



Construction technology
based on

LSTC

(Light-Gauge Steel Thin-walled Constructions)

and integration of turnkey production



ABOUT THE COMPANY:

The company "Arkada-Engineering" was established in 1993 and since then it has been dynamically and confidently developing, occupying leading positions and being a competitive rival in Russian and CIS markets as well as abroad.

General activity field of the company is mechanical engineering and production of coiled steel processing equipment.

Since its foundation the constructors and engineers of "Arkada-Engineering" have produced more than **160** leading technology kinds in the field of coiled steel processing. More than **20** considerable inventions were patented and applied in industry, tens of know-how were created. More than **340** equipment units are working in **65** cities of Russia and CIS. The company staff LIGHT-STEEL STRUCTURAL FRAMING is more than **350** people and production area is more than **37 000** square meters.

Working out and promotion of a new scale technology aiming to create a market of affordable habitation for the masses is one of the main projects of the company. It is a modern high-performance buildings construction technology in which thermo sections of coiled steel are used.

The brand "Arkada-Engineering" has a great reputation in Russian and international markets.



"Arkada-Engineering" is a high level of standards:

- The company was honoured CE conformity certificate, it confirms perfect quality of assembly and a high safety degree of equipment that is produced.
- The company was awarded certificate of international certification IQNet.
- "Arkada-Engineering" is laureate of the contest: "The best Russian steel service center".
- Management of the company is recognized to conform to world standard ISO 9001:2000.

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EQUIPMENT DESIGNED TO PRODUCE:



● DRAINAGE SYSTEMS



● METAL DECKING AND METAL ROOFING TILES



● REINFORCING SECTIONS



● THERMO SECTIONS



● SECTIONS FOR BUILDING, METAL SIDINGS



● STAMPED PARTS, PERFORATED STRIP



● AIR PIPES



● SUSPENDED CEILINGS, VARIOUS PANELS AND SHELVES



● LONGITUDINAL AND CROSS STEEL CUTTING

AND ALSO ANY NON-STANDARD STEEL SECTION ACCORDING TO YOUR DEMANDS

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Having in store scientific, engineering and technological potential Arkada-Engineering can offer practically all kinds of service in the market of sheet steel processing technologies: from designing and production of separate kinds of equipment to the setting of complete turnkey plants and organization of sophisticated manufacturing processes.

Constant analysis of modern tendencies and perspective directions allow to continuously refresh and improve the company production line, to extend and to perfect technological base.

Special technologies permit to start manufacturing main equipment units right after the beginning of their designing.

Specialists of the company created a unique "program of rollforming tooling calculation", due to this program the process of preparing the full set of structural documentation takes from one to five days. The new worked out design system which is based on units unification allows to get more than 200 different layout variants of automatic processing lines and machine tools.

The range of possibilities to produce equipment is being extended constantly: cutting lines are able to process steel that has thickness from 0,2 mm up to 6,0 mm, rollforming lines make it possible to produce parts with up to 1250 mm sweeping. Technological and resource factors of Arkada-Engineering equipment are the same as of foreign analogues but at the same time it has moderate price and is easy to maintain.

Engineering service of the company designed a family of equipment (more than 200 various kinds) which allows to produce nearly all types of cold rollformed sections of galvanized, paint-and-lacquer coated and many other kinds of coiled steel.



ABOUT THE COMPANY:

GEOGRAPHY OF DELIVERIES:

RUSSIA, BELARUS, BALTIC STATES, UZBEKISTAN, UKRAINE, KAZAKHSTAN, POLAND.



Distinguishing features of the company are universality (broad assortment of equipment), the possibility to offer customers end-to-end solutions, unique and reliable engineering solutions, European production quality, moderate range of prices and efficient and accessible service.

Production and service of the company which will satisfy the needs of the most demanding buyers is the optimum price/quality offer.

More than 170 manufacturing companies in Russia, Belarus, Ukraine, Kazakhstan, Poland and other countries purchased Arkada-Engineering equipment that serves them well.

Most of customers become our all-time partners who during many years buy new kinds of equipment produced by the company.

