NERO INDUSTRIES
Advanced Reliability

“360° Defense. Zero Blind Spots.”

DEFLECTOR UNIT

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The Deflector Unit is a critical component integrated into vehicle-mounted fire suppression systems. Engineered to deliver 360° multi-directional dispersal, it ensures rapid and uniform distribution of the extinguishing agent throughout enclosed or semi-enclosed vehicle compartments. Upon cylinder activation, the deflector redirects and diffuses the suppressant to maximize area coverage and enhance operational fire-neutralization efficiency.

Technical Specifications

Parameter	Specification
Equipment Name	Deflector Unit (Aerosol/Gas Flow Distributor)
Distribution Pattern	Full 360° radial dispersal
Operating Method	Passive flow redirection under cylinder pressure release
Material Composition	High-strength, heat-resistant engineering polymer (e.g., PA6/ABS military-grade composite)
Agent Compatibility	Gas-based, chemical, and aerosol extinguishing agents
Directional Adjustment	Upward/Downward dispersion angle alignment based on system tubing configuration
Net Weight	390 g ± 50 g
Intended Installation Area	Roof, upper compartment, or nozzle exit interface within military vehicle interiors
Operational Temp. Range	–20°C to +80°C (aligned with common MIL environmental standards)
Color	Matte black, low-glare tactical finish

Key Operational Features

Full-spectrum 360° coverage: Ensures uniform agent saturation across critical vehicle compartments, mitigating blind zones.
Rapid agent deployment: Optimized flow geometry delivers accelerated suppressant diffusion upon cylinder activation.
Directional adaptability: Adjustable deflection angle supports mission-specific vehicle layouts and varied compartment configurations.
High durability: Constructed from impact-resistant, vibration-tolerant materials suitable for harsh operational environments.
System compatibility: Fully integrable with standard military vehicle fire suppression units and modular extinguishing systems.

Military Application Domains

Armored personnel carriers (APC)
Infantry fighting vehicles (IFV)
Tactical armored trucks and MRAP platforms
Military transport and logistics vehicles
Enclosed engine cabins and power modules
Auxiliary military equipment compartments

Structural and Dimensional Characteristics

Fin count: 6–8 directional fins for optimized distribution
Interface type: Standardized nozzle/tube connection for suppression systems
Dispersion angle: 25°–45° adjustable operational field

Operational Function

Upon activation of the fire-suppression cylinder, the pressurized extinguishing agent is routed directly into the Deflector Unit. Its multi-fin configuration dissipates the agent flow into a **broad aerosolized plume**, achieving:

•Immediate thermal suppression
•Efficient flame disruption
•Enhanced survivability of critical onboard systems

The deflector's geometry is optimized to maintain high dispersal performance even under vibration, shock, and movement typical of military operations.

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(0312) 504 54 53 sales@neroindustry.com
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