

Zircon Poland Sp. z o.o.



KATALOG OSPRZĘTU DO ELEKTROENERGETYCZNYCH SIECI WYSOKICH NAPIĘĆ

***Transmission and Distribution
Line Hardware Catalog***

2018

Zircon Poland Sp. z o.o.



Zircon Poland Sp. z o.o. jest firmą specjalizującą się w kablach, przewodach oraz osprzęcie dla linii Wysokich Napięć.

Działamy w branży elektroenergetycznej od 20 lat.

Oferujemy szybką i na czas dostawę wysokiej jakości kabli, przewodów i osprzętu, spełniających lub przewyższających wymagania naszych Klientów oraz międzynarodowych norm technicznych.

Zdobyliśmy dobrą opinię dzięki dostarczaniu naszym Klientom produktów o bardzo wysokiej jakości, po atrakcyjnych cenach oraz dzięki świadczeniu wysokiej klasy usług inżynierskich, przedstawicielskich i doradczych.

Łączymy znajomość handlu krajowego i zagranicznego z głęboką wiedzą techniczną nt. oferowanych produktów. Wykonujemy wysokiej jakości projekty linii WN i analizy przydatności poszczególnych technologii dla konkretnych linii WN.

Zircon Poland is a company specializing in cables, conductors and fittings for HV overhead lines. We have been operating in the electrical energy sector for 20 years.

We offer fast and timely delivery of high quality cables, conductors and fittings that meet or exceed the requirements of our customers and international technical standards.

We have gained a good reputation by providing our customers with high quality products at attractive prices and through the provision of high-quality engineering, representative and advisory services.

We combine knowledge of domestic and foreign trade with deep technical knowledge of the offered products. We make high quality HV line design and feasibility studies of various technologies for specific high voltage lines.

Przewody

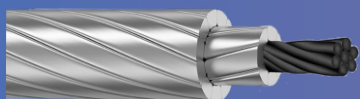
Conductors

Nasza Firma oferuje szerokie spektrum przewodów dla napowietrznych linii wysokich napięć

Our company offers a wide range of overhead high voltage conductors

Przewody / Conductors:

- AFL & AFLs / ACSR & ACSR/TW
- ACSS & ACSS/TW
- ACMCC®
- ACRCC®
- OPGW



Kable

Cables

- Kable wysokich napięć
- Kable światłowodowe

- HV Cables
- Optical fiber cables

Usługi projektowe

Engineering services

- Projektowanie linii oraz stacji 110, 220 i 400 kV wraz z osprzętem (łańcuchami)
- Obliczenia mechaniczne słupów oraz podwyższenia słupów kratowych
- Analizy możliwości zwiększenia obciążalności prądowej linii
- Analizy opłacalności inwestycji
- Projektowanie osprzętu

- Design services for 110, 220 & 400 kV HV lines
 - Design of Insulator strings
 - Technical and economic feasibility studies of HV lines modernization in order to increase their current carrying capacity using different technologies
 - Fittings design

Systemy znakowania

Marking systems

- Oznaczniki linii zasilających
- Znaki dla inspekcji linii z powietrza
- Odstraszacze ptaków

- Prefabricated marking systems
- POWERPLATE system
- Bird flight diverters FireFly



Nasza oferta

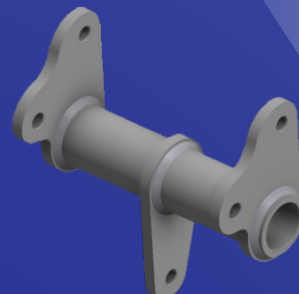
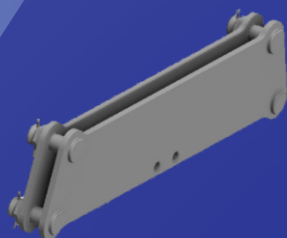
Our offer

Osprzęt do linii WN

Fittings for HV lines

- Osprzęt dla linii 110, 220 oraz 400 kV
- Osprzęt do przewodów OPGW
- Osprzęt oplotowy
- Łańcuchy izolatorów

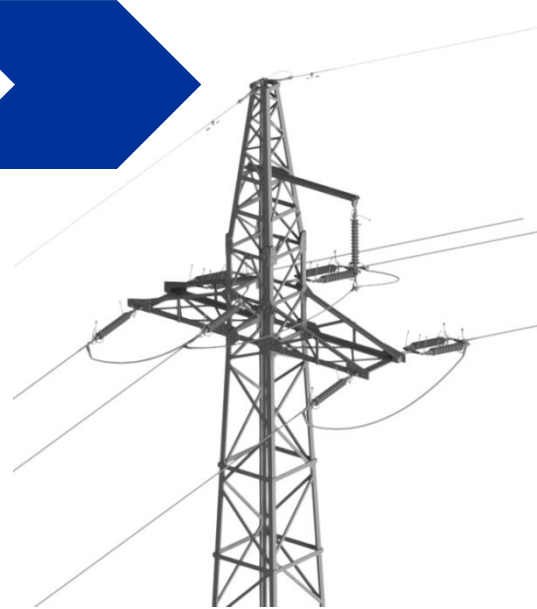
- Fittings for 110, 220 & 400 kV lines
- OPGW fittings
- Repair products
- Insulator string sets



Numery katalogowe:

Catalog numbers

XXX – YYY – ZZZ



- **Obciążenie niszczące** / Breaking load
- **Średnica zewnętrzna** / Diameter
- **Obciążenie prądowe** / Short circuit current
- **Typ przewodu** / Conductor type
- **Długość** / Length

- **Wymiar montażowy** / Assembly dimension
- **Średnica zewnętrzna** / Diameter
- **Obciążenie prądowe** / Short circuit current
- **Typ przewodu** / Conductor type

Nazwa produktu / Product category

Przykłady: **UPW** – Uchwyt Przelotowo Wahliwy

UPWO - Uchwyt Przelotowo Wahliwy z Oplotem

LO2 - Łącznik Orczykowy dwurzędowy






Uwaga / Note:

Dane i rysunki zawarte w katalogu podawane są jedynie informacyjnie i zastrzegamy sobie prawo do ich zmiany bez uprzedzenia.

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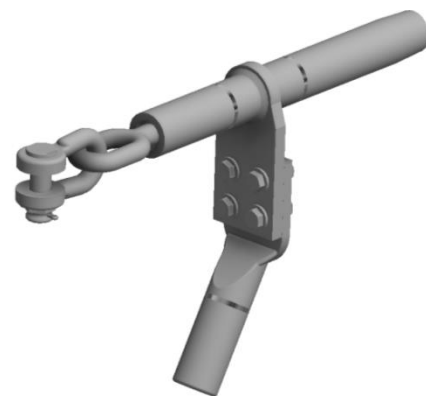
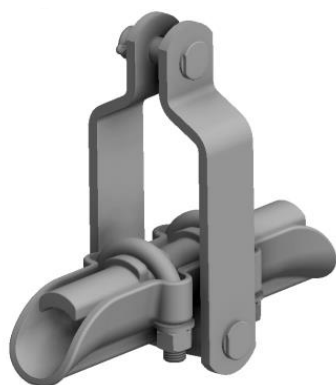
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Notatki / Notes

1

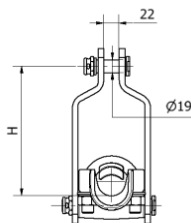
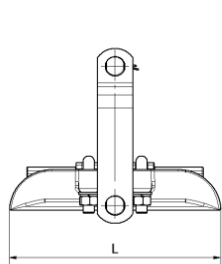


Uchwyty, Złączki Clamps, Splices

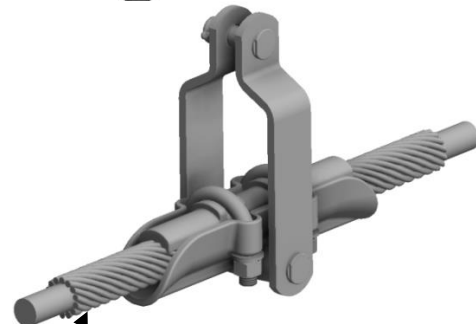
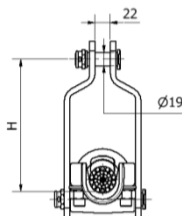
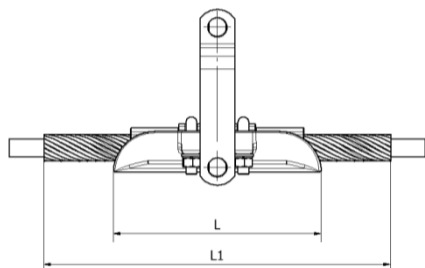


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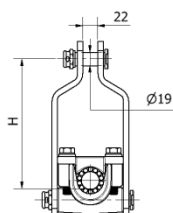
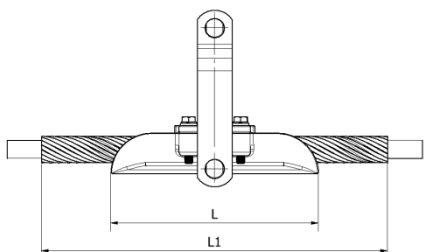
A



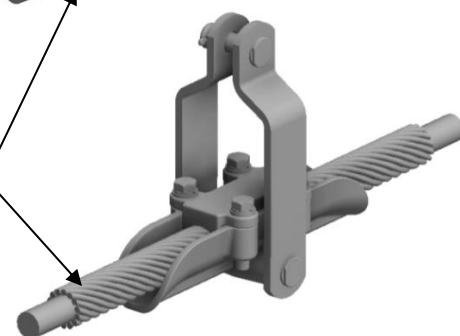
B



C



Oplot ochronny
Guarding rods



| Typ Type | Numer katalogowy Catalog No. | Średnica / Typ przewodu Cond. dia. range / Type [mm] | Wymiary Dimensions [mm] | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|---|----------------------------|-----|------|--|--|---------------------|
| | | | H | L | L1 | | | |
| A | UPW-110-120 | 11-16 | 110 | 180 | - | 25 | 120 | 2,1 |
| A | UPW-100-120 | 16-22 | 100 | 210 | - | 30 | 120 | 2,3 |
| A | UPW-165-160 | 20-25 | 165 | 350 | - | 30 | 160 | 2,7 |
| A | UPW-165-160/50 | 20-25 | 165 | 350 | - | 50 | 160 | 4,2 |
| A | UPW-150-160 | 25-27 | 150 | 350 | - | 40 | 160 | 4,2 |
| A | UPW-180-160/1 | 27-28 | 180 | 400 | - | 40 | 160 | 4,9 |
| A | UPW-180-160 | 28-32 | 180 | 400 | - | 40 | 160 | 4,7 |
| A | UPW-190-160 | 40-45 | 190 | 300 | - | 40 | 160 | 4,4 |
| B | UPWO-192-160 | AFL-8 350 | 192 | 300 | 1190 | 40 | 160 | 8,2 |
| B | UPWO-192-160/2 | AFL-8 525 | 192 | 300 | 1400 | 40 | 160 | 8,2 |
| C | UPWO-192-160/1 | AFL-8 350 | 192 | 300 | 1190 | 40 | 160 | 8,0 |

Materiał:

- Łódka, nakładka, oplot ochronny – aluminium
- Cięgła i części złączne – stal cynkowana ogniowo

Materiał:

- Clamp body, cover plate, armor rods – aluminum alloy
- Strap and connection elements – hot dip galvanized steel

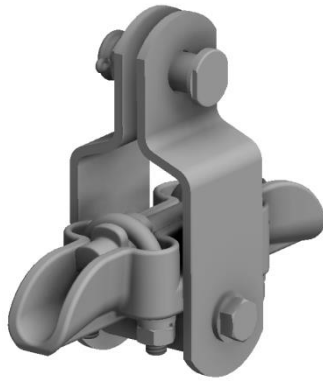
Zastosowanie:

Uchwyty służą do zawieszenia przelotowego przewodów na izolatorach wiszących

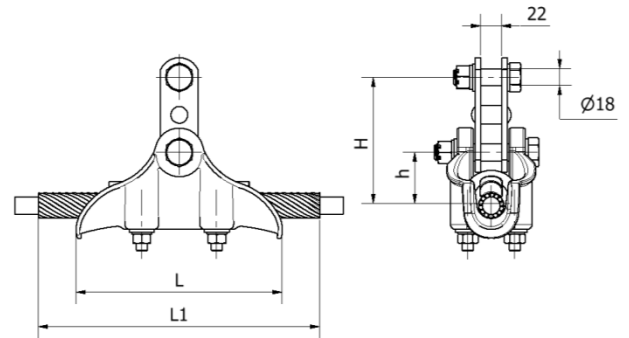
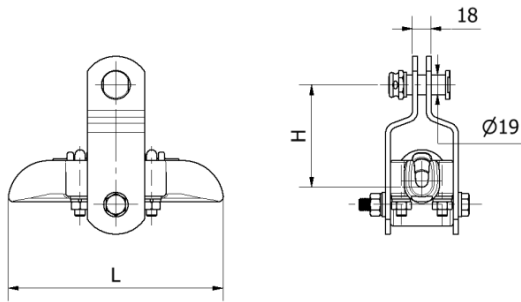
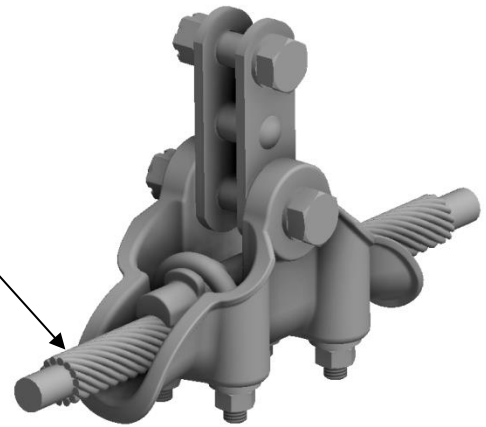
Application:

Clamps are used for through suspension of conductors on insulator strings

A



B

Oplot ochronny
Guarding rods

| Typ Type | Numer katalogowy Catalog No. | Średnica przewodu Cond. dia. range [mm] | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|--|----------------------------|----|-----|------|--|--|---------------------|
| | | | H | h | L | L1 | | | |
| A | UPWS-100-120 | 16-22 | 100 | - | 210 | - | 30 | 120 | 2,3 |
| B | XGF-1234 | 26-32 | 135 | 70 | 220 | 1400 | 30 | 80 | 3,5 |

Materiał:

- Łódka, nakładka, oplot ochronny – aluminium
- Ciężko i części złączne – stal cynkowana ogniowo

Material:

- Clamp body, cover plate, armor rods – aluminum alloy
- Strap and connection elements – hot dip galvanized steel

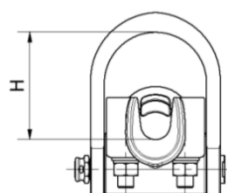
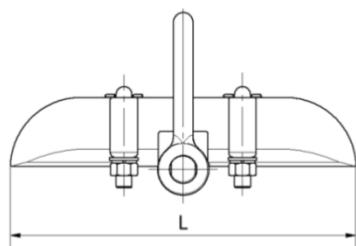
Zastosowanie:

Uchwyty służą do zawieszenia przelotowego przewodów na izolatorach wiszących

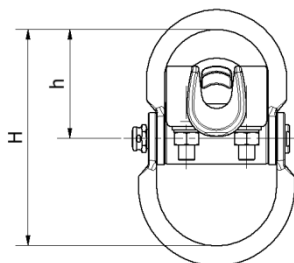
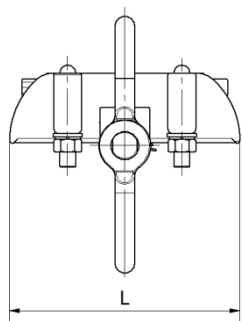
Application:

Clamps are used for through suspension of conductors on insulator strings

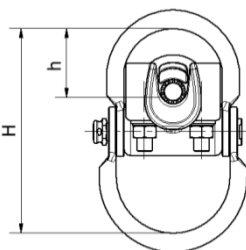
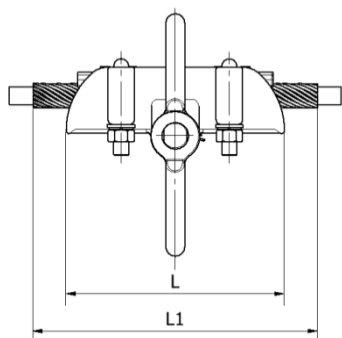
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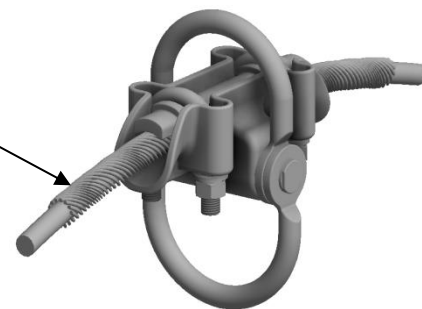
B



C



Oplot
ochronny
Guarding rods



| Typ Type | Numer katalogowy Catalog No. | Średnica / Typ przewodu Cond. dia. range / Type [mm] | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|---|----------------------------|-----|-----|------|--|--|---------------------|
| | | | H | h | L | L1 | | | |
| A | UPWK-73-100 | 11-16 | 73 | - | 180 | - | 16 | 100 | 1,5 |
| A | UPWK-109-120 | 20-25 | 109 | - | 350 | - | 30 | 120 | 3,1 |
| B | UPWC-216-120 | 20-25 | 216 | 109 | 230 | - | 25 | 120 | 3,7 |
| C | UPWCO-216-120 | ACSS/TW Partridge* | 216 | 109 | 230 | 1400 | 25 | 120 | 4,0 |

* - możliwe jest zastosowanie tego wyrobu z innymi przewodami ACSS oraz ACSS/TW po dobraniu odpowiedniego oplotu. W tym celu prosimy o kontakt z działem technicznym

Materiał:

- Łódka, nakładka, oplot ochronny – aluminium
- Kabłąk i części złączne – stal cynkowana ogniowo

Materiał:

- Clamp body, cover plate, armor rods – aluminum alloy
- Bow and connection elements – hot dip galvanized steel

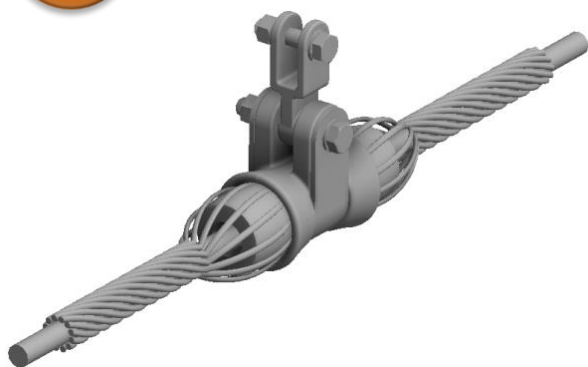
Zastosowanie:

Uchwyty służą do zawieszenia przelotowego przewodów na łańcuchach izolatorów. Typ B & C dodatkowo umożliwia zawieszenie obciążenia z wykorzystaniem wieszaka ciężarka (patrz str. 12 i 13)

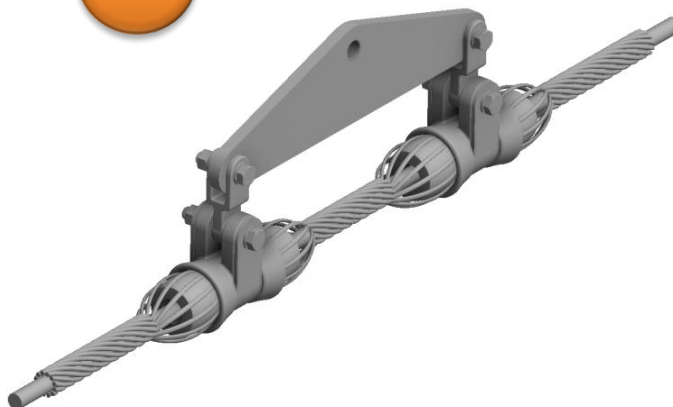
Application:

Suspension of conductors on insulator strings. Type B & C – lower bow can be used for suspension of counterweights (see page 12 & 13)

A



B



➤ **Zobacz uwagi**

See note

| Numer katalogowy Catalog No. | | Zastosowanie do przewodu Conductor type | Średnica przewodu Conductor diameter [mm] |
|---------------------------------|--------------------|---|---|
| A | B | | |
| UPO-ACSS/TW-14.9 | UPO2-ACSS/TW-14.9 | ACSS/TW PARTRIDGE | 14,90 |
| UPO-ACSS/TW-15.76 | UPO2-ACSS/TW-15.76 | ACSS/TW OSTRICH | 15,75 |
| UPO-ACSS-16.30 | UPO2-ACSS-16.30 | ACSS PARTRIDGE | 16,30 |
| UPO-ACSS/TW-17.86 | UPO2-ACSS/TW-17.86 | ACSS/TW BRANT | 17,86 |
| UPO-ACSS-19.61 | UPO2-ACSS-19.61 | ACSS BRANT | 19,61 |
| UPO-ACSS-18.80 | UPO2-ACSS-18.80 | ACSS ORIOLE | 18,80 |
| UPO-ACSS/TW-20.0 | UPO2-ACSS/TW-20.0 | ACSS/TW HAWK | 20,00 |
| UPO-ACSS/TW-21.2 | UPO2-ACSS/TW-21.2 | ACSS/TW PARAKEET | 21,20 |
| UPO-ACSS-21.80 | UPO2-ACSS-21.80 | ACSS HAWK | 21,80 |
| UPO-ACSS/TW-24.9 | UPO2-ACSS/TW-24.9 | ACSS/TW PUFFIN | 24,90 |
| UPO-ACSS-26.30 | UPO2-ACSS-26.30 | ACSS STILT | 26,30 |
| UPO-ACSS/TW-25.2 | UPO2-ACSS/TW-25.2 | ACSS/TW CONDOR | 25,20 |
| UPO-ACSS-27.7 | UPO2-ACSS-27.7 | ACSS CONDOR | 27,70 |
| UPO-ACSS-28.10 | UPO2-ACSS-28.10 | ACSS DRAKE | 28,10 |
| UPO-ACSS/TW-28.70 | UPO2-ACSS/TW-28.70 | ACSS/TW CURLEW | 28,70 |
| UPO-ACSS-31.6 | UPO2-ACSS-31.6 | ACSS CURLEW | 31,60 |

Materiał:

- Korpus uchwyty, oplot ochronny – aluminium
- Wkładka - neopren
- Opaska uchwyty, części złączne – stal cynkowana ogniowo

Material:

- Clamp body, armor rods – aluminum alloy
- Insert - neoprene
- Strap and connection elements – hot dip galvanized steel

Zastosowanie:

Uchwyty przelotowe typu AGS do przelotowego montażu przewodów ACSS oraz ACSS/TW

Uwagi:

W celu doboru uchwyty przelotowego AGS prosimy o kontakt z naszym działem technicznym

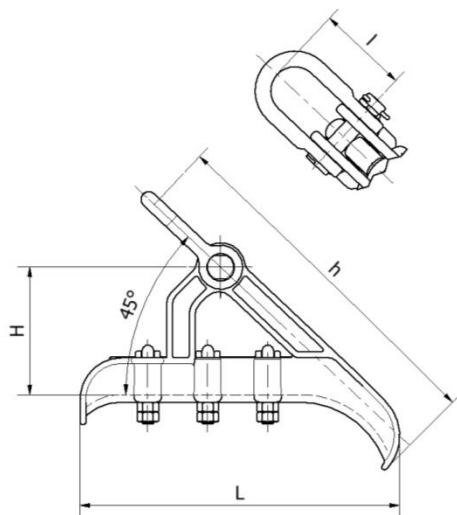
Application:

Suspension clamp for mounting ACSS and ACSS/TW conductors on HV towers

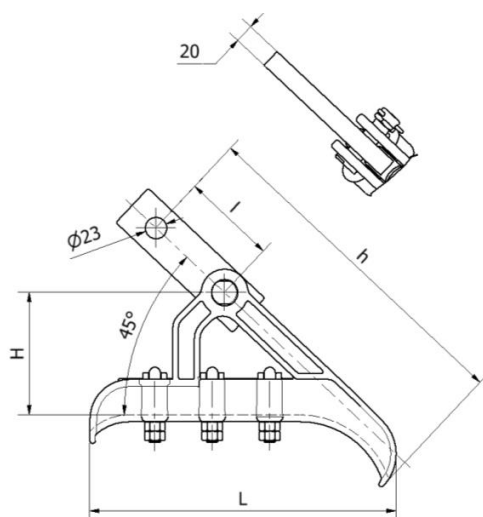
Notes:

Please contact our technical department for selection of suitable AGS suspension clamp

A



B



| Typ Type | Numer katalogowy Catalog. No. | Średnica przewodu Cond. dia. [mm] | Wymiary Dimensions [mm] | | | | Min. siła wyslizgu przewodu o największej średnicy Min. slip load for max. cond. dia. [kN] | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|----------------------------------|---|-------------------------------|-----|-----|-----|--|---|---|------------------------|
| | | | H | h | L | I | | | | |
| A | UPS-355-45 | 19,2 - 23,2 | 130 | 355 | 325 | 90 | 45 | 40 | 120 | 5,3 |
| A | UPS-440-70 | 24,2 - 32 | 180 | 440 | 485 | 90 | 70 | 40 | 160 | 11,7 |
| B | UPS-360/23-45 | 19,2 - 23,2 | 140 | 360 | 325 | 100 | 45 | 40 | 120 | 5,5 |
| B | UPS-440/23-70 | 24,2 - 32 | 180 | 440 | 485 | 100 | 70 | 40 | 160 | 12,0 |

Materiał:

- Korpus, nakładki – żeliwo
- Ciężło i części złączne – stal cynkowana ogniowo

Materiał:

- Clamp body – cast iron
- Pull rod and connection elements – hot dip galvanized steel

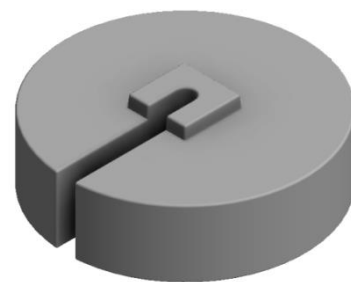
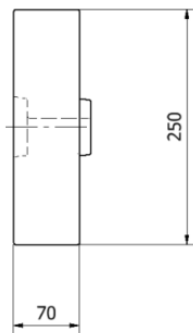
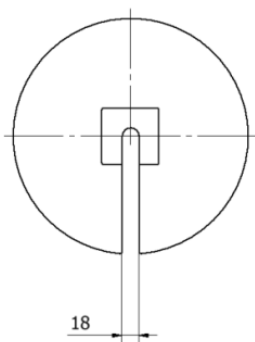
Zastosowanie:

Uchwyty służą do zawieszenia przelotowo-odciągowego przewodów na izolatorach wiszących. Goły przewód powinien być owijany taśmą aluminiową gr. 1 mm

Application:

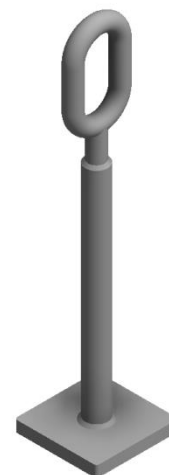
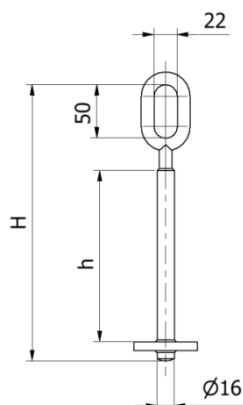
Clamps are used to suspend conductor on insulator strings. Bare conductor shall be wrapped with aluminum tape 1 mm thickness

➤ **Ciężarek**
Counterweight



| Numer katalogowy Catalog No. | Masa Weight [kg] |
|---------------------------------|------------------------|
| C-25 | 25,0 |

➤ **Wieszaki ciężarka**
Counterweight



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|-----|--|------------------------|
| | H | h | | |
| WC-178-160 | 178 | 80 | 160 | 0,5 |
| WC-258-160 | 258 | 160 | 160 | 0,7 |
| WC-328-230 | 328 | 230 | 160 | 0,8 |
| WC-398-300 | 398 | 300 | 160 | 0,9 |
| WC-538-440 | 538 | 440 | 160 | 1,1 |
| WC-808-700 | 808 | 700 | 160 | 1,6 |

Material:

- Ciężarek i wieszak ciężarka – stal cynkowana ogniowo

Material:

- Hanger and counterweight – hot dip galvanized steel

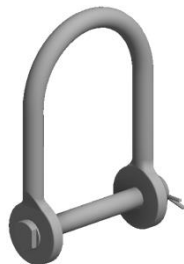
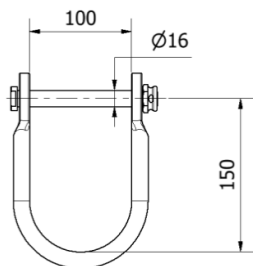
Zastosowanie:

Zawieszenie ciężarków na uchwytych przelotowych wahliwych. Ciężarki i mocowania stabilizują uchwyty przelotowe wahliwe, AGS oraz przelotowo-odciągowe

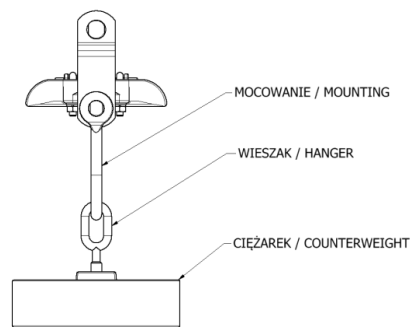
Application:

Hangers and counterweights are used to attach the counterweight on oscillating double bow suspension clamp. They are used to stabilize suspension.

