TRADE-PRODUCTION-INVESTMENT
GROUP OF COMPANIES

TRIGENERATION AND VENTILATION
RECONSTRUCTION AND MODERNIZATION OF ENGINEERING SYSTEMS, TRANSITIONING TO “SMART” SOLUTIONS

RIM GROUP
Management Company

RIMMARKET
Trade – customer research

TEPLOSTROYPROYEKT-S
From Incoming Request to Contract Execution

RIMBUILDING
Innovation and R&D
From Idea to Project Realization
Technologies

BUILDING THE FUTURE!

INDUSTRIAL AND CIVIL CONSTRUCTION

1 SMART CONSTRUCTION
- 1.1. RAPIDLY DEPLOYABLE CAPITAL HYBRID “SMART” CONSTRUCTION – FROM -2 UP TO 40 FLOORS
- 1.2. RAPIDLY DEPLOYABLE MODULAR “SMART” BUILDINGS FROM -2 TO 3 FLOORS
- 1.3. “SMART VILLAGE” PROJECT
- 1.4. “SMART DISTRICT” PROJECT
- 1.5. “SMART CITY” PROJECT
- 1.6. “SMART STATE” PROJECT

2 TRIGENERATION AND VENTILATION RECONSTRUCTION AND MODERNIZATION OF ENGINEERING SYSTEMS, TRANSITIONING TO “SMART” SOLUTIONS

3 STEEL STRUCTURE FABRICATION & BRIDGE CONSTRUCTION

4 READY-MADE BUSINESS SOLUTIONS
- 4.1. INDUSTRIAL FACILITIES
- 4.2. CIVIL FACILITIES
- 4.3. AGRICULTURAL FACILITIES
- 4.4. RENOVATION, RECONSTRUCTION, AND MODERNIZATION – TRANSITION FROM LEGACY SYSTEMS TO “SMART”

5 TURNKEY PROJECT
HOME PACKAGE
ONLINE STORE

6 TOP 99 COMMERCIAL PRODUCTS

7 TOP 99 RETAIL PRODUCTS

8 TOP 99 SMART PRODUCTS AND TECHNOLOGIES

9 SUPPLIER ALLIANCE

10 SERVICES

11 WARRANTY SUPPORT

12 POST-WARRANTY SUPPORT

INVESTMENT ATTRACTION

COMMERCIAL ACTIVITY
GOODS AND SERVICES

PRODUCTION PROCESS
PTD, DI, FACTORY, CID, WARRANTY AND POST-WARRANTY SERVICE

INNOVATION ACTIVITY


POWER SUPPLY


HEAT SUPPLY


AIR CONDITIONING

TRIGENERATION AND VENTILATION

RECONSTRUCTION AND MODERNIZATION OF ENGINEERING SYSTEMS, TRANSITIONING TO “SMART” SOLUTIONS

GENERAL PLAN – VISUAL REPRESENTATION OF RIM GROUP'S DEVELOPMENT PATH

1 SMART CONSTRUCTION

1.2. CAPITAL HYBRID "SMART" CONSTRUCTION – FROM -2 TO 40 FLOORS

1.1. RAPIDLY DEPLOYABLE MODULAR "SMART" BUILDINGS FROM -2 TO 3 FLOORS

1.3. "SMART VILLAGE" PROJECT

1.4. "SMART DISTRICT" PROJECT

1.5. "SMART CITY" PROJECT

1.6. "SMART STATE" PROJECT

2 TRIGENERATION AND VENTILATIONRECONSTRUCTION AND MODERNIZATION OF ENGINEERING SYSTEMS, TRANSITIONING TO "SMART" SOLUTIONS

2.1. ELECTRIC NETWORKS

2.2. GAS SUPPLY SYSTEMS

2.3. DIESEL INFRASTRUCTURE

2.4. HEAT SUPPLY

2.5. HOT WATER SUPPLY

2.6. VENTILATION

2.7. COOLING SYSTEMS

2.8. RECONSTRUCTION AND MODERNIZATION OF ENGINEERING SYSTEMS WITH A TRANSITION TO "SMART" SOLUTIONS

3 METAL STRUCTURES, BRIDGE CONSTRUCTION

3.1. STRUCTURAL METAL CONSTRUCTIONS

3.2. TOWER METAL STRUCTURES

3.3. METAL STRUCTURES FOR THE ENERGY SECTOR

3.4. METAL STRUCTURES FOR ANTENNA MAST STRUCTURES

3.5. NON-STANDARD METAL STRUCTURES

3.6. METAL STRUCTURES FOR THE ADVERTISING INDUSTRY

3.7. METAL STRUCTURES FOR GATES AND DOORS

3.8. METAL CANOPY STRUCTURES

3.9. ENCLOSURE METAL STRUCTURES

3.10. BRIDGE CONSTRUCTION

4 READY-MADE SOLUTIONS FOR BUSINESS

4.1. INDUSTRIAL FACILITIES

4.2. CIVILIAN FACILITIES

4.3. AGRICULTURAL FACILITIES

4.4. RENOVATION, RECONSTRUCTION, AND MODERNIZATION WITH THE TRANSITION FROM OLD TO NEW – "SMART"

5 HOUSE COMPLETION PROJECT COMPLETION ONLINE STORE

5.1. GENERAL CONSTRUCTION DIRECTION

5.2. ENGINEERING DIRECTION

5.3. INTERIOR FILLING

5.4. SMART HOME AND PROJECT MANAGEMENT

6 TOP 99 COMMERCIAL PRODUCTS

7 TOP 99 RETAIL PRODUCTS

8 TOP 99 SMART PRODUCTS AND TECHNOLOGIES

9 SUPPLIER ALLIANCE

10 SERVICES

10.1. ENERGY AUDIT

10.2. DEVELOPMENT OF A TECHNO-COMMERCIAL PROPOSAL

10.3. FEASIBILITY STUDIES AND CALCULATION OF KEY FINANCIAL INDICATORS FOR CAPITAL INVESTMENTS

10.4. STRUCTURING OF PROJECT FINANCING MODELS

10.5. ENGINEERING DESIGN WITH INVOLVEMENT OF INTERNATIONAL EXPERTS

10.6. NON-DESTRUCTIVE TESTING LABORATORY SERVICES

10.7. COORDINATION WITH OEMS (ORIGINAL EQUIPMENT MANUFACTURERS) ON ALL ORDER-RELATED ASPECTS

10.8. EQUIPMENT PROCUREMENT AND SOURCING

10.9. LEGAL AND FINANCIAL SUPPORT OF CONTRACTS

10.10. ORDER EXECUTION MONITORING AND EQUIPMENT LOGISTICS TO CONSTRUCTION SITES

INSTALLATION OVERSIGHT

COMMISSIONING AND START-UP WORKS

AFTER-SALES SERVICE ORGANIZATION AND TRAINING OF OPERATIONAL PERSONNEL

11 WARRANTY SUPPORT

11.1. WARRANTY MAINTENANCE AND REPAIR OF EQUIPMENT THROUGHOUT THE WARRANTY PERIOD OF OPERATION

12 POST-WARRANTY SUPPORT

12.1. POST-WARRANTY SERVICE AND REPAIR OF EQUIPMENT AFTER THE WARRANTY PERIOD

12.2. GENERAL SERVICE AND MAINTENANCE WORKS

12.3. TECHNICAL SUPERVISION

12.4. SCHEDULED (PREVENTIVE) MAINTENANCE AND SERVICING OF OPERATING EQUIPMENT

12.5. REPAIR OF FAULTY EQUIPMENT AND DISMANTLING PERFORMED BY OUR IN-HOUSE SPECIALISTS

12.6. SPECIALIZED REPAIR OF CUSTOM OR UNIQUE EQUIPMENT

CONTENT

COMMERCIAL ACTIVITIES

GOODS AND SERVICES

TRIGENERATION AND VENTILATION

- POWER SUPPLY
- GAS SUPPLY
- DIESEL ECONOMY
- HEAT SUPPLY
  - BOILERS, BOILER ROOMS AND ACCESSORIES
  - HOT WATER SUPPLY
  - AIR HEATING
- COLD WATER SUPPLY
- VENTILATION
- AIR CONDITIONING

RECONSTRUCTION AND MODERNIZATION OF ENGINEERING SYSTEMS, TRANSITIONING TO “SMART” SOLUTIONS

HOW WE PRODUCE

PRODUCTION AND TECHNICAL DEPARTMENT , DESIGN INSTITUTE , FACTORY, CONSTRUCTION AND INSTALLATION DEPARTMENT, WARRANTY AND POST-WARRANTY SERVICE

PORTFOLIO OF COMPLETED CONTRACTS

SHORT DESCRIPTION:

Trigeneration - the combined production of electricity, heat and cold - is a new generation of technological solutions for increasing the efficiency of gas piston units through the additional option of heat utilization. By utilizing the excess heat of the generating unit during the non-heating season, with the help of additional equipment - absorption refrigeration unit (ABHM) - cold is produced, which is then used for air conditioning of facilities and industrial process needs.

Scope of application: the heat of trigeneration units is used for heating of facilities, and the heat of exhaust gases and cooling jacket generated during operation of CCGT or DGU can be used for production of hot water, steam, cold (trigeneration) or in technological processes of industrial enterprises, involving the use of large amounts of thermal energy. In addition, such equipment is successfully used as emergency power sources during outages in the public power grid.

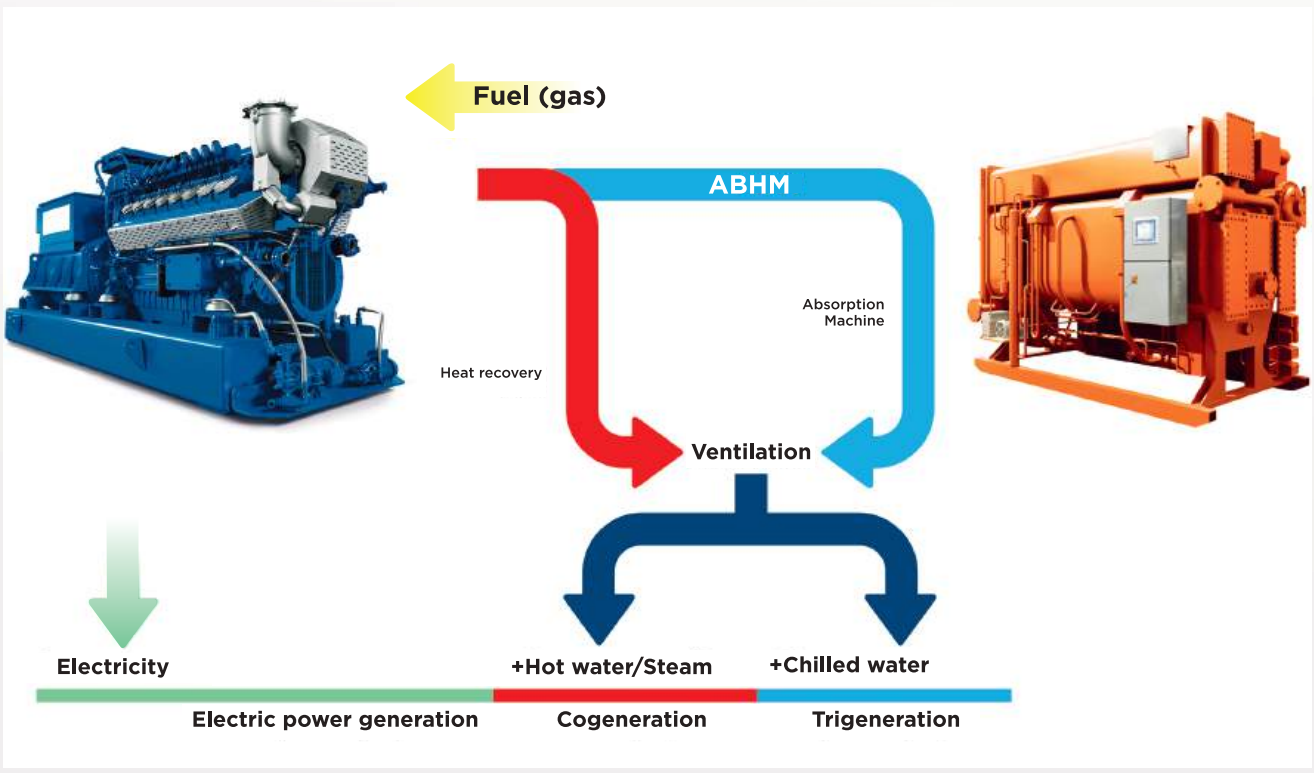
Ventilation provides sanitary and hygienic conditions in the room and a favorable effect on human health. It is important that the ventilation complies with the requirements of technological processes, building structures of buildings, storage technologies. TEPLOSTROYPROEKT-S sells elements of ventilation systems as its own production and equipment of the largest manufacturers.

Scope of application: provision and purification of supply air from dust, gaseous compounds, molecular contaminants, bacteria and viruses.

AREAS OF APPLICATION:

Trigeneration is used in a variety of facilities where there is a need for electricity, heat and cooling:

- in industrial plants;
- in agriculture;
- in the service sector;
- hotels;
- shopping and administrative centers;
- business centers;
- Hospitals, spa and treatment facilities;
- swimming pools, sports centers;
- housing facilities;
- airports;
- refrigerated warehouses;
- food storage bases.



In a number of applications, utilized heat is used in low-temperature production processes such as drying, tanning, food processing, space and water heating in buildings, and space cooling with absorption chillers.

Advantages of trigeneration

- Trigeneration plants are very advantageous in the field of small-scale distributed generation, as they allow the heat utilized from gas piston plants to be used not only in winter for heating purposes, but also in summer for room air conditioning or cooling for process needs. This increases the overall efficiency of the plant, which in such conditions can be used all year round, maintaining high efficiency. Trigeneration projects have a number of advantages. The main ones are as follows:
- Cost-effective: surplus thermal energy is used to generate cooling, which has the lowest cost of production. - Adding a trigeneration cycle to a cogeneration plant increases the utilization rate of the unit throughout the year, which reduces its payback period and increases the efficiency of the investment made.
- Operating an ABHM is almost half the cost of operating a compression chiller.
- The absorption system operates almost silently. Noise level at Q0 1500 kW does not exceed 65 dBa at a distance of 1 meter.
- Durability: due to the absence of moving parts in the refrigeration unit and their wear and tear ABHM has an extended operating life before overhaul - 20 years.
- ABHMs meet the requirements of international protocols for the protection of the ozone layer of the atmosphere, as no refrigerants are used in the absorption machines.

Trigeneration efficiency

Trigeneration plants increase the efficiency for the customer's company in terms of its energy supply system. The main economic effect when using a trigeneration plant is to obtain associated conditionally free energy resources (heat, cold) without additional fuel costs. This effect leads to a noticeable reduction in the cost of electricity generation in relation to the monogeneration mode (only electricity generation), when all costs are allocated to only one resource. As a result of trigeneration, the consumer receives all generated resources much cheaper than from centralized grids. Also, a significant criterion in favor of trigeneration is the location of the generating facility in close proximity to the consumer - this reduces transmission losses and eliminates the transportation component in the cost of energy resources. In this regard, projects for the implementation of gas piston trigeneration power plants now have a rather attractive payback period for the consumer company - up to 5 years. At the same time, the terms of realization of such projects are usually within one calendar year, which makes the projects of trigeneration plants not only affordable, but also an obviously profitable and logical step.

TRIGENERATION AND VENTILATION SCHEME

1. transmission line support
2. Disconnector 10kV
3. transformer substation KTPN
4. 0.4 kV cable line
5. Central control point of the power center
6. Solar panel
7. Wind generator
8. Diesel generator
9. Cogeneration gas piston plant
10. ABMK (boiler house)
11. hot water accumulator
12. Solar collector for DHW
13. DHW central heating station
14. Ventilation
15. Cold supply

TRIGENERATION AND VENTILATION

POWER SUPPLY

GAS SUPPLY

DIESEL ECONOMY

HEAT SUPPLY

COLD WATER SUPPLY

VENTILATION

AIR CONDITIONING

BRIEF DESCRIPTION

Electricity is the main element of life support systems, that is why the company offers ready-made solutions for power supply of facilities. Solar and wind power plant equipment is able to provide autonomous power supply to residential buildings, as well as reduce the costs of industrial enterprises to provide lighting for the territory. The proposed power supply systems for industrial facilities include only modern equipment with high energy efficiency.

Advantages:

- high level of efficiency of equipment and elements of power supply systems; - reduction of electricity costs;
- absence of power outages in case of an accident on the power line;
- possibility of autonomization of the power supply system of the facility and independence from centralized power supply;
- long service life;
- simplicity, stability, reliability of the design and its installation;
- creation of turnkey project solutions.

Scope of application: power supply of residential houses, buildings, offices, large industrial facilities.

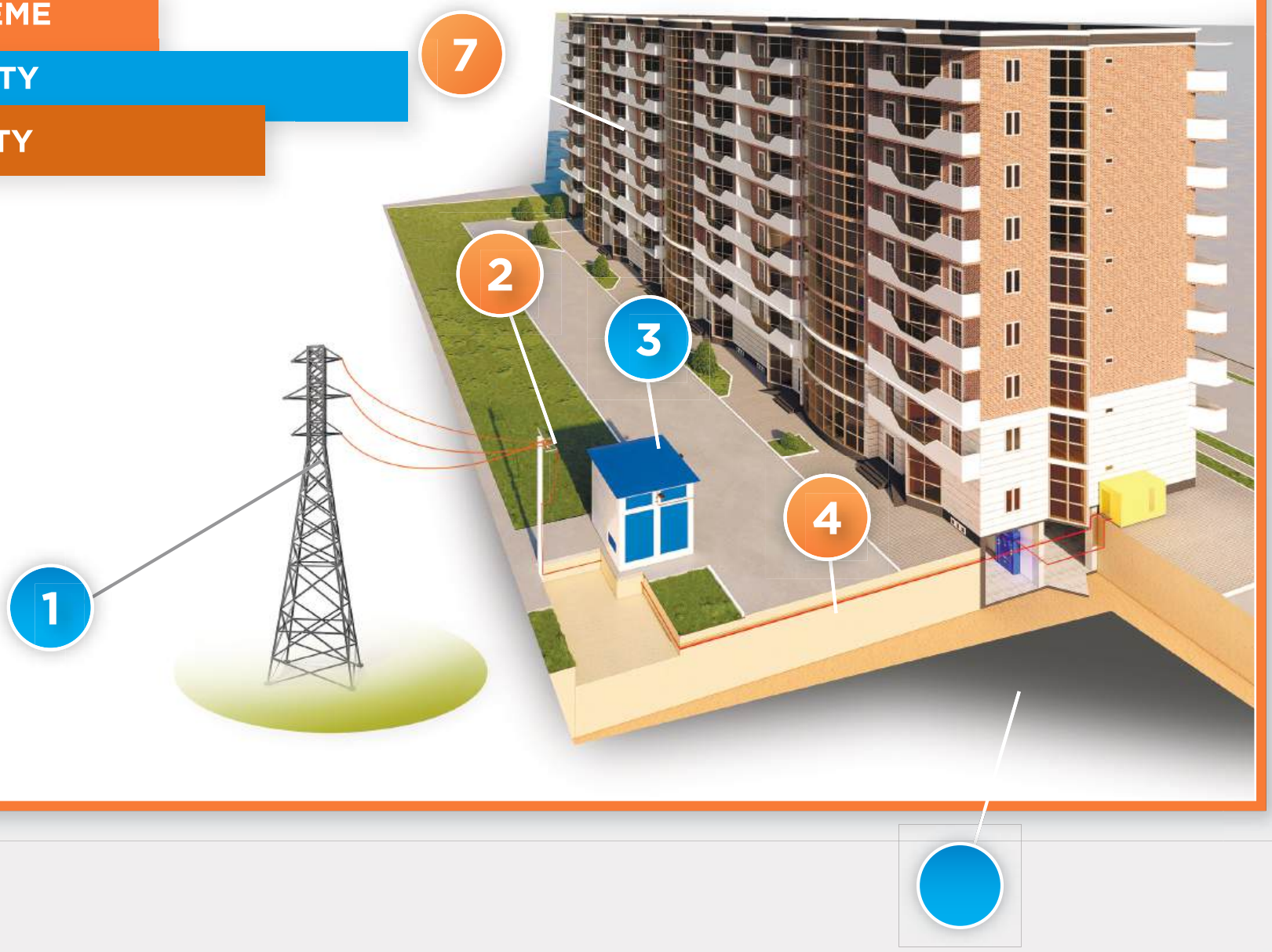
ELECTRICITY FACILITY

1. Transmission line support.
2. Disconnector 10 kVT.
3. Transformer substation KTPN 10/04.
4. 0.4 kV cable line.
5. Diesel generator DGU.
6. Input switchgear (IAB).
7. Residential building.

SCHEME

ELECTRICITY

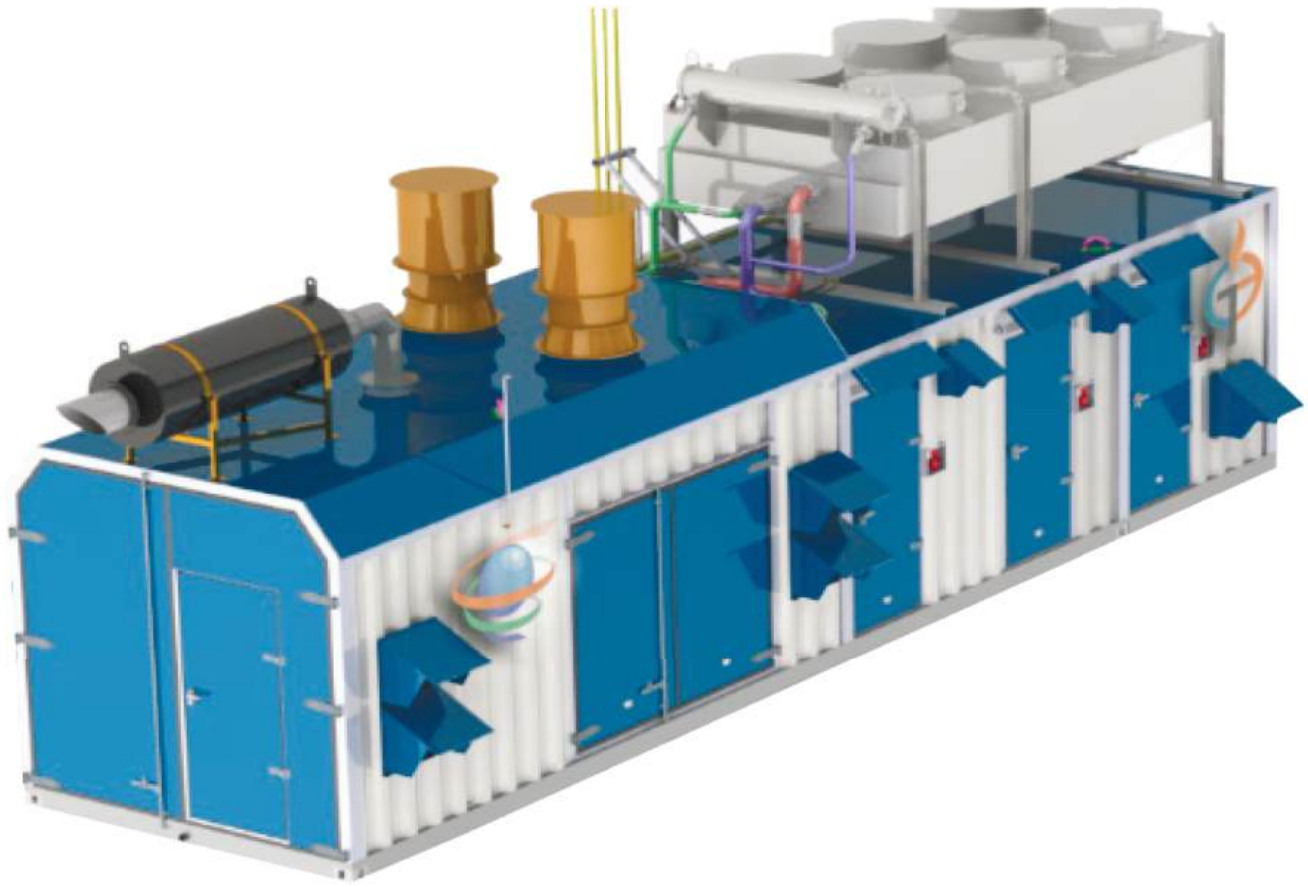
FACILITY



COGENERATION

Gas-engine cogeneration plant for combined heat and power (80-90°C hot water).

