



 **armonitel**

[www.armoniflex.com](http://www.armoniflex.com)





## About Us

*Armonitel Electricity and Machinery Commerce LTD has been founded in order to supply products to high and medium voltage market and has started its activities in 2009. Our objective is to be one of the important suppliers in the market and to be able to provide best service and high quality products, to produce added value for the economy of the country and the world. For these reasons, pressed weld system which is a welding method that is used on flexible bars produced from folio copper, has been used in our production facility by courtesy of the know-how of the Armonitel. Armonitel has aim to provide sales and services not only in Turkey but in international markets as well, therefore Armonitel is producing according to International Standards.*



# Product Portfolio

*Braided Flexible Bar*  
*Press Welded Copper Folio Connectors*  
*Press Riveted Copper Flexible Connectors*  
*Insulated Flexible Bar (Flex Bars)*  
*Braided Copper Tape*  
*Braided Copper Cable*  
*Rope Type Cable*  
*Braiding Types*  
*Air Cooled and Water Cooled Secondary Cables*  
*Special Part Production*  
*Cable Joint Accessory*  
*Cable Socks*  
*Knitted Copper Tape*  
*Brush Holder (Coal Clasp)*

 armonitel



# Braided Flexible Bar

Flexible connections are preferred for low and high voltage applications, where vibrations and shocks are present, since they are allowing healthy connections between movable parts.

Type

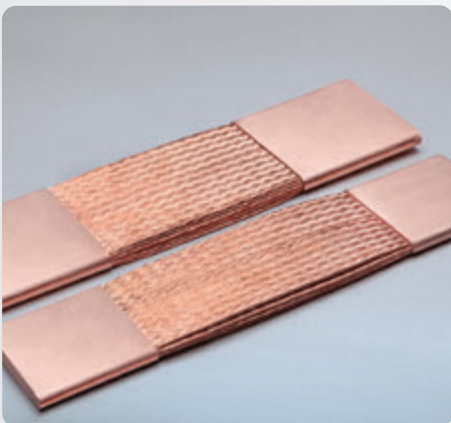
Tinned

Red

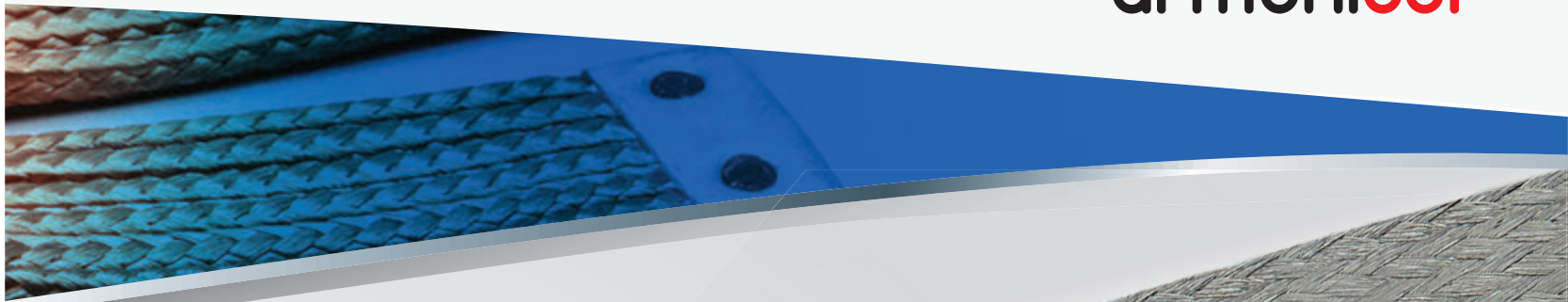
We can produce braided flexible bars with standard and special designs for various applications. These braided bars can transfer high rated currents. Bars are manufactured from copper (plain or tinned) wires. Connecting surfaces can be plain or coated with tin or silver depending on your requirements.

Braided flexible bars can be insulated with heat shrinkable thermoplastic or with PVC sheaths. In this case, the current capacity will be less because of the shrink.

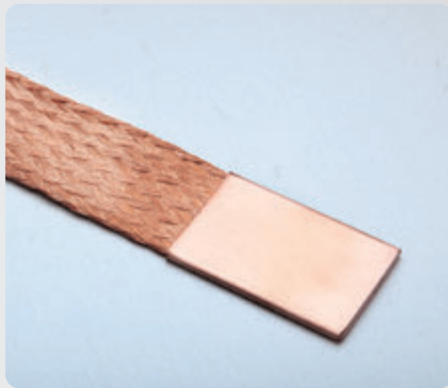
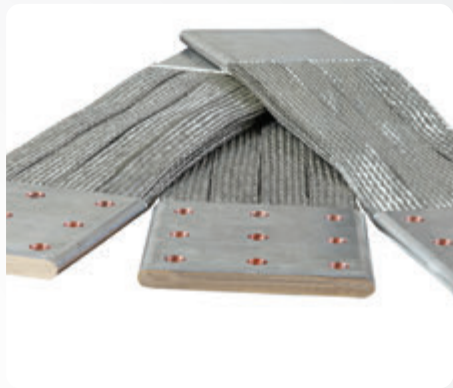
- As Transformer/ Bar Bushing Connections
- For High Voltage Load Separators
- For Generators
- As Grounding Cable for Ground Separators depending on the request
- For High Voltage Power Breakers
- For Bus-Bar Systems
- For Panel Connections
- For Applications, where High Temperature and Shock is present







*Flexible and healthy connections*

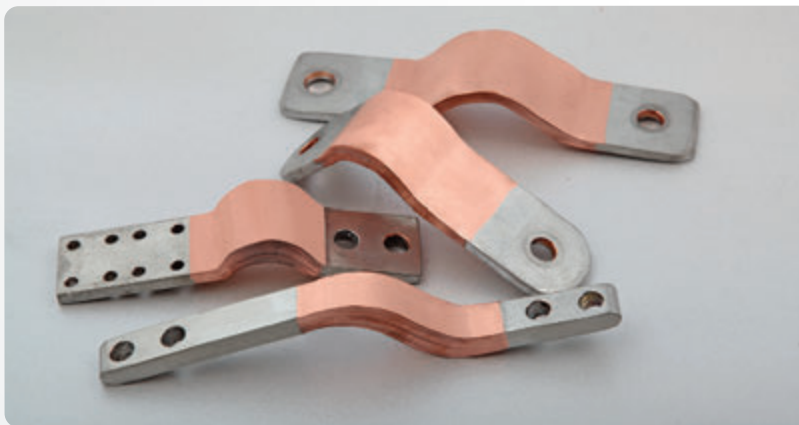




# Press Welded Copper Folio Connectors

Press welding is a special kind of welding method. Press Welded Connectors are resistant against the maximum amount of forces, where damages occur due to bending and their cores due to the structure. The bars, which are specially manufactured in "U" and "S" forms, can cater for two way movements inside of the machines easily. These connection elements are manufactured from Cu-HCP bands (folios, sheets) whose thicknesses vary between 0.10-0.30 mm in order to obtain the required cross section

without use of any kind of additives by welding them together under pressure to give the required contact area. This special welding operation is carried out under high pressure and temperature.. The loss of resistance, which could take place during the current conduction at high voltages, is reduced at the maximum level with the use of pressed welded flexible connection elements. The contact areas can be coated with tin by using electrolysis or hot dip method and silver coating with the required thickness in microns can also be applied.

