



by technology  **SAPFIR**®

<http://www.stop-ohen.info/>

<http://www.stop-fire-sapfir.info/>

NanoOil & Sapfir s.r.o.

Karpatské námestie 10
831 06 BRATISLAVA – Slovakia

Phone: +421 908 733 659

E-mail: socha@stop-ohen.info

Company SAPFIR s.r.o. was founded in Slovakia, 1998. It holds more than 110 world patents, all the know-how and production remains at in Slovakia. NanoOil & Sapfir s.r.o. in Cooperation with SAPFIR s.r.o. participates together in design, development, and installation service of end autonomous fire extinguishing systems, **STOP - FIRE - SAPFIR**. Autonomous extinguishing systems are designed to extinguish all types of fires (A, B, C, and E), from high altitude buildings (no height restrictions) to locomotives and industry.



The SAPFIR extinguishing system is simple and inexpensive. Fire extinguishing modules do not contain internal pressure or a drop of water. Therefore, they do not require as demanding, expensive maintenance as other water or gas systems. **The autonomous SAPFIR extinguishing system is maintenance-free for over 12 years.** It does not require Power supply, energy or other expensive technologies. In the event of a fire, it activates itself within 10 seconds after detecting temperature of 72-93-110 ° C and starts automatic extinguishing. Simplicity is beauty, you do not need expensive systems that are difficult to install and maintain. All you need is SAPFIR extinguishing, which costs only a fraction of the value, and the extinguishing efficiency is 10 times greater than offers competition.

The SAPFIR fire extinguishing system is going through evolution and is evolving closer to ordinary users such as households. Therefore, a separate category of fire extinguishing systems was developed under the name LED chandelier Extinguishing. A separate category begins under the name STOP - FIRE - SAPFIR, new types of multifunctional devices are being designed exclusively for homes, offices, museums and luxury interiors.

The basic idea is to protect lives and property against the flames in your home, cottage or office without inflicting damage to health or interior equipment.

In case of fire when using water extinguisher there is additional damage to interior. In the event of a fire, you have to count with the high damage costs of cleaning caused by fire and water used to relinquish set fire.

When using the LED Chandelier model 2.8, model 4 or model 6 the damage is absolutely minimal. The original chandelier will be replaced by a new LED chandelier Extinguishing, which in addition to the light function contains a built-in fire extinguishing module MPH-2.8, MPH-4 or MPH-6.

If a room reaches temperature higher than 72 ° C for more than 20 seconds, the temperature sensor TPS-01-72 is activated and generates el. pulse of 0.5 which activates the cold gas generator in the extinguishing module. That activates automatic extinguishing with cold gas + dry powder. The powder itself is a patent-protected organic substance based on salt, which is 100% ecological and after the extinguishing itself it is enough to vacuum it and throw it into the trash as a classic organic waste, it dissolves completely on contact with water.

The extinguishing process itself is completely automatic and works only on the principle of temperature. The total time from activation to the extinguishing of the fire itself can be between 20 seconds up to 5 minutes. In the case of smouldering, for example, a small fire from an unquenched cigarette, the temperature rise in the room is slow and then the accumulation of TEMPERATURE can take up to 5 minutes. As soon as the temperature accumulates above 72 ° C the extinguishing process starts immediately.

The basic extinguishing system can be enlarged with a second level of protection. We will extend the Led chandelier extinguishing system with an alarm system for a smoke sensor developed by us and patented by SAPFIR. In the event that a small rotting fire occurs in the room and smoke will start to form it will be caught by the smoke sensors and this will trigger the alarm system in the building.

As a third level of protection, the automatic fire extinguishing system can be extended by a GSM remote alarm system with the possibility of sending SMS. This option can be used in industrial areas that are far from human operators. These can also be built it into homes where each individual room is protected by its own LED Chandelier Fire Extinguisher. For example, if a smoke sensor detects smoke in the kitchen it will automatically send an alarm message to the owner if the house. Once the owner receives the message and he/she is located near the home he/she can return back and stop the fire before it begins.

Also, if a fire occurs and the system automatically extinguishes it, an informative SMS message will arrive at the pre-set mobile number which will specify in which room the fire was caused and which LED chandelier has been activated.

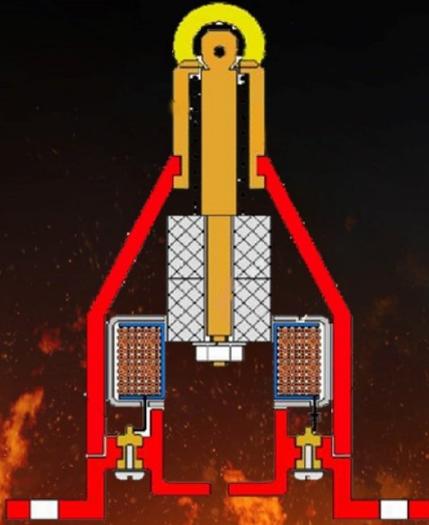
4th Level

The highest level of protection is GSM remote extinguishing system. With this you can send message and it will activate chandelier. This system is used as a backup system to prevent fire in case of manual damage to the sensor TPS-01-72. This remote extinguishing trigger was specifically developed for extreme environments where manual damage occurs and the temperature sensor could be torn off.

This fourth superstructure system can be used, for example in a museum, bank or other building where the individual rooms are equipped with a camera system, if the building security system receives an alarm message about a smoke alarm in the room he/she may decide, at his own discretion to activate the manual extinguishing of the room. For this a small control panel can be prepared in advance. **This system has been developed for the company Mondi, extinguishing conveyor towers and backup remote GSM manual extinguishing.**



Device of the autonomous activation TPS – 01 Thermal fire-fighting sensor



Purpose:

Autonomous launch of up to 6 MPH modules in case of fire

Modifications:

1. TPS – 01-72
2. TPS – 01-93
3. TPS – 01-110
4. TPS – 01-M



Made in Slovakia

Led chandelier extinguishing is a simple and inexpensive room protection system. In the basic version, it contains an MPH fire extinguishing module and a TPS temperature sensor. The whole system is fully automatic and is absolutely passive. **During the guaranteed service life of 12 years, it does not need any electricity for its operation.** The extinguishing module does not contain any internal pressure and therefore no pressure tests or replacements are required as with conventional gas, water or other powder extinguishing systems. STOP-FIRE-SAPFIR is a 100% maintenance-free extinguishing system.

Powder extinguishing is dry extinguishing that does not damage electronics or other sensitive surfaces, such as works of art that are sensitive to moisture. The powder just needs to be blown out with air or vacuumed; it is 100% ecological and as soft as children's powder. Therefore, it does not scratch the surface.



Autonomous activation device TPS – 01





MPH – 2.8



The module is designed to extinguish hotbeds of ignition in closed cabinets with electronic and electrical equipment of small volume, cable channels, technological equipment on the surface up to 32 m² and volume up to 65 m³.



Technical parameters

Name of a parameter		Value
The volume of housing, liter		2.8
Total weight, kg		5.0
Weight of the fire extinguishing powder ISTO-1, kg		4.8
Size, mm	diameter	155
	length	215
Protected surface, m ²	Class A	32
	Class B	14
Protected volume, m ³	Class A	65
	Class B	17
Activation current, A		0.12
Service life, years		12
Anti explosion label		0ExialIBT3 X, RP Exial X



MPH - 4



The module is designed to extinguish hotbeds of ignition in closed cabinets with electronic and electrical equipment of small volume, cable channels, technological equipment on the surface up to 40 m² and volume up to 100 m³.



Technical parameters

Name of a parameter		Value
The volume of housing, liter		4.3
Total weight, kg		7.0
Weight of the fire extinguishing powder ISTO-1, kg		4.0
Size, mm	diameter	280
	length	195
Protected surface, m ²	Class A	40
	Class B	16
Protected volume, m ³	Class A	100
	Class B	20
Activation current, A		0.12
Service life, years		10
Anti explosion label		0ExialIBT3 X, RP Exial X



MPH - 6



The module is designed to extinguish hotbeds of ignition in closed cabinets with electronic and electrical equipment of small volume, cable channels, technological equipment on the surface up to 50 m² and volume up to 150 m³.



