Foam Fire Suppression & Protection Systems
Foam concentrates & systems for all applications
Foam has been used as a fire fighting media for many years yet new foam compounds are continually being developed. We have to take new regulations, new demands, new equipment and new fuels into consideration.

Continuous development work has provided us with a strong product portfolio with a wide selection of products with different performance and certifications. Beside our basic product portfolio, we also have tailor-made adaptations and modifications to suit special requirements.

ENVIRONMENT

Environmental issues are becoming more and more important. At Fire Protection Technologies we look at our constituent substances to optimize the environmental profile of our products. Raw materials from renewable resources are maximised. It is important to keep all ingredients to as low a limit as possible in order to minimise environmental impact and still have good foam with strong fire fighting properties. Hence, we promote environmentally friendly training foams purely developed from compounds originating from natural sources and recommend using the powerful fire fighting foams only when needed.

PERFORMANCE

Selecting fire fighting foam is to seek optimal performance for the application. This can be related to many different aspects of foam. In one case, the most important factor is to have foam with freezeprotected to very low temperatures. In other cases the extinction and burn-back resistance is the prime function. Often, a combination of different features is requested. For that reason we constantly develop our product portfolio to meet the demands of our customers.

DEVELOPMENT

The most important parameter of foams is a quick and easy extinguishment of a fire. In order to fulfill this mission a lot of tests have to be carried out on new developments. New foams also undergo severe tests regarding storage stability where they are evaluated at both high and low temperatures.

PFOS TO C6 CHEMISTRY

First of all, it is important to state that our foam formulations have never included substances containing PFOS. The issue with PFOS and other related substances are now history. The old type of fluoro-surfactants has now been phased out and replaced with the new C6 chemistry. This new generation of fluoro-surfactants based on C6 chemistry has been extensively investigated regarding its health and environmental impact. The result from these evaluations shows that the compounds and their breakdown products are not toxic and are not bio-accumulative. Fomtec has invested a lot of research effort to implement the new C6 based fluoro-surfactants in the formulations. A lot of time has been spent evaluating the fire performance of the new formulation to assure that the products will perform as expected. The work with re-formulating is now complete and we are ready to supply.

FLUORINE FREE FOAMS

Fluorine free foam concentrates are nothing new on the market. They have been around for several years but the interest in them has risen due to the debate of fluorine surfactant in general and PFOS in particular. What is new is a lot higher expectation and requirement on fire performance for the fluorine free foams. To meet the new demand Fomtec is investing a lot of R&D efforts to develop new fluorine free alternatives with high fire performance. In a near future we will launch new generation of fluorine free products with high fire rating. However, this will not conclude our development work. We know that these new types of foam have to be improved and our intention is to be among the market leaders in this segment.
Applications

Regardless of your application, Fire Protection Technologies have the right product. We can provide the right foam for your existing facility or a full scale solution combining foam and hardware.

AVIATION

Airport fire scenarios can involve hundreds of passengers and large volumes of highly flammable jet fuel. Strict regulations ensure ultra rapid response and high capacity fire fighting capability and a vital element is fire fighting foam.

Foams certified to the International Civil Aviation Organization (ICAO) standard ensure the rapid extinguishment required. The test criteria is a 60 second fire extinguishment of the test tray, as opposed to 180 seconds in the European standard EN 1568 and ISO standards. We strongly recommend the use of ICAO approved high efficiency foams for all airports.

Fomtec produces high quality products certified to the ICAO standard.

INDUSTRY

Fomtec have a wide range of foam products for all types of flammable liquids found in industries of today. We supply and service customers within Oil & Gas, Chemical, Pharmaceutical, heavy industries and other industries handling, transporting, processing or storing flammable liquids. The responsibility for protection of life, property and the environment demands the right equipment, systems, and the right foam.

Selection of the correct foam must be based on the type of flammable liquids. Fires in water-immiscible fuels can be extinguished by use of high quality AFFF, FFFP or regular synthetic foam. Fires in polar solvents require alcohol resistant foam. All these are available at Fire Protection Technologies and we work closely with our customers to select the correct foam.

MARINE

Marine fire fighting requires marine approved foam concentrates. Fire Protection Technologies have a wide range of foams approved for oil and chemical tankers as well as general fire fighting and engine room protection. Our distributor network provides foam to the sailing fleet, and we provide foam concentrates and systems components to the ship building industry around the world.