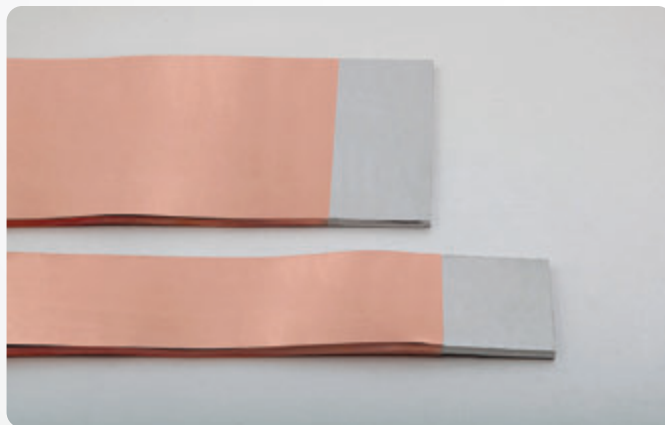
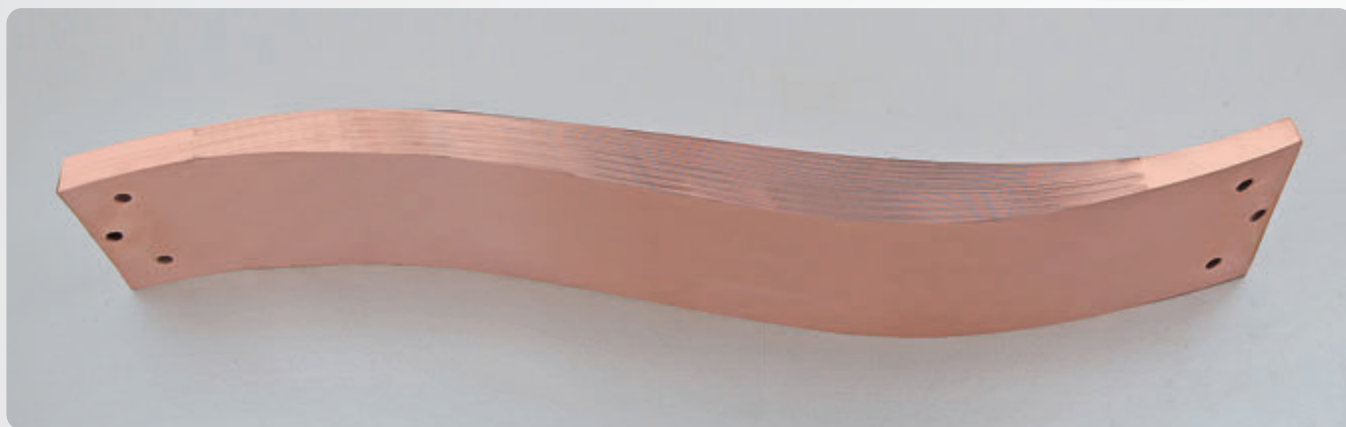






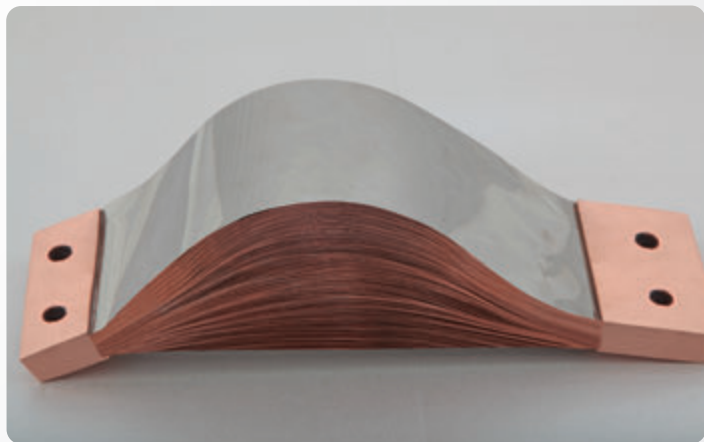


# Press Welded Copper Folio Connectors





## *Press-Riveted Copper Flexible Connectors*



### *Areas of Use*

- Spot Welding Equipment
- Projection Welding Equipment
- Seam Welding Equipment
- Butt Welding Equipment
- Suspended Welding Equipment
- Mesh Wire Welding Equipment
- Robotic Welding Guns
- Panel Radiator Welding Equipment

*These are manufactured by bringing together the Cu-ETP bands with thicknesses between 0.10 mm-0.30 mm in order to provide for the required characteristics and joined together by riveting them under pressure. The contact surfaces are strengthened additionally with thicker plates. These bars are manufactured according to the customer requirements and drawings.*



