

# QUALIFICATION 2017



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what you can provide



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# Provide

more than you promise



**EMTA**

CONDUCTOR & CABLE

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# Company Profile



# Emta Conductor serves the energy industry,

**Ensuring continuous new investments and expanding of manufacturing capabilities**

is a basic principle of the company

Being conscious of our growth potential and the essentiality of the energy industry, EMTA Conductor maintains its investments in human resource, technology, capacity and innovation.

All aluminium products of EMTA Conductor & Cable are manufactured by continuous casting process of A7E (purity of 99,7%) and A8 (purity of 99,8%) aluminium ingots. Output of continuous aluminium casting is rolled aluminium rod having a diameter of 9,50 mm, 12 mm and 15 mm and wires ranging from 1,50 mm to 5,00 mm subsequently.

As a remarkable Rod Wire, AAC, ACSR, AACSR, AAAC and ABC manufacturer in its close territory, EMTA is aware of its advantages such as being an experienced and well known in the energy industry.



As a need of creating competitive advantage, the company makes investments continuously and in the beginning of 2010 launched its new plant in Kadirli/Osmaniye, South of Turkey for the implementation of new products.

This new plant is established over a 150.000 m<sup>2</sup> land and with 25.000 m<sup>2</sup> closed area. The plant is located 110 km from the Adana International Airport, from the Port of Iskenderun, and 180 km from the Port of Mersin.

**We have the experience you want, can supply the quality you expect and know the value you deserve...**

# Quality Approach



# Emta Conductor manufactures

## products complying with requirements of related international standards

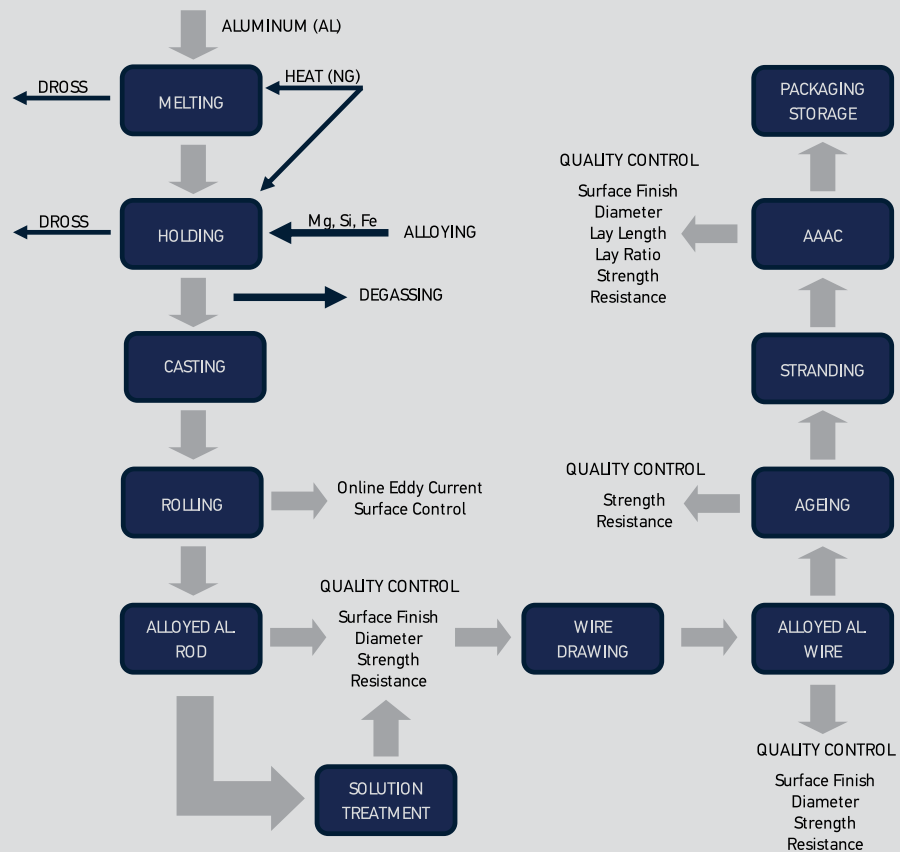


Emta Conductor aspires for developing procedures and processes that guarantee high quality products that not only meet the requirement but also pass beyond these. This conception leads to continuous development of processes during procurement, manufacturing and sales.

Emta Conductor has ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 quality certificates and all products manufactured by the company are in compliance with current international standards as EN, IEC, ASTM, DIN, NF-C, BS, TS, UNE.

All products are comply with RoHS and REACH.

Emta is also able to supply and manufacture the conductors in accordance with customer needs and specifications.



Alloyed Aluminium Wire & Alloyed Aluminium Conductor Production Flow Chart

# Test Methodology & Test Equipment

## Emta Conductor production lines have the following certificates:

ICS.29.060.10 (TS EN 60889) Hard-drawn Aluminium Wire for Overhead Line section,  
ICS. 29.060.10 (TS EN 50182) Conductors for Overhead Conductors Round Wire Concentric Lay Stranded  
ICS. 29.060.10 (TS 9632 EN 50183) Conductors for Overhead Lines-Aluminium-Magnesium-Silicon Alloy Wires  
ICS.29.060.20 (TS 11654) 0.6/1kV Cables, Aerial Bundled Cable  
ICS.29.060.20 (TS IEC 60502-1) Power Cables with Extruded Insulation and their accessories for rated voltages from 1 kV up to 3 kV.



## Emta Conductor Tests are below:

### Raw materials

All raw materials are supplied from highly qualified and approved suppliers. According to the material, required specifications are determined and transmitted to the supplier. Supplied raw material is investigated to control the conformity of the product according to the technical specifications before acceptance to the factory.

### Conductors

Routine Tests (In-House Test Laboratory)

Sample of individual wires from each length of finished conductor are tested in accordance with major standards such as ASTM, IEC, EN, DIN, BS, EN NF-C, UNE and TS regarding customers' required standard. Individual aluminium and steel wires are tested before stranding.

### Aluminium Alloyed Wire Rod

- Surface Finish
- Diameter
- Tensile Strength
- Resistance
- Chemical Analyses

### Aluminium Wire

- Surface Finish
- Diameter
- Tensile Strength
- Resistance

### Complete AAAC Conductors

- Surface Finish
- Complete Diameter
- Lay Direction
- Lay Length
- Lay Ratio
- Tensile Strength
- Resistance

### Sample Tests

(In-House Test Laboratory)

Sample tests shall be carried out on the complete conductor to provide compliance with the standards.

### The following sample tests shall be carried out:

- Outside view
- Construction
- Diameter, lay length and lay ratio
- Ultimate tensile strength test



# List of Test Equipment

Emta Conductor has an in-house laboratory where all mechanical and electrical testing of products are conducted. All equipment and instruments are regularly calibrated and checked.

