



HIGH EXPANSION FOAM GENERATOR



Rapid Fire Containment: FIRECHEM's
Hi-Ex Foam Generator



Engineered for 500–1100:1 Expansion Ratios |
UL/EN/IMO-Compliant | Smoke Extraction Ready

Swipe to discover how FIRECHEM's engineering
can suppress fires 10x faster →





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Why FIRECHEM's High Expansion Foam Generator?

Flood the Flames, Not the Environment

FIRECHEM Hi Ex Foam Generators are used for total foam flooding in enclosed areas and also act as a powerful smoke extractor. They require no other source of power such electricity or gasoline engines. They are powered by the foam solution driving a hydraulics (water) motor. The expansion of the foam solution is achieved by spraying the solution onto a stainless steel screen, and then an air stream created by the fan attached to the motor forces air through the screen to produce a mass of foam bubbles. The continuous flow of the foam solution and the movement of air through the screen will generate large volumes of foam.

FIRECHEM Hi-Ex Foam Generator | Model: BEW-HEFG-0055

A robust, corrosion-resistant solution for rapid fire suppression in high-risk environments. Engineered to deliver 500–1100:1 expansion ratios with precision, ensuring optimal foam coverage for industrial, marine, and commercial applications.

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Performance Data

Foam Output & Expansion Ratios

Mode	Inlet Pressure (bar)	Total Water Flow (L/min)	By-pass Flow (L/min)	Water for Foam Production (L/min)	Expanded Foam (ft ³ /min)	Expanded Foam (m ³ /min)	Expansion Ratio
By-Pass Closed	4	180	Nil	180	3,000	85	500–700:1
	6	225	Nil	225	4,050	115	500–700:1
	7	245	Nil	245	4,750	135	500–700:1
	8	270	Nil	270	5,300	150	500–700:1
	10	290	Nil	290	6,700	190	500–700:1
By-Pass Fully Open	4	195	70	125	3,350	95	800–1100:1
	6	245	90	155	4,750	135	800–1100:1
	7	270	100	170	5,450	155	800–1100:1
	8	290	105	185	6,150	175	800–1100:1
	10	315	115	200	7,050	200	800–1100:1
By-Pass Closed	4	145	-	-	-	-	-
	7	186	-	-	-	-	-
	10	227	-	-	-	-	-

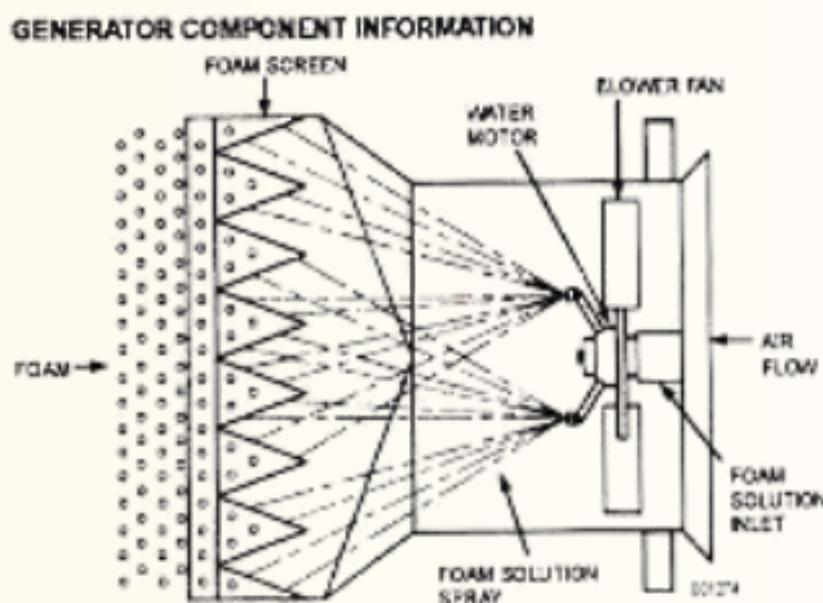
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Material of Construction

Built to Last in Harsh Environments

Component Breakdown:

Component	Material
Main Body	Fibre Glass (FRP)
Fan Blade	Aluminium Alloy (LM6)
Mesh Grill	SS316 (Black Powder Coated)
Water Turbine & Inductor	Gunmetal
Nozzle	Brass
Ball Valve	SS316
Foam Pickup Tube	SS316
Foam Making Net	Nylon with Polyester Ribbon
Expandable Foam Ducting	Polythene (30 meters included)

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Technical Excellence

Precision Engineering for Extreme Conditions

Technical Specifications

- Dimensions: 950 mm (W) × 1000 mm (H) × 500 mm (D)
- Weight: 55 kg
- Connections: 2½" (65 mm) Male/Female instantaneous couplings
- Accessories:
 - 30-meter polyethylene foam ducting
 - SS316 suction tube for foam concentrate

Key Features:

1. Dual Functionality:

- Fire Suppression: Generates high-expansion foam for rapid fire knockdown.
- Smoke Extraction: Optional smoke extraction mode at 280 m³/min.

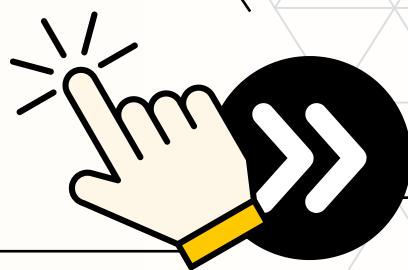
2. Performance Highlights:

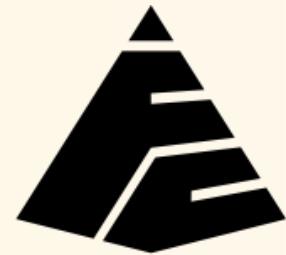
- Expansion Ratio: 500:1 to 1100:1 (adjustable via by-pass valve).
- Flow Capacity: Up to 7050 ft³/min expanded foam output.
- Pressure Range: Operates efficiently at 4–10 bar inlet pressure.

3. Technical Superiority:

- Corrosion-Proof FRP Body: Built for harsh environments.
- Portable Design: Easy to deploy with lifting handles (55 kg weight).
- Inbuilt Foam Inductor: Ensures consistent foam quality.

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Applications

Trusted Where Every Second Counts

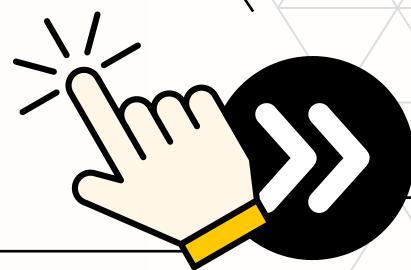
Typical hazards where FIRECHEM High Expansion Foam Generators may be used to provide fire protection are:

- LNG Tank Farms / Loading Facilities
- Flammable Liquid Storage Areas
- Hazardous Waste Storage Facilities
- Shipboard Engine Rooms, Bilges, and Holds
- Roll Paper Warehouse
- Chemical Storage Facilities, Battery Rooms
- Flammable Liquid Packaging Areas
- Cable Tunnels
- Aircraft Hangars

In addition to the above hazard types involving Class A and B fires, high-expansion foam is effective in controlling liquefied natural gas (LNG) fires by blocking heat feedback from the flames to the LNG thereby reducing the vaporization rate.

High-expansion foam is also effective in reducing vapor concentrations downwind from un-ignited LNG and other hazardous low-boiling-point gaseous products such as ammonia spills.

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Why **FIRECHEM?**

The Global Leader in
Sustainable Fire Suppression

- **R&D-Driven:** Continuous innovation for 40+ years, with in-house testing labs. Patented bladder tank designs tested in FIRECHEM labs.
- **Global Reach:** Deployed in 72+ countries across industries Oil & Gas, Aviation, Power, Marine, Defence, and Industrial Facilities, a global network of 120+ distributors who have generated more than \$150 million in revenue, we've delivered fire safety products for over 18,000 projects worldwide including Shell, ONGC, Cairn Energy, Repsol, YPF, Petrobras, ISRO, DRDO, Adani, TATA, NTPC, and more.
- **Eco-certifications:** REACH compliant, OECD 301B biodegradability, Pre-certified for UL, EN, and IMO standards.
- **24/7 Support:** Technical assistance for installation, training, and audits.

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Ready to Revolutionize Your **Fire** **Suppression** **Strategy?**

Get a Custom Quote!

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