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# Welcome to the new product catalogue from AZANIR group





# Company summary

Azanir Engineering Trading Company, relying on technical knowledge, executive records, equipment capacity and benefiting from domestic experts and international consultants, provides consulting services, design, implementation, production and supply of equipment for grounding systems and Lightning & Surge Protection in related industries:

- Providing quality goods approved and standardized in the electricity industry,
- Keeping up with the updated science and technology,
- Providing after-sales services and paying attention to the needs of customers based on extensive experience,
- Benefiting from experienced specialists,
- The satisfaction of many major customers in the governmental and private sectors has always given the company hope for a better and more professional services.
- Also, our company has always been one of the active members and the sponsor of the National Electricity Industry Syndicate in specialized conferences and events in iran, and has registered membership in vendor list of iranian oil, gaz ,petrochemical and telecommunications authorized entities in its professional record.



#### Mission:

- Leading provider of comprehensive solutions for earthing systems, lightning protection and surge
- Register a valuable brand with high performance and sustainable growth
- Pioneering and excelling in your field
- Knowledge-based innovation

#### vision:

- Reaching the position of the top five companies in the field of electrical engineering
- Becoming a company trusted by customers
- Increase technical-economic capacity by identifying the needs of the industry
- Strive to create value for the customer in the field of products and services of earthing systems, lightning protection and surge
- Provide knowledge to the engineering community about the safety and quality of electricity
- Research and development of products and services to achieve the highest global quality
- Develop a quality management system towards operational excellence to contribute to sustainable growth

## Commitment to work with customers:

Improve productivity in providing excellent customer service. Azanir Company is committed to its customers and is constantly working in this direction. Azanir forces are ready to respond quickly, help and advise their customers from the beginning of the project and at any time.

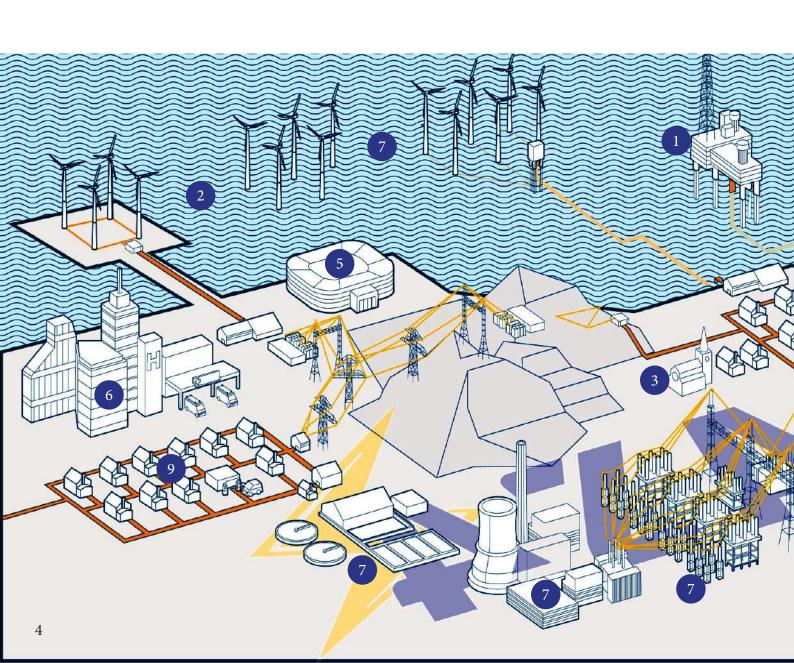


# **Structural lightning protection**

From Furse air termination systems including air rods and strike plates to capture lightning strikes, through to our comprehensive range of down conductors and lightning protection components which channel lightning energysafely to a Furse earth termination network.

Including:

- Air termination systems
- Lightning protection conductors
- Conductor clips, clamps & holdfasts
- Bimetallic connection components
- 1. Oil & gas / petrochemical
- 2. Renewable energies
- 3. Cultural & heritage
- 4. High tech & industrial
- 5. Sports & recreation



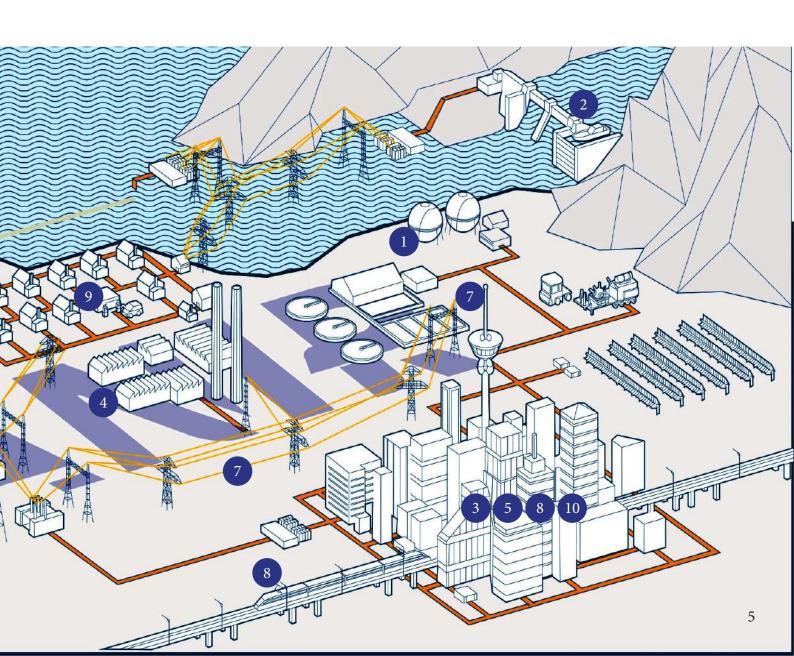


# Earthing

The combination of Furse earth electrodes, clamps, conductors and equipotential bonding bars which provide lightning and transient overvoltage energy with an effective, low resistance route from lightning protection system to earth.

#### Including:

- Earth rods & conductor systems
- Mechanical earth clamps & bonds
- FurseWELD exothermic welding
- Earth bars & equipotential bonding
- 6. Government & public sector
- 7. Utilities
- 8. Rail & infrastructure
- 9. Residential
- 10. Commercial construction



in order to protect the health of people, equipment and devices against the risk of short circuit or lightning To hieve this, all devices, equipment and metal structures of suitable metal conductors must be connected to the earth network, which consists of copper wires, earth rods, clamps and connections, etc. so that when the connection occurs. Short or lightning currents are transmitted to the ground and neutralized in this way.

#### Hard copper earth rod

Code: AGR-CU

Standard: BS EN 50164, IEC 62561

These rods are made of pure tensile copper with grade C102 and C102 according to the BS EN 12163 standard. These rods are used in parts that need corrosion resistance and long life and soils PH that are below 3 or above 8.



PART NUMBER	LENGTH(mm)	DIAMETER <sub>[mm]</sub>	THEARD SIZE(mm)	MATERIAL
AGR-CU 16/1200	1200	16	M10	
AGR-CU 16/1500	1500	16	M10	
AGR-CU 16/2000	2000	16	M10	COPPER
AGR-CU 20/1200	1200	20	M14	COLLEK
AGR-CU 20/1500	1500	20	M14	
AGR-CU 20/2000	2000	20	M14	

#### Stainless steel earth rod

**Code: AGR-SS** 

Standard: BS EN 50164, IEC 62561

These rods are made of stainless steel with grades 304 and 316 according to the standard BS EN 50164. These rods have a long life and show good corrosion resistance in soils PH that are less than 3 or higher than 8.