No	Test Equipment	Definition Of The Equipment	Test	Related Standard	Quantity
1	Termo Fisher Analyzer	Chemical composition analysis		ASTM B398, IEC 60104, EN 50183	1
2	Resistomat	Resistance measurement	Resistivity of single wires	ASTM B230, EN 60889, EN 50183	1
3	Breaking Machine	Load capacity of 50.000 kg horizontal with load cell	Complete breaking test of conductor	ASTM B230, ASTM B498, EN 50189, EN 60889	1
4	Torsion measurement equipment		Number of twists of steel wires	EN 50189	1
5	Wrapping Machine		Number of wrappings of aluminium and steel wires	EN 50189, EN 50183, EN 60889	1
6	Extensometer	Extension measurement at 1% extension	Stress at 1% elongation of steel wires	ASTM B498, EN 50189	2
7	Breaking Machine	Load capacity of 5.000 kg with extension measuring unit	Tensile strength test for wires	ASTM B230, ASTM B498, EN 50189, EN 60889	2
8	Digital micrometer		Diameter of wires	ASTM B498, EN 50189	3
9	Digital Compass		Diameter of conductor	ASTM B230, ASTM B498, EN 50189, EN 60889	4
10	Micrometer		Diameter of wires	ASTM B498, EN 50189	9
11	Compass		Diameter of conductor	ASTM B230, ASTM B498, EN 50189, EN 60889	4
12	Carbon Black Furnace	ABC Cable Carbon Black Content measurement	Carbon Black Content	EN 60811-4-1, TS 11654, NF C 33-209, TS HD 626 S1	1
13	Electronic Precision Balance	ABC Cable Carbon Black Content weight measurement	Carbon Black Content Weight	EN 60811-4-1, TS 11654, NF C 33-209, TS HD 626 S1	1
14	Camera Measurement System	Cable insulator thickness and diameter measurement	Thickness and diameter	TS 11654, NF C 33-209, TS HD 626 S1	1
15	Bending Machine	Cable Bending	Cable bending at -25°C	NF C 33-209, TS HD 626 S1	1
16	Megger	Electrical insulation	15 kV DC Dielectric Test	TS 11654, NF C 33-209, TS HD 626 S1	1
17	Zaba	Weight of line coating measurement	Weight of line coating	ASTM B498, EN 50189	2
18	Dry heat sterilizer	Test furnace	Insulation shrinkage	TS 11654, NF C 33-209, TS HD 626 S1	1
19	Freezer	-25°C freezer	Cable bending at -25°C	NF C 33-209, TS HD 626 S1	1
20	Eddy-Current		Defect Inspection	ASTM, API, BS, JIS, EITC, ENEL, DIN, SEP 1925/1917/1914, etc.	1
21	Drop Point Test Machine	Drop Point Temperature	Lubricating grease dropping point temperature measurement	ASTM D566, EN 50326, ISO 2176	1

## Eddy-Current Testing

Eddy-current testing has become one of the most important testing methods used in the steel industry today; however, as Emta Conductor we have adopted this technology for our aluminium based conductors to provide reliable test results and ensure product excellence. Integrated into the production line for immediate feedback, the eddy-current instrument generates alternating currents around the conductive aluminium strands to detect any flaws that are not visible to the naked eye allowing for superior quality assurance.



# Key References

## Key References

→ 2016

Client	Project Name	Type & Size	Qty (Ton)
ENERGOMANTAZA A.D. SERBIA	Replacement of Conductor for Upgrading 11kV T/L SERBIA	ACCC Silvassa	39
Zircon Poland SP. Z.O.O. POLAND	Reconductoring Project	ACCC Helsinki	3,8
Network Rail UNITED KINGDOM	Railway Projects	AAC Conductors & PVC Insulated Cables	380
MWENGA HYDRO LTD. TANZANIA	33kV Transmission Lines & 1kV Distribution Projects TANZANIA	ACSR Conductors & ABC Cables	205
TENNET NETHERLANDS	Supply of Conductors for T/L Projects	Various Types of ACSR Conductors	25
Ministry of Electricity, Baghdad IRAQ	132kV South Baghdad-Bismayeh S/S T/L Project IRAQ	AAAC 551,4	245
General Directorate of Water & Sewerage, IRAQ	33kV Transmission Line for Aqra Water Supply Project IRAQ	ACSR LARK	280
Ministry of Electricity, Sulaymaniyah IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	225

Ministry of Electricity, Arbil IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	160
Ministry of Electricity, Basra IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	100
Ministry of Electricity, Baghdad IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	290
EMTA ENERJI TURKEY	154kV Transmission Line Project TURKEY	ACSR CARDINAL	95
OVİT ENERJI TURKEY	Çayhan II HES 154kV T/L TURKEY	ACSR HAWK	150
TEIAS TURKEY	H. 282T Ref. 380 Kv Osmanca - Ada 2 T/L TURKEY	ACSR PHEASANT	3.190
TEIAS TURKEY	H. 326 Ref. 380 Kv Borçka- İspir-Erzurum T/L Project TURKEY	ACSR PHEASANT	3.613
TEDAS TURKEY	Yearly Contract for Supply of Conductors & ABC Cables TURKEY	Various Types of ABC Cables & AAC/ACSR Conductors	1.050
TEDAS TURKEY	Distribution Projects TURKEY	Various Types of AAC & ACSR Conductors	680
TEDAS TURKEY	Distribution Projects TURKEY	Various Types of AAC & ACSR Conductors	505
Cable & Wire Manufacturers EUROPE	Supply of Aluminium Wire Rod EUROPE	9,50 mm & 12 mm Wire Rod	7.000
Cable & Wire Manufacturers TURKEY	Supply of Aluminium Wire Rod TURKEY	9,50 mm & 12 mm Wire Rod	6.500
Steel Producers EUROPE	Supply of Aluminium Wire Rod EUROPE	12 mm Wire Rod	650
Steel Producers TURKEY	Supply of Aluminium Wire Rod TURKEY	12 mm Wire Rod	1.000

# Key References

→ 2015

Client	Project Name	Type & Size	Qty (Ton)
SIEMENS TURKEY	ENKA Bazyan CAPP Project Sulaymaniyah/IRAQ	Various Types of ACSR Conductors	25
Network Rail UNITED KINGDOM	Railway Projects	AAC Conductors & PVC Insulated Cables	510
General Electric company of Libya LIBYA	Contract No 23/2007 Supply of Conductors for Upgrading the Western Distribution Network	AAAC 63 AAAC 100	450 600
General Electric company of Libya LIBYA	Contract No 34/2007 Supply of Conductors for Upgrading the Sahel Jfara Area Distribution Network	AAAC 63 AAAC 100	380 560
General Electric company of Libya LIBYA	Contract No 36/2007 Supply and Installation of T/L in Tajora and Anwahe Area	AAAC 63 AAAC 100	300 130
BEST Elektrik Taahhüt ve Tic. A.Ş. TURKEY	Tazoult Substation Project ALGERIA	AAAC Aster 570-AL4 AAAC Aster 851-AL4 AAAC Aster 1144-AL4	24 8 18
ENERGOINVEST D.D. BOSNIA & HERZEGOVINA	Substation Project IRAQ	ACSR Conductors	70
ENERGOPROJEKT OPREMA D.D. SERBIA	Substation Project TANZANIA	ACSR & AAC Conductors	15
Ministry of Electricity, Arbil IRAQ	KRG-MOE/NET3/2013 Contract - 33kV T/L IRAQ	ACSR LARK	400
Ministry of Electricity, Sulaymaniyah IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	120
Ministry of Electricity, Arbil IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	265
Ministry of Electricity, Basra IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	180
Ministry of Electricity, Baghdad IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	230
Network Rail UNITED KINGDOM	Great Western Project UNITED KINGDOM	AAAC 167-AL7 AAAC 263-AL7	185 290
EMTA ENERJI TURKEY	ICDAS Biga RES T/L Project TURKEY	ACSR Hawk	142
EMTA ENERJI TURKEY	FC ENERGY Yahyalı RES T/L Project TURKEY	ACSR PHEASANT	130

