



«SIBERIAN PROJECT»
production company



URAGAN

Fire Extinguishing Units

We are 15!

Foundation date

July 2001



Dear colleagues and partners, in July 2016 Production Company "Siberian Project" is 15 years old. In these years the product range of Uragan fire extinguishing units has extended substantially. Our products are used at enterprises of various industries. The Uragan units protect energy generating utilities, production and storage premises, offices, trade centres, underground parking lots, etc.

Geography of Uragan fire extinguishing units sales stretches from Kaliningrad to Petropavlovsk-Kamtchatsky and Anadyr. For 10 years our representative office has been operating in the Republic of Belarus, two new representative offices have been opened in the Ukraine and in Kazakhstan. In these years we have acquired new and reliable partners, now numbering over a hundred, who have been purchasing our products over all this time, even during the time of crisis. I would like to thank them all for their support and understanding. On our part, please be assured we will not let you down and provide to the market more new and better products.

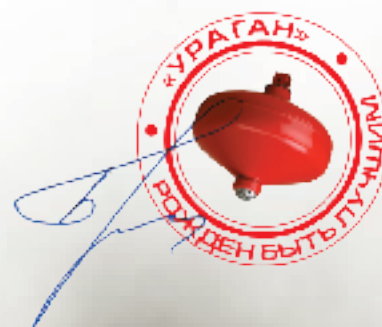
*In September 2012 we started serial production of and certified a new product, **the TRV-Uragan-13 water mist (finely dispersed water) fire extinguishing unit**. In the end of 2014 we gladly presented to our customers the new TRV Uragan 13 which operates from the height of up to 7 meters and boasts of better characteristics in terms of covered area. The number of 13 has been bringing us good luck with our TRV Uragan 13 throughout the year of 2013. Starting from April at MIPS in Moscow and up to SFITEX in St.Petersburg our unique produce has been getting top marks at these prestigious international exhibitions and was reputed high by fire fighting experts.*

In the beginning of 2015 we have started serial production of MGP Uragan gas fire extinguishing unit. It was certified in September. More technical details can be found in our catalogue.

With our products you will be able to succeed in any tender deals.

We wish you success, well-being and prosperity.

Director, PC "Siberian Project"
Sergey A. Bragin



Dear ladies and gentlemen,

“Siberian Project” Production Company has been operating on the market of fire prevention for more than 10 years, producing fire safety equipment and Uragan fire extinguishing units for modern efficient and automatic fire fighting systems. The acquired experience enables us to materialize complex projects related to dry powder and other automatic fire fighting systems at various sites.

Our enterprise does not only produce dry powder MPP Uragan units but also offers to our customers **New Progressive Fire-fighting Technologies**. One of such proposals is patented technologies for large Warehouse Facilities and Logistics Parks with storage premises height of over 5.5m хранения более 5,5 м. Based of dry powder Uragan fire extinguishing units. Such technologies were developed together with the Academy of State Fire Prevention Service of EmerCom of Russia. On the basis of such technology and of video materials showing on-site tests of MPP Uragan inside a multi-storied warehouse facility, **special technical requirements (STU)** were developed and agreed at the meeting of technical council of fire fighting squads of EmerCom of Russia.

Usage of unique dry powder MPP Uragan-3 with universal support in automatic fire extinguishing systems allows solving any tasks on covering blank/shadow zones in underground garages and parking lots as well as in other production and service facilities. Experts of Siberian Project PC were the first to offer such efficient technologies for protection of underground parking lots. And MPP Uragan-3 with universal support was patented.

Dry powder Uragan- Expl (explosion-proof) units, developed in 2005, are used in mining industry. Uragan-5Expl and Uragan-3expl ar installed in mines in Vorkuta, Kuzbass, Yakutia nd Tchukotka both as parts of automatic systems and individually. In 2011 new Uragan units with explosion proof marking of 0ExiallB3X were certified; and in 2014 PO Exs+d+ia I Ma X were certified to be used in explosion-hazardous premises where the explosion-hazardous gas mixture is always present.

In early August 2012 **water mist TRV Uragan 13 unit** serial production was started, and in 2014 performance characteristics of TRV Uragan 13 unit were improved, and now it can be installed at height of 3 to 7 meters.

TRV Uragan 13 unit boasts of better efficiency, reliability and safety of operation as compared with similar products. The know-how of TRV Uragan13 unit is the construction of its main module (sprayer and nozzle), which rotates to create water mist vortex field to evenly spray the protected surface. TRV Uragan 13 unit fights fire on varying surfaces and even heights. Main advantages of **TRV Uragan 13 unit** are that it is **efficient, economical and reliable**.