PART NUMBER	LENGTH <sub>(mm)</sub>	DIAMETER(mm)	THEARD SIZE(mm)	MATERIAL
AGR-SS 16/1200	1200	16	M10	
AGR-SS 16/1500	1500	16	M10	
AGR-SS 16/2000	2000	16	M10	STEEL
AGR-SS 20/1200	1200	20	M14	01222
AGR-SS 20/1500	1500	20	M14	
AGR-SS 20/2000	2000	20	M14	

#### **Copperband earth rod**

**Code: AGR-SCU** 

Standard: UL 467, IEC 62561

In this method, first the steel core is acid washed, deoxidized and degreased, then pure copper with a high purity of 99.9% is shown with very high adhesion on the steel core.



PART NUMBER	LENGTH(mm)	DIAMETER(mm)	BODY DIAMETER <sub>(mm)</sub>	MATERIAL
AGR-SCU 16/1200	1200	16	14.2	
AGR-SCU 16/1500	1500	16	14.2	
AGR-SCU 16/2000	2000	16	14.2	COPPER
AGR-SCU 20/1200	1200	20	17.2	COLLEK
AGR-SCU 20/1500	1500	20	17.2	
AGR-SCU 20/2000	2000	20	17.2	



#### Side accessories of earth rods

**Dowel** 

Code: ADO

Standard: BS 970



This product is produced in full thread and is used to obtain more lengths and to connect several hard copper earth rods or stainless steel earth rods to each other.

PART NUMBER	THEARD SIZE(mm)	ROD DIAMETER <sub>(mm)</sub>
ADO 16	M10	16
ADO 20	M14	20

Coupler

Code: ACP

Standard:IEC 62561



These fasteners are made of copper alloy with high corrosion resistance and strength and also prevent the threads from being damaged when hammering the earth rod.

PART NUMBER	THEARD SIZE(inch)	ROD DIAMETER(mm)
ACP 16	5/8	16
ACP 20	3/4	20

**Driving Studs** 

**Code: ASP** 

Standard: BS 970



Allen shock absorber, which is produced from highstrength steel, is used for easy hammering and to prevent damage to the threads of hard copper earth rod and stainless steel earth rod.

PART NUMBER THEARD SIZE[mm]		ROD DIAMETER <sub>(mm)</sub>
ASP 16	M10	16
ASP 20	M14	20

**Driving Studs** 

Code: ASC

Standard: BS 970



In order to easily crush and prevent damage to the threads of hard copper earth rod and stainless steel earth rod, a cup shock absorber made of highstrength heat-treated steel is used.

PART NUMBER	ROD DIAMETER(mm)
ASC 16	16
ASC 20	20

**Driving Spikes** 

Code: AST1

Standard: BS 970



Made of high strength heat-treated steel, which is used for easy crushing and to prevent damage to the earth rod threads.

PART NUMBER	THEARD SIZE(inch)	ROD DIAMETER(mm)
AST1-16	5/8	16
AST1-20	3/4	20

**Driving Spikes** 

Code: AST2

Standard: BS 970



High strength heat treated steel is used to facilitate the conduction of hard copper earth rods and stainless steel earth rods into the ground.

PART NUMBER	THEARD SIZE(mm)	ROD DIAMETER[mm]
AST2-16	M10	16
AST2-20	M14	20

## **Rod to Strand Clamp**

Code: ACG1

**Standard: BS EN 50164, UL 467** 

The Rod To Strand Clamp when wire for earthing is used connects Earth Rods to stranded conductor.





PART NUMBER	WIRE SIZE[mm <sup>2</sup> ]	ROD DIAMETER(mm)	MATERIAL
ACG1	50-240	16-20	Brass

#### **Rod to Strand Clamp**

Code: ACG2

**Standard: BS EN 50164, UL 467** 

Rod To Tape Type Clamps (U Bolt Double Plate Type) join conductor tape to the earth electrode/rebar without the need to drill the tape.





PART NUMBER	WIRE SIZE <sub>(mm²)</sub>	BELT SIZE <sub>(mm²)</sub>	ROD DIAMETER <sub>(mm)</sub>	MATERIAL
	46	20*3	46	
ACG2	16 & 70	25*3	16 & 20	Brass
	70	30*3	20	

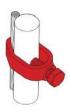
## **Rod to Strand Clamp**

Code: ACG3

**Standard: BS EN 50164, UL 467** 

Rod To Cable Clamps are used to join various sizes of cable to the earth electrode.





PART NUMBER	WIRE SIZE(mm²)	ROD DIAMETER(mm)	MATERIAL
ACG3-16/70	16-70	16	
ACG3-20/120	50-120	20	Brass
ACG3-20/185	70-185	20	



### **Belt connection clamp**

Code: ACB1

Standard: BS EN 50164

Metallic Clips are designed for securing lightning conductors to flat surfaces. They are suitable for use in Lightning Protection Systems.





PART NUMBER	BELT SIZE(mm <sup>2</sup> )	MATERIAL
ACB1-20*3	20*3	Brass
ACB1-25*3	25*3	Brass

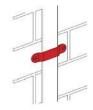
## **Straps Clamp**

Code: ACB2

Standard: BS EN 50164

Metal Tape Clips hold the lightning protection tape flush to the surface and are fixed using two screws. They are only suitable for use with bare tape.





PART NUMBER	BELT SIZE(mm²)	MATERIAL
ACB2-25*3	20*3 & 25*3	Copper
ACB2-30*3	30*3	&
ACB2-50*5	50*5	Steel

### **Square Clamps**

**Code: ACDB** 

Standard: BS EN 50164

Square Clamps are designed for a four-way connection and are suitable for crossing over tapes, straight through joints, or 'T' connections to form a continuous network of tapes. Countersunk hole in the base for fixing the clamp in place.





PART NUMBER	WIRE SIZE(mm²)	MATERIAL
ACDB 20*3	20*3	Brass
ACDB 25*3	25*3	Brass
ACDB 30*3	30*3	Brass

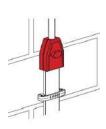
# Test Clamps

Code: ACWB1

Standard: BS EN 50164

Test Clamps form a disconnecting joint between either 8mm diameter and 8mm diameter lightning protection conductor or 8mm diameter and 25 x 3mm lightning protection conductor.





PART NUMBER	WIRE SIZE(mm²)	BELT SIZE <sub>(mm²)</sub>	MATERIAL
ACWB1-50/25*3	50		
ACWB1-70/25*3	70	20*3 25*3	
ACWB1-95/25*3	95		Brass
ACWB1-50/30*3	50		Brass
ACWB1-70/30*3	70	30*3	
ACWB1-95/30*3	95		

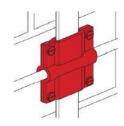
**Square Clamps (Flat to Circular Conductor)** 

**Code: ACWB2** 

Standard: BS EN 50164

Square Clamps provide a four way connection and are suitable for crossing over tapes and cables in straight-through joints or 'T' connections to form a continuous cable network for the earthing or lightning protection system.





PART NUMBER	WIRE SIZE(mm²)	BELT SIZE <sub>(mm²)</sub>	MATERIAL
ACWB2 35/25*3	35	20*3 & 25*3	
ACWB2 50/25*3	50	20*3 & 25*3	
ACWB2 70/25*3	70	20*3 & 25*3	Brass
ACWB2 95/25*3	95	20*3 & 25*3	
ACWB2 120/25*3	120	20*3 & 25*3	

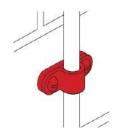
**Heavy Duty Metallic Cable Sad** 

Code: ACW1

Standard: BS EN 50164

Heavy Duty Metallic Cable Saddles are suitable for use in both Lightning Protection and Earthing Systems.





