



# The PROFIREX

prefabricated modular equipment shelter and turnkey industrial solutions PORTFOLIO





The PROFIREX prefabricated modular equipment shelter is a prefabricated transportable modular building solution. PROFIREX shelters are constructed as either a frame sheathed with sandwich panels or as a full steel structure, depending on the required degree of fire resistance, strength characteristics and other customer requirements.

#### Full steel structure modular equipment shelter

The design of this type of modular shelter is a continuously welded frame, sheathed with metal corrugated panels made of 1.5 mm thick insulated, non-combustible materials. The panels are pressure-tight and welded to the frame to form a single metal shell, which gives the container extra rigidity and an increased safety margin. In addition, this design allows recessed mounting of embedded items on the walls and roof. Modular equipment shelters of this design hold up well to blast waves.

#### Modular equipment shelters made of prefabricated sandwich panels

This type of container is made of a continuously metal frame insulated with fully shop-assembled sandwich panels. The prefabricated panels are attached to the frame with special hardware. This modular shelter design is more versatile than our full steel modular structure and allows you to quickly erect mobile buildings for any task and purpose. Note: The recessed mounting of embedded items is not possible with this type of shelter design.

PROFIREX shelters are made of one or more modules to facilitate transportation to the site and to reduce transportation costs



#### **PURPOSE AND APPLICATIONS**

Our custom equipment shelters are used in a variety of applications, including:

- Fire pump stations
- Valve chambers
- Deluge skids
- Dosage systems for firefighting additives
- Emergency diesel generation stations
- Gas fire extinguishing stations
- Substations (10 to 2,500 kW)
- Telecommunication equipment
- Water treatment stations
- Boiler rooms
- Compressor equipment
- Control rooms
- Any other application upon customer's request request, any of these.



#### **SPECIFICATIONS**

PARAMETER	VALUE
Fire danger index according to Federal Law No 123-FZ, SP 2.13130.2020	F5.1
Structural fire danger index according to Federal Law No 123-FZ, SP 2.13130.2020	CO
Explosion and fire danger class according to SP 12.13130.2009	D
	U for temperate climate
Climatic modifications according to GOST 15150-69	HL for frigid climate
Climatic modifications according to GOS1 13130-09	UHL for boreal climate
	OM for marine climate
Earthquake resistance	Up to 9 points MSK
Shelf life not less than	15 years
Grade of fire resistance according to Federal Law No 123-FZ, SP 2.13130.2012	I, II, III, IV upon request
Execution	Fixed, mobile



Sakhalin-I CODAP modular shelter for automation unit

## **SERVICES**

The automation unit was designed to house control cabinets for:

- Automation systems
- Fire alarm and intruder alarm control cabinets
- Video surveillance systems
- Communication systems
- Local control systems
- All other systems with the exception of equipment for second level APCS systems.

# **CUSTOMER**

Advantek Engineering

December 2016

#### **DESCRIPTION**

The modular shelter for the automation unit was manufactured to be earthquake resistant, which was confirmed by calculations, test reports and certifications. The earthquake resistant calculations were made considering the requirements of GOST 30546.1, GOST 30546.2, GOST 30546.3.









# | PROCESS EQUIPMENT CONTAINER UNITS PROFIREX

# SPECIFICATIONS [BEGINNING]

PARAMETER	VALUE
Duty	Constant
Structure type	Container type ready-to-operate solid finite element
Operating temperature of the equipment housed inside the automation unit	Not less than plus 5 °C and not more than plus 40 °C
Installation	On pile foundation
Main voltage	380/220 V, 50 Hz
Effective life	Not less than 20 years
Guaranteed period	24 months
Documentation	Complete documentation package for the PROFIREX shelter
Services	Engineering, design and fabrication of the modular shelter
PARAMETERS OF THE PROFIREX SHELTER	
Importance level of building	Normal
Structural fire danger index according to Federal Law No 123-FZ, SP 2.13130.2020	CO
Grade of fire resistance according to Federal Law No 123-FZ, SP 2.13130.2020	IV
Climatic modification according to GOST 15150-69	UHL1
Seismic Stability	S – seismic resistant up to 9 points MSK-64
Dimensions	9000x3000x3000 mm
Frame	Continuously welded carrying frame reinforced by longitudinal and transverse members
Walling	Prefabricated 3-layer 120 mm sandwich panels skinned with coated galvanized steel
Flooring	Coated metal sheets with diamond thread pattern insulated with 200 mm rock wool (fire resistance EI90)
Roof	Prefabricated 3-layer 150 mm sandwich panels on a double pitched roof
SUPPORT SYSTEMS (UTILITIES)	
Lighting	Working, emergency, exterior
Heating	Automatic with electric infrared heaters
Ventilation	Natural supply/natural exhaust ventilation + mechanical exhaust ventilation



# SPECIFICATIONS [CONTINUATION]

Air Conditioning	Split system main + reserve
SAFETY SYSTEMS	
Fire Detection System	Smoke and manual fire detectors
Security Alarm System	2 level security alarm system. Smoke optic electronic detectors + movement transducers
Fire Warning	Lighted sound annunciator
GASEOUS FIRE SUPPRESSION INSTALLATION	The installation includes the following equipment:  - MPA-ULT (50-52-50) A cylinder assembly filled with «NovecTM 1230» gas extinguishing agent. The operating pressure in the cylinder at 20°C is 42 bar. Release unit of assembly is operated electrically.  - The pressure switch SDU is intended to detect gas released and installed on a pipeline.  - The cylinder supervisory pressure switch is intended to detect a fall in pressure in a cylinder and is installed on a cylinder's valve.  - High pressure flexible discharge hose NVC DN50 is intended to connect the cylinder with the gas discharge pipeline network.  - NVC discharge nozzles allow for a faster rate of vaporization and distribution of agents in a protected area.  - Electromagnetic EA45M release unit for clean agent release.  The following methods of actuation of the gaseous fire suppression installation are envisaged:  a) automatic - by automatic fire detectors  b) remotely from a remote button installed at the entrance of the automation unit
Extras	100% reserve volume of NovecTM 1230 Clean Agent



Prefabricated Shed Type Insulated Fire Hydrants BPG **PROFIREX** 

## **SERVICES**

Install a gas compressor plant at agas gathering station at the Chayandinskoye hydrocarbon resource field..

