

# INNOVATIONS

## in the world of artificial light

Already more than a quarter of a century ago the company AMIRA appeared in St. Petersburg, introducing the latest lighting poles from galvanized metal from abroad to the domestic market. Now the group of companies AMIRA is a production and commercial holding, which includes a full cycle – designing, manufacturing and installation of lighting poles and masts for various purposes. In addition to lighting poles and masts the holding offers industrial lightning conductors, flagpoles, power transmission lines, cell towers on the market. The company is able to design, produce and assemble almost any structural steel constructions required by the customer. The holding also produces own lighting equipment for a wide range of purposes.

### A BIT OF HISTORY...

A trading company has passed an impressive way for a quarter of a century. There was a special fact in its story: it received a ticket to life directly from the hands of the current Russian president. On September 30, 1991, the company was registered by the Chairman of the Committee on External Relations of St. Petersburg Mayor's Office, Vladimir Putin. The first line of its activity was the introduction of galvanized steel poles of street



Sea Trade Port of Ust-Luga  
(Leningrad region)

lighting instead of reinforced concrete ones. Consumers were offered the newest high-altitude mast metal structures for the domestic market with a mobile crown, which, if necessary, moves to the ground, which facilitates the work of the electrician.

In 1997, a design bureau was organized with the trading company AMIRA to carry out lighting and design calculations, as well as architectural lighting projects. A year later there was its own assembly unit – the construction and installation company Petrosvet, which performed electrical and construction work on the installation of outdoor lighting. 2000 was a turning point for Amira: its own production was launched – the Amira-Stal-Konstruktsiya plant was launched, which began producing high-load-bearing metal structures for a wide range of purposes, but the main part was lighting, including high mast bearings. Now the designers have the opportunity to modify constructions taking into account the needs of the customer, developing more efficient projects. And in 2003 the company launched its own production of lighting equipment – the Amira-Svetotekhnika plant.

However, production capacities were significantly limited by the absence on the Russian market of components necessary for the manufacturing of steel structures, for example metal pipes of large diameter and large thicknesses. They had to be bought abroad, which significantly increased the cost of finished products. The growth of the exchange rate only aggravated the situation. The company AMIRA already being a multifunctional hold-

ing company by that time, had to switch to import substitution. On June 30, 2015, the plant Megapolis – a high-tech production facility aimed at the manufacturing of long metal structures, including closed tubular sections, was commissioned. It is the largest plant in Russia, producing faceted and round conical poles, lighting masts and power transmission towers. The construction of the plant Megapolis allowed expanding the range of products produced by the plant Amira-Stal-Konstruktsiya. And today, AMIRA can offer the entire line of light-bearing metal structures of its own production, which are in demand on the market – from three-meter decorative poles for parks to high masts for airports and stadiums.

### IN TUNE WITH THE PROGRESS

During its existence, the company AMIRA has implemented many large projects. The poles of its production are used on the Moscow Ring Road, the third transport ring of Moscow, the traffic bypass of St. Petersburg, on many large highways, at airports, used to illuminate mountain sports complexes, oil and gas industry facilities. Lighting poles and masts of AMIRA can be seen on the sites prepared (reconstructed or specially constructed) for major international competitions. For example, for the Winter Olympic Games in Sochi and the current World Cup.

Our lightning rods and high mast poles are used on the St. Petersburg Arena, stylish curved poles – on the road to Pulkovo. The station area of Kurumoch International Airport (Samara), high-mast poles at the airports of Saransk and Platov.



Catherine public gardens (Krasnodar)

Stadium masts in the training field of the E. Lakomov sports complex (Azov) and Akhmat-Arena.

Trying to be at the forefront of technical solutions in the field of outdoor lighting, AMIRA offers steel galvanized poles instead of the ones made of reinforced concrete, LED lamps instead of incandescent lamps for street and park lighting, halogen and sodium gas-discharge industrial lamps instead of long-obsolete mercury vapor lamps, which require special recycling.

The company's pride is high metal lighting masts used for lighting airports and seaports, highways, stadiums and ski slopes. The height of such masts is several tens of meters. Since transport standards allow transporting individual parts of 10-12 meters long, these masts consist of several conical sections 10 meters in length. These sections are simply put one on another. The connection is all-in-one: the metal adheres firmly under the weight of the structure. To increase the strength of the walls, the sections are not round, but have facets and anticorrosion coating obtained by hot dip galvanizing, which ensures operation for 40-50 years without corrosion. The standard version is designed for wind of 44 m/s (160 km/h). Such poles have a mobile crown where the lighting equipment is fixed. It is fixed on a special cable suspension and can be moved up and down by means of a reducer. It is more convenient, faster and safer, does not require lifting equipment for workers.

AMIRA is also engaged in complex illumination of architectural structures, including historical monuments, administrative buildings, bridges, it also produces decorative lighting poles for installation in parks and historical centers of cities.

The availability of the own design bureau allows the company to offer its customer a detailed project of illumination of

an object. The electrotechnical project includes diagrams of installation and power supply of lighting systems, calculation of the most suitable types of cables and wiring devices for these systems, recommendations related to the features of equipment installation and security of lighting systems.

