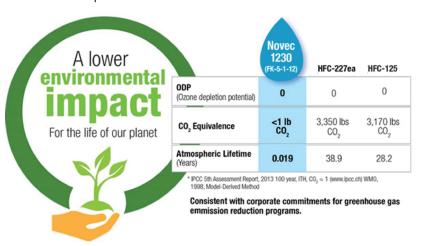
### 3M<sup>™</sup> Novec<sup>™</sup> 1230 Fire Protection Fluid

3M's Blue Sky<sup>™</sup> Warranty is a 20-year protection against regulatory bans or restrictions on the use of 3M<sup>™</sup> Novec<sup>™</sup> 1230 Fire Protection Fluid

A long-term, sustainable technology

With zero ozone depletion potential, extremely low global warming potential and short atmospheric lifetime, Novec 1230 Fluid is the first chemical halon replacement to offer a viable, long-term, sustainable technology for special hazards fire protection.



Today's

Because its use concentration is much lower than its No Observable Adverse largest Effects Level (NOAEL), Novec 1230 fluid offers the largest margin of safety of margin of any chemical halon replacement available on the market today. Note: Industry **safety** standards require egress from a protected enclosure prior to system discharge.

SAFETY MARGIN	NOVEC 1230	Halon 1301	HFC-125	HFC-227ea
Use Concentration	4-6%	5%	8.7-12.1%	7-8.7%
NOAEL <sup>3</sup>	10%4	5%	7.5%	9%
Safety Margin	71-138%	Nil	Nil	3-20%

NOAFL for Cardiac Sensitization

NOAEL for acute toxicity, including cardiac sensitization



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# Titan<sub>1230</sub>







## BULK CLEAN AGENT FIRE SYSTEMS



CRITICAL HAZARD FIRE PROTECTION UTILIZING

LOPRO Technologies<sup>™</sup>



## **BULK CLEAN AGENT SYSTEMS FOR LARGE CRITICAL HAZARD PROTECTION**

#### The SEVO<sup>™</sup> Systems Titan1230<sup>™</sup> Clean Agent Fire Suppression System

is a revolutionary new product utilizing 3M<sup>™</sup> Novec<sup>™</sup>1230 Fire Protection Fluid. Through superior engineering and the implementation of Lopro Technologies<sup>™</sup>, Titan1230<sup>™</sup> is able to protect larger hazards with less hardware at lower pressurization. These advances in efficiency lower costs and PERFORMANCE BASED ADVANTAGES reduce the amount of dedicated space necessary for fire protection within a facility, while simultaneously improving system response times. SEVO Systems once again proves they are the superior choice for protecting your high value assets.

#### Superior Engineering, Customized Design

The engineering team at SEVO<sup>™</sup> Systems will create an optimized piping and design layout to ensure maximum effectiveness with minimal hardware. The Titan1230<sup>™</sup> Fire Protection System is custom designed to fit each project / application, including the option of retrofitting to existing pipe networks for halon or HFCs.

#### Lopro Technologies<sup>™</sup>

Titan1230<sup>™</sup> utilizes the efficiencies of Lopro Quick Charge Technology to Charge-to-Fire the system. This allows larger quantities of Novec<sup>™</sup> 1230 Fluid to be stored in a single cylinder with lower pressurization. SEVO has maximized that benefit by using larger cylinders to create the highest volume clean agent storage system on the market, up to an impressive 2500lb capacity.

#### Improved Flow Rate; **Longer Pipe Runs**

The Lopro *Charge to Fire*<sup>™</sup> technology improves flow rates by as much as 300% over traditional HFC/ valve systems, which allows the cylinder to be stored much farther from the hazard than standard 360 or 500psi systems. This efficiency gives companies the flexibility to place the system where it is most convenient and least disruptive to their day to day business.

## Less Cylinders: **Smaller Footprint**

Traditional

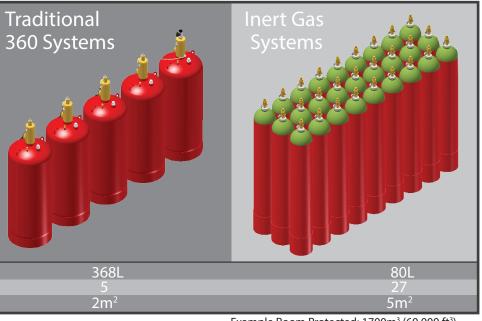
#### Cylinder Size 946I Cylinder Quantity $1m^2$ System Footprint

Titanizao

Increased Nozzle Coverage

<sup>by</sup>SEVO Systems

The SEVO 2<sup>1</sup>/<sub>2</sub> inch nozzle covers 16,640 cu. ft (500 cu. meters) allowing for fewer nozzles with higher flow rates and less pipe.



Example Room Protected: 1700m<sup>3</sup> (60,000 ft<sup>3</sup>) Class C NFPA 2001

## THE LARGEST **CLEAN AGENT SYSTEM** 1271 lbs (577 kgs) 2505 lbs (1136 kgs)





