

Dräger Swede Survival System Phase 1—Flashover Development Observation

With today's improved fire prevention methods, firefighters have fewer opportunities to gain first-hand experience of fighting live fires. The proven Swede Survival Phase 1 System trains firefighters to recognize conditions that lead up to a deadly flashover event and learn techniques to delay this phenomenon—in a controlled, repeatable setting.



Benefits

First-hand flashover development experience

With today's improved fire prevention methods, firefighters have fewer opportunities to gain first-hand experience of fighting live fires. The proven Swede Survival Phase 1 System trains firefighters to recognize conditions that lead up to a deadly flashover event and learn techniques to delay this phenomenon—in a controlled, repeatable setting.

Class A Swede Survival Systems combine purpose-built training units with Dräger-certified instructional programs that train firefighters on fire behavior. As a result, you can continually build the capabilities and confidence of firefighters.

At Dräger, we believe in a progressive learning process when teaching the characteristics of fire. Our instructional program can be traced to the multi-phased live fire training program developed by the Swedish Rescue Services Agency in Skovde, Sweden.

Two compartment design creates a safe learning environment

The wood-fueled Phase 1 system is essentially a laboratory where firefighters can closely observe fire behavior and learn to recognize the warning signs of a flashover. The upper compartment is the burn chamber. The observation level, which is 3 feet below the fire floor, gives firefighters a safe vantage point for observing the stages of fire as it progresses to flashover.

This proven system is also designed to reinforce the proper use of personal protective equipment (PPE) and teach methods for testing and cooling the environment to delay the onset of a flashover.

Rugged construction for long-term use

With proper maintenance, Phase 1 systems have been known to withstand more than 1000 training sessions. If the burn chamber eventually becomes unstable due to heavy use, it is designed to be replaced, continuing the service life of the unit.

The walls and ceiling of the burn chamber and walls of the observation chamber are lined with high temperature insulation material that is protected behind a seal-welded layer of 11-gauge steel. This protects the structural integrity of the container from the grueling temperature swings the container will undergo. The burn chamber includes a baffle system to control the heat and gases and is designed for sheets of Oriented Strand Board (OSB) to be placed along the walls, ceiling, and doors.

Real fire scenarios provide real-world experience

The Swede Survival Phase 1 System is an indispensable component to any fire training curriculum because it allows participants to witness real fire characteristics under the supervision and direction of certified instructors. Flashover is considered to be one of the most dangerous fire phenomena a firefighter can experience. The instructors will demonstrate the fire characteristics that lead up to a flashover, including:

- Rollover
- Changing smoke conditions
- Thermal layering
- Heat build-up

Participants will learn to recognize these conditions and how to address them to delay the onset of a flashover—gaining valuable seconds for escape, while minimizing risk in the area of the fire.

Two-day instruction certification workshop

The Dräger Swede Survival Phase 1 System includes a two-day train-the-trainer workshop. This workshop is conducted by instructors who have extensive experience training various evolutions in the Dräger Swede Survival Systems. This training and certification process ensures that your instructors become thoroughly familiar with the safe and effective use of the training system.

Classroom preparation provides a foundation of knowledge

Included in the training is a 4-hour classroom session designed to deliver an extensive background on flashover conditions and fully prepare the participants for the subsequent real fire observation in the flashover chamber.

Before entering the chamber, participants will have a comprehensive understanding of the design and purpose of the flashover container, simulation techniques, safety standards, and detailed training expectations.

Participants receive expert instruction on firefighter roles during the actual observation exercise and what tools will be used during the simulation—including nozzle techniques and proper use of thermal imaging cameras to assess the fire.

Every trainee gets to practice as an instructor during the practical training. A mandatory test at the conclusion of the classroom session verifies that participants are prepared for the observation segment of the training. Training on methods of tear-down and set-up for subsequent evolutions are also part of every session—all are included with purchase of a Swede Phase 1 system.

Swede Phase 1 flashover training is designed to meet Job Performance Requirements listed in NFPA 1001 Firefighter 1 directives.

The system includes

- 20-foot long observation chamber
- 10-foot long burn chamber
- 2-day training course for up to 10 instructors
- Instructor manuals and standard operating procedures (SOPs)
- Instructors receive Certification to Instruct the Dräger Curriculum upon completion

Training course includes

- Certified instructors
- Ignition sources
- Fire behavior
- Formation of fire gases
- Fire control
- Container operations
- Hydration
- Heat stress
- SCBA and safety equipment training
- Thermal imaging camera usage
- Heat stress management
- Recognition of pre-flashover conditions
- Smoke and ventilation exercises
- Nozzle techniques
- Container management
- Overall safety

Available options

- Mobile structure
- Custom paint colors and logos
- Emergency vent hatch in burn chamber
- Replacement burn chamber
- Temperature monitoring

Details

D-1297-2009



The Phase 1 is available as a fixed or mobile training unit.

D-50153-2016



When trailer-mounted, the mobile Phase 1 system can be transported to satellite locations, maximizing training flexibility.

D-11442-2016



Up-close observation from a safe vantage point.

D-37053-2015



Certified instructors teach real fire scenarios.

D-29427-2015



Thermal layering, as observed in the chamber.

D-1964-2016



Hinged, non-latching entry/exit door.