MUNICIPAL FIRE BRIGADES

Municipal Fire Brigades may be confronted with fire hazards involving flammable or hazardous liquids. The selection of foams should be based on local fire hazards as well as spills and leakages from road or rail accidents within their area. This usually calls for the use of multi purpose alcohol resistant foam that can handle hydrocarbon as well as polar solvent fires.

Fire Brigades are increasingly using Class A foams when fighting fires in fibrous materials or in forest fires. Their wetting properties at low concentration are a highly useful tool in maximising the use of water in post-fire operations. A Class A foam is a natural part of any fire brigade inventory.
The effectiveness of portable hardware

Fire Protection Technologies only supply a high standard of material, supplies and full range of fire fighting hardware for all applications, including the oil and petrochemical industry, logistics, marine, aviation and offshore industries around the world.

Our high performance fire fighting hardware and other related products are designed to improve the safety and efficiency of personnel and equipment, engaged in the suppression of fire.

**PORTABLE FOAM PROPORIONING**

Portable foam inductors are intended for accurate foam proportioning during manual foam application. Fomtec Z and HPZ inductors provide very accurate proportioning. Accurate proportioning using inductors may be sensitive to back pressures as a result of long hose lines, Fomtec HPZ inductors are designed to accommodate up to 5 bars of back pressure enabling longer hose lines after the inductor.

We also provide integrated solutions for portable use such as foam trolleys and trailers where the inductors are mounted together with foam storage tanks for quick deployment. We also provide portable foam pumping systems utilising foam pumps with GB or WRP proportioners whenever very long delivery hose systems are needed.

**DISCHARGE DEVICES**

Fire Protection Technologies have a full range of portable foam discharge devices for low, medium or high expansion. Fomtec LX foam branch pipes comes in sizes 2, 4 and 800 litres and provide good low expansion foam combined with long throw length. For longer throw lengths and higher capacity we offer our Frigg foam branch pipes combined with our Balder or Vidar monitors. Medium expansion foam branch pipes type Fomtec MX is ideal for covering spills and provides a thick layer of medium expansion foam, or it may be used for complete filling of smaller enclosures.

Portable high expansion generators are ideal for fire brigades or industry. Our Swefan PPV combined with our foam attachment forms a very powerful tool to inject high expansion foam into buildings or onto spills whenever the use of high expansion foam needed.
Fixed hardware for all fire scenarios

We supply a varied selection of water and foam hardware such as foam chambers, foam makers, proportioning skids, bladdertanks, fast response fire fighting trailers as well as water and foam hydrants, pressure regulating valves, proportioners, monitors, cabinets, etc. These products proven reliability and have been tested under the most extreme conditions.

PROPORTIONING SYSTEMS

Accurate proportioning of foam concentrate is a vital part of any foam system. We have a complete range of proportioning systems and components utilising various different principles. Our BFZ inductors are accurate and cost effective for use at fixed flow/pressure at 1, 3 or 6% or any other calibration. Our GB and WRP between flange proportions are designed for use with our YMER bladdertanks or foam pumps to give very accurate proportioning at variable flows and pressures. Dafo Fomtec AB provides integrated skid mounted solutions where GB or WRP proportioners are combined with various optional foam pumps such as electric pumps, diesel pumps or water turbine pumps. We also provide pre-piped or standard bladdertanks for use with our proportioners.

DISCHARGE DEVICES

We have a full range of fixed foam discharge devices for low, medium or high expansion. Fomtec Bor LB fixed foam nozzles are open-head low expansion nozzles suited for use with AFFF or ARC foams. Typical applications are process areas, warehouses or any application where fast fire extinguishment is required. Other low expansion discharge devices in our range are intended for specific systems such as our VE fixed foam makers, TYR foam chambers or HBPG high back pressure foam makers for storage tank protection. We also have a full range of low expansion foam nozzles and branch pipes for use with fixed monitors. Medium expansion nozzles such as our BOR M or our SME nozzles are suited where a thicker foam blanket is desired, such as floor coverage of spill fires or for dike protection. Fomtec Bele high expansion generators are suited for total flooding of warehouses, machine rooms or any application where high expansion foam is desired.

