



Quality products made in Norway for rough climatic situations

RAILWAY SYSTEMS



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USAGE

EL-tjeneste AS have products specially designed to meet the railway needs and offers great flexibility to find new solutions for the customer.

GENERAL

Aluminum is widely used in these products, as it offers good corrosion resistance when using the correct material in attached components. It is also an environmentally friendly material, as it easily can be recycled. In components where we use steel, they are eighter stainless or galvanized.

ANODIZING

When exposed to air, aluminum will form a protective layer of oxide. This means that it is a well suited for material where cutting or drilling is needed. To further improve corrosion and wear resistance, anodizing will increase the thickness of the natural oxide layer.

Since the layer of oxide is an integrated part of the material, it can handle rougher use and is less prone for corrosion in harsh climate.

EL-tjeneste AS delivers anodization with a minimum thickness of 15my.

Some of the benefits of using anodized crossbars:

Environmentally friendly, suitable for recycling.

Corrosion resistance

Esthetics

Blends in with the surroundings

USE IN CORROSIVE ENVIROMENT

Special considerations must be taken when used in corrosive environment. Grease can prevent moisture between materials in connection points. See www.el-tjeneste.no for more information.

INSTRUCTIONS AND DATASHEET

Mounting instructions and datasheet can be found on our webpage www.el-tjeneste.no. Each product has a label with a QR-code, this will lead to the product on the webpage.

ALUMINIUM PRODUCTS USED IN POWER TRANSMISSION AND DISTRIBUTION

EL-tjeneste AS has delivered aluminum products since 1996, they a have well proven durability.



| El-no | Name | Description | Unit | Picture |
|---------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------|
| 2857998 | Al-bar S150 | Aluminium bar for cable duct. L=1,5m. For M8 bolts. | PCS | |
| 2857996 | Al-bar S20 | Aluminium bar for cable duct. L=200mm. For M8 bolts. | PCS | |
| 2857958 | Al-bar S27 | Aluminium bar for cable duct. L=270mm. For M8 bolts. | PCS | |
| 2857999 | Al-bar S300 | Aluminium bar for cable duct. L=3m. For M8 bolts. | PCS | |
| 2859379 | Al-bar SKSF3122-270 | Aluminium bar with 3xØ22-42mm cable clamps. With M8 bolts. | PCS | |
| 2859498 | Al-bar SKSF322 | Aluminium bar with 3xØ22-42mm cable clamp. With M8 bolts. | PCS | |
| 2859378 | Al-bar SKSF4122-360 | Aluminium bar with 4xØ22-42mm cable clamps. With M8 bolts. | PCS | |
| 2857813 | Bracet FB-HE280 | Bracket with two tracks for M8 screws or nuts. For cables and equipment in HEB, HEM profiled mast and U-profiles. Thightening moment fastening screw 8Nm. Cable clamps of KSF type and other eqipment, can be installed in the tracks. Cable cover KDA-HE200-280, can be fastened to the bracket. | PCS | 8 |
| 2857815 | Bracket FB-HE200-220 | Bracket with two tracks for M8 screws or nuts. For cables and equipment in HEB, HEM profiled mast and U-profiles. Thightening moment fastening screw 8Nm. Cable clamps of KSF type and other eqipment, can be installed in the tracks. Cable cover KDA-HE200-280, can be fastened to the bracket. | PCS | |
| 2857812 | Bracket FB-HE240-260 | Bracket with two tracks for M8 screws or nuts. For cables and equipment in HEB, HEM profiled mast and U-profiles. Thightening moment fastening screw 8Nm. Cable clamps of KSF type and other eqipment, can be installed in the tracks. Cable cover KDA-HE200-280, can be fastened to the bracket. | PCS | |
| 2859385 | Cable clamp K122 | Cable clamp 1-cable Ø22-42mm. Half part without fasteners. Cable clamp rail have to be used on top as reinforcement. | PCS | |
| 2859386 | Cable clamp K142 | Cable clamp 1-cable Ø42-60mm. Half part without fasteners. Cable clamp rail have to be used on top as reinforcement. | PCS | |