Our marketing strategy is based on offering the most effective, modern and optimum solutions for our clients' business. In company strategic plans special attention is paid to maintenance and service development. Integrated and efficient service for customers who purchased our equipment is one of main directions of our activity, we also offer quick solution of any problems that can occur during final products manufacturing.

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OUR CUSTOMERS AND PARTNERS:

Equipment for production of rollformed parts and elements for various construction purposes:

- ZAO "Voestalpine Arkada Profil", Yartsevo, Smolensk Region - 000 "Arsenal ST", Smolensk - 000 PKF "ALGA", Chelyabinsk - AO "MAK "Almatygorstroy", Almaty, Kazakhstan - TOO "Agran", Uralsk, Kazakhstan - 000 "Armet", Voronezh - 000 "AMETIST", Podolsk, Moscow Region - ZAO "Amar-Delta", Novosibirsk - ZAO "Financial-Construction Company Arkhstroyinvestitsii", Ufa - 000 SRTP "Aramiselkhozremont", Aramil, Sverdlovsk Region - 000 "Aplisens", Moscow - 000 "BaltProfil", Saint-Petersburg - 000 "Bashkirskiy Profnastil", Ufa - ChMP "Vidzev", Nikolaev, Ukraine - 000 "Gidroizolstroy", Minsk, Belarus - OAO "Domostroitelniy Kombinat No.1 of M. V. Spivak", Kiev, Ukraine - 000 "PO "Metallist", Obninsk, Moscow Region - 000 "Mayak", Samara - 000 "Metallik & Co", Odintsovo, Moscow Region - PBOUL "Sukhikh A. V.", Irkutsk - 000 "RUUKKI RUS", Obninsk, Moscow Region - OAO "Kievmetalloprom", Kalinovka, Kiev Region - ZAO "RKTМ SPb", Saint-Petersburg - 000 "Stal-Ross", Saint-Petersburg - 000 "Saturn-Profil ST", Naberezhnie Chelny - OAO "Serebryakovskiy kombinat asbestosementnikh izdeliy", Mikhailovka, Volgograd Region - 000 "Petrokomplekt", Petrozavodsk - 000 "TekhPlast", Ekaterinburg - 000 "Profi-Stal", Ryazan - ZAO "Profit" - 000 "Yugmetallsnab-Kholding", Rostov-on-Don - 000 "ServisYugMetall", Krasnodar - 000 "TekS", Saint-Petersburg - 000 "Mirazh - Stal", Saint-Petersburg - 000 "Yaroslavskaya kommercheskaya kompaniya", Yaroslavl - 000 "MasterLuks", Volgograd - 000 "Naidi", Izhevsk - 000 PKF "TsKI", Irkutsk - 000 "KomFas", Krasnoyarsk - 000 "Korolevskiy Zavod Profnastila", Korolev, Moscow Region - 000 "PG Cherepovets-Profil", Cherepovets - 000 "Cherepovetsstroyprofil", Cherepovets - 000 "Sprint-tsentr", Magnitogorsk.

Equipment for production of rollformed parts and elements used in the manufacturing of furniture, doors, casewoods, trade and warehouse equipment:

- OAO "Iceberg", Smolensk - 000 "Belmetizdelie", Fanipol, Minsk Region - 000 "DiKom", Saint-Petersburg - ZAO "Opytniy zavod "Mikron", Velikie Luki - 000 "Polimerkomplekt", Kursk - 000 "PGS-K", Novosibirsk - 000 "Sreda", Sudislavl, Kostroma Region - 000 "Kartel Prays", Moscow - GK "Maksstor", Podolsk, Moscow Region - 000 "OPTIM", Svetlyi, Kaliningrad Region - 000 Enterprise "Ivakon", Novosibirsk - 000 "RossMetalProkat", Yartsevo, Smolensk Region - GAKHK "Artem", Kiev - ZAO "Puls-O", Orel - UP "Arleks", Minsk - RUP plant "Mogilevliftmash", Mogilev.

Equipment for production of rollformed parts and elements used in ventilation and drainage systems, ventilation and other facades:

- 000 PF "ARS-Prom", Tumen - 000 "Kraspan", Krasnoyarsk - 000 "MET-IZ", Odintsovo, Moscow Region - 000 "Konkur-7", Moscow - 000 "Ventkomplekt", Moscow - 000 "Klimatik", Kemerovo - 000 "Gidroizolstroy", Minsk - 000 "Vega", Bogoroditskoe, Moscow Region.