To ensure the effectiveness of lighting, the customer is encouraged to use special regulators-stabilizers. They program the lighting device to work on an astronomical or special schedule. The light sensor will automatically turn on the light in



Krasnopresnenskaya Embankment (Moscow)

cloudy weather or in fog. Along with this, the device stabilizes the voltage applied to the lamp, which prolongs its life.

In addition to mass production, a full range of services, concentrated in the holding company AMIRA, allows the group to offer customers modifications to existing models for their individual needs, and to develop, if necessary, exclusive technical solutions. For example, when lighting an innovative complex in Skolkovo unique

tree-like poles were used, developed in the design bureau of the holding.

## FIRSTHAND

CEO of the group of companies AMIRA Andrey Saramud speaks about the problems of the industry.

- Your company proposes to replace the reinforced concrete pillars with steel ones. But now while the reinforced concrete poles with lamps are everywhere, and the prospect for work is great. What is holding back this process?

- The only thing is that reinforced concrete poles are still cheaper than steel ones. But with this advantage, there are still more disadvantages - very expensive logistics, you need a fleet of powerful automotive and construction equipment for the delivery and installation of reinforced concrete poles, because it on average weighs about 1 ton, while the steel one is only 120 kg. Reinforced concrete poles are limited in height, and in relation to steel poles there are virtually no restrictions: we can install poles of 100 m and higher! In addition, reinforced concrete poles are difficult and more costly to utilize. And steel pillars, which has expired, could be sold for scrap and you can earn on it. Another important issue is security. The collision of a car with a reinforced concrete pole is almost always a lethal outcome for the driver. A steel pole in a collision bends, and the driver in the worst case will be injured, not life-threatening. Thus, the transition to new technologies is only a matter of time.

- Does the known Russian problem - the dumping prices on tenders - affect the market of lighting systems?

- Unfortunately, yes. As for the competitions, it is necessary to take into account the company's reputation, experience, resources. Since today it often turns out that our company comes - it's about 400 specialists - and a company that does not have anything, so it is possible to set a minimum price. However, it is clear that the level is different. I have nothing against supporting small business, but in matters relating to security, the price should not be the main factor.

Moreover, often it happens that substandard constructions or used ones stay behind this minimum cost. This can also affect the construction time. And the failure of terms entails a new tender, new prices and, in general, an increase in costs. It is a «pseudo-economy».

We, as producers, face the problem of plagiarism. For example, we develop and produce a new product, put it on a certain site, conduct all sorts of tests, obtain permissive documentation - all these are our costs (both labor and financial). At the same time, any other

company has the opportunity to see this product, copy it and deliver it at a lower price, as it did not bear the costs of development and testing.

In addition, the tenders often do not take into account the period of time from their results and until the moment when work begins. The fact is that the metal is becoming more expensive. And in a few months, it can cost 40-50 percent more, therefore, when executing an order it is impossible to meet the estimate.

– *Who are your main competitors?*

– Foreign suppliers of steel. We have started to force them out of the market even before 2014, and after the appreciation of the currency, this process, of course, intensified. Designers who planned the supply of imported poles usually willingly replace them with ours – they are not only not worse in quality, but even better and cheaper.

I would like to note that thanks to Soviet standards that are higher than European ones, we have higher quality and more reliable pillars, which also creates an export potential for them. Our products are used in all climatic zones and the most earthquake-prone regions. We work not only in Russia, but also in Belarus, Estonia, Kazakhstan, Latvia, Turk-

menistan, in the Arab countries. For example, in Jordan, in the city of Amman, our high mast poles with searchlights are installed on the Manja International Circuit.

– *Do you work in the European market?*

– There was a problem with the access to the European market connected with the Russian standards. It is also important to overcome one more obstacle – the certification of Russian steel for domestic and European markets. The situation is that the Russian steel St3 goes in Europe as S235 JR. Accordingly, products with St3 steel can hardly be certified in European countries. We even asked producers to supply it to us from their European supply. The unresolved issue with certification actually blocks our export potential.

Also, as a supplier, we have to pass certification of production according to European standards.

– *Orders for the supply and installation of lighting equipment in our country are mostly seasonal, because roads and streets are built in the summer. How can you cope with the unevenness of the volume of current orders during the year?*

– In winter, work is carried out, first of all, to the warehouse, as well as the arrangement of small commercial facilities

with climatic features that allow carrying out construction work during this period. Moreover, by the beginning of the season, a sufficient number of should be prepared taking into account the potential volume of demand. Of course, this requires credit resources. The development of the company allows us to attract them on all the best conditions, we can go to banks from the top ten. This creates the best conditions for working with foreign customers, since they require the guarantee of precisely these banks.

#### AMIRA ON THE FRONTLINE OF IMPORT SUBSTITUTION

This is the flagship of the modern lighting industry, whose activities change the world around us. The obsolete lamps are replaced by LED and gas-discharge lamps, and reinforced concrete poles are replaced by metal ones, just as the «Ilyich lamp» replaced the wooden chip in its time, and reinforced concrete poles replaced wooden ones. This is the step of technical progress, and the one who guides us along its path is carrying out an important socially significant mission. And we need to wish AMIR success in the transformation of the streets of our cities.



Sochi International Airport.