N2Gen®
Fire Suppression
by DSPA®

Pure Nitrogen Fire Suppression Built for Critical Environments

Modular.
Retrofittable.
Scalable.

DSPA®

Summary

Protecting uptime from day one.

Data centers and other mission-critical environments operate under constant pressure to maintain uptime while managing fire risks, regulatory demands and sustainability targets. Their layout, with dense electronics, combustible materials and uninterrupted power, requires a suppression solution that is fast, clean and compatible with existing infrastructure.
N2 Gen Fire Suppression by DSPA delivers exactly that.
It uses Solid Bound Compound technology to generate inert nitrogen at the source and extinguishes fire within seconds, without pressure, residue or disruption.

The system is modular, compact and built to perform in complex environments, meeting the standards of modern infrastructure without introducing new risks.
It also supports long-term environmental compliance by aligning with stricter regulations and sustainability goals.
That's how we help you future-proof your facilities.

More than 30 years of trusted fire suppression innovation. Now cleaner than ever.

The rising demand for clean and sustainable fire suppression in sensitive and critical environments made it a natural path for DSPA to expand its portfolio. Relying on more than 30 years of proven aerosol expertise across 100+ countries, that legacy now grows into N2 Gen Fire Suppression, a nitrogen-based solution engineered for today's most demanding applications.

N2Gen® Fire Suppression by DSPA®

DSPA®

How It Works.

1

N2 Gen is a non-pressurized fire suppression generator that stores a solid bound compound inside a sealed stainless-steel container.

2

When triggered by an electrical signal from a certified detection system, an internal initiator activates the controlled decomposition of the compound, instantly generating inert nitrogen (IG-100).

3

The nitrogen flows through a multi-layer internal filter that cools the gas and removes any residual particles formed during decomposition.

4

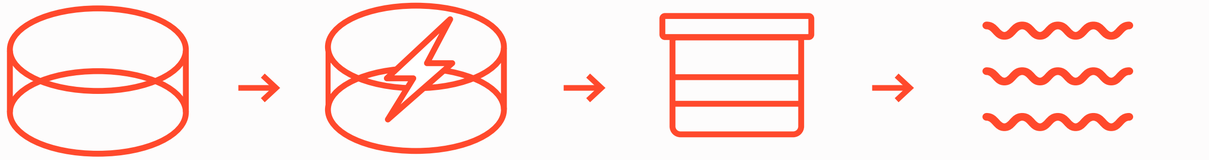
The gas is then released through specially designed nozzles to ensure full 3D distribution across the protected volume. The activation process is irreversible, once energized, the unit fully discharges and cannot be interrupted.

N2Gen Fire Suppression by DSPA

How N2 Gen Generates Clean Nitrogen

Discharge lasts between **5 and 14 seconds**, depending on the model, reducing oxygen concentration to below 15% but above 10%, a range that suppresses fire while remaining safe for short-term human exposure*.

The nitrogen is transparent, residue-free, and electrically non-conductive. It causes no visibility loss or thermal stress, making it safe for sensitive equipment.
Post-discharge cleaning is not required, apart from addressing fire-related damage.



