



PATROIT PARATONER SISTEMLERİ



Patroit paratoner markasıyla , 2013 yılından itibaren kendi fabrikamızda üretilen paratoner ve paratoner ekipmanları ve ürünlerimizi sizin hizmetine açmış bulunmaktan mutluluk duyuyoruz, sitemizde teşhir edilen ve sizin beğenimize sunduğumuz tüm ürünler

grup şirket iştirakimiz *Özelsan Makina San Ltd Şti* güvencesiyle üretilmektedir.

Özelsan Makina San Tic Ltd Şti yurtiçinde ve yurtdışında

paratoner satışı yapan markalara on yıl boyunca üretim yaptıktan sonra , bu alanda aldığı saha tecrübesi ve üretici olmanın avantajıyla

Patroit paratoner sistemlerini sizlerin beğenisine sunmuştur.

Ese Lightning Conductor Protection Radius Calculation (NF C 17-102 S 2.2.3.2)

The protection radius of Patroit is calculated by the standard formula given in the French Standard NF C 17-102. The formulation is based on the lightning conductor triggering advance (ΔT), installation height (h) and the triggering distance (ΔL).

$$R_p = \sqrt{h(2D - h) + (\Delta L(2D + \Delta L))} \quad h \geq 5m$$

$$\Delta L = V \times \Delta T$$

R_p : Conductor protection area radius

H : The distance between the point of the conductor and the area to be protected

ΔT : Triggering time

D : Triggering distance according to the NF C 17 – 102 standard

D value is :

20 m. for the 1st protection range (accurate protection)

45 m. for the 2nd protection range (good protection)

60 m. for the 3rd protection range (standard protection)

$$\Delta L(m) = v (m/\mu s) \cdot \Delta T(m/\mu s)$$

Protection radius table

	ΔT (μs)	D (m)
PRO 25	25	20
SPACE 40	40	45
PATROÏT 60	60	60

Rp PROTECTION RADIUS (m)									
Patroit Ese Conductors	h= Conductor tip height (m)								
	2	4	5	7	10	15	20	45	60

Level 1									
PATROÏT 25	18	34	42	42	43	44	45	---	---
PATROÏT 40	23	47	58	59	59	60	61	---	---
PATROÏT 60	32	64	79	79	79	80	80	---	---

Level 2									
PATROÏT 25	23	45	56	59	62	63	66	72	---
PATROÏT 40	30	60	75	76	77	80	81	86	---
PATROÏT 60	40	78	97	98	99	101	102	105	---

Level 3									
PATROÏT 25	26	52	65	67	69	73	76	83	85
PATROÏT 40	33	66	84	86	88	90	92	100	100
PATROÏT 60	44	87	107	108	109	111	112	120	120

ESE Lightning Conductor Units

Patroit by Ozelsan Systems

Product	Product No	Material	Remark
Patroit 40	PPRT 60-01	Stainless Stell	
Patroit 60	PPRT 60-02	Stainless Stell	



1 The Lightning Conductor Unit Patroit By Patroit LP Systems is ESE type. (ESE – Early Streamer Emmission)

2 The ESE Lightning Conductor Unit Patroit By Patroit LP Systems fully comply with NF C 17 – 102 standards. The METU high Voltage Lab. Test report acc. To NF C 17 – 102 is available upon request.

3 The ESE lightning conductor unit, Patroit By Patroit Lp Systems provides the required energy from the electrostatic field density variations that occurs in air. There is no supplementary energy requirement such as wind, sun or kinetic energy. There is no need for vibrations for the functioning energy.

ESE Lightning Conductor Units

Space by Ozelsan Systems

Product	Product No	Material	Remark
Space 40	SPRT 60-01	Stainless Stell	
Space 60	SPRT 60-02	Stainless Stell	



- 1 The Lightning Conductor Unit Space By Patroit LP Systems is ESE type. (ESE – Early Streamer Emmission)
- 2 The ESE Lightning Conductor Unit Space By Patroit LP Systems fully comply with NF C 17 – 102 standards. The METU high Voltage Lab. Test report acc. To NF C 17 – 102 is available upon request.
- 3 The ESE lightning conductor unit, Space By Patroit Lp Systems provides the required energy from the electrostatic field density variations that occurs in air. There is no supplementary energy requirement such as wind, sun or kinetic energy. There is no need for vibrations for the functioning energy.

