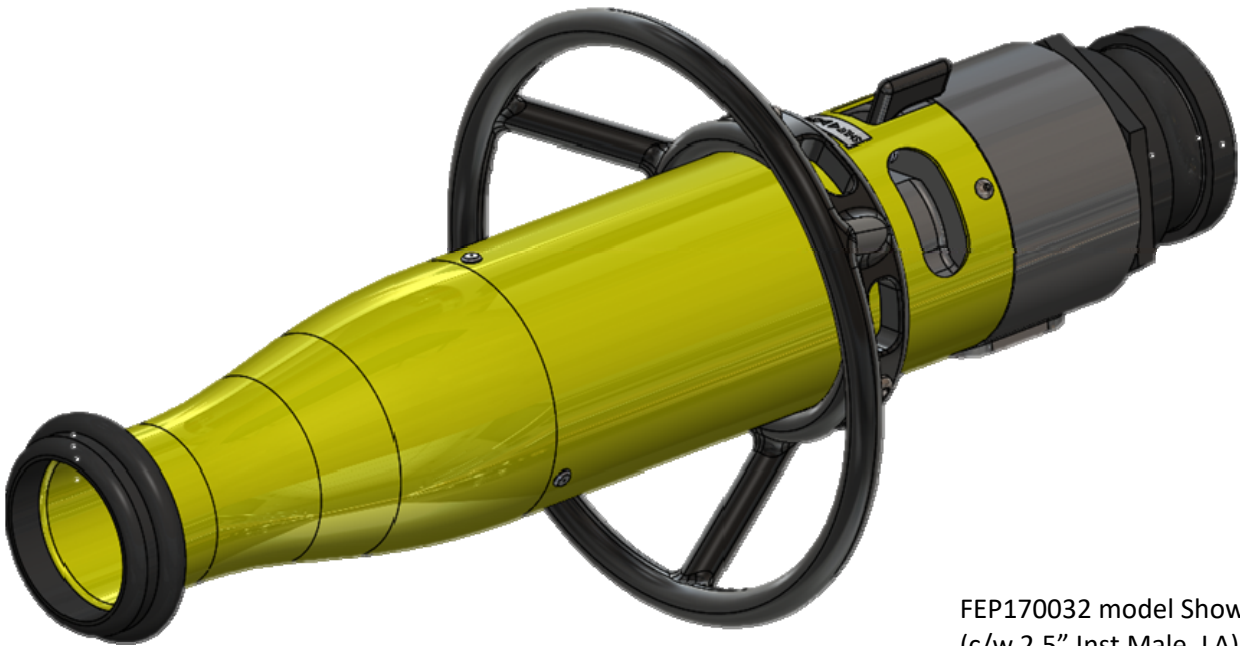


Operating and Maintenance Manual

Delta DF7X Pre-Mix Foam Branchpipes



FEP170032 model Show
(c/w 2.5" Inst Male, LA)

1. General Description

The Delta DF7X low-expansion foam branchpipes are designed for ease of operational use and combine a compact, lightweight design with exceptional performance capabilities over a wide spectrum of risk scenarios. The DF7X & DF7X-P can be used with all Fluorine-Free foams including high viscosity types. Very high viscosity concentrates may require a different calibration orifice plate (details on request).

2. Application

Intended for use with any proprietary low-expansion foam compounds (including fluorine-free types) the DF7X is ideally suited for use on hydrocarbon fires as commonly found within refineries, aviation sectors and the marine industries. The DF7X produces fully aspirated foam which is first expanded and then accelerated through the discharge tube to provide a throw range of up to 24 metres ensuring operatives are able to remain at a safe distance.

3. Functionality

The **DF7X Pre-Mix** foam branchpipe is designed especially for use with in-line foam inductors or round-the-pump proportioners. Pre-mixed foam solution enters the inlet and is combined with entrained air as it passes through the oversized air intakes. The fully aspirated foam then accelerates through the discharge tube providing long throws and fast fire-knockdown.

4. General Operation

The DF7X is designed for use with inlet pressures of between 3 and 10 bar and the optimum flow through the branchpipe should be 225lpm @ 5.5 bar which will produce approximately 2,300 lpm of finished, fully aspirated foam.

Based on an optimum inlet pressure of 5.5 bar the DF7X branchpipe will consume approximately 7 lpm of foam at the 3% setting and 14 lpm of foam at the 6% setting.

5. Construction

The Delta DF7X foam branchpipes are manufactured in the UK to exacting standards under an ISO9001:2015 Quality Management Standard.