# **CUSTOMER**

Gazpromneft Zapolyary

# **DATE OF SUPPLY**

December 2016

#### **DESCRIPTION**

Prefabricated Shed Type Insulated fire hydrants BPG PROFIREX was a component of active fire protection at the site of the compressor plant. It was designed to be installed on the water supply. The BPG provides waterflow for firefighting through special sockets with shut-off valves and couplings to which fire hoses are attached. BPG is equipped with fire hoses and hand nozzles.



**VIDEO LINK** 







#### SPECIFICATIONS [BEGINNING]

SPECIFICATIONS.	
PARAMETER	VALUE
Duty	Periodic
Structure type	Ready-to-operate container type construction
Nominal diameter of discharge header DN, мм	150
Number of sockets on discharge header, pcs	4
Shut-off valves	Gate valve DN 80 PN10 – 4 pcs
Coupling DN, mm	80
Working pressure, bar	6-8
Pipe covering	Rock wool
Installation	Foundation plate
Main Voltage	380/220 V, 50 Hz
Effective life	Not less than 20 years
Guarantee period	24 months
Services	Engineering, design and fabrication of units supplied to customer's site
Documentation	Complete documentation package for BPG units
SUPPORT SYSTEMS (UTILITIES)	
Lighting	Working, exterior
Heating	Electrical heat tracing of pipes
PARAMETERS OF THE PROFIREX SHELTER	
Importance level of building	Normal
Structural fire danger index according to Federal Law No 123-FZ, SP 2.13130.2020	CO
Grade of fire resistance according to Federal Law No 123-FZ, SP 2.13130.2020	IV
Climatic modification according to GOST 15150-69	UHL1
Seismic Stability	«C0» – Non seismic resistant
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■ CO2 Fire Suppression Installation in prefabricated modular shelter

#### SERVICES

- Engineering & Design
- Equipment supply
- Installation supervision
- Start-up and commissioning

## **CUSTOMER**

Reconstruction of Sokur line operation dispatcher station (LODS) in Novosibirsk Region, Transneft Western Siberia, JSC.

## **DATE OF SUPPLY**

August 2017

#### **DESCRIPTION**

Carbon dioxin fire suppression system in PROFIREX prefabricated modular shelter was a modular building solution manufactured according to TU 25.11.10-001-65344199-2017.

The carbon dioxin fire suppression system in PROFIREX prefabricated modular shelter was designed for storage of main and reserve quantities of carbon dioxide extinguishing agent and discharge of gas extinguishing agent in the external pipelines of the automatic gas fire extinguishing installation.

The PROFIREX prefabricated modular shelter is a one-store modular building of maximum factory readiness equipped with heating, ventilation, necessary electrical and lighting equipment, as well as instrumentation and control equipment. Commissioning was provided after transportation and installation processes without disassembly and revision.

Automatic system of gas fire suppression of On Spot facility is a system of gas extinguishing for rail cars that are being loaded with petrol. To initiate the fire suppression system, the system must be triggered by two flame detectors positioned over each rail car dome. It can be also initiated manually or remotely by an operator from the safety of a control room. CO2 extinguishing agent is discharged through the hermetically sealed filling slide pipe directly to the dome of the rail car and prevents the explosion of combustible vapors in the rail car.









# | PROCESS EQUIPMENT CONTAINER UNITS PROFIREX

#### SPECIFICATIONS [BEGINNING]

PARAMETER	VALUE
GENERAL TECHNICAL CHARACTERISTICS	
Importance level of building	Heightened
Structural fire danger index according to Federal Law No 123-FZ, SP 2.13130.2012	C0
Fire danger index according to Federal Law No 123-FZ, SP 2.13130.2012	F5.1
Explosion and fire danger class according to SP 12.13130.2009	D
Grade of fire resistance according to Federal Law No 123-FZ, SP 2.13130.2012	I
Climatic modifications according to GOST 15150-69	UHL
Effective life	Not less than 20 years
Guarantee period	24 months
Provided services	Supply, installation, startup, and commissioning
Documentation	Complete documentation package for the installation of the PROFIREX shelter
PARAMETERS OF THE PROFIREX SHELTER	
Dimensions (LWH)	7000x2400x3130 mm
Thermal insulation	Mineral wool board 100/150 mm (fire-resistance rating EI90), density 125 kg/m3
Roof	Insulated single pitch roof, steel with anticorrosion treatment
Floor	Corrugated 4mm steel floor decking
Structure protection	Duplex priming with base coat thickness not less 60 μm
Painting	Matches customer branding or design style
Shipping clearances	Fall within clearance limits of road transport vehicles and Russian railway rolling stock; Slings and locking system are provided
SUPPORT SYSTEMS (UTILITIES)	
Lighting	Working, emergency, exterior
Heating	Electrical; the indoor temperature is not lower +5°C
Ventilation	Supply-and-exhaust ventilation air exchange rate 2; emergency mechanical ventilation smoke and heat extraction rate 8

# | PROCESS EQUIPMENT CONTAINER UNITS PROFIREX

SAFETY SYSTEMS	
Fire detection system	Smoke and manual fire detectors
Fire warning	Light and sound notification
Powder type fire extinguisher OP-5 ABCE in a set with a stand	- Quantity - 2 pcs
GAS FIRE SUPPRESSION SYSTEM	
Battery of cylinders comprising:  1. High pressure steel cylinders BZ MGP (150-60-15) A1 – 3 pcs  2. Carbone dioxide – 126 kgs  3. Frame RMZ-1-(150-60-15)-B-A1 – 1 pc  4. Discharge hose RVD 16.500 11 – 3 pcs  5. Manifold KG-1-(150-15)-410-3 – 1 pc  6. Weighing device – 3 pcs	- Quantity - 8 units
Controller UKM -1	- Quantity - 1 pc
Discharge pressure switch SDU	- Quantity - 4 pcs
Gas distribution pipelines to flooding zones	- Quantity - 4 pcs
Extras	<ul><li>– Piping network with shut off valves</li><li>– Instruments and controls</li><li>– Auxiliary switchboard</li></ul>



PREFABRICATED FOAM METERING STATION IN «PROFIREX» MODULAR **SHELTERT** 

#### SERVICES

- Engineering & Design
- Equipment supply
- Installation supervision
- Start-up and commissioning

## **CUSTOMER**

■ JSC Gazpromneft-Moscow Refinery

# DATE OF SUPPLY

August 2017

#### **DESCRIPTION**

The foam metering station in modular shelter is was designed to house the firefighting foam dosing equipment that and assures prompt low/medium/high expansion foam application on the truck loading racks for light petroleum products.

