NCT™

New
Composite
Technologies

System zarządzania ISO 9001:2015

EN 40-7:2002
EN 12767:2019

- lighting columns
- telecommunication poles
- power poles
- EV charging stations
- active pedestrian crossing
- flagpoles
- lightning protection masts
- monitoring poles
- wind turbines masts
- structures for automotive
- products for the railway industry
- pipes - composite angles
- composite structures for hop fields
- composite reinforcements
- temporary power and lighting lines
- composite products for individual orders

BIM CAD download drawings

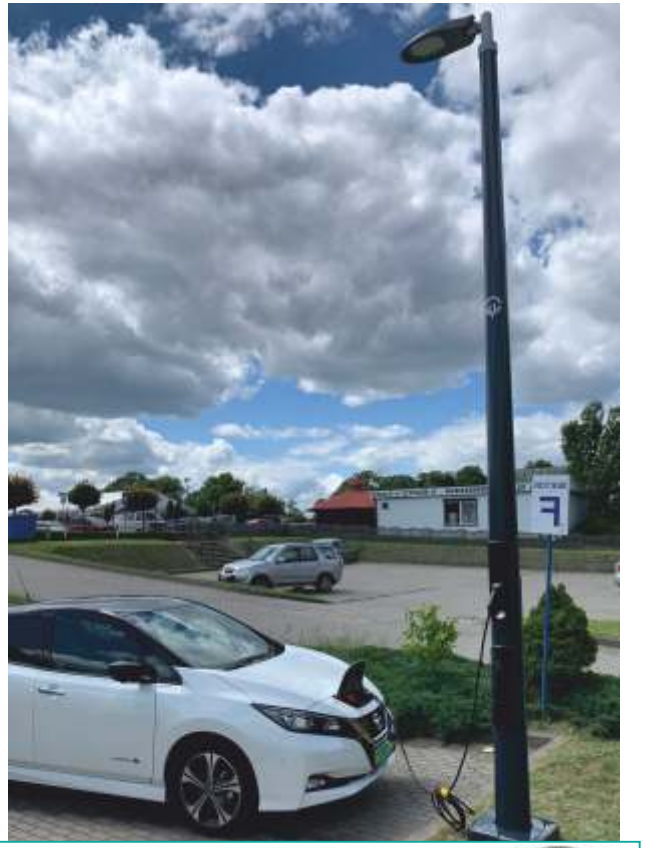
NCT™ New Composite Technologies

System zarządzania ISO 9001:2015 TÜVRheinland CERTYFIKOWANO www.tuv.com ID 9000020954

Dear Sir/Madam,

We would like to inform you that on April 25, 2023, the name of the company changed from the current one: Alumast S.A. to NCT S.A.

Currently, the company is under the rebrand, which is why the catalog is still in the old graphic design and may refer to the Alumast brand.



The electric car charging station in the SmartPole Charger lighting column was the laureate of the 10th edition of the national Fleet Derby poll.

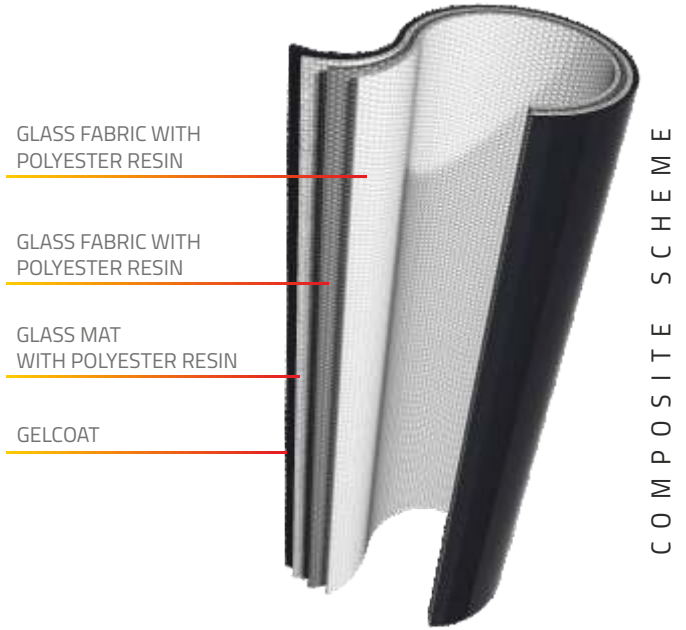
Approval for use on railway lines managed by PKP PLK S.A.

Recommendation of the Association of Telecommunications Builders for a composite telecommunication pole.

THE HIGHEST QUALITY | SECURITY | ECOLOGY | WORK EXPERIENCE

Introduction

NCT S.A. is a leading manufacturer of composite structures, dedicated to a wide range of customers in the domestic and foreign markets.
By choosing our brand products, you not only support the Polish company, but most of all you choose products characterized by the highest quality and safety of use.
Continuously for over twenty years, we have been supplying customers all over the world with products that meet the most stringent durability criteria. Our poles, poles and composite masts are operated in the most unfavorable load and weather conditions.
The foundation of our company is a constantly monitored production regime and meticulous quality control. It begins with the verification of the components delivered to us, and ends with a detailed check of the parameters of the final product. Our own research and development facilities as well as a testing ground allow us to additionally conduct thorough and, above all, practical control of products, both in the production and prototype phases.



COMPOSITE SCHEME

We kindly invite you to familiarize yourself with the product offer of NCT S.A.:

- lighting columns
- telecommunication poles
- power poles
- EV charging stations
- active pedestrian crossing
- flagpoles
- lightning protection masts
- monitoring poles
- wind turbines masts
- structures for automotive
- products for the railway industry
- pipes - composite angles
- composite structures for hop fields
- composite reinforcements
- temporary power and lighting lines
- composite products for individual orders

NCT S.A. products catalog

Lighting columns - introduction	p. :	5
Lighting columns - advantages	p. :	6
Lighting columns - technical information	p. :	7
Lighting columns - BASICPOLE	p.:	8 - 9
Lighting columns - PASSIVEPOLE	p.:	10 - 11
Lighting columns - DESIGNPOLE	p.:	12 - 13
Lighting columns - EASYPOLE	p.:	14 - 15
System of active pedestrian crossings	p.:	16 - 19
Telecommunication poles	p. :	20 - 22
Multifunctional ManyPole7	p. :	23 - 24
Temporary power and lighting lines	p. :	25
Power poles	p.:	26 - 29
Lightning protection masts	p.:	30 - 33
EV charging stations	p.:	34 - 37
Composite hop field structure	p.:	38 - 41
Flagpoles, event products, accessories for flagpoles	p.:	42 - 49
Composite structures - products for special order	p. :	50 - 55
Composite pultrusion structures (profiles, pipes, bars, meshes, angles)	p. :	56 - 57
Road fences - herpetological	p. :	58
Selected additional accessories for lighting columns	p.:	59 - 60
Quick-binding mounting compound	p.:	61
Design office support	p.:	62
NCT information	p.:	63 - 66

LIGHTING COLUMNS

Composite lighting columns by NCTS.A. is a modern and durable solution that can be found in over 40 countries around the world. We offer our columns in two installation variants:
SKPW - buried polymer composite column;
SKPF - polymer composite column for the foundation;

Foundation columns can be additionally equipped with the function of a broken base (EASYPOLE pole), which enables efficient and safe conducting of regular installation and maintenance works

BASICPOLE

BASICPOLE - is the basic range of composite lighting columns, characterized by high aesthetics and quality of workmanship with a wide range of applications.

DESIGNPOLE

DESIGNPOLE - is a series of composite lighting columns with stylish graphics - external texture. When choosing Designpole columns, you can choose one of the ready-made graphics (e.g. birch pattern) or commission us to design a pattern that will match your individual expectations. Designpole columns are an ideal solution for parks, squares, playgrounds and alleys, and many other locations that require elegant and practical solutions.
In addition to aesthetic values, the columns are distinguished by relatively low operating costs. Reducing the costs of electricity consumption is possible thanks to the internal illumination, which not only provides a visual effect, but also ensures excellent visual guidance, without the need to activate the luminaires (e.g. lamps). The main source of lighting (LED luminaire) can therefore be turned on only late at night or according to the investor's indications - settings.

EASYPOLE

EASYPOLE - is a more practical version of Basicpole composite columns, which are equipped with a hinge mechanism. This mechanism facilitates installation and deinstallation of the luminaire, replacement of the light source and other maintenance works. It is an ideal lighting structure designed for use in hard-to-reach areas, for heavy vehicles with a lift.

PASSIVEPOLE

PASSIVEPOLE - is another group of NCT composite lighting columns, characterized by passive safety during an accidental vehicle collision with them. Thanks to the use of a special structure, our Passivepole line columns are much safer for road users compared to traditional concrete or steel structures which have not passed appropriate tests in terms of meeting the requirements of PNEN 12767 - passive safety of supporting structures for road devices.

LIGHTING COLUMNS

BASICPOLE DESIGNPOLE EASYPOLE PASSIVEPOLE

ADVANTAGES

CE Certificate of Conformity in accordance with the European standard PN EN 40-7:2002

Columns tested in all speed classes and passive safety categories in accordance with PN EN 12767:2019

Light and durable construction with high resistance to vandalism

Low transport and installation costs due to the low weight of the product, and thus high loading possibilities

Resistance to unfavorable weather conditions, acids, road salt, urine of animals

Composite structures do not conduct electricity (the pole is a dielectric)

Exceptional durability - approx. 40 years

1 Even up to 15 years guarantee

No need for heavy and expensive equipment at the installation stage

Modern design with the possibility of personalization

Possibility to use individual colors or external graphics (e.g. birch - tree texture; advertising and information graphics; any color)

Possibility to install various types of receivers or transmitters inside the pole (the composite slightly interferes with the propagation of radio waves)

The columns breaking function and the buried version additionally facilitate installation and maintenance works

Possibility of aesthetic and practical illumination of the internal column

[1] The guarantee period depends on the product type - specification and operating conditions. Detailed guarantee conditions are each time specified in the GSTC and the given guarantee card.

LIGHTING COLUMNS

BASICPOLE DESIGNPOLE EASYPOLE PASSIVEPOLE

TECHNICAL INFORMATION

Columns height: from 3 to 12 [m] (from the ground surface)
Type of foundation: buried in the ground or on a prefabricated foundation
Columns weight: from 10 to 90 [kg]
Bottom diameters of columns: from 130 to 220 [mm]
Upper column diameter: 60 mm (130 mm long aluminum sleeve)
Inspection door at a height of 600 mm from the ground, dimensions: 400 x 85 mm
Possibility to manufacture a column with any technical parameters
IP 44, IK10
Estimated loading possibilities [TRUCK - 24t.]: * 450 pcs.
Standard color: RAL 7042, RAL 7032, RAL 7047, RAL 7024, RAL 7016, RAL 7035
Possibility to use individual colors or external graphics (e.g. birch - tree texture: advertising and information graphics: any color)

* Indicated loading possibilities for the SKPF 3.0/130/60 column. The actual number of columns that can be loaded on the vehicle depends, among others, on the type of vehicle and the poles length and diameter.

BASICPOLE

This is the basic range of composite lighting columns, characterized by high aesthetics and quality of workmanship with a wide range of applications.

Columns colors in the standard offer:

- RAL 7032
- RAL 7047
- RAL 7035
- RAL 7042
- RAL 7024
- RAL 7016
- RAL 9005

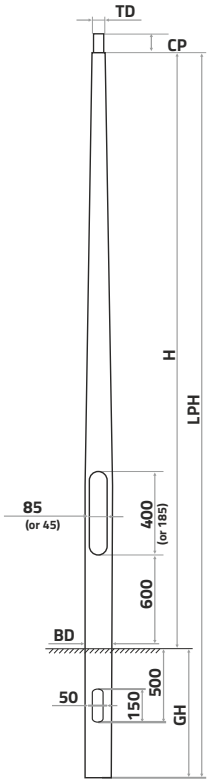
Possibility to paint the column with a different color from the RAL palette (example below)

- RAL 3027
- RAL 4005
- RAL 1003
- RAL 1013
- RAL 5023
- RAL 6028

SKPW buried Basicpole column

column symbol	H (m)	BD (mm)	TD (mm)	CP (mm)	LPH (m)	GH (m)	W (kg)
SKPW 3,0	3,0	130, 150	60	130	4,0	1,0	10
SKPW 4,0	4,0	130, 150	60	130	5,0	1,0	12
SKPW 5,0	5,0	175	60	130	6,0	1,0	19
SKPW 6,0	6,0	175	60	130	7,0	1,0	22
SKPW 7,0	7,0	193	60	130	8,2	1,2	40
SKPW 8,0	8,0	193	60	130	9,2	1,2	50
SKPW 9,0	9,0	193	60	130	10,5	1,5	59
SKPW 10,0	10,0	193	60	130	11,8	1,8	65
SKPW 11,0	11,0	193	60	130	12,8	1,8	71
SKPW 12,0	12,0	193	60	130	13,8	1,8	77

It is possible to produce columns with non-standard parameters, at the customer's request. Possibility to strengthen the column for difficult operating conditions.



