

# A long lasting tradition - factory established 1985





# DIRECTORY of other FEMAN products





Quality above all





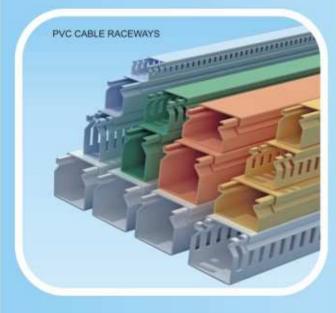
The creator of this business idea.

Miodrag Nikolic, is the owner AN, founder of the company specially and is an electrical engineer by specially.

# **DIRECTORY** of various FEMAN products















# **EXAMPLES OF EURO KRISTAL**



Front of factory Benini



Feman lighting advertisement pole



Lajkovac



Placement along city street in Jagodina

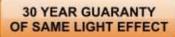


Back of the factory Banini

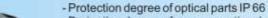


### **EURO KRISTAL 1**

For a brighter future with Serbian lamps made to European standards.







- Protection degree of pre-connection device part IP 65
- Lens is of mechanically strengthened forged glass, blow resistant & the possibility of the lens falling or changing color after a couple of years is excluded.
- Housing of pressure cast aluminum makes this lamp strong and light
- Exceptional & adjustable photometric features
- Mechanical reliability
- The possibility of unpleasant blinding of auto drivers driving on streets lighted by Euro kristal lamps is excluded.
- -Aero-dynamic shape of Euro kristal lamps absorbs the force of the wind

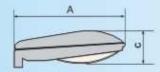


### Purposes:

Use for lighting streets, parks, squares, factory grounds, as well as all other places needing good illumination.

Consists of: Housing of pressure cast aluminum alloy, forged glass lens, exceptionally high brightness aluminum reflector, adjustable socket, replaceable plate for pre-connection device, silicon seal, horizontal-vertical lamp support ø48.





LIGHTS	А	В	С	D	Bulb holder
EURO KRISTAL 1	639	269	170	48	E27-E40



Code Number	Lamp	Туре	Power W	Weight kg/pc
3900249	EURO KRISTAL 1	Sodium	50	5,00
3900250	EURO KRISTAL 1	Sodium	70	5,10
3900251	EURO KRISTAL 1	Sodium	100	5,40
3900252	EURO KRISTAL 1	Sodium	150	6,10
3900255	EURO KRISTAL 1	Mercury	80	4,90
3900256	EURO KRISTAL 1	Mercury	125	5,20
3900257	EURO KRISTAL 1	Metal-halogen	70	5.1
3900258	EURO KRISTAL 1	Metal-halogen	100	5.4
3900259	EURO KRISTAL 1	Metal-halogen	150	6.1









# Light bulbs:

Euro kristal 1	High	Press	ure Sod	lium	Mer	cury	Met	al - Halo	ogen
	50w	70w	100w	150w	80w	125w	70w	100w	150w



### **EURO KRISTAL 2**

For a brighter future with Serbian lamps made to European standards.





### Purposes:

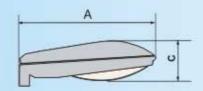
Use for lighting streets, parks, squares, factory grounds, as well as all other places needing good illumination.

Consists of: Housing of pressure cast aluminum alloy, forged glass lens, exceptionally high brightness aluminum reflector, adjustable socket, replaceable plate for pre-connection device, silicon seal, horizontal-vertical lamp support ø48.

# Advantages:

- Protection degree of optical parts IP 66
- Protection degree of pre-connection device part IP 65
- Lens is of mechanically strengthened forged glass, blow resistant & the possibility of the lens falling or changing color after a couple of years is excluded.
- Housing of pressure cast aluminum makes this lamp strong and light
- Exceptional & adjustable photometric features
- Mechanical reliability
- The possibility of unpleasant blinding of auto drivers driving on streets lighted by Euro kristal lamps is excluded.
- Aero-dynamic shape of Euro kristal lamps absorbs the force of the wind





LIGHTS	А	В	С	D	Bulb holder
EURO KRISTAL 2	764	302	189	65	E27-E40

Code Number	Lamp	Туре	Power W	Weight kg/kom
3900260	EURO KRISTAL 2	Sodium	150	8,00
3900261	EURO KRISTAL 2	Sodium	250	8,50
3900265	EURO KRISTAL 2	Mercury	125	7,10
3900266	EURO KRISTAL 2	Mercury	250	7,60
3900267	EURO KRISTAL 2	Metal-halogen	150	8,00
3900268	EURO KRISTAL 2	Metal-halogen	250	8.5

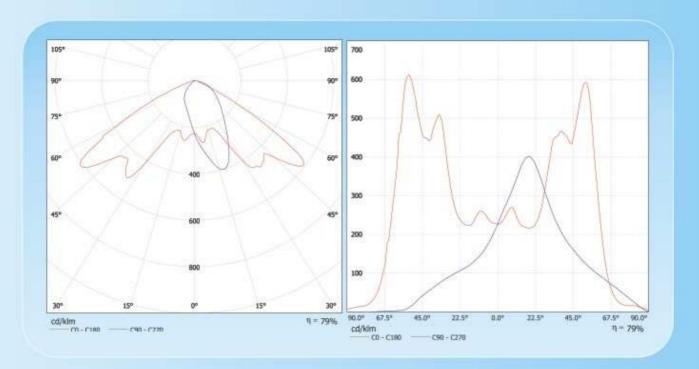












# Light bulbs:

Euro kristal 2	High Pressure Sodium		Mer	Mercury		Metal - Halogen	
	150w	250w	125w	250w	150w	250w	
					00		



### **EURO KRISTAL 3**

For a brighter future with Serbian lamps made to European standards.





## Purposes:

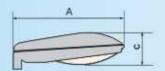
Use for lighting streets, parks, squares, factory grounds, as well as all other places needing good illumination.

Consists of: Housing of pressure cast aluminum alloy, forged glass lens, exceptionally high brightness aluminum reflector, adjustable socket, replaceable plate for pre-connection device, silicon seal, horizontal-vertical lamp support (ø60mm).

# Advantages:

- Protection degree of optical parts IP 66
- Protection degree of pre-connection device part IP 65
- Lens is of mechanically strengthened forged glass, blow resistant & the possibility of the lens falling or changing color after a couple of years is excluded.
- Housing of pressure cast aluminum makes this lamp strong and light
- Exceptional & adjustable photometric features
- Mechanical reliability
- The possibility of unpleasant blinding of auto drivers driving on streets lighted by Euro kristal lamps is excluded.
- Aero-dynamic shape of Euro kristal lamps absorbs the force of the wind





LIGHTS	А	В	С	D	Bulb holder
EURO KRISTAL 3	880	354	260	65	E40

Code Number	Lamp	Туре	Power W	W eight kg/kom
3900279	EURO KRISTAL 3	Sodium	250	12,5
3900280	EURO KRISTAL 3	Sodium	400	13,5
3900282	EURO KRISTAL 3	Mercury	250	12
3900283	EURO KRISTAL 3	Mercury	400	13
3900289	EURO KRISTAL 3	Metal-halogen	250	12,5
3900286	EURO KRISTAL 3	Metal-halogen	400	13,5

