUE NUMBER	A	B	C	D	E	F
30.1.1	70	130	75	--	6-8	--
30.1.2	70	135	75	--	-	--
30.1.3	-	-	-	155	-	107

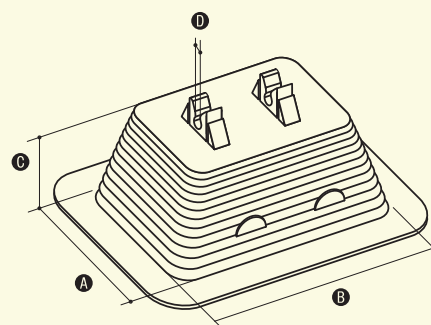


## Concrete holder in plastic

PCV

It is used to route grounding wire on flat roofs. Fixed by gluing (glue, pitch). Wire of 6-8 mm diameter can be used. Holder foundation is made of plastic which protects roof covering against damage.

CATALOGUE NUMBER	A	B	C	D	E *
30.2	105	145	60	6-8	~1,2



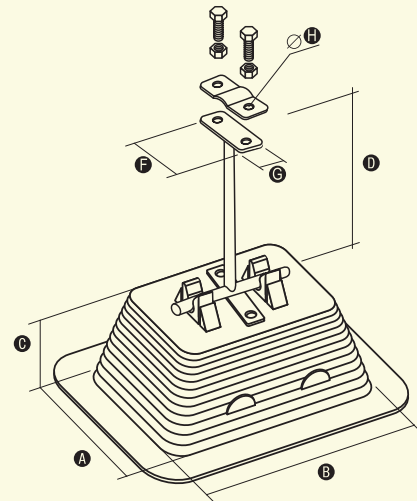
\*) Weight in kg.

## Concrete holder in plastic high

PCV

It is used to route grounding wire on flat roofs. Fixed by gluing (glue, pitch). Wire of 6-8 mm diameter can be used. Holder foundation is made of plastic which protects roof covering against damage.

CATALOGUE NUMBER	A	B	C	D	E *	F	G	H
30.2/W	105	145	60	100	~1,2	57	20	7



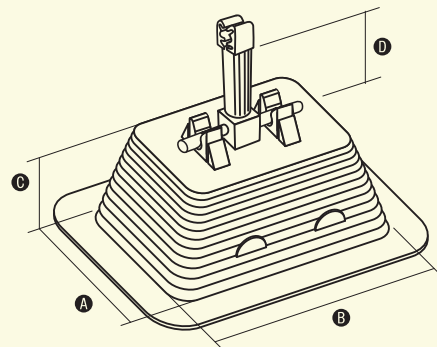
\*) Weight in kg.

## Concrete holder in plastic with plastic

PCV

It is used to route grounding wire on flat roofs. Fixed by gluing (glue, pitch). Wire of 6-8 mm diameter can be used. Holder foundation is made of plastic, which protects roof covering against damage.

CATALOGUE NUMBER	A	B	C	D	E
30.2/P	105	145	60	70	~1,2



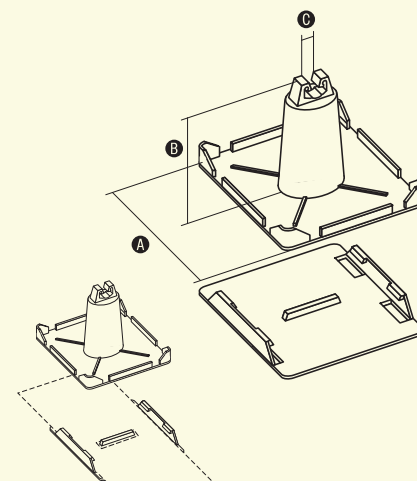
\*) Weight in kg.

## Plastic holder

PCV

It is used to route the grounding wire on flat roofs or steep roofs of small inclination. Fixed to the base with fastening strip (catalogue number 30.3/P or 30.3/M) by heat sealing (tar board roofs) or by gluing (membrane roofs). Details on the method of gluing can be found at [www.elkobis.com.pl](http://www.elkobis.com.pl). Simple construction allows fast and easy installation.

CATALOGUE NUMBER	A	B	C
30.3	102	70	6-8



Example of assembly

GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

GROUP VII  
Other Products

## Fastening strip

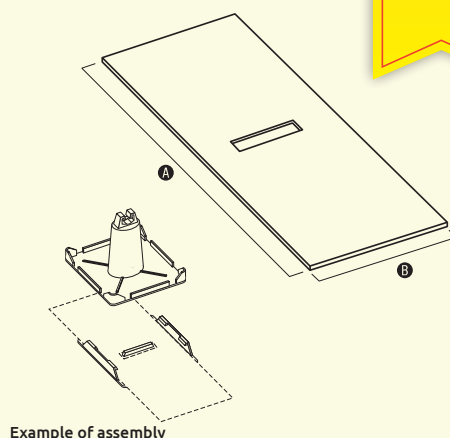
PAPA

MEMBRANA

NEW

It is used for fastening of 30.3 holders on flat roofs. It is available in two versions:  
P – for tar board roofings  
M – for membrane roofings.  
Special construction allows perfect fastening of the strip in the holder.

CATALOGUE NUMBER	A	B
30.3/P	300	100
30.3/M	300	100

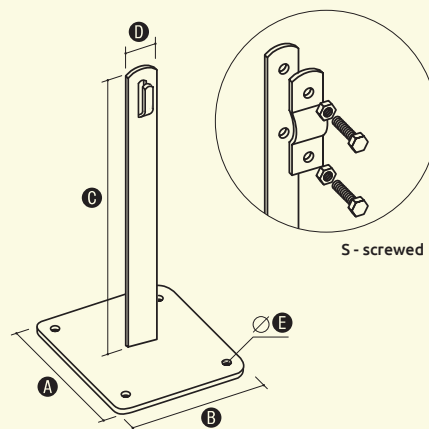


## Roof holder with a plate

OC LA CU

It is used to route grounding wire on flat roofs. Fixed with screws, nails or by gluing.

CATALOGUE NUMBER	A	B	C	D	E
15.1	70	70	150	25	5
15.1.1	70	70	100	25	5

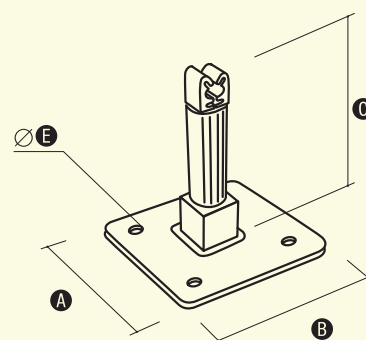


## Roof holder with a plate with plastic

OC LA CU

It is used to route grounding wire on flat roofs. Fixed with screws, nails or by gluing.

CATALOGUE NUMBER	A	B	C	E
15.1/P	70	70	70	5

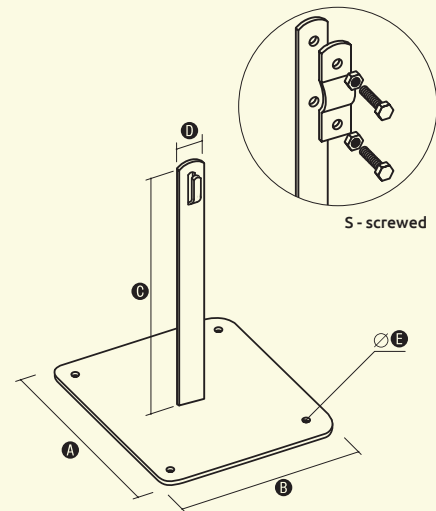


## Roof holder with a plate MAX

OC LA CU

It is used to route grounding wire on flat roofs.  
Enlarged surface of a foot provides good stability.  
Fixed with screws, nails or by gluing.

CATALOGUE NUMBER	A	B	C	D	E
16.1	120	120	150	25	5
16.1.1	120	120	100	25	5

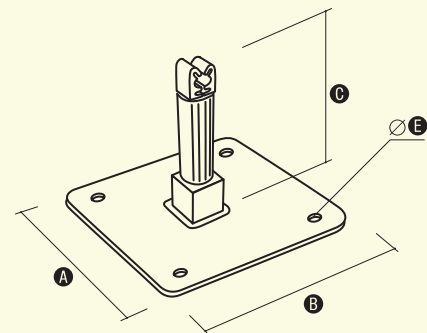


## Roof holder with a plate MAX with plastic

OC LA CU

It is used to route grounding wire on flat roofs. Increased surface of the foot provides good stability. Fixed with screws, nails or by gluing.

CATALOGUE NUMBER	A	B	C	E
16.1/P	120	120	70	5

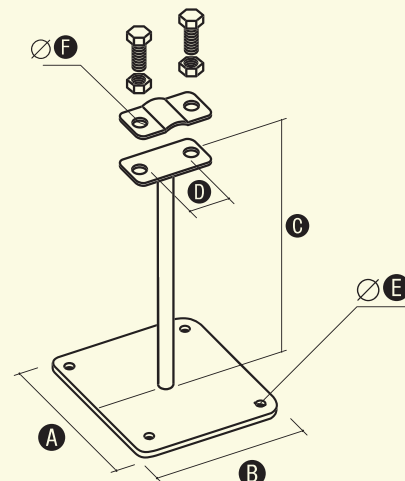


## Roof holder special

OC LA CU

It is used to route grounding wire on flat roofs.  
Fixed with screws, nails. Supporting part made of a bar.  
In versions L-400 and L-600 it is used for highly flammable roofs.

