

June 2024

Fogmaker News

Technical and market-related information for our partners

2024 Partner Days

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FOGMAKER
INTERNATIONAL AB

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Lars Alrutz, CEO
Fogmaker International AB.

A word from the CEO

Dear Partners,

The first half-year has ended and at Fogmaker we can look back at an exciting year so far with establishment in Brazil, great Partnerdays, and a growing customer base. We are almost on target for the year with +15% growth and we can see a lot of leads for the future coming in. We have employed a couple of new persons for the sales department and two of them are directly connected to you as Partners: Pontus Andersson and Helena Ador. Pontus will work with European Partners, excluding Scandinavia and the Baltic states as a commercial driver, and Helena will work globally, taking on Dilek's role but with less quality and more supportive focus for the development going forward. We have also employed a new Quality Manager in Mathi Witaker. He has great experience from the automotive sector, which is valuable to us in many ways.

As we all know there will be upcoming legislations regarding PFAS and we are ready to start selling our PFAS-free liquid ECO-1. Training and information will be sent out during or after the summer and it is important, especially for the European market, that we start to install for ECO-1 as soon as possible to avoid a larger number of possible conversions later. We don't know exactly how the legislations will

look, but we think we can't wait longer to start the transition as we want to keep the end customers satisfied. We have already made the transition in the US and Australia and it has worked well, but for Europe there are other standards which make it a bit more complicated in re-design of the systems. We can use the same Piston Accumulator, but the distribution system needs an upgrade.

We would also like to push for Material Handling and Mining & Tunneling as we see great interest right now in these two segments. We will participate in Minexpo in Las Vegas, Electra Mining in South Africa, and TOC Panama for those segments during the autumn. We also plan to exhibit at IAA in Hannover for the Truck segment.

Hope you enjoy this issue and I hope you all get some time to relax and get some summer/winter holidays during the coming months. Wish you all the best!

Lasse

2024 Partner Days

The 2024 Partner Days took place late May and visitors from all around the world visited Växjö, Sweden, to enjoy days packed with information and evenings packed with fun.

A huge Thank You to everyone who participated and helped make the event successful, and a special Thank You to Ofira, IFT, and USSC for their presentations.

Other highlights included Chairman of the Board Lars Fredin talking about Fogmaker's new owner, Dacke Industri, and their plans for Fogmaker International AB. Gustav Stigsohn presented information about electric

vehicles and how to think about fire suppression and Fogmaker in EVs. Gustav also held a segment on Fogmaker's competitors. Maria Glosax talked about Eco 1 and the long journey of developing this new liquid, and upcoming PFAS restrictions. There were also, among other things, presentations about news in each business segment, the Fogmaker brand, a mini fair, and practical demonstrations.

Fogmaker's previous CEO and owner Andreas Svensson also took part in the Partner Days and treated guests to helicopter rides over Växjö.

Presentations held by Fogmaker, some photos, and a [video](#) are available in the [Partner Portal](#). Please note that products shown at the mini fair are not yet released and any photos taken at that event cannot be shared with anyone outside your organisation.





Memories from the 2024
Partner Days. We hope you
enjoyed your trip to Sweden!



Congratulations to the Winners!

On the final evening of the Partner Days, Lars Alrutz and Johan Bjerstedt presented the Fogmaker Partner Awards.

Winners of the 2023 partner awards are:

Partner of the Year: Ofira Italiana SRL

For very good sales last year, and continuing to handle the Bus Market and the Aftermarket well while at the same time finding new markets in all segments available in Italy.

Loyal Supporter: Fogmaker Nederland

Wilbert de Beer has worked with Fogmaker for many years and is almost seen as our employee. He had a great 2023 with a lot of new business, and always keeps the customers in the Dutch market happy.

Up and Coming: Klottorp Trading

Klottorp Trading has been Fogmaker International's resource in Estonia for many years and has during 2023 grown very fast with a new ownership and more business opportunities in a market that now embraces the SBF standard in a way similar to Sweden and Finland.



Technical Notes

Optical alarm strobe

The optical alarm strobe 1760 will be replaced by a new strobe with article number 1763. The change is planned to take place on September 1 and is made to ensure timely deliveries.



Important Reminder: Novec will be Discontinued

Company 3M™ has announced that their product Novec™ 1230 will be discontinued by 2025-12-31. Novec™ 1230 is used in the Fogmaker product family starting with PN 1007... and 1008... These products are affected by this decision.

Also, the European Chemical Agency, ECHA, has proposed a ban on PFAS-chemicals. As the proposal is written, this includes the Novec™ 1230 chemical. The ban is planned to be decided in 2025 and in effect in 2026-2027.

Fogmaker will continue to supply Novec™ 1230 products for existing customers until the end of 2025, but because the discontinuation of production and the possible new legislation the products 1007 and 1008 and all variants will be discontinued by 2025-12-31.

For replacement solutions please contact your account manager or info@fogmaker.com



Information regarding airfreight for liquid

Due to new screening regulations, we will no longer be able to ship suppression liquid in barrels with 200 liters by air.

Thus far, it has been possible to send drums and barrels under 25 liters by air, but all air shipments are subject to X-ray screening. If a container with liquid can't be screened due to opacity, the shipment will not be accepted - it will be returned to the sender (Fogmaker).

The freight company may need to use X-ray methods that differ from the original calculation, which would mean increased shipping costs.

