FIRE PROTECTION EQUIPMENT
TO PROTECT LIVES, ASSETS AND THE ENVIRONMENT

Balanced Pressure Foam Proportioning Bladder Tanks
Foam Makers with Discharge Splash Board

Inline Balanced Pressure Foam Proportioners
High Back Pressure Foam Generators

Balanced Pressure Foam Proportioning Pump Skids
Foam Chambers

Ratio Flow Controllers
High Expansion Foam Generators

Foam Gear Pumps
Foam Rupture Disks

Foam Concentrate Storage Tanks
Mobile Foam Trolleys

Line Proportioners
AFFF Hose Reel Stations

Variable Inline Foam Eductors
Fixed Foam-Water Hydrant Stations

Foam Makers (for floating roof tanks)
Foam Tanks with Line Proportioners
Progard offers a choice of foam proportioning equipment from the basic in-line eductor to the most complicated in-line balanced pressure proportioner. These proportioning devices will accurately proportion foam concentrate to successfully control and extinguish flammable liquid fires.

**Line proportioners** (or eductors) allow a simple, cost-effective method of proportioning foam concentrate and water at the proper ratio to produce foam. These constant flow devices will proportion concentrate at a specified flow and pressure. Fire systems that use such proportioners must take into account of the typically 35% friction loss through these devices to achieve a workable operating pressure at foam discharging devices. System designers must also ensure the proportioner(s) is mounted at a maximum height between 2.4 to 3.0 metres above the minimum expected foam liquid surface.

Balanced pressure **bladder tanks** are made of an ASME pressure vessel containing an internal rubber bladder that holds the foam concentrate. Progard has available bladder tanks with prepiped ratio flow controllers. During operation, water is applied to the outer surface of the bladder. This subsequently displaces the foam concentrate, which then makes its way to the proportioning device or ratio controller at the exact point where the foam concentrate is injected. Bladder tanks are reliable, economical and usually trouble-free. As water is the primary operating medium, they are easy to operate and require little maintenance. Widely used in small aircraft hangars, warehouses and helidecks where easy to operate and economical systems are advantageous.

Balanced pressure **in-line or pump proportioning systems** are an alternative to bladder tanks. The balanced pressure pump proportioning skids are generally used in situations where flexibility of concentrate proportioning is not critical. These units have the foam concentrate proportioner on the same skid as the foam pump and use a diaphragm type balancing valve to achieve accurate proportioning. They do not require any manual adjustment and are generally limited to one or two ratio controllers per skid.

Alternatively, the in-line balanced pressure proportioners (otherwise known as ILBP) are designed for applications requiring large quantities of foam concentrate. These units offer greater flexibility and can accommodate an almost indefinite number of risers, each one having a different size proportioner and each offering a wide range of flows. These ILBP systems include an atmospheric foam concentrate storage tank and foam pump. The tanks are manufactured from stainless steel, mild steel or high density polyethylene, depending on the concentrate used. Foam concentrate is pumped to the ratio controller. A diaphragm balancing valve is used to control the flow of foam concentrate into the ratio controller metering orifice that balances the water and foam concentrate pressures. Foam pumps used for ILBP systems are typically positive displacement pumps. However on high foam concentrate flows, centrifugal pumps are used.
### Inline Balanced Pressure Proportioners

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>AFFF Flow Rate</th>
<th>AR-AFFF Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 02 ILBP-TT2</td>
<td>2&quot;</td>
<td>40 - 200 gpm</td>
<td>80 - 250 gpm</td>
</tr>
<tr>
<td>Model 02 ILBP-TT2.5</td>
<td>2½&quot;</td>
<td>80 - 500 gpm</td>
<td>160 - 500 gpm</td>
</tr>
<tr>
<td>Model 02 ILBP-TF3</td>
<td>3&quot;</td>
<td>100 - 700 gpm</td>
<td>200 - 700 gpm</td>
</tr>
<tr>
<td>Model 02 ILBP-TF4</td>
<td>4&quot;</td>
<td>175 - 1,250 gpm</td>
<td>300 - 1,250 gpm</td>
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<tr>
<td>Model 02 ILBP-TF6</td>
<td>6&quot;</td>
<td>350 - 2,500 gpm</td>
<td>500 - 2,500 gpm</td>
</tr>
<tr>
<td>Model 02 ILBP-TF8</td>
<td>8&quot;</td>
<td>700 - 4,600 gpm</td>
<td>950 - 4,500 gpm</td>
</tr>
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</table>

(Flow rates may vary with other manufacturers’ foam concentrates)

The ILBP is a completely self-contained device that includes a proportioning controller, pressure balancing diaphragm valve, duplex gauge, check valve and manual ball shutoff valve.

