



# Maham Tajhiz Sepand

ELECTRICAL & MECHANICAL EPC CONTRACTOR

## Earthing and lightning protection Shortform



- Bare conductors, bare stranded & tinned conductors
- Hand drawn bar & covered conductors
- Conductor network clips, clamps, connectors & roof fixings
- Earth electrodes & fittings
- Earth bonds & clamps
- Earth bars

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Maham Tajhiz Sepand Company has benefited from the experiences and advice of experienced managers and experts in the Iranian

electricity industry and has been able to work closely with French, Italian and German companies in the field of marketing, distribution and sale of electrical equipment.

M.T.S provide leading earthing, lightning and electronic systems.

Protection solutions. From our own designed and manufactured products, through to risk assessment and systems design advice, M.T.S offer a renowned total solution for earthing and lightning protection.

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# Introduction

## Our reach & expertise

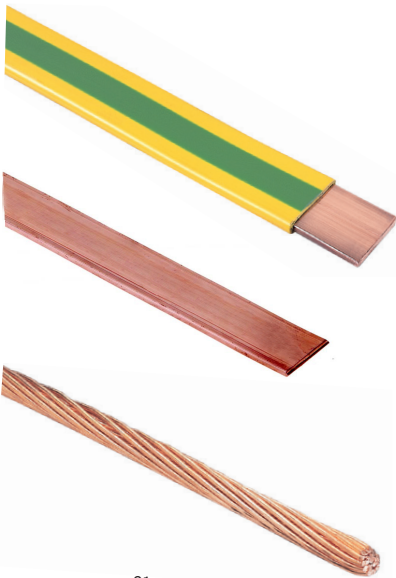
MTS after ensuring high quality products, and according to domestic needs, purchasing power, market growth as well as the following:

- Reputation and popularity of the mentioned products,
- Production of a wide range of required products,
- Equipped laboratory facilities,
- Fast planning, fast decision making and accurate execution,
- Significant attention to the issue of product quality and therefore customer satisfaction,
- Support and fast delivery services,
- Provide excellent after-sales service,
- Ease of maintenance,

In order to develop communication, expand technical cooperation from the mentioned companies, established a factory in Yazd .

It is hoped that MTS will be able to take small smart steps toward achieving constructive goals and combining the technical aspects of the technology transfer and employment process. Obviously, the purpose of these measures is to deliver competitive and high quality products within international standards and to satisfy the customer through timely delivery and faster after-sales service to gain more market share.

We believe that the electricity market will develop soon by providing high quality equipment, providing timely services and customer satisfaction.



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## EARTHING & LIGHTNING PROTECTION

Lightning is one of nature's most powerful and destructive phenomena. Lightning strikes present a real and significant threat to life, to the structures in which we live and work, and to the electronic systems which support us.



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## Earthing & lightning protection

### A real & significant threat

Lightning contains awesome amounts of electrical energy. Lightning discharges have been measured from several thousand to over 200,000 Amps (enough to light half a million 100 Watt bulbs) and even though of a very short duration, can cause tremendous damage and destruction.

The consequences of lightning can be devastating:

- Direct lightning strikes damage structures, and create fire, explosion and electric shock hazards.
- Indirect lightning (up to a kilometre away) creates transient overvoltages which degrade electronic systems and disrupt essential services.

### Secondary effects of lightning

The effects of a direct strike are obvious and immediately apparent – buildings damaged, trees blown apart, personal injuries and even loss of life.

However, the secondary effects of lightning – the short duration, high voltage spikes called transient overvoltages – can, and do, cause equally catastrophic, if less visually obvious, damage to electronic systems within structures.

### The need for a total solution

Lightning protection throughout the world is now governed by National and International standards which stress the need for a comprehensive solution. Simply put, a structural lightning protection system cannot and will not protect electronic systems from lightning currents and transient overvoltages, that's



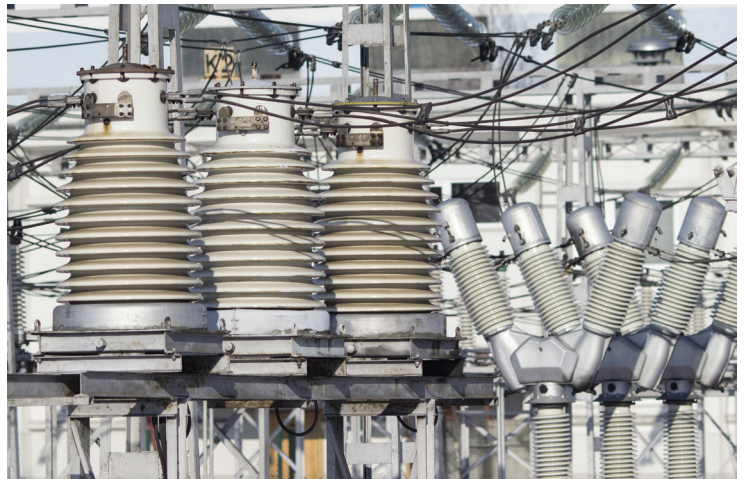
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why we advocate a Total Solution to earthing and lightning protection. This approach to lightning protection is now fully endorsed by the IEC/BS EN 62305, as well as NFPA 780 standards.

Therefore the M.T.S approach delivers effective life safety, together with long lasting, reliable protection of a structure and the electronic systems within. We believe the M.T.S Total Solution is the best available solution for achieving effective, dependable, long term lightning protection and earthing.