Solid Bound Compund

Solid content

Controlled Decomposition

Triggered by electrical signal

Filtering and Cooling

By-products trapped gas cooled

Clean Nitrogen Discharge

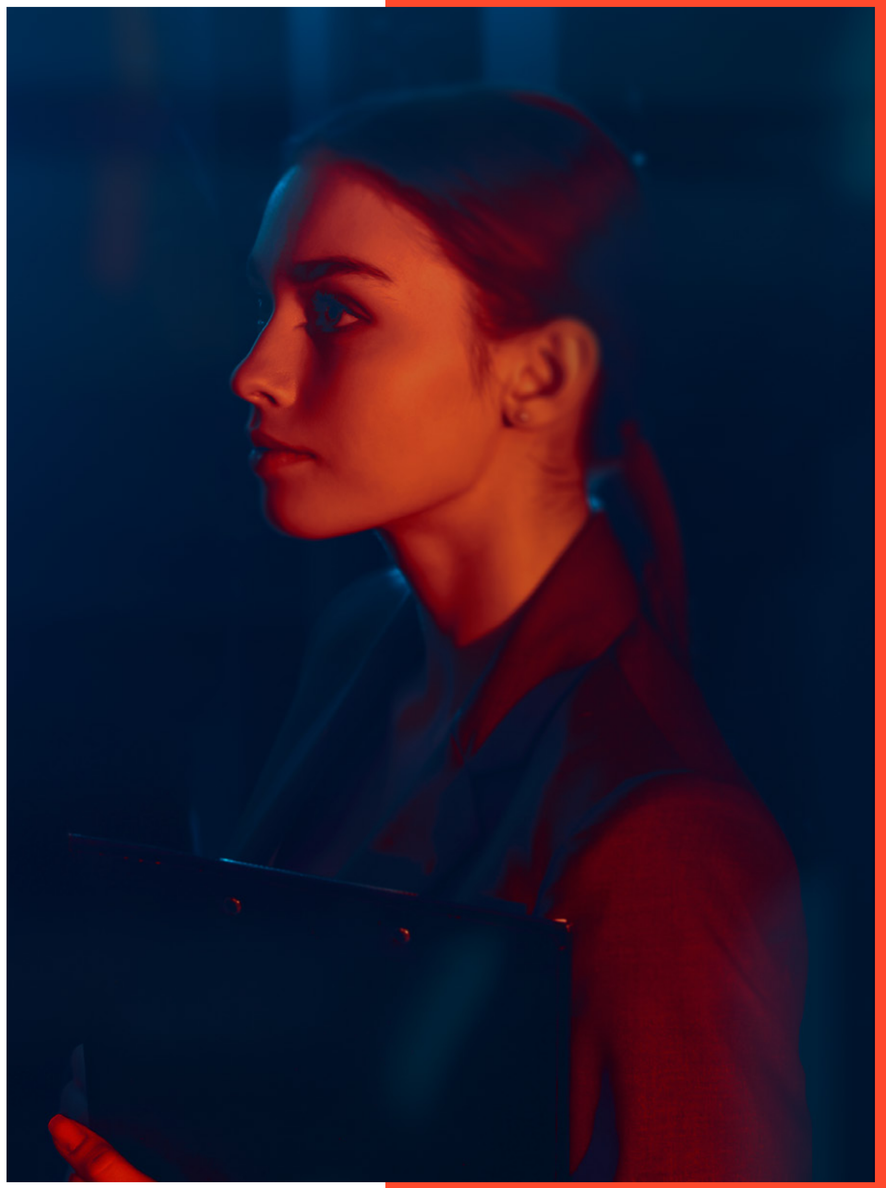
100% gaseous nitrogen (IG-100)

Performance and Safety

Each generator is single-use and designed for tight enclosures that can maintain the gas concentration for at least 10 minutes. Units can be installed directly inside the risk area or externally, using piping or flexible hoses to reach the enclosure. The stainless-steel outer casing protects the device against mechanical damage, provides thermal insulation, supports mounting, and shields the electrical connections. Perforations in the casing allow the gas to disperse uniformly.

N2 Gen is approved for Class A, B, and C fires. It is listed under the U.S. EPA SNAP program for use in occupied spaces*. It should not be applied to fires involving reactive metals, oxidizers, or self-oxygenating materials, unless specifically tested. Safe distances must be observed: temperatures around personnel must remain below 75 °C, and below 200 °C near combustible materials.

The system may also be used in classified hazardous areas, subject to compliance with the ATEX Directive 2014/34/EU and any additional local regulations.



Clear Visibility

N2 Gen releases pure nitrogen, generated on-site and filtered internally. The discharge is dry, clean and transparent, with no solid particles, no chemical residue and no fog effect. Visibility remains clear during and after activation, eliminating the need for post-event cleanup. Unlike pressurized systems, which may temporarily reduce visibility due to rapid gas expansion and condensation of ambient humidity, N2 Gen operates without pressure or turbulence. This prevents mist formation and ensures safe conditions for both personnel and equipment.