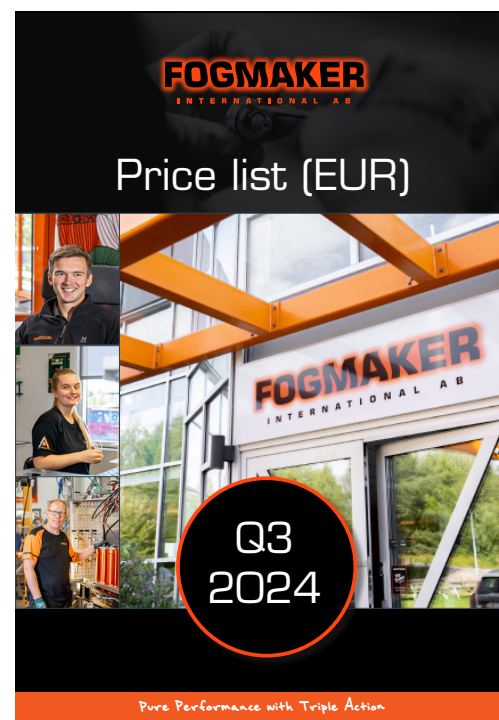
With this in mind, it is best to plan ahead and order suppression liquid as a sea freight shipment.



Updated Price List

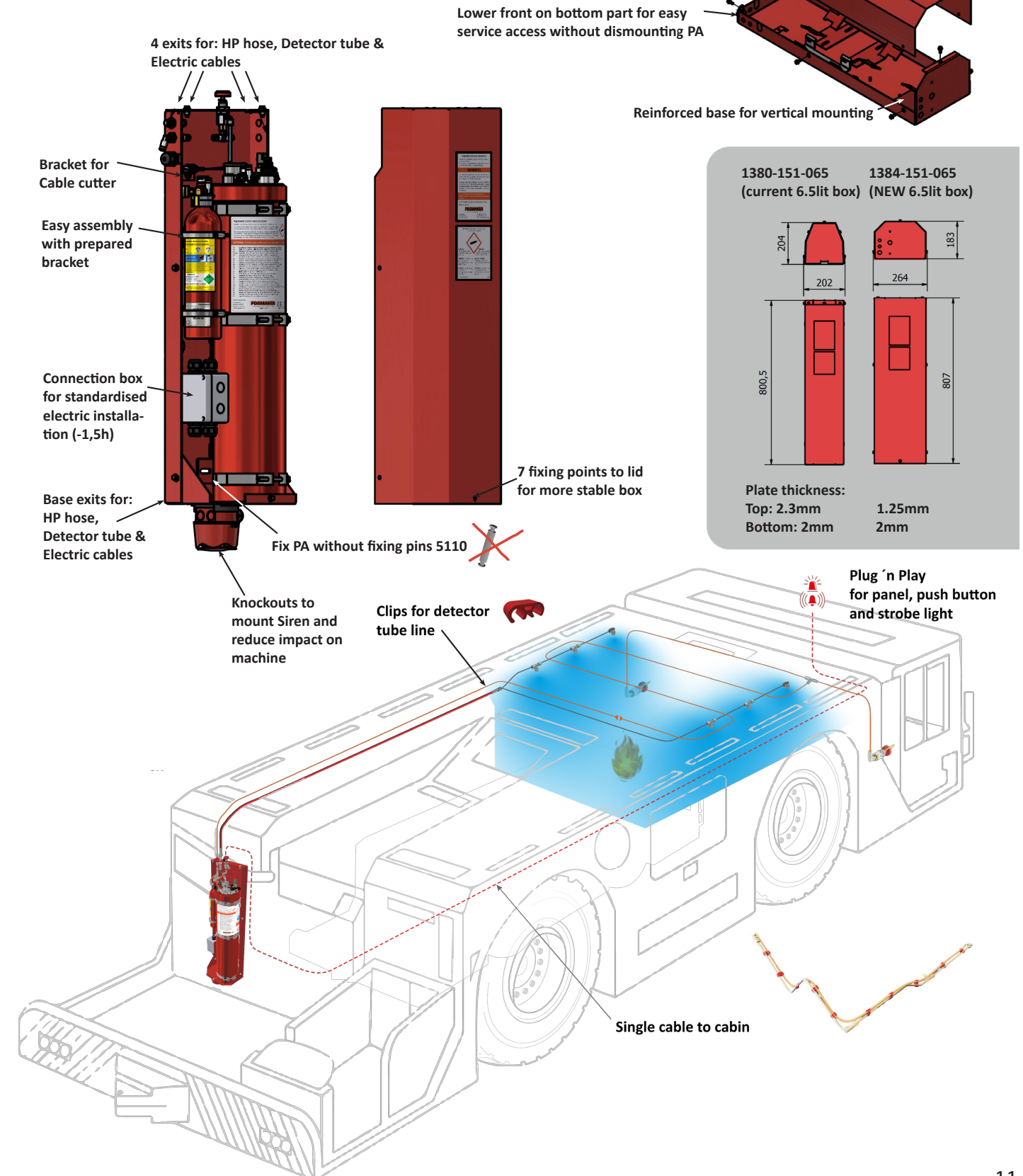
The updated price list for Q3, 2024, will be distributed in the next few days. It is important to always refer to the most recent version to ensure using the correct part numbers.

