

**LSG PROTECT<sup>®</sup>**

**LIGHTNING ARRESTERS  
EARTHING SOLUTIONS**

**SURGE ARRESTERS  
BONDING SOLUTIONS**

**TAKE  
THE  
EXTRA  
STEP  
TO  
SAFETY**







## LSG Protection Gear

LSG total protection gear explains: Proper grounding or Lightning protection device or Surge protection device alone will not protect a facility from damage due to surges, transients, and lightning. An effective combination of lightning protection, facility grounding, equipment bonding, and properly installed surge suppression devices for all circuit conductors facilitates total site protection.

Our Modern reliable facility protection approach rests on best in class grounding, protection from direct lightning strikes, and properly implemented SPDs to complete the strategy.





## ESE LIGHTNING ARRESTERS **THUNDER GUARD**

ThunderGuard series ESE Lightning Arresters Developed and designed in our highly advanced labs is specially designed with unique design philosophy as per NFC-French Standard.

Thunderguard adopts synthesis techniques of leader discharge, impedance to limit current, air-gap discharge etc to produce leader channel in advance, improve lightning effect, reduce discharge voltage and change the discharge process of lightning current.

Thus it broaden the lightning wave, flatten the leading wave, decrease the amplitude and enlarge the scope of protection avoiding side striking and shielding failure then finally actively suppress the damage of Ground Potential Counter attack. Therefore it is an ideal device to prevent direct lightning.

ThunderGuard Series ESE lightning Arresters come in three models TGD 20, TGD 40 and TGD 60 with widest Protection coverage area. Find Our protection radius coverage table for reference.



PROTECTION RADIUS				
	H(m)	ThunderGuard 20	ThunderGuard 40	ThunderGuard 60
LEVEL 1	2	15	25	32
	3	23	37	48
	4	31	50	65
	5	39	62	80
	6	40	62	80
	8	40	63	80
	10	41	63	80
LEVEL 2	2	18	28	38
	3	26	42	55
	4	36	55	74
	5	45	69	89
	6	47	69	90
	8	47	70	90
	10	48	71	91
LEVEL 3	2	21	32	42
	3	31	48	62
	4	42	63	82
	5	54	80	99
	6	54	80	99
	8	56	81	100
	10	57	82	100
LEVEL 4	2	24	36	45
	3	35	52	65
	4	49	71	87
	5	61	88	108
	6	62	89	108
	8	63	90	109
	10	65	91	110





