

Fixed Turbex Systems

**FT1-500P/LNG & FT2-500P/LNG
Cryogenic Applications**

- Reliable
- Minimal maintenance
- Rugged construction



High expansion foam systems represent the most effective protection for such specialised and severe cryogenic risks as LNG (Liquified Natural Gas) and LPG (Liquified Petroleum Gases).

Any foam generators designed for standard industrial applications will not have the performance requirements necessary to meet these risks, so Angus Fire have developed a special **LNG Fixed Turbex System** to meet this extremely demanding application.

Engineered to the highest standards for exceptional reliability and minimal maintenance, the **FT1-500P/LNG and FT2-500P/LNG Fixed Turbex Systems** have many special features.

The body, foam making net and fan all benefit from a special boiler grade of stainless steel designed to withstand continuous high temperatures without a reduction in material strength or risk

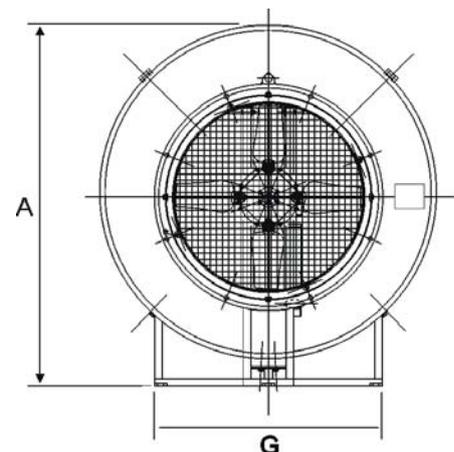
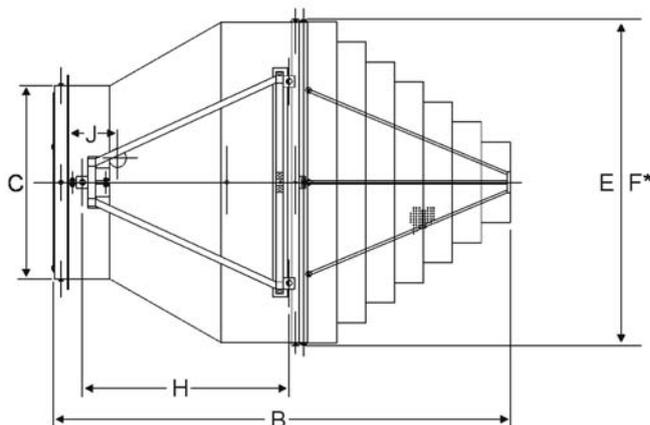
of intergranular corrosion. The complex structure of the foam making net is specially supported to avoid distortion and the tubular support frame has holes drilled to prevent moisture build-up and relieve air expansion when heated. Special glass rope lagging insulates the water turbine and three lifting lugs are provided to assist with site installation.

Rugged construction and careful choice of materials provides exceptional corrosion resistance against highly saline, humid and high temperature environments.

The high efficiency design of the Angus **LNG Fixed Turbex System** has enabled these units to exceed the severe requirements of the National Fire Protection Association NFPA 11A Fire Exposure Test. Performance is unaffected even after exposure to temperatures up to 1000°C during the 5 minute preburn period of this test.

Optional stainless steel ducting can be provided to channel a supply of fresh air to these units and also direct the foam generated down into the bunded area or containment pit, whether for vapour suppression or fire control purposes. Both **LNG Fixed Turbex Systems** must be fed with a premix solution of **Expandol** foam to produce bubbles of nominal expansion 500:1 which has been shown to be highly effective in controlling such cryogenic risks.

System design expertise from Angus Fire is also available to meet these exceptionally severe risks.



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FT1-500P/LNG & FT2-500P/LNG Cryogenic Applications

Performance (typical at 18°C)									
	FT1-500P/LNG (Premix)					FT2-500P/LNG (Premix)			
		Flow L/min •	Exp. Foam Output m3/min#	Exp. Ratio	K Factor §	Flow L/min •	Exp. Foam Output m3/min#	Exp. Ratio	K Factor §
	3 bar.g	138	82	600:1	80	304	155	510:1	176
Inlet Pressure	5 bar.g	179	100	560:1	80	393	196	500:1	176
	7 bar.g	211	114	540:1	80	465	214	460:1	176

§ Flow (l/min) = $K\sqrt{P}$ where P = inlet pressure (bar.g.)

• Conversion factor to US galls/min = l/min x 0.264

Conversion factor to cu ft/min = m3/min x 35.64

Specification			
		FT1-500P/LNG	FT2-500P/LNG
Dimensions	A (mm)	942	1193
	B (mm)	1240	1580
	C (mm)	690	690
	D* (mm)	1118	1118
	E (mm)	884	1138
	F* (mm)	1118	1372
	G (mm)	500	704
	H (mm)	575	715
	I (mm)	119.5	119.5
	J (mm)	85	85
Inlet Connection		11/4" BSP Taper Male	
Materials	Body	Stainless steel to BS970 316L	
	Foam Making Net	Stainless steel to BS970 316L	
	Turbine	Gunmetal LG2	
	Nozzle	Gunmetal LG2	
	Fan	Stainless Steel to BS970 316L	
	Screws, Nuts, Fasteners	Stainless steel A2	
Insulation		Glass Rope Lagging	
Recommended Induction rate		Expandol at 3%	

* Minimum diameter requirements when ducting is used (inlet D, outlet F).

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5106/5 02.14