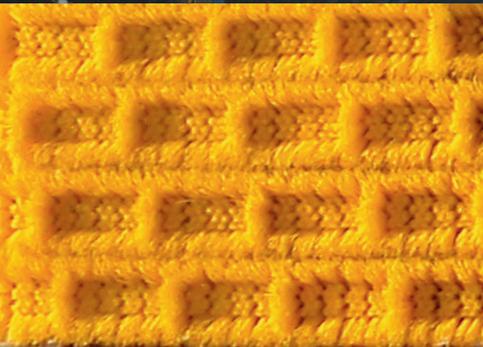




Product Reel

SOLUTIONS FOR SELECTED SCENARIOS



LAMOR
ENVIRONMENTAL SOLUTIONS

Lamor environmental solutions

Lamor Corporation, headquartered in Finland with strategically located offices, hubs and partners worldwide, is a global leader in oil spill response and environmental solutions for a wide range of scenarios and climatic conditions.

Lamor is committed to oil spill response, recovery and clean-up operations worldwide.

The extensive portfolio of products and services also includes industrial applications, soil & site remediation, oily sludge/hydrocarbon treatment, drill cuttings management, waste management, including treatment and disposal of hazardous and non-hazardous waste as well as waste water management.



Fast response line +44 207 754 0375

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PRO
DUCT
REEL

LAMOR
ENVIRONMENTAL SOLUTIONS



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About us

Lamor Corporation, headquartered in Finland, is the world's largest manufacturer of oil spill response equipment, and the only one that can handle every aspect of response operations, from risk assessments, planning, and training to crisis management, spill containment, and waste disposal. Beyond petroleum, Lamor is also able to treat and dispose of hazardous and non-hazardous waste.

Lamor is a global company, with strategically located hubs and offices on four continents. Yet, this family-owned corporation, founded in 1982, also has the spirit of a local company. This is because it relies on networks of local partners around the world for manufacturing, logistics, operations, and sales. Lamor is therefore able to provide a broad range of environmental solutions tailored to the unique requirements of each individual customer in any location.

This "globally local" approach enabled Lamor to play perhaps the biggest role of any such company during the response to the largest oil spill in history in the Gulf of Mexico in 2010. Drawing on its experience with governments around the world, Lamor worked intimately with the U.S. Coast Guard in planning and managing response operations. Meanwhile, relying on its manufacturing and logistics networks, Lamor delivered 70% of all equipment brought into the Gulf of Mexico region during the crisis. Moreover, Lamor identified, equipped, trained, and managed thousands of local people on hundreds of fishing boats in one of the largest vessel-of-opportunity efforts ever.

The Lamor Response Team has managed countless other oil spills around the world in every type of environment, from the Arctic (where

Lamor's expertise is unparalleled) to the Amazon. The company has sold oil spill response equipment in 120 countries, including delivery of more than 2,100 vessel-mounted oil recovery systems to customers worldwide. Everywhere it operates, Lamor adheres to the Nordic traditions of green technology.

"At the core of our corporate DNA lies a deep appreciation for the stricter environmental regulations, growing ecological awareness and commitment to corporate social responsibility that characterize today's industries around the world. Indeed, everything we do is about conducting safe, sustainable and environmentally friendly operations," says **Fred Larsen**, Lamor's CEO.



Lamor's ability to manufacture its own equipment and stockpile it in locations around the globe enables it to provide the most cost-effective and rapid responses possible. Companies from many industrial sectors can therefore outsource to Lamor their operations for environmental response and waste manage-

ment with confidence they will meet their obligations economically and in accordance with the highest international standards. We have tested and proven our expertise in industrial sectors that include oil and gas, mining, heavy manufacturing, petrochemicals, and transportation (e.g., ports, harbors and railways). Our clients include both private companies and governments.

For more information about Lamor, please visit our website on lamor.com



2008 CERTIFICATION
Quality Management Systems



2007 Occupational Health and Safety Management Systems



2004 Environment Management Systems

Oil Spill Response & Recovery

Whatever the scenario or environment, Lamor provides the right solution for the most efficient oil spill response. Lamor's product portfolio includes a complete range of capacity tested and certified skimmers, oil containment booms & reels, pumps, powerpacks, landing crafts, workboats, dedicated oil recovery vessels (including ice-class), temporary oil storage and ancillary equipment.

Arctic Applications Lamor offers an extensive portfolio of robust oil recovery applications designed for extreme Arctic conditions. The company's experience spans more than three decades in Arctic oil spill response (OSR), including co-operation with governments, environmental agencies, the oil & gas industry and maritime sector. Lamor has delivered OSR equipment to all countries operating in the Arctic as well as equipment for the most innovative icebreakers in the world.