SYSTEM COMPONENTS

All foam system need specialised system components such as atmospheric storage tanks, concentrate control valves, release valves, deluge valves, control systems, cabinets etc. Fire Protection Technologies provide a selected range of high quality and foam compatible system components needed in most foam systems.
The Complete Range

AN INDEPENDENT REVIEW

Fire Protection Technologies stock a complete range of high quality approved and documented fire fighting foams of both synthetic and protein base. Regardless of your application we will have the right foam to cover your needs. Below we show a small selection of our wide range:

**Synthetic Foam Concentrates**

<table>
<thead>
<tr>
<th>Fluorine-free</th>
<th>Protein Foam Concentrates</th>
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</thead>
<tbody>
<tr>
<td>FOMTEC ENVIRO 3x3 Plus</td>
<td>Fluorine-free</td>
</tr>
<tr>
<td>3% Multipurpose, alcohol resistant foam</td>
<td>FOMTEC P 3%</td>
</tr>
<tr>
<td>FOMTEC LS EXP</td>
<td>3% Protein foam</td>
</tr>
<tr>
<td>1 to 3% High, medium and low expansion foam</td>
<td>FOMTEC P 3x3 ARC</td>
</tr>
<tr>
<td>FOMTEC TRAINER</td>
<td>3% Alcohol resistant protein foam</td>
</tr>
<tr>
<td>1-6% Training foam</td>
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</tbody>
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**Fluorinated**

| FOMTEC AFFF 1% ULTRA LT         | FOMTEC FP 3% UL                               |
| 1% Aqueous film forming foam    | 3% Fluoroprotein foam                         |
| FOMTEC AFFF 3% S                | FOMTEC FP 6% UL                               |
| 3% Aqueous film forming foam    | 6% Fluoroprotein foam                         |
| FOMTEC AFFF 6% ULTRA            | FOMTEC FFP 3%                                 |
| 6% Aqueous film forming foam    | 3% Film forming fluoroprotein foam            |
| FOMTEC ARC 1x1NV                | FOMTEC FFP 6%                                 |
| 1% Newtonian alcohol resistant Aqueous film forming foam | 6% Film forming fluoroprotein foam           |
| FOMTEC ARC 1x3                  | FOMTEC FFP ARC 3x3 NV (AVALANCHE)            |
| 1-3% Multipurpose, alcohol resistant, Aqueous film forming foam | 3% Newtonian alcohol resistant Film forming fluoroprotein foam |
| FOMTEC ARC 3x3 S                | FOMTEC FFP ARC 3x3                           |
| 3% Multipurpose, alcohol resistant, Aqueous film forming foam | 3% Alcohol resistant Film forming fluoroprotein foam |
| FOMTEC ARC 3x6                  |                                               |
| 3-6% Multipurpose, alcohol resistant, Aqueous film forming foam |                                               |
PRODUCTS:

**Gaseous Suppression**
- Inert Gas (IG-01, IG-55, IG-100, IG-541)
- Novec 1230™ Fluid (FK-5-1-12)
- FM-200® / NAF S 227 (HFC-227ea.)
- Ecaro 125® / NAF S 125 (HFC-125)
- Carbon Dioxide (CO₂)
- Hybrid Systems (N₂ / Water)
- Pressure Relief Vents
- Enclosure Integrity Testing Equipment
- Pipe & Fittings

**Water Suppression**
- Water Mist - High Pressure
- Water Mist - Intermediate Pressure
- Water Mist - Low Pressure
- Hybrid Systems (Water / N₂)
- Monitors & Delivery Systems
- High Speed Deluge

**Foam Suppression**
- Foam Concentrates
- Foam Proportioning
- Foam Delivery Systems
- Foam Concentrate Testing

**Explosion Protection**
- Explosion Suppression
- Explosion Isolation
- Explosion Vents & Pressure Relief
- Spark Suppression
- Explosibility Testing

**Fire Detection**
- Linear Heat Detection - Digital
- Linear Heat Detection - Fibre Optic
- Linear Heat Detection - Micro Chip
- Flame Detection
- Video Imaging Detection
- Spark Detection
- Control & Indicating Equipment
- Thermal Imaging Detection
- Bushfire Detection

**Military & Defence**
- Military Vehicles
- Naval Vessels

**Special Applications**
- Micro Environment
- Oxygen Reduction
- Kitchen Protection Systems
- Dry Chemical
- Vehicle Systems
- Compressed Air Foam
- Marine & Offshore
- Vapour Mitigation

**Support Services**
- Design / Engineering
- Technical Support
- Services & Testing

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‘Every solution for your special hazard needs’