Balancing is achieved through 2 sensing lines that are connected to the diaphragm valve that automatically adjusts the concentrate pressure to correspond to the water pressure. Foam concentrate is metered through a fixed orifice into the water stream.

### Balanced Pressure Foam Pump Proportioning Skids

<table>
<thead>
<tr>
<th>Model</th>
<th>Flow Rate</th>
<th>AR-AFFF Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 02 BPS1</td>
<td>100 - 400 gpm</td>
<td>100 - 350 gpm</td>
</tr>
<tr>
<td>Model 02 BPS2</td>
<td>150 - 550 gpm</td>
<td>190 - 500 gpm</td>
</tr>
<tr>
<td>Model 02 BPS3</td>
<td>350 - 1,200 gpm</td>
<td>390 - 1,300 gpm</td>
</tr>
<tr>
<td>Model 02 BPS4</td>
<td>550 - 2,620 gpm</td>
<td>650 - 2,900 gpm</td>
</tr>
<tr>
<td>Model 02 BPS5</td>
<td>900 - 4,200 gpm</td>
<td>1550 - 4,000 gpm</td>
</tr>
</tbody>
</table>

(Flow rates may vary with other manufacturers’ foam concentrates)

The system operates over a wide range of flows and pressures and does not require any manual adjustment. Typical Progard foam proportioning pump skid includes a ratio flow controller(s), control valve(s), duplex gauge, trim valves, positive displacement foam concentrate pump with electric motor (or diesel engine or water powered pelton wheel), motor starter and interconnecting piping, and is mounted on a structurally stable steel base.

Options: Carbon steel, 304SS or 316SS atmospheric concentrate storage tanks can be included upon request. Standard yellow finish.

### Ratio Flow Controllers

<table>
<thead>
<tr>
<th>Model</th>
<th>AFFF Flow Rate</th>
<th>AR-AFFF Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 02 RC2.5</td>
<td>40 - 400 gpm</td>
<td>130 - 400 gpm</td>
</tr>
<tr>
<td>Model 02 RC3.0</td>
<td>70 - 750 gpm</td>
<td>245 - 700 gpm</td>
</tr>
<tr>
<td>Model 02 RC4.0</td>
<td>200 - 1,600 gpm</td>
<td>400 - 1,500 gpm</td>
</tr>
<tr>
<td>Model 02 RC6.0</td>
<td>300 - 3,400 gpm</td>
<td>960 - 3,300 gpm</td>
</tr>
<tr>
<td>Model 02 RC8.0</td>
<td>500 - 5,500 gpm</td>
<td>1510 - 4,500 gpm</td>
</tr>
</tbody>
</table>

(Indicated flow rates may vary with other manufacturers’ foam concentrates)

Ratio flow controllers are used in conjunction with balanced pressure proportioning systems such as foam bladder tanks or foam proportioning pump skids. Cast brass construction. Machined faced to ANSI B16.1, Class 12.5.

All controllers have between flanged design to fit between two ANSI 150# FF pipe flanges. Minimum water inlet pressure of 30 psi (2.1 bar).
FOAM CONCENTRATE ROTARY GEAR PUMP