## ESE LIGHTNING ARRESTERS **THUNDER GUARD**

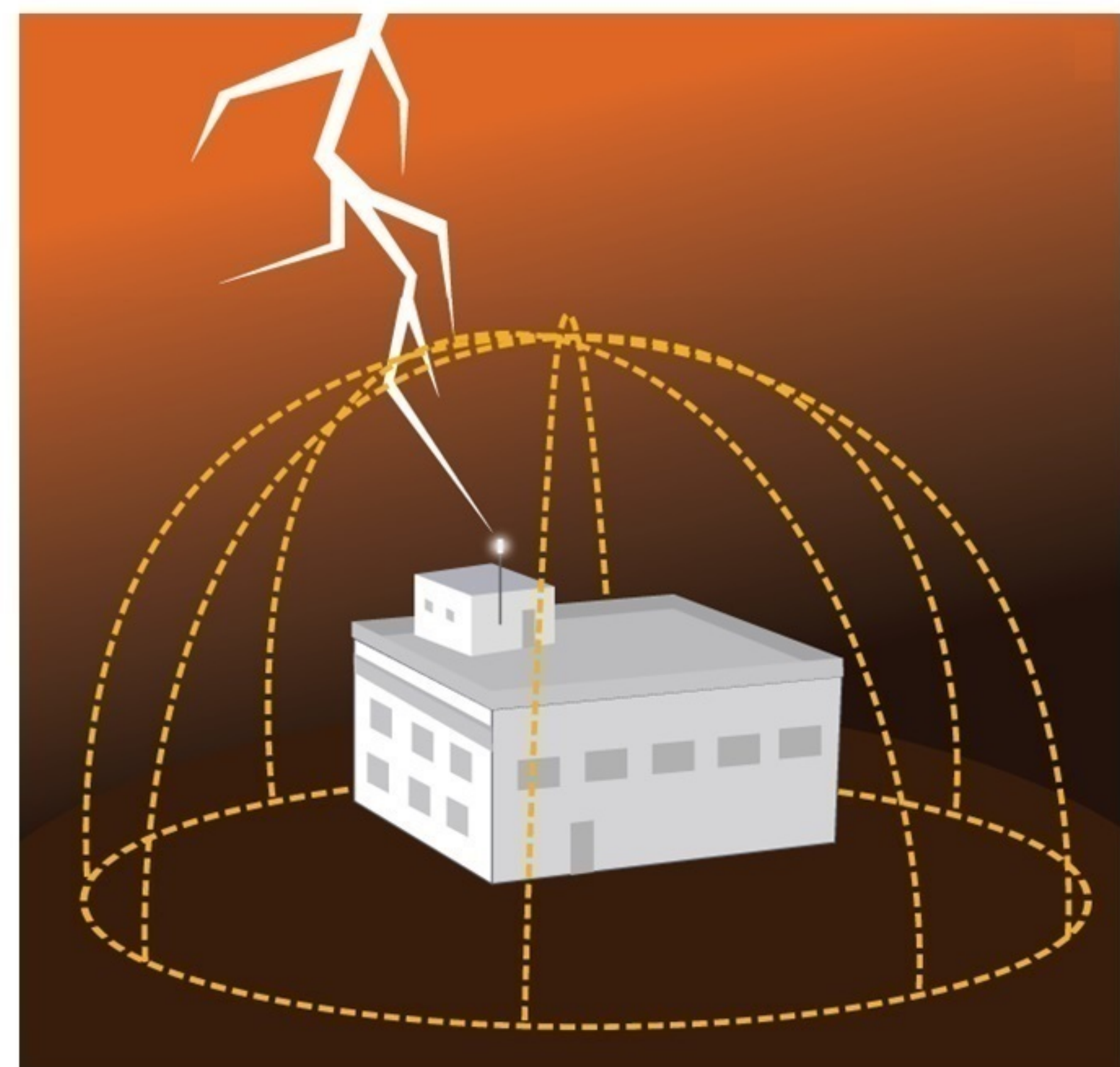
### Product Structure:

- Central bar
- Reflector
- Trigger gear
- Exciter
- Dead plate of exciter
- Trigger gear, reflector and central bar all are insulating
- Reflector and central bar show good electrical connection to the earth
- The base of exciter is made up of synthetic resin thus applicable to any corrosion environment



### Advantages:

- Non-electronic type, long life.
- Guaranteed electrical continuity and sustainability after repeated lightning strike.
- High radius of protection for user selection.
- Non-electrical system, will not be effected by surge impact.
- Only self-activated during lightning strike and initiative intervene the lightning protection system.