PART NUMBER	WIRE SIZE(mm²)	MATERIAL
ACW1-35	35	Brass
ACW1-50	50	Brass
ACW1-70	70	Brass
ACW1-95	95	Brass
ACW1-120	120	Brass



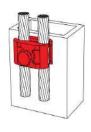
## **Clamp connecting two wires in parallel**

Code: ACW2

Standard: UL 467

Designed to provide low resistance parallel joints in solid circular conductor networks. Manufactured from high quality alloys of either copper or aluminium for excellent corrosion resistance





PART NUMBER	WIRE SIZE(mm²)	TWIST SIZE <sub>(mm)</sub>	MATERIAL
ACW2-185	35-185	M10	Brass
ACW2-300	120-300	M12	Brass

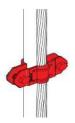
# Rod to wire clamp

Code: ACW3

Standard: BS EN 50164

Cross connector for round conductors and round conductor rod 8-10.





PART NUMBER	BELT SIZE <sub>(mm²)</sub>	ROD DIAMETER(mm)	MATERIAL
ACW3	30*16	8	Connor
ACWS	30*16	10	Copper

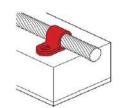
## **Cable Clips (Solid Circular Conductor)**

Code: ACW4

Standard: BS EN 50164

Cable Clips are a simple solution for solid circular conductors to flat surfaces.





PART NUMBER	WIRE SIZE(mm <sup>2</sup> )	MATERIAL
ACW4-16	16	
ACW4-25	25	
ACW4-35	35	
ACW4-50	50	
ACW4-70	70	Copper
ACW4-95	95	
ACW4-120	120	
ACW4-185	185	
ACW4-240	240	

#### **Clamp connecting two wires in parallel**

Code: ACPW1

Standard: UL 467

Designed to provide resistance parallel joints in solid circular conductor networks. Manufactured from high quality alloys of either copper or aluminium for excellent corrosion resistance.





PART NUMBER	WIRE SIZE(mm²)	TWIST SIZE(mm)	MATERIAL
ACPW1-35/70	35-70	M6	Brass
ACPW1-95/185	95-185	M8	DIASS

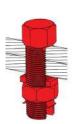
### **Split Bolt Connectors**

**Code: ACPW2** 

Standard: UL 467

The SBC connecting clamp used to connect two parallel wires of different sections to each other. This clamp is produced from extruded ingots by machining method. In the production of all components of this product, a special copper alloy has been used.





PART NUMBER	WIRE SIZE(mm²)	MATERIAL
ACPW2-35	16-35	
ACPW2-70	50-70	D
ACPW2-120	95-120	Brass
ACPW2-185	150-185	

#### **Square Clamps (Circular Conductor)**

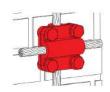
**Code: ACDW** 

Standard: UL 467

Square Clamps provide a four way connection and are suitable for crossing over lightning protection cables in straight through joints or 'T' connections to form a continuous cable network. Countersunk hole in the base for fixing the clamp in place.







PART NUMBER	WIRE SIZE(mm²)	BELT SIZE <sub>(mm<sup>2</sup>)</sub>	MATERIAL
ACDW 35&35	35	35	
ACDW 35&50	35	50	
ACDW 35&70	35	70	
ACDW 35&95	35	95	
ACDW 35&120	35	120	
ACDW 50&50	50	50	
ACDW 50&70	50	70	
ACDW 50&95	50	95	Brass
ACDW 50&120	50	120	
ACDW 70&70	70	70	
ACDW 70&95	70	95	
ACDW 70&120	70	120	
ACDW 95&95	95	95	
ACDW 95&120	95	120	
ACDW 120&120	120	120	

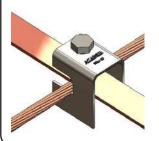


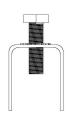
#### **Connection terminal**

Code: ACS1

Standard: BS EN 50164

Connection terminal for reiforced steels with diameters 8-14 mm and flat 30x5.





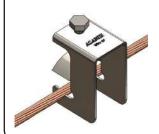
PART NUMBER	WIRE SIZE(mm²)	BELT SIZE(mm <sup>2</sup> )	MATERIAL
ACS1	8-14	30*5	Steel

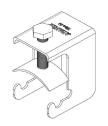
#### **Connection terminal**

Code: ACS2

Standard: BS EN 50164

Connection terminal for larg reiforced steels with diameters 16-37 mm and round conductors and flat conductors.





PART NUMBER	WIRE SIZE(mm²)	BELT SIZE <sub>(mm²)</sub>	MATERIAL
ACS2	10	30*3-4	Steel

#### **Roof conductor holder**

Code: ACS3

Standard: BS EN 50164

roof conductor holder for plastic film roofs. for flat roofs and round conductor rod 8 to 10.





PART NUMBER	WIRE SIZE(mm²)	MATERIAL
ACS3	8-10	Steel

#### arrester base to the mast clamp

Code: ACS4

Standard: BS EN 50164

Connection terminal for reiforced steels with diameters 8-14 mm and flat 30x5.





PART NUMBER	ROD DIAMETER(in)	MATERIAL
ACS4	1-5	Steel

# Clamp connecting two wires in parallel

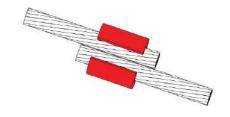
Code: ACCP

#### Standard: BS EN 50164

PART NUMBER	A (mm²)	B (mm²)
ACCP 11	6	6
ACCP 20	10	10
ACCP 26	4.5	10
ACCP 44	16	16
		10
ACCP 44	25	16
		25
		10
ACCP 44		16
ACCP 60	35	25
ACCP 76		35
		10
		16
ACCP 76	50	25
		35
ACCP 98		50
		10
ACCP 76		16
		25
ACCP 98	70	35
		50
ACCP 122		70
		10
ACCP 98		16
7,66, 35		25
ACCP 122	95	35
ACCI 122	33	50
ACCP 154		70
ACCP 190		95
7,100, 130		16
ACCP 122		25
		35
ACCP 154	120	50
ACCI 154	120	70
		95
ACCP 240		120
		16
ACCP 154		25
ACCF 134		35
	1	50
ACCP 190	150	70
ACCP 240	1	95
ACCF 240	-	
ACCP 288		120
		150
ACCP 154		16
	-	25
ACCP 190		35
4000000		50
ACCP 240	185	70
ACCP 288		95
		120
ACCP 365		150
		185

Designed to provide resistance parallel joints in solid circular conductor networks. Manufactured from high quality alloys of either copper or aluminium for excellent corrosion resistance.





PART NUMBER	A (mm²)	B (mm²)
		16
ACCB 240		25
ACCP 240  ACCP 288  ACCP 365  ACCP 450  ACCP 365  ACCP 365		35
	A (mm²)  240	50
ACCP 288 240	70	
ACCF 288		95
ACCD 365		120
ACCF 363		150
ACCD 450		185
ACCF 430		240
		6
		10
ACCP 365		16
		25
		35
		50
	300	70
ACCP 450		95
		120
	]	150
ACCP 560		185
		240
ACCP 700		300



### **Tower Earth Clamps**

Code: ASK

Standard: UL 467

Tower Earth Clamps are designed to bond either copper or aluminium conductor to flat metal surfaces.