FOAM GEAR PUMPS

<table>
<thead>
<tr>
<th>Model 02</th>
<th>AAP06</th>
<th>¾ BSP</th>
<th>62</th>
<th>17</th>
<th>3.0</th>
<th>1420</th>
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</thead>
<tbody>
<tr>
<td>Model 02</td>
<td>AAP07</td>
<td>1.0 BSP</td>
<td>86</td>
<td>23</td>
<td>5.0</td>
<td>1420</td>
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<tr>
<td>Model 02</td>
<td>AAP08</td>
<td>1¼ BSP</td>
<td>154</td>
<td>41</td>
<td>7.1</td>
<td>1420</td>
</tr>
<tr>
<td>Model 02</td>
<td>AAP09</td>
<td>1½ BSP</td>
<td>190</td>
<td>50</td>
<td>11.2</td>
<td>1420</td>
</tr>
<tr>
<td>Model 02</td>
<td>AAP10</td>
<td>2 FL</td>
<td>225</td>
<td>67</td>
<td>13.4</td>
<td>1420</td>
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<tr>
<td>Model 02</td>
<td>AAP11</td>
<td>2 FL</td>
<td>300</td>
<td>79</td>
<td>17.9</td>
<td>1420</td>
</tr>
<tr>
<td>Model 02</td>
<td>AAP11.5</td>
<td>2¼ FL</td>
<td>390</td>
<td>103</td>
<td>23.3</td>
<td>1420</td>
</tr>
<tr>
<td>Model 02</td>
<td>AAP11.5D</td>
<td>2½ FL</td>
<td>460</td>
<td>121</td>
<td>30</td>
<td>1420</td>
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<tr>
<td>Model 02</td>
<td>AAP12</td>
<td>2½ FL</td>
<td>320</td>
<td>84</td>
<td>21.5</td>
<td>960</td>
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<tr>
<td>Model 02</td>
<td>AAP13</td>
<td>3 FL</td>
<td>520</td>
<td>137</td>
<td>32.2</td>
<td>960</td>
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<tr>
<td>Model 02</td>
<td>AAHD8</td>
<td>4 FL</td>
<td>820</td>
<td>217</td>
<td>44</td>
<td>960</td>
</tr>
<tr>
<td>Model 02</td>
<td>AAHD10</td>
<td>4 FL</td>
<td>940</td>
<td>248</td>
<td>53.7</td>
<td>960</td>
</tr>
</tbody>
</table>


Available with electric motor, diesel engine or water driven pelton wheel driver.

FOAM CONCENTRATE STORAGE TANKS (ATMOSPHERIC)

<table>
<thead>
<tr>
<th>Model 02</th>
<th>FT300S1</th>
<th>304SS</th>
<th>300</th>
<th>1,136</th>
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<tbody>
<tr>
<td>Model 02</td>
<td>FT500S1</td>
<td>304SS</td>
<td>500</td>
<td>1,900</td>
</tr>
<tr>
<td>Model 02</td>
<td>FT600S1</td>
<td>304SS</td>
<td>600</td>
<td>2,270</td>
</tr>
<tr>
<td>Model 02</td>
<td>FT700S2</td>
<td>304SS</td>
<td>700</td>
<td>2,650</td>
</tr>
<tr>
<td>Model 02</td>
<td>FT800S1</td>
<td>304SS</td>
<td>800</td>
<td>3,030</td>
</tr>
<tr>
<td>Model 02</td>
<td>FT900S1</td>
<td>304SS</td>
<td>900</td>
<td>3,410</td>
</tr>
<tr>
<td>Model 02</td>
<td>FT1000S1</td>
<td>304SS</td>
<td>1,000</td>
<td>3,800</td>
</tr>
<tr>
<td>Model 02</td>
<td>FT1200S1</td>
<td>304SS</td>
<td>1,200</td>
<td>4,545</td>
</tr>
<tr>
<td>Model 02</td>
<td>FT1500S1</td>
<td>304SS</td>
<td>1,500</td>
<td>5,680</td>
</tr>
<tr>
<td>Model 02</td>
<td>FT1800S1</td>
<td>304SS</td>
<td>1,800</td>
<td>6,820</td>
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<tr>
<td>Model 02</td>
<td>FT2000S1</td>
<td>304SS</td>
<td>2,000</td>
<td>7,575</td>
</tr>
<tr>
<td>Model 02</td>
<td>FT3000S1</td>
<td>304SS</td>
<td>3,000</td>
<td>11,360</td>
</tr>
<tr>
<td>Model 02</td>
<td>FT4000S1</td>
<td>304SS</td>
<td>4,000</td>
<td>15,150</td>
</tr>
<tr>
<td>Model 02</td>
<td>FT5000S1</td>
<td>304SS</td>
<td>5,000</td>
<td>18,940</td>
</tr>
</tbody>
</table>

Suitable for storing synthetic AFFF or Alcohol-resistant AFFF concentrates. Tank shells are fabricated from 304SS stainless steel material. Option: 316SS stainless steel.

All tanks are supplied on saddles (galvanised mild steel) and include manhole inspection assembly, pressure vacuum vent valve, sight level gauge, access ladder and valved discharge-fill-drain connections.