Equipment for production of rollformed parts and elements used in road construction, industrial ecology, elements of energy saving technologies:

- ZAO "Upravlyayuschaya kompaniya "Kondor-Eko", Moscow - OAO "SF NIIOGAZ", Semibratovo, Yaroslavl Region - 000 "Transbarier", Moscow - ZAO "TransEkoStroy", Moscow - OAO "Firma Izoterm", Saint-Petersburg.

Equipment for further coiled steel processing at metallurgical complexes, pipe production plants and steel service centers:

- ZAO "TD "Severstal-Invest", Cherepovets - 000 PKF "DiPOS", Moscow - OAO GMK "Norilskiy nikel", Norilsk - ZAO "Stalinvest", Domodedovo, Moscow Region - 3AO "Svetlana PKK", Moscow - 3AO "Kashirskiy zavod stali s pokrytiem", Kashira, Moscow Region - 000 "Profkomplekt", Saint-Petersburg - 000 "Ukrainskie sistemi kabelnikh trass", Kramatorsk, Ukraine - 000 "LASAR", Lipetsk - OAO SP "Brestgazoapparat", Brest, Belarus - OAO "Schelkovskiy metallurgicheskiy zavod", Schelkovo, Moscow Region - OAO "Moskovskiy trubniy zavod "FLIT", Moscow - MUP "TPC", Penza - 000 "MetAvtoKomplekt-1", Moscow - 000 "PG "SoyuzProfil", Yekaterinburg - 000 "Karmet-Sibir", Barnaul - 000 "Zavod VEALPROF", Tumen - 000 "United Studs Company", Nizhniy Novgorod Region - OAO "ChZPSN-Profnastil", Chelyabinsk - 000 "AgregatMash", Magnitogorsk - 000 "Volgatruboprofil", Volgorechensk, Kostroma Region - "FLORIAN-PODKARPACIE S.A.", Poland - 000 "Tiger", Tambov - 000 "Ultra", Magnitogorsk - OAO "Ekovent", Lipetsk - 000 "Kommercheskaya firma Agropromsnab", Volgograd - ZAO "Atlant", Minsk - 000 "Volya", Dubna, Moscow Region - 000 GK "M-Stil", Magnitogorsk.

Units and instrumental tooling:

- OAO "Tverskoy Vagonostroitelny Zavod", Tver - ZAO "Odintsovskiy zavod legkikh konstruksiy", Odintsovo, Moscow Region - ZAO "Kompaniya Atlantik", Smolensk - 000 "Tovarno-siryevaya firma "Spetsprokat", Lobnya, Moscow Region - OAO "Kirovskiy zavod po obrabotke tsvetnikh metallov", Kirov - ZAO "Nayada", Moscow - 000 "Altar-2", Moscow - OAO "Samarskiy transformator", Samara - OAO "Zavod akusticheskikh konstruksiy", Saint-Petersburg - OAO "MMK-Profil-Moskva", Schelkovo-2, Moscow Region - 000 "Lerontis", Moscow - ZAO "Granat", Moscow - 000 "Inkadessa", Obninsk, Moscow Region - ZAO PIK "Rekonstruksiya", Moscow - 000 "Oktan", Zelenokumsk - OAO MZ "ZiO-Podolsk", Podolsk, Moscow Region.

Our respected partners and suppliers of mechanisms and utility:

- "ARKU Maschinenbau GmbH" Germany; "DIMECO Alipresse" France; "HERRBLITZ moduler system s.r.l." Italy; "P/A Bohemia s.r.o." Czech Republic; ZAO "Schneider Electric", Moscow; ZAO "SEW-Euro drive", Moscow; ZAO "Kvanta", 000 "GidraPak Soedinitelnie sistemi", Moscow; ZAO "Gidra Pak Silovie Sistemi", Moscow; 000 "Tekhpron", Moscow; ZAO "Varus", Moscow; 000 "Pnevmaks", Moscow; 000 "Kamotis Pnevmatika", Moscow; 000 "MIG elektro", Moscow.

