



A New Never Before Available Fire Protection Portable System for Military Deployment, & More...



FireStopper Marketing Department
WHITE PAPER

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Preface

FireStopper[®] International Limited, a transnational Registered Company, is the developer of the most advanced and powerful firefighting technology in the “World. It devoted over 30-years of its existence to R&D and is the recipient of subsequent stand-alone testing results in the ratings and certifications as awarded by the most recognized and respected third-party testing and Listing facilities in the world.

Moreover, this unique Technology is exclusively delivering the only available “**All Fire Class & Subclass**” effective and anti-explosive products, which are non-toxic, non-irritant, environmentally safe, and non-hazardous. Standing alone over all other existing and available products in the fire and safety channel of business.

Having proven the former statement through the outstanding results of the products testing, rating, and certifications thus received, *FireStopper*[®] in tandem with its novel firefighting and anti-explosion products (the “software”), developed the most durable and reliable supporting hardware and detection systems available today, which also meet and exceed the relative standards used to certify said product lines.

Moreover, the *FireStopper*[®] lines of products reach across the full spectrum of safety application including environmental remediation to include post spills both onshore and offshore events.

In the International arena, the *FireStopper*[®] brand is the recipient of the highest certifications in all categories of Governmental requirements to market such as defined below:

Handheld Portable Extinguishers:

*ANSI/UL711, ULC – Southwest Research Institute (San Antonio, TX)
Defense Logistics Agency (DLA) US Gov. NSN Approval #s’*

*EN3-7; EN3-8¹ – MPA, Dresden (Germany)
CE² – DNV*

Firefighting Foaming Catalyst:

EPA1633
*EN1568 – MPA Dresden
ICAO – CNPP (France)
IMO – MPA Dresden, Lloyds Registry: DNV & MED CE*

Environmental Testing:

NAMSA, USA
Associated Laboratories, CA USA
Environmental Medicine, Inc., USA
OPUS, Ltd., UK

¹ This Standard refers to hardware durability, reliability and efficacy.

² This Mark assures manufacturing quality through yearly inspections.

Executive Summary

The Next Generation Weapon Against All Flammable Events in The Battlefield, On Base, Or in The Private Sector...

There has never been a higher demand for fire protection in both everyday situations and battlefield environments. The military services can now allocate specific responsibilities for fire mitigation to designated personnel or individuals. With the necessary facilities, reliability, and overall cost-effectiveness, a dedicated fire protection command can now be assigned to a platoon with minimal training.

Thanks to the newly available FireStopper® FFC (Fire Fighting Catalyst) Technology, the designated individual or personnel can efficiently and swiftly extinguish any emerging fire. This allows for a rapid return of the affected area to its ambient temperature post-extinguishment, thereby facilitating the resumption of the intended task or operation.

The Present Conditions:

The Military legacy backpack configuration generally deployed is limited in scope and use. In order to be effective, the system is approximately 70 to 75-lbs in total weight. This inherent spec obviously presents an additional concern limiting the choice of personnel to deploy said system in line with several other restrictive conditions, such as:

- Inadequate firefighting media – Most, if not all units in play, deploy a let-out of a foam concentrate at 3% or 6% dilution (AFFF, now a worldwide banned product due to its untenable toxicity and narrow flammables effectivity, was generally the product of choice). In the aftermath of said banning, the immergence of non-fluorinated foams now fails to deliver any viable use reliability but more important fail to meet EPA 1633 the now imposed environmental safety for use requirement.
- Too heavy and cumbersome – As stated above, currently, the U.S. Army's deployed backpack weighs 75-lbs fully loaded:
 1. The spray pattern produced by the employed nozzle is, at best, inefficient and far too narrow requiring special training and technique to defeat the fire threat.
 2. No significant temperature reduction.
 3. Because of the unreliability of foam concentrates, a 5-gallon load is the minimum volume of media necessary to provide a modicum of safety in use.
- Non-fluorinated Foams Limitations: It is generally recognized that foams are designed for use to meet NFPA designated class B non-polar hydrocarbon fuels; aside from just being marginal at extinguishing fires, these new foams are totally infective against Polar fuels: alcohols, esters, ethers, aldehydes, and ketones. On class A, carbonaceous materials (wood, textiles, plastics and rubber) foams are no more effective than water.
- No temperature reduction efficacy, aggressive to materials, toxic, and irritant to skin and dangerous to the eyes if they come in contact.