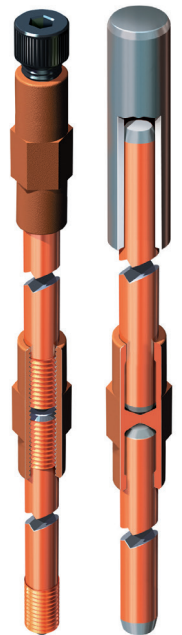
Protecting against the consequences of lightning is now of paramount importance in any building design, our Total Solution covers a wide range of sectors, for which we have tailored products and services.



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## Conductors


Bare conductors, bare stranded & tinned conductors

### Bare copper tape



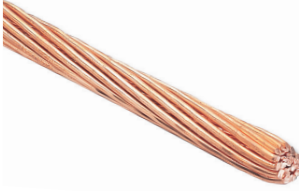
Part no.	Conductor size (X x Y) (mm)
TC005	12.5 x 1.5
TC010	12.5 x 3
TC015	20 x 1.5
TC020	20 x 3
TC020/100	20 x 3
TC025	25 x 1.5
TC026	25 x 2
TC030	25 x 3
TC030/50	25 x 3
TC030-UL	1" x 1/8"
TC035	25 x 4
TC040	25 x 6
TC040-UL	1" x 1/4"
TC039	30 x 2
TC042	30 x 3
TC044	30 x 4
TC043	30 x 5
TC045	31 x 3
TC048	31.5 x 4
TC050	31 x 6
TC055	38 x 3
TC060-FU	38 x 5
TC065	38 x 6
TC067	40 x 3
TC066	40 x 4
TC071	40 x 5
TC068	40 x 6
TC069	40 x 6.3
TC070	50 x 3
TC075	50 x 4
TC078	50 x 5
TC080	50 x 6
TC082	50 x 6.3
TC090	50 x 7

### Bare aluminium tape



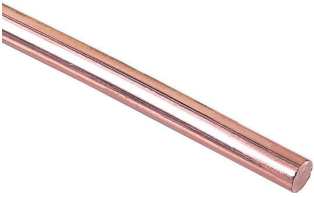
Part no.	Conductor size (X x Y) (mm)
TA005	12.5 x 1.5
TA020	20 x 3
TA030	25 x 3
TA042	30 x 3
TA040	25 x 6
TA068	40 x 6
TA080	50 x 6

### Bare stranded copper cable




Part no.	Cross sectional area (mm)
<b>Soft drawn stranded copper cable</b>	
CB006	6
CB016	16
CB025	25
CB035	35
CB050-FU	50
CB070	70
CB095	95
CB120	120
CB150-FU	150
CB185	185
CB240	240
CB300-FU	300
CB400-FU	400
<b>Tinned soft drawn stranded copper cable</b>	
CB070-T	70
<b>Hard drawn stranded copper cable</b>	
CB071	70

### Bare solid circular



Part no.	Diameter (A) (mm)
<b>Copper conductor</b>	
CD035	Ø 8
<b>Aluminium conductor</b>	
CD080	Ø 8

### Tinned copper tape



Part no.	Conductor size (X x Y) (mm)
TC225-FU	12.5 x 1.5
TC230	25 x 3
TC230-UL	1" x 1/8"
TC239	30 x 2
TC240	25 x 6
TC245	31 x 3
TC260	38 x 5
TC280	50 x 6

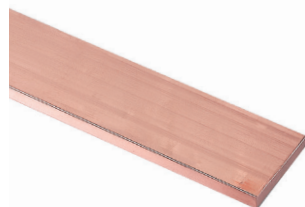


## Conductors

Hand drawn bar, PVC & LSOH covered conductors

### Hard drawn copper bar

Part no.	Overall nominal size (X x Y) (mm)
<b>Bare hard drawn bar</b>	
BA205	25 x 3
BA210	25 x 6
BA225	38 x 6
BA230	50 x 6
BA235	50 x 10
BA240	75 x 6
BA250-FU	100 x 6



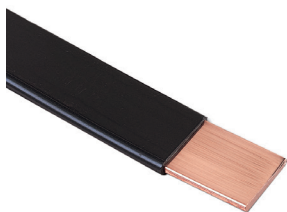
### PVC covered aluminium tape

Part no.	Conductor size (X x Y) (mm)	Colour range
TA100	12.5 x 1.5	Black
TA104	20 x 3	Black
TA105	25 x 3	Black
TA110	25 x 3	Green
TA115	25 x 3	Grey
TA120	25 x 3	Stone
TA125	25 x 3	White
TC130/N	25 x 3	Brown



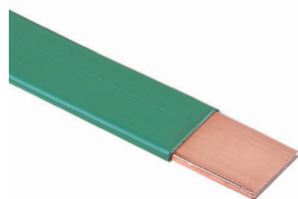
### PVC covered copper tape

Part no.	Conductor size (X x Y) (mm)	Colour range
TC100	12.5 x 1.5	Black
TC105/N	25 x 3	Black
TC110/N	25 x 3	Green
TC110/50	25 x 3	Green
TC115/N	25 x 3	Grey
TC120/N	25 x 3	Stone
TC125/N	25 x 3	White
TC130/N	25 x 3	Brown
TC140/N	25 x 6	Green
TC145/N	50 x 6	Green



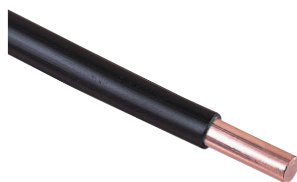
### LSOH covered copper tape

Part no.	Conductor size (X x Y) (mm)	Colour range
TC910/N	25 x 3	Green
TC910/50	25 x 3	Green
TC940/N	25 x 6	Green
TC980/N	50 x 3	Green



### PVC covered copper solid circular

Part no.	Colour range
CD036	Black
CD038	Grey
CD039	Stone
CD040	White
CD041	Brown



N.B. All conductor diameters 8 mm.