- **Mocowanie dla uchwyty przelotowego wahliwego (1.1, str.7)**
Mountings for oscillating suspension clamps (see 1.1, page 7)



Zastosowanie / Application



| Numer katalogowy Catalog No. | Waga Weight [kg] | Zastosowanie do uchwyty Applicable clamps |
|---------------------------------|------------------------|---|
| MCWC-UPW/1 | 1,0 | UPW-100-120 |

- **Mocowanie dla uchwyty przelotowego oplotowego – AGS (1.3, str.10)** **Zastosowanie / Application**
Mountings for oscillating suspension clamp - AGS (see 1.3, page 10)

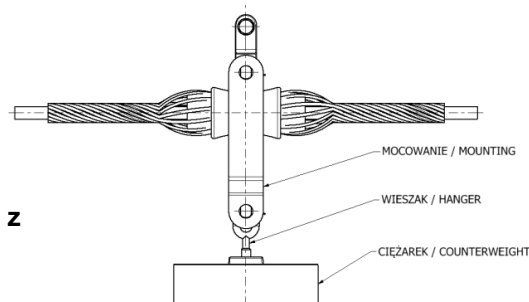


Uwaga:

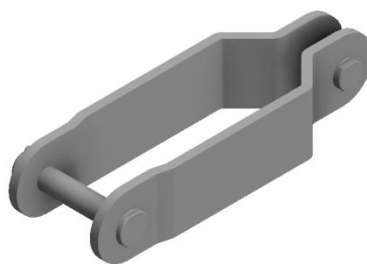
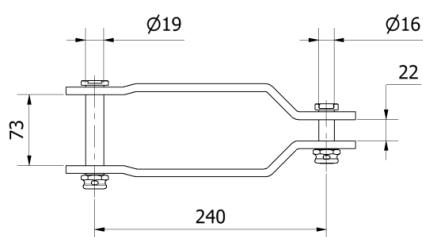
W celu doboru odpowiedniego mocowania AGS prosimy o kontakt z naszym działem technicznym

Note:

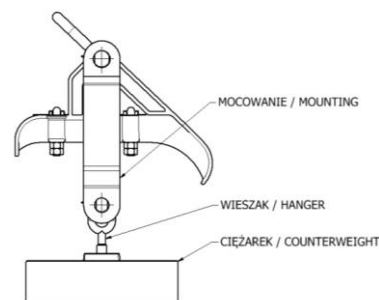
Please contact our technical department for selection of suitable mounting for AGS suspension



- **Mocowanie dla uchwyty przelotowo-odciągowego (1.4, str.11)**
Suspension and tension clamps (see 1.4, page 11)



Zastosowanie / Application



| Numer katalogowy Catalog No. | Waga Weight [kg] | Zastosowanie do uchwyty Applicable clamps |
|---------------------------------|------------------------|---|
| MCWC-UPS | 1,7 | UPS-355-45 |

Material:

- Mocowania oraz części złączne – stal cynkowa ognioowo

Material:

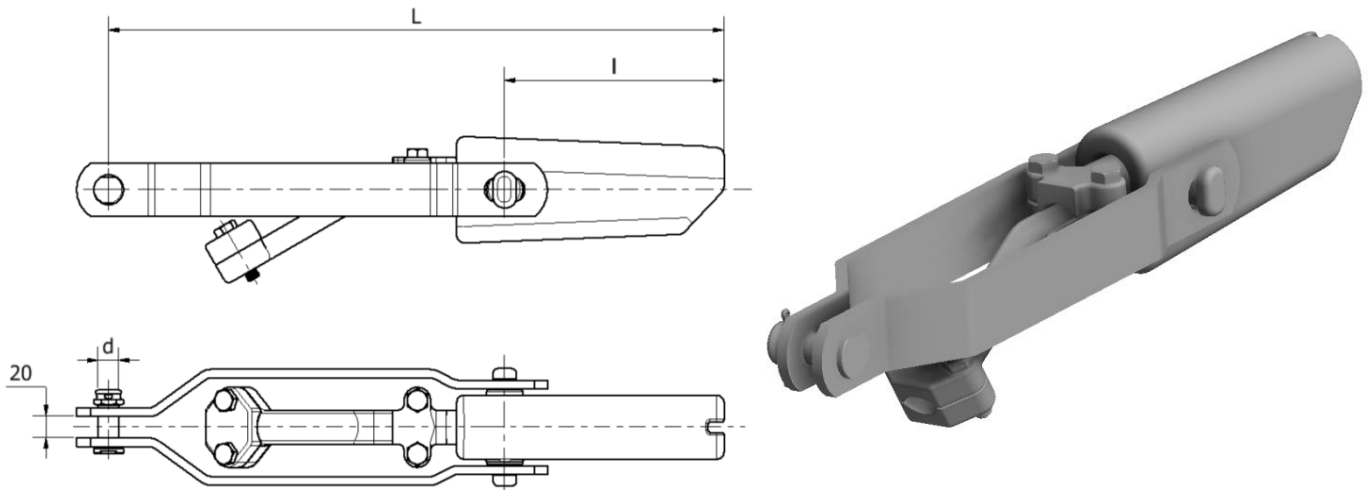
- Mountings and connection elements – hot dip galvanized steel

Zastosowanie:

Mocowania do zawieszenia ciężarków na uchwytych przelotowych wahliwych, AGS oraz przelotowo-odciągowych

Application:

Mountings are used to attach hangers and counterweights on suspension clamps



| Numer katalogowy Catalog No. | Zakres średnicy przewodu Cond. dia. range [mm] | Wymiary Dimensions [mm] | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|---|-------------------------------|-----|----|---|---|------------------------|
| | | L | l | d | | | |
| UOK-350-160 | 25,1 – 26,8 | 530 | 180 | 19 | 40 | 160 | 7,2 |
| UOK-525-250 | 30,7 – 32,4 | 605 | 205 | 19 | 40 | 250 | 11,1 |

Material:

- Korpus, kliny - aluminium
- Ciągła oraz elementy złączne - stal cynkowana ogniowo

Material:

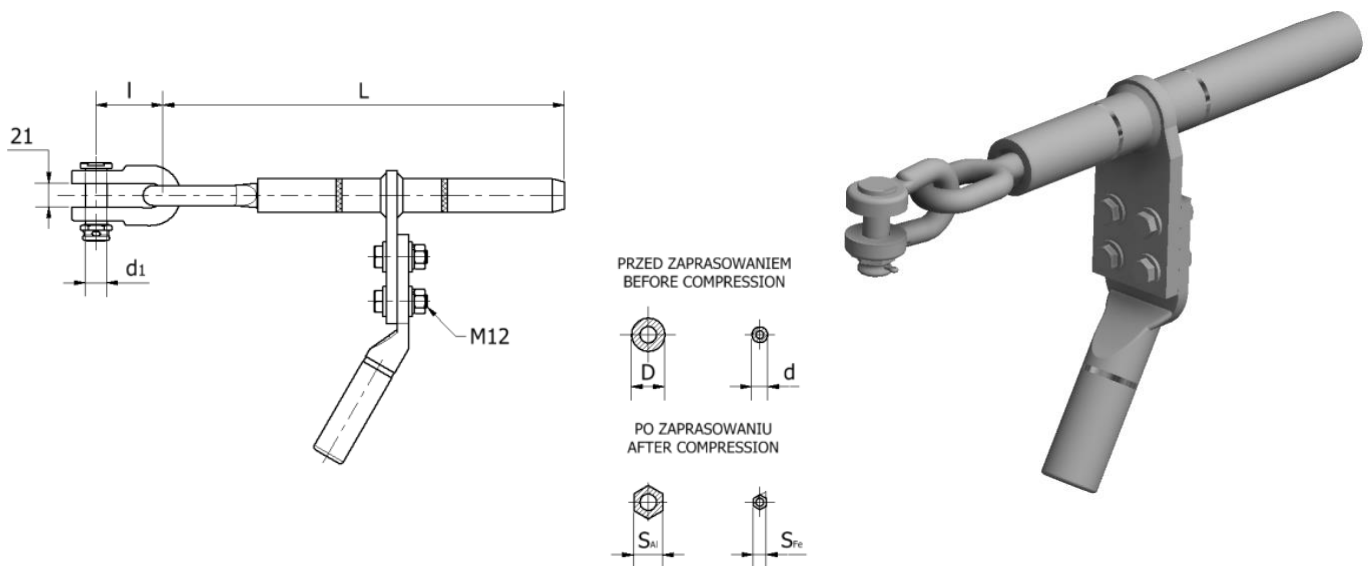
- Clamp body, wedges - aluminum
- Pull rod and connection elements - hot dip galvanized steel

Zastosowanie:

Odciągowe zamocowywanie przewodów AFL, AFL's oraz AL

Application:

Wedge type tension clamps are used for tensioning ACSR, ACSR/TW and AAC conductors



| Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Wymiary Dimensions [mm] | | | | | | | Masa Weight [kg] |
|---------------------------------|---|-------------------------------|----|----|------|----------------|-----------------|-----------------|------------------------|
| | | L | l | D | d | d ₁ | S _{Al} | S _{Fe} | |
| UOZ-50-26 | AFL-1,7 50 | 320 | 60 | 26 | 14,2 | 20 | 22 | 11,5 | 1,8 |
| UOZ-70-26 | AFL-6 70 | 320 | 60 | 26 | 10,2 | 20 | 22 | 8,5 | 1,6 |
| UOZ-70-26/1 | AFL-6 70/1 | 320 | 60 | 26 | 10,2 | 16 | 22 | 8,5 | 1,6 |
| UOZ-70-30 | AFL-1,7 70 | 320 | 60 | 30 | 17,2 | 20 | 26 | 14,5 | 2,8 |
| UOZ-95-38 | AFL-1,7 95 | 340 | 60 | 38 | 22,2 | 20 | 33 | 19 | 4,2 |
| UOZ-120-30 | AFL-6 120 | 355 | 60 | 30 | 14,2 | 20 | 26 | 11,5 | 2,4 |
| UOZ-185-38 | AFL-6 185 | 380 | 60 | 38 | 17,2 | 20 | 33 | 14,5 | 2,6 |
| UOZ-240-38 | AFL-6 240 | 385 | 60 | 38 | 22,2 | 20 | 33 | 19 | 2,7 |
| UOZS-10/240-38 | AFLs-10 240 | 415 | 60 | 38 | 17,2 | 20 | 33 | 14,5 | 2,5 |
| UOZ-300-38 | AFLs-10 300 | 440 | 60 | 38 | 17,2 | 20 | 33 | 14,5 | 3,0 |
| UOZ-350-48 | AFL-8 350 | 485 | 75 | 48 | 26,2 | 22 | 42 | 22 | 4,7 |
| UOZ-400-48 | AFL-8 400 | 485 | 75 | 48 | 26,2 | 22 | 42 | 22 | 4,8 |
| UOZ-525-55 | AFL-8 525 | 520 | 75 | 55 | 26 | 22 | 48 | 22 | 5,4 |

Materiał:

- Korpus i końcówka - aluminium
- Ciężko, kabłąk, części złączne - stal cynkowana ognioowo

Materiał:

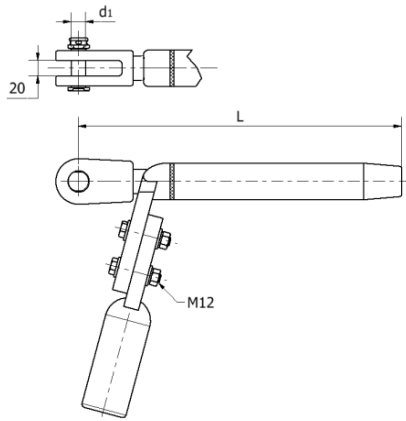
- Dead-end body and terminal - aluminium
- Dead-end eye, shackle and connection elements - hot dip galvanized steel

Zastosowanie:

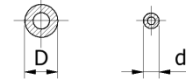
Odciągowe zamocowywanie przewodów AFL i AFLs

Application:

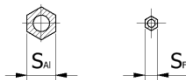
Dead-end fittings are used for tensioning ACSR and ACSR/TW conductors



PRZED ZAPRASOWANIEM
BEFORE COMPRESSION



PO ZAPRASOWANIU
AFTER COMPRESSION



| Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Wymiary / Dimensions [mm] | | | | | | Masa Weight [kg] |
|---------------------------------|--|---------------------------|----|------|----------------|-----------------|-----------------|------------------|
| | | L | D | d | d ₁ | S _{Al} | S _{Fe} | |
| UOZW-240-38 | AFL-6 240 | 350 | 38 | 22,2 | 19 | 33 | 19 | 3,2 |
| UOZW-350-48 | AFL-8 350 | 425 | 48 | 22,2 | 19 | 42 | 19 | 5,2 |
| UOZW-400-48 | AFL-8 400 | 445 | 48 | 26,2 | 20 | 42 | 22 | 5,0 |
| UOZW-525-55 | AFL-8 525 | 485 | 55 | 26,2 | 20 | 48 | 22 | 5,9 |

Materiał:

- Korpus i końcówka - aluminium
- Ciężło, części złączne - stal cynkowana ogniowo

Material:

- Dead-end body and terminal - aluminum
- Dead-end eye and connection elements - hot dip galvanized steel

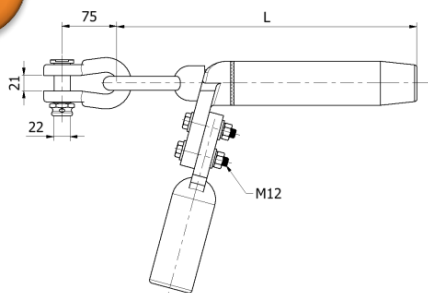
Zastosowanie:

Odciągowe zamocowywanie przewodów AFL

Application:

Dead-end fittings are used for tensioning ACSR conductors

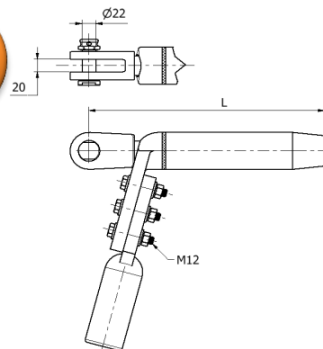
1.8 Uchwyty odciągowe zaprasowywane stacyjne / Compression dead-ends for substations



PRZED ZAPRASOWANIEM
BEFORE COMPRESSION



PO ZAPRASOWANIU
AFTER COMPRESSION



PRZED ZAPRASOWANIEM
BEFORE COMPRESSION



PO ZAPRASOWANIU
AFTER COMPRESSION



| Typ Type | Numer katalogowy Catalog. No. | Zastosowanie do przewodu Conductor type | Wymiary Dimensions [mm] | | | Obciążenie prądowe Short circuit current [kA] | Masa Weight [kg] |
|-------------|----------------------------------|--|----------------------------|----|------|--|---------------------|
| | | | L | D | S | | |
| A | UOZW-525-55 | AFL-8 525 | 435 | 55 | 48 | 40 | 5,0 |
| B | UOZW-887-60 | AL 887 | 370 | 60 | 52,5 | 50 | 6,0 |

Materiał:

- Korpus i końcówka - aluminium
- Ciężło, części złączne - stal cynkowana ogniowo

Material:

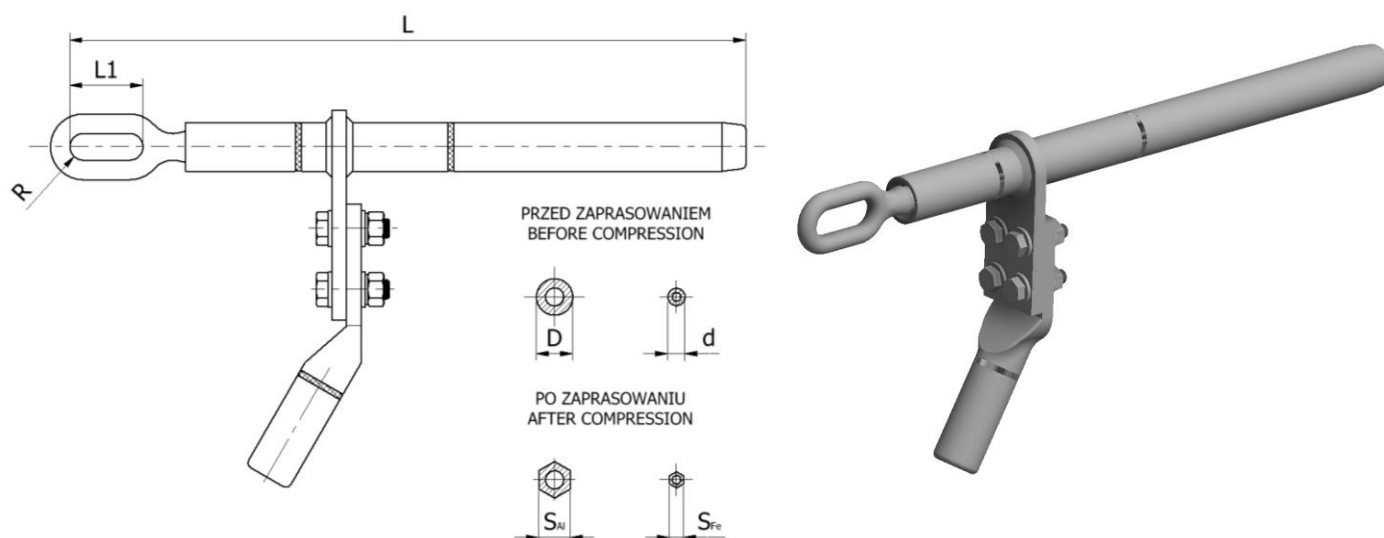
- Dead-end body and terminal - aluminum
- Dead-end eye, conn. elements - hot dip galvanized steel

Zastosowanie:

Odciągowe zamocowywanie przewodów AFL oraz AL na stacjach elektrowni bez uchwycenia rdzenia. Siła wyślizgu – 40% wytrzymałości przewodu

Application:

Dead-ends are used for tensioning ACSR and AAC conductors on substations. The core of the cond. is not gripped with pull rod of the dead-end. A tensile load is equal 40% of the conductor rated tensile (RTS)



| Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Średnica przewodu Conductor diameter [mm] | Wymiary Dimensions [mm] | | | | | | |
|---------------------------------|---|---|-------------------------------|----|-----|----|----|-----------------|-----------------|
| | | | D | d | L | L1 | R | S _{Al} | S _{Fe} |
| UOZ-ACSS/TW-14.9 | ACSS/TW PARTRIDGE | 14,87 | 34 | 14 | 495 | 60 | 11 | 29 | 12 |
| UOZ-ACSS/TW-15.76 | ACSS/TW OSTRICH | 15,76 | 36 | 16 | 515 | 70 | 12 | 31,2 | 14 |
| UOZ-ACSS-16.30 | ACSS PARTRIDGE | 16,30 | 36 | 16 | 485 | 70 | 12 | 31,2 | 14 |
| UOZ-ACSS/TW-17.86 | ACSS/TW BRANT | 17,86 | 40 | 18 | 565 | 70 | 12 | 34,6 | 15 |
| UOZ-ACSS-19.61 | ACSS BRANT | 19,61 | 40 | 16 | 540 | 70 | 12 | 34,6 | 14 |
| UOZ-ACSS-18.80 | ACSS ORIOLE | 18,80 | 40 | 18 | 555 | 70 | 12 | 34,6 | 15 |
| UOZ-ACSS/TW-20.0 | ACSS/TW HAWK | 20,00 | 40 | 18 | 570 | 70 | 12 | 34,6 | 15 |
| UOZ-ACSS/TW-21.2 | ACSS/TW PARAKEET | 21,20 | 40 | 18 | 580 | 70 | 12 | 34,6 | 15 |
| UOZ-ACSS-21.80 | ACSS HAWK | 21,80 | 40 | 18 | 590 | 70 | 12 | 34,6 | 15 |
| UOZ-ACSS/TW-24.9 | ACSS/TW PUFFIN | 24,90 | 42 | 18 | 640 | 78 | 13 | 36 | 15 |
| UOZ-ACSS-26.30 | ACSS STILT | 26,30 | 42 | 22 | 660 | 78 | 13 | 36 | 19 |
| UOZ-ACSS/TW-25.2 | ACSS/TW CONDOR | 25,20 | 42 | 22 | 655 | 78 | 13 | 36 | 19 |
| UOZ-ACSS-27.7 | ACSS CONDOR | 27,70 | 48 | 22 | 685 | 78 | 13 | 42 | 19 |
| UOZ-ACSS-28.10 | ACSS DRAKE | 28,10 | 55 | 22 | 705 | 78 | 13 | 48 | 19 |
| UOZ-ACSS/TW-28.70 | ACSS/TW CURLEW | 28,70 | 55 | 22 | 715 | 78 | 13 | 48 | 19 |
| UOZ-ACSS-31.6 | ACSS CURLEW | 31,60 | 55 | 22 | 750 | 78 | 13 | 48 | 19 |

Material:

- Korpus i końcówka - aluminium
- Ciężło, części złączne - stal cynkowana ogniowo

Material:

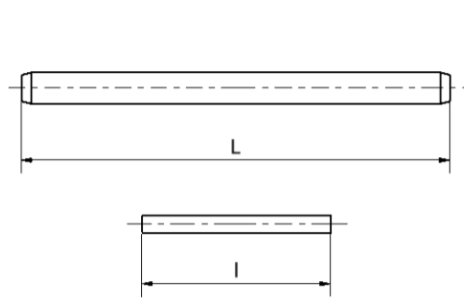
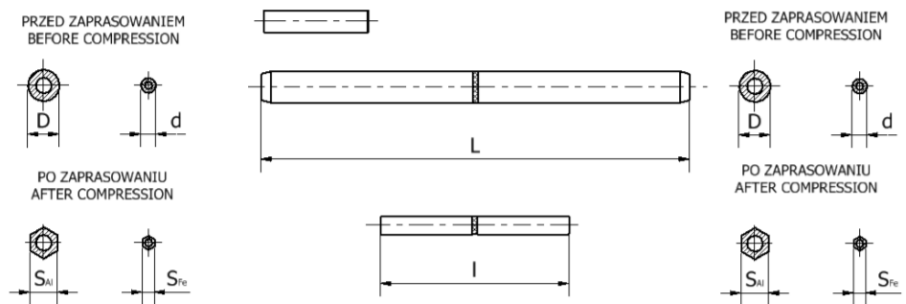
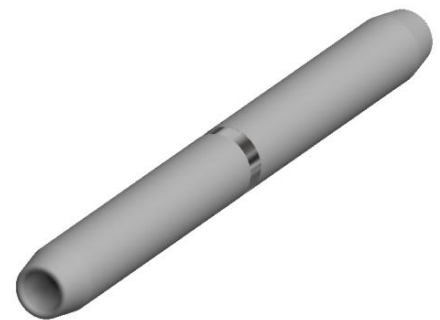
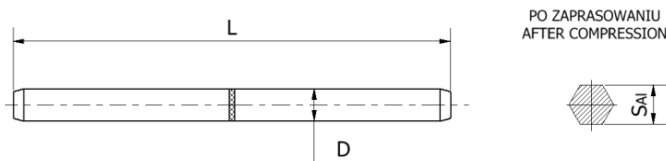
- Dead-end body and terminal - aluminum
- Dead-end eye - hot dip galvanized steel

Zastosowanie:

Odciągowe zamocowywanie przewodów ACSS oraz ACSS/TW

Application:

Dead-ends are used for tensioning ACSS and ACSS/TW conductors

A

B

C


| Typ Type | Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Wymiary Dimensions [mm] | | | | | | Masa Weight [kg] |
|-------------|---------------------------------|--|----------------------------|-----|----|------|-----------------|-----------------|---------------------|
| | | | L | l | D | d | S _{Al} | S _{Fe} | |
| A | ZLZ-70-26 | AFL-6 70 | 350 | 120 | 26 | 10,2 | 22 | 8,5 | 0,5 |
| A | ZLZ-120-30 | AFL-6 120 | 500 | 150 | 30 | 14,2 | 26 | 10 | 0,8 |
| A | ZLZ-185-38 | AFL-6 185 | 600 | 170 | 38 | 17,2 | 33 | 14,5 | 1,6 |
| A | ZLZ-240-38 | AFL-6 240 | 600 | 190 | 38 | 22,2 | 33 | 19 | 1,7 |
| A | ZLZ-300-38 | AFLs-10 300 | 630 | 210 | 38 | 17,2 | 33 | 14,5 | 2,7 |
| A | ZLZ-350-48 | AFL-8 350 | 630 | 210 | 48 | 22,2 | 42 | 19 | 1,9 |
| A | ZLZ-400-48 | AFL-8 400 | 750 | 240 | 48 | 26,2 | 42 | 22 | 3,1 |
| A | ZLZ-350-48/1 | AFL-4 350 | 750 | 240 | 48 | 26,2 | 42 | 22 | 3,2 |
| A | ZLZ-525-55 | AFL-8 525 | 780 | 240 | 55 | 26,2 | 48 | 22 | 4,0 |
| A | ZLZ-540-55 | AFL-4 540 | 940 | 360 | 60 | 32 | 52,5 | 27 | 7,5 |
| B | ZLZO-50-26 | AFLs-1,5 50 | 350 | 170 | 26 | 17,2 | 22 | 14,5 | 0,62 |
| B | ZLZO-70-30 | AFL-1,7 70 | 410 | 180 | 30 | 17,2 | 26 | 14,5 | 0,9 |
| B | ZLZO-95-38 | AFL-1,7 95 | 480 | 200 | 38 | 22,2 | 33 | 19 | 1,6 |
| B | ZLZS-240-38 | AFLs-10 240 | 600 | 170 | 38 | 17,2 | 33 | 14,5 | 1,7 |
| B | ZLZS-525-48 | AFLs-10 525 | 750 | 240 | 48 | 26,2 | 42 | 22 | 3,1 |
| C | ZLZA-400-48 | AAL 400 | 620 | - | 48 | - | 42 | - | 2,0 |

Materiał:

- Tuleja zewnętrzna - aluminium
- Tuleja wewnętrzna - stal cynkowana ogniowo

Materiał:

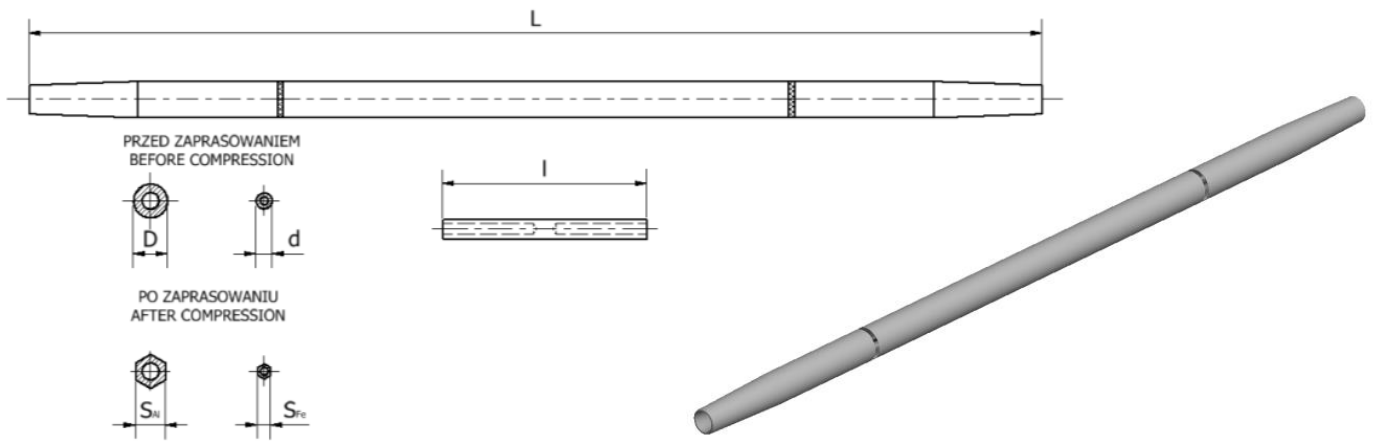
- Outer sleeve - aluminum
- Inner sleeve - hot dip galvanized steel

Zastosowanie:

Złączki przeznaczone do połączenia dwóch odcinków przewodów AFL, AFLs i AAL o takiej samej średnicy

Application:

Compression splices are used to connect ACSR, ACSR/TW and AAC conductors with the same diameter



| Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Wymiary Dimensions [mm] | | | | | |
|---------------------------------|---|-------------------------------|-----|----|----|-----------------|-----------------|
| | | L | l | D | d | S _{Al} | S _{Fe} |
| ZLZ-ACSS/TW-14.9 | ACSS/TW PARTRIDGE | 600 | 160 | 34 | 14 | 29 | 12 |
| ZLZ-ACSS/TW-15.76 | ACSS/TW OSTRICH | 630 | 170 | 36 | 16 | 31.2 | 14 |
| ZLZ-ACSS-16.30 | ACSS PARTRIDGE | 620 | 160 | 36 | 16 | 31.2 | 14 |
| ZLZ-ACSS/TW-17.86 | ACSS/TW BRANT | 705 | 180 | 40 | 18 | 34.6 | 15 |
| ZLZ-ACSS-19.61 | ACSS BRANT | 725 | 180 | 40 | 16 | 34.6 | 14 |
| ZLZ-ACSS-18.80 | ACSS ORIOLE | 765 | 220 | 40 | 18 | 34.6 | 15 |
| ZLZ-ACSS/TW-20.0 | ACSS/TW HAWK | 790 | 220 | 40 | 18 | 34.6 | 15 |
| ZLZ-ACSS/TW-21.2 | ACSS/TW PARAKEET | 805 | 210 | 40 | 18 | 34.6 | 15 |
| ZLZ-ACSS-21.80 | ACSS HAWK | 830 | 220 | 40 | 18 | 34.6 | 15 |
| ZLZ-ACSS/TW-24.9 | ACSS/TW PUFFIN | 915 | 230 | 42 | 18 | 36 | 15 |
| ZLZ-ACSS-26.30 | ACSS STILT | 960 | 240 | 42 | 22 | 36 | 19 |
| ZLZ-ACSS/TW-25.2 | ACSS/TW CONDOR | 950 | 250 | 42 | 22 | 36 | 19 |
| ZLZ-ACSS-27.7 | ACSS CONDOR | 1015 | 250 | 48 | 22 | 42 | 19 |
| ZLZ-ACSS-28.10 | ACSS DRAKE | 1080 | 280 | 55 | 22 | 48 | 19 |
| ZLZ-ACSS/TW-28.70 | ACSS/TW CURLEW | 1100 | 285 | 55 | 22 | 48 | 19 |
| ZLZ-ACSS-31.6 | ACSS CURLEW | 1160 | 285 | 55 | 22 | 48 | 19 |

Materiał:

- Tuleja zewnętrzna - aluminium
- Tuleja wewnętrzna - stal cynkowana ogniowo

Materiał:

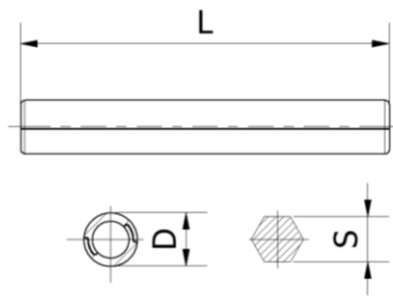
- Outer sleeve - aluminum
- Inner sleeve - hot dip galvanized steel

Zastosowanie:

Złączki przeznaczone do połączenia dwóch odcinków przewodów ACSS i ACSS/TW o takiej samej średnicy

Application:

Compression splices are used to connect ACSS and ACSS/TW conductors with the same diameter



| Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Średnica przewodu Cond. dia. [mm] | Wymiary Dimensions [mm] | | |
|---------------------------------|---|--|-------------------------------|----|-----------------|
| | | | L | D | S _{AI} |
| ZLZN-50-26 | AFL- 1,7 50 | 11,25 | 150 | 26 | 22 |
| ZLZN-70-26 | AFL-1,7 70 | 12,75 | 150 | 26 | 22 |
| ZLZN-95-26 | AFL-1,7 95 | 15,00 | 160 | 26 | 22 |
| ZLZN-120-326 | AFL-6 120 | 15,65 | 160 | 26 | 22 |
| ZLZN-192-217 | - | 19,2-21,7 | 220 | 32 | 27 |
| ZLZN-8350-45 | AFL-8 350 | 26,1 | 320 | 48 | 42 |
| ZLZN-4350-45 | AFL-4 350 | 26,9 | 320 | 48 | 42 |
| ZLZN-400-48 | AFL-8 400 | 27,9 | 320 | 48 | 42 |
| ZLZN-525-52 | AFL-8 525 | 31,5 | 370 | 52 | 48 |
| ZLZN-540-60 | AFL-4 540 | 34,2 | 370 | 60 | 52,5 |

Materiał:

- Tuleja - stop aluminium

Material:

- Sleeve - aluminum alloy

Zastosowanie:

Naprawa przewodów AFL i AFLs w przypadku uszkodzenia do 17% warstwy zewnętrznej przewodu

Application:

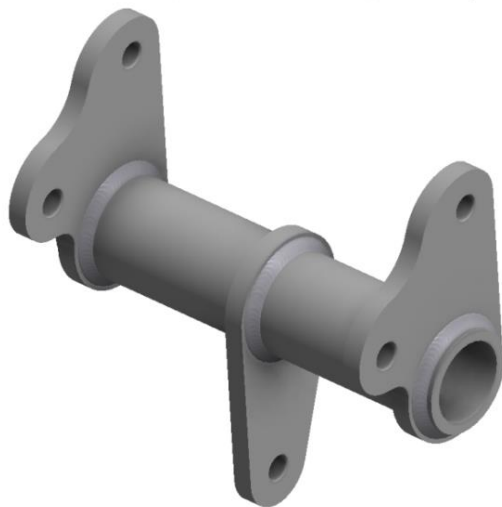
Repair sleeves are used to restore the electrical and mechanical strength of ACSR and ACSRs cond. when damage does not exceed 17% of outer layer of conductor

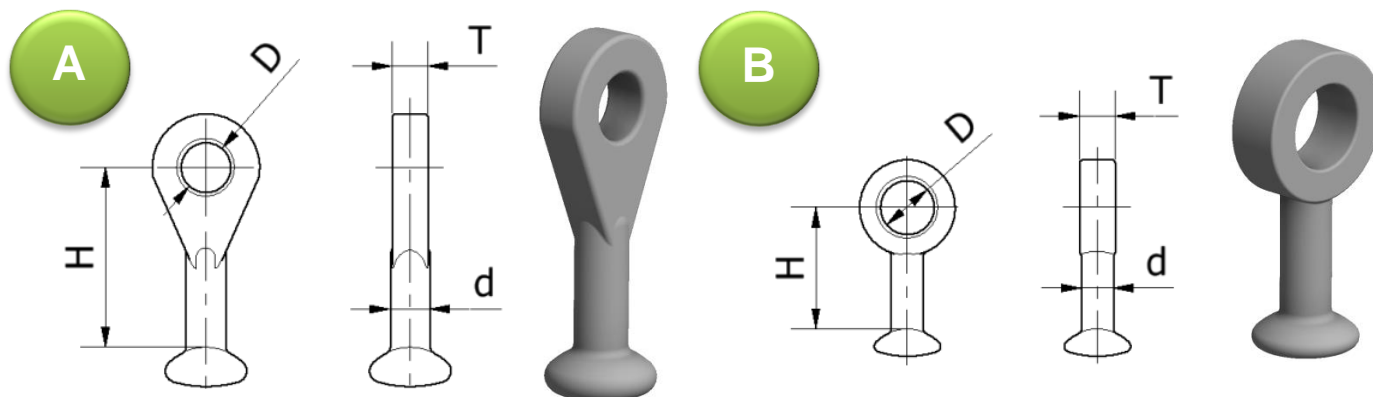
Notatki / Notes



Łączniki, Wieszaki

Links, Hangers





| Typ Type | Numer katalogowy Catalog No. | Wielkość główki IEC class | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|------------------------------|-------------------------------|----|----|----|---|---|------------------------|
| | | | H | D | d | T | | | |
| A | LGLP-90-200 | 20 | 90 | 25 | 18 | 18 | 25 | 200 | 0,7 |
| B | LGLP-61-120 | 16 | 61 | 27 | 16 | 18 | 16 | 120 | 0,4 |

Materiał:

- Stal cynkowana ogniowo

Material:

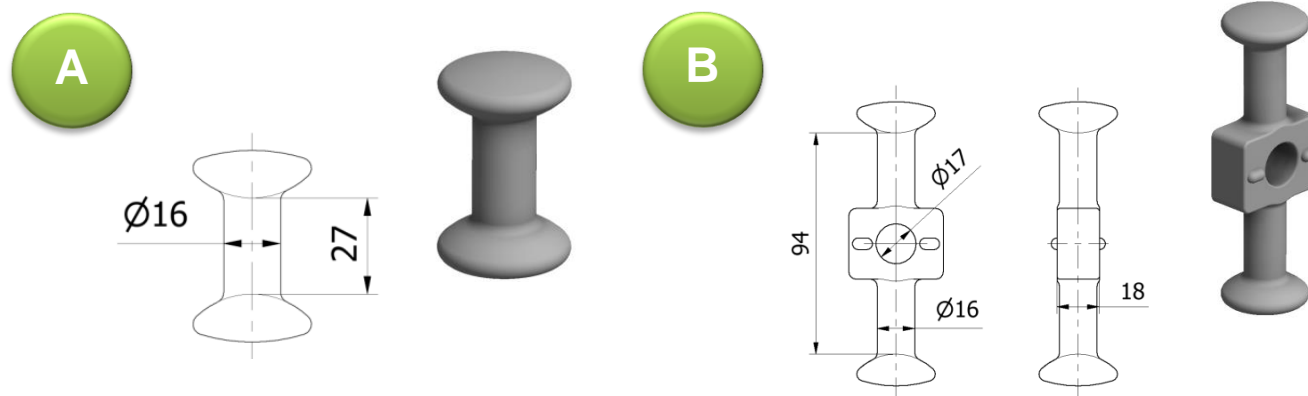
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do łączenia izolatorów z innymi elementami osprzętu

Application:

These ball tongues are used to connect insulators with fittings elements



| Typ Type | Numer katalogowy Catalog No. | Wielkość główki IEC class | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|------------------------------|---|---|------------------------|
| A | LDG-27-120 | 16 | 16 | 120 | 0,15 |
| B | LDG-94-120 | 16 | 16 | 120 | 0,45 |

