

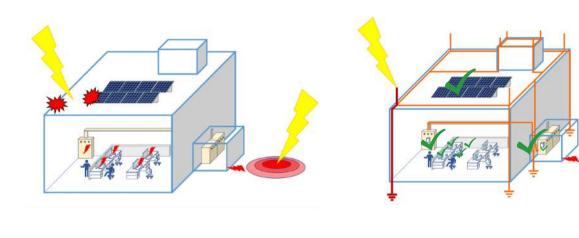


Lightning Protection System



Lightning is one of nature's most destructive and powerful phenomena. Which endangers people, property, buildings, and many operating systems.

Installing a lightning protection system is therefore a method to prevent or reduce damage from lightning to the building, electrical appliance and also helps to prevent fire or electric shock. The reliable lightning protection system must cover external lightning protection, effective grounding and surge protection of electrical and electronic systems.









About Us

Through a specialized and efficient team with direct expertise, knowledge, ability and experience of over 10 years.

We concentrate on providing excellent services, equipped to make design and consult, distribution, installation, testing, improvement, and maintenance to the system capable of maximum efficiency.

With an efficient teamwork, we are able to serve Total Quality Management to a variety of industries such as building, factory, warehouse, hospital, hotel and telecommunication.



BynimblE is a lightning protection brand. which is operated by nimble Supply & Service co., Ltd.. we are committed to providing high-quality products. That has been tested and certified according to international standard IEC and Iron and Steel Institute of Thailand (ISIT)



IEC Standard



ISIT Standard



Content

1	Tape			
1	Cable		1	-
1	Air Terminal			16
2	Tape Saddle	1		/
3	Adjustable Saddle For Cable			
3	Adjustable Saddle ForTape	2.5	(33)	[33]
4	Cable Support		100	
4	Tape Support			T.
4	Polypropylene Support	1	1	/
5	Square Tape Support			
5	Cable to Tape		123	100
5	Bi-Metallic Connector			
6	Stainless Steel Bolt	[-]	(6.3)	1
6	Galvanize Steel Plate	-		
7	Metal Sheet Clamp			
8	Copper Bond Ground Rod		and the same	1
9	Ground Rod to Cable Clamp			75
9	Pipe to Cable Clamp		100	\
9	Earth Point			1
10	Ground Bar Pit		/33	1:3
10	Ground Test Box			
11	Concrete Inspection Pit			1
11	Exothermic Welding One Time	Limi	1000	
12	Weld Metal Powder			
13	Graphite Mold		100	
14	Handle Clamp		J150	
14	Flint Igniter		100	1
14	Mold Brush	A.		
-155			1	



Tape



IEC 62561-2:2018

Code No.	Size (mm.)	Material
AT-253A	25 x 3	Aluminum
AT-254A	25 x 4	Aluminum
CT-253	25 x 3	Copper
CT-254	25 x 4	Copper

Application:

Used for conductor on lightning protection system. The Aluminum and copper is annealed for ease of use and has radiused edges.

Cable



Code No.	Size (mm.)	Materi al
BA-50	50	Aluminum
BA-70	70	Aluminum
BA-95	95	Aluminum
BA-120	120	Aluminum
BC-50	50	Copper
BC-70	70	Copper
BC-95	95	Copper
BC-120	120	Copper

Application:

Used for conductor on lightning protection system.

Air Terminal



C <mark>ode</mark> No.	Rod Dia' (in.)	Thread Dia' (mm.)	Rod Length (mm.)
AT-30A	5/8	15	300
AT-60A	5/8	15	600
AT-100A	5/8	15	1000
AT-150A	5/8	15	1500
AT-200A	5/8	15	2000





Air Terminal



Copper

ooppo.			
Code No.	Rod Dia' (in.)	Thread Dia'	Rod Length (mm.)
AT-30	5/8	15	300
AT-60	5/8	15	600
AT-100	5/8	15	1000
AT-150	5/8	15	1500
AT-200	5/8	15	2000

Application:

Al<mark>uminum air terminals and copper air terminals suitable</mark> for lightning protection network.