The buried columns are installed without the use of heavy equipment or expensive prefabricated foundations

The recommended soil compaction factor (ID) should be min. 0.8 (i.e. the so-called "compaction" degree according to PN-EN ISO 14688-2(2)

BASICPOLE

This is the basic range of composite lighting columns, characterized by high aesthetics and quality of workmanship with a wide range of applications.

Columns colors in the standard offer:

- RAL 7032
- RAL 7047
- RAL 7035
- RAL 7042
- RAL 7024
- RAL 7016
- RAL 9005

Possibility to paint the column with a different color from the RAL palette (example below)

- RAL 3027
- RAL 4005
- RAL 1003
- RAL 1013
- RAL 5023
- RAL 6028

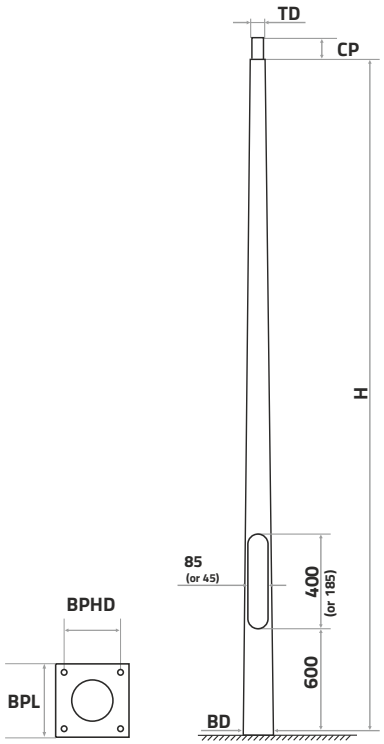
Cover plate
– technical cover
of the lower base
of a lighting
or teletechnical mast.

SKPF

Basicpole column
mounted on a prefabricated foundation

column symbol	H (m)	BD (mm)	TD (mm)	CP (mm)	BPL (mm)	BPHD (mm)	W (kg)
SKPF 3,0	3,0	130, 150	60	130	260	200	15
SKPF 4,0	4,0	130, 150	60	130	260	200	18
SKPF 5,0	5,0	175	60	130	260	200	24
SKPF 6,0	6,0	175	60	130	260	200	26
SKPF 7,0	7,0	193	60	130	400	300	55
SKPF 8,0	8,0	193	60	130	400	300	60
SKPF 9,0	9,0	193	60	130	400	300	70
SKPF 10,0	10,0	193	60	130	400	300	75
SKPF 11,0	11,0	193	60	130	400	300	80
SKPF 12,0	12,0	193	60	130	400	300	85

It is possible to produce columns with non-standard parameters, at the customer's request. Possibility to strengthen the column for difficult operating conditions.



PASSIVEPOLE

It is a safe lighting column with high strength parameters. The product complies with the EN 40-7 and EN 12767:2019 standards.

The program of development - certification of safety columns from the Passivepole line is constantly developed. Ask us today about class 100 NE according to PN EN 12767:2019

Column colors in the standard offer:

RAL 7032	
RAL 7047	RAL 7024
RAL 7035	RAL 7016
RAL 7042	RAL 9005

The column can be differentcolored using a color from the RAL palette

During a collision of the vehicle with the column, it is safely positioned in front of the vehicle, and the pole along its entire length absorbs the energy of the collision with the best parameters of passive safety ASI and THIV.

SKPW - P buried Passivepole column

column symbol	H (m)	BD (mm)	TD (mm)	classification according to EN 12767:2019
SKPW-P 3,0	3,0	130,150	60	70-NE-B-S-SE-MD-0
SKPW-P 4,0	4,0	130,150	60	70-NE-B-S-SE-MD-0
SKPW-P 5,0	5,0	175	60	70-NE-B-S-SE-MD-0
SKPW-P 6,0	6,0	175	60	70-NE-B-S-SE-MD-0
SKPW-P 7,0	7,0	193	60	70-NE-B-S-SE-MD-0
SKPW-P 8,0	8,0	193	60	70-NE-B-S-SE-MD-0
SKPW-P 9,0	9,0	193	60	70-NE-B-S-SE-MD-0
SKPW-P 10,0	10,0	193	60	70-NE-B-S-SE-MD-0
SKPW-P 3,0	3,0	175	60	50-NE-B-S-NS-MD-0
SKPW-P 4,0	4,0	175	60	50-NE-B-S-NS-MD-0
SKPW-P 5,0	5,0	193	60	50-NE-B-S-NS-MD-0
SKPW-P 6,0	6,0	193	60	50-NE-B-S-NS-MD-0
SKPW-P 7,0	7,0	220	60	50-NE-B-S-NS-MD-0
SKPW-P 8,0	8,0	220	60	50-NE-B-S-NS-MD-0
SKPW-P 9,0	9,0	220	60	50-NE-B-S-NS-MD-0
SKPW-P 10,0	10,0	220	60	50-NE-B-S-NS-MD-0
SKPW-P 12,0	12,0	220	60	100-LE-C-S-SE-MD-0
SKPW-PK 12,0	12,0	220	60	100-HE-E-S-SE-MD-0
pole EKO-P 10,5/2,5	10,5	250	173	50-HE-B-S-NS-MD-0

Elements of the column equipment during the test:

- boom up to 1.5m
- lighting fixture up to 11 kg
- foundation in SKPF-P version
- suspended power grid in the case of EKO-P. columns

The buried columns are installed without the use of heavy equipment or expensive

The recommended soil compaction factor (ID) should be min. 0.8 (i.e. the so-called „compaction" degree according to PN-EN ISO 14688-2[2]

PASSIVEPOLE

It is a safe lighting column with high strength parameters. The product complies with the EN 40-7 and EN 12767:2019 standards.

The program of development - certification of safety columns from the Passivepole line is constantly developed. Ask us today about class 100 NE according to PN EN 12767:2019

Column colors in the standard offer:

RAL 7032	
RAL 7047	RAL 7024
RAL 7035	RAL 7016
RAL 7042	RAL 9005

The column can be differentcolored using a color from the RAL palette

During the vehicle collision with the column; the driver's safety zone in the cabin has not been affected.

SKPF - P

Passivepole column mounted on a prefabricated foundation

column symbol	H (m)	BD (mm)	TD (mm)	classification according to EN 12767:2019
SKPF-P 3,0	3,0	150	60	70-NE-C-S-SE-MD-0
SKPF-P 4,0	4,0	150	60	70-NE-C-S-SE-MD-0
SKPF-P 5,0	5,0	175	60	70-NE-C-S-SE-MD-0
SKPF-P 6,0	6,0	175	60	70-NE-C-S-SE-MD-0
SKPF-P 7,0	7,0	193	60	70-NE-C-S-SE-MD-0
SKPF-P 8,0	8,0	193	60	70-NE-C-S-SE-MD-0
SKPF-P 9,0	9,0	193	60	70-NE-C-S-SE-MD-0
SKPF-P 10,0	10,0	193	60	70-NE-C-S-SE-MD-0

Elements of the column equipment during the test:

- boom up to 1.5m
- lighting fixture up to 11 kg
- foundation in SKPF-P version
- suspended power grid in the case of EKO-P. columns

DESIGNPOLE

This is a series of composite lighting columns with stylish graphics -external texture. When choosing Designpole columns, you can choose one of the ready-made graphics (e.g. birch pattern) or commission us to design a pattern that will match your individual expectations.

Designpole columns are an ideal solution for parks, squares, playgrounds and alleys, and many other locations that require elegant and practical solutions.

In addition to aesthetic values, the columns are distinguished by relatively low operating costs. Reducing the costs of electricity consumption is possible thanks to the internal illumination, which not only provides a visual effect, but also ensures excellent visual guidance, without the need to activate the luminaires (e.g. lamps). The main source of lighting (LED luminaire) can therefore be turned on only late at night or according to the investor's indications - settings.

Columns patterns in the standard offer:

birch candy wood clover

Individual patterns:

The buried columns are installed without the use of heavy equipment or expensive prefabricated foundations

The recommended soil compaction factor (ID) should be min. 0.8 (i.e. the so-called "compaction" degree according to PN-EN ISO 14688-2[2]

SKPW-D buried Designpole column

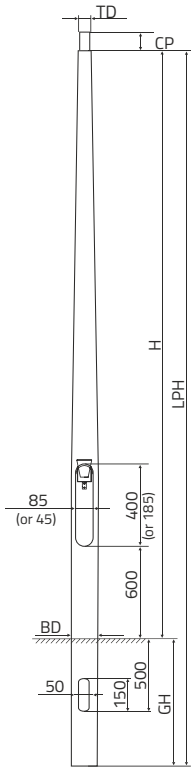
column symbol	H (m)	BD (mm)	TD (mm)	CP (mm)	LPH (m)	GH (m)	W (kg)
SKPW-D 3,0	3,0	130, 150	60	130	4,0	1,0	10
SKPW-D 4,0	4,0	130, 150	60	130	5,0	1,0	12
SKPW-D 5,0	5,0	175	60	130	6,0	1,0	19
SKPW-D 6,0	6,0	175	60	130	7,0	1,0	22
SKPW-D 7,0	7,0	193	60	130	8,2	1,2	40
SKPW-D 8,0	8,0	193	60	130	9,2	1,2	50
SKPW-D 9,0	9,0	193	60	130	10,5	1,5	59
SKPW-D 10,0	10,0	193	60	130	11,8	1,8	65
SKPW-D 11,0	11,0	193	60	130	12,8	1,8	71
SKPW-D 12,0	12,0	193	60	130	13,8	1,8	77

It is possible to produce columns with non-standard parameters, at the customer's request. Possibility to strengthen the column for difficult operating conditions.

Column internal LED illumination

5W; 230VAC; 4000K;

This function allows to aesthetically highlight the unique external texture of the column (e.g. birch pattern). The internal illumination of the column also allows the reduction of operating costs - electricity consumption in the evening and night periods, through the possibility of replacement of the function of the luminaire (the so-called visual tracking effect) in a situation where there is no pedestrian traffic, and thus there is no need to operate the luminaire at full power.



DESIGNPOLE

Columns patterns in the standard offer:

birch candy wood clover

SKPF-D

Designpole column
mounted on a prefabricated foundation

column symbol	H (m)	BD (mm)	TD (mm)	CP (mm)	BPL (mm)	BPT (mm)	BPHD (mm)	W (kg)
SKPF-D 3,0	3,0	130, 150	60	130	260	8	200	15
SKPF-D 4,0	4,0	130, 150	60	130	260	8	200	18
SKPF-D 5,0	5,0	175	60	130	260	8	200	24
SKPF-D 6,0	6,0	175	60	130	260	8	200	26
SKPF-D 7,0	7,0	193	60	130	400	8	300	55
SKPF-D 8,0	8,0	193	60	130	400	8	300	60
SKPF-D 9,0	9,0	193	60	130	400	8	300	70
SKPF-D 10,0	10,0	193	60	130	400	8	300	75
SKPF-D 11,0	11,0	193	60	130	400	8	300	80
SKPF-D 12,0	12,0	193	60	130	400	8	300	85

It is possible to produce columns with non-standard parameters, at the customer's request. Possibility to strengthen the column for difficult operating conditions.