Please note that a new price list doesn't necessarily mean price changes. If you have questions, contact us at order@fogmaker.com



New Protection Box

- Standardised mounting for a qualitative installation!
- Less impact on machine with assembled components
- More options for hose and cable exits/entries



Interview with Gustav Stigsohn in International Fire Buyer

ELEVATING EV SAFETY WITH SUPPRESSION

Addressing EV fire risks, Gustav Stigsohn of Fogmaker explores water mist technology for effective, environmentally conscious fire suppression solutions in vehicles and machinery

The shift towards electric vehicles (EVs) represents a significant step in the automotive industry's journey towards sustainability and reduced carbon emissions. Despite the environmental benefits, the adoption of EVs introduces specific safety challenges, particularly concerning fire risks associated with lithium-ion batteries. These batteries, while efficient, are susceptible to thermal runaway, a condition where an increase in temperature can lead to a self-sustaining cycle of heating and potentially result in a fire that can continuously ignite. This risk is exacerbated in scenarios of battery damage or electrical faults, highlighting the importance of specialised fire suppression systems designed for the unique needs of EVs.

Fogmaker International, established in Sweden in 1995, specialises in water mist fire suppression systems. Their product line is engineered to address fire hazards in heavy vehicles and machinery,

including the specific challenges posed by EVs. The company's use of high-pressure water mist is a key feature of their systems, offering an effective method for cooling and suppressing fires in enclosed environments. This technology utilises the thermal capacity of water, dispersing it as fine droplets to rapidly absorb heat and reduce the oxygen levels around the fire, effectively suppressing it in all areas of a vehicle.

The application of Fogmaker's systems in EVs is particularly relevant given the nature, risk and toxicity of lithium-ion battery fires. Most EV vehicle fires are caused by fire spreading from other areas of a vehicle or machine, so the rapid cooling of the fire to prevent battery fire and thermal runaway is imperative. By focusing on targeted cooling and fire suppression, Fogmaker's solutions contribute to enhancing the safety profile of electric vehicles. As the automotive industry continues to evolve, with a growing emphasis on electric and

alternative fuel vehicles, the role of advanced fire suppression technology like that developed by Fogmaker International becomes increasingly critical in

mitigating the inherent risks and ensuring the safe adoption of these technologies.

To find out more about the technology behind Fogmaker's system, Fire Buyer caught up with Gustav Stigsohn, Product Owner of Fogmaker International.

CAN YOU INTRODUCE YOURSELF AND GIVE US A BRIEF INSIGHT INTO YOUR TECHNICAL BACKGROUND AS WELL AS THE HISTORY AND HERITAGE OF FOGMAKER INTERNATIONAL?

My name is Gustav Stigsohn, and I am a mechanical engineer with about 14 years of experience working at Fogmaker International, where I currently serve as a Product Owner. Previously I have also been involved in testing, product development, and some aspects of quality management. Fogmaker is a Swedish company established in 1995, specialising in manufacturing fire suppression systems primarily for heavy vehicles and machinery. We hold ISO 9001, 14001, and IATF certifications, producing approximately 35,000 units annually. Our customer base ranges from small, single-person companies to large OEMs.

HOW DOES FOGMAKER'S FIRE SUPPRESSION TECHNOLOGY WORK, ESPECIALLY CONCERNING ELECTRIC VEHICLES (EVs) AND MACHINERY?

Fogmaker utilises a water-based fire suppression agent due to water's excellent cooling properties. We employ high pressure to break down the water



GUSTAV STIGSOHN
PRODUCT OWNER
FOG MAKER

"As the automotive industry continues to evolve the role of advanced fire suppression technology becomes increasingly critical"

into tiny droplets, enhancing the cooling effect within the compartments. High-pressure water mist has excellent cooling performance and provides oxygen displacement. Fogmaker's fire suppression system spreads a fine high-pressure water mist over the fire. This efficiently cools the fire while displacing air when it vaporises, so the oxygen volume reduces in the protected area. The extinguishant is water with an performance increasing and antifreeze additive, and a small film-forming chemical that covers the fuel of the fire and prevents reignition.

A crucial part of our process includes conducting a thorough risk assessment, which is particularly important for electric vehicles. While the focus often lands on the battery pack, it's essential to recognise that other components in an EV may pose equal or higher risks.

IS THERE A COMMON MISCONCEPTION THAT ELECTRIC VEHICLES ARE MORE PRONE TO FIRES COMPARED TO COMBUSTION ENGINE VEHICLES?

Indeed, there is a misconception about EVs being more fire prone. However, statistics indicate EVs are 20 to 80 times less likely to be involved in a fire compared to vehicles with combustion engines. Nonetheless, when fires in electric vehicles do occur, they can be quite intense, which contributes to the public perception of their frequency and severity.

HOW DOES THE FOGMAKER SYSTEM MITIGATE THE RISK OF ELECTROCUTION, ANOTHER COMMON MISCONCEPTION, WHEN USING WATER FIRE SUPPRESSION SYSTEMS IN ELECTRIC VEHICLE FIRES?

The Fogmaker system is designed with safety in mind, primarily installed in areas without human presence, such as engine compartments. Additionally, to be electrocuted, one must be in contact with both the positive and negative terminals, which is unlikely because the high voltage system in electric vehicles is not grounded through the chassis like the 24 volt systems. There are also numerous safety features in electric vehicles that further reduce the risk of electrocution, making it very difficult even under direct exposure.



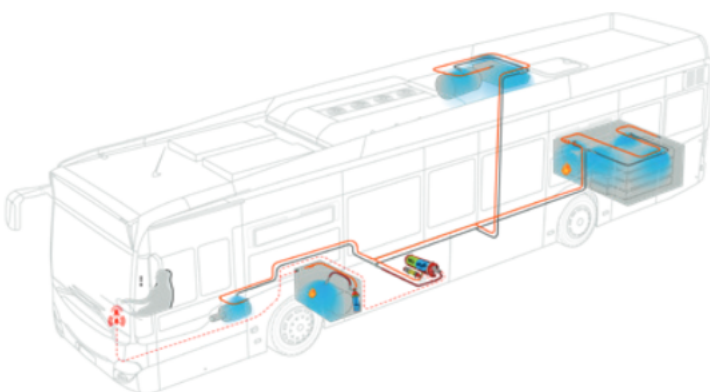
WHAT DO SKEPTICS SAY ABOUT INSTALLING FIRE SUPPRESSION SYSTEMS IN ELECTRIC VEHICLES, AND HOW DO YOU COUNTER THAT ARGUMENT?

Skeptics often argue that it's futile to install fire suppression systems in electric vehicles due to the intense nature of lithium-ion battery fires. However, statistics show that 50 to 60% of fires in electric vehicles start in areas other than the battery and do not spread to it. Fogmaker's approach aims to prevent the fire from reaching the lithium-ion battery, addressing the root cause before it can escalate to the battery itself. If we can prevent a battery fire, you prevent thermal runaway and all of the risks with lithium-ion battery fires are mitigated.

HOW DO FIRE SUPPRESSION SYSTEMS IN ELECTRIC VEHICLES DETECT FIRES, AND WHAT IS THEIR RESPONSE TIME TO THERMAL RUNAWAY?

Fogmaker's detection system is carefully designed not to detect thermal runaway before it occurs, but to identify fires in other vehicle components to prevent the fire from spreading to the battery itself preventing thermal runaway from occurring. The battery pack and its management system are better suited to handle internal issues on the battery itself.

Fogmaker fire suppression system functions in enclosed spaces that are difficult to reach with powder and plain water. The system can be activated manually or automatically. Our system has a longer emptying time compared to many other competing systems. It is extremely important for us to carry



out a risk assessment together with the customer before the system is installed. The risk to human life is always the highest priority for Fogmaker. The objective of Fogmaker's technology is to contain and prevent fire from reaching critical areas like the battery.

WHAT ARE THE SPECIFIC CHALLENGES MANUFACTURERS FACE IN DESIGNING EFFECTIVE FIRE SUPPRESSION SYSTEMS FOR ELECTRIC VEHICLES?

One of the primary challenges is the inability to access the inside of the battery pack. If thermal runaway occurs internally, applying suppression agents externally has limited effect. The focus, therefore, is on prevention and containment rather than extinguishing an internal battery fire. It's also crucial to conduct thorough risk assessments to understand if and how the battery or other components should be protected, considering that not all components pose a high risk and require direct protection, similar to fuel tanks in conventional vehicles.

CAN YOU DISCUSS THE ENVIRONMENTAL IMPACT OF WATER-BASED FIRE SUPPRESSION SYSTEMS?

The use of high-pressure water in fire suppression systems is beneficial for minimising environmental impact. It requires less liquid compared to low-pressure systems, leading to less runoff water that could carry toxic chemicals from the fire. Additionally, the efficient cooling of compartments and components helps prevent re-ignition after the fire has been suppressed.

WHAT BENEFITS DOES USING WATER MIST, AS OPPOSED TO OTHER AGENTS OR GENERIC WATER, HAVE?

Water-based agents historically contained chemicals that were harmful to the environment, such as PFAS. However, there are now water-based options available that are PFAS-free, offering very



good performance without the environmental harm. Fogmakers PFAS-free liquids work just as well as their predecessors in our system, with no performance difference. There is a reason that Fogmaker is today the natural choice for over 300,000 vehicles worldwide.

WHY ARE SOME FIRE SERVICES WARY ABOUT USING NON-PFAS FOAMS OR WATER AGENTS?

New approaches can often be met with apprehension, partly because they may require different handling or adjustments to achieve the same performance. For example, we had to modify our nozzles to maintain effectiveness with PFAS-free agents. This hesitancy can stem from the technical adjustments needed to transition to these newer, environmentally friendly options.

CAN YOU PROVIDE AN EXAMPLE WHERE FOGMAKER'S FIRE SUPPRESSION SYSTEM SUCCESSFULLY PREVENTED OR CONTROLLED A FIRE IN AN ELECTRIC VEHICLE?

One example involves an electric vehicle where a fire started in the battery connector due to the cables going into

the battery. The connector had been identified as high risk during the risk assessment, leading to the installation of our suppression system in that area. The system activated, extinguishing the fire before it could reach the battery, showcasing the effectiveness of pre-emptive risk assessment and targeted suppression.

LOOKING FORWARD, WHAT TRENDS OR CHALLENGES DO YOU SEE ON THE HORIZON FOR FIRE SUPPRESSION TECHNOLOGY IN ELECTRIC VEHICLES?