Technical parameters

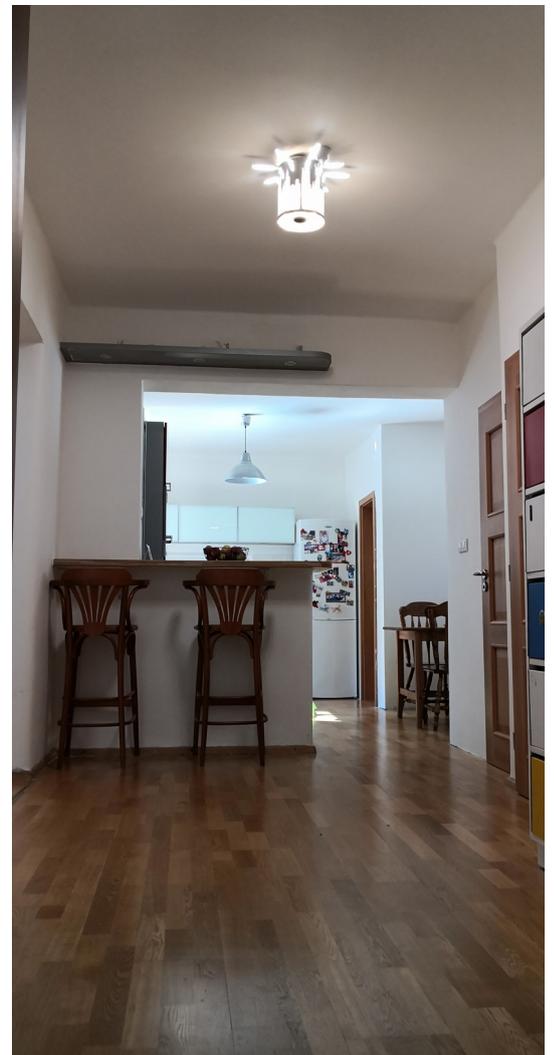
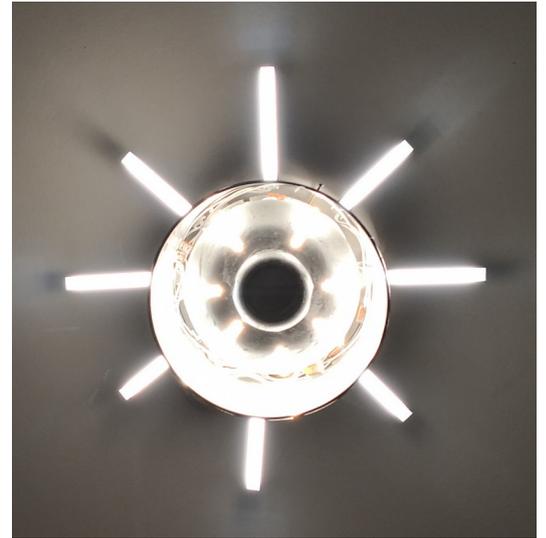
Name of a parameter		Value
The volume of housing, liter		6.5
Total weight, kg		10.0
Weight of the fire extinguishing powder ISTO-1, kg		6.0
Size, mm	diameter	286
	length	233
Protected surface, m ²	Class A	50
	Class B	27
Protected volume, m ³	Class A	150
	Class B	38
Activation current, A		0.12
Service life, years		10
Anti explosion label		0ExialIBT3 X, RP Exial X

Led chandelier extinguishing: Model 2.8 is a simple and cheap room protection system from a height of 2m to 4m! Extinguishing the room has a maximum area of 32m² and a maximum volume of 65 m³. Fire extinguishing takes place simultaneously on the area but also the entire volume of the room. It is ideally used for extinguishing spaces with a ceiling height of more than 2 m.

Powder extinguishing is dry extinguishing that does not damage electronics or other sensitive surfaces, such as works of art that are sensitive to moisture. The powder just needs to be blown out with air or vacuumed; it is 100% ecological and as soft as children's powder. Therefore, it does not scratch the surface.

Extinguishing system Model 2.8 is a highly efficient and inexpensive extinguishing of types of fires: A, B, C, and E.

Detailed overview here: <https://stop-ohen.info/led-luster-haseniamodel-2-8-a/>



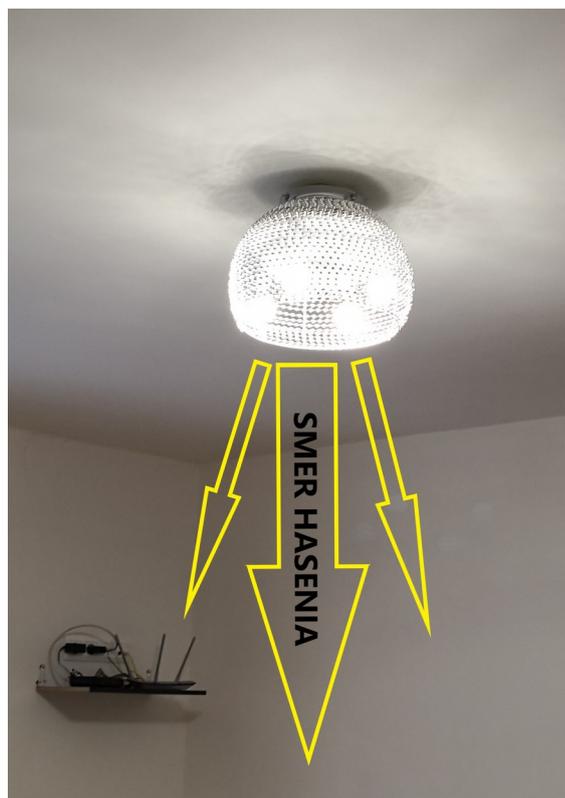


Led chandelier extinguishing: Model 4 is a simple and cheap room protection system from a height of 2m to 4m! Extinguishing the room has a maximum area of 40 m² and a maximum volume of 100 m³. Fire extinguishing takes place simultaneously on the area but also the entire volume of the room. It is ideally used for extinguishing spaces with a ceiling height of more than 2,5 m.

Powder extinguishing is dry extinguishing that does not damage electronics or other sensitive surfaces, such as works of art that are sensitive to moisture. The powder just needs to be blown out with air or vacuumed; it is 100% ecological and as soft as children's powder. Therefore, it does not scratch the surface.

Extinguishing system Model 4 is a highly efficient and inexpensive extinguishing of types of fires: A, B, C, and E.

Detailed overview here: <https://stop-ohen.info/led-luster-autonomne-hasenie-stop-fire/>

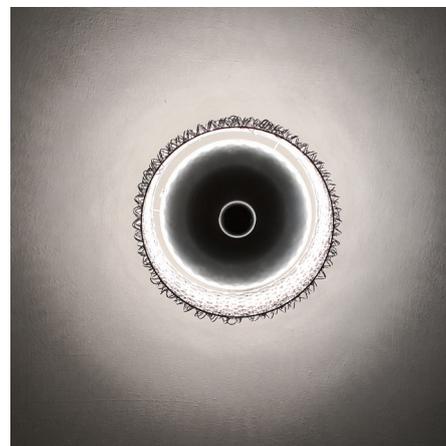


Led chandelier extinguishing: Model 6 is a simple and cheap room protection system from a height of 2m to 4m! Extinguishing the room has a maximum area of 50 m² and a maximum volume of 150 m³. Fire extinguishing takes place simultaneously on the area but also the entire volume of the room. It is ideally used for extinguishing spaces with a ceiling height of more than 3,5 m.

Powder extinguishing is dry extinguishing that does not damage electronics or other sensitive surfaces, such as works of art that are sensitive to moisture. The powder just needs to be blown out with air or vacuumed; it is 100% ecological and as soft as children's powder. Therefore, it does not scratch the surface.

Extinguishing system Model 6 is a highly efficient and inexpensive extinguishing of types of fires: A, B, C, and E.

Detailed overview here: <https://stop-ohen.info/led-luster-hasenie-model-6/>



For MONDI Štětí a.s Czech Republic, we have been developing an autonomous system for extinguishing conveyor towers for over a year. In SCP MONDI Ružomberok in 2019 a fire broke out in one of the conveyor towers. As it is a water extinguishing system = dry water. In the event of a fire, a fire truck must arrive, which will be connected to the high-pressure pipeline and pump water into the pipeline, however this process is time consuming until the extinguishing itself has taken place. Before fire extinguishing has taken place the fire has already destroyed one conveyor tower. That's why the Mondi management has asked us to develop an automatic system that does not contain water, as it freezes in the winter and damages expensive electrical systems in the event of a fire.

In agreement with MONDI Štětí, we performed repeated extinguishing tests with the participation of experts and firefighters. They turned out successfully and subsequently we agreed to develop a system for their needs, it was within 3 months. The installation of the tower extinguishing itself was carried out during the planned major shutdown of the factory in July 2020. The installation itself took 3 days. The system is fully functional and will provide automatic tower extinguishing for 12 years, with no restrictions on operation.

