Powder and Gas Fire Extinguishing Modules “TUNGUS”

Commercial Offer

“Istochnik Plus”, CJSC, established by scientists and designers of Federal Scientific and Research Centre “Altay” for conversion tasks solution, has been designed and mastered into serial production a wide range of powder and gas fire extinguishing modules “TUNGUS” for fire protection of objects of fuel and energy complex.

Modules developed are universal firefighting means; they extinguish solid, liquid, gaseous substances and electrical equipment under tension without taking into account the value of firefighting powder discharge voltage. Principally new technical solutions are applied in modules construction, which provide high efficiency of fire sites extinguishing from a height up to 16 m in automatical, autonomous and manual modes.

In contrast with other firefighting means powder fire extinguishing modules “TUNGUS”:
- Suppress fire sites both on square and in volume in enclosed premises and at open areas without use of any piping;
- Provide powder emission from a frame in any direction thus eliminating shaded areas forming and securing fire protection of objects with complex geometry and extent;
- Actuated from electrical signal of low power (starting current 150 mA), have a simple construction and moderate prices;
- Safe, there is no pressure inside modules during their storage and maintenance;
- Are the devices of multiple use.

The following modifications of modules are produced at the enterprise:
- Of normal modification working in temperature range from -50 to +50°C;
- Of special (thermal-resistant) modification having working temperature range from -60 to +90°C;
- Of explosion-proof modification with explosion-proof marking:
  a) 0Exia II BT3 Ge X
  b) RP Exia I X
  c) RO Exia I / 0Exia II CT3;
- Autonomous actuated with signaling-and-triggering devices with heat and optical detectors, or two-channel detectors;
- Of transport modification providing fire protection of railroad, self-moving, and opencast mine vehicles;
- Of stationary, portable, and throwable into a seat of fire modifications.

The following sets have been developed on base of modules:
- Volley fire extinguishing set “TUNGUSKA” for prompt fires suppression at objects remote from fire stations;
- Mobile radio-controlled set “Troopa-3” for fire extinguishing of hazardous objects dangerous of access in case of fire origin;
- A combined method of gas-water-powder firefighting of oil wells based on simultaneous gas-and-water jet supply by means of Gas and water fire extinguishing vehicle (GAWFEV-150), and firefighting power “ISTO-1” of our own development supply in impulse mode by means of powder fire extinguishing module (MPP) “TUNGUS-24”. According to technical estimation a fire tests results this firefighting method developed allows improving feasibility of gas, oil-and-gas and oil wells fires suppression approximately by 60% in production rate limit.
- Automatic fire extinguishing set “SAP-TD” with “Dekon-Ex” control equipment. The system developed is purpose for application at explosive objects with constant presence of explosive mixtures in underground mine workings, mines and their surface buildings, hazardous in coal dust (methane) and coal dust. They have a degree of protection against external influences such as ip65 for inlet box, and ip67 for MPP frames. The system developed can be used in different objects of mining and coal industries. It has the following field of application: central power stations, transformer chambers, power distribution points, electrical chambers, warehouses of explosives, electric locomotive depots, workings with belt conveyors, ventilation drifts connections with longwall faces, coal bunkers, transport chains pouring points, blind workings.

The modules are certified:
- Fire equipment certification body “Pozhtest”, VNIIPO MCHS RF;
- Electrical technical equipment certification body “Ensertiko”;
- Explosion-proof and mining equipment certification body “NANIO CCVE”;
- Scientific centre on works safety in mining industry OS VRE VOSTNII.
The modules are allowed by Rostechnadzor for application at explosive objects of oil-chemical, oil-refining, mining and coal industries. They are certified in China, Slovak Republic, Romania, Kazakhstan, Uzbekistan, Ukraine. Certification in EU is under process.

**MPP find a wide application at objects of fuel and energy complex, particularly:**
- Oil industry at objects of leading enterprises of Tatarstan, Bashkortostan, Tomsk and Tyumen oblast, Khanty-Mansiysk autonomous district for fire protection of oil-transfer and compressor stations, oil heating aggregates on Usinsk-Usa pipeline, loading/unloading racks, petrol stations, cable channels, distributive switchboards and their measuring devices, transformer substations, diesel fuel warehouses, parkings of special use motor transport, diesel power stations. MPP are implemented at objects of Karachaganak oil and gas-condensate deposit in Kazakhstan and oil deposit in Hubei province in China.
- Oil-refining industry at objects of “Gazpromneft - ONPZ”, at a plant of technical oils (Tyumen), at “Nizhnekamskneftehim”, OJSC, on elastomers production site, for fire protection of acid sets, catalyst modules premises, drying modules and elastomers sets.
- At enterprise of chemical industry – chemical plant in USA, New-Jersey, for fire protection of cleaning filters of high productivity, and such Russian enterprises as “Togliattiazot”, “Azotekh”, “Kachuksulfat”, OJSC, “Altayskiy Himprom”, OJSC, “Altaykoks”, “Sayanskhimplast”.
- On nuclear industry objects at such enterprises as: FSUE “Siberian Chemical Plant”, FSUE “Mining-and-chemical enterprise”.

Istochnik Plus has been awarded with 28 gold medals and a number of prizes of Russian and international fairs and exhibitions. It has been also awarded with gold medal of Gold Mercury-2007 national prize, European Quality gold medal, the Diploma of National Prize for Strengthening of the Safety of Russia and has been appreciated as the best industrial enterprise of Altay region for the last 4 years. It has been honored with a title “Laureate of Russian Economics and “The Leader of Sales”. The enterprise was awarded with The Diploma of Siberian Regional centre of Ministry of Emergency Situations for great contribution in population and territory defense from natural and anthropogenic disasters.

Besides this our enterprise renews our production nomenclature continually thanks to new developments. For example, generators of gas fire extinguishing (GGFE) which do not have analogs in world practice have been recently developed and mastered into serial production. GGFE is a set of cartridges combined constructively in one frame. There is no pressure inside GGFE frame during its service in the object, therefore there’s no need of continuous control of gaseous firefighting substance leakage from a frame, as it is necessary in standard gas fire-extinguishing systems. GGFE devices can be a perfect solution for fire protection of electrical and electronic equipment of any kind because a gas generated does not cause a negative influence on its workability. At present moment three GGFE models have been designed and are implementing actively in many industries.

You can get the additional information about our production and its operational features on our website [www.antifire.org](http://www.antifire.org).

We are open for mutually beneficial cooperation.

Best regards,
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**Group of Companies ISTOCHNIK:**

**FIRE EXTINGUISHING SYSTEMS**

“Istochnik Plus”: Honour and Quality