TEIAS TURKEY	H. 244 Ref. 380 Kv Bandırma DGKÇS- İÇDAŞ 2-Lapseki T/L Project TURKEY	ACSR PHEASANT	62
TEIAS TURKEY	H. 284 Ref. 380 Kv Arkun - İspir T/L Project TURKEY	ACSR PHEASANT	882
TEIAS TURKEY	H. 290 Ref. 380 Kv ZETES- AMASRA TES T/L Project TURKEY	ACSR PHEASANT	2.530
TEIAS TURKEY	H. 302 Ref. 380Kv Kurşunlu- Bağlum-Sincan T/L Project TURKEY	ACSR PHEASANT	4.850
TEIAS TURKEY	H. 306 Ref. 380Kv Kayabaşı - Eser T/L Project TURKEY	ACSR PHEASANT	5.331
TEIAS TURKEY	H. 310 Ref. 154kV & 380Kv Arkun- Oltu-Erzurum-Yusufeli-Artvin- Gurcistan Connection Lines T/L Project TURKEY	ACSR PHEASANT	315
TEIAS TURKEY	H. 481 Ref. 154 kV Topçam- Reşadiye T/L Project TURKEY	ACSR PHEASANT	460
TEIAS TURKEY	H. 509 Ref. 154 Kv Ardahan-Olur T/L Project TURKEY	ACSR PHEASANT	475
TEIAS TURKEY	H. 525 Ref. 154 kV Tümosan-Sultanhanı- Kızören Transmission Line Project TURKEY	ACSR PHEASANT	567
TEIAS TURKEY	H. 529 Ref. 380 kV Alanbaşı- Yeni Tortum T/L Project TURKEY	ACSR PHEASANT	185
TEIAS TURKEY	H. 531 Ref. 154 kV Soma- Bergama T/L Project TURKEY	ACSR PHEASANT	588
TEIAS TURKEY	154 kV Köroğlu HES TM- Ardahan 2 TM T/L Project TURKEY	ACSR PHEASANT ACSR DRAKE	384 43
TEDAS TURKEY	Yearly Contract for Supply of Conductors & ABC Cables TURKEY	Various Types of ABC Cables & AAC/ACSR Conductors	615
TEDAS TURKEY	Distribution Projects TURKEY	Various Types of AAC & ACSR Conductors	530
TEDAS TURKEY	Distribution Projects TURKEY	Various Types of AAC & ACSR Conductors	420
Cable & Wire Manufacturers EUROPE	Supply of Aluminium Wire Rod EUROPE	9,50 mm & 12 mm Wire Rod	11.000
Cable & Wire Manufacturers TURKEY	Supply of Aluminium Wire Rod TURKEY	9,50 mm & 12 mm Wire Rod	7.000
Steel Producers TURKEY	Supply of Aluminium Wire Rod TURKEY	12 mm Wire Rod	650

# Key References

→ 2014

Client	Project Name	Type & Size	Qty (Ton)
SPIE/TENNET NETHERLANDS	380kV Diemen - Lelystad & 380kV Diemen - Krimpen O.H.T.L Reconstruction Project NETHERLANDS	AACSR HAWK & ACSR SEP	130
Jarvi-Suomen Energia Oy FINLAND	110kV/20kV Yövesi -Säynäänlahti Joint T/L Project FINLAND	AACSR Sustrong	65
DEVOLL HYDROPOWER sh.a. ALBANIA	Construction of 220kV line Devoll Hydropower Project ALBANIA	ACSR CONDOR	500
KOSTT KOSOVO	Replacement of 110kV Equipment of 110kV/35kV Gjakova 1 Substation Project KOSOVO	ACSR 240/40	40
Network Rail UNITED KINGDOM	Railway Projects	AAC Conductors & PVC Insulated Cables	700
ANGOLA ELECTRIC & ENERGY AUTHORITY ANGOLA	Overhead Transmission Line Project ANGOLA	AAAC YEW	546
PUBLIC ELECTRICITY CORP. YEMEN	47A/2013 Tender, Supply of AAAC Conductors YEMEN	AAAC 150 AAAC 185 AAAC 240	26 64 43
Ministry of Electricity, Baghdad IRAQ	27/NT/2013 Contract - Supply of 132kV Conductors IRAQ	ACSR TEAL	10.000
Ministry of Electricity, Basra IRAQ	5/2/33/137S Supply of Conductor IRAQ	ACSR TEAL AAAC 551,4mm <sup>2</sup>	1.050 150
Ministry of Electricity, Basra IRAQ	132kV Tranmission Line Project IRAQ	ACSR TEAL	329
Ministry of Electricity, Sulaymaniyah IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	300
Ministry of Electricity, Arbil IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	180
Ministry of Electricity, Basra IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	250
Ministry of Electricity, Baghdad IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	400
Network Rail UNITED KINGDOM	Along Track Project UNITED KINGDOM	AAC Conductors & PVC Insulated Cables	500

# Key References

→ 2014

Client	Project Name	Type & Size	Qty (Ton)
TURKMENISTAN	Sales Through Retailers	Various Types of AAC & ACSR Conductors	100
TEIAS TURKEY	H. 455 Ref. 154 Kv Batman 2 - Bismil T/L Project TURKEY	ACSR PHEASANT	800
TEIAS TURKEY	H. 280 Ref. 380 kV Ada 2 Dgkcs-Paşaköy T/L Project TURKEY	ACSR PHEASANT	3.800
TEIAS TURKEY	H. 266 Ref. 380 kV Eren Tes - Ereğli - Osmanca Transmission Line Project TURKEY	ACSR CARDINAL	4.100
TEIAS TURKEY	H. 445 Ref. 154 kV Kastamonu - Arac - Safranbolu Transmission Line Project TURKEY	ACSR PHEASANT	741
TEIAS TURKEY	H. 513 Ref. 154 kV Birecik Hes - Belkıs - Sanliurfa Transmission Line Project TURKEY	ACSR PHEASANT	300
TEIAS TURKEY	H. 443 Ref. 154 kV Saruhanlı - Golmarmara Transmission Line Project TURKEY	ACSR PHEASANT	243
TEDAS TURKEY	Yearly Contract for Supply of Conductors & ABC Cables TURKEY	Various Types of ABC Cables & AAC/ACSR Conductors	410
TEDAS TURKEY	Distribution Projects TURKEY	Various Types of AAC & ACSR Conductors	780
TEDAS TURKEY	Distribution Projects TURKEY	Various Types of AAC & ACSR Conductors	470
Cable & Wire Manufacturers EUROPE	Supply of Aluminium Wire Rod	9,50 mm & 12 mm Wire Rod	10.500
Cable & Wire Manufacturers TURKEY	Supply of Aluminium Wire Rod	9,50 mm & 12 mm Wire Rod	8.000
Steel Producers TURKEY	Supply of Aluminium Wire Rod	12 mm Wire Rod	1.100

# Key References

→ 2013

Client	Project Name	Type & Size	Qty (Ton)
FINGRID FINLAND	110kV Leppävirta-Varkaus Transmission Line Project FINLAND	ACSR DUCK AACSR SUSTRONG	80
Sirte Oil Company LIBYA	110kV S/S Sahle - S/S Field Section Transmission Line Project LIBYA	ACSR QUAIL	36,3
Ministry of Municipalities & Tourism Arbil/IRAQ	Amidy Water Supply Project Dohuk/IRAQ	ACSR LARK	280
Ministry of Electricity Arbil/IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	405
Ministry of Electricity Sulaymaniyah/IRAQ	Distribution Projects IRAQ	ACSR 120/20	323
Ministry of Electricity Sulaymaniyah/IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	381
Babylon Governorate IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	1.692,5
Ministry of Electricity Basra/IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	215
Ministry of Electricity Baghdad/IRAQ	Distribution Projects IRAQ	Various Types of ABC and Conductors	215
Ministry of Electricity Arbil/IRAQ	KRG-MOE/ETD-16/2011 Project Dohuk/ IRAQ	ACSR LARK	438,5
Ministry of Electricity Sulaymaniyah/IRAQ	Stage VI 132kV Transmission Line Projects, Sulaymaniyah Part IRAQ	ACSR TEAL	886
Ministry of Electricity Basra/IRAQ	33kV Transmission Lines Project for Oil Field Basra/IRAQ	ACSR/AW DORKING	98
KOSTT KOSOVA	Substation Projects	ACSR 240/40 ACSR 360/57 ACSR 490/65	80
Network Rail UNITED KINGDOM	Railway Projects UNITED KINGDOM	AAC Conductors & PVC Insulated Cables	620
The Ministry of Environment, Energy and Telecommunications COSTA RICA	COSTA RICA	ACSR/AW DRAKE 7 No. 7 AWG Alumoweld	76,2
TURKMENISTAN	Sales Through Retailers	Various Types of AAC & ACSR Conductors	225
British Columbia Hydro CANADA	Georgie Lake-138 kV Cape Scott SS- Port Hardy SS Transmission Line Project Vancouver Island, BC, CANADA	ACSR CARDINAL	135
EMTA Enerji A.S. TURKEY	Koclu Hydro Electric Power Plant 154 kV Transmission Line Project TURKEY	ACSR DRAKE	68