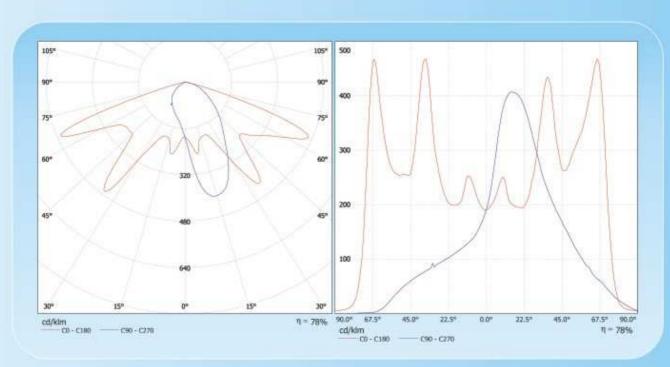












# Light bulbs:

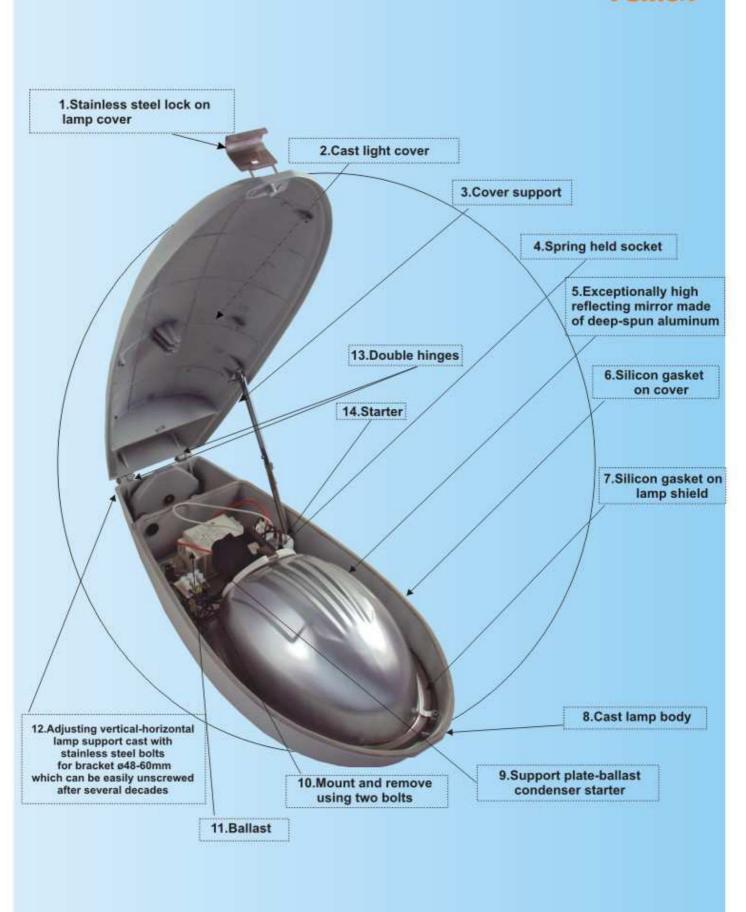
Euro kristal 3	High Pressure Sodium		Mer	Mercury		Metal - Halogen	
	250w	400w	250w	400w	250w	400w	



We standardly produce EUROKRISTAL 1, EUROKRISTAL 2 and EUROKRISTAL 3 in light or dark colors, but at the customer's request we can produce them in other colors.









# Maintenence:

1.



After releasing the stainless steel catch (without using a wrench) the lid is is lifted to its self-locking extent



All elements are accessible to the installer and are very easy to remove

2.



Installing and removal of light parts is done from the upper part according to standards





Protection degree of IP 66 is secured by the use of a double gasket, which guarantees long-lasting cleanliness of the reflector and the lens cover

# Mounting:



- Can be installed on a bracket arm as well as on a metal post.







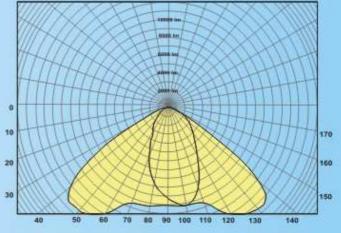


# Photometric adaptability

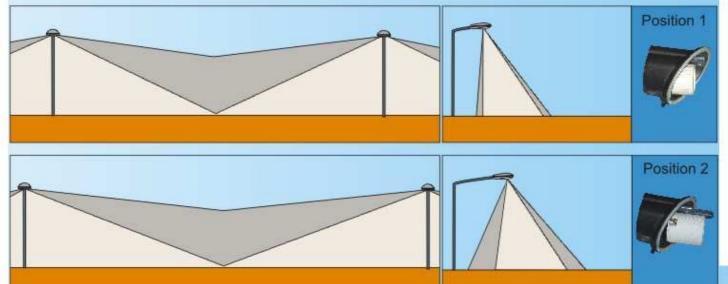
A large selection of lamp positions permits photometric adaptability depending on the desired lighting arrangement (Position 1 & 2). Using EURO KRISTAL lights prevents the possibility of unpleasant light flashes while

possibility of unpleasant light flashes while driving, and a wider photometric arrangement is achieved which permits a more economic interval between poles.

This arrangement system allows lighting to be adapted to the requirements of the situation (road width, mounting height, etc.).



EURO KRISTAL 2, Sodium 250 W





### LAMP SUPPORTS - BRACKET ARMS

Adjustable support for street lamp installed in to a pole.
Surface protection is with electro-

Surface protection is with electrostatic paint, but at the customer's request can be hot-dipped.

		-	
	Code number	L (mm)	
í	3900450	500	P
	3900451	1000	
	3900452	1500	

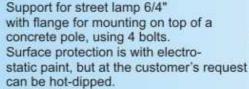
Support for street lamp 6/4" for wall mounting.
Mounting done with 4 bolts.
Surface protection is with electrostatic paint, but at the customer's request can be hot-dipped.

Code number: 3900430



Support for street lamp 6/4" for attachment along a pole. Attachment is done with attaching bands (pgs. 34-35 of this catalog). Surface protection is with electrostatic paint, but at the customer's request can be hot-dipped.

Code number: 3900400



Code number: 3900420



Angled support for street lamp 6/4" without a flange, for the top of a steel pole, (upon request can also be made for concrete poles). Surface protection is with electrostatic paint, but at the customer's request can be hot-dipped.

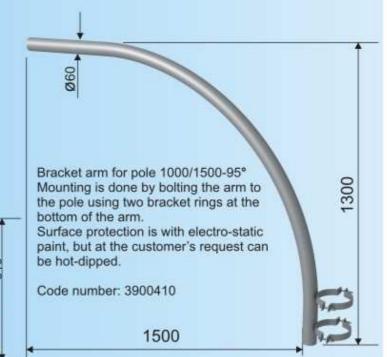
Code number: 3900440

Bracket arm ø48-110° for pole 120-130 Mounting is done by bolting the arm to the pole using two bracket rings at the bottom of the arm.

Surface protection is with electro-static paint, but at the customer's request can be

hot-dipped.

