

Product name	FJM WTO
Description	Oscillating Fog/Jet Monitor
Manufacturer	SKUM
Revision	1.0/2024



## ASK ABOUT THE PRODUCT

### Description

- A range of manually operated fog/jet, water, and foam monitors with exceptional flow characteristics that optimize throw range.
- Exceptional delivery of water or foam as a jet or as a spray pattern.
- FJM-80 WTO, FJM-100 WTO, and FJM-150 WTO units are self-oscillating with internal water driven turbines.
- A unique design and stainless steel construction add to the relatively low weight of this unit.

### Application

FJM-WTO units are designed for fixed mounting for effective application of the wide flow range optimized jet range and spray patterns. The loose flange facilitates easy mounting and to enable adjustment for oscillating area sweep.

### Features

- Wide flow range
- Adjustable flow
- Compact and balanced design
- Low weight
- Easily manoeuvred due to low friction bearings
- Long throw length
- Adjustable stream pattern
- Corrosion resistant construction of stainless steel and bronze assembly
- Manual override
- Slip on inlet connection flange for direction adjustment
- ATEX compliant operation for Zones 1 and 2

### Connections

- Foam/water inlet: flanged according to DIN PN 16, or ANSI 150 lb

### Optional Components

- Inbuilt inductor optional on all models (S version)
- Suction hose and valve

### S Models

The S model comes complete with inbuilt foam induction.

### Certificates, Listings and Approvals

- **National Assessment and Verification of Constancy of Performance CNBOP-PIB No 063-UWB-0033** (FJM-80; FJM-100) - revision 2 (PN-EN 13565-1:2019-09)
- **National Assessment and Verification of Constancy of Performance CNBOP-PIB No 063-UWB-0243** (FJM-150) - revision 2 (PN-EN 13565-1:2019-09)
- **Det Norske Veritas (DNV)**
- **Bureau Veritas (BV), FJM-200 only**
- **Russian Maritime Register of Shipping (RMRS)**



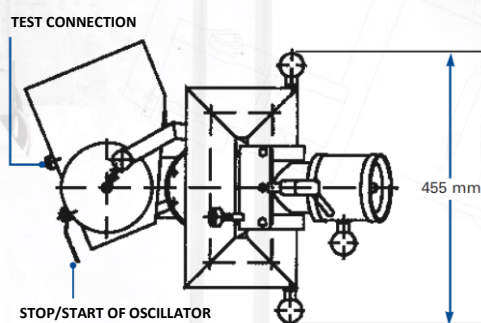
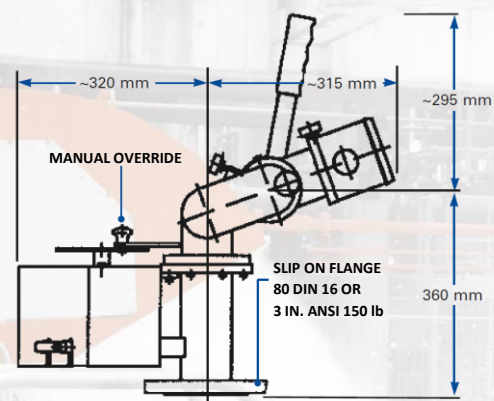
### Ordering Information

Please specify the following:

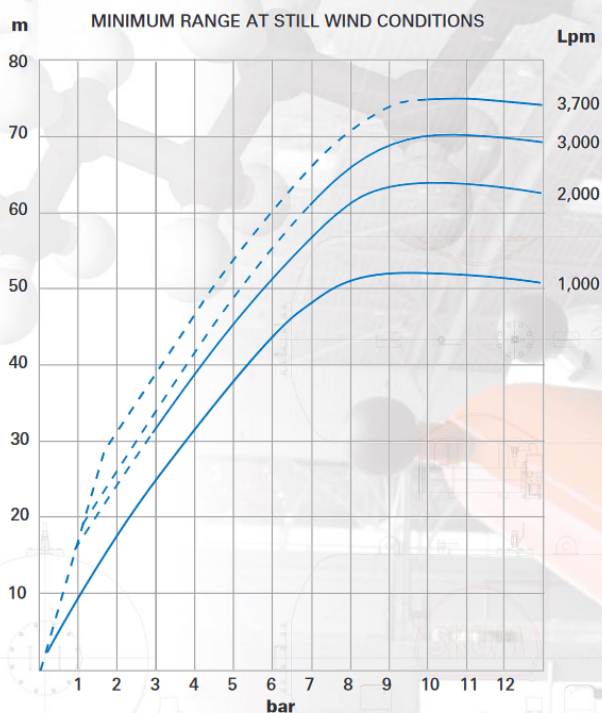
1. Part number
2. Type
3. Flange type
4. Capacity: flow and pressure
5. Foam induction (S-version)