Tape Saddle



Aluminum Alloy

Code No.	Threaded Size (in.)	Tape Size (mm.)
TS-58253A	5/8	25 x 3
TS-58 <mark>254A</mark>	5/8	25 x 4
TS-34253A	5/8	25 x 3
TS-34254A	5/8	25 x 4

Copper Alloy

Code No.	Threaded Size (in.)	Ta <mark>pe</mark> Size (mm.)
TS-58253	5/8	25 x 3
TS-58254	5/8	25 x 4
TS-34253	5/8	25 x 3
TS-34254	5/8	25 x 4

Application:

Suitable for use with an air rod fixes onto the roof network of the lightning protection system connecting the cable to the air rod.







Adjustable Saddle for Tape





Aluminum Alloy

Code No.	Threaded Size (in.)	Cable Size (sq. mm.)
AST-58253A	5/8	25 x 3
AST-58254A	5/8	25 x 4
AST-34253A	3/4	25 x 3
AST-342 <mark>54A</mark>	3/4	25 x 4

Copper Alloy

Code No.	Threaded Size (in.)	Cable Size (sq. mm.)
AST-58253	5/8	25 x 3
AST-582 <mark>54</mark>	5/8	25 x 4
AST-3425 <mark>3</mark>	3/4	25 x 3
AST-34254	3/4	25 x 4

Adjustable Saddle for Cable



Aluminum Alloy

Code No.	Threaded Size (in.)	Cable Size (sq. mm.)
ASC-5870A	5/8	50 - 70
ASC-3470A	3/4	50 - 70

Copper Alloy

Code No.	Threaded Size (in.)	Cable Size (sq. mm.)
ASC-5870	5/8	50 - 70
ASC-3470	3/4	50 - 70

Application:

Adjustable saddle are suitable for use with an air rod fixes onto the roof network of the lightning protection system connecting the cable to the air rod.





Cable Support









Code No.	Cable S <mark>ize</mark> (sq. mm.)	Material
CS-70	50 - 70	Copper Alloy
CS-70A	50 - 70	Aluminum Alloy

^{*}Screw - Stainless Steel 304, Brass

Application:

Cable support are aluminum alloy or copper alloy for used secures the conductor to the wall surface of construction.

Tape Support





Code No.	Cable Size (sq. mm.)	Material
TS-253	25 x 3, 25 x 4	Copper Alloy
TS-253A	25 x 3, 25 x 4	Aluminum Alloy

^{*} Screw - Stainless Steel 304, Brass

Application:

Fix copper tape or aluminum tape conductors.

Polypropylene Support





Polypropylene (PP)

Code No.	Color	Weight / 100 pcs. (kg.)
PPS-Bk	Black	2.50
PPS-Wh	White	2.50

^{*}Note: Special color can be requested min 2,000 pcs.

Application:

Use as an insulator to support equipment.





Square Tape Support



Code No.	Cable Size (sq. mm.)	Material
STS-253	25 x 3, 25 x 4	Copper Alloy
STS-253A	25 x 3, 25 x 4	Aluminum Alloy

^{*}Screw - Stainless Steel 304, Brass

Application:

Fix copper tape or aluminum tape conductors.

Cable to Tape





Code No.	Tape Size (mm.)	Cable Size (sq. mm.)	Material
CTT-25370	25 x 3, 25 x 4	35 - 70	Copper Alloy
CTT-253120	25 x 3, 25 x 4	95 - 120	Copper Alloy
CTT-25370A	25 x 3, 25 x 4	35 - 70	Aluminum Alloy

^{*} Screw - Stainless Steel 304, Brass

Application:

Used to joint cable conductor with the tape conductor or cable conductor to down conductor for connector for lightning protection system.