PART NUMBER	WIRE SIZE(mm²)	TWIST SIZE(mm)	MATERIAL
ASK 70	35-70	M8*35	Brass
ASK 185	95-185	M10*40	Brass

#### **Tower Earth Clamps**

**Code: ADSK** 

Standard: UL 467

Connection terminal for larg reiforced steels with diameters 16-37 mm and round conductors and flat conductors.





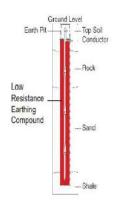
PART NUMBER	WIRE SIZE <sub>(mm²)</sub>	TWIST SIZE(mm)	MATERIAL
ADSK 70	35-70	M8*40	Brass
ADSK 185	95-185	M10*50	Brass

#### **Earth resistance reducing**

Code: IGR

The use of this powder in reducing the electrical resistance of the ground, preventing corrosion of copper plate and earthing joints, which has a very high ability to transmit current and increases the discharge efficiency of the entire earth system. This reducing powder is free of any organic acids and anaerobic bacteria. Earth resistance reducing powder is an exclusive formulation that has been improved as a result of years of research and experience of the R&D team of technical and executive engineers and is offered to the market in the most difficult conditions to provide the best necessary conditions:

- Mountainous areas
- To rocky lands
- Rocky lands
- Dry desert sandy soils
- Wet sandy beaches
- Sandy lands





Cable lug Code: ACI & ACLD Standard: UL 467



Compression Tube Lugs are manufactured from high conductive electrolytic copper and are tin plated for excellent corrosion resistance. We also supply Compression Tube Earth Lugs complete with two stud holes.

PART NUMBER	WIRE SIZE <sub>(mm²)</sub>	HOLE SIZE <sub>(mm)</sub>
ACL 6/6	6	6
ACL 6/8	6	8
ACL 10/6	10	6
ACL 10/8	10	8
ACL 16/8	16	8
ACL 16/10	16	10
ACL 25/8	25	8
ACL 25/10	25	10
ACL 35/8	35	8
ACL 35/10	35	10
ACL 50/8	50	8
ACL 50/10	50	10
ACL 70/10	70	10
ACL 70/12	70	12
ACL 95/10	95	10
ACL 95/12	95	12
ACL 120/10	120	10
ACL 120/12	120	12
ACL 150/12	150	12
ACL 150/14	150	14
ACL 185/12	105	12
ACL 185/14	185	14
ACL 240/14	240	14
ACL 240/16	240	16

PART NUMBER	WIRE SIZE <sub>(mm²)</sub>	CENTER TO CENTER(mm)	HOLE SIZE <sub>(mm)</sub>
ACLD 50/8-25		25	8
ACLD 50/8-40		40	8
ACLD 50/10-25	50	25	10
ACLD 50/10-40		40	10
ACLD 70/10-25		25	10
ACLD 70/10-40	70	40	10
ACLD 70/12-25	70	25	12
ACLD 70/12-40		40	12
ACLD 95/10-25		25	10
ACLD 95/10-40	95	40	10
ACLD 95/10-25	95	25	12
ACLD 95/10-40		40	12
ACLD 120/10-25		25	10
ACLD 120/10-40	120	40	10
ACLD 120/12-25	120	25	12
ACLD 120/12-40		40	12
ACLD 150/10-25		25	12
ACLD 150/10-40	150	40	12
ACLD 150/12-25	150	25	14
ACLD 150/12-40		40	14
ACLD 185/12-25		25	12
ACLD 185/12-40	105	40	12
ACLD 185/14-25	185	25	14
ACLD 185/14-40		40	14
ACLD 240/14-25		25	14
ACLD 240/14-40	240	40	14
ACLD 240/16-25	240	25	16
ACLD 240/16-40		40	16

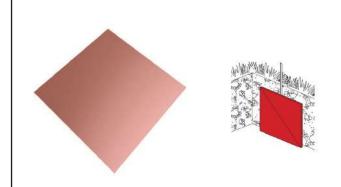


## **Copper plate**

**Code: ACEP** 

Standard: BS EN 12163

Solid Copper Earth Plates are used as protective earth part of an earthing network. They provide a long lasting solution where it is not possible to use deep driven Earth Rods.



PART NUMBER	SIZE (mm³)	MATERIAL
ACEP 503	500*500*3	
ACEP 505	500*500*5	
ACEP 603	600*600*3	
ACEP 605	600*600*5	Canada
ACEP 663	660*660*3	Copper
ACEP 665	660*660*5	
ACEP 1063	1000*660*3	
ACEP 1065	1000*660*5	

# **Copper Tape**

Code: ABE

Standard: BS EN 13602

Flexible copper bars is produced from annealed copper wire strands with a purity of over 99.9%.







PART NUMBER	BELT SIZE (mm <sup>2</sup> )	LENGTH <sub>(mm)</sub>	MATERIAL
ABE 2022	20*2	200	
ABE 2024	20 2	400	
ABE 2032	20*3	200	
ABE 2034	2013	400	
ABE 2522	25*2	200	Cannar
ABE 2524		400	Copper
ABE 2532	0.5%0	200	
ABE 2434	25*3	400	
ABE 3032	30*3	200	
ABE 3034	50°3	400	

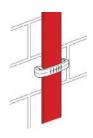
# **Copper Tape**

Code: ACOB

Standard: BS EN 13601

Copper Tape is embossed for identification and is manufactured from high conductivity annealed copper.





PART NUMBER	BELT SIZE (mm²)	MATERIAL
ACOB 20*3	20*3	
ACOB 25*3	25*3	
ACOB 30*3	30*3	Copper
ACOB 50*5	50*5	
ACOB 60*5	60*5	

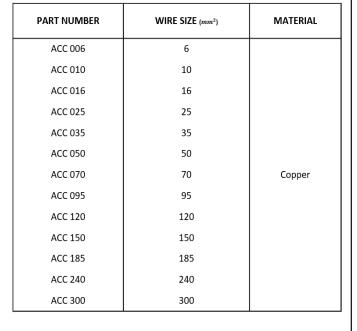
## **Copper earth wires**

**Code: ACC** 

Standard: BS EN 13602

Copper Cable (Bare stranded) is suitable for earthing applications.





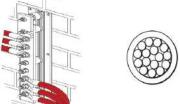
### Copper earth cable

**Code: AYGC** 

Standard: BS EN 60228

Stranded Copper Cable is used as earth continuity conductors, equipment tails etc. as part of an earthing system.



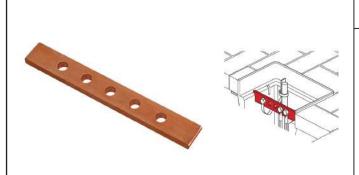


PART NUMBER	WIRE SIZE <sub>(mm²)</sub>	MATERIAL
AYGC 006	6	
AYGC 010	10	
AYGC 016	16	
AYGC 025	25	
AYGC 035	35	
AYGC 050	50	Conner
AYGC 070	70	Copper
AYGC 095	95	
AYGC 120	120	
AYGC 150	150	
AYGC 185	185	
AYGC 240	240	



## Earth busbars Code: ABET Standard: BS EN 13601

Inspection Pit Earth Bars are used to facilitate testing of the earth electrode or earthing system.

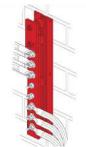


PART NUMBER	UMBER OF HOLE(mm)	BELT SIZE <sub>(mm³)</sub>	MATERIAL
ABET 2	4	160*30*3	
ABET 3	5	200*30*3	
ABET 4	6	240*50*5	
ABET 5	7	280*50*5	6
ABET 6	8	320*50*5	Copper
ABET 8	10	400*50*5	
ABET 10	12	480*50*5	
ABET 12	14	560*50*5	

## Earth terminals Code: AET1 Standard: BS EN 13601

Earth Bars with a Single Disconnecting Link are supplied with a powder coated base and M10 connections as standard.