Total capacity - from 17 KW to 12 MW.



COGENERATION

Diesel cogeneration plant for - combined heat and power (80-90°C hot water).

Total capacity - from 6 kW to 2000 kW

Transmission line support
Type: Intermediate straight
Material: steel/concrete
Height: 4-20m
Diameter: 102-114

Transmission line support
Type: Intermediate anchor-angle
Material: steel/concrete
Height: 4-20m
Diameter: 102-114

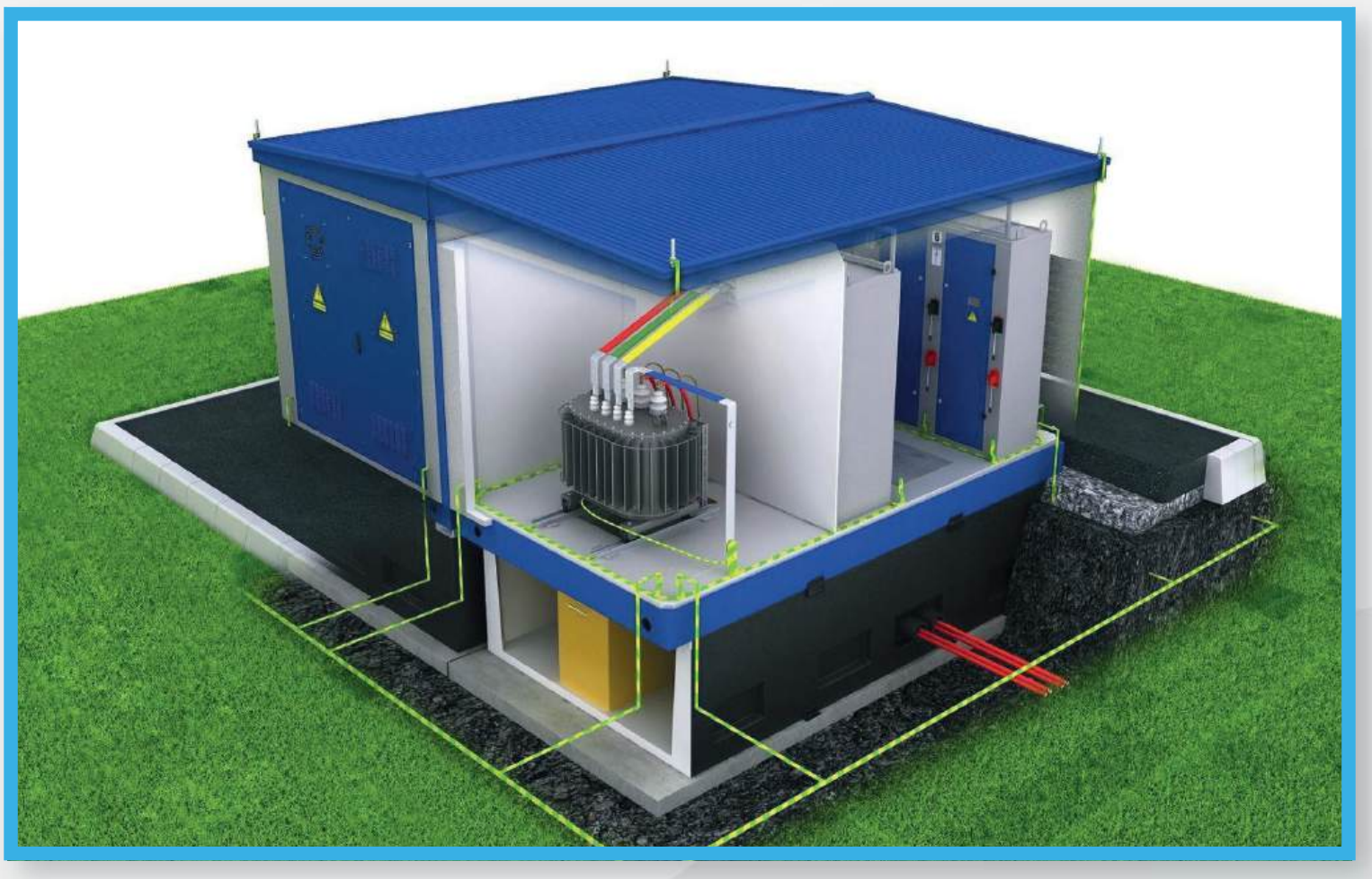
Transmission line support
Type: Multifaceted
Material: steel/concrete
Height: 4-20m
Diameter: 102-114

Switch-disconnector
Type: Rotating/arm/sway switch
Rated voltage: 3-750kV
Rated current: 400-5000A
Type of installation: Indoor/outdoor
Number of pluses: Single-plus/three-plus
Installation: Horizontal/vertical
Control: Manual drive boom/lever/ handwheel

Switch-disconnector
Type: Swivel/arm/sway
Rated voltage: 3-750kV
Rated current: 400-5000A
Type of installation: Indoor/outdoor
Number of Pluses: Single-plus/three-plus
Installation: Horizontal/vertical
Control: Electric/pneumatic/hydraulic drive

BLOCK COMPLETE TRANSFORMER SUBSTATION (BCTS)

BCTS is a block complete transformer substation. Block-modular design of transformer substation (enclosure), which protects the equipment from external influences, significantly extending its service life. Characterized by a reduced level of cash costs in the process of installation, as well as commissioning. BKTP characteristics: high voltage class: 35, 20, 10 kV; low voltage: up to 1000 V; transformer type: as a rule, dry transformers with cast insulation or oil distribution transformers; capacity: up to 6300 kVA. The task of the BCPP is the final distribution of electricity to supply infrastructure facilities.



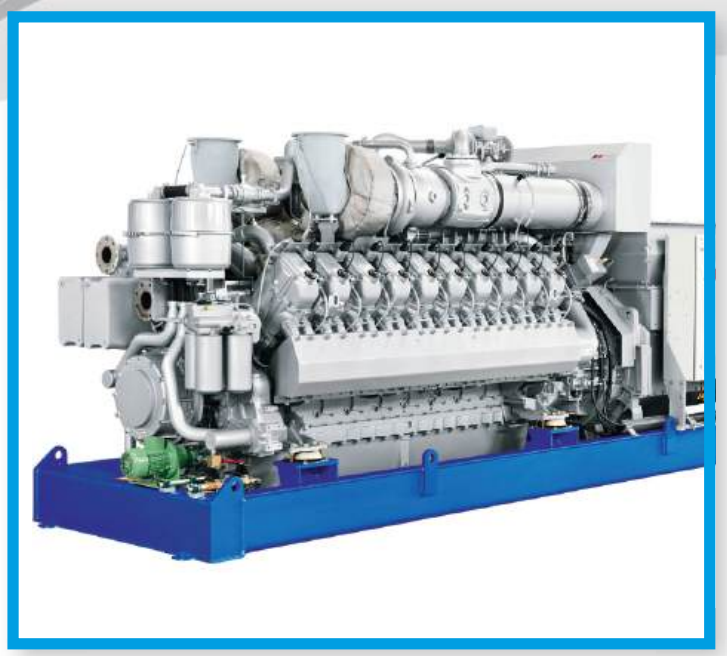
Transformer substation

Structural design: Kiosk
Type of electrical scheme: Feed-through/nodal/response/stack
Method of installation: Mobile/stationary
Number of power transformers: Single transformer/double transformer
Busbar type in switchgear: Insulated/non-insulated High voltage input: Cable/air
High voltage output: Cable/air Cable/air
Neutral design: Insulated/deaf earthed
Type: Oiled/dry/liquid non-flammable dielectric
Auto switch: Fixed/retractable
Designation of switchgear cubicles: Linear/input/sectional
Location of units: Single row/two rows

Transformer substation
Type: Mast
Type of electrical circuit: Feed-through/nodal/response/peak
Method of installation: Mobile/stationary
Number of power transformers: Single transformer/double transformer
Type of busbars in switchgear: Insulated/non-insulated
High Voltage Input: Cable/air
High Voltage Output: Cable/air Cable/air
Neutral design: Insulated/deaf earthed
Type: Oiled/dry/liquid non-flammable dielectric
Auto switch: Fixed/retractable
Designation of switchgear cubicles: Linear/input/sectional
Location of units: Single row/two rows

Transformer substation
Type: Pillar
Electrical Circuit Type: Feed-through/nodal/response/ stub type
Method of installation: Mobile/stationary
Number of power transformers: Single transformer/ double transformer
Type of busbars in switchgear: Insulated/non-insulated
High Voltage Input: Cable/air
High Voltage Outlet: Cable / Air
Neutral design: Isolated/deaf earthed
Type: Oil / dry / liquid non-flammable dielectric
Auto switch: Fixed/retractable
Designation of switchgear cubicles: Linear/input/ sectional.
Node arrangement: Single row/double row

Aluminum and copper power cables with cross-linked polyethylene insulation



Gas engine power generator
Engine: Water cooled 4-stroke 1500 rpm
Phases: single-phase/three-phase
Voltage: 400/230V-50Hz
Power (kW): 6-500 kW Efficiency: 74%
Design: Frame/enclosure/container/chassis
Optional: Can be used in a trigeneration system.

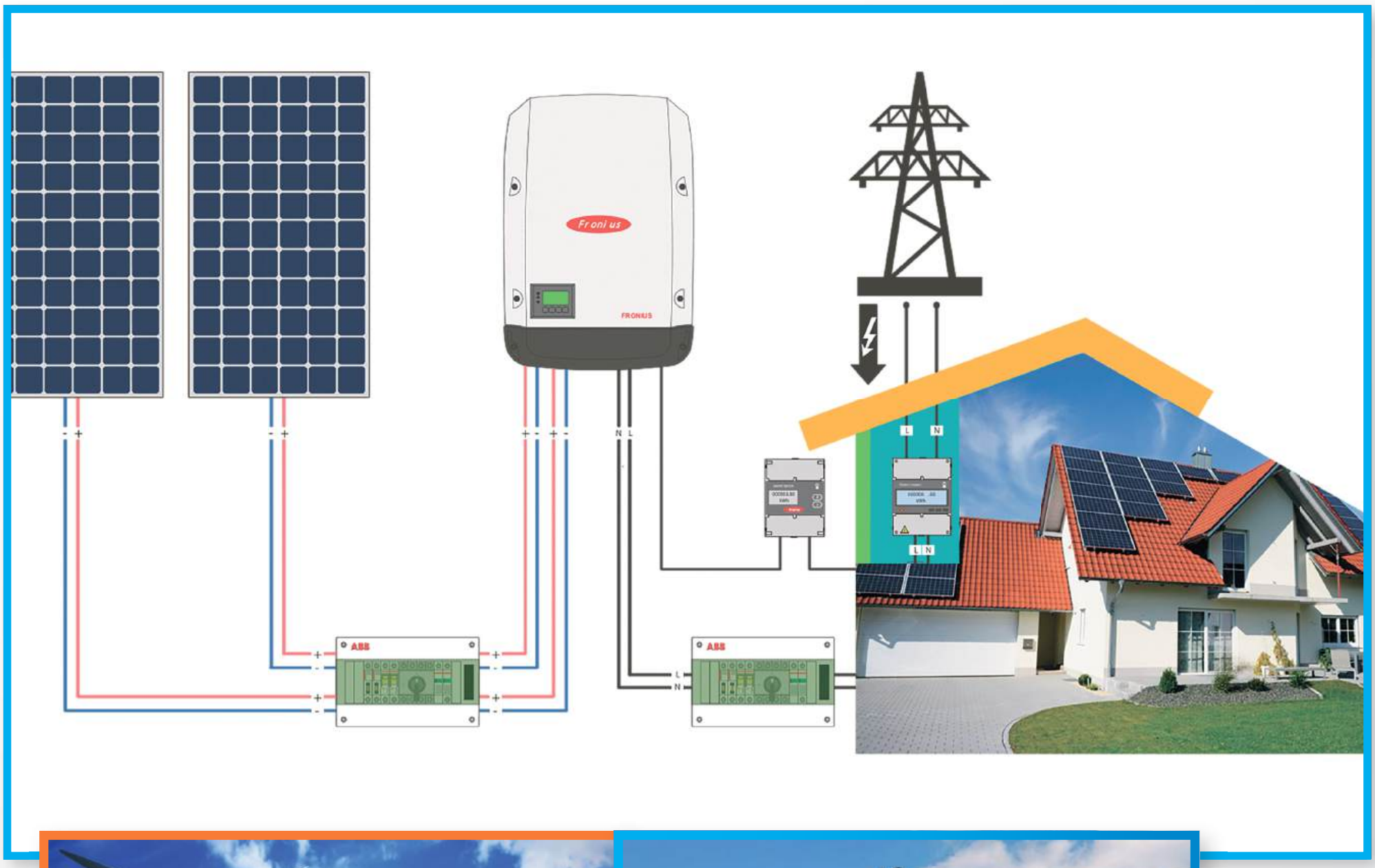
Diesel generator set
Engine: Water cooled 4-stroke 1500 rpm
Phases: Single-phase/three-phase
Voltage: 400/230V-50Hz
Power (kW): 6-500 kW Efficiency: 74%
Design: Frame/enclosure/container/chassis
Optional: Can be used in a trigeneration system.

Input switchgear
Manufacturer: RIM
Number of phases: 1/3
Degree of protection against dust and moisture: IP 54
Maximum current: 50A
Voltage: 220V/380V

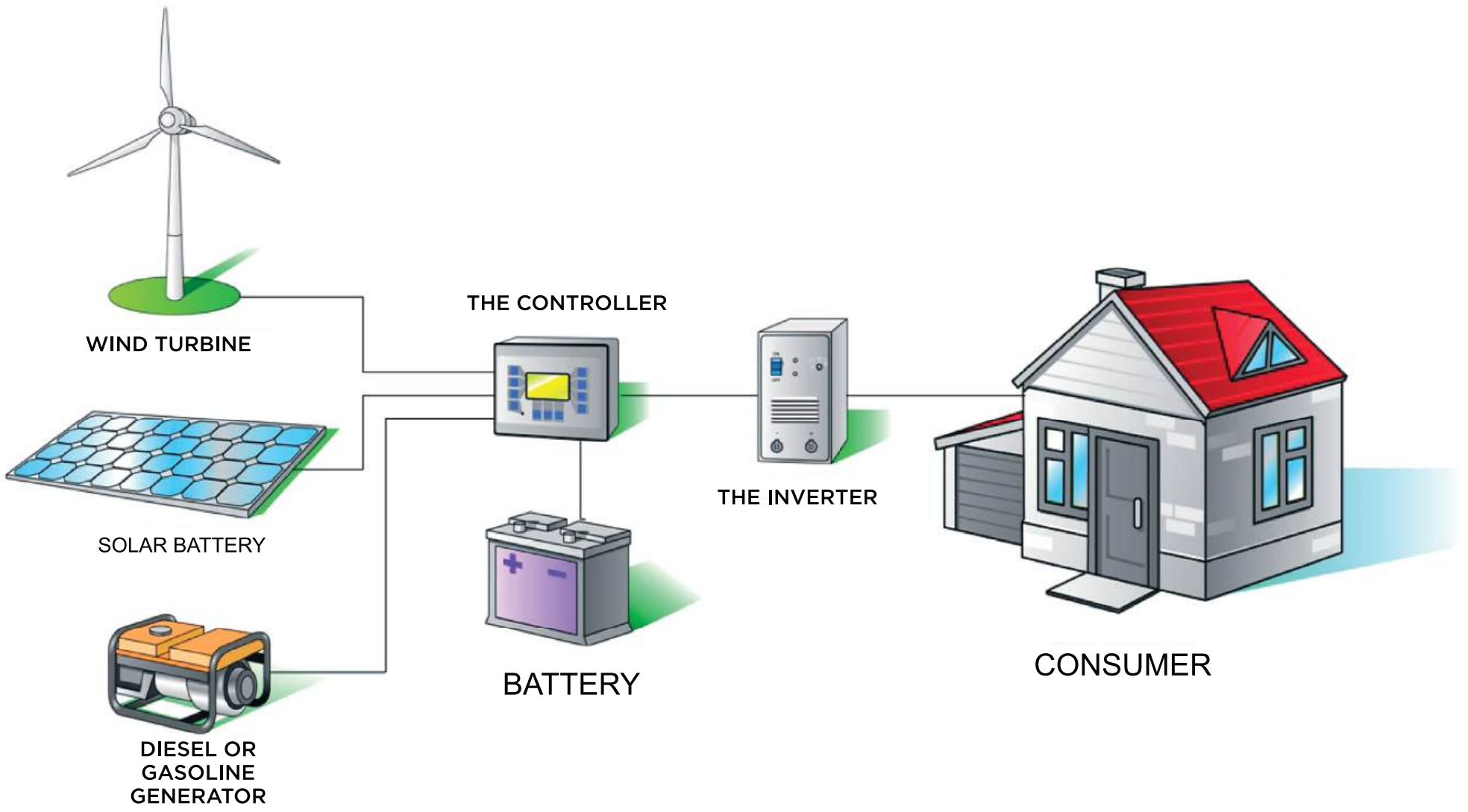
Distribution/inventory cabinet

H x W x H: 400x300x200 mm
Execution: steel cabinets are durable and resistant to damage, installed in residential premises, offices and factory plants.

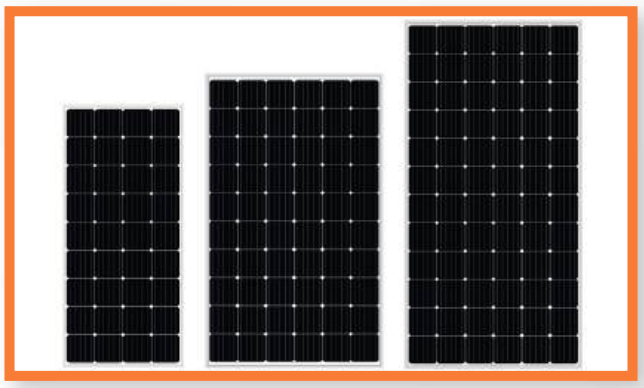
EQUIPMENT FOR WIND FARM



EQUIPMENT FOR WIND FARM



Photovoltaic module (solar panel)
Class: Silicon battery
Material: Flexible(amorphous), polycrystalline, monocrystalline
Power: 280W Efficiency: 5%, 18%, 22%



Photovoltaic module (solar panel)
Class: Film battery
Material: Polymer, Cadmium-telluride,
Indium-gallium selenide film.
Power: 280W
Efficiency: 5%, 12%, 20%

Construction for solar panel
Placement: ground-mounted, roof-mounted
Trackers tracking: single-axis, dual-axis

Wind Generator
Type: Horizontal
Capacity: 5kW-4500kW
Efficiency: 20%

Wind Generator
Type: Vertical
Power: 5kW-4500kW
Efficiency: 20%

Wind turbine generator mast
Type: Flanged IMF series
Height: 4-20m
Diameter: 102-114
Number of sections: 2pcs/2m

Wind generator mast
Type: Aluminum truss
Height: 7-40m Diameter: 102-114
Number of sections: 10pcs/2m

Wind generator roof support
Height: 1-5m
Diameter: 102-114
Number of sections: 1/1м

Hybrid inverter
Power 1,2-30 kW Mixing function: Yes Battery voltage: 12-48 Volts
Max. Charge current: 50 - 200 A
Controller type: MRRT/PWM
Output signal: Pure Sine

Voltage converter (inverter)
Class: Stand-alone, synchronous (mains), multifunctional (hybrid)
Phases: Single-phase/three-phase Power: 100-8000W Efficiency: 90%

Battery
Class: Starter, alkaline, lead-acid
Battery Capacity: 15-200 Ah
Voltage: 2-12 V

Battery
Class: Stationary OPzS
Battery Capacity: 15-200 Ah
Voltage: 2-12 V

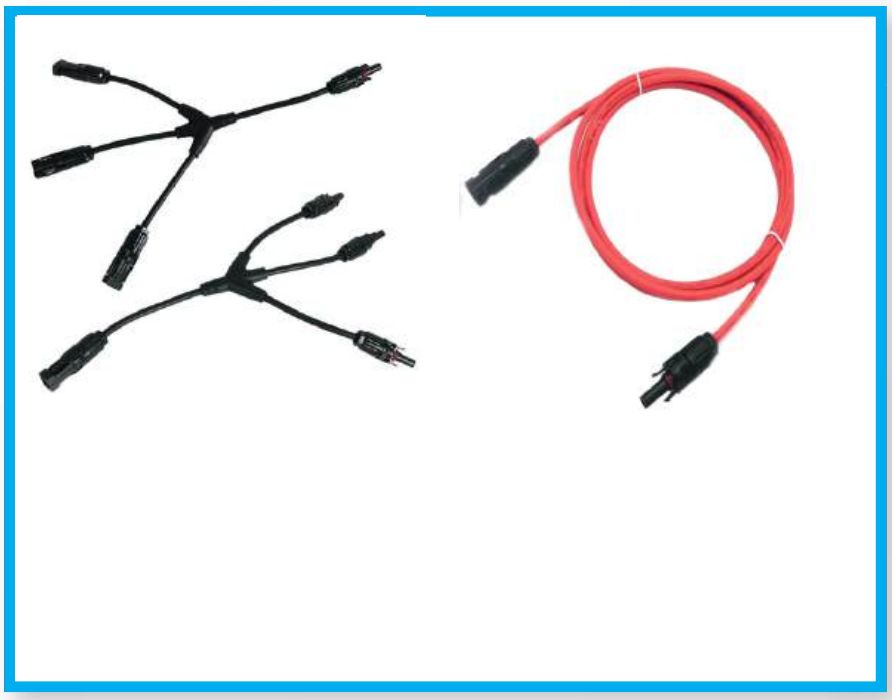
Battery
Class: Gel battery
Capacity: 15-200 Ah
Voltage: 2-12 V

Battery charge-discharge controller
Type: Shunt type
Rated circuit voltage: 12 / 24 / 36 /48 V
Electrical parameters: up to 150 B, 30A / 45 A / 60 A
Maximum input voltage: 150 V
Battery voltage range: 8 - 68 V.
Maximum own consumption: Less than 4 W.
DC wire cross-section: 35 sq. mm.

