

Neo FLASH

Early Streamer Emission Lightning

LIGHTNING PROTECTION

catch and carry and freed to the earth

ELECTROSTATIC SYSTEM

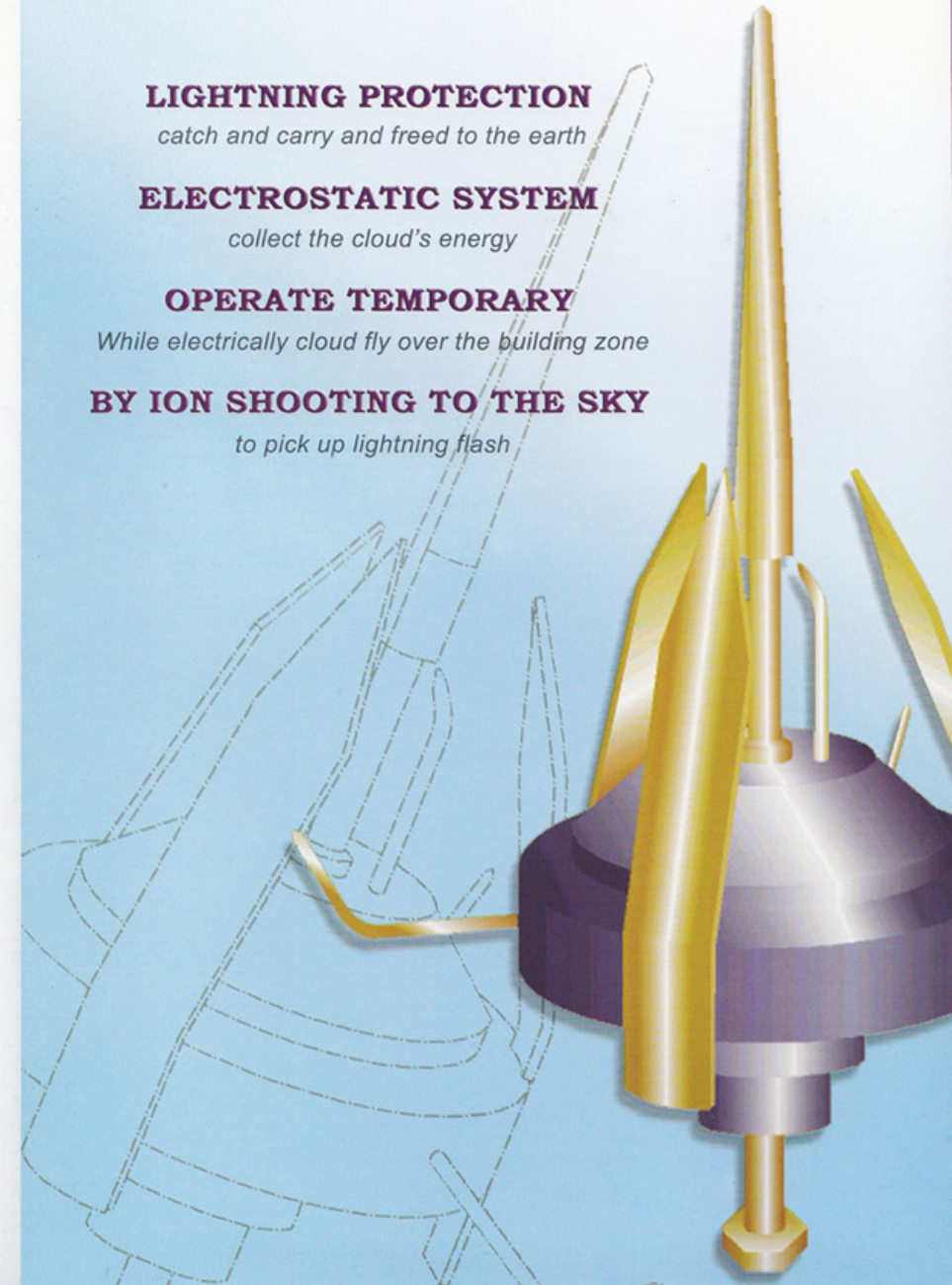
collect the cloud's energy

OPERATE TEMPORARY

While electrically cloud fly over the building zone

BY ION SHOOTING TO THE SKY

to pick up lightning flash



Installation

Installation lay out must fit with area where the equipment will be installed. The key requirement for installation that the head air terminal must be placed minimum 3 meters higher than any other surface of the building. If not, this equipment will not work properly.