These tanks are designed to be bolted down on a suitable concrete plinth. Finish: natural (not painted)

Other Options:
- Red or Yellow finish
- Mild steel tanks with internal epoxy lining for fluoroprotein concentrates.
- Other tank sizes are available on request.
LINE PROPORTIONERS

3% K-Factor AFFF 6% K-factor AFFF

Model 02 LP60 50 gpm (189 lpm) 51 gpm (183 lpm)
Model 02 LP95 76 gpm (288 lpm) 77 gpm (292 lpm)
Model 02 LP120 95 gpm (360 lpm) 97 gpm (367 lpm)
Model 02 LP210 168 gpm (636 lpm) 121 gpm (458 lpm)
Model 02 LP240 189 gpm (716 lpm) 193 gpm (731 lpm)
Model 02 LP280 221 gpm (837 lpm) 225 gpm (852 lpm)
Model 02 LP350 280 gpm (1060 lpm) 286 gpm (1083 lpm)
Model 02 LP420 337 gpm (1276 lpm) 344 gpm (1303 lpm)
Model 02 LP480 387 gpm (1466 lpm) 394 gpm (1492 lpm)
Model 02 LP550 443 gpm (1678 lpm) 451 gpm (1708 lpm)
Model 02 LP600 485 gpm (1837 lpm) 495 gpm (1875 lpm)
Model 02 LP660 539 gpm (2041 lpm) 550 gpm (2083 lpm)
Model 02 LP730 588 gpm (2227 lpm) 607 gpm (2298 lpm)

Pressure loss across proportioner is 35% of inlet pressure.

INLINE EDUCTORS (WITH METERING VALVE)

VARIABLE INLINE FOAM EDUCTORS
Model 02 PE60-B 60 gpm (227 litre/min) 1½” NHT threads
Model 02 PE95-B 95 gpm (360 litre/min) 1½” NHT threads
Model 02 PE250-B 250 gpm (950 litre/min) 2½” NHT threads

Variable inline eductors allow manual induction adjustment at ½%, 1%, 3%, 6% & 0% (shutoff). All brass construction. Includes reinforced PVC foam pickup tubing. Normal inlet pressure to these eductors is 200 psi (13.8 bar) but eductor will work well at lower inlet pressures, but take note of pressure loss across eductor is 35% of inlet pressure.
These eductors have an integral ball check valve to prevent back flow of water into eductor.
Option: Lightweight aluminum alloy eductors are also available. Flows: 60, 95, 125 or 250 gpm (227, 360, 473 or 950 lpm).

VARIABLE INLINE FOAM EDUCTORS
Model 02 241-30 30 GPM (114 LPM) 1” NHT threads
Model 02 241-60 60 GPM (227 LPM) 1½” NHT threads
Model 02 241-95 95 GPM (360 LPM) 1½” NHT threads
Model 02 241-125 125 GPM (360 LPM) 1½” NHT threads
Model 02 241-150 150 GPM (568 LPM) 1½” NHT threads
Model 02 241-250 250 GPM (360 LPM) 2½” NHT threads

Variable inline eductors allow manual induction adjustment at 1%, 3%, 6% & 0% (shutoff). All brass construction. Includes clear PVC foam pickup tubing. Normal inlet pressure to these eductors is 200 psi (13.8 bar) but eductor will work well at lower inlet pressures.
Pressure loss across eductor is 35% of inlet pressure. Includes integral ball check valve to prevent back flow of water into eductor.
Option: Bypass eductors are also available. Brass construction. Flows: 60, 95 and 125 gpm (227, 360 and 473 lpm).
FOAM MAKERS (FOR FLOATING ROOFS)

FOAM MAKERS (for Floating Roof Tanks and Dikes)

Model 02 PFM50
- 20 - 89 gpm (75 - 336 LPM) K43.4 - K127

Model 02 PFM65
- 53 - 177 gpm (200 - 672 LPM) K115.4 - K254

Model 02 PFM80
- 106 - 355 gpm (400 - 1344 LPM) K230.9 - K508

Foam makers are air-aspirating foam discharging devices, used to protect dikes or rim seal areas on all types flammable liquid storage tanks.

Steel fabricated foam makers with stainless steel 304 SS orifice plate and mesh (to cover the air takes). Factory fitted orifice will deliver the correct flow at the given pressure.

Standard ANSI 150# flanged inlet and male outlet. Minimum inlet pressure 40 psi. Maximum operating pressure 100 psi.