| El-no | Name | Description | Unit | Picture |
|---------|---------------------|-----------------------------------------------------------------------------------------------------------------------|------|---------|
| 2859387 | Cable clamp K160 | Cable clamp 1-cable Ø60-84mm. Half part without fasteners. Cable clamp rail have to be used on top as reinforcement. | PCS | |
| 2859388 | Cable clamp K317 | Cable clamp 3-cables Ø17-42mm. Half part without fasteners. Cable clamp rail have to be used on top as reinforcement. | PCS | |
| 2859389 | Cable clamp K322 | Cable clamp 3-cables Ø22-42mm. Half part without fasteners. Cable clamp rail have to be used on top as reinforcement. | PCS | |
| 2859390 | Cable clamp K342 | Cable clamp 3-cables Ø42-60mm. Half part without fasteners. Cable clamp rail have to be used on top as reinforcement. | PCS | |
| 2859391 | Cable clamp K422 | Cable clamp 4-cables Ø22-42mm. Half part without fasteners. Cable clamp rail have to be used on top as reinforcement. | PCS | |
| 2859367 | Cable clamp KS111 | Cable clamp 1-cable Ø11-17mm. Delievered with fasteners for use in M8 and M10 profile tracks. | PCS | |
| 2859368 | Cable clamp KS211 | Cable clamp 2-cables Ø11-17mm. Delievered with fasteners for use in M8 and M10 profile tracks. | PCS | |
| 2859335 | Cable clamp KSF122 | Cable clamp 1-cable Ø22-42mm. Reinforced version. Delievered with fasteners. | PCS | |
| 2859337 | Cable clamp KSF142 | Cable clamp 1-cable Ø42-60mm. Reinforced version. Delievered with fasteners. | PCS | |
| 2859334 | Cable clamp KSF160 | Cable clamp 1-cable Ø60-84mm. Reinforced version. Delievered with fasteners. | PCS | |
| 2857806 | Cable clamp KSF2122 | Cable clamp 1-cable Ø22-42mm. Reinforced version. Delievered with fasteners M8 | PCS | |
| 2857807 | Cable clamp KSF2142 | Cable clamp 2-cable Ø42-60mm. Reinforced version. Delievered with fasteners M8 | PCS | W. |
| 2859336 | Cable clamp KSF317 | Cable clamp 3-cables Ø17-42mm. Reinforced version. Delievered with fasteners. | PCS | |
| 2859357 | Cable clamp KSF322 | Cable clamp 3-cables Ø22-42mm. Reinforced version for 4 fasteners. Delivered with fasteners. | PCS | |
| 2859338 | Cable clamp KSF342 | Cable clamp 3-cables Ø42-60mm. Reinforced version. Delievered with fasteners. | PCS | |
| 2859358 | Cable clamp KSF422 | Cable clamp 4-cables Ø22-42mm. Reinforced version for 5 fasteners. Delievered with fasteners. | PCS | |



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| 2859333 | Cable clamp KSF617 | Cable clamp 6-cables Ø22-42mm. Reinforced version. Delievered with fasteners. | PCS | |
| 2859366 | Cable clamp KSF622 | Cable clamp 6-cables Ø22-42mm. Reinforced version with clamps in 2 heights. Delievered with fasteners. | PCS | |
| 2859365 | Cable clamp KSF822 | Cable clamp 8-cables Ø22-42mm. Reinforced version with clamps in 2 heights. Delievered with fasteners. | PCS | |
| 2859356 | Cable clamp KSFF317 | Cable clamp 3-cables Ø17-42mm. Reinforced on both sides. Delievered with fasteners. | PCS | |
| 2859340 | Cable clamp rail SF122 | Reinforcing rail for cable clamp K122. | PCS | |
| 2859341 | Cable clamp rail SF142-160 | Reinforcing rail for cable clamp K142 and K160. | PCS | |
| 2859342 | Cable clamp rail SF317 | Reinforcing rail for cable clamp K317. | PCS | |
| 2859359 | Cable clamp rail SF322 | Reinforcing rail for cable clamp K322. | PCS | |
| 2859343 | Cable clamp rail SF342 | Reinforcing rail for cable clamp K342. | PCS | |
| 2859360 | Cable clamp rail SF422 | Reinforcing rail for cable clamp K422. | PCS | The state of the s |
| 2857800 | Cable cover KDA-HE200-280 | Cable guard, adjustable with: 169-245mm Delivered with festening screws for brackets. | PCS | |
| 2859459 | Cable duct KN12AV-22 | Cable duct with clamps. For 1 cable Ø22-42mm, length 2,6m, Wall-mounting. Non-magnetic backplate, recommended when using single core cable. | PCS | |
| 2859460 | Cable duct KN12AV-42 | Cable duct with clamps. For 1 cable Ø42-60mm, length 2,6m. For wall mounting. Non-magnetic back-cover, recommended when using single core cable. | PCS | |
| 2859461 | Cable duct KN12AV-60 | Cable duct with clamps. For 1 cable Ø60-84mm, length 2,6m. Wall-mounting. Non-magnetic backplate, recommended when using single core cable. | PCS | * |
| 2857808 | Cable duct KN22AV-22 | Cable duct with clamps. For 2 cables Ø22-42mm, length 2,6m Wall-mounting. Non-magnetic backplate, recommended when using single core cable. | PCS | |
| 2857809 | Cable duct KN22AV-42 | Cable duct with clamps. For 2 cables Ø42-60mm, length 2,6m Wall-mounting. Non-magnetic backplate, recommended when using single core cable. | PCS | |