Detailed overview here: <https://stop-ohen.info/mondi-steti-a-s-ceska-republika/>



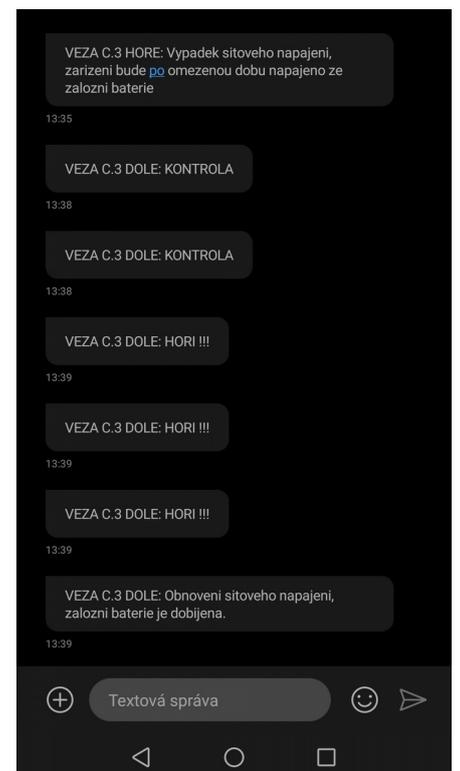
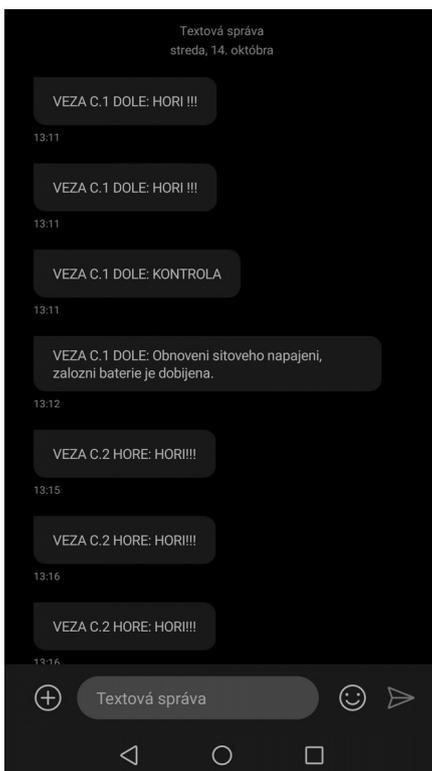
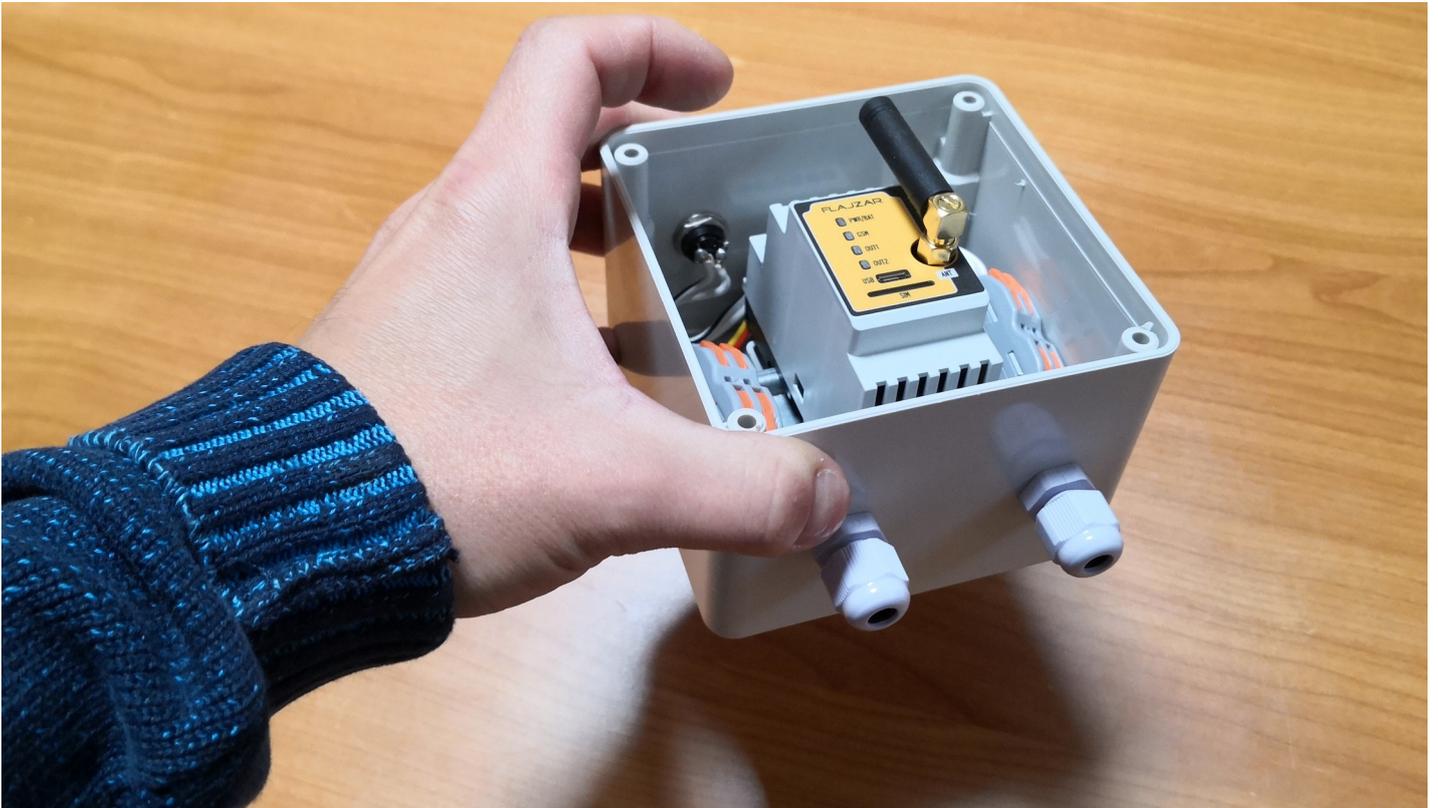
MONDI Štětí a.s

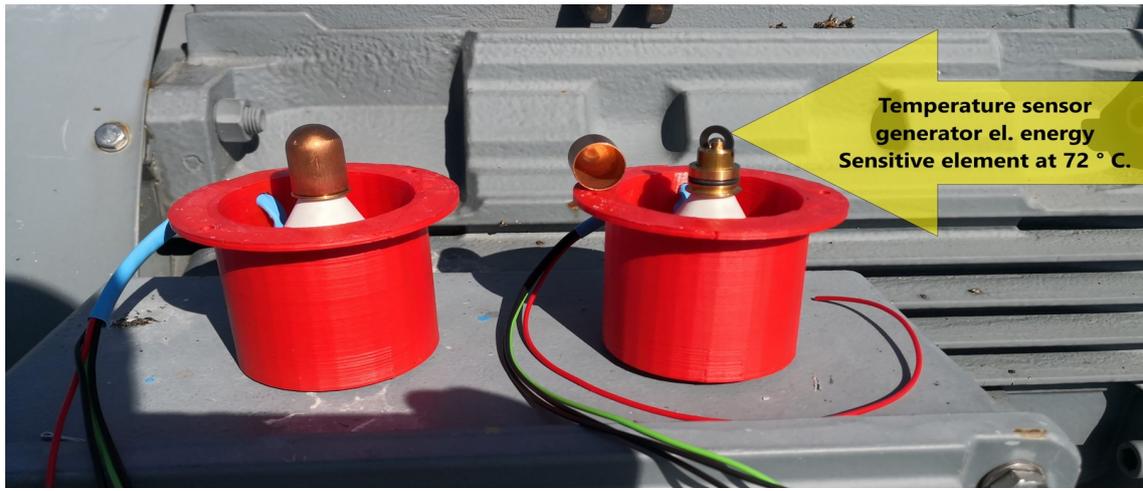
extinguishing system of conveyor towers. Here is a greater risk of fire due to the friction of wooden pieces of wood chips and wood dust, which gets into the bearings of the conveyor rollers and over time causes friction, which then ignites the entire tower. This has happened several times in the past. Therefore, a **STOP-FIRE-SAPFIR** fire extinguishing system was installed.