Materiał:

- Stal cynkowana ogniowo

Material:

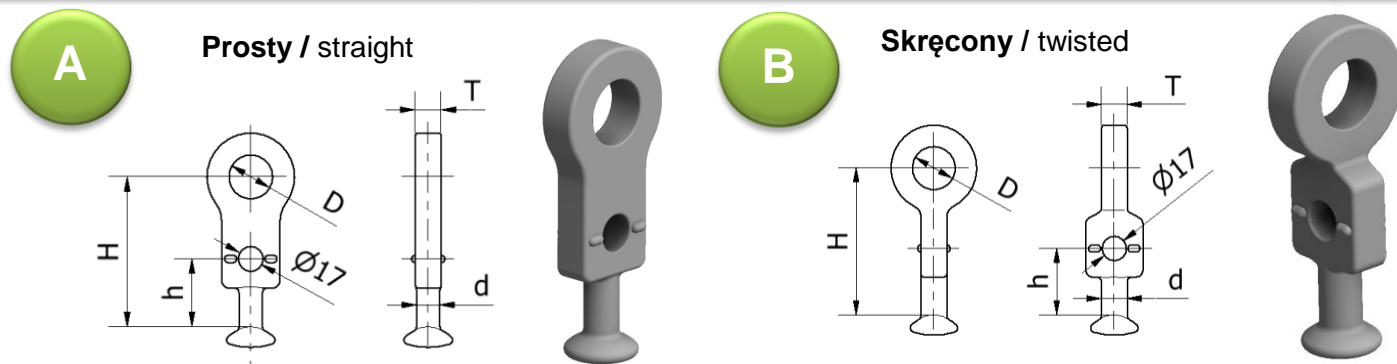
- Hot dip galvanized steel

Zastosowanie:

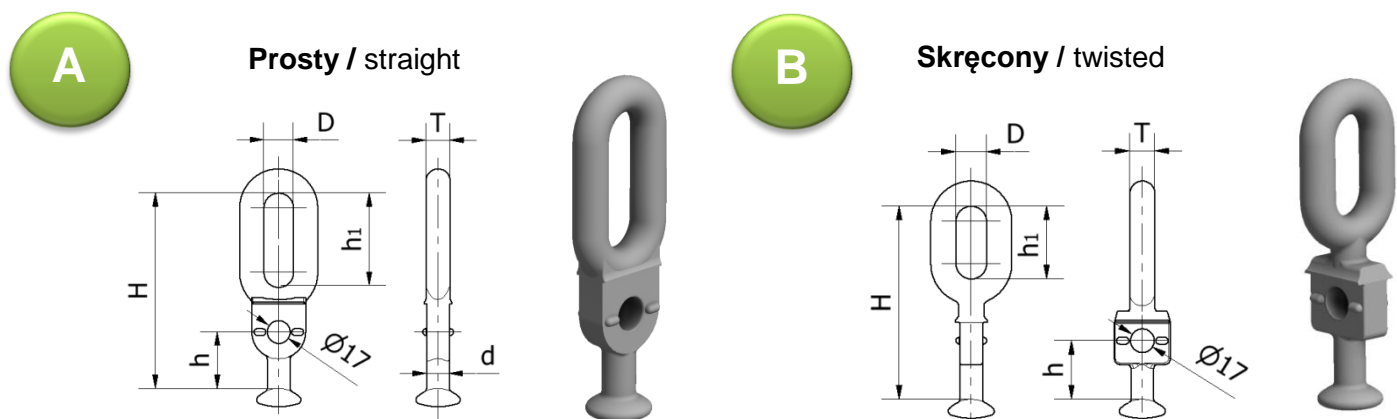
Łączniki używane do łączenia izolatorów długopniowych z łącznikami gniazdowymi oraz łączenia izolatorów między sobą z możliwością zamocowania sprzętu ochronnego

Application:

These double balls are used to connect multisectional long rod insulators with fittings elements and connect insulators in series with option to mount arcing horn (B)



| Typ Type | Numer katalogowy Catalog No. | Wielkość główki IEC class | Wymiary Dimensions [mm] | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|---------------------------------|-------------------------------|----|----|----|----|---|---|------------------------|
| | | | H | h | D | d | T | | | |
| A | LGLPr-103-120 | 16 | 103 | 47 | 30 | 16 | 18 | 31,5 | 120 | 0,8 |
| A | LGLPr-125-210 | 20 | 125 | 56 | 24 | 20 | 19 | 40 | 210 | 1,0 |
| A | LGLPr-125-210/1 | 20 | 125 | 56 | 24 | 20 | 19 | 50 | 210 | 1,3 |
| A | LGLPr-143-300 | 24 | 143 | 63 | 24 | 24 | 20 | 50 | 300 | 1,3 |
| B | LGLSr-103-120 | 16 | 103 | 47 | 30 | 16 | 18 | 31,5 | 120 | 0,8 |
| B | LGLSr-130-210 | 20 | 130 | 58 | 24 | 20 | 19 | 40 | 210 | 1,0 |
| B | LGLSr-130-210/1 | 20 | 130 | 58 | 24 | 20 | 19 | 50 | 210 | 1,3 |
| B | LGLSr-130/30-210 | 20 | 130 | 58 | 30 | 20 | 19 | 25 | 210 | 0,9 |



| Typ Type | Numer katalogowy Catalog No. | Wielkość główki IEC class | Wymiary Dimensions [mm] | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|---------------------------------|-------------------------------|----|----------------|----|----|----|---|---|------------------------|
| | | | H | h | h ₁ | D | d | T | | | |
| A | LGLOPr-145-120 | 16 | 145 | 42 | 70 | 22 | 16 | 18 | 16 | 120 | 1,2 |
| A | LGLOPr-160-100 | 16 | 160 | 62 | 55 | 22 | 16 | 16 | 16 | 100 | 1,5 |
| B | LGLOSr-138-100 | 16 | 138 | 42 | 52 | 22 | 16 | 18 | 16 | 100 | 1,1 |
| B | LGLOSr-173-120 | 16 | 173 | 56 | 64 | 24 | 16 | 18 | 16 | 120 | 1,2 |
| B | LGLOSr-168-160 | 20 | 168 | 42 | 75 | 30 | 20 | 20 | 16 | 160 | 1,2 |

Materiał:

- Stal cynkowana ogniowo

Material:

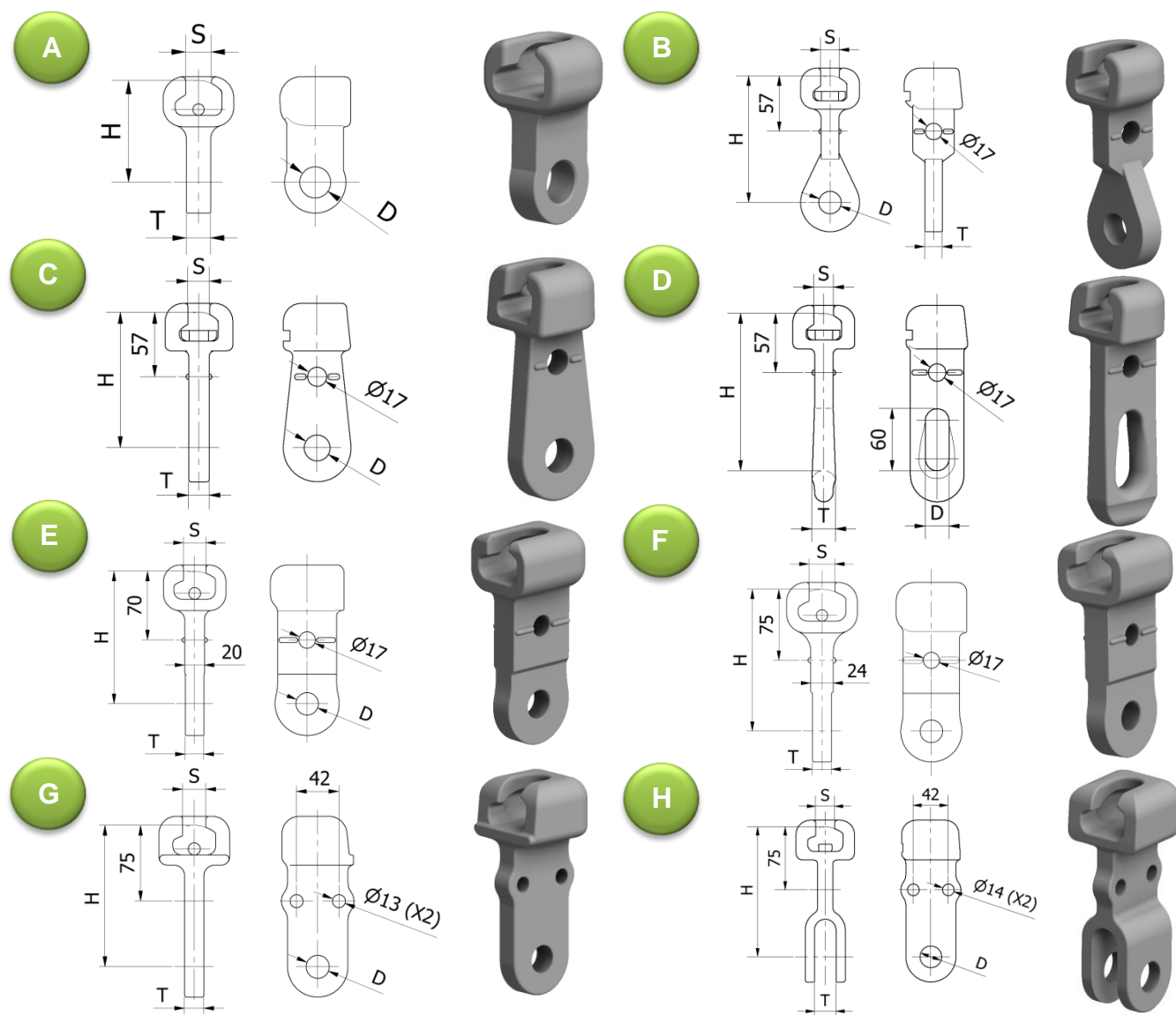
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do łączenia izolatorów z innymi elementami osprzętu

Application:

These ball tongues are used to connect insulators with fittings elements



| Typ Type | Numer katalogowy Catalog No. | Wielkość główki IEC class | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|------------------------------|-------------------------------|----|----|------|---|---|------------------------|
| | | | H | D | T | S | | | |
| A | LGPr-75-120 | 16 | 75 | 23 | 18 | 19 | 25 | 120 | 0,8 |
| B | LGNSr-130-120 | 16 | 130 | 23 | 18 | 19 | 25 | 120 | 1,1 |
| B | LGNSr-145-210 | 20 | 145 | 24 | 19 | 23 | 40 | 210 | 2,3 |
| C | LGPr-120-120 | 16 | 120 | 23 | 18 | 19 | 25 | 120 | 1,1 |
| D | LGPr-152-120 | 16 | 152 | 23 | 23 | 19 | 25 | 120 | 1,2 |
| E | LGPr-135-210 | 20 | 135 | 24 | 19 | 23 | 40 | 210 | 2,3 |
| F | LGPr-150-300 | 24 | 150 | 24 | 20 | 27,5 | 40 | 300 | 2,6 |
| G | LGPr-140-200 | 20 | 140 | 23 | 19 | 23 | 40 | 200 | 2,5 |
| G | LGPr-140-200/1 | 20 | 140 | 23 | 19 | 23 | 50 | 200 | 2,8 |
| H | WS-21AS | 20 | 155 | 26 | 26 | 23 | 40 | 210 | 2,3 |
| H | WS-21AS/24 | 20 | 155 | 24 | 26 | 23 | 40 | 210 | 2,3 |

Materiał:

- Żeliwo cynkowane ogniowo

Material:

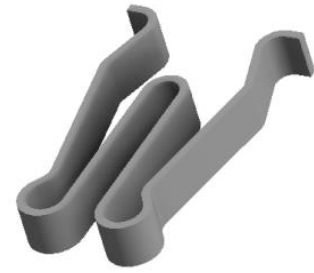
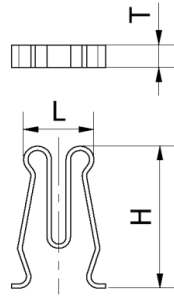
- Hot dip galvanized cast iron

Zastosowanie:

Łączniki używane do łączenia izolatorów z innymi elementami osprzętu

Application:

These socket eyes are used to connect insulators with fittings elements



| Numer katalogowy Catalog No. | Zastosowanie do złącza gniazdowego Socket size | Wymiary Dimensions [mm] | | | Masa Weight [kg] |
|---------------------------------|---|----------------------------|----|---|---------------------|
| | | H | L | T | |
| ZAW-016 | 16 | 50 | 24 | 8 | 0,02 |
| ZAW-020 | 20 | 60 | 24 | 7 | 0,02 |

Materiał:

- Brąz

Material:

- Bronze

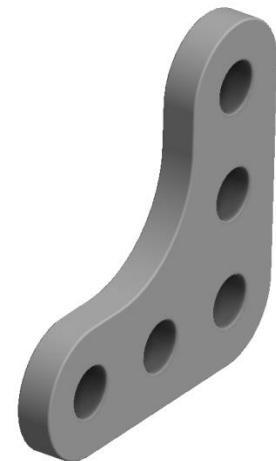
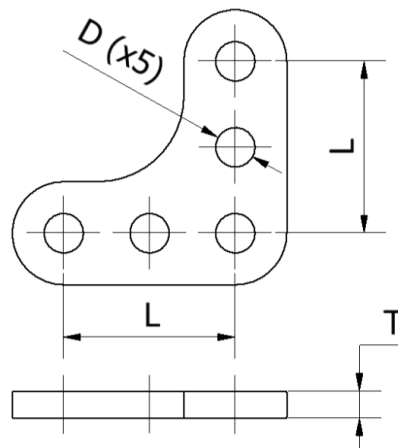
Zastosowanie:

Zabezpieczenie złącza gniazdowego

Application:

W-Clip are used to prevent slipping of the ball out of the socket

2.6 Łączniki kątowe - 90° / Yokes for tension adjustment



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|----------------------------|----|----|--|--|---------------------|
| | L | D | T | | | |
| LKT-100-120 | 100 | 23 | 16 | 40 | 120 | 1,8 |
| LKT-100-250 | 100 | 23 | 20 | 50 | 250 | 2,3 |

Materiał:

- Stal cynkowana ogniowo

Material:

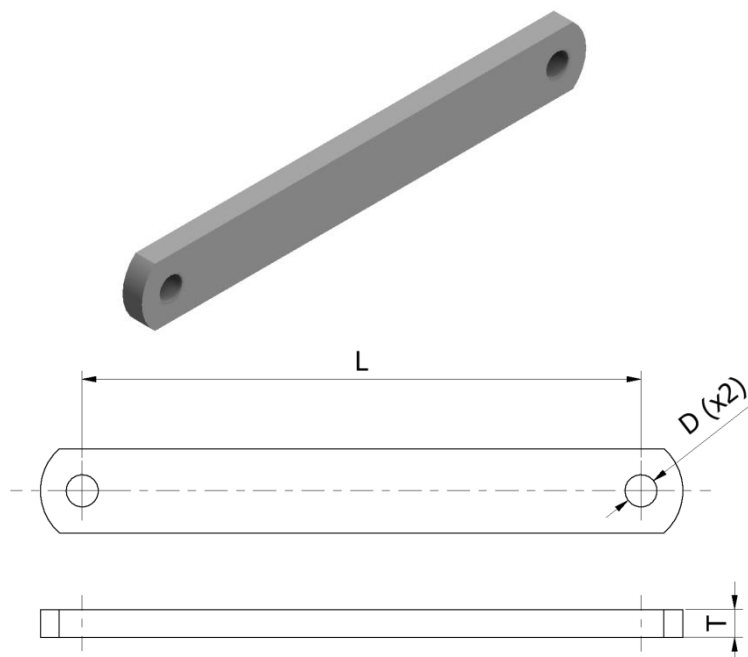
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do regulacji długości zawiesznień przewodów przy montażu łańcuchów i przewodów

Application:

These yokes are used as auxiliary device for installing tension of insulator strings and for the length adjustments of insulator strings



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|----|----|---|---|------------------------|
| | L | D | T | | | |
| L2P-70-210 | 70 | 23 | 20 | 50 | 210 | 1,0 |
| L2P-70-240 | 70 | 20 | 20 | 40 | 240 | 1,0 |
| L2P-80-300 | 80 | 27 | 20 | 40 | 300 | 1,2 |
| L2P-100-300 | 100 | 23 | 20 | 50 | 300 | 1,4 |
| L2P-136-300 | 136 | 27 | 20 | 40 | 300 | 1,7 |
| L2P-136-210 | 136 | 23 | 20 | 50 | 210 | 1,5 |
| L2P-170-300 | 170 | 28 | 20 | 40 | 300 | 2,4 |
| L2P-200-300 | 200 | 24 | 20 | 50 | 300 | 2,5 |
| L2P-210-210 | 210 | 23 | 20 | 50 | 210 | 2,1 |
| L2P-230-300 | 230 | 28 | 20 | 40 | 300 | 2,8 |
| L2P-300-120 | 300 | 23 | 12 | 40 | 120 | 1,8 |
| L2P-300-300 | 300 | 24 | 20 | 50 | 300 | 3,2 |
| L2P-350-300 | 350 | 23 | 20 | 50 | 300 | 3,6 |
| L2P-400-180 | 400 | 23 | 20 | 50 | 180 | 4,2 |
| L2P-400-300 | 400 | 28 | 20 | 40 | 300 | 4,4 |
| L2P-410-210 | 410 | 23 | 20 | 50 | 210 | 3,7 |
| L2P-450-120 | 450 | 23 | 12 | 40 | 120 | 2,8 |
| L2P-500-120 | 500 | 23 | 12 | 40 | 120 | 3,0 |
| L2P-500-400 | 500 | 27 | 22 | 40 | 400 | 7,3 |
| L2P-600-120 | 600 | 23 | 12 | 40 | 120 | 3,6 |
| L2P-600-300 | 600 | 28 | 20 | 40 | 300 | 6,2 |
| L2P-680-300 | 680 | 23 | 20 | 50 | 300 | 7,0 |
| L2P-700-120 | 700 | 23 | 12 | 40 | 120 | 4,2 |

Material:

- Stal cynkowana ogniowo

Material:

- Hot dip galvanized steel

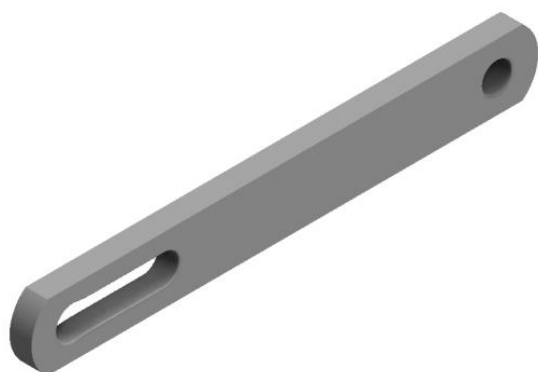
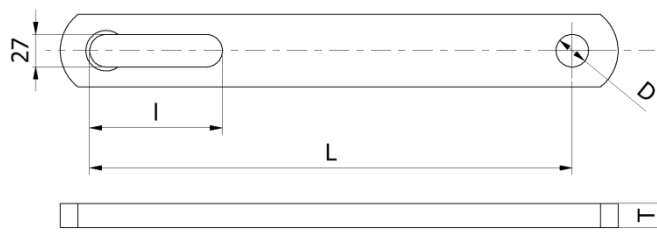
Zastosowanie:

Łączniki używane do łączenia różnych elementów osprzętu łańcuchów izolatorów

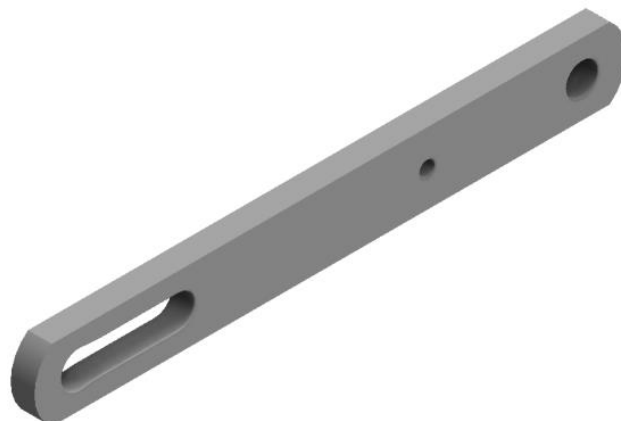
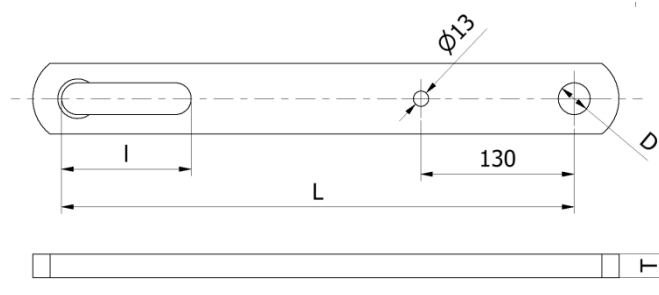
Application:

These extension straps are used to connect fitting elements on insulator strings

A



B



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|-----|----|----|---|---|------------------------|
| | | L | I | D | T | | | |
| A | L2PO-85-300 | 85 | 60 | 27 | 18 | 50 | 300 | 0,8 |
| A | L2PO-230-300 | 230 | 110 | 27 | 20 | 40 | 300 | 1,8 |
| A | L2PO-400-300 | 400 | 110 | 27 | 20 | 40 | 300 | 3,4 |
| A | L2PO-435-120 | 435 | 110 | 27 | 12 | 25 | 120 | 2,5 |
| A | L2PO-435-300 | 435 | 110 | 27 | 20 | 40 | 300 | 3,7 |
| A | L2PO-600-300 | 600 | 110 | 27 | 20 | 40 | 300 | 5,3 |
| B | L2PO-435-300/1 | 435 | 110 | 27 | 20 | 40 | 300 | 3,6 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

- Hot dip galvanized steel

Zastosowanie:

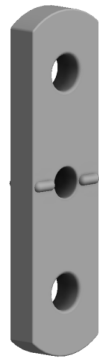
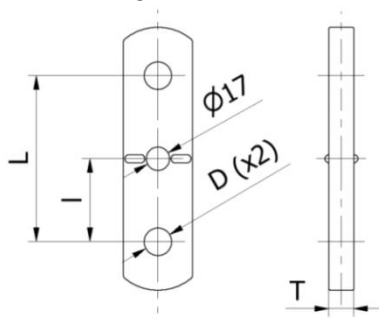
Łączniki używane do łączenia różnych elementów osprzętu łańcuchów izolatorów

Application:

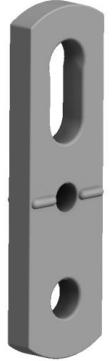
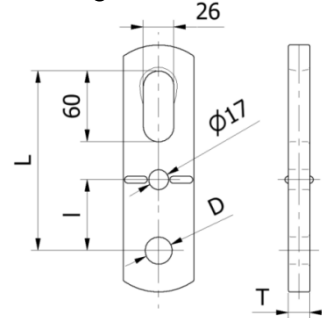
These extension straps are used to connect fitting elements on insulator strings



➤ **Ucha okrągłe płaskie**
Straight holes



➤ **Ucho okrągłe i owalne**
Straight and oval hole



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|----|----|----|---|---|------------------------|
| | | L | I | D | T | | | |
| A | L2Pr-120-270 | 120 | 60 | 20 | 18 | 40 | 270 | 1,2 |
| A | L2Pr-136/27-300 | 136 | 68 | 27 | 18 | 40 | 300 | 1,4 |
| A | L2Pr-136/23-300 | 136 | 68 | 23 | 18 | 40 | 300 | 1,5 |
| B | L2Pr-152-210 | 152 | 60 | 23 | 18 | 40 | 210 | 1,4 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

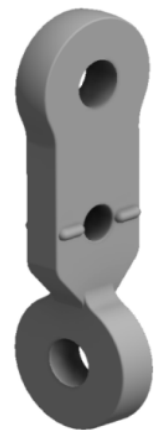
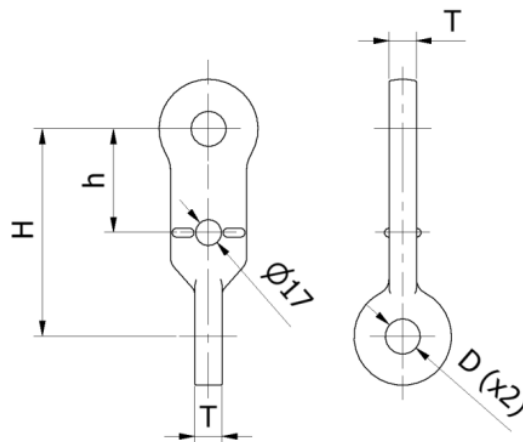
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do łączenia elementów osprzętu ochronnego z innymi elementami łańcuchów izolatorów

Application:

These double eyes are used to connect suspension insulators with fittings in insulator strings. With these double eyes, arcing horns can be attached



| Numer katalogowy Catalog No. | Wymiary / Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|------------------------------|----|----|----|--|--|------------------------|
| | H | h | D | T | | | |
| L2Sr-106-210 | 106 | 53 | 21 | 18 | 25 | 210 | 1,1 |
| L2Sr-120-240 | 120 | 60 | 20 | 18 | 40 | 240 | 1,2 |
| L2Sr-136-210 | 136 | 68 | 23 | 18 | 50 | 210 | 1,3 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

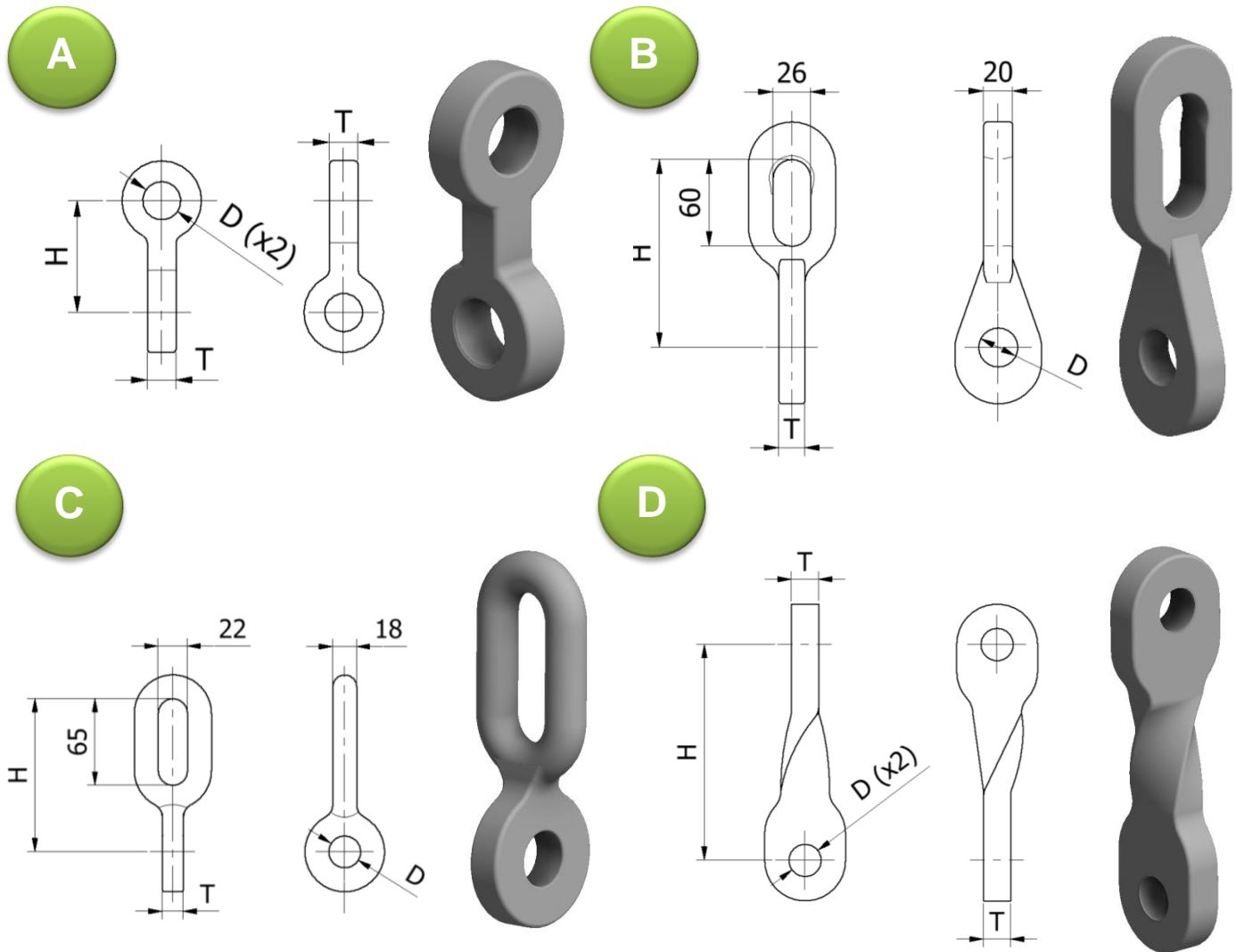
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do łączenia elementów osprzętu ochronnego z innymi elementami łańcuchów izolatorów

Application:

These double eyes are used to connect arcing horns with other elements on insulator strings



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|----|----|---|---|------------------------|
| | | H | D | T | | | |
| A | L2S-70-160 | 70 | 24 | 18 | 40 | 160 | 0,6 |
| A | L2S-90/23-250 | 90 | 23 | 19 | 40 | 250 | 1,0 |
| A | L2S-90/20-250 | 90 | 20 | 19 | 40 | 250 | 1,0 |
| A | L2S-80-200 | 80 | 20 | 19 | 40 | 200 | 0,8 |
| A | L2S-80-140 | 80 | 18 | 19 | 40 | 140 | 0,8 |
| A | L2S-90-210 | 90 | 23 | 19 | 50 | 250 | 1,1 |
| A | L2S-120-370 | 120 | 24 | 22 | 40 | 370 | 1,5 |
| B | L2S-130-300 | 130 | 27 | 18 | 40 | 300 | 1,6 |
| C | L2SO-115-120 | 115 | 24 | 16 | 16 | 120 | 1,1 |
| D | L2S-160-200 | 160 | 24 | 20 | 40 | 200 | 1,5 |
| D | L2S-160-300 | 160 | 27 | 20 | 40 | 300 | 1,7 |

Materiał:

- Stal cynkowana ogniowo

Material:

- Hot dip galvanized steel

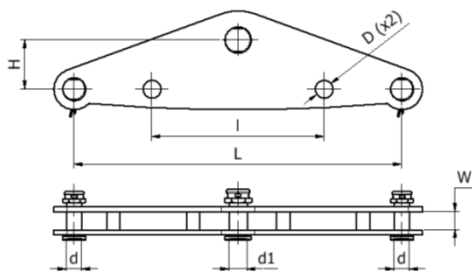
Zastosowanie:

Łączniki używane do łączenia różnych elementów osprzętu łańcuchów izolatorów

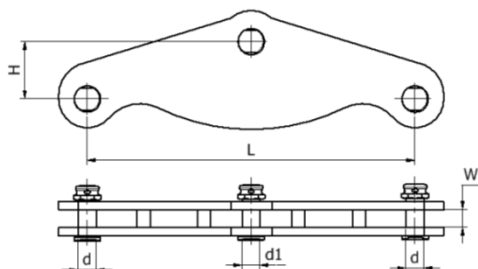
Application:

These double eyes are used to connect fitting elements in insulator strings

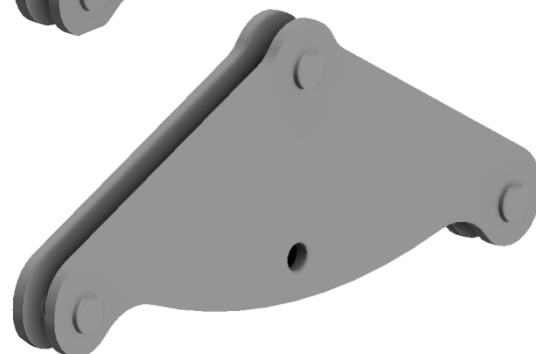
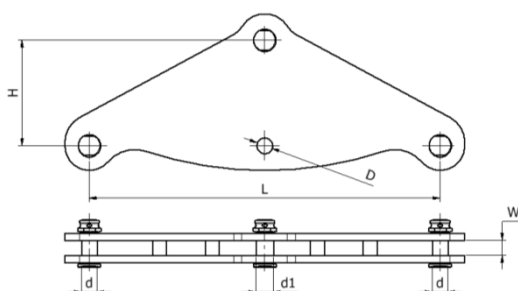
A



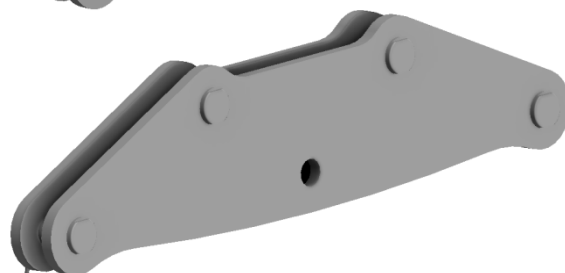
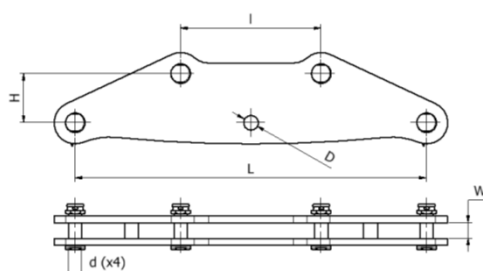
B