CATALOGUE NUMBER	A	B	C	D	E	F
17.1	70	70	135	30	5	7
17.2	120	120	400	30	5	7
17.3	120	120	600	30	5	7

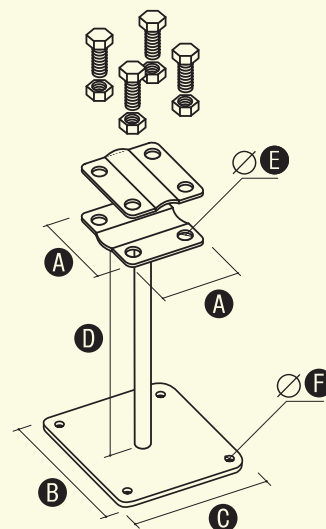


## Cross holder with a plate

OC CU

It is used for cross joining of grounding wire on flat roofs.  
Fixed with screws or nails.

CATALOGUE NUMBER	A	B	C	D	E	F	BOLT
22.1	57	70	70	135	9	5	4xM8/20
22.1.1	57	70	70	75	9	5	4xM8/20

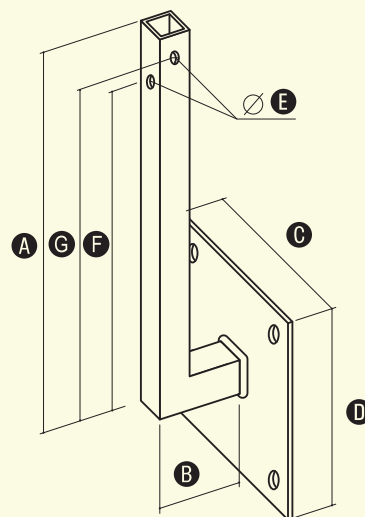


## Lateral pull holder

OC LA

It is used for pulls of horizontal air terminals.  
It is made on profile 35x35.

CATALOGUE NUMBER	A	B	C	D	E	F	G
87.1	400	100	200	250	11	360	380

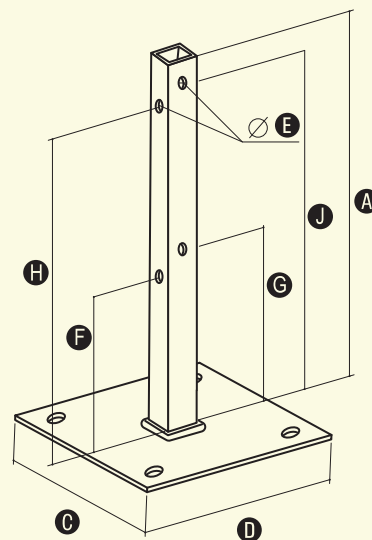


## Straight pull holder

OC LA

It is used for making pulls of grounding wire.

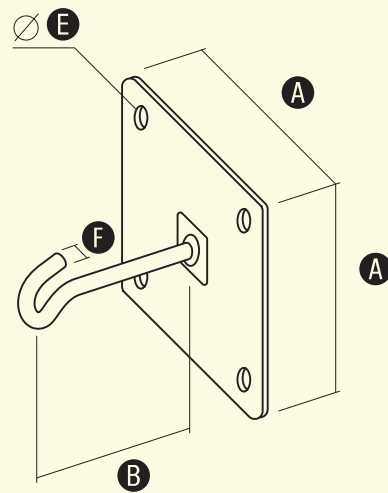
CATALOGUE NUMBER	A	C	D	E	F	G	H	J
87.2	300	200	250	11	130	150	260	280



## Horizontal pull holder

It is used for pulls of horizontal air terminals.

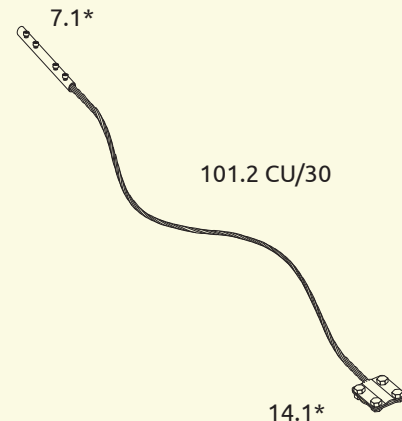
CATALOGUE NUMBER	A	B	E	F
88.1	120	105	8	10



## Compensation joint

It is used for construction of flexible connections of wire and/or hoop iron.

CATALOGUE NUMBER	ROPE LENGTH	APPLICATION
101.1 DD	1m	wire / wire
101.1 DB	1m	wire / hoop iron
101.1 BB	1m	hoop iron / hoop iron

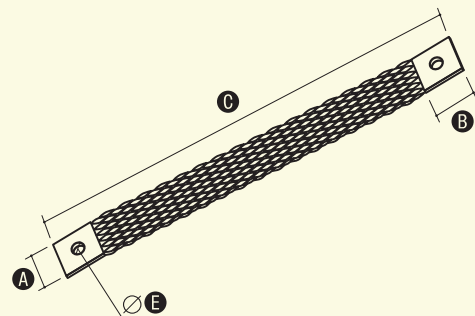


\*) Look also : 7.1R - page 19, 14.1 - page 20.

## Elastic copper tinned joint

Intended for flexible connections of wire and/or hoop iron.

CATALOGUE NUMBER	A	B	C	E
101.2 CU/30	40	40	300	12
101.2 CU/40	40	40	400	12



# GROUP V

## Air Termination Masts, Isolated Masts, Air Termination Rods



**Declaration of Conformity  
with PN-EN 50164-1:2010**

IN GROUP V there may be found, among others:

	65.8	- Grounding mast on five-point base	page 53
	43.1/M	- Grounding mast on metal foundation	page 55
	71.15	- Ridge tile spire, double	page 57

To order masts of lengths being a multiple of 0.5m, please contact our trade department.

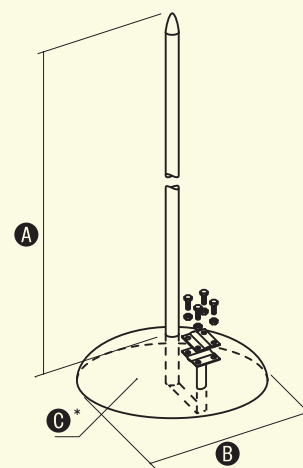
### Grounding mast with concrete foundation

CU AL

MASTS WITH CONCRETE FOUNDATIONS

In basic version it is used for protection of individual devices fixed on object roofs (fans, condensers etc.). Allows for easy development and creation of so called grounding protective zones.

CATALOGUE NUMBER	A	B	C *	BOLT	Wind zone PN 77/B-0211
43.1	1000	345	19	4xM8/20	I, II, III
43.2**	2000	345	19	4xM8/20	I, II, III
43.2.1	2000	500	40	4xM8/20	I, II, III



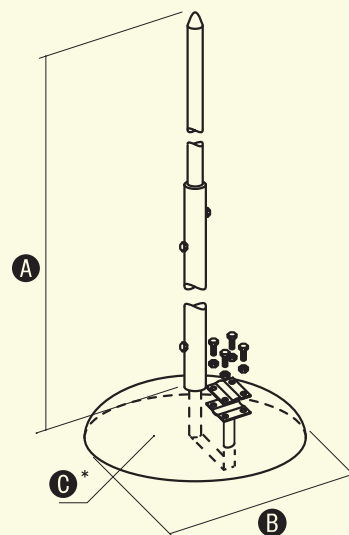
\*) Weight in kg.  
\*\*) Can be used in zone III (acc. to PN 77/B-0211) provided the foundation is permanently fixed to the ground (e.g. by gluing).

### Grounding mast with concrete foundation

OG AL

Detached grounding mast on concrete foundation, does not require usage of stay ropes. Protects individual devices installed on object roofs (fans, condensers etc.) against results of electric discharges. Additional steel stabilizer provides stability and resistance to wind blows. Masts with numbers 43.3 and 43.4 are made of aluminium bar, and 43.3.1 and 43.4.1 of steel bar.

CATALOGUE NUMBER	A	B	C *	BOLT	Wind zone PN 77/B-0211
43.3**	3000	500	40	4xM8/20	I, II, III
43.4**	4000	500	40	4xM8/20	I, II, III



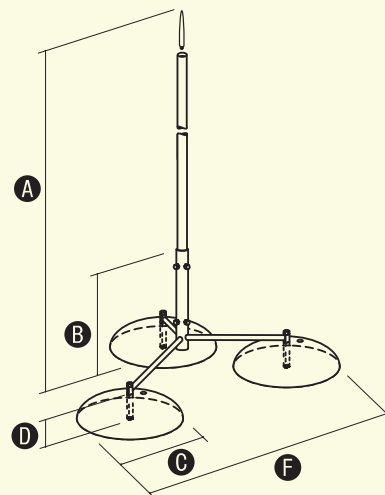
\*) Weight in kg.  
\*\*) Can be used in zone III (acc. to PN 77/B-0211) provided the foundation is permanently fixed to the ground (e.g. by gluing).



## Grounding mast on a tripod

Intended for grounding protection of roof elements or devices (fans, air-conditioners, condensers, skylights etc.) which for safety reasons cannot be directly connected to air terminals. Application of masts creates protective zone.

CATALOGUE NUMBER	A	B	C	D	F
65.4	4000	640	500	120	1450
65.5	5000	640	500	120	1450
65.6	6000	640	500	120	1450
65.7	7000	640	500	120	1450

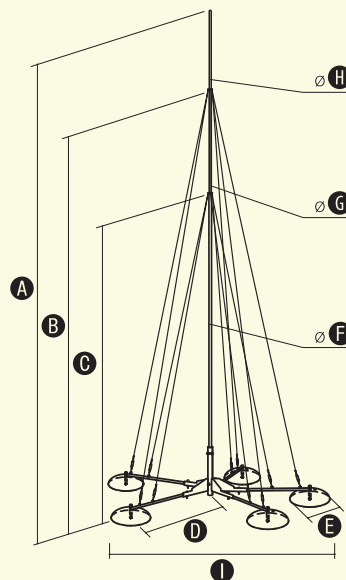


If used in 3rd wind load zone (PN-77/B-0211) concrete feet must be permanently fixed to the ground. Mast peak should be screwed on.