# Insulated Flexible Bar (Flex Bars)

20x2x1mm

20x3x1mm

24x5x1mm

24x6x1mm

32x5x1mm

32x6x1mm

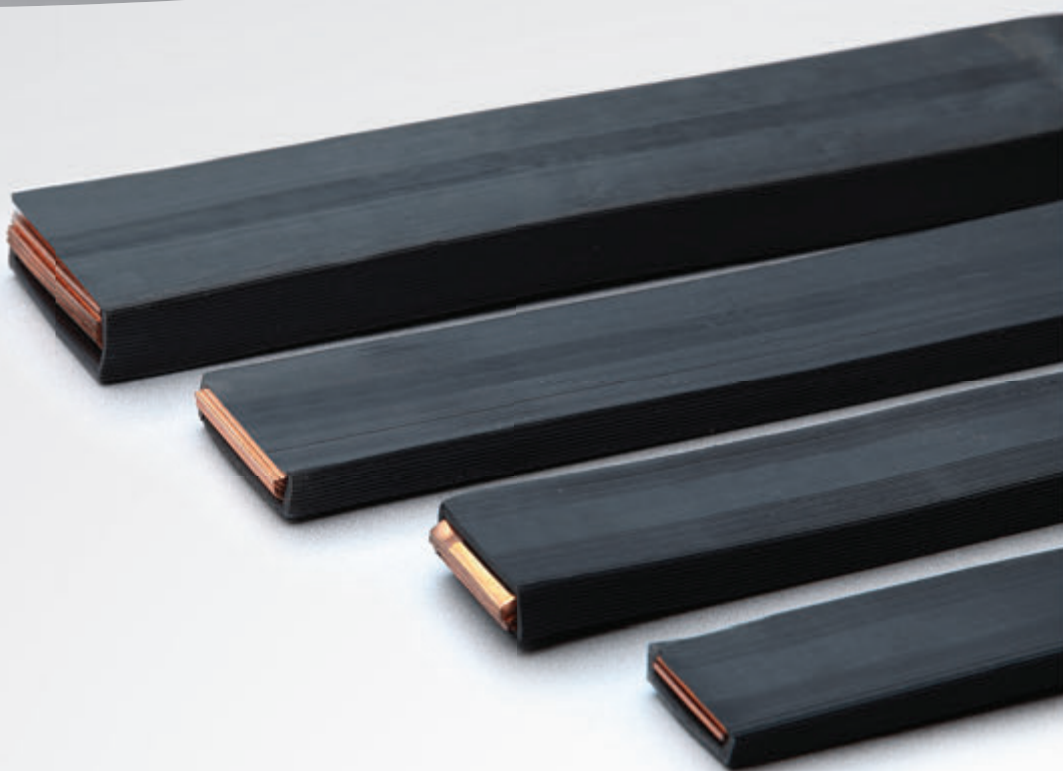
32x8x1mm

40x6x1mm

40x8x1mm

40x10x1mm

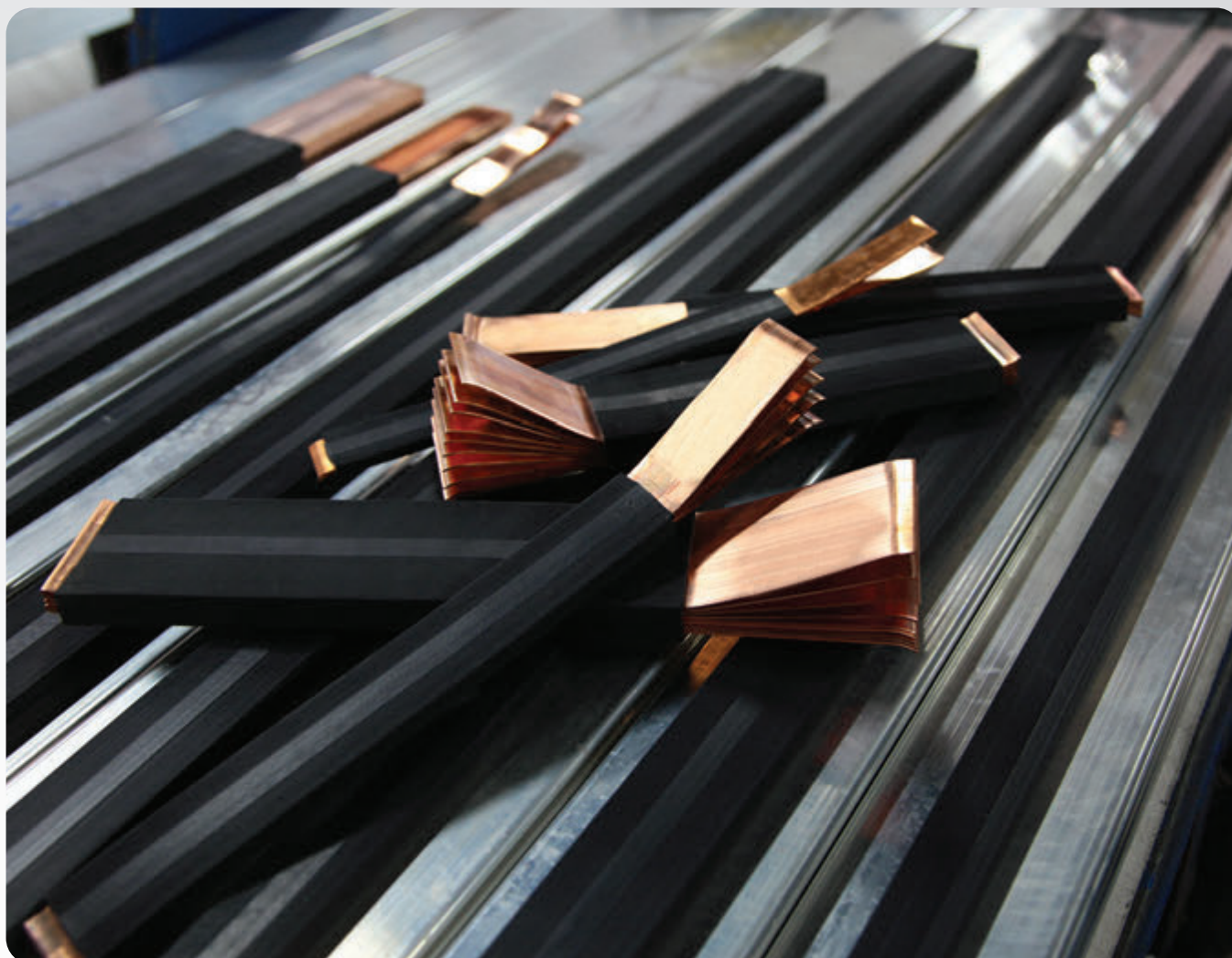
50x10x1mm



*The dimensions of flex bars which we manufacture*







#### *Applications*

- Working temperature -25°C up to 105°C (-13°F up to 221°F)
- Nominal voltage = 1000 V AC/1500 V DC
- Self-extinguishable
- High mechanical resistance
- High elongation value
- High current withstanding
- High copper quality (99.9%)
- High conductivity

#### *Flex bars are used for systems and applications:*

- Power Supplies and Converters
- Motor Control Centers
- Control Panels
- Busbar Systems
- Panelboards
- Switchboards
- AC & DC Drive Units
- Transformers

# Braided Copper Tape

Since its electrical resistance is low, its an ideal grounding conductor. It can also be produced as twisted cable other than the braided type with the required wire diameter and section for grounding applications. They are manufactured from 0.07 – 0.20 mm diameter ECU Copper wires. It is possible to vary number of wires and their diameters for special design and cross sections. Type Flat Round

## Flat Braided Copper Production Table

| Cross Sections     | Wire Diameters  | No of Wires | Weight (±%7) |
|--------------------|-----------------|-------------|--------------|
| 16mm <sup>2</sup>  | 0.10-0.20 mm    | 2048-512    | 144 g/m      |
| 25mm <sup>2</sup>  | 0.10-0.20 mm    | 3192-792    | 225g/m       |
| 35mm <sup>2</sup>  | 0.10-0.20 mm    | 4480-1120   | 315g/m       |
| 50mm <sup>2</sup>  | 0.10 mm-0.20 mm | 6384-1584   | 450g/m       |
| 100mm <sup>2</sup> | 0.20 mm         | 3168        | 900g/m       |





## Braided Copper Cable



### Flat Braided Copper Production Table

| Cross Sections     | Wire Diameters  | No of Wires | Weight (±%7) |
|--------------------|-----------------|-------------|--------------|
| 16mm <sup>2</sup>  | 0.10-0.20 mm    | 2048-512    | 144 g/m      |
| 25mm <sup>2</sup>  | 0.10-0.20 mm    | 3192-792    | 225g/m       |
| 35mm <sup>2</sup>  | 0.10-0.20 mm    | 4480-1120   | 315g/m       |
| 50mm <sup>2</sup>  | 0.10 mm-0.20 mm | 6384-1584   | 450g/m       |
| 100mm <sup>2</sup> | 0.20 mm         | 3168        | 900g/m       |



# Rope Lay Conductors

*Rope Type Cable  
Rope Type Cable Conductors  
Naked and Tin Plated Twisted Wire Size Ranges: 0.055-1000 mm<sup>2</sup>*





## Braiding Types

- Braiding Types
- Stainless Steel Wire Braiding
- Aluminium Wire Braiding
- Galvanized Wire Braiding
- Copper Wire Braiding
- Glass Fiber Yarn Braiding
- Ceramic Yarn Braiding
- Aramid Yarn Braiding
- Sock and Joint Sleeve Braiding
- We carry out outsourcing braiding works (bandaging) over Hose, Spiral Hose, Cable, EPDM Rubber by using any of our above stated braiding types with the required covering rate upon request.