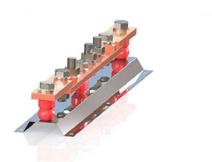


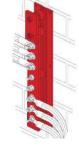


PART NUMBER	UMBER OF HOLE <sub>(mm)</sub>	BELT SIZE(mm)	MATERIAL
AET1-2	2	160*30*3	
AET1-3	3	200*30*3	
AET1-4	4	240*50*5	
AET1-5	5	280*50*5	6
AET1-6	6	320*50*5	Copper
AET1-8	8	440*50*5	
AET1-10	10	520*50*5	
AET1-12	12	600*50*5	

# Earth terminals Code: AET2 Standard: BS EN 13601

Earth Bars with Twin Disconnecting Links are supplied with a powder-coated base and M10 connections as standard.





PART NUMBER	UMBER OF HOLE(mm)	BELT SIZE <sub>(mm)</sub>	MATERIAL
AET2-3/2	3	350*50*5	
AET2-4/2	4	390*50*5	
AET2-5/2	5	430*50*5	
AET2-6/2	6	470*50*5	Copper
AET2-8/2	8	590*50*5	
AET2-10/2	10	670*50*5	
AET2-12/2	12	750*50*5	

# **Lightning protection system**

Lightning is one of the most mysterious phenomena of creation, which, while beautiful, is very destructive and has caused many financial and human losses throughout the history of human life. Lightning is caused by electrostatic discharge between the cloud and the ground.

In general, the lightning protection system is divided into two parts: external protection and internal protection: External protection: a set of measures to prevent direct impact and reduce the damage caused by it (lightning protection system)

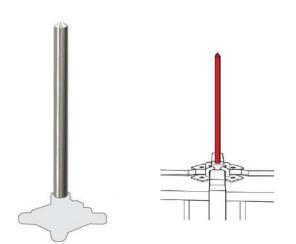
Internal protection: a set of measures to prevent the effects of discharge and transmission of lightning current (bonding and arresting)

#### **Elevation Rods**

Code: ALR

**Standard: BS EN 50164, UL 96** 

Elevation Rods are designed to be used with either the standard Air Terminal Base, Multi Purpose Base or the Side Mounted Brackets and the Multi-Point Air Terminal.



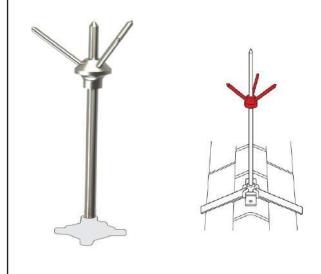
PART NUMBER	ROD LENGTH <sub>(mm)</sub>	ROD DIAMETER <sub>(mm)</sub>	MATERIAL
ALR 16/500	500	16	
ALR 16/1000	1000	16	
ALR 16/1200	1200	16	
ALR 16/1500	ALR 16/1500 1500	16	
ALR 16/2000	2000	16	Ctool
ALR 20/500	500	20	Steel
ALR 20/1000	1000	20	
ALR 20/1200	1200	20	
ALR 20/1500	1500	20	
ALR 20/2000	2000	20	

### **Elevation Rods**

**Code: AMLR** 

**Standard: BS EN 50164, UL 96** 

Multi Points are designed to be used with the Elevation Rod and provide a traditional aesthetic appearance.



PART NUMBER	ROD LENGTH <sub>(mm)</sub>	ROD DIAMETER <sub>(mm)</sub>	MATERIAL
AMLR 16/500	500	16	
AMLR 16/1000	1000	16	
AMLR 16/1200	1200	16	
AMLR 16/1500	1500	16	
AMLR 16/2000	2000	16	Steel
AMLR 20/500	500	20	Steel
AMLR 20/1000	1000	20	
AMLR 20/1200	1200	20	
AMLR 20/1500	1500	20	
AMLR 20/2000	2000	20	



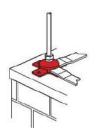
## Surge arrester holders

Code: ACSH

Standard: BS EN 50164

Terminal Bases are designed to be used with Azanir Air Terminals and Elevation Rods as part of a traditional lightning protection system.





PART NUMBER	BELT SIZE <sub>(mm²)</sub>	THREAD SIZE <sub>(mm)</sub>	ROD DIAMETER <sub>(mm)</sub>	WIRE SIZE <sub>(mm²)</sub>
ACSH16/25*3	20*3	M16		
ACSH 16/25*3	25*3	M16	16	
ACSH 16/30*3	30*3	M16		25
ACSH20/25*3	20*3	M20		35
ACSH 20/25*3	25*3	M20	20	
ACSH 20/30*3	30*3	M20		

## Surge arrester holders

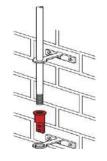
**Code: ASSH** 

Standard: BS EN 50164

Side Mounted Rod Brackets are designed to be installed to the side of the building where it is not possible to fit a conventional Air Terminal Base.

Rod To Tape Couplers is used in conjunction with Side Mounted Brackets.





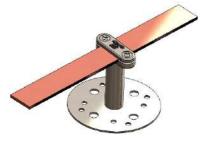
	PART NUMBER	HOLDER SIZE(mm)	ROD DIAMETER(mm)	MATERIAL
Γ	ASSH 16	16	16	Steel
	ASSH 20	20	20	Steel

#### **Back Plate Holdfasts**

**Code: ARCH** 

Standard: BS EN 50164

Back Plate Holdfasts maintain a set distance of 75mm between the lightning protection conductor and the surface of the structure being protected (when required).





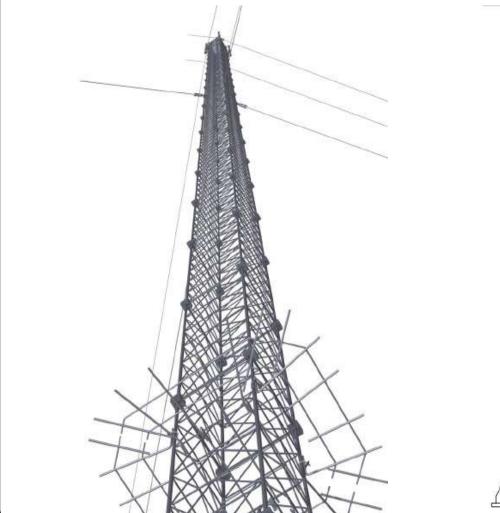
PART NUMBER	INSTALATION HEIGHT(mm)	ROD DIAMETER <sub>(mm)</sub>	MATERIAL	
ARCH 60	60	8-10	Steel	
ARCH 100	100	8-10		

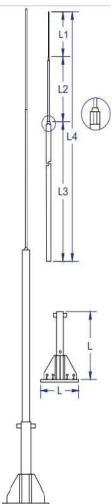
The masts Code: A.MASTS Standard: ASTM A123

These masts are made of steel pipes and are heated according to the ASTM A123 standard galvanized.



