

A photograph of a coastal city skyline in the background, featuring a prominent skyscraper. In the foreground, a rocky breakwater structure is situated in the water. A curved barrier with orange and black floats is deployed in the water, with several yellow buoys. The sky is clear and blue. The image is framed by dark blue curved shapes in the top-left and bottom-right corners.

Water intake protection

Your preferred partner on the journey
towards a cleaner tomorrow

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Introduction to water intake protection

Water intake protection is a crucial aspect of managing water resources, particularly for facilities that rely on water from natural sources such as seas, rivers, or lakes. It involves implementing measures to safeguard the water intake systems from various contaminants and physical obstructions that could compromise the quality and availability of water.

The importance of water intake protection cannot be overstated. It ensures the continuous and safe supply of water for various processes, including cooling, desalination, and aquaculture. Effective protection measures prevent contaminants such as oil, debris, and sea life from entering the intake systems, which could otherwise lead to operational disruptions, increased maintenance costs, and potential health hazards.





Water intake protection is essential for maintaining the integrity and efficiency of water intake systems. By implementing appropriate protection measures, facilities can ensure a reliable and safe water supply, minimize environmental impact, and reduce operational risks.



There are four main types of water intakes that can be classed as follows:



1. Exposed Intakes

Exposed intakes are typically installed with direct access to the water body (without a canal or channel) these types of intakes offer little protection against sediment, sea growth, sea life or pollution incidents.



2. Canal Intakes

Canal or channel intakes are similar in their main design as the exposed intake above, however they are typically installed further inland and are served by a water intake canal. The canal is excavated from the main water body (sea) to the main intake. The canal provides greater protection against sea growth and sediment but are unable to provide against pollution incidents without additional equipment. The canals typically are lined with stones or armour rock type materials which can make clean up of pollution incidents extremely difficult and therefore, any pollution control equipment should be installed as near to the entrance of the canal as possible.



3. Submerged (Protected) Intakes

Submerged water intakes are becoming more popular with new build water intake applications. Submerged protected intakes typically have a moon pool type arrangement where submerged pipes feed into a holding area before the intake. They tend to offer greater protection for sea growth, sediment, sea life and pollution incidents and any additional requirement for pollution control equipment may be limited to recovery and/or sorbent materials.

4. Submerged (Unprotected) Intakes

Submerged (unprotected) intakes are similar to the above but with one crucial difference. These types of intakes typically have a network of parallel pipework from the onshore pumping station out to sea along the sea bed. These types of intakes can terminate slightly above the sea bed subsurface or may have an under water shaped intake to aid against sea life intrusion.

Lamor's solutions

Lamor offers a comprehensive range of specialized equipment designed to protect water intake systems and ensure the continuous and safe supply of water for various industrial processes. These solutions are crucial for facilities that rely on water from natural sources such as seas, rivers, or lakes, as they help safeguard the water intake systems from contaminants and physical obstructions.





Lamor's portfolio includes several key components for water intake protection:



Assessment study and contingency planning

Studying the likely scenarios and potential risks allows us to better understand what is needed to protect the respective scenario. This is the foundation for selecting the applicable tools.



Oil Spill Prevention and Recovery

Lamor provides equipment for deflection, containment, and recovery of oil spills. This includes permanent booms, which are installed to prevent oil from entering water intake channels, and offshore booms, which are robust and durable, suitable for various climatic conditions.



Heavy Duty Booms

Lamor offers heavy duty booms designed for plant perimeter security. These booms are permanent installations that require minimal maintenance, are resistant to extreme weather conditions and can withstand heavy debris concentrations.

Lamor's solutions are tailored to meet the specific needs of each facility, taking into account factors such as the type of water intake, the environmental conditions, and the potential risks. Lamor has extensive experience in providing oil spill response solutions to over 90 countries.

By implementing Lamor's water intake protection solutions, and services for maintenance and training, facilities can ensure a reliable and safe water supply, minimize environmental impact, and reduce operational risks. These measures are essential for maintaining the integrity and efficiency of water intake systems, ultimately contributing to the overall sustainability and safety of the facility.

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Let's clean the world

Lamor in brief

Lamor is one of the world's leading providers of environmental solutions. For four decades, we have worked to clean up and prevent environmental incidents on land and at sea.

Environmental protection, soil remediation and material recycling: Our innovative technologies, services and tailored solutions, ranging from oil spill response, waste management and water treatment to soil remediation and plastic recycling, benefit customers and environments all over the world.

We are capable of vast and fast operations thanks to our connected ecosystem of local partners, steered by our experts. Lamor's share is listed on the Nasdaq Helsinki (ticker: LAMOR). Further information: www.lamor.com