



# SCHMITZ ONE SEVEN GMBH: ABOUT US



IN 1995  
WE INVENTED  
THE WORLD'S  
BEST  
COMPRESSED  
AIR FOAM  
SYSTEM.



In 1995 the One Seven compressed air foam system was developed by Dirk Schmitz. Since then countless field reports from firefighting operations have been incorporated into our research work and have contributed to the continuous optimization of hardware, software and operating supplies of our systems.

- Reliability of our systems
- Effectiveness of our extinguishing agents
- Protection of people and environment

are the guidelines we have committed ourselves to. Today One Seven is regarded as the technology leader for compressed air foam and so we can say in good conscience to offer the best compressed air foam system in the world.



# 7:1 FOR FIREFIGHTING

## SYSTEM TECHNOLOGY

In the patented One Seven process the special One Seven foaming agent is added to extinguishing water. The so prepared wetting agent is foamed with compressed air in One Seven foam generators.

In the One Seven systems the flow rate, the amount of foaming agent and the addition of compressed air are optimally preset ex works. If one component is changed all other components will be adjusted automatically by the intelligent One Seven control system. Thus the One Seven foam is always produced in the same optimal quality.

In the One Seven process one part of water is converted into seven parts of extinguishing foam. The foam bubbles are characterized by a homogeneous size and a honeycomb structure. This means that One Seven foam does not contain any air inclusions or unbound water between the bubbles. The effective surface of the extinguishing foam is increased significantly and ensures particularly efficient firefighting.

The One Seven process requires considerably less water to produce the compressed air foam than other extinguishing methods. Therefore the water supply can be dimensioned smaller or the operating times can be extended with traditional large tanks.

The low water consumption also reduces damage by extinguishing water and less contaminated extinguishing water must be depolluted.



## ONE SEVEN FOAMING AGENTS





One Seven foaming agents are highly concentrated synthetic liquids for the production of the particularly effective One Seven compressed air foam. For special operations One Seven foaming agents can also be used to produce conventional wet or dry foam as well as wetting agent.

All One Seven foaming agents are developed with a view to protecting people and the environment. The extinguishing foam produced with One Seven foaming agents is not irritating to the skin or eyes. In order to protect the environment most One Seven foaming agents do not contain fluorine – whenever effective firefighting allows this.

The special properties of the surfactants used in One Seven foaming agents ensure a particularly fine, homogenous compressed air foam with high stability. Since the One Seven foaming agents do not contain polymers they keep their low viscosity even at low temperatures.

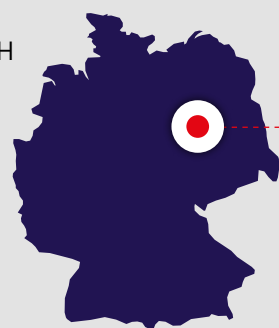


## ADVANTAGES OF ONE SEVEN COMPRESSED AIR FOAM

- 
**UNIVERSALLY APPLICABLE |**  
 for firefighting in classes A, B, D and F
- 
**HIGH ADHESION TO BURNT MATERIAL AND SURROUNDINGS |**  
 long-term extinguishing and cooling effect, containment of the fire
- 
**HIGH KINETIC ENERGY |**  
 large throwing distance, safety for firefighters
- 
**LARGE CONVEYING LENGTHS AND HEIGHTS |**  
 cost-effective use of normal pressure pumps and compressors
- 
**LOW WATER CONSUMPTION |**  
 longer operating times, less damage by extinguishing water
- 
**LOW FOAMING AGENT CONSUMPTION |**  
 longer operating times, less operating costs
- 
**PRESERVES HEALTH AND ENVIRONMENT |**  
 non-irritant, very well biodegradable

# FROM HERE TO THE WHOLE WORLD

The headquarters of Schmitz One Seven GmbH is located in Luckenwalde, southwest of Germany's capital Berlin. Firefighting technology has a history of almost 150 years in the city of Luckenwalde, various companies from this branch have been based here continuously since the 19th century. Luckenwalde is also home of the Fire Brigade Technical Centre Teltow-Fläming with which Schmitz One Seven has a close cooperation and which is used for research and training purposes.



## Schmitz One Seven GmbH

### LUCKENWALDE



Our customers outside of Germany are advised and served by an international network of partners. These partners are only companies with many years of expertise in fire protection. In this way we ensure that our worldwide customers receive the best possible support in accordance with their national framework and regional requirements.

## QUALITY

Schmitz One Seven GmbH is a worldwide operating company. Therefore our extinguishing systems meet national and international standards such as VdS, DIN, EN, FM and NFPA.

In addition we have an integrated management system fulfilling the standards for TQM according to DIN EN ISO 9001:2015 and HSSE according to DIN ISO 45001:2018. Our management system is oriented to meet customer requirements and ensures process flows and process quality throughout the company.

## AS AN INDUSTRY LEADER YOU DON'T HAVE TO BE THE BIGGEST BUT THE BEST.

The core competencies of Schmitz One Seven GmbH are the planning, development and production of modern fire extinguishing systems. Already in 1995 we have specialized in compressed air foam systems. Today we are the worldwide technology leader in this segment of firefighting and hold numerous patents for the production of the special One Seven compressed air foam.

