

Close Joint Stock Company ZAO ISTOCHNIK PLUS offers a wide range of the powder fire extinguishing modules «Tungus[®]» with a weight of fire extinguishing powder of 0.5 to 22kg of ceiling-, wall- and ground-based execution..

The modules developed have a high-fire extinguishing ability, universality, provide effective extinguishing of fires, Class A, B, C and electric equipment under voltage regardless its value, in automatic and independent modes in premises and in the open air, are actuated by a low-power electric signal, and capable of operating reliably for 10 years without routine maintenance; substances used in them are environmentally friendly, and easy-to-utilize.

Commercially produced the following modules:

- impulse (according to fire safety regulations NPB 88-2001 put out electric equipment under voltage regardless its value);
- fire- and explosion-proof;
- heat-resistant (operating temperature range of -60 to +90°C);
- self-triggering (with sensor Pulsar);
- independent (in a complete set with signaling-starting devices);
- automatic (actuating from signaling means);
- portable, self-triggering and floor-based without any fasteners;
- high-altitude (mounting height up to 16 m).

Range of products:

- small-size module Tungus-0.65 for fire-protecting electric control boards, enclosures, switches of boxes;
- module Tungus-2 has been developed according to the recommendations of Mosenergoproekt for protecting no-go cable channels and also garage boxes and buildings;
- modules Tungus-4, Tungus-6-I – for suppressing fire sites in buildings and different-purpose open areas;
- module Tungus-9 – for suppressing fire sites at production facilities, warehouses, hangars with height to 13m;
- module Tungus-10 – for suppressing fire sites in vertical cable channels and in premises with the equipment of a complicated shape;
- module Tungus-24 for fire protecting of remote objects, long cable channels with cross-section to 2.2*2.2m (to 32m); the cost of the module is three times as low as its analogues with the same features in fire extinguishing efficiency;
- explosion-proof modules with case volume of 2 to 24 liters for suppressing fire sites at fire- and explosion-hazard objects;
- heat-resistant modules with case volumes of 0.65 to 24 liters – for suppressing fire sites at the ambient temperature of - 60°C to + 90°C;
- Module «Tungus-10-ST» with a changeable corner of supplying of fire extinguishing powder. The module can operate at any space orientation: from horizontal to vertical with a nozzle-sprayer down. The module can be fixed on any plane (ceiling, floor, wall, oblique arrangement), the MPP bracket

providing the module installation at any angle necessary to direct a jet to the object protected. The module efficiently protects objects from height to 16m.

Table 1

| Type | Powder weight, kg | Protected area, m ² | | Protected volume, m ³ | | Installation height, m | Voltage restriction |
|--------------|-------------------|--------------------------------|---------|----------------------------------|---------|--------------------------------------|---------------------|
| | | Class A | Class B | Class A | Class B | | |
| TUNGUS-0.65 | 0.49 | 1.2 | 1.2 | 2.4 | 1.2 | - | not limited |
| TUNGUS-2 | 1.8 | 25 | 6 | 38 | 8 | 1...4 | not limited |
| TUNGUS -4 | 4.0 | 40 | 16 | 100 | - | 2...9 | not limited |
| TUNGUS-6I | 6.0 | 50 | 25 | 150 | 33 | 1...9 | not limited |
| TUNGUS-9 | 8.6 | 72 | 33 | 171 | 42 | 2...13 | not limited |
| TUNGUS-10 | 9.5 | 36 | 18.3 | 216 | 75 | Floor-mounted | not limited |
| TUNGUS-10-ST | 9,5 | 80 | 36 | 240 | 45 | - | not limited |
| TUNGUS-24 | 22 | 75 | 58 | 250 | - | Floor-mounted L _{max} 32 | not limited |

The fire extinguishing modules “Tungus[®]” have been certified and recommended using the modules in fire- and explosive objects of oil/petroleum-refining, petrochemical industries, in mine tunnels, in railway transport.

Production has been certified according to the requirements of ISO-9001.

The modules of fire extinguishing Tungus[®] and elements of their charging have patent novelty.

Due to their independence, easy-to-actuate from a low-power electric signal, high reliability, design features, low cost, aesthetic design the modules Tungus[®] find wide application on objects of different function in China, Mongolia, Nigeria, and CIS countries. The delivery of production in the USA is carried out.

Results of introducing the modules of fire extinguishing Tungus[®] at various purpose objects are given in Table 2.

Table 2

| OBJECTS OF INTRODUCTION | PLACES OF INTRODUCTION |
|--|--|
| - shopping centers and complexes, supermarkets, multi-stored shops; | Moscow, Khabarovsk, Rostov-on-Don, Barnaul, total 94 cities of Russian Federations; China, Kazakhstan, the Kyrgyz Republic |
| - objects of retail trade, stands, pavilions, shops, trading areas; | Irkutsk, Khabarovsk, Abakan, Biysk, Novosibirsk, total 59 cities |
| - bases of the State reserve, logistics terminals, customs and excise warehouses; | Irkutsk, Krasnoyarsk, Khabarovsk, Ivanovo, Krasnodar, Rostov-on-Don, Novosibirsk |
| - warehouses of equipment, chemical reagents, wood products, wood particle boards; paint-, varnish- and alcohol-containing goods, trade goods; | Tver, Biysk, Magnitogorsk, Moscow, Uralsk (Kazakhstan), Ivanovo; Mongolia, Nahodka, Krasnoyarsk, Shuya, Tomsk (open joint-stock company DSP) |
| - tank farms, warehouses and storehouses of petroleum, diesel fuel, POL | Novorossisk, Togliatti, Ulyanovsk, Novosibirsk, Magnitogorsk, Biysk |