ESE Lightning Conductor Units

Pro by Ozelsan Systems

Product	Product No	Material	Remark
Pro 25	PRT 25-01	Stainless Stell	
Pro 40	PRT 40-02	Stainless Stell	
Pro 60	PRT 60-03	Stainless Stell	



1 The Lightning Conductor Unit Pro By Patroit LP Systems is ESE type. (ESE – Early Streamer Emission)

2 The ESE Lightning Conductor Unit Pro By Patroit LP Systems fully comply with NF C 17 – 102 standards. The METU high Voltage Lab. Test report acc. To NF C 17 – 102 is available upon request.

3 The ESE lightning conductor unit, Pro By Patroit Lp Systems provides the required energy from the electrostatic field density variations that occurs in air. There is no supplementary energy requirement such as wind, sun or kinetic energy. There is no need for vibrations for the functioning energy.

ESE Lightning Conductor Units

Shield by Ozelsan Systems

Product	Product No	Material	Remark
SHIELD 25	PRT 25-11	Stainless Stell	
SHIELD 40	PRT 40-12	Stainless Stell	
SHIELD 60	PRT 60-13	Stainless Stell	



- 1 The Lightning Conductor Unit Shield By Patroit LP Systems is ESE type. (ESE – Early Streamer Emmission)
- 2 The ESE Lightning Conductor Unit Shield By Patroit LP Systems fully comply with NF C 17 – 102 standards. The METU high Voltage Lab. Test report acc. To NF C 17 – 102 is available upon request.
- 3 The ESE lightning conductor unit, Shield By Patroit Lp Systems provides the required energy from the electrostatic field decsity variations that occurs in air. There is no supplementary energy requirement such as wind, sun or kinetic energy. There is no need for vibrations for the functioning energy.

ESE Lightning Conductor Units

Eco Plus by Ozelsan Systems

Product	Product No	Material	Remark
Eco Plus 25	PRT 25-21	Stainless Stell	
Eco Plus 40	PRT 40-22	Stainless Stell	
Eco Plus 60	PRT 60-23	Stainless Stell	



1 The Lightning Conductor Unit Eco Plus By Patroit LP Systems is ESE type. (ESE – Early Streamer Emission)

2 The ESE Lightning Conductor Unit Eco Plus By Patroit LP Systems fully comply with NF C 17 – 102 standards. The METU high Voltage Lab. Test report acc. To NF C 17 – 102 is available upon request.

3 The ESE lightning conductor unit, Eco Plus By Patroit Lp Systems provides the required energy from the electrostatic field density variations that occurs in air. There is no supplementary energy requirement such as wind, sun or kinetic energy. There is no need for vibrations for the functioning energy.

ESE Lightning Conductor Units

Eco by Ozelsan Systems

Product	Product No	Material	Remark
Eco 25	PRT 25-31	Stainless Stell	
Eco 40	PRT 40-32	Stainless Stell	
Eco 60	PRT 60-33	Stainless Stell	



1 The Lightning Conductor Unit Eco By Patroit LP Systems is ESE type. (ESE – Early Streamer Emmission)

2 The ESE Lightning Conductor Unit Eco By Patroit LP Systems fully comply with NF C 17 – 102 standards. The METU high Voltage Lab. Test report acc. To NF C 17 – 102 is available upon request.

3 The ESE lightning conductor unit, Eco By Patroit Lp Systems provides the required energy from the electrostatic field density variations that occurs in air. There is no supplementary energy requirement such as wind, sun or kinetic energy. There is no need for vibrations for the functioning energy.

ESE Lightning Conductor Units

Eco X20 by Ozelsan Systems

Product	Product No	Material	Remark
Ecox20 25	PRT 25-31	Stainless Stell	
Ecox20 40	PRT 40-32	Stainless Stell	
Ecox20 60	PRT 60-33	Stainless Stell	



1 The Lightning Conductor Unit Eco x20 By Patroit LP Systems is ESE type. (ESE – Early Streamer Emmission)

2 The ESE Lightning Conductor Unit Eco x20 By Patroit LP Systems fully comply with NF C 17 – 102 standards. The METU high Voltage Lab. Test report acc. To NF C 17 – 102 is available upon request.