Thank you for confidence and successful work together!



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The company “Arkada-Engineering”, Ltd. presents the technology of steel frame buildings construction that gains world popularity.

Basis of this technology is

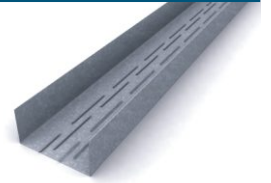
THERMO SECTION and its unique characteristics

Due to constructive features of thermo sections used in frames of buildings it is possible to avoid frost penetration. And due to a special perforation thermal conductivity gauge of wall panels made of thermo sections is the same as of the wood and completely excludes the possibility of frost penetration.

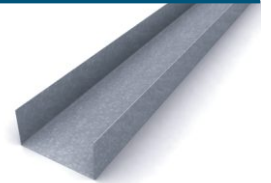
TECHNOLOGY BASIS:

FRAME ELEMENTS:

Guide thermo section



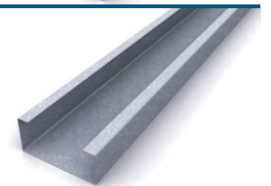
Guide section



Rack-mount thermo section



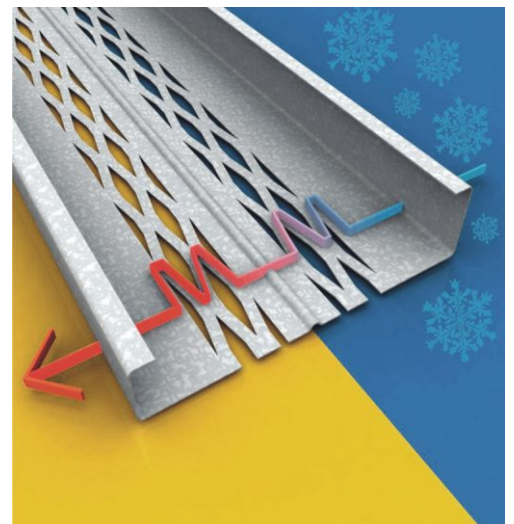
Rack-mount section



Balk section



Angle section



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Technology main point is the following: frame is the basis of the building, it is made of bearing sections of steel, partitions, floors and roof systems. Wall panel consists of steel thermo sections having thickness from 0,8 to 2,0 mm and effective thermal protection. Constructions are encased by fibre reinforced gypsum panels from inner and outer sides. All kinds of materials can be used as facade decoration: bricks, facade slabs, plastering, siding etc.

Technology application:

1. Construction of low-rise apartment buildings.
2. Construction of multistorey building: as frame filling.
3. Roofing systems.
4. Reconstruction of existing buildings and constructions.
5. Erection of attics, additional storeys and outhouses.

Structure scheme of a building based on thermo section panels

Roofing system structure

Truss system

Facade trimming
(brick, tile, siding,
wood, plaster, etc.)

Gutter

Inner partitions
(metal profile,
gypsum fibre)

Wall panel (view in section)

Floor panel bearing frame

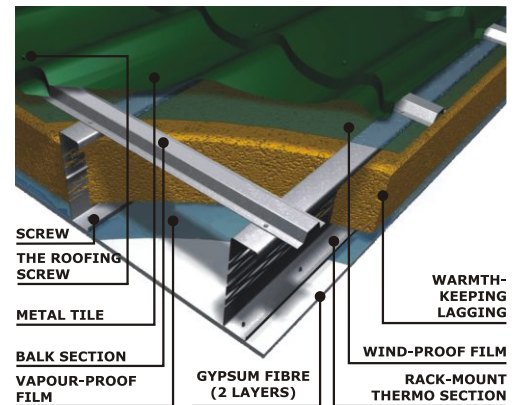
Floor panel

Basement (retained shuttering system)