**FOAM MAKER WITH WIND SHIELD / DISCHARGE BOARD**

**FOAM MAKER WITH WIND SHIELD / DISCHARGE BOARD**

(for Floating Roof Tank Application)

Model 02-LW9WSDB
- 25 - 100 gpm (95 - 380 litre/min)

Designed for floating roof tanks. Allows for installation without taking the tank out of service. Meters foam flow, then gently expand and deliver foam directly on the seal area surface of flammable or combustible liquids.

Entire unit is installed on the top of the storage tank without the need for welding or any hot work by utilising heavy duty galvanised mounting clamps secured with stainless steel bolts and nuts.

Operating pressure 75 to 125 psi.

Inlet: 1½" or 2" ANSI 150# FF flange (Option for threaded inlets).

**HIGH BACK PRESSURE FOAM GENERATORS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Flow Rate @ 150 psi</th>
<th>Flange Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inlet</td>
<td>Outlet</td>
</tr>
<tr>
<td>Model 02 HBPG100</td>
<td>100 gpm</td>
<td>380 lpm</td>
</tr>
<tr>
<td>Model 02 HBPG200</td>
<td>200 gpm</td>
<td>757 lpm</td>
</tr>
<tr>
<td>Model 02 HBPG300</td>
<td>300 gpm</td>
<td>1,136 lpm</td>
</tr>
<tr>
<td>Model 02 HBPG400</td>
<td>400 gpm</td>
<td>1,515 lpm</td>
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<tr>
<td>Model 02 HBPG500</td>
<td>500 gpm</td>
<td>2,140 lpm</td>
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<tr>
<td>Model 02 HBPG600</td>
<td>600 gpm</td>
<td>2,650 lpm</td>
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<tr>
<td>Model 02 HBPG700</td>
<td>700 gpm</td>
<td>3,030 lpm</td>
</tr>
<tr>
<td>Model 02 HBPG800</td>
<td>800 gpm</td>
<td>3,408 lpm</td>
</tr>
<tr>
<td>Model 02 HBPG900</td>
<td>900 gpm</td>
<td>3,780 lpm</td>
</tr>
</tbody>
</table>

High back pressure generators (or HBPG) are designed to produce expanded foam that is delivered into a cone roof storage tank containing hydrocarbon fuels only by the subsurface foam injection method.

Subsurface foam injection is not recommended for any floating roof tank. The HBPG is also not suitable for use on tanks with alcohols or polar solvent type liquids.

Typically installed on the outside of the dike area surrounding the storage tanks. Recommended minimum inlet pressure is 100 psi (6.9 bar). The HBPG can discharge foam against a back pressure as high as 25% of the HBPG inlet pressure. Higher back pressures up to 40% can be provided on request.

Option: pressure gauge (0-300 psi range) can be provided on the inlet side of the HBPG on request.
FOAM CHAMBERS

Flow LPM GPM Inlet Outlet
Model 02 AFC50 72 - 336 19 - 89 2” 3”
Model 02 AFC65 193 - 672 51 - 178 2½” 4”
Model 02 AFC80 386 - 1344 102 - 356 3” 6”
Model 02 AFC100 773 - 2687 204 - 711 4” 8”
Model 02 AFC150 1545 - 4032 409 - 1067 6” 10”

Foam chambers are used to protect fixed roof storage tanks containing hydrocarbon or polar solvent fuels. Mounted at the uppermost part of the outside tank shell wall. Foam is then discharged against a deflector mounted on the inside of the tank, that travels down the tank wall and gently on to the fuel surface to reduce foam submergence and fuel agitation.

Foam chambers consist of an expansion chamber and integral foam maker. ASTM 366 carbon steel construction with 304SS stainless steel screen covering the foam maker air intakes. Include factory fitted orifice & vapour seal. Chambers have FF ANSI flanges.

Finish: Standard Primed Red Oxide. Options: Enamel or epoxy painting system.

Standard solid deflectors are provided. Option: split deflector. A mounting pad is also available to facilitate pre-installation during the storage tank fabrication.

Special Note:
These foam chambers allow foam testing with ease. Just remove the top cover. The installed glass vapour seal must be in place to prevent foam entering the tank during the testing. The foam will discharge through the open chamber top.

