



JETEX SGT™
Technology

GAS-DYNAMIC FIRE SUPPRESSION MODULE

Containerized System | Overview & Technical Configuration

INDUSTRIAL LIMITATION

Conventional firefighting systems rely on increasing water flow, resulting in high consumption and limited efficiency in large-scale fires.

SYSTEM OVERVIEW

The JETEX-SGT Container System is a fully integrated industrial firefighting module based on gas-dynamic two-phase flow technology (water + atmospheric air). Designed as a modular solution, it can be deployed as a standalone container unit or integrated into mobile platforms, including heavy firefighting vehicles, trailers, rail systems, or marine installations. The system is optimized for high-intensity fire scenarios where conventional high-flow systems face limitations in efficiency, logistics, or water supply.

The system shifts firefighting from “more water” to “more effective suppression”

INTEGRATION OPTIONS

- A — **Containerized**
(current configuration)
Standalone deployment, rapid response unit;
- B — **Vehicle Integration**
Integration into 6x6 / 8x8 platforms with existing pump systems;
- C — **Hybrid Deployment**
Container + vehicle combined operational use.

SYSTEM ARCHITECTURE

- Firefighting monitor (SGT technology);
- Water pump unit;
- Air compressor unit;
- Diesel power units;
- Control system;
- Foam injection system (optional).

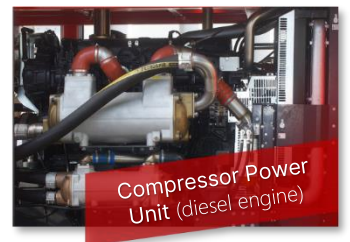
FIRE SUPPRESSION PRINCIPLE (SGT)

Water flow is combined with compressed air generated by the compressor, forming a two-phase gas-dynamic jet with enhanced heat absorption efficiency. This results in significantly higher suppression efficiency compared to conventional water streams.

KEY ADVANTAGES

- High extinguishing efficiency with ultra-low water consumption;
- Two-phase gas-dynamic jet (water + air) for rapid heat absorption;
- Extended operational range (up to 120 m);
- Reduced water logistics and refill dependency;
- Compatible with fresh, industrial, and seawater sources;
- Designed for integration with standard industrial platforms;
- Remote and manual operation capability;
- Rapid deployment in containerized format.

JETEX SGT™ Container System: Components & Technical Configuration



TECHNICAL SPECIFICATIONS

Parameter	Value
System Type	Gas-dynamic firefighting system
Configuration	Containerized (20 ft)
Water Flow Rate	up to 60 L/s
Jet Range	up to 120 m
Operating Pressure	0–1.3 MPa
Elevation Angle	–5° to +65°
Rotation	350°
Control	Manual / Remote
Temperature Range	–20°C to +65°C
Water Source	Fresh / Seawater
Foam	Supported
Weight	~12,000 kg

PERFORMANCE

Demonstrated effective suppression of large-scale hydrocarbon fires with reduced water consumption.

COMMERCIAL STATUS

Prototype developed and tested. Available for industrial validation, OEM integration, and pilot deployment.

ENGINEERING CONSIDERATIONS

- Space requirements;
- Power supply (PTO / engine);
- Cooling;
- Control integration.

CONTACT US

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Test videos (QR)

See how the JETEX SGT systems perform:

<https://www.youtube.com/@Jetex-sgt>