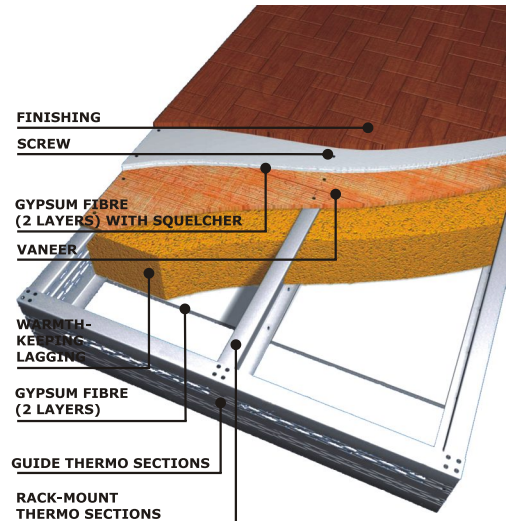
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TECHNOLOGY BASIS:

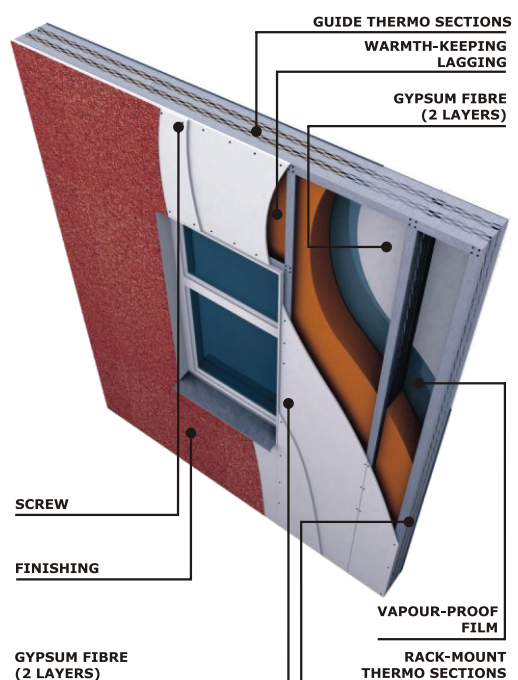
ROOF CONSTRUCTION SCHEME



SCHEME OF A FLOOR PANEL STRUCTURE



SCHEME OF A WALL PANEL STRUCTURE



TECHNOLOGY BASIS:

Functionality of buildings

Functionality of buildings can be different: apartment houses, industrial buildings, hangars, office premises, kindergartens, schools, hotels, restaurants, dormitories etc.

The usage of this technology allows to solve an actual problem of present housing resources. Steel frame technology makes it possible to reconstruct buildings by erecting of attics, additional storeys and outhouses using wall, roofing and flooring systems together or apart.

Utilization of steel frame technology is also effective along with standard methods of multistorey and high-rise buildings construction. The frame is erected according to classic technologies and inner and outer walls serve as steel frame filler. It considerably reduces the cost of buildings and their construction period.

Advantages of technology:

Affordable price.

Effective energy saving, low operational cost.

Fast assembly in any time of the year, high labour productivity: buildings are erected during 2-4 months from underbuilding to turnkey handing-over in any season.

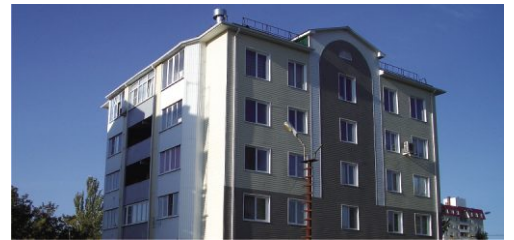
Great construction possibilities, free-pattern town planning, any kind of roofing covering and facade decoration is possible.

Safety and durability: the houses built according to steel frame technology fully satisfy the demands of SnIP II-03-79. Life duration of steel frame is from 100 years.

Light weight: assembly is made without heavy lifting machines, it allows building in compact planning city conditions. Houses can be reconstructed without additional reinforcement of existing foundation and bearing constructions.

Heat-resistance: materials used in constructions are fireproof. Ecological compatibility: materials used in constructions are ecologically clean and can be fully recycled.

Fast cost recovery of investments: low prime cost of construction creates great possibilities for small-scale business.



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using **steel frame technology** in construction means

Reconstruction of old housing

WITHOUT HEAVY EXPENSES!