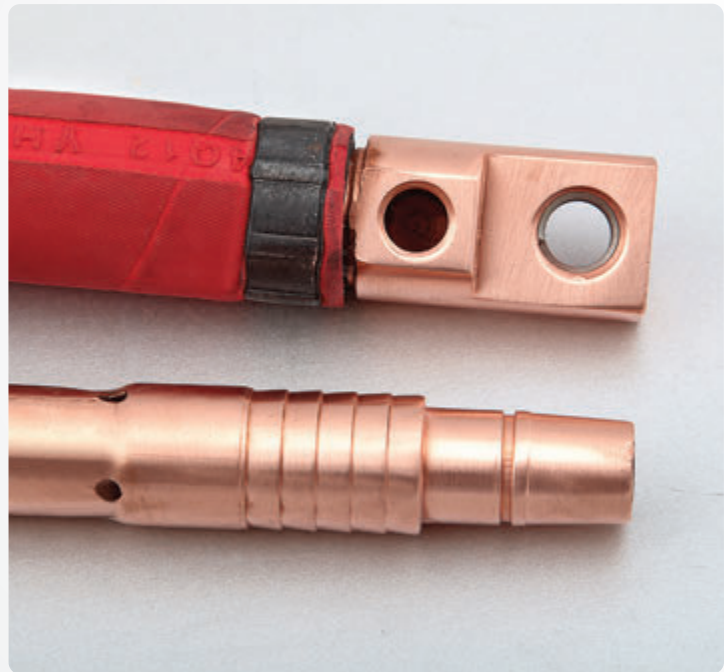
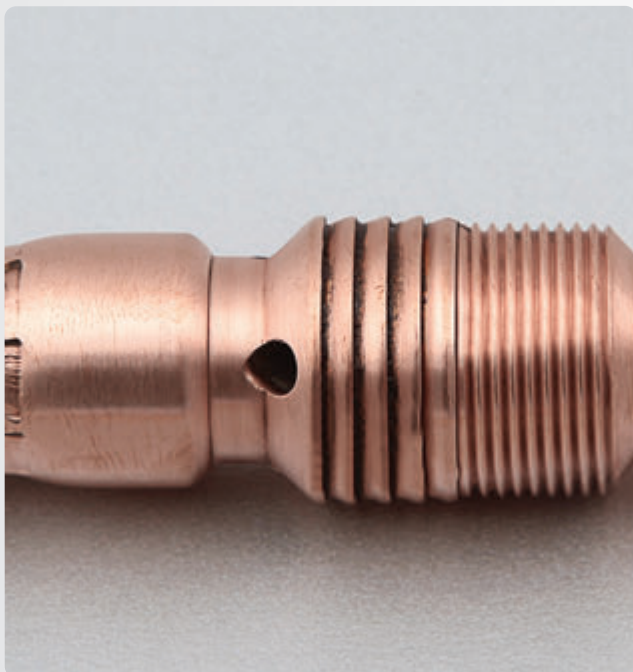
*External Diameters: Good quality braiding is performed ranging from blank braiding to external diameter of 110 mm. The braiding, which is performed over hose, spiral hose and cables provide protection against certain atmospheric pressure and protect products against ambient corrosion.*



# Water Cooled and Air Cooled Secondary Flexible Cables



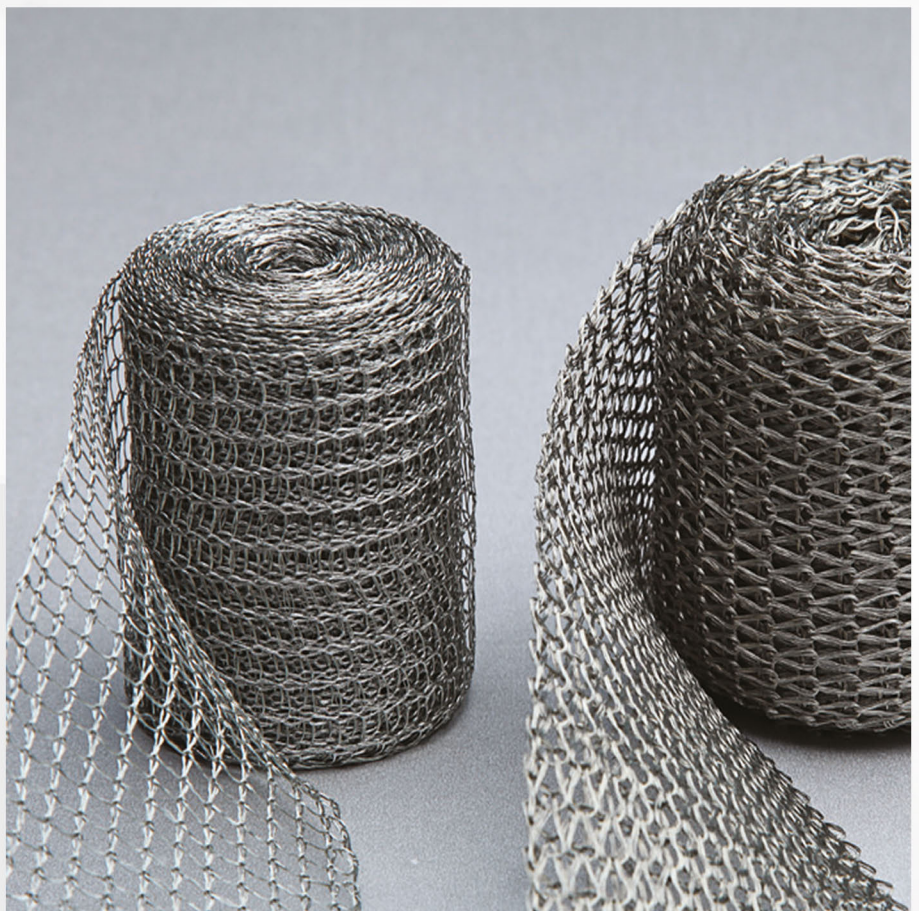
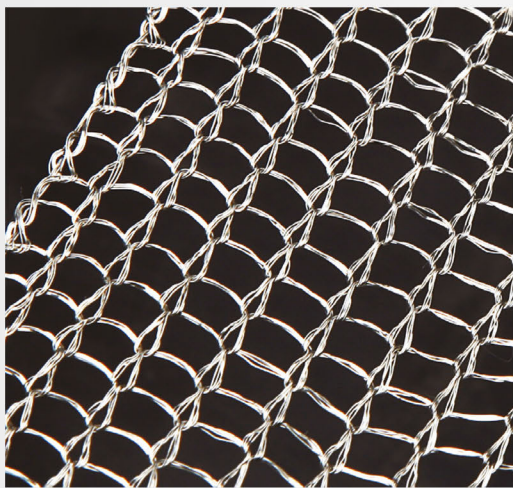
*Water Cooled and Air Cooled Secondary Flexible Cables* Water cooled cables are principally used as water cooled cable bars of electrical ovens and welding equipments. All the cables are manufactured with hose in order to protect them. The lugs of the cables are pressed without welding in order to provide good transfer of the current. Air cooled flexible cables are manufactured from ECU copper wires with diameters of 0.10-0.30 mm as being twisted in round form. The possible cross sections are between 100-1000 mm. The standart insulating materials is PVC based and materials like silicon etc can be used if this required.