C



D



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|----------------------------|-----|-----|----|----|----|----|--|--|---------------------|
| | | H | L | I | D | d | d1 | W | | | |
| A | LO2-60-160 | 60 | 400 | 210 | 22 | 19 | 22 | 22 | 40 | 160 | 7,5 |
| B | LO2-70-300 | 70 | 400 | - | - | 22 | 25 | 22 | 40 | 300 | 7,9 |
| B | LO2-70-210 | 70 | 400 | - | - | 22 | 22 | 22 | 40 | 210 | 6,0 |
| B | LO2-80/22-160 | 80 | 500 | - | - | 22 | 22 | 22 | 40 | 160 | 6,9 |
| C | LO2-80/19-160 | 80 | 500 | - | 21 | 19 | 22 | 22 | 40 | 160 | 6,8 |
| C | LO2-80-210 | 80 | 500 | - | 22 | 22 | 22 | 22 | 40 | 210 | 8,7 |
| C | LO2-150-300 | 150 | 500 | - | 23 | 22 | 25 | 22 | 50 | 300 | 12,3 |
| D | LO2-70-160 | 70 | 500 | 200 | 21 | 19 | - | 22 | 40 | 160 | 7,1 |
| D | LO2-70-210/1 | 70 | 500 | 200 | 21 | 19 | - | 22 | 50 | 210 | 8,0 |

Materiał:

- Stal cynkowana ogniowo

Material:

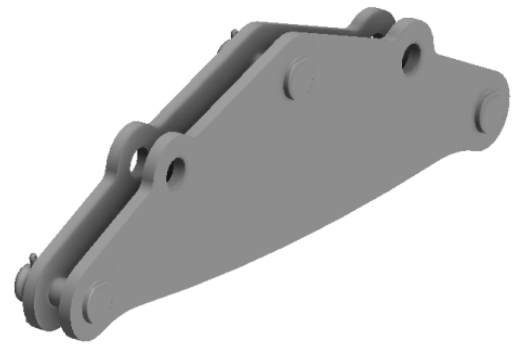
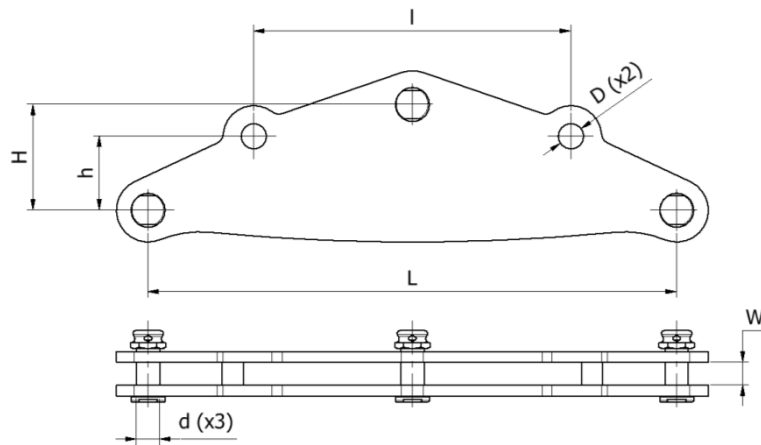
- Hot dip galvanized steel

Zastosowanie:

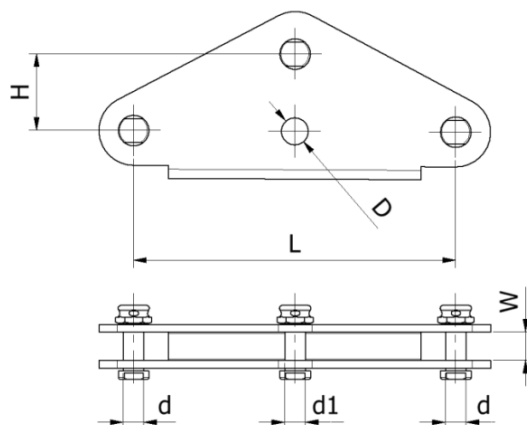
Łączniki używane do budowy łańcuchów izolatorów

Application:

These yokes are used in insulator string assemblies



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|----|-----|-----|----|----|----|---|---|------------------------|
| | H | h | L | I | D | d | W | | | |
| LO2-100-400 | 100 | 70 | 500 | 300 | 24 | 22 | 22 | 40 | 400 | 12,3 |



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|-----|----|----|----|----|---|---|------------------------|
| | H | L | D | d | d1 | W | | | |
| LO2-30-40 | 30 | 250 | 21 | 16 | 19 | 22 | 16 | 40 | 2,0 |
| LO2-60-120 | 60 | 250 | 21 | 16 | 19 | 22 | 25 | 120 | 2,7 |
| LO2-60/19-120 | 60 | 400 | 21 | 19 | 19 | 22 | 25 | 120 | 4,3 |
| LO2-60/16-120 | 60 | 400 | 21 | 16 | 19 | 22 | 25 | 120 | 4,3 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

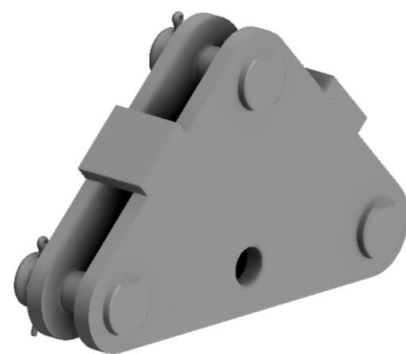
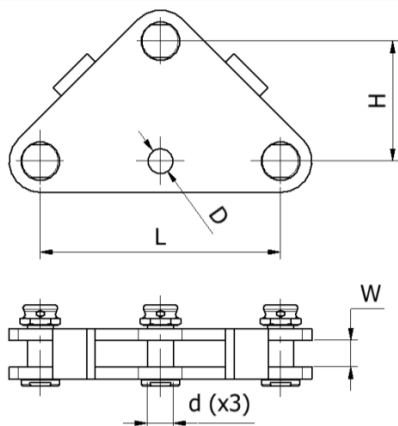
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do budowy łańcuchów izolatorów

Application:

These yokes are used in insulator string assemblies



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|-----|----|----|----|---|--|------------------------|
| | H | L | D | d | W | | | |
| LO2-75-160 | 75 | 80 | - | 22 | 22 | 40 | 160 | 2,5 |
| LO2-100-120 | 100 | 200 | 21 | 22 | 22 | 40 | 120 | 3,8 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

- Hot dip galvanized steel

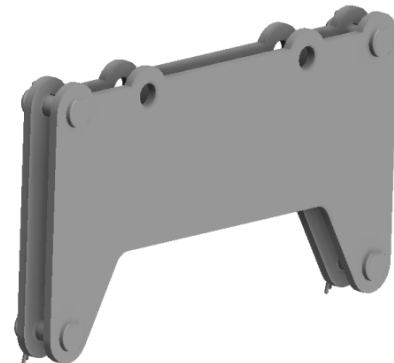
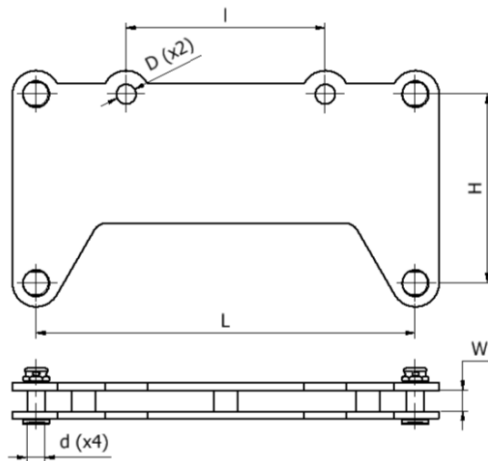
Zastosowanie:

Łącznik używany do budowy łańcuchów izolatorów w układzie „V”

Application:

This Yoke is used in insulator string assemblies in “V” suspensions strings

Łącznik orczykowy dwurzędowy w układzie „V” / Yoke - „V” type



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|-----|-----|----|----|----|---|--|------------------------|
| | H | L | I | D | d | W | | | |
| LOV-200-180 | 200 | 400 | 210 | 21 | 20 | 22 | 40 | 180 | 11,6 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

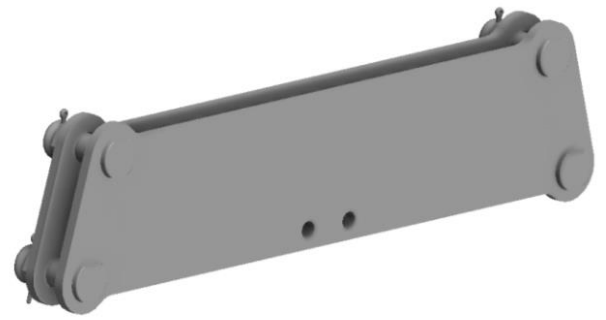
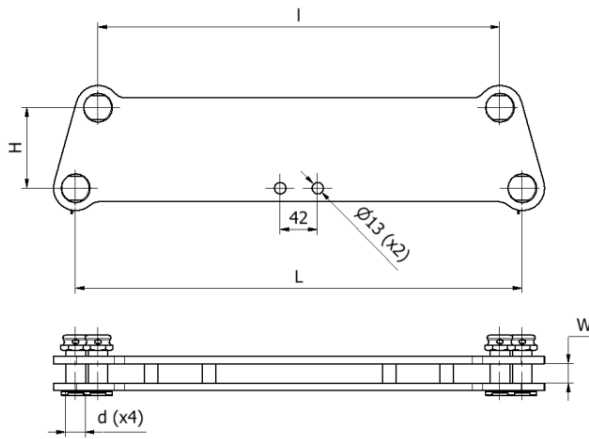
- Hot dip galvanized steel

Zastosowanie:

Łącznik używany do budowy łańcuchów izolatorów w układzie „V” dla wiązki dwuprzewodowej

Application:

This yoke is used to connect insulators in “V” suspension strings for double bundle conductors



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|-----|-----|----|----|---|---|------------------------|
| | H | L | l | d | W | | | |
| LO2-90-360 | 90 | 500 | 450 | 22 | 22 | 40 | 300 | 11,5 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

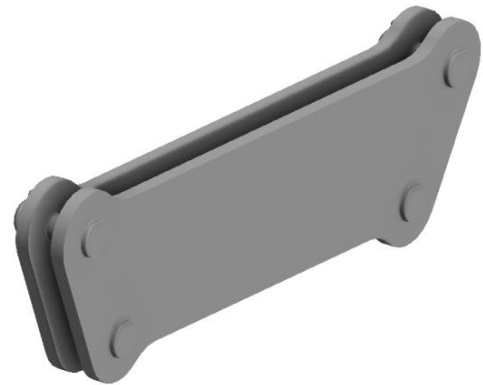
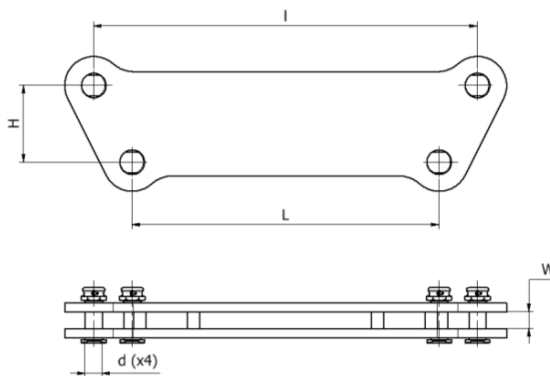
- Hot dip galvanized steel

Zastosowanie:

Łącznik używany do budowy łańcuchów izolatorów w układzie „V” dla wiązki dwuprzewodowej
Otwory o średnicy Ø13 mm umożliwiają zamocowanie pierścienia ochronnego

Application:

This yoke is used to connect insulators in “V” suspension strings for double bundle conductors
13 mm diameter holes allow to attach arcing ring



| Numer katalogowy Catalog No. | Wymiary / Dimensions [mm] | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|------------------------------|-----|-----|----|----|---|---|------------------------|
| | H | L | l | d | W | | | |
| LO2-100-360 | 100 | 400 | 500 | 22 | 22 | 50 | 360 | 12,5 |
| LO2-100-500 | 100 | 400 | 500 | 22 | 22 | 50 | 500 | 14,6 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

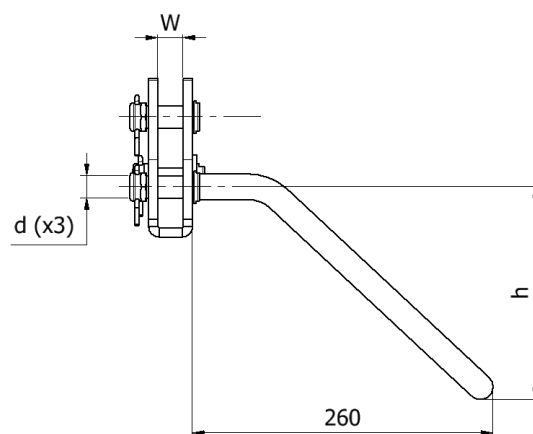
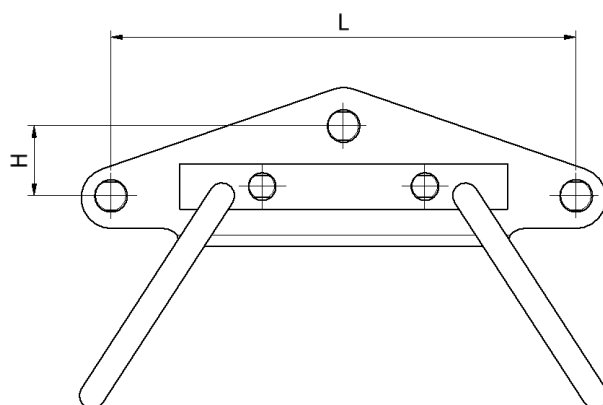
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do łączenia izolatorów w łańcuchy dla wiązki dwuprzewodowej

Application:

These yokes are used to fix twin bundles to double insulator strings



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|-----|-----|----|----|---|---|------------------------|
| | H | h | L | d | W | | | |
| LO2S-60/19-120 | 60 | 260 | 400 | 19 | 22 | 25 | 120 | 8,1 |
| LO2S-60/19-120/1 | 60 | 180 | 400 | 19 | 22 | 25 | 120 | 7,7 |

Material:

- Stal cynkowana ogniowo

Material:

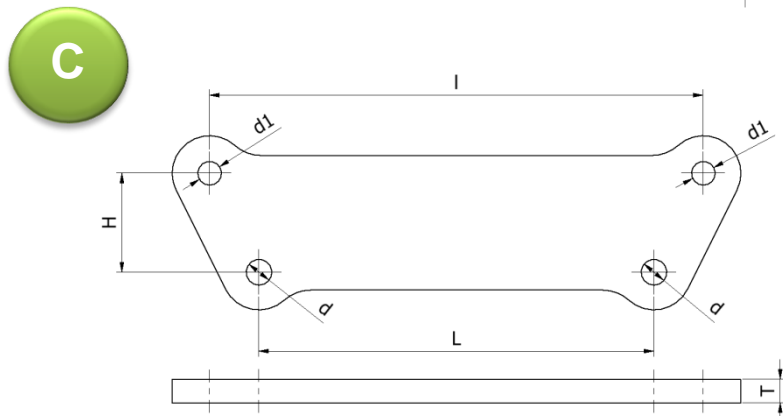
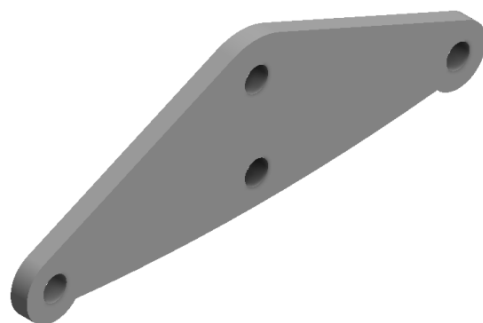
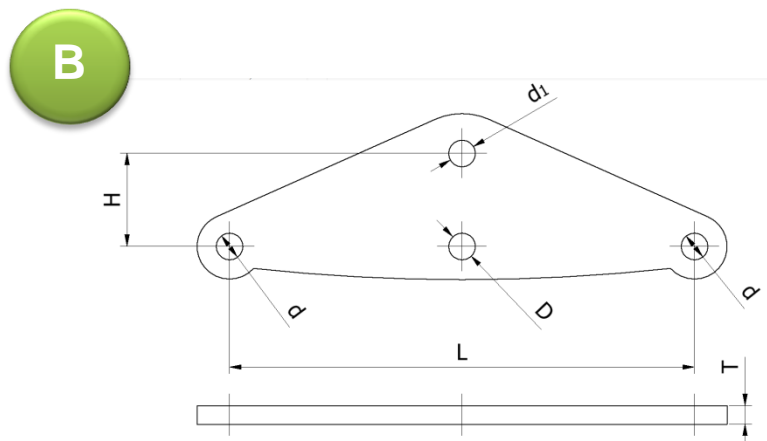
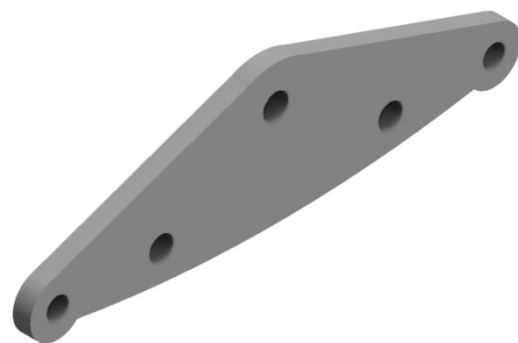
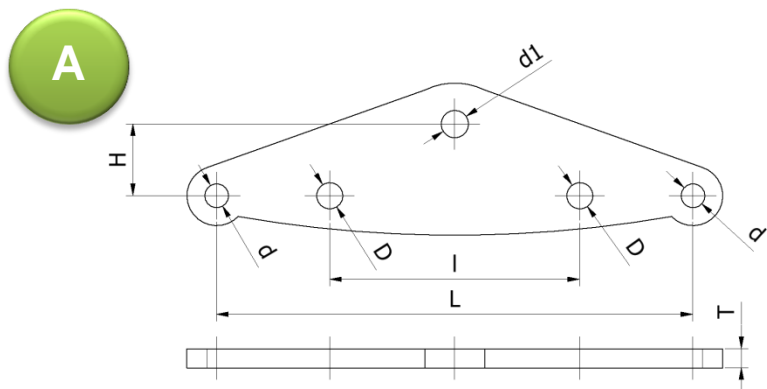
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do budowy łańcuchów izolatorów

Application:

These yokes are used in insulator string assemblies



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|-----|-----|----|----|----------------|----|---|---|------------------------|
| | | H | L | l | D | d | d ₁ | T | | | |
| A | LOP2-60/400-160 | 60 | 400 | 210 | 22 | 20 | 23 | 16 | 40 | 160 | 6,5 |
| B | LOP2-80/400-160 | 80 | 400 | - | 23 | 23 | 23 | 16 | 40 | 160 | 7,0 |
| B | LOP2-80/500-160 | 80 | 500 | - | 21 | 24 | 24 | 18 | 40 | 160 | 6,6 |
| B | LOP2-80/500-160/1 | 80 | 500 | - | 21 | 19 | 22 | 18 | 40 | 160 | 6,5 |
| C | LOP2-100-370 | 100 | 400 | 500 | - | 26 | 24 | 24 | 50 | 370 | 12,2 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

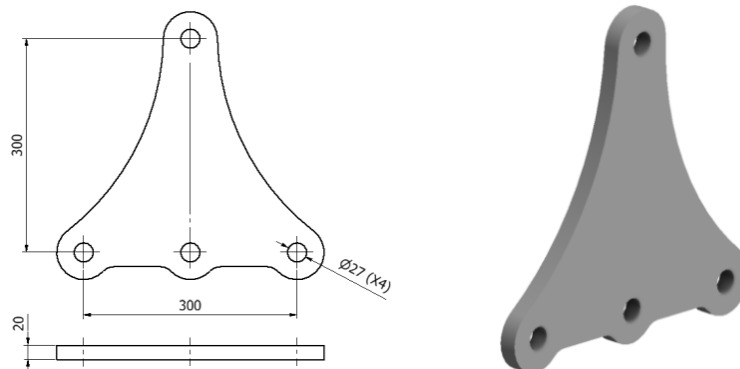
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do budowy łańcuchów izolatorów

Application:

These yokes are used in insulator string assemblies



| Numer katalogowy Catalog No. | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|---|---|------------------------|
| LOT-300-300 | 50 | 300 | 10 |

Material:

- Stal cynkowana ogniowo
- Hot dip galvanized steel

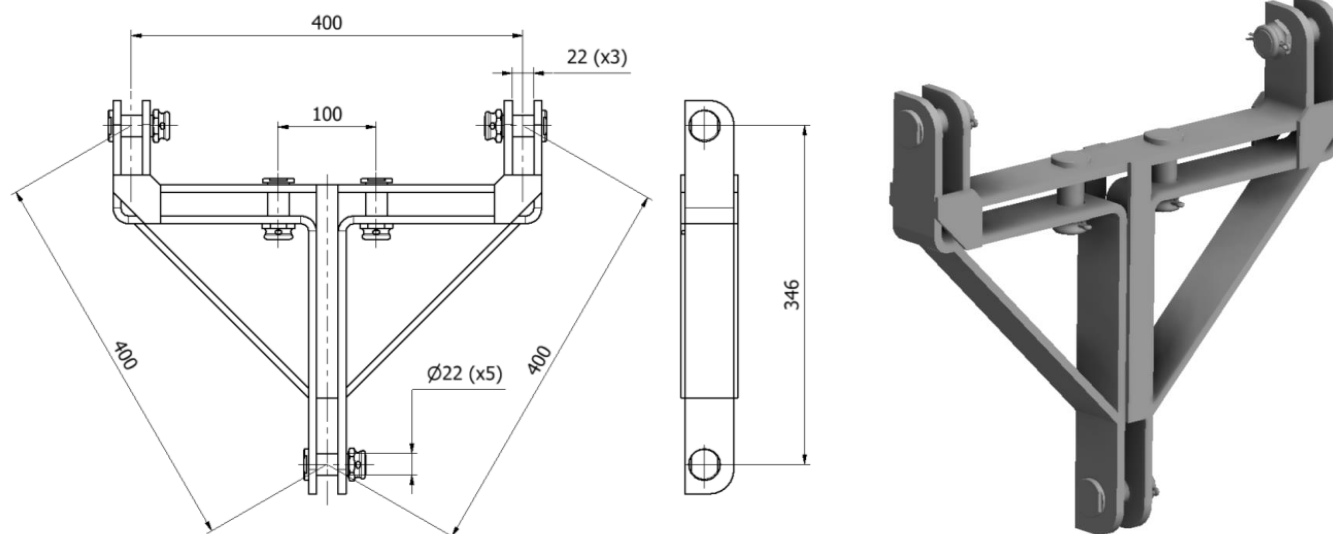
Zastosowanie:

Łącznik używany do budowy łańcuchów izolatorów

Application:

This yoke is used in insulator string assemblies

Ł 2.16 Łączniki orczykowe dla wiązki potrójnej / Yoke for triple insulator string



| Numer katalogowy Catalog No. | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|---|---|------------------------|
| LO3-346-360 | 40 | 360 | 20,0 |

Material:

- Stal cynkowana ogniowo

Material:

- Hot dip galvanized steel

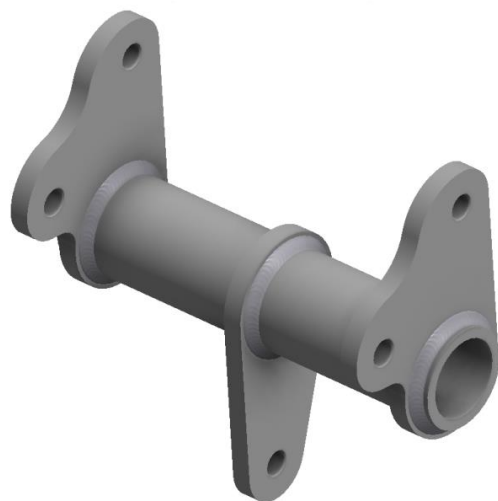
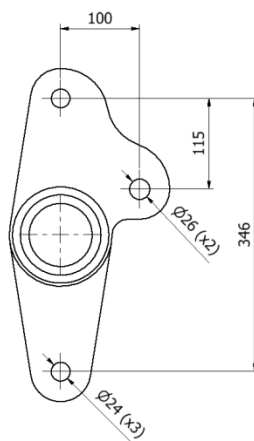
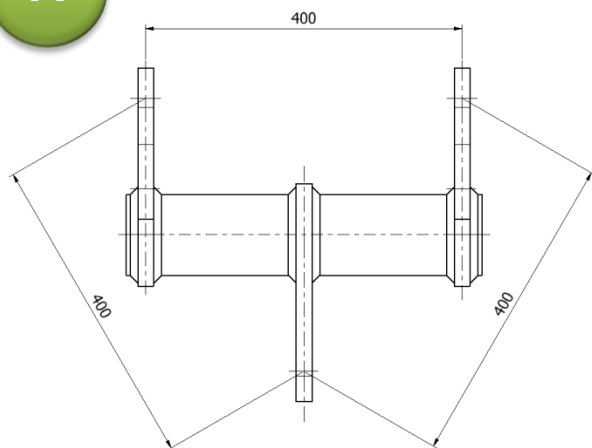
Zastosowanie:

Łącznik używany do budowy łańcuchów odciągowych dla wiązki trójprzewodowej

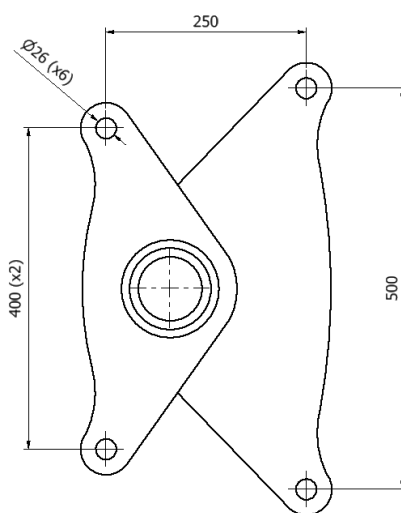
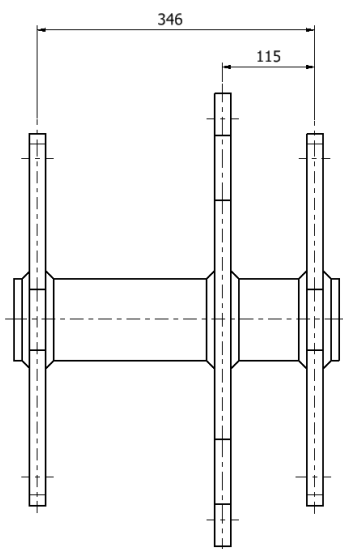
Application:

This yoke is used for the construction of tension strings for triple conductor lines

A



B



| Typ Type | Numer katalogowy Catalog No. | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|---|---|------------------------|
| A | LO3-346-450 | 50 | 450 | 24,0 |
| B | LO3-250-400 | 40 | 400 | 33,0 |

Materiał:

- Stal cynkowana ogniowo

Material:

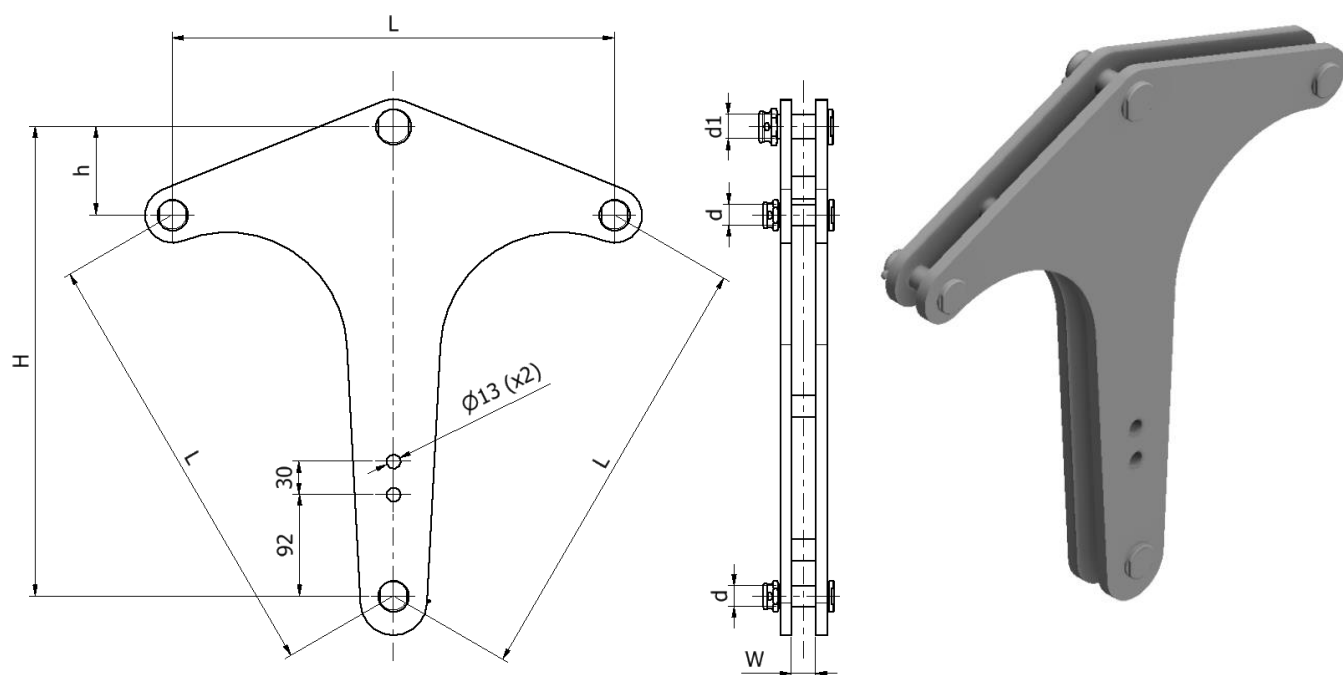
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do budowy łańcuchów odciągowych dla wiązki trójprzewodowej

Application:

These yokes are used for the construction of tension strings for triple conductor lines



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|----|-----|----|----|----|---|---|------------------------|
| | H | h | L | d | d1 | W | | | |
| LO3-425-210 | 425 | 80 | 400 | 20 | 22 | 22 | 40 | 210 | 11,0 |
| LO3-425-240 | 425 | 80 | 400 | 20 | 22 | 22 | 40 | 240 | 12,0 |

Material:

- Stal cynkowana ogniowo

Material:

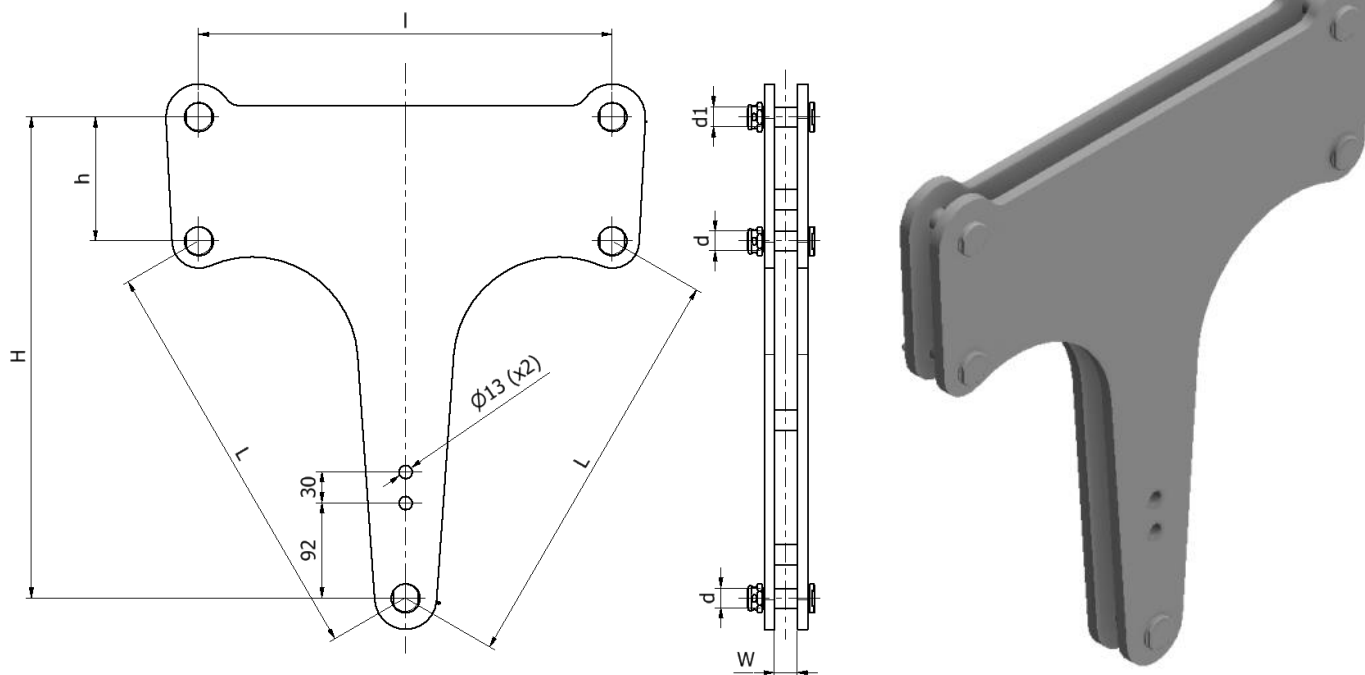
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do budowy łańcuchów izolatorów dla wiązki przewodów

Application:

These yokes are used in insulator strings assemblies for bundle conductors



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|-----|-----|-----|----|----|----|---|---|------------------------|
| | H | h | L | l | d | d1 | W | | | |
| LO3-415-210 | 415 | 70 | 400 | 400 | 22 | 22 | 22 | 50 | 210 | 13,8 |
| LO3-435-210 | 435 | 90 | 400 | 500 | 19 | 19 | 22 | 40 | 210 | 16,0 |
| LO3-465-210 | 465 | 120 | 400 | 400 | 19 | 19 | 22 | 40 | 210 | 16,9 |
| LO3-465-250 | 465 | 120 | 400 | 400 | 19 | 22 | 22 | 50 | 250 | 19,0 |