The ready-to-operate foam metering station in modular shelter is a one-stage building which is equipped with lighting, heating, and ventilation systems, as well as with all the necessary control-measuring instruments, automatic devices, and electrical equipment. It can be brought into operation immediately after its transportation, unloading and installation without any preliminary disassembly or inspection operations.

The foam metering station in modular shelter unit has 2 two inlets (main and auxiliary) for water supply from the underground fire main and four4 discharge outlets with paired activation and independent starts. Electrically controlled on-off deluge valves BERMAD under FIRE conditions are immediately opened allowing foam solution to flow into the piping system to the discharge devices. The horizontal bladder tank BT-FAS-HI (manufactured by FAS S.p.A.) stores foam concentrate inside the bladder and proportions it into the water stream. Foam concentrate filling/draining is assured by a high viscosity foam concentrate pump.

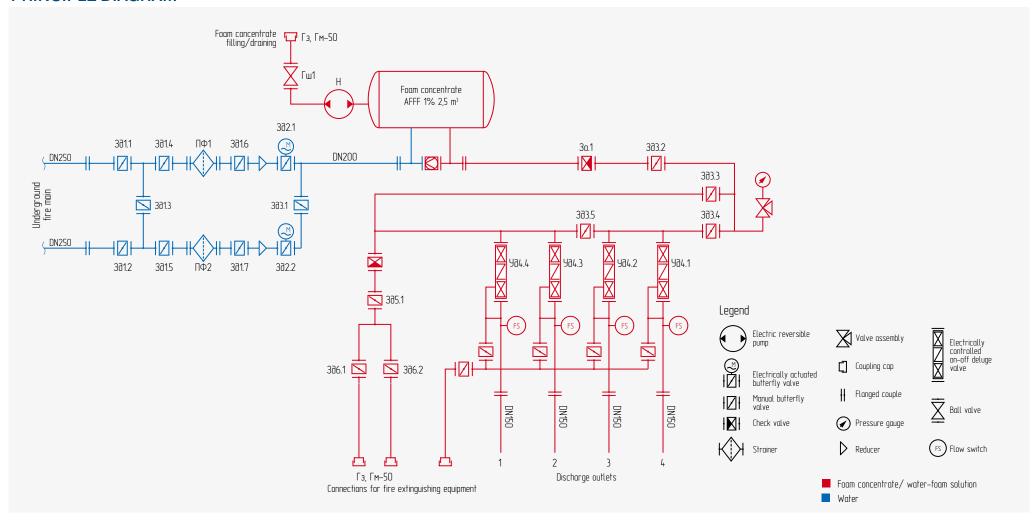








#### PRINCIPLE DIAGRAM



# | FIREFIGHTING CONTAINER UNITS

# SPECIFICATIONS [BEGINNING]

GENERAL TECHNICAL CHARACTERISTICS	4
Quantity of water inlets	2
Volume and type of foam concentrate being stored	2.5 m3, 1% AFFF
Quantity of distributing pipelines to discharge devices	4
Headers for connection of Fire Trucks	2 pcs
Foam concentrate filling/draining	Yes, 1 inlet/outlet. Fixed reversible pump.
Effective life	Not less than 20 years
Guarantee period	24 months
Provided services	Supply, installation, startup, and commissioning
Documentation	Complete documentation package for the unit and its component equipment
SUPPORT SYSTEMS	
Lighting	Working, emergency, outdoor
Heating	Indoor temperature is kept above +10 °C
Ventilation	Natural supply and exhaust ventilation
SAFETY SYSTEMS	
Fire alarm	Smoke detectors, manual fire alarm
Notification appliances	Sound and light alarm
STRUCTURE	
Importance level	Heightened
Structural fire danger index according to Federal Law No 123-FZ, SP 2.13130.2012	
Fire danger index according to Federal Law No 123-FZ, SP 2.13130.2012	C0
Explosion and fire danger class according to SP 12.13130.2009	F5.1
Grade of fire resistance according to Federal Law No 123-FZ, SP 2.13130.2012	D
Climatic modifications according to GOST 15150-69	II .
Dimensions	UHL
Thermal insulation	7,200 × 6,000 × 3,400 mm
Roof	Mineral wool board 100 mm (fire-resistance rating El90), density 125 kg/m <sup>3</sup>

# | FIREFIGHTING CONTAINER UNITS

# SPECIFICATIONS [CONTINUATION]

Floor	Corrugated steel floor decking
Shipping clearances	Fall within clearance limits of road transport vehicles and Russian railway rolling stock. Slings and locking system are provided
Facade coating	Double-layer primer enamel not less than 60 mm in thickness
Painting	According to customer's brand book
MAIN EQUIPMENT	
Horizontal bladder tank with foam inside the bladder BT-FAS-HI-25	<ul> <li>Quantity – 1 pc</li> <li>Volume of stored foam concentrate 2.5 m³</li> <li>Mixer BT-FAS-MIXER-6"</li> <li>Type of foam concentrate AFFF-1%</li> <li>Service life, not less than 20 years</li> <li>Completeness and documentation according to GOST R 52630-2012</li> <li>Standard of production ASME VIII Div. 1</li> <li>The delivery set includes operational documentation in Russian, welding procedure specification according to ASME IX and certificate of radiographic testing of welds.</li> </ul>
High viscosity foam concentrates pump (foam concentrate filling/draining)	<ul> <li>Pump flow: 6.0 m³/h;</li> <li>Pump power: 1.0 kW;</li> <li>Power supply 220 V;</li> <li>Suction head 5 m;</li> <li>Pump speed 1450 rpm.</li> </ul>
Electrically controlled on-off deluge valve BERMAD FP 400E-3D	<ul> <li>Quantity 4 pcs.;</li> <li>Electrical actuation by a solenoid pilot valve, 24 V DC;</li> <li>Valve full opening time approx. imately 2 seconds;</li> <li>line serviceable;</li> <li>Limit switches;</li> <li>DN 150, PN 1,6 MPa.</li> </ul>
Extras	<ul><li>– Piping and isolation valves;</li><li>– Control-measuring instruments and automatic devices;</li><li>– Power supply system.</li></ul>