Readers of this Catalogue will be pleasantly surprised to see new items in the list of Uragan fire extinguishing units, such as UGP MGP Uragan gas fire extinguishing unit.

Uragan fire extinguishing units and related innovative technologies help fight the fire element. Fire fighting systems that comprise Uragan units prevent fires and minimize direct and collateral damage of the Customer. Experts of Siberian Project PC will gladly provide technical consultations on any issues related to our produce, Uragan fire extinguishing unit.



TRV Uragan-13

Performance characteristics

Water mist fire extinguishing units with gas-generating element MUPTV-13-GZ-VD-(B) and MUPTV-17-GZ-VD-(B) "TRV Uragan-13" (hereinafter MUPTV) are meant for localization and extinguishing class A fires. MUPTV is not to be used to suppress burning of water-reacting substances (alkali and alkaline-earth metals) as well as such substances that can burn without air. MUPTV is a reusable operating element of automatic and autonomous water mist fire extinguishing systems. MUPTV can be used to suppress local fire sources inside premises. MUPTV is of standard construction and can be operated within temperature range of -25°C to + 50°C. Normal operation is allowed with relative air humidity not more than 95% at 25°C.

Water mist
(finely dispersed water)
fire extinguishing unit
"TRV-Uragan-13"



| Name of unit | MUPTV-13-GZ-VD-B | MUPTV-17-GZ-VD-B |
|---|------------------|------------------|
| Sprayer position height, m | 3±0,5 | up to 6 |
| Extinguishing medium (EM) spraying time, sec, not less than | 5 | 3 |
| EM weight, kg | 13±0,1 | 17±0,2 |
| EM discharge, kg/s, not less than | 1 | 2 |
| SAS weight, kg | 0,075 ±0,005 | 0,075 ±0,005 |
| Unit weight (w/out EM), kg, not more than | 7,3 | 8,6 |
| Unit volume, l | 14,0±0,15 | 17,6±0,1 |
| Total unit weight, kg, not more than | 22,6 | 28,1 |
| Unit dimensions, mm | | |
| · MUPTV body diameter, mm | 280 | 280 |
| · sprayer diameter, mm | 520 | 380 |
| · height, mm | 495 | 575 |
| Electrical activator pickup current, A, not less than | 0,12 | 0,12 |
| Electrical activator safety checkup current, A, not more than | 0,028 | 0,028 |
| Electrical activator operating voltage, V, not less than | 2,0 | 2,0 |
| Operating pressure inside body, mPa, not more | 1,2 | 1,2 |
| Unit safety valve actuation pressure, mPa, not more than | 1,6 | 1,6 |
| Actuation times, not less than | 5 | 5 |
| Service life, years, not less | 10 | 10 |
| Protected area for class A fires, m | 33 | 35 |
| Protected area for class B fires, m² | 31 | 32 |



Note: TRV-Uragan-13 construction may undergo smaller changes (including outer coating of some unit elements) which are not covered in the present catalogue and which do not affect overall operation of the unit.

MGP Uragan gas fire suppression units

Performance characteristics



Fire suppression gas:
(CO₂ - 80%) + (N₂ - 10%)
«warm gas»



MGP - 1,2



MGP - 0,9



MGP - 0,6



MGP - 0,3

| Name of characteristics | MGP-0,3 | MGP-0,6 | MGP-0,9 | MGP-1,2 |
|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 1. Dimensions, mm, not more than: | | | | |
| - width | 145 | 145 | 145 | 145 |
| - length | 94 | 140 | 202 | 266 |
| - height | 76 | 76 | 76 | 76 |
| 2. Total weight of MGP, full, kg, not more than | 1,3 | 1,8 | 2,2 | 2,8 |
| 3. Response time of MGP (time from sending execute pulse to operating element of MGP to moment of EM gas discharge), sec, not more than | 5 | 5 | 5 | 5 |
| 4. EM gas discharge time, sec, not more than | 15 | 15 | 15 | 15 |
| 5. Maximum exit gas temperature, °C, not more than: | | | | |
| - at exit from MGP | 80 | 80 | 80 | 80 |
| 6. Maximum unit body temperature during and after operation, °C, not more than | 85 | 85 | 85 | 85 |
| 7. Protected volume for fires sub-classes A1, A2, classes B, E, inside premises of leakage parameter 0,044 m ⁻¹ , m ³ | 0,3 | 0,6 | 0,9 | 1,2 |
| 8. Electrical starter circuit: | | | | |
| - safety checkup current, A | 0,028 | 0,028 | 0,028 | 0,028 |
| - operating current, A, not less than | 0,12 | 0,12 | 0,12 | 0,12 |
| - electrical impedance, Ohm | 8...16 | 8...16 | 8...16 | 8...16 |
| 9. Unit operating voltage, V | | | | |
| - not less than | 2 | 2 | 2 | 2 |
| - not more than | 24 | 24 | 24 | 24 |
| 10. Operational temperature range, °C | fm -60°C to +60°C* | fm -60°C to +60°C* | fm -60°C to +60°C* | fm -60°C to +60°C* |
| 11. Service lifetime, years | 10 | 10 | 10 | 10 |

*temperature range can be extended upon request.