| | |
|---|--|
| - depositories in banks and pawnshops; - oil-cellars in Magnitogorsk calibrating plant and black-oil supply facility PO KazZink | Ust-Kamenogorsk (Kazakhstan) Magnitogorsk, Ust Kamenogorsk |
| - underground garages, multi-stored parkings, garage complexes and bays; - car repair workshops, car washes; | Moscow, Krasnoyarsk, Novosibirsk, Orenburg, S-Petersburg, Tomsk, Ufa, Total: 47 cities of Russian Federation; China. Novosibirsk, Ust-Kamenogorsk, Izhevsk, Tyumen, Khabarovsk |
| - paint and varnish manufactures, painting and drying chambers; - wood-working workshops, bunkers; - garbage processing plant, paper recycling - knitting factories and cotton industrial complexes; | Angarsk, Yekaterinburg, Kurgan, Abakan, Ust Kamenogorsk Moscow, Biysk, Saratov, Tyumen Magnitogorsk Ufa |
| - industrial facilities of Pointer Works OAO RRW, Universal plant, polymer packing plant OOO YuzhUralPak, polyethylene pipes; - Irtysh steam navigation objects and Siberian ship-building works; | Novosibirsk, Novokuznetsk, Yekaterinburg, Chelyabinsk Omsk |
| - oil heating stations at oil pipeline Usa - Ukhta, gas-oil condensate fields and gas pumping stations at heat station; - boilers and mini-boilers of container types; - petrol stations, oil-loading terminals; - diesel power plants and diesel generators; | Komi Republic, Orenburgskay oblast, Ust-Kamenogorsk Biysk, Togliatti, Khabarovsk Irkutsk, Surgut, Tomsk, Yekaterinburg Nakhodka, Khabarovsk, Irkutsk, Arkhangelsk, S-Petersburg |
| - electric power workshops and electric facilities, and transformers - cable channels, mines underground passages; - antenna output of relay telephone stations, communication posts, TC Bashkiriya - archives, libraries, vessels, city treasuries, banks; | Irkutsk, Magnitogorsk, Mezhdurechensk, Yekaterinburg, Omsk, Ufa, Tyumen Moscow, Novosibirsk Arkhangelsk, Irkutsk, Taganrog, Ufa Barnaul, Biysk, Omsk, Krasnoyarsk, Novosibirsk, Irkutsk |
| - theaters, riding-houses, exhibition halls, recreation centres, orphanages, restaurants, medical institutions; - dormitory areas, cottages, apartments, attic and basement premises; subsidiary premises - Cable channels, constructions, transformer substations of the metallurgical enterprises | Irkutsk, Nefteyugansk, Novosibirsk, Tomsk Vologda, Yaroslavl, Yekaterinburg, Irkutsk, Khabarovsk, Barnaul, Izhevsk, Moscow Magnitogorsk, N-Tagil, Serov |
| - Objects OAO RRW, electric cases of signals and interlocking posts of KTSM, diesel premises - Warehouses of an ammunition - Objects of the Asian gas pipeline - Objects of concentrating combine | Novosibirsk, Omsk Ulan-Ude, Khabarovsk Territory of Kazakhstan and China Mongolia |

Wide use of the modules account for the following reasons:

- put out fires in the open airs and in the premises without using piping elements,
- any direction of supplying of fire extinguishing powder (there are no stagnant areas and at the same time high reliability of extinguishing);
- high efficiency of extinguishing;
- fast-action providing extinguishing fire sites at their early phase and preventing the fire from propagating throughout the object;
- triggering into operation from a low-power electric signal (starting current 120mA) and, as a result, simple design, high reliability, low cost accessible for mass use;
- long-term of shelf life (10 years) without any routine maintenance, high quality of manufacturing in accordance with the international requirements ISO 9001;

- multiple use (reloading at any service stations VDPO), guaranteed delivery of loading elements by the factory-manufacturer ZAO Istochnik Plus in any amounts for reloading;
- safety (no pressure in modules during their storage and service);
- there is no assembly work when using portable self-triggering modules. They can be mounted on the floor in buildings without fasteners.
- by complete set of fire extinguishing systems the suitable quantity and the nomenclature of modules from an offered number provides possibility of protection of any to destination and geometry objects – of electric equipment cabinets in volume less than 1 m³, to warehouses in volume in hundreds cubic meters at height to 16 m.

The enterprise goods have won eleven Gold Medals of the All-Russian Exhibition Center, Siberian and Altai Fairs, many Diplomas of International exhibitions, is the Laureate of the First National Prize “For Strengthening the Safety of Russia (ZUBR-2004)”.

Due to its high results ZAO Istochnik Plus has been awarded Gold Mercury – 2007, a Big Gold Medal «European quality» based on the results of 2005, 2006 and 2007; it was considered to be the Best enterprise of the Altai territory. The enterprise is a member of Chamber of Commerce and Industry, RF, the World Academy of Sciences of Complex Safety.

The detailed information of the modules can be found on our site www.antifire.biz (English), www.antifire.org (Russian). Now our enterprise plans to certificate production in the European Union.

We ask you to inform about your interest in the specified products for the decision the questions on expediency of certification of our production under the European Union standards.