Lamor Arctic recovery solutions cover all ice conditions and are remotely controlled, thus guaranteeing safe operations. Recovery systems are winterized with heated storage tanks.

Offshore and Shipboard Systems Lamor Vessel Mounted Advancing Oil Recovery Systems, based on the proven chain brush conveyor technology, offer the highest possible performance and safety for offshore oil spill recovery operations.

Deployment of the recovery system makes the entire vessel an oil slick processing system. Lamor's shipboard systems have been installed on over 2200 vessels and workboats worldwide.

In addition to shipboard systems, Lamor also offers a wide range of offshore skimmers and heavy duty oil booms.

Harbor, River and Shoreline Applications Containerized systems are custom-made to accommodate specific conditions. Each harbor faces different conditions due to location, currents, swells, tides and products handled. Our experience allows us to accommodate each harbor with the proper customized solution. Rapid response time is essential to perform effectively in river clean-up operations. Lamor offers specially designed, fast, current-resistant booms and high flow skimmers with debris-handling capabilities. Lamor beach and shoreline containment and recovery equipment have been designed to be simple and portable albeit durable and effective to use. The containerized response tools are available for any type of shoreline.

Industrial Applications The range of Lamor industrial solutions facilitate optimal oil recovery, fire hazard reduction and minimize aggressive release of odors as well as hydrocarbon emissions.

Soil & Site Remediation Lamor's land remediation solutions are designed for operations in deserts, swamps and marshes, as well as for areas with industrial pollution. Lamor also develops turnkey solutions for hazardous materials.



Lamor's ability to provide highly reactive and timely oil spill response solutions is supported by our global stockpiles of strategically located equipment and the growing network of response points.



Tier 1 For companies requiring short to medium term equipment rental, Lamor can offer a range of equipment to match all our clients' operational needs from our existing global stockpiles at highly preferential rates.

Tier 2 Tier 2 stand-by services may be offered either as a dedicated, or as a cooperative model in-country, with required personnel. Using equipment supplied through our global stockpiles, Lamor can cost-effectively provide response and recovery operations for onshore, nearshore and offshore spills, ensuring that clients can quickly and efficiently address emergency situations.

Tier 3 Lamor can offer global Tier 3 equipment and personnel using our extensive regional and international network of resources.

Accredited training provider

Lamor is well known as an industry leader in oil spill clean-up equipment design and manufacture using state-of-the-art research and development. As a natural extension of this role, since 2004 Lamor has offered a full suite of services related to the industry.

Lamor, an accredited and certified international training provider by the Nautical Institute in the UK in accordance with the Maritime and Coastguard Agency (MCA) standards, offers International Maritime Organization (IMO) OSR Responder training courses for levels 1-3.



Skimmers

Free-floating skimmers, for

- lakes, harbors inland < 30 m³ /h (132 gpm)
- harbor, nearshore, offshore 30-70 m³ /h (132-308 gpm)
- offshore > 100 m³/h (440 gpm)

Umbilical hose reel with skimmer

Vessel-mounted skimmers

Arctic skimmers

The Lamor skimmer portfolio comprises of skimmers for use in all scenarios and climate conditions, from the Arctic to the Amazon. Sizes/capacities vary from less than 30 m³/h (132 US gallons per minute) to shipboard systems of 560 m³/h (2,465 US gallons per minute). All Lamor skimmers are capacity tested and certified by Bureau Veritas.

In the following pages, we introduce our main product range in brief. For more detailed technical descriptions and specifications, please visit our website lamor.com, where you will also find contact information of your nearest Lamor representative.



Rock Cleaner (LRC), capacity: 9.7 m³/h (43 gpm)



MicroMax, capacity: 9.7 m³/h (43 gpm)



Manta Ray, capacity: 26 m³/h (115 gpm)



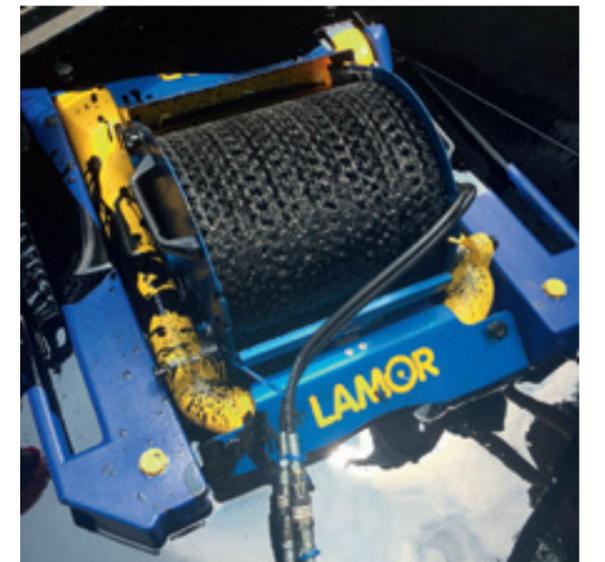
The Minimax 12 and Minimax 25 skimmers have both proven their excellence in Arctic conditions.

