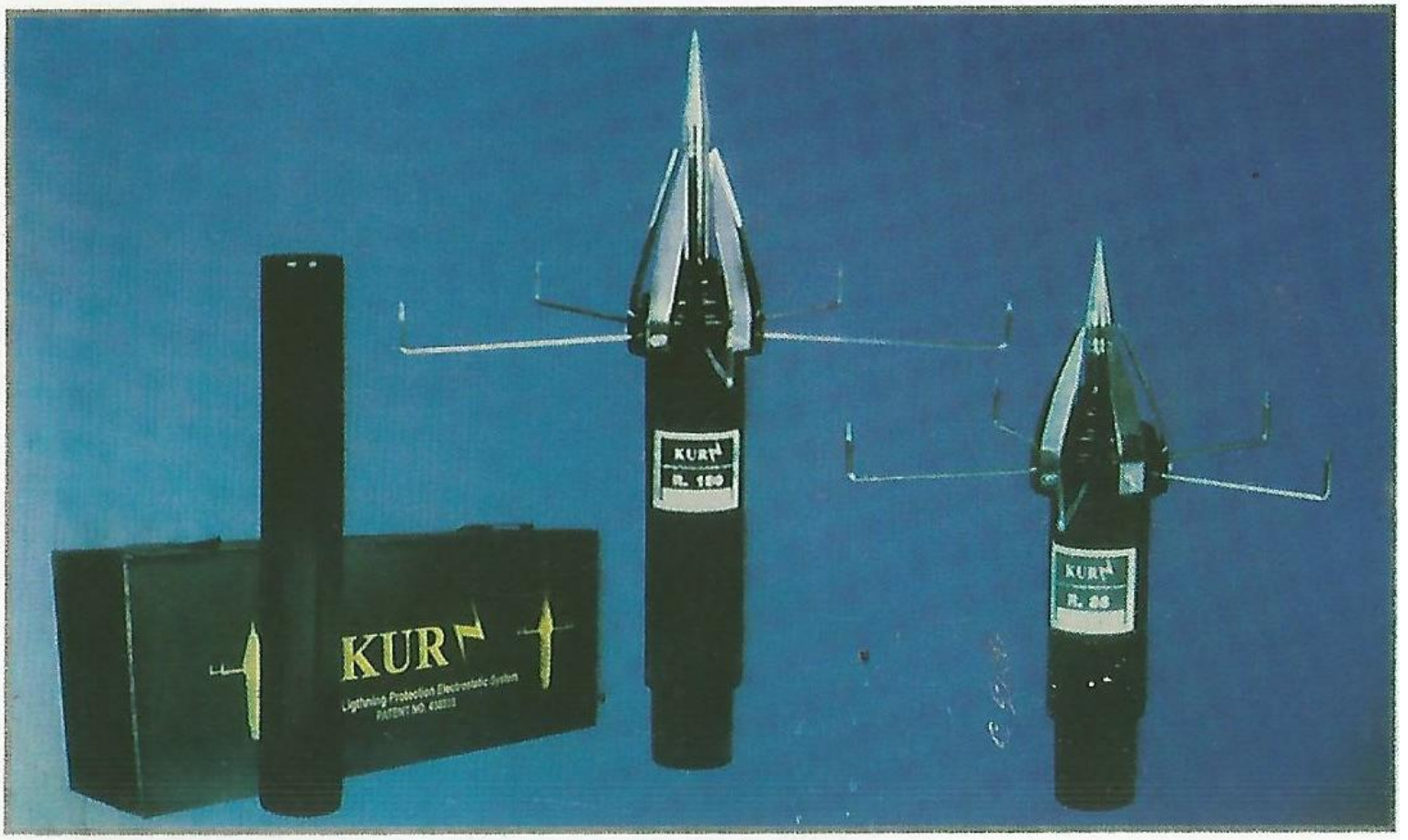
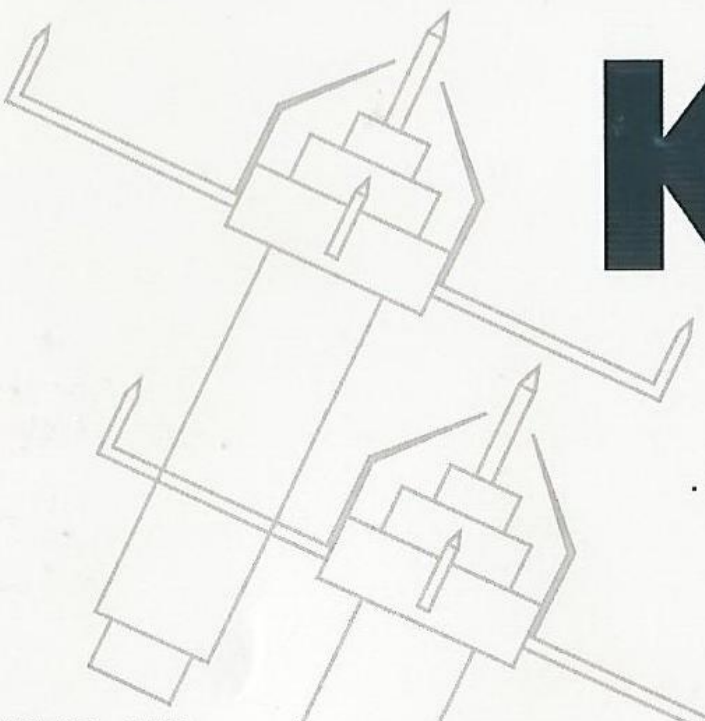
LIGHTNING PROTECTION ELECTROSTATIC SYSTEM