# Key References

→ 2013

Client	Project Name	Type & Size	Qty (Ton)
EMTA Enerji A.S. TURKEY	TCDD-Tuzgolu 34,5 kV Transmission Line Project TURKEY	ACSR Hawk	243
TEIAS TURKEY	Serap Hydro Electric Power Plant 380 kV Transmission Line Project TURKEY	ACSR PHEASANT ACSR HAWK	340
TEIAS TURKEY	H.425 Ref. 380 kV Ayfon 2-Barla T/L TURKEY	ACSR CARDINAL ACSR PHEASANT	274
TEIAS TURKEY	H.403 Ref. 154 kV Yenicates-Karabuk OSB Transmission Line Project TURKEY	ACSR PHEASANT	602
TEIAS TURKEY	H.407 Ref. 154 kV Bursa-Orhangazi T/L Project TURKEY	ACSR PHEASANT	583
TEIAS TURKEY	H.419 Ref. 154 kV Bodrum-Yeniköy T/L Project TURKEY	ACSR PHEASANT	672
TEIAS TURKEY	154 kV Tatar-Ferrokrom Transmission Line Project TURKEY	ACSR PHEASANT	193
TEIAS TURKEY	H.381 Kiziltepe - Circip Transmission Line Project TURKEY	ACSR PHEASANT	885
TEIAS TURKEY	H.411 Varsak-Serik Transmission Line Project TURKEY	ACSR PHEASANT	619
TEIAS TURKEY	H.443 Saruhanli-Golmarmara T/L Project TURKEY	ACSR PHEASANT	243
TEIAS TURKEY	380 kV Goynuk SS - Bingol SS T/L Project TURKEY	ACSR PHEASANT	147
TEDAS (Distribution Company of Turkey) TURKEY	Procurement Tender TURKEY	ACSR HAWK	1.120
TEDAS (Distribution Company of Turkey) TURKEY	Supply of Conductors & ABC Cables TURKEY	Various Types of AAC & ACSR Conductors	975
TCDD (Railways Utility & System Operator) TURKEY	Railway Projects TURKEY	LA - 180	85
Cable & Wire Manufacturers EUROPE	Supply of Aluminium Wire Rod	9,50 mm & 12 mm Wire Rod	8.000
Cable & Wire Manufacturers TURKEY	Supply of Aluminium Wire Rod	9,50 mm & 12 mm Wire Rod	6.000
Steel Producers TURKEY	Supply of Aluminium Wire Rod	12 mm Wire Rod	1.000

# Key References

→ 2012

Client	Project Name	Type & Size	Qty (Ton)
ANGOLA ELECTRIC & ENERGY AUTHORITY ANGOLA	Lot 1: 60kV SE Mabubas-SE Musseque Capari & Lot 3: SE Zee-SE Urbanizacoes Transmission Lines ANGOLA	ACSR PANTHER	200
General Electric company of Libya LIBYA	Renewal & Replacement of 220kV Transmission Line Projects LIBYA	AAAC 413,5 AAAC 211	285 108
General Electric company of Libya LIBYA	9/2008, 30kV & 66kV GECOL Projects LIBYA	ACSR BEAR ACSR 150/25	2.300 950
ITALY	Material Supply	ACSR 70/12	45
Ministry of Electricity, Sulaymaniyah IRAQ	Stage VI 132kV Transmission Line Projects, Sulaymaniyah Part IRAQ	ACSR TEAL	2.450
Ministry of Electricity, Sulaymaniyah IRAQ	IRAQ	Various Types of ABC and Conductors	670
Ministry of Electricity, Arbil IRAQ	IRAQ	Various Types of ABC and Conductors	900
Ministry of Electricity, Basra IRAQ	IRAQ	Various Types of ABC and Conductors	560
Ministry of Electricity, Baghdad IRAQ	IRAQ	Various Types of ABC and Conductors	275
Network Rail UNITED KINGDOM	Along Track Project UNITED KINGDOM	AAC Conductors & PVC Insulated Cables	500
Palestinian Energy Authority PALESTINE	Procurement Tender PALESTINE	ABC Cables & ACSR Dingo	105
TURKMENISTAN	Sales Through Retailers	Various Types of AAC & ACSR Conductors	350
EMTA Enerji A.S. TURKEY	380kV Izmir Aliaga-Izdemir SS & Aliaga- Uzundere SS Transmission Line Project TURKEY	ACSR CARDINAL	291
EMTA Enerji A.S. TURKEY	Ayranlı Hydro Electric Power Plant 34,5kV Transmission Line Project TURKEY	ACSR HAWK	167
EMTA Enerji A.S. TURKEY	Eser Insaat Hydro Electric Power Plant 34,5kV Sutluce-Ekincik Transmission Line Project TURKEY	ACSR HAWK	292
EMTA Enerji A.S. TURKEY	Egenda A.S. 154kV Eglence I-II Transmission Line Project TURKEY	ACSR PHEASANT	181
EMTA Enerji A.S. TURKEY	154kV Darbogaz-Oltu SS Transmission Line Project TURKEY	ACSR PHEASANT	266

# Key References

→ 2012

Client	Project Name	Type & Size	Qty (Ton)
EMTA Enerji A.S. TURKEY	154kV H.365 Arslanbey-Ford-Karamursel Transmission Line Project TURKEY	ACSR PHEASANT	593
EMTA Enerji A.S. TURKEY	Yunus Emre Coal Power Plant 380kV Transmission Line Project TURKEY	ACSR PHEASANT	337
TEIAS TURKEY	H. 375, 154kV Belkis-Kilis Transmission Line Project TURKEY	ACSR PHEASANT	509
TEIAS TURKEY	H. 353, 154kV Cihanbeyli-Ladik Altinekin Transmission Line Project TURKEY	ACSR PHEASANT	221
TEIAS TURKEY	H. 252, 380kV Karaburun-Cesme Transmission Line Project TURKEY	ACSR CARDINAL	350
TEIAS TURKEY	H. 329, 154kV Alacati-Urla-Tahtali Transmission Line Project TURKEY	ACSR PHEASANT	810
TEIAS TURKEY	H. 359, 154kV Varsak-Kepez-Akorsan Transmission Line Project TURKEY	ACSR PHEASANT	300
TEIAS TURKEY	H. 326, 380kV Batman-Siirt Transmission Line Project TURKEY	ACSR PHEASANT	1.125
TEIAS TURKEY	H. 248, 154kV Borcka-Border Georgia Transmission Line Project TURKEY	ACSR CARDINAL	645
TEIAS TURKEY	H. 391, 154kV Ambarli-Hadimkoy Transmission Line Project TURKEY	ACSR PHEASANT	317
TEDAS TURKEY	Procurement Tender TURKEY	ACSR HAWK	415
TEDAS TURKEY	Procurement Tender TURKEY	Various Types of AAC & ACSR Conductors	540
TEDAS TURKEY	Procurement Tender TURKEY	Various Types of AAC & ACSR Conductors	218
TEDAS TURKEY	Procurement Tender TURKEY	Various Types of AAC & ACSR Conductors	135
Cable & Wire Manufacturers EUROPE	Supply of Aluminium Wire Rod	9,50 mm & 12 mm Wire Rod	7.000
Cable & Wire Manufacturers TURKEY	Supply of Aluminium Wire Rod	9,50 mm & 12 mm Wire Rod	6.000