Part No.	Description
161508716	FJM-80 WTO DIN
161508819	FJM-80 DIN ANSI
161508737	FJM-80 S WTO DIN, excluding suction hose
161508840	FJM-80 S WTO ANSI, excluding suction hose
161008618	FJM-80 suction hose 1 1/4", 3m
161510811	FJM-100 WTO DIN/ANSI
161510761	FJM-100 S WTO DIN/ANSI, excluding suction hose
161010606	FJM-100 suction hose 2", 3m
161515719	FJM-150 WTO DIN/ANSI/IIIS
161015608	FJM-150 suction hose 2", 3m

## FJM-80 WTO

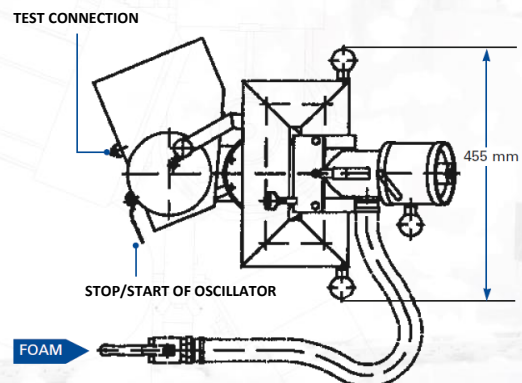
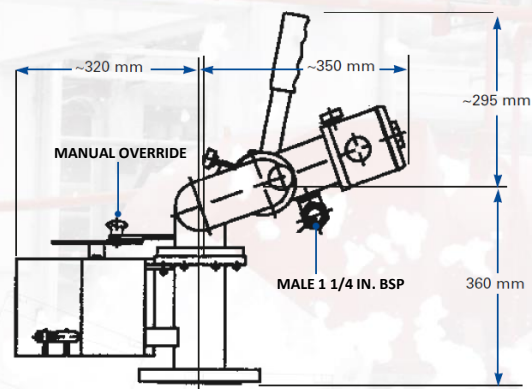


## FJM-80 – Range of Jet



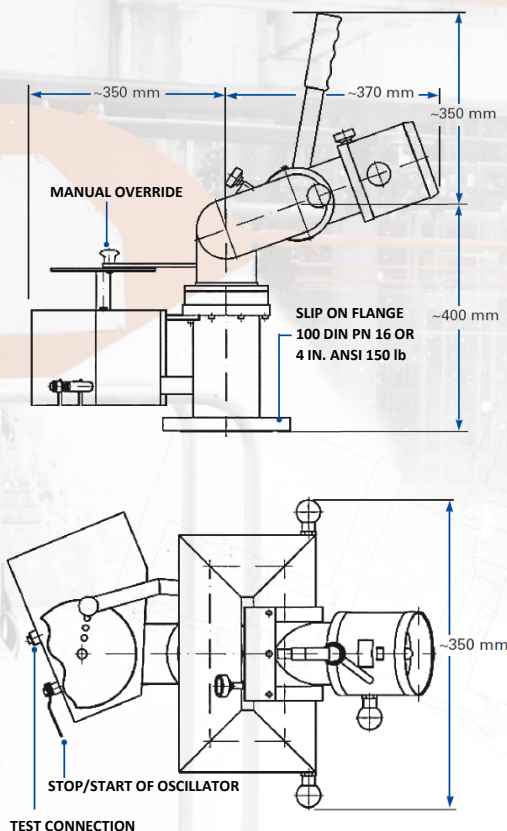
- Notes:**
1. Reaction force (N) =  $0.233 \times Q \text{ (Lpm)} \times \sqrt{p \text{ (bar)}}$
  2. Deduct 10% for self-induction nozzles.
  3. Achieving the values listed in the range of jet graph depends on the monitor's elevation angle. For further details, see the length-height relationship graph.