Area of application:

- Server rooms, archives, accounting cash centres, depositories.
- Data processing centres, IAPs, billing systems equipment, transmission centres.
- Engine and fuel rooms, generator facilities, pump stations.
- Transformers, cable channels, switchboard premises.
- Research labs and depositories.

Advantages and benefits:

- No pressure inside unit body.
- No pipeworks required.
- No high pressure cylinders used.
- Simple to install and operate.
- Minimal cost of protection per cubic m.

Uragan 1M

Performance characteristics

MPP (n)-b-KD-GE-UZ dry powder fire extinguishing unit

Used to localize and suppress classes A, B and C fires and electrical equipment under voltage of up to 1,000V, inside industrial, storage, living and administrative premises and garages.

Short-term
dry powder fire
extinguishing unit
(MPP)

| | |
|------------------------------------|--------------------|
| Installation height | 3,0±0,5 m |
| Protected class A fire area | 55 m ² |
| Protected class A fire area volume | 162 m ³ |
| Protected class B area | 25 m ² |
| Protected class B fire volume | 36 m ³ |
| Dimensions | 280x285 mm |
| Unit weight | 9,0 kg |



Uragan 4

Performance characteristics

MPP(n) -4-KD-GE-UZ dry powder fire extinguishing unit

Used to localize and suppress classes A, B and C fires and electrical equipment under voltage of up to 1,000V, inside industrial, storage, living and administrative premises and garages.

| | |
|------------------------------------|-------------------|
| Installation height | 3,0±0,5 m |
| Protected class A fire area | 30 m ² |
| Protected class A fire area volume | 90 m ³ |
| Protected class B area | 10 m ² |
| Protected class B fire volume | 17 m ³ |
| Dimensions | 230x210 mm |
| Unit weight | 5,8 kg |



Uragan 5M

Performance characteristics

Dry powder fire extinguishing units (MPP) of impulse action

MPP (r)-b-I-GE-UZ dry powder fire extinguishing unit

With fast-response (impulse action) gas generating element, high altitude installation.

It allows fire suppression inside premises of 4 to 16 m high. Detailed specs are given in unit's data sheet. Used to localize and suppress fires of classes A, B and C as well as electrical installations under voltage, with breakdown voltage being neglected (as per SP5.13130.2009). Uragan-5M can be installed at the angle of up to 50°, providing the ability to deliver the powder agent to the point required and to blank/shadow zones.

| | |
|------------------------------------|--------------------|
| Installation height | 16 m |
| Protected class A fire area | 40 m ² |
| Protected class A fire area volume | 155 m ³ |
| Protected class B area | 10 m ² |
| Protected class B fire volume | 64 m ³ |
| Dimensions | 280x345 mm |
| Unit weight | 10,0 kg |



Uragan 3 (Gorizont)

Performance characteristics

MPP (r) -3-I-GE-05 dry powder fire extinguishing unit with gas generating fast-response (impulse) element can be installed at heights from 3 to 10.6 m. Detailed specs are given in unit's data sheet.

Used to localize and suppress fires of classes A, B and C as well as electrical installations under voltage, with breakdown voltage being neglected (as per SP5.13130.2009).

The device is designed to suppress fire in shadow/blank zones, and its special mounting support (included) allows delivery of the powder in the circumference of 0 to 360° to efficiently extinguish fire underneath cars in garages, underground parking lots, etc. Maximum length of powder spray is 12 m.

| | |
|--|-------------------------------|
| Installation height | 10,6 m |
| Protected class A fire area | 14 m ² |
| Protected class A fire area volume | 25 m ³ |
| Unit dimensions, with support, not more than | height 315 mm width 162 mm |
| Unit weight | 5,35 kg |



Uragan 3 Expl

Performance characteristics

ExMPP(r)-3-I-GE-05 unit is an explosion-proof version and has explosion protection marking of PO Exs+d+ia I Ma X per GOST R MEK 60079.0.