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| 2859462 | Cable duct KN32AV | Cable duct with clamps. For 3 cables Ø17-42mm, length 2,6m. Wall-mounting. Non-magnetic backplate, recommended when using single core cable. | PCS | ** |
| 2859318 | Cable duct lengthening KN11FAV-22 | Cable duct lengthening. 1 cable Ø22-42mm, length 1,6m. Wall-mounting. Non-magnetic backplate, recommended when using single core cable. | PCS | · |
| 2859463 | Cable duct lengthening KN11FAV-42 | Cable duct lengthening. 1 cable Ø42-60mm, length 1,6m. Wall-mounting. Non-magnetic backplate, recommended when using single core cable. | PCS | * |
| 2859464 | Cable duct lengthening KN11FAV-60 | Cable duct lengthening. 1 cable Ø60-84mm, length 1,6m. Wall-mounting. Non-magnetic backplate, recommended when using single core cable. | PCS | 4 |
| 2859406 | Cable guard KAN42A | Cable guard with non-magnetic back cover. Ø45mm, lenght 2,6m. Can be mounted on wall or pole with distance brackets. | PCS | Ì |
| 2857966 | Cable guard KAN52A | Kabelvern med umagnetisk bakdeksel. Ø58mm, lenght 2,6m. Can be mounted on wall or pole with distance brackets. | PCS | Î |
| 2859414 | Cable guard KAN62A | Cable guard with non-magnetic back cover. Ø65mm, lenght 2,6m. Can be mounted on wall or pole with distance brackets. | PCS | ì |
| 2859363 | Earthing clamp J8 | Earthing clamp M8. For alu-profile tracks M8 (UNI-cabinet, cable- and surge arrester crossbars) For earth wire KHF25-50. | PCS | Wild I |
| 2859364 | Earthing clamp JKN | Earthing clamp for copper wire 25-50mm2. For plate thickness 1-6mm. | PCS | |
| 2859420 | Fastening clip SA35 | Fastening clip for cable guard Ø35mm. Color brown. Includes screws. | PCS | |
| 2859418 | Fastening clip SA35V | Fastening clip for cable guard Ø35mm. Color galvanized. Includes screws. | PCS | |
| 2859421 | Fastening clip SA45 | Fastening clip for cable guard Ø45mm. Color brown. Includes screws. | PCS | |
| 2859408 | Fastening clip SA45V | Fastening clip for cable guard Ø45mm. Color galvanized. Includes screws. | PCS | といいい |
| 2859422 | Fastening clip SA58 | Fastening clip for cable guard Ø58mm. Color brown. Includes screws. | PCS | |
| 2859409 | Fastening clip SA58V | Fastening clip for cable guard Ø58mm. Color galvanized. Includes screws. | PCS | |
| 2859423 | Fastening clip SA65 | Fastening clip for cable guard Ø65mm. Color brown. Includes screws. | PCS | 6 |