PREFABRICATED FOAM METERING STATION IN «PROFIREX» MODULAR **SHELTER** 

#### **SERVICES**

- Engineering & Design
- Equipment supply
- Installation supervision
- Start-up and commissioning

# CUSTOMER

■ JSC Gazpromneft-Moscow Refinery

# **DATE OF SUPPLY**

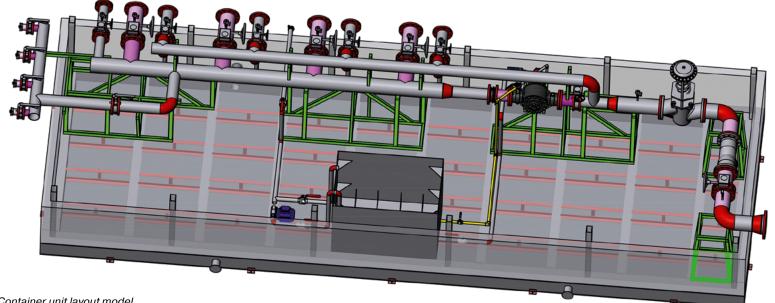
June 2017

#### **DESCRIPTION**

Prefabricated foam metering station in «PROFIREX» modular shelter was designed to house the automatic foam metering system for fire protection of a biological treatment plant.

The ready-to-operate container unit is a one-stage building which is equipped with lighting, heating, and ventilation systems, as well as with all the necessary control-measuring instruments, automatic devices, and electrical equipment. It can be brought into operation immediately after its transportation, unloading and installation without any preliminary disassembly or inspection operations.

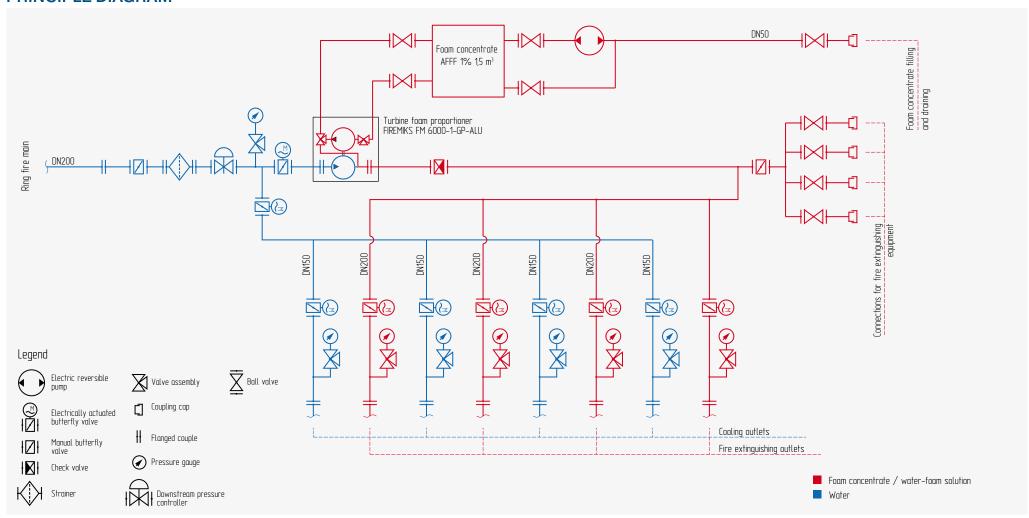
The foam metering station has one inlet from the fire main and four distribution pipelines for foam concentrate solution, as well as four water distribution pipelines for the cooling system. Foam concentrate is stored in a stainless-steel tank with a volume of 1.5 m3 and is proportioned into the water flow by a turbine foam proportioner with a gear foam pump FIREMIKS GP. The storage tank is equipped with a reversible pump which provides foam concentrate filling/draining as well as its mixing.



Container unit layout model



#### PRINCIPLE DIAGRAM





# SPECIFICATIONS [BEGINNING]

of Lon Toat Torto	
GENERAL TECHNICAL CHARACTERISTICS	
Quantity of water inlets	1
Volume and type of foam concentrate being stored	1.5 m3 , 1% AFFF
Quantity of foam distributing pipelines to discharge devices	4 pcs
Quantity of water distributing pipelines to cooling system	4 pcs
Headers for connection of fire trucks	4 pcs
Foam concentrate filling/draining	Yes, 1 inlet/outlet; fixed reversible pump
Effective life	Not less than 20 years
Guarantee period	24 months
Provided services	Supply, installation, startup, and commissioning
Documentation	Complete documentation package for the unit and its component equipment
SUPPORT SYSTEMS	
Lighting	Working, emergency, outdoor
Heating	Indoor temperature is kept above +10 °C
Ventilation	Natural supply and exhaust ventilation
SAFETY SYSTEMS	
Fire alarm system	Smoke detectors, manual fire alarm
Notification appliances	Sound and light alarm
STRUCTURE	
Importance level	Heightened
Structural fire danger index according to Federal Law No 123-FZ, SP 2.13130.2012	CO CO
Fire danger index according to Federal Law No 123-FZ, SP 2.13130.2012	F5.1
Fire hazard class of construction materials	KM0
Explosion and fire danger class according to SP 12.13130.2009	D