It is allowed to be used in ore and coal mines, including those of danger type per gas and dust, in accordance with local safety rules and recommendations of manufacturers, as well as in explosion-dangerous premises and outdoor utilities per marks of explosion-proof type:

- underground coal mining workings and respective above-ground facilities;
- explosives production and storage facilities;
- in areas prone to ignite due to presence of combustible dust or fibers in the air, etc.

The unit can be installed both on horizontal and vertical surfaces, with dry powder spray direction being adjusted from 0 to 360°

Dry powder fire extinguishing units (MPP) of explosion-proof design

| | |
|------------------------------------|-------------------|
| Installation height | 6 m |
| Protected class A fire area | 18 m ² |
| Protected class A fire area volume | 32 m ³ |
| Protected class B area | 12 m ² |
| Protected class B fire volume | 24 m ³ |
| Dimensions | 200x390 mm |
| Unit weight | 8,3 kg |



Uragan 5 Expl

Performance characteristics

ExMPP(r)-5-I-GE-05 05 unit is an explosion-proof version and has explosion protection marking of PO Exs+d+ia I Ma X per GOST R MEK 60079.0.

It is allowed to be used in ore and coal mines, including those of danger type per gas and dust, in accordance with local safety rules and recommendations of manufacturers, as well as in explosion-dangerous premises and outdoor utilities per marks of explosion-proof type:

- underground coal mining workings and respective above-ground facilities;
- explosives production and storage facilities;
- in areas prone to ignite due to presence of combustible dust or fibers in the air, etc.

| | |
|------------------------------------|-------------------|
| Installation height | 10,6 m |
| Protected class A fire area | 20 m ² |
| Protected class A fire area volume | 36 m ³ |
| Protected class B area | 6 m ² |
| Protected class B fire volume | 22 m ³ |
| Dimensions | 280x360 mm |
| Unit weight | 11,2 kg |



Attention: PO Exs+d+ia I Ma X marking of explosion protection applies to the whole construction of Uragan Expl.

Uragan 3 Expl (0ExiallBT3 X)

Performance characteristics

Area of application of explosion-proof MPP:

- explosives production and storage facilities;
- in areas prone to ignite due to presence of combustible dust or fibers in the air, etc. (except for coal mines, ore mines and other underground facilities which are gas and dust hazardous).

MPP has the 0ExiallBT3 X marking of explosion protection for electrical equipment and ingress protection per GOST 14254-96 - IP43 for input box and IP67 for MPP body.

| | |
|------------------------------------|-------------------|
| Installation height | 6 m |
| Protected class A fire area | 18 m ² |
| Protected class A fire area volume | 32 m ³ |
| Protected class B area | 12 m ² |
| Protected class B fire volume | 24 m ³ |
| Dimensions | 176x485 mm |
| Unit weight | 7,1 kg |



Uragan 5 Expl (0ExiallBT3 X)

Performance characteristics

Area of application of explosion-proof MPP:

- explosives production and storage facilities;
- in areas prone to ignite due to presence of combustible dust or fibers in the air, etc. (except for coal mines, ore mines and other underground facilities which are gas and dust hazardous).

MPP has the 0ExiallBT3 X marking of explosion protection for electrical equipment and ingress protection per GOST 14254-96 - IP43 for input box and IP67 for MPP body.

| | |
|------------------------------------|-------------------|
| Installation height | 10,6 m |
| Protected class A fire area | 20 m ² |
| Protected class A fire area volume | 36 m ³ |
| Protected class B area | 6 m ² |
| Protected class B fire volume | 22 m ³ |
| Dimensions | 280x383 mm |
| Unit weight | 10,2 kg |



Your Personal Firefighter, Uragan unit of autonomous design

The Personal Firefighter consists of Uragan unit (see Picture 1), Ligard-UPPA starting/trigger device (with internal battery) or USP-101 (without battery), at your choice, and installation set.

The trigger device controls the environment temperature through its thermo-sensitive elements. If the temperature in the premises reaches the value of 70-75°C, the thermo-relay will operate and start-up current will operate the Uragan unit.



Picture 1

Area of application:

- Garages, underground and surface parking lots (including mechanized ones)
- Cottages and datchas (verandahs, summer kitchens)
- Warehouses
- Production and office facilities

Special fixation supports for MPP Uragan

Wall-mounted supports KP-1 and KP-3.

To be used with MPP Uragan-1M, Uragan-4 and Uragan-5M



KP-2 supports for extension (stud Lmax=500 mm).