### PVC covered aluminium solid circular

Part no.	Colour range
CD081	Black
CD083	Grey
CD084	Stone
CD085	White
CD086	Brown



N.B. All conductor diameters 8 mm.

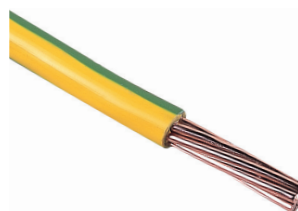
### Green & yellow PVC insulated copper tape

Part no.	Conductor size (X x Y) (mm)
TC111/N	25 x 3



### Green & yellow PVC insulated stranded copper cable

Part no.	Cross-sectional area (mm <sup>2</sup> )
CC016	16
CC025	25
CC035	35
CC050	50
CC070	70
CC095	95
CC120-FU	120
CC150-FU	150
CC185	185
CC240	240
CC300	300
CC400-FU	400



## Conductor network

### Metallic conductor clips

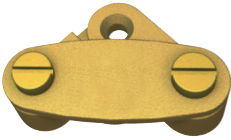
#### Swing lid DC tape clip

Part no.	Conductor size (mm)
<b>For use with bare copper</b>	
CP210-H	25 x 3
CP220-H	25 x 6
<b>For use with bare aluminium</b>	
CP110-H	25 x 3
CP120-H	25 x 6



#### Adjustable DC tape clip

Part no.	Conductor size (mm)
<b>For use with bare copper</b>	
CP230-H	31 x 3 and 31 x 6
CP240-H	38 x 3, 38 x 6 and 40 x 6
CP260-H	50 x 3 and 50 x 6



#### Adjustable DC tape clip

Part no.	Conductor size (mm)
<b>For use with bare copper</b>	
CP205	20 x 3
CP216	25 x 4
CP227	30 x 5
CP245	38 x 5
CP241	40 x 4
CP256	50 x 4
<b>For use with PVC covered copper</b>	
CP215-H	25 x 3
CP225	25 x 6
CP265	50 x 6
CP256	50 x 4
<b>For use with lead covered copper</b>	
CP305	25 x 3
<b>For use with bare aluminium</b>	
CP105	20 x 3
CP125	50 x 6
<b>For use with PVC covered aluminium</b>	
CP115	25 x 3
CP130	50 x 6



#### Tape clip

Part no.	Conductor size (mm)
<b>For use with bare copper</b>	
CP510	20 x 3
CP515	25 x 3
<b>For use with bare aluminium</b>	
CP405	20 x 3
CP410	25 x 3
CP415	25 x 6
<b>For use with PVC covered tape</b>	
CP517	25 x 3



#### One hole cable clip

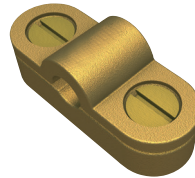
Part no.	Conductor size (mm)	Conductor material
<b>For use with solid circular conductor</b>		
CP905	Ø 8	Copper
CP925	Ø 8	Aluminium
CP915	Ø 10*	Copper
CP935	Ø 10*	Aluminium
<b>For use with stranded conductor</b>		
CP910	50 mm <sup>2</sup>	Copper
CP915	70 mm <sup>2</sup>	Copper
CP920	95 mm <sup>2</sup>	Copper



\*PVC covered 8 mm conductor.

#### Heavy duty cast cable saddle

Part no.	Conductor size (mm)	Conductor material
<b>For use with solid circular conductor</b>		
CP805	Ø 8	Copper
CP806	Ø 8	Aluminium
CP815	Ø 10*	Copper
CP816	Ø 10*	Aluminium
<b>For use with stranded conductor</b>		
CP810	50 mm <sup>2</sup>	Copper
CP815	70 mm <sup>2</sup>	Copper
CP835	95 mm <sup>2</sup>	Copper
CP855	120 mm <sup>2</sup>	Copper



\*PVC covered 8 mm conductor.

#### Non-metallic DC tape clip

Part no.	Conductor size (mm)	Colour
<b>For use with bare tape</b>		
CP005	20 x 3	Brown
CP010	20 x 3	Grey
CP015	25 x 3	Brown
CP020	25 x 3	Grey
CP060	38 x 5	Brown
CP065	50 x 6	Brown
<b>For use with PVC covered tape</b>		
CP025	25 x 3	Brown
CP030	25 x 3	Black
CP035	25 x 3	Green
CP040	25 x 3	Grey
CP045	25 x 3	Stone
CP050	25 x 3	White

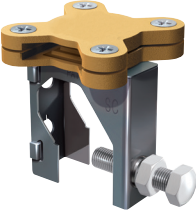


## Conductor network

Standing seam roof fixings, puddle flange and holdfasts


### Standing seam roof fixing with square tape clamp

Part no.	Conductor size (mm)	Material
SC105-H	25 x 3	Copper
SC005-H	25 x 3	Aluminium




### Slate holdfast with non-metallic DC tape clip

Part no.	Conductor size (mm)	DC clip Colour
<b>For use with bare tape</b>		
HF015	25 x 3	Brown
HF020	25 x 3	Grey
<b>For use with PVC covered tape</b>		
HF025	25 x 3	Brown
HF030	25 x 3	Black
HF040	25 x 3	Grey
HF045	25 x 3	Stone



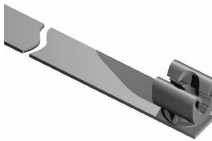
### Standing seam roof fixing with nonmetallic DC tape clip