In mobile firefighting we equip professional fire brigades, plant fire brigades and voluntary fire brigades all over the world with our compressed air foam systems. For this purpose we have international cooperation agreements with many body manufacturers.

Stationary extinguishing systems based on One Seven compressed air foam are used in almost all industrial, commercial and construction areas. These include for example waste management, aviation, petrochemicals, offshore platforms and road tunnels.



Reliability and permanent further development of our products are important concerns of our company – because fire protection means responsibility. In case of fire the quality of extinguishing systems and extinguishing agents determine whether people and infrastructures survive. We are committed to this with innovative technology from 25 years of experience.





**WE DON'T  
GIVE FIRE  
A CHANCE!**

# ONE SYSTEM –

# INFINITE FIREFIGHTING SUCCESSES

One Seven compressed air foam fights fire with several effects:

- **COOLING EFFECT** | The water contained in the extinguishing foam evaporates and extracts heat energy from the fire.
- **SEPARATION EFFECT** | The foam blanket separates the burning material from the environment and thus from oxygen.
- **COVERING EFFECT** | The foam blanket prevents the evaporation of flammable gases from the hot burnt material.
- **INSULATING EFFECT** | A foam layer adhering to hot surfaces protects against heat radiation.

The combination of these four effects results in particularly effective firefighting and makes One Seven compressed air foam universally applicable.

In addition to the following areas of application One Seven also plans, develops and produces customer specific systems for industries with special challenges in fire protection. Our team of engineers from development and project management will be happy to advise you.

## MUNICIPALITY



One Seven systems meet all requirements for any kind of urban fires – whether it be internal and external house fires, vehicle fires or burning dumpsters. Especially in inner-city areas with high population densities fire is a major danger to life and property. Therefore municipalities need an immediately ready-to-use and very effective solution for firefighting. With the economical water consumption and the particularly effective One Seven foam One Seven systems offer a form of firefighting, which ensures longer operating times of fire engines and a fast control of fire sources.

One Seven systems can be operated intuitively even in stressful situations. The innovative, largely automated extinguishing systems offer special safety for firefighters.



## INDUSTRY



Thanks to their reliability and excellent extinguishing power One Seven systems are used in many branches of industry. One Seven offers appropriate solutions for both selective object protection and large-scale area protection. These solutions are customized according to fire class, risk potential and environmental characteristics. By the way One Seven compressed air foam can also be used on electrical installations up to 100 kV and for the initial fighting of metal fires.

Stationary One Seven systems can be combined with company-own fire alarm systems but can also be triggered manually to keep reaction times as short as possible. Small One Seven extinguishing systems for manual firefighting can also be operated intuitively by not firefighting-experienced staff.



## AVIATION



Growing requirements for safety in air traffic defined by legal regulations also refer to fire protection. For example fire-fighting equipment must be available directly on site at the heliport for the operation of elevated heliports.

One Seven systems can be operated both with remote controlled monitors and with hose lines. Large delivery heights and frost resistance of the systems ensure reliable supply of extinguishing foam with optimum consistency. Long throwing distances of the One Seven compressed air foam ensure the necessary distance to the fire and thus offer safety when manually firefighting on site is necessary.



## TUNNELS



The main problem with tunnel fires is the high fire dynamics in combination with often difficult possibilities of evacuation. Therefore it is extremely important to detect fires as early as possible and to fight them immediately – with automatic stationary extinguishing systems even before the arrival of the fire brigade.

One Seven has many years of experience in planning, development and installation of this kind of special systems and numerous references. With the One Seven extinguishing foam fires of different liquids and solids can be fought quickly and effectively. The One Seven foam does not only fulfil the purpose of firefighting but also protects the structure due to its exceptional adhesion and the high cooling effect. Highly effective is of course a combination of a stationary One Seven extinguishing system and One Seven hand line systems for manual firefighting on site.



## OFFSHORE



Due to the raw materials being extracted and processed offshore platforms are exposed to extremely high fire risks. Their difficult reachability makes immediate firefighting by the platform's staff unavoidable.

For such a scenario One Seven offers highly effective and easy to use solutions. The special One Seven compressed air foam can be used for various fire classes. High throwing distances and the use of monitors provide safety for the staff. Due to the use of dry pipes One Seven systems are frost-proof and keep their functionality even in harsh weather conditions. For unrestricted use of the floor area subsurface applications of extinguishing nozzles are possible.



## VEGETATION



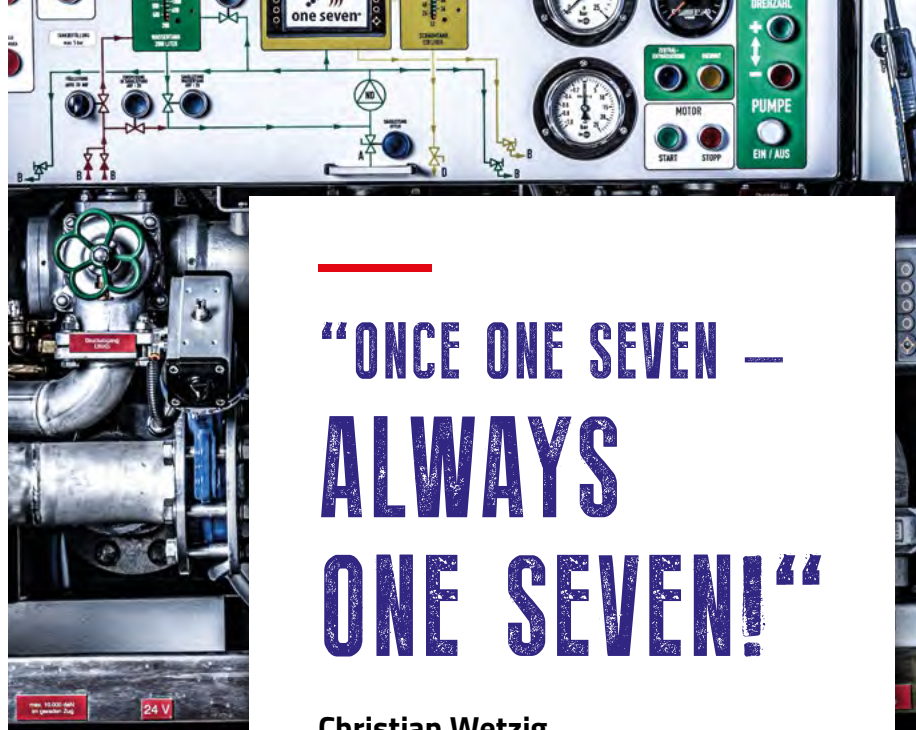
The number of vegetation fires has risen highly in recent years. Because this kind of fire can quickly reach uncontrollable proportions, fast and final firefighting is necessary. But often logistics are difficult and the environment must not be polluted unnecessarily with harmful extinguishing agents.

For all these difficulties One Seven compressed air foam systems offer the right solution: The low consumption of water and foaming agent extends the operating time of fire brigades considerably. The strong penetration power of the One Seven foam ensures reliable extinguishing of even deep-seated pockets of ember. One Seven foaming agents are fluorine-free and therefore biodegradable in a short time. By the way One Seven does not offer only extinguishing systems for large tankers but also small systems for fast mobile use in off-road vehicles for difficult to access regions.



# THE MOST IMPORTANT ARGUMENT FOR ONE SEVEN IS THE PRACTICAL OPERATION.

For 25 years fire brigades, safety engineers and fire protection officers from all over the world have placed their trust in Schmitz One Seven compressed air foam systems. Whether in vehicle fires, forest fires or fires in industrial plants – One Seven systems have proven their reliability and extinguishing power a thousand times over and are nowadays considered to be the industry benchmark. This makes us proud and at the same time motivates us to further development of our compressed air foam systems to keep the fire risk for people, environment, buildings and plants as low as possible.



“ONCE ONE SEVEN —  
**ALWAYS  
ONE SEVEN!**”

**Christian Wetzig,**  
commander at fire brigade Rodewisch,  
Germany



“TUNNEL OPERATIONS WITHOUT  
**ONE SEVEN —  
FOR ME UNBELIEVABLE!**”

**Walter Höfle,**  
commander at fire brigade Bregenz-Rieden, Austria

“NO QUESTION FOR ME —  
IN CASE OF FIRE  
**ONE SEVEN!**”

**Åge Tøndevoldshagen,**  
fire chief Lesja og Dovre Brannvesen, Norway



# NOT ONLY OUR SYSTEMS PERFORM BETTER THAN OTHERS. US, TOO!

Adapting extinguishing systems to industry-specific characteristics, maintaining systems and training of operators are important requirements to ensure reliable and effective firefighting. With the services of One Seven you are always on the safe side.

## CONSULTANCY/ PLANNING

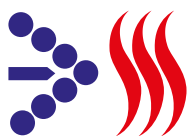
Well-founded planning is the premise for producing and installing an extinguishing system. Technical necessities, basic conditions and customer requests must be considered. Whether it is the upgrade of a dated fire engine or the development of a new large extinguishing system in industry: The One Seven engineer team is available to find the optimal solution for our customers.

## MAINTENANCE/ REPAIR

Extinguishing systems must work perfectly in case of emergency. Therefore regular service, maintenance and if necessary repairs are essential to ensure the best possible safety. Often the insurance protection of companies is linked to these service features. The One Seven service team is available to our customers not only for regular maintenance but also around the clock in case of emergencies.

## TRAINING

Only prompt and safe handling of an extinguishing system guarantees effective firefighting. Therefore we train firefighters and staff of companies comprehensively in their One Seven systems. Certified trainers with many years of practical experience in firefighting communicate the operation of the respective One Seven system, explain the effects of foaming agents and offer firefighting trainings with various exercises. The contents of a training course are adapted to individual requirements and firefighting challenges of our customers.



**one seven®**

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