

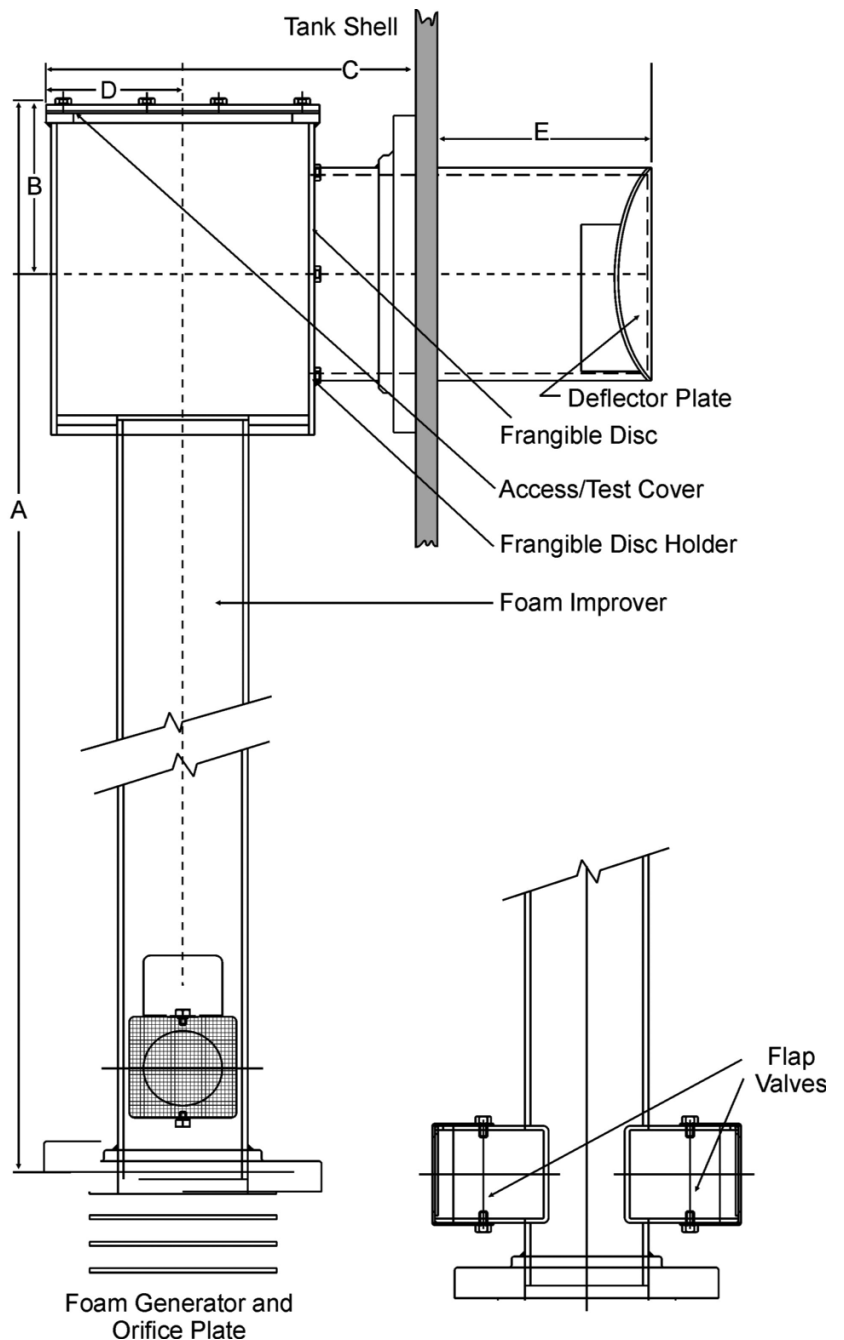
# Foam Top Pourer Sets Mk 4

**Angus Foam Top Pourer Sets (TPS Mk 4)** are designed for use in foam systems for the protection of flammable liquid storage tanks with nitrogen inerted blankets and/or tank internal pressures below 5 psig and combine foam generation, vapour sealing and foam pouring in a robust, low-maintenance integral unit.