## Grounding mast on five-point base

For lightning protection of roof elements or devices (fans, air-conditioners, condensers, skylights etc.) which cannot be directly connected to air terminals due to safety reasons. Use of masts results in creation of a protective zone. Total mass ~270 kg. It does not require any additional stays!

CATALOGUE NUMBER	A	B	C	D	E	F	G	H	I
65.8	8000	6235	4280	1650	500	pipe 40x2	Ø 25	bar Ø16	3800
65.9	9000	6735	4280	1650	500	pipe 40x2	Ø 25	bar Ø16	3800
65.10	10000	7300	5000	1650	500	pipe 40x2	Ø 25	bar Ø16	3800

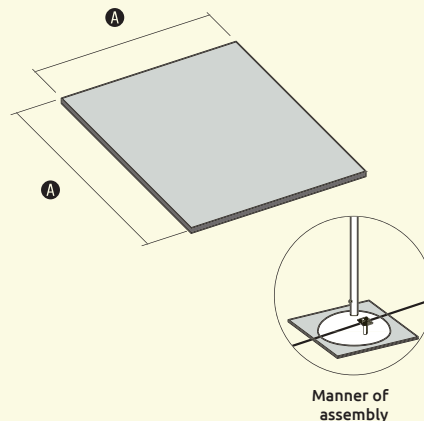


Can be used in zone III (acc. to PN 77/B-0211) provided the foundation is permanently fixed to the ground (e.g. by gluing).

## Concrete foundation washer

It is used as a protective washer for roofing against mechanical damage. Depending on roofing type, it is made of tar board (P) or roofing film (F). Upon selection remember that the washer is to be made of the same material type as the roofing is made of.

CATALOGUE NUMBER	A
43.82	500



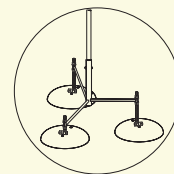
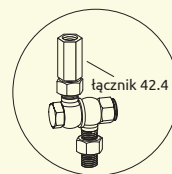
## Adjustment set for grounding mast

OC

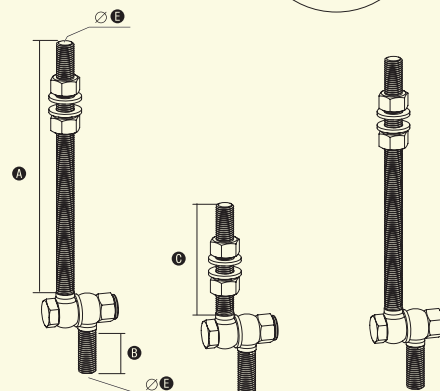
Adjustment set for grounding mast single 65.R.1

Manner of assembly

It is used for vertical positioning of masts on tripods. (65.R) or aluminium mast on single pod (65.R.1).



CATALOGUE NUMBER	A	B	C	E
65.R	250	40	80	16
65.R.1	80	40		16



Adjustment set for grounding mast 65.R

## Aluminium mast

AL

For lightning protection of roof elements or devices (fans, air-conditioners, condensers, skylights etc.) Use of masts results in creation of a protective zone.

CATALOGUE NUMBER	A	B	C	D
43.010	16	1000	35	M16
43.020	16	2000	35	M16
43.030	16	3000	35	M16
43.040	16	4000	35	M16

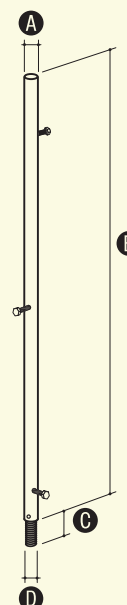


## Mast stabilizer

OC

Intended to be used with 2,5 m – 4 m masts. It ensures stability and resistance of the mast to wind blasts.

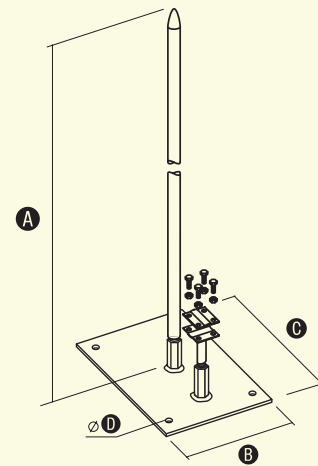
CATALOGUE NUMBER	A	B	C	D	BOLT
43.70	28	1000	35	M16	3XM8



## Grounding mast on metal foundation

In basic version it is used for protection of individual devices fixed on object roofs (fans, condensers etc.). allows for easy development and creation of so called grounding protective zones.

CATALOGUE NUMBER	A	B	C	D	BOLT	Wind zone PN 77/B-0211
43.1/M	1000	100	250	11	4xM8/20	I, II, III
43.2/M**	2000	100	250	11	4xM8/20	I, II, III
43.3/M	3000	200	250	11	4xM8/20	I, II, III
43.4/M	4000	200	250	11	4xM8/20	I, II, III

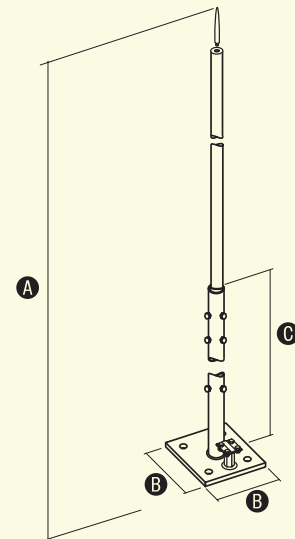


\*\* Can be used in zone III (acc. to PN 77/B-0211) provided the foundation is permanently fixed to the ground (e.g. by gluing).

## Grounding mast on metal foundation

It is used for protection of individual devices fixed on object roofs (fans, condensers, air conditioners, skylights etc.) which due to safety reasons cannot be connected directly to air terminals. Usage of masts results in protective zone. The 43.9 foundation is used.

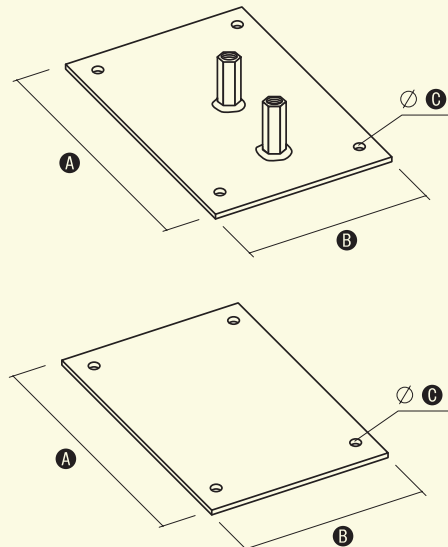
CATALOGUE NUMBER	A	B	C
65.4/M	4000	250	900
65.5/M	5000	250	900
65.6/M	6000	250	900
65.7/M	7000	250	900



## Grounding mast foundation small

It is used for fixing of grounding masts (43.010 - 43.040) to roof structure.

CATALOGUE NUMBER	A	B	C
43.13A	250	100	11
43.14A	250	200	11
43.13B	250	100	11
43.14B	250	200	11

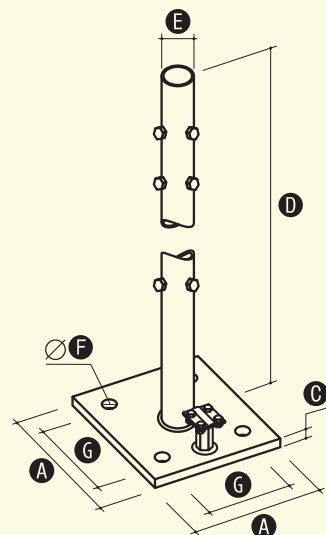


## Grounding mast foundation

OG

It is used for fixing of grounding masts to roof structure.  
Can be applied for masts up to max 7m height.

CATALOGUE NUMBER	A	C	D	E	F	G	BOLT
43.9	250	10	900	60	13	200	6xM10/30



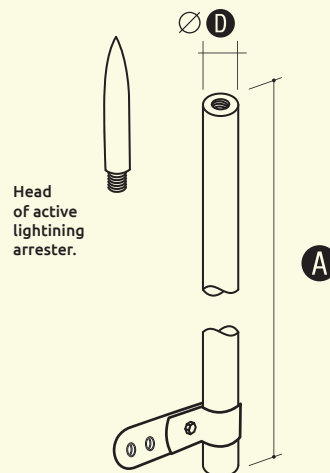
## Mast

CU NI

SPIRES AND MASTS

Intended for lightning protection of roof elements or devices (fans, air-conditioners, condensers, skylights etc.) which cannot be directly connected to air terminals due to safety reasons. Use of masts results in creation of a protective zone. Mast can be fixed with a mast holder 60.1, 60.2 or U-bolt holder 60.4.

CATALOGUE NUMBER	A	D *
62.1	1000	25
62.2	2000	25
62.3	3000	25
62.4	4000	40
62.5	5000	40
62.6	6000	40



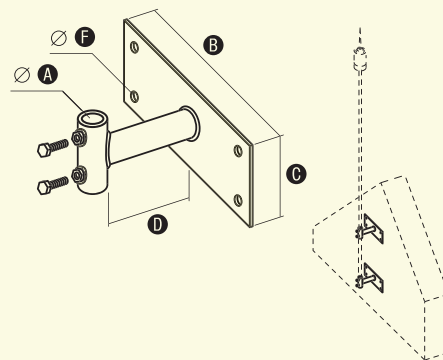
\*) Pipes diameters may be changed.