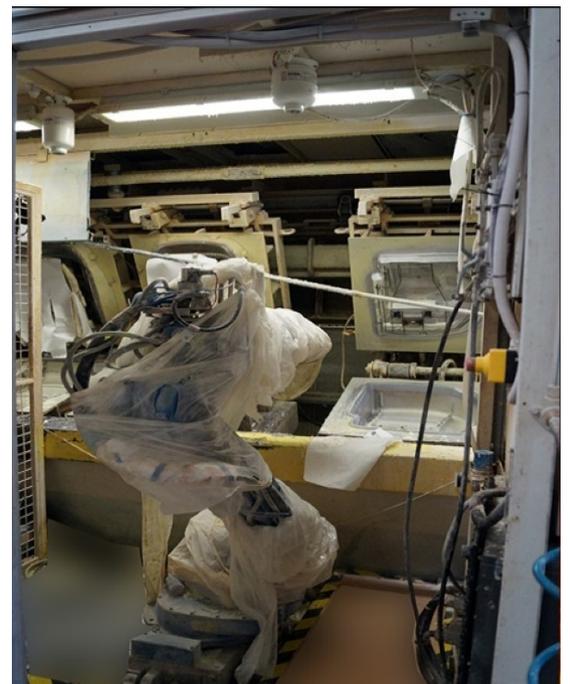
MONDI Štětí a.s

Especially for the needs of remote GSM alarm and diagnostics of the autonomous tower extinguishing system, we have rapidly developed a unique GSM module. It contains its own diagnostics + backup power supply. In addition to sending alarm sms messages, the higher equipment can also receive an encrypted message for remote manual execution of extinguishing from the control room of the tower operator. Cheap and easy solution.



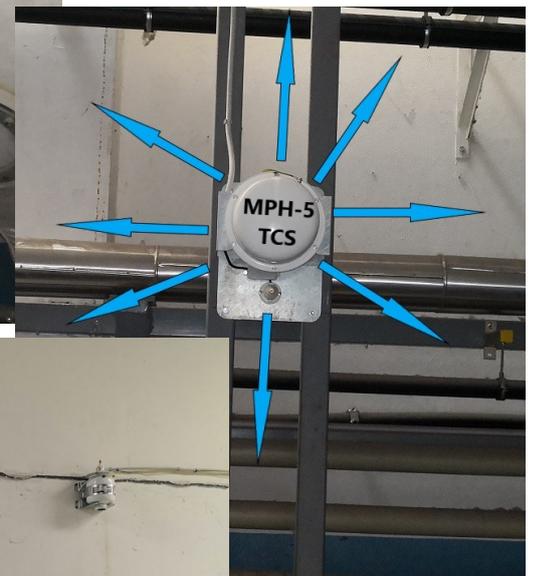
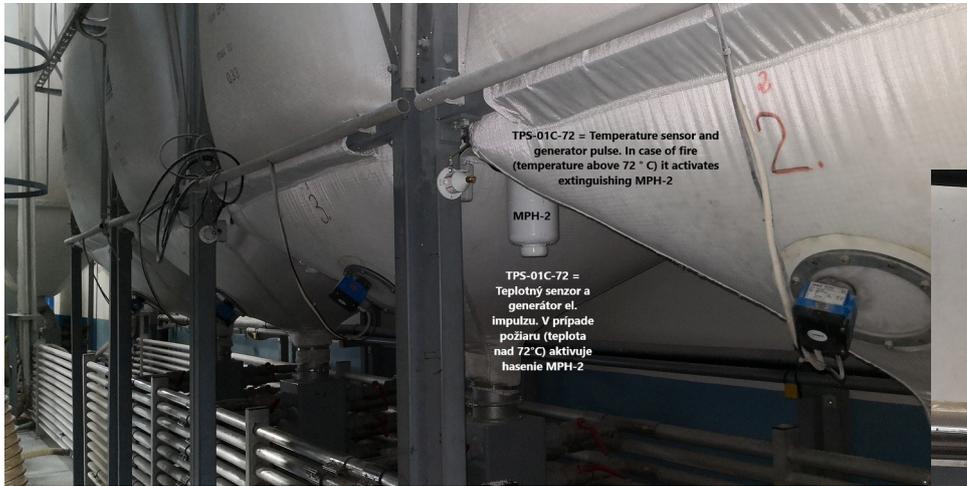
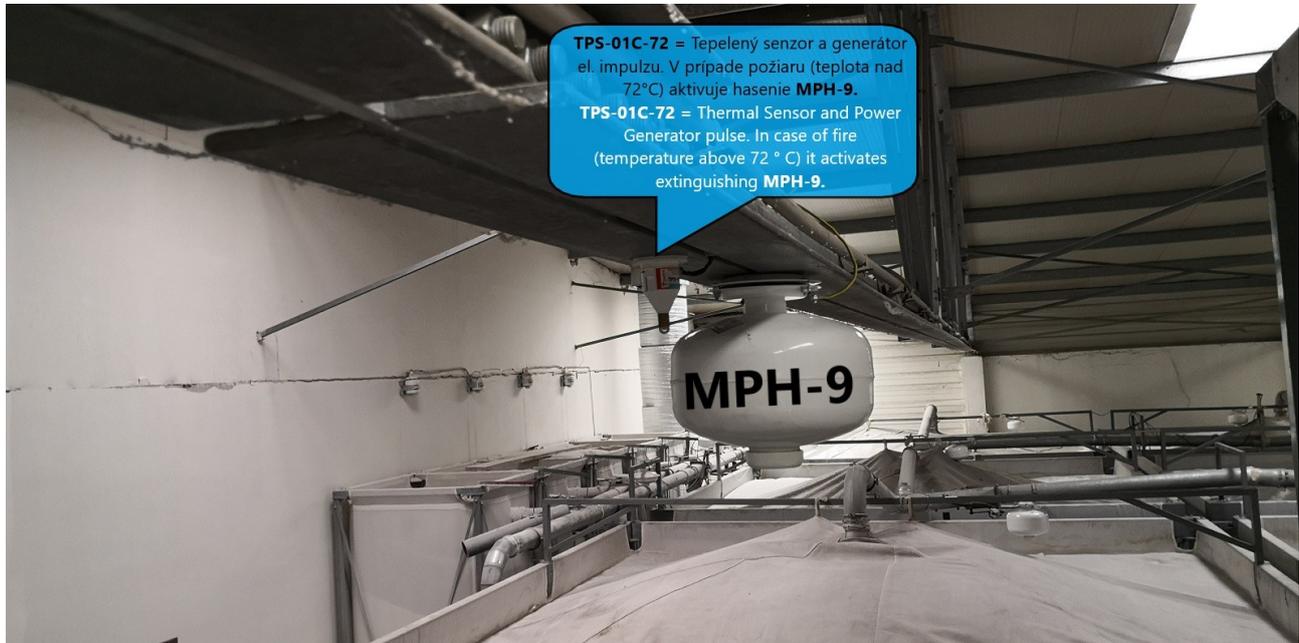


SAPFIR autonomous fire extinguishing systems have been protecting ŠKODA and HYUNDAI production factories in the Czech Republic and Slovakia against fire for more than 6 years. In all three production factories, autonomous fire extinguishing systems SAPFIR is installed as the main fire extinguishing system for robotic production, fuel warehouses + pumps and engine development.