*In areas where personnel may be present, N2 Gen should be used with a 30-second time delay and system isolate switch to ensure safe evacuation before discharge. It is recommended to not stay longer than 5 minutes in a space with an oxygen level of 10-12.5%.

N2Gen Fire Suppression by DSPA

Zero Complexity. Maximum Uptime.

Forget cylinders, pressure, and costly rigid systems. N2 Gen brings modular fire protection with flexible installation, zero residue, and total compatibility across critical environments.

A B C CLASS FIRE CERTIFIED	EN15276-1	BRL-K21045 SCP01
	ISO 15779	EPA SNAP
	EN15004-8	CE

Plug-and-Protect
Universally compatible with certified FACP. Protect spaces starting from 0.3 m³.

Easy and Flexible Installation
Mount to walls, ceilings, or directly in/on racks. Modular, retrofittable, scalable.

Clean discharge
No smoke, no heat, no residue. Safe for people, enclosed assets and the planet.

Sustainable and ESG-Ready
PFAS-free. EPA SNAP-listed. Zero GWP. Zero ODP.

Pressure and Cylinder Free
Discharges between 3–5 bar. No cylinder banks, no wasted space.

Low Maintenance
Serviceable lifetime 15 years. No pressure checks and refills.

Rugged by Design
Stainless steel enclosure Resists impact, vibration, and moisture.

Wide Temperature Tolerance
Performs from -20 °C to +75 °C at 95% RH. Reliable even in extreme environments.