Kurn air terminal lightning conductor made in indonesi





KURN

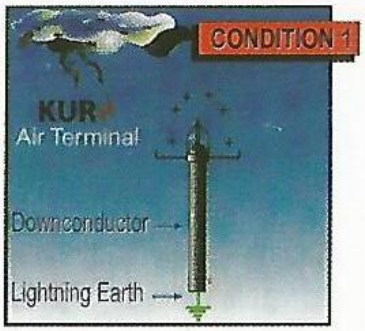
. Early streamer emission lightning conducto

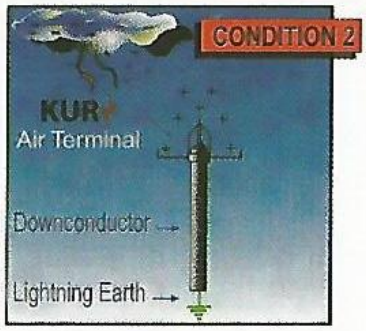
. Non - radio activ

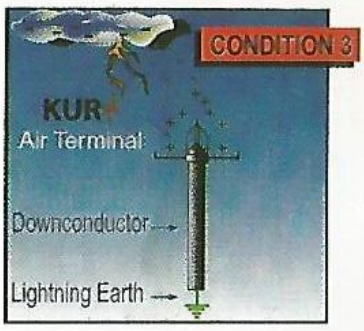
. No extra power require

** Protection area until 150 meter (radius*

. 1 year product warrant







Lightning strike occur of the change of electrical load (negative charges) from the cloud to the surface of the ground, chose the highest object that containing electrical load (positive charges). We can see " Step leader" lightning strike, it is like a glowing lines on the sky. Effect from the lightning strike can causes very serious damages to building, occupants and electrical equipment. We need lightning conductor to protected. There is three lightning conductor type :

1. Conventional conductor
2. Radio active conductor
3. Electrostatic conductor

KURN is the pioneer of lightning conductor electrostatic system from Indonesia, have a larger protection area, efficient and low maintanance (KURN use existing power from negative / positive charges of the grounding system).