# Key References

→ 2011

Client	Project Name	Type & Size	Qty (Ton)
ANGOLA ELECTRIC & ENERGY AUTHORITY ANGOLA	220kV Transmission Line Project ANGOLA	ACSR CROW	412
TEIAS TURKEY	34,5kV Bolsu Enerji Project TURKEY	ACSR HAWK	250
Ministry of Electricity, Basra IRAQ	IRAQ	Various Types of ABC and Conductors	327
KOSTT KOSOVA	110kV SS Vushtrri - SS Trepca - SS Vallac OHTL KOSOVA	ACSR 240/40	78
TEIAS TURKEY	Giresun Tura HES Project TURKEY	ACSR HAWK	130
MEPSO MACEDONIA	ECSEE APL 3 Macedonia 110kV Bittola 3 - Bittola 4 OHTL MACEDONIA	ACSR 240/40	65
TEIAS TURKEY	34,5kV Transmission Line Project TURKEY	ACSR HAWK	120
TEDAS TURKEY	34,5kV Ergani Transmission Line Project TURKEY	ACSR HAWK	70
AFGHANISTAN	Province 26 Villages Project AFGHANISTAN	ABC 4x50+50	75
TEDAS TURKEY	Uludag EDAS 34,5kV Ezine - Bayramic Transmission Line Project TURKEY	ACSR HAWK	135
ERDAT LURA Sh.p.k. ALBANIA	110kV SS Arremolle - SS Kurbnesh OHTL ALBANIA	ACSR 120/70 ACSR 240/40	46,5 70
SIEMENS TURKEY	Kozan / Adana Project TURKEY	ACSR CARDINAL ACSR HAWK ACSR PARTRIDGE	33 2 1,6
TEDAS TURKEY	AYEDAS Procurement Tender	Various Types of ABC	35
Ministry of Electricity, Baghdad IRAQ	IRAQ	Various Types of ABC and Conductors	276
TEDAS TURKEY	Procurement Tender	ACSR HAWK	40

# Key References

→ 2011

Client	Project Name	Type & Size	Qty (Ton)
Ministry of Electricity, Arbil IRAQ	IRAQ	Various Types of ABC and Conductors	1.250
TEDAS TURKEY	Procurement Tender	AAC & ACSR Conductors	131
TCDD TURKEY	Ankara-Istanbul High Speed Railway Project Part II Vezirhan-Inonu TURKEY	ACSR OSTRICH ACSR HAWK	184 35
TEIAS TURKEY	154kV Yatagan - Milas Transmission Line Project TURKEY	ACSR PHEASANT	194
Network Rail UNITED KINGDOM	Network Rail Projects UNITED KINGDOM	AAC COCKROACH and AAC CENTIPEDE	80
Ministry of Electricity, Sulaymaniyah IRAQ	IRAQ	Various Types of ABC and Conductors	715
TEDAS TURKEY	Procurement Tender	ACSR Conductors and ABC	71
General Electric company of Libya LIBYA	Renewal & Replacement of 220kV Transmission Line Projects LIBYA	AAAC 413,5	2.725
AFGHANISTAN	Kandahar and Helmand Distribution Projects AFGHANISTAN	ACSR Conductors and ABC	450
TEIAS TURKEY	Posof HES Project	ACSR PHEASANT	350
Ministry of Electricity, Arbil IRAQ	132kV Transmission Lines IRAQ	ACSR TEAL	154
TEDAS TURKEY	Distribution Projects	AAC & ACSR Conductors	182
TURKMENENERGO TURKMENISTAN	220Kv and 500kV Transmission Lines Projects TURKMENISTAN	ACSR DRAKE	9.000
TEIAS TURKEY	Bolu II SS - Koprubasi HES Transmission Line Project TURKEY	ACSR PHEASANT	275
TEDAS TURKEY	Procurement Tender	AAC & ACSR Conductors ABC	59

# Key References

→ 2010

Client	Project Name	Type & Size	Qty (Ton)
Power Holding Company of Nigeria NIGERIA	330kV S/C Benin - Onitsha Transmission Line Project	ACSR BISON ACSR BEAR GSW 7x3,25	1.145 16 130
TEDAS TURKEY	Osmangazi EDAS 34,5 Afyon S/S - 2 Cobanlar S/S Transmission Line Project	ACSR HAWK	72
Ministry of Electricity, Arbil & Sulaimaniyah IRAQ	Extension of 132kV OHTL Chamchamal Sulaimaniyah IRAQ	ACSR TEAL ACSR LARK	696 158
Özcevher Enerji A.S. TURKEY	154kV Gümüşhane Substation - Cevher I-II HES Transmission Line Project	ACSR PHEASANT	238
TEIAS TURKEY	Kar HES 154kV Dereli HES - Çırakdamı HES Transmission Line Project	ACSR DRAKE	241
Turkon MNG Enerji A.S. TURKEY	154kV Resadiye Substation - Koyunhihas Substation Transmission Line Project	ACSR PHEASANT	204
İdeal Enerji A.S. TURKEY	34,5kV Karasu 4.2 HES - Karasu 4.3 HES - Karasu 5 HES - Tercan S/S Transmission Line Project	ACSR HAWK	212
Ministry of Electricity, Baghdad IRAQ	400kV Transmission Line Project	AAAC 560 ACSR 490/65 ACSR TEAL ACSR DORKING	123 37 70 10
EMTA Enerji A.S. TURKEY	Aksu HES 154kV Ispir Havza - Kuzgun Transmission Line Project for Borusan Holding	ACSR PHEASANT ACSR HAWK	407 38
EMTA Enerji A.S. TURKEY	Murat HES 154kV Substation Project	ACSR DRAKE ACSR HAWK ACSR CARDINAL	45 15 3
Power Holding Company of Nigeria NIGERIA	132kV D/C Kainji - New Bussa Transmission Line Project	ACSR BEAR	90

# Key References

→ 2010

Client	Project Name	Type & Size	Qty (Ton)
EMTA Enerji TURKEY	Sabas A.S. 34,5kV Turguttepe - Milas Substation Project	ACSR HAWK	116
Ministry of Electricitiy, Arbil IRAQ	Sales through retailers	Various Types of AAC & ACSR	456
Eren Enerji A.S. TURKEY	380kV Ereğli 2 - Osmanca Substation Project	ACSR PHEASANT	1.497
TEDAS TURKEY	34,5kV Aslanlar Substation - Selcuk Kirsal Transmission Line Project	ACSR HAWK	150
Power Holding Company of Nigeria NIGERIA	132kV S/C Sokoto-Talata- Mafara-Gusau Transmission Line Project	ACSR BISON GSW 7x3,25mm	45 55
TEIAS TURKEY	Ozaltin Enerji 154kV Ozluce Substation - Kigi HES Transmission Line Project	ACSR PHEASANT	544
TEIAS TURKEY	Garet Enerji 154kV Sares HES - Ezine Substation Transmission Line Project	ACSR PHEASANT	84
Bilgin Enerji A.S. TURKEY	154kV Soma RES II - Soma B Transmission Line Project	ACSR PHEASANT	80
General Electricity Company of Libya LIBYA	Renewal & Replacement of 220kV Transmission Line Projects	AAAC 413,5 AAAC 433 AAAC 211	7.740 862 400
TEIAS TURKEY	Kuyucak RES Project	ACSR PHEASANT	195
Ministry of Electricitiy, Baghdad IRAQ	Sales through retailers	Various Types of ABC	121
TEIAS TURKEY	380kV Kestel - Brs - N - Kestel Renewal of Transmission Lines Project	ACSR PHEASANT	117

