

# Foam Proportioning

## ILBP Type Foam Pump Units



Fire Engineering  
Pty Limited



Dual pump ILBP foam skid (1300 lpm)

### Description

There are a number of implementations of balanced proportioning systems. These systems use a venturi device that is a variant of the line proportioner. If the foam concentrate is supplied to the proportioner at the same pressure as the water then the proportioning rate is constant over a wide range of flows. Turn down ratios of 7 to 10 (ratio of maximum to minimum flow) are possible with these systems.

Pumped systems use a foam concentrate pump to supply the foam concentrate and a double acting control valve to regulate the foam concentrate supply pressure to the water supply pressure. Pumped systems are commonly used for large installations where one proportioning pump unit can be used for many different foam systems. Pressure balancing can be done at the pump (surplus systems) or at the proportioner (ILBP systems).

The difference in the implementation of the ILBP proportioning method comes in the way the foam concentrate is supplied and how the pressure balance is maintained. With ILBP proportioners foam concentrate is supplied to the proportioner by the foam pump at a pressure greater than the maximum water supply pressure by 1 Bar or more and the pressure balance is maintained by the balance valve built into the proportioner.

This style of proportioning is particularly useful for centralised pumping systems where many different risks are protected. ILBP proportioning can offer more flexibility between minimum and maximum flow than surplus type systems. The proportioners can be located considerable distance from the foam pump provided a proper hydraulic analysis is carried out to ensure sufficient foam concentrate pressure at the proportioner.

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We manufacture a range of standard pump units and also custom engineer foam pumps for special applications. We have built foam concentrate pumps with capacity over 1500 litre per minute. We also engineer pumps for hazardous area use and water turbine driven pumps.

In general foam pumps are best built using positive displacement pumps. Gear pumps are preferred though for lower pressure operation vane pumps are also suitable. Both pump types will survive short periods run dry. Centrifugal pumps may also be used for low viscosity concentrates.

Foam pump systems are readily refilled while in operation and proportion with relatively low water pressure losses.

## Standard Pumps

Our standard pumps use high performance gear pumps designed for a maximum delivery pressure of 16 Bar. Each pump unit is supplied with a surplus valve, UL/FM control panel, motor/engine and high performance gear pump with relief valve all skid mounted ready for installation. Batteries are not provided.

Part #	Electric Pump Model	Part #	Diesel Pump Model
16019	55 lpm Electric ILBP foam pump	13496	55 lpm Diesel ILBP foam pump
13155	80 lpm Electric ILBP foam pump	15354	80 lpm Diesel ILBP foam pump
12197	150 lpm Electric ILBP foam pump	16447	150 lpm Diesel ILBP foam pump
16218	190 lpm Electric ILBP foam pump	14034	190 lpm Diesel ILBP foam pump
14276	250 lpm Electric ILBP foam pump	16967	250 lpm Diesel ILBP foam pump
12574	300 lpm Electric ILBP foam pump	12862	300 lpm Diesel ILBP foam pump
15707	390 lpm Electric ILBP foam pump	14814	390 lpm Diesel ILBP foam pump
12783	470 lpm Electric ILBP foam pump	16727	470 lpm Diesel ILBP foam pump
14848	750 lpm Electric ILBP foam pump	13665	750 lpm Diesel ILBP foam pump



Exd Foam Pump



100mm ILBP Proportioner

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