## Mast holder

OC LA

It is used for fixing of grounding masts.

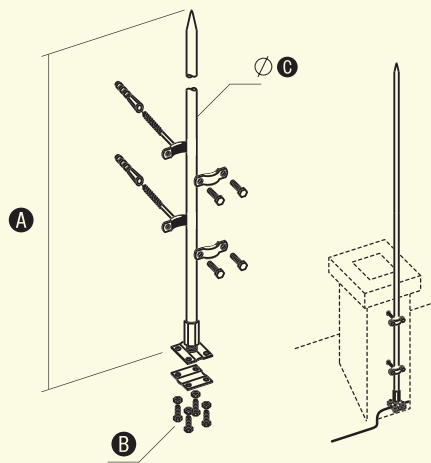
CATALOGUE NUMBER	A	B	C	D	F	BOLT
60.1	31	250	100	100	11	2xM10/30
60.2	52	250	200	100	11	2xM10/30



## Chimney spire

It is used for protection of chimneys or other element of building roofs.

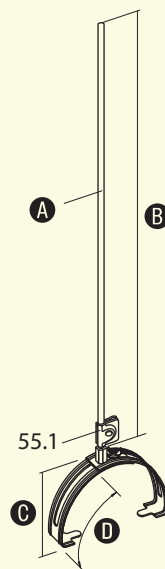
CATALOGUE NUMBER	A	B	C
70.10	1000	4xM8/16	16
70.15	1500	4xM8/16	16
70.20	2000	4xM8/16	16
70.30	3000	4xM8/16	16



## Ridge tile spire, single

For protection of elements installed on roof slope, such as PHOTOVOLTAIC CELLS, air conditioners, chimneys, etc. It is to be installed on ridge tile at the peak of the roof.

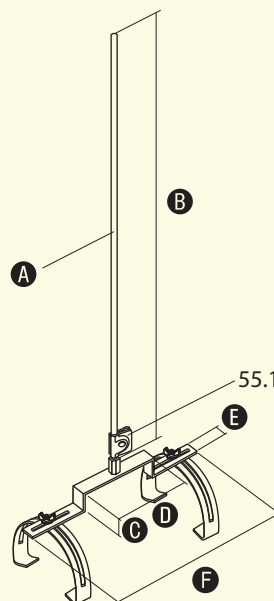
CATALOGUE NUMBER	A	B	C	D
71.10/1	Ø12	1000	65	125÷205



## Ridge tile spire, double

For protection of elements installed on roof slope, such as PHOTOVOLTAIC CELLS, air conditioners, chimneys, etc. Strengthened with double holder. It is to be installed on ridge tile at the peak of the roof.

CATALOGUE NUMBER	A	B	C	D	E	F
71.10	Ø12	1000	30	150	2,5	350
71.15	Ø12	1500	30	150	2,5	350

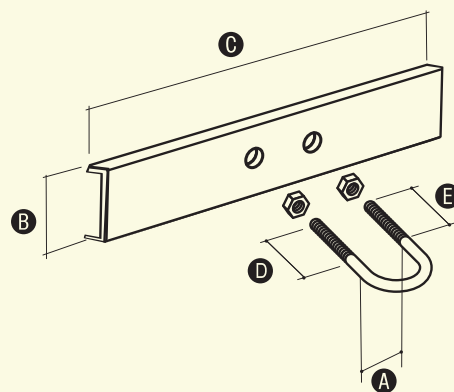


## Cybant holder

OC

It is used for fixing of regular grounding masts or with insulated air terminal to structures, rail guards, pipes and other.

CATALOGUE NUMBER	A	B	C	D	E	NUT
60.4	40,5	40	150	47	110	10

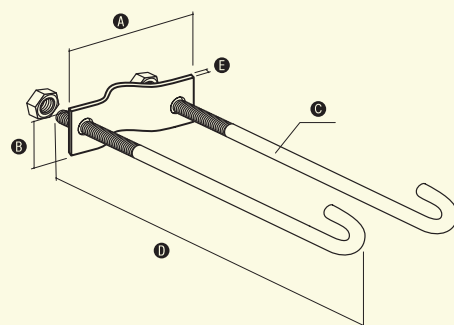


## Mast special holder

OC

For fastening the masts and masts with insulated air terminal to atypical building structures (e.g. to T-bars and double-tee bars).

CATALOGUE NUMBER	A	B	C	D	E
60.6	125	40	10	300	5

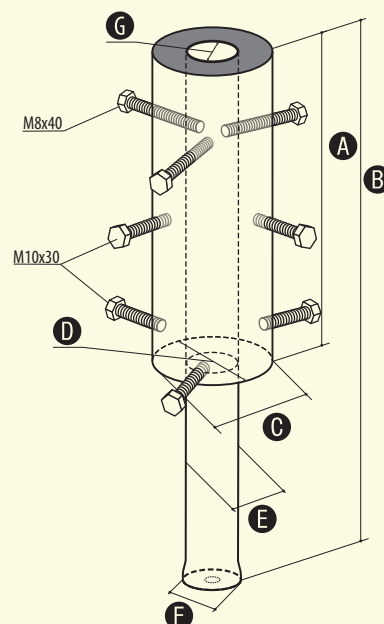


## Adapter for grounding mast lighting pole

OC

Used for adaptation of lighting poles to grounding masts. It can be used for grounding masts of max. height of 4 m. If the height is 1-2 m – Ø16 mm bar is used; if the height is 3-4 m – Ø25 mm nickel pipe is used.

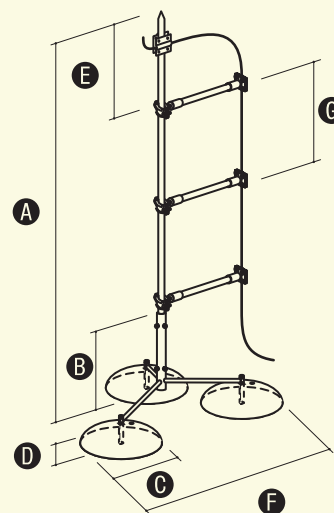
CATALOGUE NUMBER	A	B	C	D	E	F	G	H
66.1	250	500	Ø76	Ø69	Ø38	Ø45	Ø30	~3800g



## Grounding mast on a tripod with insulated air terminal

It is used for protection of individual devices fixed on object roofs (fans, condensers, air conditioners, skylights etc.) which due to safety reasons cannot be connected directly to air terminals. Usage of masts results in protective zone. Mast assembly does not result in damage to the roofing. Air terminal provides insulation gap.

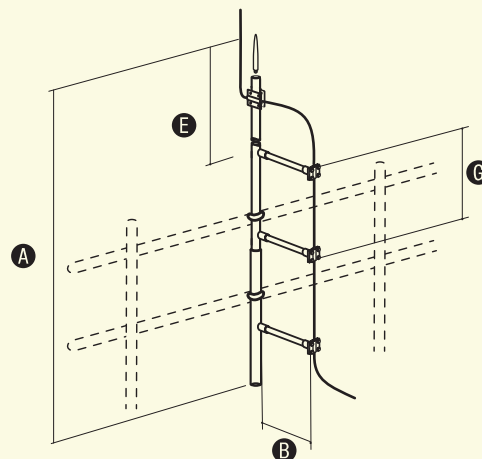
CATALOGUE NUMBER	A	B	C	D	E	F	G
65.4 Zi	4000	640	500	120	750	1450	1000
65.5 Zi	5000	640	500	120	750	1450	1000
65.6 Zi	6000	640	500	120	750	1450	1000
65.7 Zi	7000	640	500	120	750	1450	1000



## Grounding mast with insulated air terminal

It is used for protection of individual devices fixed on object roofs (fans, condensers, air conditioners, skylights etc.) which due to safety reasons cannot be connected directly to air terminals. Usage of masts results in protective zone. Air terminal provides insulation gap.

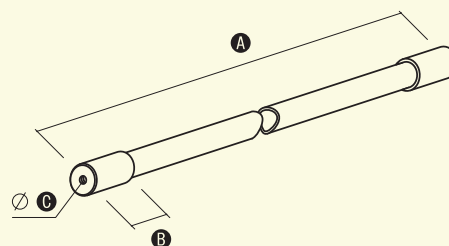
CATALOGUE NUMBER	A	B	E	G
65.4.1 Zi	4000	750	750	1000
65.5.1 Zi	5000	750	750	1000
65.6.1 Zi	6000	750	750	1000
65.7.1 Zi	7000	750	750	1000



## Insulation bar

It is used to fix a mast to the protected device in order to obtain appropriate insulation gap and increase the mast stability.

CATALOGUE NUMBER	A	B	C
79.075	750	51	8
79.100	1000	51	8
79.150	1500	51	8
79.200	2000	51	8



GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

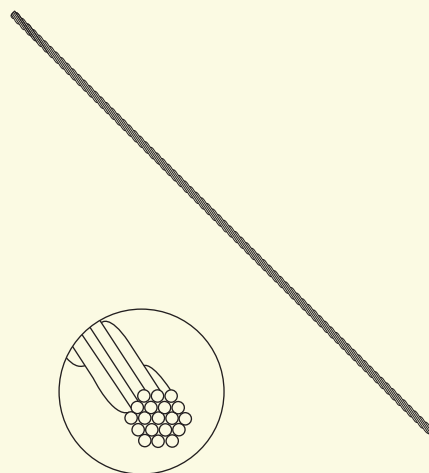
GROUP VII  
Other Products

## Grounding rope Aldrey

AL

Confectioned rope on sale. sale unit : r.m. [running meter].  
It is used for construction of network of air terminals between masts.