- All available foam concentrates **are not** environmentally safe or generally friendly while in use...they fail to meet the required EPA 1633 Approval among other exposure safety testing protocols.

In contrast the *FireStopper® Backpack™* is deploying to the market with its unmatched FFC (Fire Fighting Catalyst) Technology's advanced product, the *Predator FFC™*. It is making available the safest extinguishing device, most economical, and efficient first response weapon against fire.

Mechanism & Specifications:

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	L87Y GAS CYLINDER	description here	1
2	M15A GAS CYLINDER	description here	1
3	PRESSURE TANK FITTING	description here	1
4	5825T224	ASME-Code Fast-Acting Pressure-Relief Valve	1
5	4118T125	Panel-Mount On/Off Valve	1
6	8063K18	Air Fill Valve	1
7	9767T216	Miniature Pressure Gauge with Nickel-Plated Brass Case	1
8	4289T211	Panel-Mount Ultra-High-Pressure-Regulating Valve	1
9	4757T82	Extreme-Pressure Brass Threaded Pipe Fitting	2
10	LIQUID TANK FITTING	description here	1
11	4468K33	High-Pressure Braided Chemical Hose with Fittings	2
12	FRAME REAR SUPPORT	description here	2
13	93340A415	18-8 Stainless Steel Key-Locking Inserts	2
14	FRAME REAR SUPPORT LIQUID TANK PAD	description here	2
15	FRAME REAR SUPPORT GAS CYLINDER PAD	description here	2
16	RISER TUBE	description here	1
17	4003K121	Single Scale Pressure Gauge with 304 Stainless Steel Case	1
18	50785K123	High-Pressure Brass Pipe Fitting	1
19	7775K52	Brass Threaded Check Valve	1
20	4468K33_25 X 8 HOSE PART 3	description here	1
21	5247K31	International Standard ISO B Hose Coupling	1
22	4112T13	Compact High-Pressure Brass Ball Valve	1
23	CYLINDER CLAMP	description here	2
24	CYLINDER CLAMP LIQUID CYLINDER PAD	description here	2
25	CYLINDER CLAMP GAS CYLINDER PAD	description here	2
26	90696A198	18-8 Stainless Steel Socket Head Screw	2
27	4450K1	Muffler	1

DIMENSIONS ARE IN INCHES TOLERANCES: ANGULAR: ± 0.5 DEG TWO PLACE DECIMAL: ± 0.010 THREE PLACE DECIMAL: ± 0.001 FOUR PLACE DECIMAL: ± 0.0005 INTERPRET GEOMETRIC TOLERANCING PER:	NAME: L. Childs DATE: 00/00/11 CHECKED: ENG APPR: MFG APPR: G.I.A. COMMENTS:	Designit PROTOTYPE 9999 Labak, Suite 3 Redwood Park, CA 94928 Ph: 707-984-4000 Fax: 707-984-4070 TITLE: BACKPACK SPRAYER ASSY SIZE: B DWG. NO.: SCALE: 1:8 FILE NAME: REV: X01 SHEET 1 OF 4
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- Carbon composite fiber construction for its pressure vessels, providing:
 1. Reduction in weight.
 2. Highest level of safety while in use against shrapnel or missile exposure under combat conditions.
 3. Comfort while under demanding of necessary maneuverability.
 4. Quicker reload capability for continuous firefighting.
 5. High safety margins while deploying in substantially higher pressures for greater efficacy.
 6. Easy to operate (requiring minimum training, and maintenance).
 7. One propellant charge provides 4 to 6 shots before refill.
 8. Designed for overall low maintenance requirements.

The Nozzle:

The Ultra High Pressure handline nozzle is designed to operate at pressures as high as 1500 psi. In addition, this nozzle handles these pressures with a bale shutoff that opens and closes with no more force than your standard firefighting nozzle.

