



#### About the company



BFGROUP

Our company is the Ukrainian leading manufacturer of metal structures, sandwich panels and other associated products used in the process of quickly erected buildings (QEBs) erection. High-efficiency automatic equipment manufactured in Austria, Italy, the Netherlands, Germany, Switzerland enables us to occupy the position of the most innovative and modern enterprise in this branch of industry. The company has no analogues among other enterprises in terms of technical equipment level. Investments into the enterprise development constitute \$50mln.

Year of foundation - 2008.



#### Company's structure

The structure of BF Engineering group incorporates engineering • center, project management group, manufacturing facility, • assembly subdivision. BF Engineering solves numerous tasks in the field of designing, construction and erection of objects of • various purpose using:

- Metal structures of corrugated beams and plate girders;
- Variable section welded girders;
- Wall and roof sandwich panels with polyurethane (PUR) and polyisocyanurate foam (PIR) fillers;

- Roll-formed shapes (C, Z, U,  $\Sigma$ );
- Manufacture of ready-made light steel thin-walled structures;
- Profiled sheeting;
- Self-supported arc trapezoidal section;
- Modular container units;
- Foundation and anchor blocks;
- Services of metal treatment.





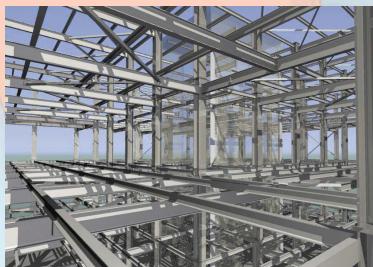
#### DESIGNING

Three-dimension simulation is performed based on the basis of program complexes BOCAD и TEKLA.

BF Engineering specialists make designs at the stage of architectural solutions, reinforced-concrete structures, metal structures and steel structures details, foreign projects are adapted to Ukrainian requirements. Cooperation with BF Engineering enables our customers to minimize the terms of drawings' elaboration.



The projects implemented by BF Engineering include industrial structures (plants and factories), agricultural structures (poultry farms, byres, pig farms, poultry yards etc.), agrarian structures (vegetable and fruit warehouses), logistics centers, railway stations, shopping and recreation centers etc.





# Corrugated beams (sin-beams)

Corrugated beam – is a special I-shaped light-weight metal structure having a sinusoidal shape metal structure joined to flanges by means of a continuous full-strength weight. This economic and reliable metal structure type has undisputable advantages in comparison with the analogues.

In comparison with hot-rolled plate girders of the same strength, sinbeam saves up to 30% of weight. The corrugated sheet of the beam wall has greater hardness and deformation strength, than an ordinary plate girder wall, which makes it possible to avoid using additional reinforcement ribs and supplementary joints which significantly decrease metal capacity of building structures.

Sin-beams have maximum bearing capacity at optimum proper weight. They combine the advantages of lattice girder (large spans, small weight) with those of ordinary rolled beams (small height and high bearing capacity).

Specific quantity of metal in the frame is the main economic index, which finally predetermines the cost of the structure manufacture and assembly. As of today, the corrugated beam is the most advanced solution among all the metal structure types in terms of the specific quantity of metal, which enables us to implement the following large objects both in Ukraine and abroad.



#### Sandwich panels

Sandwich panel is a three-pane structure consisting of two profiled metal sheets and a filling of polyurethane foam and polyisocyanurate foam between them. Manufacture of such panels consists of several stages including steel profiling, filling polyurethane foam and polyisocyanurate foam between the sheets and their polymerization in a special press, as well as applying protection and sealing tape on the butts of the sandwich panels followed by cutting of the length required by the customer. The un-cut panels are packed using special equipment and shipped to the customer.

Sandwich panels with polyurethane foam and polyisocyanurate foam filling are produced at an automatic continuous line manufactured by "CANNON" (Italy) of up to 200,000 sq. m per month capacity. Our enterprise is the only enterprise in Ukraine having such production line. Besides, the line completely excludes such defects as air cavities.

