

# EVICTOR ANTI-PIRACY WATER CANNON



**An essential part of the multi-layered  
approach to ship hardening**



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

The Knowsley SK EVICTOR is a direct development from the renowned and respected Knowsley SK Oscillating Fire Fighting Monitor present throughout the world delivering protection and confidence for over 25 years.

Following a direct request from the shipping community, Knowsley SK developed the EVICTOR to combat the upsurge in maritime piracy around the world.

EVICTOR combines the unique fire fighting technique, capabilities and knowledge of Knowsley SK with the specific requirements requested by the commercial maritime industry.

EVICTOR has been designed to be used in conjunction with existing ship hardening techniques and procedures to complete total protection from maritime piracy.

EVICTOR utilizes the existing ships fire main or any other high capacity water supply to provide an effective water shield via twin 70 deg nozzles operating in a 90 deg arc offering the maximum effective protection. The nozzles have been selected to provide a powerful jet of water and a water mist curtain giving a tremendous visual presence, inhospitable atmosphere and a physical force capable of deterring the most determined of pirate.

EVICTOR is a standalone design, after installation at the required location and connection to the ships water supply the EVICTOR will function without the need for any of the ship's crew to be present.

## 02 Features

- Single water connection
- Low pressure drop
- Unattended operation
- Self oscillation
- Pelton wheel drive
- Twin nozzles set at 70 deg
- 90 deg arc every 8 seconds (see pressure and flow table)
- Intrinsically safe
- Low maintenance
- Handrail located, supported by ship's deck
- Removable nozzle tube for ease of maintenance and storage
- Interchangeable high and medium flow nozzle tubes

## 03 Materials of construction

The Evictor is manufactured from the following corrosion resistant materials:

<b>Frame:</b>	Carbon steel, hot dipped galvanised and enamel coated
<b>Monitor assembly:</b>	Gunmetal, enamel coated
<b>Nozzles and nozzle tube:</b>	316 Stainless steel, painted
<b>Pelton wheel guard:</b>	GRP (self colour)
<b>Pelton wheel pipework:</b>	316 Stainless steel
<b>Fittings and fixings:</b>	316 Stainless steel



Knowsley SK Limited, Centrepoint, Marshall Stevens Way, Trafford Park, Manchester M17 1AE  
Tel: +44(0)161 872 7511 Fax: +44(0)161 848 8508 Email: Sales@knowsleysk.co.uk Web: www.knowsleysk.com

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 Performance

EVICTOR is available in two flow capacities, base monitor and frame are common to both units but the stainless steel nozzle tube and twin nozzles are available in high and medium flow options.

The high and medium flow options will enable the operator to select the

correct EVICTOR to the relevant capacity of the ships water supply. As the high and medium flow nozzle tubes are interchangeable this will give the operator future flexibility if ever the EVICTOR is located to an alternative vessel with higher or lower water supply capacity.

**Table 1. EVICTOR – High Flow (2 x 16mm Orifice Nozzles)**

Inlet Pressure (bar g)	Flow Rate per Nozzle (l/min)	Nominal Reach* (metres)	Total Flow Rate (l/min)	Recommended Spacing** (metres)
5.0	380	15.0	760	
6.0	418	17.5	836	
7.0	450	20.0	900	
8.0	480	23.5	960	35
9.0	515	27.0	1030	
10.0	540	30.0	1080	

\* Reach figures obtained in still air conditions

\*\* Maximum recommended spacing based on 7.0 bar g operating pressure to provide overlap trajectories

**Table 2. EVICTOR – Medium Flow (2 x 12mm Orifice Nozzles)**

Inlet Pressure (bar g)	Flow Rate per Nozzle (l/min)	Nominal Reach* (metres)	Total Flow Rate (l/min)	Recommended Spacing** (metres)
5.0	215	12.0	430	
6.0	235	13.5	470	
7.0	255	15.0	510	
8.0	275	17.0	550	25
9.0	290	19.0	580	
10.0	305	22.0	610	

\* Reach figures obtained in still air conditions

\*\* Maximum recommended spacing based on 7.0 bar g operating pressure to provide overlap trajectories





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## 05 Product Details

Water connection:	2½" BS336 Instantaneous male connection
Minimum working pressure:	5 bar g
Maximum working pressure:	13.5 bar g
Nozzle angle:	70 deg
Oscillation speed:	7 cycles per minute @ 7 bar g
Dimensions (Operational):	H 1195mm x W 550mm x D 400mm, Nozzle outreach 817mm
Dimensions (Storage):	H 1195mm x W 550mm x D 400mm

## 06 Hose assemblies

EVICTOR requires connection to the ship's water supply via water hose suitable for pressure and flow. Knowsley SK are able to supply hose manufactured to DIN 14811:prEN 1924-1 / Cat. 3 and 4.

Fitted one end with a 2½" Instantaneous female gunmetal connection, the free end is open for the ship to fit the specific connection used on the vessel.

The hose is compatible with seawater, is of a reinforced construction and is resistant to abrasion, oil, fuel and a wide range of chemicals. Suitable for temperatures of -20 to 100 deg Centigrade. — Full details available on request.

## 07 Spares and Maintenance

Knowsley SK are able to offer a full care and maintenance facility for the EVICTOR, this would be a bespoke package tailored to the operators requirements whether on site or service exchange.

In addition Knowsley SK offers a full spares back up for the EVICTOR, from service items to major components available from stock.



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