Skimmers Inland, lake, harbor <30 m³/h (132 gpm)

Lamor, a pioneer in oil spill recovery, invented and patented the brush wheel skimmer. This ingenious design is applied in the small portable Lamor Rock Cleaner, in free-floating skimmers as well as oil recovery systems for vessels. Lamor's skimmer portfolio also includes weir skimmers in all sizes and for various applications.



Minimax12 (MM12), capacity: 12 m³/h (52 gpm)



Mini max 25 (MM 25), capacity: 25 m³/h (110 gpm)

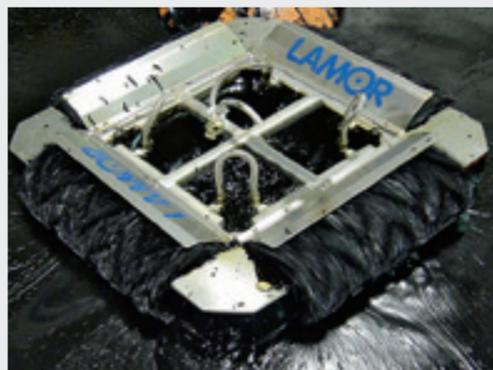
**Skimmers Harbor, nearshore, offshore
30-70m³/h (132-308 gpm)**

Lamor skimmers have proven their effectiveness and durability during several oil spills worldwide. The medium sized skimmers, with capacities from 30 m³/h to 70 m³/h (132-308 gpm), are designed to be used in harbors, nearshore as well as offshore e.g., deployed from vessels in a J/U boom configurations, as depicted in the photo to the right.

Weir skimmers are well-known for their capacity in recovering light oils, and to increase their effectiveness and rate of recovery for high viscosity oils, Lamor invented the Brush Adapter to be attached on the Weir skimmers.



Weirskimmer 500, capacity: 70 m³/h (308 gpm)



LWS 500/800 Brush Adapter



Minimax 50, capacity: 53.6 m³/h (236 gpm)



Multiskimmer (LMS 50/70), capacity: 271.5 m³/h (1,195 gpm)



Multimax 70 MK II (LMS 70 MK II), capacity: 75 m³/h (330 gpm)



Multimax 50 (LAM 50), capacity: 50 m³/d (220 gpm)

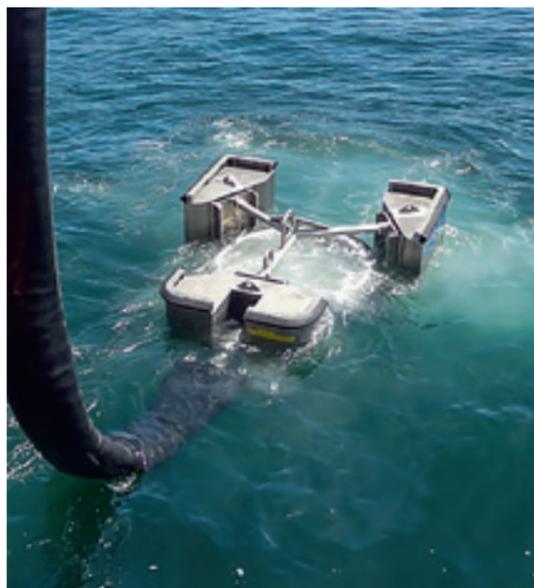
**Skimmers Offshore
>100 m³/h (440 gpm)**

The robust high-capacity free-floating skimmers are designed for especially offshore use, to be deployed either directly from a vessel or by using an umbilical hose reel. Lamor's offshore skimmer portfolio contains a wide variety of brush chain, brush wheel and weir type skimmers.

The Multiskimmer provides the user with several skimming options ranging from brush, disc, drum and weir, which are interchangeable, depending on the scenario and oil viscosity. Thus, the Multiskimmer can be utilized in offshore and Arctic conditions as well as in rivers, harbors and shoreline applications.



Free Floating 100 (LFF100), capacity: 111 m³/h (489 gpm)



Weir Skimmer 1300 Brush (LWS 1300), capacity: 360 m³/h (1,585 gpm)



Weir Skimmer 800 (LWS 800) capacity: 112.2 m³/h (494 gpm)



Umbilical Hose Reel 50-80/6''

Umbilical hose reel & skimmer

The LUT system consists of a robust hose reel designed for an umbilical hose, which includes hydraulic and oil transfer hoses, with an integrated telescopic lifting arm for deployment and operation of offshore skimmers. It is designed for harsh offshore and Arctic conditions, and is operated from a vessel or barge.