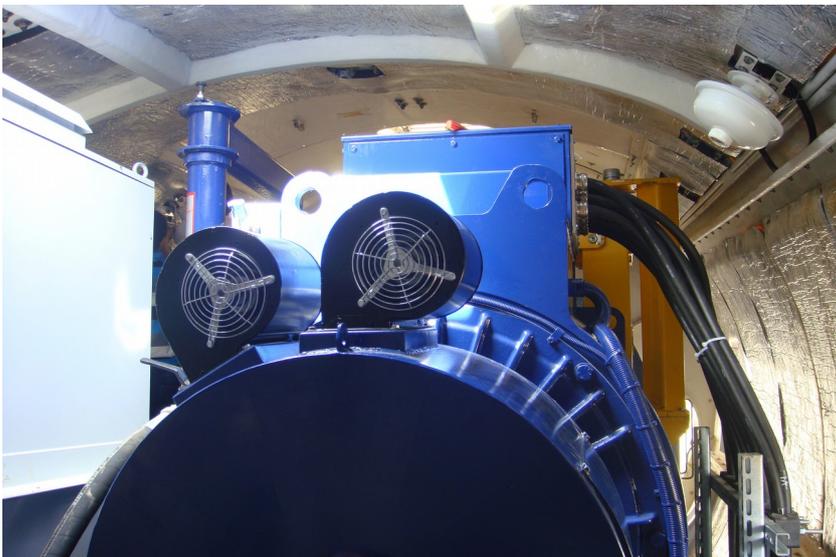
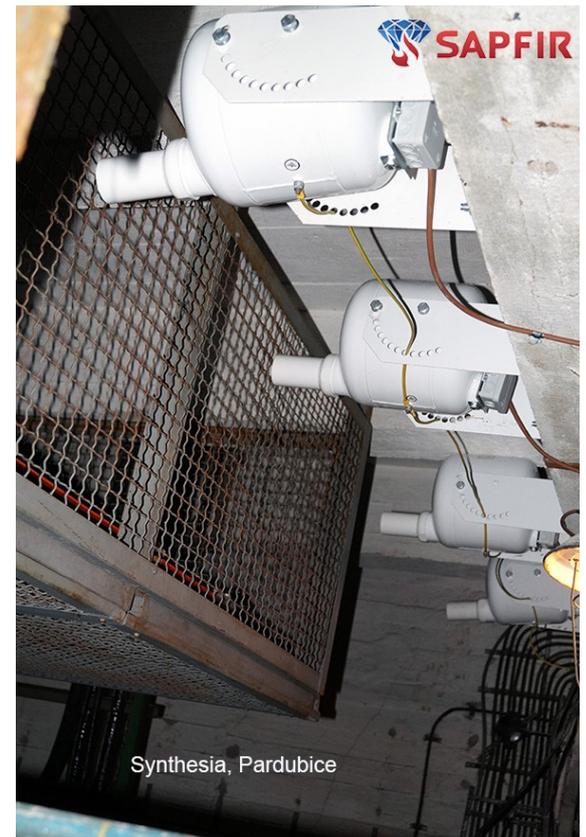
A 4-stage system was developed for the chemical industry and plastics production (**JASPLASTIK-SK**), which is designed to extinguish explosive and extra flammable environments in the production and foaming of polystyrene, as it releases highly explosive gas PENTAN. The system consists of more than 45 separate zones of extinguishing a combination of high-capacity ceiling parts, ceiling extinguishing, extinguishing of internal parts of forces and all areas of polystyrene production and storage. **Autonomous extinguishing of chemical production without the need for operation and maintenance during the entire 12 years of the service life of extinguishing modules in the temperature range from - 50 to + 50 ° C.**

Detailed overview here: <https://stop-ohen.info/jas-plastik-galanta/>



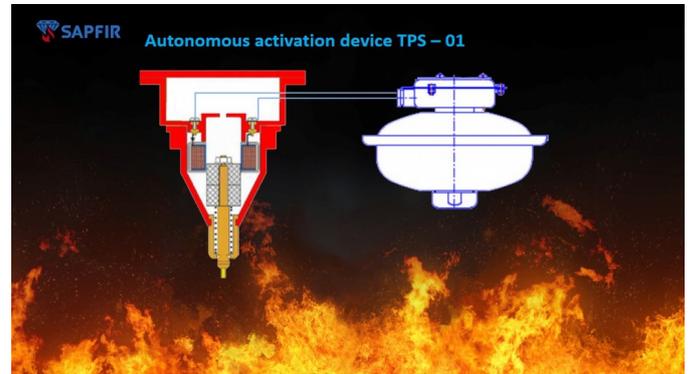
STOP-FIRE-SAPFIR autonomous fire extinguishing systems are used for extinguishing all types of electrical equipment. They are designed for extinguishing narrow and long cable ducts, as well as electric transformers and wind power plants up to 40,000 V.

The advantage of fire extinguishing systems includes easy transport and placement to protect against fire. This is due to the system not containing any water or internal pressure; there is no damage to electrical wiring or other sensitive parts. Likewise, frost and high temperatures do not reduce the functionality and efficiency of dry powder extinguishing. **The device works fully automatically without the need to connect to electric energy for full 12 years of guaranteed life.** **The functionality of the automatic extinguishing is in the temperature range from - 60 to + 125 ° C!**

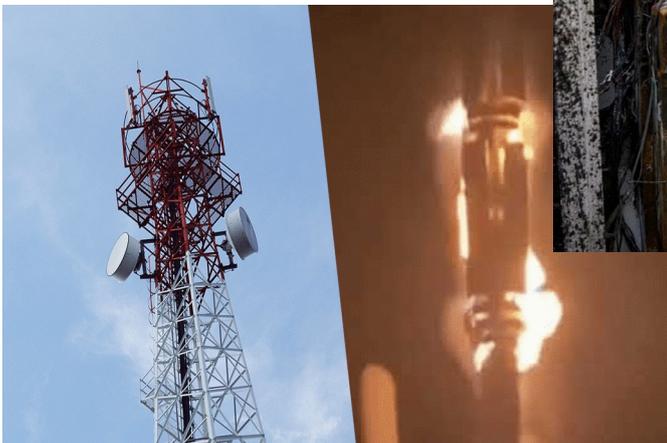
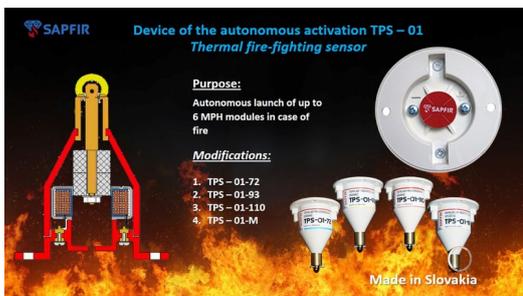


Autonomous dry powder extinguishing SAPFIR is ideal for extinguishing electrical equipment, electronics and almost anywhere but it **MUST NOT** come into contact with water! Extinguishing is resistant to outside temperature in the range of -60 to + 125 ° C! It has proved especially successful in extinguishing hydraulic lines, which are the most common source.

Fire extinguishing modules do not require any maintenance for 12 years as they do not contain internal pressure and do not need to be connected to electricity for their functionality energy. The temperature sensor is also generator of electric energy. In case of fire, it is activated and creates an electric impulse to start extinguishing.



Protection of BTS stations and el. switchboards against fire



Extinguishing is fully automatic from a temperature of 72 ° C!

During the summer, the temperature raises critically, which results in overheating of the electronics which results in increased risk of fire. To prevent a possible fire, we offer SAPFIR fire extinguishing systems of various types and sizes. Fire extinguishing equipment is determined by the field of need for extinguishing the equipment or space. The advantage of the system is immediate functionality after installation without the need for water supply, ideal also for electrical distribution cabinets, transformer stations and electronics. We are also not limited by the amount of extinguishing.

In case of interest, we offer an inspection of the building in order to design a fire extinguishing system for the device or building. We also offer a real fire extinguishing test such as electric distribution box to demonstrate the effectiveness of the fire extinguishing system.

SAPFIR fire extinguishing systems are highly efficient and cheap for extinguishing all types of fires: A, B, C, and E.



by technology  **SAPFIR**
www.stop-ohen.info

NanoOil & Sapfir s.r.o.

Karpatské námestie 10
831 06 BRATISLAVA – Slovakia

Phone: +421 908 733 659
E-mail: socha@stop-ohen.info

Autonomous dry powder extinguishing SAPFIR LOCO is ideal for extinguishing electrical equipment, electronics and almost anywhere but it MUST NOT come into contact with water! Extinguishing is resistant to outside temperature in the range of -60 to + 125 ° C! It has proved especially successful in extinguishing hydraulic lines, which are the most common source.

Fire extinguishing modules do not require any maintenance for 12 years as they do not contain internal pressure and do not need to be connected to electricity for their functionality energy. The temperature sensor is also generator of electric energy. In case of fire, it is activated and creates an electric impulse to start extinguishing.



In 2019 alone, several locomotives and wagons burned down in Slovakia, and they did not have to!!



SAPFIR LOCO in 2018-2019 extinguished 2 locomotives at 100%!

During the summer, the temperature raises critically, which results in overheating of the electronics which results in increased risk of fire. To prevent a possible fire, we offer SAPFIR LOCO fire extinguishing systems of various types and sizes. Fire extinguishing equipment is determined by the field of need for extinguishing the equipment or space. The advantage of the system is immediate functionality after installation without the need for water supply, ideal also for electrical distribution cabinets, transformer stations and electronics. We are also not limited by the amount of extinguishing.

In case of interest, we offer an inspection of the building in order to design a fire extinguishing system for the device or building. We also offer a real fire extinguishing test such as electric distribution box to demonstrate the effectiveness of the fire extinguishing system.

SAPFIR fire extinguishing systems are highly efficient and cheap for extinguishing all types of fires: A, B, C, and E.

At the beginning of 2017, we were asked by the management of TSS GRADE to devise a fire extinguishing system for locomotives, as there was no effective extinguishing system until then. When the hydraulics on the locomotive started to burn, conventional fire extinguishing systems could not extinguish it and the locomotive almost always burned to the ground. This is how 2 work locomotives burned down. The photos below are from a tour at the Czech depot where the locomotive was reconstructed after a fire 1.5 years ago!

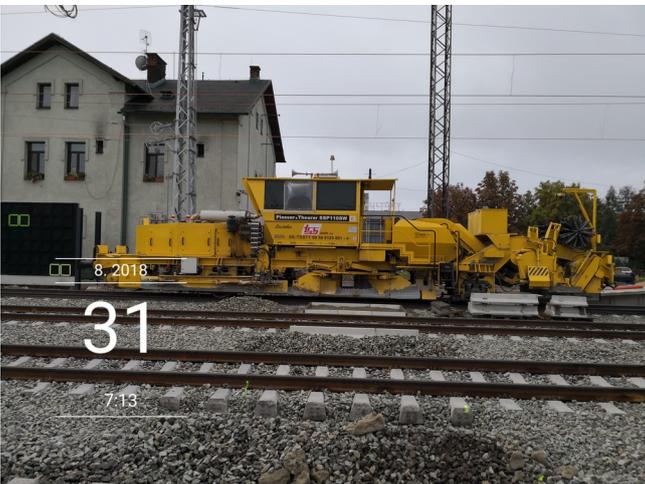


The first prototype SAPFIR LOCO



The total damage caused by the fire and the subsequent reconstruction, which lasted 1.5 years, was approximately € 2,600,000!

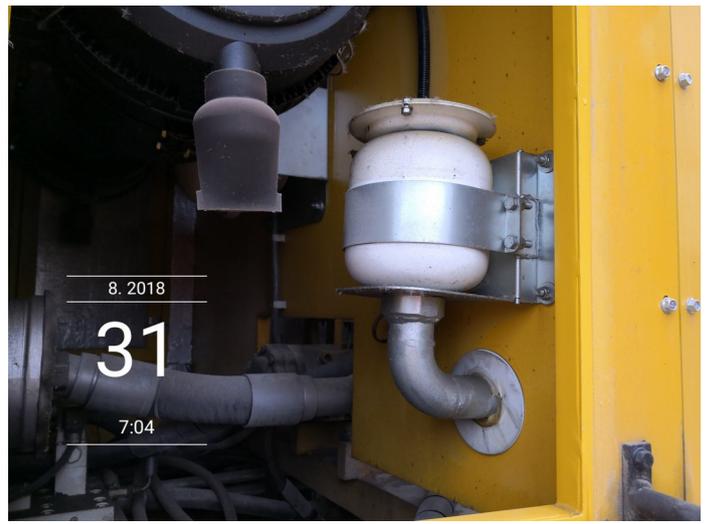
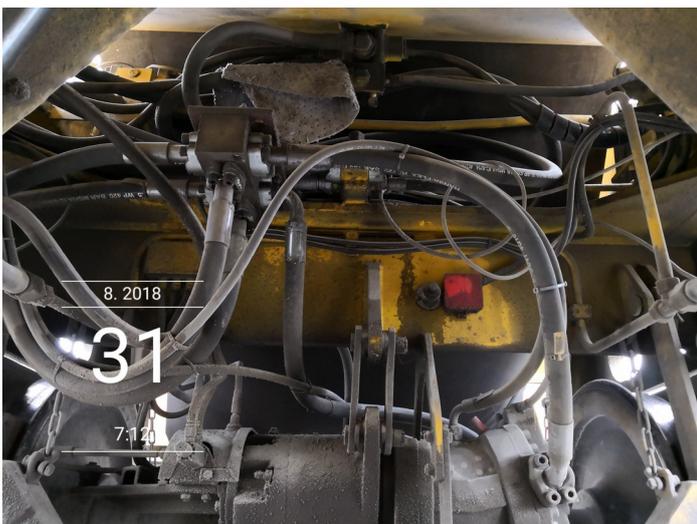
The development and installation of SAPFIR LOCO itself was carried out within 3 months of the inspection in order to design a fire-fighting prototype. Date of assembly the second half of 2017 in the Czech Republic.



30/08/2018 during the ride there was a fire in the engines which was automatically extinguished.

After a small repair, the problem was eliminated by the crew and the locomotive was operational again. The next morning, we performed a fire inspection to determine the cause.

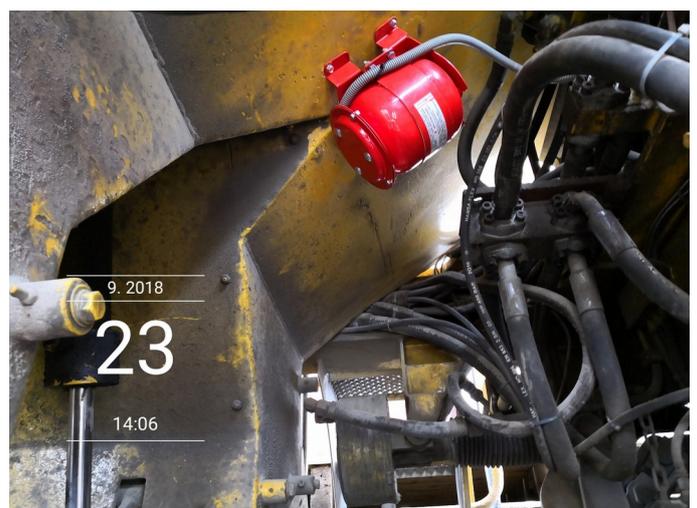
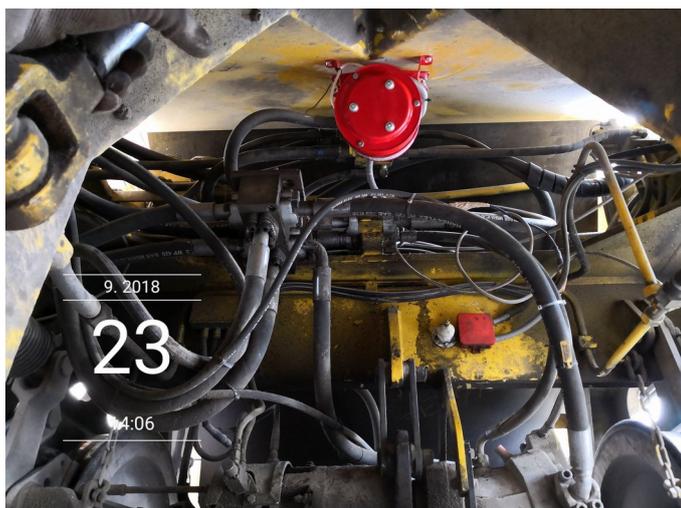
Then the locomotive went on to move. Over the following weeks, 2 engine fire modules were produced for replacement, but at the same time, we came up with an improvement with a new 180 ° C motor temperature sensor.



Replacement of fire extinguishing modules after successful engine shutdown, the first functional prototype of SAPFIR LOCO fire extinguishing

Due to this being the 1st functional prototype we still was learning about the problems about locomotives. Before we could replace the two extinguishing models and heat sensor. The building department at Sapfir came up with even better quality heat sensor which would reach of up to 180°C. However during all this we found another possibility of fire on the locomotive and therefore from 2 zones we came up with zone number3 which includes extinguishing distribution board under backfill. At this time the locomotive is completely safe from fire, which results at being unable to burst into flames at any part. All this reconstruction and exchange has been done under 8 hours.