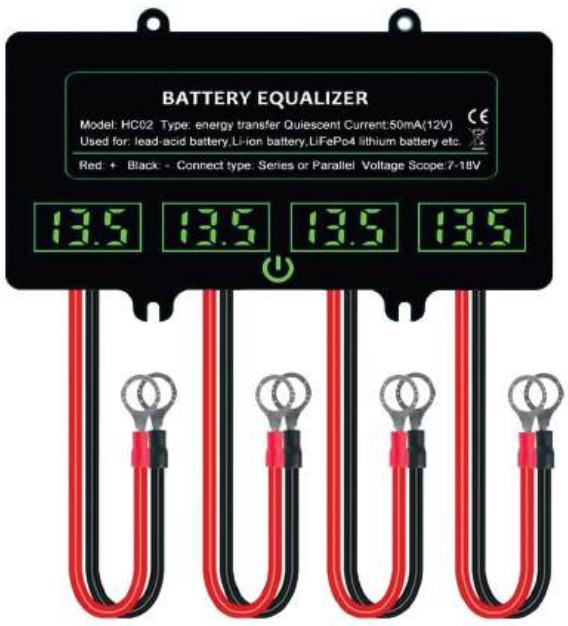
Battery charge-discharge controller
Type: Shunt type
Rated circuit voltage: 12 / 24 / 36 /48 V
Electrical parameters: up to 150 B, 30A / 45 A / 60 A
Maximum input voltage: 150 V
Battery voltage range: 8 - 68 V.
Maximum own consumption: Less than 4 W.
DC wire cross-section: 35 sq. mm.

COMPONENTS FOR ALTERNATIVE ENERGY

Components for alternative energy



Connectors and cables



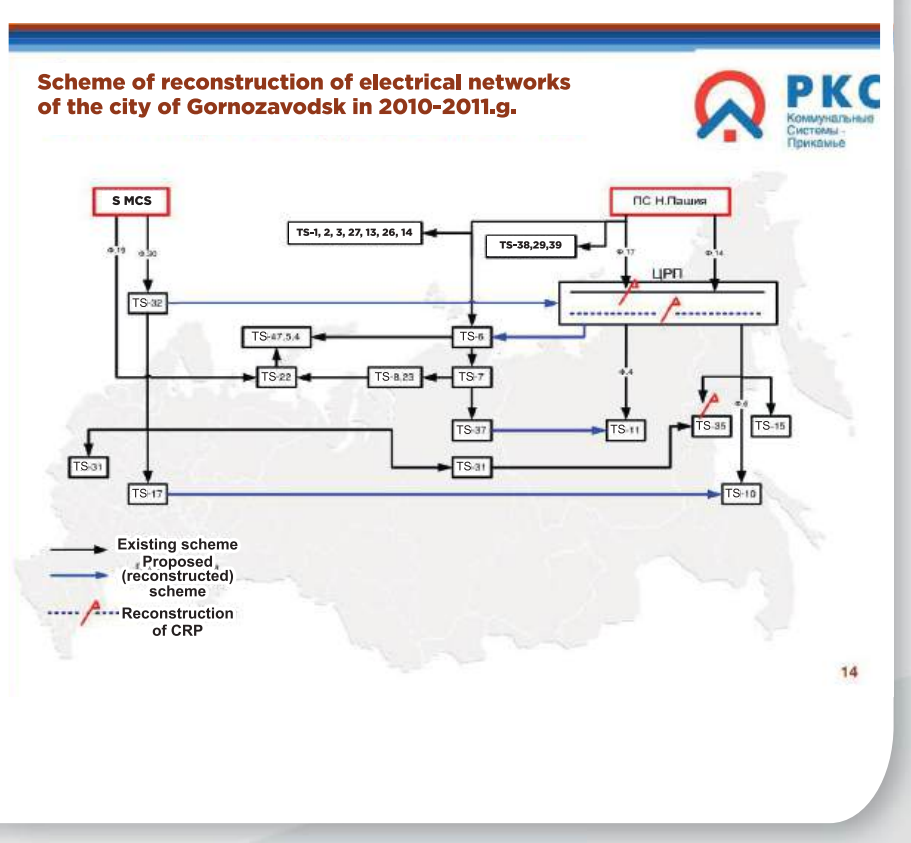
BMS for batteries

DC protection circuit breakers

REMOTE PANELS AND MONITORING SYSTEMS

POWER SUPPLY RECONSTRUCTION

Reconstruction of power supply networks using alternative energy sources is aimed at improving energy efficiency and sustainability of power systems. The introduction of solar panels, wind turbines and energy storage systems reduces dependence on traditional sources and minimizes CO2 emissions. Modern technologies such as Smart Grids provide intelligent load management and integration of renewable sources. Projects include modernization of existing infrastructure, installation of new equipment and implementation of monitoring systems. This contributes to the creation of environmentally friendly and cost-effective energy supply solutions for cities and industrial facilities.



TRIGENERATION AND VENTILATION

POWER SUPPLY

GAS SUPPLY

DIESEL ECONOMY

HEAT SUPPLY

COLD WATER SUPPLY

VENTILATION

AIR CONDITIONING

BRIEF DESCRIPTION

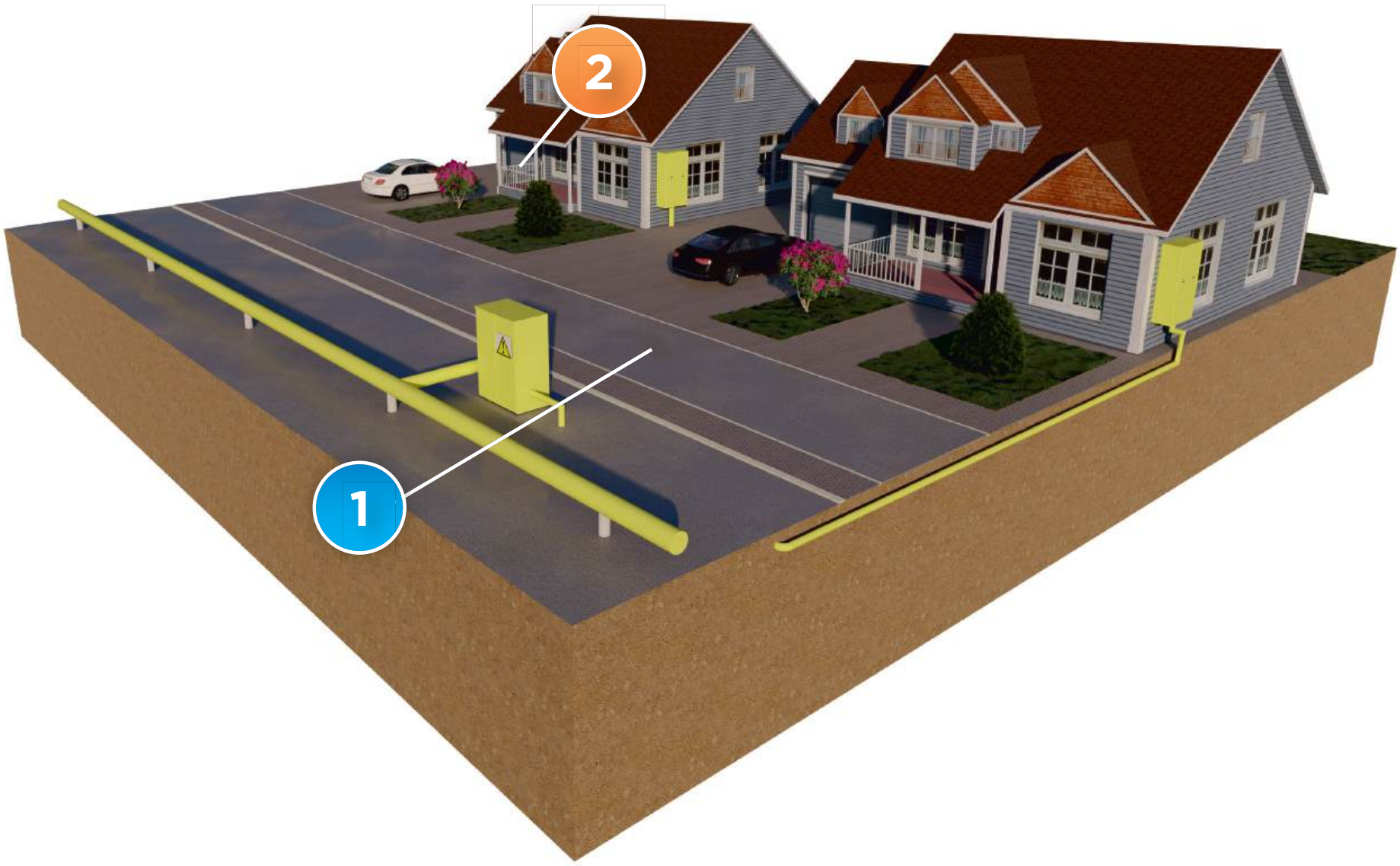
Gas supply is one of the most important stages of a comfortable and cost-effective way of providing an facility with heat. Our company offers both ready-made solutions for autonomous and main gas supply of facilities and elements of gas supply systems. When creating the project of gas supply systems, the company's engineers implement innovative solutions that increase the energy efficiency of the system, which reduces the cost of operation and maintenance of equipment.

Advantages of working with our plant:
- experience of more than 25 years in the gas equipment market;
- modern plant using advanced technologies in the production and construction of gas supply systems;
- warranty and post-warranty service;
- creation of gas supply systems that fully meet the design requirements;
- high service life of the built systems;
- creation of turnkey project solutions.

Scope of application: heating systems for industrial and civil facilities.

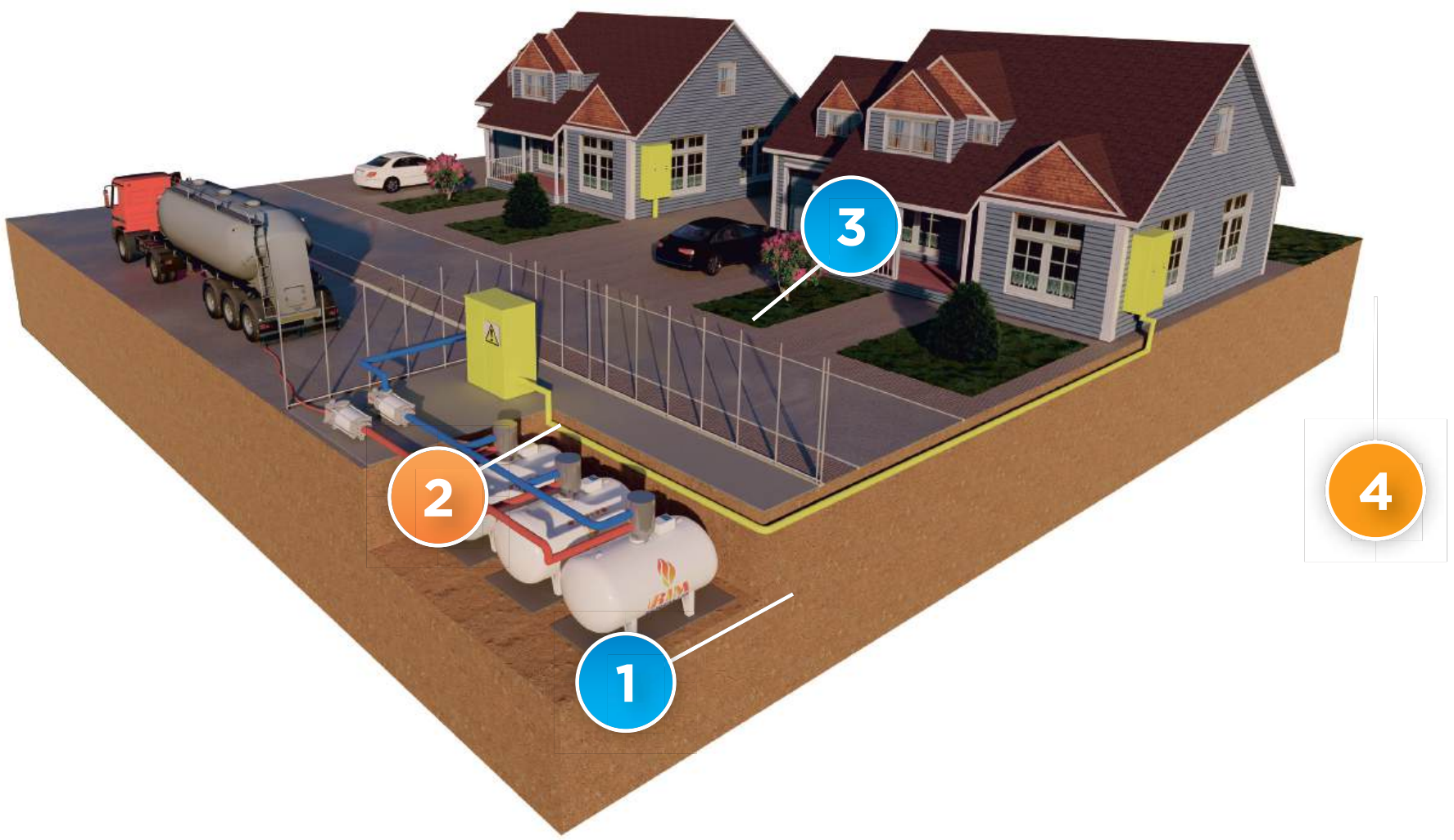
TRUNK GAS SUPPLY SYSTEM

1. Trunk gas pipeline.
2. Gas distribution cabinet .
3. Gas inlet cabinet.



AUTONOMOUS GAS SUPPLY SYSTEM

1. Liquefied gas storage tank.
2. Filling station.
3. Liquefied gas evaporator.
4. Gas inlet cabinet.



CLOSET GAS REGULATOR STATION

They are used in gas distribution systems to reduce the inlet pressure of natural gas and maintain its level at the outlet of the point. The design of GRP gas regulator stations provides equipment for gas purification from impurities and solid particles, as well as equipment to stop gas supply to the consumer in case of emergency change of the set level of output pressure. Cabinet gas regulator stations GRP are also used in systems with gas phase of liquefied gas.

Regulated medium: Natural gas
Input pressure range: 0,05 - 1,2 MPa Output pressure range: 0,0015 - 0,06 MPa Setting range of safety relief valve PSC 25: 0,0005 - 0,07 MPa
Stability of output pressure maintenance: ±5 %
Type of heat carrier: natural gas combustion products
Thermal power of burner: 1,85+0,185-0,09 kW
Gas flow rate per burner: from 0,16 to 0,25 m3/h
Burner time not more than: 90s
Burner shutdown time when gas supply is cut off, not more: 90c

GAS SUPPLY

Liquefied gas storage tank (gas holder) .
Type: horizontal/vertical .
Gas type: propane/butane/
butane mixtures .
Max. ultimate pressure: 1.8 MPa
Volume: 1 m3 up to 100 m .
Average service life: at least 24 years.

Liquefied gas storage tank (gas holder).
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Gas type: propane/butane/butane mixtures.
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Volume: 1 m3 up to 100 m.
Average service life: at least 24 years.

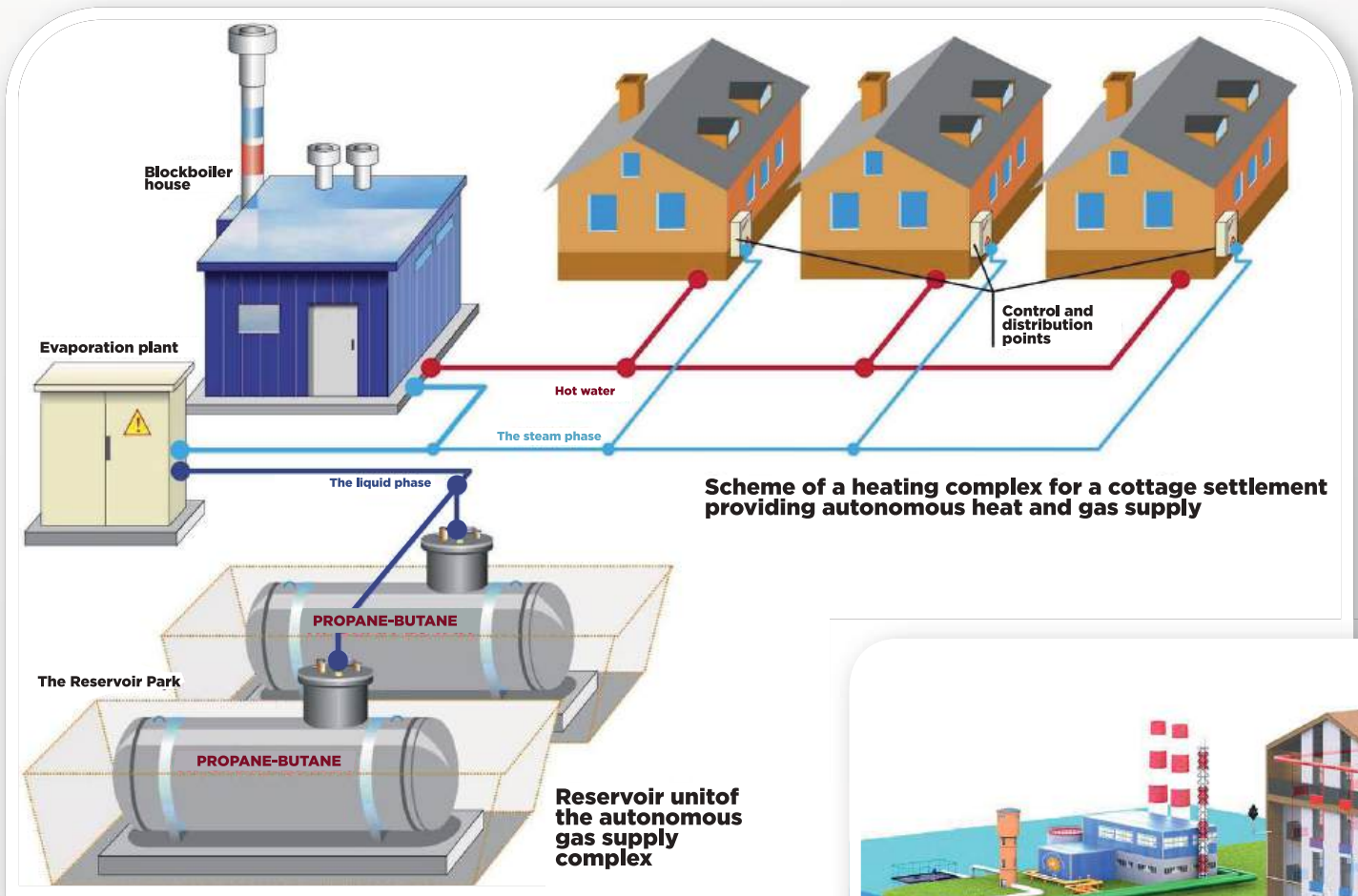
LIQUEFIED GAS EVAPORATOR

This is a heat-exchange apparatus designed for artificial regasification of LPG. Evaporators provide increased performance of the autonomous gas supply system, stable composition and unchanged heat of combustion of propane-butane mixture vapors supplied to the gas-using equipment.
As a rule, complete vaporizing units are used at gas distribution facilities rather than vaporizers.
Type of heat transfer: dry/ with heat transfer through liquid.

Type of overload protection: proportional thermostatic valve/ float valve/ float valve and locking magnet.
Control type: without control panel/ with electric control panel without error indication/ with digital control panel and error indication.
Type of version: without enclosure/ in enclosure without thermal insulation/ in enclosure with removable walls and thermal insulation.

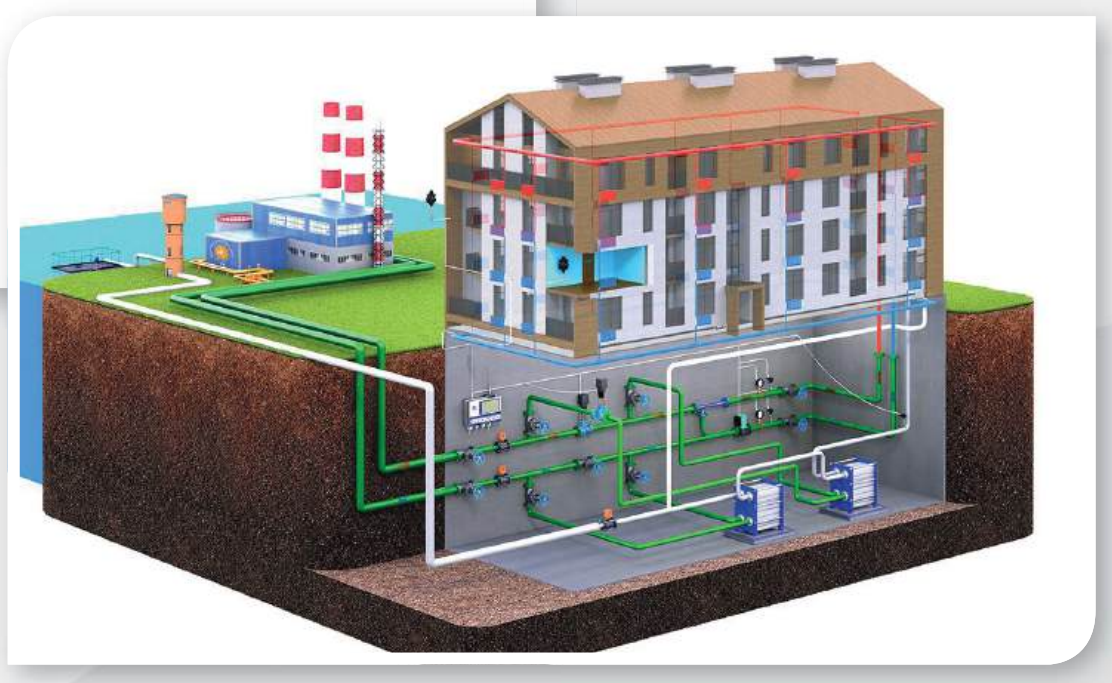
RECONSTRUCTION OF GAS SUPPLY

Reconstruction of gas supply networks using liquefied gas (LPG) is aimed at improving the reliability and availability of gas supply in remote and hard-to-reach regions. The introduction of liquefied gas storage and distribution systems makes it possible to ensure stable energy supply even in the absence of main gas pipelines. Projects include modernization of existing gas networks, installation of LPG storage tanks and introduction of automated control systems. The use of liquefied gas also reduces the environmental burden due to cleaner combustion compared to traditional fuels. This solution is especially relevant for industrial facilities, rural settlements and the private sector.



Scheme of a heating complex for a cottage settlement providing autonomous heat and gas supply

Reservoir unitof the autonomous gas supply complex



TRIGENERATION AND VENTILATION

POWER SUPPLY

GAS SUPPLY

DIESEL ECONOMY

HEAT SUPPLY

COLD WATER SUPPLY

VENTILATION

AIR CONDITIONING

BRIEF DESCRIPTION

Diesel Fuel Storage Facility is a set of equipment and systems designed to store, purify and deliver diesel fuel. It includes storage tanks, fuel pumps, filters, pipelines and control systems. Such facilities ensure uninterrupted operation of boiler houses and diesel generator sets, guaranteeing stable power supply.

Advantages:
- High reliability and autonomous operation.
- Possibility of long-term fuel storage without loss of quality.
- Versatility of application for various facilities. .
- Reduction of dependence on centralized power grids.

Scope of application: Diesel power is widely used in boiler houses for heating industrial and residential facilities, as well as in diesel-generator sets for backup or main power supply. It is especially in demand at remote sites, in emergency power supply systems and at industrial enterprises where high reliability and autonomy are required.

MINI FILLING STATION 5000-15000 LITERS.

Mobile filling station is designed for storage of diesel fuel and rapid refueling of vehicles at enterprises and in places where there is no possibility of refueling at stationary refueling complexes. Individual design and manufacturing of mobile filling stations according to the customer's drawings is possible. Advantages of using our mobile filling stations: The container of the mobile filling station is made in double-walled version, which allows to use it at low temperatures. Currently no special permits are required for installation and use of the tank. It is possible to work both from a car battery in case of mobile installation and from the network in case of stationary placement. The filling station can be powered from 220 V or from 12 V. The volume of the filling station can be from 5 to 15 m3.

