

# Turbex Mk II

## Water Turbine High Expansion Generator

### Hi-Combat

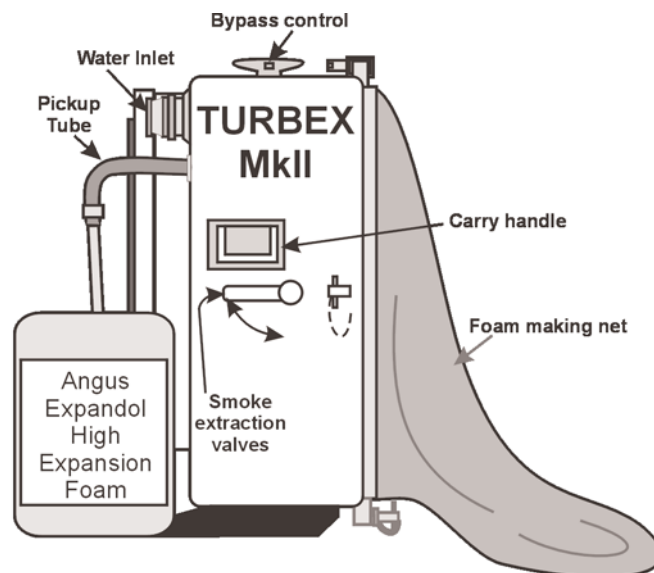
Angus HI-COMBAT Turbex MkII High Expansion Foam generators are designed to produce large capacities of high expansion foam, up to 200 cubic metres (7,000 cu.ft) per minute for fast and effective flooding of large and inaccessible spaces with minimal water consumption and subsequently minimal water damage. The unit is also capable of rapid smoke extraction (SX), positive pressure ventilation and removal of foam once the fire is extinguished.

HI-COMBAT Turbex Mk II generators are ideally suited to a wide range of applications. These typically include filling enclosed areas with foam where carbonaceous materials and flammable liquids may be stored, such as basements, cellars, tunnels, roof voids, cable ducts, warehouses and mines. Large quantities of smoke can be extracted at the rate of 285 cubic metres (10,000 cu.ft) per minute by the Turbex Mk II at 7 bar g. inlet pressure with the special smoke extraction ducting. This facility can also be used for the removal of foam bubbles once the incident is over.

Each HI-COMBAT Turbex Mk II utilises forced air technology and is powered by an enclosed maintenance free water turbine driving an aerofoil fan, so that only a pressurised water supply is required for operation with Angus Expandol High Expansion Foam concentrate, consumed at typically 4.5litres/min. A special in-built filter system protects the turbine and inductor from blockage due to solid particles in the water supply.

A unique by-pass system allows performance to be maintained when working against high back pressures. Under suitable conditions foam can be produced to heights of around 8-10m (26-33 ft). with the by pass open.

By control of both inlet pressure and by-pass valve, the type of foam produced can be varied in the range of 500-1100:1 expansion ratio. 500:1 is recommended for any fires involving flammable liquids and general purpose applications, whilst 1000-1100:1 is suggested only for back pressure and Class A material applications like packaging plants where minimal wetting is required.



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## FOAM PERFORMANCE DATA (Typical)

	Inlet Pressure bar g.	Total water flow litres/min	By-pass Flow litres/min	Water for Foam Production † litres/min	Expanded Foam produced #		Expansion ratio*
					m³/min	cu.ft/min	
BY-PASS CLOSED	4	180	Nil	180	85	3000	500 to 700
	6	225		225	115	4050	
	7	245		245	135	4750	
	8	270		270	150	5300	
	10	290		290	190	6700	
BY-PASS FULLY OPEN	4	195	70	125	95	3350	800 to 1100
	6	245	90	155	135	4750	
	7	270	100	170	155	5450	
	8	290	105	185	175	6150	
	10	315	115	200	200	7050	
SMOKE EXTRACTION MODE	4	145					
	7	186					
	10	227					

Operating pressure range 4-10 bar g. Std. in/outlet couplings are 2 1/2" BS Instantaneous, but other connections are available.

† Conversion factor to US Galls/min = l/min x 0.264; to IMP Galls/min = l/min x 0.22.

# Conversion factor to cu ft/min = m³/min x 35.64 Performances may vary with ambient temperature.

\* Expansion ratio is dependent on operating conditions.

## General Material Specification

Bodywork	Yellow chemically resistant UV stabilised GRP resin
Aerofoil fan and net retainer	Black thermoplastic coated aluminium alloy
Water turbine and inductor	Natural gunmetal
Pipework	Black thermoplastic coated copper
Ball valves and nozzles	Black thermoplastic coated brass
Handles and fan guard	Black thermoplastic coated mild steel
Foam making net	Woven nylon and polyester ribbon
OPTIONAL Extras:	
Expendable foam ducting (AE00767)	Polythene in 30m(100ft) length
Smoke extraction ducting (AE01003)	Nylon re-inforced polythene in 7.6m (25ft) length
Wheeled Turbex version available	

## Dimensions

Approx. dimensions (mm)	902Wx927Hx495D	Nett wt.55kg
Typical shipping specification (mm)	991x1016x610	1 case Gross wt.73kg