# Knitted Copper Tape

*It is used at different kind of places .  
For energy cable joints or cable heading  
,ensuring the continuity of screening  
materials or controlling the voltage which is  
inducted at the outer semi conductor layer  
and carrying this voltage to the earth  
It can be manufactured in two types as single  
layer or circular braiding.It can be produced  
between 0.10mm and 0.50 mm single wire or  
multi-wire.*





# Special Part Production

- Silver Contacts
- Copper Contacts
- Brush Box
- Air Circuit Breakers
- Oiled Circuit Breaker Contacts
- Gantry Crane Auxiliary Components
- Current Receiver Car
- Energy Cables



- Secondary Cables
- Induction Oven Cables
- Plastic Injection Molds
- Plastering Molds
- Mold Sets
- Outsource Parts Manufacturing

*\*We are manufacturing special products according to technical drawings and samples.*

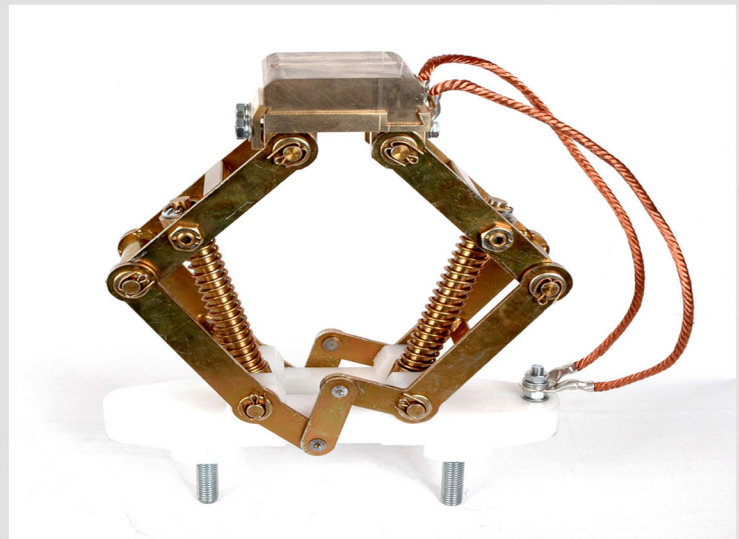
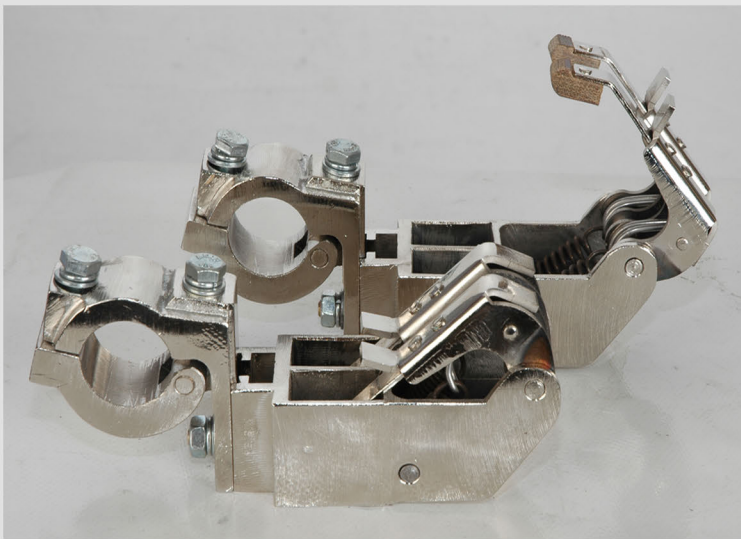


## Brush Holder (Coal Clasp)

*Production of carbon brush holders and pressure springs:  
We produce carbon brush holders and carbon brush holder sockets used in electric motors in various types and shapes in any brand. We don't keep carbon brush holders available in our stocks because these carbon brush holders being produced proprietarily or produced with technical drawing vary according to the data and types of electric motors. Our production is made based on technical drawings and samples. Our company produce the carbon brush holders with filled material to make them long-lived and productive in terms of use. Spring mechanism used in carbon brush holders enables to levelly be printed, motor carbon, collector and ring. Manufacturing of pressure springs' bottoms is made of stainless plates by imprinting.*

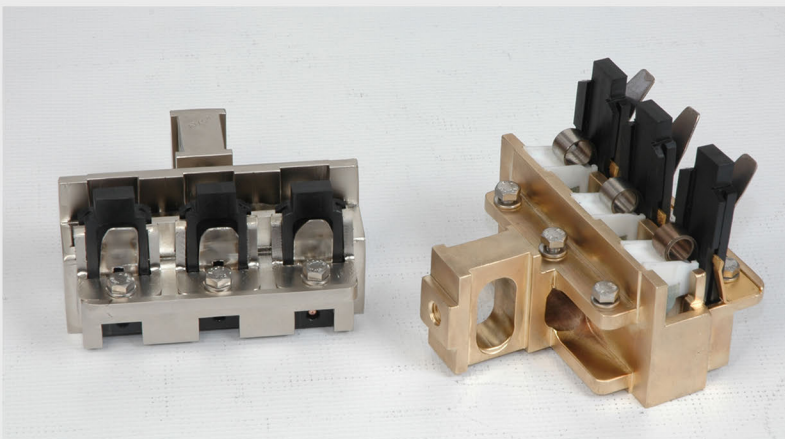
### *Areas of Usage:*

- Iron and Steel plants
- Cement plants
- White Goods plants
- Casting plants
- Pipe mills
- Shipyards
- Ports
- Dams