CATALOGUE NUMBER	WEAVE TYPE	WEIGHT 1 mb
ALDREY 50mm <sup>2</sup>	19 x Ø1,8mm	0,14 kg

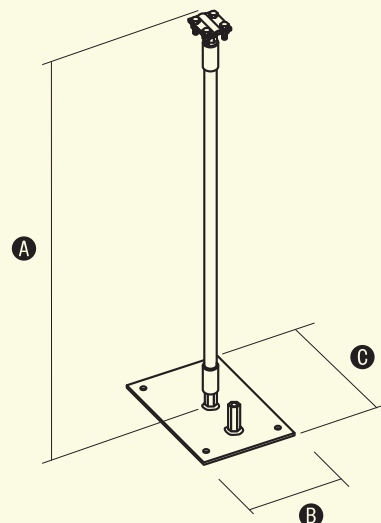


## Insulated bracket of vertical air terminal

OC

It is used for fixing insulation bar to structures of the protected element.

CATALOGUE NUMBER	A	B	C
80.100	1000	200	250



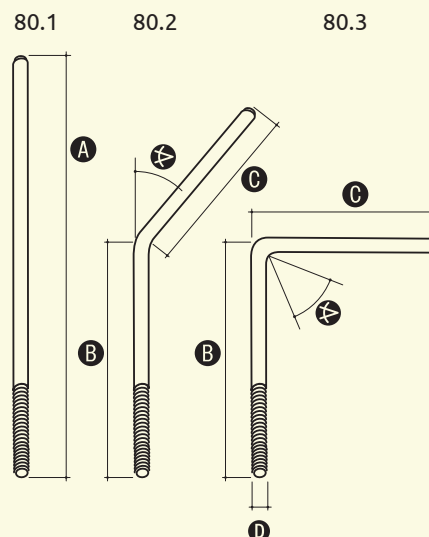
Other dimensions upon Customer order.

## Bar end

OC

It is used to fix insulation bar (cat. no 79.X) to the protected structure.

CATALOGUE NUMBER	A	B	C	D	∠
80.1	200	100	100	8	-
80.2	200	100	100	8	45°
80.3	200	100	100	8	90°



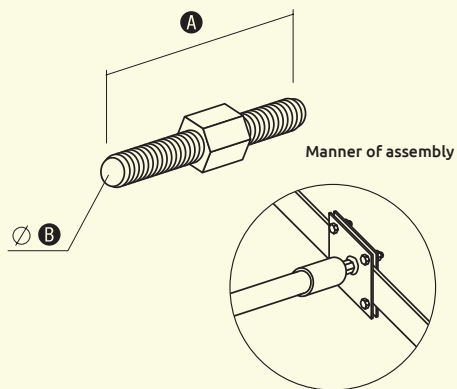


## Straight connector

OC

It is used for simple fixing of bar holder (83.x; 84.x) to insulation bar (79.x).

CATALOGUE NUMBER	A	B
81.1	50	M8

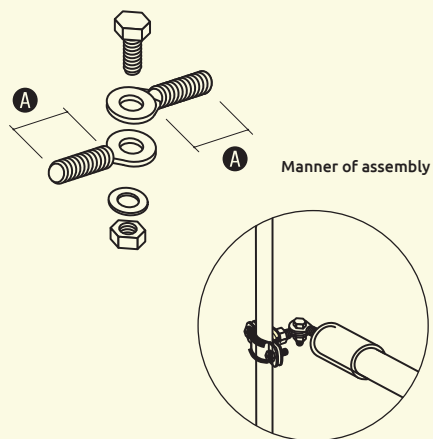


## Joint connector

OC

It is used for joint connection of insulation bar holder.

CATALOGUE NUMBER	A	BOLT
82.1	25	8/20

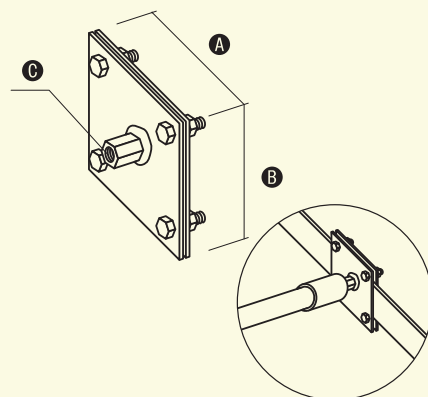


## Bar holder, flat

OC

It is used for fixing insulation bar to structures or to flat surfaces.

CATALOGUE NUMBER	A	B	C	BOLT
84.1	80	57	8	4xM8/40



GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

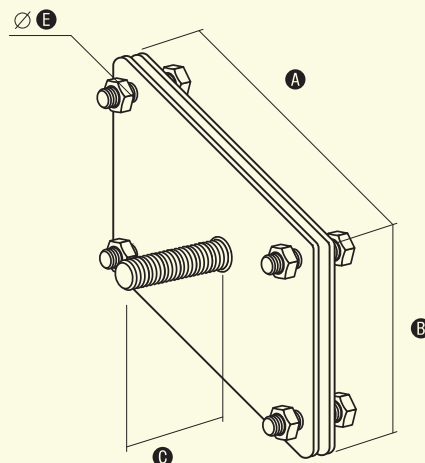
GROUP VII  
Other Products

## Bar holder, flat, big

OC LA MI

It is used to fix an insulation bar to construction or flat surfaces, 4 bolts M10x50 in a set.

CATALOGUE NUMBER	A	B	C	D	BOLT
84.3	125	100	M16x50	11	4xM10x50

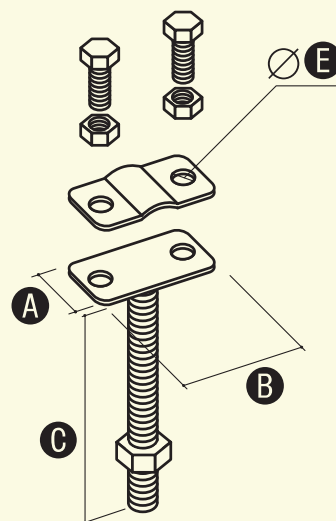


## Wire holder

OC

It is used to route grounding wire on insulation bars.

CATALOGUE NUMBER	A	B	C	D	E	BOLT
84.2	20	57	45	8	7	2xM8/16

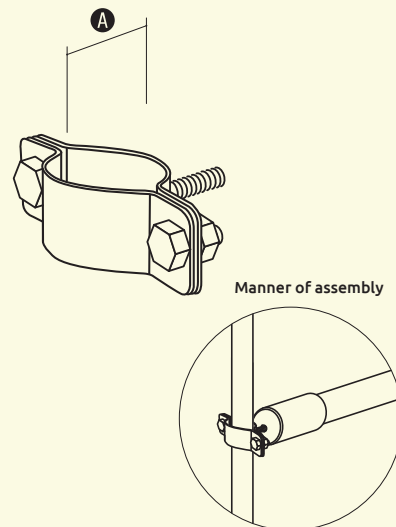


## Bar holder, round

OC

It is used to fix insulation bar to round profiles.

CATALOGUE NUMBER	A	BOLT
83.4	32	2xM6/15
83.6	40	2xM6/15

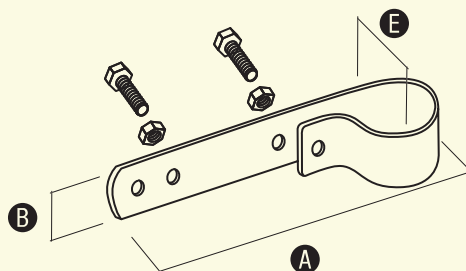


## Fixing clamping ring

NI

It is used for fixing insulation bar to structures of the protected element.

CATALOGUE NUMBER	A	B	C	BOLT
60.5	110	26	32	2xM6/20



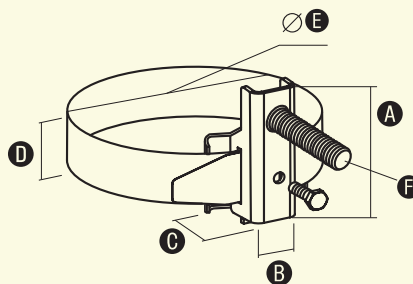
## Universal pipe clamping ring, single

NI

For fastening the distanced air terminals (insulating bars) to pipes or other structural elements, also those with atypical profile.

NEW

CATALOGUE NUMBER	A	B	C	D	E	F	BOLT
77.1/M16	60	30	30	24x0,4	150-300	M16x50	M8x20
77.1/M8	60	30	30	24x0,4	150-300	M8x25	M8x20
77.2/M16	60	30	30	24x0,4	0-150	M16x50	M8x20
77.2/M8	60	30	30	24x0,4	0-150	M8x25	M8x20
77.3/M16	60	30	30	24x0,4	300-500	M16x50	M8x20
77.3/M8	60	30	30	24x0,4	300-500	M8x25	M8x20



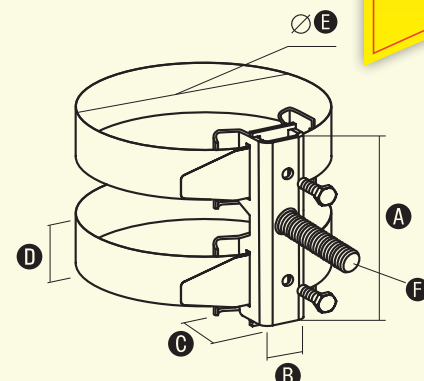
## Universal pipe clamping ring, double

NI

For fastening the distanced air terminals (insulating bars) to pipes or other structural elements, also those with atypical profile.