D-31378-2011



Dräger UCF® 9000 thermal imaging camera inside the Phase 1 system.

D-37054-2015



Burn chamber with baffle system.

D-1946-2016



The overhaul platform facilitates loading and overhaul.

D-9131-2016



Preparing the burn chamber for a training evolution.

D-9077-2016

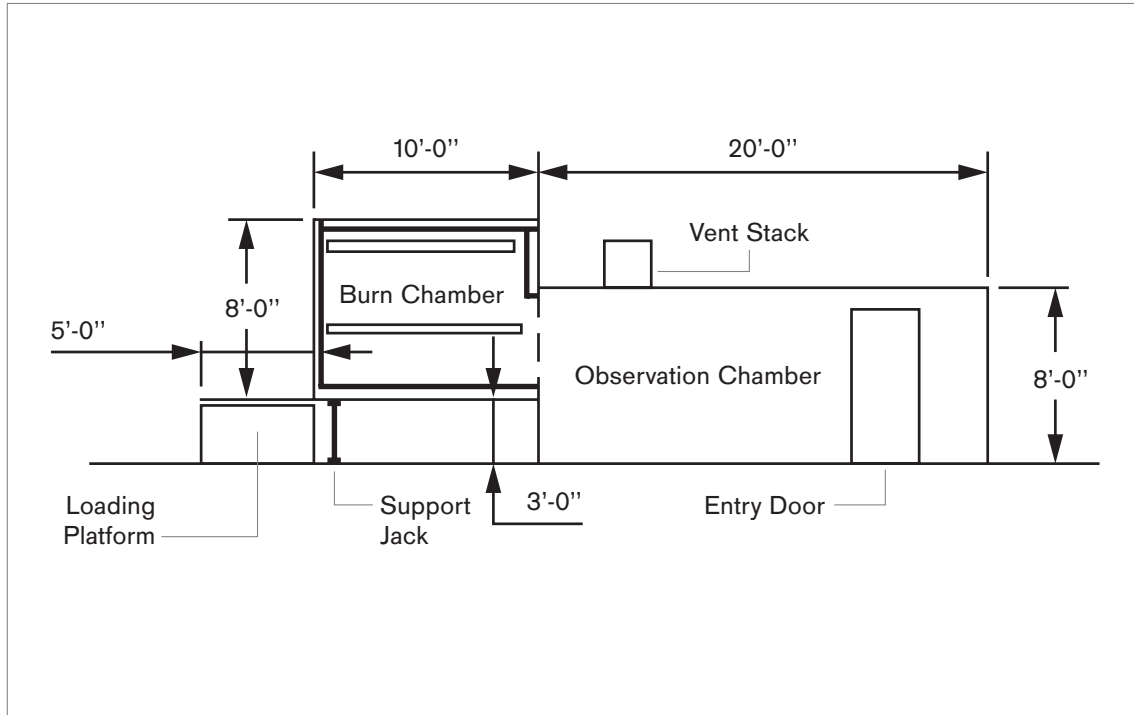


All of our instructors are professional fire fighters with many years of experience operating the Dräger Swede Survival Systems within their own departments and at on-site classes for Dräger.

D-58675-2012



Proper use of a thermal imaging camera to assess the fire is included in the training.



Related Products

D-1296-2009_frei



Phase 2: Interior Attack

The Dräger Phase 2 system builds on the principles learned in Phase 1. Trainees take a more active roll in recognizing the room's fire condition, advancing a hose line, applying nozzle patterns, and ventilating fire gases through hydraulic ventilation methods.

D-1500-2009_frei



Phase 3: Backdraft Development

The Dräger Phase 3 system is a demonstration system only. Students observe fire behavior and smoke conditions prior to backdraft.

D-1295-2009_frei



Phase 4: Garage

The Dräger Phase 4 system consists of two 40-foot containers that have been put together with the center wall removed, providing a more realistic room size fire floor. This system teaches basic tactics, rescue, suppression, and ventilation techniques.

D-1298-2009_frei



Phase 5: Multi-story, Multi-fire

The Dräger Phase 5 Multi-story system combines the unique construction of the enclosure and the training curriculum to gain tremendous insight into complexities inherent in multi-story, multi-fire involved structural fire situations.



Phase 5 Modified: Multi-story, Multi-fire

The Dräger Phase 5 Modified system expands on the standard Phase 5 training by including a double-wide burn chamber, four cold containers, a flat roof, a Denver Drill prop, and angled ventilation. The Phase 5 Modified system can be further enhanced with a number of optional props to expand the possible training scenarios.



Phase 6: Interior Hallway

The Dräger Swede Phase 6 simulates a hotel or apartment building fire and provides training for fire attack, smoke conditions, search and rescue, and hose handling through the main corridor.

Technical Data

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| Grade A containers |
| High performance insulation |
| 16-guage steel exterior |
| 11-gauge sheet metal covering insulation |
| 5/16" chain on walls, ceiling, and doors of burn area to hold Class A materials |
| Ventilation system |
| Concrete paving to line floor of burn area |
| Crib fire drum |
| Side entry doors without locks |
| Access for hose line |
| Posts for additional support of burn chamber |
| Paint—red oxide |
| Cleanout/overhaul platform |

Notes

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Not all products, features, or services are for sale in all countries.
UCF is a trademark of Dräger .

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