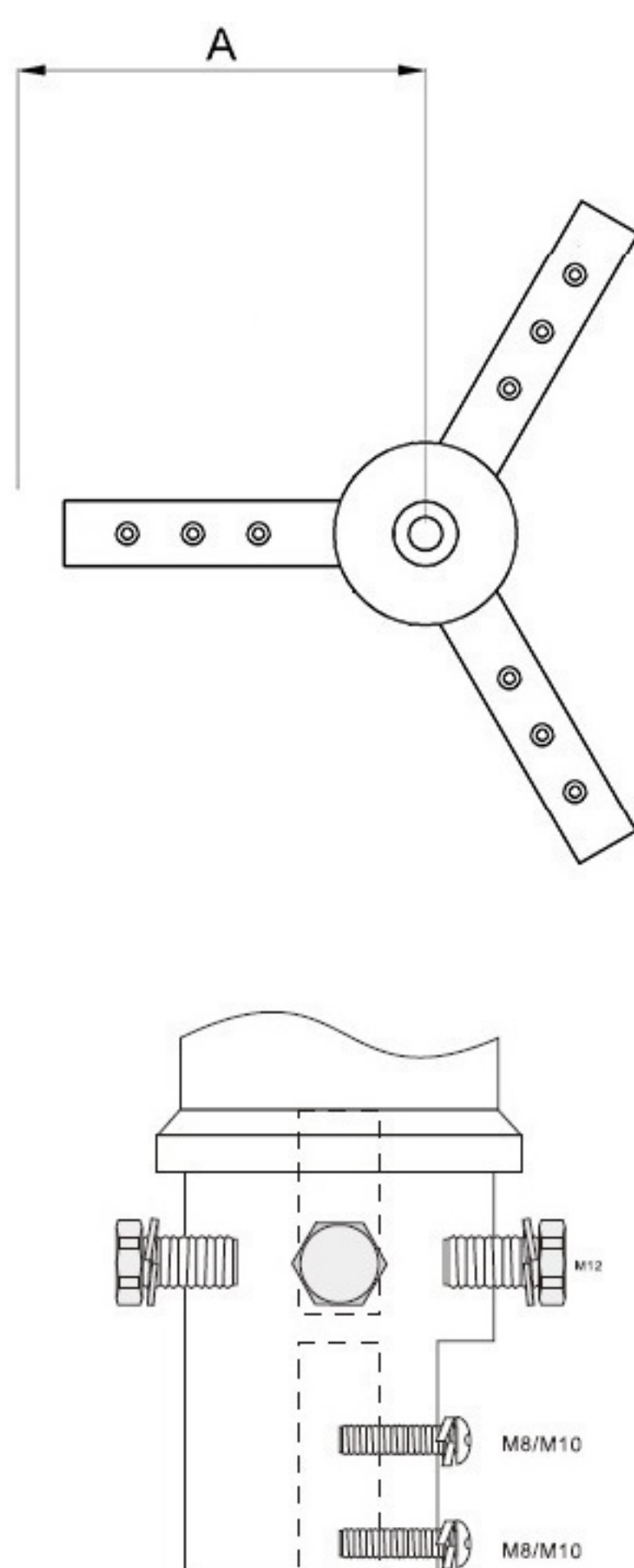