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using **steel frame technology** in construction means

**MASS HOUSING DEVELOPMENT OF A RESIDENTIAL DISTRICT
AT MAXIMUM SPEED!**



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using **steel frame technology** of construction means

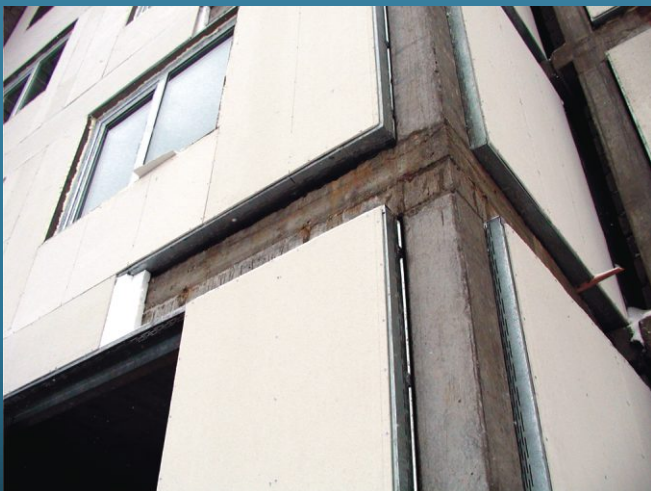
**CONSTRUCTION OF ADDITIONAL STOREYS
AND ATTICS FOR EXISTING BUILDINGS
WITH MINIMUM LOAD!**



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using **steel frame technology** in construction means

COST LOWERING OF MULTISTOREY BUILDINGS CONSTRUCTION



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FIGURES:

**PLANTS
FOR PRODUCTION OF
TURNKEY
STEEL FRAME
TECHNOLOGY**

INDIVIDUAL COMPLETE SET

Main production:

Light thin-slab structures of steel produced either as separate enumerated parts according to design documentation or as assembled panels that can be used at a construction site, as well as other elements of buildings depending on plant kitting.

Basic kitting:

More than 10 units of equipment are necessary for production of complete set of parts for steel frame buildings according to technological process: from primary coiled steel processing to ready products manufacturing.

Necessary territory:

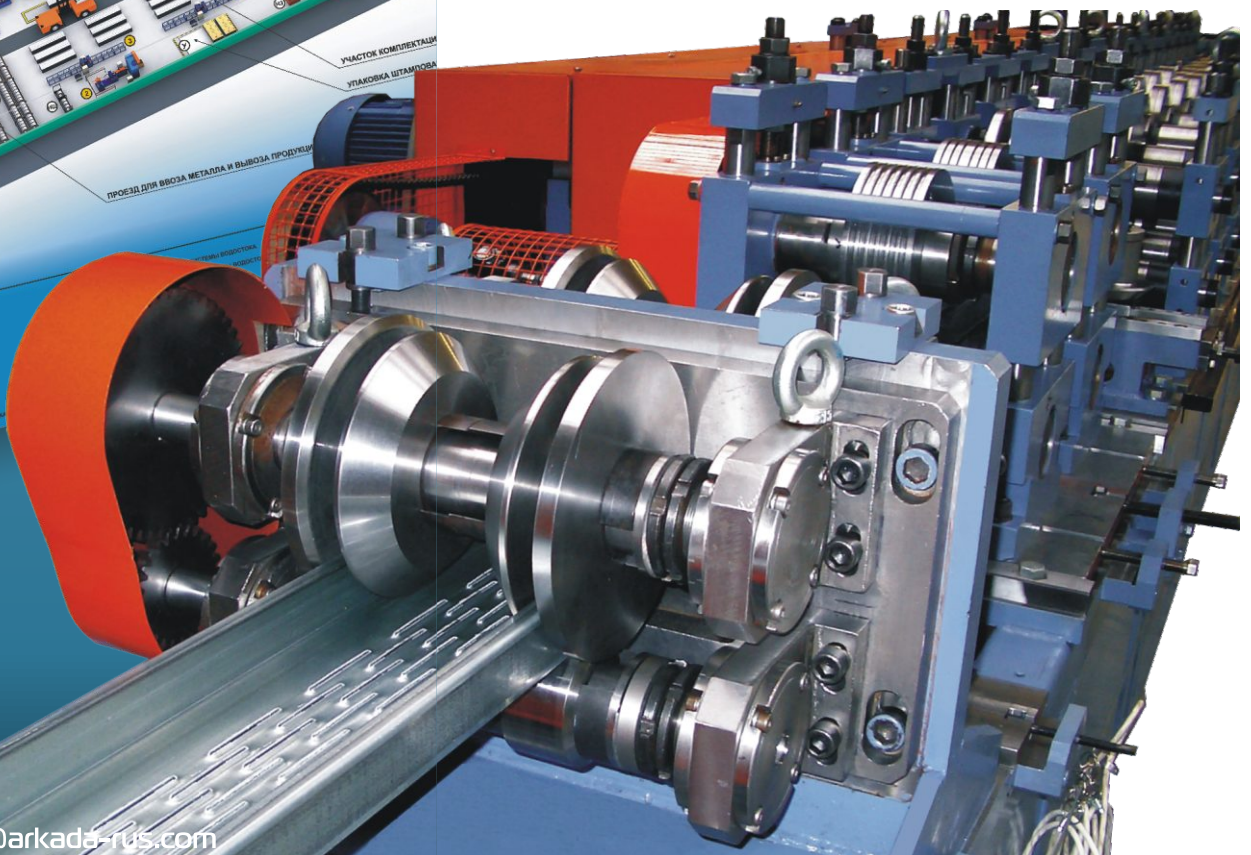
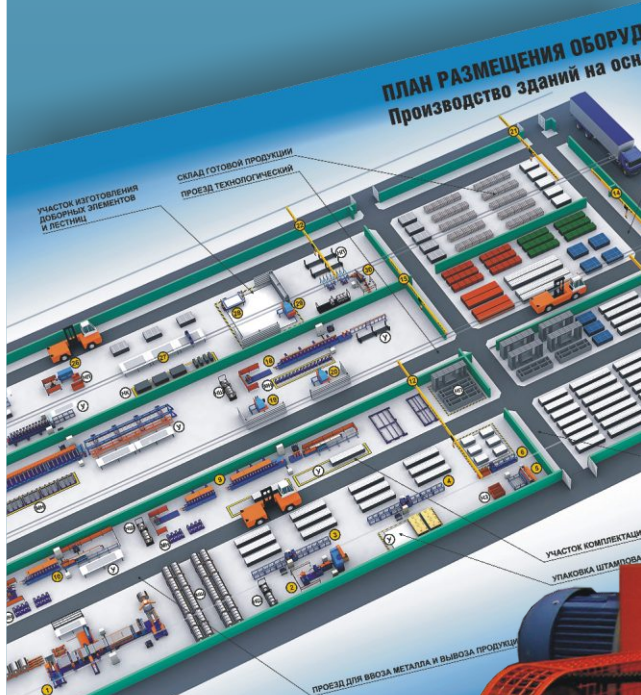
Specialists of the company will help to properly displace and to organize products manufacturing on customer's territory.

Quantity of products manufacturing:

Parts and elements for construction - 350 000 square kilometers of housing per year, (i.e. 3 500 of houses on the basis of 100 square meters of medium house area).

Cost recovery period:

About 1,5 years.



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PLANTS
FOR PRODUCTION OF
TURNKEY
STEEL FRAME
TECHNOLOGY

INDIVIDUAL COMPLETE SET

EQUIPMENT:



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PLANTS FOR PRODUCTION OF TURNKEY STEEL FRAME TECHNOLOGY

INDIVIDUAL COMPLETE SET

Project realization period:

Working out of a business plan takes from 7 to 8 weeks. Manufacturing and delivery of equipment takes from 8 to 12 months.

Taking into consideration the importance of fast construction of housing according to priority program of the Russian Federation President our company offers technology of production and produces equipment for manufacturing of contemporary high quality housing agreeable to the standards of architecture and design.

We have introduced to you steel frame construction technology of quick-erecting low-rise apartment buildings and constructions where light steel sections are used. The technology meets all conditions of modern construction and the price of finished housing for living is low, moreover it has high consumer quality and long service life period.

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EQUIPMENT:

