

# LIVE FIRE TRAINING

Design, Manufacture, Install, Commission, Service, Life Cycle





We provide an extensive range of simulator solutions to help you train for every fire and rescue scenario - from tailor-made hot fire training simulators to ongoing maintenance and aftercare.

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SIMULATION is a world leader in the provision of live fire training facilities. The brand is specialized in the supply of live fire training simulators of Aircrafts, Structures, Oil and Gas, and Special Applications. Our goal is to design, and build customized simulators that are developed through a partnership arrangement to ensure an optimum solution for the training of personnel at the customer's facility. SIMULATION's dedicated, qualified and experienced team accomplishes turnkey solutions through a close collaboration with our customers. We turn innovative concepts into reality and provide outstanding quality of products and services. SIMULATION belongs to

the Alpine Metal Tech Group, which is a world market leader in the field of special purpose machinery for the steel and automotive industry. The group provides a whole platform for Engineering, Manufacturing, Sales and Services respectively operates globally in four business areas (Steel, Automotive, Aerospace and Life Cycle Business) under eight leading brands (NUMTEC, GEGA, KNORR, MAKRA, AMAKON, MAGNEMAG, SIMULATION and INTERMATO).

The Alpine Metal Tech Group belongs to the Montana Tech Components AG, which is an industrial company that focuses on key technologies in markets of the future.

## APPLICATION AREAS

### » Aircraft Simulators

Our custom-built aircraft simulators range from the largest wide body aircraft to the smallest general aviation aeroplanes. Customers can decide the complexity level and the training scenarios.

### » Structural Fire Simulators

Structural fire trainers provide the means for firefighters to train in an environment that replicates the challenges and complexities of a structural fire, but in a safe, durable, and repeatable manner. From a single flashover trainer to a multi storied complex.

### » Oil and Gas Fire Simulators

Our full scale or reduced scale props and trainers include simulators for every aspect of the industry including drilling rigs, storage, transport, refining, pumping and distribution.

### » Special Applications

Our custom products include fire simulator props for all types of vehicles, fuel spills, household and commercial fires. Also, many non-fire related simulators are available for hazmat, confined space, and many types of specialized rescue scenarios. Unique and cutting-edge solutions are also available for the forestry service that replicate the unique challenges faced by wildland fire fighters.

# AIRCRAFT SIMULATORS

SIMULATION provides a comprehensive range of live fire training simulators engineered to provide firefighters and rescue crews with unparalleled realism. From large-frame wide-body aircraft, such as the Boeing 787 and Airbus A380, to narrow-body and regional models, our designs are fully customizable to meet specific training requirements with fuel options such as JETA1, LPG, Biodiesel, HVO or a combination thereof. Constructed with heavy-gauge steel for long-term durability, our simulators offer both mobile and fixed solutions that ensure rescue teams are prepared for any aviation-related fire scenario.

## OUR PORTFOLIO

### » Commercial & Regional

Systems for aircraft ranging from wide-bodied, triple-deck to single-aisle narrow-body aircraft types. We offer hybrid designs that replicate multiple aircraft types and feature dual-fuel options for both ultra-real and clean-burn training.

### » General Aviation

Fixed or mobile trailer-mounted units for piston and jet models like Cessna and Lear, making them ideal for smaller airports or limited budgets.

### » Specialised Ground Support & Infrastructure

To provide a complete emergency response environment, we offer simulators for essential airport equipment, including aircraft towing vehicles, refuelling tankers and aircraft exercise training towers, which provide high-fidelity environments for air traffic control and emergency coordination.

### » Military Applications

We offer replicas of any fixed-wing or rotorcraft model. These simulators can integrate specialist features like weapons and haz-mat simulations for high-stakes emergency response.



# HELICOPTER SIMULATORS

The helicopter simulators provide realistic live fire training for both civil and military applications. Each simulator is customizable to each customer's requirements and budget. Exacting engineering and design elements replicate the sizes and dimensions of the real aircraft, which enable firefighting and rescue crews to be trained to the highest level possible. Simulators in this category are also available as a fixed installation or mobile on a trailer.

## YOUR ADVANTAGES

### » Fully Customisable

Tailored to meet your specific training requirements and budget.

### » Precision Engineering

Exacting designs replicate real aircraft sizes for high-level tactical training.

### » Versatile Deployment

Available as a permanent fixed installation or a mobile trailer unit for training on the go.

### » True-to-Life Scale

Realistic dimensions ensure muscle memory translates to the field.

### » Rugged Durability

Built with heavy-gauge steel for a long, high-intensity service life.

### » Mobile Flexibility

Lightweight options available for easy transport between stations.



# STRUCTURAL SIMULATORS

The structural fire simulators provide an elite range of training environments, from the compact H-Block and Flashover units – engineered to safely demonstrate deadly backdraft and flashover phenomena – to comprehensive Multi-Level Complexes. These systems allow crews to master critical skills like high-angle rescue, complex ventilation, and search-and-rescue in structures that replicate the specific residential, commercial, or industrial architecture of your local district.

For specialised missions, we offer Maritime Fire Training Units that simulate the unique, cramped geography of shipboard firefighting, alongside Mobile ISO Units for rapid, infrastructure-free deployment. Built with heavy-gauge steel and equipped with advanced temperature monitoring, our simulators support both Class A and B fuelling, ensuring your team gains realistic experience with the durability needed for a lifetime of high-intensity training.

## YOUR ADVANTAGES

### » Precision Engineering

Exact designs replicate real-world structural dimensions for high-fidelity training.

### » Advanced Safety Systems

Real-time temperature monitoring and ventilation control for occupant safety.

### » Mission Versatility

Reconfigurable mazes, confined space hatches, and high-angle rescue props.

### » Extreme Durability

Heavy-gauge steel construction designed to withstand 20+ years of thermal cycles.

### » Flexible Fuelling

Options for traditional Class A burns or clean-burning, controllable gas-fuelled (Class B) systems



SIMULATION



Østskov  
Vejr- og  
ingeniør

Präger

Präger  
ROB  
NING

# OIL AND GAS SIMULATORS

Our specialised Oil and Gas Simulators are engineered to mirror the complex infrastructure of refining, distribution, and extraction sites. From identically replicated pipe gantries that simulate horizontal fire spread to wellhead units featuring the exact flange components found on-site, these systems provide unparalleled realism. Each unit uses advanced PLC computer-controlled fire loads, allowing instructors to challenge crews with escalating fire intensities and realistic spread patterns, ensuring they are prepared for the extreme heat and tactical demands of a refinery emergency.

To address broader industrial risks, we offer Petrochemical Rigs and Storage Tank Facilities designed for advanced foam application and large-scale firefighting tactics. Our Pressure Vessel simulators are particularly critical, providing a safe but intense environment to train for BLEVE (Boiling Liquid Expanding Vapour Explosion) threats. Built from heavy-duty steel to withstand constant thermal stress, these customizable simulators bridge the gap between theory and the dangerous reality of high-pressure fuel fires.

## YOUR ADVANTAGES

### » Site-Specific Realism

Components like wellheads and gantries are sized to match your facility's specific hardware.

### » Advanced PLC Control

Safely manage complex fire scenarios, including multi-point ignition and realistic fire spread.

### » BLEVE Risk Awareness

Specialised pressure vessel training to teach critical cooling and extinguishment techniques.

### » Customizable Infrastructure

Limitless options for rig height, floor count, and fire location to mimic any refinery plant.

### » Rugged Construction

Extreme heavy-duty steel design built for high-frequency, high-intensity Class B fire loads.



# SPECIAL APPLICATIONS

The diverse range of tactical trainers prepares crews for the unpredictable nature of vehicle, domestic, and environmental emergencies. From heavy-duty car, bus, and truck simulators to realistic props like kitchen, dumpster, and gas meter units, we provide the facility to replicate everyday hazards.

For departments facing large-scale threats, we offer the world's only Forest and Wildfire live-fire system, capable of simulating diverse growth patterns to challenge ground and aerial forces alike. To address high-risk technical rescues, our Hazmat and Confined Space trainers provide controlled yet high-stakes environments for specialised teams. Whether you require a permanent training ground or a mobile trailer solution with integrated fuel and power for on-site drills, our simulators are built from heavy-duty steel and stainless steel for maximum longevity. Each unit is fully customisable, ensuring your personnel are equipped to handle everything from residential spill fires to complex industrial extractions.

To meet the evolving demands of modern safety, we design and manufacture a comprehensive range of training props specialised for EV and lithium-ion battery scenarios.

## YOUR ADVANTAGES

### » The Wildland Specialist

Exclusive provider of realistic forest fire simulators for ground and aerial training.

### » Aircraft and Water rescue

Simulation for both - offshore and onshore training.

### » Tactical Mobility

Many units are available as transportable systems with integrated LPG fuel and hoses for rapid deployment.

### » Precision Props

Realistically dimensioned domestic and commercial simulators, from BBQ grills to complex extrication units.

### » Advanced Hazmat Scenarios

Variable complexity designs for hazardous materials and confined space rescue.

### » Built for Endurance

Heavy-duty construction with premium stainless-steel options to withstand decades of high-intensity use.



# SYSTEM UPGRADES

We specialise in comprehensive, turnkey upgrades for fire training facilities, focusing on structural reinforcement, enhanced safety protocols, and the integration of next-generation operating systems. Whether your facility requires a full mid-life refurbishment or specific environmental modifications to meet the latest regulations, our dedicated technicians provide rapid solutions globally – either directly at your site or within our world-class manufacturing centres.

Our upgrades go beyond simple maintenance – we introduce innovative training capabilities that redefine realism. By integrating advanced PLC control systems and high-fidelity props, we allow instructors to simulate complex, escalating fire scenarios with complete visibility and safety. To ensure your training schedule remains uninterrupted, we can provide temporary mobile facilities while your permanent upgrades are being completed, allowing your crew to stay sharp and ready for any challenge.

## YOUR ADVANTAGES

### » System Modernisation

Integration of the latest PLC and SCADA control systems for intuitive, safe instructor operation.

### » Structural Refurbishment

Heavy-duty structural repairs and upgrades designed for long-life durability under high thermal loads.

### » Environmental Compliance

Specialised upgrades to ensure your facility meets all current environmental rules and regulations.

### » Operational Continuity

Provision of temporary mobile aircraft or structural trainers to prevent training downtime.

### » Global Service Network

Rapid on-site maintenance and emergency call-out services provided by expert technicians worldwide.



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