DSPA® .nl
Aerosol Fire Suppression

DSPA B.V.

OPERATIONS MANUAL

DSPA FIRE EXTINGUISHING AEROSOL GENERATORS 11-1, 11-2 , 11-3

Thank you for choosing our product.
Please read this Operations Manual carefully before operation and retain it for future reference.

If you have lost the Operations Manual, please contact **info@dspa.nl** for the electronic version.

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INTENDED USE

DSPA aerosol generators (models 11-1, 11-2, 11-3) are designed as highly effective fire suppression systems. These generators are non-pressurized and activate to release an aerosol cloud that expands volumetrically to flood the protected space and extinguish the fire. They are effective on Class A, B, C, and F fires. DSPA generators are primarily used in normally unoccupied or unoccupied spaces. In occupied areas, a 30-second pre-alarm must be installed.

DESIGN

Each DSPA 11- generator consists of a non-pressurized body containing two aerosol-forming compound in a casing, an active cooling mechanism separates the aerosol forming compound with the casing. The casings are bolted onto each other. An activation mechanism is built inside of the unit. The generator features built-in electrical starters or thermochemical cords for activation. The aerosol is released in a radial way in between the casings for greater coverage.

Units are certified according to EN 15276-1, ISO 15779, UL 2775 and BRL K23001. Approved by EPA for SNAP listing and ecologically safe and environmentally friendly (O.D.P.=0, G.W.P.=0)

AEROSOL GENERATORS

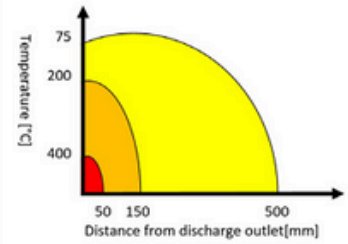
DSPA 11-1,11-2,11-3

OPERATING PRINCIPLE

Upon activation, the aerosol-forming compound undergoes a controlled combustion process, producing an aerosol cloud that expands and displaces heat and free radicals, effectively suppressing the fire.

TECHNICAL DATA

Below are the key technical specifications of the DSPA generators:

Model	11-1	11-2	11-3
Part Number electrical activation	100011 (e) 100061 (t)	100012 (e) 100062 (t)	100013 (e) 100063 (t)
Dimensions	Ø122 x 22 mm	Ø124 x 34 mm	Ø133 x 54 mm
Total weight	650 g	900 g	1400 g
Compound weight	110 g	170 g	300 g
Volume coverage A(CW) + 30% safety	1,07 m^3	1,66 m^3	2,92 m^3
Discharge time	6-10 sec	9-15 sec	14-26 sec
Activation, current	Built-in starter, 1.3A (e) or built-in thermocord (t)		
Operating conditions	-40°C to 75°C/ Up to 95% RH		
Colour	Standard RAL 3000, other colours upon request		
Min. distance for persons(75°C) from discharge outlet			
Min. distance for combustible material(200°C) from discharge outlet			
Min. distance for construction structures(400°C) from discharge outlet			

APPLICATION

The DSPA generators 11-1, 11-2 and 11-3 are recommended for the protection of narrow compartments, such as suspended ceilings, raised floors, cable ducts, transport vehicles etc.

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DSPA 11-1,11-2,11-3

DETERMINATION OF NECESSARY QUANTITY OF GENERATORS AND THEIR ALLOCATION

The design and installation of DSPA aerosol fire suppression systems must be performed by certified professionals. The number of generators required depends on the volume of the protected space and must be calculated in accordance with applicable fire safety standards.

- Aerosol fire suppression system design and installation must be carried out by specialized organizations licensed for this type of service.
- The required quantity of generators must be determined using the methodology outlined in current regulations.

GENERATOR PLACEMENT GUIDELINES

To ensure rapid and uniform dispersion of aerosol in the protected space, generators must be installed as follows:

- Evenly distributed throughout the entire room.
- Positioned and oriented to allow for unobstructed aerosol flow from the injector.
- Placed at least 50 mm away from walls or barriers.
- Positioned at least 150 mm from equipment, stored materials, property, and electrical appliances.
- Easily accessible for maintenance and inspection.
- If multiple generators are used in the same space, they must be activated simultaneously.

PRE-STARTING PROCEDURE

Before activation, ensure that the generators are properly installed and all components are securely in place. Follow these steps:

- **Mounting:** Securely fasten the integrated brackets onto a flat surface to ensure stability.
- **Electrical Connections:** Verify that the electrical starters are properly connected and that thermochemical cords are intact.
- **Clearance:** Ensure the protected area is free of obstructions to allow for even aerosol distribution.

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SAFETY MEASURES DURING INSTALLATION AND OPERATION

DSPA aerosol generators contain combustible compounds. To ensure safety, adhere to the following precautions:

- Prevent accidental activation by avoiding exposure to stray electrical currents.
- Keep ignition sources away from the generator.
- Use protective equipment when handling activated aerosol residues.

PROHIBITED ACTIONS

It is strictly forbidden to:

- Using DSPA generators for manual fire extinguishing.
- Performing welding within two meters of the generator.
- Using damaged generators.
- Dismantling the generator.

MARKING, PACKAGING, TRANSPORTATION, AND STORAGE

DSPA generators are supplied in protective packaging. Storage conditions should be maintained between -40°C and 75°C with humidity below 95%.

PRODUCT IDENTIFICATION AND WARRANTY

Each DSPA generator is assigned a unique serial number and production date.

- Warranty period: 12 months
- Operational lifespan: 15 years

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