Pay attention also the head have to connect tightly with down conductor and earthing rod.

Use down conductor with single core made of copper or aluminum diameter minimum 50 mm.

Ground resistance must not more than 5 ohm.

Here some cables that recommended by expert to cable completed with side flashing carrier e.g. N2XSY ; NA2XSY.

7 advantages of the Neo Flash.

- Models and Types varies according to specification.
- Simple installations.
- Protect larger area.
- Self protect ware.
- Maintenance free.
- More esthetic.
- Economical.

Protection Radii

Protection radii is not only depend on average capacity , but also depend on terminal placement where the Neo Flash will be installed. Basically depend on lightning intensity (lightning per day) in certain region . The region where it has high lightning intensity, for example hilly region or the region where it has high rain per day, Top performance of Neo Flash must be judged 80 % of optimal performance, because there will be short time (short pause) to refill the capacitor. Table below mention the average performance up to optimal performance.

Table 1. Protection Radii for average capability.

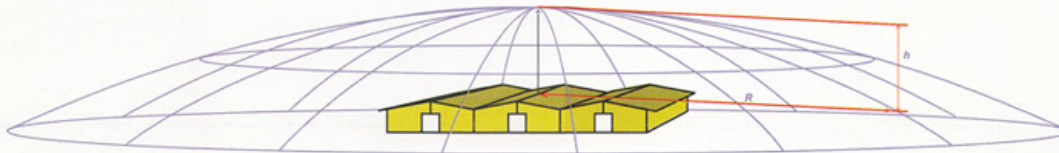
h (m)	3	4	5	6	7	8	9	10	20
TZ.03	67	78	87	95	103	110	117	123	174
TZ.04	78	90	100	110	119	127	135	142	204
TZ.05	87	100	112	123	133	142	151	159	225
TZ.06	95	110	123	135	146	156	166	175	247

Table 2. Protection Radii for the high risk region

h (m)	3	4	5	6	7	8	9	10	20
TZ.03	53	62	69	76	82	88	93	98	139
TZ.04	62	72	80	88	95	101	108	113	163
TZ.05	69	80	89	95	106	113	120	127	180
TZ.06	76	88	98	108	116	124	132	140	197

Protection Shape

Protection Shape of this Neo Flash as similar with cage (look at figure below) so everything under and inside of the cage will be safe from direct lightning flash.



T T TROPICAL LIGHTNING TECHNOLOGY PTY LTD.
Tropical Lightning Phenomenon Research , Survey , Field Laboratory
USA.

ILe INTERNAL LIGHTNING EQUIPMENTS PTY LTD.
Instruments & Arrester for Over Voltage Protection
USA.

MANUFACTURED & ASSEMBLED BY
PT. DEWATA TECHNOINDO

ASSEMBLED In Indonesia

sale & distributor

Neo FLASH

Early Streamer Emission Lightning

TZ.
Conductor

Through years of deep research, thesis and observation on latest literature in / out laboratory concerning tropical lightning characteristic. Proudly We launch smart equipment to solve and reveal mystery of lightning disaster.

Simply the smartest because collect, deposit and managed unlimited power of electric available in nature - awakening and shoot them to pick up the lightning and carry them to the earth.

Neo Flash
TZ 03
TZ 04
TZ 05
TZ 06

are varies series indicate Capacity inside.

■ The Philosophy of working

Working earlier.

The equipment will operate earlier than any other instruments because of Dual Collection energy system.

Product Ion

Ion generation inside of this equipment has large capacity to multiply ions collected from electric cloud and electric field.

Discharge ion in impul system.

This head air terminal will release ion in the form of impuls

Parts ■

Central pick up rod. The rod is made of metal that it's edge will receive direct lightning Flash. This rod has capacity to receive lightning currency up to 300 KA.