Part no.	Conductor size (mm)	Colour	Material	Weight each (kg)
<b>Non-metallic clip for use with bare tape</b>				
SC015	25 x 3	Brown	Copper	0.076
SC020	25 x 3	Grey	Aluminium	0.076
<b>Metallic clip for use with bare tape</b>				
SC210-H	25 x 3	-	Copper	0.08
SC110-H	25 x 3	-	Aluminium	0.07
<b>Metallic clip for use with PVC covered tape</b>				
SC215-H	25 x 3	-	Copper	0.09



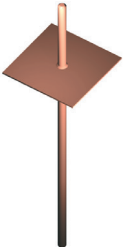
### Slate holdfast with non-metallic push-in clip

Part no.	Conductor size (mm)	DC clip colour
HF176	Ø 8	Brown
HF191	Ø 8	Grey



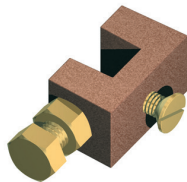
### Pyramid flange

Part no.	Conductor material
PF105	Copper
PF005	Aluminium




### Glazing bar holdfast

Part no.	Maximum glazing bar width (mm)	Conductor material
HF705	12	Copper
HF710	12	Aluminium



### Pyramid holdfast

Part no.	Conductor size (mm)
HF975	Ø 8 mm solid circular



### Back plate holdfast stem

Part no.	Conductor material
HF320	Copper
HF325-FU	Aluminium



## Conductor network

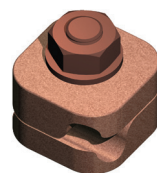
### Conductor clamps

#### Square tape clamp



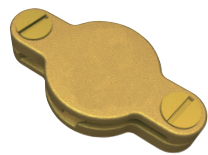
Part no.	Conductor size (mm)	Conductor material
CT105-H	25 x 3	Copper
CT110-H	25 x 6	Copper
CT115-H	50 x 6	Copper
CT005-H	25 x 3	Aluminium
CT010-H	25 x 6	Aluminium

#### Mini square clamp



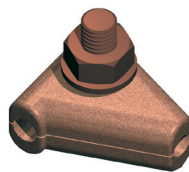
Part no.	Conductor size (mm)	Conductor material
CS605	Ø 8	Copper
CS610	Ø 8	Aluminium

#### Crossover tape clamp



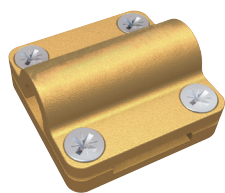
Part no.	Conductor size (mm)	Conductor material
CX105-H	25 x 3	Copper
CX005-H	25 x 3	Aluminium

#### Tee clamp



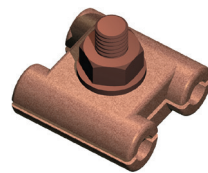
Part no.	Conductor size (mm)	Conductor material
CS505	Ø 8	Copper
CS510	Ø 8	Aluminium

#### Cable to tape square clamp



Part no.	Conductor size (mm)	Conductor material
CT125	25 x 3 mm to 50 mm <sup>2</sup>	Copper
CT130	25 x 3 mm to 70 mm <sup>2</sup>	Copper
CT135	25 x 3 mm to 95 mm <sup>2</sup>	Copper

#### Jointing clamp



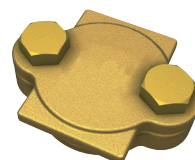
Part no.	Conductor size (mm)	Conductor material
CS405	Ø 8	Copper
CS410	Ø 8	Aluminium

#### Square stranded cable clamp



Part no.	Conductor size (mm)	Conductor material
CR810	50	Copper
CR815	70	Copper
CR820	95	Copper

#### Test / Junction clamp

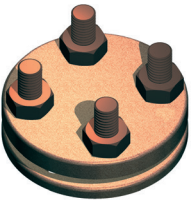


Part no.	Conductor size (mm)	Conductor material
CN105-H	26 x 8	Copper
CN005	26 x 8	Aluminium

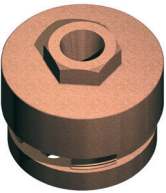
## Conductor network

Conductor clamps, bimetallic connectors, expansion braid bond & oxide inhibitor

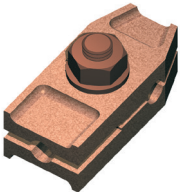
### Plate type test clamp

	Part no.	Conductor size (mm)	Conductor material
	CT405	26 x 12 max	Copper

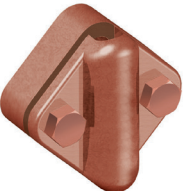
### Screwdown test clamp

	Part no.	Conductor size (mm)	Conductor material
	CT305	26 x 8 max	Copper


### Test clamp

	Part no.	Conductor size (mm)	Conductor material
	CN305	Ø 8	Copper
	CN310	Ø 8	Aluminium


### Square test clamp

	Part no.	Conductor size (mm)	Conductor material
	CR855	50	Copper
	CR860	70	Copper
	CR865	95	Copper


### Bimetallic connector

	Part no.	Conductor size
	CN910	25 x 3 mm aluminium tape to 25 x 3 mm copper tape
	CN910-UL	1½" x ⅛" aluminium tape to 1" x ⅛" copper tape
	CN915	8 mm Ø aluminium conductor to 8 mm Ø copper conductor
	CN920	8 mm Ø aluminium conductor to 25 x 3 mm copper tape
	CN925	25 x 3 mm aluminium tape to 25 x 3 mm copper tape

### Oxide inhibiting compound

	Part no.	Description
	CM005	Plastic 8 oz bottle

### Expansion braid bond

	Part no.	Description	Conductor material
	BN101	Single length	Copper
	BN001	Single length	Aluminium
	BN102	Cross-over	Copper
	BN002	Cross-over	Aluminium