DECORPOLE

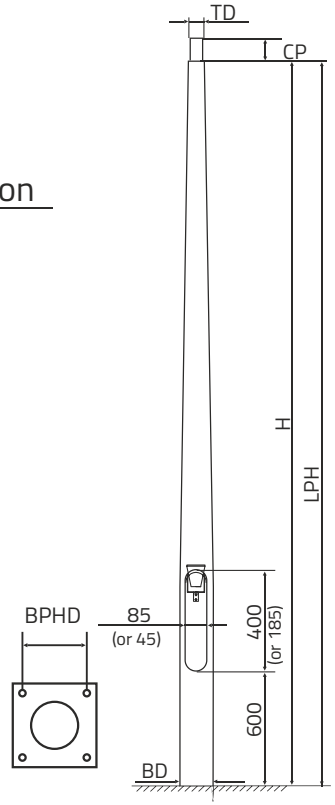
It is possible to order columns in the DECORPOLE version, characterized by a stylish finish at the bottom of the column.

Decorative composite base emphasizes the character of the product and enhances the aesthetics of a given place.

Column internal LED illumination

5W; 230VAC; 4000K;

This function allows to aesthetically highlight the unique external texture of the column (e.g. birch pattern). The internal illumination of the column also allows the reduction of operating costs - electricity consumption in the evening and night periods, through the possibility of replacement of the function of the luminaire (the so-called visual tracking effect) in a situation where there is no pedestrian traffic, and thus there is no need to operate the luminaire at full power.



EASYPOLE

This is a more practical version of Basicpole composite columns, which are equipped with a hinge mechanism. This mechanism facilitates installation and deinstallation of the luminaire, replacement of the light source and other maintenance works. It is an ideal lighting structure designed for use in hard-to-reach areas, for heavy vehicles with a lift.

Columns colors in the standard offer:

- RAL 7032
- RAL 7047
- RAL 7035
- RAL 7042
- RAL 7024
- RAL 7016
- RAL 9005

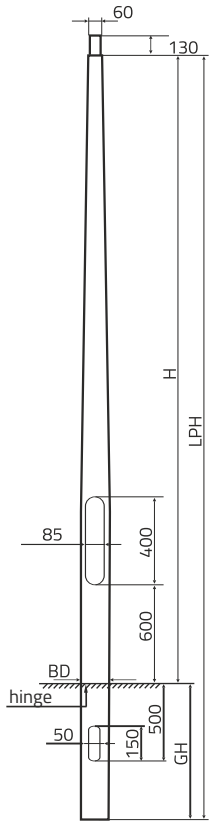
Possibility to paint the column with a different color from the RAL palette (example below)

RAL 3027	RAL 4005
RAL 1003	RAL 1013
RAL 5023	RAL 6028

SKPW-ŁS buried Easypole column

column symbol	H (m)	BD (mm)	TD (mm)	CP (mm)	LPH (m)	GH (m)	W (kg)
SKPW-ŁS 4,0/175/60	4,0	175	60	130	5,0	1,0	24
SKPW-ŁS 5,0/175/60	5,0	175	60	130	6,0	1,0	31
SKPW-ŁS 6,0/175/60	6,0	175	60	130	7,0	1,0	34
SKPW-ŁS 7,0/193/60	7,0	193	60	130	8,2	1,2	65
SKPW-ŁS 8,0/193/60	8,0	193	60	130	9,2	1,2	75
SKPW-ŁS 9,0/193/60	9,0	193	60	130	10,5	1,5	85

It is possible to produce columns with non-standard parameters, at the customer's request. Possibility to strengthen the column for difficult operating conditions.



The buried columns are installed without the use of heavy equipment or expensive prefabricated foundations

The recommended soil compaction factor (ID) should be min. 0.8 (i.e. the so-called "compaction" degree according to PN-EN ISO 14688-2(2)

EASYPOLE

This is a more practical version of Basicpole composite columns, which are equipped with a hinge mechanism. This mechanism facilitates installation and deinstallation of the luminaire, replacement of the light source and other maintenance works. It is an ideal lighting structure designed for use in hard-to-reach areas, for heavy vehicles with a lift.

SKPF-ŁS Easypole column mounted on a prefabricated foundation

column symbol	H (m)	BD (mm)	TD (mm)	CP (mm)	BPHD (mm)	W (kg)
SKPF-ŁS 4,0/175/60	4,0	175	60	130	200	30
SKPF-ŁS 5,0/175/60	5,0	175	60	130	200	36
SKPF-ŁS 6,0/175/60	6,0	175	60	130	200	38
SKPF-ŁS 7,0/193/60	7,0	193	60	130	300	80
SKPF-ŁS 8,0/193/60	8,0	193	60	130	300	85
SKPF-ŁS 9,0/193/60	9,0	193	60	130	300	95

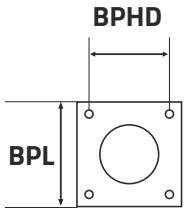
It is possible to produce columns with non-standard parameters, at the customer's request. Possibility to strengthen the column for difficult operating conditions.

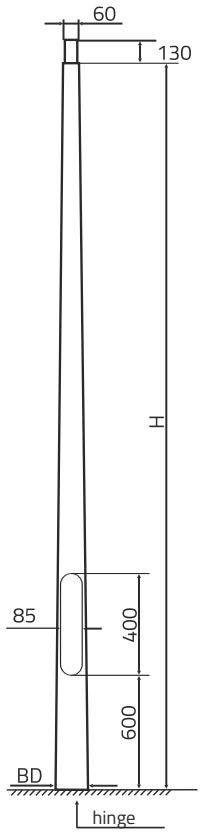
Columns colors in the standard offer:

- RAL 7032
- RAL 7047
- RAL 7035
- RAL 7042
- RAL 7024
- RAL 7016
- RAL 9005

Possibility to paint the column with a different color from the RAL palette (example below)

- RAL 3027
- RAL 4005
- RAL 1003
- RAL 1013
- RAL 5023
- RAL 6028





SYSTEM OF ACTIVE - SAFE PEDESTRIAN CROSSINGS

SMARTPOLE CROSSING

Thanks to the use of modern electronic systems (including motion detectors) as well as acoustic and optical warning signals, the vehicle driver is effectively informed about approaching a pedestrian crossing that a pedestrian has entered or is about to enter.

ADVANTAGES

The SMARTPOLE CROSSING solution improves the concentration of pedestrians and drivers

Asymmetrical lighting improves visibility on the crossing and in its zone, increasing the safety of pedestrians

Light signals warn drivers in good time about the appearance of people intending to cross the crossing zone in the crossing zone

Smart motion detection sensors ensure optimal traffic flow

Appropriate algorithms ensure that the visual and acoustic warning systems are active for a sufficiently long time, which will enable the passage of people with disabilities, the elderly people and children

A voice message informs pedestrians approaching the crossing zone about the need to be particularly careful

SYSTEM OF ACTIVE - SAFE PEDESTRIAN CROSSINGS

SMARTPOLE CROSSING

TECHNICAL INFORMATION

Poles height: 6 m (from the ground surface)

Type of foundation: buried in the ground or on a prefabricated foundation

Poles weight: approx. 26 kg

Cylindrical pole - diameter 175 mm. Warning signaling in the form of 9 lighting lamps placed in the pole structure

Sygnalizacja ostrzegawcza w postaci 9 świecących lamp umieszczonych w konstrukcji słupa

Luminaire with asymmetric light distribution

* Illuminated D-6 road sign with translucent reflective film

Motion detector

Speakers for broadcasting voice messages

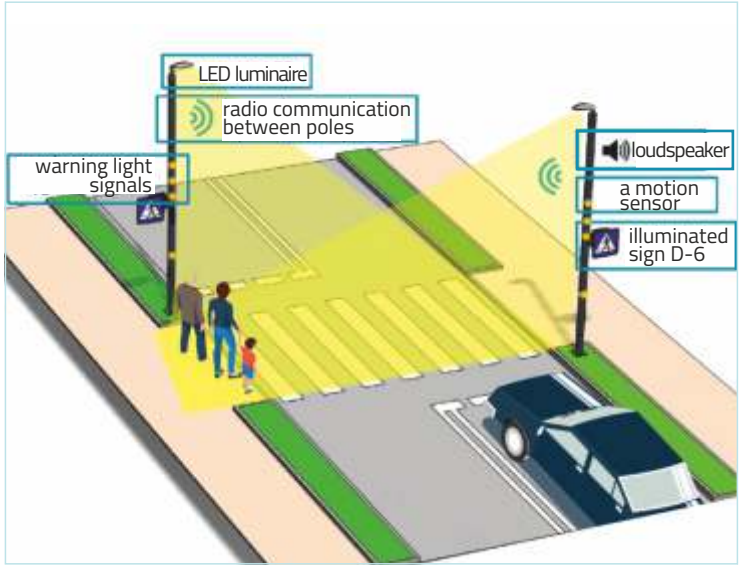
Radio communication system between poles

Supply system (grid)

Standard color: RAL 7016

System that maintains power supply to sensors as well as light and sound signals after disconnecting the power supply

*It is possible to order a different, e.g. T-27 or D-6b, road sign



SMARTPOLE CROSSING

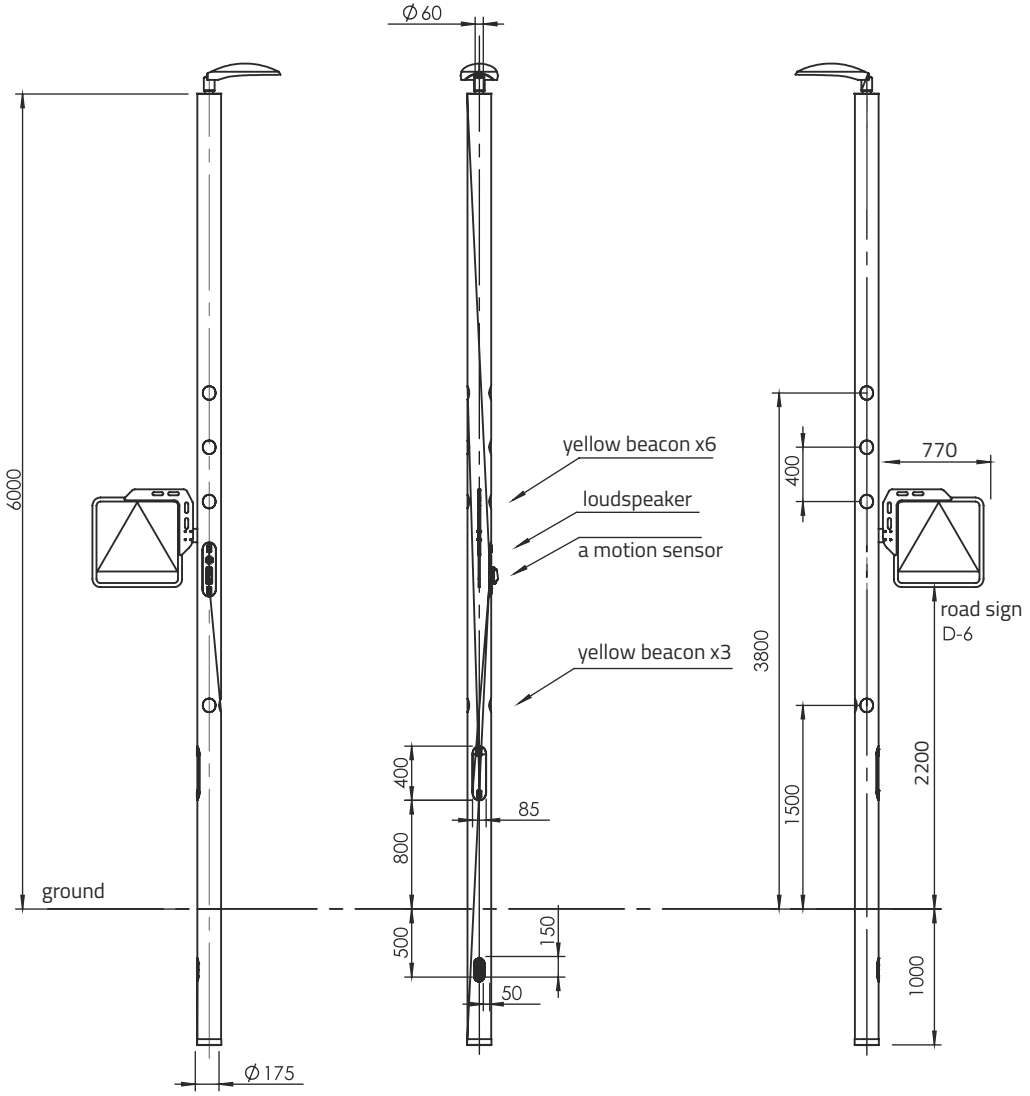
with the part buried in the ground

Pole color
in the standard offer:

RAL 7016

The column can
be different colored
using a color from the
RAL palette

Recommended compaction factor
of the ground (ID note) should amount to min.
0.8 (i.e. the so-called "compaction" degree
according to PNEN ISO 14688-2(2)



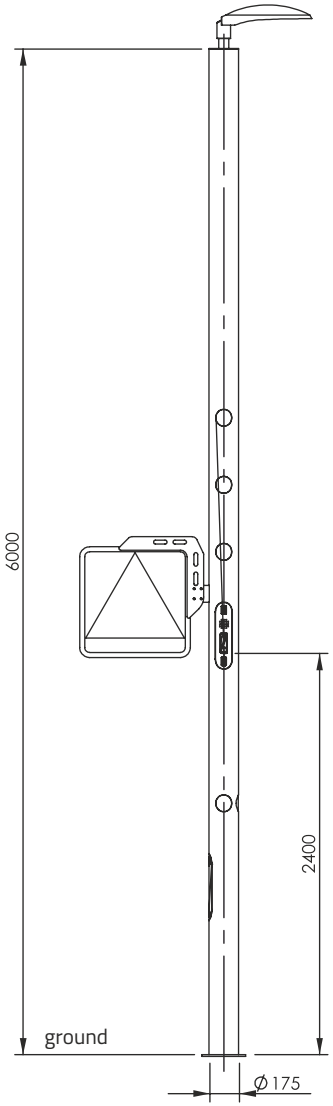
SMARTPOLE CROSSING

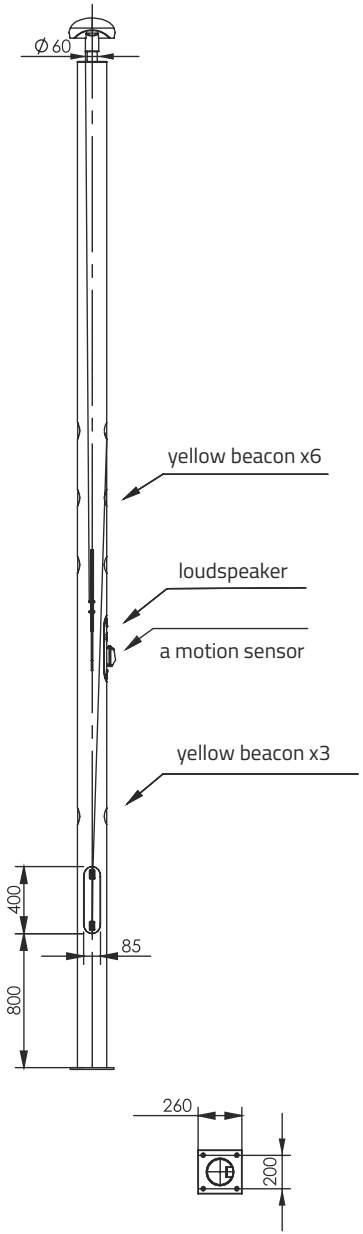
mounted on a prefabricated foundation

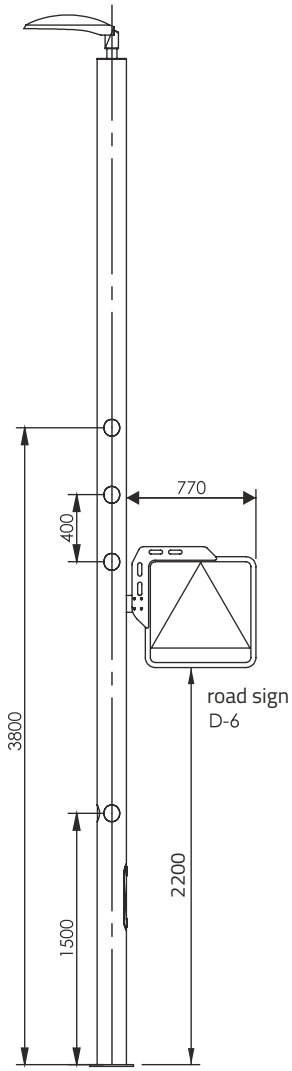
Pole color
in the standard offer:

RAL 7016

The column can be different colored using a color from the RAL palette







TELECOMMUNICATION POLES

NCT teletechnical poles are a high-quality composite structure dedicated to the telecommunications, construction and electrical installation industries. Low weight combined with high physico-chemical resistance guarantees efficient installation and long-term trouble-free installation, among others. fiber optic and telecommunications lines.

ADVANTAGES

An ideal alternative to wooden and concrete poles.

Low transport costs and high load capacity (1 TRUCk up to 300 poles).

Possible manual handling of poles in difficult terrain.

The possibility of efficient and low-cost installation without the use of heavy equipment.

Increased tip force and low permanent deformation coefficient.

A wide range of height variants.

High resistance to acts of vandalism, unfavorable weather conditions, road salt, urine of animals.

A wide range of applications - telecommunications lines (e.g. fiber optic lines, lightning protection systems, monitoring, flagpoles).

Short installation time using dedicated assembly mass.

Recommendation of the Association of Telecommunications Builders.

10-year warranty.

Recommendation of the Association of Telecommunications Builders

TELECOMMUNICATION POLES

TECHNICAL INFORMATIONS

Total height of the pole: 7m; 8.5m; 10m
Tip force: 0.3 kN; 0.7kN; 1.6 kN; 2.5 kN
The possibility of producing a pole with any technical parameters
Type of foundation: buried in the ground or to be mounted in a stilts
Weight of poles: from 12 to 55 [kg]
Loading capacity [TRUCK - 24t] from 200 to 300 poles
Standard color: RAL 7035
Possibility to use individual colors or external graphics (e.g. birch texture - trees, advertising and information graphics, any color scheme))
The possibility of using two-component NCT assembly foam (1000 ml per one pole), recommended for poles with a total height not exceeding 7 m

The installation of composite structures, can be carried out without the use of heavy construction equipment.

ADDITIONAL ACCESORIES

see page 61 for more information

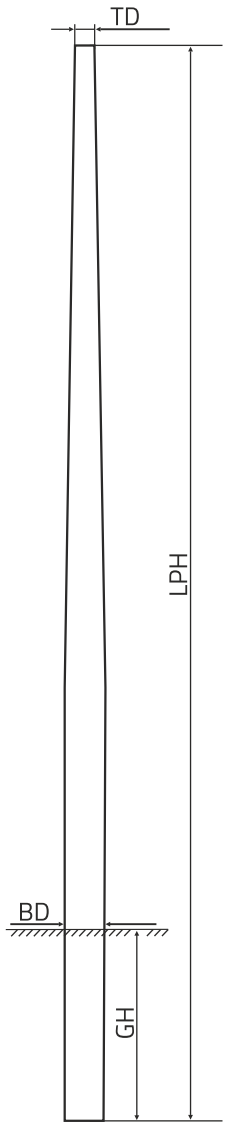
TELECOMMUNICATION POLES

Pole color
in the standard offer:

RAL 7035

The column can be differentcolored using a color from the RAL palett

Recommendation of the Association of Telecommunications Builders



TKPW buried telecommunication pole

LPH (m)	siła wierzchołkowa (kN)	BD (mm)	TD (mm)	GH (m)	W (kg)
7	0,3	140	110	1,2	12
8,5	0,3	165	120	1,2	16
10	0,3	165	120	1,5	27
7	0,7	140	110	1,2	18
8,5	0,7	165	120	1,2	29
10	0,7	193	140	1,5	31
7	1,6	165	120	1,2	24
8,5	1,6	165	120	1,2	47
10	1,6	193	140	1,5	55
7	2,5	200	150	2,0	23
8,5	2,5	240	200	2,0	35
10	2,5	240	200	2,0	50

digging depth depends on the soil quality

It is possible to produce columns with non-standard parameters, at the customer's request. Possibility to strengthen the column for difficult operating conditions.

The recommended soil compaction factor (ID) should be min. 0.8 (i.e. the socalled "compaction" degree according to PN-EN ISO 14688-2[2])

Composite telecommunication poles with design guidelines

download the catalog from the site www.alumast.eu

ManyPole7 - multifunctional pole

ManyPole 7 is the perfect solution for all users looking for a multifunctional and at the same time cheap composite pole. Our product perfectly fulfills the function of a multifunctional platform, on which we can easily install accessories for the final erection of a lightning protection mast, flagpole, lighting column, monitoring pole, or a simple supporting
structure in telecommunication lines.

Low weight, compact size and durable construction allow for installation in very difficult and inaccessible terrain, without the use of heavy equipment and thus incurring too high financial costs.

ManyPole 7 is a practical composite pole, developed for a wide range of applications. A wide range of dedicated accessories allows for quick adaptation of the structure to specific conditions - operational needs.

ADVANTAGES

Versatility of applications - one pole many solutions tailored to individual needs

The solution is ideally suited to, among others:
lighting column, element of the lightning protection system, installation point for monitoring cameras, motion sensors, flagpoles, or a support element in orcharding

Easy and quick installation - without the use of heavy equipment and specialized tools

A maximum of 1-2 people is enough for carrying and installing

10-year guarantee for a pole

Use: private properties, gardens, parks, construction sites

ManyPole7 - multifunctional pole

TECHNICAL INFORMATION

Total height of ManyPole 7: 7 m.

Pole weight: approx. 18 kg

Type of foundation: buried

Standard color: RAL 7035

ManyPole7 use: lighting column, flagpole, lightning protection mast, monitoring pole or according to your own idea

Accessory sets available:

- a set for a lighting column (e.g. LED luminaire, Wader boom),
- a set for a lightning protection mast (including air terminal, lightning wire, control and measurement chamber),
- flagpole set (including rope, external cleat, roller)

Temporary power and lighting lines

The low weight of the composite pole allows to set up a reliable power line in a short time without the need to use heavy equipment.
The combination of high physical and mechanical strength and low weight of the composite structure allows to significantly reduce the costs of installing a temporary line, both at the stage of transporting components and their installation, even in hard-to-reach terrain.

Composite poles (e.g. ManyPole7) are successfully used by operators - electricity suppliers, large construction companies, and companies supporting mass events.

USE

- Temporary or targeted electricity supply
- Lighting and/or monitoring network construction
- Installation of power points supported by RES technology
- Mobile energy supply networks and charging stations for electric machines

INSTALLATION RULES

- By burial into the ground and stabilizing (e.g. using mounting foam or quick-setting mortar)
- Installation on portable steel bases loaded with any available ballast (e.g. paving slabs, water ballast)

POWER POLES

Composite poles of the EC line are manufactured by Energy Composites partner company. Our common objective was to create a new series of power poles, which, thanks to the properties of the composite, would be characterized by high physical and mechanical strength and low weight, enabling efficient transport even to the most inaccessible terrain. Composite poles are an ideal alternative to concrete, wooden and steel poles.