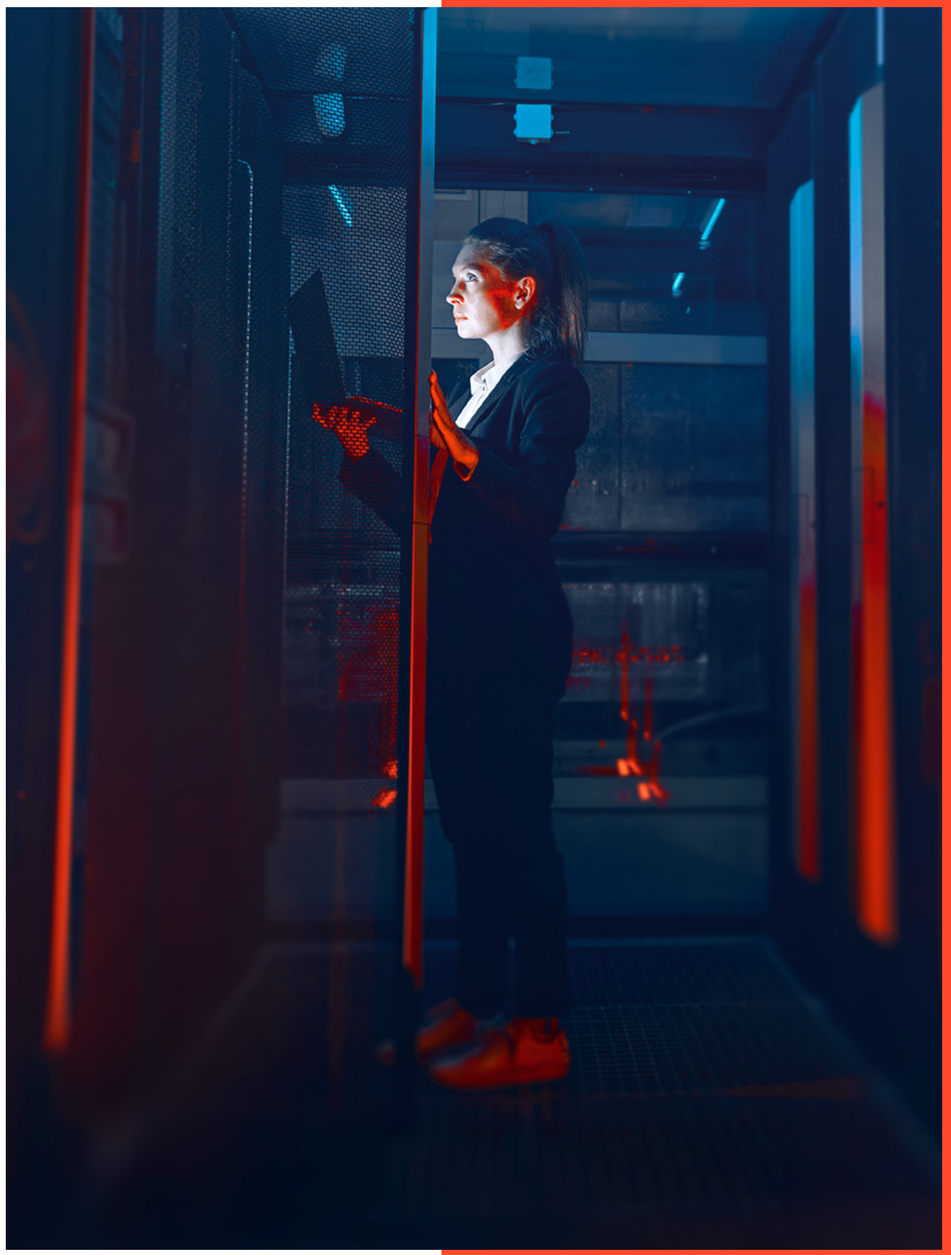
N2Gen Fire Suppression by DSPA

Where N2 Gen Fits Best?

While N2 Gen is optimized for the high standards of data centers and IT infrastructure, its pressure-free, modular design makes it a powerful solution across a wide range of mission-critical environments.

Common applications include:

- Data rooms, IT halls & edge data centers
- Wind turbines & energy infrastructure
- Battery storage containers & UPS enclosures
- Marine & mobile compartments
- Electrical and control cabinets
- Industrial & hazardous enclosures



N2Gen Fire Suppression by DSPA

Choose the most suitable model for your space.

Our N2 Gen line offers six generator sizes to match different protection volumes, from compact enclosures to larger critical areas. **Each model delivers the same proven performance, with variations in capacity, dimensions, and discharge time to fit your specific requirements.**






	N2 GEN Type 0.5	N2 GEN Type 1.0	N2 GEN Type 1.5	N2 GEN Type 2.5	N2 GEN Type 5 0	N2 GEN Type 10.5
DIMENSIONS (L x W x H)	208 x 88 x 211 mm	208 x 115 x 211 mm	200 x 143 x 211 mm	208 x 197 x 211 mm	434 x 273 x 235 mm	735 x 273 x 235 mm
WEIGHT	5.7 kg +/-5%	6.9 kg +/-5%	8.5 kg +/-5%	11.5 kg +/-5%	22.2 kg +/-5%	37.5 kg +/-5%
PROTECTED VOLUME	0.34 – 0.41 m^3	0.68 – 0.82 m^3	1.02 – 1.23 m^3	1.71 – 2.05 m^3	3.42 – 4.10 m^3	7.06 – 8.60 m^3
NITROGEN COMPOUND MASS	>0.5 kg	>1.0 kg	>1.5 kg	>2.5 kg	>5.0 kg	>10.5 kg
DISCHARGE TIME	< 5 seconds	< 8 seconds	< 10 seconds	< 12 seconds	< 12 seconds	< 14 seconds