## FJM-80 WTO S

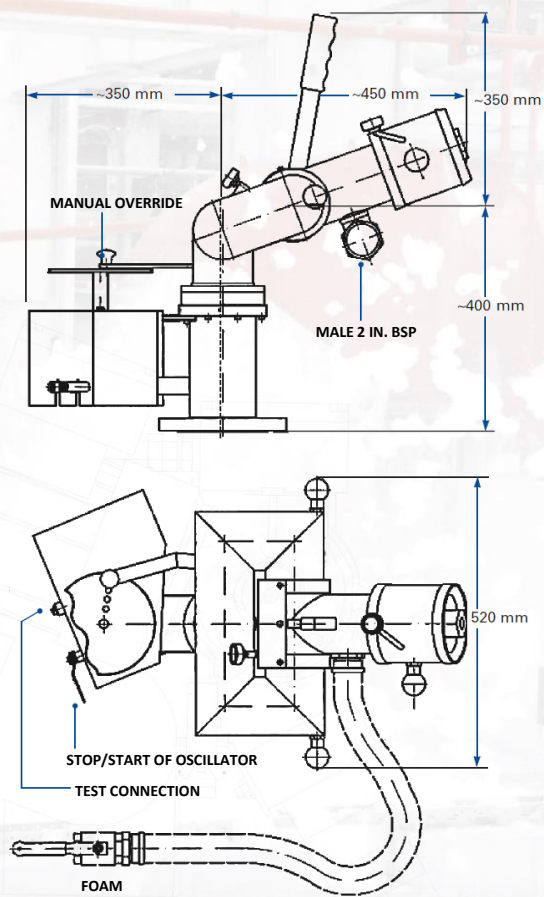




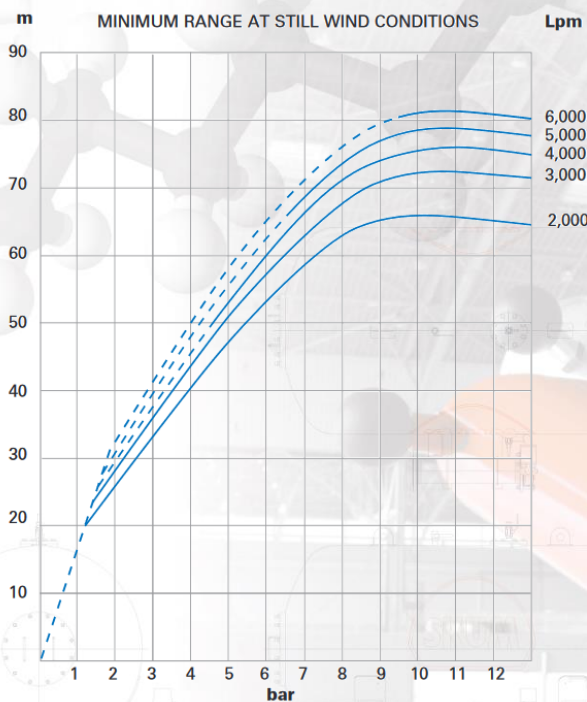
## FJM-100 WTO



## FJM-100 WTO S

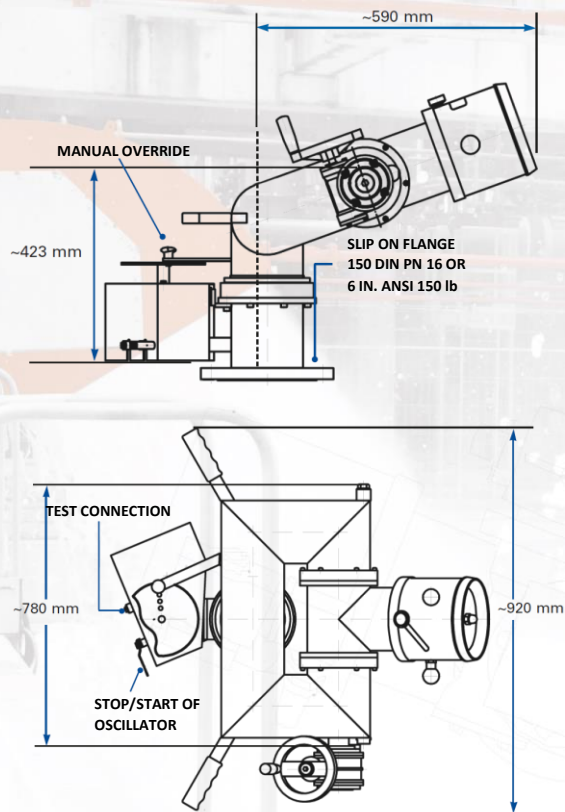


## FJM-100 – Range of Jet

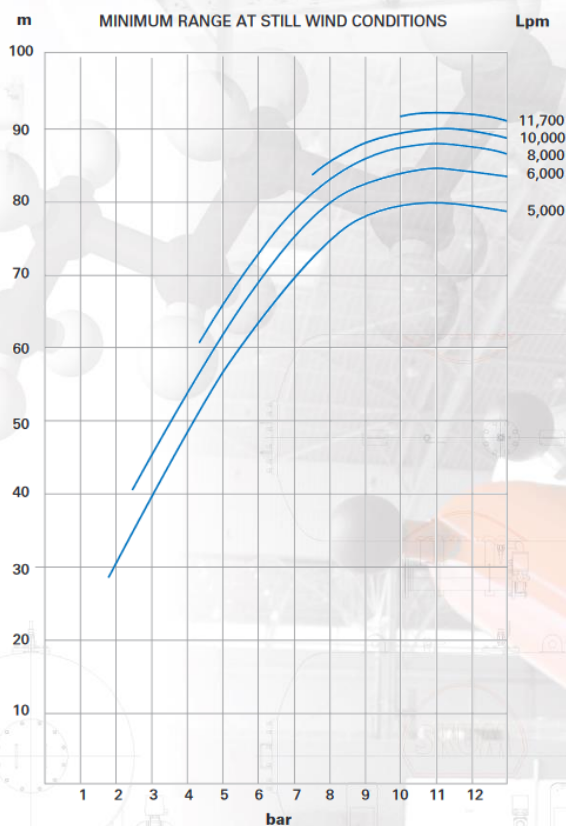


- Notes:**
1. Reaction force (N) =  $0.233 \times Q \text{ (Lpm)} \times \sqrt{p \text{ (bar)}}$
  2. Deduct 10% for self-induction nozzles.
  3. Achieving the values listed in the range of jet graph depends on the monitor's elevation angle. For further details, see the length-height relationship graph.