NEW

CATALOGUE NUMBER	A	B	C	D	E	F	BOLT
67.1/M16	120	30	30	24x0,4	150-300	M16x50	2xM8x20
67.1/M8	120	30	30	24x0,4	150-300	M8x25	2xM8x20
67.2/M16	120	30	30	24x0,4	0-150	M16x50	2xM8x20
67.2/M8	120	30	30	24x0,4	0-150	M8x25	2xM8x20
67.3/M16	120	30	30	24x0,4	300-500	M16x50	2xM8x20
67.3/M8	120	30	30	24x0,4	300-500	M8x25	2xM8x20



GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

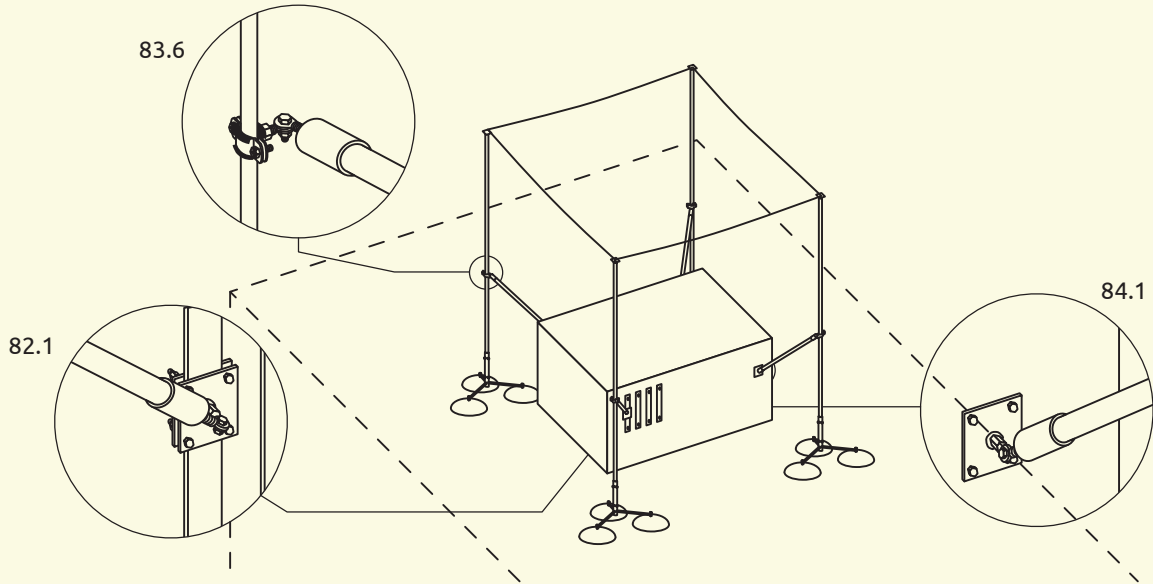
GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

GROUP VII  
Other Products

## Example of insulation bars usage



**GROUP I**  
Connectors and Clamps

**GROUP II**  
Earthing

**GROUP III**  
Down-conductor system - wall holders

**GROUP IV**  
Air Termination System

**GROUP V**  
Air Termination Masts, Isolated Masts, Air Termination Rods

**GROUP VI**  
Accessories and Tools

**GROUP VII**  
Other Products

# GROUP VI

## Accessories and Tools

Declaration of Conformity  
with PN-EN 50164-1:2010



GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

GROUP VII  
Other Products

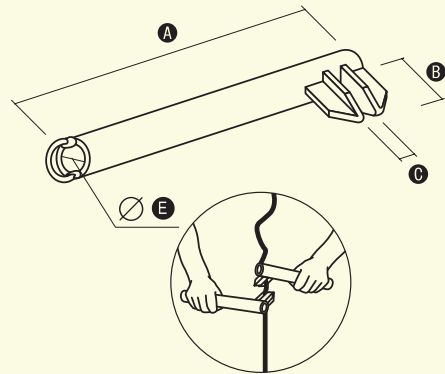
IN GROUP VI there may be found, among others:

	100.1	- 9-roll wire straightener	page 67
	100.1EL	- Wire straightener with electric drive	page 67
	100.2	- Hoop iron straightener	page 67

### Holder for wire straightening

OC

It is used for manual straightening of grounding wire. The offer also includes 9 roll wire straightener cat. no. 100.1 and electrically driven straightener 100.1EL and electrically driven straightener 100.1EL.

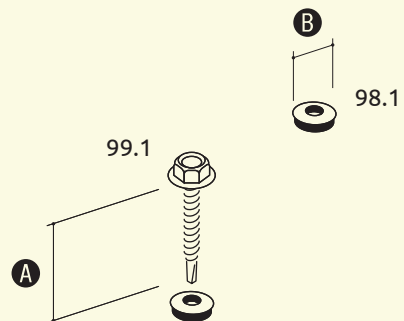


CATALOGUE NUMBER	A	B	C	E
86.1	400	60	10	28

### Washer, farmer screw

OC LA

Used for screwing the roof holders.



CATALOGUE NUMBER	A	B	BOLT
99.1	35	14	4,8
99.2	63	14	5,5
98.1	-	14	-

## Gluing mass

It is used for gluing concrete holders (29.1, 30.1) on roofs covered with bitumen tar board. Do not use for other types of roofing!

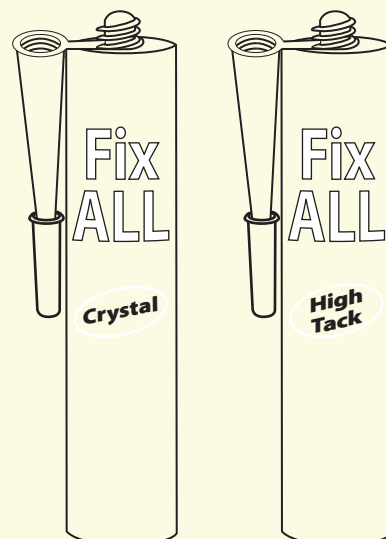
CATALOGUE NUMBER	WEIGHT (kg)
94.10	10
94.20	20



## FIX ALL fixing adhesive

Universal flexible glue. It can be used for all constructional materials and substrates (concrete, steel, plastics, etc., excluding PE, PP, Teflon and silicone). It is recommended for fixing concreted holders to plastic (e.g. 30.2) and roof holders with tile (e.g. 15.1) to flat sheet roofs. The "directions for use" on the package should be followed strictly. Performance of strength test is recommended.

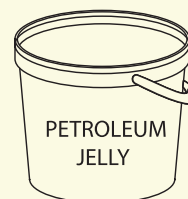
CATALOGUE NUMBER	TYPE	PROPERTIES	QUANTITY
93.1	FIX ALL CRYSTAL	permanently flexible, after hardening, it seals	290ml
93.2	FIX ALL HIGH TACK	extreme force of initial binding	290ml



## Petroleum jelly

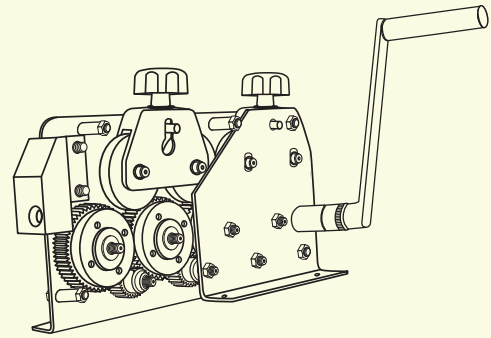
It is used for protection of screw joints.

CATALOGUE NUMBER	WEIGHT (kg)
95.1	0,5



## 9-roll wire straightener

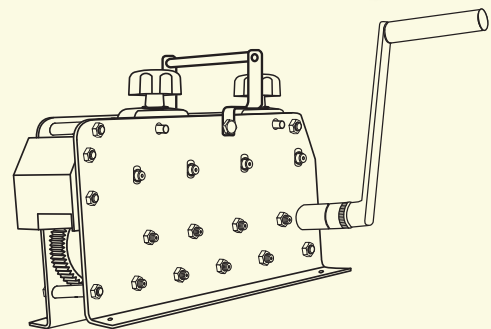
Used for mechanical straightening of grounding wire. Manually driven. Can be used for wire Ø 6-8mm. It is recommended to use holders straightening support holders cat. no. 86.1.



CATALOGUE NUMBER	WEIGHT (kg)
100.1	~ 14

## Hoop iron straightener

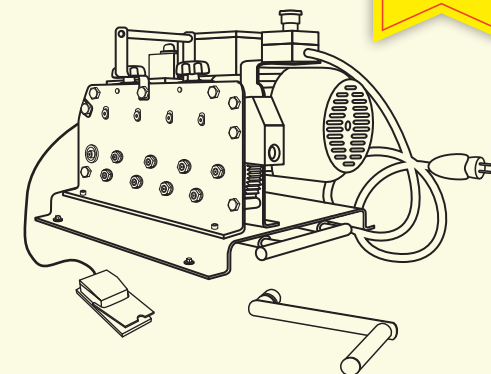
For straightening the hoop iron; scope from 20 mm to 40 mm, thickness up to 4 mm.



CATALOGUE NUMBER	WEIGHT (kg)
100.2	20

## Wire (hoop iron) straightener with electric drive

Used for mechanical straightening of grounding wire (100.1 EL) or hoop iron (100.2 EL). Electrically driven. After disassembly of electric drive, it can be used as a manually driven straightener.