# SPECIFICATIONS [CONTINUATION]

O	
Grade of fire resistance according to Federal Law No 123-FZ, SP 2.13130.2012	
Climatic modifications according to GOST 15150-69	UHL
Dimensions	10,000 × 3,500 × 3,100 mm
Thermal insulation	Mineral wool board 100 mm (fire-resistance rating El90), density 125 kg/m <sup>3</sup>
Roof	Insulated double pitched roof, painted galvanized corrugated steel
Floor	Corrugated steel floor decking
Shipping clearances	Fall within clearance limits of road transport vehicles and Russian railway rolling stock. Slings and locking system are provided
Facade coating	Double-layer primer enamel not less than 60 mm in thickness
Painting	According to customer's brand book
Total weight, not more than	13,000 kg
MAIN EQUIPMENT	
Turbine foam proportioner FIREMIKS FM 6000-GP-F-ALU	<ul> <li>Quantity – 1 pc</li> <li>Type of foam concentrate: AFFF-1%</li> <li>Gear foam concentrate pump</li> <li>Pump flow rate 1200–6000 l/min</li> <li>Foam concentrate supply: suction</li> <li>Pump purging device</li> <li>Foam concentrate return line for testing</li> </ul>
High viscosity foam concentrates pump (foam concentrate filling/draining)	<ul> <li>Pump flow: 6,0 m³/h</li> <li>Pump power: 1,0 kW</li> <li>Power supply 220 V</li> <li>Suction head 5 m</li> <li>Pump speed 1450 rpm</li> </ul>
Extras	<ul><li>Piping and isolation valves</li><li>Control-measuring instruments and automatic devices</li><li>Power supply system</li></ul>



■ Water treatment container

- Manufacturing
- supply
- Installation

# **CUSTOMER**

■ JSC Russian Railways, **ALAPAEVSK STATION** 

# **DATE OF SUPPLY**

November 2017

#### **DESCRIPTION**

#### The water treatment container unit was designed to house water treatment equipment.

The ready-to-operate container unit is a one-stage all welded modular building which is equipped with lighting, heating, and ventilation systems, as well as all necessary electrical equipment. The container unit structure has its foundation, its frame (which is covered from the exterior by three-layer boards with mineral wool thermal insulation), and from the interior (by one layer of mineral wool thermal insulation and metal sheeting). The insulated metal gate and door were designed to stop from opening by themselves when exposed to vibrations generated while in operation. The floor is insulated and reinforced with a corrugated metal sheet. The ceiling is suspended from the structure above. The container unit can be brought into operation without any preliminary disassembly or inspection operations.

The container unit has one water inlet and one outlet. Running water is treated and softened by means of various purification steps: de-ironing, sterilizing, sedimentary filters, softening systems, flocculant proportioning, coagulant and hypochlorite dosing.

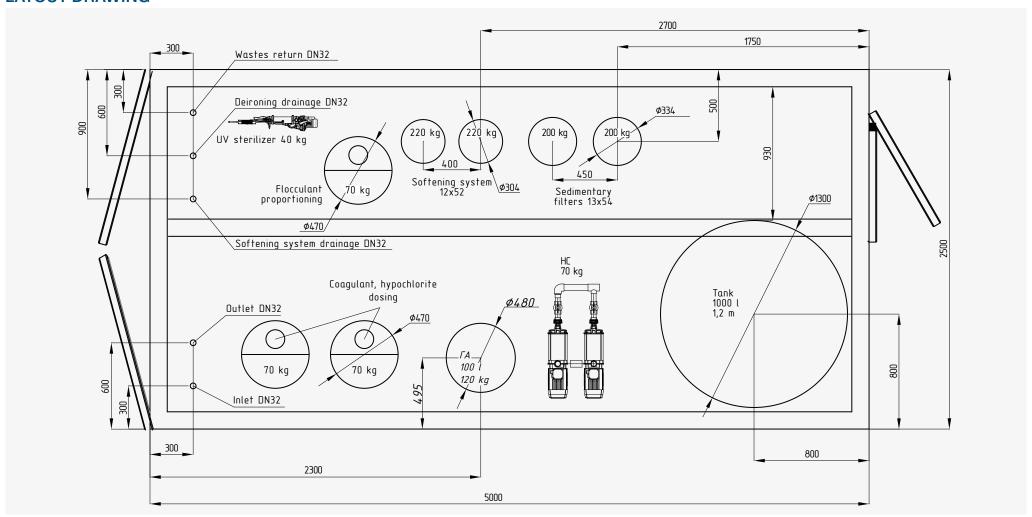








#### **LAYOUT DRAWING**





#### **SPECIFICATIONS**

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GENERAL TECHNICAL CHARACTERISTICS	
Quantity of water inlets	1
Volume of water	1 metric ton or 1200 liters
Filling and draining	Yes - 1 inlet/outlet
Effective life	Not less than 20 years
Guarantee period	24 months
Provided services	Manufacturing, installation, supply
Documentation	Complete documentation package
SUPPORT SYSTEMS	
Lighting	Working, emergency, outdoor
Heating	Automatic, electric convectors
Ventilation	Natural supply and exhaust ventilation
SAFETY SYSTEMS	
Fire alarm system	Smoke fire detectors
Notification appliances	Sound and light alarms
STRUCTURE	
Importance level	Heightened
Structural fire danger index according to Federal Law No 123-FZ, SP 2.13130.2012	C0
Grade of fire resistance according to Federal Law No 123-FZ, SP 2.13130.2012	
Climatic modifications according to GOST 15150-69	NF1
Dimensions	5,000×2,500×2,900 mm
Frame and walls	Rigid structure from cold-rolled metal
Thermal insulation	Mineral wool board 100 mm (fire-resistance rating El90)
Roof	Insulated single pitch roof, steel with anticorrosion treatment
Floor	Diamond tread pattern



Modular electrical equipment container unit

## **SERVICES**

- Manufacturing
- Supply
- Installation

#### **CUSTOMER**

Federal State Unitary

 Enterprise "Russian
 Federal Nuclear Center
 Zababakhin All-Russia
 Research Institute of technical Physics"

# **DATE OF SUPPLY**

October 2016

#### **DESCRIPTION**

The electrical equipment container unit was designed to house the complete transformer substation with power transformers TMG (oil-filled waterproof transformer)-400/10/0.4.