Due to the assembly simplicity, reliability, environmental friendliness, good quality characteristics and the reliable prices sandwich panels have already become one of the most popular modern building materials.

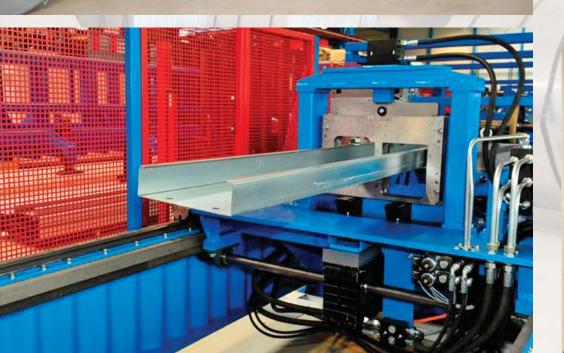




#### **Roll-formed shapes**

The plant has a modern Austrian roll-formed shapes production line. It is a continuous line with floating knives and the shape punching unit. The line capacity is up to 30 linear meters of shape per minute. The shape range depends on the wall height, flange width and metal thickness.

The shapes are made of rolled galvanized steel of 1.5 through 4.0 mm thickness. The total zinc weight on the two surfaces of the rolled steel provides the shape corrosion resistance up to 15 years under the maintenance condition of non-aggressive and slightly aggressive medium. The length of the manufactured shapes is customized.





# engineering Installation and construction works

BF Engineering performs the following works: foundation works, installation of metal structures, wall and roof structures, the functions of the principal contractor. The necessary permits and licenses and availability of qualified personnel enable us to guarantee high quality of the performed works to our customers.

# General Prosecutor Office

8 floors, more than 1000 tons of metal, box girders -all of the materials have been manufactured by our plant. It is possible due to our modern ESAB girder plate welding lines.

Kyiv

#### 55,185 tons vegetable warehouse

#### Martusovka settlement, Boryspil district, Kyiv region

The plant's high capacity has provided timely manufacture and delivery of structures for one of the largest vegetable warehouses in Europe which enabled the facility handover as per the schedule.



# Medium density fibreboard plant

Korosten, Zhitomir region



# Entrance pavilion in the Olympic Park

Sochi, Imereti lowland, the Russian Federation

We managed to implement this project due to low specific quantity of metal and small weight which made it possible to decrease costs for creation of foundations; installation rate and simplicity enabled significant construction term decrease.

## Livestock breeding complex for 6,000 heads

The Republic of Kazakhstan

Seismic region was not a problem for corrugated beams due to the fact that a special technology of sheet steel corrugation provides higher load-bearing capacity of sin-beams combined with the optimal proper weight in comparison with the analogous products.