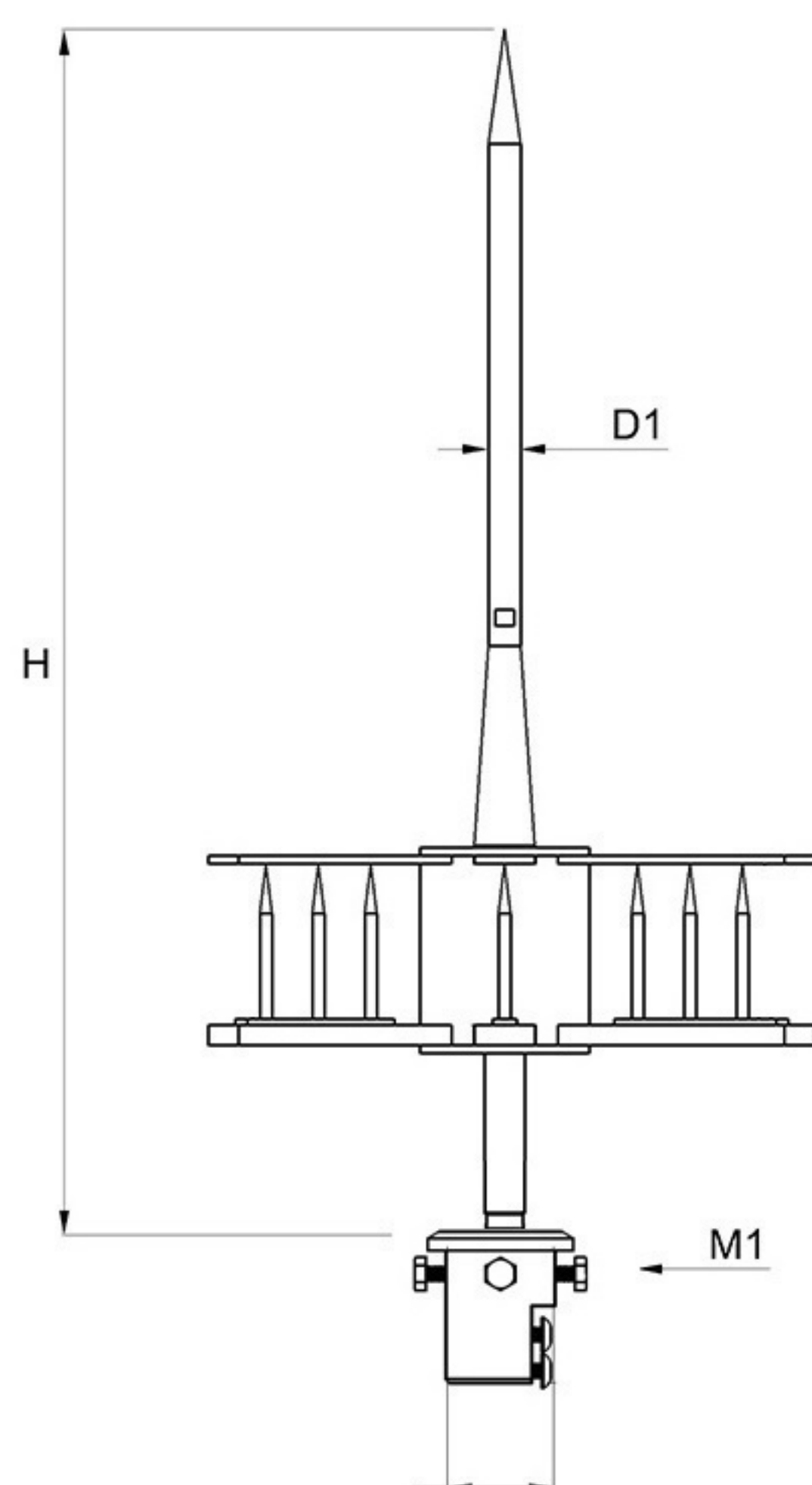