The container unit is a one-stage modular building which consists of three blocks (four compartments): power transformer compartment T1, power transformer compartment T2, high-voltage switchgear compartment (HVSC) and low-voltage switchgear compartment (LVSC). The substation compartments are separated from one another by compartment walls with holes meant to connect them to one another.

Each compartment has a separate entrance with an insulated metal door which can be locked or fixed in an open position. The container unit is equipped with natural and forced supply and exhaust ventilation systems. Each power transformer compartment (T1 and T2) houses a metal reservoir for transformer oil.

The ready-to-operate container unit is equipped with lighting, heating, and ventilation systems, as well as with all the necessary electrical equipment. It can be brought into operation without any preliminary disassembly or inspection operations.

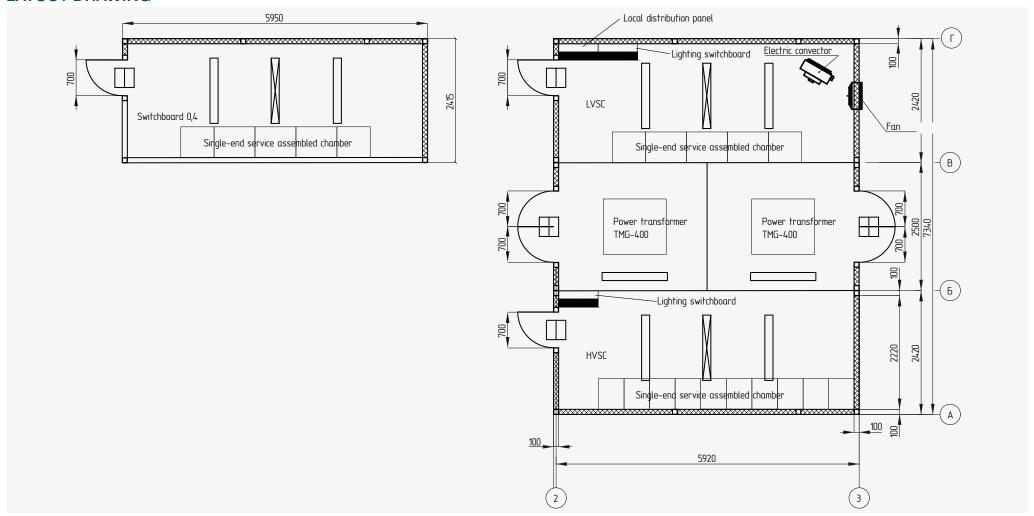








#### **LAYOUT DRAWING**



# POWER DISTRIBUTION CONTAINER UNITS

## **SPECIFICATIONS**

of Edit IdaTions	
GENERAL TECHNICAL CHARACTERISTICS	
Power transformer compartment T1	1 – TMG (oil-filled waterproof transformer) – 400/10/0.4
Power transformer compartment T2	1 – TMG (oil-filled waterproof transformer) – 400/10/0.4
High-voltage switchgear compartment (HVSC)	1
Low-voltage switchgear compartment (LVSC)	1
Transformer oil reservoir	2
Effective life	Not less than 20 years
Guarantee period	24 months
Provided services	Manufacturing, installation, supply
Documentation	Complete documentation package
SUPPORT SYSTEMS	
Lighting	Working, emergency, outdoor
Heating	Automatic, electric convectors
Ventilation	Natural and forced supply and exhaust ventilation
SAFETY SYSTEMS	
Fire alarm system	Smoke fire detectors, manual fire alarm
Notification appliances	Sound and light alarm
STRUCTURE	
Importance level	Heightened
Structural fire danger index according to Federal Law No 123-FZ, SP 2.13130.2012	C0
Grade of fire resistance according to Federal Law No 123-FZ, SP 2.13130.2012	II
Climatic modifications according to GOST 15150-69	NF1
Dimensions	
Frame and walls	5,920×7,340×2,700 (2,500) mm
Thermal insulation	Rigid structure from cold-rolled metal
Roof	Mineral wool board 100 mm (fire-resistance rating El90)
Floor	Insulated double pitched roof, steel with anticorrosion treatment



Telecommunications equipment mobile container unit

## **SERVICES**

- Manufacturing
- Supply
- Installation

# **CUSTOMER**

Moscow-Saint Petersburg motorway (M11)

# **DATE OF SUPPLY**

April 2016

#### **DESCRIPTION**

The telecommunications equipment mobile container unit was designed to house telecommunications equipment. The ready-to-operate container unit is a one-stage all welded modular building.

Each container unit module has a foundation and a frame which is covered from the exterior by three-layer boards with mineral wool thermal insulation and from the interior by one layer of mineral wool thermal insulation and glass fiber wallpaper.

The insulated metal door was designed to stop from opening by itself when exposed to vibrations generated while in operation. The floor is insulated and covered with antistatic linoleum. The ceiling is suspended from the structure above.

The well-lit, sound-insulated and vibration-insulated container room is equipped with ventilation and heating systems and has been optimized to house automation equipment and carry out its maintenance. It is designed for continuous operation.

The container unit can be brought into operation without any preliminary disassembly or inspection operations. The container room is equipped with cable trays for communications cables as well as with an automatic climate-controlled system.