# Railway station in the city of Fastiv

PACTIB

Fastiv, Kyiv region

### The Amtel logistics center

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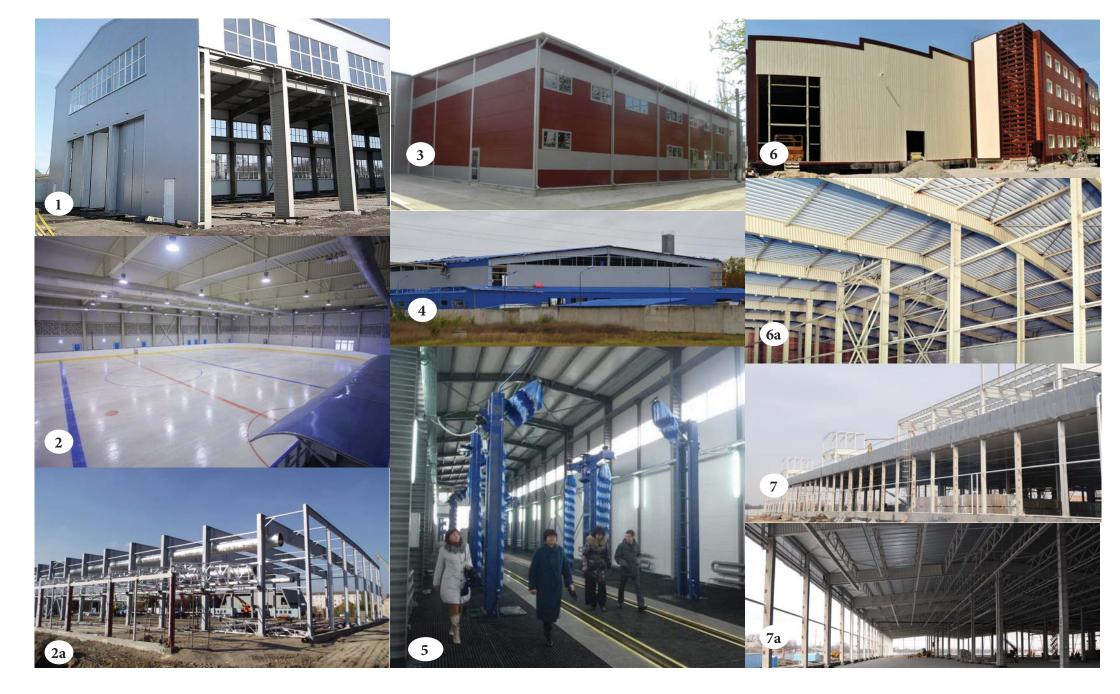
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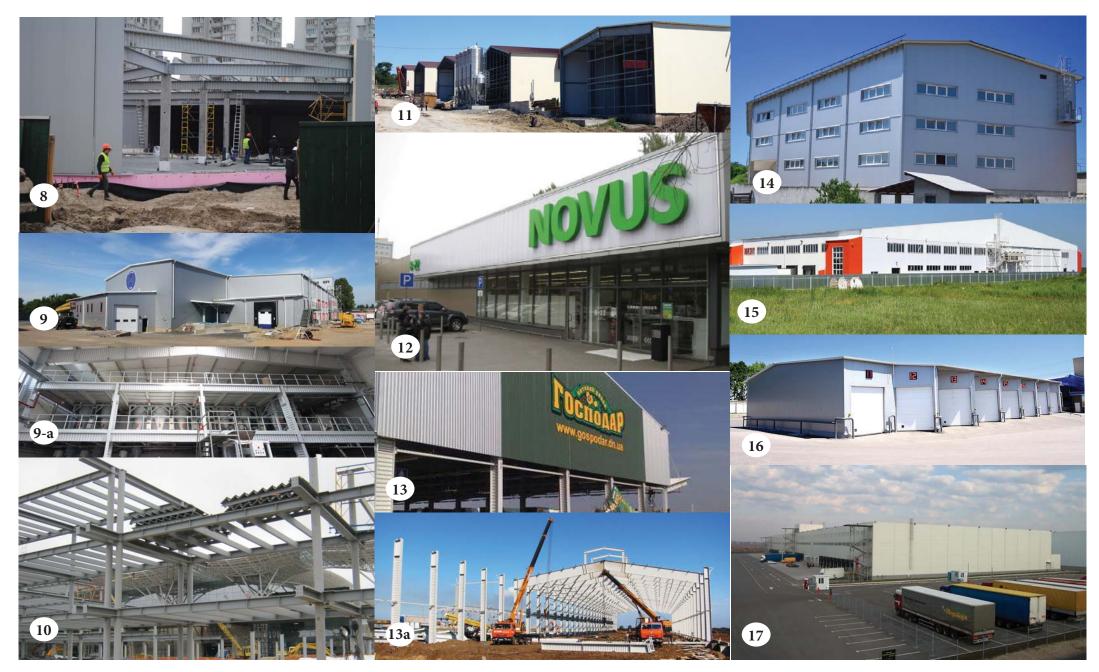
Petrovskoie settlement, Kyiv region