Umbilical Hose Reel 50-80/5''

Vessel-mounted skimmers

Lamor's edge over its global competitors lies in its unparalleled vessel-mounted advancing skimming systems. The shipboard skimming units provide the highest possible performance and safety for the oil spill recovery operations; hence side collectors and in-built oil recovery systems are in operation worldwide by coast guards and maritime agencies. In total, Lamor has delivered more than 2,200 vessel-mounted systems, including bow collectors and sweep systems.



Side collector / Side cassette (LSC)



Side collector / MiniBagger, capacity: 10 m³/h (44 gpm)



In-built Oil Recovery System (LORS)

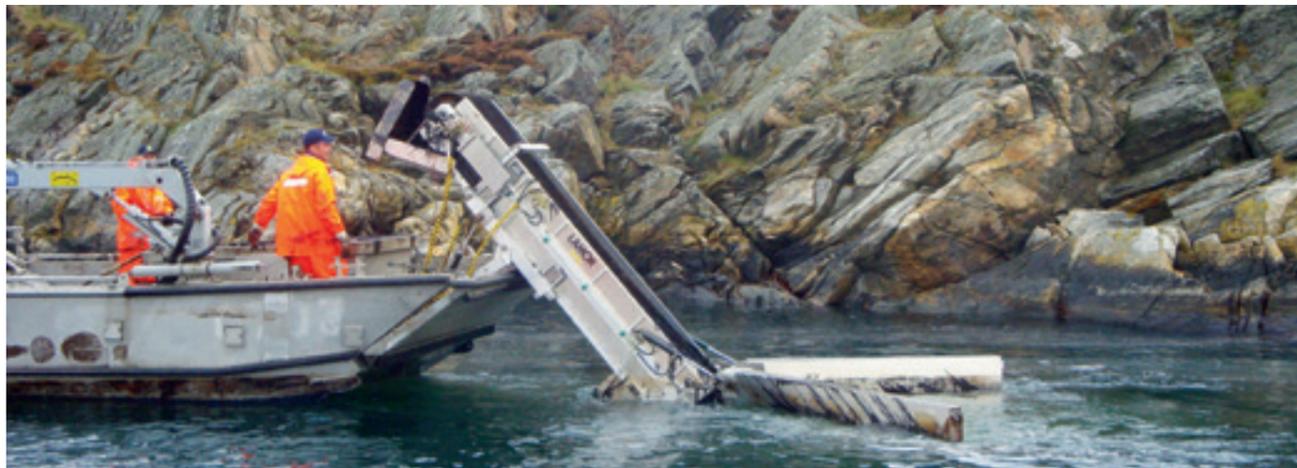


In-built Oil Recovery System (LORS)

Vessel-mounted skimmers



Side Cassette Recovery System (LSC)



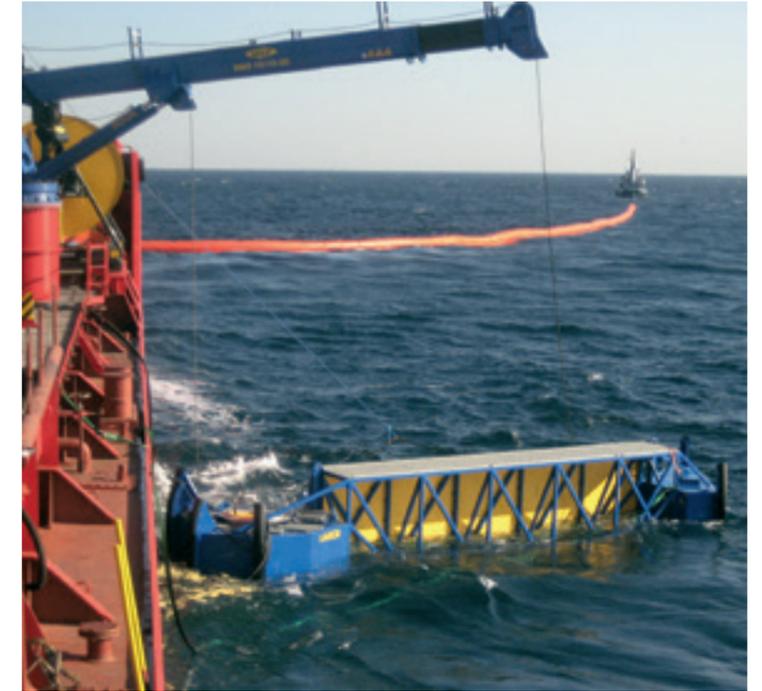
Bow Collector (LBC)
Photo: Swedish Coast Guard