# Key References

→ 2010

Client	Project Name	Type & Size	Qty (Ton)
TEIAS TURKEY	380kV Aliğa - Morsan Substation Project	ACSR PHEASANT	154
Georgian State Electrosystem GEORGIA	Procurement Tender	AC2 300/66 AC2 240/32 AC2 120/19	52 122 1
Power Holding Company of Nigeria NIGERIA	132kV D/C Benin - Okada Transmission Line Project	ACSR BEAR	263
Ministry of Electricity, Arbil IRAQ	IRAQ	Various Types of ABC	68
Beyobası Enerji A.S. TURKEY	154kV Otluca I HES - Anamur Substation Transmission Line Project	ACSR DRAKE	101

# Key References

→ 2009

Client	Project Name	Type & Size	Qty (Ton)
ANGOLA ELECTRIC & ENERGY AUTHORITY ANGOLA	220kV SE HUAMBO-SE KUITO OHTL ANGOLA	ACSR CROW	662
Ministry of Electricity, Arbil & Sulaymaniyah IRAQ	Stage V T/L Project IRAQ	ACSR TEAL & ACSR LARK	2.150
Ministry of Electricity, Arbil IRAQ	IRAQ	Various types of AAC and ACSR	426
Ministry of Electricity, Arbil IRAQ	132kV OHTL IRAQ	ACSR TEAL	650
Elektromreža Srbije, Serbian Transmission System and Market Operator, SERBIA	400 kV LESKOVAC BORDER OHTL	ACSR 490/65	1.225
Ministry of Electricity, Arbil & Sulaimaniyah IRAQ	132kV OHTL CHAMCHAMAL- SULAYMANIYAH IRAQ	ACSR TEAL	2.830
TEIAS TURKEY	H.206 / 380kV OHTL TEMELLİ-AFYON TURKEY	ACSR PHEASANT	2.300
EMTA CONTRACTING	154kV & 380kV OHTL for SANKO Power Plants Rize & Adana / TURKEY	ACSR CARDINAL	810
TEDAS	Procurement Tender	Various Types of AAC & ACSR	450
TEIAS	H.212 / 380kV OHTL VAN-BASKALE TURKEY	ACSR CARDINAL	800



# Key References

→ 2008

Client	Project Name	Type & Size	Qty (Ton)
Ministry of Electricity, Sulaymaniyah IRAQ	132kV OHTL IRAQ	ACSR TEAL	2.100
EMTA CONTRACTING TURKEY	380kV OHTL for Eren Energy Power Plant Zonguldak / TURKEY	ACSR PHEASANT	1.240
NEXANS TURKEY TURKEY	TURKEY	9,5mm Aluminium Rod Wire	152
TEDAS TURKEY	Procurement Tender	Various types of AAC ACSR PIGEON & RAVEN	280 124
PRYSMIAN TURKEY	TURKEY	Various Types of Aluminium Wires	118
CYPRUS ELECTRIC AUTHORITY CYPRUS	CYPRUS	AAC OXLIP	136
MASS CABLE TURKEY	TURKEY	9,5mm Aluminium Rod Wire	200
YILTES TURKEY	TURKEY	Various types of AAC and ACSR	1.380
Ministry of Electricity, Arbil IRAQ	IRAQ	Various types of AAC and ACSR	950
Ministry of Electricity, Arbil IRAQ	132kV OHTL	ACSR TEAL	150
Cable Manufacturing Companies TURKEY	TURKEY	9,5mm Aluminium Rod Wire and Various Types of Aluminium Wires	450
Ministry of Electricity, Sulaymaniyah IRAQ	132kV OHTL	ACSR LARK	215
Cable Manufacturing Companies TURKEY	TURKEY	9,5mm Aluminium Rod Wire and Various Types of Aluminium Wires	290
KRG-MOE/ TASLUJA & KANIKHAN IRAQ	132kV OHTL	ACSR LARK	225
EMTA CONTRACTING, TURKEY	34,5kV OHTL for Edirne Organized Industrial Zone, Edirne/TURKEY	ACSR HAWK	100
Ministry of Energy, Kinshasa CONGO	CONGO	ACSR 70/12	250
Nigerian Electric Power Authority NIGERIA	NIGERIA	AAC 900mm <sup>2</sup> ACSR BEAR	275 196
Elektromreža Srbije SERBIA	400 kV NIS-LESKOVAC OHTL	ACSR 490/65	500
EMTA CONTRACTING TURKEY	380kV OHTL for ICDAS Power Plant Canakkale / TURKEY	ACSR CARDINAL	220
EMTA CONTRACTING TURKEY	154kV OHTL for ICDAS Power Plant Biga-Canakkale / TURKEY	ACSR DRAKE	206

# Key References

→ 2008

Client	Project Name	Type & Size	Qty (Ton)
TEIAS TURKEY	380kV OHTL	ACSR CARDINAL ACSR PHEASANT	228 373
TEIAS TURKEY	380kV OHTL AFYON	ACSR PHEASANT	727
AZERBAIJAN ELECTRIC AUTHORITY AZERBAIJAN	AZERBAIJAN	Various Types of XLPE Insulated ABC Cables From 2x16 to 4x70	695
TEIAS TURKEY	34,5kV OHTL	ACSR HAWK	260
EMTA CONTRACTING TURKEY	380kV OHTL for EnerjiSA Power Plants Bursa / TURKEY	ACSR CARDINAL	215
EMTA CONTRACTING TURKEY	154kV OHTL for Karadeniz Energy Power Plant Uzundere / TURKEY	ACSR DRAKE	215
TEDAS TURKEY	Procurement Tender	Various Types of AAC & ACSR	330

# Key References

→ Previous

Client	Project Name	Type & Size	Qty (Ton)
Power Holding Company of Nigeria NIGERIA	NIGERIA	Various Types of ACC ACSR WOLF	355 417
KRG-MOE/ MITAS IRAQ	IRAQ	ACSR TEAL	2.154
ASKI TURKEY	ANKARA/TURKEY	ACSR HAWK	1.250
TEIAS TURKEY	154kV OHTL	ACSR PHEASANT	661
TEIAS TURKEY	154kV OHTL	ACSR CARDINAL	1.373
TEIAS TURKEY	380kV OHTL	ACSR PHEASANT	1.411
TEIAS TURKEY	154kV OHTL	ACSR CARDINAL	440
TEKFEN TURKEY	154kV OHTL	ACSR PHEASANT	457

# Key References

→ Previous

Client	Project Name	Type & Size	Qty (Ton)
EMTA CONTRACTING TURKEY	154kV OHTL	ACSR DRAKE ACSR HAWK	276 78
TEIAS TURKEY	TURKEY	ACSR HAWK	1.270
A Contracting Company GABON REPUBLIC	GABON REPUBLIC	Various Types of XLPE Insulated ABC Cables	470
A Contracting Company USA	IRAQ	ACSR 490/65 ACSR DORKING	466 91
Power Holding Company of Nigeria NIGERIA	NIGERIA	Various Types of ACC ACSR BISON	96 284
UNDP UNITED NATIONS DEV. PROG.	IRAQ	Various Types of AAC	1.846
TEAS TURKEY	380kV OHTL	ACSR PHEASANT	2.676
TEDAS TURKET	Procurement Tender	ACSR DRAKE ACSR SWALLOW	386 194
TEAS TURKEY	154kV OHTL	ACSR CARDINAL	2.360
BOTAS TURKEY	TURKEY 2004	ACSR PHEASANT ACSR DRAKE	635 316
DSI TURKEY	TURKEY 2004	ACSR CARDINAL ACSR PHEASANT	548 274
ALARKO TURKEY	TURKEY 2004	ACSR DRAKE ACSR CARDINAL	262 168
ENKA TURKEY	TURKEY 2003	Various Types of ACSR	517
TEAS TURKEY	154kV OHTL 2003	ACSR DRAKE ACSR SWALLOW	968 286
DSI TURKEY	TURKEY 2003	ACSR PHEASANT ACSR CARDINAL	673 481
TEDAS TURKEY	Procurement Tender 2003	Various Types of AAC ACSR SWALLOW	388 219
CYPRUS ELECTRIC AUTHORITY CYPRUS	CYPRUS 2002	Various Types of AAC & ACSR	175
TEAS TURKEY	TURKEY 2002	Various Types of ACSR	681
TEAS TURKEY	TURKEY 2001	ACSR PHEASANT ACSR CARDINAL	461 238