There are four basic body sizes with capacities ranging from 75 to 3,300 litres/min at inlet pressures between 3 and 10 barg. Each unit is factory calibrated to perform at a fixed flow and pressure point within the limits shown overleaf. The system designer is therefore able to make the most cost-effective use of available water and foam concentrate resources.

The discharge characteristics of the **TPS Mk 4** are enhanced by the deflector plate fitted to the outlet which disperses the finished foam against the tank wall. This ensures a more rapid spread across the surface of the fuel, whilst lowering the application velocity to reduce contamination of the foam by the fuel. An important consideration especially on polar solvent fuels.

Inspection, routine maintenance and replacement of the frangible glass disc are facilitated by an easily removed cover on top of the unit. Special heavy duty glass discs are fitted which are suitable for internal tank pressures up to 5 psig.



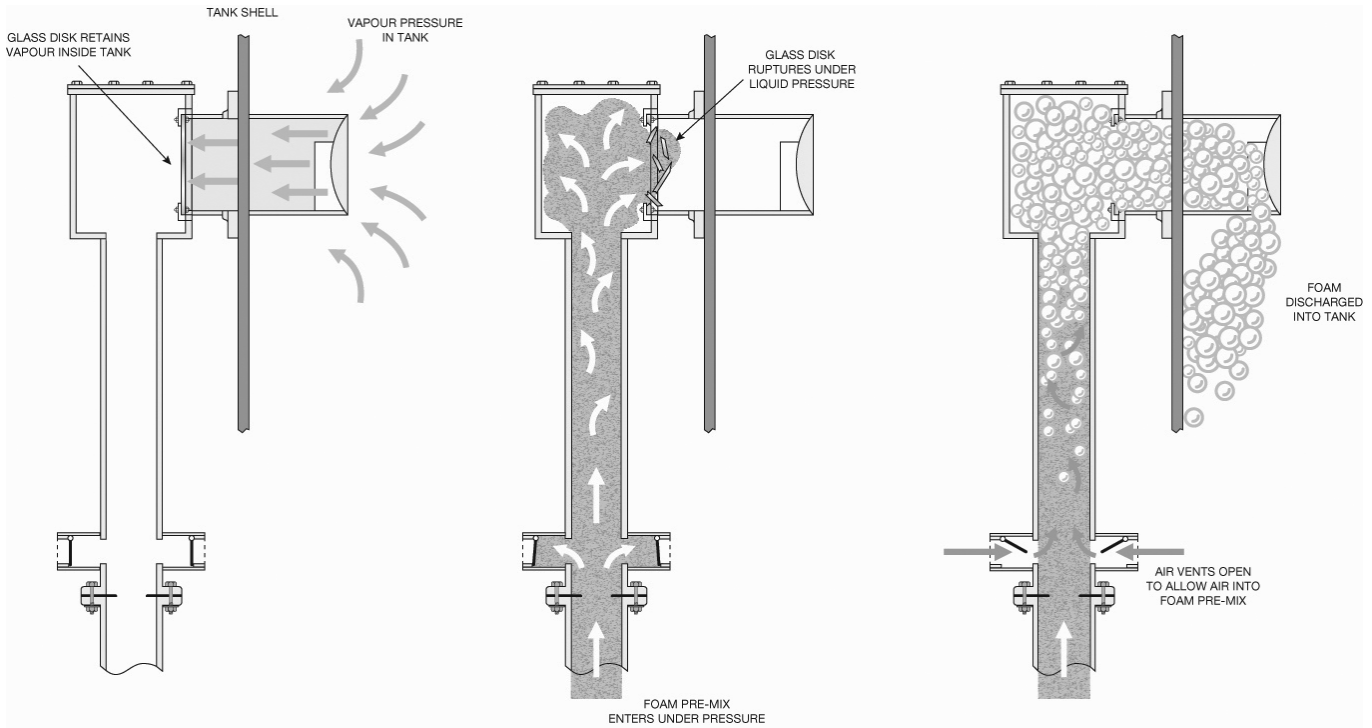
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# Foam Top Pourer Sets Mk 4

Non return valves over the air intakes allow full line pressure to be harnessed to break the disc. Once broken, air is drawn in to make good quality aspirated foam. Removal of this hatch also allows the system to be tested without discharging foam into the tank.