DIESEL FUEL TANKS

Plastic tank for diesel fuel is a modern and reliable solution for storing fuel in boiler rooms. It is made of high quality polyethylene, resistant to aggressive media, which makes it an ideal choice for storing diesel fuel. The tanks have a number of advantages that
make them in demand in the boiler house industry.

Advantages of plastic tanks:
1. Corrosion resistance: Unlike metal tanks, plastic tanks are not prone to corrosion, which greatly increases their service life.
2. Lightness and mobility: Plastic tanks are lightweight, making them easy to transport and install.
3. Airtightness: The tanks are
equipped with airtight lids and spigots, which prevents fuel leakage and evaporation.
4. Temperature resistance: The material of the tank is resistant to high and low temperatures, which is important for operation in the boiler room.
5. Easy maintenance: Plastic containers are easy to clean and do not require special maintenance.
6. Safety: Plastic does not create sparks, which reduces the risk of fire.
7. Durability: Plastic containers have a service life of up to 50 years if used properly.

STEEL TANKS

Horizontal steel tanks are designed for filling and storage of fuel (diesel, aviation fuel), with saturated vapor pressure up to 0,04 MPa, and can also be used as tenological horizontal tanks for fuel. They can be made by the method of roll-forming or sheet assembly taking into account requirements of GOST 170322010, GOST 31385-2008, STO-SA-03-02-2009, RB 03-69, RD 08-95-95-95. Volumes of produced horizontal tanks for fuel (diesel, aviation fuel) (m3): from 1 to 15000.

Vertical tanks for fuel (diesel, fuel oil, aviation fuel) with the volume from 100 to 300000 m3 are made with a stationary roof and sectional bottom and wall heaters. They can be made by roll-forming method or by sheet assembly taking into account the requirements of GOST 17032-2010, GOST 31385-2008, STO-SA-03-02-2009, RB 03-69, RD 08-95-95. Volumes of produced vertical tanks for fuel (diesel, aviation fuel) (m3): 1, 2, 3, 4, 5, 8, 10, 12, 14, 15, 20, 25, 30, 35, 40, 45, 50, 60, 75, 80, 90, 100, 110, 120, 140, 150, 200, 250, 300, 400, 500, 600, 700, 800, 900, 1000, 1500, 2000, 2500, 3000, 4000, 4900, 5000, 6000, 7000, 8000, 9000, 10000, 15000, 20000, 30000

TRIGENERATION AND VENTILATION

POWER SUPPLY

GAS SUPPLY

DIESEL ECONOMY

HEAT SUPPLY

COLD WATER SUPPLY

VENTILATION

AIR CONDITIONING

BRIEF DESCRIPTION

The heat supply of the facility is a heating or steam supply system located in one technical room. Boiler houses are connected to consumers by means of heating mains and/or steam lines. The main device of the boiler room is a steam or hot-water boiler, which is manufactured in our factory. All elements of the heat supply system of the facility have high efficiency and meet modern standards of energy efficiency.

Advantages:
- high efficiency of boilers manufactured at our plant;
- reduction of the cost of heat energy of the facility;
- compact design due to the introduction of innovative solutions;
- autonomy and independence of centralized heat supply;
- minimum commissioning time; - creation of turnkey design solutions.

Scope of application: heating residential buildings, offices, buildings, shopping malls, hospitals, medical institutions, etc.

HEAT SUPPLY TO THE FACILITY

1. Gas engine-unit.
2. Boiler house.
3. Steam boiler house.
4. Hot water supply (HWS).
5. Hot water accumulator tank.
6. Central heating station.

BOILERS

RIM / RIM MAX SERIES HOT TUBE WATER HEATING BOILERS

RIM : from 29 kW to 348 kW

RIM MAX: from 70 kW to 1300 kW

RIM MAX: 1400 kW to 4500 kW

RIM MAX: 5000 kW to 12000 kW

TYPE OF BOILERS	POWER, KW	TEMPERA-TURE, C	Working pressure, bar
HOT-WATER HOT TUBE BOILERS	**29-12000**	**70-115**	**6**

DESCRIPTION

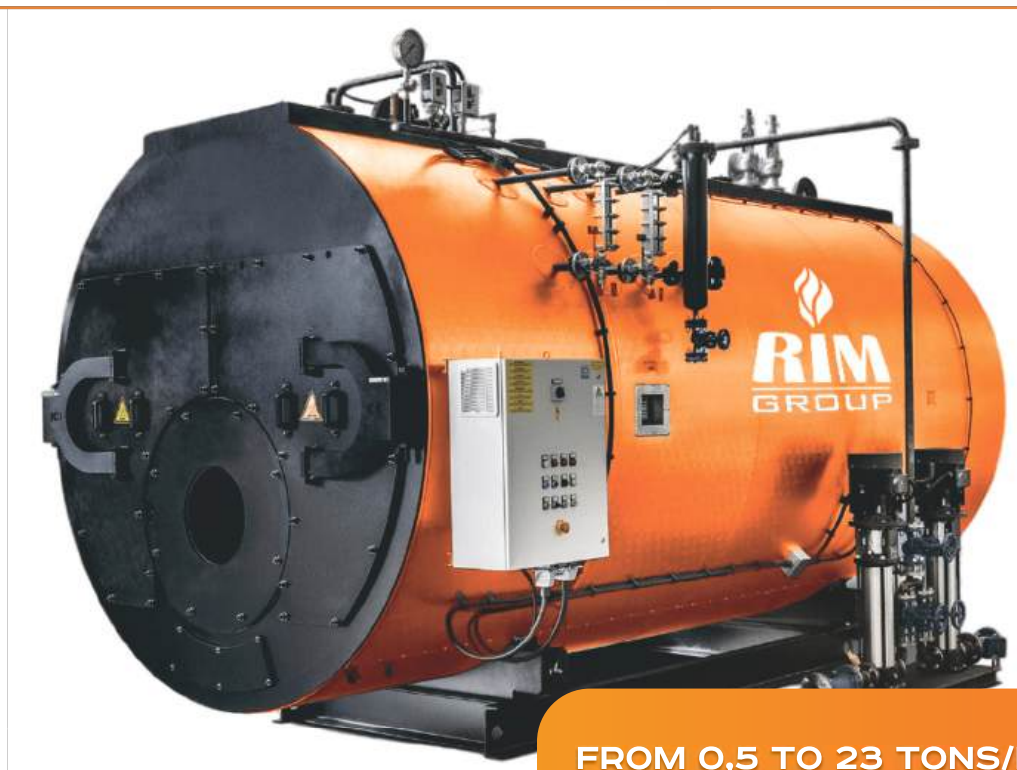
RIM MAX boilers are manufactured according to Italian technology. The design of RIM MAX boilers provides maximum heat output, quietness, safety and durability RIM MAX 70 -:- 1300 boiler is a hot-water two-pass boiler. The first stroke of the boiler is formed by the combustion chamber (reversible furnace). The second stroke is formed by the smoke tubes of the convective part of the boiler

ADVANTAGES

- **Italian production technology**
- **Simple construction**
- **Low cost - Stable outlet temperature**
- **Low hydraulic losses**
- **High efficiency**
- **Minimal heat losses**
- **High output**
- **Long service life**
- **Extended service interval.**

Boiler type	Fire tube
Maximum heat output (kW)	29-12000
Boiler efficiency at rated output, (T1/T2=1150C/700C)	92-94
Fuel type	Gas, diesel fuel
Maximum working pressure of the boiler bar	6
Maximum outlet water temperature, °C	115
Gas flow rate, m3/h.	7,7-1398

STEAM HEAT-TUBE BOILERS



FROM 0,5 TO 23 TONS/HOUR

DESCRIPTION

Industrial steam boilers are also used in various industries: Agriculture: In poultry farms - steam removal of feather and fluff from slaughtered birds; In mushroom farms - preparation of nutritious substrate; In animal husbandry - steaming of fodder and making mixed fodder in pellets. Food industry: In the canning industry steam is used for heat treatment of products and their vacuum packaging, for making mayonnaise and ketchup, in the production of beverages and for sterilization of containers;

Food industry: In the canning industry steam is used for heat treatment of products and their vacuum packaging, for making mayonnaise and ketchup, in the production of beverages and for sterilization of containers; In the dairy industry for sterilization of dairy products, cooking curd masses, cleaning and sterilization of equipment and containers; In the meat processing industry - for defrosting meat, in the preparation of sausages and minced meat; In the bakery and confectionery industry - for cooking pastry masses, dough proofing, cleaning and sterilization of equipment and containers; In the meat processing industry - for defrosting meat, in the preparation of sausages and minced meat; In the bakery and confectionery industry - for cooking pastry masses, dough proofing, cleaning and sterilization of equipment and containers. Medicine: The use of steam boilers in this industry is possible for sterilization of tools and clothing. Woodworking industry: In drying chambers for drying wood and maintaining the required moisture level. Light industry; Building materials production and construction; In the production of reinforced concrete products in steaming chambers; In the pulp and paper industry.

WATER TUBE BOILERS

DESCRIPTION

RIM MAX type water-tube, hot-water boiler consists of a furnace and convective part. The water tube boiler is a heat exchanger in which water passes through tubes surrounded by combustion products. The heat from the combustion products is transferred through the walls of the tubes and heats the water, which is then used to produce steam. RIM MAX type water tube boilers are designed for heating and hot water supply of residential, industrial and administrative buildings equipped with water heating systems with the parameters of the coolant temperature of 70-170 C.

FROM 25 TO
50 TONS/HOUR

TYPE OF BOILERS	POWER, KW	TEMPERA-TURE, C	Working pressure, bar
HOT-WATER HOT TUBE BOILERS	29-12000	70-115	6

ПРОИЗВОДИТЕЛЬНОСТЬ ПАРА т/час	25-50
Обратное сопротивление (милибар)	3-12
Рабочее давление (бар)	6-16
Объём воды (м3)	1,8-43
Вес котла (тн)	2,5-83

DESCRIPTION

Steam boilers are a type of closed pressure vessel used to produce steam by transferring energy from the heat of a liquid. In steam boilers, liquid is pumped into the boiler using a pump. Fuel is burned in a closed part of the boiler called the combustion chamber. The technology is based on the natural circulation of water and steam in the pipe system and drums. To do this, water must be fed into the upper drum, from where it descends through the pipes into the collectors of the lower drum under the action of gravity. Under the influence of temperature, the water turns into steam and rises through the pipes to the upper drum, from which part of the steam is used to generate electricity or for production needs. The remaining steam, having turned back into water, goes through repeated cycles. The product generated in this process is superheated, saturated steam under pressure.

ADVANTAGES

High efficiency – up to 93%. This level is achieved through uniform heat distribution and full utilisation of the energy released during fuel combustion.
The outer surface of the boiler does not heat up, which means there is no heat loss;
The fuel combustion process can be controlled, which makes it possible to maintain a stable temperature;
These types of boilers are practically safe to operate because the risk of explosion is minimal;
Changes can be made to the boiler design to increase performance;
There is no need to call in specialists for periodic maintenance;
Reliable, due to the use of heat-resistant steel and a small number of welds;
Can be used to heat rooms even at the lowest temperatures;
Long service life – up to 50 years.
Relatively easy to maintain and repair; high degree of inertia (rapid heating of the room to a comfortable temperature);
cyclical heat transfer.

WATER-HEATED SOLID FUEL BOILERS

WATER-HEATED SOLID FUEL BOILER RIM MAX - T SERIES

14 kW

Coal-fuel boiler RIM MAX - T 14 kW is a compact in its dimensions water heating boiler of long burning, which can be easily adapted even in a small room. This model is designed for fast and economical heating of the area up to 140 square meters. m. The boiler efficiency is 83%. It works on solid fuel - coal, pellets. Assembly is carried out according to Italian technology. The device is equipped with a convenient compartment for ash cleaning.

AUTOMATIC COAL-FUELED SOLID FUEL BOILER RIM MAX T

30 kW

Automatic coal-pellet boiler RIM MAX - T 30 kW is a water boiler of long burning. It is designed for heating an area up to 300 square meters. m. It works on solid fuel - coal, pellets, wood. Equipped with an enlarged auger, which allows you to use larger coal. It has a high efficiency - 85%. The fuel hopper has adaptive conditions of placement - it can be installed both to the right and left of the boiler. A patented development of the company is a cast iron retort burner. It is characterized by a special design that provides high mechanical strength due to reliable fastening in two opposite points of the heat exchanger - this prevents its sagging even after a long period of operation.

AUTOMATIC SOLID FUEL BOILER RIM MAX T

10 000 kW

Automatic solid fuel boiler RIM MAX T - 10 OOO kW is a long-burning water boiler designed to heat an area of up to 100 OOO square meters. meters. It works on pellets and coal - fuel of natural origin, which does not emit toxic substances during combustion. It has high efficiency - 85%. The boiler is equipped with a microprocessor controller, on which the user sets automatic settings. Due to the simple and reliable design this equipment has a long service life and easy operation.

BURNERS

Gas
Type of fuel: Gas
Type of regulation: Single-stage/ Two-stage/ Modulating Min. power, kW: 10
Power max, kW: 24000

Diesel
Type of fuel: Diesel fuel
Type of regulation: Single-stage / Two-stage / Modulating.
Power min., kW: 12
Power max, kW: 5610

Combined
Fuel Type: Gas + Diesel Fuel Type of regulation: Single-stage/ Two-stage/ Modulating.
Two-stage/Modulating Power min. kW: 60
Power max, kW: 5581

ECONOMIZERS

Economizers for hot tube hot water boilers are heat exchange devices designed to increase the energy efficiency of boilers by utilizing the heat from the flue gas. They are installed in the boiler flue and allow water or coolant to be heated before being fed into the main heat exchanger, utilizing heat that would otherwise be lost.

The advantages of economizers are:

1. Increased boiler efficiency:
Economizers allow heat that would normally be lost with the flue gases to be utilized, increasing the overall boiler efficiency by 5-15%.

2. Fuel savings: By utilizing heat energy more efficiently, fuel consumption is reduced, resulting in significant savings on operating costs.

3. Reduced emissions: The heat recovery of flue gases reduces their temperature, which reduces the amount of harmful emissions such as CO2 and NOx. allows easy integration into existing heating systems.

4. Boiler life extension: Preheating the water in the economizer reduces the heat load on the main heat exchanger of the boiler, which contributes to the extension of its service life.

5. Compact and easy to install: Modern economizers have a compact design, which allows them to be easily integrated into existing heating systems.

6. Quick payback: Due to fuel savings and improved equipment efficiency, the cost of installing an economizer is recovered in a short period of time (usually 1 to 3 years).

DOUBLE BOILERS OF EXTERNAL PLACEMENT.

DOUBLE BOILERS OF EXTERNAL PLACEMENT.

Outdoor boilers. They are carried out in strict compliance with the Customer's technical specifications and are designed taking into account modern requirements for energy efficiency and safety. Such equipment is a good substitute for block-modular boiler house for those facilities where placement of BMK is impossible.

It has a huge advantage over placing the boiler room in the walls of the building, as there is no risk of gas leakage into the room and its ignition. Power - from 70 kW to 6 mW. The boiler is completed with burner devices, fuel line, control automatics, circulation pumps, shut-off and safety valves. Filling of the Boiler of outdoor placement can be absolutely different. The mandatory list of equipment depends on the region of installation. Optionally it is possible to perform with fixing the supporting mast of chimneys to the boiler frame.

BOILER HOUSES

AUTOMATED TRANSPORTABLE MODULAR BLOCK-MODULAR HOT WATER BOILER HOUSES

от 140 kW
to 21 000 kW

DESCRIPTION

Automated transportable transportable block-modular hot-water boilers from 140 kW to 21 000 kW. Our boilers are designed for heat supply of the area up to 210 000 sq. m. and hot water supply of industrial and housing and communal facilities. In this type of boilers are installed hot-water boilers of own production of RIM MAX series. They operate on gas and diesel fuel.

AUTOMATED TRANSPORTABLE BLOCK-MODULAR STEAM BOILER HOUSES

from 0.5 tons/ hour Up to 21 tons/hour

DESCRIPTION

Automated transportable modular block-modular steam boiler houses with steam output from 0.5 tons/hour to 21 tons/hour are used not only for heat supply purposes, they are also in demand in agriculture, food and light industry, production of construction materials and many other spheres. Our boiler houses are equipped with steam boilers of RIM MAX - P series, operating on the basis of gas or liquid fuel. The complete cycle of production of all equipment, from casing to chimney pipes, is carried out at the modern and high-tech plant «Teplostroyproekt-S»

AUTOMATED TRANSPORTABLE MODULAR BLOCK-MODULAR ROOF-MOUNTED BOILERS

from 140 kW to 5 000 kW

DESCRIPTION

Automated transportable modular block-modular hot-water boilers of roof version from 140 kW to 5 000 kW are designed for heat supply of the area up to 50 000 sq. m. and hot water supply of both residential and industrial facilities. The boilers are equipped with water heating boilers of our production of RIM MAX series, which operate on gas and diesel.

AUTOMATIZED TRANSPORTABLE UNIT-MODULAR BOILERS OF FRAME EXECUTIONFROM 140 KW TO 21 000 KW

from 140 kW to 21 000 kW

DESCRIPTION

Automated transportable modular block-modular hot-water boilers of frame design from 140 kW to 21 000 kW are designed for heat supply of the area up to 210 000 sq. m. and hot water supply of industrial and housing and communal facilities. They are equipped with RIM MAX series hot-water boilers manufactured by Tepostroyproekt-S.

AUTOMATED TRANSPORTABLE MODULAR BLOCK-MODULAR STEAM AND HOT-WATER BOILERS

from 140 kW up to 21 000 kW

DESCRIPTION

Automated transportable modular block-modular steam and hot-water boilers from 140 kW to 21 000 kW capable of heating an area up to 210 000 sq. m. and with superheated steam capacity from 0,5 tons/hour to 21 tons/hour represent a combined type of boiler house. They are equipped with hot water boilers of RIM MAX series and steam boilers of RIM MAX - P series. Both types of boilers can be equipped with gas, liquid fuel or combined burner at the Customer’s discretion

AUTOMATED STATIONARY HOT-WATER BOILER PLANTS

Up to 720,000 kW

DESCRIPTION

Automated stationary hot water boilers up to 720,000 kW are installed when permanent heat and hot water supply is required for apartment buildings, districts, neighborhoods or large production facilities. We equip stationary boiler plants with RIM MAX hot water boilers. Depending on the burner selected, they can operate on both gas and liquid fuel.

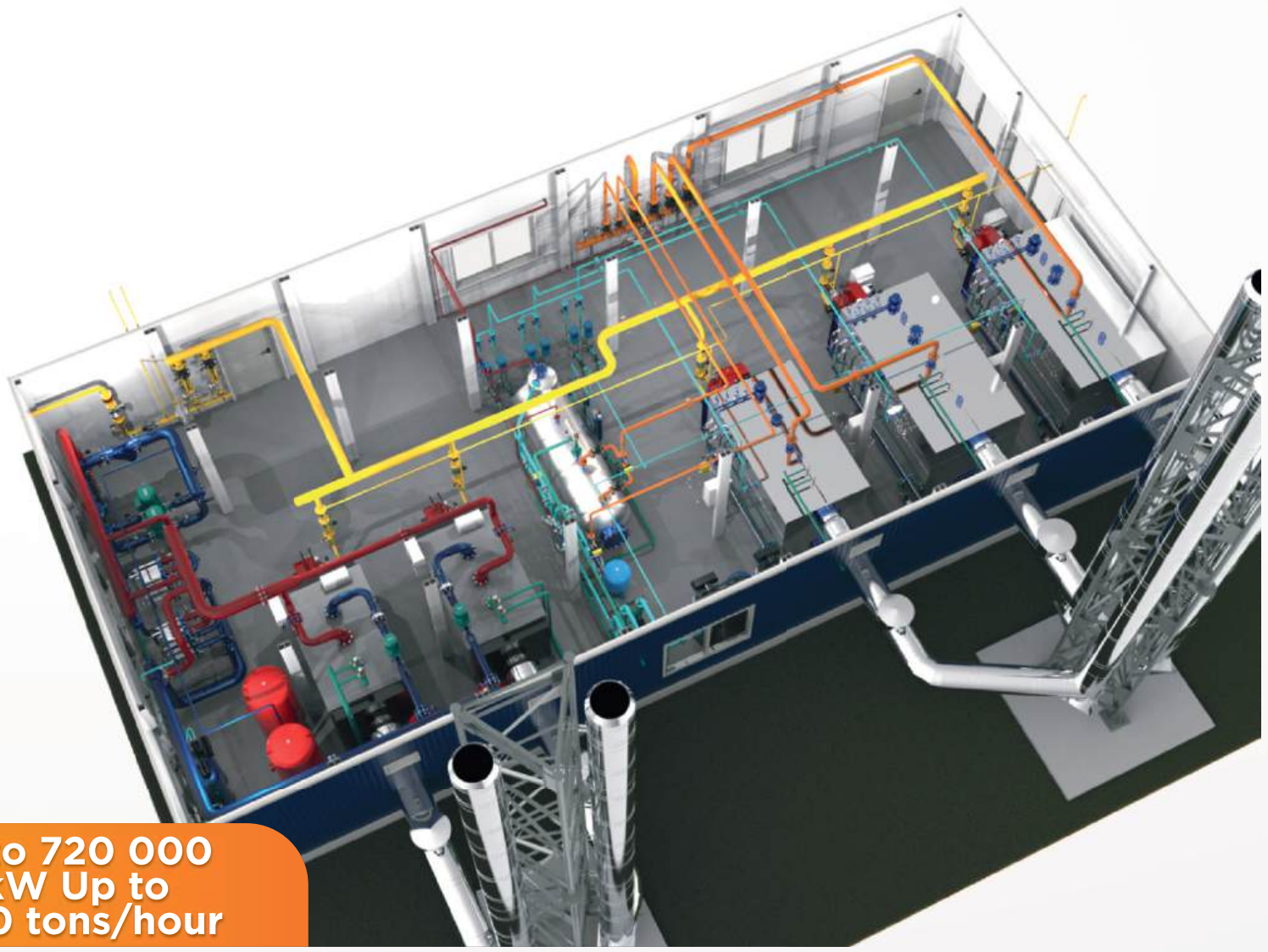
AUTOMATED STATIONARY STEAM BOILER PLANTS

Up to 300 tons/ hour

DESCRIPTION

Automated stationary steam boiler houses with steam output up to 300 tons/hour are indispensable in industry and housing and communal services. They are installed not only for heat supply purposes, but also for realization of production processes in agriculture, food and light industry and many other spheres.

AUTOMATED COMBINED BOILER PLANTS



Up to 720 000 kW Up to 300 tons/hour

DESCRIPTION

Combined modular boiler plants are universal solutions combining different types of boilers to increase efficiency and reliability. - Hot-water and steam boilers are combined to provide simultaneous heating and process steam, which is especially demanded in industry. - Flame tube and water tube boilers are combined for optimal utilization of thermal energy, providing high efficiency and flexibility in operation. - Gas/diesel and solid fuel boilers are combined to ensure uninterrupted operation even in the absence of one of the fuels. These boilers are characterized by their compactness, ease of installation and customizability. This makes them the ideal choice for facilities with diverse heat supply requirements.

