



Quality products made in Norway for rough climatic situations

# RAILWAY SYSTEMS

December 2023



## RAILWAY SYSTEMS

## **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	<b>A</b>
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	
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	8
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	
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	
2859333	Cable clamp KSF617	Cable clamp 6-cables Ø17-42mm. 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	



El-no	Name	Description	Unit	Picture
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	TO SO
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 same of the sa
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	
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	



El-no	Name	Description	Unit	Picture
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	*
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	
2857966	Cable guard KAN52A	Kabelvern med umagnetisk bakdeksel. Ø58mm, lenght 2,6m. Can be mounted on wall or pole with distance brackets.	PCS	Ì
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	Î
2859363	Earthing clamp J8	Earthing clamp M8. For cable cross bars. For earth wire KHF25-50.	PCS	(Table
2859364	Earthing clamp JKN	Earthing clamp for copper wire 25-50mm2. For plate thickness 1-6mm.	PCS	No.
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	
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	C
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	らいいい
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	



El-no	Name	Description	Unit	Picture
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 370x920x250mm.	PCS	Ì
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 370x920x250mm.	PCS	Ì
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	Variety (
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	THU I
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	William Comment
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	



El-no	Name	Description	Unit	Picture
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	E. C.
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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