With a suitable foam concentrate, the Top Pourer Sets can be used in applications involving either hydrocarbon or water miscible fuels. The properties of the finished foam will be dependent upon the concentrate used. Some of the foam can fall forward to drip into

the product but this does not have an adverse effect on foam performance when Angus concentrate is used.



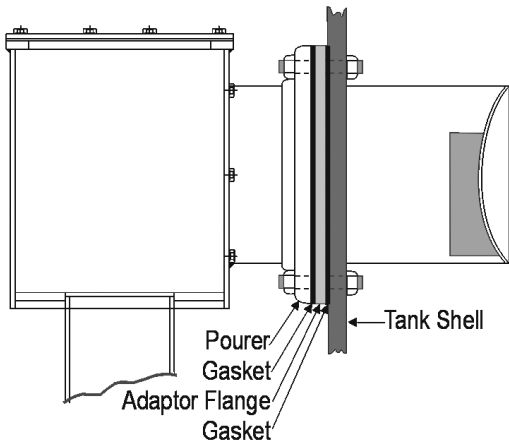
## TPS Mk 4 DIMENSIONS (mm)

	A	B	C	D	E (Min)	Weight Kg
TPS 50	917	117	306	106	200	33
TPS 80	1,067	167	306	106	200	55
TPS 100	1,318	168	381	106	225	82
TPS 150	1,667	217	475	175	300	130

**FOR DETAILED INSTALLATION INFORMATION REFER TO TECHNICAL DRAWING:**

Model	Technical Drawing
TPS 50	D-B2258C1
TPS 80	D-B2259C1
TPS 100	D-B2260C1
TPS 150	D-B2261C1

# Foam Top Pourer Sets Mk 4



## OPTIONAL FIXING KITS

A special fixing kit is available to simplify installation. This enables the **TPS Mk 4** to be fitted safely from outside the tank.

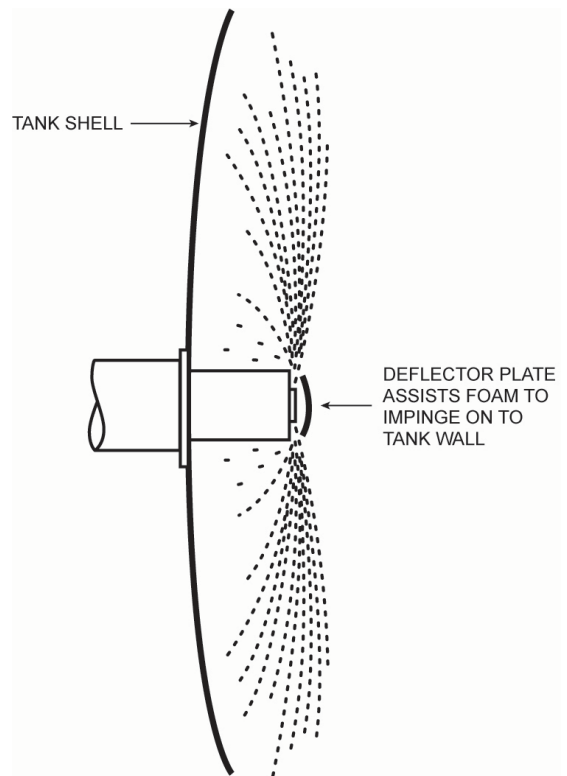
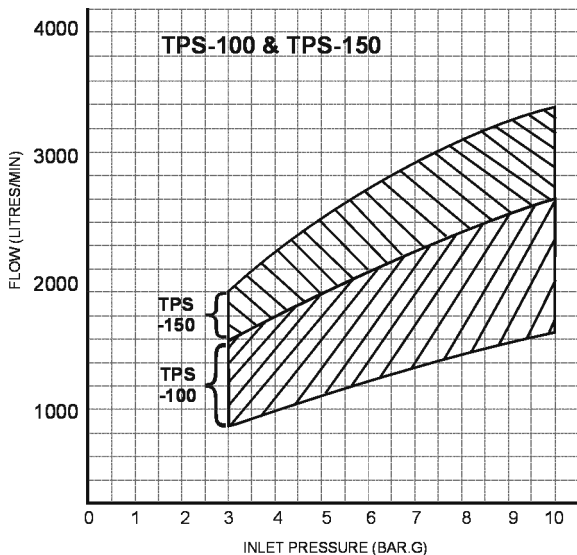
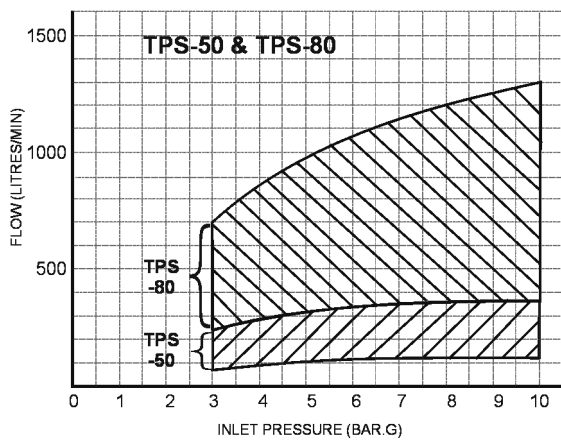
All necessary parts including nuts, washers and gaskets are supplied.

