



XFlow[®]

Fire Fighting System for Accommodation Areas

LOOKING FOR FAST AND EFFICIENT FIRE EXTINCTION? CHOOSE XFLOW® WATER MIST SYSTEM

XFlow® Water Mist System for accommodation areas is a state-of-the-art and highly efficient water mist system, that combines the greatest benefits of both the high- and low-pressure systems.

The central feature of the XFlow® system is its unique water mist nozzle, which spreads a combination of fine water drops and water mist when activated. This ensures a quicker and more reliable extinction of fires in accommodation areas than any other system can offer.

With the XFlow® Water Mist System, you will get the ultimate solution in this price range. It gives you a number of advantages not offered by traditional sprinkler systems, for instance:

- Low water consumption
- Low weight
- Reduced risk of clogging problems
- Low power consumption
- Very reliable
- Competitive fire protection system
- Newest technology





LOW POWER CONSUMPTION

The pump pressure of the XFlow® Water Mist System is similar to that of low pressure systems, and in combination with its low water consumption, it uses only some 30% of the power required for high pressure systems. A low power consumption is especially important in the event of retrofitting, as spare power resources on the emergency generator are usually limited.

LOW WATER CONSUMPTION

The water mist head has fire suppression and water distribution capabilities similar to those of high pressure systems – this means minimal water damage and a minimum of clean-up costs.

LOW WEIGHT – SMALLER PIPES

The XFlow® System uses smaller pipes than traditional water mist systems. In addition, the pump unit is lighter, so the total weight of the system is lower than the weight of both high-pressure systems and low-pressure systems. Furthermore, the pump unit requires less installation space, and the small dimensions of the pipes, the compact pump unit, tanks etc. make the XFlow® Water Mist System very suitable for retrofitting and installation easy during service of the ship.

DESCRIPTION OF THE SYSTEM

The XFlow® Water Mist System for accommodation areas consists of a number of water mist heads mounted in a wet pipe system. Each water mist head works completely automatically and independently.

When, during a fire, the temperature reaches a certain level – the water mist head will be activated. This means that the water mist is confined to the area(s) affected by the fire.

After the individual water mist head is activated, water flows through the system. This causes the pressure to drop and the pumps to start by means of a pressure switch.

When a water mist head is activated, an optical and acoustic alarm is tripped on the bridge by the section alarm valve.

The XFlow® Water Mist System is designed for freshwater use but may also be connected to seawater for backup operations. The system can also be connected to the fire mains for operation by fire pumps.

Typical installation of XFlow® Water Mist System for accommodation areas:



REDUCED RISK OF CLOGGING PROBLEMS

As a result of our extensive R&D, we have managed to make the opening of the water mist head much larger than the nozzle heads used for high pressure systems. This way we have eliminated the risk of the water mist head becoming clogged by impurities.

INCREASED SPACING

The water mist head is designed for wide spacing. This means that considerably fewer water mist heads are required for installation in order to protect the accommodation area. This in turn reduces the installation costs.

HIGHEST SAFETY LEVEL

Due to the low system pressure it is possible to operate the system by the ships fire main pumps.

USING STANDARD COMPONENTS

The XFlow® Water Mist System uses a low water mist head working pressure thereby minimizing the consumption of water. The pipe system components such as fittings, valves etc. are standard components, which means low installation costs and a minimum of maintenance expenses.

CONCEALED WATER MIST HEAD

The naval architects will love it; Danish design at its best!

The water mist head is concealed in the ceiling and it only pops up when it is activated. The concealed design will prevent vandalism or unintentional activation.

The visible part of the water mist head can be painted same colour as your ceiling, making the installation almost invisible.

Typical installation above ceiling where the flexible hose is connected to the pipe system.