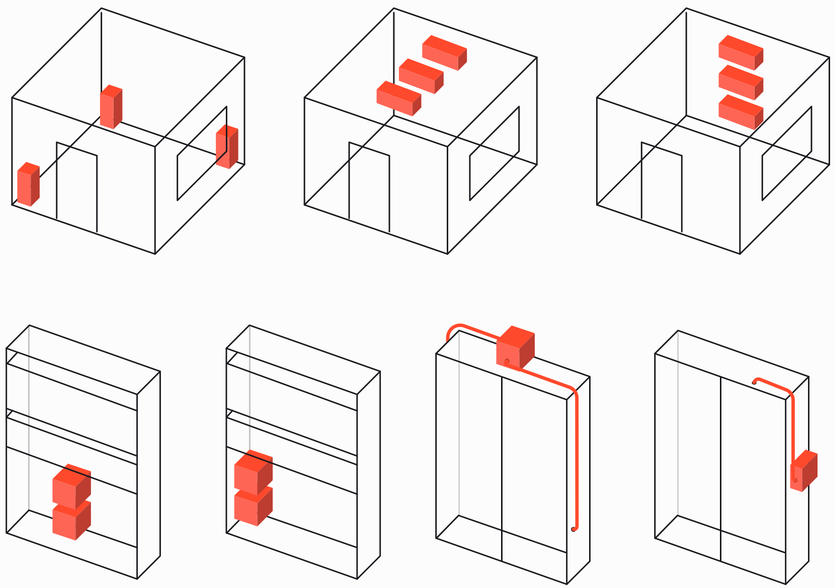
STANDARD ACROSS ALL MODELS	Extinguishing Agent: IG-100, N_2 Gas Output Pressure: 3-5 bar Operational Temperature: -20 to +75 °C	Extinguishing Agent Temperature: <75 °C Housing, Type and Initiation: Stainless steel box, electrical ADR/UN: Unused - UN 3268, ADR CLASS 9; Used - UN 3363 (ADR Exempt)

N2Gen Fire Suppression by DSPA

Fire Suppression that fits where others can't.

N2 Gen is built for fast deployment in both new builds and retrofit projects. The system protects enclosures as small as 0.3 m³ and installs directly inside or outside the protected volume without requiring cylinder rooms, extensive piping, or structural changes.

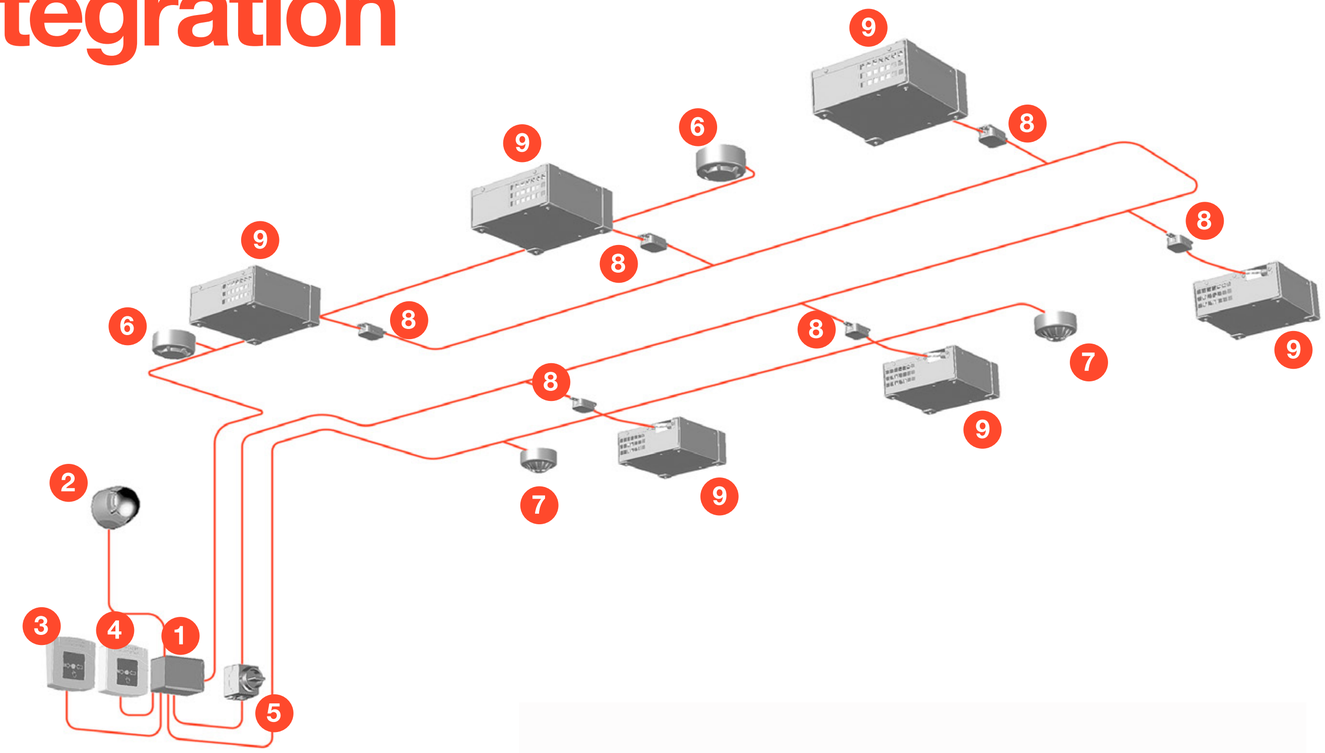
The generators should be positioned in the middle or lower section of the protected enclosure for optimal dispersal.