## Earth electrodes

Earth rods, seal, hammer, & rig

### Threaded copperbond earth rod



Part no.	Nominal diameter (in)	Length (mm)
RB105	Ø ½	1200
RB110	Ø ½	1500
RB115	Ø ½	1800
RB125	Ø ½	2400
RB205-FU	Ø ⅝	1200
RB210	Ø ⅝	1500
RB215	Ø ⅝	1800
RB220-FU	Ø ⅝	2100
RB225	Ø ⅝	2400
RB235	Ø ⅝	3000
RB305	Ø ¾	1200
RB310	Ø ¾	1500
RB315	Ø ¾	1800
RB320-FU	Ø ¾	2100
RB325	Ø ¾	2400
RB335	Ø ¾	3000
Fittings	Type	
CG170	½" Coupling	
CG270	⅝" Coupling	
CG370	¾" Coupling	
ST100	½" Driving stud	
ST200	⅝" Driving stud	
ST300	¾" Driving stud	

### Unthreaded copperbond earth rod



Part no.	Diameter (mm)	Length (mm)
RB005	Ø 9.0	1200
RB103	Ø 12.7	1200
RB107	Ø 12.7	1500
RB116	Ø 12.7	1800
RB126	Ø 12.7	2400
RB203	Ø 14.2	1200
RB213	Ø 14.2	1500
RB216	Ø 14.2	1800
RB217	Ø 14.2	2000
RB223	Ø 14.2	2100
RB226	Ø 14.2	2400
RB236	Ø 14.2	3000
RB306	Ø 17.2	1200
RB313	Ø 17.2	1500
RB316	Ø 17.2	1800
RB317	Ø 17.2	2000
RB323	Ø 17.2	2100
RB326	Ø 17.2	2400
RB336	Ø 17.2	3000
Fittings	Type	
CG177	12.7 mm Coupling	
CG277	14.2 mm Coupling	
CG377	17.2 mm Coupling	
ST107	12.7 mm Driving head	
ST207	14.2 mm Driving head	
ST307	17.2 mm Driving head	

### Earth rod seal

Part no.	Type
<b>Earth rod seal assembly</b>	
ES300	Earth rod seal and membrane seal
<b>Earth rod seal pack</b>	
ES300-12	Seal pack for ½" (Ø 12.7 mm) Copperbond rod
ES300-58	Seal pack for ⅝" (Ø 14.2 mm) Copperbond rod
ES300-34	Seal pack for ¾" (Ø 17.2 mm) Copperbond rod
ES300-15	Seal pack for Ø 15 mm solid copper rod
ES300-16	Seal pack for Ø 16 mm solid copper rod
ES300-20	Seal pack for Ø 20 mm solid copper rod
<b>Earth rod seal tube</b>	
ES310-03	Seal tube, 300 mm length
ES310-05	Seal tube, 500 mm length
ES310-10	Seal tube, 1000 mm length
ES310-15	Seal tube, 1500 mm length
ES310-20	Seal tube, 2000 mm length
ES310-30	Seal tube, 3000 mm length
<b>Accessory spanner set</b>	
ES320	Membrane seal torque spanner set



### Earth rod hammer

Part no.	Description
HM005	Atlas Copco Cobra TT petrol driven hammer
HM010	Earth rod adapter (Suitable for 5/8" earth rods)



### Hammer rig

Part no.	Description
HM105	Hammer rig



## Earth electrodes

Earth rods, inspection pits, plate, lattice, backfill materials & resistance test equipment

### Solid copper and stainless steel earth rod

Part no.	Diameter (mm)	Length (mm)
<b>Solid copper rod</b>		
RB103	Ø 15	1200
RB107	Ø 15	1500
RB116	Ø 15	1800
RB126	Ø 20	2400
RB203	Ø 20	1200
RB213	Ø 20	1500
<b>Stainless steel rod</b>		
RB217	Ø 16	2000
RB223	Ø 16	2100
RB226	Ø 16	2400
RB236	Ø 20	3000
RB306	Ø 20	1200
<b>Fittings</b>		<b>Type</b>
ST010	15 mm hardened steel driving stud for copper/stainless steel rod	
ST015	20 mm hardened steel driving stud for copper/stainless steel rod	
CG013	Coupling dowel for 15 mm & 20 mm copper rod	
CG005	Coupling dowel for 16 mm & 20 mm stainless steel rod	
SP010	15 mm hardened steel spike for copper/stainless steel rod	
SP015	20 mm hardened steel spike for copper/stainless steel rod	

### UL Kits

Part no.	Diameter (mm)	Length
<b>Solid copper rod</b>		
RC010-KIT	Ø 15	8 ft (2440 mm)
RC015-KIT	Ø 16	8 ft (2440 mm)
<b>Stainless steel rod</b>		
RS005-KIT	Ø 16	8 ft (2440 mm)

### FurseCEM® conductive aggregate / Bentonite moisture retaining clay

Part no.	Description
CM025	FurseCEM®
CM030	FurseCEM® (supplied with cement)
CM015	Bentonite powder 25kg
CM020	Bentonite granules 25kg



### Lightweight inspection pit

Part no.	Description
PT205	Lightweight inspection pit with grey polymer lid
PT309-FU	Lightweight inspection pit with black (unbranded) polymer lid
PT110	Lightweight inspection pit with concrete lid
PT004	5 hole earth bar
<b>Accessories for polymer lid</b>	
AK005	6 mm Allen key
<b>Accessories for concrete lid</b>	
JH100	M8 x 100 mm long mild steel 'J' bolt lifting
AS100	M8 x 60 stainless steel Allen caphead screw (2 per lid)