PART NUMBER	MODEL	HEGHT <sub>(mm)</sub>	TYPE OF STRUCTURE	TYPE
STT	Telescopic	2-8	Pipe	
ST3L	Tripod	6-60	Pipe and corner	Self static
ST4L	Stool	24-160	corner	
MTT	Telescopic	12-36	Plate	Monopol
MMDT	Multi dimensional	12-36	Plate	ivionopoi
GT3	Three faced	3-140	Rebar pipe	Inhihitian
GT4	Tetrahedron	3-140	Rebar pipe	Inhibition







Combustion welding is a type of welding that is used in building earthing systems. This welding model is applicable for connecting copper wire in different sizes to different types of copper rods, earth plate, structure, reinforcement and pipe to each other and its equipment is easily portable.



## **Back Plate Holdfasts**

**Code: ARCH** 

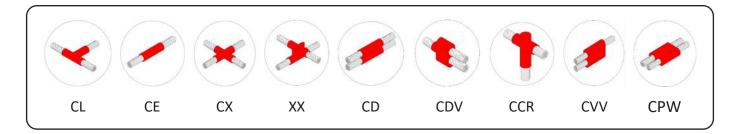
Standard: BS EN 50164

Welding powder or cod powder is a mixture of aluminum powder and copper oxide that is packaged in different weights and the weight of the welding powder depends on the size of the cod mold.

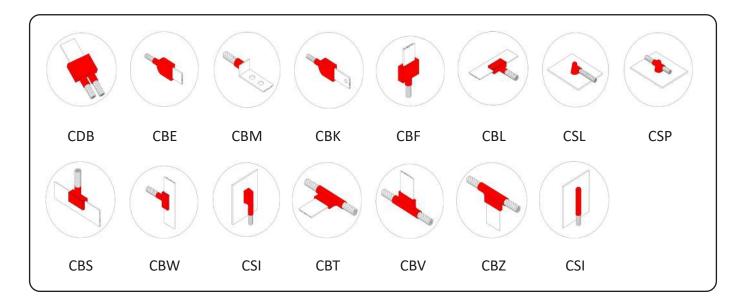


PART NUMBER	Number in the box	Weight of powder (gr)
AP-32	12	32
AP-45	12	45
AP-65	12	65
AP-90	12	90
AP-115	12	115
AP-150	12	150
AP-200	12	200
AP-250	12	250
AP-10000	1	10000

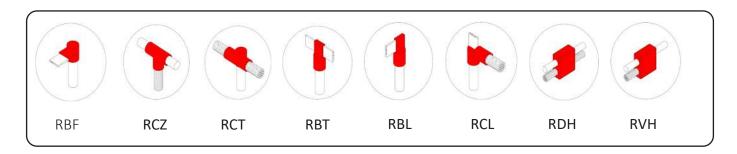
## **Weld wire to wire**



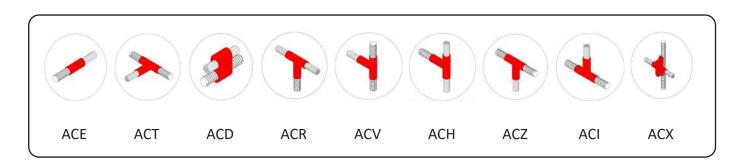
# Weld the wire to the strap and plate



# Weld the wire and strap to the ground rod

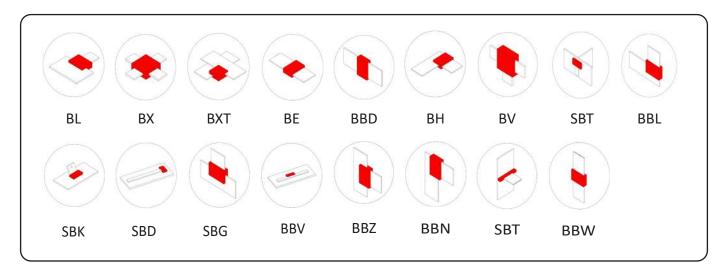


## Weld the wire to the armature





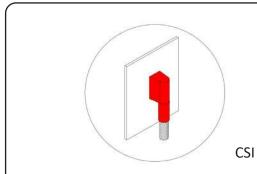
# Weld the straps to the straps and plate



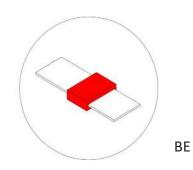
## Weld the wire to the pipe



# Table for determining the amount of powder, knobs and molds

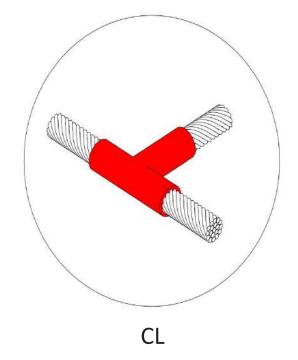


PART NUMBER	Weight of powder $(gr)$	A(mm <sup>2</sup> )	Knob code
CSI 25	65	25	HC 60
CSI 35	65	35	HC 60
CSI 50	90	50	
CSI 70	90	70	
CSI 95	115	95	
CSI 120	115	120	HC 80
CSI 150	150	150	
CSI 185	200	185	
CSI 240	250	240	



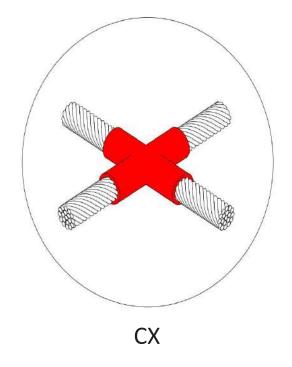
PART NUMBER Weight of powder(gr)  $B_{(mm)}$ Knob code BE 20\*3/20\*3 20\*3 20\*3 65 BE 25\*3/25\*3 25\*3 65 25\*3 BE 25\*5/25\*5 90 25\*5 25\*5 BE 30\*3/30\*3 90 30\*3 30\*3 HC 80 BE 30\*5/30\*5 115 30\*5 30\*5 BE 40\*3/40\*3 90 40\*3 40\*3 BE 40\*5/40\*5 150 40\*5 40\*5 BE 40\*10/40\*10 2\*150 40\*10 40\*10

25

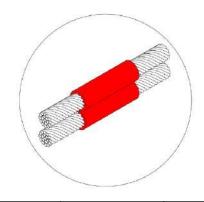


PART NUMBER	Weight of powder(gr)	A(mm <sup>2</sup> )	B(mm <sup>2</sup> )	Knob code
CL 16/16	45	16	16	HC 60
CL 25/16	45		16	
CL 25/25	45	25	25	HC 60
CL 35/16	45		16	
CL 35/25	45	35	25	HC 60
CL 35/35	65		35	
CL 50/16	65		16	
CL 50/25	65		25	
CL 50/35	65	50	35	HC 60
CL 50/50	90		50	
CL 70/25	65		25	
CL 70/35	65		35	
CL 70/50	90	70	50	HC 60
CL 70/70	90		70	
CL 70/95	90		95	
CL 95/25	90		25	
CL 95/35	90		35	
CL 95/50	90		50	HC 60
CL 95/70	90	95	70	
CL 95/95	115		95	
CL 95/120	150		120	HC 80
CL 120/25	90		25	
CL 120/35	90		35	
CL 120/50	90		50	HC 60
CL 120/70	90	120	70	
CL 120/95	115		95	
CL 120/120	150		120	HC 80
CL 150/35	115		35	
CL 150/50	115		50	
CL 150/70	115		70	
CL 150/95	150	150	95	HC 80
CL 150/120	150		120	
CL 150/150	200		150	
CL 150/185	200		185	
CL 185/35	115		35	
CL 185/50	115		50	
CL 185/70	150		70	
CL 185/95	150	185	90	HC 80
CL 185/120	200		120	
CL 185/150	200		150	
CL 185/185	200		185	
CL 240/35	150		35	
CL 240/50	150		50	
CL 240/70	150		70	
CL 240/95	150		95	
CL 240/120	200	240	120	HC 80
CL 240/150	200		150	
CL 240/185	250		185	
CL 240/240	2*150+45		240	
	_ === .5			

