

# OSCILLATING MONITOR



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

*Strategic fire protection - when and where its needed most*





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

Self oscillating monitors have been developed specifically to suit the requirements of tank farm, helideck and process fire protection systems where large capacity flow rates and throw distance are needed.

Corrosion resistant design of the monitor and selection of high grade materials of construction make it ideally suited for installation in harsh environments such as process plants, tank farms, road/rail tanker loading areas and offshore installations.

### Features

- Single waterway
- Undivided water stream
- Low pressure loss
- Unattended operation
- Self oscillating using mains water
- Pelton wheel drive
- Adjustable angle and speed of oscillation
- Oscillation arc can be set at regular intervals within 360 degrees
- Quick change to manual operation via quick release knob
- Elevation – +85 degrees
- Depression – -70 degrees

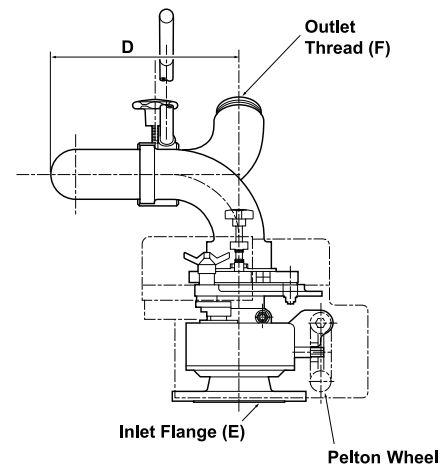
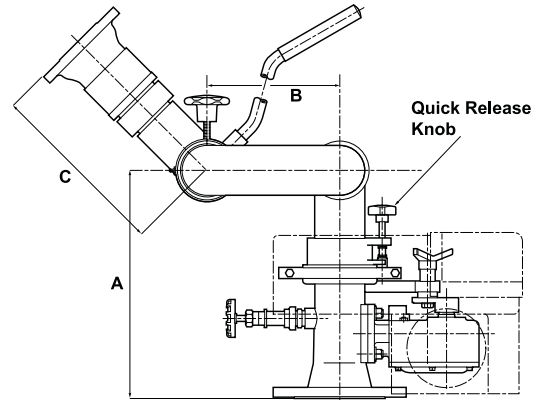


Figure 1. Oscillating Monitor

## 02 Overall Dimensions

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

Table 1. Overall Dimensions

MODEL No	SIZE (NB)	A	B	C	D	E	F	Weight
5126	3"	389	228	300	323	3" OR 4" ANSI 150FF	2½" NSTM	45Kg
5120	4"	374	228	325	336	4" OR 6" ANSI 150FF	4" NSTM	55Kg

## 03 Product Materials

The Oscillating Monitor is manufactured from the following corrosion resistant materials:

- Inlet Stand: Gunmetal CC492K-GS
- Upper and Lower Bend: Gunmetal CC492K-GS
- Operating Lever: Stainless Steel (with plastic hand grip)
- Ball bearings: Stainless Steel
- O Rings: Buna – N
- Grease Nipple: Stainless Steel

### Standard Painting Cycle

Two coat enamel finish for aesthetic purpose and colour identification  
 Red to BS4800 04-E-53 (Other colours available)  
 Total 70 Microns DFT (min)



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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 oscillating movement is achieved by means of a water driven turbine unit transmitting power from the mains line pressure by means of a sealed-for-life triple reduction gearbox. The turbine is manufactured in gunmetal.

A stop valve is fitted in the pipework to isolate the water supply from the pelton wheel. This allows the oscillating linkage to be disconnected by means of a quick spring-loaded release knob and thereby allowing full manual operation.

The arc of oscillation is variable between the angle stated in table 2 below and will give an oscillating speed of 7 cycles /min nominal at 7.5 barg inlet pressure. At this pressure the turbine expels water at a rate of 20 lpm.

The monitor can be tested by means of a test point connection (optional) so that when installed, a complete flow test discharging water through the monitor nozzle will not be required in order to test the operating mechanism.



Figure 2. Oscillating Monitor

## 05 Performance Data

Oscillating monitor performance data is shown in Table 2.

Table 2. Performance Data

MODEL No	Max Capacity (LPM)	Nominal Speed of Oscillation (@7.5barg)	Oscillation Angle	Operating Pressure
5126	3300	7 Cycles per min	40° - 115°	16 BAR(Max) 5 BAR (Min)
5120	6000	7 Cycles per min	40° - 90°	16 BAR(Max) 5 BAR (Min)

## 06 Spares Information

Recommended spare parts are listed below:

1. Grease Nipple
2. Quadring Seal
3. Ball Bearings
4. Locking Knob
5. Linkage Control Knob

Please contact our dedicated spares department for further assistance. [spares@knowsleysk.co.uk](mailto:spares@knowsleysk.co.uk)

## 07 Accessories Overview

The Knowsley Oscillating Monitor can be fitted with a variety of discharge nozzles to suit different applications.

These include:—

- Adjustable Jet / Fog
- Straight Jet, Long throw
- Self-Inducing Foam
- Constant Flow

Our highly experienced engineers will select the correct nozzle for your application.



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