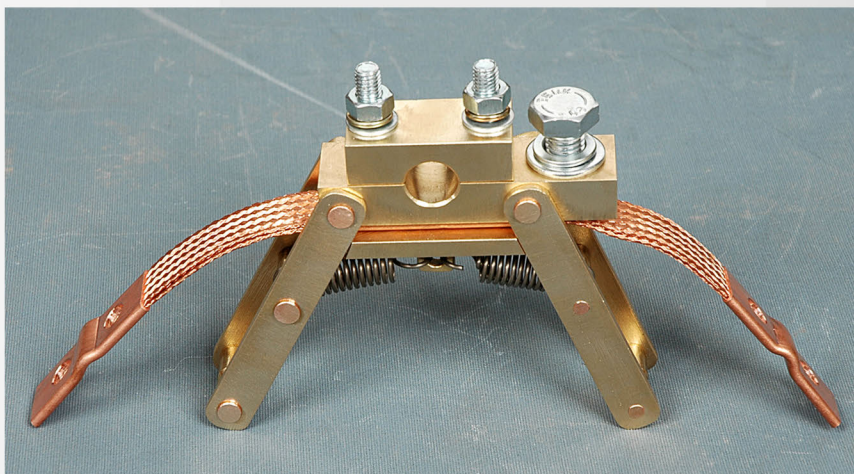
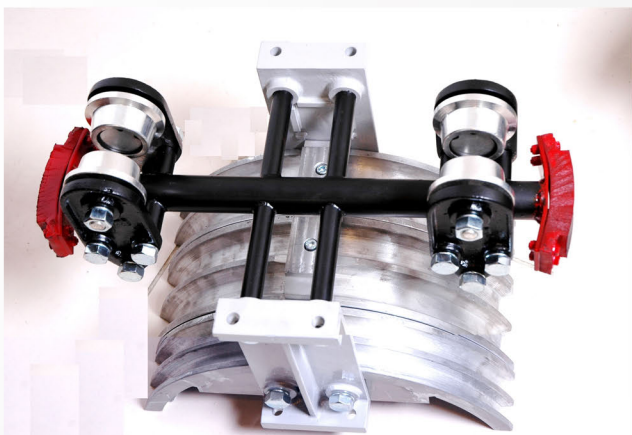
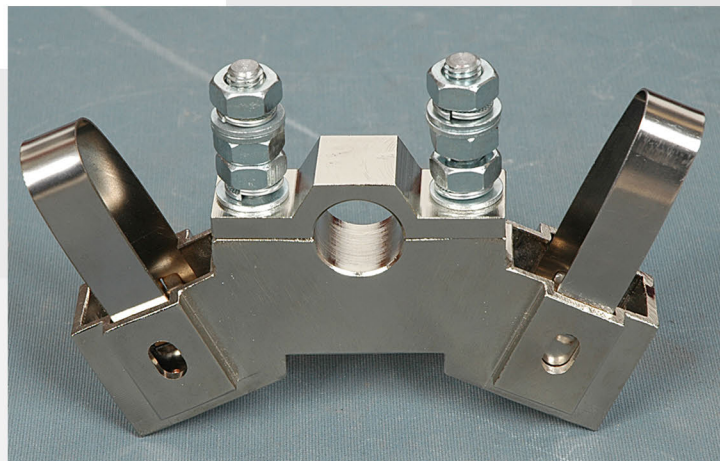
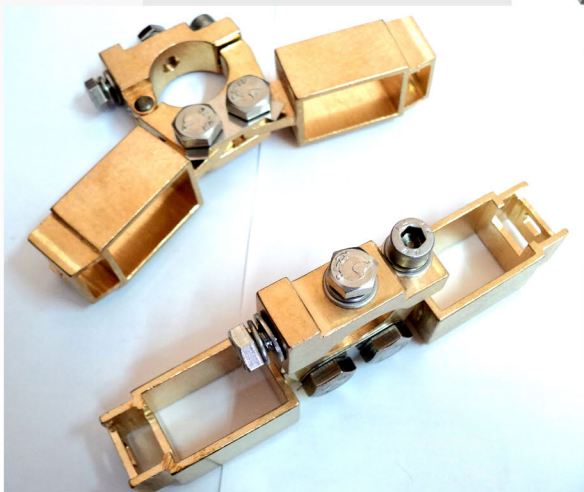
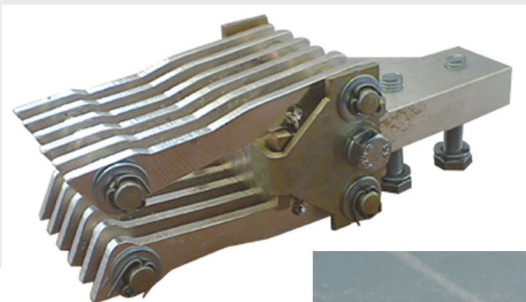


# Brush Holder (Coal Clasp)



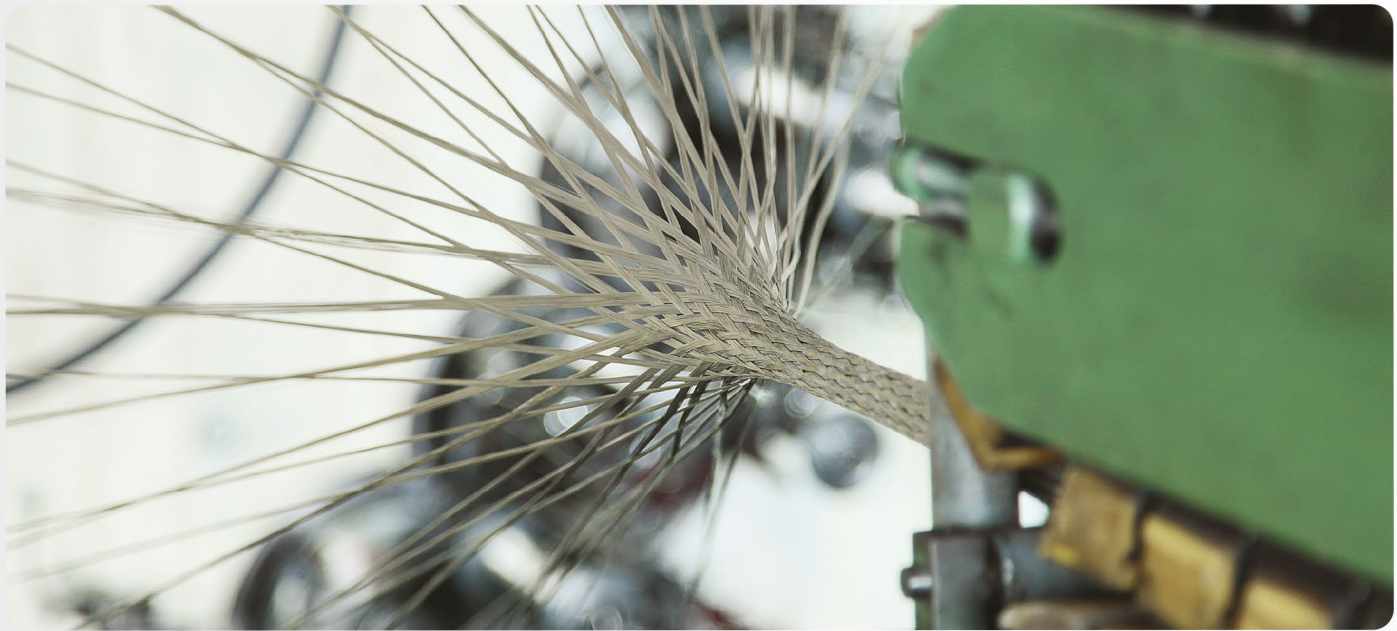


# Brush Holder (Coal Clasp)





# Certificates





# Certificates



## CERTIFICATE

**56285**

This certificate was given to the below stated company by UDEM International Certification Audit Training Cent. Ind. Co. Ltd

**Armonitel Elektrik Makine Sanayi ve Ticaret Limited Şirketi**  
Beylikdüzü Mermerçiler Sanayi Sitesi 7. Cadde No:8 Beylikdüzü İSTANBUL / TURKEY

### ISO 9001:2008

Scope: Lapped copper bars, leaf bars, electrical contact, latticed on cables and pipes and electrical contacts manufacturing and repairing


EA Code: 19

Certification Audit Date : 08.01.2014  
Decision Date : 10.01.2014  
Reissue Date : 23.12.2016  
Expiry Date : 09.01.2018

UDEM International Certification Audit Training Cent. Ind. Co. Ltd.