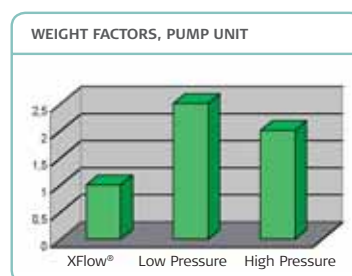
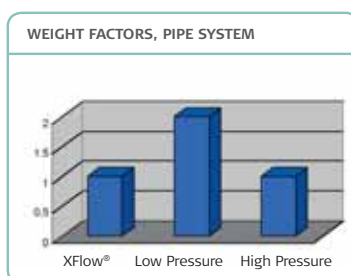
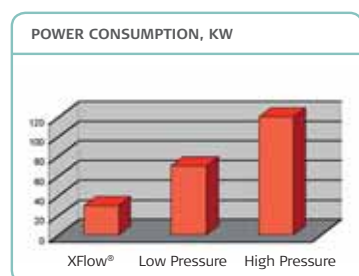


Comparisons between the water mist systems for accommodation

Here we have a comparison of our XFlow® Water Mist System and a typical low-pressure water-mist system, like our old LoFlow system, and a typical high-pressure system.

Comparison of power consumption and weight factors are shown in the schematical pictures below.

TYPE	XFLOW®	LOW PRESSURE	HIGH PRESSURE
Power consumption kW, approx.	30	70	120
Main riser pipe dimension	DN32-76	DN80-150	DN32- 60
Water mist head working pressure, bar	< 10	< 10	80 - 120
Pump maximum pressure, bar	16	16	80 - 140
Water consumption, L/min/m ²	1,5 - 2,0	3	1,0 - 1,6
Spacing, (public)	5 x 5	3 x 3	5 x 5
Water mist head installation	concealed	partly concealed	below ceiling
Space requirement factor:			
Pipe system	1	2	1
Pump unit	1	3	2,5
Weight factors:			
Pipe system	1	2	1
Pump unit	1	2,5	2



XFlow® – developed to meet your specific needs

CONTROL SYSTEM

In the event of fire in any part of the ship's accommodation areas protected by XFlow®, the alarm bell will sound on the bridge. The alarm on the alarm panel will light up indicating that the system has been activated in a specific section of the ship.

If an attempt is made to close one of the shut-off valves mounted near the alarm valve, a switch will activate the fire alarm. Consequently, these shut-off valves must always be fully open and only closed when one of the water mist heads are to be replaced or changes have to be made

in the systems. For such maintenance work, the alarm can be disconnected.

The starter/control panel for the pumps must be connected to the main power supply and emergency power supply pursuant to regulations.

COMBINATION OPTIONS

Novenco's Fire Fighting division offers a system for accommodation areas and machinery spaces, (local and/or full protection) with joint pumps and switchboard for all systems. This has the advantage of

a compact and a simple technical solution and easy maintenance for the crew. In addition, the XFlow® Water Mist System installed in machinery spaces can be activated without any risk to the health of the crew or to the equipment.

Novenco's Fire Fighting division has supplied XFlow® Water Mist System for accommodation areas and XFlow® Local Protection System for machinery spaces onboard the cruise ship; Queen of Scandinavia.





INSTALLATION

We offer an all-inclusive solution, complete installation and total approval.

Our partnership begins with a sales survey. Our engineers will come aboard your ship to map out your requirements, to see which equipment you need and what you already have on board. On the basis of our calculations, we will then draw up a budget for you. After this initial phase you can choose one of the following two solutions:

THE ALL-INCLUSIVE SOLUTION

This is a turnkey solution. We handle all equipment, installation and implementation – and we make sure all approvals necessary are obtained.

In other words, we deliver the total solution – all you have to do is approve the budget.

THE INDIVIDUAL SOLUTION

This option offers you the opportunity to work together with the installation crew. We deliver all design, approvals and equipment exclusive the pipes (however, these can be included if required). In short, you choose and we tailor-make a solution that matches your needs.

APPROVALS

Over the years, Novenco's Fire Fighting division has developed several systems that have all been approved by several national marine authorities and awarded type approval by a wide range of classification societies. Furthermore, Novenco's Fire Fighting division is certified according to ISO 9001 and the environmental management system is certified according to ISO 14001.

More information about the XFlow® Water Mist System

If you would like to know more about Novenco's XFlow® solutions, please contact our sales department for an informal conversation - no obligation.

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Novenco develops and manufactures ventilation and fire fighting systems that are marketed and distributed world-wide through subsidiaries and agents.

The company was founded in Denmark in 1947 and has become one of the worldleading suppliers.

Novenco symbolises quality and environmentally friendly products. The company is certified according to ISO 9001 and ISO 14001.

The headquarters of Novenco is located in Naestved, Denmark.

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Read more about Novenco on www.novenco.biz.