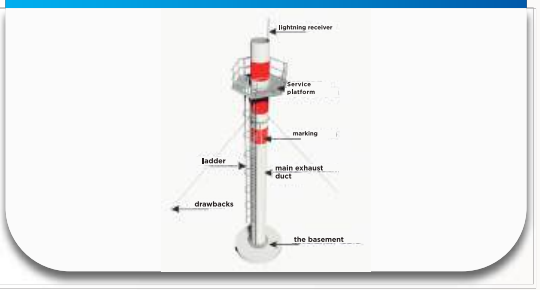
COMPONENTS FOR BOILERS AND BOILER HOUSES

COMPONENTS FOR HOT WATER BOILERS, WATER TUBE BOILERS AND BOILER HOUSES

WATER HEATING BOILER

ECONOMIZER

FLUE PIPES



BURNERS

INTERNAL GAS SUPPLY

PUMPS

SHUT-OFF AND CONTROL VALVES

PIPING COMPONENTS

TANKS/CHE AND TANKS

HEAT EXCHANGERS INSTRUMENTATION

METERING DEVICES AUTOMATION

DISCHARGE VALVES AND FILTERS FIRE PROTECTION

HEAT EXCHANGERS INSTRUMENTATION

METERING DEVICES AUTOMATION

DISCHARGE VALVES AND FILTERS FIRE PROTECTION

VENTILATION

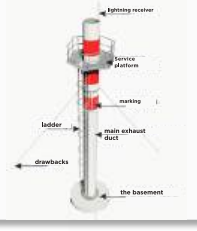
ELECTRICAL SUPPLY AND ABLE-CONDUCTOR PRODUCTS

COMPONENTS FOR HOT WATER BOILERS, WATER TUBE BOILERS AND BOILER HOUSES

STEAM BOILER

ECONOMIZER

FLUE PIPES



PIPING PARTS

MAIN WATER COARSE FILTERS

FINE FILTERS/CHEMICAL WATER TREATMENT/SOFTENERS

CONDENSATION TANK/ HYDRO TANKS

FEED PUMPS

MAINS PUMPS

TWO-STAGE DEAERATORS

HEAT EXCHANGERS

BALL VALVES

WATER INLET GATE VALVES

LEVEL GAUGES

DRAIN VALVE FOR SLAG REMOVAL

SALT AND FOAM RELIEF VALVE

AIR RELIEF VALVE

OVERPRESSURE RELIEF VALVE

STEAM BOILER PRESSURE MONITORING AND CONTROL SENSOR BURNER

STEAM BOILER BURNER FLOW RATE CONTROL ELECTRODE (BURNER IONIZATION ELECTRODE)

MANOMENTERS

WATER LEVEL AND PUMP GROUP CONTROL ELECTRODE

EXHAUST GAS TEMPERATURE REGULATOR

EXHAUST STEAM TEMPERATURE SENSOR

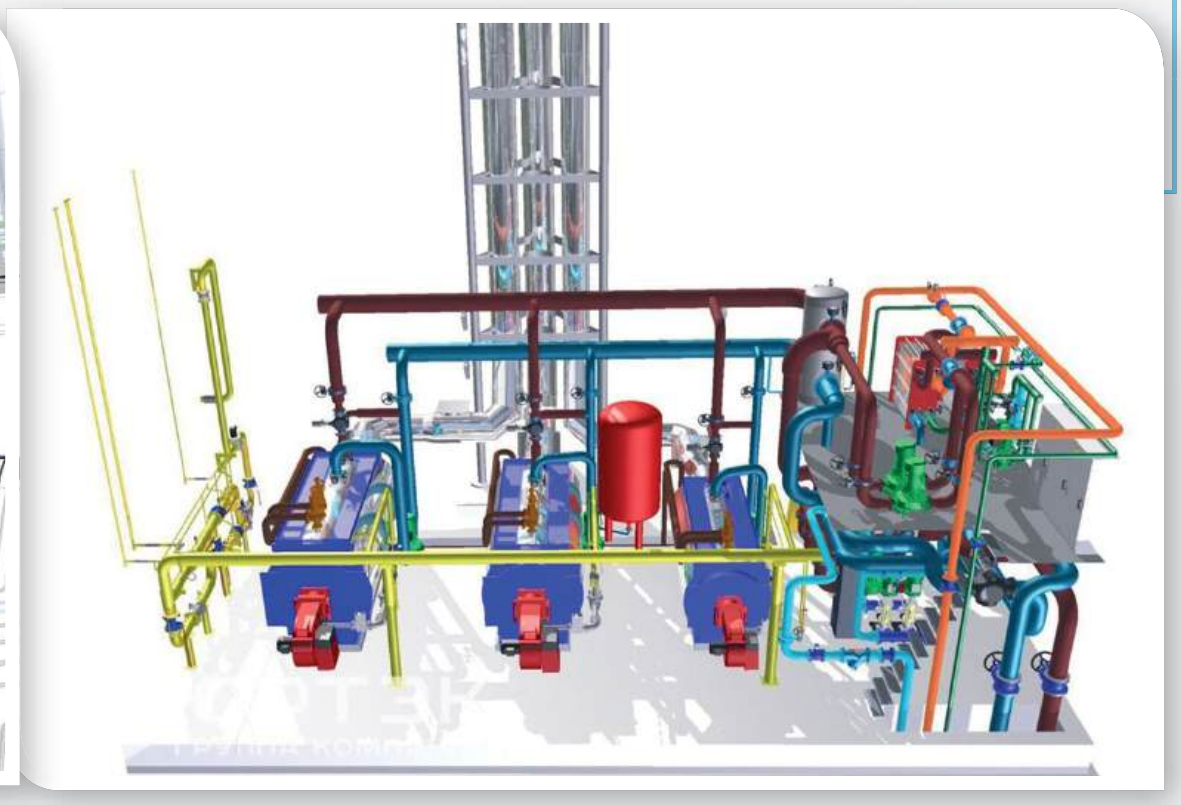
ELECTRICAL SUPPLY AND WIRING PRODUCTS

AUTOMATION

VENTILATION

HEAT SUPPLY RENOVATION

Innovative solutions in the field of heat supply include:
- Use of alternative heat sources - geothermal heating, solar collectors. - Infrared heating technology in houses.
- Heating system using polypropylene pipes is the use of diffusion welding to create joints.
- Installation of underfloor heating warmth for heating.
- Baseboard heating systems-data heating system is divided according to the type of heat carrier into water and electric.
- Film heating systems-heating of the room is due to the movement and mixing of cold and hot air.



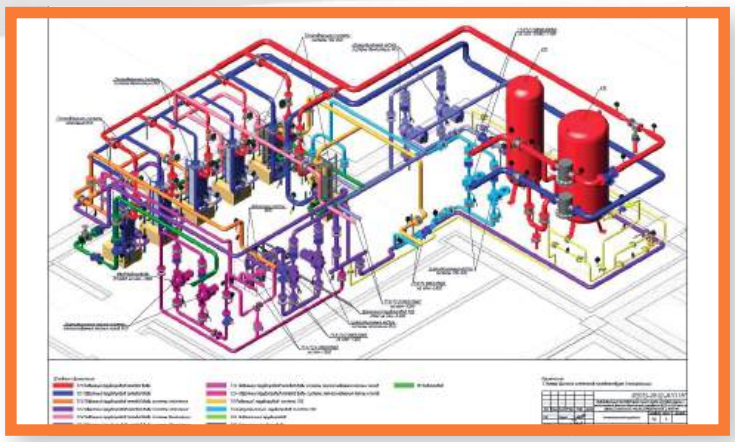
HOT WATER SUPPLY

BRIEF DESCRIPTION OF HOT WATER SUPPLY:

Hot water supply (HWS) is aimed at meeting the needs of the population and industrial enterprises in water with increased (up to 75 ° C) temperature. The use of hot water makes a significant contribution to ensuring a high level of comfortable living. Hot water supply system consists of specialized equipment used for heating, storage and supply of water to the consumer.

Advantages:
- equipment is manufactured at the modern plant «Teplostroyproekt-S»;
- ecological safety of hot water supply elements;
- creation of standard equipment and equipment according to the Customer's individual technical task;
- service life of the hot water supply system is more than 15-20 years;
- warranty and post-warranty service.
-creation of turnkey project solutions.

Scope of application: Water supply systems for private houses, country districts, industrial and social facilities.



Individual heating unit

Manufacturer: RIM
Thermal capacity from 10 to 60000 kW
Heating side - steam, water, thermal oil.
Heated side - water, glycol, petroleum products and other media.

Block heating station

Block heat point (BTP) is a compact modular unit designed to provide heat supply and regulate the parameters of the coolant in heating, ventilation and hot water supply systems. BTP is manufactured in factory conditions, which ensures high quality of assembly and minimal installation time at the site. is an optimal solution for residential, commercial and industrial facilities.

Plate heat exchangers

Power (kW): 6-500 kW
Efficiency: 92%
Design: 16/25 bar.

Solar DHW collector

Collector type : vacuum/flat/air/hybrid.
Operating principle: pressurized/unpressurized.
Mode of use : year-round/seasonal.
Pipe diameter: 58 mm.
Max. permissible water temperature: 85C.
Hot water consumption l/10min: 197-401.
EFFICIENCY: 78.5%.

DHW boiler

Type: horizontal.
Volume: 500 - 5000l.
Max. permissible water temperature: 95C.

hot water accumulator tank

Type: Vertical Volume: 10-6000m3
Max. permissible water temperature: 95C

Heat pipe

«Smart» heating main is an innovative solution for transportation of heat carrier, combining high energy efficiency, durability and intelligent monitoring technologies. The design of the heat pipe is an insulated pipe on a flange connection, where the outer protective layer is a polyethylene pipe. This design provides reliable protection from external influences and minimizes heat losses. Main features and advantages: 1. Multilayer construction;
2. Flanged connection;
3. Intelligent monitoring;
4. Durability and reliability;
5. energy efficiency;
6. Environmental friendliness;

«Smart» heat pipe is ideal for use in district heating systems, industrial facilities, as well as in difficult climatic and operating conditions. It provides reliable and economical transportation of heat carrier, reducing maintenance costs and increasing the overall efficiency of the system.

AIR HEATING

Gas-air calorifiers

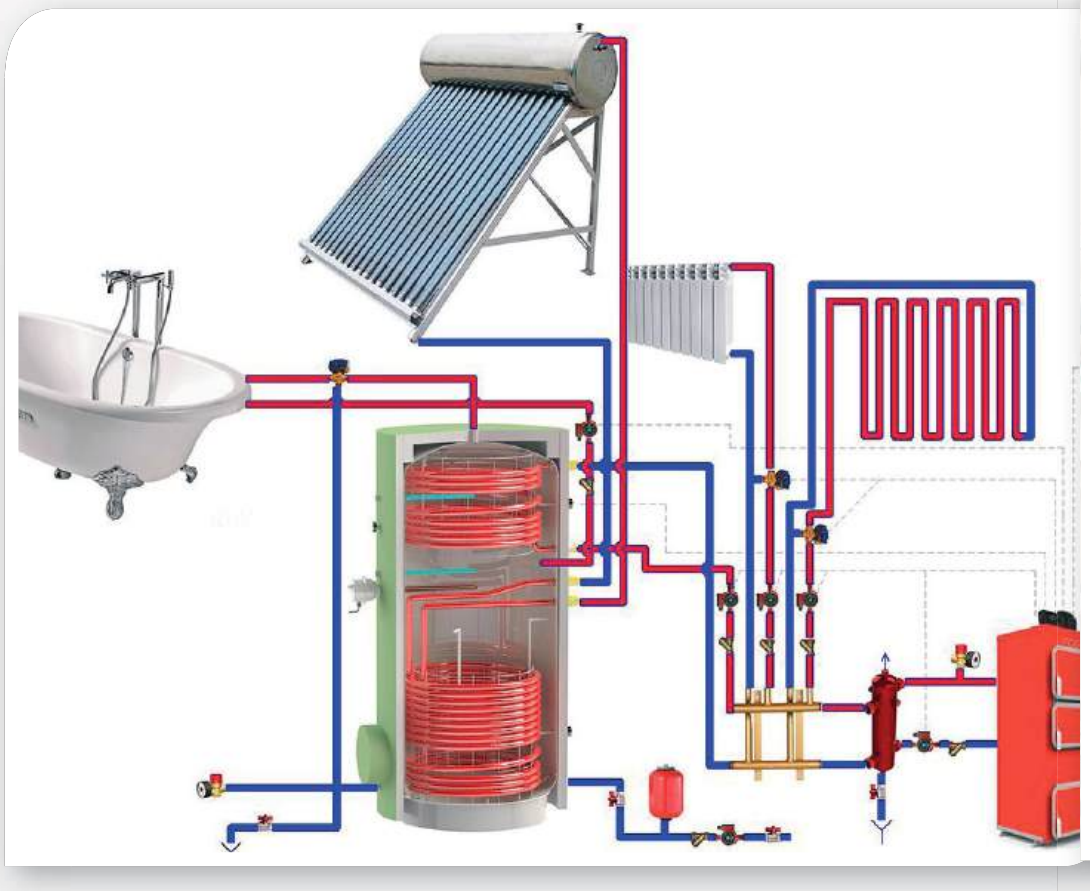
Gas-air colorifer on the basis of a heat-tube boiler is a highly efficient heat-exchange device designed to heat the air stream due to the heat energy released during gas combustion. Air is used as a heat carrier, which passes through heat exchange elements heated by gas combustion products.

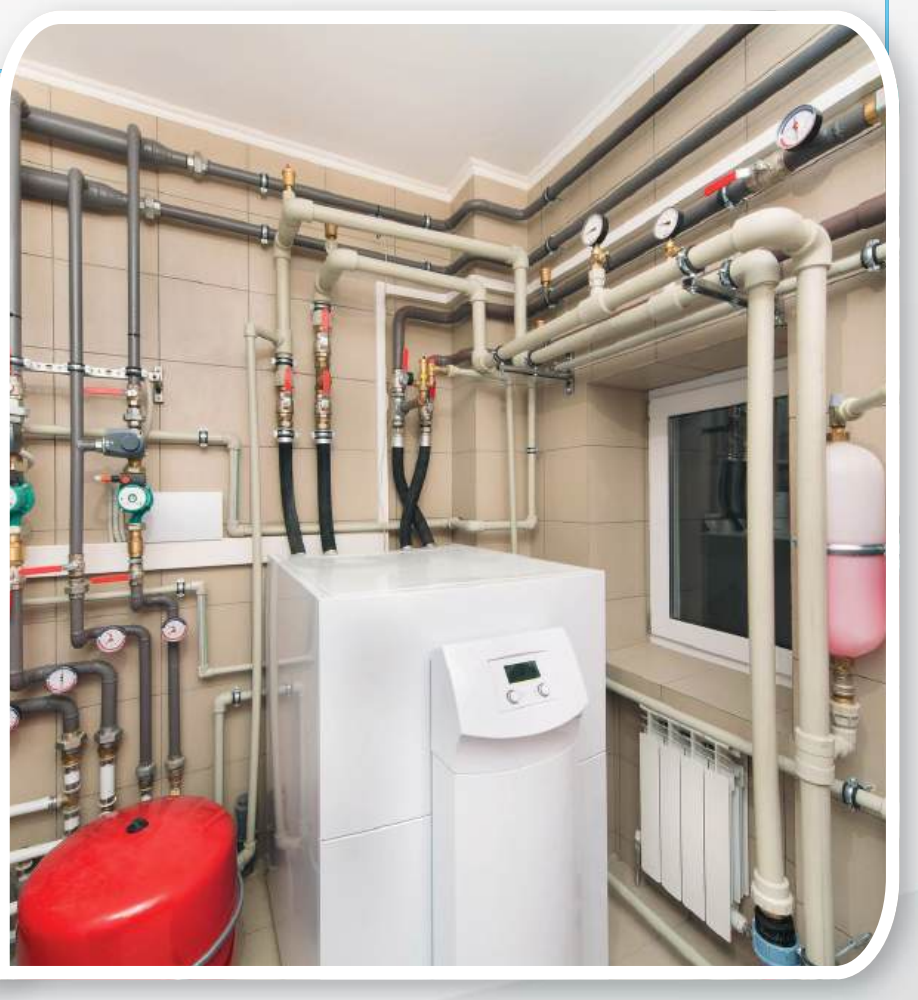
The design of the heater provides high efficiency and uniform heating of the air stream, which makes it an ideal solution for heating, ventilation and drying systems. The unit is equipped with a modern control system that allows precise regulation of the heating temperature and optimizes energy consumption. The heater is reliable, durable and easy to maintain, and its compact design allows it to be easily integrated into existing systems. Thanks to the use of heat pipe technology, the unit provides fast heating and stable operation even under high loads. Suitable for industrial and commercial applications where efficient and economical heat supply is required.

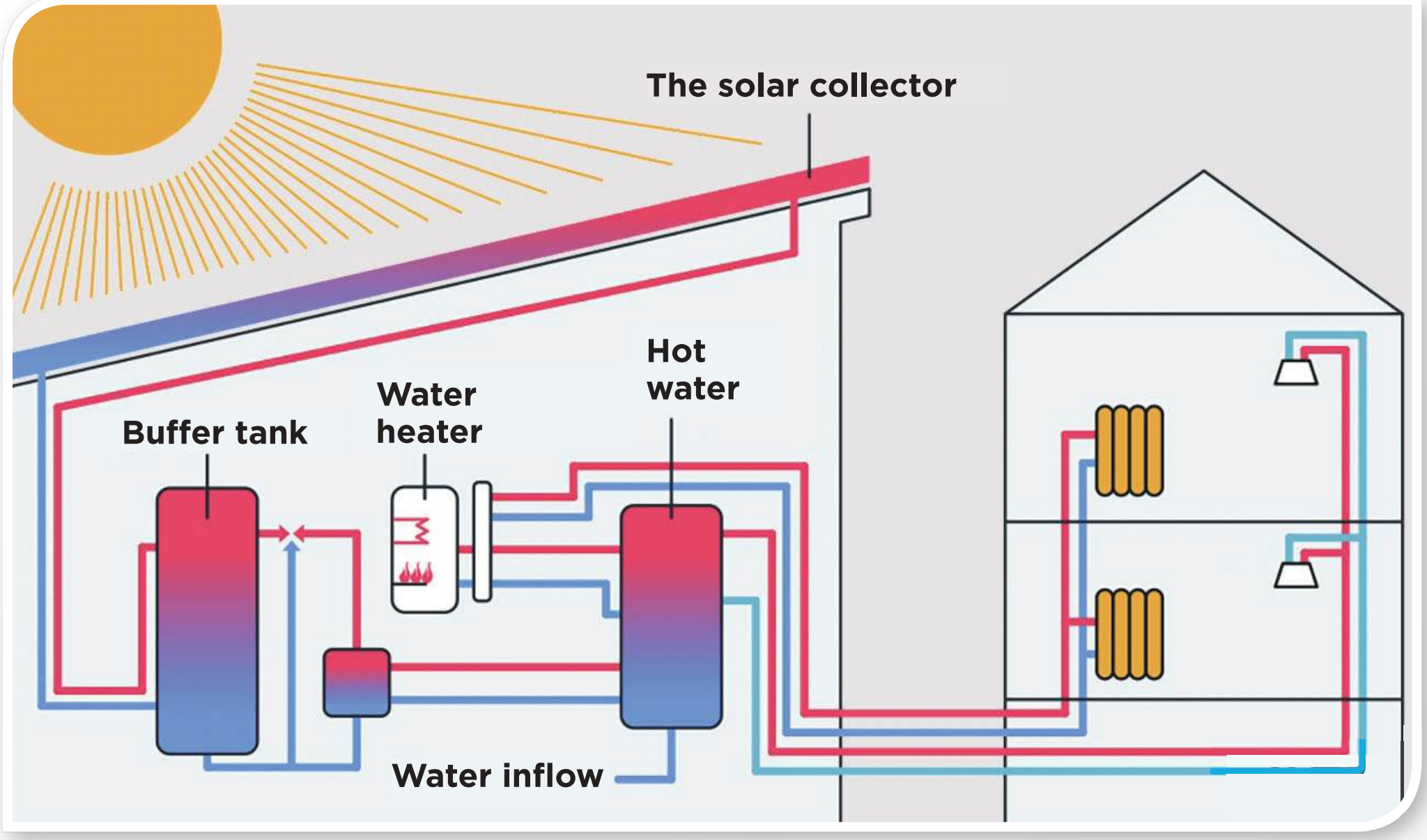
RECONSTRUCTION OF HOT WATER SYSTEMS

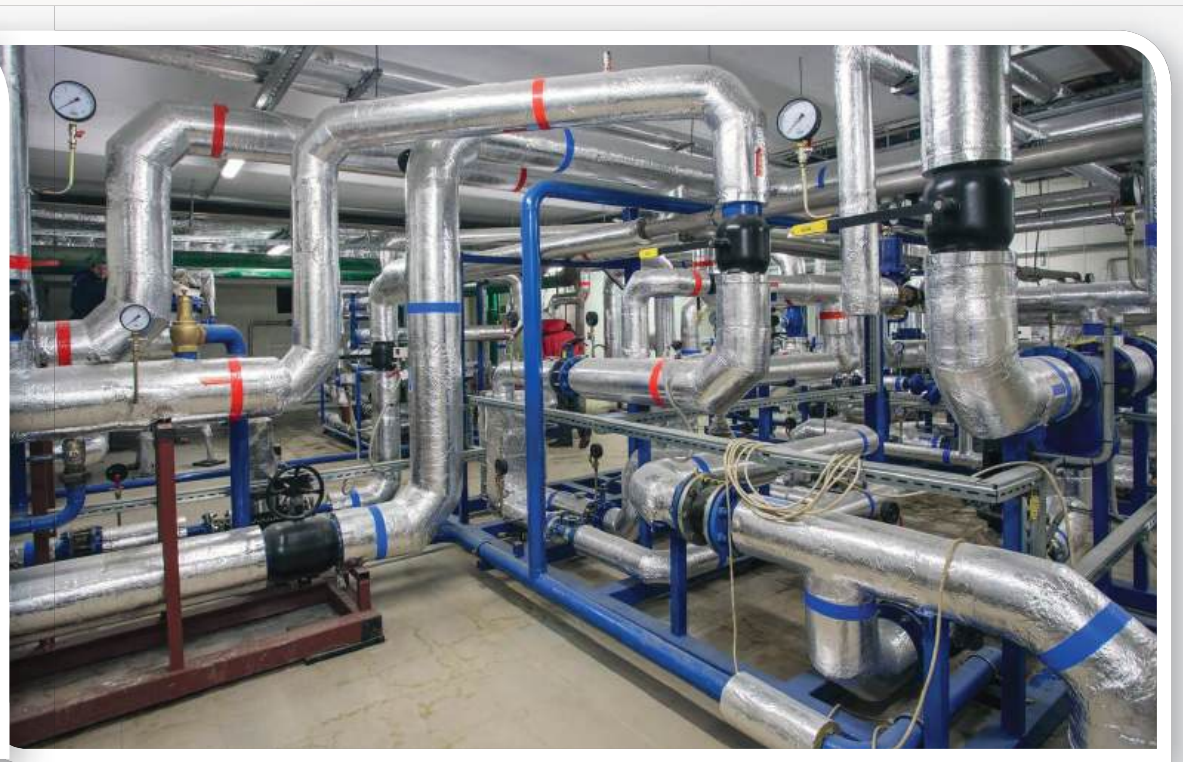
The latest developments in the hot water system include:

- The use of an individual heating station, as an alternative to a storage or accumulation boiler. ITPs are equipped with shut-off and control valves, check and safety valves, circulation pumps, filters.
- Non-traditional solutions for DHW. This is equipment that uses renewable energy sources in its operation. The most common are combined schemes, when a heat pump (usually of the «air-to-water» type) or solar collectors serve as additional heat sources for DHW.