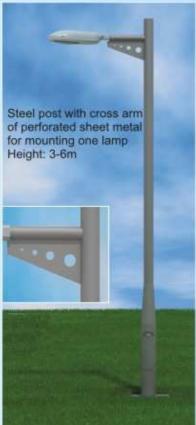












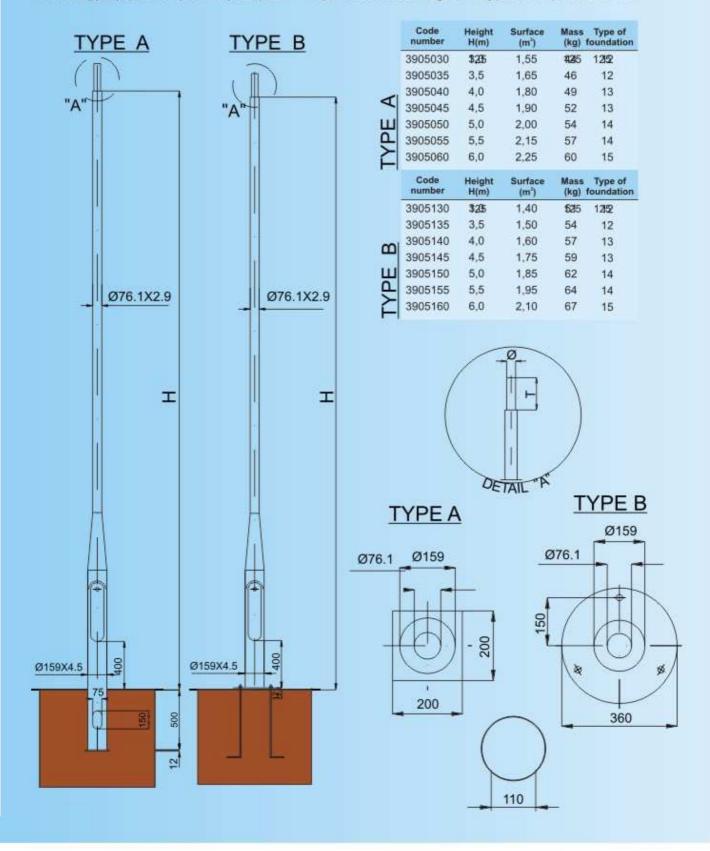




Note: At the customer's request we make poles of other dimensions

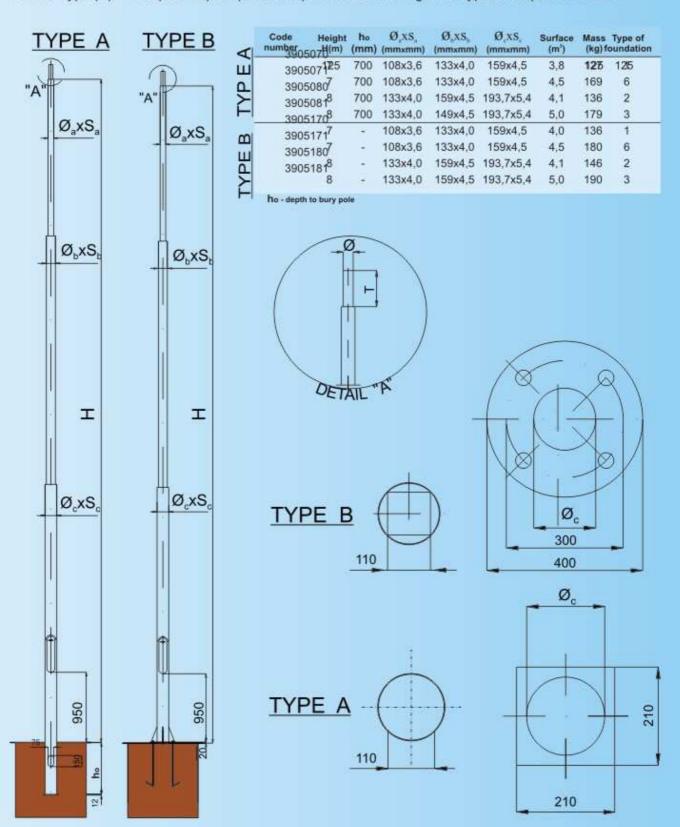


Depending on the manner of placement, the poles are of two types: those placed in a concrete foundation. Type (A) and - those for securing into a concrete foundation using three or four anchor hooks, Type (B). The top of the pole (Detail "A") is made according to the type of lamp, ø48 or ø60.



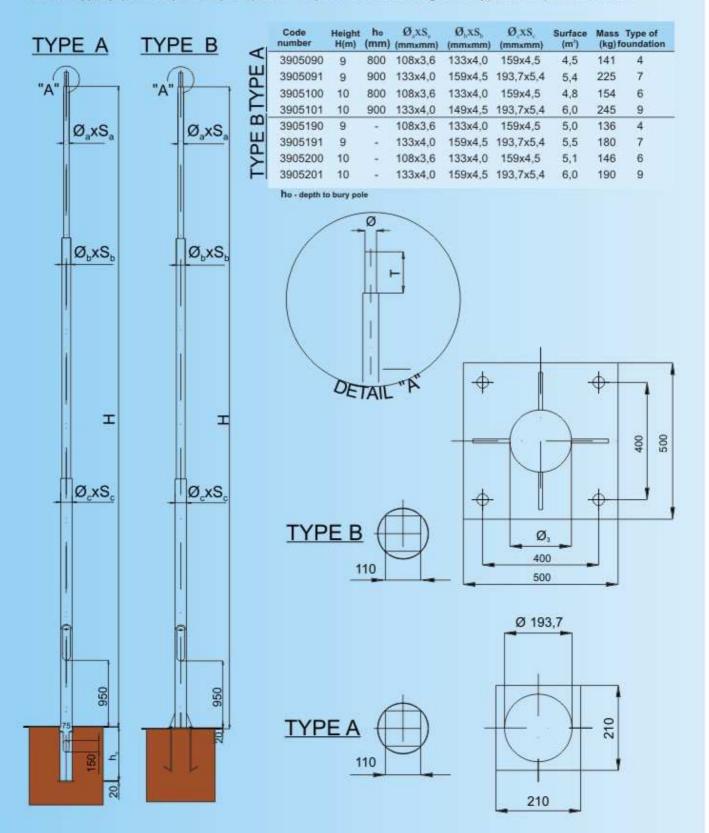


Depending on the manner of placement, the poles are of two types: - those placed in a concrete foundation. Type (A) and - those for securing into a concrete foundation using three or four anchor hooks, Type (B). The top of the pole (Detail "A") is made according to the type of lamp, ø48 or ø60.



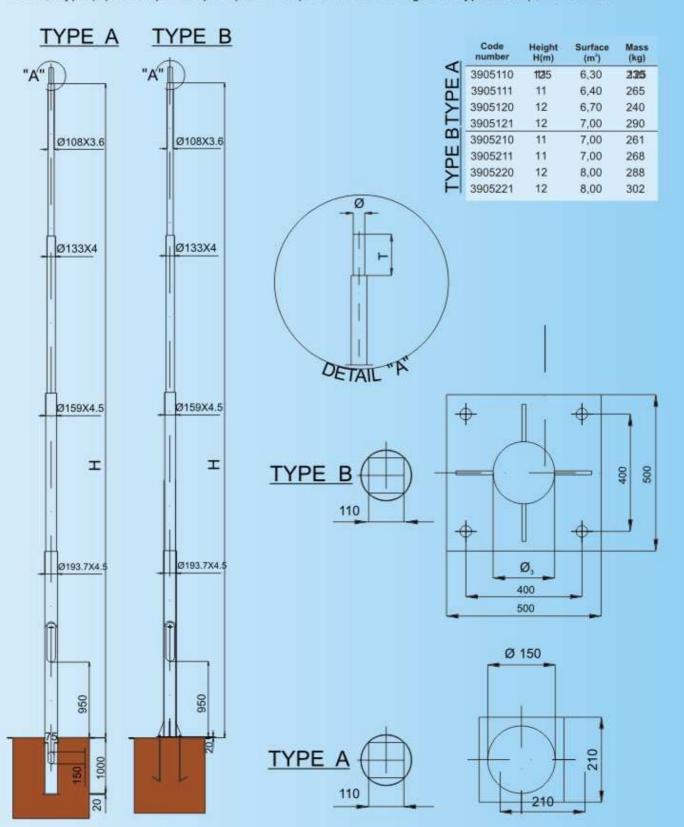


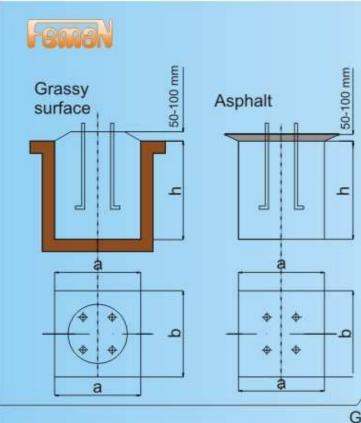
Depending on the manner of placement, the poles are of two types: - those placed in a concrete foundation, Type (A) and - those for securing into a concrete foundation using three or four anchor hooks, Type (B). The top of the pole (Detail "A") is made according to the type of lamp, ø48 or ø60.



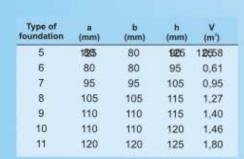


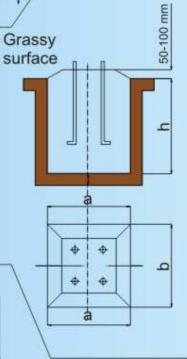
Depending on the manner of placement, the poles are of two types: - those placed in a concrete foundation, Type (A) and - those for securing into a concrete foundation using three or four anchor hooks, Type (B). The top of the pole (Detail "A") is made according to the type of lamp, ø48 or ø60.

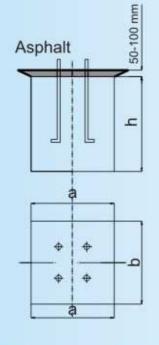


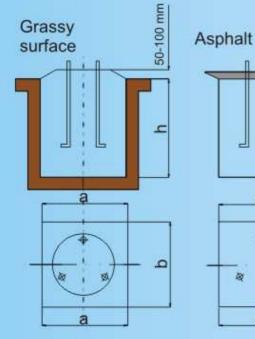


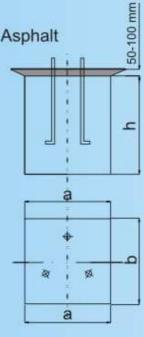
Type of foundation	a (mm)	b (mm)	h (mm)	(m)
1	125	70	825	12540
2	75	75	80	0,45
3	95	95	110	1,00
4	95	95	100	0,91











Type of foundation	a (mm)	(mm)	h (mm)	(m)
12	166	60	625	12520
13	60	60	70	0,26
14	65	65	75	0,30
15	70	70	75	0,37







Circuit boxes for public lighting are made of pressedpolyester reinforced with fiberglass. Resistant to both static and dynamic loads, UV radiation and self-extinguishing, they have a great dielectric strength. At the customer's request we can make them in protection degrees of IP44, IP54 or Ip65. For detailed information, see our general catalog.







## OCTAGONAL STEEL POLES WITH TOP Ø 48



Octagonal steel poles are designed for use in illuminating roadways, parks, footpaths, industrial facilities, etc. Surface protection is by hot-dip galvanization, but at the customer's request can be painted according to RAL.

Code	Туре	Тор	Surface	Н	h
number	reliance	reliance	protection	m	mm
3905330	FOS-L3-48-F	ø48	F	3	500
3905331	FOS-L3-48-Z	ø48	Zn	3	500
3905335	FOS-L3,5-48-F	ø48	F	3.5	500
3905336	FOS-L3,5-48-Z	ø48	Zn	3.5	500
3905340	FOS-L4-48-F	ø48	F	4	500
3905341	FOS-L4-48-Z	ø48	Zn	4	500
3905345	FOS-L4,5-48-F	ø48	F	4.5	500
3905346	FOS-L4,5-48-Z	ø48	Zn	4.5	500
3905350	FOS-L5-48-F	ø48	F	5	500
3905351	FOS-L5-48-Z	ø48	Zn	5	500
3905360	FOS-L6-48-F	ø48	F	6	600
3905361	FOS-L6-48-Z	ø48	Zn	6	600
3905370	FOS-L7-48-F	ø48	F	7	600
3905371	FOS-L7-48-Z	ø48	Zn	7	600
3905380	FOS-L8-48-F	ø48	F	8	800
3905381	FOS-L8-48-Z	ø48	Zn	8	800
3905390	FOS-L9-48-F	ø48	F	9	800
3905391	FOS-L9-48-Z	ø48	Zn	9	800
3905392	FOS-L10-48-F	ø48	F	10	950
3905393	FOS-L10-48-Z	ø48	Zn	10	950
3905394	FOS-L11-48-F	ø48	F	11	950
3905395	FOS-L11-48-Z	ø48	Zn	11	950
3905396	FOS-L12-48-F	ø48	F	12	950
3905397	FOS-L12-48-Z	ø48	Zn	12	950

When ordering, please specify:

Code number of pole from the catalog, the type of support arm to be mounted on the pole, the type of lamp to be mounted on the pole, and the type of distribution plate to be installed.



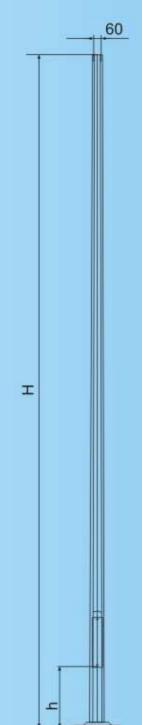
# OCTAGONAL STEEL POLES WITH TOP Ø 60

Octagonal steel poles are designed for use in illuminating roadways, parks, footpaths, industrial facilities, etc. Surface protection is by hot-dip galvanization, but at the customer's request can be painted according to RAL.

Code	Time	Ton	Confess	11	-
Code	Туре	Тор	Surface	Н	h
number	reliance	reliance	protection	m	mm
3905430	FOS-L3-60-F	ø60	F	3	500
	FOS-L3-60-Z	ø60	Zn	3	500
3905435	FOS-L3,5-60-F	ø60	F	3.5	500
3905436	FOS-L3,5-60-Z	ø60	Zn	3.5	500
3905440	FOS-L4-60-F	ø60	F	4	500
3905441	FOS-L4-60-Z	ø60	Zn	4	500
3905445	FOS-L4,5-60-F	ø60	F	4.5	500
3905446	FOS-L4,5-60-Z	ø60	Zn	4.5	500
3905450	FOS-L5-60-F	ø60	F	5	500
3905451	FOS-L5-60-Z	ø60	Zn	5	500
3905460	FOS-L6-60-F	ø60	F	6	600
3905461	FOS-L6-60-Z	ø60	Zn	6	600
3905470	FOS-L7-60-F	ø60	F	7	600
3905471	FOS-L7-60-Z	ø60	Zn	7	600
3905480	FOS-L8-60-F	ø60	F	8	800
3905481	FOS-L8-60-Z	ø60	Zn	8	800
3905490	FOS-L9-60-F	ø60	F	9	800
3905491	FOS-L9-60-Z	ø60	Zn	9	800
3905492	FOS-L10-60-F	ø60	F	10	950
3905493	FOS-L10-60-Z	ø60	Zn	10	950
3905494	FOS-L11-60-F	ø60	F	11	950
3905495	FOS-L11-60-Z	ø60	Zn	11	950
3905496	FOS-L12-60-F	ø60	F	12	950
3905497	FOS-L12-60-Z	ø60	Zn	12	950

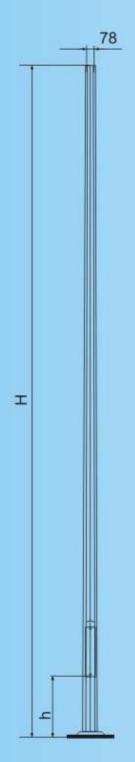
When ordering, please specify:

Code number of pole from the catalog, the type of support arm to be mounted on the pole, the type of lamp to be mounted on the pole, and the type of distribution plate to be installed.





# OCTAGONAL STEEL POLES WITH TOP Ø 78



Octagonal steel poles are designed for use in illuminating roadways, parks, footpaths, industrial facilities, etc. Surface protection is by hot-dip galvanization, but at the customer's request can be painted according to RAL.

Code	Туре	Тор	Surface	Н	h
number	reliance	reliance	protection	m	mm
3905530	FOS-L3-78-F	ø78	F	3	500
3905531	FOS-L3-78-Z	ø78	Zn	3	500
3905535	FOS-L3,5-78-F	ø78	F	3.5	500
3905536	FOS-L3,5-78-Z	ø78	Zn	3.5	500
3905540	FOS-L4-78-F	ø78	F	4	500
3905541	FOS-L4-78-Z	ø78	Zn	4	500
3905545	FOS-L4,5-78-F	ø78	F	4.5	500
3905546	FOS-L4,5-78-Z	ø78	Zn	4.5	500
3905550	FOS-L5-78-F	ø78	F	5	500
3905551	FOS-L5-78-Z	ø78	Zn	5	500
3905560	FOS-L6-78-F	ø78	F	6	600
3905561	FOS-L6-78-Z	ø78	Zn	6	600
3905570	FOS-L7-78-F	ø78	F	7	600
3905571	FOS-L7-78-Z	ø78	Zn	7	600
3905580	FOS-L8-78-F	ø78	F	8	800
3905581	FOS-L8-78-Z	ø78	Zn	8	800
3905590	FOS-L9-78-F	ø78	F	9	800
3905591	FOS-L9-78-Z	ø78	Zn	9	800
3905592	FOS-L10-78-F	ø78	F	10	950
3905593	FOS-L10-78-Z	ø78	Zn	10	950
3905594	FOS-L11-78-F	ø78	F	11	950
3905595	FOS-L11-78-Z	ø78	Zn	11	950
3905596	FOS-L12-78-F	ø78	F	12	950
3905597	FOS-L12-78-Z	ø78	Zn	12	950

When ordering, please specify:

Code number of pole from the catalog, the type of support arm to be mounted on the pole, the type of lamp to be mounted on the pole, and the type of distribution plate to be installed.



# CONNECTION PLATE FOR PUBLIC LIGHTING POLES PPR4

Made of special polyester resin. Installed in poles

for public lighting.

# Specifications:

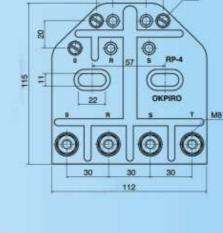
Rated voltage: 450 V

Rated fuse current: max 16 A

Number of fuses: 2

Number of connection wires: 4 Temperature range: -50 to 130 C

Code number: 39003874





# CONNECTION PLATE FOR PUBLIC LIGHTING POLES PPROV III

Made of special polyester resin. Installed in larger dimension public lighting poles and for larger diameter feeder cables.

# Specifications:

Rated voltage: 450 V

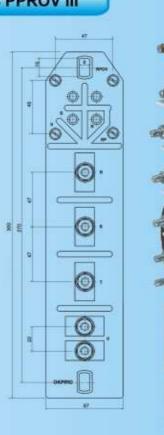
Rated fuse current: max 16A

Number of fuses: 2

Number of connection wires: 4 Temperature range: -50 to 130 C

Code number: 2900383







### FLUORESCENT STREET LAMP 2x11-18W

### **ADVANTAGES**

- Economical
- Simple installation

### DESCRIPTION

Lamp is intended for public lighting and consists of housing and cover of aluminum. The optical block is a sealed unit: polished, anodized, very pure aluminum mirror, and cover of extruded poly-carbonate. Starter device (IP 23) is mounted on a simply changed base.

This lamp for public illumination can be equipped with compact fluorescent bulbs of either 11W or 18W. The very high degree of protection, the strong material from which it is made and the exceptional photometric performance guarantees quality lighting with reduced maintenance costs.

Use for lighting highways, streets, parks, squares, yards, factory grounds, and all other places where good illumination is needed.

Code number	Туре	Power W	Light flux Lm	Base
3900165	2x18	2x18	2x1200	G-24

Fluorescent light bulbs

# Light bulbs:



# CHARACTERISTICS

Protection degree:

\* Optical block IP 54

\* Starter device part IP 23 Voltage: 220-240V, 50-60Hz

Power: 0,44A

Blow resistance (glass): IK 08

Lamp weight:

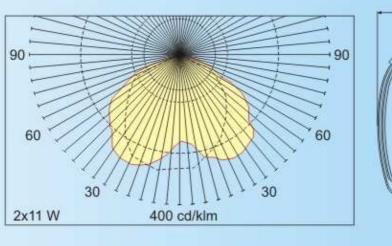
\* without starter: 2,5 kg

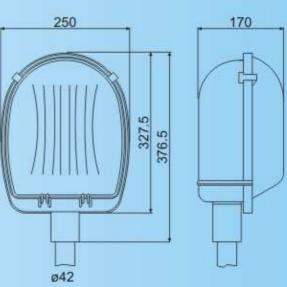
Dimensions: 376,5x250x170

Fluo light 1x11-18W	Compact fluorescent light sources	
	11W	18W











### MERCURY-SODIUM STREET LAMP

### **ADVANTAGES**

The advantage of this lamp compared to others is that it is 50% lighter and is not subject to great vibration during storms and wind, which are the most frequent cause of damaged electrical connections, which greatly shorten the life of the light.



### DESCRIPTION

Use for illumination of streets, parks, squares, yards, factory grounds, as well as all other places needing good illumination.

This street lamp is made of material highly resistant to all atmospheric conditions, such as, for example, high and low temperatures. The body of the lamp is made of aluminum and the tightening support parts from zinc protected steel. The ballast housing is protected by a cover made of reinforced UV-stabile polyamide, which makes it resistant to atmospheric conditions.

# CHARACTERISTICS

Protection degree:

\* Optical block IP 54

\* Starter device part IP 23 Voltage: 220-240V, 50-60Hz

Power: 1,15A

Blow resistance (glass): IK 08

Lamp weight:

\* without starter device: 3,8 kg Dimensions: 475x250x170

# Light sources:



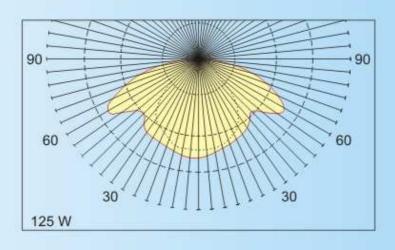
Opaque elliptical bulb

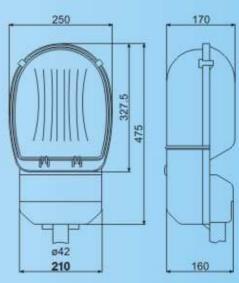
Mercury and Sodium lamp	High Pressu	re Sodium	Men	cury
	70W	100W	80W	125W

Code number	Туре	Power W	Luminous flux Lm	Electricity A	Volume m <sup>3</sup>	Bulb holder	Weight kg/kom
3900160	mercury	125	6 300	1,15	0,027	E-27	3,8
3900172	natrium	70	5 600	1	0,027	E-27	3,9
3900159	mercury	80	3800	0,8	0,027	E-27	3,8
3900173	natrium	100	8000	1,42	0,027	E-27	3,8











These lights are intended for illuminating streets, individual objects, workshops and similar. The housing and reducer are made of pressure cast aluminum. The reflector hatch is made of deep spun sheet metal, with rounded edges. The light bulb is protected with a screw-in safety glass cover with a gasket. The protection degree is IP 65. The housing, reducer and reflector are protected with electrostatic polyester enamel. At the customer's request we can manufacture in other colors.

# **OG LAMP - STRAIGHT**



Code number	Туре	Power W	Base
3900090	100W/2	100	E-27
3900110	200W/2	200	E-27

# OG LAMP - ANGLED



Code number	Туре	Power W	Base
3900050	100W/2	100	E-27
3900070	200W/2	200	E-27

# **MERCURY LAMP - ANGLED**



Code number	Туре	Power W	Base
3900140	angled	125	E-27

# **MERCURY LAMP - STRAIGHT**



Code number	Туре	Power W	Base
3900130	straight	125	E-27



# WATERPROOF LIGHT - ANGLED

# STREET POST LAMP WITH BALLAST



Code number	Type/power (W)	Base
3900010	100 W	E-27
3900020	200 W	E-27



Code number	Туре	Base
3900150	longer barrel	E-27
3900155	shorter barrel	E-27

# BALLAST PF-125W WITH BASE FOR MERCURY LAMP



Code number	Dimension	Package	Weight	
3900300	103,5x78,5x72,5	1 each	1,8 kg/ea	

# REFLECTOR HATCH

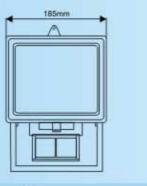


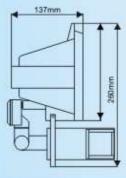
Code	Туре	Outer diameter mm	Inner diameter mm	Package pcs	Weight kg/ea
3901005	S-1090	230	86	50	0,16
3901010	S-200	295	125	50	0,20



# HALOGEN REFLECTOR WITH SENSOR







Code number	Туре	Power W
3900210	with sensor, without bulb	1.51
3900213	with sensor and bulb	300
3900215	with sensor and bulb	500

This halogen reflector with sensor has the following construction.

The housing is made of pressure cast silumine, with ribs that facilitate better heat dispersion. The surface of the housing is plasticized, which makes it exceptionally resistant to atmospheric conditions.

The light beam is wide and equally distributed, so that the energy expended is used to the maximum. Adjustable to all positions as desired. Voltage is 220 V. Reflector with built-in automatic IR light sensor for switching on, with photo-cell time-clock for lighting, is ideal for an alarm.

All these characteristics make this reflector suitable for a wide spectrum of both exterior and interior installation, but it is most often used for illuminating entrances, displays, hallways, facades, monuments, etc.



### HALOGEN REFLECTOR

DESCRIPTION



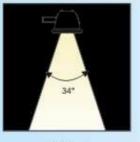


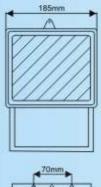
Feman's halogen reflectors are made to European standards.

The housing is of pressure cast silumine, and its construction is elaborated with ribs to diffuse heat. The surface protection of the housing is plasticized, making it exceptionally resistant to atmospheric conditions.

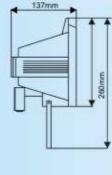
The light beam is wide and equally distributed so that the energy expenditure is used to the maximum. Adjustable to all positions as desired.







3 x e8.5mm



Code	Туре	Pawer W
3900200	without bulb	87
3900218	with bulb	200
3900220	with bulb	300
3900230	with bulb	500

All these characteristics make this appropriate for a wide spectrum of applications for both exterior and interior installation, but most often is used to light entrances, displays, hallways, facades, monuments, etc.



# FLOODLIGHT STANDS

Use for quick and simple lighting of desired areas. The lights can be raised to a height of 2800 mm, can be adjusted forward and back-ward, and can turn 360 degrees.

PORTABLE FLOODLIGHT

Code

3900235

# Use for quick and simple lighting of desired areas. The housing is made of pressure cast silumine, with ribs that facilitate better heat dispersion. The surface of the housing is plasticized, which makes it exceptionally resistant to atmospheric conditions. The light beam is wide and equally distributed, providing the most efficient use of energy. Supplied without bulb and wires.

Type

portable without bulb

Code number	No. of reflectors each	Height mm
3910001	1	2800
3910002	2	2800



## HALOGEN REFLECTOR



	Code number	Туре	Weight kg	Power W	
ſ	3900240	Metal-halogen	12	2000W	

Important



## DESCRIPTION

Reflector can be installed either on a wall or a pole. The reflection surface, (rotationally symmetric) is made of quality polished aluminum, making very shiny.

The light beam is wide and equally distributed, so that the energy expenditure is used to the maximum. Adjustable to all positions as desired.

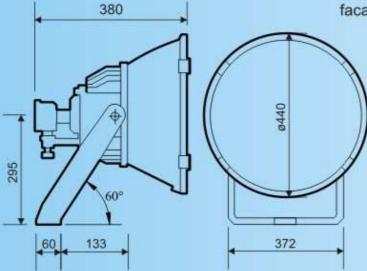
The insulation degree of the lamp is IP54.

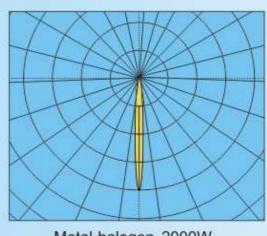
The reflector is connected to a voltage network of 230V/400V. The recommended diameter of copper cable is 3x2,5 mm<sup>2</sup>.

Accompanying gear:

- Metal-halogen bulb 2000W
- Condenser 60µF ,400V

All these characteristics make this reflector suitable for a wide spectrum of usage, for both exterior and interior installation, but most often used for illuminating entrances and approaches to factory grounds, sports fields, stadiums, work-shops, displays, hallways, facades, etc.





Metal-halogen 2000W



# REFLECTOR for illuminating billboards, advertisements





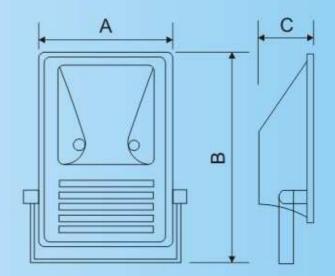
The way the housing is made, (pressure cast aluminum) and the surface protection done by plastification makes this reflector resistant to atmospheric conditions, permitting its use both indoors and outside...

By using anodized, finely polished aluminum, for the reflector surface, a better distribution of the light flux is obtained.

The light beam is wide and uniform, so that the energy spent is used to the maximum. Adjustable to all positions as desired. With its compact and elegant appearance, it

With its compact and elegant appearance, it easily adapts to all structures, to both modern and traditional architecture.

All these characteristics make this reflector appropriate for a wide spectrum of applications, for both exterior and interior installation, but it is most often used for lighting entrances, displays, hallways, facades, monuments, parks, etc.



### Technical data:

- Protection degree IP 65

Nominal voltage
 Installed power
 220~240V, 50 Hz
 150W, 400W

Base Rx7s

Code	Туре	Power	A	B	C
number		W	(mm)	(mm)	(mm)
3900192	Metal-halogen	1x150W	230	430	90



### REFLECTOR for lighting billboards, facades





The way the housing is made, (pressure cast aluminum) and the surface protection done by plastification makes this reflector resistant to atmospheric conditions, permitting its use both indoors and outside..

By using anodized, finely polished aluminum, for the reflector surface, a better distribution of the light flux is obtained.

The light beam is wide and uniform, so that the energy spent is used to the maximum. Adjustable to all positions as desired. With its compact and elegant appearance, it easily adapts to all structures, to both modern and traditional architecture.

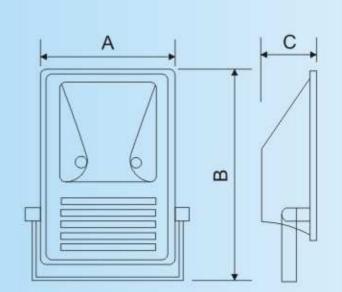
All these characteristics make this reflector appropriate for a wide spectrum of applications, for both exterior and interior installation, but it is most often used for lighting entrances, displays, hallways, facades, monuments, parks, etc.

### Technical data:

-Protection degree IP 65

-Nominal voltage 220~240V, 50Hz -Installed power 150W, 400W

-Base RX7s



Code	Туре	Power	A	B	C
number		W	(mm)	(mm)	(mm)
3900193	Metal-halogen	1x400W	395	700	145



## REFLECTOR for lighting facades, smaller sports fields and large billboards





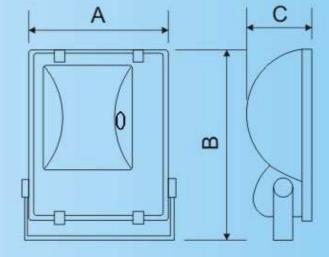
The way the housing is made, (pressure cast aluminum) and the surface protection done by plastification makes this reflector resistant to atmospheric conditions, permitting its use both indoors and outside...

By using anodized, finely polished aluminum, for the reflector surface, a better distribution of the light flux is obtained.

The light beam is wide and uniform, so that the energy spent is used to the maximum. Adjustable to all positions as desired.

With its compact and elegant appearance, it easily adapts to all structures, to both modern and traditional architecture.

All these characteristics make this reflector appropriate for a wide spectrum of applications, for both exterior and interior installation, but it is most often used for lighting entrances, displays, hallways, facades, monuments, parks, etc.



Technical data:

Protection degree IP 65

Nominal voltage 220~249V, 50Hz

Installed power 400W Base E40

Code Number	Туре	Power W	A (mm)	B (mm)	C (mm)
3900194	Sodium	250-400W	480	530	155
3900195	Metal-halogen	250-400W	480	530	155



### REFLECTOR for sports fields and industrial illumination





The way the housing is made, (pressure cast aluminum) and the surface protection done by plastification makes this reflector resistant to atmospheric conditions, permitting its use both indoors and outside.

By using anodized, finely polished aluminum for the reflector surface, a better distribution of the light flux is obtained.

The light beam is wide and uniform, so that the energy spent is used to the maximum. Adjustable to all positions as desired.

With its compact and elegant appearance, it easily adapts to all structures, to both modern and traditional architecture.

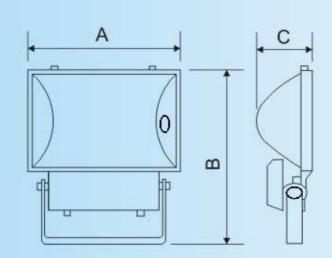
All these characteristics make this reflector appropriate for a wide spectrum of applications, for both exterior and interior installation, but it is most often used for lighting entrances, displays, hallways, facades, monuments, parks, etc.

Technical data:

-Protection degree IP 65

-Nominal voltage 220~240V, 50Hz -Installed power 150W,400W

-Base E40



Code number	Туре	Power W	A (mm)	B (mm)	C (mm)
3900196	Sodium	1x1000W	600	720	200
3900197	Metal-halogen	1x1000W	600	720	200



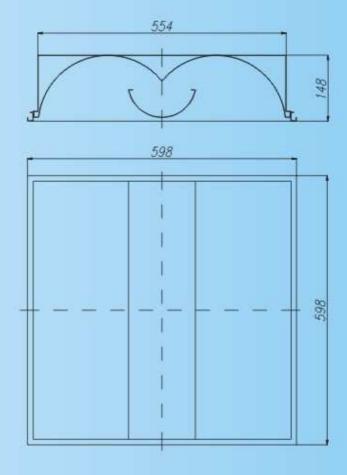
## RECESSED LIGHTS FOR INDIRECT LIGHTING - FUSIO

Represents a new concept in office lighting. Built into ceilings of 600 x 600. Its unique system of indirect lighting provides a comfortable and original space lighting. Made of steel sheet metal, painted in standard white color.