To be used with MPP Uragan-1M and «Uragan-4



Application of supports:

These are used when mounting MPP Uragan units on horizontal and vertical surfaces (girders, corrugated roofs, columns, etc.) at different angles to achieve most efficient spraying of dry powder to shadow/blank zones, as well as when installing MPP Uragan units inside premises with ceiling height from 3.5 to 4.0 m, including installation behind false/suspended ceiling.

New technologies of fire fighting

Analysis of options for fire extinguishing systems used in warehouse facilities with racks being over 5.5 m high

Co-Russian normative documents on Installation of automatic fire alarm and fire-fighting systems do not cover rules for installation of such systems inside warehouse facilities with goods storage height over 5.5 m.

Addendum A to such normative document of SP 5.13130.2009 still has the list of buildings, facilities and equipment to be protected with such automatic systems.

To fight fires inside warehouse facilities with goods storage height over 5.5 m, a common type of fire-fighting system is the automatic water fire extinguishing system which comprises additional pipelines along the racks and sprinklers. But Customers usually oppose installation of such systems as modern warehouse technologies (pallet storage, use of loaders) can lead to mechanical damage of sprinklers mounted along the racks.

Besides, warehouses with good storage height over 5.5 m usually have to be tall buildings of large area and volume, which lengthens the time to pinpoint the fire source and to activate thermal-sensitive sprinklers.

Taking these peculiarities into account as well as warehouses being heated or non-heated, and there being no sufficient energy supply and larger water storage tanks and with the idea to preserve goods in cases of false fire extinguishing system activation, **we offer installation in warehouses with goods storage height over 5.5 m Uragan dry powder fire-extinguishing automatic systems.**

Taking into account large volumes of warehouses and low temperature inside non-heated warehouses, increase of ambient temperature during initial stage of fire will be negligent, and most dangerous factors will be smoke and flames of fire. We propose to use individual/point and linear smoke detectors and announcers, combined (heat and smoke) announcers and flame detectors.

The warehouse interior is divided into fire extinguishing areas taking into account local design and construction peculiarities (passageways, etc.). Uragan dry powder units are set evenly along such fire areas, taking into account fire extinguishing characteristics, height of installation and geometry of dry powder spraying.

High efficiency of fire extinguishing when using dry powder automatic systems is obtained thanks to installation of fire announcers that will detect fires at initial stages, and the very placement of such sensors which take into account possible fire sources:

- upper racks (catching fire from lamps and electrical wires);
- at floor level in passageways (careless handling of fire),
- foreign fire source (from transportation vehicles);
- side parts of racks along their height.

General advantages of automatic dry powder fire extinguishing systems

Installation of dry powder fire extinguishing system does not require pump stations, water reservoirs or lengthy pipeworking. Such systems are easy to install and do not need complex technical servicing as compared with other systems, which is also good for substantial money saving. One more thing, no additional smoke ventilation system is required as per p.8.3 SNiP41-01-2003 "Heating, ventilation and air conditioning".

The units have high fire extinguishing capacity and are fast-reacting, which allows early suppression of fire and diminishing of material damage. Extinguishing fire with dry powder minimizes collateral damages, which cannot be the case when using water or spray of foam.

Uragan dry powder fire extinguishing units, offered to be installed inside warehouses with goods storage height over 5.5 m, have been field-tested. Such work was performed in cooperation with the Academy of State Fire Fighting Service of EmerCom of Russia. Such field tests resulted in development of recommendations (technical specifications) that can be obtained via experts of Siberian Project PC along with detailed consultations on all related issues.

In the end of December 2011, special technical requirements were developed as concerns fire safety of warehouse facility in the city of Samara ("AvtoVAZ") with the area of 10,000 sq m and storage height over 5.5 meters. The automatic dry powder fire extinguishing system was designed making use of MPP Uragan on the basis of patented technology for fire extinguishing in warehouse with goods storage height over 5.5 m.

On December 22, 2011 r. at the meeting of technical council of fire fighting squads of EmerCom of Russia such technical requirements were approved on the basis of "Recommendations on Fire Extinguishing in warehouse with goods storage height over 5.5m" as developed by the Siberian Project PC (Ltd.) in cooperation with the Academy of SFFS of EmerCom of Russia, and of video materials of on-site fire tests of MPP Uragan inside a multistoried warehouse facility.

Economic calculations performed at this site showed major advantage (2,5 times) of MPP Uragan dry powder fire extinguishing automatic system over regular water fire extinguishing system.

To sum it up, there is an obvious inference that usage of MPP Uragan dry powder fire extinguishing systems inside warehouses is 2-3 times more advantageous than the use of water-based (allowing for installation works) or 6-7 times so when using gas systems.