ADVANTAGES

- High mechanical durability and strength
- Resistance to unfavorable weather conditions, animal urine, acids, alkalis and road salt
- Fire resistance
- No electrical conductivity
- Low weight which enables transport costs to be reduced by up to 60% compared to traditional poles
- The low weight of the product allows to efficiently place the line in even the most inaccessible area of operation, without the use of heavy equipment
- Shorter investment project implementation time
- The only one in Europe tested product for passive safety in the event of a road collision in accordance with the PN EN 12767: 2019 in 50, HE, 3 class
- Composite can be recycled
- Do not corrode
- Possibility of individual color selection - pole external graphics

Certificate of Conformity for composite power poles

POWER POLES

TECHNICAL INFORMATIONS

HB flammability class according to ASTM D635: 2014

10% water absorption according to PN EN ISO 62: 2000

Tensile strength> 300 MPa, according to PN EN ISO 527-4: 2000

Bending strength when exposed to external factors according to PN EN ISO 178: 2011

Hardness> HBa, according to PN EN 59: 2002

Surface resistivity> 1 * 1010 * cm, according to ASTM D257: 1991

Skew resistivity> 1 * 1010 * cm, according to PN EN 60243: 1: 2013

Dielectric strength> 5kV / mm, according to PN EN 60243-1: 2013

The top has factory holes, enabling efficient installation of the necessary accessory

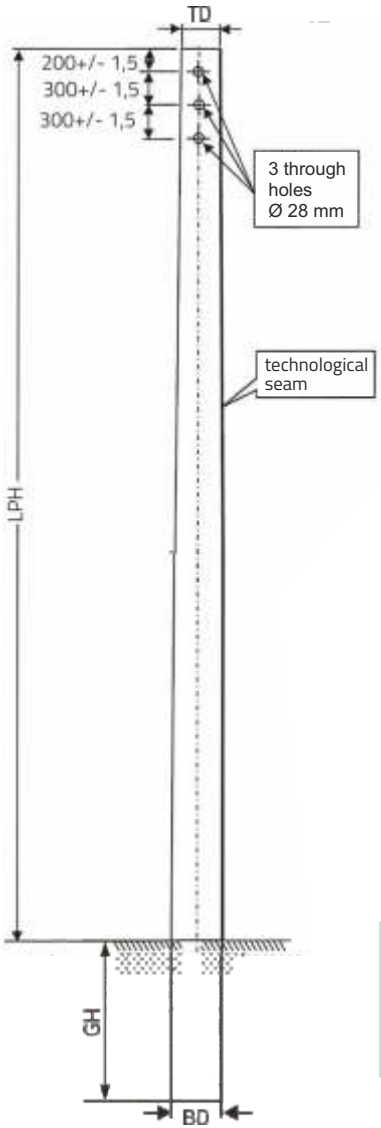
The aforementioned high physical and mechanical strength was achieved thanks to four key elements:

- high quality requirements for raw materials
- meticulous control of the manufacturing process at every stage of implementation (warehouse - production - release)
- the structural part consists of 50% glass
- constantly monitored production regime

Pole weight from 70 to 130 [kg]

Loading capacity [TRUCK - 24 t] from 50 to 80 poles

POWER POLES



EKO composite rod dug in

pole symbol	apical force [kN]	LPH [m]	BD [mm]	TD [mm]	GH [m]	weight [kg]
Eko 9/2,5	2,5 kN	9 m	193 mm	150 mm	1,5	70
Eko 9/4,5	4,5 kN	9 m	193 mm	150 mm	1,5	80
Eko 9/6	6 kN	9 m	220 mm	173 mm	1,5	85
Eko 10,5/2,5	2,5 kN	10,5 m	193 mm	150 mm	1,5	70
Eko 10,5/4,5*	4,5 kN	10,5 m	193 mm	150 mm	1,5	85
Eko 10,5/6	6 kN	10,5 m	250 mm	173 mm	1,5	100
Eko 12/2,5	2,5 kN	12 m	220 mm	173 mm	1,7	100
Eko 12/4,5	4,5 kN	12 m	250 mm	173 mm	1,7	120
Eko 12/6	6 kN	12 m	250 mm	218 mm	1,7	130

digging depth depends on the quality of the soil

* possible diameter 173 mm on request

The recommended soil compaction factor (ID) should be min. 0.8 (i.e. the so-called "compaction" degree according to PN-EN ISO 14688-2[2]

Certificate of Conformity for composite power poles

Column color in the standard offer:

RAL 7042

Possibility of painting the column with a different color

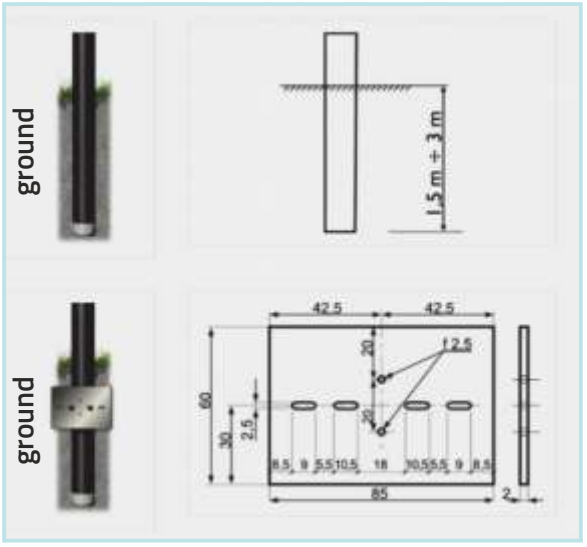
POWER POLES

POLE REINFORCEMENT

POLE BURIED IN THE GROUND

- foundation without additional supporting elements;

- a column inserted into a drilled hole and filled with native soil;



Armament based on the album LnniS Volume 1 of the STELEN 2011 publishing house.

ADDITIONAL ACCESSORIES SUPPORTING PLATES

type of plate	dimensions [cm]
U-85 supporting plate	85 x60
U-130 supporting plate	130 x 60
foot plate	35 x 35

LIGHTNING PROTECTION MASTS

STORMPOLE composite mast with lightning protection system

Polymer composites are an ideal material for lightning protection structures. The mast's task is to protect households and industrial plants against the effects of lightning. The composite mast guarantees the required separation from the protected facilities, while minimizing the costs of installation, maintenance and use.
We provide professional technical advice and assistance in choosing the right lightning protection system.

ADVANTAGES

- The mast isolates the lightning conductor to protect the surroundings
- Up to 200 meters diameter of the protected zone
- Resistance to unfavorable weather conditions, acids, road salt, urine of animals
- Composite structures do not conduct electricity (the pole is a dielectric)
- Composite lightning protection mast is not a scrap value
- Light and durable construction with high resistance to vandalism
- Service life of the mast at least 40 years
- STORMPOLE USE: large-scale facilities, individual households, industrial plants, petrol stations

TECHNICAL INFORMATION

Masts height from 5 to 22 [M.]
Type of foundation: buried or to be mounted on a foundation
The lightning protection mast above 12 m is two-segmented
1 m long aluminum spire
Standard color: RAL 9010
Possibility to use individual colors or external graphics (e.g. birch - tree texture: advertising and information graphics: any color)

We recommend the use of guy-ropes for masts - structures with a height of 16m.
The final decision on the possible use of the guy-ropes systems is made by an accredited design office.

LIGHTING PROTECTION MAST

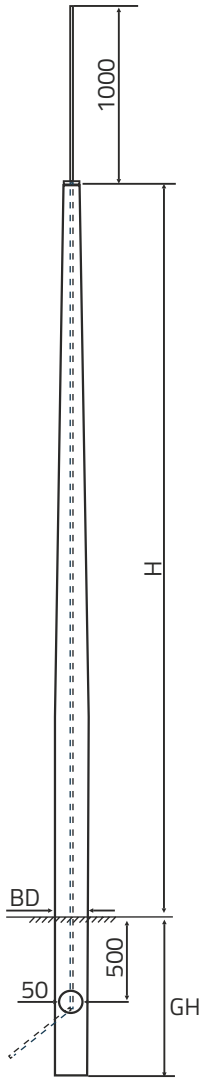
Pole color
in the standard offer:

RAL 9010

The column can be different-colored using a color from the RAL palette

The buried columns are installed without the use of heavy equipment or expensive prefabricated foundations

The recommended soil compaction factor (ID) should be min. 0.8
(i.e. the so-called "compaction" degree according to PN-EN ISO 14688-2(2])



SKPW-OD buried lightning protection masts

mast symbol	H (m)	BD (mm)	GH (m)	W (kg)
SKPW-OD 5,0/120/65	5,0	120	1,0	15
SKPW-OD 6,0/120/65	6,0	120	1,0	18
SKPW-OD 7,0/120/65	7,0	120	1,0	21
SKPW-OD 8,0/ 120/65	8,0	120	1,0	23
SKPW-OD 9,0/140/65	9,0	140	1,0	29
SKPW-OD 10,0/140/65	10,0	140	1,0	31
SKPW-OD 11,0/140/65	11,0	140	1,0	41
SKPW-OD 12,0/175/65	12,0	175	2,0	54
SKPW-OD 13,0/175/65	13,0	175	2,0	92
SKPW-OD 14,0/175/65	14,0	175	2,0	102
SKPW-OD 15,0/175/65	15,0	175	2,0	105
SKPW-OD 16,0/175/65	16,0	175	2,0	112
SKPW-OD 17,0/175/65	17,0	175	2,0	116
SKPW-OD 18,0/200/65	18,0	200	2,0	125
SKPW-OD 19,0/200/65	19,0	200	2,0	128
SKPW-OD 20,0/200/65	20,0	200	2,0	135

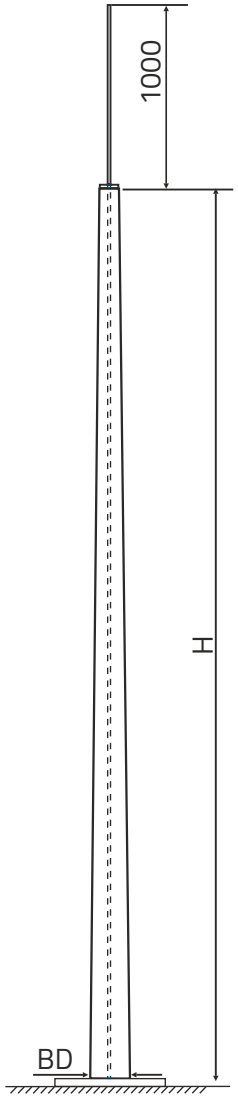
We recommend the use of guy-ropes for masts - structures with a height of 16m.
The final decision on the possible use of the guy-ropes systems is made by an accredited design office.

LIGHTING PROTECTION MAST

Pole color
in the standard offer:

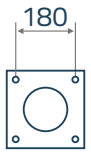
RAL 9010

The column can be different-colored using a color from the RAL palette

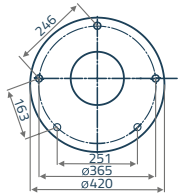


Types of bases - hinge brackets

5–12m mast



13–17m mast



18–22m mast

SKPF-OD buried lightning protection masts

mast symbol	H (m)	BD (mm)	W (kg)
SPKF-OD 5,0/120/65	5,0	120	17
SPKF-OD 6,0/120/65	6,0	120	20
SPKF-OD 7,0/120/65	7,0	120	22
SPKF-OD 8,0/120/65	8,0	120	25
SPKF-OD 9,0/120/65	9,0	120	29
SPKF-OD 10,0/140/65	10,0	140	35
SPKF-OD 11,0/140/65	11,0	140	40
SPKF-OD 12,0/140/65	12,0	140	50
SPKF-OD 13,0/175/65	13,0	175	95
SPKF-OD 14,0/175/65	14,0	175	102
SPKF-OD 15,0/175/65	15,0	175	111
SPKF-OD 16,0/175/65	16,0	175	118
SPKF-OD 17,0/175/65	17,0	175	125
SPKF-OD 18,0/200/65	18,0	200	162
SPKF-OD 19,0/200/65	19,0	200	172
SPKF-OD 20,0/200/65	20,0	200	197
SPKF-OD 21,0/200/65	21,0	200	208
SPKF-OD 22,0/200/65	22,0	200	224

We recommend the use of guy-ropes for masts - structures with a height of 16m.
The final decision on the possible use of the guy-ropes systems is made by an accredited design office.