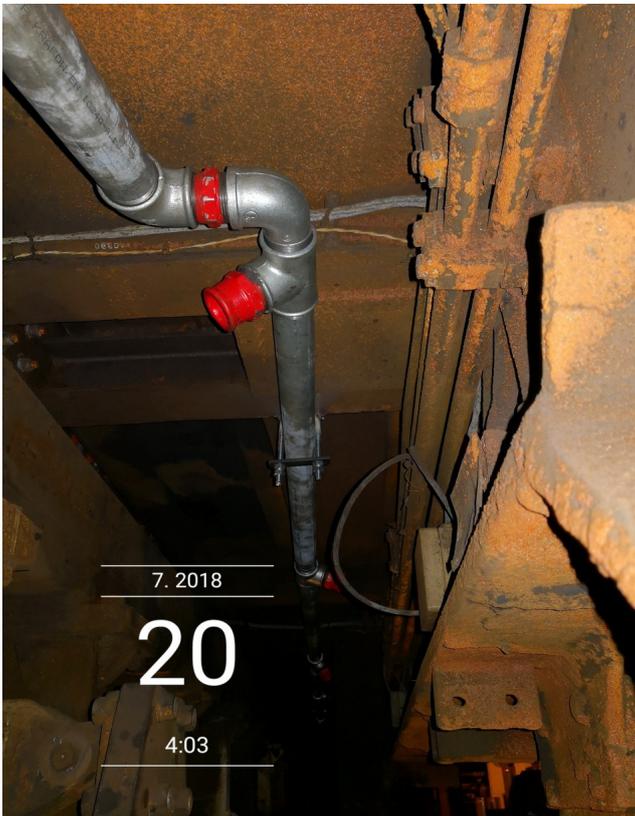
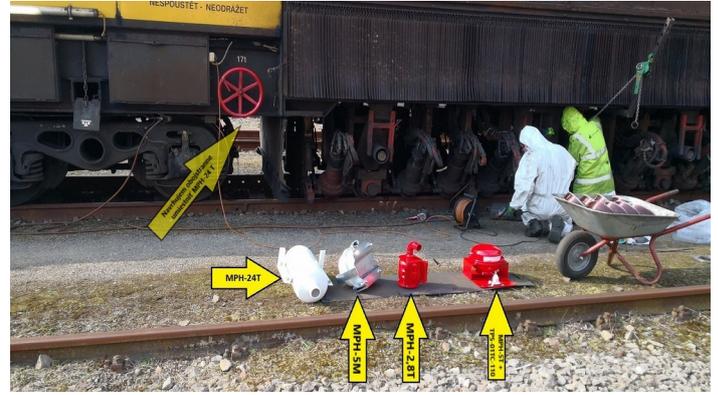
Detailed overview here: <https://stop-ohen.info/projekt-03/>



In year 2018, we were asked by the management of HROCHOSTROJ to invent a fire extinguishing system for an American-made grinding locomotive. They learned from their partner TSS GRADE that we could devise a fire extinguishing system for locomotives. By saving the engine from fire on the TSS GRADE locomotive, we saved time and about 2.5 mil. € For outage and reconstruction after a fire (primary fire without extinguishing SAPFIR LOCO).

Detailed overview here: <https://stop-ohen.info/kolajova-bruska-schweerdau-spml-16-2/>

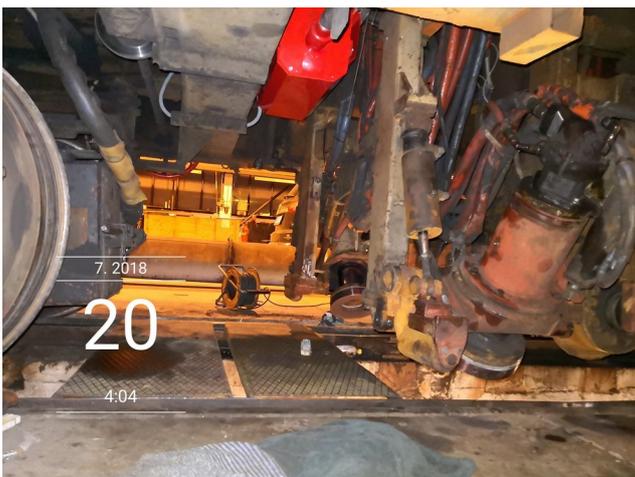
We know that the grinding locomotive consists of two wagons. The rear wagon is a water tank and equipped with a fire extinguisher from the manufacturer. Specifically, this locomotive burned down completely and the reconstruction itself lasted almost 2 years and about 100,000,000 CZK!



On July 20, 2018, prototype No. 2 SAPFIR LOCO for a grinding locomotive was installed.

For this type of extinguishing, a new type of fire extinguishing transport cannon MPH-24T and an invented carrier that could withstand shocks and temperatures on the chassis of the grinding set had to be developed. Temperatures when grinding rails are up to 800°C!

During this extinguishing launch it is combined extinguishing of the of the chassis part of the grinder with the autonomous extinguishing in the cable canal in the upper part of the hydraulics.

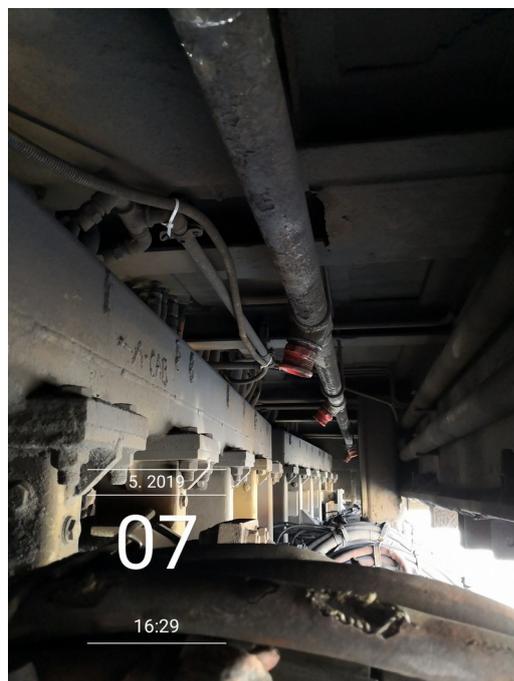
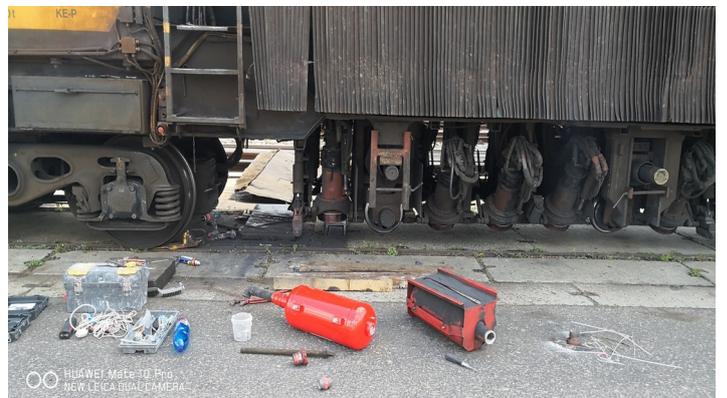


In March 2019, only 8 months after the installation of SAPFIR LOCO, the grinding part of the locomotive caught fire. During the first fire (before the installation of SAPFIR LOCO) the locomotive burned into the structure.

Now the operator started extinguishing the chassis, which extinguished the fire within a few seconds. The source of the fire was a ruptured hydraulic hose, which caused the hydraulics to leak onto the hot grinding wheels.



In May 7th, 2019 during the planned service outage of the grinding locomotive, the MPH-24T fire extinguishing cannon was replaced to extinguish the grinding heads of the chassis. Since then, the system is fully functional again.

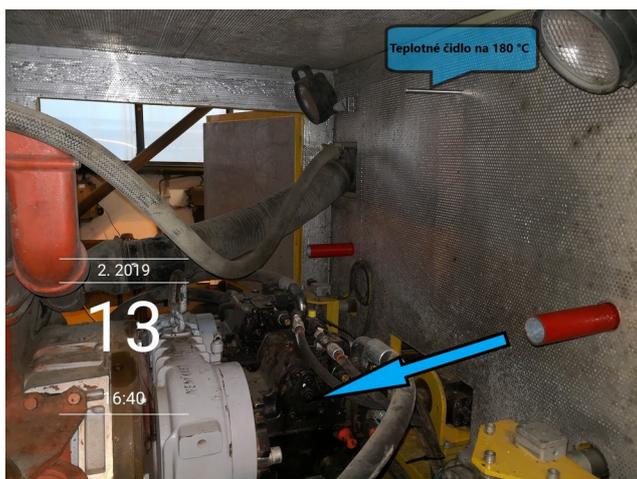
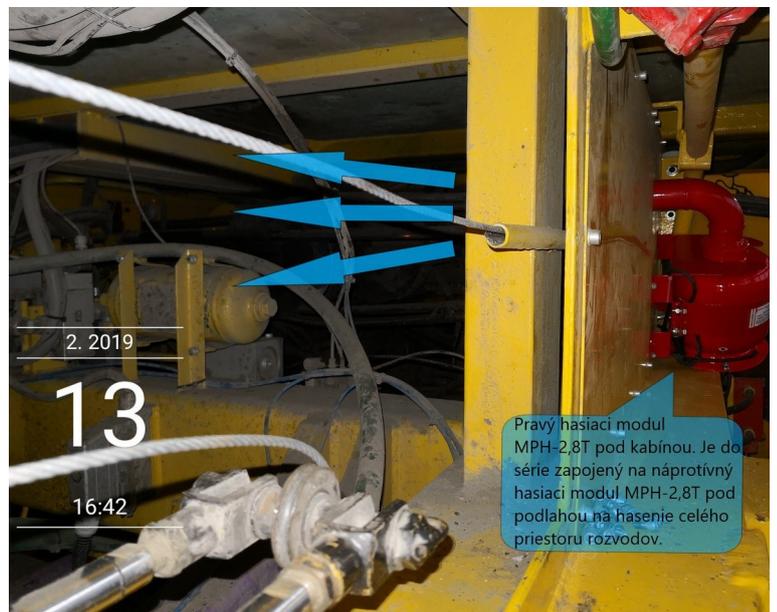