In-built Oil Recovery System (LORS)



Stiff Sweep Systems (LSS)



Stiff Sweep Systems (LSS)



Stiff Sweep Systems (LSS)

Vessel-mounted skimmers

In-built Oil Recovery System (LORS)



In-built Oil Recovery System (LORS)



Bow Collector



Vessel-mounted Bucket Skimmer (LRB 150), capacity: 115 m³/h (506 gpm)



In-built Oil Recovery System (LORS)

Arctic Skimmers

More than three decades of proven excellence in Arctic oil spill response has resulted in an extensive portfolio of robust oil recovery applications designed for extreme Arctic conditions. Lamor has delivered OSR equipment to all countries operating in the Arctic, including oil recovery systems for the most innovative icebreakers in the world, e.g., the world's first LNG-powered icebreaker *Polaris* (Arctia, Finland) and the unique, oblique icebreaker *Baltika* (Sovkomflot, Russia).

The Sternmax is the world's largest skimmer, with a remarkable recovery capacity of 560 m³/h (2,465 gpm).

Lamor's Arctic oil recovery solutions are renowned for their safe operations, remotely controlled equipment, winterized recovery systems with heated storage tanks, and quick deployment time ensuring fast and agile recovery operations.



Lamor Recovery Bucket 40 (LRB 40), capacity: 19 m³/h (83 gpm)



Bucket skimmer (LRB 150), capacity: 115 m³/h (506 gpm)



Bucket Skimmer (LRB 250), capacity: 140 m³/h (616 gpm)



Sternmax, capacity: 560 m³/h (2,465 gpm)



Arctic Skimmer 125 (LAS 125), capacity: 125 m³/h (550 gpm)

Industrial Process Skimmer

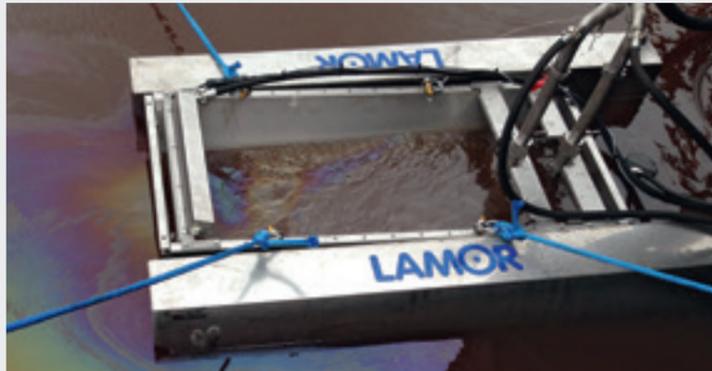
The Industrial Process Skimmer (IPS) is an oil recovery unit for industrial and process plant oil recovery. The unit is designed for removing oil and oil sheen, including other floating products, from the process plant tanks.

The oil from industrial processes or hydraulic oil leaks is collected to the skimmer head with the flow created by an electrically driven propeller unit. The speed of the propeller is easily adjusted from the control panel. An air blade is used to help trap the oil inside the skimmer head before removal by the air operated ejectors. All oil from the process is collected and trapped to the skimmer head and therefore no oil escapes through the system and all oil wastage is eliminated.

There are three variations of the IPS; it can be equipped with either a brush wheel, a weir or disc.



Industrial Process Skimmer deployed at a steel plant



Industrial Process Skimmer Brush Wheel (IPS BW)



Industrial Process Stainless Steel LAM 12 Skimmer



Industrial Process Skimmer Air (IPS A), capacity: 9.7 m³/h (43 gpm)

Industrial Booms

Industrial booms, also often referred to as Baffle systems, are ideal for use in wastewater lagoons and industrial reservoirs in all climatic conditions. Baffles can be used to divide the basin into cells to provide progressive treatment of water and waste by creating a serpentine flow pattern. By increasing the retention time, the baffle systems allow solids and other contaminants to settle to the bottom of the lagoon, reservoir or tank, before the water leaves through the effluent.

The durable construction of the Lamor baffle system has marine growth inhibitors and is UV resistant. The Clearwell Floating baffle system is ideal for industrial equipment sewage treatment ponds and pools.

The Silt Curtain is designed to be used with a conventional containment boom when the problem is the presence of sediments drifting in the water, caused by dredging or other type of construction work in a port, harbor, river or lake. These materials are often drifting at a greater depth than usually covered by the skirt of a containment boom.