As electric vehicles (EVs) continue to evolve and become more prevalent, there is still much to learn about their long-term fire risks and the effectiveness of suppression systems. Given that EVs are relatively new on the market, the industry lacks comprehensive data on potential fire hazards as these vehicles age. Additionally, the emergence of fuel cells and alternative fuels presents both opportunities and challenges for fire suppression technology. These developments indicate a broadening scope for fire suppression systems, requiring innovations that can address a variety of energy storage methods and fuels within the automotive industry. **FB**

Interview with Niklas Björnvik in Airside International

Eco-friendly fire suppression

Fogmaker has its sights on new markets as it anticipates an EU-wide ban on PFAS. Eco1, the manufacturer's new GSE fire suppression system, aims to make airside firefighting sustainable

When airside operators say they want to be more sustainable, ground handlers' first thought might be to electrify their GSE fleet – swapping fossil fuels for battery power. Indeed, the industry's decarbonisation roadmap is a topic that *Airside* continues to highlight.

But what if GSE operators wanted to go further than to simply electrify their equipment? In fact, what if regulations forced them to?

In February last year, five EU countries proposed banning all per- and polyfluoroalkyl substances (PFAS) – also known as 'forever chemicals' – because of the environmental harm they pose. The European Chemicals Agency is now considering how best to evaluate the proposal.

Sustainable fire suppression?

PFAS can currently be found in fire departments and their extinguishers at airports globally, according to Fogmaker's system design and support manager, Niklas Björnvik. Anticipating the EU-wide ban on the toxic chemicals in the next few years, the manufacturer has launched Eco1, a GreenScreen-approved GSE firefighting system that is certified as PFAS-free.

Fogmaker is using this opportunity to roll out a next-generation, eco-friendly GSE fire suppression system for European airports and airports globally, where PFAS bans are already in place or are soon to be imposed.

Speaking with *Airside*, Björnvik explains: "Eco1 was launched last year and it's been under development for a couple of years. This comes down to the fact that PFAS are basically being banned by the European Union in the coming years.

"Our old liquid has PFAS in it, although at very low levels, and the ban is basically coming into place for a lot of things [including] airport fire extinguishers or fire departments who, in the past, have used pure PFAS to put out fires – which it's great for, but it goes down into the ground and it stays there.

"[We developed Eco1] because we still don't know exactly how the regulations are going to be, and staying with what's trending we want our products to be as environmentally friendly as possible."

Global market potential

Fogmaker has already begun rolling out its new system in Sweden, where the company is headquartered, and also where new regulations have come in on forever chemicals – meaning Fogmaker is now focused entirely on Eco1 there. Björnvik suggests this made Sweden the ideal sandbox to test Eco1 before scaling up production to ensure the product has a "global footprint".

Further, the system was trialled in Australia in 2022 due to the country also having a PFAS ban – and Fogmaker anticipates global potential for the roll-out of Eco1 as more bans on forever chemicals come into force.

He explains: "[The new system] has been available on the market since the second half of last year and we started doing installation for it instantly. Everything we do in Sweden now is with the new [PFAS-free] liquid and we are phasing it in for our larger customers over the coming years.

"With regard to Europe and the EU, we are pushing Eco1 so that it will be fully on the market by the time the ban comes in, but we will also continue to sell it on other continents around the world ... [You] can find our systems in airports all over the world already."



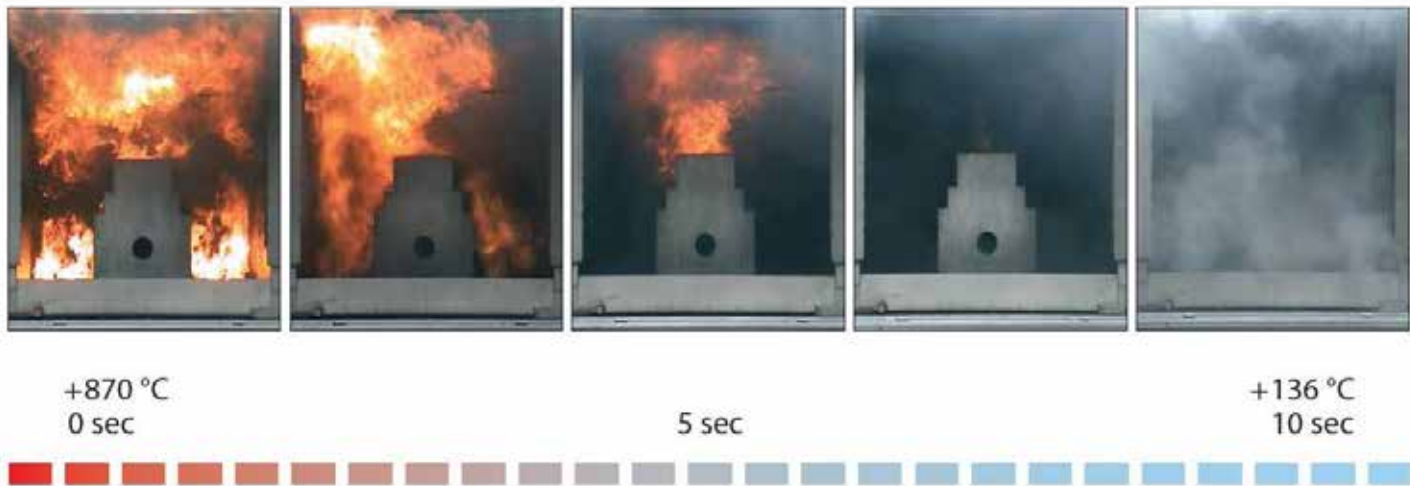
Niklas Björnvik, Fogmaker

Björnvik adds that Fogmaker is also looking to market Eco1 in New Zealand, Canada and parts of the US where PFAS prohibitions are also now in place.