The solar collector
Buffer tank
Water heater
Hot water
Water inflow



TRIGENERATION AND VENTILATION

POWER SUPPLY

GAS SUPPLY

DIESEL ECONOMY

HEAT SUPPLY

COLD WATER SUPPLY

VENTILATION

AIR CONDITIONING

BRIEF DESCRIPTION OF COLD WATER SUPPLY:

Cold water supply is a round-the-clock supply of cold drinking water of proper quality to the consumer, supplied in the required volumes. «Teplostroyproekt-S» offers ready-made solutions for the creation of autonomous water supply systems for residential houses and industrial facilities.

Advantages:
- equipment manufactured at the modern plant «Teplostroyproekt-S»;
- durability and ease of operation of water supply systems;
- high resistance to rot and corrosion;
- various options of sizes and shapes of tanks;
- individual design solutions.

The range of the company:
Goods for autonomous water supply: tanks, water towers, artesian well equipment, pumps.

Scope of application: For household and drinking needs, for industrial needs, for fire-fighting systems.

RESERVOIRS

Water tank
Type: Horizontal
Volume: 10-6000m3
Max. permissible water temperature: 95C

Water tank
Type: Vertical Volume: 10-6000m3
Max. permissible water temperature: 95C

WATER PURIFICATION

Reverse osmosis unit

Purification system: Chemical
Filter type: cartridge/flush
Type of purification: clarification/removal of color and turbidity, organic impurities/deironing/softening/ oxidation/ disinfection/cleaning from anthropogenic and natural contaminants
Disinfection system: None/chemical/physical.

Water treatment station

Purification system: Mechanical
Filter type: cartridge/flush
Type of purification: clarification/removal of color and turbidity, organic impurities/deironing/ softening/ oxidation/ disinfection/treatment of man-made and natural contaminants
Disinfection system: None/chemical/physical

WATER TREATMENT FOR HEATING SYSTEM

Water treatment system for boiler houses is designed to ensure high quality of the coolant in heating systems, which helps to improve the efficiency of equipment operation, increase its service life and reduce operating costs. The system provides water purification from mechanical impurities, hardness salts, dissolved gases and other contaminants that can cause corrosion, scale formation and clogging of pipelines.

Advantages:

- Increased efficiency of boiler equipment due to prevention of scale formation.
- Increased service life of pipelines, heat exchangers and boilers.
- Reduction of repair and maintenance costs.
- Automation of water treatment processes to minimize personnel involvement.
- Possibility of adaptation to specific requirements of the Customer.

PUMPING STATIONS

Pressure booster station

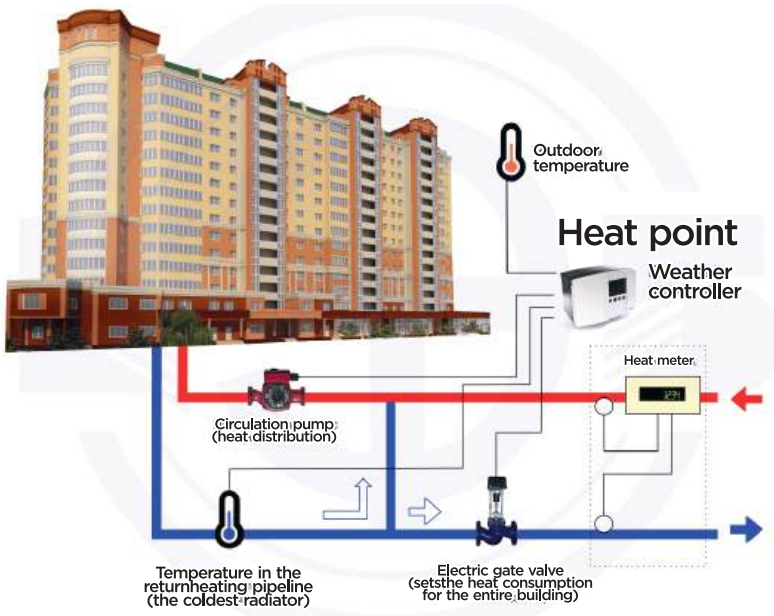
Number of pumps: from 1 to 8 pumps;
Capacity: from 1 to 4000 m3/hour;
Head: from 10 m to 400 m;
Service life of pumping stations: not less than 10 years;
Pumped liquid temperature: from 0°C to 40°C;
Line voltage: 220/380 V Maximum working pressure: up to 10 bar;
Ambient temperature: from +4°C to 50°C;
Protection class IP 54 Pipeline connection from DN 50 to DN 400

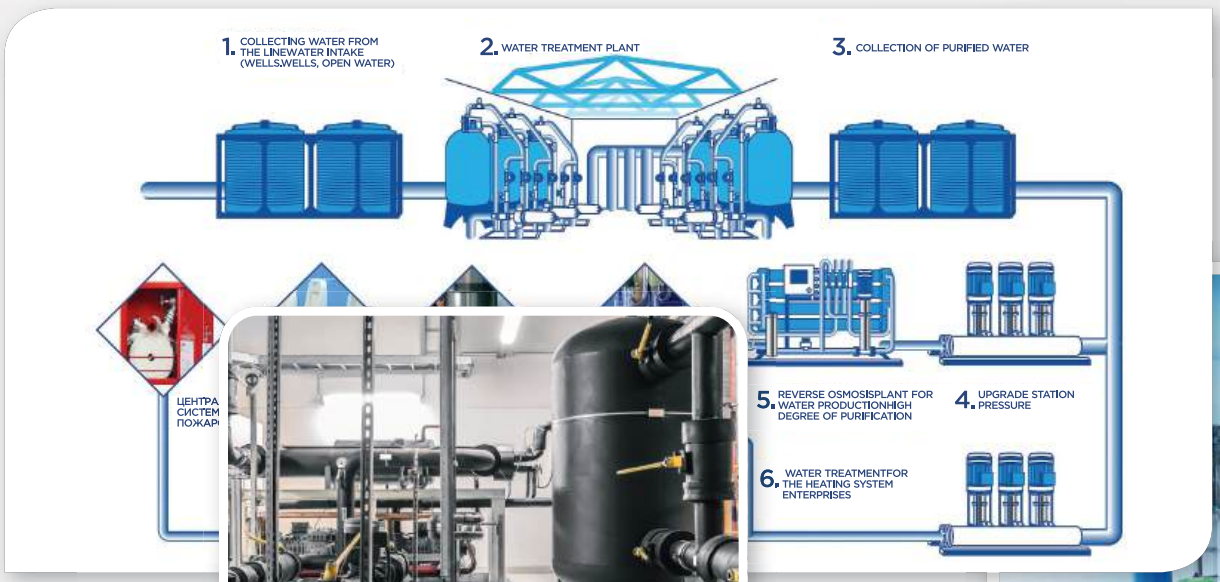
Fire extinguishing station

Number of pumps: from 1 to 8 pumps;
Capacity: from 1 to 4000 m3/hour;
Head: from 10 m to 400 m;
Service life of pumping stations: not less than 10 years;
Pumped liquid temperature: from 0°C to 80°C;
Line voltage: 380 V
Maximum working pressure: up to 40 atm;
Ambient temperature: from +4°C to 50°C;
Protection class IP 54 Pipeline connection from DN 50 to DN 400
Подсоединение к трубопроводу от DN 50 до DN 400

RECONSTRUCTION OF COLD WATER SUPPLY

Perspective developments in the field of cold water supply are a set of sensors, sensors and «smart» equipment functioning according to preset settings. The settings meet the following tasks: control of water supply to the building, purification, softening, sterilization of water, control of water supply level, regulation of pressure parameters for the safety of household appliances - plumbing, washing machines, dishwashers, emergency shutdown of pumping systems and shutting off taps, etc.





TRIGENERATION AND VENTILATION

POWER SUPPLY

GAS SUPPLY

DIESEL ECONOMY

HEAT SUPPLY

COLD WATER SUPPLY

VENTILATION

AIR CONDITIONING

BRIEF DESCRIPTION OF VENTILATION:

Ventilation of the facility provides sanitary and hygienic conditions of indoor air and a favorable effect on human health. It is important that ventilation meets the requirements of technological processes, building structures of buildings, storage technologies. Our company sells elements of ventilation systems as its own production, as well as equipment of the largest manufacturers.

Scope of application: provision and purification of supply air from dust, gaseous compounds, molecular contaminants, bacteria and viruses.

VENTILATION SYSTEMS

1. Exhaust air handling unit;

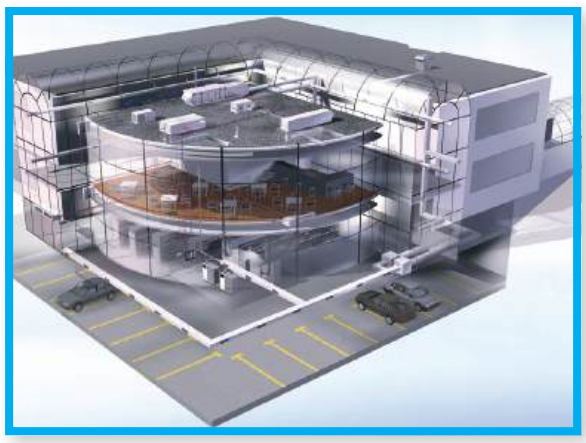
2. Exhaust ventilation shaft;

3. Supply ventilation shaft;

4. Ventilation grille;

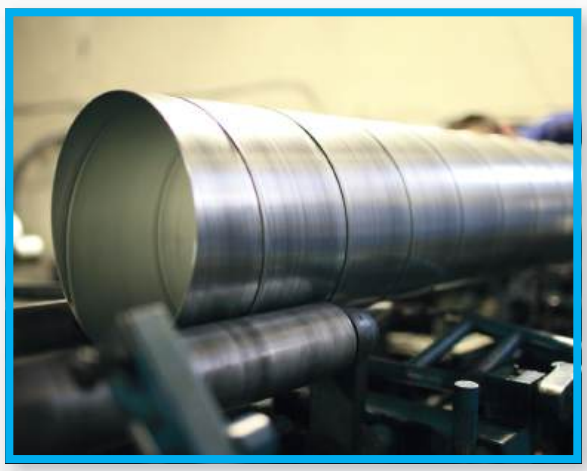
5. Supply ventilation unit.

VENTILATION



Industrial and civil ventilation system
Manufacturer: RIM.
Type: rectangular cross-section.
Diameter: 150-2000 mm.
Service life: at least 15 years.

Ventilation shaft
Manufacturer: RIM.
Type: rectangular cross-section.
Diameter: 150-2000 mm.
Service life: at least 15 years.



Ventilation duct

Manufacturer: RIM
Type: circular cross-section
Diameter: 150-2000 mm
Service life: At least 15 years

Ventilation diffusers, snails and deflectors

Manufacturer: RIM.
Type: individual.
Diameter: 150-2000 mm.
Service life: at least 15 years.

ROLL FIREPROOFING

ROUND BRANCH

TRANSITION

TEE ROUND

CROSS

THROTTLE VALVE ROUND

FLEXIBLE INSERT ROUND

TRANSITION TO RECTANGULAR CROSS-SECTION

RECTANGULAR BRANCH

TRANSITION TO ROUND CROSS-SECTION

RECTANGULAR TEE

EMBEDDING IN A CIRCULAR CHANNEL

ELECTROMECHANICAL ACTUATOR

ADAPTER FOR VENTILATION

FLEXIBLE INSERT RECTANGULAR

MANOMENTRA DUCK

THROTTLE VALVE RECTANGULAR

SCHIEBER ROUND

RECTANGULAR SCHIEBER

OUTER GRATE NON-ADJUSTABLE

INERTIA GRILLE

DUCT FAN

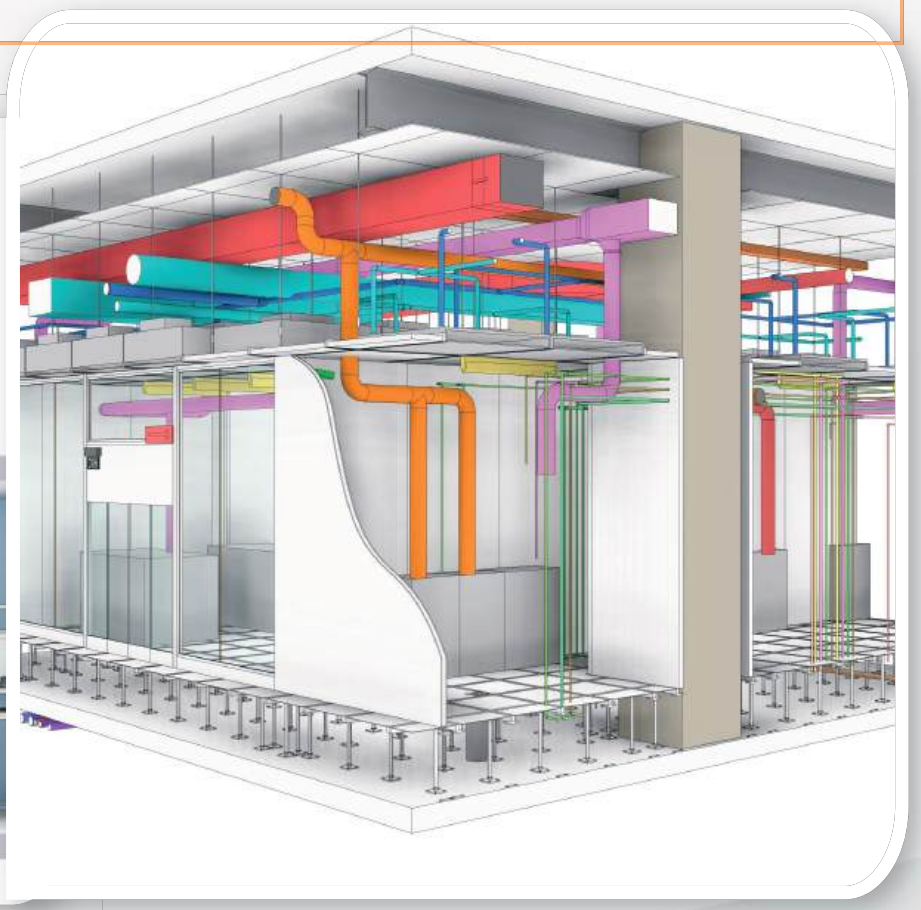
RECTANGULAR DUCT FAN

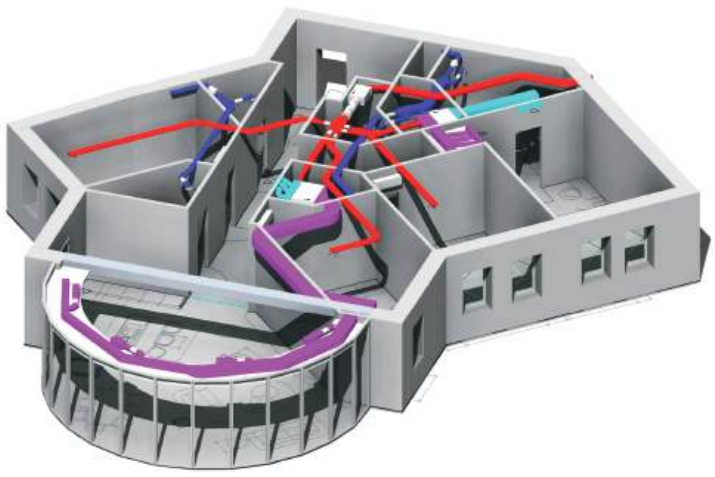
FIRE DAMPER

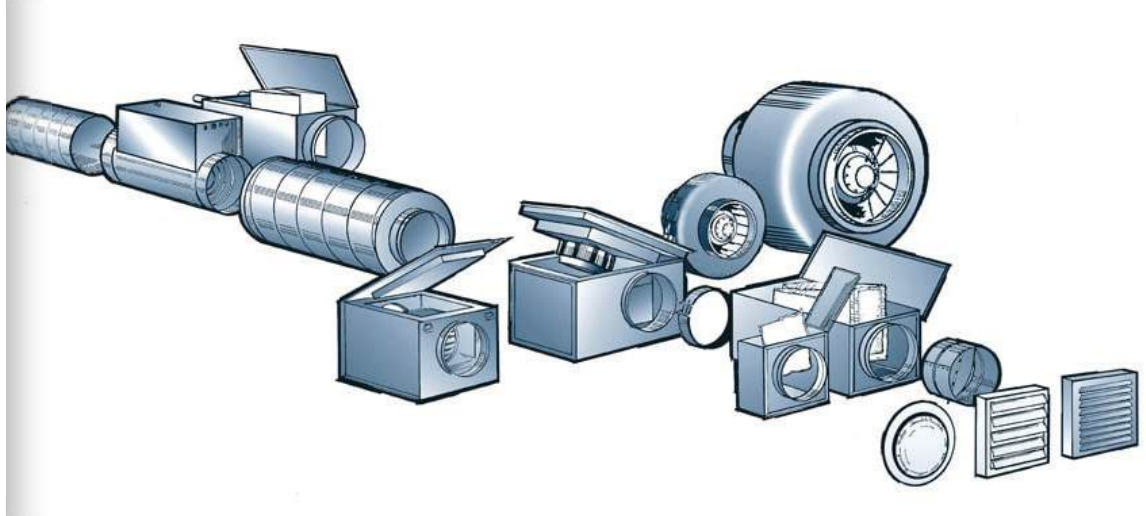
RECTANGULAR FIRE DAMPER

VENTILATION RENOVATION

Innovative **ventilation** solutions include:
- Supply and exhaust units contribute to the automatic purification of air masses according to set quality parameters.
- Use of hygroscopic rotor for air recuperators. Thanks to a special polymer coating, this rotor absorbs moisture from the air. The hygroscopic rotor will help the air handling unit to work efficiently in summer, additionally cooling the air due to moisture transfer.







TRIGENERATION AND VENTILATION

POWER SUPPLY

GAS SUPPLY

DIESEL ECONOMY

HEAT SUPPLY

COLD WATER SUPPLY

VENTILATION

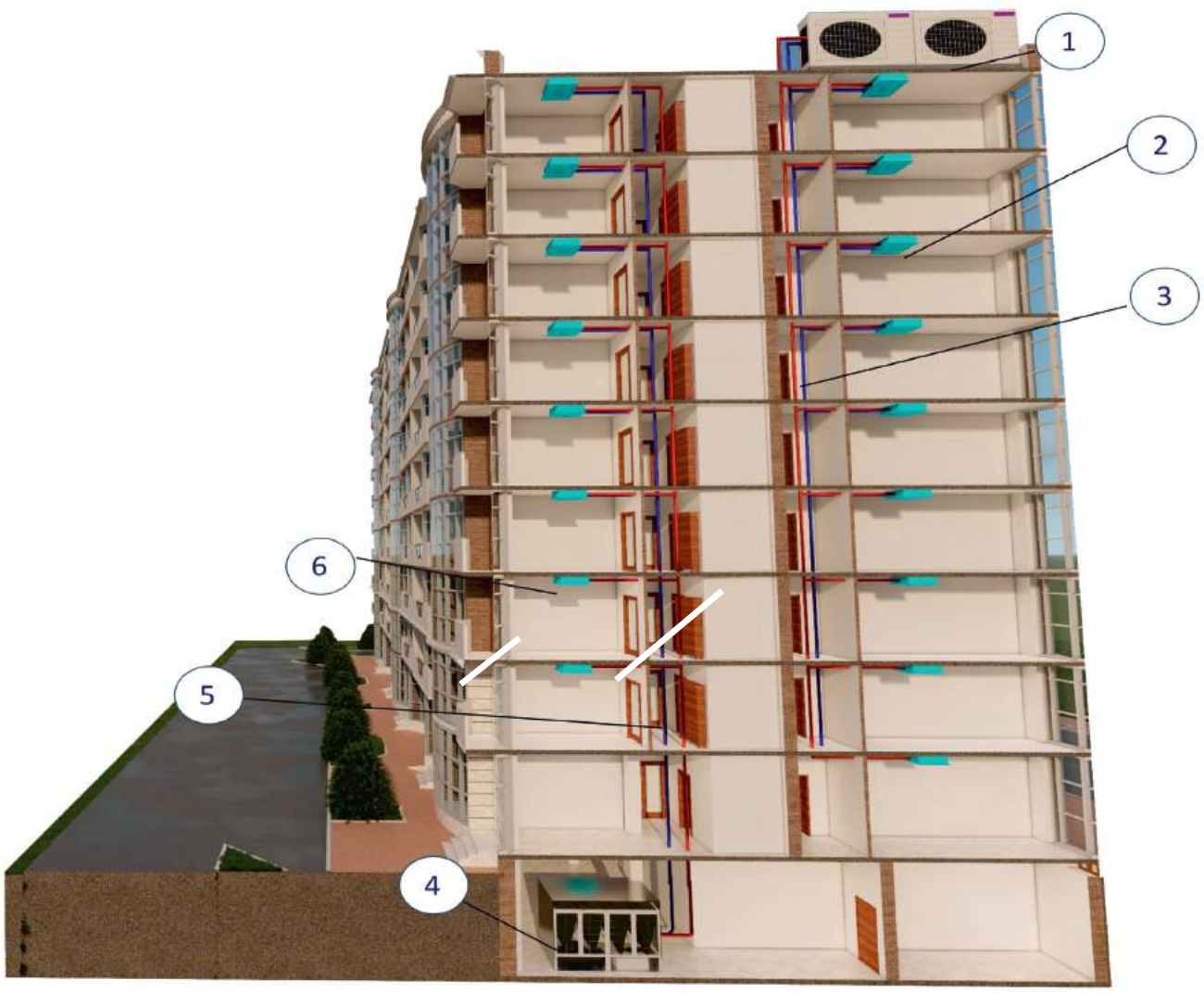
AIR CONDITIONING

BRIEF DESCRIPTION OF REFRIGERATION:

Refrigeration supply systems are the complex and coordinated operation of interconnected installations that set the appropriate temperature regime. A refrigeration system is a scheme of interconnection of refrigeration stations or plants with cold consumers. When developing schemes of cold supply we strive to create the most favorable conditions for further operation of the system. One of the conditions of this work is the proximity of the cold source to its consumers, which increases the energy efficiency of cold supply systems.

Scope of application: refrigeration supply of residential buildings and industrial premises.

REFRIGERATION SYSTEMS



1. VRV outdoor unit of the air conditioning system;
2. VRV indoor unit of the air conditioning system;
3. Freon refrigerant piping;
4. Chiller (vapor-compression refrigeration machine);
5. Ethylene glycol refrigerant piping;
6. Ceiling fan coil

BLOCK-MODULAR REFRIGERATION PLANT

Block-modular refrigeration units are units of full factory readiness including compressor unit, air-cooled condenser, receivers, system of refrigerant and coolant pipelines with shut-off, regulating and safety valves, control panel and control of refrigeration unit parameters, power panel.

Block-modular refrigeration plants types:

- Storage and freezing chambers, including shock freezing;
- Water cooling units (chillers), including explosion-proof;
- Recycled water cooling plants (cooling towers), including explosion-proof ones;
- Installations for obtaining ice water; Block-modular installations produced by «RIM GROUP» are used in various branches of industry and construction:
- Cooling, freezing of food products (meat processing plants, milk processing enterprises);
- Storage and transportation of food products (refrigerated warehouses, multi-temperature logistic complexes);
- Refrigeration of sports facilities (ice rinks, indoor ski centers, curling stadiums);
- Cooling of process water (chemical industry enterprises);
- Obtaining ice water (milk processing industry, production of carbonated water, juices, beer);
- Air conditioning of premises (industrial buildings, offices).

REFRIGERATION UNITS

ABSORPTION LITHIUM BROMIDE CHILLER (ABSORPTION CHILLER)
Design: horizontal/vertical.
Service life: at least 15 years.
Optional: possible use in trigeneration system.