Hose Floats

Lamor offers a range of hose floats in both solid and flexible models.



Silt Curtains



Baffles deployed in ice conditions



Hose Floats



Baffle System

Power Packs

**Diesel
Electric**

Lamor's power pack (LPP) portfolio comply with regional emission classes. Sizes/output vary from portable 3.5 kW (4.7 hp) to high-capacity multipurpose power sources of 200 kW (268 hp), in both diesel and electric models. The smaller sizes < 20 kW (27 hp) represent a light-weight, easily portable power source for Lamor skimmers and smaller hydraulic equipment, which can be operated in distant locations, whereas the larger hydraulic power packs are designed for flexible operations of several oil spill clean-up units simultaneously.

Diesel Power Packs Wheel < 20 kW (27 hp)

The mobile diesel/hydraulic power packs that are mounted on wheels, have proven their effectiveness, durability and low maintenance at numerous spills in remote regions ranging from pipeline ruptures in tropical rainforests to Arctic regions. Even the LPP 19L is a light-weight, easily portable power solution for hydraulic equipment, such as skimmers, boom reels, air blowers etc. that can be operated in remote locations.



Lpp 6 C75, power: 5.4 kW (7.2 hp)



LPP 3.5, power: 3 kW (4.7 hp) (and Minimax 25)



LPP 14, power: 14 kW (18.7 hp)



LPP 19, power: 19 kW (25.5 hp)

Diesel Power Packs < 20-90 kW (27-120 hp)

The hydraulic power packs are used as power sources for skimmers and other hydraulically operated equipment such as boom reels, pumps etc. Equipped with 2 hydraulic circuits, the power pack can power multiple pieces of equipment simultaneously, for example skimmers, cranes and oil transfer pumps. It can also be connected to a Lamor control panel to facilitate and ensure flexible operation of several oil spill clean-up units simultaneously. The power packs are contained within steel frames designed for protection and to ensure good air circulation for the diesel engine.



LPP 35, power: 35 kW (47 hp)



LPP 56 (1.0-1.5-2.9 hp)



LPP 60 EX

Diesel Power Packs < 100-200 kW (134-268 hp)

Multipurpose usage, combined with increased efficiency and reduced emissions characterize Lamor power packs that provide an output higher than 100 kW. For safety reasons, the hydraulic power packs are equipped with an automatic shut-down system in case of malfunction. The diesel engines comply with required emissions standards, and all power packs comply with regional emission classes and emission certificates are available for all models.

Electric power packs are available in both EX and non-EX versions for sizes ranging from 0.75 kW to 90 kW.



LPP 200 (268 hp)

Electric Power Packs < 100-200 kW (134-268 hp)



LPP 0.75 -1.1- 2.2 (1.0 -1.5- 2.9 hp) Electrical non-EX



LPP 2.2-7.5-11 (2.9-10-14.75 hp) Electrical both EX and non-EX versions



LPP 90 EX (121 hp)



LPP 90 E (100-148 hp)



LPP 22 E (29.5-40.2 hp)

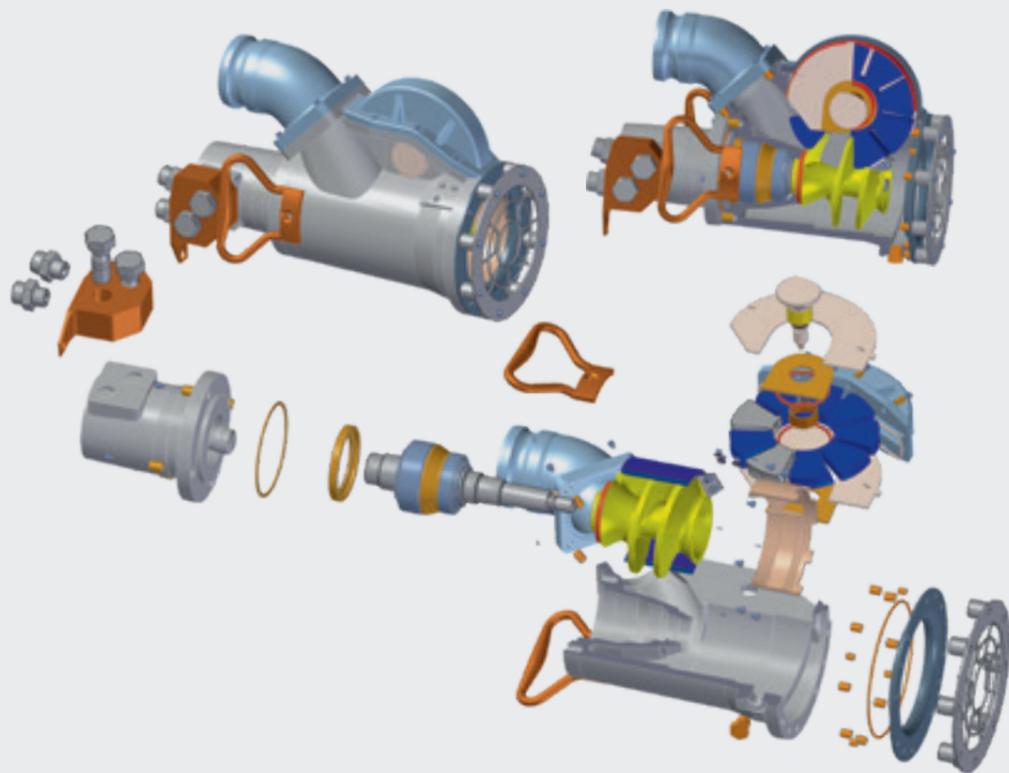
For more detailed information, please download the technical specifications for individual power packs from our website lamor.com.