The fire suppressor's specifications

According to Björnvik, what makes Fogmaker's new fire suppression system "unique" is that the company was one of the first, globally, to introduce a completely PFAS-free fire suppression system. Additionally, Eco1 utilises a high-pressure water mist system, making it more effective than its competitors, he says, who instead offer water spray systems.

Björnvik claims: "With water mist you have much finer droplets, which makes our product more efficient at taking care of heat and fighting fires. When using water



Fogmaker demonstrates Eco1's firefighting capability (Source: Fogmaker)

mist, we can make one litre of water in the container expand to 1,700 litres of mist.

"We [also] use different nozzles because the new liquid reacts a little bit differently when it is discharged from the system and attacks the fire. This allows for the product to discharge a different spray pattern, allowing it to be as efficient

as possible."

Björnvik adds that Eco1 has a longer deployment time than other products on the market. For pushback tractors, for example, the system takes around 90 seconds to empty – which is three times longer than Fogmaker's competitors' products, he states.

The company designed Eco1 this way after consulting a number of major airlines and manufacturers, who told Fogmaker it takes around 90 seconds for an airport's fire department to respond to an airside blaze.

"What we want to do with this is buy so much time that the fire department has

[enough] time to get to the fire. Even if our system cannot by itself take out the fire, it can suppress it for that long until you get back-up," Björnvik says.

Expanding on Eco1's specifications, Björnvik outlines the system's ability to "attack" a fire on the ramp. Using water mist has a "major impact" on the temperature of a blaze and works by reducing the energy of a fire through an endothermic reaction.

"Essentially," he explains, "Eco1 attacks all three sides of the fire triangle by choking, cooling, and lying like a blanket to prevent re-ignition as well as attacking the radicals in a fire. And, if you look at, say, a powder system, a powder system is absolutely great when it comes to the first attack on a fire because you get a really big push effect. But it has no cooling effect.

"If you do not take out the fire with that first attempt to suppress it, it's going to come back. By having this long extinguishing time, the fire won't reignite." Björnvik claims that Eco1's efficiency in cooling down fires, achieved by the high-pressure water mist system, makes it the ideal choice for GSE operators.

Installation times

Eco1 is a standardised system that is customised for every installation, and it works on the basis that the piston accumulators holding the extinguishing liquid can be placed "wherever you can find a place for them" on a ground support vehicle.

Björnvik says the distribution system is designed according to the specific vehicle it is being fitted to, and how large the area is that needs to be protected.

Attacking all three sides of the fire triangle: Oxygen, heat and fuel

When Eco1 comes into contact with the heat of a fire it evaporates from mist into steam. This can cause one litre of Eco1's liquid to expand into 1,700 litres of steam, Björnvik explains. With this expansion, oxygen is pushed out of the protected compartment, lowering the oxygen level so that the fire cannot sustain itself.

He adds: "When the Eco1 mist gets in contact with a fire and evaporates, it cools the area and GSE components.