Bi-Metallic Connector





Copper, Aluminum

Code No.	Size (mm.)	
BiM-80	Connector Length 80 mm.	
BiM-M6	Bi-Metallic Washer M6	
BiM-M8	Bi-Metallic Washer M8	
BiM-M10	Bi-Metallic Washer M10	
BiM-M12	Bi-Metallic Washer M12	
BiM-M16	Bi-Metallic Washer M16	





Stainless Steel Bolt



Stainless Steel 304

Code No.	Description
SSB-1458	Stainless Steel Bolt Taper Head Size 1/4" x 5/8"
SSB-20M5	Stainless Steel Bolt Size M5 x 20 mm
SSB-FN	Stainless Steel Flange Nut

Application:

Using with Cable Support, Tape Support, Square Tape Support, Polypropylene Support, Metal Sheet Clamp, Tape Saddle, Adjustable Saddle, Cable to Tape.

Galvanize Steel Plate



Hot Dip Galvanized Steel

Code No.	Dime	nsions (Man Man	
	L	w	Н	Using with
GSP-ASG	190	100	2	Adjustable Saddle
GSP-TSG	153	126	2	Tape Saddle

Application:

Using with adjustable Saddle and Tape Saddle.



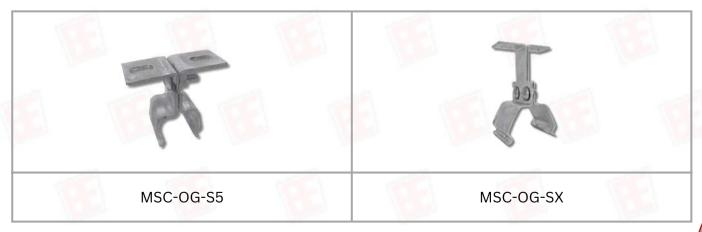


Metal Sheet Clamp

Material: Stainless Steel 304

			TIST
MSC-A-S5	MSC-R	MSC-A-L10	MSC-V-S5
MSC-A-L5	MSC-O-S6	MSC-U-S5	MSC-O-SX

Material: Hot Dip Galvanized Steel



^{*}No effect to roof structure: Puncture



Copper Bond Ground Rod

Ground rod copper bonded are made by molecularly bonding pure electrolytic copper onto a low carbon high tensile steel cores.

- High resistance to corrosion
- Stop corrosion, while providing the lowest possible resistance to ground
- Copper Jacket: Standard copper clad thickness not less than 254 Micron
- Bending: There shall be no evidence of cracking of the jacket.

They are made by copper high conductivity and low carbon steel core. Last longer drive easier and will not crack.



Standard Series

Code No.	Type	Rod Dia' (inch)	Rod Length (Ft.)
GRS-5810S	Standard	5/8	10
GRS-3410S	Standard	3/4	10
GRS-5810T	Thread	5/8	10
GRS-3410T	Thread	3/4	10
GRS-5810TT	Thread 2 side	5/8	10
GRS-341 <mark>0TT</mark>	Thread 2 side	3/4	10



Thread



Thread 2 side

UL Series

OL SCHOOL			
Code No.	Туре	Rod Dia' (inch)	Rod Length (Ft.)
GRUL-5810S	Standard	5/8	10
GRUL-3410S	Standard	3/4	10
GRUL-5810T	Thread	5/8	10
GRUL-3410T	Thread	3/4	10
GRUL-5810TT	Thread 2 side	5/8	10
GRUL-3410TT	Thread 2 side	3/4	10

Coupling

Code No.	Rod Dia' (inch.)
GRC-58T	5/8
GRC-34T	3/4







Ground Rod to Cable Clamp



Copper Alloy U Bolt, Nut - Brass

Code No.	Rod Dia' (inch)	Cable Size (sq. mm.)
GTC-5895	5/8	16 - 95
GTC-58185	5/8	70 - 185
GTC-34 <mark>70</mark>	3/4	16 - 70
GTC-34150	3/4	70 - 150

Application:

Clamp ground rod parallel to cable conductor.

Pipe to Cable Clamp



Copper Alloy

U Bolt, Nut - Brass

Code No.	Pipe Dia' (inch)	Cable Size (sq. mm.)
PTC-70	1 1/4 - 1 1/2	16 - 70
PTC-120	1 1/4 - 1 1/2	70 - 120

Application:

Clamp pipe parallel to one cable.