Consisting of two primary parts – the main Body & Tube assembly the DF7X is available in two models:-

- 1.) DF7X-P which incorporates an ergonomic pistol grip and 360° handle
- 2.) DF7X which is supplied with the 360° handle only.

The body is manufactured from highly durable anodised cast aluminium and the outlet tube is manufactured in lightweight aluminium. The outlet tube is powder-coated in RAL 1018 hi-viz yellow providing additional protection and ease of visibility in low light conditions. All machined parts are manufactured in either hard anodised aluminium or 316 stainless steel to ensure long service life and minimal maintenance requirements.

6. Technical Data

Model	FEP161032 / FEP161062	FEP171032 / FEP171062
Operating Pressure Range	3 bar to 10 bar	3 bar to 10 bar
Optimum Flow Range	225 lpm @ 5.5 bar	225 lpm @ 5.5 bar
Foam Output	Circa 2,300 lpm	Circa 2,300 lpm
Foam Concentrates	Suitable for all types	Suitable for all types
Foam Consumption	PREMIX ONLY	PREMIX ONLY
Maximum Throw (m)	20m - 24m (still air conditions)	20m - 24m (still air conditions)
Length (mm)	467	467
Diameter (mm)	210	210
Weight (Kg)	2.0	2.2
Inlet	2.5" BSP Female Thread (Alternative inlets available)	2.5" BSP Female Thread (Alternative inlets available)
Optional Handles	N/A	Pistol Grip Handle

7. Maintenance

The DF7X branchpipes are designed to require very little maintenance but it is essential that the branchpipe and any other associated equipment used in the production of the foam are thoroughly flushed through with fresh water post-use.

Some foams, particularly the more thixotropic varieties, are prone to residue build-up over time if not flushed through after use. This can lead to blockages in the orifice plate or within the waterway that may restrict foam induction and negatively impact performance.

Once flushing has been completed the branchpipe and associated equipment should be dried and stored appropriately ready for next use.

A pre-use visual inspection is recommended to ensure all waterways are clear and all moving parts (dials/levers etc) are functioning properly without restriction. Periodic cleaning of these parts to remove debris or grit is advisable.

8. Parts List (PREMIX ONLY)

Part No.	Product Code	Part Description	Qty per Branch
FEP160032, FEP160062 MODEL ONLY			
1	XFEP18005	DELTA BRANCHPIPE BODY	1
2	XFEP18010	DELTA BRANCHPIPE OUTLET TUBE	1
3	XFEP18040	BRANCHPIPE VENTURI JET	1
4	XFEP18045	BRACHPIPE HANDLE	1
5	XFEP18050	BRANCHPIPE SHUT OFF	1
6	XFEP18055	SHUTOFF INSERT	1
7	XFEP18060	SHUT OFF PIVOT BAR	1
8	XFEP18065	INLET FILTER	1
9	XFEP18075	SHUT OFF PADDLE	1
10	XSC040601	M4 X 6 SHBS	3
11	XSC062001	M6 X 12 SOCKET BUTTON HEAD SCREW	3
12	XFEP18090	SHUT - OPEN LABEL	1
13	XFEP18100	CLICK SPRING	1
14	XFEP18105	TUBE INSERT	1
15	XFEP18110	5mm RIVET	3
16	XFEP18115	BRANCHPIPE BUMPER	1
17	XFEP16130	FB7X BLANKING PLUG	1
18	XSC041201	M4 X 12 SOCKET BUTTON HEAD SCREW	1
19	XFEP18140	FB7X PADDLE STOP	1
20	XSC031002	M3 x 10 CAP HEAD SCREW	2
21	XFEP18095	DELTA LABEL	1
22	XNSB000001	Ø3.0 x 16 PARALLEL PIN	2
23	XSC040403	M4 x 4 SCKT GRUB SCREW A4/316	1
24	ADA001029	2½" Instantaneous Light Alloy Male x 2½" BSP Male	1
25	XOR000002	2.5 x 18 O-RING N70	2
26	XOR000004	31.34 x 3.53 O-RING N70	1
27	XOR000003	3.6 x 2.4 O-RING N70	1
28	XOR000045	18.77 x 1.76 O-RING N70	1
29	XOR000166	70 x 5.5 O-RING N70	1
FEP191032, FEP191062 – PISTOL GRIP OPTIONS (NOT SHOWN ON EXPLODED VIEW)			
30	XPG000002	PISTOL GRIP HANDLE, BLACK (straight hole)	1
31	XSC101602	M10 x 16 SOCKET CAP HEAD SCREW A4	1

9. Exploded View
FEP160032 Shown