# Production in Brief

## Standards & Capacity

### ■ Continuous Casting

In the factory, our first stage of production is casting in which system features as the follows;

- Low operation costs
- Latest technology in burning systems (high efficiency regenerative burners)
- High product quality
- and engineering service to match the customer desires

Within the total EMTA system concept, we designed and built cylindrical and rectangular melting furnaces with automatic loading system, launders for transferring molten metal, online degassing and filtration unit, cylindrical shaft type holding furnaces with permanent magnetic stirrer for getting best quality molten metal especially for; alloying, wheel and cast bar preparation machine.

The rolling mill are designed for producing 9, 12 and 15 mm aluminium rod which can be packed from 1000 to 4000 kg in Eye to Side pallets, Eye to Sky Pallets and in Steel Cages.

At that stage quality control department checks the diameter, resistivity, strength and shape of rod and feedback to the casting operation. Aluminium rod is manufactured according to related standards with a minimum equivalent copper conductivity as % IACS of 61.4%. Furthermore, the eddy-current instrument is automated into the rolling process to ensure that the rods have minimum internal and external defects to ensure the highest level of quality.

### ■ Hard-Drawing

Second stage of production is cold drawing; during the process, while rod diameter is decreasing, tensile strength of the wire is continuously increasing. For drawing process,

we have five machines which can produce until 1.5 mm wire at 25m/sec.

Wires are coiled on iron reels with dimensions according to DIN 46395 which have flange diameter of 630 mm. After this process, quality control department checks dimensions, tensile strength and conductivity of wires, and feedback to the cold-drawing operation. The minimum requirements for the wires are specified according to related standards including any other specification required by the customer. Although tensile requirements differ for every section, the average of the equivalent copper conductivity is always above 61.2% as IACS with a perfect surface finish.

### ■ Manufacturing Process of AAAC

Production of AAAC is almost same with the other conductors. The main difference is that heat or solution treatment may be required. In addition, alloying after melting is required to have the desired characteristics of the conductor. All Aluminium Alloy Conductor contains a small percentage (about 0.6%) of silicon and magnesium elements and it provides several benefits for overhead lines. For example;

- 20% lighter than same cross-section ACSR conductors
- About twice time strength than same section EC grade rod
- Harder (surface hardness) than typical ACSR conductors
- Higher atmospheric corrosion resistant than ACSR conductors

Alloying elements, Mg, Si and Fe, are added to liquid aluminium after melting process. Chemical analyses are done to control the chemical composition of liquid alloyed aluminium. Before casting, undesired

gaseous are removed from the liquid.

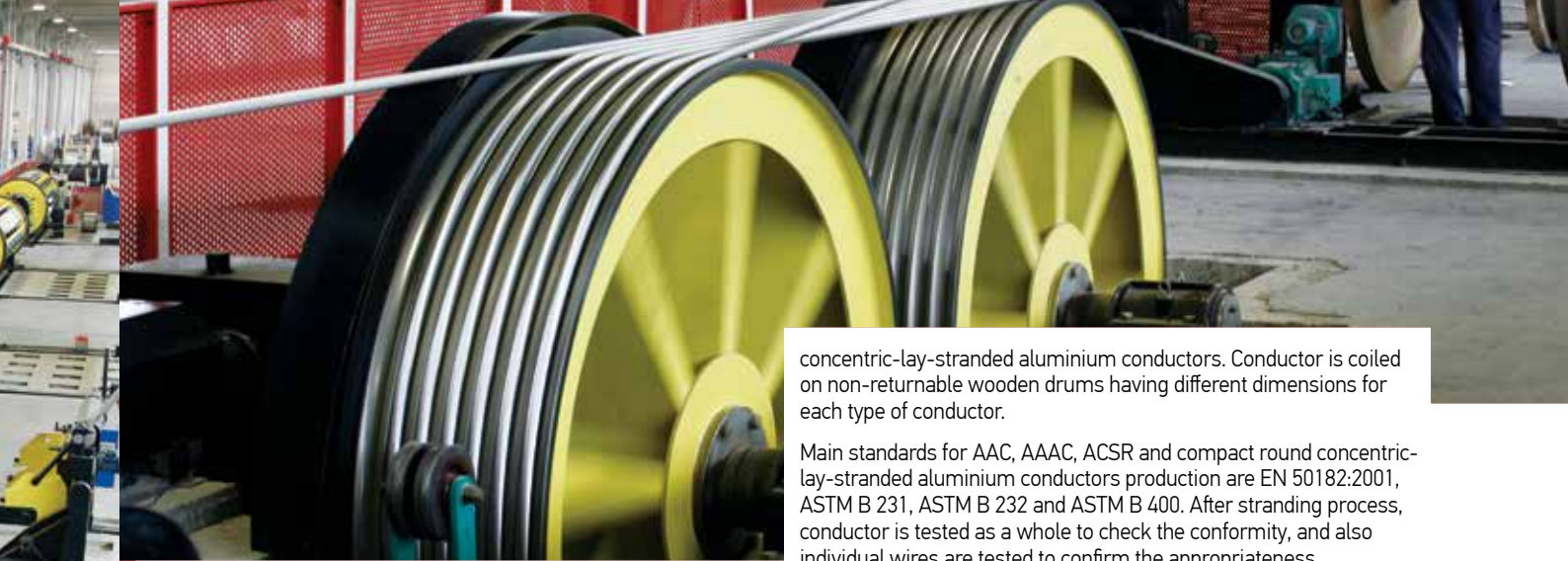
Casting process is continuous casting process of which product is aluminium alloyed bar. There is an induction heater after casting and before rolling to increase the temperature of aluminium alloyed bar for a better rolling operation. The product of rolling is alloyed aluminium rod with a diameter of 9.50 mm. Rods are sometimes treated in a solution to meet the requirements of alloyed rod or to improve the technical values. Before and after solution treatment, surface finish, diameter, resistance and tensile strength of rods are controlled. Alloyed rods are hard drawn to required diameters. Quality controls of alloyed wires are done to check the surface finish, diameter, tensile properties and resistance. These controls are also done after artificial ageing process, which is the successor of hard drawing. Alloyed aluminium wires coiled on steel reels are loaded stranding machines. After stranding, AAAC conductors are controlled to check the surface finish, diameter, lay length, lay ratio, resistance and strength and drums are packed and stored on the storage area.

### ■ ACAR (Aluminium Conductor Alloy Reinforced)

ACAR conductors are combination of ACSR and AAAC conductors which have lots of specific advantage for designing critical lines. For example;

- Perfect conductor for current carrying capacity
- Higher strength
- Lower conductor weight

ACAR is using as bare overhead transmission conductor and as primary and secondary distribution lines between substations and power stations.



concentric-lay-stranded aluminium conductors. Conductor is coiled on non-returnable wooden drums having different dimensions for each type of conductor.

Main standards for AAC, AAAC, ACSR and compact round concentric-lay-stranded aluminium conductors production are EN 50182:2001, ASTM B 231, ASTM B 232 and ASTM B 400. After stranding process, conductor is tested as a whole to check the conformity, and also individual wires are tested to confirm the appropriateness.