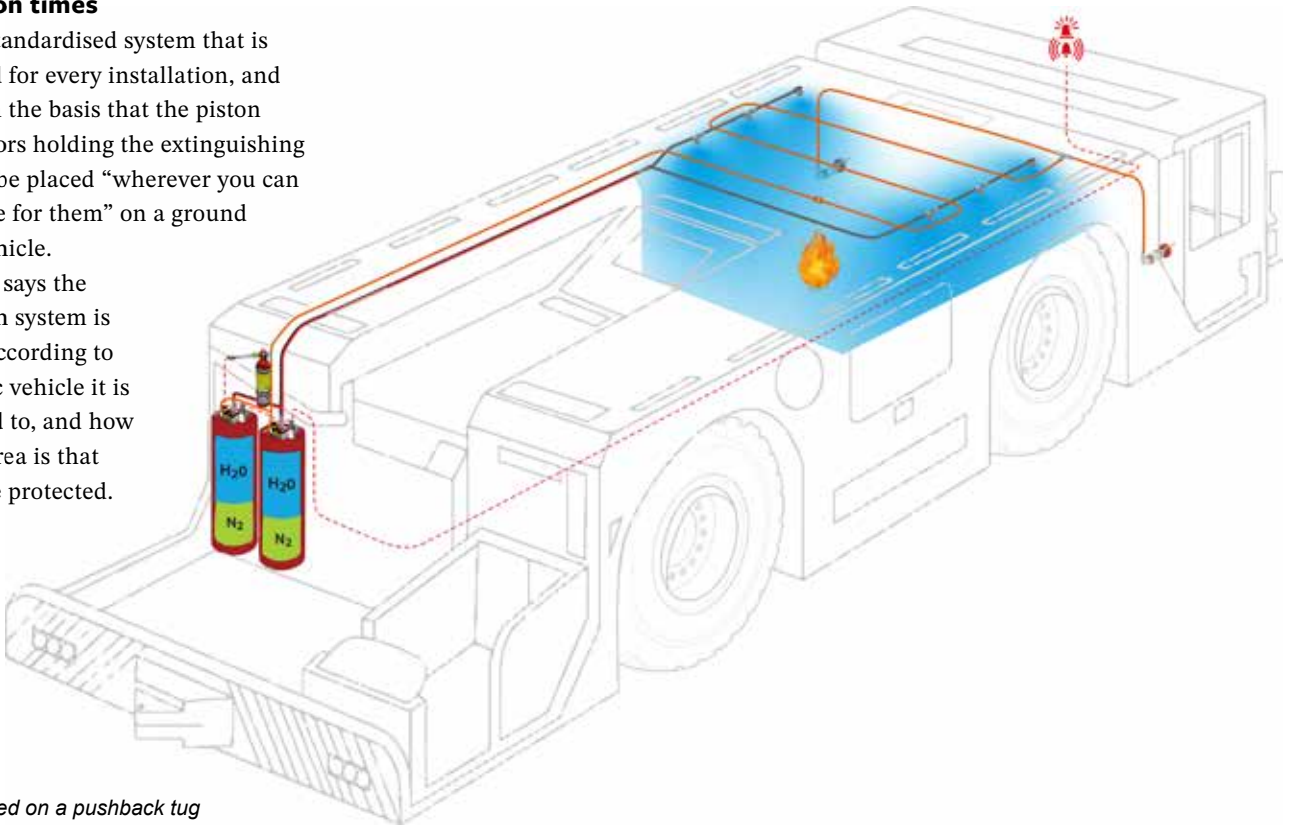
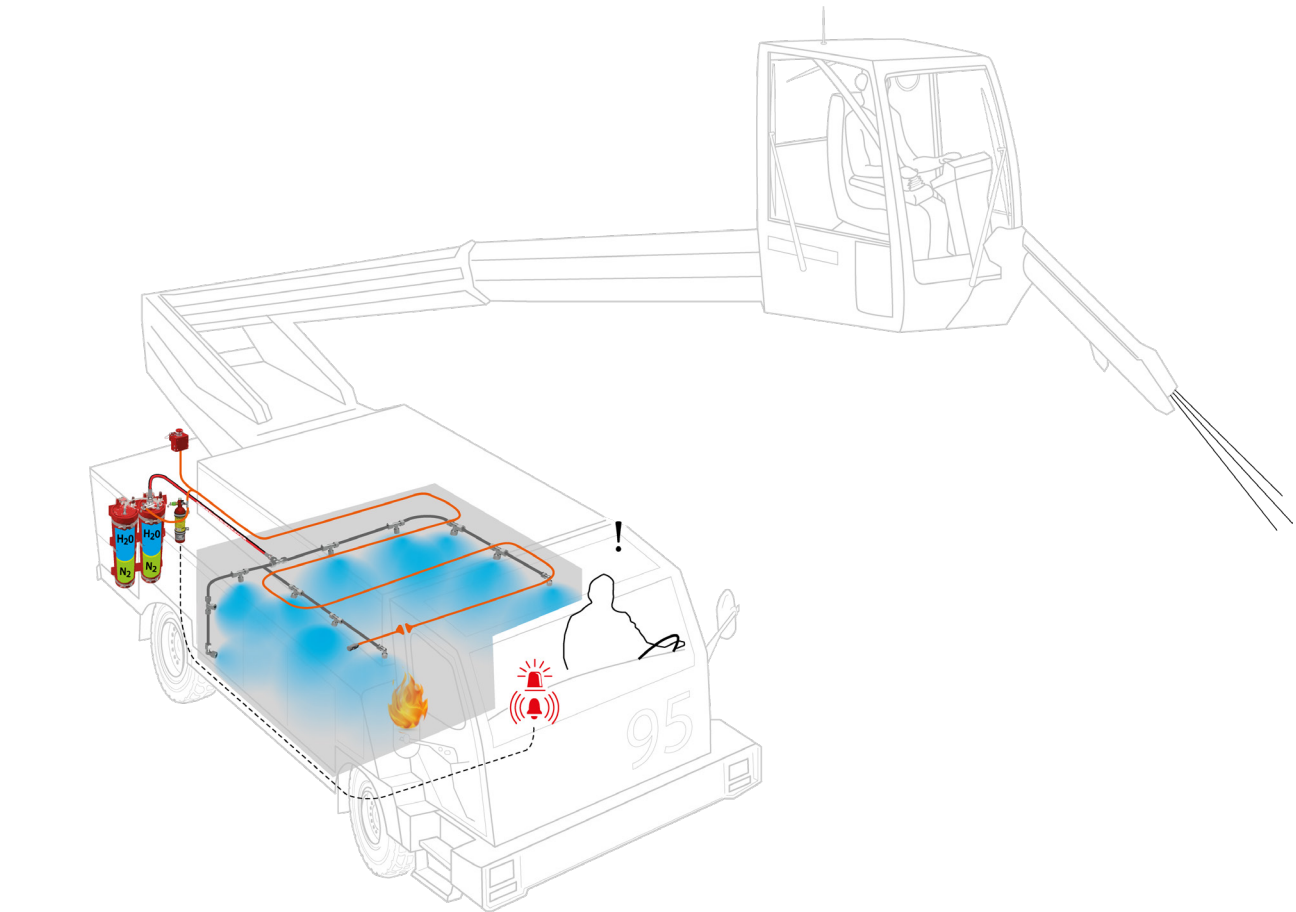
Water mist is extremely efficient at cooling and together with Fogmaker's long deployment time, this cools the components to a level where it prevents re-ignition."