| El-no | Name | Description | Unit | Picture |
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| 2859410 | Fastening clip SA65V | Fastening clip for cable guard Ø65mm. Color galvanized. Includes screws. | PCS | C |
| 2859424 | Fastening clip SA92 | Fastening clip for cable guard Ø92mm. Color brown. Includes screws. | PCS | 5 |
| 2859411 | Fastening clip SA92V | Fastening clip for cable guard Ø92mm. Color galvanized. Includes screws. | PCS | |
| 2859330 | Ground protection BKF180 | Ground protection. B=185mm. Flexible. | PCS | |
| 2859327 | Ground protection BKF250 | Ground protection. B=250mm. Flexible. | PCS | |
| 2859332 | Ground protection BKF293 | Ground protection. B=293mm. Flexible. | PCS | |
| 2857803 | Ground protection BK-HE200-280 | Ground protection. Adjusteble width: 169-245mm Used in HEB and HEM-profiled mast. | PCS | |
| 2859452 | Ground protection BKV18 | Ground protection. W=178mm. Wallmounting. Non-magnetic back cover to avoid induced currents from cable. | PCS | |
| 2859453 | Ground protection BKV22 | Ground protection. W=243mm. Wallmounting. Non-magnetic back cover to avoid induced currents from cable. | PCS | |
| 2859497 | Ground protection BKV375 | Ground protection. W=375mm. Wallmounting. | PCS | |
| 1262571 | Intermediate piece MS-7/8 | Adapter for mountain borings machine and eathing system. For 7/8" connection. Used to knock down earthing spear-earthing pipes | PCS | |
| 2836396 | Motordrive BL-24-230-J-IN-S-AL392 | Outdoor Motordrive for railway applications. With 110VDC/230VAC - 24V power supply unit. Downward movement for breaker connect. Aluminium cabinet 370x920x300mm. | PCS | |
| 2836397 | Motordrive BL24-230-J-IO-S-AL392 | Outdoor Motordrive for railway applications. With 110VDC/230VAC - 24V power supply unit. Upward movement for breaker connect. Aluminium cabinet 370x920x300mm. | PCS | |
| 2836497 | Mounting kit for HEB-pole - AL-HEB | Kit for mounting Motordrive Aluminium cabinets onto a HEB-pole. Adjustable for different pole sizes. | PCS | ~ |
| 2864772 | Neutral point surge arrester NPS240S-V-K | Transformer neutral point overvoltage protection for 240V IT distribution grid. Can be used as Voltage limiter device (VLD) for railway applications. With signal contactor and mountingbracet for walls. Cabletermination with cable lug. For cross-section >50mm2. | PCS | William . |



| El-no | Name | Description | Unit | Picture |
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| 2864774 | Neutral point surge arrester NPS400-V-KS | Transformer neutral point overvoltage protection for 400V IT distribution grid. Can be used as Voltage limiter device (VLD) for railway applications. With signal contactor and mountingbracet for walls. Cabletermination with cable lug. For cross-section >50mm2. | PCS | Vanue. |
| 2864775 | Neutral point surge arrester NPS690S-V-K | Transformer neutral point overvoltage protection for 690V IT distribution grid. Can be used as Voltage limiter device (VLD) for railway applications. With signal contactor and mountingbracet for walls. Cabletermination with cable lug. For cross-section >50mm2. | PCS | V IIII |
| 2837454 | UNI-profile UP1012-12 | Universal profile- Length 1,2m. With tracks for mounting of equipment SUP washer fitting the screw diameter is used in the tracks | PCS | |
| 2837455 | UNI-profile UP1012-20 | Universal profile- Length 2m With tracks for mounting of equipment SUP washer fitting the screw diameter is used in the tracks | PCS | |
| 2837457 | UNI-profile UP1012-60 | Universal profile- Length 6m With tracks for mounting of equipment SUP washer fitting the screw diameter is used in the tracks | PCS | |
| 2837467 | UNI-Rail UNI-412-L3 | Straight aluminiumsprofil with two tracks for equipment SUP washer fitting the screw diameter is used in the tracks Lenght 3m with slots for attachment | PCS | |
| 2837468 | UNI-Rail UNI-R-412-L3 | Curved aluminiumsprofil with two tracks for equipment SUP washer fitting the screw diameter is used in the tracks Lenght 3m with slots for attachment Curving radius must be stated | PCS | |
| 2837463 | Washer SUP10 M10 A4 | Nut-washer with M10 threads Used in track on aluminiumprofile UP1012 and UNI-Rail, for connecting attachments. | PCS | |
| 2837464 | Washer SUP12 M12 A4 | Nut-washer with M12 threads Used in track on aluminiumprofile UP1012 and UNI-Rail, for connecting attachments. | PCS | 0 |
| 2837465 | Washer SUP16 M16 A4 | Nut-washer with M16 threads Used in track on aluminiumprofile UP1012 and UNI-Rail, for connecting attachments. | PCS | |
| 2837485 | Washer SUP18H | Washer with 18mm hole Used in combination with M16 hex head bolt in track on aluminiumprofile UP1012 and UNI-Rail, for connecting attachments. | PCS | 9 |

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| 2837466 | Washer SUP20 M20 A4 | Nut-washer with M20 threads Used in track on aluminiumprofile UP1012 and UNI-Rail, for connecting attachments. | PCS | 0 |
| 2837462 | Washer SUP8 M8 A4 | Nut-washer with M8 threads Used in track on aluminiumprofile UP1012 and UNI-Rail, for connecting attachments. | PCS | |











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