Progard can also provide stainless steel foam chambers. Specify the above models with the following affixes.
-S1 for 304SS stainless steel chambers
-S2 for 316SS stainless steel chambers

Flow LPM GPM Inlet Outlet
Model 02 FC2.5 190 - 570 50 -150 2½” 4”
Model 02 FC3.0 380 - 1130 100 - 300 3” 6”
Model 02 FC4.0 680 - 2360 180 - 625 4” 8”
Model 02 FC6.0 1495 - 3975 395 - 1050 6” 10”

Foam chambers consist of an expansion chamber and integral foam maker and a hinged access cover. Manufactured in ASTM 366 carbon steel construction with 304SS stainless steel screen covering the foam maker air intakes. Chambers have FF ANSI flanges.

Chamber requires minimum 40 psi to operate.

Include factory fitted stainless steel orifice & glass vapour seal that is designed to break at 10 psi (minimum)

Finish: Standard Primed Red Oxide. Options: Enamel or epoxy painting system.

Standard solid deflectors are provided. Option: split deflector. A mounting pad is also available to facilitate pre-installation during the storage tank fabrication.
HIGH EXPANSION FOAM GENERATORS

Although limited to special applications, high expansion foams make an excellent firefighting tool. This method of fire suppression involves filling a void with foam bubbles. This creates oxygen deprivation at the point where fire and air interfaces. The water content of the foam bubbles also generates a cooling effect. These foams have been found to be effective in the control of liquefied natural gas fires, where large releases of liquefied gas are contained in the dike areas. Other applications include warehouses containing tyres, hazardous materials or pesticides in which contaminated effluents can be minimised due to the reduced water usage.

Unlike most other foam systems that are designed around a given surface area, high expansion foam systems are calculated based on given volumes. So they are best suited for areas that are contained on the top, bottom and sides. In designing these systems, it is necessary to factor the effect of openings as well as the effect of a sprinkler discharge (if applicable) on the finished foam. High expansion foams use very little water in comparison to the volume of foam generated. This minimises the run-off of foam/water solution mixed with the spilled flammable liquid. This, in turn, reduces the costs associated with cleanup.

### HIGH EXPANSION FOAM GENERATORS

**Model PGE-HEFG**

<table>
<thead>
<tr>
<th>Literature/min</th>
<th>GPM</th>
<th>Expansion Rate</th>
<th>Foam Output m3/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>02 FG12500</td>
<td>510</td>
<td>1.716</td>
<td>367</td>
</tr>
<tr>
<td>02 FG23000</td>
<td>1029</td>
<td>1.638</td>
<td>656</td>
</tr>
<tr>
<td>02 FG20000</td>
<td>1052</td>
<td>1.562</td>
<td>592</td>
</tr>
<tr>
<td>02 FG28000</td>
<td>1226</td>
<td>1.655</td>
<td>804</td>
</tr>
</tbody>
</table>

These water powered High Expansion Foam Generators are manufactured in mild steel housing with stainless steel screen. No outside source of power is required for operation, only the foam solution under pressure.

### RUPTURE DISKS AND HOLDERS

Rupture Disks are designed for use in base injection foam systems. In a typical subsurface foam system installation, each tank foam inlet nozzle has its own HBPG, check valve, bursting disc and block valve.

### RUPTURE DISKS

**Model 02 CO**

The composite Rupture Disk consists of a metallic top section precision cut to control the burst pressure; a teflon seal fitted to the concave side of the top section; and a vacuum support. Designed to provide instantaneous full opening when pressure is applied. Available from sizes ranging from 25 mm (1") through 305 mm (12").

**Typical Disk Specification:**
- Top section: 316SS Stainless steel
- Seal: Teflon
- Vacuum Support: 316SS Stainless Steel
- Ring: 316SS Stainless steel
- Burst Pressure: 1.37 bar (20 psi) @ 72 deg F.
- Back Pressure: 3.44 bar (50 psi) @ 72 deg F.

**Typical Disk Holder Specification:**
- Material: 316SS Stainless steel
- Optional Material: Carbon Steel
MOBILE FOAM TROLLEYS

MOBILE FOAM UNIT
Model: 02 FM140

The Mobile Foam Unit is designed for rapid one-man deployment and is ideal for the protection of oil storage and loading terminals, paint or solvent stores, boiler rooms, ship’s engine rooms and all similar high risk areas.

The performance of the mobile foam unit is solely governed by the foam making branchpipe being used. The GRP container is suitable for storing all types of foam concentrates.

