

FYREXTRA FOAM CHAMBER POURER SETS



Knowsley SK Limited - Designer and Manufacturer of Fire Fighting Equipment & Systems

We know Fire. We know safety. We know you.





Established in 1896, Knowsley SK Ltd has an enviable reputation for manufacturing quality fire fighting equipment and systems for high-value asset protection that can be relied upon whenever danger strikes.

01 Product Overview

- Choice of six different sizes to suit a wide range of flow rates
- Suitable for use with all available foam concentrates
- Factory calibrated to match specific flow and pressure ensuring superior foam quality
- Integral check valve prevents loss of foam solution
- System testing without discharging foam into storage tank
- Simple maintenance
- Anti corrosion protective coating
- Held in stock for quick delivery.

Foam Chamber-pourer sets are an integral part of tank farm fire protection systems. These end of line devices must introduce expanded foam onto the surface of flammable liquids with minimal submergence and fuel agitation. This ensures formation of an effective foam blanket and superior extinguishing capabilities. The Knowsley SK Fyrextra range is designed and manufactured to the highest standards and classify as a Type II discharge device as stipulated by NFPA11.

02 Overall Dimensions

Overall dimensions are shown in table 1. See Figure 1. for corresponding annotations.

Table 1. Overall Dimensions

MODEL	SIZE			DELIVERY @ 5 Barg	WEIGHT Kg.
	A	B	C		
Fyrextra FC - 2	2"	3"	1.5"	200 – 450 L/min	19
Fyrextra FC - 3	2"	4"	1.5"	200 – 450 L/min	21
Fyrextra FC - 4	3"	4"	2"	500 – 1260 L/min	24
Fyrextra FC - 6	3" – 4"	6"	2"	1260 – 2600 L/min	40
Fyrextra FC - 8	4"	8"	2"	1260 – 2600 L/min	45
Fyrextra FC - 10	6"	8"	3"	2600 – 4000 L/min	55

Breaking Point Pressure: 1.5 Bar g

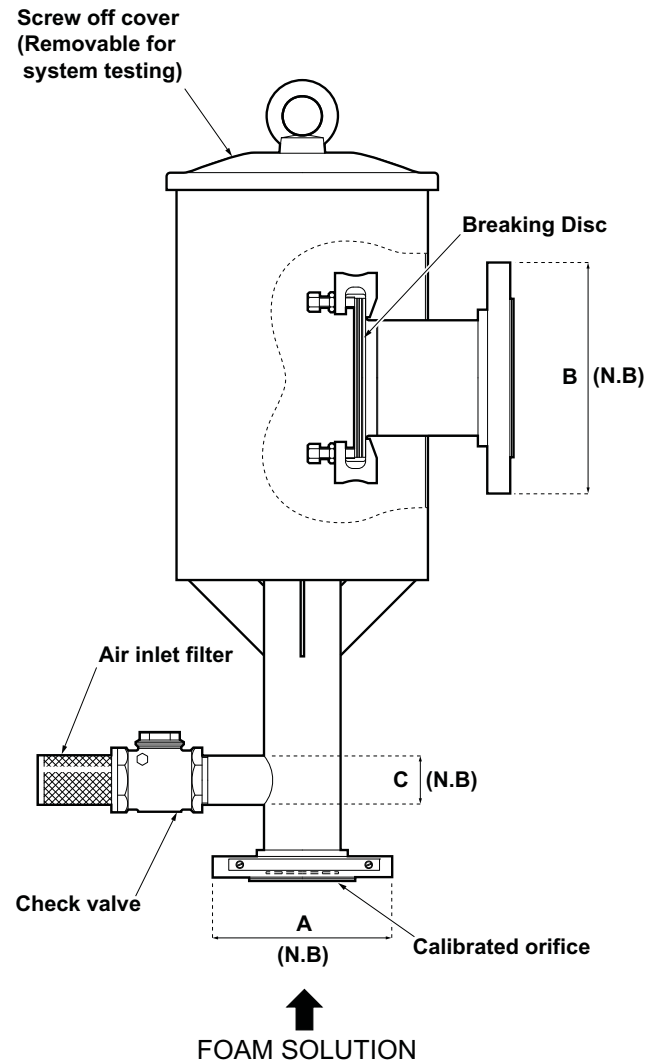


Figure 1. Foam chamber

03 Product Materials

The Foam chamber is manufactured from the following high grade materials:

- Body: Carbon Steel / stainless steel AISI 304
- Connection: Flanged UNI or ANSI made in carbon steel A 105
- Nozzle: Stainless steel AISI 304
- Vapor seal device: Glass (note: On request vapor seal manufactures in graphite)
- Air Inlet Strainer: SS A 304
- Check valve: Brass

Painting Cycle

- Surface priming: Brushing / Chemical washing
One coat of Epoxyvinyllic Thk.50 Micron - Internal and external
- Finish: Polyurethanic Red Ral 3000 Thk.50 Micron
- Total thickness: = min 100 Microns



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Registered in England No. 1789152 VAT No:383475131



Our Century of experience, continuous product development and world-wide support network provides the confidence for clients to select Knowsley SK as their first choice for asset protection whatever, whenever and wherever the risk.



04 Product Details

The Knowsley Fyrextra Foam Chamber-Pourer sets are designed to introduce fire fighting foam onto the surface of flammable liquids contained in bulk storage tanks. This application is achieved with minimum of foam submergence and fuel agitation as stipulated by NFPA 11 to classify as a type II Discharge Device.

The chamber-pourer sets comprise a foam expansion chamber with integral foam maker and a foam pourer (deflector) which directs the expanded foam towards the internal tank wall thus achieving the required gentle application. A stainless steel nozzle at the chamber inlet is specially calibrated to ensure the correct performance at a specified pressure. Air is entrained with the foam solution via a screened intake and check valve. Once the foam solution/air mixture passes into the foam chamber it expands and the glass breaking disc bursts to enable an unrestricted flow of expanded foam into the tank.

The breaking disc assembly (Figure 2) is accessible via a removable top cover which enables simple maintenance of the glass breaking disc and also permits testing of the pourer without discharging into the tank. A lifting eye is fitted to the top cover for ease of initial installation.

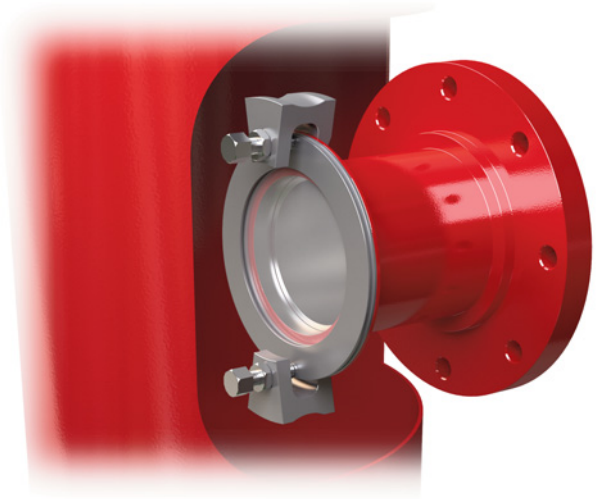


Figure 2. Breaking disc detail

05 Performance Data

Foam chamber Performance data is shown in Table 2.

Table 2. Performance Data

MODEL	Delivery @ 5 Bar
Fyrextra FC - 2	200 – 450 L/min
Fyrextra FC - 3	200 – 450 L/min
Fyrextra FC - 4	500 – 1260 L/min
Fyrextra FC - 6	1260 – 2600 L/min
Fyrextra FC - 8	1260 – 2600 L/min
Fyrextra FC - 10	2600 – 4000 L/min

06 Spares Information

Please contact our dedicated spares department for the components listed below:
spares@knowsleysk.co.uk