CATALOGUE NUMBER	PARAMETERS
100.1 EL 100.2 EL	Voltage: 230V Rotations: 46/min Current consumption: 7A Rated power: 1,1 kW Weight: 48kg

GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

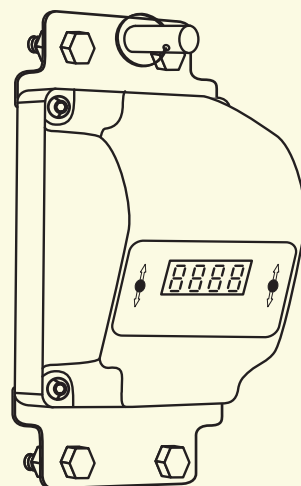
GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

GROUP VII  
Other Products

## Digital discharge meter

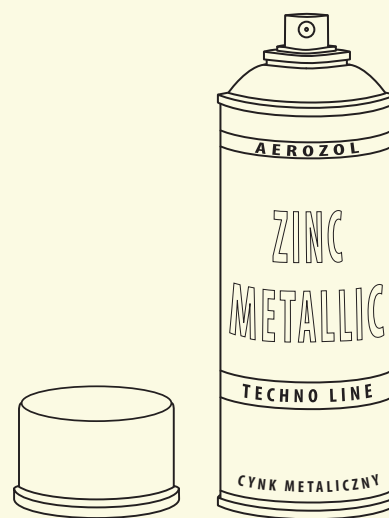
Meter of atmospheric discharges, used for recording of atmospheric discharge in lightning system of the protected object. It records date and time of the discharge and estimated value of discharge amplitude. It has tele-transmission outputs.



CATALOGUE NUMBER	A
61.8	PLW-03a

## Zinc spray

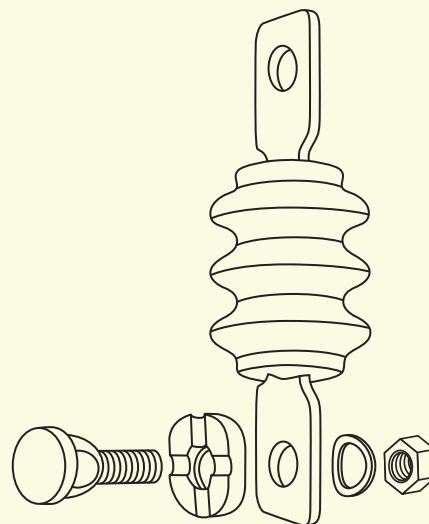
Fast drying aluminium and zinc preparation for protection and repair of constructions and elements . Intended for galvanized treated surfaces and untreated steel surfaces.



CATALOGUE NUMBER	A
102.1	400 ml

## Protective spark gap

Closed spark gap. For bridging of contiguity between roof bracket of low voltage overhead system and elements of outdoor lightning protection system.



CATALOGUE NUMBER	A	B	C
106.1	Up < 10kV	tA < 100ns	UAS 10KV

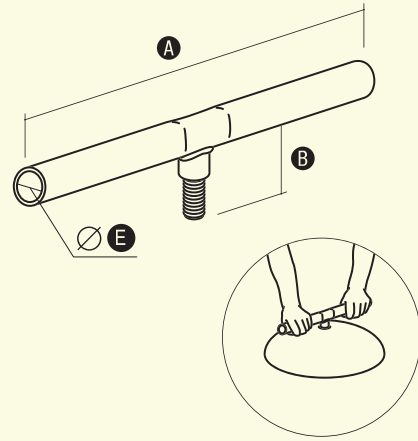


# Holder for concrete foundations

OC

It is used for safe handling of concrete foundations.

CATALOGUE NUMBER	A	B	C	F
85.1	400	60	28	16



GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

GROUP VII  
Other Products

# GROUP VII

## Other Products

Declaration of Conformity  
with PN-EN 50164-1:2010



IN GROUP VII there may be found, among others:

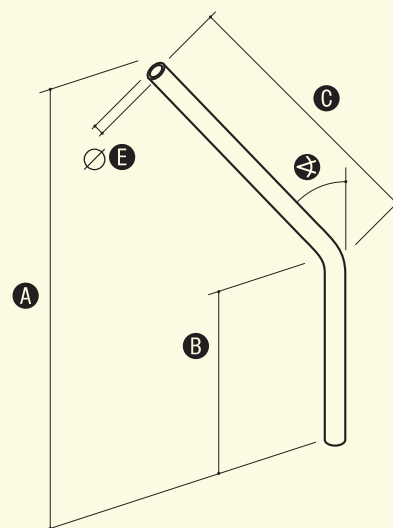
	46.1	- Rotary expull arm	page 71
	107.1	- Distance bracket for spun pole	page 72
	108.1	- Extension arm clamp for spun pole	page 72

### Extension arm pipe

OG

It is used for fixing street lighting on concrete poles. It is recommended to use extension arm holders (cat. No 58) as a fixing element.

CATALOGUE NUMBER	A	B	C	D	
44.1*	1040	550	900	48	60°



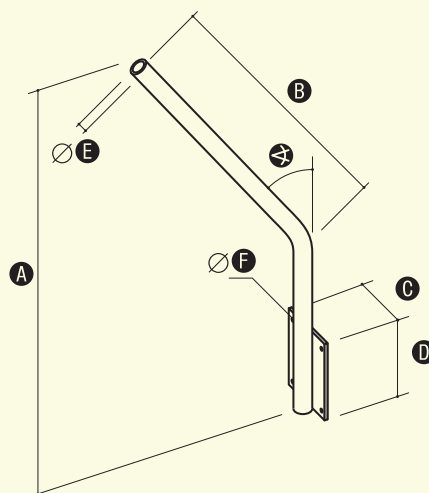
\* We construct other types of extension arms upon Customer's request.

### Fixed extension arm

OG

It is used for fixing street lighting on building facades.

CATALOGUE NUMBER	A	B	C	D	E	F	
45.1*	1040	900	200	250	48	11	60°



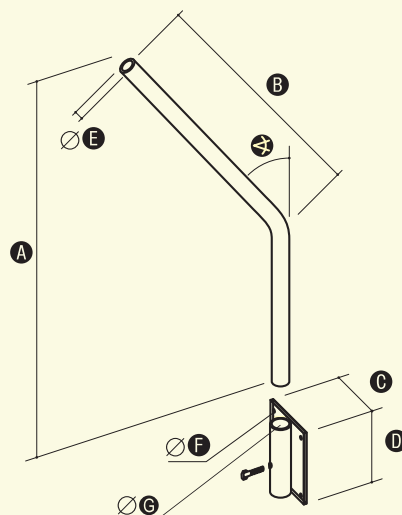
\* We construct other types of extension arms upon Customer's request.

## Rotary expull arm

OG

It is used for fixing street lighting on building facades. Rotary arm allows for adjustment of lighting angle and makes it easier to replace the light source.

CATALOGUE NUMBER	A	B	C	D	E	F	G	ANGLE	BOLT
46.1*	1040	900	200	250	48	11	54	60°	1xM10



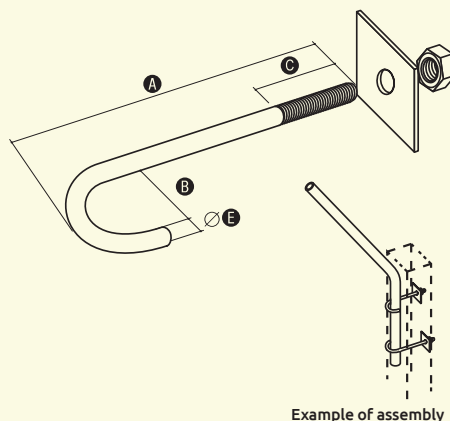
\* We construct other types of extension arms upon Customer's request.

## Extension arm holder

OC

It is used for fixing extension arm pipes (44.1) and masts (62.1) on concrete poles.

CATALOGUE NUMBER	A	B	C	E
58.1	220	50	80	16
58.2	265	50	80	16



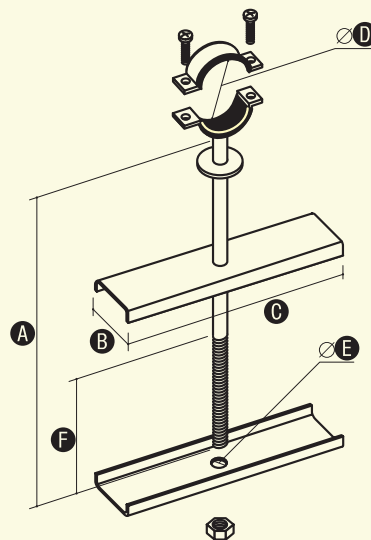
Example of assembly

## Distance bracket with rubber insert

OC

It is used for fixing cables and protective pipes and pipes of extension arm for concrete rods.

CATALOGUE NUMBER	A	B	C	D	E	F	BOLT
37.1	250	40	150	15-19	10	75	2xM6/20
37.2	250	40	150	20-24	10	75	2xM6/20
37.3	250	40	150	25-30	10	75	2xM6/20
37.4	250	40	150	32-37	10	75	2xM6/20
37.5	250	40	150	48-53	10	75	2xM6/20
37.6	250	40	150	59-63	10	75	2xM6/20



\* We construct other types of extension arms upon Customer's request.

GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

GROUP VI  
Accessories and Tools

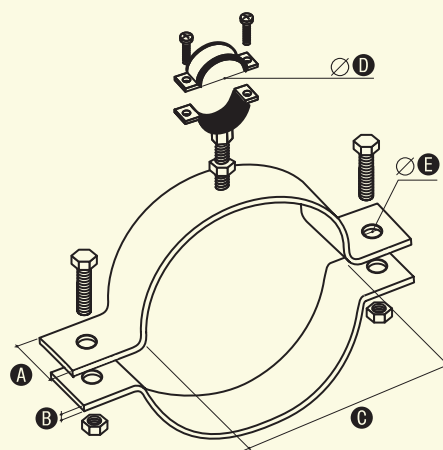
GROUP VII  
Other Products

## Distance bracket for spun pole

OC LA MI

For mounting round profiles on spun poles.

