DESIGNING AND CONSTRUCTION OF THE FOUNDATIONS AND BUILDINGS FROM METAL STRUCTURES WITH “GRADIENT” TECHNOLOGY
GRADIENT MANUFACTURING ENGINEERING COMPANY means:

5 years of successful work in the construction of pre-fabricated buildings made of metal structures for various applications: warehousing and industrial complexes, commercial and sports facilities, etc.

Patent-protected unique technologies provide quality building and construction works, at which our customers may save up to 20% of finance and get ready-made facilities on a tight schedule at any time of the year.

The project department has over 30 design-engineers applying the best calculation complexes. Permanent experimental work with the state unitary enterprises – the State Central Research and Experimental Design Institute for Building Constructions, Gersevanov Research Institute on Foundations and Underground Structures, Research Institute of Concrete and Reinforced Concrete on testing of elements, blocks and structures in the whole,

the own park of specialized and unique machinery and equipment numbering 100 units,
the pass-through liability of single enterprise for engineering, construction,

installation and appraisal of more than 80 implemented projects with full compliance with agreed cost of works and construction periods,

quality control system – ISO 2001 certification.
Grouped in-situ piles with enlarged footing use explosive energy for local compaction of foundation soil, which essentially increases its bearing capacity due to arising of the arch effect. They are applied for a wide range of soils, including marsh-ridden ones. Use of light and mobile drilling equipment allows quick and qualitative installation of proper foundations (up to 300 piles a day), without mud and disturbance of landscaping and improvements.

The technology of installation of foundations on piles with enlarged footing for non-basement buildings up to 4 floors has proved its efficiency many times. The working rhythm for one site is four zero cycles of cottages a week. As all bearing elements of mix-in-situ concrete are located in warm environment (foam constructional form and soil are below the depth of soil freezing), the technology perfectly suits for winter working conditions.
By now, several types of column grids of the carrying frame – 6x18m, 9x18m, 12x18m, 15x18m, 18x18m, 6x24m, 9x24m, 12x24m and blocks 24x24m, 36x36m have been applied, which provides flexible installation of support columns in accordance with the requirements for the technology of area leveling and building height. The specialists of V.A. Kucherenko State Central Research and Experimental Design Institute for Building Constructions have carried out an expertise of the beam structure design solutions. In their opinion, application of modern mathematical tools for spacial calculations of the carrying capacity of structures and unique technologies of construction led to reduction of materials consumption, optimization of labor input and length of construction.

On the tightest schedule, costs of construction of a facility for a customer are 20% less than those of conventional buildings, and project revision is possible in the course of construction. The specialists of the Gradient company learned to make the thinnest floor decks “inserting” reinforced concrete into sections of metal bearing beams. In this way, the building is used to the maximum on its free interior volume.

Dmitrov. Tennis court S=2160 sq. m, length = 36 m, height = 12 m.
Dorokhovo, Moscow region, Wood Processing plant

Volokolamsk, Moscow region. Paste manufacturing plant

Samara. Greenhouse

Dedovsk, Moscow region. Textile production
CAR TRADING CENTERS

RENAULT Zele-nograd, Moscow region, 17 km from Moscow, S=5000 sq.m.

CITROEN Moscow, Pomorskaya str, S=2540 sq.m.

Car trading center in Noginsk Moscow region, S=8500 sq.m.

WAREHOUSE AND ADMINISTRATIVE BUILDINGS

Moscow S=1800 sq.m

Bakovka, Moscow region. S=4000 sq.m
TRADING CENTERS

- Trade and Entertainment Center “Novakhovo”
  Nikolo-Uryupino, Moscow region
  S=12000 sq.m.

- Trade Center “Perekrestok”
  Lipetsk
  S=11600 sq.m

- Trade Center “Cherkizovo”
  Moscow
  S=14000 sq.m

WAREHOUSES

- Administrative and warehouse complex S=8000 sq.m.
  Klimovsk, Moscow region.

- Warehouse S=2000 sq.m.
  Snegeri, Moscow region.
At present, buildings made of metal structures by GRADIENT manufacturing engineering company can be seen not only in Moscow and Moscow region, but also in Leningrad, Pskov, Belgorod, Kaluga, Tver, Smolensk, Ryazan regions as well as in Samara, Voronezh, Lipetsk, Stary Oskol. Full quality conformance and compliance with terms of contracts stimulate customers to come back again and recommend us to their partners.