### Stranding

Depending on the construction of the conductor, reels of aluminium wire is loaded on the stranding machines. There are three types of stranding machines in the factory. Rigid frame, tubular-type and high speed bow skip type stranding machines are used to manufacture all aluminium and aluminium alloy conductors (AAC & AAAC), aluminium conductors steel reinforced (ACSR) or compact round

### Packaging

All drums are weighed, labeled and laid on storage area. Packaging standards are in accordance with international overseas transportation. Specific customer requirements for packaging are available.

MACHINERY			
No	Name	Output rate	Quantity
1	Onurmak Melting Furnace	5.000 kg/h	2
2	Onurmak Holding Furnace	10.000 kg	4
3	Tempering Furnace	30 tonnes/day	2
4	Quenching Furnace	40 tonnes/day	1
5	Cheng Du Casting Machine	5.000 kg/h	2
6	Cheng Du Rolling Machine	5.000 kg/h	2
7	Cheng Du Induction Unit	5.000 kg/h	2
8	Heat Treatment Owen	5.000 kg/h	1
9	Hefei Smarter Hard-Drawing Machine	35 m/sec	2
10	Hefei Smarter Hard-Drawing Machine	25 m/sn	3
11	Hefei Smarter Tubular Stranding Machine 6+1	750 rpm	2
12	Hefei Smarter Tubular Stranding Machine 12+1	500 rpm	2
13	Hefei Smarter Cage Type Stranding Machine 24+18+12+1	300 rpm	1
14	KABMAK Rigid Frame Strander 24+18+12+1	400 rpm	1
15	Hefei Smarter Drum Twister	50 m/min	1
16	Hefei Smarter $\Phi$ 2400 Rewinding Machine	31 m/min	1
17	KABMAK Extruder Line	120m/min	1
18	Rod tight reminder	50 tonnes/day	3
19	Kabmak Rigid Frame Strander 18+12+1	400 rpm	1
20	Pioneer 630 mm-7B Skip Stranding Type Machine	1.000 rpm	1

# Qualifications





# Quality Certificates







TEST REPORT

REPORT NUMBER : TURR100127129
APPLICANT NAME : Emta
ADDRESS : Kadiri O.S.B. 1. Cd. No:15
SAMPLE DESCRIPTION : One sample of AAC Al...



TEST REPORT

REPORT NUMBER : TURR100127129
APPLICANT NAME : Emta Kablo San.ve
ADDRESS : Kadiri O.S.B. 1. Cd. No:15
SAMPLE DESCRIPTION : One sample of AAC Al...



TEST REPORT

REPORT NUMBER : TURR100127129
APPLICANT NAME : Emta K
ADDRESS : Kadiri O.S.B. 1. Cd. No:15
SAMPLE DESCRIPTION : One sam...



TEST REPORT

REPORT NUMBER : TURR100127130
APPLICANT NAME : Emta Kablo San.ve Tic.A.S.
ADDRESS : Kadiri O.S.B. 1. Cd. No:15
SAMPLE DESCRIPTION : One sample of ACSR Aluminium Conductor Steel Reinforced



Kinectrics Type Test Certificate of Type Test No. 013-2011

EMTA KABLO SANAYI VE TICARET A.S.
Isisoren Mah. Sinaga Cad. No:4 Tuzla/Istanbul

The DWAKE Aluminium Conductor, Steel Reinforced (ACSR) manufactured by EMTA Kablo Sanayi ve Ticaret A.S. has successfully passed the performance requirements for the Stress-Strain/Breaking Strength, and Creep Tests outlined in IEC 61090 Annex B, and IEC 61395.



Kinectrics Type Test Certificate of Type Test No. 014-2011

EMTA KABLO SANAYI VE TICARET A.S.
Isisoren Mah. Sinaga Cad. No:4 Tuzla/Istanbul

The PHIBANT Aluminium Conductor, Steel Reinforced (ACSR) manufactured by EMTA Kablo Sanayi ve Ticaret A.S. has successfully passed the performance requirements for the Breaking Strength and Creep Tests outlined in IEC 61090 Annex B, and IEC 61395.



Kinectrics Type Test Certificate of Type Test No. 015-2011

EMTA KABLO SANAYI VE TICARET A.S.
Isisoren Mah. Sinaga Cad. No:4 Tuzla/Istanbul

The 4133 AP-Aluminium Alloy Conductor (AAC) manufactured by EMTA Kablo Sanayi ve Ticaret A.S. has successfully passed the performance requirements for the Stress-Strain/Breaking Strength, and Creep Tests outlined in IEC 61090 Annex B, and IEC 61395.



VEIKI-VNL ELECTRIC LARGE LABORATORIES LTD. TYPE TEST REPORT

Test object: Galvanized Steel Wire (G595)
Designation: 30 mm² Earth Wire
Manufacturer: EMTA KABLO SANAYI VE TICARET A.S.
Tested for: EMTA KABLO SANAYI VE TICARET A.S.
Date of test: 02 July -13 August 2014
Tested by: VEIKI-VNL, Ltd. - Budapest - HUNGARY
Project ID: NAL-13/2014
Order/Contract: 0440/2014-MI, 22.05.2014
Test performed: The test object, constructed in accordance with the details...



VEIKI-VNL ELECTRIC LARGE LABORATORIES LTD. TYPE TEST REPORT

Test object: Aluminium Conductor Steel Reinforced
Designation: 402-AL1-92-STIA (ACSR CONDUCTOR)
Manufacturer: EMTA KABLO SANAYI VE TICARET A.S.
Tested for: EMTA KABLO SANAYI VE TICARET A.S.
Date of test: 02 July -13 August 2014
Tested by: VEIKI-VNL, Ltd. - Budapest - HUNGARY
Project ID: NAL-13/2014
Order/Contract: 0440/2014-MI, 22.05.2014
Test performed: The test object, constructed in accordance with the details...



KONCAR INSTITUT SZUZZA ZA CERTIFICIRANJE PROIZVODA SCERT CERTIFIKAT

Proizvod: Aluminijski uže za VN nadzemne vodove
Tip/model: ACSR
Komentariji naziv: Aluminijsko - drveno uže
Podnositelj zahteva: KONCAR - Industrijski vešerinstvo d.o.o.
Proizvodac: EMTA KABLO SANAYI VE TICARET A.S.



KONCAR INSTITUT SZUZZA ZA CERTIFICIRANJE PROIZVODA SCERT CERTIFIKAT

Proizvod: Aluminijski uže za VN nadzemne vodove
Tip/model: AAC
Komentariji naziv: Aluminijsko uže
Podnositelj zahteva: KONCAR - Industrijski vešerinstvo d.o.o.
Proizvodac: EMTA KABLO SANAYI VE TICARET A.S.



EMTA KABLO SANAYI VE TICARET A.S.
TS EN ISO 9001:2008



EMTA KABLO SANAYI VE TICARET A.S.
ISO 14001:2004



EMTA KABLO SANAYI VE TICARET A.S.
OHSAS 18001:2007



TURK STANDARLARI ENSTITUTU TURK STANDARLARINA UYGUN TURKISH STANDARDS INSTITUTE CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

Markelen Tanımı: Description of the Mark
BELGE NUMARASI: Reference number of certificate
BELGİNİN EK VEZİNE TAARIFI: Date of first issue of certificate
BELGİNİN SON GÜNCÜLEME TARİHİ: Date of latest revision



TURK STANDARLARI ENSTITUTU TURK STANDARLARINA UYGUN TURKISH STANDARDS INSTITUTE CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

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BELGE NUMARASI: Reference number of certificate
BELGİNİN EK VEZİNE TAARIFI: Date of first issue of certificate





**EMTA KABLO SANAYİ ve TİCARET A.Ş. / EMTA CONDUCTOR & CABLE INC.**



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