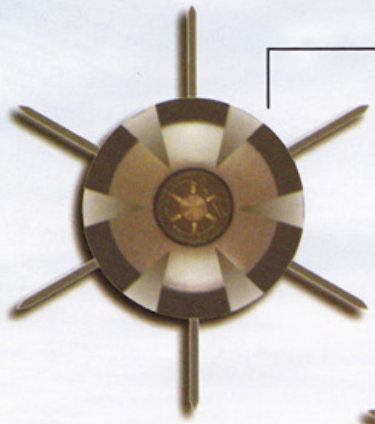
Electrodes. This electrodes play main role in collect, reserve and deposit energy beyond clouds and this energy as sources energy for awakening Early Streamer Emission leader. This part consist of 2 collect system: first **Piece of Metal** that receive and collect energy using induction System and sensor and the second using **carbon core** collect energy from electric field.

Ion Generator. Consist of energy capacitor unit; ion awakening; lightning sensor and protection ware. The ion generator is key-to-awake ion.

Edge Shooter. This part is conductor to shoot ion.

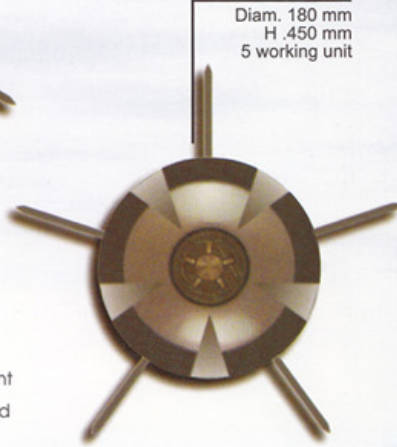
TZ.06

Diam. 180 mm
H .450 mm
6 working unit



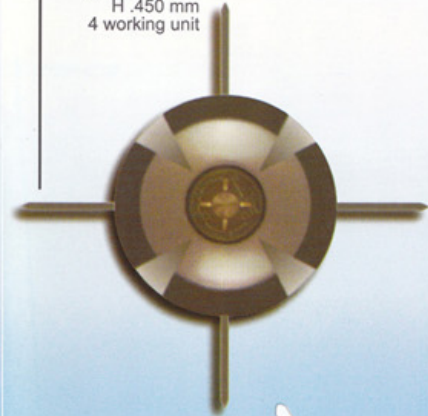
TZ.05

Diam. 180 mm
H .450 mm
5 working unit



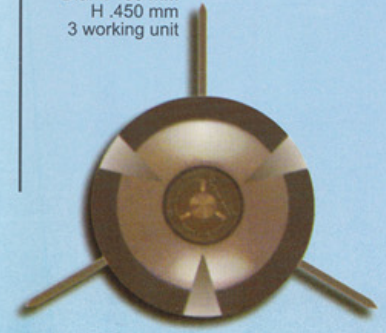
TZ.04

Diam. 180 mm
H .450 mm
4 working unit



TZ.03

Diam. 180 mm
H .450 mm
3 working unit



■ Operating Mechanism.

In the mean time a flock of cloud flow and approach the top of building which has been protected by lightning Protection

Neo Flash. The electrodes attached in the equipment collect and deposit energy from electrical cloud and electric field. In the capacitor unit after refilling has been adequate then flown to the **Ion Generator.**

In the same time plenty of atmospheric electrical energy among the cloud inform ion generator.

This information then managed by ion generator as a trigger to discharge the energy. This triggering will result streamer leader from central pick up rod and awakening protection for Terminal Unit.

■ Terminal Unit Safety System

Multi Working Unit.

This head air terminal Neo Flash Consist of multi working unit according to the type & models. The purpose of the system that each working unit work as reserve for each other while one discharge the deposit, the others refill the energy.

Hardware Protection

The equipment have been completed with protection it's hardware . As known that the equipment contains fragile and damageable electronic sensitive parts.

Protection For Insulation.

In order disconnect the equipment and body of building. The equipment completed by connector sleeve. After lightning intercepted by the head then flown to down conductor without any connection with the building.

■ Model and type series.

4 series model and types varies according to working unit inside. e.g. Neo Flash

TZ. 03 has 3 working unit and TZ. 06 has 6 working unit .