All installations must follow applicable standards, including EN 15276-2, ISO 15779, BRL-K21045 SCP01, and BRL-K23003/02, as well as any additional local requirements. The system is engineered for tight enclosures; therefore, proper sealing and retention are essential to ensure long-term fire suppression performance.

N2Gen Fire Suppression by DSPA

System Integration



1 - DECU4
2 - Alarm Strobe/Sounder
3 - Manual Release Button
4 - Manual Hold Switch
5 - System Isolation Switch
6 - Smoke Detector
7 - Heat Detector
8 - SCR - Simple Circuit Regulator Forwarder
9 - N2 Gen Generator

Installation is fast and low-impact.

Each unit is delivered ready to mount, and can be connected to DSPA's certified detectors and control panels or integrated into existing certified systems. This flexibility makes N2 Gen a reliable choice for both new build and retrofit facilities.

DSPA offers the core components to build a complete fire suppression system: smoke and heat detectors, manual release buttons, alarm sounders, isolate switches, and control panels.

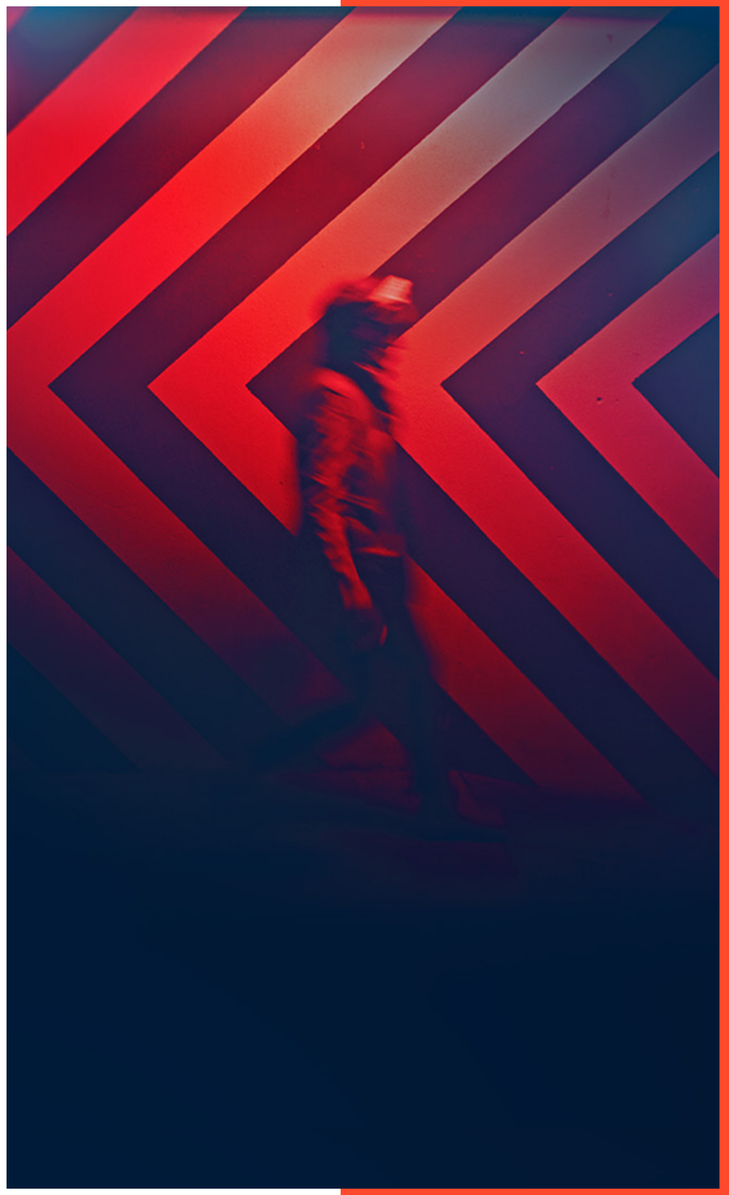
Among these, the DECU4 stands out as an ultra-compact alarm and extinguishing panel for localized protection, while the Simple Circuit Regulator (SCR) allows for seamless integration with third-party FACP systems.