The fire suppression system contains salt that attacks radicals, and tensides (surfactants) that "behave a bit like a blanket". This helps to prevent potential pool fires, for example, by protecting pools of diesel or oil. A "dripping fire" (where burning material can melt and drip) will not be able to ignite fuel that is covered by this "blanket". ■

If an operator has a small GPU or tractor, for example, the system fitted will only have a capacity of around eight to 10 litres. But a large pushback can have a system with capacity for 40 litres.

"It scales up and down depending on the size of the vehicle, but no matter the sort of machine we can protect it," he emphasises. "Installation can be done

in a day, such as for a medium-sized pushback, which is generally the most complicated ground support vehicle to install a fire extinguishing system on because of the components. If it's a really large vehicle, it would take maybe two days – whereas a GPU you could probably do in six hours." ■



Eco1 installed on a pushback tug

New Faces at Fogmaker International

Pontus Andersson, Partner Manager Europe

Greetings, everyone! I am Pontus Andersson, and I am thrilled to share that I have recently completed my first two months at Fogmaker International. Prior to joining this esteemed organization, I honed my skills and expertise in the commercial kitchen appliances industry, where I had the privilege of working closely with distributors from around the world to help them surpass their targets and achieve remarkable success.

The journey at Fogmaker International thus far has been nothing short of exciting. The vibrant and dynamic work environment, coupled with the passion and dedication of the team make this a stimulating place to be. As I reflect on the past two months, I am filled with anticipation for the future and the immense possibilities that lie ahead.

I am genuinely looking forward to the opportunity to connect with each one of you. Together, I believe that we can harness our collective talents, drive, and creativity to set new benchmarks, overcome challenges, and reach new heights of success.

Sincerely,
Pontus



Video Project Update

The project of creating new segment videos is moving forward. Thus far, we have a new company presentation and segment videos for Agriculture, Bus, Material Handling, and Mining and Tunneling. They can be found in the [marketing portal](#) or on Youtube.

Thus far, most of them are only available in English, but it is possible to create a soundtrack in another language or subtitle.

Contact marketing@fogmaker.com.



Mathi Whitaker, Quality and Sustainability Manager

I am an imported German toolmaker who has lived in Sweden since 1989; for the past 35 years! I originally followed some friends to Sweden for a long weekend with fishing, soda, and snacks, and after a few days filled with cultural exchange I suddenly met my wife to be. (We still discuss who caught who...)

Work-wise, CTC AB in Ljungby was my first stop in Sweden. From there I moved to Gunnebo Troax and my first real managerial job. Since then my journey has taken me through various educations and positions through the entire Supply Chain flow. I have for instance been a purchasing manager, production and factory manager, and quality and sustainability manager. Before coming to Fogmaker, I worked at Trelleborg in Värnamo as operations manager.



I've always enjoyed a high tempo combined with a high level of knowledge and pride in one's work. These factors appeal to me and have influenced my choices in life - they also ensure a competitive advantage.

On a personal level, my son's soccer practices and taking them to games - at most 6 days a week - have been a prioritized pastime. A spinoff has been working in boards and serving as chairman for the soccer club. I have also at times worked on the soccer fields, secured funding, and sold hundreds of hot dogs!

My family has also acquired a summer house on Sweden's east coast where we enjoy life together with friends and relatives.

Having completed my first two months at Fogmaker International as Quality and Sustainability Manager, I already see a staff that is incredibly welcoming and skilled along with superior products and solutions, good relations to customers and partners, and amazing opportunities for the future.

Best regards,
Mathi

TOC Europe in Rotterdam

Fogmaker International exhibited at TOC Europe in June. TOC stands for Terminal Operations Conference and the conference is a gathering point for the container supply chain and port professionals.

A special Thank You to Wilbert de Beer from Fogmaker Nederland, Ingo Ubrich from Fischer, and John King and Stuart Herron from PSV who all joined us in the stand and did a marvelous job talking to customers and running live fire demos.

The vast majority of visitors to Fogmaker's stand had planned to see us and came with the intent of talking to us before the conclusion of the show. TOC also made an interview with Fredrik Rönnqvist, [click here to see it.](#)

Recording an interview with Fredrik Rönnqvist, segment manager for Material Handling.



Stuart, John, and Johan Bjerstedt having a chat.



Wilbert did 22 fire demonstrations in two and a half days!



Johan Stark and Ingo, probably calculating how many more live fire demos can be squeezed into the day.

In 2024, Fogmaker will also exhibit at:

- IAA Transportation in Hannover, September 17-22
- Minexpo Las Vegas, September 24-26 (together with partner USSC)
- TOC Americas, Panama, October 1-3 (together with partner Gestión Cuatro)
- Persontrafikmässan in Gothenburg, November 5-7



Summer Vacation

For many Swedes, July equals vacation time.
Please plan for limited capacity the following dates:

Manufacturing
Week 29, 30, 31
(July 15 - August 4)

Logistics (deliveries)
Week 30, 31, 32
(July 22 - August 11)

FOGMAKER
I N T E R N A T I O N A L A B