ELECTRIC CAR CHARGING STATIONS

We offer charging stations for electric cars in two variants: - on a low composite post
- in a composite lighting column

ADVANTAGES

Low installation and operating costs guarantee a quick return on investment

EV Charge charging stations are made of only the highest quality components

The products we offer have passed rigorous safety tests

The specification of EV Charge products gives the opportunity to use various public funding programmes

We offer assistance in obtaining the most favorable leasing conditions

The EV Charge brand is a member of PSPA (Polish Alternative Fuels Association)

NCT S.A. provides professional and comprehensive after-sales service

We offer assembly and technical consultations throughout Poland

no additional connection fees

EV CHARGING STATION
BUILT IN A COMPOSITE LIGHTING COLUMN

Outdoor use, e.g. streets and private and public car parks

TECHNICAL INFORMATION

the possibility of using the existing connection - electric infrastructure

Charging power: 1 or 2 x 7.4 kW. 1 or 2 x 22 kW

Charging current: 32 A

Power supply: single or three phase

Charging sockets: 1 or 2 Type2 slots

Authorization: RFID or mobile application

Protection degree: IP 54

Safety: MCB overcurrent protection, residual current - RGB class B

Energy measurement: MID meter

Column color in the standard offer: RAL 7024

EV CHARGING STATION
IN A LOW COMPOSITE POST

Outdoor use, e.g. car parks and inside the building, e.g. underground car parks

TECHNICAL INFORMATION

Charging power: 1 or 2 x 7.4 kW. 1 or 2 x 22 kW
Charging current: 32 A
Power supply: single or three phase
Charging sockets: 1 or 2 Type2 slots
Authorization: RFID or mobile application
Protection degree: IP 54
Safety: MCB overcurrent protection, residual current - RGB class B
Energy measurement: MID meter
Column color in the standard offer: RAL 7024

Charging efficiency comparison table

Normal power of the station - charging point [kW]	[1]Increase in the range of an electric vehicle (emission-free) (km / 1h of charging)	[2]Time required to fully recharge (7% to * 90%) a 70 kWh battery	[3] The cost of driving 100 km	Additional information
3,7 (e.g .: factory converter + home socket)	17	19	> 11,00 PLN brutto	▪ Very long charging time, limiting the possibility of using a zero-emission vehicle. ▪ Relatively lower level of safety of the charging process (no communication between the power point and the vehicle's internal charger, no class B residual current device)
7 (e.g. single-phase EV Charge)	36	9,5		▪ Optimal charging time. ▪ Competitive price. ▪ Relatively low load on the electrical system. ▪ Minor impact on the reduction of battery life.
22 e.g. EV Charge three-phase charging station	115	3,2		▪ Very short charging time. ▪ Relatively high load on the electrical system.

[1] The estimated value depends, among others, on the driving style, outside temperature, average consumption (consumption) of electricity by a given vehicle as well as the level of discharge and the condition of the battery.
[2] The estimated value depends mainly on the condition of the battery and the outside temperature. It should be remembered that the charging power graph is exponential as it decreases with the charging time.
[3] The assumptions: generator with a nominal power - 105 kW; energy consumption - 16.00 kW / 100 km, price 1 kW = oz70 PLN gross (for a temperature of 20).

* IMPORTANT :

Electric car manufacturers do not recommend full (100%) recharging of batteries for several reasons:

- a fully "charged" battery makes it impossible to fully use the recuperation function in the initial phase of the journey,
- it negatively affects the battery life, especially on hot days,
- after charging the batteries above 90%, the permissible charging power drops significantly.

COMPOSITE HOP FIELDS STRUCTURES

We are the only one in the world supplying a comprehensive system of technologically advanced composite supporting structures for hop fields along with a unique technology of monitoring and increasing the efficiency of hop cultivations in a PAH-free environment.

ADVANTAGES

Environmentally friendly solution: composite poles do not emit harmful substances such as PAH to the environment.

Light, durable structure, high durability and ergonomics of use.

Product resistant to the harsh environment of hops agrocenosis: moisture, soil / air contact, chemical compounds such as organic and mineral fertilizers, plant protection products, animal urine and weather conditions.

Innovative solution in the field of load transfer: properly applied materials and solutions allow the transfer of statistical and dynamic loads.

Due to their structure (thin-walled hollow tube) and the absence of electrical conductivity and high thermal insulation, composite poles allow for the installation of electronics inside (sensors, measuring and communication devices).

Possibility of creating a system for monitoring environmental conditions in hops (soil moisture, temperature, air humidity, wind strength and direction, precipitation, active photosynthetic radiation).

The composite structure of the hoppers enables the safe installation of photovoltaic panels and vertical wind turbines. They are used to supply measuring devices, cameras (video monitoring), communication devices (GSM radio antennas).

Long service life of the pole - the service life of composite poles is 40 years.

Composite poles are 100% recyclable - minimizing waste generation, perfectly matching the idea of green order, closed circuit and sustainable development.

Easy transport, even in difficult terrain, without the need for heavy loading equipment, lower transport costs.

COMPOSITE HOP FIELDS STRUCTURES

TECHNICAL INFORMATION

Poles height: 8 - 10 [m] (total length)

Type of foundation: buried

Four types of poles: central pole (160/125/1.7 kN), extreme pole of the rope (160/150/2.8 kN),
extreme pole of beams (200/200/5.4 kN), corner pole (200/200/6 kN)

Possibility to manufacture poles on request within a wide range of technical parameters

Poles weight: from 27 to 62 [kg]

Loading possibilities [TRUCK - 24t.]: approx. 150 poles

Possibility to use individual colors or external graphics
(e.g. birch - tree texture: advertising and information graphics: any color)

Internal LED illumination can be used

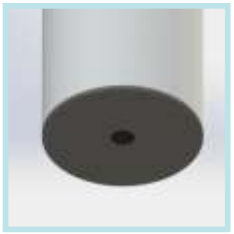
COMPOSITE HOP FIELDS STRUCTURES

An innovative structure for hop plantation based on composite poles

Bases for mounting the load-bearing mesh

base of middle poles

base of the extreme pillars



a cap protecting against the pole subsidence

category of columns	total length [m]	bottom diameter of the posts [mm]	top diameter of the posts [mm]	digging depth [m]	load force of the column in the axis [kN]
middle	8	160	125	1,0	10
extreme lines	9	160	150	1,20	18,9
extreme beams	9	200	200	1,20	44,9
corner	9,10	200	200	1,30	46,2

At the customer's request, it is possible to produce poles with non-standard parameters. Possibility to strengthen the pole for difficult operating conditions)

Column color in the standard offer:

RAL 7035

The column can be differentcolored using a color from the RAL palette

COMPOSITE HOP FIELDS STRUCTURES

An innovative structure for hop plantation based on composite poles

We offer a comprehensive approach to the cultivation of hops and the production of the raw material, i.e. hop cones.

I. Structure columns - composite structural columns

We supply hops with the latest technologies based on composite poles of the structure, which are the only prospective substitute for forbidden wooden poles impregnated with creosote.

2. IoT monitoring system - internet of things

Our plantation is simultaneously supported by the latest technologies for measuring environmental parameters of crops and advanced image analysis, which, via the Internet of Things (IoT), allow to analyze plant growth in the cloud and predict, for example, the appearance of pests or diseases.

3. Automatic irrigation and fertilization system

An automatic drip irrigation and fertigation system dedicated to hop plantations allows you to optimize costs and reduce the share of chemicals in the cultivation process to a minimum.

4. Land bioremediation and utilization of poles

We also undertake the bioremediation of soils contaminated with PAHs as part of the reconstruction of traditional hops according to the highest standards.

5. Growing hops - obtaining the highest quality raw material

Hop cultivation carried out according to the principles of integrated production, in order to obtain the highest quality raw material, free from contamination and for varieties specially selected for the current needs of the kraft brewery and restaurant market.

6. Granulation and extraction machines - processing of hop cones

We will process the cones in our own plant equipped with granulation and extraction machines to obtain the finished product.

7. Renewable energy - devices that produce renewable energy

The innovative hop-hop design that we implement allows the installation of devices that produce energy from renewable sources.

FLAGPOLES
composite

The advantage of composite poles is resistance to corrosion, no scrap value, as well as a wide selection of poles types - from standard structures to Master class solutions. They are perfect as effective advertising and representative tools.

ADVANTAGES

A wide range of flagpoles - available versions: composite poles
STANDARD, SUPER, SUPERWINDTRACKER
and composite MAXIMA poles, STANDARD and SUPER versions

Extremely light and easy to install

High resistance to vandalism, road salt, animal impurities

Composite poles are theft-resistant and have no scrap value

The service life of composite poles is about 40 years

25-year guarantee for composite poles

Use: local government units, hotels, restaurants, shopping centers, monuments, squares, private properties

FLAGPOLES
composite

TECHNICAL INFORMATIONS

Height of composite masts from 6m - 12m

Masts MAXIMA od 14 to 19 [m]

Type of foundation: on a hinged bracket

Weight of masts, composite masts from 9 to 15 [kg],
composite masts MAXIMA from 80 to 170 [kg]

Standard color: RAL 9010

Possibility of production in any color from the RAL palette

STANDARD

The flag is raised by a rope that is placed outside the mast. The line is tied on a cleat, which is placed 1.5 meters above the ground. The display of the flag depends on gusts of air.

SUPER

The rope is located in the middle of the mast. The flag is hoisted and lowered by means of a line attached to the inner cleat, hidden inside the mast tube. This solution partially protects against flag theft. At the bottom of the flag, a weight is attached to tension it.

SUPERWINDTRACKER

It is a mast with a cable in the middle and a horizontal arm on top attached to a rotating head. This solution allows for full presentation of the flag regardless of a gust of wind and for raising and lowering the flag without having to put the mast down.

FLAGPOLES
composite
MFK

Pole color
in the standard offer:

RAL 9010

The column can be different colored using a color from the RAL palette

MFK composite flagpoles

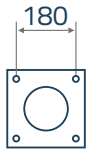
mast symbol	total length of the mast [m]	lower mast diameter [mm]	diameter of the main mast [mm]	number of segments
MKF 6	6	120	65	1
MKF 8	8	120	65	1
MKF 10	10	140	65	1
MKF 12	12	140	65	1
MKF 14	14	175	65	2
MKF 16	16	175	65	2
MKF 18	18	200	65	2

MAXIMA

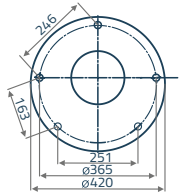
We recommend the use of guy-ropes for poles - structures with a height of 16m. The final decision on the possible use of the guy-ropes systems is made by an accredited design office.

Types of bases - hinge brackets

5–12m mast



13–17m mast



18–19m mast

Additional mounting accessories

mounting element cover

portable base for paving tiles

FLAGPOLES
segmented aluminium

Segmented aluminum flagpoles are characterized by high quality and aesthetics. They are made of a special aluminum alloy with increased elasticity and durability. Segmented aluminum poles are convenient to transport and easy to install.

ADVANTAGES

A wide selection of segmental aluminum flagpoles - available versions:
STANDARD, SUPER, SUPERWINDTRACKER

Extremely light and easy to install

Protecting the pipes with a natural anode with a minimum thickness of 20 μM.

The aluminum is made of a special aluminum alloy with increased elasticity and durability

100% recyclable, the poles are easy to recycle and recover part of the purchase costs

10-year guarantee for aluminum poles

Use: local government units, hotels, restaurants, shopping centers, monuments, squares, private properties

FLAGPOLES
segmented aluminum

TECHNICAL INFORMATIONS

Composite poles height from 6 to 12 [m]

Pipe wall thickness from 1.2 to 3.5 [mm]

Type of foundation: on a hinged brackets or on a mounting sleeve

Poles weight: segmented aluminum poles from 7 to 22 [kg]

Standard color: natural anode

Possibility of manufacturing in any color from the RAL palette

Possibility to paint the pipes in any color from the RAL palette

STANDARD

The flag is raised by a rope that is placed outside the mast. The line is tied on a cleat, which is placed 1.5 meters above the ground. The display of the flag depends on gusts of air.

SUPER

The rope is located in the middle of the mast. The flag is hoisted and lowered by means of a line attached to the inner cleat, hidden inside the mast tube. This solution partially protects against flag theft. At the bottom of the flag, a weight is attached to tension it.

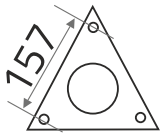
SUPERWINDTRACKER

It is a mast with a cable in the middle and a horizontal arm on top attached to a rotating head. This solution allows for full presentation of the flag regardless of a gust of wind and for raising and lowering the flag without having to put the mast down.