The pourer section of the **TPS Mk 4** has been specially designed to fit through a standard ANSI class 150 hole cut in the tank, which corresponds to the outlet flange on the unit chosen.

A captive studded adaptor flange is then bolted to the tank, sealing the clearance hole, before the **TPS Mk 4** unit is mounted onto the protruding studs and secured in position.

Use of this fixing kit minimises the installation time for each unit.

## PERFORMANCE GRAPHS



# Foam Top Pourer Sets Mk 4

## FOAM TOP POURER SET Mk 4 SPECIFICATION AND OPTIONS

Item	Standard Specification	Optional Specification
<b>Materials</b>		
Body and foam generator tube	Carbon steel to EN 10025	Stainless Steel SS316
Orifice plate	Stainless Steel SS316	
Bursting disc	Heavy Duty glass	
Bursting disc holder	Zinc plated steel	
Bursting disc holder gasket	PTFE	
Foam enhance	Stainless Steel SS316	
Fixings (nut, bolts, washers)	Stainless Steel A2	Stainless Steel SS316
Flange gaskets (3)	Nitrile rubber	PTFE
External finish	Yellow thermoplastic powder coated - 250/450 microns	Customer specification

### Performance

Maximum internal tank pressure	0.34 bar (5 psig)	
Minimum / Maximum flow	TPS 50      175 - 375 l/min TPS 80      250 - 1,300 l/min TPS 100     650 - 2,600 l/min TPS 150     1,400 - 3,400 l/min	
Minimum / Maximum inlet pressure (at flange)	3 bar (45 psig) / 10 bar (150 psig)	

### Construction

Inlet / outlet flanges ANSI RF Class 150	TPS 50      2" / 4" TPS 80      3" / 6" TPS 100     4" / 8" TPS 150     6" / 10"	
Minimum nozzle length	TPS 50      200mm TPS 80      200mm TPS 100     225mm TPS 150     300mm	To customer specification To customer specification To customer specification To customer specification
Access panel	Bolted steel top cover	
Foam delivery mechanism	Via deflector on to tank wall	

## TPS Mk 4 PART NUMBERS

Model	Complete TPS unit (painted yellow)	Bursting disc and holder	Tank fixing kit
TPS 50	AP110340	AES30181	AES25450
TPS 80	AP120340	AES30492	AES23140
TPS 100	AP130340	AES30493	AES23141
TPS 150	AP140340	AES30494	AES23142