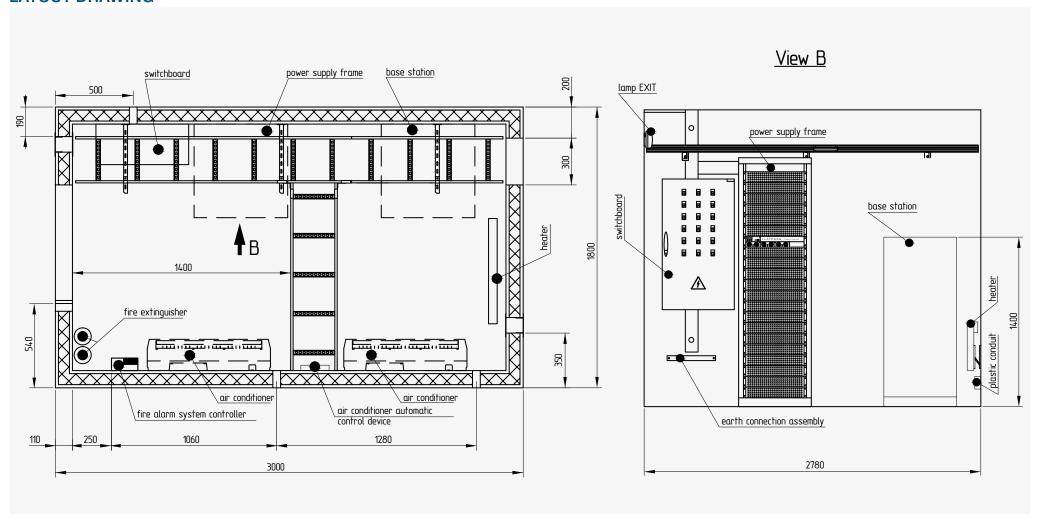


#### **SPECIFICATIONS**

GENERAL TECHNICAL CHARACTERISTICS	
Feeder cable inputs FIMO	2
Effective life	Not less than 20 years
Guarantee period	24 months
Provided services	Manufacturing, installation, supply
Documentation	Complete documentation package
SUPPORT SYSTEMS	
Lighting	Working, emergency, outdoor
Heating	Automatic, electric convectors
Air conditioning	Automatic, Mitsubishi SRK 20 HG-S (2 pcs)
Anti-vandal grill for conditioner	2
Ventilation	Natural supply and exhaust ventilation
SAFETY SYSTEMS	
Fire alarm system	Smoke fire detectors, manual fire alarm
Fire extinguishing	Powder fire extinguishing unit Buran-2.5
Notification appliances	Sound and light alarms
STRUCTURE	
Importance level	Heightened
Structural fire danger index according to Federal Law No 123-FZ, SP 2.13130.2012	C0
Grade of fire resistance according to Federal Law No 123-FZ, SP 2.13130.2012	II
Climatic modifications according to GOST 15150-69	NF1
Dimensions	3,000 × 1,800 × 2,810 mm
Frame and walls	Rigid structure from cold-rolled metal
Thermal insulation	Mineral wool board 100 mm (fire-resistance rating El90)
Roof	Insulated double pitched roof, steel with anticorrosion treatment
Floor	Diamond tread pattern, antistatic linoleum



#### **LAYOUT DRAWING**





 Radio communication equipment container unit

## **SERVICES**

- Manufacturing
- Supply
- Installation

# **CUSTOMER**

JSC "Radiotechnical Institute named after academician A.L. Mints

# **DATE OF SUPPLY**

March 2016

#### **DESCRIPTION**

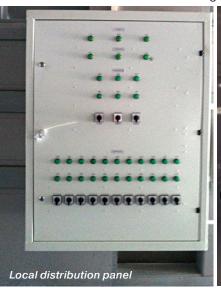
The radio communication equipment mobile container unit was designed to house radio communication equipment used for the needs of the Ministry of Defense of the Russian Federation.

The ready-to-operate container unit is a one-stage all welded explosion-proof vandal-proof modular building equipped with radio communication equipment.

The container unit structure has a foundation and frame which is covered from the exterior by three-layer boards with mineral wool thermal insulation and from the interior by one layer of mineral wool thermal insulation and metal sheeting.

The insulated metal gate and door are stopped from opening by themselves when exposed to vibrations generated while in operation. The floor is insulated and reinforced with a corrugated metal sheet. The ceiling is suspended from the structure above. The well-lit, sound-insulated and vibration-insulated container room is equipped with ventilation and heating systems and has been optimized to house radio communication equipment and carry out its maintenance. The unit is designed for continuous operation and its container room is equipped with cable trays for radio communication cables.

The container unit can be brought into operation without any preliminary disassembly or inspection operations.









#### SPECIFICATIONS [BEGINNING]

SECIFICATIONS.	
GENERAL TECHNICAL CHARACTERISTICS	
Distribution board	1 pc
Axial fan VO 12-300 №5 T2 0,55/1500 (on a frame)	8 pcs
Fan protection grid for VO 12-300-5	8 pcs
Air damper 600 x 600 with actuator Belimo LF-230 S	8 pcs
Air damper 300 x 1000 (h) with actuator Belimo LF-230 S	10 pcs
Modular computer MK-150	1 pc
Internal data bus extension module OM796 and OM754	2 pcs
Discrete output module DIM711	4 pcs
Discrete input module DIM717	7 pcs
Interface module RS-485 NIM741	1 pc
Resistance temperature detector module AIM725	2 pcs
Bus termination module OM750	1 pc
Effective life	Not less than 20 years
Guarantee period	24 months
Provided services	Manufacturing, installation, supply
Documentation	Complete documentation package
SUPPORT SYSTEMS	
Lighting	Working, emergency, outdoor
Heating	Automatic, electric convectors
Ventilation	Natural and forced supply and exhaust ventilation