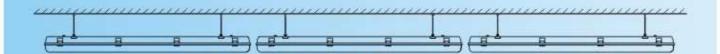




Code	Power	A	B	L	h	Mass
number	W	(mm)	(mm)	(mm)	(mm)	kg
3900360	2x36W	598	598	554	184	3,8



## WATER-RESISTANT FLUORESCENT FIXTURES







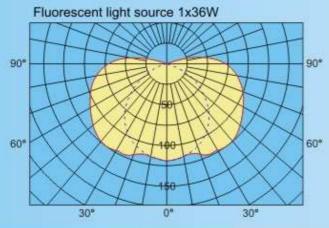
Stainless steel catch on top

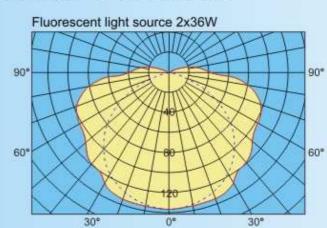
Stainless steel catch on side

## Lamps are used for lighting



especially in locations where there is increased moisture and dust







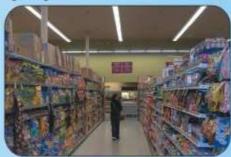
### DESCRIPTION

Lamp is intended for lighting of industrial objects, especially where there is a greater exposure to damp and dust. The lamp body is made of ABS. The fasteners for securing the cover are stainless steel. The polyurethane gasket is cast directly into a groove of the lamp. Polyamide couplings enable IP 65 protection. The cover is made of transparent poly-carbonate, which is UV stabile, (which means that there will not be any great change in the material due to the effects of ultra-violet light rays). The steel reflection plate is plasticized in white and is UV stable.





garages, farms



shops, interior, passages

Code	Max. Power	Degree of	Dimensions	Weight
number	(W)	protection	(mm)	(kg)
3910218	2x18W	IP 65	670x165x75	1.46





basement, boiler rooms



slaughterhouses, kitchen

Code number	Max. Power (W)	Degree of protection	Dimensions (mm)	Weight (kg)
3910118	1x18W	IP 65	670x105x75	0.9



## DESCRIPTION

Lamp is intended for lighting of industrial objects, especially where there is a greater exposure to damp and dust. The lamp body is made of ABS. The fasteners for securing the cover are stainless steel. The polyurethane gasket is cast directly into a groove of the lamp. Polyamide couplings enable IP 65 protection. The cover is made of transparent polycarbonate, which is UV stabile, (which means that there will not be any great change in the material due to the effects of ultra-violet light rays). The steel reflection plate is plasticized in white and is UV stable.



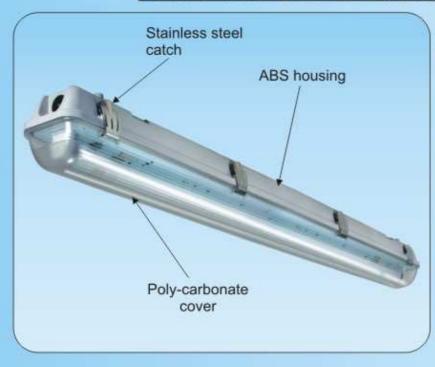


gyms, pools



crafts workshops

Code	Max. Power (W)	Degree of protection	Dimensions (mm)	Weight (kg)
Hulliber	(vv)			
3910236	2x36W	IP 65	1270x165x75	2.3





warehouses, industrial shops



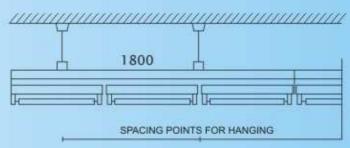
food industry

Code number	Max. Power (W)	Degree of protection	Dimensions (mm)	Weight (kg)
3910136	1x36W	IP 65	1270x105x75	1.65



### FLUORESCENT FIXTURES WITH AND WITHOUT SHADES







Code number	Туре	Power W	
3901020	FOS-120	1x2	
3902020	FOS-220	2x20	
3903020	FOS-320	3x20	
3901040	FOS-140	1x40	
3902040	FOS-240	2x40	
3903040	FOS-340	3x40	
3901012	reflector	20	
3901015	reflector	40	

We make open type fluorescent armatures in three standard dimensions: 20W-618 mm, 40W-1228 mm, 65W-1528 mm.

We make all three kinds for one, two or three fluorescent tubes with or without the corresponding reflector. The lamp housing is made of pickled, profiled sheet metal with baked on white enamel, completely wired in accord with the appropriate JUS and IEC standards. The lights are made with IP 20 protection and enable quick and easy installation.

They are designed for general use areas: hospitals, hallways, passages, warehouses and all other locations where lights are not exposed to great exposure to dust and damp.

Fluorescent lights can be also installed in a linear system which enables quick mounting and is universally accepted.

The linear system consists of an upper part (housing of a specified length) and a lower part (tube housing of a specified electrical power). Advantages are: Quick installation, long lasting and simple maintenance. The linear system is made with IP 20 protection and is recommended for use in factories, halls, warehouses and areas where lights are not exposed to great exposure to dust and liquids. If the area is higher than 5 m we recommend using reflectors that direct the light beam from above.



## **GEAR FOR ATTACHMENT**

Examples of connecting various elements to steel and concrete poles with stainless steel bands













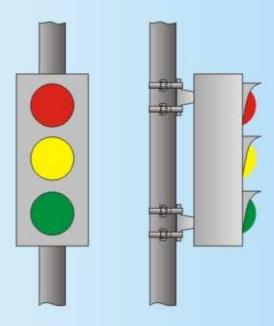




Quick, simple, safe, permanent, without welding or drilling with expensive tools



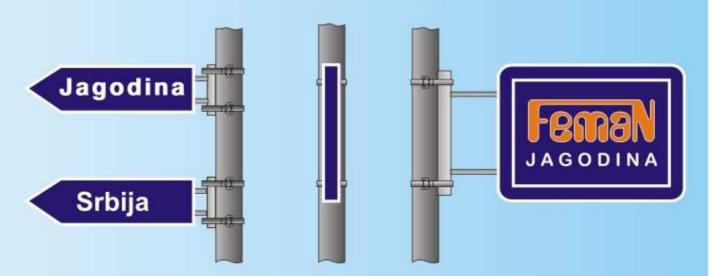
# EXAMPLES OF USING AND ATTACHING WITH STAINLESS STEEL BANDS TO STEEL AND CONCRETE POLES





## SECURING TRAFFIC LIGHTS

## Securing signs



## Securing advertisements - Road signs



Example of connecting ventilation & air-conditioner pipes and hoses.



Extending plastic and rubber hose & pipe for 60 mb pressure.

Exceptionally appropriate for water systems, sewers, air-conditioning systems, the automobile industry.



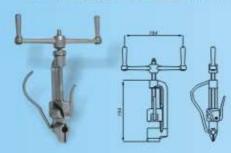
#### **PULLING GRIP FOR STAINLESS STEEL BANDS**



Used for tightening and cutting of stainless steel bands (steel support rings) used for securing equipment to poles. This is a very reliable and practical way for quick and easy securing of brackets, stands, supports, lamps, protection devices, signs, etc. on metal, concrete or wooden pole - supports, making a long lasting, greatly tightened, secure attachment without drilling and welding. This system has long been in use by the electrical industry in the developed countries.

Packing: 1 pcs Weight: 1.78 kg/ pcs Code number: 4710000

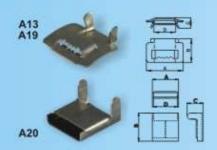
### PULLING GRIP FOR STAINLESS STEEL BANDS FZT



Used for tightening and cutting of stainless steel bands (steel support rings) used for securing equipment to poles. This is a very reliable and practical way for quick and easy securing of brackets, stands, supports, lamps, protection devices, signs, etc. on metal, concrete or wooden pole - supports, making a long lasting, greatly tightened, secure attachment without drilling and welding. This system has long been in use by the electrical industry in the developed countries.