## ESE LIGHTNING ARRESTERS

### THUNDER GUARD

## TGD 20



Coverage radius (m) LSG TGD20® protection level  
And height (UNE 21.186:2011, NFC 17.102:2011 and NP 4426:2013)

Content No	Material	Height (mm)	Dimension (mm)	Weight (mm)
232111	Stainless Steel	650	18	3700

### STREAMING DISTANCE

H(m)	Level I	Level II	Level III	Level IV
2	15	18	21	24
3	23	26	31	35
4	31	36	42	49
5	39	45	54	61





## LIGHTNING STRIKE COUNTER **LSC RECKON**

LSG Reckon is a highly sensitive six digit detection device and tool to measure and record the number of lightning strikes in certain areas with thunderstorm. Usually used together with other types of lighting protection devices.

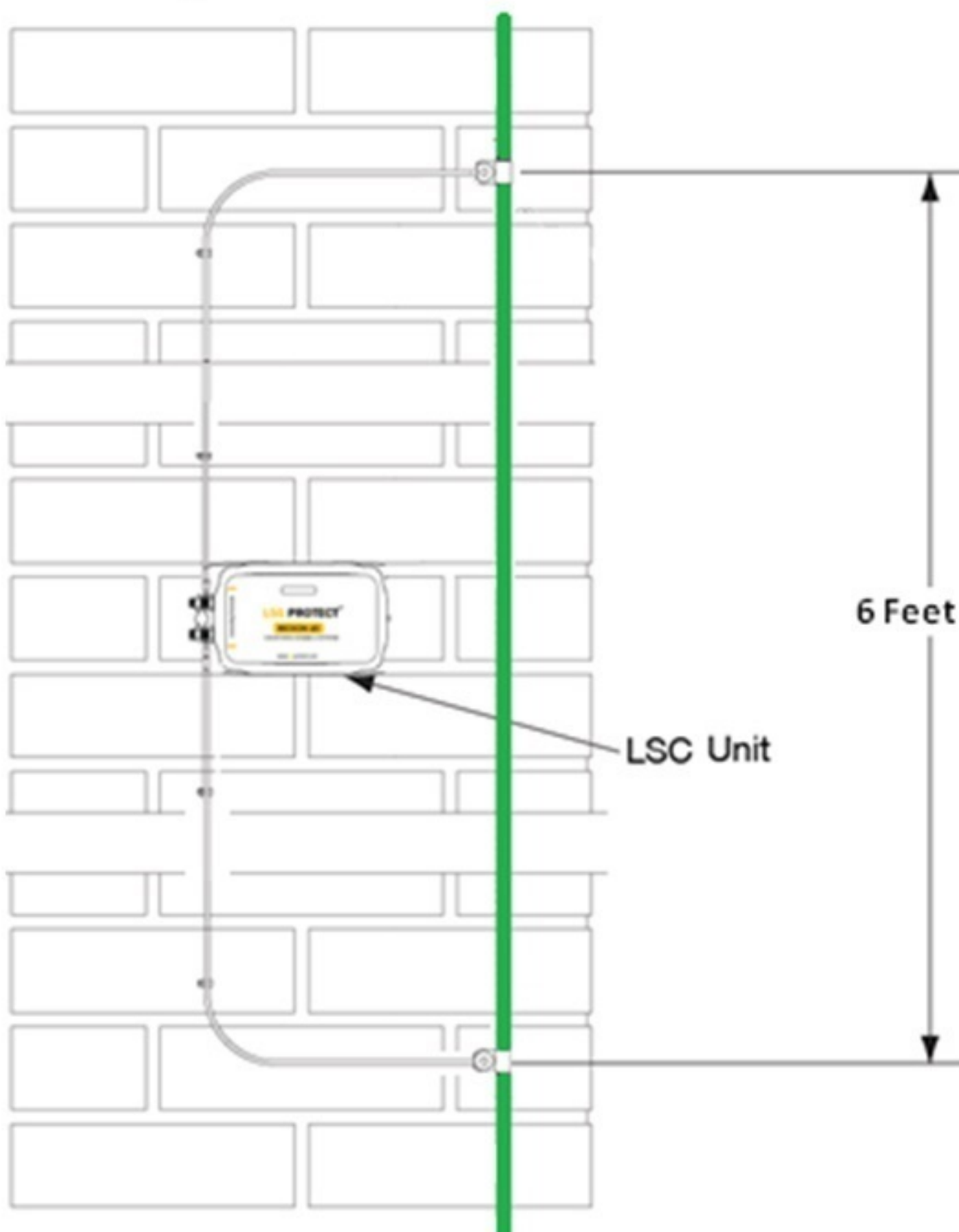
### Features:

- high sensitivity, and accurate count
- Wide dynamic range, strong anti-jamming ability.
- Small size and easy installation
- Well-structured, stable and reliable performance.
- Convenient to use and install, maintenance free.
- Sophisticated technology and long life.