CATALOGUE NUMBER	A	B	C	D	E	BOLT
107.1	30	4	240	32-37	9	2 x M8/30

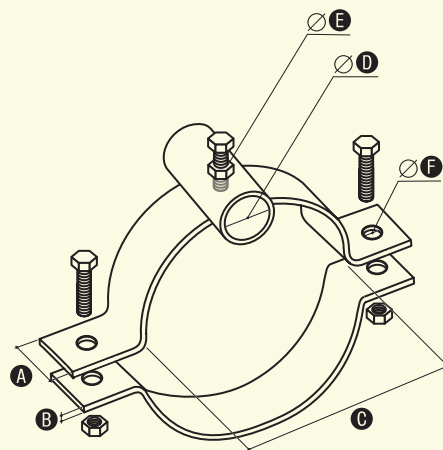


## Extension arm clamp for spun pole

OC LA CU

For mounting extension arm pipes (44.1) and masts (62.1) on spun poles.

CATALOGUE NUMBER	A	B	C	D	E	F	BOLT
108.1	30	4	240	51	M10	9	2 x M8x30

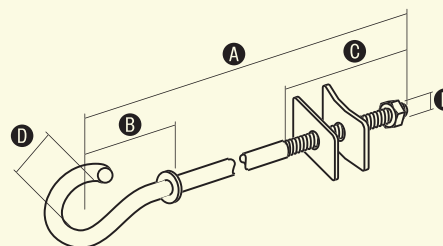


## Hook bolt

OC

It is used for making pulls of insulated air lines.

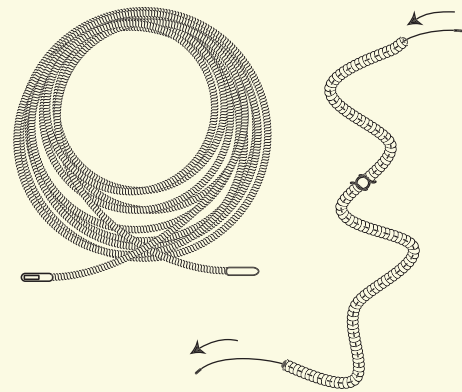
CATALOGUE NUMBER	A	B	C	D	E
75.1	110	80	80	40	M16
75.2	150	80	80	40	M16
75.3	215	80	80	40	M16
75.4	255	80	80	40	M16
75.5	300	80	80	40	M16
75.6	360	80	80	40	M16
75.7	420	80	80	40	M16
75.8	500	80	80	40	M16
75.9	550	80	80	40	M16
75.10	600	80	80	40	M16
75.11	120	80	80	40	M20
75.12	160	80	80	40	M20
75.13	220	80	80	40	M20
75.14	250	80	80	40	M20
75.15	320	80	80	40	M20
75.16	340	80	80	40	M20
75.17	370	80	80	40	M20
75.18	510	80	80	40	M20



## Installation probe

It is used for pulling electric conductors to electric installation pipes.

CATALOGUE NUMBER	DIMENSIONS (length m)
69.1	7,5
69.2	15

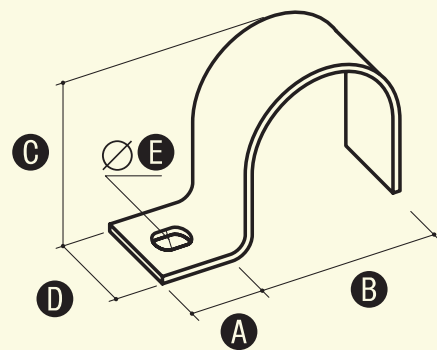


## Metal holder UJ

OC LA

It is used for fixing electric installation, telecommunication and sanitary pipes; steel or PCV. Available in vast assortment of sizes, galvanized or varnished at any colour.

CATALOGUE NUMBER	TYPE	A	B	C	D	E
47.1	UJ-16	15	16	14	15	5,5x8
47.2	UJ-18	15	18,6	16	15	5,5x8
47.3	UJ-20	15	20,4	18	15	5,5x8
47.4	UJ-22	15	22,5	20	15	5,5x8
47.5	UJ-28	15	28,3	26	15	5,5x8
47.6	UJ-32	15	32	30	16	5,5x8
47.7	UJ-37	15	37	35	16	5,5x8
47.8	UJ-47	15	47	45	16	5,5x8

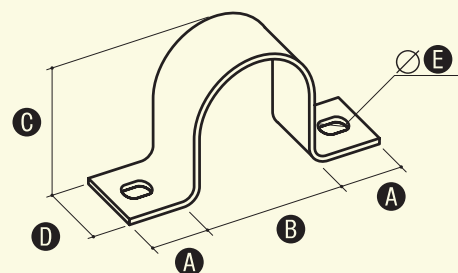


## Metal holder UD

OC LA

It is used for fixing electric installation, telecommunication and sanitary pipes; steel or PCV. Available in vast assortment of sizes, galvanized or varnished at any colour.

CATALOGUE NUMBER	TYPE	A	B	C	D	E
48.1	UD-16	15	16	14	15	5,5x8
48.2	UD-18	15	18,6	16	15	5,5x8
48.3	UD-20	15	20,4	18	15	5,5x8
48.4	UD-22	15	22,5	20	15	5,5x8
48.5	UD-28	15	28,3	26	15	5,5x8
48.6	UD-32	15	32	30	16	5,5x8
48.7	UD-37	15	37	35	16	5,5x8
48.8	UD-47	15	47	45	16	5,5x8



GROUP I  
Connectors and Clamps

GROUP II  
Earthing

GROUP III  
Down-conductor system - wall holders

GROUP IV  
Air Termination System

GROUP V  
Air Termination Masts, Isolated Masts, Air Termination Rods

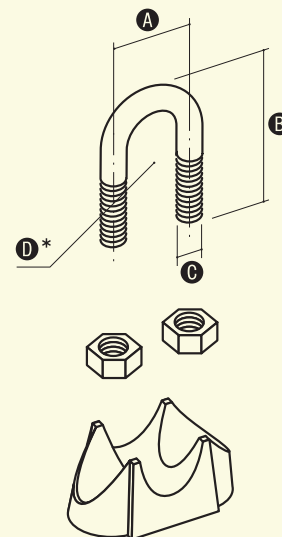
GROUP VI  
Accessories and Tools

GROUP VII  
Other Products

## Rope clamping ring

It is used for making loops on steel ropes or grounding wires.

CATALOGUE NUMBER	A	B	C	D
36.1	9	20	M4	3
36.2	11	24	M5	5
36.3	13	28	M5	6
36.4	16	34	M6	8
36.5	19	42	M8	10
36.6	20	44	M8	11
36.7	24	55	M10	12
36.8	25	57	M10	14
36.9	29	63	M12	16



\*) Nominal dimension.

# Types of tiles



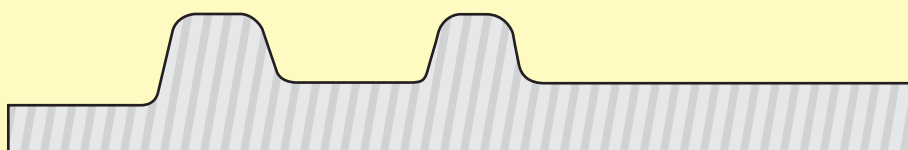
**1**

Röben



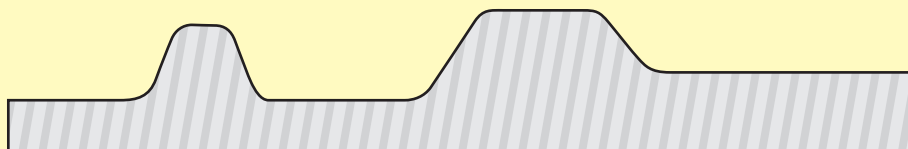
**2**

Rupp Ceramika (Sirius)



**3**

Koramic L-15



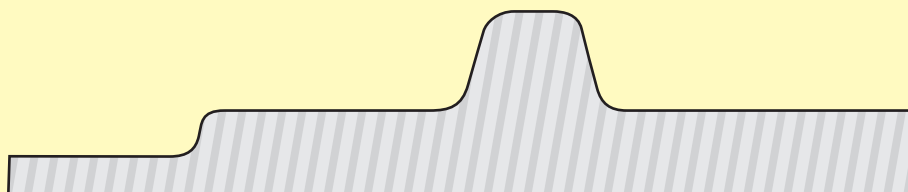
**4**

Koramic L-25



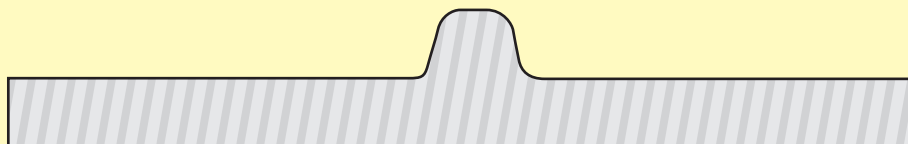
**5**

Koramic Z18S



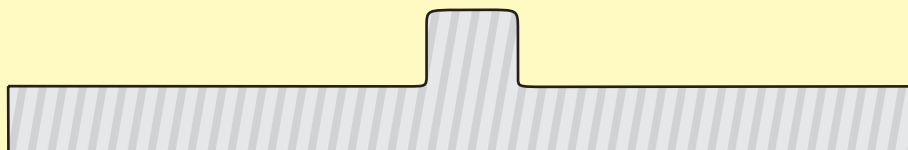
**6**

Brass / Monza Plus



**7**

Creaton





A large, empty white rectangular area intended for taking notes, framed by a thin grey border.



# ELKO-BIS

SYSTEMY ODGROMOWE





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