Material:

- Stal cynkowana ogniowo

Material:

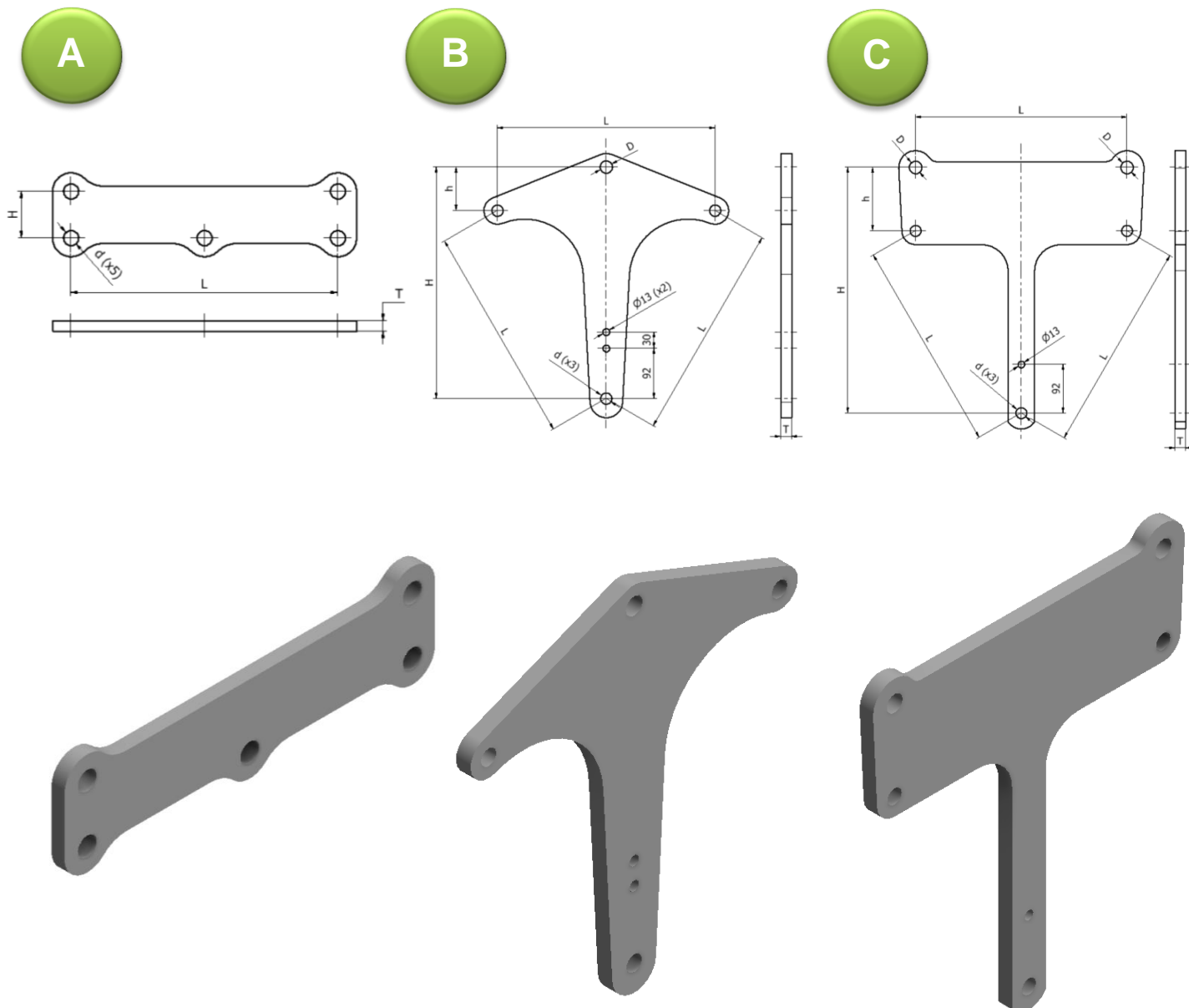
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do budowy łańcuchów izolatorów dla wiązki przewodów

Application:

These yokes are used in insulator strings assemblies for bundle conductors



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|-----|-----|----|----|----|---|---|------------------------|
| | | H | h | L | D | d | T | | | |
| A | LOP3-70-180 | 70 | - | 400 | - | 23 | 16 | 40 | 180 | 7,3 |
| B | LOP3-425-210 | 425 | 80 | 400 | 23 | 21 | 20 | 40 | 210 | 10,8 |
| C | LOP3-465-210 | 465 | 120 | 400 | 24 | 21 | 20 | 40 | 210 | 16,3 |

Materiał:

- Stal cynkowana ogniowo

Material:

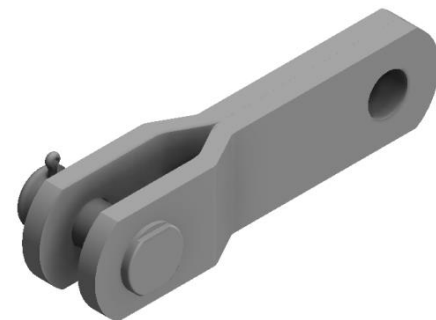
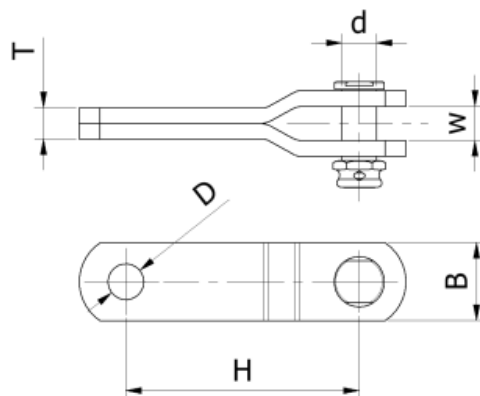
- Hot dip galvanized steel

Zastosowanie:

Łączniki płytowe używane do budowy łańcuchów izolatorów dla wiązki potrójnej

Application:

These yoke plates are used in insulator strings assemblies for triple bundle conductors



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|------|----|----|----|----|---|---|------------------------|
| | H | D | d | T | W | B | | | |
| LP1-100-120 | 100 | 21,5 | 19 | 19 | 22 | 50 | 25 | 120 | 1,1 |
| LP1-100-180 | 100 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 1,2 |
| LP1-104-120 | 104 | 17 | 16 | 19 | 24 | 44 | 25 | 120 | 0,8 |
| LP1-110-120 | 110 | 21,5 | 19 | 16 | 22 | 50 | 25 | 120 | 1,2 |
| LP1-120-120 | 120 | 21,5 | 19 | 19 | 22 | 50 | 25 | 120 | 1,3 |
| LP1-150-120 | 150 | 21,5 | 19 | 19 | 22 | 50 | 25 | 120 | 1,4 |
| LP1-150/27-120 | 150 | 27 | 19 | 19 | 22 | 50 | 25 | 120 | 1,4 |
| LP1-150-180 | 150 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 1,5 |
| LP1-150/27-180 | 150 | 27 | 22 | 20 | 22 | 50 | 50 | 180 | 1,5 |
| LP1-200-120 | 200 | 21,5 | 19 | 19 | 22 | 50 | 25 | 120 | 1,7 |
| LP1-200-180 | 200 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 1,9 |
| LP1-235-120 | 235 | 21,5 | 19 | 19 | 22 | 50 | 25 | 120 | 1,9 |
| LP1-250-180 | 250 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 2,1 |
| LP1-300-120 | 300 | 21,5 | 19 | 19 | 22 | 50 | 25 | 120 | 2,4 |
| LP1-300-180 | 300 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 2,4 |
| LP1-300/27-120 | 300 | 27 | 19 | 19 | 22 | 50 | 40 | 120 | 2,3 |
| LP1-320/27-120 | 320 | 27 | 19 | 19 | 22 | 50 | 40 | 120 | 2,4 |
| LP1-350-180 | 350 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 2,7 |
| LP1-350-400 | 350 | 23 | 22 | 22 | 22 | 50 | 40 | 400 | 4,9 |
| LP1-400-120 | 400 | 21,5 | 19 | 19 | 22 | 50 | 25 | 120 | 3,0 |
| LP1-400/27-120 | 400 | 27 | 19 | 19 | 22 | 50 | 40 | 120 | 2,9 |
| LP1-400-180 | 400 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 3,0 |
| LP1-450/27-120 | 450 | 27 | 19 | 19 | 22 | 50 | 40 | 120 | 3,3 |
| LP1-450-180 | 450 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 3,3 |
| LP1-500-180 | 500 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 3,6 |
| LP1-550-180 | 550 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 3,9 |
| LP1-600-120 | 600 | 27 | 19 | 19 | 22 | 50 | 40 | 120 | 4,2 |
| LP1-600-180 | 600 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 4,2 |
| LP1-650-180 | 650 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 4,5 |
| LP1-700-120 | 700 | 27 | 19 | 19 | 22 | 50 | 40 | 120 | 4,9 |
| LP1-700-180 | 700 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 4,9 |
| LP1-750-180 | 750 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 5,2 |
| LP1-800-180 | 800 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 5,5 |
| LP1-850-120 | 850 | 27 | 19 | 19 | 22 | 50 | 40 | 120 | 5,8 |
| LP1-850-180 | 850 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 5,8 |
| LP1-900-180 | 900 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 6,1 |
| LP1-950-180 | 950 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 6,4 |
| LP1-1000-120 | 1000 | 27 | 19 | 19 | 22 | 50 | 40 | 120 | 7,0 |
| LP1-1000-180 | 1000 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 6,7 |
| LP1-1050-180 | 1050 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 7,0 |
| LP1-1100-120 | 1100 | 27 | 19 | 19 | 22 | 50 | 40 | 120 | 7,3 |
| LP1-1100-180 | 1100 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 7,3 |
| LP1-1120-180 | 1120 | 23 | 22 | 20 | 22 | 50 | 50 | 180 | 7,5 |

Materiał:

- Stal cynkowana ogniowo

Material:

- Hot dip galvanized steel

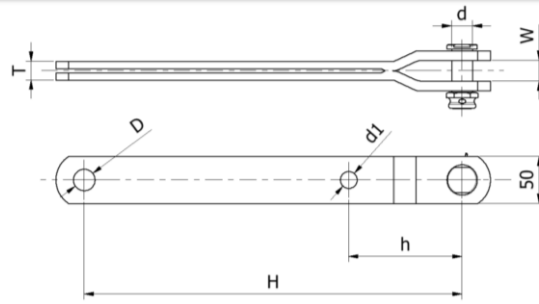
Zastosowanie:

Łączniki używane do budowy łańcuchów izolatorów

Application:

These links are used in insulator string assemblies

Ł 2.20 Łączniki przedłużające jednowidlaste - sworzeń śrubowy / Clevis extension links w/screw bolt



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|-----|----|----|----|----|----|---|---|------------------------|
| | H | h | D | d | d1 | T | W | | | |
| LP1O-400-180 | 400 | 120 | 23 | 22 | 18 | 20 | 22 | 50 | 180 | 3,0 |
| LP1O-400-180/1 | 400 | 200 | 23 | 22 | 24 | 20 | 22 | 50 | 180 | 3,0 |

Material:

- Stal cynkowana ogniowo

Material:

- Hot dip galvanized steel

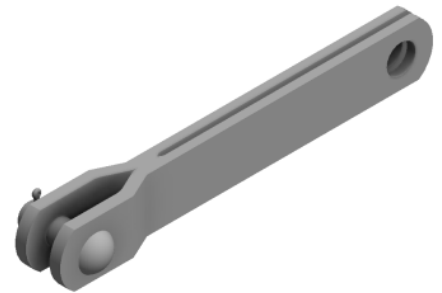
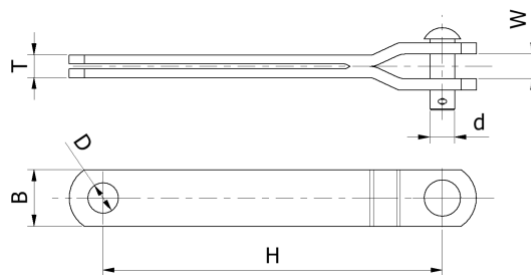
Zastosowanie:

Łączniki używane do budowy łańcuchów izolatorów

Application:

These links are used in insulator string assemblies

Ł 2.21 Łączniki przedłużające jednowidlaste - sworzeń nitowy / Clevis extension links with rivet pin



| Numer katalogowy Catalog No. | Wymiary / Dimensions [mm] | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|------------------------------|----|----|----|----|----|---|---|------------------------|
| | H | D | d | T | W | B | | | |
| LP1n-150-40 | 150 | 22 | 16 | 13 | 22 | 40 | 12 | 40 | 0,7 |
| LP1n-200-40 | 200 | 22 | 16 | 13 | 22 | 40 | 12 | 40 | 0,8 |
| LP1n-300-120 | 300 | 27 | 20 | 19 | 22 | 50 | 25 | 120 | 2,3 |
| LP1n-320-120 | 320 | 27 | 20 | 19 | 22 | 50 | 25 | 120 | 2,4 |
| LP1n-400-120 | 400 | 27 | 20 | 19 | 22 | 50 | 25 | 120 | 2,9 |
| LP1n-450-120 | 450 | 27 | 20 | 19 | 22 | 50 | 25 | 120 | 3,2 |
| LP1n-600-120 | 600 | 27 | 20 | 19 | 22 | 50 | 25 | 120 | 4,2 |
| LP1n-700-120 | 700 | 27 | 20 | 19 | 22 | 50 | 25 | 120 | 4,9 |
| LP1n-850-120 | 850 | 27 | 20 | 19 | 22 | 50 | 25 | 120 | 5,7 |
| LP1n-1000-120 | 1000 | 27 | 20 | 19 | 22 | 50 | 25 | 120 | 7,0 |
| LP1n-1100-120 | 1110 | 27 | 20 | 19 | 22 | 50 | 25 | 120 | 7,3 |

Material:

- Stal cynkowana ogniowo

Material:

- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do budowy łańcuchów izolatorów

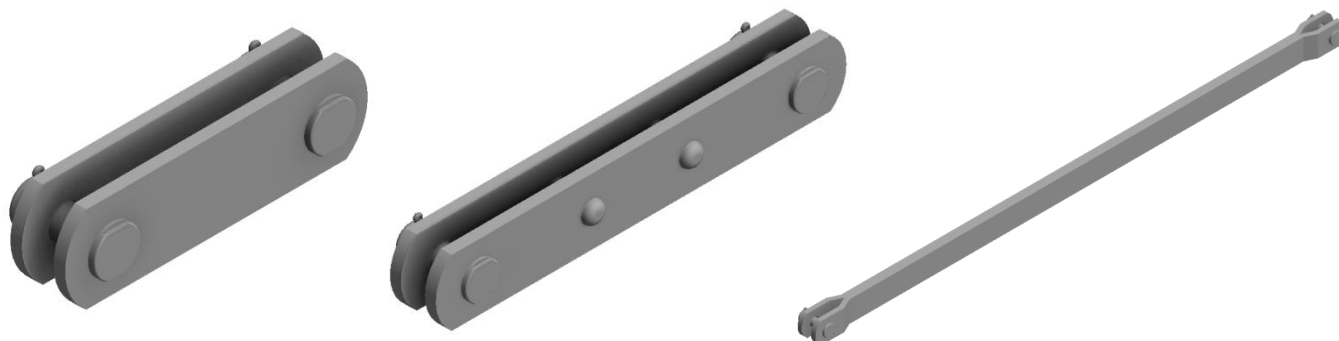
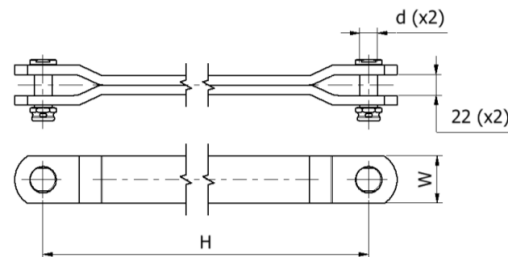
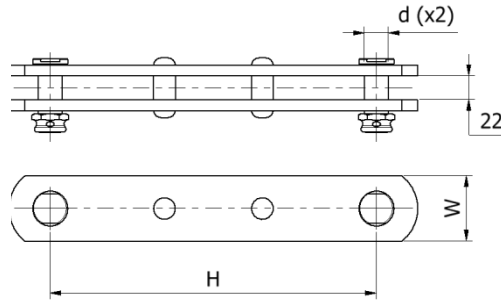
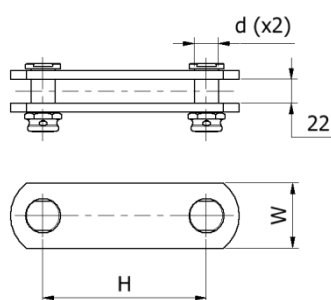
Application:

These links are used in insulator string assemblies

A

B

C



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|----|----|---|---|------------------------|
| | | H | d | W | | | |
| A | LP2-150-120 | 150 | 20 | 50 | 25 | 120 | 1,5 |
| A | LP2-150-180 | 150 | 22 | 50 | 40 | 180 | 1,9 |
| A | LP2-150-210 | 150 | 22 | 60 | 40 | 210 | 2,3 |
| A | LP2-150-300 | 150 | 26 | 60 | 40 | 300 | 2,6 |
| A | LP2-250-180 | 250 | 22 | 60 | 40 | 180 | 2,9 |
| A | LP2-300-180 | 300 | 22 | 60 | 40 | 180 | 3,2 |
| A | LP2-320-180 | 320 | 22 | 60 | 40 | 180 | 3,3 |
| A | LP2-350-180 | 350 | 22 | 60 | 40 | 180 | 3,5 |
| B | LP2-300-210 | 300 | 22 | 60 | 40 | 210 | 4,0 |
| B | LP2-320-300 | 320 | 22 | 60 | 40 | 300 | 4,2 |
| B | LP2-450-210 | 450 | 22 | 60 | 40 | 210 | 4,0 |
| B | LP2-600-300 | 600 | 26 | 60 | 40 | 300 | 7,0 |
| B | LP2-600-180 | 600 | 22 | 60 | 40 | 180 | 5,5 |
| B | LP2-750-180 | 750 | 22 | 60 | 40 | 180 | 6,5 |
| C | LP2-1200-120 | 1200 | 19 | 50 | 25 | 120 | 8,2 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

- Hot dip galvanized steel

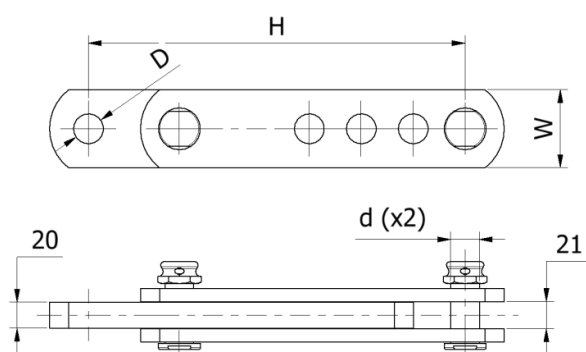
Zastosowanie:

Łączniki używane do budowy łańcuchów izolatorów

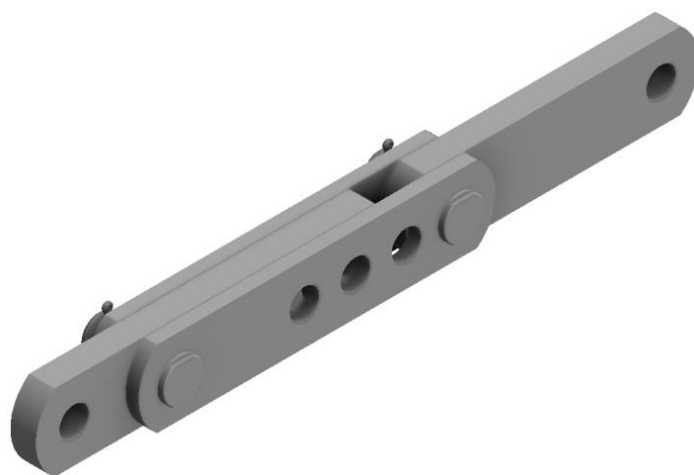
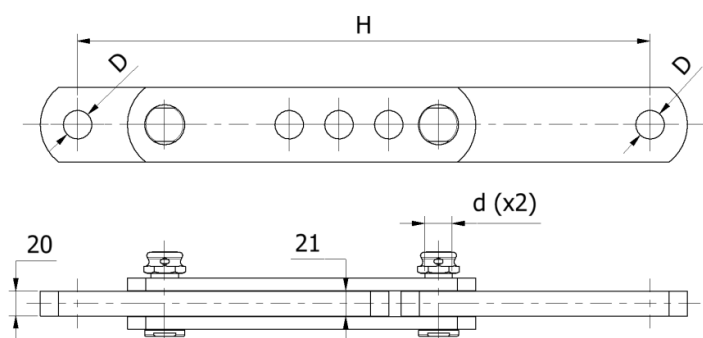
Application:

These links are used in insulator string assemblies

A



B



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|----|----|----|---|---|------------------------|
| | | H | D | d | W | | | |
| A | LNS-304-120 | 208 - 304 | 23 | 19 | 50 | 31,5 | 120 | 2,8 |
| A | LNS-420-160 | 270 - 420 | 23 | 22 | 60 | 40 | 160 | 4,6 |
| A | LNS-440-160 | 290 - 440 | 23 | 22 | 60 | 40 | 160 | 4,8 |
| A | LNS-780-160 | 460 - 780 | 25 | 19 | 60 | 35 | 160 | 7,2 |
| A | LNS-790-160 | 470 - 790 | 23 | 22 | 60 | 40 | 160 | 7,5 |
| A | LNS-790-210 | 470 - 790 | 23 | 22 | 60 | 40 | 210 | 8,0 |
| B | LNS-610-160 | 460 - 610 | 23 | 22 | 60 | 31,5 | 160 | 6,2 |
| B | LNS-610-300 | 490 - 610 | 27 | 26 | 60 | 40 | 300 | 7,9 |

Materiał:

- Stal cynkowana ogniowo

Material:

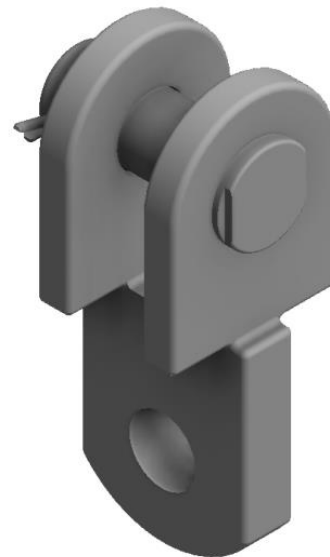
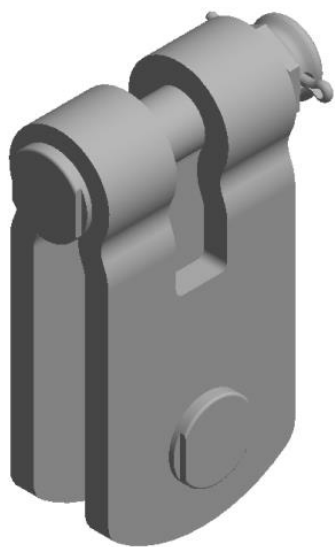
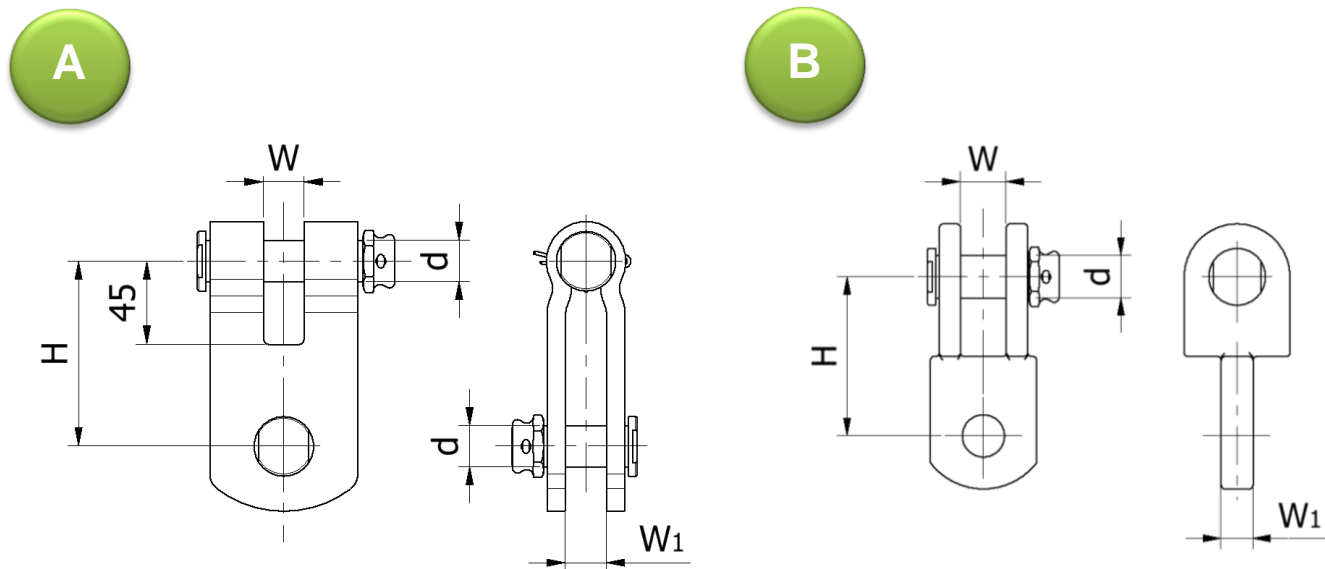
- Hot dip galvanized steel

Zastosowanie:

Regulacja długości zawieszek przewodów

Application:

These links are used for the length adjusting of insulator strings and adjusting conductor bundles on tension strings



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|----|----|----------------|---|---|------------------------|
| | | H | d | W | W ₁ | | | |
| A | L2WS-75-120 | 75 | 20 | 21 | 21 | 31,5 | 120 | 1,1 |
| A | L2WS-80-210 | 80 | 22 | 22 | 22 | 40 | 210 | 1,8 |
| A | L2WS-100-210 | 100 | 22 | 22 | 22 | 40 | 210 | 2,0 |
| A | L2WS-100-300 | 100 | 22 | 22 | 22 | 50 | 300 | 2,6 |
| A | L2WS-100-370 | 100 | 24 | 24 | 24 | 40 | 370 | 3,0 |
| A | Z-21S | 90 | 24 | 24 | 26 | 50 | 210 | 2,1 |
| B | L1WS-90-160 | 90 | 24 | 26 | 18 | 50 | 160 | 1,8 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

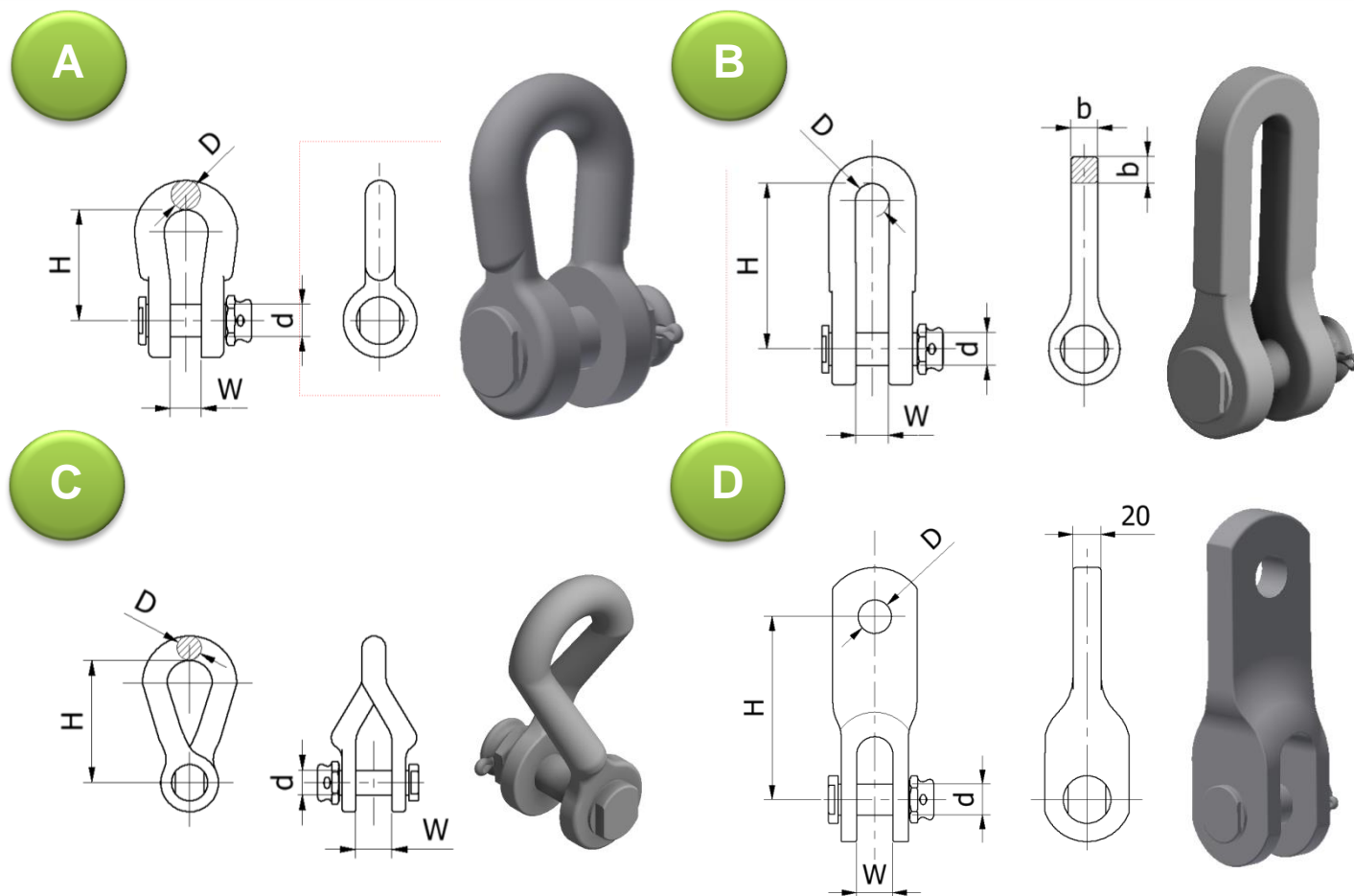
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do łączenia osprzętu

Application:

These twisted tongue clevis are used to connect fitting elements in insulator strings



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|----|----|----|----|---|---|------------------------|
| | | H | D | d | W | b | | | |
| A | LKO-60-120 | 60 | 16 | 19 | 21 | - | 16 | 120 | 0,6 |
| A | LKO-70-120 | 70 | 16 | 16 | 24 | - | 16 | 120 | 0,6 |
| A | LKO-75-160 | 75 | 20 | 22 | 21 | - | 50 | 160 | 0,9 |
| A | LKO-75/19-160 | 75 | 20 | 19 | 21 | - | 40 | 160 | 0,9 |
| A | LKO-91-210 | 91 | - | 22 | 32 | - | 40 | 210 | 1,2 |
| A | LKO-100-120 | 100 | 20 | 19 | 45 | - | 40 | 120 | 1,5 |
| A | LKO-100-180 | 100 | 20 | 22 | 21 | - | 40 | 180 | 1,0 |
| A | LKO-100-210 | 100 | 24 | 24 | 40 | - | 40 | 210 | 1,5 |
| A | LKO-100-300 | 100 | 24 | 26 | 26 | - | 50 | 300 | 1,7 |
| B | LKK-100-160 | 100 | 23 | 22 | 21 | 18 | 50 | 160 | 1,2 |
| B | LKK-100/19-160 | 100 | 23 | 19 | 22 | 18 | 40 | 160 | 1,1 |
| B | LKK-100-210 | 100 | 23 | 22 | 22 | 20 | 50 | 210 | 1,4 |
| B | LKK-110-160 | 110 | 23 | 22 | 21 | 18 | 50 | 160 | 1,3 |
| C | LKOS-80-120 | 80 | 16 | 16 | 24 | - | 12 | 120 | 0,7 |
| D | LWU-130-400 | 130 | 24 | 22 | 26 | - | 40 | 400 | 2,3 |

Materiał:

- Stal cynkowana ogniowo

Material:

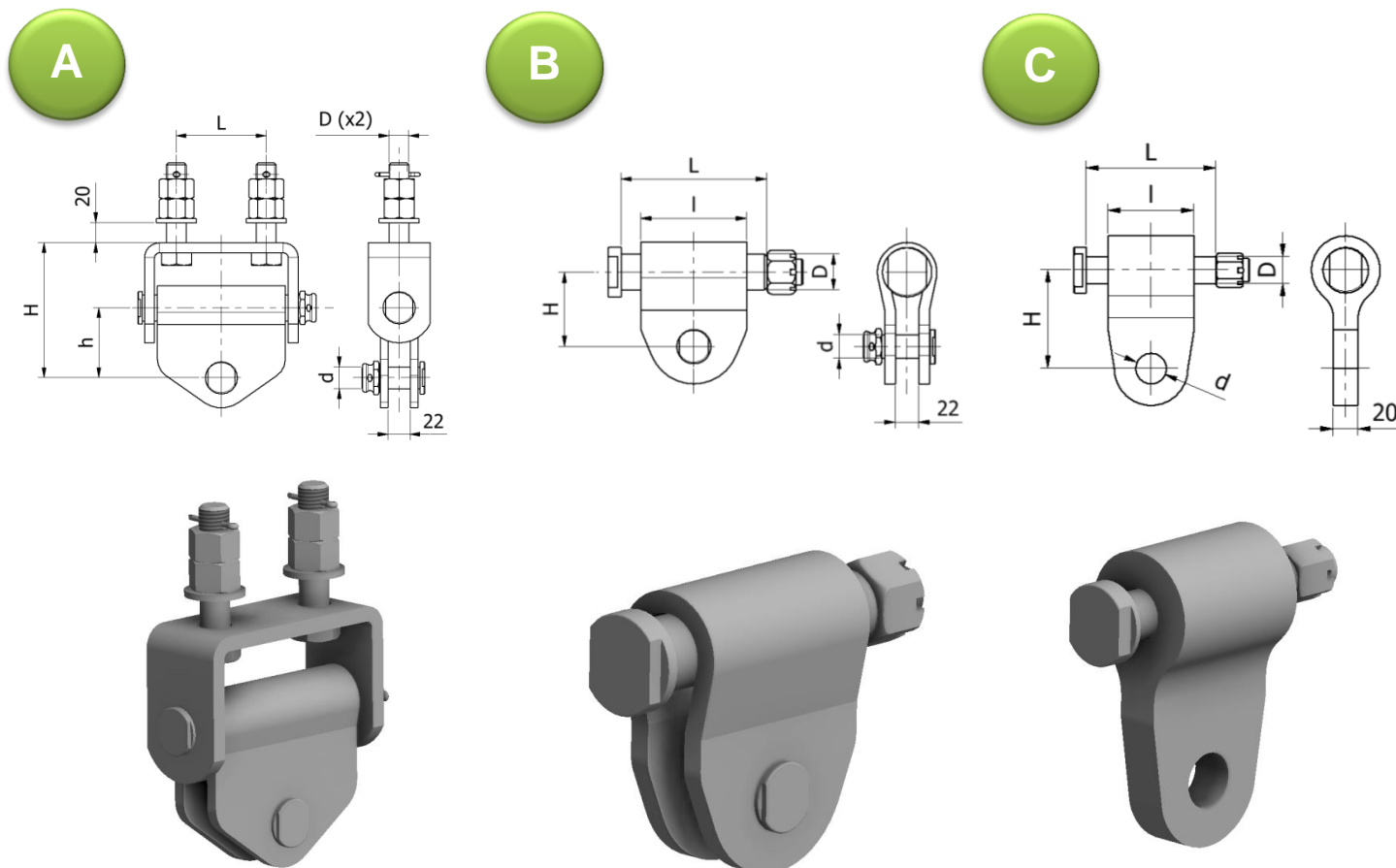
- Hot dip galvanized steel

Zastosowanie:

Łączniki używane do łączenia osprzętu

Application:

These shackles are used to connect fitting elements in insulator strings



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|----|-----|-----|-----|----|---|---|------------------------|
| | | H | h | L | l | D | d | | | |
| A | WE-135/16-120 | 135 | 70 | 90 | - | M16 | 22 | 40 | 120 | 4,7 |
| A | WE-135/20-120 | 135 | 70 | 90 | - | M20 | 22 | 40 | 120 | 5,1 |
| A | WE-135/20-120/2 | 135 | 70 | 90 | - | M20 | 19 | 40 | 120 | 5,0 |
| A | WE-135/24-120 | 135 | 70 | 90 | - | M24 | 22 | 40 | 120 | 5,6 |
| B | WG-70-120 | 70 | - | 170 | - | 25 | 22 | 40 | 120 | 3,1 |
| B | WG-70-160 | 70 | - | 137 | 100 | 34 | 22 | 50 | 160 | 3,3 |
| B | WG-80-240 | 80 | - | 137 | 100 | 34 | 22 | 40 | 240 | 3,4 |
| B | WG-80-300 | 80 | - | 137 | 100 | 34 | 25 | 50 | 300 | 3,8 |
| B | WG-100-360 | 100 | - | 185 | 124 | 34 | 22 | 50 | 330 | 5,9 |
| B | WG-100-370 | 100 | - | 137 | 100 | 34 | 25 | 50 | 370 | 6,1 |
| C | WGP-80-160 | 80 | - | 106 | 70 | 22 | 25 | 50 | 160 | 1,7 |
| C | WGP-80-160/1 | 80 | - | 116 | 80 | 22 | 25 | 50 | 160 | 1,8 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

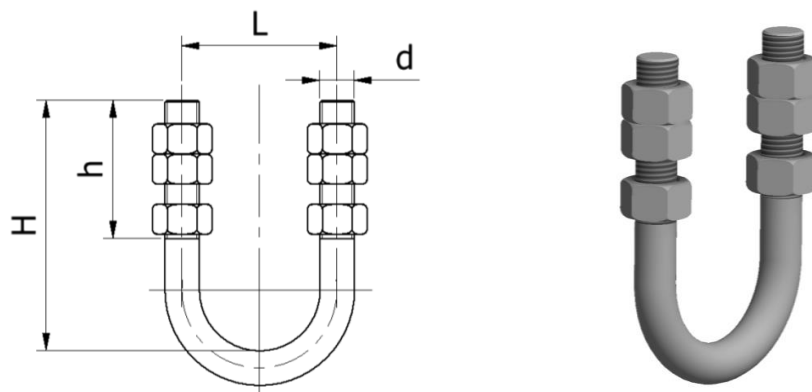
- Hot dip galvanized steel

Zastosowanie:

Wieszaki używane do łączenia łańcuchów izolatorów z konstrukcją wsporczą

Application:

These hangers are used to connect insulator strings with a tower structure



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|-------------------------------|----|----|-----|---|---|------------------------|
| | H | h | L | d | | | |
| WSK-140-100 | 140 | 80 | 90 | M16 | 16 | 100 | 0,7 |
| WSK-145/73-100 | 145 | 80 | 73 | M16 | 16 | 100 | 1,0 |
| WSK-145-120 | 145 | 80 | 90 | M20 | 25 | 120 | 1,2 |
| WSK-200-100 | 200 | 80 | 90 | M16 | 16 | 100 | 0,9 |
| WSK-205-120 | 205 | 80 | 90 | M20 | 25 | 120 | 1,4 |
| WSK-210-160 | 210 | 80 | 90 | M24 | 40 | 160 | 2,2 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

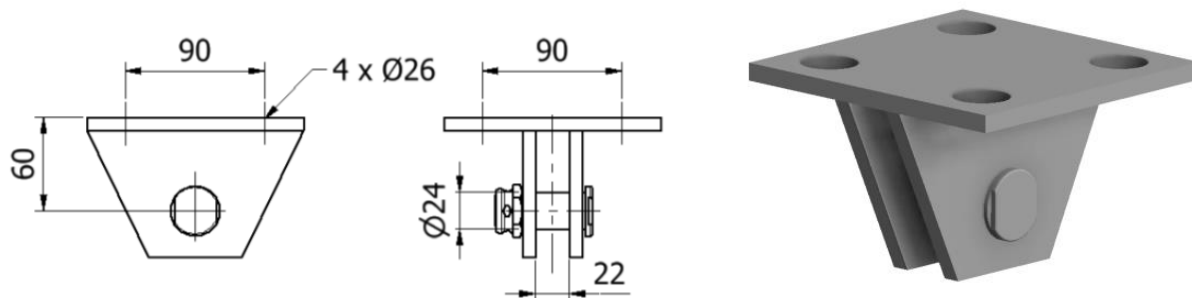
- Hot dip galvanized steel

Zastosowanie:

Wieszaki używane do łączenia łańcuchów izolatorów z konstrukcją wsporczą

Application:

These hangers are used to connect insulator strings with a tower structure



| Numer katalogowy Catalog No. | Obciążenie prądowe Short circuit current [kA] | Obciążenie dopuszczalne Permissible load [kN] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|---------------------------------|---|---|---|------------------------|
| WWB-60-50 | 50 | 25 | 50 | 1,9 |
| WWB-60-120 | 50 | 60 | 120 | 3,3 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

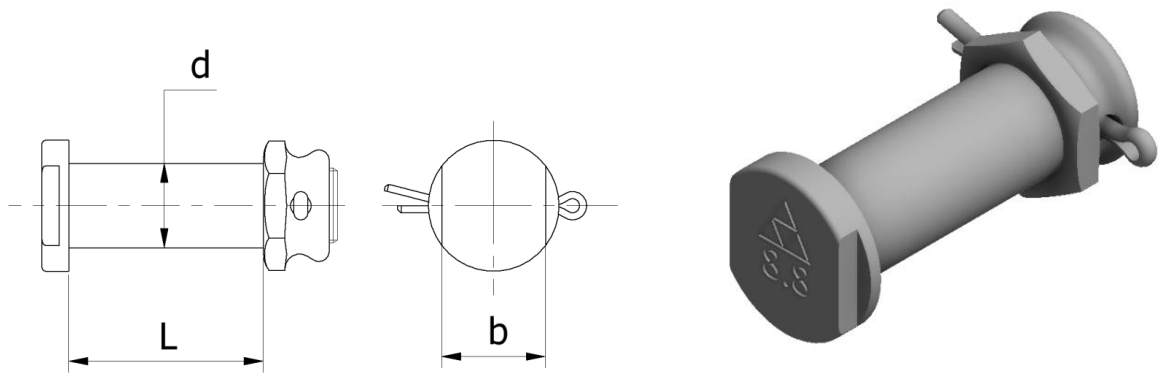
- Hot dip galvanized steel

Zastosowanie:

Wieszaki używane do łączenia łańcuchów izolatorów z konstrukcją wsporczą

Application:

These hangers are used to connect insulator strings with a tower structure



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | Obciążenie prądowe Short circuit current [kA] | Masa Weight [kg] |
|---------------------------------|-------------------------------|----|----|---|------------------------|
| | L | d | b | | |
| SW-34-M19 | 34 | 19 | 24 | 40 | 0,2 |
| SW-38-M19 | 38 | 19 | 24 | 40 | 0,2 |
| SW-43-M19 | 43 | 19 | 24 | 40 | 0,2 |
| SW-48-M19 | 48 | 19 | 24 | 40 | 0,2 |
| SW-52-M19 | 52 | 19 | 24 | 50 | 0,2 |
| SW-56-M19 | 56 | 19 | 24 | 40 | 0,2 |
| SW-60-M19 | 60 | 19 | 24 | 40 | 0,2 |
| SW-105-M19 | 105 | 19 | 24 | 40 | 0,3 |
| SW-125-M19 | 125 | 19 | 24 | 40 | 0,4 |
| SW-34-M22 | 34 | 22 | 27 | 50 | 0,2 |
| SW-38-M22 | 38 | 22 | 27 | 50 | 0,2 |
| SW-43-M22 | 43 | 22 | 27 | 50 | 0,2 |
| SW-48-M22 | 48 | 22 | 27 | 50 | 0,3 |
| SW-52-M22 | 52 | 22 | 27 | 50 | 0,3 |
| SW-57-M22 | 57 | 22 | 27 | 50 | 0,3 |
| SW-60-M22 | 60 | 22 | 27 | 50 | 0,3 |
| SW-62-M22 | 62 | 22 | 27 | 50 | 0,3 |
| SW-66-M22 | 66 | 22 | 27 | 50 | 0,3 |
| SW-82-M22 | 82 | 22 | 27 | 50 | 0,4 |

Materiał:

- Stal cynkowana ogniowo, klasa - 8.8

Material:

- Hot dip galvanized steel, class 8.8

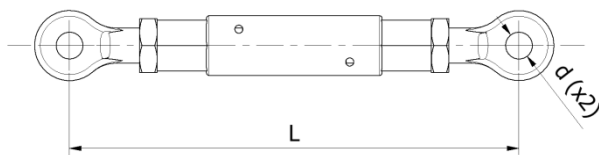
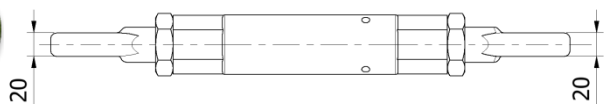
Zastosowanie:

Sworznie śrubowe używane do łączenia osprzętu

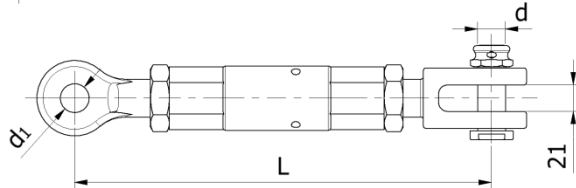
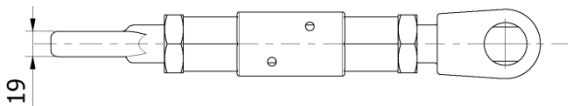
Application:

Screw bolts are used in insulator strings assemblies

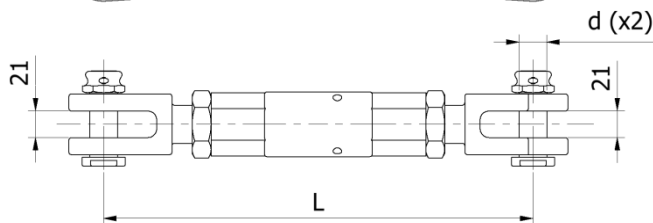
A



B



C



| Typ Type | Numer katalogowy Catalog No. | Wymiar Gwintu Thread | Wymiary Dimensions [mm] | | | Obciążenie prądowe Short circuit current [kA] | Obciążenie niszczące Breaking load [kN] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------|----------------------------|----|----|--|--|---------------------|
| | | | L | d | d1 | | | |
| A | SS-640-160 | M20 | 420 - 640 | 23 | - | 16 | 160 | 2,6 |
| A | SS-470-210 | M24 | 330 - 470 | 23 | - | 25 | 210 | 2,7 |
| B | SS-485-210 | M24 | 360 - 485 | 19 | 20 | 25 | 210 | 3,7 |
| B | SS-490-210 | M24 | 355 - 490 | 22 | 24 | 25 | 210 | 3,7 |
| B | SS-520-280 | M27 | 380 - 515 | 22 | 24 | 31,5 | 280 | 4,5 |
| B | SS-580-280 | M27 | 420 - 580 | 22 | 24 | 31,5 | 280 | 4,7 |
| B | SS-630-210 | M24 | 430 - 630 | 22 | 24 | 25 | 210 | 4,3 |
| B | SS-630-320 | M27 | 380 - 515 | 22 | 24 | 31,5 | 320 | 5,4 |
| B | SS-655-160 | M20 | 433 - 653 | 22 | 24 | 25 | 160 | 3,1 |
| B | SS-850-210 | M24 | 530 - 850 | 22 | 24 | 25 | 210 | 5,2 |
| B | SS-830-280 | M27 | 570 - 830 | 22 | 24 | 31,5 | 280 | 6,3 |
| B | SST-640-330 | Tr 30x3 | 470 - 640 | 22 | 24 | 40 | 320 | 6,4 |
| B | SST-830-330 | Tr 30x3 | 530 - 830 | 22 | 24 | 40 | 330 | 9,0 |
| C | SS-510-210 | M24 | 375 - 510 | 22 | - | 40 | 210 | 4,5 |
| C | SS-810-300 | M27 | 530 - 810 | 22 | - | 31,5 | 280 | 6,3 |

Materiał:

- Stal cynkowana ogniowo

Material:

- Hot dip galvanized steel

Zastosowanie:

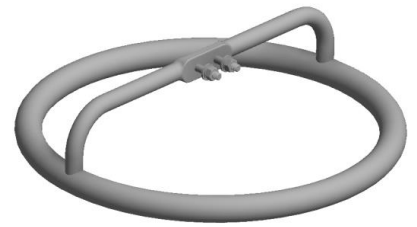
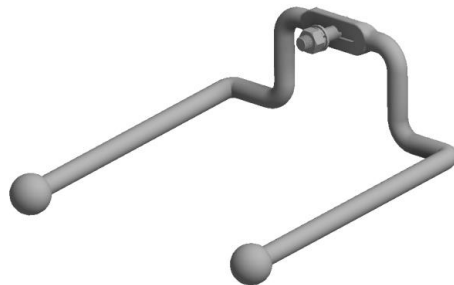
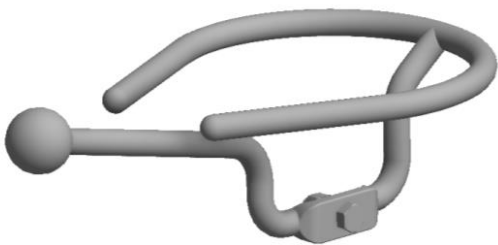
Ściągacze śrubowe używane do napinania i regulacji przewodów i linek odciążowych

Application:

These turnbuckles are used to adjust conductors and for tightening of guy lines

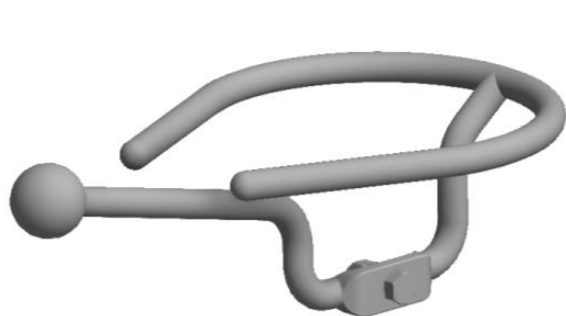
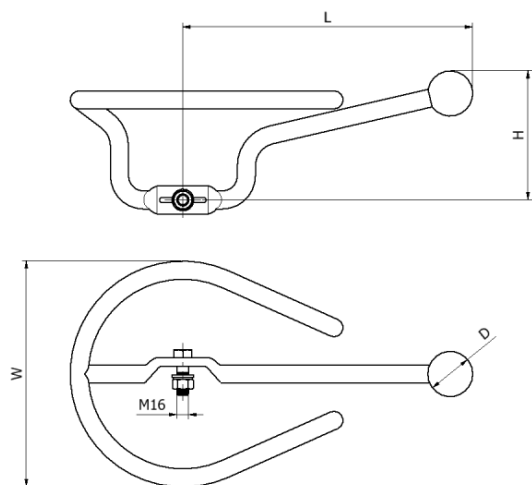


Osprzęt ochronny Protective fittings



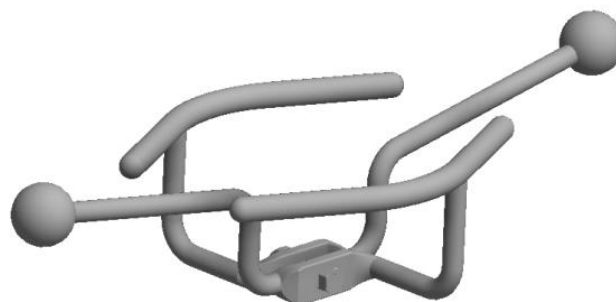
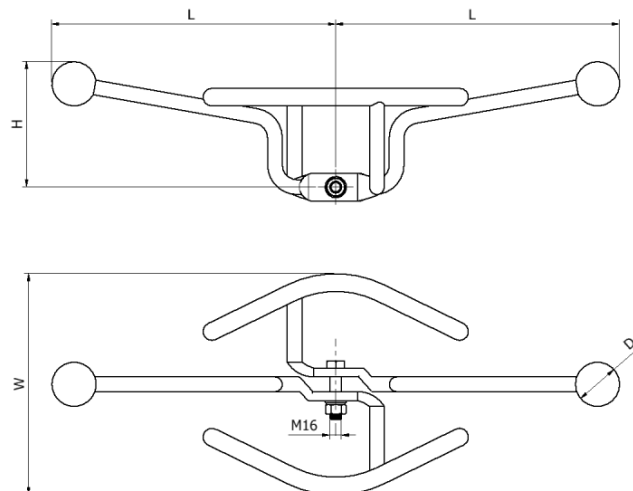
A

➤ **Jednoelektrodowy**
One electrode



B

➤ **Dwuelektrodowy**
Two electrodes



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|-----|----|-----|---|------------------------|
| | | H | L | D | W | | |
| A | P1D-152-40 | 152 | 380 | 30 | 300 | 40 | 4,7 |
| A | P1D-170-40 | 170 | 385 | 60 | 300 | 40 | 5,0 |
| A | P1D-227-40 | 227 | 380 | 30 | 300 | 40 | 4,7 |
| A | P1D-240-40 | 240 | 385 | 60 | 300 | 40 | 5,6 |
| A | P1D-250-50 | 250 | 395 | 90 | 320 | 50 | 7,2 |
| B | P2D-170-40 | 170 | 385 | 60 | 300 | 40 | 8,5 |
| B | P2D-240-40 | 240 | 385 | 60 | 300 | 40 | 9,3 |
| B | P2D-250-50 | 250 | 395 | 80 | 320 | 50 | 10,6 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

- Hot dip galvanized steel

Zastosowanie:

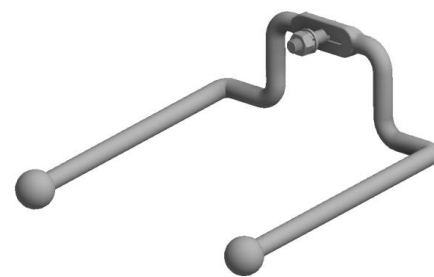
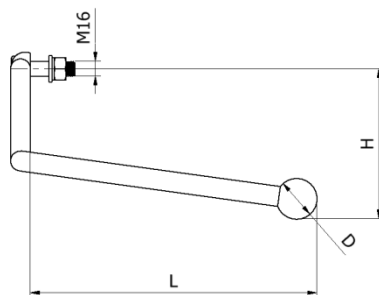
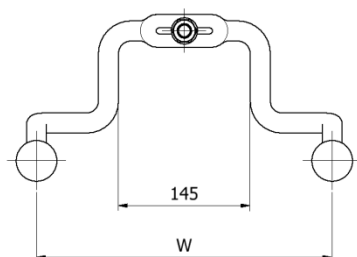
Osprzęt łukoochronny do łańcuchów izolatorów

Application:

Arcing rings are used to protect the insulators in high voltage transmission line from damage during flashover

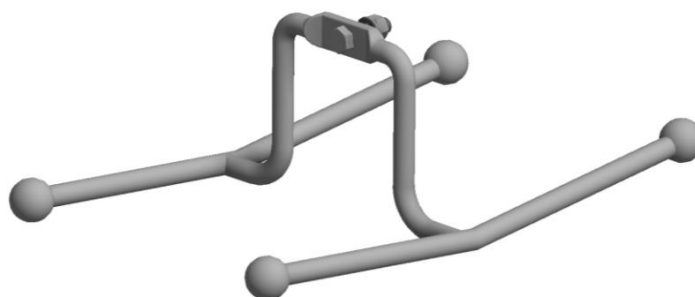
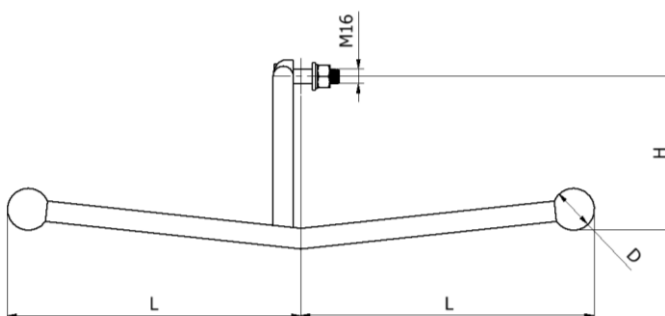
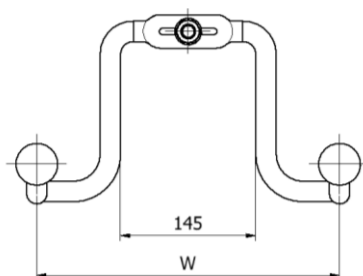
A

➤ **Jednostronny**
One sided



B

➤ **Dwustronny**
Two sided



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|-----|----|-----|---|------------------------|
| | | H | L | D | W | | |
| A | R1G-165-40 | 165 | 315 | 45 | 325 | 40 | 3,9 |
| A | R1G-235-40 | 235 | 315 | 45 | 325 | 40 | 4,5 |
| A | R1G-240-50 | 240 | 320 | 60 | 325 | 50 | 5,0 |
| B | R2G-165-40 | 165 | 315 | 45 | 325 | 40 | 6,7 |
| B | R2G-235-40 | 235 | 315 | 45 | 325 | 40 | 6,7 |
| B | R2G-240-50 | 240 | 320 | 60 | 325 | 50 | 6,8 |

Materiał:

- Stal cynkowana ogniowo

Material:

- Hot dip galvanized steel

Zastosowanie:

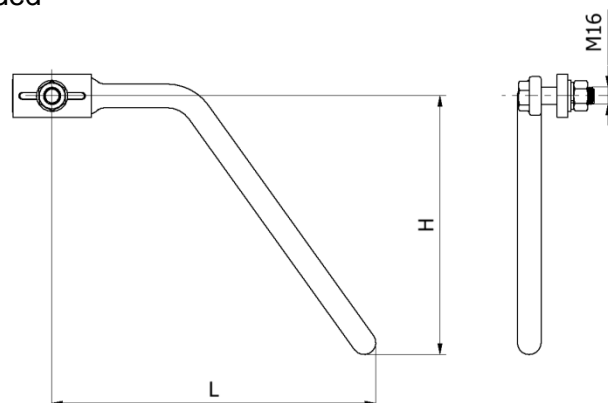
Osprzęt łukochronny do łańcuchów izolatorów

Application:

Arcing horns are used to protect the insulators in high voltage transmission line from damage during flashover

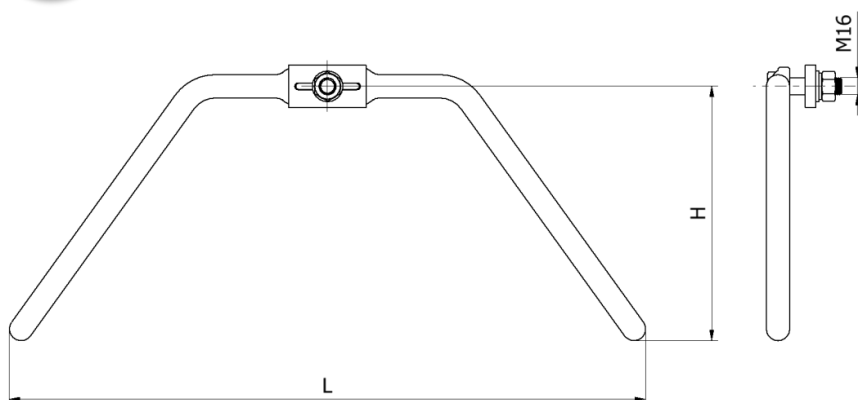
A

➤ **Jednostronny**
One sided



B

➤ **Dwustronny**
Two-sided



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | Obciążenie prądowe Short circuit current [kA] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|-----|----|---|------------------------|
| | | H | L | D | | |
| A | R1GP-240-40 | 240 | 300 | 22 | 40 | 1,7 |
| A | R1GP-240-50 | 240 | 300 | 22 | 50 | 1,7 |
| A | R1GP-650-40 | 650 | 300 | 22 | 40 | 2,8 |
| A | R1GP-650-50 | 650 | 300 | 22 | 50 | 3,5 |
| B | R2GP-240-40 | 240 | 600 | 22 | 40 | 2,9 |
| B | R2GP-650-40 | 650 | 600 | 22 | 40 | 5,2 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

- Hot dip galvanized steel

Zastosowanie:

Osprzęt łukochronny do łańcuchów izolatorów

Application:

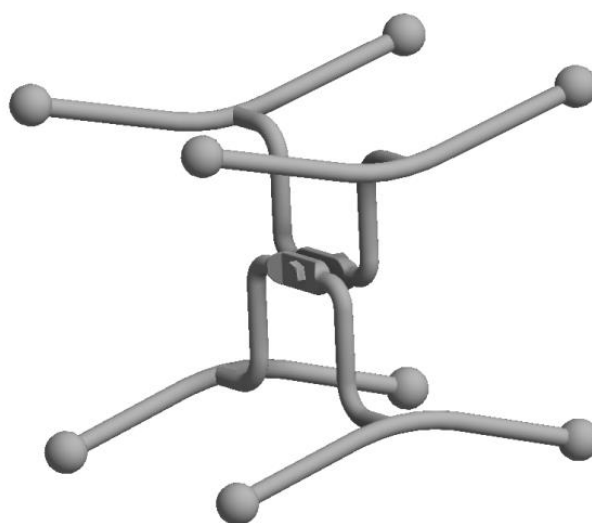
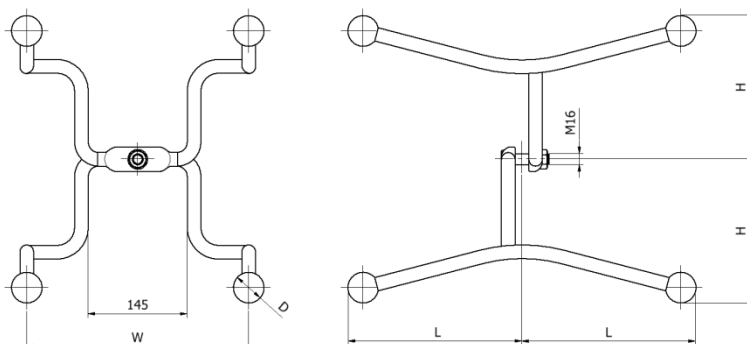
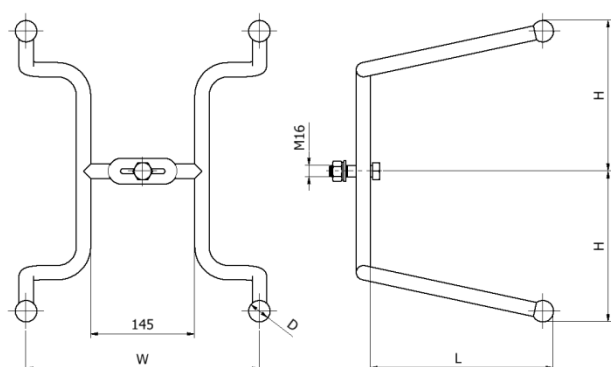
Arcing horns are used to protect the insulators in high voltage transmission line from damage during flashover



➤ **Jednostronny**
One sided



➤ **Dwustronny**
Two sided



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|-----|----|-----|---|------------------------|
| | | H | L | D | W | | |
| A | R1S-110-40 | 110 | 255 | 30 | 325 | 40 | 3,4 |
| A | R1S-210-50 | 210 | 255 | 30 | 325 | 50 | 4,0 |
| B | R2S-110-40 | 110 | 255 | 30 | 325 | 40 | 7,7 |
| B | R2S-210-50 | 210 | 255 | 30 | 325 | 50 | 8,7 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

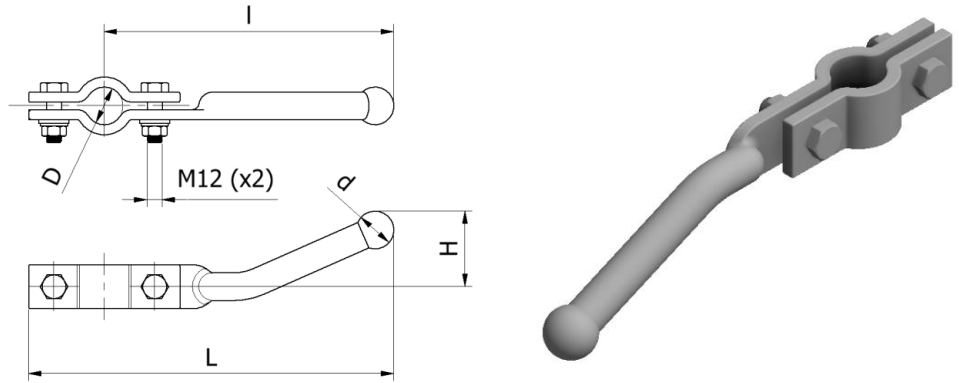
- Hot dip galvanized steel

Zastosowanie:

Osprzęt łukochronny do łańcuchów izolatorów

Application:

Arcing horns are used to protect the insulators in high voltage transmission line from damage during flashover



| Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | Obciążenie prądowe Short circuit current [kA] | Masa Weight [kg] |
|---------------------------------|-------------------------------|-----|-----|----|----|---|------------------------|
| | H | L | I | D | d | | |
| R30-90-25 | 90 | 290 | 230 | 25 | 30 | 25 | 1,5 |
| R30-60-25 | 60 | 290 | 230 | 25 | 30 | 25 | 1,2 |
| R30-110-25 | 110 | 290 | 230 | 25 | 30 | 25 | 1,4 |
| R30-60-30 | 60 | 290 | 230 | 30 | 30 | 25 | 1,3 |
| R35-90-35 | 90 | 290 | 230 | 35 | 30 | 25 | 1,5 |

Materiał:

- Stal cynkowana ogniowo

Material:

- Hot dip galvanized steel

Zastosowanie:

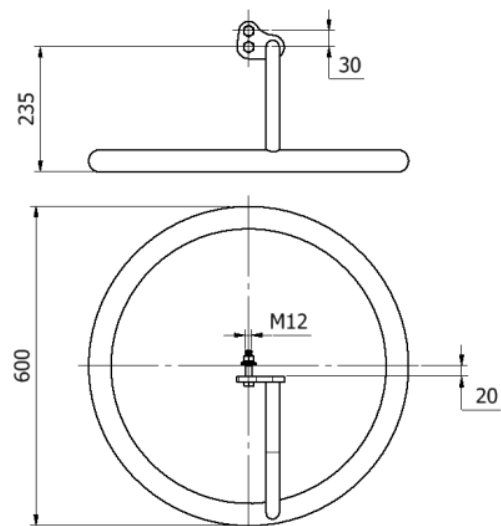
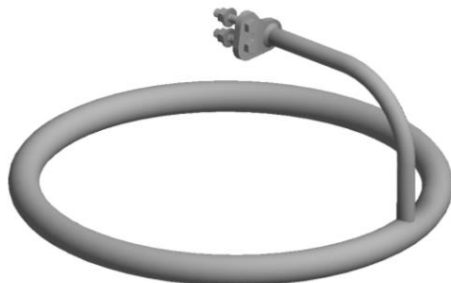
Rożki przeznaczone do izolatorów kompozytowych

Application:

These arcing horns are used with composite insulators

PR 3.5 Pierścień ochronny ekranujący - Ø 600 / Grading ring - Ø 600

| Numer katalogowy Catalog No. | Obciążenie prądowe Short circuit current [kA] | Masa Weight [kg] |
|---------------------------------|---|------------------------|
| PO-235-40 | 40 | 7,0 |



Materiał:

- Stal cynkowana ogniowo

Material:

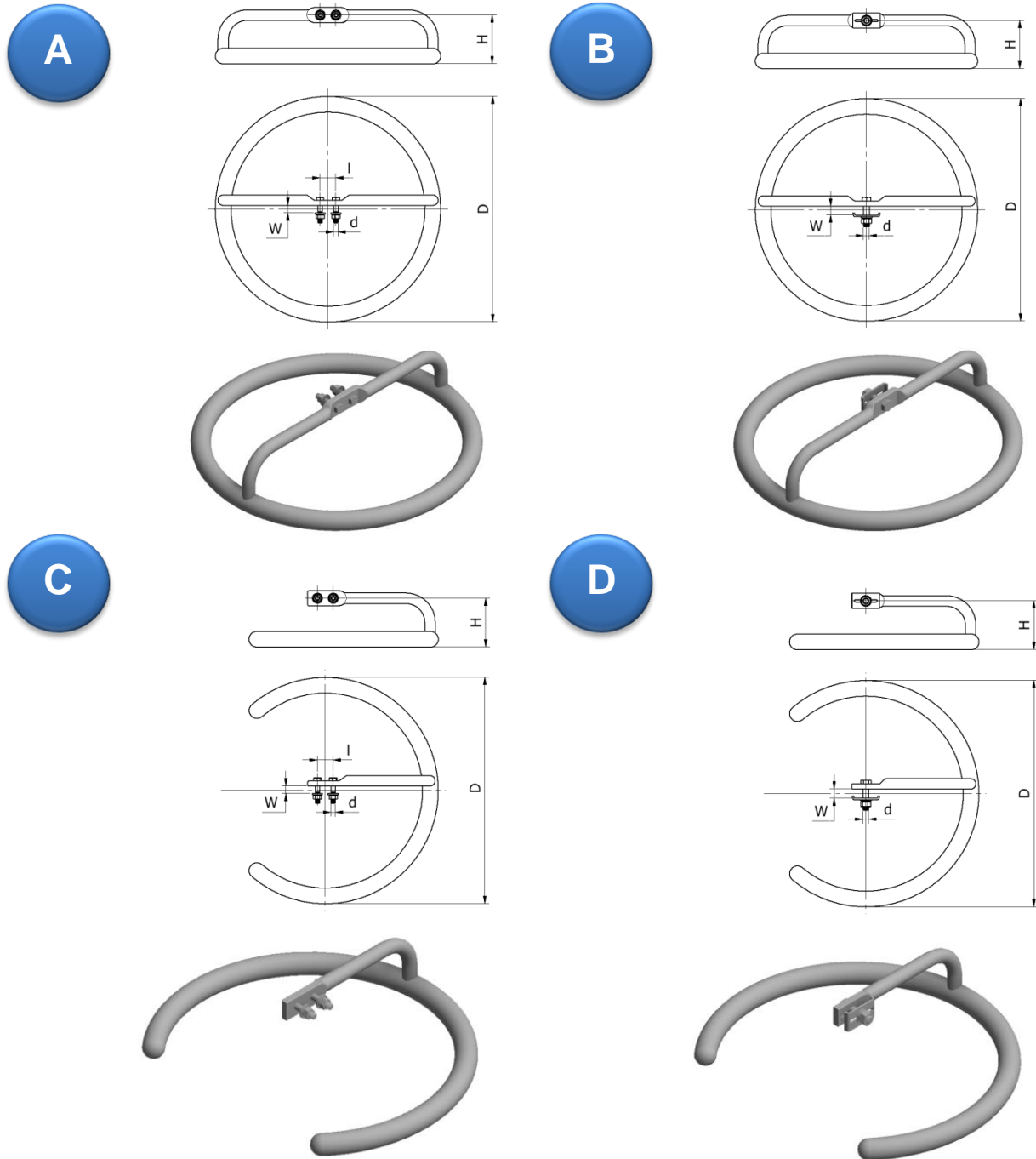
- Hot dip galvanized steel

Zastosowanie:

Pierścień ochronny przeznaczony do łańcuchów izolatorów przelotowych 400 kV z wiązką trójprzewodową

Application:

This grading ring is used for shielding of the conductor bundle connectors in insulator strings to 400 kV



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | | Obciążenie prądowe Short circuit current [kA] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|----|-----|-----|----|---|------------------------|
| | | H | I | D | d | W | | |
| A | PO/2-130-40 | 130 | 42 | 600 | M12 | 20 | 40 | 8,8 |
| B | PO/1-130-40 | 130 | - | 600 | M16 | 24 | 40 | 8,9 |
| C | PO3/4/2-130-40 | 130 | 42 | 600 | M12 | 20 | 40 | 5,9 |
| D | PO3/4/1-130-40 | 130 | - | 600 | M16 | 24 | 40 | 5,7 |

Material:

- Stal cynkowana ogniowo

Material:

- Hot dip galvanized steel

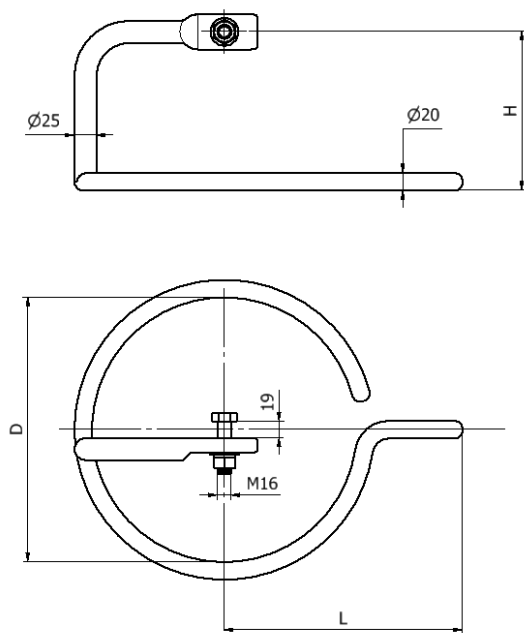
Zastosowanie:

Pierścienie ochronne przeznaczone do łańcuchów izolatorów przelotowych i odciągowych

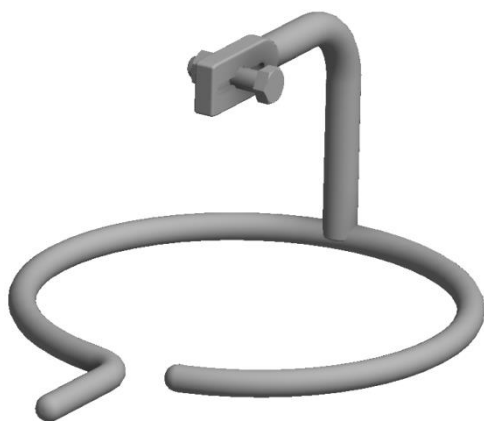
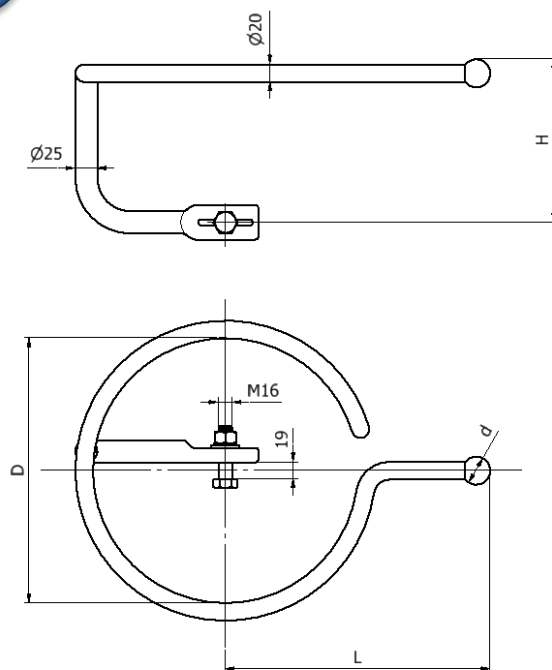
Application:

These grading rings are used for shielding of the conductor bundle connectors in insulator strings

A



B



| Typ Type | Numer katalogowy Catalog No. | Wymiary Dimensions [mm] | | | | Obciążenie prądowe Short circuit current [kA] | Masa Weight [kg] |
|-------------|---------------------------------|-------------------------------|-----|-----|----|---|------------------------|
| | | H | L | D | d | | |
| A | POR-180-40 | 180 | 270 | 300 | - | 40 | 4,1 |
| B | POR-185-40 | 185 | 300 | 300 | 32 | 40 | 4,2 |

Materiał:

- Stal cynkowana ogniowo

Materiał:

- Hot dip galvanized steel

Zastosowanie:

Pierścienie ochronne przeznaczone do łańcuchów izolatorów przelotowych i odciążowych w liniach 110 kV

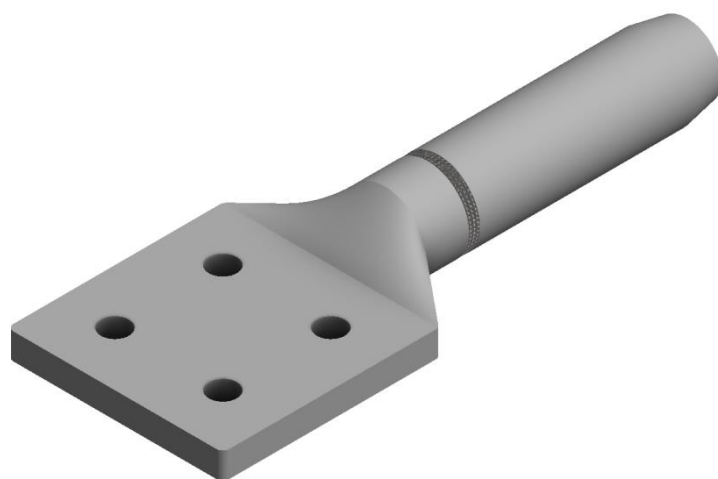
Application:

These grading rings are used for shielding of the conductor bundle connectors in 110 kV insulator strings

4

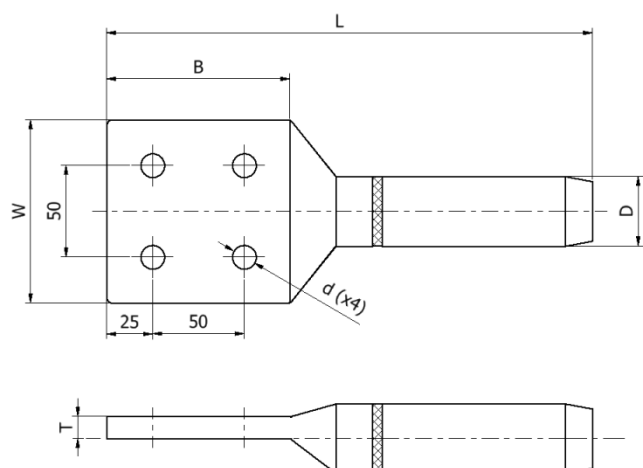
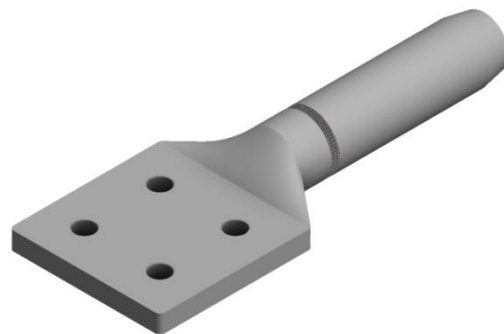
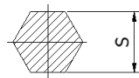


Zaciski, Końcówki Terminals, Clamps



Z

Proste / Straight

PO ZAPRASOWANIU
AFTER COMPRESSION

| Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Wymiary Dimensions [mm] | | | | | | | Masa Weight [kg] |
|---------------------------------|--|----------------------------|----|----|----|-----|-----|----|---------------------|
| | | L | D | d | T | W | B | S | |
| ZZ4-240-38 | AFL-6 240 | 265 | 38 | 13 | 12 | 100 | 100 | 33 | 0,6 |
| ZZ4-350-48 | AFL-8 350 | 310 | 48 | 13 | 15 | 100 | 100 | 42 | 1,1 |
| ZZ4-525-55 | AFL-8 525 | 310 | 55 | 13 | 15 | 100 | 100 | 48 | 1,2 |
| ZZ4-887-60 | AFL 887 | 375 | 60 | 13 | 20 | 100 | 100 | 52 | 1,6 |

Materiał:

- Aluminium

Material:

- Aluminum

Zastosowanie:

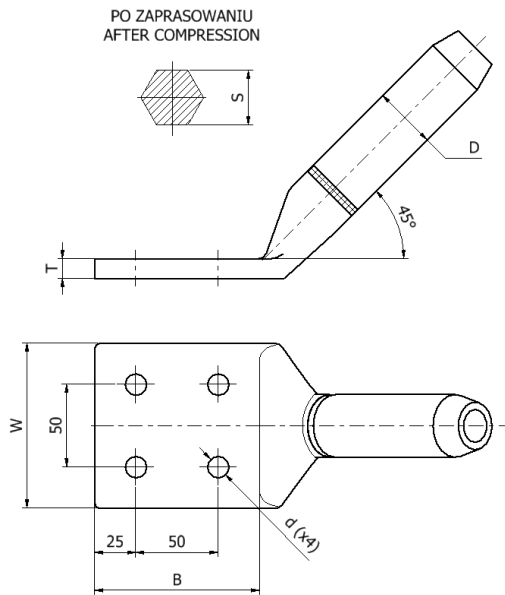
Zaciski używane do połączenia przewodów AFL z wypustem aparatu

Application:

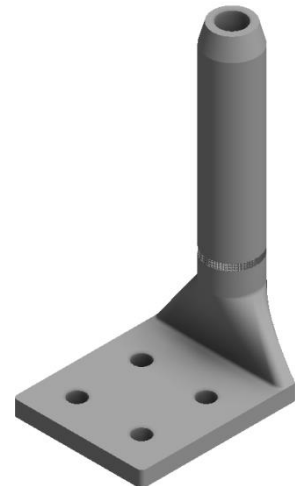
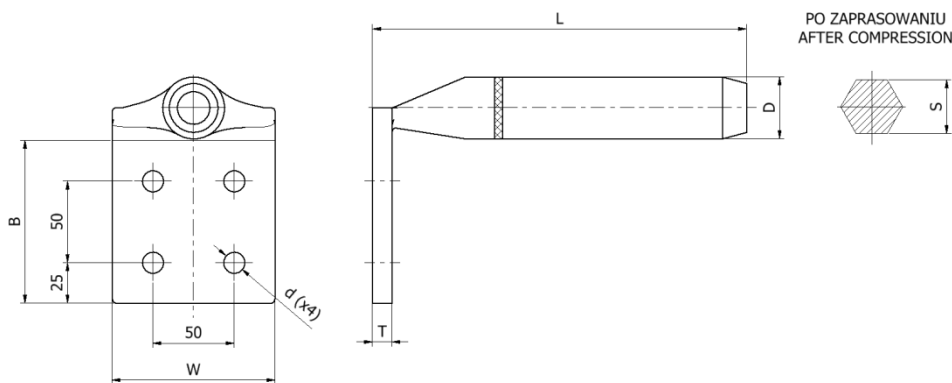
These terminals are used to connect ACSR conductors to flat busway

Kątowe / Angular

A



B



| Typ Type | Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Wymiary Dimensions [mm] | | | | | | | Masa Weight [kg] |
|-------------|---------------------------------|--|----------------------------|----|----|----|-----|-----|----|---------------------|
| | | | L | D | d | T | W | B | S | |
| A | ZZ4/45-240-38 | AFL-6 240 | 230 | 38 | 13 | 12 | 100 | 100 | 33 | 0,6 |
| B | ZZ4/90-240-38 | AFL-6 240 | 145 | 38 | 13 | 12 | 100 | 100 | 33 | 0,6 |

Materiał:

- Aluminium

Material:

- Aluminum

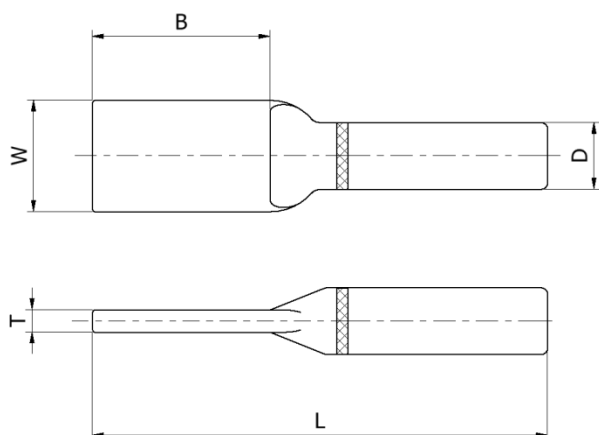
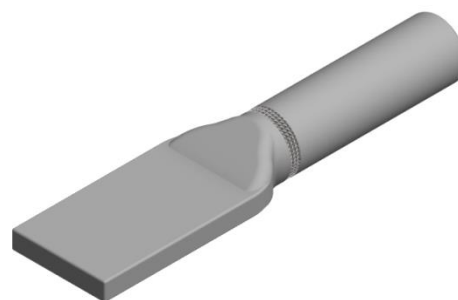
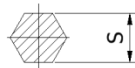
Zastosowanie:

Zaciski używane do połączenia przewodów AFL z wypustem aparatu

Application:

These terminals are used to connect ACSR conductors to flat busway

Płaskie / Flat

PO ZAPRASOWANIU
AFTER COMPRESSION

| Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Wymiary Dimensions [mm] | | | | | | Masa Weight [kg] |
|---------------------------------|--|-------------------------------|----|----|-----|-----|----|------------------------|
| | | L | D | T | W | B | S | |
| ZZP-50-26 | AFL-6 50 | 200 | 26 | 10 | 40 | 80 | 22 | 0,25 |
| ZZP-120-30 | AFL-6 120 | 205 | 30 | 10 | 50 | 80 | 26 | 0,25 |
| ZZP-1,7/70-30 | AFL-1,7 70 | 205 | 30 | 10 | 50 | 80 | 26 | 0,3 |
| ZZP-240-38 | AFL-6 240 | 230 | 38 | 12 | 60 | 80 | 33 | 0,4 |
| ZZP-240-38/1 | AFL-6 240 | 230 | 38 | 12 | 80 | 80 | 33 | 0,4 |
| ZZP-240-38/2 | AFL-6 240 | 280 | 38 | 12 | 100 | 130 | 33 | 0,4 |
| ZZP-1,7/95-38 | AFL-1,7 95 | 210 | 38 | 12 | 60 | 80 | 33 | 0,5 |
| ZZP-525-55 | AFL-8 525 | 310 | 55 | 16 | 100 | 130 | 48 | 1,2 |

Materiał:

- Aluminium

Material:

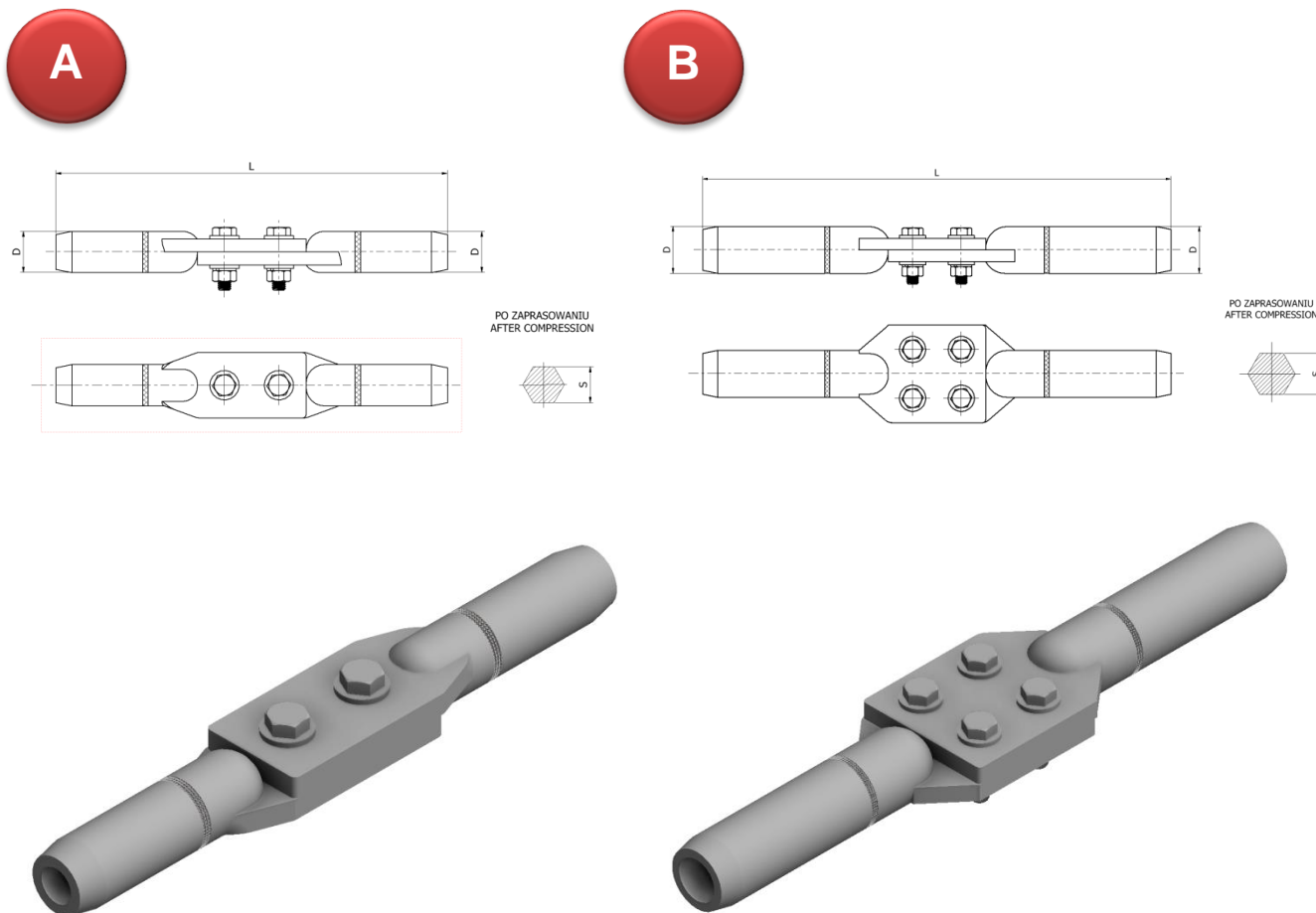
- Aluminum

Zastosowanie:

Zaciski używane do połączenia przewodów AFL z szyną płaską

Application:

These terminals are used to connect ACSR conductors to flat busway



| Typ Type | Numer katalogowy Catalog No. | Zastosowanie do przewodu * Conductor type * | Wymiary Dimensions [mm] | | | Masa Weight [kg] |
|-------------|---------------------------------|---|-------------------------------|----|----|------------------------|
| | | | L | D | S | |
| A | ZZP2-70-26 | AFL-6 70 | 320 | 26 | 22 | 0,7 |
| A | ZZP2-120-30 | AFL-6 120 | 340 | 30 | 26 | 0,7 |
| A | ZZP2-185-38 | AFL-6 185 | 360 | 38 | 33 | 1,1 |
| A | ZZP2-240-38 | AFL-6 240 | 380 | 38 | 33 | 1,0 |
| B | ZZP2-350-48 | AFL-8 350 | 480 | 48 | 42 | 2,1 |
| B | ZZP2-400-48 | AFL-8 400 | 480 | 48 | 42 | 2,1 |
| B | ZZP2-525-55 | AFL-8 525 | 430 | 55 | 48 | 2,3 |

*- Zastosowanie zacisków z dwóch stron dla tego samego typu przewodu

These clamps can be used only with the same conductor type both sides

Materiał:

- Aluminium

Materiał:

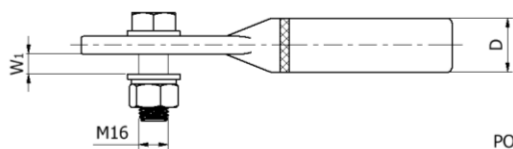
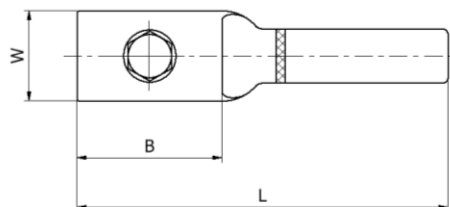
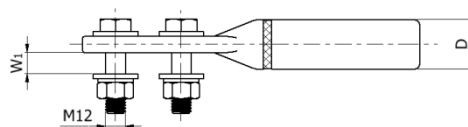
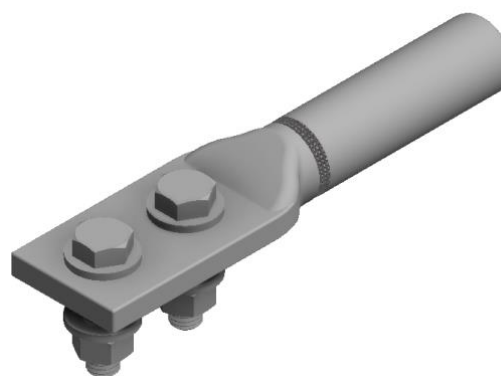
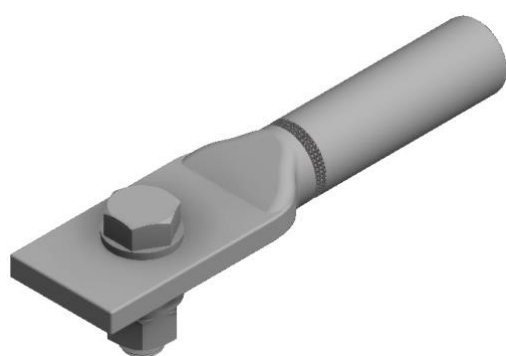
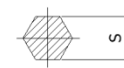
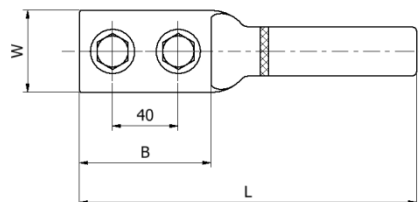
- Aluminum

Zastosowanie:

Zaciski używane do połączenia dwóch odcinków przewodów AFL

Application:

These terminals are used to connect two ACSR conductors

A

 PO ZAPRASOWANIU
AFTER COMPRESSION

B

 PO ZAPRASOWANIU
AFTER COMPRESSION


| Typ Type | Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Wymiary Dimensions [mm] | | | | | | Masa Weight [kg] |
|-------------|------------------------------------|---|-------------------------------|----|----|----|----|----|------------------------|
| | | | L | D | W | W1 | B | S | |
| A | ZZU-50-26 | AFLs-1,7 50 | 200 | 26 | 40 | 11 | 80 | 22 | 0,4 |
| A | ZZU-70-30 | AFLs-1,7 70 | 205 | 30 | 50 | 11 | 80 | 26 | 0,5 |
| A | ZZU-95-38 | AFLs-1,7 95 | 205 | 38 | 60 | 11 | 80 | 33 | 0,7 |
| B | ZZU-40-26 | AFLs-2,2 40 | 200 | 26 | 40 | 15 | 80 | 22 | 0,4 |
| B | ZZU2-50-26 | AFLs-1,7 50 | 200 | 26 | 40 | 15 | 80 | 22 | 0,4 |
| B | ZZU2-70-30 | AFLs-1,7 70 | 205 | 30 | 50 | 15 | 80 | 26 | 0,5 |
| B | ZZU2-95-38 | AFLs-1,7 95 | 205 | 38 | 60 | 13 | 80 | 33 | 0,6 |
| B | ZZU2-120-30 | AFLs-6 120 | 205 | 30 | 50 | 13 | 80 | 26 | 0,6 |
| B | ZZU2-240-38 | AFLs-6 240 | 230 | 38 | 60 | 10 | 80 | 33 | 0,6 |
| B | ZZU2-350-48 | AFLs-8 350 | 275 | 48 | 80 | 10 | 80 | 42 | 0,9 |

Material:

- Aluminium

Material:

- Aluminum

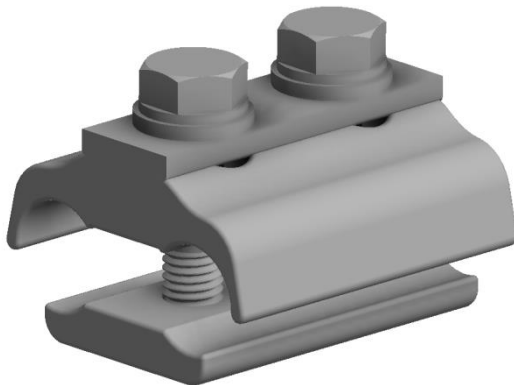
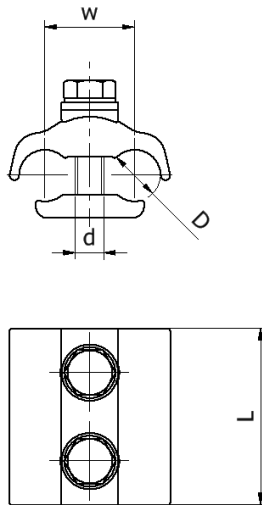
Zastosowanie:

Zaciski używane do przyłączenia ogromnych przewodów AFLs do konstrukcji

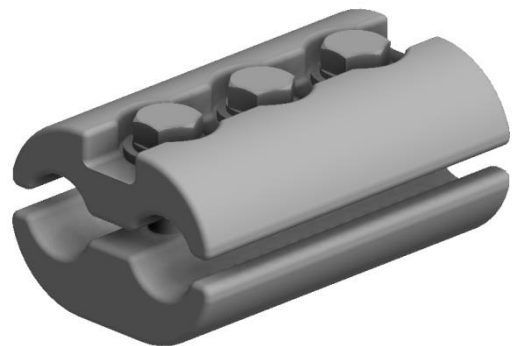
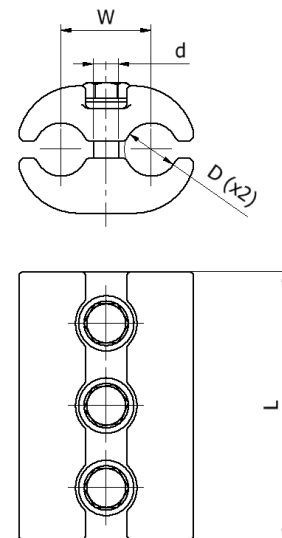
Application:

These terminals are used to connect the lightning protective ACSR/TW to the structure

A



B



| Typ Type | Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Średnica przewodu-D Cond. dia.-D [mm] | Wymiary Dimensions [mm] | | | Wytrzymałość na wyslizg Slip load [kN] | Moment dokręcenia Torque spec [Nm] | Masa Weight [kg] |
|-------------|---------------------------------|--|--|----------------------------|-----|----|---|---------------------------------------|---------------------|
| | | | | L | d | W | | | |
| A | ZPR-50-70 | AFL-6 50-70 | 5,1-14 | 48 | M8 | 25 | 3 | 22 | 0,2 |
| A | ZPR-70-95 | AFL-6 70-95 | 7,5-17,5 | 60 | M10 | 34 | 5 | 35 | 0,2 |
| A | ZPR-120-240 | AFL-6 120-240 | 14-22 | 75 | M12 | 38 | 8 | 40 | 0,5 |
| B | ZPR-350-1 | AFL-8 350 | 24,5-26,2 | 130 | M12 | 44 | 22 | 40 | 1,2 |
| B | ZPR-400-1 | AFL-8 400, 8-525 | 27-32 | 140 | M12 | 48 | 30 | 60 | 1,2 |
| B | ZPR-525-1 | AFL-8 525 | 32-36 | 140 | M12 | 56 | 36 | 75 | 1,9 |

Materiał:

- Nakładka dolna, nakładka górna – aluminium
- Elementy złączne – stal cynkowana ogniowo

Materiał:

- Lower and upper shin – aluminum alloy
- Connection elements – hot dip galvanized steel

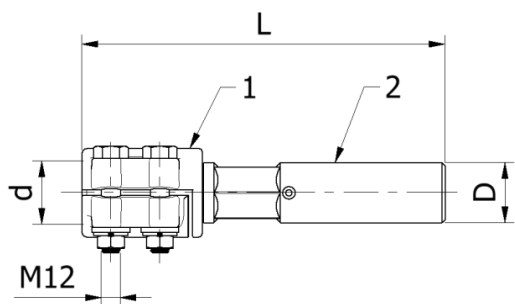
Zastosowanie:

Zaciski używane do połączenia równoległego dwóch odcinków przewodów AFL

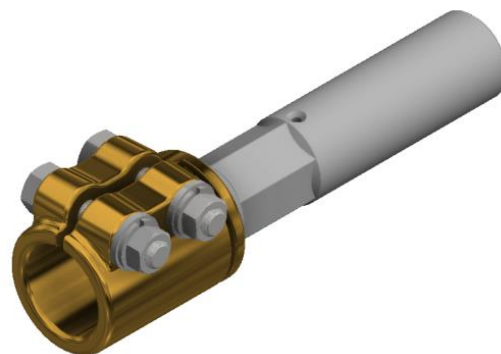
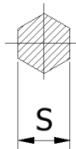
Application:

These clamps are used to make parallel connection for two sections of ACSR conductor