Pumps

Centrifugal Pumps
Archimedes Screw Pumps
Rotary Lobe Pumps
Peristaltic Pumps
Membrane Pumps

Lamor has developed its own portfolio of oil transfer pumps, the GTA Archimedes Screw Pumps. The GTA pumps have proven their superior quality and capacity in oil spill recovery operations and as offloading pumps in ongoing use. Pump models and capacities vary from 20 m³/h to 140 m³/h (88 gpm–616 gpm) and operate in temperatures ranging from -20° to +60°C (-4°–140 °F)

Lamor continuously upgrades and invests in R&D to have state-of-the-art equipment that are efficient and effective for all types of operations. Many Coast Guards' multipurpose vessels are equipped with Lamor's GTA pumps, and to prevent any possible pitting or crevice corrosion on the permanently mounted pumps, the stainless steel version was developed to replace the aluminum offloading pumps.



Stainless Steel GTA Pumps

The stainless steel GTA pumps are designed for long exposure to chemical or saltwater and not painted, thus keeping their flawless looks over time. The stainless steel pumps complement the aluminum range and there is a strong market potential for industrial heavy duty usage for this range of pumps.

GTA ATEX Series

All GTA pumps, aluminum and stainless steel versions, are built for superior performance in harsh climatic conditions as well as for industrial applications.

Lamor has developed a GTA ATEX Series for pumping applications in potentially explosive atmospheres. Lamor ATEX certified pumps comply with the technical and safety requirements of directive 2014/34/EU.



GTA 20-30, 50-70 and 115-140



SS GTA 50 Pump



GTA 50 Pump



MPS 100,150, 300



Lobe pump VX



LIP pump

Pumps

In addition to its inhouse developed and manufactured portfolio of GTA oil transfer and offloading pumps in stainless steel or aluminum, including the ATEX series, Lamor can also offer a variety of pumps with technical characteristics and capacities suitable for different applications, locations, scenarios and climatic conditions. Lamor's global team of engineers specializing in oil spill response can recommend the best suitable pump solution and choose between different models representing Archimedes Screw GTA pumps, Centrifugal MPS, Rotary Lobe Vogelsang pumps, Peristaltic LIP including EX pumps, Membrane Spate C75 pumps, including PD 75 hydraulic and diesel as well as Self Priming oil transfer pumps LSPS 330.

Vacuum Systems

Lamor has developed a variety of vacuum solutions for efficient oil spill clean-up operations on site, on the ground, for soil treatment and land remediation projects. The standard vacuum systems can also be supplied with temporary storage for the recovered oil. The vacuum systems can be containerized or trailerized, and are operational in remote locations, in all scenarios and climatic conditions, including Arctic.

The MiniVac system is light and easy to handle, making it ideal for any responder in clean-up maneuvers on land or even in Arctic conditions.



MiniVac



Vac Standard



Vac Tank

Hose Reels

In any oil spill recovery operation, there will always be many various types of different hoses; oil transfer hoses, hydraulic hoses etc. For easy storage, maintenance and operation, Lamor has engineered a whole range of hose reels ranging from manual reels to hydraulically operated large reels with swivels.

The Hose Reel Swivel LHR L 1815 9 together with the Lamor 80 m (262 ft) hose package is an effective unit for hose handling of medium, large and offshore skimmers on vessels or barges. With the integrated swivel, the skimmer can be powered by hydraulics in use during deployment and retrieval without having all the hoses deployed from the reel.