## FJM-150 WTO

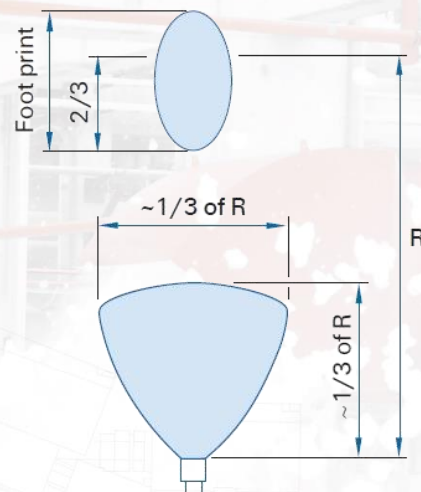


## FJM-150 – Range of Jet

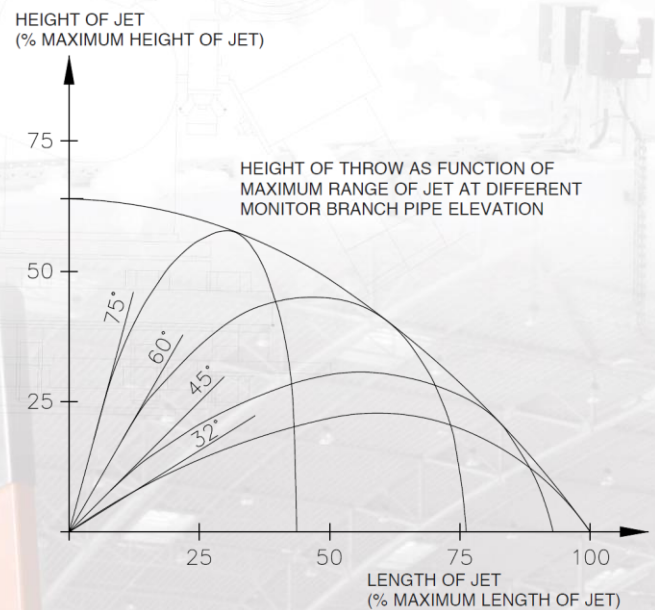


- Notes:**
1. Reaction force (N) =  $0.233 \times Q \text{ (Lpm)} \times \sqrt{p \text{ (bar)}}$
  2. Deduct 10% for self-induction nozzles.
  3. Achieving the values listed in the range of jet graph depends on the monitor's elevation angle. For further details, see the length-height relationship graph.

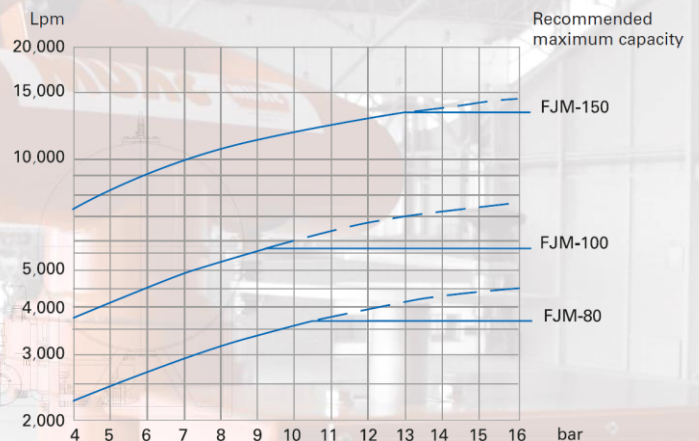
## Average Fog Pattern in Still Air



## Length – Height Relationship



## FJM Monitors – Capacity Ranges





## Performance Data

FJM-WTO Standard	FJM-80	FJM-100	FJM-150
Water capacity [l/min]	od 500 do 3 700	od 1 000 do 6 000	od 3 000 do 11 700
Design pressure	4 - 16 bar		
Design pressure (optimum)	10 - 12 bar		
Design pressure (ATEX)	4 – 11 bar		
Rotation - oscillation	30°, 50°, 70°, 100°		
Elevation - manual	-60° / +90°		
Rotation - manual	360°		
Foam throw range*	55m	70m	85m
Expansion ratio*	6,6	6,7	6,4
Pressure*	16 bar		
Weight	25 kg	32 kg	67 kg
Connection: water	80 DIN PN 16 or 3" ANSI 150 lb	100 DIN PN 16 or 4" ANSI 150 lb	150 DIN PN 16 or 6" ANSI 150 lb
Material: body	Stainless steel	Stainless steel	Stainless steel
Material: flange	Galvanised steel	Galvanised steel	Galvanised steel
Material: nozzle	Bronze	Bronze	Bronze

\* Foam parameters (throwing range, pressure, expansion ratio) were obtained during tests with non-fluorinated foaming agents: SKUM NFF 3x3 UL201, ANSUL NFF 3x3 UL201, T-STORM NFF 3x3 UL201. The applied pressure for FJM-150 [10 bar] results the scope of accreditation of the CNBOP-PIB Certification Unit.

## ATEX and IECEx Marking



II 2 G  
II 2 D

Ex h IIC T5 Gb  
Ex h IIIC T100°C