A

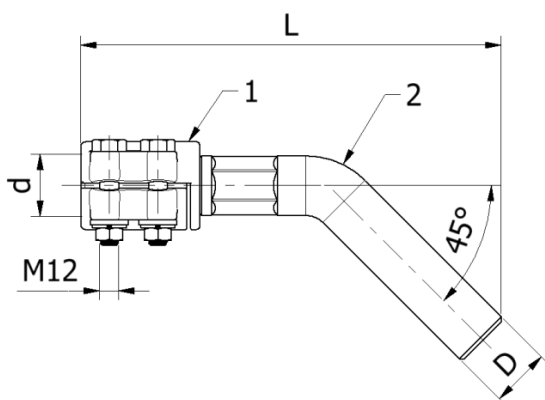


PO ZAPRASOWANIU
AFTER COMPRESSION

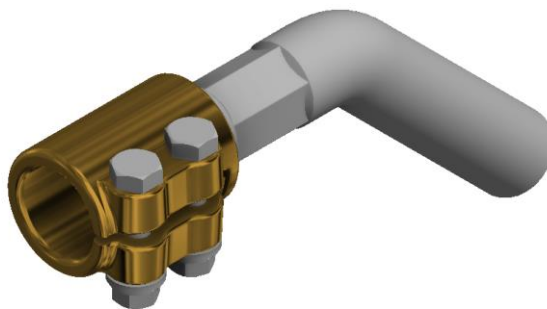
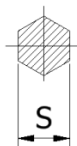


AL - CU clamps compression-bolted type

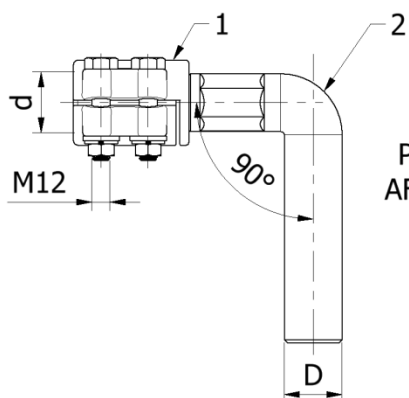
B



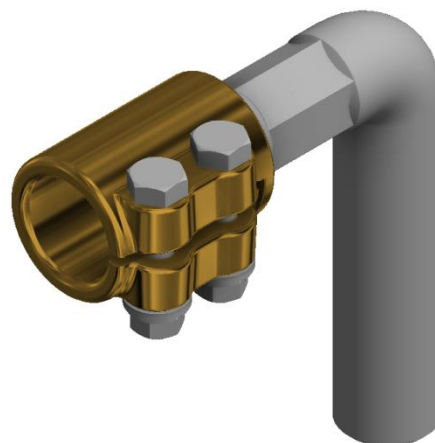
PO ZAPRASOWANIU
AFTER COMPRESSION



C



PO ZAPRASOWANIU
AFTER COMPRESSION



| Typ Type | Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Wymiary Dimensions [mm] | | | | Wytrzymałość na wyślizg przewodu Slip fault [kN] | Obciążenie prądowe Short circuit current [kA] | Masa Weight [kg] |
|-------------|---------------------------------|--|----------------------------|----|----|------|---|--|---------------------|
| | | | L | D | d | S | | | |
| A | ZACP-30-120 | AFL-6 120 | 270 | 30 | 30 | 26 | 8,2 | 25 | 1,5 |
| A | ZACP-30-185 | AFL-6 185 | 225 | 38 | 30 | 33 | 8,2 | 30 | 1,3 |
| A | ZACP-30-240 | AFL-6 240 | 225 | 38 | 30 | 33 | 8,2 | 30 | 1,3 |
| A | ZACP-30-525 | AFL-8 525 | 260 | 55 | 30 | 48 | 8,2 | 40 | 1,9 |
| A | ZACP-30-887 | AL 887 | 400 | 60 | 30 | 52,5 | 8,2 | 40 | 2,8 |
| A | ZACP-40-185 | AFL-6 185 | 230 | 38 | 40 | 33 | 12,5 | 30 | 1,6 |
| A | ZACP-40-240 | AFL-6 240 | 230 | 38 | 40 | 33 | 12,5 | 30 | 1,6 |
| A | ZACP-40-350 | AFL-8 350 | 260 | 48 | 40 | 42 | 12,5 | 40 | 2,1 |
| A | ZACP-40-525 | AFL-8 525 | 260 | 55 | 40 | 48 | 12,5 | 40 | 2,2 |
| A | ZACP-40-887 | AL 887 | 405 | 60 | 40 | 52,5 | 12,5 | 40 | 3,2 |
| B | ZAC/45-30-120 | AFL-6 120 | 250 | 30 | 30 | 26 | 8,2 | 25 | 1,5 |
| B | ZAC/45-30-185 | AFL-6 185 | 260 | 38 | 30 | 33 | 8,2 | 30 | 1,5 |
| B | ZAC/45-30-240 | AFL-6 240 | 260 | 38 | 30 | 33 | 8,2 | 30 | 1,5 |
| B | ZAC/45-30-525 | AFL-8 525 | 320 | 55 | 30 | 48 | 8,2 | 40 | 2,6 |
| B | ZAC/45-30-887 | AL887 | 350 | 60 | 30 | 52,5 | 8,2 | 40 | 2,8 |
| B | ZAC/45-40-185 | AFL-6 185 | 265 | 38 | 40 | 33 | 12,5 | 30 | 1,8 |
| B | ZAC/45-40-240 | AFL-6 240 | 270 | 38 | 40 | 33 | 12,5 | 30 | 1,9 |
| B | ZAC/45-40-350 | AFL-8 350 | 320 | 48 | 40 | 42 | 12,5 | 40 | 2,8 |
| B | ZAC/45-40-525 | AFL-8 525 | 320 | 55 | 40 | 48 | 12,5 | 40 | 2,9 |
| B | ZAC/45-40-887 | AL 887 | 355 | 60 | 40 | 52,5 | 12,5 | 40 | 3,2 |
| C | ZAC/90-30-120 | AFL-6 120 | 155 | 30 | 30 | 26 | 8,2 | 25 | 1,5 |
| C | ZAC/90-30-185 | AFL-6 185 | 155 | 38 | 30 | 33 | 8,2 | 30 | 1,5 |
| C | ZAC/90-30-240 | AFL-6 240 | 155 | 38 | 30 | 33 | 8,2 | 30 | 1,5 |
| C | ZAC/90-30-525 | AFL-8 525 | 170 | 55 | 30 | 48 | 8,2 | 40 | 2,6 |
| C | ZAC/90-30-887 | AL 887 | 170 | 60 | 30 | 52,5 | 8,2 | 40 | 2,8 |
| C | ZAC/90-40-185 | AFL-6 185 | 158 | 38 | 40 | 33 | 12,5 | 30 | 1,8 |
| C | ZAC/90-40-240 | AFL-6 240 | 158 | 38 | 40 | 33 | 12,5 | 30 | 1,8 |
| C | ZAC/90-40-350 | AFL-8 350 | 170 | 48 | 40 | 42 | 12,5 | 40 | 2,8 |
| C | ZAC/90-40-525 | AFL-8 525 | 170 | 55 | 40 | 48 | 12,5 | 40 | 2,9 |
| C | ZAC/90-40-887 | AL 887 | 170 | 60 | 40 | 52,5 | 12,5 | 40 | 3,2 |

Materiał:

1. Mosiądz z powłoką cynkową
2. Aluminium

Materiał:

1. Galvanized brass
2. Aluminum

Zastosowanie:

Zaciski używane do łączenia sworzni CU lub AL z przewodami AFL i AL

Application:

These clamps are used to connect ACSR and AL conductors to CU or AL bolts

Notatki / Notes

A large rectangular area with a dotted grid pattern, intended for taking notes.

5



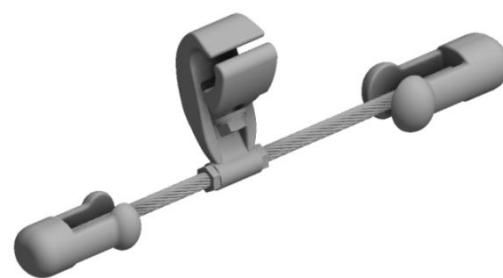
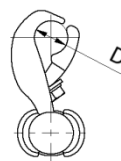
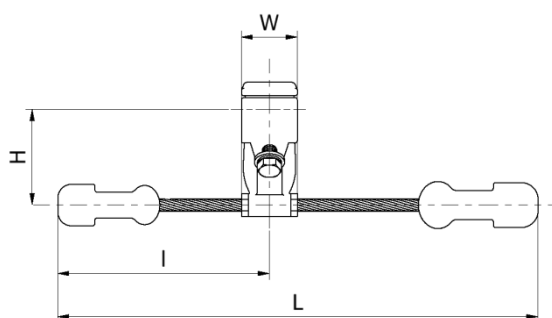
Tłumiki, Odstępniki Dampers, Spacers



TO

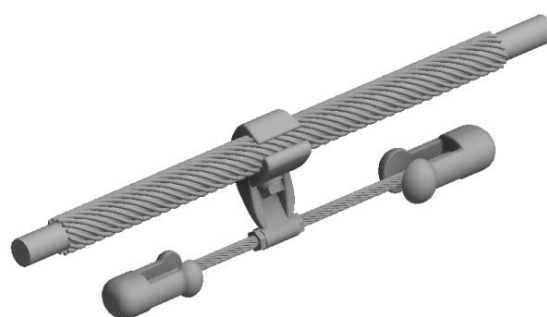
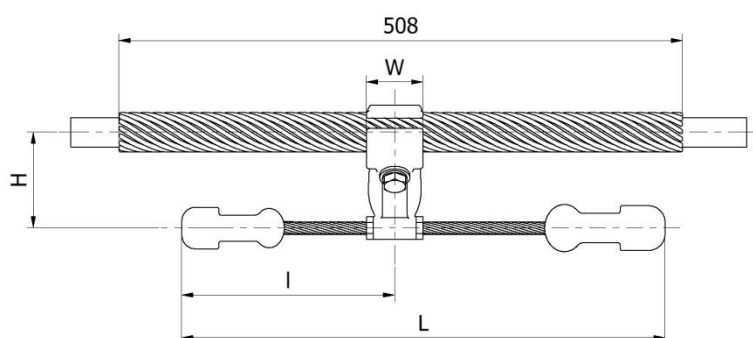
A

➤ **Tłumik drgań**
Vibration damper



B

➤ **Tłumik drgań z opłotem ochronnym**
Vibration damper with protecting rods



| Typ Type | Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Średnica przewodu-D Cond. dia.-D [mm] | Wymiary Dimensions [mm] | | | | Masa Weight [kg] |
|-------------|---------------------------------|--|--|----------------------------|-----|-----|----|---------------------|
| | | | | H | L | I | W | |
| A | FR-1 | - | 7-12 | 81 | 429 | 240 | 50 | 2,8 |
| A | FR-2A | - | 11-12 | 81 | 429 | 240 | 50 | 2,8 |
| A | FR-2B | - | 12-15 | 81 | 429 | 240 | 50 | 2,8 |
| A | FR-2C | - | 15-18 | 81 | 429 | 240 | 50 | 2,8 |
| A | FR-2 | - | 18-22 | 81 | 429 | 240 | 50 | 2,8 |
| A | FR-3 | - | 18-28 | 91 | 505 | 240 | 60 | 5,0 |
| A | FR-4 | - | 23-36 | 97 | 550 | 300 | 60 | 7,6 |
| B | FR-2Y | AFL-1,7 50 | 10-28 | 81 | 429 | 240 | 50 | 3,2 |
| B | FR-4Y | AFL-6 240 | 20-32 | 97 | 429 | 240 | 60 | 3,4 |

Materiał:

- Uchwyt – stop aluminium
- Ciężarki – żeliwo ocynkowane
- Elementy złączne – stal cynkowana ogniowo

Materiał:

- Clamp & keeper – aluminum alloy
- Weights – galvanized cast iron
- Connection elements – hot dip galvanized steel

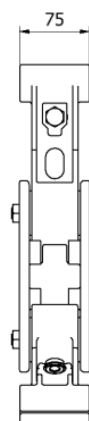
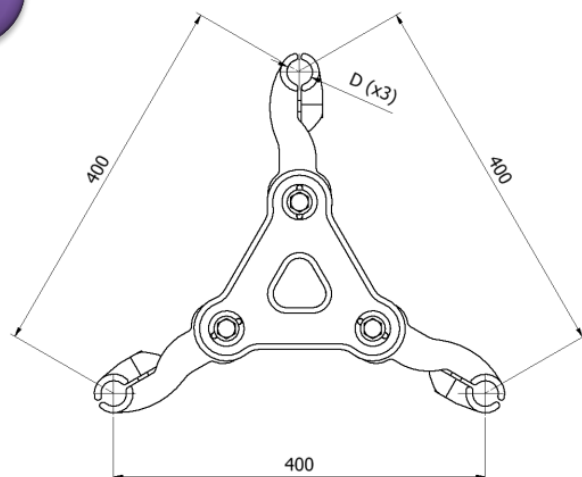
Zastosowanie:

Tłumiki drgań typu Stockbridge służą ochronie przewodów napowietrznych przed skutkami drgań eolnych

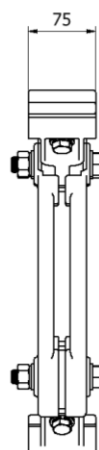
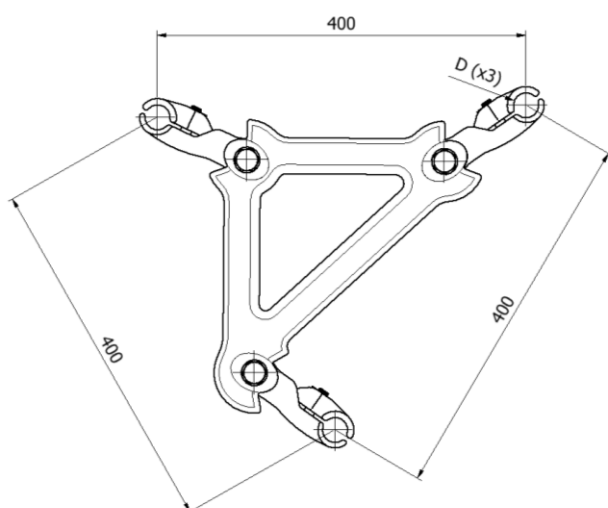
Application:

Vibration dampers, Stockbridge type are used to suppress wind-induced vibrations on overhead power lines

A



B



| Typ Type | Numer katalogowy Catalog No. | Dla przewodów o średnicy - D Conductor diameter range - D [mm] | Masa Weight [kg] |
|-------------|---------------------------------|--|------------------------|
| A | OT3-400-350 | 24,6 – 27,6 | 3,5 |
| B | OT3-400-26 | 31,5 | 4,5 |

Materiał:

- Korpus, szczęki – stop aluminium
- Element tłumiący - elastomer
- Elementy łączące – stal cynkowana ogniowo

Material:

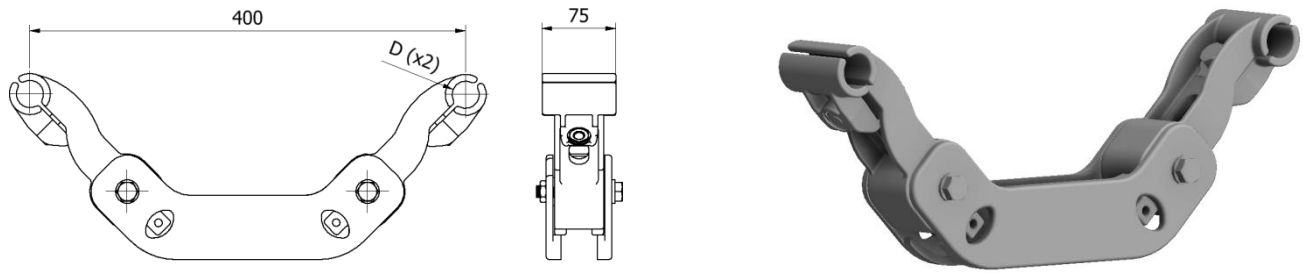
- Frame & arms – aluminum alloy
- Inserts - elastomer
- Connection elements – hot dip galvanized steel

Zastosowanie:

Odstępnik tłumiący służy do utrzymania odstępów między trzema przewodami w wiązce oraz do tłumienia drgań przewodów

Application:

Spacer damper is used to maintain spacing of triple bundle conductors and eliminate vibration damping



| Numer katalogowy Catalog No. | Dla przewodów o średnicy - D Conductor diameter range - D [mm] | Masa Weight [kg] |
|---------------------------------|--|------------------------|
| OT-400-525 | 28 – 32 | 4,5 |

Materiał:

- Korpus, szczęki – stop aluminium
- Element tłumiący - elastomer
- Elementy złączne – stal cynkowana ogniowo

Materiał:

- Frame & arms – aluminum alloy
- Inserts - elastomer
- Connection elements – hot dip galvanized steel

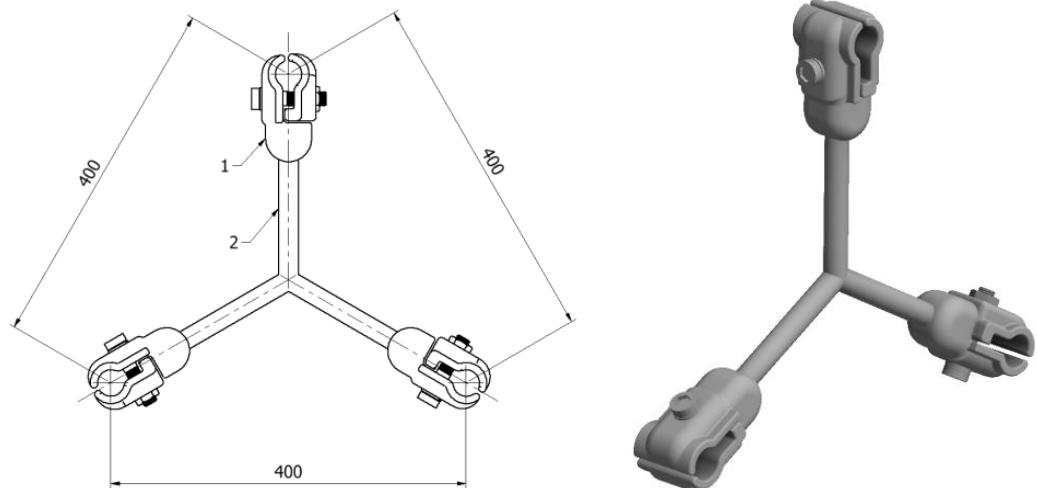
Zastosowanie:

Odstępnik tłumiący służy do utrzymania odstępów między dwoma przewodami w wiązce oraz do tłumienia drgań przewodów

Application:

Spacer damper is used to maintain spacing of triple bundle conductors and eliminate vibration damping

5.4 Odstępnik sztywny dla wiązki potrójnej / Rigid spacer for triple bundle conductor



| Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Masa Weight [kg] |
|---------------------------------|---|------------------------|
| OS3-400-350 | AFL-8 350 | 3,5 |

Materiał:

1. Stop aluminium
2. Stal cynkowana ogniowo

Materiał:

1. Aluminum alloy
2. Hot dip galvanized steel

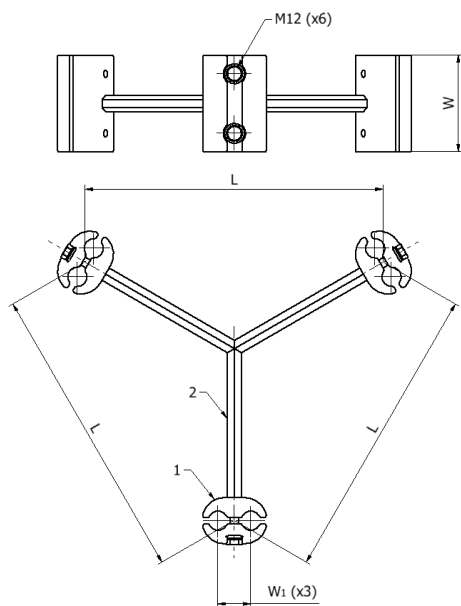
Zastosowanie:

Odstępnik służy do utrzymania odstępów między trzema przewodami

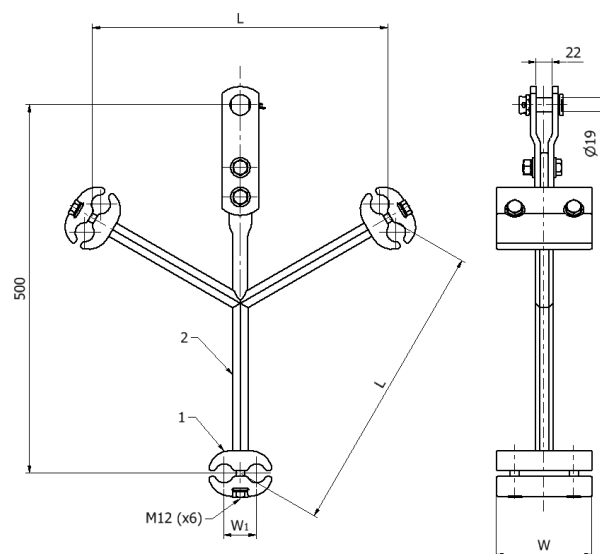
Application:

Spacer is used to maintain spacing of triple bundle conductors

A



B



| Typ Type | Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Wymiary Dimensions [mm] | | | Masa Weight [kg] |
|-------------|---------------------------------|---|-------------------------------|-----|----------------|------------------------|
| | | | L | W | W ₁ | |
| A | OP3-400-350 | AFL-8 350 | 400 | 130 | 44 | 5,5 |
| B | OP3-400-350-1 | AFL-8 350 | 400 | 130 | 44 | 7,7 |

Materiał:

1. Stop aluminium
2. Stal cynkowana ogniowo

Materiał:

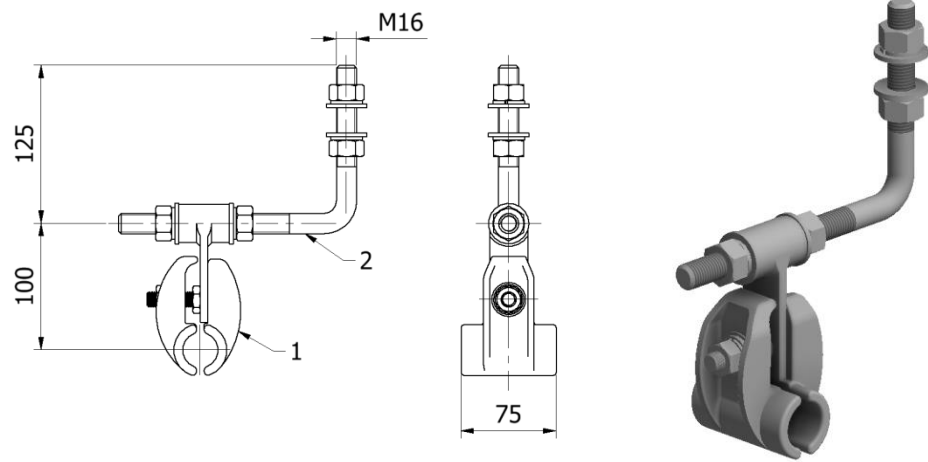
1. Aluminum alloy
2. Hot dip galvanized steel

Zastosowanie:

Odstępniki służą do utrzymania odstępów oraz łączenia przewodów w mostku prądowym

Application:

Spacers are used to maintain spacing of triple bundle conductors



| Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Masa Weight [kg] |
|---------------------------------|--|---------------------|
| OD-350 | AFL-8 350 | 2,0 |

Materiał:

1. Stop aluminium
2. Stal cynkowana ogniowo

Materiał:

1. Aluminum alloy
2. Hot dip galvanized steel

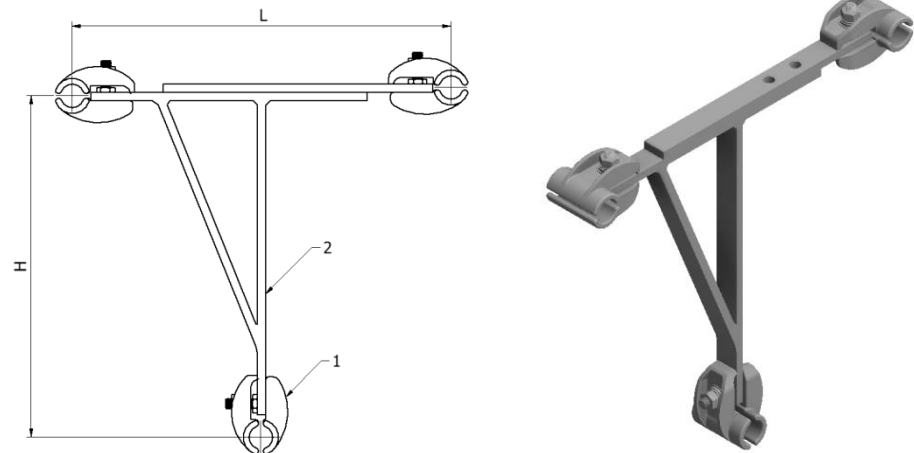
Zastosowanie:

Odstępnik dystansowy służy do utrzymania odstępów między przewodami

Application:

Spacer is used to maintain spacing between conductors

5.7 Odstępnik regulacyjny dla wiązki potrójnej / Adjustable spacer for triple bundle conductor



| Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Wymiary Dimensions [mm] | | Masa Weight [kg] |
|---------------------------------|--|----------------------------|-----|---------------------|
| | | L | H | |
| OR3-400-350 | AFL-8 350 | 450-600 | 400 | 5,5 |

Materiał:

1. Stop aluminium
2. Stal cynkowana ogniowo

Materiał:

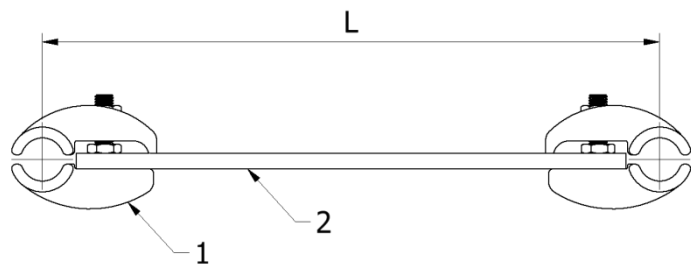
1. Aluminum alloy
2. Hot dip galvanized steel

Zastosowanie:

Odstępnik regulacyjny służy do utrzymania odstępów oraz regulacji w mostku prądowym

Application:

Adjustable spacer is used in jumpers of triple bundles on tension or terminal towers to maintain the spacing



| Numer katalogowy Catalog No. | Zastosowanie do przewodu Conductor type | Wymiary Dimensions [mm] | Masa Weight [kg] |
|---------------------------------|--|-------------------------------|------------------------|
| OS2-400-400 | AFL-8 400 | 400 | 2,5 |
| OS2-400-525 | AFL-8 525 | 400 | 2,5 |
| OS2-400-540 | AFL-4 540 | 400 | 2,4 |
| OS2-400-887 | AL 887, AFL-20 840 | 400 | 2,8 |
| OS2-200-525 | AFL-8 525 | 200 | 1,9 |
| OS2-200-540 | AFL-4 540 | 200 | 1,9 |
| OS2-200-887 | AL 887, AFL-20 840 | 200 | 2,2 |

Materiał:

- Stop aluminium
- Stal cynkowana ogniowo

Material:

- Aluminum alloy
- Hot dip galvanized steel

Zastosowanie:

Odstępnik dla wiązki dwuprzewodowej

Application:

Spacers are used to maintain the subconductors spacing

Zestawienie odpowiedników / Cross-reference list

| | Zircon | Belos-PLP | Strona Page | | Zircon | Belos-PLP | Strona Page |
|-----|--------------------|-------------|----------------|------|-------------------|-----------|----------------|
| 1.1 | UPW-110-120 | 216961 | 7 | 1.7 | UOZ-50-26 | 25636 | 15 |
| 1.1 | UPW-100-120 | 21597 | 7 | 1.7 | UOZ-70-26 | 2571 | 15 |
| 1.1 | UPW-165-160 | 216981 | 7 | 1.7 | UOZ-70-26/1 | 2571/16 | 15 |
| 1.1 | UPW-165-160/50 | - | 7 | 1.7 | UOZ-70-30 | 25637 | 15 |
| 1.1 | UPW-150-160 | 21688 | 7 | 1.7 | UOZ-95-38 | 25638 | 15 |
| 1.1 | UPW-180-160/1 | 216991 | 7 | 1.7 | UOZ-120-30 | 2573 | 15 |
| 1.1 | UPW-180-160 | 217001 | 7 | 1.7 | UOZ-185-38 | 2575 | 15 |
| 1.1 | UPW-190-160 | 21653 | 7 | 1.7 | UOZ-240-38 | 2577 | 15 |
| 1.1 | UPWO-192-160 | 21653-A | 7 | 1.7 | UOZS-10/240-38 | 25771 | 15 |
| 1.1 | UPWO-192-160/2 | - | 7 | 1.7 | UOZ-300-38 | 25781 | 15 |
| 1.1 | UPWO-192-160/1 | 21653-A | 7 | 1.7 | UOZ-350-48 | 2590 | 15 |
| 1.1 | UPWS-100-120 | - | 8 | 1.7 | UOZ-400-48 | 25960 | 15 |
| 1.1 | XGF-1234 | - | 8 | 1.7 | UOZ-525-55 | 25951 | 15 |
| 1.2 | UPW-73-100 | 21696 | 9 | 1.7 | UOZW-240-38 | 25772 | 16 |
| 1.2 | UPWK-109-120 | 21698 | 9 | 1.7 | UOZW-350-48 | 25785 | 16 |
| 1.2 | UPWC-216-120 | 21828 | 9 | 1.7 | UOZW-400-48 | 25940 | 16 |
| 1.2 | UPWCO-216-120 | 21828+oplot | 9 | 1.7 | UOZW-525-55 | 25954 | 16 |
| 1.3 | UPO-ACSS/TW-14.9 | - | 10 | 1.8 | UOZW-525-55 | 25474 | 16 |
| 1.3 | UPO-ACSS/TW-15.76 | - | 10 | 1.8 | UOZW-887-60 | 25476 | 16 |
| 1.3 | UPO-ACSS-16.30 | - | 10 | 1.9 | UOZ-ACSS/TW-14.9 | - | 17 |
| 1.3 | UPO-ACSS/TW-17.86 | - | 10 | 1.9 | UOZ-ACSS/TW-15.76 | - | 17 |
| 1.3 | UPO-ACSS-19.61 | - | 10 | 1.9 | UOZ-ACSS-16.30 | - | 17 |
| 1.3 | UPO-ACSS-18.80 | - | 10 | 1.9 | UOZ-ACSS/TW-17.86 | 2585 | 17 |
| 1.3 | UPO-ACSS/TW-20.0 | - | 10 | 1.9 | UOZ-ACSS-19.61 | - | 17 |
| 1.3 | UPO-ACSS/TW-21.2 | - | 10 | 1.9 | UOZ-ACSS-18.80 | - | 17 |
| 1.3 | UPO-ACSS-21.80 | - | 10 | 1.9 | UOZ-ACSS/TW-20.0 | 2586 | 17 |
| 1.3 | UPO-ACSS/TW-24.9 | - | 10 | 1.9 | UOZ-ACSS/TW-21.2 | - | 17 |
| 1.3 | UPO-ACSS-26.30 | - | 10 | 1.9 | UOZ-ACSS-21.80 | - | 17 |
| 1.3 | UPO-ACSS/TW-25.2 | - | 10 | 1.9 | UOZ-ACSS/TW-24.9 | - | 17 |
| 1.3 | UPO-ACSS-27.7 | - | 10 | 1.9 | UOZ-ACSS-26.30 | - | 17 |
| 1.3 | UPO-ACSS-28.10 | - | 10 | 1.9 | UOZ-ACSS/TW-25.2 | - | 17 |
| 1.3 | UPO-ACSS/TW-28.70 | - | 10 | 1.9 | UOZ-ACSS-27.7 | 2591 | 17 |
| 1.3 | UPO-ACSS-31.6 | - | 10 | 1.9 | UOZ-ACSS-28.10 | - | 17 |
| 1.3 | UPO2-ACSS/TW-14.9 | - | 10 | 1.9 | UOZ-ACSS/TW-28.70 | - | 17 |
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| 3.2 | R2GP-240-40 | 32226 | 55 | 4.4 | ZACP-40-887 | 53065.2858 | 67 |
| 3.2 | R2GP-650-40 | 32226/650 | 55 | 4.4 | ZAC/45-30-120 | 53124.0456 | 67 |
| 3.3 | R1S-110-40 | 32276/S | 56 | 4.4 | ZAC/45-30-185 | 53134.0556 | 67 |
| 3.3 | R1S-210-50 | 32276 | 56 | 4.4 | ZAC/45-30-240 | 53134.0656 | 67 |
| 3.3 | R2S-110-40 | 32286/S | 56 | 4.4 | ZAC/45-30-525 | 53154.0956 | 67 |
| 3.3 | R2S-210-50 | 32286 | 56 | 4.4 | ZAC/45-30-887 | 53164.2856 | 67 |
| 3.4 | R30-90-25 | 32002 | 57 | 4.4 | ZAC/45-40-185 | 53135.0558 | 67 |
| 3.4 | R30-60-25 | 32003 | 57 | 4.4 | ZAC/45-40-240 | 53135.0658 | 67 |
| 3.4 | R30-110-25 | 32004 | 57 | 4.4 | ZAC/45-40-350 | 53155.0758 | 67 |
| 3.4 | R30-60-30 | 32005 | 57 | 4.4 | ZAC/45-40-525 | 53155.0958 | 67 |
| 3.4 | R35-90-35 | 32010 | 57 | 4.4 | ZAC/45-40-887 | 53165.2858 | 67 |
| 3.5 | PO-235-40 | 32534 | 57 | 4.4 | ZAC/90-30-120 | 53224.0456 | 67 |
| 3.6 | PO/2-130-40 | 325310 | 58 | 4.4 | ZAC/90-30-185 | 53234.0556 | 67 |



Zircon Poland Sp. z o.o.

Klimczaka 5/1, 02-797 Warszawa, Poland
TEL.: (+48 22) 816 8541
FAX: (+48 22) 816 8576
<http://www.zircon.pl> zircon@zircon.pl