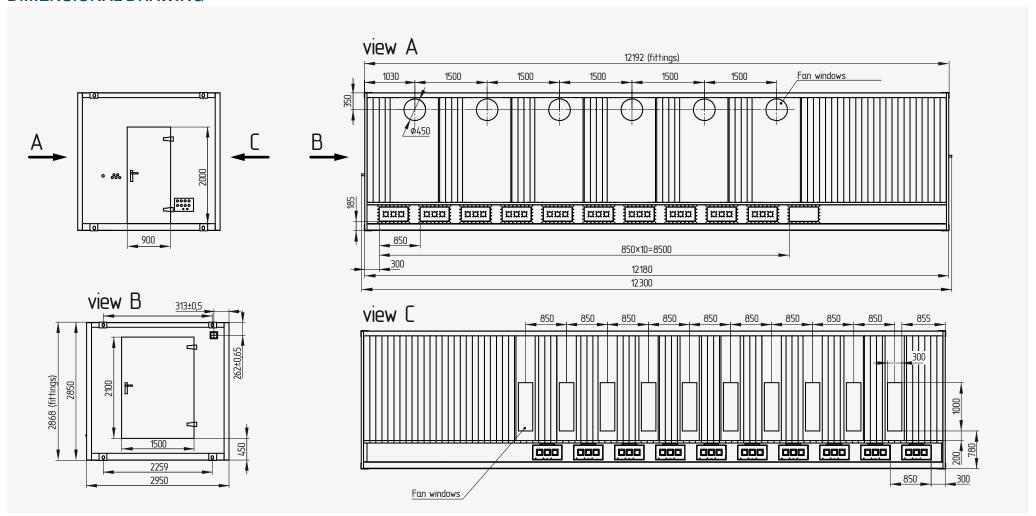


#### SPECIFICATIONS [CONTINUATION]

of Lon Ioanono	
SAFETY SYSTEMS	
Fire alarm system	Smoke fire detectors, manual fire alarm
Fire extinguishing	Powder fire extinguishing unit Buran-2.5
Notification appliances	Sound and light alarms
STRUCTURE	
Importance level	Heightened
Structural fire danger index according to Federal Law No 123-FZ, SP 2.13130.2012	C0
Grade of fire resistance according to Federal Law No 123-FZ, SP 2.13130.2012	II
Climatic modification according to GOST 15150-69	NF1
Dimensions	12, 192×2,900×2,868 mm
Frame and walls	Rigid structure from cold-rolled metal
Thermal insulation	Mineral wool board 100 mm (fire-resistance rating El90)
Roof	Straight insulated roof, steel with anticorrosion treatment
Floor	Diamond tread pattern



#### **DIMENSIONAL DRAWING**





Filling station control room

#### SERVICES

- Manufacturing
- Supply
- Installation

# **CUSTOMER**

LLC "RN-Severnaya Neft", OTP Naulskoye field

# **DATE OF SUPPLY**

December 2016

#### **DESCRIPTION**

This containerized filling station control room was designed to house control and measuring equipment and to accommodate an operator's permanent presence.

The ready-to-operate containerized control room is a one-stage modular building.

Each module has a foundation and a frame which is covered from the exterior by three-layer boards with mineral wool thermal insulation and plastic panels, and from the interior by one layer of mineral wool thermal insulation and laminboards. The door and the triple glazed window are plastic. The floor is insulated and covered with linoleum. The ceiling is suspended from the structure above. The well-lit, sound-insulated and vibration-insulated control room is equipped with a ventilation system that has been optimized to house control and measuring equipment and carry out its maintenance. It is designed for continuous operation.

The containerized control room can be brought into operation without any preliminary disassembly or inspection operations.

The control room contains the measuring system Struna (which measures the pressure, level and temperature in doublewalled tanks) and a PC-based automated working station for the filling station operator.









#### **SPECIFICATIONS**

SFECIFICATIONS	
GENERAL TECHNICAL CHARACTERISTICS	
Automated working station for filling station operator	2
Measuring system Struna	1
Effective life	Not less than 20 years
Guarantee period	24 months
Provided services	Manufacturing, installation, supply
Documentation	Complete documentation package
SUPPORT SYSTEMS	
Lighting	Working, emergency, outdoor
Heating	Automatic, electric convectors
Air heating curtain	6 kW
Ventilation	Natural supply and exhaust ventilation
SAFETY SYSTEMS	
Fire alarm system	Smoke fire detectors, manual fire alarm
Notification appliances	Sound and light alarms
STRUCTURE	
Importance level	Heightened
Structural fire danger index according to Federal Law No 123-FZ, SP 2.13130.2012	C0
Explosion and fire danger class according to SP 12.13130.2009	D
Fire danger index according to Federal Law No 123-FZ, SP 2.13130.2012	F5.1
Grade of fire resistance according to Federal Law No 123-FZ, SP 2.13130.2012	II
Climatic modification according to GOST 15150-69	NF1
Dimensions	6,000×3,000×3,300 mm
Frame and walls	Rigid structure from cold-rolled metal
Thermal insulation	Mineral wool board 100 mm (fire-resistance rating EI90)
Roof	Insulated double pitched roof, steel with anticorrosion treatment
Floor	Diamond tread pattern



#### **DIESEL GENERATOR SET**









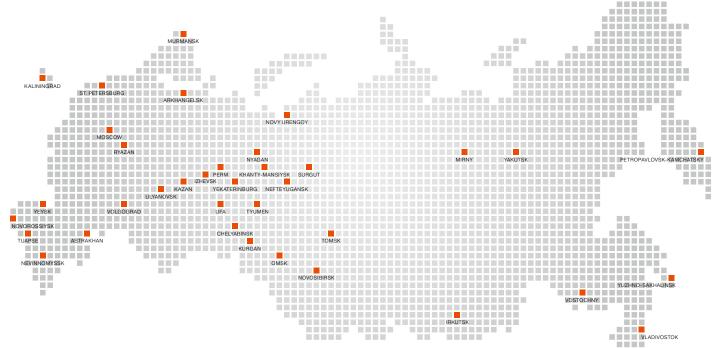






# **Customers Reference List**

Our staff has experience in fire protection of almost twenty years during which time an enormous number of projects were successfully realised in all corners of Russia!



#### **DESIGNING & ENGINEERING**

First and foremost, we are an engineering company. We focus on designing ready-to-operate automatic firefighting systems of any complexity, including systems for hazardous industrial facilities. Our experts are ready to develop the relevant chapter of your working construction documentation, as well as to complete the supply. installation and commissioning of the system.

#### FIRE PROTECTION SERVICES

Aspiring to be helpful to our customers, we provide full range of services in fire protection: fire protection consulting, inspection, testing and maintenance of fire protection equipment, fire safety training

#### **PRODUCTION**

Our company possesses its own production facilities for manufacturing of stationary and mobile metal structures for industrial and household applications that can be equipped with firefighting facilities as well as with other engineering systems according to your project's needs...

#### **DISTRIBUTION**

We are also an exclusive supplier on the Russian market of well-known global brands such as BERMAD CS, FAS SPA, KIDDE, VANRULLEN-UNISER SAS, EAU&FEU SAS



















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