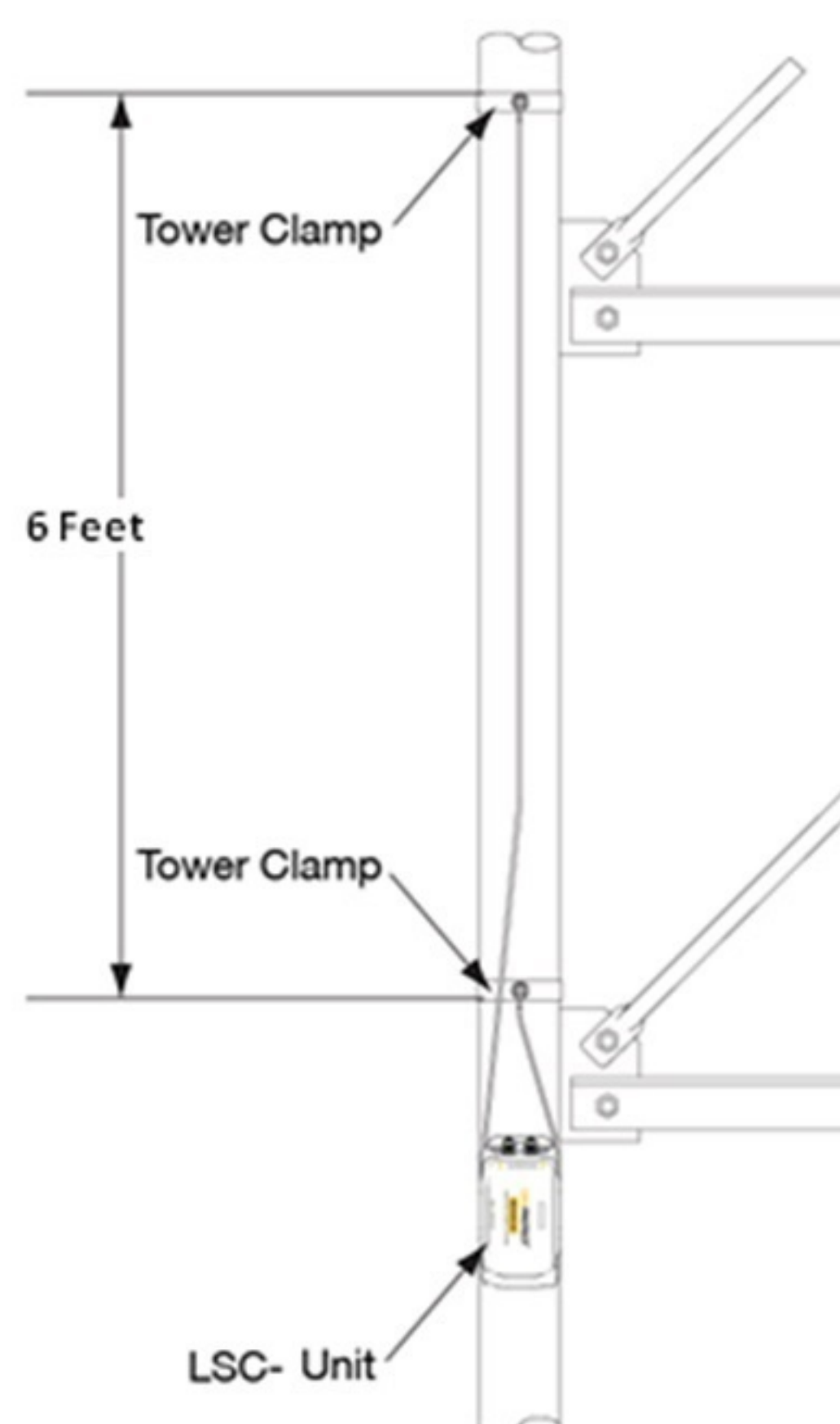


## INSTALLATION DIAGRAM

**Building Model**



**Tower Model**







## LIGHTNING STRIKE COUNTER

### LSG RECKON

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## SURGE PROTECTION DEVICES

### LSG VSHIELD

Our surge protectors are designed to be safe and survive high stresses with ease. Strong focus on quality at all stages, from raw material through to finished product. Our main products include AC/DC surge protector, signal SPD, antenna coaxial protector, PDU etc. Widely used in electric power, water conservancy, transportation, communications, security, mining, new energy, petrochemical industries.



## GROUNDING SOLUTION

### LSG INGRESS

Electrical Earthing systems are designed for applications operating at relatively low frequencies, and has driven the use of increasingly sophisticated technology, including specialist software, to determine ground resistivity, improve design and measure system performance.

Modern earthing techniques used by LSG meet all the relevant French and international standards and IEEE80-2000 Guide for Safety in AC Substation Grounding. Our electrical earthing systems will capture and disperse electrical current so that the site remains safe at all times.