Packing: 1 pcs Weight: 1.8 kg/ pcs Code number: 4710002

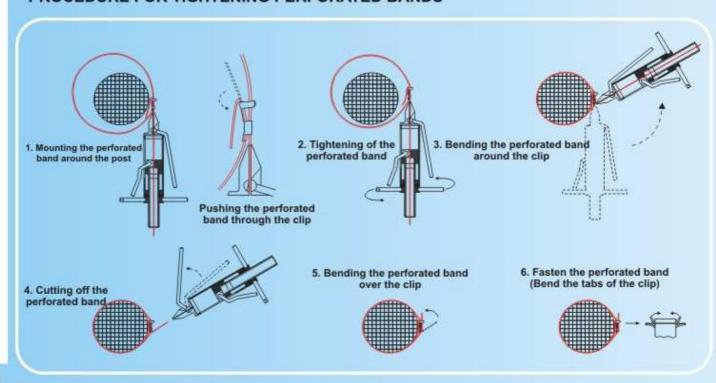
### **CLIPS FOR STAINLESS STEEL BANDS**



Code number	Tipe	A mm	B	C	D mm	Package pcs	Weight kg/100 pcs
4710213	A13	32	27	10	16	100	1,0
4710219	A19	42	27	12	25	100	1,2
4710320	A20	23.2	25	14	21.2	150	0.8

Used for attaching stainless steel bands to poles.

### PROCEDURE FOR TIGHTENING PERFORATED BANDS



### STAINLESS STEEL BAND IN PLASTIC CASE

Code	A mm	Thickness mm	Material (stainless steel)		Weight of roll in the case	Package m
4710009	9	0,55	1,4371	4100		20
4710013	13	0,70	1,4371	7100	2,6kg/pc	20
4710019	19	0,70	1.4371	10600	3,7kg/pc	20

Used for attaching equipment to poles. On customer's request we can also provide bands of other dimensions and lengths. The case contains 30 clips adapted to the ordered band.

Code number: 4710000

Code number	A mm	Thickness mm	Material (stainless steel)	Breaking strength (N)	Weight of roll in the case	Package m
4710075	13	0,70	1,4371	7100	3,5kg/pc	50
4710080	19	0,70	1,4371	10600	5,1kg/pc	50





### PERFORATED GALVANIZED TAPE WITH ROUND HOLES

Code number	A mm	B mm	C	Thickness mm	Breaking strength (N)	Weight of roll in the case	Package m
4710120	20	12	6	1,0	4200	3,1kg/pc	20
4710125	25	12	6	1,0	5400	3,5kg/pc	20

Used for attaching equipment to poles using an appropriate galvanized screw nut and flat washer. At customer's request we also provide bands of other dimensions and lengths. The sharp edges on the band are processed according to DIN. The case also contains 30 pieces of screw nuts adapted to the ordered band.

### PERFORATED GALVANIZED ELLIPTICAL BAND

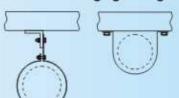
Code	A mm	B	C	Thickness mm	Breaking strength (N)	Weight of roll in the case	Package m
4710130	20	24,3	6,2	1,0	4000	2,7kg/pc	20
4710131	20	24,3	8,2	1,0	3400	2,5kg/pc	20

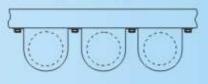
Flexible, light, bendable, universal in use. Used for attaching equipment to poles using an appropriate galvanized screw nut and flat washer. Very convenient for hanging of instillation pipes for water, sewer and heat. On customer's request we also provide bands of other dimensions and lengths. The sharp edges on the band are processed according to DIN. The case also contains 30 pieces of screw nuts adapted to the ordered band.

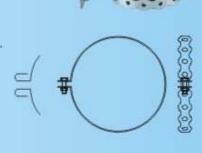


Code number	A mm	B mm	C	Thickness mm	Breaking strength (N)	Weight of roll in the case	Package m
4710135	20	24,3	6,2	1,0	4000	0,70kg/pc	5
4710136	20	24,3	8,2	1,0	3400	0,87kg/pc	5

### Convenient for hanging and tightening of all types and pipes dimensions.





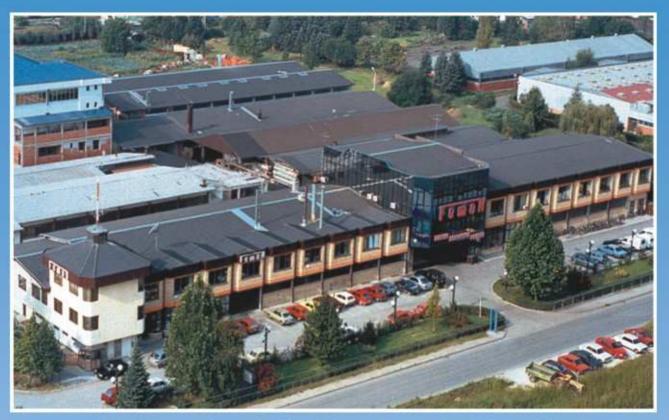


## CONTENTS

EXAMPLES OF EUROKRISTAL 1	
EUROKRISTAL 1 LAMPS	2
EUROKRISTAL 2 LAMPS	4
EUROKRISTAL 3 LAMPS	6
EUROKRISTAL TIPS OF COLORS	8
LAMP SUPPORTS - BRACKET ARMS	
TUBULAR METAL POLES	14
CIRCUIT BOXES FOR PUBLIC LIGHTING	19
OCTAGONAL STEEL POLES W/ TOP Ø 48	20
OCTAGONAL STEEL POLES W/ TOP Ø 50	21
OCTAGONAL STEEL POLES W/ TOP Ø 78	22
CONNECTION PLATE FOR POLES PPR 4	23
CONNECTION PLATE FOR POLES PPR 4 CONNECTION PLATE FOR POLES PPROV III	23
FLUORESCENT STREET LAMP 2X11-18W	24
MERCURY-SODIUM STREET LAMP	
OG LAMPS - STRAIGHT & ANGLED	
MERCURY LAMPS - ANGLED & STRAIGHT	
WATERPROOF LIGHT - ANGLED	29
STREET POST LAMP W/ BALLAST	29
BALLAST PF-125W W/BASE FOR MERCURY LAMP	29
REFLECTOR HATCH	29
HALOGEN REFLECTOR W/SENSOR	30
HALOGEN REFLECTOR	30
FLOODLIGHT STANDS	31
PORTABLE FLOODLIGHT	31
HALOGEN REFLECTOR	32
REFLECTOR FOR BILLBOARDS, ADVERSITEMENTS	33
REFLECTOR FOR BILLBOARDS, FACADES	34
REFLECTOR FORFACADES, SMALL FIELDS, ETC	35
REFLECTOR FOR SPORTS FIELDS AND INDUSTRY	36
RECESSED LIGHTS FOR INDIRECT LIGHTING-FUSIO	37
FLUORESCENT LIGHTS	38
FLUORESCENT LIGHTS	41
GEAR FOR ATTACHMENT. PULLING GRIPS FOR STAINLESS STEEL BANDS	42
PULLING GRIPS FOR STAINLESS STEEL BANDS	44
PROCEDURE FOR HIGHTENING PERFORATED BANDS	44
STAINLESS STEEL BANDS	45



Quality above all



Feman is the largest producer of cable splicing equipment, electrical material, tools and gear for cables in the Balkans.

The founder, owner and director is engineer Miodrag Nikolić, whose leadership abilities, work and investment have contributed to Feman's development into a mid-sized firm, with over 200 employees and a wide assortment of over 1,400 high quality products. On a total area of 10,000 m² these products are made in up-to-date equipped departments: research and development of products, foundry, smithy, locksmith, press, plastic extrusion, lathe and milling processing, paint shop, galvanization, tool shop and installation.

Our business motto "Quality above all", is proven by the large number of prizes and awards, both at domestic and international fairs.

Taking on new products, their development and permanent improvement is led by a group of verified experts with a variety of profiles. All products are made in accord with JUS, IEC, VDE and NFC standards, and the firm has had the standard of ISO 900 ever since 1996.

All of our products pass through the required testing and approval, and a certain number, from every series, is tested in our internal laboratory, to ascertain that the final user always receives a high quality and safe product that is quickly and easily installed.

Thanks to this high quality, that has become a synonym for Feman products, our sales network has spread to all 5 continents, so that our equipment has found buyers in far-off Australia.

Try us and you will believe in the truth of our motto.