FLAGPOLES
segmented aluminum
MFA

MFA aluminum segmented flagpoles

mast symbol	total length of the mast [m]	lower mast diameter [mm]	diameter of the main mast [mm]	number of segments
MFA 6,35	6,35	65	50	2
MFA 8,35	8,35	80	50	3
MFA 10	10	80	50	3
MFA 12	12	95	50	4



5–12m mast

Types of bases - hinge bracket

hinge bracket

mounting sleeve

Additional mounting accessories

mounting element cover

portable base for paving tiles

PRODUKTY EVENTOWE

High-quality, tapered poles, winder poles and the Multi Banner System are perfect for outdoor events, as well as exhibitions and indoor fairs.

Winder poles - are perfect for outdoor events, can be placed virtually anywhere and at any time of the year.
The poles are made of anodized aluminum pipes, each 120 cm long.
The pole is available in two versions:
- Winder Alu - the pole is entirely made of aluminum profiles, available heights: 2 m. 3.1 m and 4.2 m.
- Winder Wing - is made of aluminum profiles, while the arch is made of fiberglass, available heights: 1.75 m. 2.8 m and 3.9 m.

Banner system - is a universal advertising system that can be placed on poles. The advantage is the ability to quickly and easily mount any flag or banner. The structure is made of high quality aluminum..

Narrowed poles - folding poles are made of high-quality anodized aluminum, the tubes have a diameter of 50 mm, and the wall is 2 mm thick.
The pole is available in the STANDARD version, available in heights of 3m and 6m.
We have a wide selection of bases for portable poles.

SELECTED ADDITIONAL ACCESSORIES FOR FLAGPOLES

ROTATING HEAD (plastic-aluminum)

TOP SAS (option for rotating head)

GOLD, SILVER BALL (option for rotating head)

ENGLISH TYPE BALL (plastic)

WINDTRACKER ARM

ROPE WITH KEVLAR OR POLYESTER

INTERNAL LOCK

WINCH

OUTER CLEAT

WEIGHT

COMPOSITE STRUCTURES - PRODUCTS FOR SPECIAL ORDER

monitoring masts

Monitoring masts are a durable and practical solution that will be used in many areas of public and industrial monitoring.

OUR OFFER INCLUDES THREE TYPES OF MONITORING MASTS:

- mobile mast
- monitoring road mast
- ManyPole7 mast

Mobile mast– dedicated to monitoring areas where there is no constant electricity supply or it is very unstable (mass events, forest areas, landfills, construction sites.)

ADVANTAGES

Steel base, allowing for loading with any - generally available ballast (e.g. pavement, screw anchors)

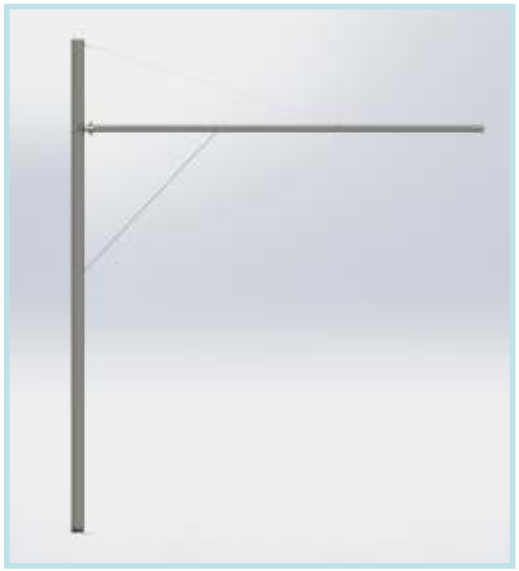
Adjustable structure, thanks to which the installer can position the panels at the most convenient angle of inclination

A very light, modular structure facilitates installation and enables transport, e.g. by courier services

Standard height: 3 M. (1.5 m + 1.5 m.)

COMPOSITE STRUCTURES - PRODUCTS FOR SPECIAL ORDER

monitoring masts



Mast for road monitoring – designed for mounting vision cameras at intersections, public or internal roads.

ADVANTAGES

High resistance to adverse weather conditions

Resistance to road salt and animal urine

Low operating and installation costs

Standard height: 6 m.

COMPOSITE STRUCTURES - PRODUCTS FOR SPECIAL ORDER

monitoring masts

ManyPole Mast7 – standard composite mast with a height of 7 m, intended for monitoring private properties, areas belonging to companies or institutions.

Installation platform - adapter for professional installation of industrial or public cameras (CCTV.)

ADVANTAGES

Light construction

High mechanical strength guarantees long-term and maintenance-free operation

Standard height: 7 m.

Possibility to order masts in a different color and height configurations

COMPOSITE STRUCTURES - PRODUCTS FOR SPECIAL ORDER

shelters - carports

Composite structures also include modern and durable carports. Thanks to the use of innovative production technology, NCT sheds are characterized by high durability and resistance to difficult weather conditions, while maintaining appropriate aesthetics and low weight of the entire structure. When you decide to buy a composite carport, choose a product of a Polish manufacturer with over twenty years of experience in the production of poles and composite structures.

ADVANTAGES

- High quality and precision of workmanship
- No scrap value (resistance to vandalism)
- Resistance to unfavorable weather conditions, to acids and alkalis
- Low weight, requiring no heavy equipment
- No impregnation required
- Possibility to order load-bearing poles with individual graphics and internal illumination

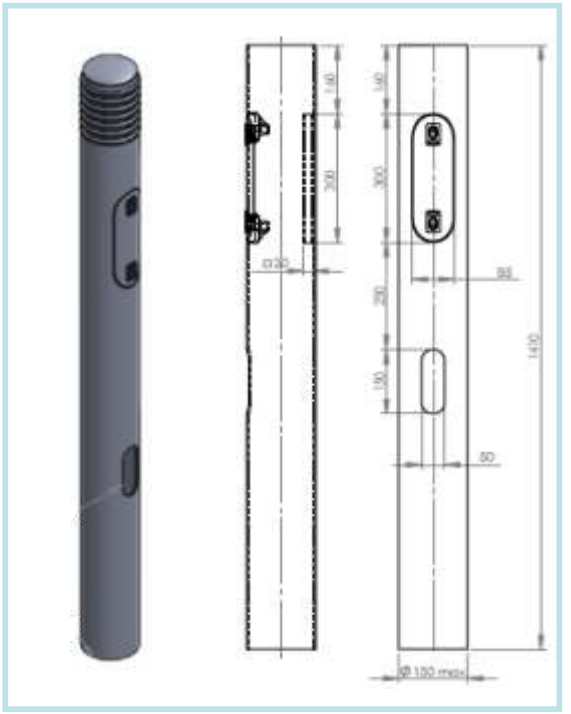
SELECTED ADDITIONAL OPTIONS

- Electric vehicle charging system 7.4 or 22kW (EV)
- Possibility to use a photovoltaic generator (photovoltaic installation)

i Illustrative photo. The final appearance of the product depends on the execution system and customer expectations.

COMPOSITE STRUCTURES - PRODUCTS FOR SPECIAL ORDER

railway fog post for marshalling yards



ADVANTAGES

Simple installation that does not require the use of heavy equipment

High-quality workmanship

No maintenance is required

Significantly improves the security of, among others in rail traffic

Resistant to unfavorable weather conditions, animal urine, acids, alkalis

No scrap value

TECHNICAL INFORMATIONS

They have an inspection hole

Posts buried in the ground

The post total length - 1410 mm

COMPOSITE STRUCTURES - PRODUCTS FOR SPECIAL ORDER

dielectric seatposts

The dielectric seatpost system is an ideal solution for installers and electricians who want to easily and safely execute the installation from the overhead line, directly to the given building.

The low weight of the product and the dielectricity of the main component are the key advantages of this solution.

ADVANTAGES

- Low weight enables efficient and safe installation on the building wall
- High load capacity
- Wide range of applications
- High resistance to extremely adverse weather and temperature conditions
- Fire resistance
- Possibility to adjust the diameter and length of the seatpost to individual customer needs
- Steel part protected against corrosion (galvanized)

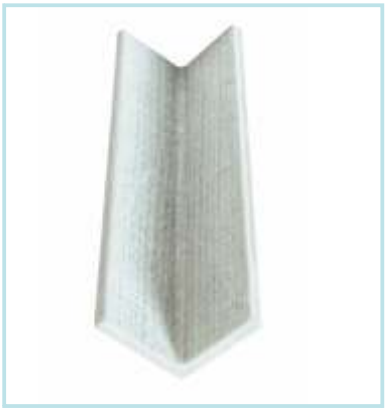
COMPOSITE STRUCTURES - PULTRUSION

bars, profiles, pipes, angles, channels, tees, supports and reinforcement meshes

High-quality composite structures manufactured in the pultrusion technology. It is a wide range of composite profiles, i.e. bars, angles, channels, tees, pipes and others.

ADVANTAGES

- Wide range of applications
- High physical and mechanical strength
- Product length up to 13 m.
- Any painting color
- Possibility to perform a shielding, load-bearing structure and reinforcement elements functions
- High thermal resistance

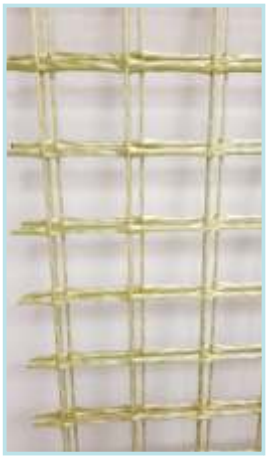


COMPOSITE STRUCTURES - PULTRUSION

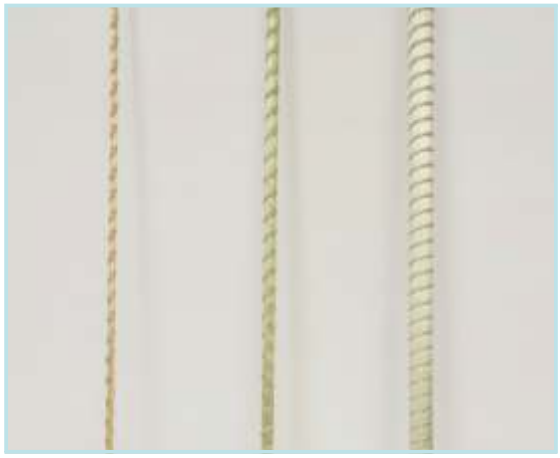
selected photos of finished pultrusion products

pipes

reinforcement meshes



reinforced bars

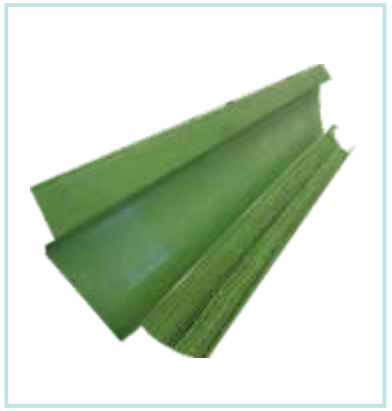


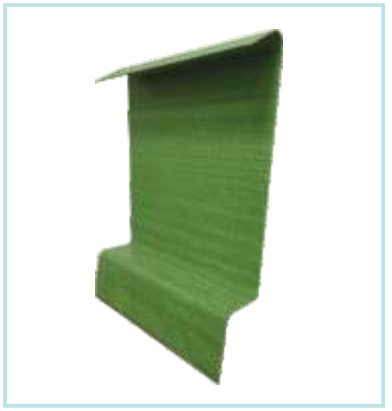
angles

ROAD FENCES - HERPETOLOGICAL

protection of amphibians and reptiles on highways

NCT herpetological fences are a complete system that protects amphibians and other species from road traffic hazards. Our herpetological fences are successfully used on expressways and highways. This product was developed with effective environmental protection in mind in the era of a dynamically expanding network of expressways. Thanks to the high-quality workmanship and the possibility of simple installation, herpetological fencing made of composite has gained recognition among leading companies in the road construction industry.





ADVANTAGES

Low empty weight of the product reducing transport costs and investment project implementation time

High quality and aesthetics of workmanship

Easy and safe installation

Resistance to extremely adverse weather and road conditions, e.g. road salt

Resistant to UV radiation and unfavorable temperature conditions

Fire resistance

TECHNICAL INFORMATIONS

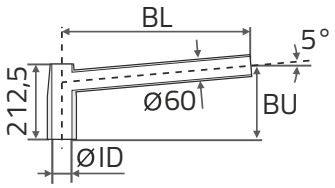
Length 3 m; height 0.48 m.

ADDITIONAL ACCESSORIES:

reversing and assembly angles

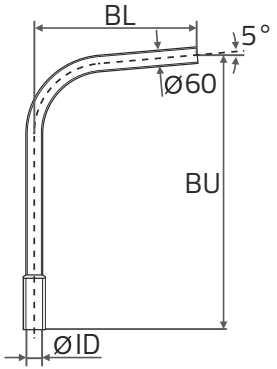
SELECTED ADDITIONAL ACCESSORIES FOR LIGHTING COLUMNS

one-sided, inclination angle 0° - 20 °



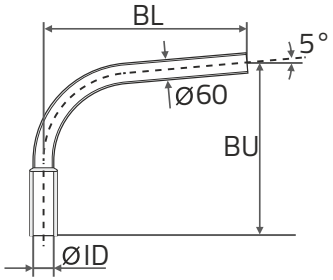
WJ1 GROUP

boom symbol	BL (mm)	ID (mm)	BU (mm)	weigh (kg)
WJ1/60/5/500	500	60	200	1,8
WJ1/60/5/1000	1000	60	249	2,6
WJ1/60/5/1500	1500	60	293	3,4



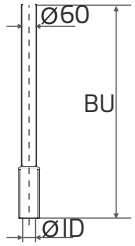
WJ2 GROUP

boom symbol	BL (mm)	ID (mm)	BU (mm)	weigh (kg)
WJ2/60/5/500	500	60	1000	3,4
WJ2/60/5/1000	1000	60	1000	4,2
WJ2/60/5/1500	1500	60	1000	5,0



WJ3 GROUP

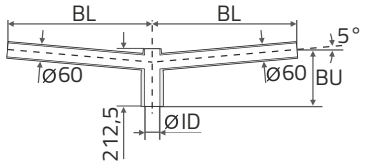
boom symbol	BL (mm)	ID (mm)	BU (mm)	weigh (kg)
WJ3/60/5/500	500	60	500	2,4
WJ3/60/5/1000	1000	60	500	3,4
WJ3/60/5/1500	1500	60	500	4,2



WP GROUP one-sided, vertical, straight

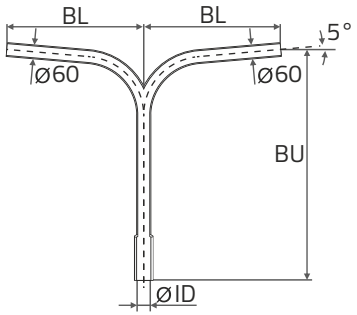
symbol wysięgnika	ID (mm)	BU (mm)	waga (kg)
WP/60/1000	60	1000	2,6

double bracket (two sided), inclination angle 0° - 20 °



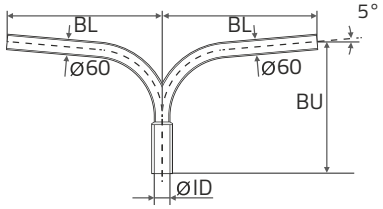
WD1 GROUP

boom symbol	BL (mm)	ID (mm)	BU (mm)	weigh (kg)
WD1/60/5/500	500	60	200	2,6
WD1/60/5/1000	1000	60	249	4,2
WD1/60/5/1500	1500	60	293	5,8



WD2 GROUP

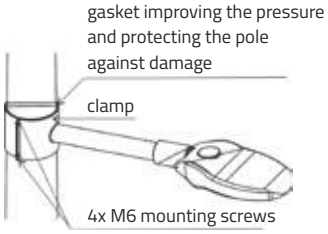
boom symbol	BL (mm)	ID (mm)	BU (mm)	weigh (kg)
WD2/60/5/500	500	60	1000	4,2
WD2/60/5/1000	1000	60	1000	5,8
WD2/60/5/1500	1500	60	1000	7,4



WD3 GROUP

	BL (mm)	ID (mm)	BU (mm)	weigh (kg)
WD3/60/5/500	500	60	500	3,2
WD3/60/5/1000	1000	60	500	5,0
WD3/60/5/1500	1500	60	500	6,6

bracket, angle of inclination 5°

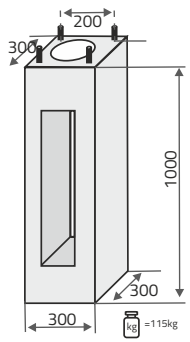


bracket

boom symbol	BL (mm)	ID (mm)	weigh (kg)
bracket	500	60	2,6
	1000	60	4,2

SELECTED ADDITIONAL ACCESSORIES FOR LIGHTING COLUMNS

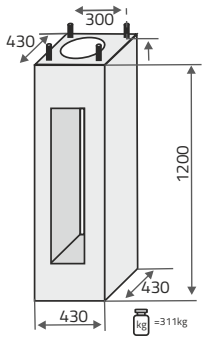
prefabricated concrete foundations



F100/30

For a pole with a bolt spacing of 200mm with an assembly kit (bolts, nuts).

! dedicated for poles up to 6.0 m

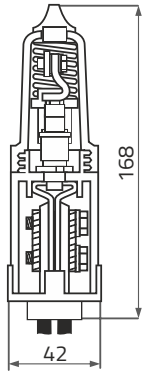


F120/43

For a pole with a bolt spacing of 300mm with an assembly kit (bolts, nuts).

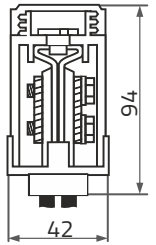
! dedicated for poles from 7.0 m

insulating pole connectors



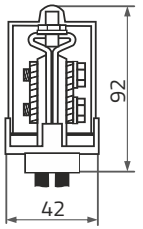
IZK–4–01

Insulating cable connectors (single-phase with fuse space). The connector does not include a fuse.



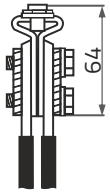
IZK–4–02

Insulating cable connectors (phase).



IZK–4–03

Insulating cable connectors (neutral).

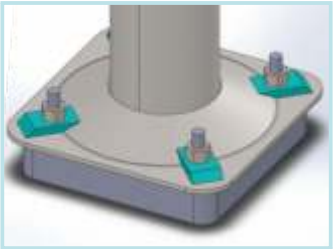


IZK–4–04

Insulating cable connectors (neutral - non-insulated).

Inspection door

Made of composites in color and dimensions adapted to the poles. Complete product, ready for installation on a pole.



Sleeve - adaptive overlay

A system that allows the installation of original NCT poles to non-dedicated foundations, with a different bolt spacing.

Cover plate – technical cover of the lower base of a lighting or teletechnical mast.

Installation platform - adapter for professional installation of industrial or public cameras (CCTV.)

QUICK-BINDING MOUNTING COMPOUND (FOAM)

An innovative product for embedding and stabilizing poles in the ground, especially recommended for the installation of telecommunication poles. One package is a two-component resin mass, which, after mixing and pouring into the hole between the pole and the substrate, grows for about 4-6 minutes, tightly filling the space and creating a permanent fixture resistant to moisture and changing environmental conditions.

ADVANTAGES

Resin compound solidifies 300 times faster than concrete

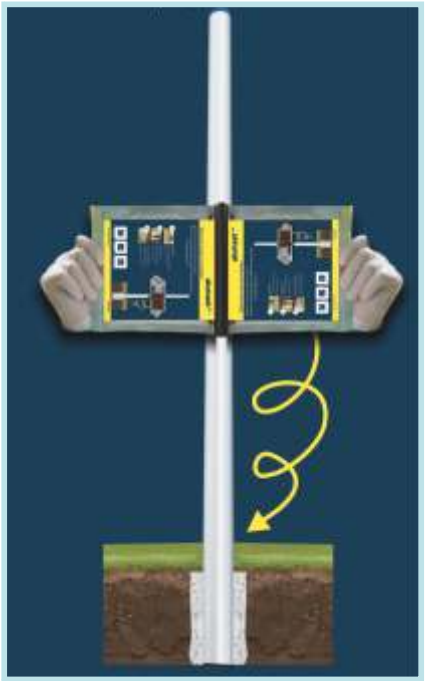
The foam rises up and solidifies within 6 minutes, which contributes to the quick assembly of the poles in a short time

Replaces up to 3 bags of concrete mortar

Working with the compound does not require access to water and the use of additional tools

The compound guarantees perfect assembly for years

Handy packaging



! The recommended size of the opening should be between 10 and 15% of the lower diameter of the pole. Quickbinding mounting compound (foam) is recommended for poles with a total length not exceeding 7m.

DESIGN OFFICE SUPPORT

Our Technical Support Department provides you with professional advice in the process of selecting the appropriate composite structures (e.g. poles, masts, angles), taking into account all the criteria and expectations indicated by the Investor.

Our vast experience and special calculators allow us to choose durable and safe solutions based on appropriate input data, which will be the most optimal solution from both an engineering and economic perspective.

This service is dedicated to all design offices operating, among others in the construction, energy, advertising and electrical installation industries.

CAD

BIM

download drawings

Composite telecommunication poles including design guidelines

pdownload the catalog from www.alumast.eu

We owe the position of the leader in the composite construction industry to over 20 years of experience and constant improvement of our offer. We started our activity as a company of several people, specializing in the production, sale and installation of aluminum solutions. Over the years, we have focused on the development of an offer based on the innovative properties of a polymer composite. Thanks to this, today we can meet the requirements of the most demanding customers and users of our products in Poland and in over 40 countries around the world.

Awards

Confirmed quality and safety

The highest quality of NCT S.A. products is confirmed by key certificates and approvals. The implementation of material and product safety standards is particularly important for the company. As a result, our composite solutions are used on all road categories, as well as in the railway, energy and military sectors.

Composite poles have a Certificate of Conformity (CE) with the European standard PN EN 40-7:2002, and also meet the requirements of PN EN 12767:2019. Durability, impact resistance and tightness of the structure are confirmed by IP and IK certification. Due to the strategic importance of composite solutions, the Military Center for Standardization, Quality and Codification granted the Company the NATO Entity Code of the National Economy 2522H.

The company was also granted, among others, positive opinions of the Railway Institute in Warsaw regarding the resistance of composite structures to high electrical discharges and the effect of short-circuit currents. The aerodynamic safety of flagpoles and the low CO2 emission in the production process of NCT S.A.
composite poles were confirmed as a result of tests.

NCT S.A. products are subject to regular recertification in order to meet the growing requirements in the field of quality and safety.

SELECTED CERTIFICATES AND APPROVALS

TÜVRheinland®
CERTYFIKOWANO

Management system
ISO 9001:2015

www.tuv.com
ID 9000020954


TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.
Technical and Test Institute for Construction Prague, SOE

CERTYFIKAT
STAŁOŚCI WŁAŚCIWOŚCI UŻYTKOWYCH

certificate of constancy of performance

Nr 1020 – CPR – 070045575

Alumast S.A.

ul. Marklowicka 30A, 44 300 Wodzisław Śląski, Polska

EN 40-7:2002


PKP Polskie Linie Kolejowe S.A.

DOPUSZCZENIE DO STOSOWANIA


TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.
Technical and Test Institute for Construction Prague, SOE

ZAŁĄCZNIK Nr 1
CERTYFIKAT STAŁOŚCI WŁAŚCIWOŚCI

Nr 1020 – CPR – 070045575


TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.
Technical and Test Institute for Construction Prague, SOE

CERTYFIKAT ZGODNOŚCI ZAKŁADOWEJ
KONTROLI PRODUKCJI

Energy Composites Sp. z o.o.


ZAŚWIADCZENIE
CERTIFICATE

ALUMAST S.A.

2522H


Stowarzyszenie Budowniczych Telekomunikacji

Wyrób /product: Słup Teletechniczny Kompozytowy
Wkopywany (TKPW)

Alumast S.A., ul. Marklowicka 30A,
44-300 Wodzisław Śląski

REKOMENDACJA


BBJ

Biuro Badawcze ds. Jakości

CERTYFIKAT ZGODNOŚCI

CERTIFICATE OF CONFORMITY

SAMPLE PROJECTS

SAMPLE PROJECTS

NOTES

Sales supervisor data:
:

NCT™

New
Composite
Technologies

Marklowicka 30A
44–300 Wodzisław Śląski
NIP 6472213249

nct.com.pl

export@nct.com.pl

+48 32 45 30 316