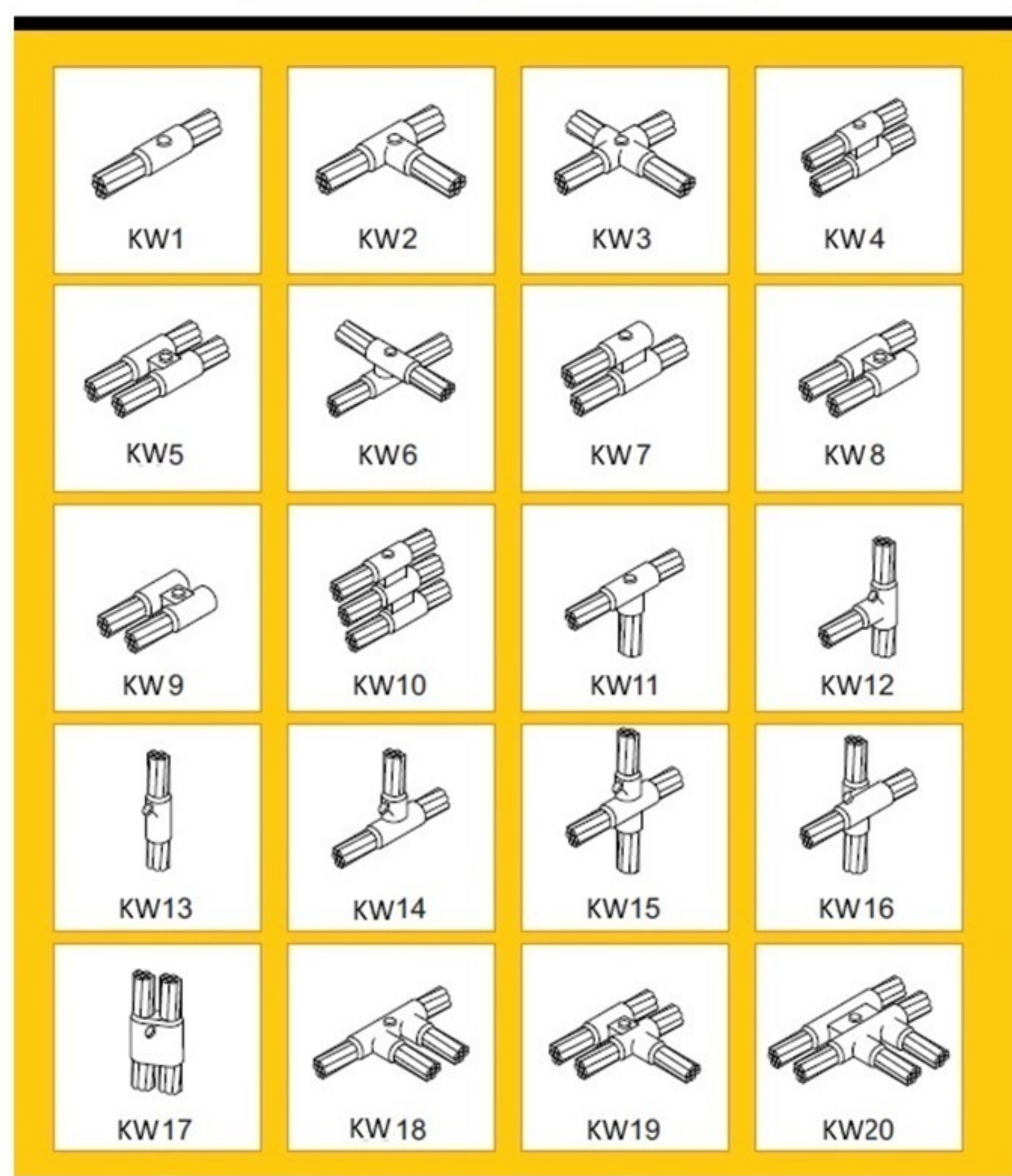




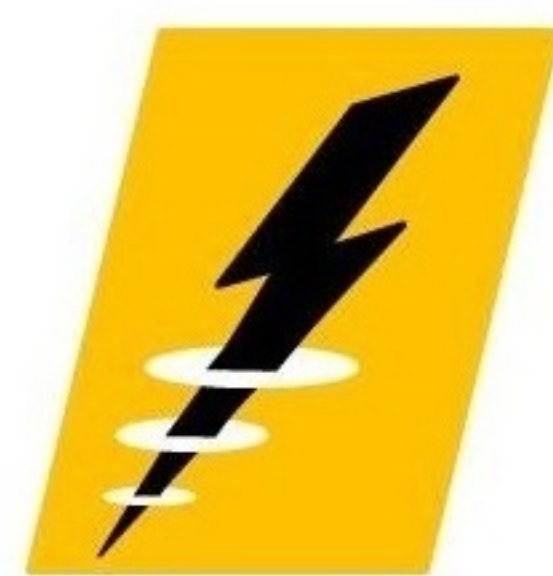


EXOTHERMIC WELD  
**KNIT WELD**

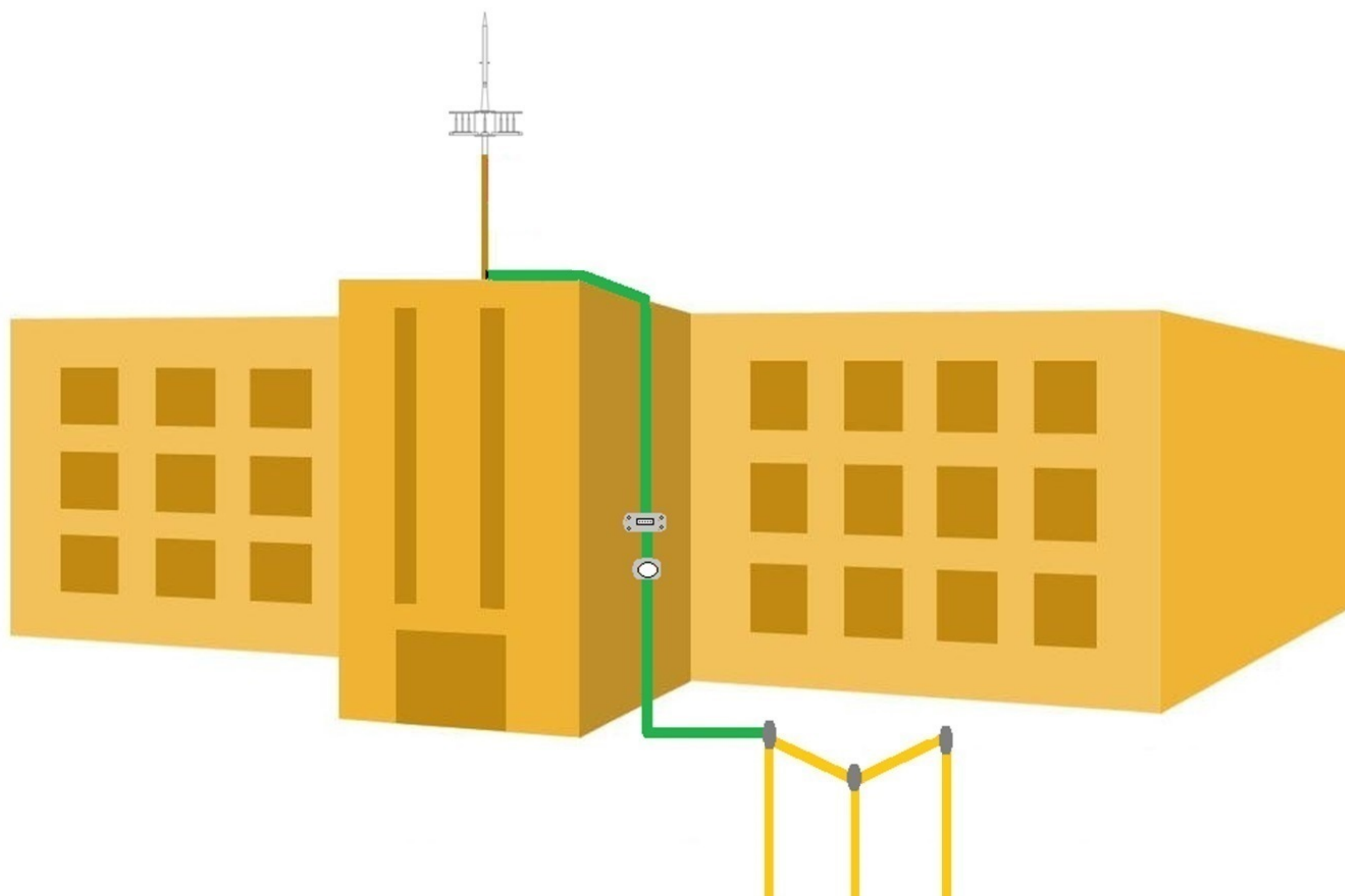
**KNIT WELD**







# LSG PROTECT<sup>®</sup>



**LSG PROTECT**

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