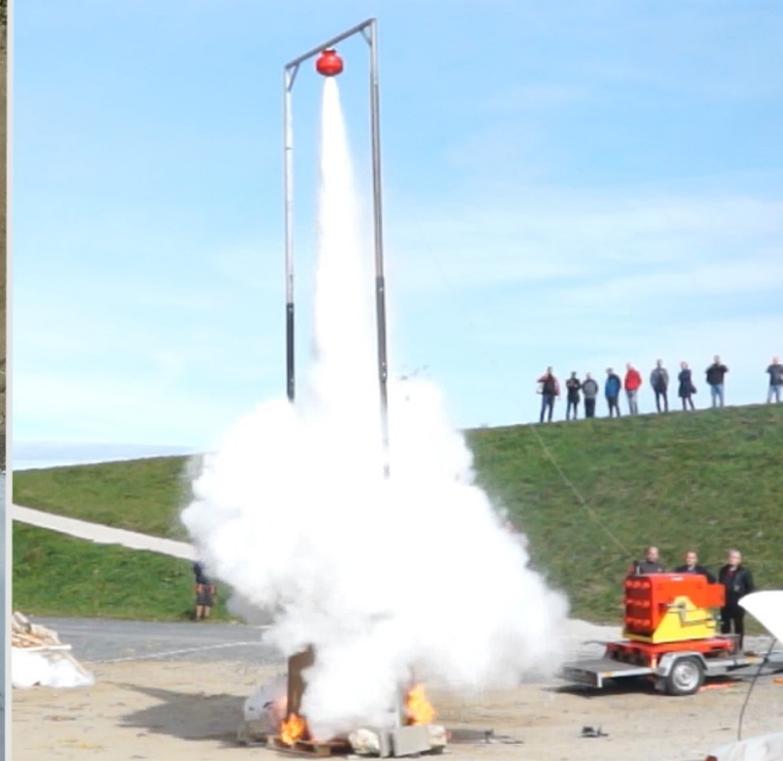
At the beginning of 2019, we were asked by the management of HROCHOSTROJ to come up with a fire extinguishing system for a working locomotive. It was destroyed by a fire during transport (pulled by a train) when the gearbox remained engaged while driving. It caused the fire itself. Here again, a completely new system for extinguishing the chassis, engine and also hydraulic distribution under the cab had to be devised. But again we managed to come up with something new. In this case, the extinguishing system is divided into 4 automatic extinguishing zones.

<https://stop-ohen.info/zametacka-ssp-110-sw-1-deutsche-plasser/>



Before mounting SAPFIR LOCO





MPH - 9



Technical parameters



The module is designed to extinguish hotbeds of ignition in closed cabinets with electronic and electrical equipment of small volume, cable channels, technological equipment on the surface up to 72 m² and volume up to 216 m³

Name of a parameter		Value
The volume of housing, liter		9.0
Total weight, kg		13.0
Weight of the fire extinguishing powder ISTO-1, kg		8.6
Size, mm	diameter	286
	length	268
Protected surface (S), m ²	Class A	72
	Class B	33
Protected volume, m ³	Class A	216
	Class B	42
Activation current, A		0.12
Service life, years		10
Anti explosion label		0ExialIBT3 X, RP Exial X





MPH – 10st



Technical parameters

Name of a parameter		Value
The volume of housing, liter		9.5
Total weight, kg		20.0
Weight of the fire extinguishing powder ISTO-1, kg		9.5
Size, mm	diameter	397
	length	305
Protected surface , m ²	Class A	310
	Class B	80
Protected volume, m ³	Class A	36
	Class B	240
Activation current, A		0.12
Service life, years		10
Anti explosion label		0ExialIBT3 X, RP Exial X



The module is designed to extinguish hotbeds of ignition in closed cabinets with electronic and electrical equipment of small volume, cable channels, technological equipment on the surface up to 80 m² and volume up to 240 m³





Mobile fire fighting system TPS-920.24



TPS Ranger



Name		Value
Weight (without carrier), kg		≤ 600
Size, mm	Height	1400,0
	Length	800,0
	Width	1000,0
Protected surface, m ²	Class A	900
	Class B	700
Protected volume, m ³	Class A	6000
	Class B	-
Activation method		Manual
Operational temperature, °C		-50 ÷ +50
Span of service without maintenance, years		12



KONFORMITÄTSBESCHEINIGUNG

CERTIFICATION OF CONFORMITY

FEUERLÖSCHMITTEL

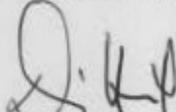
FIRE EXTINGUISHING MEDIA

EN 3-10 : 2009-11, Anhang C (Anhang 1, Laborprüfbericht)

EN 3-10 : 2009-11, annex C (annex 1 of laboratory test report)

Bericht Nr.: Report No.:	20170629
Bezeichnung des Feuerlöschmittels: Designation of the extinguishing medium:	Feuerlöschpulver SAPP 100 Extinguishing powder SAPP 100
Zulassungs-Kenn-Nummer: Certificate No.:	—
Hersteller – Feuerlöschmittel: Manufacturer – fire extinguishing medium:	SAPFIR s.r.o. Zharadna 19, 90024 Velky Biel, Slovak Republic
Auftraggeber: Requested by:	SAPFIR s.r.o. Zharadna 19, 90024 Velky Biel, Slovak Republic
Eingang des Auftrages und der Probe: Receipt of application and sample:	19.07.2017 / 11.10.2017 2017-07-19 / 2017-10-11

Datum: 12. Dezember 2017
Date: 12th December 2017


Dipl.-Ing. Dittrich
Leiter der Prüfstelle
Laboratory Manager



Für die Prüfungen wurden nur die in diesem Bericht angegebenen Einrichtungen und Materialien verwendet.
Only equipment and materials detailed in this report have been subjected to the tests.

Prüfergebnisse beziehen sich ausschließlich auf die geprüften Muster. Test results apply to the tested samples only.

Der Bericht darf ohne schriftliche Zustimmung der Prüfstelle nicht auszugsweise vervielfältigt werden. Veröffentlichungen von Prüfberichten und Hinweise auf Prüfungen zu Werbezwecken bedürfen in jedem Einzelfall der schriftlichen Einwilligung der Prüfstelle.
Publications of test reports and information on tests for publicity purposes require the written consent of the laboratory in every single case.

Jede Seite dieses Berichtes ist mit dem Dienststempel der Prüfstelle versehen.
Every page of this report is stamped with the seal of the laboratory.

Dieser Bericht besteht aus 3 Seiten. This report consists of 3 pages.

MPA Dresden GmbH
Fuchsmühlenweg 6F
09599 Freiberg
www.mpa-dresden.de

Geschäftsführer: Thomas Hübler
Tel. +49(0)3731-20393-0
Fax +49(0)3731-20393110
E-Mail info@mpa-dresden.de

Amtsgericht Chemnitz HRB 28268
Steuernummer: 220/114/03364
USt-IdNr. DE291271296

Sparkasse Mittelsachsen
Poststraße 1a
09599 Freiberg
IBAN DE68 870520003115024672
BIC WELADED1FGX



www.stop-ohen.info
www.stop-fire-sapfir.info



NanoOil & Sapfir s.r.o.

Karpatské námestie 10
831 06 BRATISLAVA
Slovak Republic

Slovak & CZ: **+421 908 733 659**
Speak English: **+421 905 926 011**
E-mail: **socha@stop-ohen.info**



by technology  **SAPFIR**[®]