AIR-COOLED CONDENSER CHILLER FOR OUTDOOR INSTALLATION, BASED ON SCREW COMPRESSORS
Design: horizontal/vertical.
Service life: at least 15 years.
Optional: possible use in trigeneration system.

DUCT INDOOR UNIT

Duct indoor unit is designed for concealed installation behind a suspended ceiling or in ventilation ducts. It provides uniform air distribution to several rooms through a duct system. The unit is equipped with a powerful fan and heat exchanger, which allows efficient cooling or heating of air in large rooms.

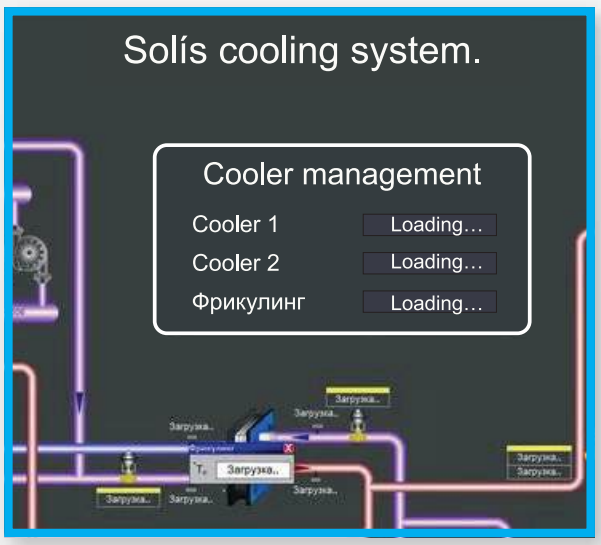
FACILITY COOLING

WALL-MOUNTED INDOOR UNIT

The wall-mounted indoor unit is the most popular solution for domestic and commercial use due to its compact size and easy installation. It features adjustable louvers to direct airflow and an advanced air filtration system. The unit operates at a low noise level, making it ideal for bedrooms, offices and living rooms.

CEILING MOUNTED INDOOR UNIT

The ceiling-mounted indoor unit is ceiling-mounted and provides even air distribution in four directions, which is particularly effective for large, open-plan rooms. It has a flat casing that blends in with the interior and is equipped with an automatic airflow direction control system. The unit is suitable for use in retail halls, offices and industrial premises.



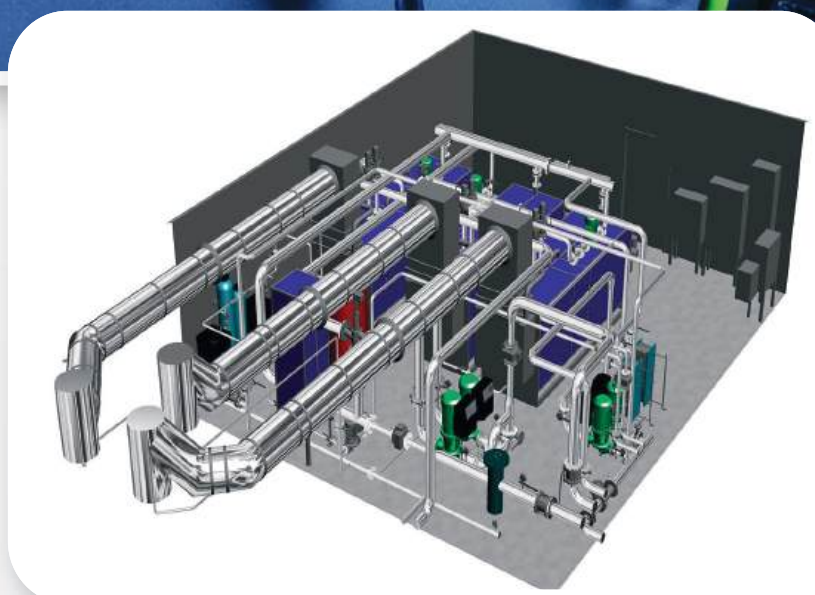
MONITORING AND SUPERVISORY CONTROL SYSTEM

Monitoring and supervisory control system of the refrigeration system provides continuous monitoring of the equipment operation parameters, including temperature, pressure and refrigerant flow. It allows to promptly identify deviations from the norm, preventing emergencies and minimizing downtime. The system is equipped with a remote control module, which allows adjusting equipment operation modes in real time. Integration with SCADA-systems and support for Modbus and BACnet protocols ensures compatibility with other engineering systems of the facility.

REFRIGERATION RECONSTRUCTION

Technological advances in the refrigeration system include:
-R32 refrigerant. The popularity of R32 refrigerant is due to the fact that by 2025 it will be prohibited to produce climate control equipment on R410a with a refrigerant operating weight of less than 3 kg. The reason is the global warming potential.
- Combined climate control. This combination unit combines a water heater, dehumidifier and air cooler to provide more efficient heat transfer.
- Membrane air conditioner. This unit controls humidity and temperature without the use of any fluorocarbon refrigerants.


SIEMENS
SIMATIC IOT2000
USB X60
USB X61
RESET
LAN X1 P1
LAN X2 P1



COMMERCIAL ACTIVITIES

GOODS AND SERVICES

TRIGENERATION AND VENTILATION

RECONSTRUCTION AND MODERNIZATION OF ENGINEERING SYSTEMS, TRANSITIONING TO “SMART” SOLUTIONS

HOW WE PRODUCE

PRODUCTION AND TECHNICAL DEPARTMENT , DESIGN INSTITUTE , FACTORY, CONSTRUCTION AND INSTALLATION DEPARTMENT, WARRANTY AND POST-WARRANTY MAINTENANCE SERVICE

PORTFOLIO OF COMPLETED CONTRACTS

Brief description

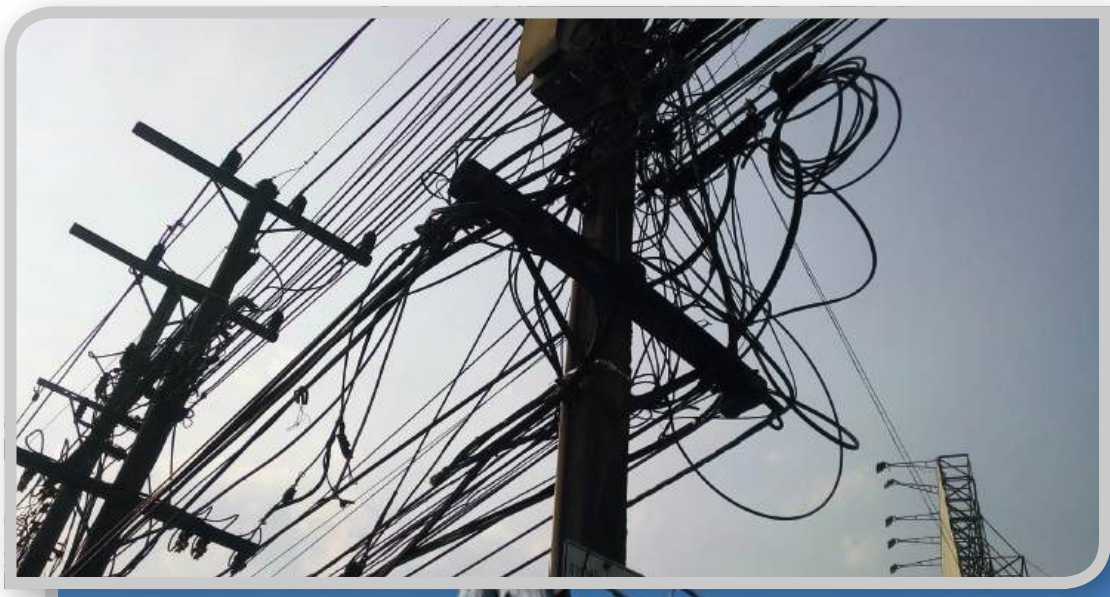
RECONSTRUCTION AND MODERNIZATION OF ENGINEERING SYSTEMS, TRANSITIONING TO “SMART” SOLUTIONS

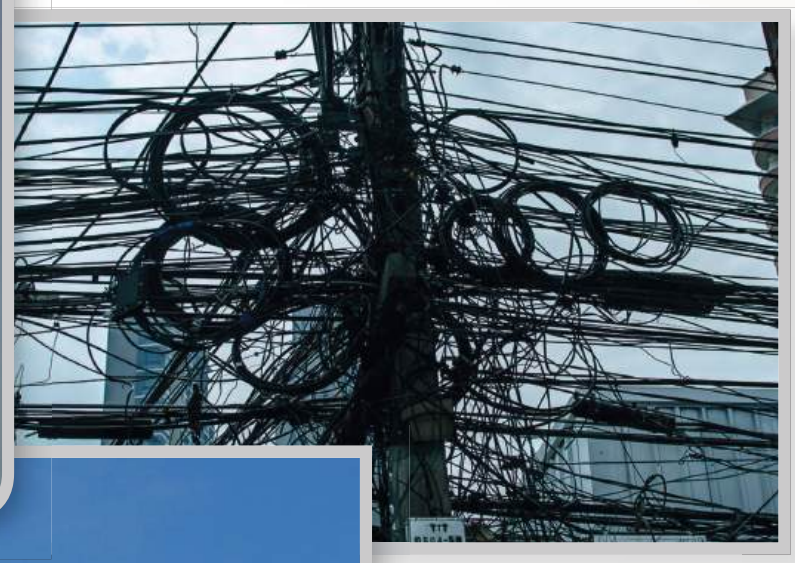
reconstruction and modernization of engineering systems, transitioning to “smart” solutions is a major and current repair of engineering networks in cities, districts and villages using the latest methods and systems of progressive automation. Reconstruction and modernization of engineering communications with transfer to «smart» solutions implies partial or complete replacement of all networks of engineering communications, namely:

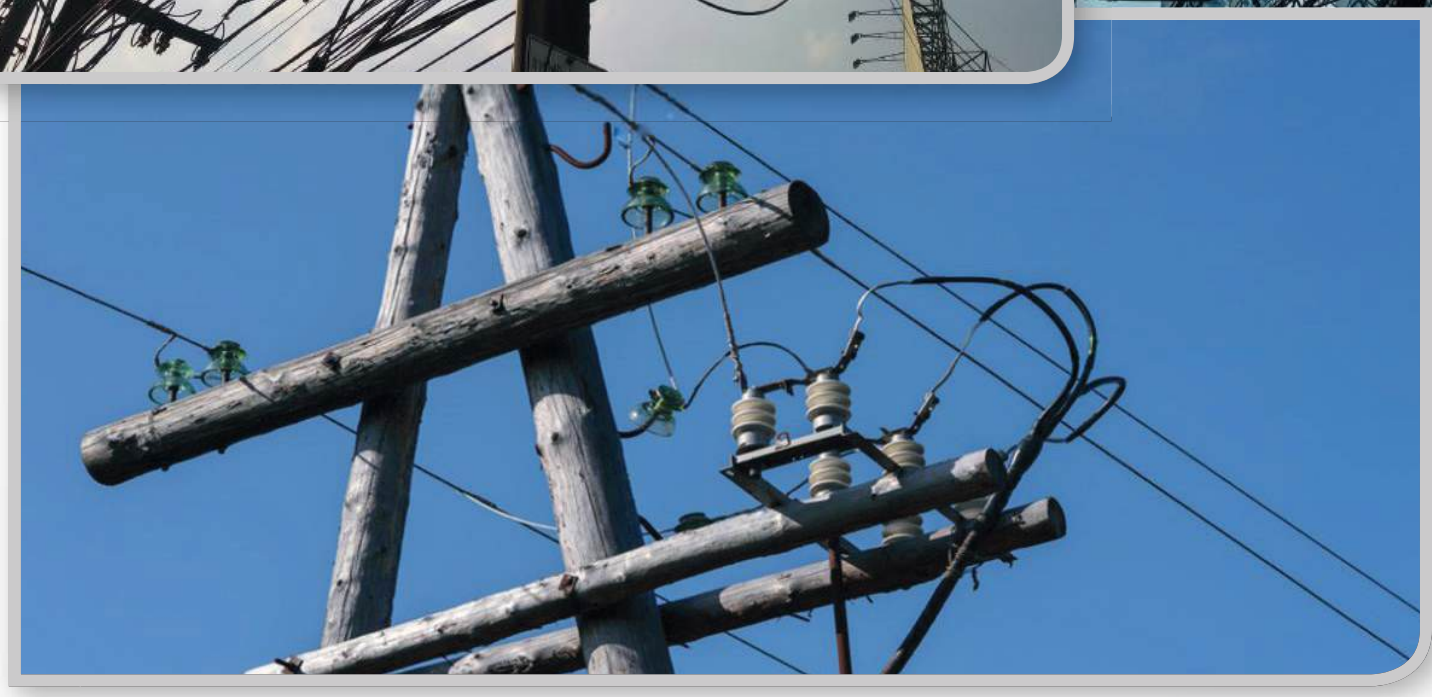
- heat supply (centralized or autonomous systems);
- water supply, drainage, sewerage for household and industrial wastewater disposal;
- drainage, storm water drainage;
- ventilation, air conditioning, air purification (including industrial facilities with special requirements for filtration, temperature regime, air exchange intensity);
- power supply;
- automation and security equipment (access control and management, video surveillance, fire alarm system and others).

Advantages: our company has all the necessary production facilities on the basis of the plant «TEPLOSTROYPROYEKT-S» for the successful realization of such projects. We guarantee saving of time, material and financial resources, minimal interference in the operation of engineering communications, as well as minimal disruptions in the operation of facilities. Scope of application: improvement of cities, districts, villages, urban-type settlements and other units of administrative-territorial division, as well as replacement of engineering networks at large social facilities.

OUR CAPABILITIES
IN THE RECONSTRUCTION AND MODERNIZATION OF POWER GRIDS





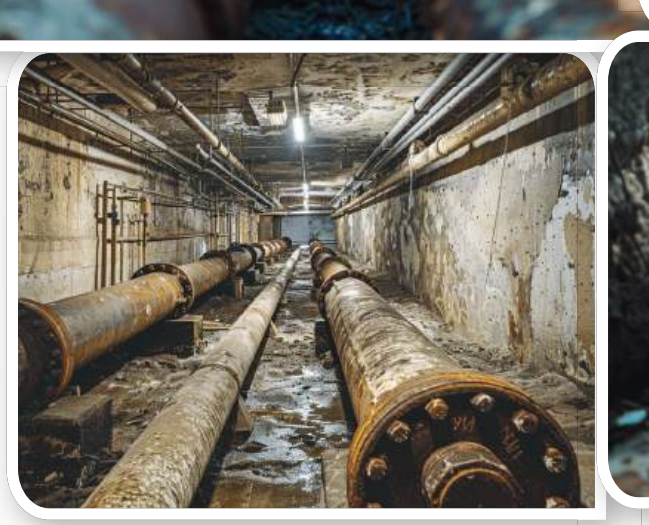


BEFORE

AFTER

OUR CAPABILITIES
FOR RECONSTRUCTION AND MODERNIZATION OF GAS NETWORKS

BEFORE



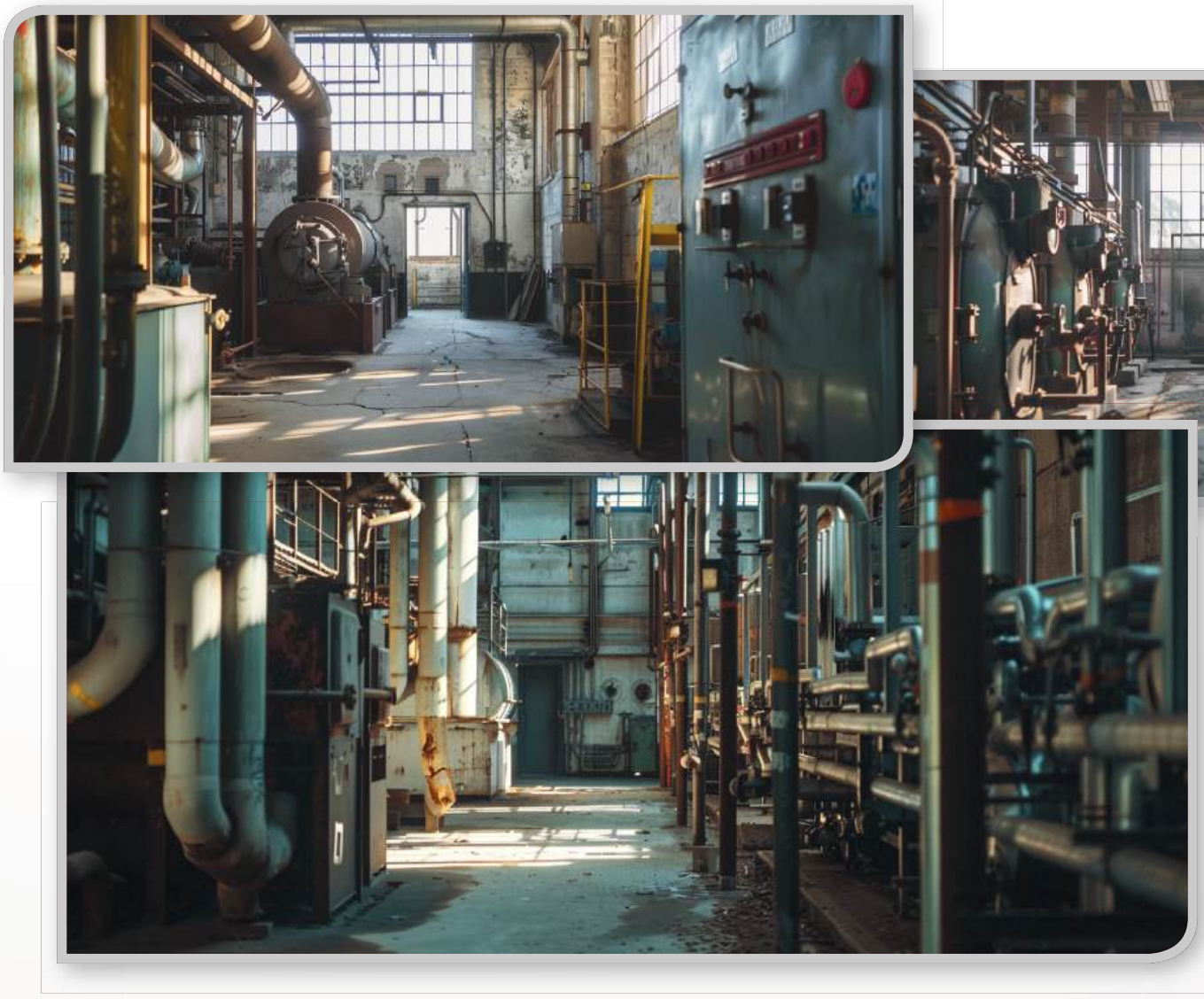
AFTER

OUR CAPABILITIES
IN THE RECONSTRUCTION AND MODERNIZATION OF UTILITIES

BEFORE

AFTER

OUR CAPABILITIES
FOR RECONSTRUCTION AND MODERNIZATION OF BOILER PLANTS



BEFORE

AFTER

AS WE PRODUCE

TRIGENERATION AND VENTILATION

RECONSTRUCTION AND MODERNIZATION OF ENGINEERING SYSTEMS, TRANSITIONING TO “SMART” SOLUTIONS

HOW WE PRODUCE

PRODUCTION AND TECHNICAL DEPARTMENT , DESIGN INSTITUTE , FACTORY, CONSTRUCTION AND INSTALLATION DEPARTMENT, WARRANTY AND POST-WARRANTY MAINTENANCE SERVICE

PORTFOLIO OF COMPLETED CONTRACTS

CONTRACT IMPLEMENTATION SCHEME

ROADMAP FOR ACHIEVING THE GOAL THROUGH TASK SOLUTIONS IN THE BUSINESS PROCESS "FROM INCOMING REQUEST TO CONTRACT IMPLEMENTATION»

PTD	DI	FACTORY	CID	SERVICE
1. COLLECTION OF INITIAL PERMITS AND DOCUMENTATION 2. DEVELOPMENT OF IMPLEMENTATION SCHEDULES AND WORK PRODUCTION PLAN 3. MARKET ANALYSIS, PROCUREMENT OF MATERIALS ACCORDING TO SPECIFICATIONS, COST ESTIMATION OF THE PROJECT 4. PREPARATION OF THE DOCUMENT PACKAGE FOR PROJECT CLOSURE	1. CONDUCTING ENGINEERING SURVEYS 2. DEVELOPMENT AND APPROVAL OF DESIGN AND ESTIMATE DOCUMENTATION 3. PREPARATION OF PROJECT IMPLEMENTATION DOCUMENTATION (DRAWINGS, DETAILED METAL STRUCTURE DRAWINGS, CUTTING LAYOUT)	1. MANUFACTURING OF STRUCTURES AND ELEMENTS ACCORDING TO THE PROJECT 2. QUALITY INSPECTION AND ASSEMBLY OF STRUCTURES 3. TRANSFER OF THE MANUFACTURED PRODUCTS TO THE WAREHOUSE	1. SITE PREPARATION FOR INSTALLATION (CONSTRUCTION) 2. EXECUTION OF CONSTRUCTION AND INSTALLATION WORKS 3. COMMISSIONING OF THE FACILITY AND HANDOVER TO THE CLIENT 4. WARRANTY AND POST-WARRANTY SERVICE	1. WARRANTY SERVICE 2. POST-WARRANTY TECHNICAL MAINTENANCE 3. TRAINING AND INSTRUCTION OF THE CLIENT'S PERSONNEL

1. PRE-CONTRACT WORK

- TRADE DEPARTMENT – CONTRACT SERVICE: INCOMING REQUEST FOR A COMMERCIAL OFFER (TCO), PROCESSED AFTER VERIFYING THE CUSTOMER'S RELIABILITY.
- TECHNICAL JUSTIFICATION (DESIGN AND TECHNOLOGY DEPARTMENT, DESIGN INSTITUTE, FACTORY, CONSTRUCTION AND INSTALLATION DEPARTMENT)
- FEASIBILITY ASSESSMENT
- ECONOMIC JUSTIFICATION (PRELIMINARY ECONOMIC ASSESSMENT)
- SDO
  COMMERCIAL OFFER (CO)
  (COST PRICE, SCHEDULE, ANALYSIS OF 3 COMPETITOR PRICES, MARGIN)
- LEGAL DEPARTMENT
  CONTRACT
- ACCOUNTING
  CUSTOMER ORDER
  ADVANCE PAYMENT

2. CONTRACT EXECUTION PREPARATION

- PRODUCTION AND TECHNICAL DEPARTMENT (PTD) IMPLEMENTATION SCHEDULE
  CONTRACT FULFILLMENT ORDER (CFO)
  CONTRACT PREPARATION AND FULFILLMENT ORDER (CPFO)
- DESIGN INSTITUTE (DI)
  PROJECT
  SPECIFICATION
- PTD – PRODUCTION AND TECHNICAL DEPARTMENT
  PPG – PROJECT PROCUREMENT GROUP
  PROCUREMENT
  SPECIFICATION
- PTO-MTO
  PURCHASE OF MATERIALS
  (PLANT, SMU)
- PTD-MTS – MATERIALS AND TECHNICAL SUPPORT DEPARTMENT
  MATERIAL PROCUREMENT
  (FACTORY, CONSTRUCTION AND INSTALLATION DEPARTMENT)
- WAREHOUSE – GOODS RECEIPT – PRODUCTION TRANSFER
- PRODUCTION SCHEDULE
  (FACTORY, CONSTRUCTION AND INSTALLATION DEPARTMENT)
  PTD-PPG – PRODUCTION AND TECHNICAL DEPARTMENT – PROJECT PROCUREMENT GROUP