KURN AIR TERMINAL

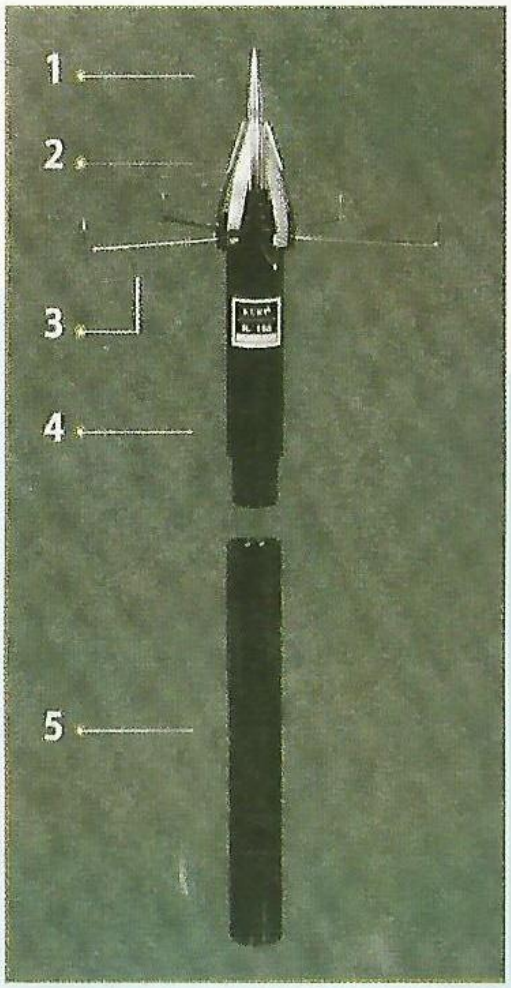
1. Head Copper
As main conductor to capture the lightning and passing charges via the cable (downconductor) to the grounding system

2. Disch Vertical
Collecting negative charges from the air, with the disch horizontal produces free electrons to initiate an upward streamer

3. Disch Horizontal
This part has function as positive charges conductor from the electro generator unit to create corona effect (as Early Streamer Emission / ESE)

4. Body terminal
There is an electronic part (Electro generator Unit / EGU) in the body terminal. Processing positive charges from the grounding system and it does not require external power source

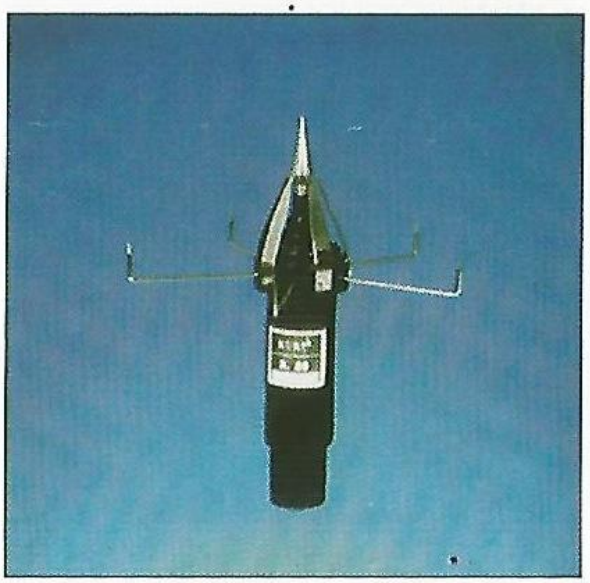
5. Connecting Sleeve
Connecting body terminal and insulator for reducing risk of side flashing from the lightning strike energy to the mast



KURN R - 150

Spesification :

Weight	: 2.7 kg
Diameter	: 3 in
Lenght	: 55 cm
Rad. Protection	: 150 m

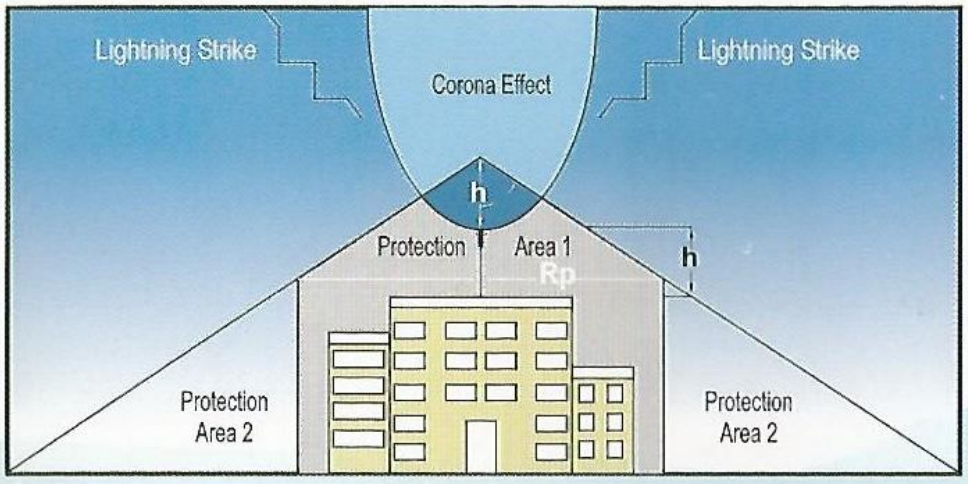


KURN R - 85

Spesification :