3 The ESE lightning conductor unit, Eco x20 By Patroit Lp Systems provides the required energy from the electrostatic field density variations that occurs in air. There is no supplementary energy requirement such as wind, sun or kinetic energy. There is no need for vibrations for the functioning energy.

ESE Lightning Conductor Units

Orion by Ozelsan Systems

Product	Product No	Material	Remark
Orion 40	PPRT 60-01	Stainless Stell	
Orion 60	PPRT 60-02	Stainless Stell	



- 1 The Lightning Conductor Unit Orion By Patroit LP Systems is ESE type. (ESE – Early Streamer Emmission)
- 2 The ESE Lightning Conductor Unit Orion By Patroit LP Systems fully comply with NF C 17 – 102 standards. The METU high Voltage Lab. Test report acc. To NF C 17 – 102 is available upon request.
- 3 The ESE lightning conductor unit, Orion By Patroit Lp Systems provides the required energy from the electrostatic field decsity variations that occurs in air. There is no supplementary energy requirement such as wind, sun or kinetic energy. There is no need for vibrations for the functioning energy.

ESE Lightning Conductor Units

Vega by Ozelsan Systems

Product	Product No	Material	Remark
Vega 40	SPRT 60-01	Stainless Stell	
Vega 60	SPRT 60-02	Stainless Stell	



1 The Lightning Conductor Unit Vega By Patroit LP Systems is ESE type. (ESE – Early Streamer Emmission)

2 The ESE Lightning Conductor Unit Vega By Patroit LP Systems fully comply with NF C 17 – 102 standards. The METU high Voltage Lab. Test report acc. To NF C 17 – 102 is available upon request.

3 The ESE lightning conductor unit, Vega By Patroit Lp Systems provides the required energy from the electrostatic field decsity variations that occurs in air. There is no supplementary energy requirement such as wind, sun or kinetic energy. There is no need for vibrations for the functioning energy.

ESE Lightning Conductor Units

Sigma by Ozelsan Systems

Product	Product No	Material	Remark
Sigma 25	PRT 25-01	Stainless Stell	
Sigma 40	PRT 40-02	Stainless Stell	
Sigma 60	PRT 60-03	Stainless Stell	



1 The Lightning Conductor Unit Sigma By Patroit LP Systems is ESE type. (ESE – Early Streamer Emission)

2 The ESE Lightning Conductor Unit Sigma By Patroit LP Systems fully comply with NF C 17 – 102 standards. The METU high Voltage Lab. Test report acc. To NF C 17 – 102 is available upon request.

3 The ESE lightning conductor unit, Sigma By Patroit Lp Systems provides the required energy from the electrostatic field density variations that occurs in air. There is no supplementary energy requirement such as wind, sun or kinetic energy. There is no need for vibrations for the functioning energy.

Test Devices & Lightning Strike Counters

Test Devices

Product	Product No	Remark
Patroit LR Tester	PLRT 60-01	
Patroit SC Tester	PSCT 60-02	

Lightning Strike Counters

Product	Product No	Remark
Patroit Strike Counter	PSC 35-01	
Shield Strike Counter	SSC 35-02	



1983 yılında Aziz Öztürk tarafından kurulan ÖZELSAN Makina Ltd. imalatçı firmasıdır. Özelsan, 1983 yılından beri Traktör Parça Mühendisliği ve İmalatına odaklanmaya önem vermiştir, özellikle Özelsan, MASSEY FERGUSON, FORD, IMT, JOHN DEERE, FIAT, STEYR traktör yedek parçaları imalatı. Tüm Avrupa, Orta Doğu, ABD, Kanada, Brezilya, Rusya, Balkan Ülkeleri, Asya Pasifik Ülkeleri, Afrika, Avustralya, yerel traktör yedek parçaları distribütörleri ve toptancıları için 467 çeşit traktör yedek parçası ürün yelpazesi üretiyoruz. ajanlar. Tüm müşteri siparişlerinin üretim sürecini titizlikle takip ediyoruz.

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