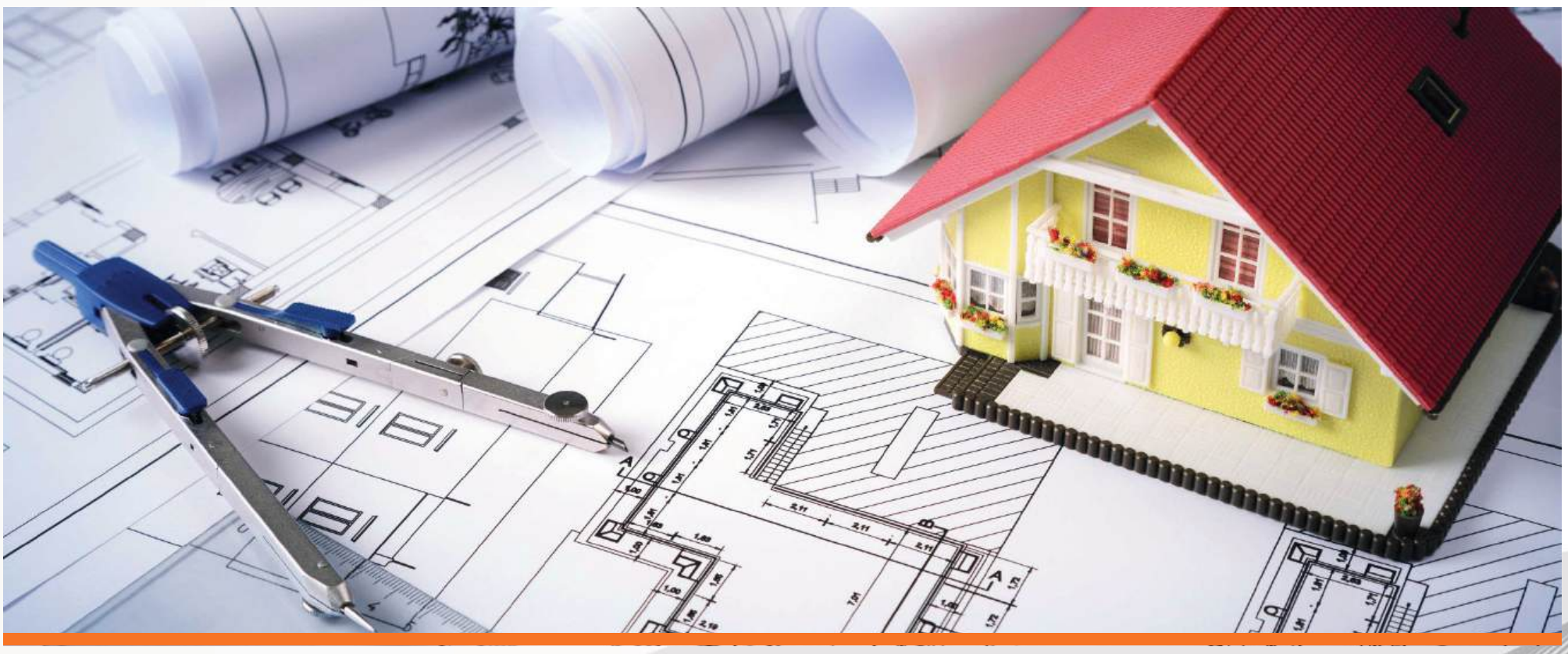
3. CONTRACT IMPLEMENTATION

- FACTORY
  SECTION 1: STEEL PROCESSING
  AREA 1: STRUCTURAL STEEL PROCESSING
  AREA 2: SHEET STEEL PROCESSING
- FACTORY
  SECTION 2
  ASSEMBLY, WELDING, BEVELING, PRESSURE TESTING
- FACTORY
  SECTION 3.
  PAINTING, CLADDING, MASONRY, ELECTRICAL WORK, INSTRUMENTATION AND CONTROL, MARKING, PACKAGING, TRANSFER TO WAREHOUSE
- PTD
  PERMITTING, TECHNICAL, AND AS-BUILT DOCUMENTATION
- FINISHED PRODUCTS STORAGE
- CONSTRUCTION SCHEDULE
  CONSTRUCTION AND INSTALLATION DEPARTMENT (CID)
  PROJECT
  MATERIALS AND EQUIPMENT
- CONSTRUCTION AND INSTALLATION DEPARTMENT (CID)
  SECTION 1
  GENERAL CONSTRUCTION DIRECTION
- CONSTRUCTION AND INSTALLATION DEPARTMENT (CID)
  SECTION 2
  ENGINEERING SOLUTIONS
- CONSTRUCTION AND INSTALLATION DEPARTMENT (CID)
  SECTION 3
  INTERIOR WORKS
- CONSTRUCTION AND INSTALLATION DEPARTMENT (CID)
  SECTION 4
  SMART HOME MANAGEMENT
- GUARANTEED POWER SUPPLY SYSTEM (GESS)
  ELECTRICAL INSTALLATION, PRE-COMMISSIONING AND COMMISSIONING
- CONSTRUCTION AND AUTHOR SUPERVISION
- PTD-C&H – COMMISSIONING AND HANDOVER
  FACILITY COMMISSIONING, FINAL SETTLEMENT WITH THE CLIENT
- PTD-CID
  AS-BUILT AND TECHNICAL DOCUMENTATION
- PTD
  WARRANTY SERVICE
- CID
  POST-WARRANTY SERVICE

FACILITY IS READY AND COMMISSIONED
COMMISSIONED

PTD

1. COLLECTS INITIAL PERMIT DOCUMENTATION
2. GENERATES SPECIFICATION SCHEDULES
3. CALCULATES THE COST OF THE PROJECT
4. PREPARES THE PROJECT OF PRODUCTION WORKS
5. PREPARES AUTHORIZATION DOCUMENTATION:
   -TECHNICAL DOCUMENTATION
   -AS-BUILT DOCUMENTATION



DESIGN INSTITUTE

1 CONDUCTS ENGINEERING SURVEYS

2 DEVELOPS DESIGN AND ESTIMATE DOCUMENTATION

3 PREPARES ALL THE NECESSARY DOCUMENTATION FOR MANUFACTURING OF STRUCTURES (DRAWINGS, KMD, NESTING MAPS).

1 SMART CONSTRUCTION

1.1

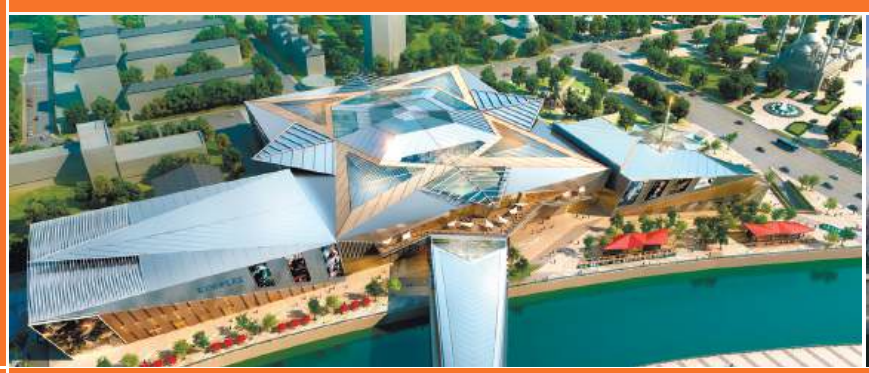
2 TRIGENERATION AND VENTILATION, ENGINEERING SYSTEMS, THEIR RECONSTRUCTION AND MODERNIZATION WITH CONVERSION TO «SMART» SOLUTIONS

SOLUTIONS ELECTRICITY

HEAT SUPPLY

COLD SUPPLY

3 STEEL STRUCTURE FABRICATION & BRIDGE CONSTRUCTION



4 READY-MADE BUSINESS SOLUTIONS

5 TURNKEY PROJECT AND HOME PACKAGE, ONLINE STORE

1. GENERAL CONSTRUCTION DIRECTION
2. ENGINEERING DIRECTION
3. INTERIOR FIT-OUT
4. HOME OUTFITTING. PROJECT OUTFITTING
5. SMART HOME AND PROJECT MANAGEMENT
6. ONLINE STORE

FACTORY

«Teplostroyproyekt-S» is the company that carries out all production processes of the Group of Companies. It occupies 70,000 square meters of production space.
More than 100 units of advanced equipment are involved in the manufacture of products: steel cleaning shotguns, band saws, plasma cutting machines, rolling machines, automated welding robots.
The company provides full engineering support of projects - from the application acceptance stage to post-warranty service of the realized products.

FACTORY.
EQUIPMENT USED AT THE FACTORY FOR PRODUCT MANUFACTURING

QHT6910B SHOT BLASTING MACHINE

It is used for cleaning metal from rust and corrosion.

KESMAK KMY DG450 BAND SAW MACHINE.

Capacity at 90°: Round: 450 mm
Square: 450 x 450 mm
Plate: 450 x 680 mm
Capacity at 60°: Round: 450 mm
Square: 450 x 450 mm
Plate: 450 x 570 mm
Capacity at 45°: Round: 450 mm
Square: 420 x 420 mm
Plate: 350 x 480 mm
Capacity at 30°: Round: 350 mm
Square: 330 x 330 mm
Plate: 240 x 450 mm

TWO BAND SAW MACHINES IRON-CUT S610R

Cutting parameters:
Round: 450 mm,
Rectangle: 610x420 mm.

BAND SAW MACHINE IRON-CUT CH5085

These machines are designed for cutting large workpieces with a round cross-section up to 500 mm and square cross-section up to 850x500 mm.

BAND SAW IRON-CUT S440R

Cutting capacity of the processed part At 90°:
Round: 480 mm
Square: 480 x 480 mm / Square: 650 x 480 mm

At 45°: Round: 450 mm
Square: 440 x 440 mm / Square: 510 x 300 mm

At -45°: Round: 420 mm
Square: 400 x 400 mm / Square: 440 x 300 mm

At 60°: Round: 350 mm
Square: 330 x 330 mm / Square: 290 x 480 mm

At -60°: Round: 340 mm
Square: 330 x 330 mm / Square: 280 x 480 mm

ONE PLASMA CUTTING MACHINE HPR260

With cutting power for sheet metal up to 60 mm thick.

TWO PLASMA CUTTING MACHINES WITH FRAMES 12X3M HPR260XD.

With a cutting capacity for sheet metal up to 60 mm.

PIPE BENDING MACHINE

With a bending capacity for pipes from ø42 mm to ø108 mm.

SMALL ROLLING MACHINE ASM-S-170-20

With a rolling capacity for sheet metal up to 6 mm thick and 2100 mm wide.

MEDIUM ROLLING MACHINE AKYAPAK AHS 30-10

With a rolling capacity for sheet metal from 4 mm to 12 mm thick and up to 3100 mm wide.

FACTORY.
EQUIPMENT USED AT THE FACTORY FOR PRODUCT MANUFACTURING.

LARGE ROLLING MACHINE 4R HSS 30-400 SAHINLER

With a cutting capacity for sheet metal up to 6 mm thick and up to 3100 mm wide.

SMALL GUILLOTINE HGL 3100X6

With a cutting capacity for sheet metal up to 6 mm thick and up to 3100 mm wide.

LARGE GUILLOTINE MGH 3100X13

With a cutting capacity for sheet metal up to 13 mm thick and up to 3100 mm wide.

PRESS BRAKE APH 3106X120

With a cutting capacity for sheet metal up to 13 mm thick and up to 3100 mm wide.

OVER 70 MIG 5000 SEMI-AUTOMATIC WELDING MACHINES (SVAROG)

Industrial welding inverter designed for connection to a three-phase 380V power supply, allowing operation with a welding current range from 20 to 500 amps.

WELDING TRACTOR (AUTOMATIC)

A self-propelled device that moves along the weld seam on a workpiece or guide rail, feeding electrode wire and flux into the welding zone.

WELDING ROBOT

A robotic system designed for welding large steel components with thicknesses up to 90 mm.

FACTORY. PRODUCTION STAGES

1 STAGE

METAL CUTTING

SHAPED CUTTING OF SHEET AND ROLLED STEEL, PIPES, CHAMFERING, ETC. IS PERFORMED ON TWO PLASMA CUTTING MACHINES. TO WORK WITH STEEL AND NON-FERROUS STEEL ALLOYS OF VARIOUS PROFILES BAND SAWS ARE USED, AND FOR CUTTING SHEET AND COIL STEEL - GUILLOTINE MACHINES.
STEEL - GUILLOTINE

PLASMA CUTTING MACHINE
6X3M HPR260

PLASMA CUTTING MACHINE
12X3M HPR260XD

FACTORY. PRODUCTION STAGES

2 STAGE

STEEL BENDING

In this stage, a hydraulic press brake is used for thick sheet metal and for the production of variable radius parts in an automatic work cycle. Manual sheet metal bending machines and metal bending rollers are used for thin sheet metal and to produce parts with small diameters.

ELECTROMECHANICAL ROLLERS. 3 ROLLERS ASM-S 200-20/7

HYDRAULIC ROLLERS AKYAPAK AHS 30-10

FACTORY. PRODUCTION STAGES

3 STAGE

STRUCTURAL ASSEMBLY

Next, structures are assembled, including pipes, ducts, ductwork and chimneys.

WELDING SEMI-AUTOMATIC WELDING MACHINE SVAROG MIG 5000

WELDING SEMI-AUTOMATIC WELDING MACHINE SVAROG MIG 5000

FACTORY. PRODUCTION STAGES

4 STAGE

PAINTING AND CORROSION PROTECTION

After assembly the structures are subjected to anti-corrosion treatment and painting. The technical equipment of the plant allows air and airless spraying of paint materials. All materials used are only from leading manufacturers.

FACTORY. PRODUCTION STAGES

5 STAGE

POWER SUPPLY AND AUTOMATION

Production of cabinets and installation of electrical power equipment is carried out at the I&C section. All Customer’s wishes on automation are taken into account - from control and measuring equipment to software.

FACTORY. PRODUCTION STAGES

6 STAGE

FINAL ASSEMBLY

The final assembly shop uses slipway equipment for assembly of modular structures. Its volume allows simultaneous assembly of six modular boiler houses of different capacity.

CONSTRUCTION AND ASSEMBLY DEPARTMENT. PRODUCTION STAGES

7 STAGE

TRANSPORTATION TO THE PREPARED SITE

Delivery to the site is carried out by standard cargo transportation without additional costs, because during manufacturing we immediately plan solutions that will allow us to deliver the modular boiler units to the installation site.

CONSTRUCTION AND ASSEMBLY DEPARTMENT. STAGES OF PRODUCTION

THE FACILITY IS READY AND COMMISSIONED

WARRANTY AND POST-WARRANTY MAINTENANCE SERVICE

LIST OF SERVICES OF THE SERVICE DEPARTMENT:

- Equipment repair during the warranty period of operation
- Repair of equipment after the warranty period expiration
- Service works - Supervision

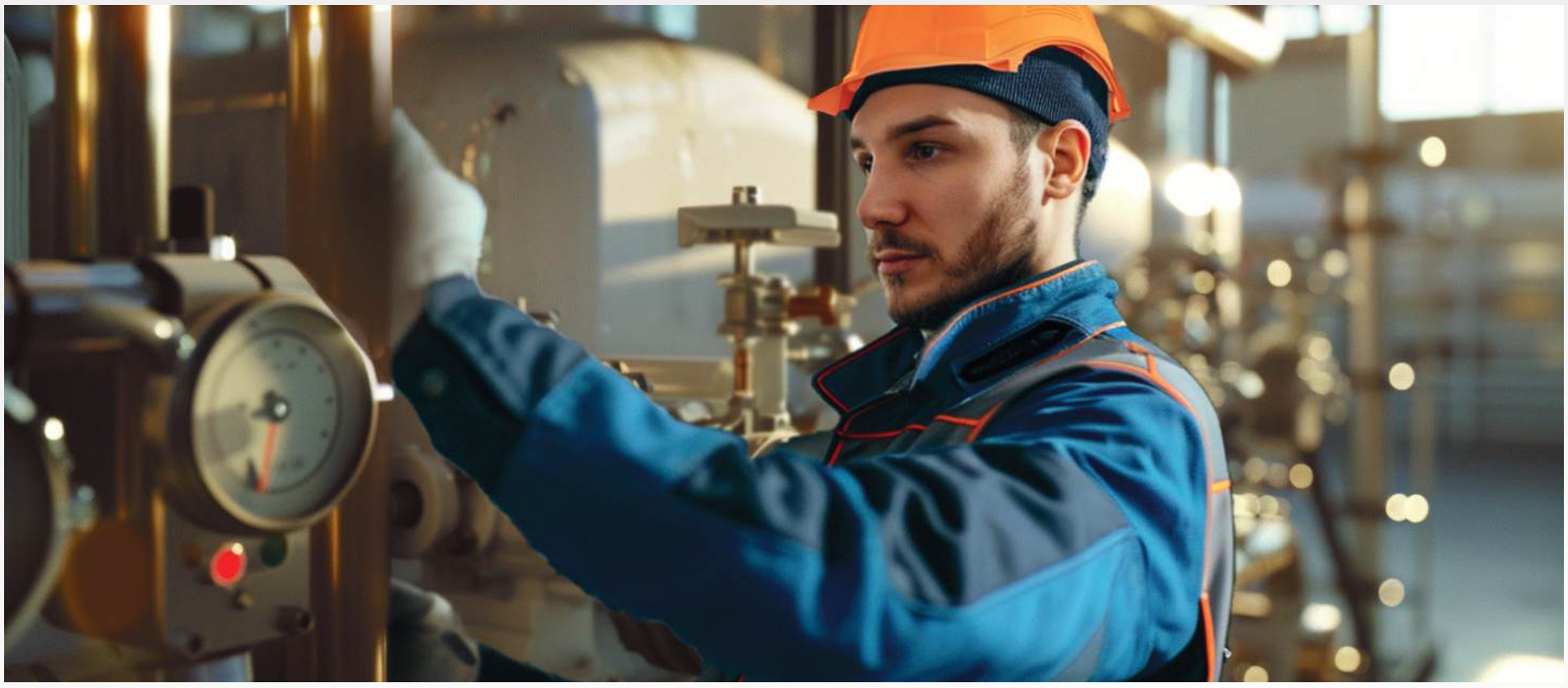
RIM SERVICE» SERVICE COMPANY WILL PROVIDE QUALIFIED FULFILLMENT OF THE FOLLOWING WORKS:

- routine maintenance and service of the equipment in operation
- repair of faulty equipment, dismantling of equipment by our specialists
- repair of unique equipment

TO ESTIMATE THE SCOPE OF WORK IT IS REQUIRED TO SEND AN APPLICATION ON LETTERHEAD WITH THE FOLLOWING INFORMATION TO «TEPLOSTROYPROYEKT-S»:

- Specific model of the equipment;
- Location of the equipment;
- Condition of the equipment;
- Required terms of work fulfillment;
- Name, position, contacts of the representative of the customer;
- Details of the company-customer.

After receiving the necessary information, specialists of the plant together with the Customer will proceed to development of TOR for repair. The repair term depends on the complexity of the TOR.



WARRANTY SERVICE

Our company provides warranty for all supplied equipment. The service company is always ready to quickly start to eliminate possible malfunctions after the Customer's request. Equipment repair is performed using original spare parts and components.

POST-WARRANTY TECHNICAL SERVICE.

The service company renders services on diagnostics, technical and preventive maintenance, repair of operating equipment, prolonging its service life.

TRAINING AND INSTRUCTION OF THE CUSTOMER'S PERSONNEL

Specialists of the company provide training of the Customer's service personnel on work on the equipment and its maintenance.

PORTFOLIO OF COMPLETED CONTRACTS

TRIGENERATION AND VENTILATION

- RECONSTRUCTION AND MODERNIZATION OF ENGINEERING SYSTEMS, TRANSITIONING TO “SMART” SOLUTIONS

HOW WE PRODUCE

PRODUCTION AND TECHNICAL DEPARTMENT , DESIGN INSTITUTE , FACTORY, CONSTRUCTION AND INSTALLATION DEPARTMENT, WARRANTY AND POST-WARRANTY MAINTENANCE SERVICE

PORTFOLIO OF COMPLETED CONTRACTS

2 TRIGENERATION AND VENTILATION. RECONSTRUCTION AND MODERNIZATION OF ENGINEERING SYSTEMS, TRANSITIONING TO “SMART” SOLUTIONS

BLOCK-MODULE BOILER HOUSE 250 MW AND 116 MW KRASNODAR, KRASNODAR KRAI

CONSTRUCTION AND INSTALLATION WORKS FOR THE CONSTRUCTION OF A HEATING NETWORK FOR A GREENHOUSE FACILITY KEDR» COMPLEX

ASTRAKHAN OBLAST

WE HAVE ALSO CONSTRUCTED BOILER PLANTS FOR THE FOLLOWING PROJECTS:

Facility	Location	Capacity, kW
Government Complex	Ingushetia, Magas	12 000
Khazar Stadium	Dagestan, Kaspiysk	6 000
School	Ingushetia, Magas	2 000
District Hospital	Dagestan, Hebda	1 500
Canning Plant	Ingushetia, Troitskaya	4 500
Heat Networks	Dagestan, Makhachkala	18 000; 17 000; 5 000; 12 000; 8 000; 1 000
School	Ingushetia, Malgobek	10 500
Heat Networks	Dagestan, Kaspiysk	1 200
Border Outpost	Abkhazia	1 260
Television	Ingushetia, Magas	3 000
Oncology Hospital	Ingushetia, Plievo	2 000
School	Ingushetia, Kantyshevo	2 000
School	Ingushetia, Magas	2 000
Heat Networks	Dagestan, Makhachkala	32 000; 24 000; 3 200; 5 100; 1 500
Presidential Residence	Ingushetia	1 5000
Children's Rehabilitation Center	Ingushetia, Magas	2 200
School	Ingushetia, Dolakovo	1 020
Hospital	Dagestan, Makhachkala	1 020
Military Unit	Ingushetia, Nazran	4 000
District Administration	RSO-Alania, Prigorodny District, Oktyabrskoye	3 000
School	RSO-Alania, Prigorodny District, Arkhonskaya	2x300
School	RSO-Alania, Prigorodny District, Gizel	2x300, 150, 350

ALSO IMPLEMENTED BY US ARE BOILER HOUSES FOR THE FOLLOWING FACILITIES:

Facility	Location	Capacity, kW
Central Hospital	Chechen Republic, Gudermes	10 000
ABMK	Chechen Republic, Grozny, Minutka district	15 000
ABMK	Chechen Republic, Grozny, Microdistrict	32 000
ABMK	Chechen Republic, Grozny, Mayakovsky street	24 000
ABMK	Grozny, Guryevskaya street	24 000
Design and construction of ABMK	Astrakhan, Kramatorskaya street	4 230
Construction of ABMK-12000	Astrakhan, Kulikova street	12 000
Construction of block-modular boiler house ABMK-2000	Astrakhan	2 000
OAO PSK «Stroitel Astrakhani»	Astrakhan	13 400
OAO PSK «Stroitel Astrakhani»	Astrakhan	12 000
Construction of combined block-modular boiler house	Astrakhan region	6 000
Construction of complete automated block-modular boiler unit	Novorossiysk	23 000
«Armavirsky Khleboprodukt» Supply of ABMK boiler house	Novokubansk	300
LLC «Dzetta Group» Supply of ABMK boiler houses	Krasnodar region, Temryuk district	180, 140, 160, 250, 400, 180, 500, 500, 180, 300, 180, 300, 140
Reconstruction of production at JSC «Mezhregion Torg Invest»	Kostroma	20 т/ч

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