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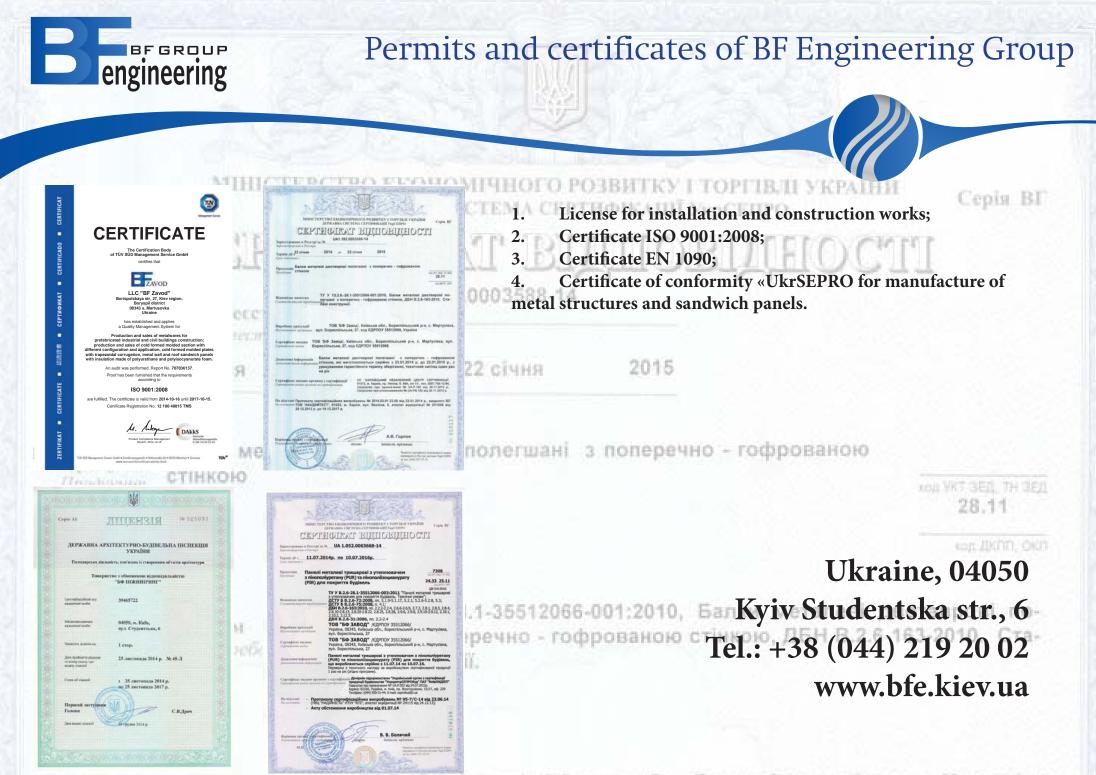
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1. Wagon depot (Bakhmach city, Chernigiv region); 2-2a. Ice rink (Boguslav city, Kyiv region); 3. General merchandise goods warehouse (Chisinau city, Moldova); 4. Raw material warehouse (Chumaki settlement, Dnepropetrovsk region); 5. Railcar washing center (Kharkov city); 6-6a. Vegetable warehouse (Glevakha settlement, Kyiv region); 7-7a. Refrigerator warehouse (Brovary settlement, Kyiv region).



8. Billa shopping mall (Kyiv city); 9. Bread-baking complex (Poltava city, Poltava region); 10. Parking (Boryspil city, Kyiv region); 11. Poultry yards (Gumentsy settlement, Kamenets-Podolsk district, Khmelnitsk region); 12. Novus shopping mall (Cherkasy city, Cherkasy region); 13. Gospodar market (Donetsk city, Donetsk region); 14. Pharmaceutical center (Gorenka settlement, Kyiv region); 15. Onion storage (Boryspil district, Kyiv region); 16. Freight forwarding terminal (Kulinichi settlement, Kharkov region). 17. Customs terminal (Martusovka town, Kyiv region).



Виробник протукнії

ОВ 'БФ Завод', Київська обл., Бориспільський р-н, с. Мартусівка,