Earth Point



Copper Alloy

Code No.	No. of Hole	Length	Plate Siz	ze (mm.)
		(mm.)	L	W
EP-1	1	75	38	38
EP-2	2	75	70	35
EP-4	4	75	65	65

*Note: The quantity of holes can be changed. Depends on the requested.

Application:

Connect rebar to earth point.





Ground Bar Pit



Code No.	Hole Dia' (mm.)	No. of Terminals	
GBP-105	10	5	
GBP-107	10	7	

*Note: The quantity of holes can be changed. Depends on the requested.

Application:

Suitable for testing point in grounding system to separate connections with another inspection pit without welding.

Ground Test Box



Aluminum Alloy

Code No	Di	mensions (mr	n.)
Code No.	L	W	Н
GTBA	265	149.50	70
GTBA-AC	265	149.50	70

*Bolt: Stainless



Code No.		mensions (mr	n.)
Code No.	L	W	Н
GTBP	310	210	170
GTBP-AC	310	210	170

^{*} EP, EC Terminal Inside

Application:

Suitable for inspection and testing point for grounding system.



^{**} EP, EC Terminal Inside



Earth Pit





Concrete

Codo No	Plat	Plate Size (mm.)			Load	
Code No.	L	W	Н	(kg)	(kg)	
EP-32	320	320	320	21.7	6,000	
EP-32H	320	320	320	25.7	12,500	

Application:

Use for inspection and testing point in grounding system.

Exothermic Welding One Time

Exothermic Welding One Time Ceramic Mold With Powder is method to make permanent connections between end to end between ground rods and cable or cable to cable or cable to bar in various ways for electrical and telecommunication system.



One way Cable to Rod



Two way Cable to Rod



Three way
Cable to Rod



Four way Cable to Rod

Cable Size Rod Size	Code No.				
(sq. mm.)	Rod Size (inch)	One way Cable to Rod	Two way Cable to Rod	Three way Cable to Rod	Four way Cable to Rod
16		OT1-16R	OT2-16R	OT <mark>3-16</mark> R	OT4-16R
35		OT1-35R	OT2-35R	OT <mark>3-35</mark> R	OT4-35R
50		OT1-50R	OT2-50R	OT3-50R	OT4-50R
70		OT1-70R	OT2-70R	OT3-70R	OT4-70R
95	5/8,	OT1-95R	OT2-95R	OT3-95R	OT4-95R
120 3/4	OT1-120R	OT2-120R	OT3-120R	OT4-120R	
150		OT1-150R	OT2-150R	OT3-150R	OT4-150R
185		OT1-185R	OT2-185R	OT <mark>3-185</mark> R	OT4-185R
240		OT1-240R	OT2-240R	OT3-240R	OT4-240R
300		OT1-300R	OT2-300R	OT3-300R	OT4-300R



Exothermic Welding One Time

Exothermic Welding One Time Ceramic Mold With Powder is method to make permanent connections between end to end between ground rods and cable or cable to cable.



Two way Cable to Cable



Three way Cable to Cable



Four way Cable to Cable

Cable Size	Code No.			
(sq. mm.)	Two way Cable to Cable	Three way Cable to Cable	Four way Cable to Cable	
16	OT2-16	OT3-16	OT4-16	
35	OT2-35	OT3-35	OT4-35	
50	OT2-50	OT3-50	OT4-50	
70	OT2-70	OT3-70	OT4-70	
95	OT2-95	OT3-95	OT4-95	
120	OT2-120	OT3-120	OT4-120	
150	OT2-150	OT3-150	OT4-150	
185	OT2-185	OT3-185	OT4-185	
240	OT2-240	OT3-240	OT4-240	
300	OT2-300	OT3-300	OT4-300	

Weld Metal Powder



Copper oxide and Aluminum powders

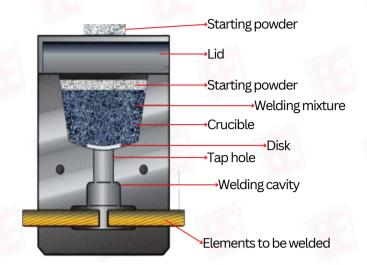
Cod <mark>e N</mark> o.	Metal Powder Size (g)
WMP-15	15
WMP-25	25
WMP-32	32
WMP-45	45
WMP-65	65
WMP-90	90
WMP-115	115
WMP-150	150
WMP-200	200
WMP-250	250