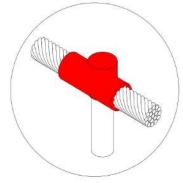




PART NUMBER	Weight of powder(gr)	A(mm <sup>2</sup> )	B(mm <sup>2</sup> )	Knob code
CX 16/16	45	16	16	HC 60
CX 25/16	45	25	16	116.60
CX 25/25	45	25	25	HC 60
CX 35/16	65		16	
CX 35/25	65	35	25	HC 60
CX 35/35	65		35	
CX 50/16	90		16	
CX 50/25	90		25	
CX 50/35	90	50	35	HC 60
CX 50/50	90		50	
CX 70/25	115		25	
CX 70/35	115		35	
CX 70/50	115	70	50	HC 60
CX 70/70	115	,,,	70	110 00
CX 70/95	150		95	
CX 95/25	115		25	
CX 95/35	115		35	116.60
CX 95/50	115	95	50	HC 60
CX 95/70	150		70	
CX 95/95	150		95	
CX 95/120	200		120	HC 80
CX 120/25	115		25	
CX 120/35	115		35	
CX 120/50	150	120	50	HC 80
CX 120/70	150		70	
CX 120/95	200		95	
CX 120/120	200		120	
CX 150/35	150		35	
CX 150/50	150		50	
CX 150/70	150		70	
CX 150/95	200	150	95	HC 80
CX 150/120	250		120	
CX 150/150	250		150	
CX 150/185	250		185	
CX 185/35	115		35	
CX 185/50	200		50	
CX 185/70	200		70	
CX 185/95	200	185	90	HC 80
CX 185/120	250		120	
CX 185/150	250		150	
CX 185/185	150+115		185	
CX 240/35	200		35	
CX 240/50	250		50	
CX 240/70	250		70	
CX 240/95	250		95	
CX 240/120	150+115	240	120	HC 80
CX 240/150	2*150		150	
CX 240/185	2*150		185	
CX 240/240	2*150		240	



CD

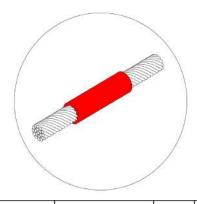


RCT

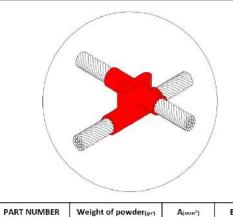
PART NUMBER	Weight of powder $(gr)$	A(mm <sup>2</sup> )	B(mm <sup>2</sup> )	Knob code
CD 16/16	65	16	16	HC 60
CD 25/16	65	25	16	HC 60
CD 25/25	65	23	25	110 00
CD 35/16	65		16	
CD 35/25	65	35	25	HC 60
CD 35/35	65		35	
CD 50/16	65		16	
CD 50/25	65	50	25	HC 60
CD 50/35	95	30	35	
CD 50/50	115		50	HC 80
CD 70/25	90		25	
CD 70/35	90	70	35	HC 80
CD 70/50	115	70	50	110 80
CD 70/70	115		70	
CD 95/25	115		25	
CD 95/35	115		35	
CD 95/50	115	95	50	HC 80
CD 95/70	150		70	
CD 95/95	150		95	
CD 120/25	150		25	
CD 120/35	150		35	
CD 120/50	150	120	50	HC 80
CD 120/70	150	120	70	116 00
CD 120/95	200		95	
CD 120/120	250		120	
CD 150/70	150		70	
CD 150/95	200	150	95	HC 80
CD 150/120	200	150	120	116 00
CD 150/150	250		150	
CD 185/50	150		50	
CD 185/70	150		70	
CD 185/95	200	185	90	HC 80
CD 185/120	200	133	120	11000
CD 185/150	250		150	
CD 185/185	250		185	
CD 240/70	200		70	
CD 240/95	250		95	
CD 240/120	250	240	120	HC 80
CD 240/150	2*150	2 10	150	
CD 240/185	2*150		185	
CD 240/240	2*150		240	

PART NUMBER	Weight of powder $(gr)$	A(mm <sup>2</sup> )	B(mm <sup>2</sup> )	Knob code
RCT 14.5/16	115		16	
RCT 14.5/35	115		35	
RCT 14.5/50	115		50	
RCT 14.5/70	115		70	
RCT 14.5/95	115	14.5	95	HC 80
RCT 14.5/120	150		120	
RCT 14.5/150	200		150	
RCT 14.5/185	200		185	
RCT 14.5/240	200		240	
RCT 16/16	115		16	
RCT 16/35	115		35	
RCT 16/50	115		50	
RCT 16/70	115		70	
RCT 16/95	115	16	95	HC 80
RCT 16/120	150		120	
RCT 16/150	200		150	
RCT 16/185	200		185	
RCT 16/240	200		240	
RCT 17.5/16	115		16	
RCT 17.5/35	115		35	
RCT 17.5/50	115		50	
RCT 17.5/70	115		70	
RCT 17.5/95	115	17.5	95	HC 80
RCT 17.5/120	150		120	
RCT 17.5/150	200		150	
RCT 17.5/185	200		185	
RCT 17.5/240	250		240	
RCT 20/16	115		16	
RCT 20/35	115		35	
RCT 20/50	115		50	
RCT 20/70	115		70	
RCT 20/95	115	20	95	HC 80
RCT 20/120	150		120	
RCT 20/150	200		150	
RCT 20/185	200		185	
RCT 20/240	250		240	





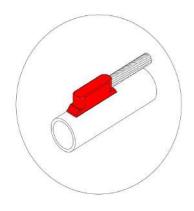




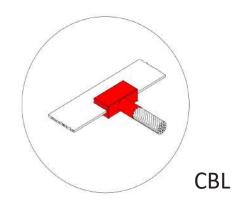


PART NUMBER	Weight of powder $(gr)$	A(mm <sup>2</sup> )	B(mm <sup>2</sup> )	Knob code
CE 16/16	32	16	16	HC 60
CE 25/16	32	25	16	HC 60
CE 25/25	32	25	25	HC 60
CE 35/16	45		16	
CE 35/25	45	35	25	HC 60
CE 35/35	45		35	
CE 50/16	45		16	
CE 50/25	45	50	25	116.60
CE 50/35	45	50	35	HC 60
CE 50/50	45		50	
CE 70/25	65		25	
CE 70/35	65	70	35	116.60
CE 70/50	65	70	50	HC 60
CE 70/70	65		70	
CE 95/25	65		25	
CE 95/35	65		35	
CE 95/50	65	95	50	HC 80
CE 95/70	90		70	
CE 95/95	90		95	
CE 120/25	90		25	
CE 120/35	90		35	
CE 120/50	90	400	50	
CE 120/70	115	120	70	HC 80
CE 120/95	115		95	
CE 120/120	115		120	
CE 150/70	115		70	
CE 150/95	115	450	95	110.00
CE 150/120	115	150	120	HC 80
CE 150/150	115		150	
CE 185/50	115		50	
CE 185/70	115		70	
CE 185/95	115	405	95	110.00
CE 185/120	150	185	120	HC 80
CE 185/150	150		150	
CE 185/185	150		185	
CE 240/70	150		70	
CE 240/90	150		90	
CE 240/120	200	240	120	110.00
CE 240/150	200	240	150	HC 80
CE 240/185	200		185	
CE 240/240	200		240	