N2Gen Fire Suppression by DSPA

That's why leading professionals are switching to N2 Gen Fire Suppression.

	Traditional Cylinder Systems	N2 Gen by DSPA
Retrofit capability	**No** – It's very difficult and costly to modify after installation.	**Yes** - Adapts to layout changes and scales with your infrastructure
System Installation	**Complex** - Long timelines, high labor, and infrastructure costs	**Easy** - Plug and play. No piping, cylinders, or redesign
No Pressure System	**No** - Needs sealed, airtight rooms and relief valves.	**Yes** - No pressure zones, no door fan tests
Space usage	**Yes** - Heavy infrastructure, occupies valuable space with cylinders and piping	**No** - Installs directly at point of protection. No dedicated infrastructure needed
Ecological impact	**High** - Due to logistics and agent type that may contain PFAS or high-GWP agents	**Low** - PFAS-free, zero-GWP and ODP, eco-compliant, minimal footprint
System Maintenance	**High** - Frequent inspections, refills, and pressure tests required	**Low** - 15-year lifecycle, no refills, no pressure tests required

N2Gen Fire Suppression by DSPA



Designed for Uncomplicated Upkeep.

Because N2 Gen is non-pressurized, self-contained and has no moving parts, it requires virtually no mechanical upkeep. There's nothing to refill, repressurize or recalibrate.

Monthly checks are limited to visual inspection, basic room integrity and electrical testing of the initiator. Once a year, a technician verifies mounting, corrosion resistance and overall readiness.

There's no cylinder transport, no special tools, and no disruptive procedures. After 15 years or a discharge, the unit is simply replaced.

A clean agent should also be clean for people and for the planet.

The National Fire Protection Association (NFPA) defines a clean agent as “an electrically nonconducting, volatile, or gaseous fire extinguisher that does not leave a residue upon evaporation.”

But we believe it’s time to take this concept further.

Some systems still rely on PFAS-based compounds or high-GWP substances like HFCs. These have a significant environmental impact and, due to increasing regulatory pressure, may put your system design on a ticking clock.

By contrast, N2 Gen provides a future-proof alternative that is safe for people, equipment and the planet.

N2 Gen Fire Suppression by DSPA

EPA-SNAP LISTED
PFAS-FREE
ZERO GWP
ZERO ODP

N2 Gen fire suppression generators comply with the requirements and test methods to the following standards:

K21045 SCP01 KIWA International Specific Certification Program Fire Protection System – Components, for the Kiwa product certificate for nitrogen extinguishing generators for object protection.

EN15276-1:2019 Fixed firefighting systems. Condensed aerosol extinguishing systems. Part 1: Requirements and test methods for components.

ISO 15779:2011 Condensed-aerosol fire-extinguishing systems, Requirements and test methods for components and system design, installation, and maintenance. General requirements.

EN15004-1:2019; Fixed firefighting systems - Gas extinguishing systems - Part 1: Design, installation, and maintenance (ISO 14520-1:2006, modified).

EN15004-8:2017; Fixed firefighting systems - Gas extinguishing systems - Part 8: Physical properties and system design of gas extinguishing systems for IG-100 extinguishant.

Certified for Class A, B and C fires under EN and NFPA standards, and compliant with international fire safety and environmental regulations including EN 15276-1, ISO 15779, EN 15004-8, BRL-K21045 SCP01, EPA SNAP and CE.

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Contact
DSPA B.V.
info@dspa.nl - www.dspa.nl
Platinawerf 10, 6641 TL Beuningen,
The Netherlands