Each foam mobile unit is supplied complete with standard 227 lpm inline inductor, 227 lpm foam branchpipe, hoses and British instantaneous fittings. Options: american NHT fittings.

Tank Capacity: 140 litres
Tank Material: Glass Reinforced Plastic
Wheels: Solid Rubber 400 mm diameter
Frame: Black Enamel Painted
Inductor Flow: 200 litre/min (53 gpm) at 10 bar
Branchpipe Flow: 227 litre/min (60 gpm) at 7.0 Bar
Hose Diameter: Two 2" (52 mm) x 15 metres
Fittings: 2½” British Instantaneous (or 1½” NH threads)

FIXED AFFF HOSE REEL STATIONS

FIXED HOSE REEL STATION
Model 02 FHR30SS: 113 litres tank with 227 LPM eductor/nozzle
Model 02 FHR31SS: 113 litres tank with 360 LPM eductor/nozzle
Model 02 FHR60SS: 227 litres tank with 227 LPM eductor/nozzle
Model 02 FHR61SS: 227 litres tank with 360 LPM eductor/nozzle

Self-contained AFFF hose reel stations are ideal as a supplementary first-aid fire fighting apparatus for offshore platforms and high-risk areas involving flammable liquid fuels. Designed for installation on a fixed and permanent base, these foam stations require only connection to a water supply.

A typical station would consist of a rim-rewind hose reel with hose, inline eductor, handline nozzle, interconnecting piping and a foam concentrate storage tank.

Tank Capacity: 113 or 227 litres (30 or 60 gallons)
Tank Material: Stainless steel 316 SS (or 304 SS)
Reel Type: Continuous flow, rim rewind
Material: Mild steel (or stainless steel 316SS)
Booster Hose: 1½” diameter x 30 metres length, Red colour. Non-collapsible, textile braided reinforcement, 13.8 bar (or higher).
Prepiped Eductor: 227 lpm or 360 lpm (60 or 95 gpm)
Eductor model: 02-PE-95B
Material: Brass
Nozzle model: 04-HNCG-330B (brass) or 04 HNCG-330A (anodised aluminium alloy)
Type: Non air-aspirating, fog/ss pattern.
Shutoff Valve Type: Ball, full bore, 1½” threads
Material: Brass

Option: rewind hand crank for reel and vinyl weatherproof cover. Prepiped firewater monitors with self-educting foam nozzles are also available.
Fixed Foam-Water Hydrant Stations are ideal first aid fire fighting apparatus that require only a pressurised water supply for operation. Suitable for protection against hydrocarbon fuel fires.

The Hydrant Station consists of essential components like foam concentrate tank, variable inline eductor, hose and foam making branchpipe. These components are housed in a robust weatherproof housing.

The performance is solely governed by the foam making branchpipe being used. The container is suitable for storing all type of foam concentrates.

Inlet connection: 2” BSPT union. Outlet: 2½” female instantaneous coupling (BS336) with plastic blank cap and chain. Alternative fittings are available on request.

- **Housing Material**: Mild steel epoxy coated.
- **Tank Capacity**: 113 or 227 litres (30 or 60 gallons)
- **Tank Material**: 304 SS or 316SS stainless steel
- **Hose Size**: 2½” diameter x 30 metres with 2½” instantaneous light alloy couplings
- **Hose Specification**: Type 3 textile woven reinforced synthetic with Nitrile/PVC outer cover
- **Prepiped Eductor Material**: Brass
- **Nozzle Type**: Air-aspirating pattern. Inlet, 2½” male instantaneous coupling
- **Nozzle Material**: Stainless Steel or Aluminum Alloy
- **Shutoff Valve Type**: Ball, Brass, 2” threads

Small capacity Foam Concentrate Storage Tanks with one or more prepiped Progard Line Proportioners are suitable for deck or pedestal installation requiring foam application to combat against hydrocarbon fuel fires.

The tanks are available in stainless steel 316 SS or 304 SS construction. Standard tanks include fill cap, level indicator, concentrate check valve, shutoff valve, flexible tubing & drain plug.

Tie-in connections are supplied with ANSI 150# flanges.

Entry block valves are provided on request.

Finish: Natural. Options: red or yellow painting system for foam tank and piping.

For selection of appropriate proportioner, please refer to Progard literature on Line Proportioners.