FOREND®
LIGHTNING PROTECTION & EARTHING SYSTEMS

We Got You COVERED!

FOREND EARLY STREAMER EMISSION (E.S.E.) LIGHTNING CONDUCTOR

FOREND
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ABOUT US

In 1977, FOREND ELECTRICAL CO ventured in Lightning Protection and Earthing System.

In 2000, FOREND established its own trademark and became one of the known manufacturers and innovators in the Lightning Protection industry not only in Turkey but in the entire Europe.

Today, FOREND is present in 45 countries in the world and its goal is to make lightning protection available to everyone.

With its staff of well- qualified people, innovative attitude, technical expertise, competitive pricing and great customer service and care, FOREND assures clients of the highest quality products and services.

For FOREND, clients are always at the forefront of its agenda. This has been more realized when it acquired its ISO 9001/2000, 14001:2004, 18001:2007, 27001:2005 and 10002:2004 certifications.

FOREND aims on: • Seriousness • Quickness • Accuracy • Efficiency • Satisfaction

FOREND EU E.S.E. LIGHTNING CONDUCTOR MAIN PARTS

FOREND EU E.S.E. Lightning Conductor is a product which does not include radioactive materials but protect large fields by becoming active with increasing atmospheric electrical field effect in lightning storms. The head part of PETEX E.S.E Lightning Conductor consists of four main parts;

ISO CERTIFICATIONS

ISO-9001

ISO-27001

ISO-14001

ISO-10002

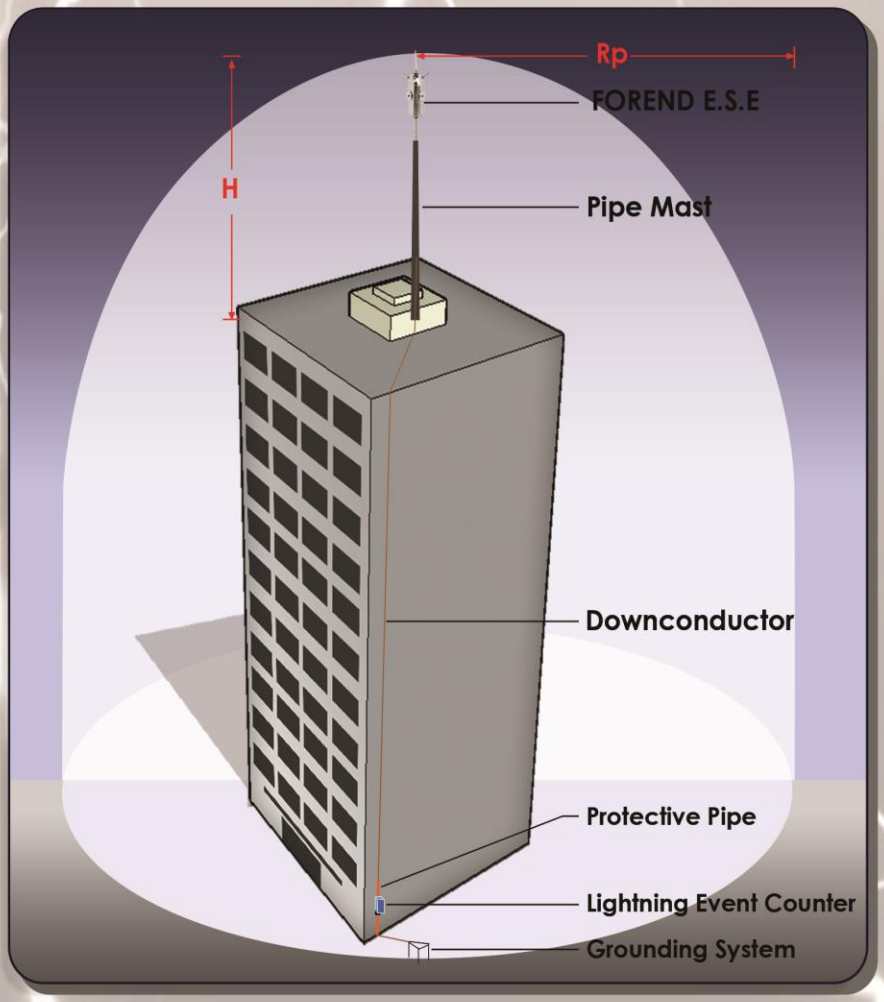
TECHNICAL SPECIFICATIONS

PETEX EU

Weight = 4.4 kg
Height = 63 cm
Material: Stainless Steel

FOREND EU (ΔL=60m)				
Rp (m)	(ΔT =60μs)			
h (m)	Level I	Level II	Level III	Level IV
2	31	35	39	43
4	63	69	78	85
5	79	86	97	107
6	79	87	97	107
8	79	87	98	108
10	79	88	99	109
20	80	89	102	113
30	80	90	104	116
60	80	90	105	120

PROTECTION LEVEL



Radius of Protection

The radius of protection of Forend Early Streamer Emission (E.S.E.) lightning conductor is related to its height (h) relative to the area to be protected, to its triggering advance and to the selected protection level.

$Rp = \sqrt{h(2D - h) + \Delta L\ (2D + \Delta L)}$ with $h \geq 5m$.

Rp = radius of protection

h = tip of Forend ESE

D = triggering distance
20m for protection level I,
30m for protection level II,
45m for protection level III,
60m for protection level IV.

ΔL = upward leader length gain

$\Delta L_{(m)} = V_{(m/\mu s)} \bullet \Delta T_{(\mu s)}$ (V = 1m/μs)

ΔT = triggering advance

Reference: French Standard NFC 17 -102

FOREND
LIGHTNING PROTECTION & EARTHING SYSTEMS

FOREND PRODUCTS

Lightning Conductor Tester

Lightning Strike Counter

Exothermic Welding System

Surge Protection Device

Obstruction Light

Air Terminal

TAEK

PCA

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