	<p>The Ultra High Pressure handline nozzle is designed to operate at pressures as high as 1500 psi. It is the perfect nozzle for delivering ultra-fine water droplets at high velocity. In addition, this nozzle handles these pressures with a bale shutoff that opens and closes with no more force than your standard firefighting nozzle. 4808 Ultra High-Pressure Handline Nozzle:</p> <ul style="list-style-type: none">- Swivel: 1" NH Inlet- Length: 7.5"- Weight: 3.2 lbs.- Available with set operating pressures of 600, 1100, 1200, 1400 & 1500psi- Flow Range: 15-30 GPM
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The Media:

The *FireStopper® Predator FFC™*, as an incomparable new tool to achieve overall superior results against all fire emergencies without limitations. For the first time it offers the end-user superior safety, usability, durability, and lower weight by volume (approx.35-lbs at 10-liters fully loaded).

Moreover, the second generation of this configuration of our exclusive premix provides the ultimate reliability while performing its tasks.

- *FireStopper® Predator FFC™* will rapidly extinguish any and all flammable materials presenting lethal consequences for the military personnel or to the general public:
 1. Effective on every class of flammables: A, B, C, D, & K + sub classes of flammables including nuclear related flammables.
 2. Massive temperature reduction.
 3. Environmentally Safe, Non-Toxic, Non-Irritant to skin or eyes, and non-aggressive to materials; fluorine free (EPA1633 Certified)

Predator FFC™ Specifications:

The advantages not available before in any other employed products or technologies are:

1. Effectiveness on all classes (ABCDK) and sub classes of fire (*the FireStopper® PREDATOR™ FFC is the only product to be certified to deliver full extinguishment of flammable events borne from all flammable materials in existence*).
2. Fast extinguishment (*usually within the range of microseconds to under 5-seconds*).
3. No re-ignition.
4. Non-Irritant (*skin or eyes*), Non-Toxic, Non-Aggressive,
5. Freeze resistant to -100°F (-73.3°C).
6. Designed to fire twice allow for quick refill in the field to provide superior fire killing capacity over any other portable system.

7. The lightweight *Backpac*[™] is designed for ease of use while in deployment.
8. Carbon composite fiber construction for strength, durability, and over all weight control.
9. Operating at the range of 500 to 1000-psi for greater reach (*approx. 40 to 60-ft depending on wind conditions*).
10. Next generation handheld pistol grip nozzle for ease and accurate use (not illustrated in photos below).

11. EXTINGUISHER LIQUID MEDIA ADVANTAGES:

- This product is designed for use exclusively with *FireStopper*[®] trademarked systems and delivers:
 - Total safety when exposed to humans, animals, plants, and the environment,
 - DLA Approval.
 - Full efficacy on all fire class and subclasses (including nuclear related flammables)
 - Approx. -100°F freeze resistance without harmful antifreeze additives.
 - Viscosity: water-thin
 - Non-aggressive to common materials and more...
 - Little or no maintenance required.
 - Extremely low evaporation providing additional protection against fire.
 - Reliably bio-degradable, while helping to restore the biome in the aftermath of fire occurrences.
 - Anti-explosive properties...
 - Highest ratings in the world both under: EN3-7 & UL7-11
 - Highest Eco-Safety testing results under *HOCNF*, while meeting or exceeding *FHSA regulations, 16 CFR 1500 and California Proposition 65 & EPA1633*
 - Ideal for use where extreme cold temperatures may be a factor.
 - The ideal product for use in concert with *FireStopper*[®] CAC (*Compressed Air Catalyst*) units; please explore CAC Catalog
 - Highest stability and reliability while under harsh environment storage.

Conclusion

Asymmetric warfare and traditional military engagements will necessitate a new generation of fire protection solutions. FireStopper[®] has created the most extensive range and the most adaptable hardware to implement the most sophisticated, powerful, and dependable array of firefighting and anti-explosion media available globally. Whether for large-scale applications or smaller formats, the Predator FFC[™] is specifically engineered for use with FireStopper[®] Trademarked portable and fixed systems. FireStopper[®] is equipped and prepared to provide the broadest range of safety measures and economic benefits, regardless of the requirements or applications.