1. Fixing device
2. Breaking Disc
3. Gasket
4. Motorsil 'D' sealant.

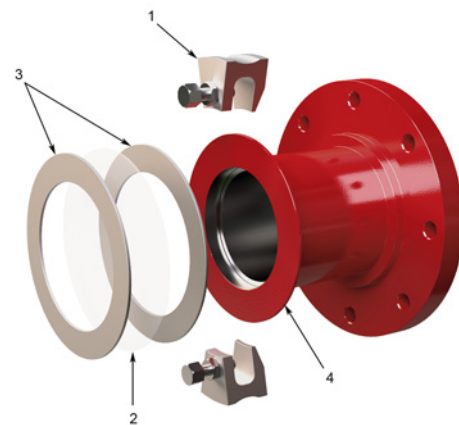


Figure 3. Spares detail



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Our experience spans the globe and covers all high risk applications from Oil refineries and LNG Processing Facilities through to Offshore Platforms, Petrochemical Installations, Storage Tank Farms and Loading/Offloading Wharves and Jetties.

07 Accessories Overview

Accessories available for this product are listed below.

1. Foam Pourer Model Fyrextra FP (Figure 4)
2. Foam Pourer Model Fyrextra FP External (Figure 5)

Foam Pourer model Fyrextra FP is installed inside the storage tank and ensures a gentle application of foam solution to the surface of the product. 4 sizes are available as detailed below.

Foam Pourer Model FP External is a bespoke unit fabricated to suit existing tank nozzles and enables installation from outside the tank.

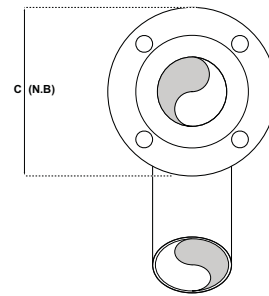
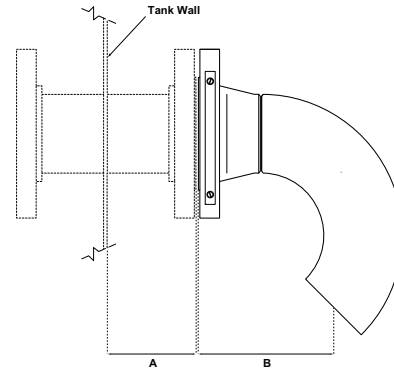


Figure 4. Foam Pourer - model Fyrextra FP

08 Accessory Dimensions

Foam pourer dimensions are shown in table 3. See figure 4 for corresponding annotations.

Fyrextra FP External is a bespoke unit - dimensions to suit individual requirements.

Table 3. Foam Pourer dimensions

MODEL	SIZE				WEIGHT Kg.
	A (max)	B	Ø C	Ø D	
Fyrextra FP3	100	152	3"	3"	7
Fyrextra FP4	100	185	4"	4"	11
Fyrextra FP6	100	252	6"	6"	21
Fyrextra FP8	150	320	8"	8"	41

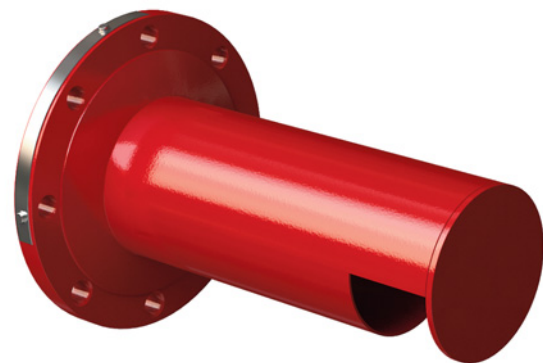


Figure 5. Foam Pourer - model Fyrextra FP External

09 Accessory Materials

Foam Pourer:

The Foam Pourer is manufactured from the following high grade materials:

- Body: Carbon Steel / stainless steel AISI 105
- Connection: Flanged UNI ANSI or DIN ASTM A 105

Painting Cycle

- Surface priming: Brushing / Chemical washing
One coat of Epoxyvinyl Thk.50 Micron
- Finish: Polyurethane Red Ral 3000 Thk.50 Micron
- Total thickness: = min 100 Microns



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