PART NUMBER	Weight of powder(gr)	A(mm²)	B(mm²)	Knob code
XX 16/16	115	16	16	HC 80
XX 25/16	115	25	16	116.00
XX 25/25	115	25	25	HC 80
XX 35/16	115		16	
XX 35/25	115	35	25	HC 80
XX 35/35	115		35	
XX 50/16	115		16	
XX 50/25	115	50	25	
XX 50/35	115	50	35	HC 80
XX 50/50	150		50	
XX 70/25	115		25	
XX 70/35	150	70	35	116.00
XX 70/50	150	70	50	HC 80
XX 70/70	150		70	
XX 95/25	200		25	
XX 95/35	200		35	
XX 95/50	200	95	50	HC 80
XX 95/70	200		70	
XX 95/95	200		95	
XX 120/25	250		25	
XX 120/35	250		35	
XX 120/50	250	420	50	116.00
XX 120/70	250	120	70	HC 80
XX 120/95	250		95	
XX 120/120	250		120	
XX 150/70	250		70	
XX 150/95	300	150	95	HC 80
XX 150/120	300	150	120	HC 80
XX 150/150	300		150	
XX 185/50	250		50	
XX 185/70	250		70	
XX 185/95	300	105	95	116.80
XX 185/120	300	185	120	HC 80
XX 185/150	300		150	
XX 185/185	2*150+32		185	
XX 240/70			70	
XX 240/90			90	
XX 240/120		240	120	116.00
XX 240/150		240	150	HC 80
XX 240/185			185	
XX 240/240			240	



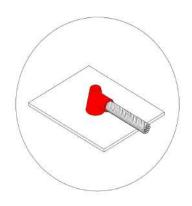




	PART NUMBER	Weight of powder $(gr)$	A(mm <sup>2</sup> )	B <sub>(mm)</sub>	Knob code
	Pc 16/002	32		2	
	Pc 16/004	32		4	
	Pc 16/006	32		6	
	Pc 16/008	32		8	
	Pc 16/010	32		10	
	Pc 16/012	32	16	12	Included
	Pc 16/018	32		18	
	Pc 16/020	32		20	
	Pc 16/024	32		24	
	Pc 16/034	32		34	
	Pc 16/040	32		40	
Γ	Pc 25/002	32		2	
	Pc 25/004	32		4	
	Pc 25/006	32		6	
	Pc 25/008	32		8	
	Pc 25/010	32		10	
	Pc 25/012	32	25	12	Included
	Pc 25/018	32		18	
	Pc 25/020	32		20	
	Pc 25/024	32		24	
	Pc 25/034	32		34	
L	Pc 25/040	32		40	
	Pc 35/002	32		2	
	Pc 35/004	32		4	
	Pc 35/006	32		6	
	Pc 35/008	32		8	
	Pc 35/010	32		10	
	Pc 35/012	32	35	12	Included
	Pc 35/018	32		18	
	Pc 35/020	32		20	
	Pc 35/024	32		24	
	Pc 35/034	32		34	
ļ	Pc 35/040	32		40	
	Pc 50/002	32		2	
	Pc 50/004	32		4	
	Pc 50/006	32		6	
	Pc 50/008	32		8	
	Pc 50/010	32		10	
	Pc 50/012	32	50	12	Included
	Pc 50/018	32		18	
	Pc 50/020	32		20	
	Pc 50/024	32		24	
	Pc 50/034	32		34	
	Pc 50/040	32		40	

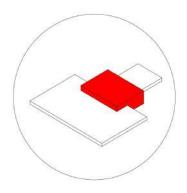
PART NUMBER	Weight of powder(gr)	A(mm <sup>2</sup> )	B(mm)	Knob code
CBL 16/20*3	90	16	20*3	HC 80
CBL 16/25*3	90	16	25*3	HC 80
CBL 25/20*3	90		20*3	
CBL 25/20*5	90	25	20*5	HC 80
CBL 25/25*3	90		25*3	
CBL 35/20*3	90		20*3	
CBL 35/20*5	90	35	20*5	HC 80
CBL 35/25*3	90		25*3	
CBL 50/20*3	90		20*3	
CBL 50/20*5	90		20*5	
CBL 50/25*3	90		25*3	
CBL 50/30*3	90	50	30*3	HC 80
CBL 50/40*3	90		40*3	
CBL 50/40*5	90		40*5	
CBL 70/20*3	90		20*3	
CBL 70/20*5	90		20*5	
CBL 70/25*3	90	70	25*3	HC 80
CBL 70/30*3	90	'0	30*3	
CBL 70/40*3	90		40*3	
CBL 70/40*5	90		40*5	
CBL 95/20*3	90		20*3	
CBL 95/25*3	90		25*3	
CBL 95/30*3	90	95	30*3	HC 80
CBL 95/40*5	90		40*5	
CBL 95/50*5	90		50*5	
CBL 120/25*5	90		25*5	
CBL 120/30*5	90		30*5	
CBL 120/50*5	90	120	50*5	HC 80
CBL 120/25*10	90	120	25*10	
CBL 120/30*10	90		30*10	
CBL 120/40*10	90		40*10	





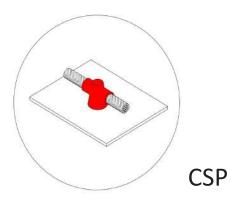
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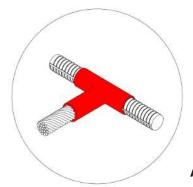
PART NUMBER	Weight of powder(gr)	$A_{(mm^2)}$	Knob code
CSL 25	65	16	
CSL 35	65	25	
CSL 50	90	35	Included
CSL 70	115	50	included
CSL 95	115	70	
CSL 120	115	95	



 $\mathsf{BL}$ 

PART NUMBER	Weight of powder(gr)	A(mm)	B(mm)	Knob code
BL 20*3/20*3	90	20*3	20*3	
BL 25*3/25*3	90	25*3	25*3	
BL 25*5/25*5	115	25*5	25*5	HC 80
BL 30*3/30*3	115	30*3	30*3	nc 80
BL 30*5/30*5	150	30*5	30*5	
BL 40*5/40*5	150	40*5	40*5	





ACT

PART NUMBER	Weight of powder $(gr)$	A(mm <sup>2</sup> )	B(mm <sup>2</sup> )	Knob code
ACT 10/16	90	Ø10	16	HC 80
ACT 10/25	90		25	
ACT 10/35	90		35	
ACT 10/50	115		50	
ACT 10/70	115		70	
ACT 10/95	115		95	
ACT 16/16	115	Ø16	16	HC 80
ACT 16/25	115		25	
ACT 16/35	150		35	
ACT 16/50	150		50	
ACT 16/70	150		70	
ACT 16/95	200		95	
ACT 20/16	150	Ø20	16	HC 80
ACT 20/25	150		25	
ACT 20/35	150		35	
ACT 20/50	200		50	
ACT 20/70	200		70	
ACT 20/95	200		95	
ACT 20/120	250		120	
ACT 22/16	150		16	
ACT 22/25	150	Ø22	25	HC 80
ACT 22/35	200		35	
ACT 22/50	250		50	
ACT 22/70	300		70	
ACT 22/95	350		95	
ACT 22/120	350		120	

PART NUMBER	Weight of powder $(gr)$	$A_{(mm^2)}$	Knob code
CSP 25	115	25	
CSP 35	115	35	
CSP 50	150	50	
CSP 70	150	70	Included
CSP 95	150	95	
CSP 120	200	120	
CSP 185	250	185	

