





The Next Generation of

# Foam Fire Suppression Has Arrived



## **PROVEN, EFFECTIVE, & POWERFUL FIRE SUPPRESSION SYSTEMS**

ACAF<sup>®</sup> Automatic Fire Suppression Systems are proven to effectively suppress flammable liquid fires in commercial, industrial and hazardous environments. They are engineered to meet and exceed the most stringent industry standards.

ACAF<sup>®</sup>Systems perform when and where they are needed!

#### **OUR HEART IS UNIQUE**

At the heart of each ACAF<sup>®</sup> system is our world renound, Compressed Air Foam Generator. This generator creates a unique, non-toxic, biodegradable foam, from a foam-water solution. Pressurized Nitrogen is used to create the compressed air foram (CAF) and to power the system. ACAF<sup>®</sup> pre-engineered fire suppression systems are made up of single or multiple CAF generator assemblies.

This factory built assembly is sized to the number of nozzles it may supply. Larger hazardous areas can be protected by combining multiple CAF generators. CAF generators may be supplied by pressure tanks for self-contained supply systems or a foam proportioner for a fixed water supply system. CAF generators are available in four assemblies: MOD -1 thru MOD- 4. These modules can support 2 to 16 CAF nozzles.

Our systems use lower water flow and pressure as compared to traditional foam water systems, thus our systems may be designed for applications with as much as 75 % less water demand.

#### **SUPPLY CHOICES**

#### SELF-CONTAINED SUPPLY, AUTOMATIC FIXED PIPE SYSTEM (SC)

The SC configuration is recommended for areas where water is not readily available. This automatic, pre-engineered, stored energy-type, fire suppression system uses CAF as the fire suppression agent. Unique to the industry, it does not require a water supply to create CAF.

#### FIXED WATER SUPPLY, AUTOMATIC FIXED PIPE SYSTEM (FW)

When a reliable water supply is available a CAF solution may be designed using ACAF's<sup>®</sup> fixed water supply system. This system requires a foam proportioner to mix foam concentrate and water to a pre-determined ratio of 3% or 6 %.



### **OUR SYSTEMS COVER A WIDE VARIETY OF APPLICATIONS**

#### SYSTEM SELECTION

#### **DELUGE SYSTEM**

(Area Protection)

The Deluge System uses DN7 nozzles in a network of piping that is designed to distribute CAF over the entire hazard area automatically. A balanced pressure piping design will provide an even distribution of CAF thru these specifically designed nozzles installed in either the pendent or horizontal position.

**FIXED SPRAY SYSTEM** (Local Application)

A Fixed Spray System has an arrangement of fixed pipe and DN7 nozzles positioned for specific application of CAF automatically or manually.



ACAF<sup>®</sup> Deluge and Fixed Spray Systems are FM Approved for Hydro Carbon and Polar Solvent Fires.

**DN7 NOZZLES** 



Proprietary and unique to both the ACAF® Deluge and Fixed Spray Systems is the DN 7 Nozzle. Patent pending and FM Approved for installation in the pendant and horizontal positions, these multi-port nozzles are highly cost effective as they allow for the greatest spacing possible, to minimize the amount of nozzles and piping needed.

#### STRENGTH OF FOAM AND SUPPRESSION ABILITY

"A homogenous foam produced by the combination of water, foam concentrate, & air or nitrogen under pressure. " (NFPA 11)

#### **OSCILLATING MONITOR SYSTEM**

ACAF<sup>®</sup> Systems Automatic Fixed Monitor Systems are systems designed to distribute CAF automatically or manually over a hazard area. Water-powered oscillating monitors or fixed monitors are connected to a fixed piping network that may be activated by an automatic fire detection system or manual released. Activation of the detection system triggers the CAF generator to start creating CAF and will simultaneously open a control valve that will start solution flow to the monitor creating the sweeping motion that distributes the CAF. Monitors are positioned to cover the entire hazard area with CAF.

#### **DIFFS SYSTEM**

(Deck Integrated Fire Fighting System)



A DIFFS is typically utilized on the deck of a helipad, or in a concrete floor for aircraft hangar applications.

DIFFS Nozzles are typically integrated into the floor area. When not in use, these nozzles are flush with the surface. Once engaged, they pop-up to disburse foam in a 360 degree pattern.

#### **RIMSEAL SYSTEM**

The ACAF<sup>®</sup> Rimseal System is fully automatic and designed to extinguish floating roof tank rimseal fires in their infancy. A self-contained CAF generator, combined with special rimseal nozzles and thermal linear heat detection, provide a system to protect the entire rimseal space of a floating roof tank.

When activated the system will automatically discharge CAF into the rimseal void filling the space with CAF in seconds. Total flooding of the rimseal space with CAF provides a seal of foam that quickly extinguishes a fire and protects against reflash. The ability of a CAF generator to create and deliver expanded foam rapidly gives this system the speed that is needed in this application.

#### **HOSE REEL**

(For manual intervention)



The Automatic CAF Fire Hose Systems are ideal for firefighting needs in locations that

require foam as a fire fighting agent. A fixed piping network of hose reels and a CAF generator will provide CAF automatically, where needed, without moving the equipment.

## THE ACAF-PFS FIRE SUPPRESSION GROUP

## SUPERIOR PRODUCT & COMPETITIVE PRICES

ACAF® Systems Automatic Compressed Air Foam products are designed and manufactured exclusively in the USA by ACAF® Systems-PFS Fire Suppression Group, LLC.

Quality standards of manufacture are strictly ISO 9001:2008 with ASME certification as required for all pressure retaining components and PED, IBR, GOST, certifications available by special request. Our products are distributed worldwide.

Products are FM Approved and manufacturered to the requirements of Factory Mutual Global.

Systems are warrantied for 2 years.

#### LEADING THE FOAM FIRE SUPPRESSION INDUSTRY

- Industry leading performance in foam consistency through the entire CAF discharge process.
- Environmentally safe, Green Compliant Technology.
- Uses 75% less water when compared to traditional technologies.
- Industry's only stationary CAF Nozzle.
- Compact design utilizes minimum space.

#### **FACTS & FEATURES**

- Materials used in the construction of ACAF <sup>®</sup>system are of the finest quality to ensure years of trouble free, and reliable service.
- Each ACAF<sup>®</sup> system is custom built to meet specific flow demands.
- ACAF<sup>®</sup> Systems CAF Generators, Mod 1-4, are pre-assembled, reducing the cost of installation.
- The foam used in our systems is a special mix of AR-AFFF foam concentrate and water that is environmentally responsible.
- Cost effective and unique, DN7 Nozzles, are specifically designed for use with ACAF<sup>®</sup> systems and FM approved for both the pendant and horizontal positions.
- Actuation of the system may be electrical or pneumatic, or a combination of both. Each control valve assembly is built with an emergency release valve for manual release.
- CAF is a dense foam that will last long after discharge providing strong reflash protection.

#### **WORLDWIDE DISTRIBUTION**

ACAF<sup>®</sup> Systems are distributed worldwide through a network of highly experienced and factory trained distributors.

Our sales and technical staff are able to analyse your specific hazard and design a fire suppression system that suits your needs.

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