Herby, UDEM International Certification Audit Training Cent. Ind. Co. Ltd. certifies that the above stated company have the appropriate management system according to the requirements of the above standard. This certificate is valid for 3 years since the decision date as long as the system is effectively maintained and surveillance audits are carried out. The validity of the certificate can be checked through [www.udemcert.com.tr](http://www.udemcert.com.tr) or [www.udemcert.com.tr](mailto:info@udemcert.com.tr). The certificate is the property of UDEM International Certification Audit Training Cent. Ind. Co. Ltd and shall be returned if requested.


Address: Mülkiyet Mahallesi 2073 Sokak (Eski 99 Sokak) No:30 Çerkeza - Ankara - TÜRKİYE  
Tel: +90 312 443 03 90 (gün) Fax: +90 312 443 03 79  
E-mail: [info@udemcert.com.tr](mailto:info@udemcert.com.tr) Web: [www.udemcert.com.tr](http://www.udemcert.com.tr)



T.C.  
TÜRK PATENT ENSTİTÜSÜ

## MARKA TESCİL BELGESİ

Marka No : 2011 103982 - Ticaret - Hizmet



Marka Sahibi : ARMONİTEL ELEKTRİK MAKİNE SANAYİ VE TİCARİT LİMİTED ŞİRKETİ  
TÜRKİYE CUMHURİYETİ  
TERAZİDERE MAHALLESİ GÜNEŞ CADDESİ  
HAKAN SOKAK ARMONİ HANNO-4  
BAYRAMPAŞA İSTANBUL  
: 06. 09. 35  
İlişiktir.

Emtiası

Markaların Korunması Hakkında 556 Sayılı Kanun Hükmünde Kararnameye göre 03/12/2011 tarihinden itibaren ON YIL müddete 20/06/2013 tarihinde tescil edilmiştir.

E.H. B. AKIN  
Eski Başkanı  
Markalar Dairesi Başkanı

TÜRK PATENT ENSTİTÜSÜ



## CERTIFICATE

**60798**

This certificate was given to the below stated company by UDEM International Certification Audit Training Cent. Ind. Co. Ltd

**Armonitel Elektrik Makine Sanayi ve Ticaret Limited Şirketi**  
Beylikdüzü Mermerçiler Sanayi Sitesi 7. Cadde No:8 Beylikdüzü İSTANBUL / TURKEY

### ISO 14001:2004

Scope: Manufacturing and repair of stranded copper bar, laminated copper bar, wire mesh on cables and hoses and electric contacts


EA Code: 19

Certification Audit Date : 12.06.2013  
Decision Date : 14.06.2013  
Reissue Date : 25.05.2016  
Expiry Date : 13.06.2017

UDEM International Certification Audit Training Cent. Ind. Co. Ltd.

Herby, UDEM International Certification Audit Training Cent. Ind. Co. Ltd. certifies that the above stated company have the appropriate management system according to the requirements of the above standard. This certificate is valid for 3 years since the decision date as long as the system is effectively maintained and surveillance audits are carried out. The validity of the certificate can be checked through [www.udemcert.com.tr](http://www.udemcert.com.tr) or [www.udemcert.com.tr](mailto:info@udemcert.com.tr). The certificate is the property of UDEM International Certification Audit Training Cent. Ind. Co. Ltd and shall be returned if requested.

Address: Mülkiyet Mahallesi 2073 Sokak (Eski 99 Sokak) No:30 Çerkeza - Ankara - TÜRKİYE  
Tel: +90 312 443 03 90 (gün) Fax: +90 312 443 03 79  
E-mail: [info@udemcert.com.tr](mailto:info@udemcert.com.tr) Web: [www.udemcert.com.tr](http://www.udemcert.com.tr)



T.C.  
TÜRKİYE ODALAR VE BORSALAR BİRLİĞİ

## KAPASİTE RAPORU

İSTANBUL SANAYİ ODASI

Geçerlilik Süresi Sonu : 29.04.2018


Rapor Tarihi : 28.04.2016  
Rapor No : 2016/1190

|                                       |  |                  |                   |
|---------------------------------------|--|------------------|-------------------|
| Firma Ünvanı                          | : ARMONİTEL ELEKTRİK MAKİNE SANAYİ VE TİCARİT LİMİTED ŞİRKETİ                  | Sanayi Sicil No  | : 597262.00       |
| Tescilli Markaları                    | :  | Osak Sicil No    | : 44330           |
| Vergi Dairesi/No                      | : Beylikdüzü V.D. / 0800333413   | Ticaret Sicil No | : 633542          |
| İşyeri SGK No                         | : 227900909147696503436-08   | Faaliyet Kodu    | : 25.93.03 (NACE) |
| MERSİS No                             | :  |                  |                   |
| Üretim Yaptığı Yer                    | Adres : Beylikdüzü Osb Mermerçiler San. Sit. 7.Cad. No.8 BEYLİKDÜZÜ / İSTANBUL |                  |                   |
|                                       | İşyeri Tel (Kodlu): 212-6133422 Faks : 212-6313710                             |                  |                   |
|                                       | e-posta : kalbanemre@aracismmm.com Web : www.armonitel.com                     |                  |                   |
| Merkez                                | Adres : Beylikdüzü Osb Mermerçiler San. Sit. 7.Cad. No.8 BEYLİKDÜZÜ / İSTANBUL |                  |                   |
|                                       | Büro Tel (Kodlu): 212-6133422 Faks : 212-6133423                               |                  |                   |
| Üretim Konuları                       | : Muhtelif bakır bara  |                  |                   |
| Üretim Tesisinin Durumu               | Sermaye Kıymetler Dönümü (TL)  | Personel Durumu  |                   |
| Kıncı                                 | Makine ve Teçhizat Değeri  | Mühendis         | : -               |
| Arazi (m <sup>2</sup> )               | Tescilli Sermayesi   | Teknisyen        | : -               |
| Toplam Kapalı Sahha (m <sup>2</sup> ) | 4.000  | Usta             | : 2               |
| Bina İşaat Tipi                       | B.ARME   | İççi             | : 19              |
|                                       |  | Diğeri Pers.     | : 6               |
|                                       |  | Taşeron          | : -               |
|                                       |  | Toplam           | : 27              |
| Üretim Faaliyetine Başlama Tarihi     | : 17.02.2016   |                  |                   |
| Yabancı Sermaye                       |  | Gayri Maddi Hak  |                   |
| Ülkesi                                | Oran (%)   | Patent           | Know How          |
|                                       |  | Lisans           | Ülkesi            |