Weight	: 2.4 kg
Diameter	: 3 in
Lenght	: 45 cm
Rad. Protection	: 85 m

PROTECTION AREA



Corona effect is early streamer emission when the atmospheric air reaches the ionization threshold (30 kV/m), in the laboratory test we can see the corona effect by eyes when the plate electroda (cloud simulation) reaches 50 kV/m

To calculated radius protection area of KURN lightning conductor use a formula :

$$Rp = (h + h') \tan$$

Rp = Radius protection (in meter), from the central point where KURN lightning conductor located

h = Height of the point of the lightning conductor above the surface to be protected (height of mast + lenght of air terminal)

h' = Maximum height emission can be reach from the lightning conductor power to generate a charges (depends on KURN lightning conductor type)

* Type KURN R - 150 h' = 75 m and KURN R - 85 h' = 40 m

= Angle of cone above protection area is 60 degrees

KURN LIGHTNING CONDUCTOR

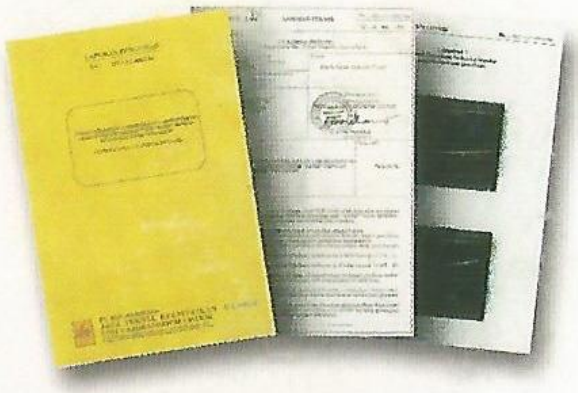
Each type of KURN lightning conductor have different range radius protection area and power to generate corona effect as early streamer

KURN R-85 : protection area mac 85 m
KURN R-150 : protection area mac 150 m

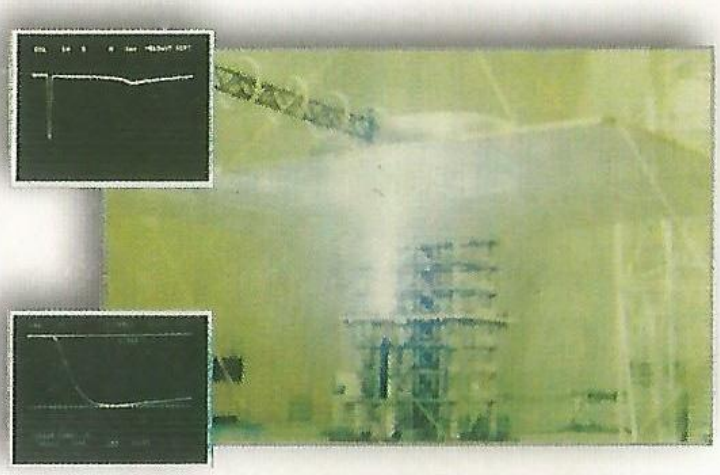
Use the table for effective application plan and chose the right type of KURN lightning conductor will installed (see the tabel at right)

KURN Radius Protection (M)		
Protection Level (M)	KURN Type	
	KURN R - 85	KURN R - 150
3	63	133
5	70	135
10	75	140
15	80	145
30	85	150
40	85	150

CERTIFICATE AND PRODUCT TEST



LMK - PLN Certificate product test



KURN product test at LMK - PLN

KURN Lightning protection passed test at LMK - PLN and registered at Indonesia ministery of law and human right with PATENT No : 438333
1 years product warranty to give you product satisfied and we never stop to research and develop the product as our commitmen become the best lightning conductor made in Indonesia

SOLE AGENT

Protected Since 1994 Warranty Certificated Made in Indonesia

◇LMK◇

Kd