### Lightweight inspection pit

Part no.	Description
<b>Earth bars for concrete inspection</b>	
PT005	
<b>Accessories</b>	
PT006	5 hole earth bar
PT007	7 hole earth bar



### Earth plate (solid copper)

Part no.	Size (mm)
PE005	600 x 600 x 1.5
PE015	900 x 900 x 1.5
PE010	600 x 600 x 3
PE020	900 x 900 x 3



### Earth mat (lattice copper)

Part no.	Size (mm)
PE110	600 x 600 x 3
PE120	900 x 900 x 3



### Digital earth resistance tester

Part no.	Description
DET14C	Clamp earth resistance tester
DET3TC	Digital earth resistance tester
DET4TD2	Digital earth resistance tester
DET2/2	Digital earth resistance tester

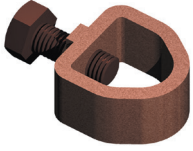


## Earth bonds & clamps

### Mechanical clamps

#### Rod to tape clamp (type A)

Part no.	Nominal rod diameter		Max. conductor (mm)
	(in)	(mm)	
CR105	Ø ½	Ø 12.7	26 x 12
CR105	Ø ⅝	Ø 16	26 x 12
CR105	Ø ¾	Ø 20	26 x 10
CR108	Ø ⅝	Ø 16	30 x 2
CR108	Ø ¾	Ø 20	30 x 2
CR110	Ø ⅝	Ø 16	40 x 12
CR115	Ø ⅝	Ø 16	51 x 8
CR125	Ø ¾	Ø 20	51 x 12
CR130	Ø ½	Ø 12.7	26 x 20
CR130	Ø ⅝	Ø 16	26 x 18
CR130	Ø ¾	Ø 20	26 x 10
CR130	Ø 1	Ø 25	26 x 10



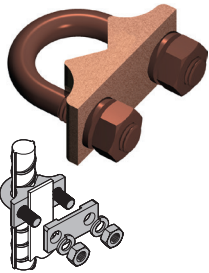
#### Rod to tape clamp (type G)

Part no.	Nominal rod diameter		Max. conductor (mm)
	(in)	(mm)	
CR505	Ø ⅝	Ø 9.5	6-35
CR510-FU	Ø ½	Ø 12.7	16-50
G5	Ø ⅝	Ø 16	5.2-33.6
CR515	Ø ⅝	Ø 16	16-70
G6	Ø ¾	Ø 20	5.2-33.6
CR520	Ø ¾	Ø 20	35-95
CR525	Ø 1	Ø 25	70-150



#### 'U' bolt rod clamp (type E)

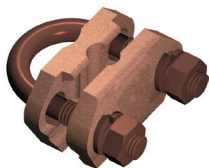
Part no.	Nominal rod/rebar diameter		Hole centres (mm)
	(in)	(mm)	
CR305	Ø ⅝	Ø 16	37
CR310	Ø ¾	Ø 20	37
CR315	Ø 1	Ø 25	37
CR320*	Ø ⅝	Ø 16	37
CR325	Ø 1½	Ø 38	54
CR330	Ø 2	Ø 50	64
CR326	Ø 1½	Ø 38	54



\*CR320 includes additional plate to allow tape to be clamped without drilling.

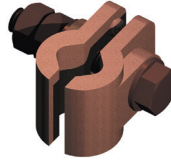
#### 'U' bolt rod clamp (type GUV)

Part no.	Nominal rod/rebar diameter		Conductor range (mm)
	(in)	(mm)	
CR700	Ø ⅝	Ø 16	16-95
CR700	Ø ¾	Ø 20	16-70
CR705	Ø ⅝	Ø 16	70-185
CR705	Ø ¾	Ø 20	70-150
CR730	Ø ⅝	Ø 16	150-300
CR730	Ø ¾	Ø 20	150-300
CR710	Ø 1	Ø 25	16-70
CR740	Ø 1	Ø 25	70-150
CR750	Ø 1	Ø 25	150-300



#### Rod to tape clamp (type B)

Part no.	Nominal rod diameter		Rod type
	(in)	(mm)	
CR205	Ø ⅝	Ø 9.5	Copperbond
CR215	Ø ⅝	Ø 16	Copperbond
CR220	Ø ⅝	Ø 15	Solid copper
CR225	Ø ¾	Ø 20	Copperbond
CR230	Ø ¾	Ø 20	Solid copper



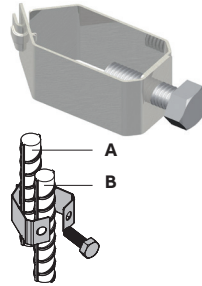
#### Rebar clamp

Part no.	Conductor size (mm)	Rebar dia. (mm)	Conductor material
BN150	Ø 8	Ø 8-18	Copper
BN155	Ø 8	Ø 18-38	Copper



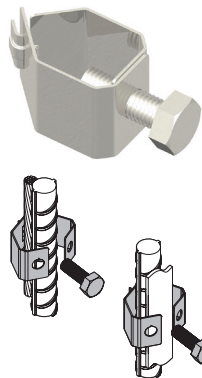
#### Rebar to rebar connecting clip

Part no.	Max. rebar diameter A (mm)	Min. rebar diameter B (mm)
RR812	Ø 8	Ø 12
RR1616	Ø 16	Ø 16
RR2121	Ø 20	Ø 20
RR2626	Ø 25	Ø 25
RR3232	Ø 32	Ø 32
RR3838	Ø 40	Ø 40