Sertifika: Çihaz Laboratuvarı

Yukarıda tanımlı üretilen, işyerinde mevcut makine ve teçhizatın yürürlükteki yönetim ve kriterlere göre teorik olarak hesaplanan azami üretim kapasitesi ile tüketim kapasitesini kapsayan bu kapasite raporu 28.04.2016 günü tarafımızdan düzenlenmiştir.

|  |   |          |
|--|---|----------|
| RAPORTÖR<br>Mustafa OFLU<br>Makine Mühendisi | LEKSPER<br>Selim YILDIRIM<br>Metalurji Yüksek Mühendisi | 2.EKSPER |
|--|---|----------|



T.C.  
BİLİM, SANAYİ VE TEKNOLOJİ BAKANLIĞI  
Sanayi Genel Müdürlüğü

## SANAYİ SİCİL BELGESİ

Belge Tarihi : 08.12.2011 Belge No : 597262.00 Veriliş Sebebi : İLK TESCİL Vergi No : 8 0 0 3 3 4 1 3

İşyeri İşletme Ünvanı : ARMONİTEL ELEKTRİK MAKİNE SANAYİ VE TİCARİT LTD. ŞTİ.

İşyeri Adresi : TERAZİDERE MAH.HAKAN SOK.NO:4 BAYRAMPAŞA / İSTANBUL

Kayıtlı Bulunduğu Meslek Odası : İSTANBUL TİCARİT ODASI Kuruluş Tarihi ve Ticaret Sicil No : 24.07.2007 633542

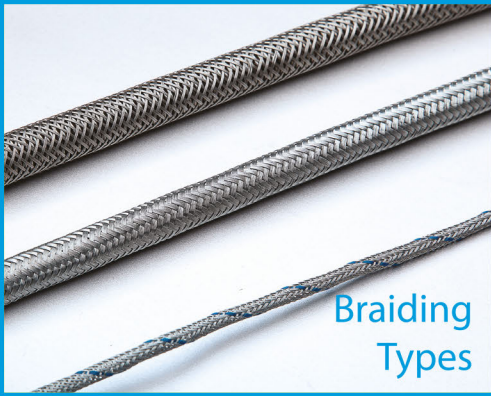
Kapasite Raporu Birlik Onay Tarihi ve No : 25.11.2011 19956 Ticaret Sicil Gazetesi Tarihi ve Sayısı : 30.07.2007 6882

Üretim Konusu : ORGÜLÜ FLEXİBLE BARA(ELEKTRİK BAĞLANTI VE İRTİBAT ELEMANLARI)

YILI VİZESİ

Yükarıda hükmüyle yayımlanan 24.04.1967 tarih ve 6848 Sayılı Kanunun ikinci maddesi gereğince tescil edilmiştir. Bu belge düzenleme tarihi itibarıyla 40 yıldan fazla geçerli değildir.





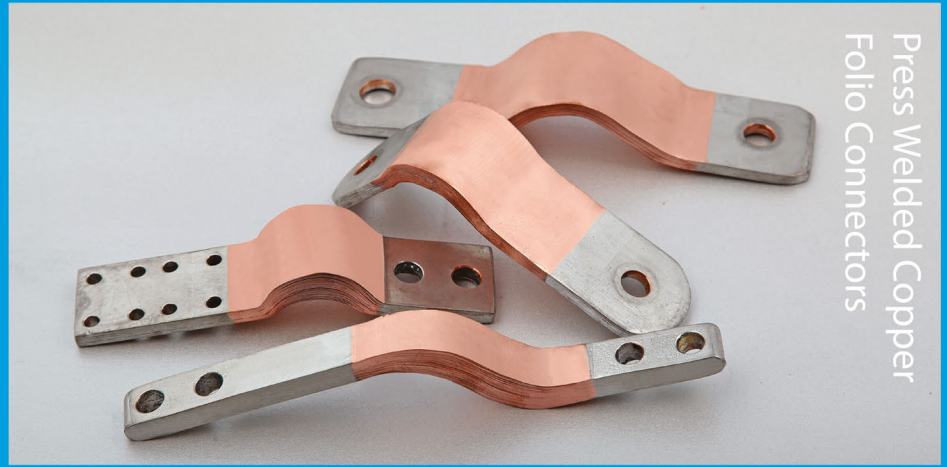
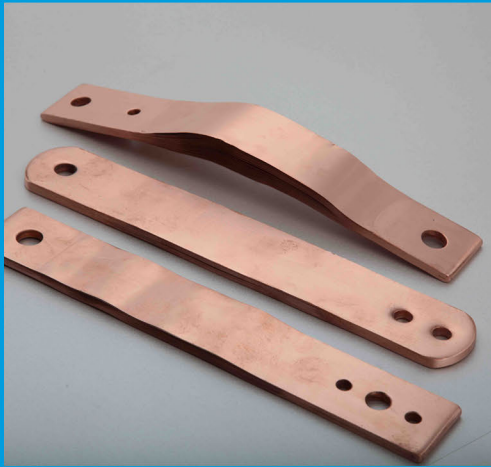
Braiding Types



Braided Flexible Bar



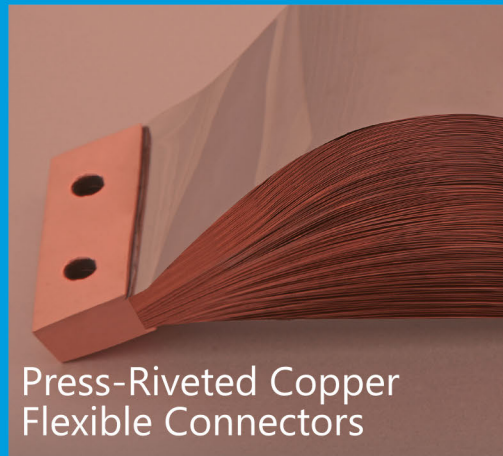
Braided Flexible Bar



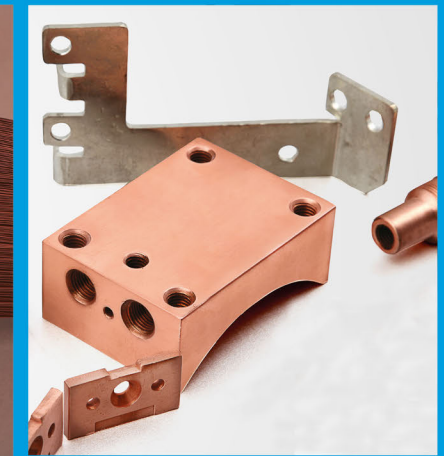
Press Welded Copper Folio Connectors



Rope Lay Conductors



Press-Riveted Copper Flexible Connectors



Insulated Flexible Bar (Flex Bars)



Braided Copper Cable



Braided Copper Tape