Graphite Mold





High quality graphite

Code No.	Type of Connection
GM - S - XX	Cable to Cable (CC), Cable to Rod (CR), Cable to Steel (CS) Bus Bar to Bus Bar (BB), Cable to Rebar (CRE), Rebar to Rebar (RR)
<mark>GМ</mark> - М - XX	Cable to Cable (CC), Cable to Rod (CR), Cable to Steel (CS) Bus Bar to Bus Bar (BB), Cable to Rebar (CRE), Rebar to Rebar (RR)
GM - L - XX	Cable to Cable (CC), Cable to Rod (CR), Cable to Steel (CS) Bus Bar to Bus Bar (BB), Cable to Rebar (CRE), Rebar to Rebar (RR)
GM - XL - XX	Cable to Cable (CC), Cable to Rod (CR), Cable to Steel (CS) Bus Bar to Bus Bar (BB), Cable to Rebar (CRE), Rebar to Rebar (RR)

Application:

When making a copper wire connection of Ground rod or other metal connection, place the Welding powder into the graphite mold. Just ignite to start the Welding process. The result will be clean and smooth connection surface. It is also applicable for other metal such as: Iron, Galvanized Steel, Railway track, Cast Iron, Bronze, and Brass.



Necessary Tools



Handle Clamp

Code No.	Handle Clamp Type
HDC - S	Handle Clamp Type "S"
HDC - M	Handle Clamp Type "M"
HDC - L	Handle Clamp Type "L"
HDC - XL	Handle Clamp with Chain Support

Application:

Handle Clamp make possible the use of many different size and type of graphite molds.



Flint Gun

Code No.	Using with
TOL-FG	Flint Gun

Application:

It is designed with the advantages of safety and convenience. It is used to ignite starting Powder in order to result in exothermic reaction.



Mold Brush

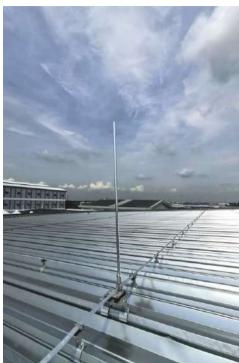
Code No.	Using with	
TOL-MB	Mold Brush	

Application:

It is used to clean conductors and surfaces before making connection.











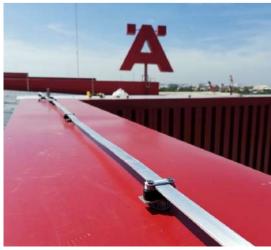






























Reference Project

FOOD & BEVERAGE

- AB Food & Beverages Thailand Ltd.
- Better Food Co., Ltd.
- Siam Glass Industrial Co., Ltd.
- Siam Glass Ayutthaya Co., Ltd.
- Siam Cullet Co., Ltd.
- Ajinomoto (Thailand) Co., Ltd.
- CPRAM Co., Ltd.
- Etc.

AUTOMOTIVE

- BMW
- HONDA
- TOYOTA
- YAMAHA
- Michelin Siam Co., Ltd.
- NIFCO (Thailand) Co., Ltd.
- Autoliv (Thailand) Co., Ltd.
- Etc.

WAREHOUSE LOGISTICS

- Bangpoo Intermodal System Co., Ltd.
- Suzuyo(Thailand) Ltd.
- Etc.

OTHER

- Electricity Generating Authority of Thailand (EGAT)
- Provincial Waterworks Authority
- Fujitsu Engineering Technology Limited
- UACJ (Thailand) Co., Ltd.
- Kaihara(Thailand) Co., Ltd.
- Nitta Corporation (Thailand) Ltd.
- Sambo Shindo(Thailand) Co., Ltd.
- MAX (Thailand) Co., Ltd.
- Singapore International School of Bangkok
- Etc.



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