#### Rebar to conductor connecting clip

Part no.	Rebar diameter (mm)	Conductor size (mm)
<b>Rebar to flat tape</b>		
RC25-087095	Ø 25	25 x 3mm
<b>Rebar to stranded/solid circular conductor</b>		
RC812-0850	Ø 12	50 mm <sup>2</sup> or Ø 8mm
RC16-087095	Ø 16	Ø 8 mm dia., 50-70-95 mm <sup>2</sup>
RC20-087095	Ø 20	Ø 8 mm dia., 50-70-95 mm <sup>2</sup>
RC25-087095	Ø 25	Ø 8 mm dia., 50-70-95 mm <sup>2</sup>
RC32-087095	Ø 32	Ø 8 mm dia., 50-70-95 mm <sup>2</sup>
RC40-087095	Ø 40	Ø 8 mm dia., 50-70-95 mm <sup>2</sup>





## Earth bonds & clamps

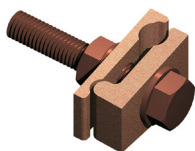
### Earth boss, bonds & clamps

#### Earth boss



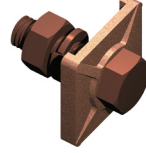
Part no.	Length (mm)	Diameter (mm)	Thread size (mm)
EB0000	25	Ø 25	M8
EB1000	25	Ø 25	M8
EB0110	30	Ø 30	M8
EB1110	30	Ø 30	M8
EB0111	30	Ø 30	M10
EB1111	30	Ø 30	M10
EB0120	30	Ø 40	M8
EB1120	30	Ø 40	M8
EB0121	30	Ø 40	M10
EB1121	30	Ø 40	M10
EB0130	30	Ø 50	M8
EB1130	30	Ø 50	M8
EB0131	30	Ø 50	M10
EB1131	30	Ø 50	M10
EB0211	40	Ø 30	M10
EB1211	40	Ø 30	M10
EB0212	40	Ø 30	M12
EB1212	40	Ø 30	M12
EB0221	40	Ø 40	M10
EB1221	40	Ø 40	M10
EB0222	40	Ø 40	M12
EB1222	40	Ø 40	M12
EB0231	40	Ø 50	M10
EB1231	40	Ø 50	M10
EB0232	40	Ø 50	M12
EB1232	40	Ø 50	M12
EB0311	50	Ø 30	M10
EB0311	50	Ø 30	M10
EB0312	50	Ø 30	M12
EB1312	50	Ø 30	M12
EB0321	50	Ø 40	M10
EB1321	50	Ø 40	M10
EB0332	50	Ø 40	M12
EB1332	50	Ø 40	M12
EB0001	50	Ø 50	M10
EB1331	50	Ø 50	M10
EB0332	50	Ø 50	M12
EB1332	50	Ø 50	M12

#### Tower earth clamp



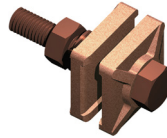
Part no.	Conductor range (mm)	Conductor material
BN125	16-70	Copper
BN130	70-120	Copper
BN300-FU	25-50	Copper
BN305	25-50	Aluminium
BN320	120-185	Copper
BN325	185-240	Copper

#### B bond



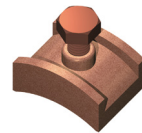
Part no.	Max tape width (mm)	Conductor material
BN105	26	Copper
BN005	26	Aluminium
BN113	31	Copper
BN114	40	Copper
BN117	50	Copper

#### Earth plate (solid copper)



Part no.	Max tape width (mm)	Conductor material
BN115	26	Copper
BN010	26	Aluminium

#### Earth plate (solid copper)



Part no.	Max tape width (mm)	Conductor material
BN120	26	Copper

#### Earth plate (solid copper)



Part no.	Conductor diameter (mm)	Palm hole diameter (mm)	Conductor material
BN175	Ø 8	Ø 50-200	Copper
BN176	Ø 8	Ø 50-200	Aluminium

#### Pipe clamp



Part no.	Pipe diameter	
	(in)	(mm)
3902	Ø ½-1	Ø 13-25
3903	Ø 1¼-2	Ø 32-50
3904	Ø 2½-3½	Ø 65-90
3905-TB	Ø 4-5	Ø 100-125
3906-TB	Ø 6	Ø 150
3907	Ø 8	Ø 200
3908	Ø 10	Ø 250
3909-TB	Ø 12	Ø 300

## Earth bonds & clamps

### Static earth connection points

#### Eyebolt



Part no.	Nominal copperbond rod diameter (in)
BT150	$\frac{5}{8}$
BT160	$\frac{3}{4}$

#### Static earth receptacle

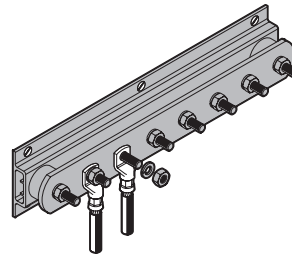


Part no.	Conductor material
RX005	Copper

## Earth bars

### Earth bar

#### Earth bar



Part no.	Description	Length (mm)
<b>Copper earth bar</b>		
LK245-6	6 way	400
LK245-8	8 way	500
LK245-10	10 way	650
LK245-12	12 way	750
LK245-14	14 way	850
LK245-16	16 way	950
LK245-18	18 way	1050
LK245-20	20 way	1200
LK245-22	22 way	1300
LK245-24	24 way	1400
LK245-26	26 way	1500
LK245-28	28 way	1650
LK245-30	30 way	1750
<b>Tinned copper earth bar</b>		
LK245-6-T	6 way	400
LK245-8-T	8 way	500
LK245-10-T	10 way	650
LK245-12-T	12 way	750
LK245-14-T	14 way	850
LK245-16-T	16 way	950
LK245-18-T	18 way	1050
LK245-20-T	20 way	1200
LK245-22-T	22 way	1300
LK245-24-T	24 way	1400
LK245-26-T	26 way	1500
LK245-28-T	28 way	1650
LK245-30-T	30 way	1750

#### Additional information

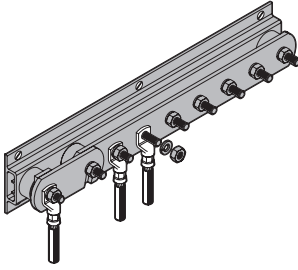
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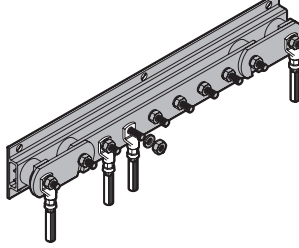
## Earth bars

### Earth bar with single/twin disconnecting link & accessories

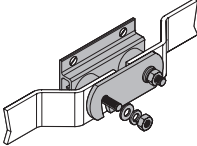
#### Earth bar with single disconnecting link

	Part no.	Description	Length (mm)
	<b>Copper earth bar</b>		
	LK243-6	6 way	475
	LK243-8	8 way	575
	LK243-10	10 way	725
	LK243-12	12 way	825
	LK243-14	14 way	925
	LK243-16	16 way	1025
	LK243-18	18 way	1125
	LK243-20	20 way	1275
	LK243-22	22 way	1375
	LK243-24	24 way	1475
	LK243-26	26 way	1575
	LK243-28	28 way	1725
	LK243-30	30 way	1825
	<b>Tinned copper earth bar</b>		
	LK243-6-T	6 way	475
LK243-8-T	8 way	575	
LK243-10-T	10 way	725	
LK243-12-T	12 way	825	
LK243-14-T	14 way	925	
LK243-16-T	16 way	1025	
LK243-18-T	18 way	1125	
LK243-20-T	20 way	1275	
LK243-22-T	22 way	1375	
LK243-24-T	24 way	1475	
LK243-26-T	26 way	1575	
LK243-28-T	28 way	1725	
LK243-30-T	30 way	1825	


#### Earth bar with twin disconnecting link

	Part no.	Description	Length (mm)
	<b>Copper earth bar</b>		
	LK207-6	6 way	550
	LK207-8	8 way	650
	LK207-10	10 way	800
	LK207-12	12 way	900
	LK207-14	14 way	1000
	LK207-16	16 way	1100
	LK207-18	18 way	1200
	LK207-20	20 way	1350
	LK207-22	22 way	1450
	LK207-24	24 way	1550
	LK207-26	26 way	1650
	LK207-28	28 way	1800
	LK207-30	30 way	1900
	<b>Tinned copper earth bar</b>		
	LK207-6-T	6 way	550
LK207-8-T	8 way	650	
LK207-10-T	10 way	800	
LK207-12-T	12 way	900	
LK207-14-T	14 way	1000	
LK207-16-T	16 way	1100	
LK207-18-T	18 way	1200	
LK207-20-T	20 way	1350	
LK207-22-T	22 way	1450	
LK207-24-T	24 way	1550	
LK207-26-T	26 way	1650	
LK207-28-T	28 way	1800	
LK207-30-T	30 way	1900	

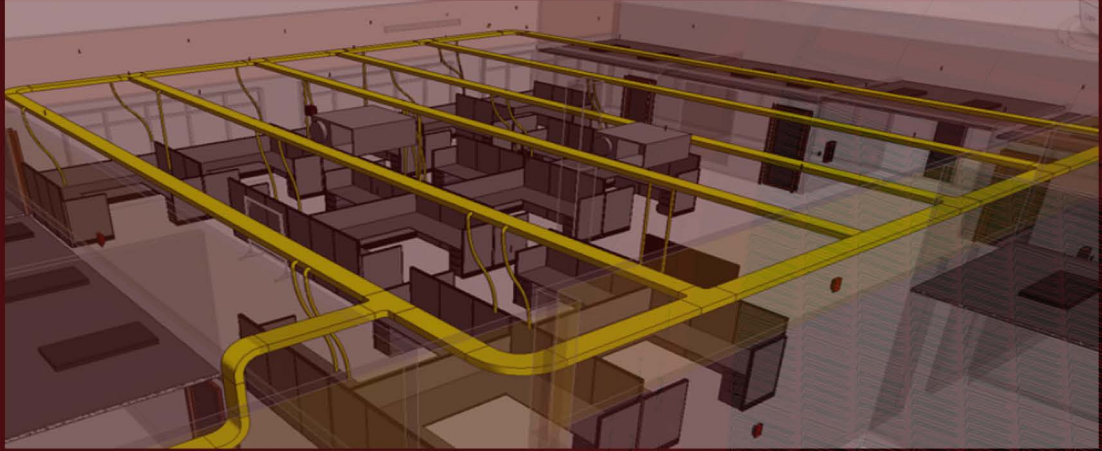
#### Earth bar accessories

	Part no.	Description
	<b>Copper earth bar</b>	
	LK004	Swan-neck link
	LK205	Disconnecting link
	<b>Tinned copper earth bar</b>	
LK004-T	Swan-neck link	
LK205-T	Disconnecting link	

#### Insulator

	Part no.	Height (mm)	Insert size
	<b>Insulator</b>		
	IN020	20	M6
	IN030	30	M6
	IN040	40	M8
	IN013	50	M10
	IN060	60	M10
	IN070	70	M12
<b>Insulator with 2 studs and 3 nuts</b>			
IN005	50	M10	

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Fax: +9821- 88677129

Website: [Www.mtsepand.com](http://Www.mtsepand.com)

Email: [Info@mtsepand.com](mailto:Info@mtsepand.com)