The reel frame is manufactured from high quality marine grade coated steel. The spool is made of marine grade aluminum and has an integrated nine hydraulic channel stainless steel rotary swivel. The spool is rotated with a high torque hydraulic motor gear package. The reel can be lifted securely from the fork lift channels or from the dedicated lifting points located on the frame. The reel is designed to fit inside a container and can be locked and secured by either the dedicated lashing points or the built in ISO container corners. The reel can be fitted with rotation control valve on the reel (optional, not included).

The hose package consists of nine hydraulic lines and discharge hoses that are wrapped in a PVC covered hose float. The hose float can easily be opened and closed for maintenance.



Hose Reel L 1815 CH Swivel (LHR L1815 S)



Hose Reel as part of a containerized system



Hose Reel

Dispersant System

When a maritime oil spill incident occurs, we prefer to use mechanical containment and recovery of the oil. However, in some occasions, this is difficult when sea conditions are too rough or when the size of the spill is very large, and thus dispersants are often used as a complementary tool to mechanical oil recovery methods.

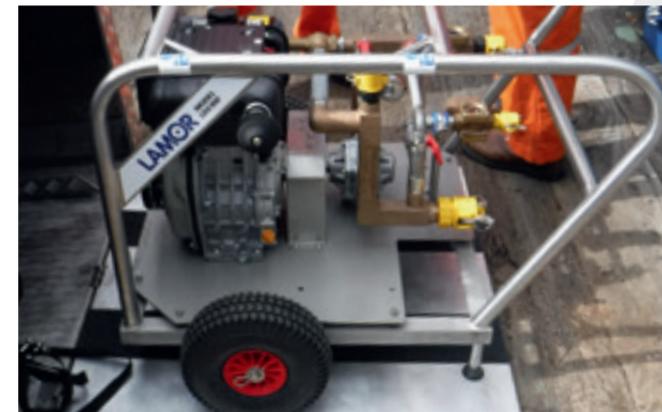
Spilled oil tends to float on the surface of water in slicks. Treating a spill with dispersants allows very small droplets of oil to form, which then become distributed and diluted below the water's surface. This enhances the access of microbes to the oil, thus increasing the rate of degradation. This process of bio-degradation is much enhanced when the oil is dispersed into small droplets.

Lamor promotes two efficient, easy to use dispersant systems; the diesel LDS 50 - 200 and the electrical LDS 50 - 150.

We can help you design the most efficient dispersant spraying solution, including retractable spray arms and pumping systems equipped with control valves and flow meters.



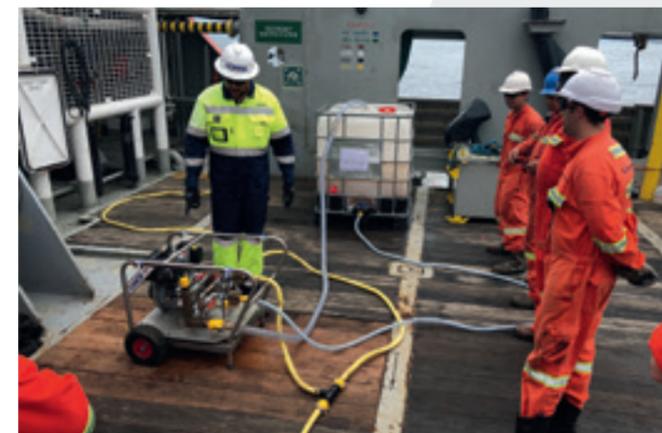
Containerized Dispersant System



Lamor Dispersant System - Diesel LDS 50-200



Deployment of dispersant system onboard vessel



Lamor Dispersant System - Electrical LDS 50-200



Deployment of dispersants from vessel

Booms and boom storage

Foam Filled Booms
Solid Flotation Booms
Permanent Fence Booms
Inflated Booms
Beach Sealing Booms
Rapid Boom Packs
Boom Reels & Racks
Air Blowers & Accessories

When an oil spill occurs, it is imperative to first contain the spill as rapidly as possible before recovery operations start. For this purpose, Lamor can offer the right oil containment boom for any scenario or climatic condition, incl. storage, i.e., reels and racks, as well as all required accessories, air blowers etc. The following pages give a short introduction to Lamor's boom portfolio, more detailed information can be found on our website lamor.com



Permanent Fence Boom, height: 460-910 mm (18-36 in)

Foam Filled Booms

The characteristically red Foam Filled Boom (FOB) is engineered for rapid deployment, and it is light weight, robust and easy to handle. The FOB is well suited for emergency deployment or permanent use in harbors or oil terminals. It is available in sizes varying from 350 - 1500 mm in height.

Solid Flotation Booms

The Solid Float Oil Boom (SFB) is a light-weight and cost-effective boom solution that can be deployed in multiple environments e.g. industrial sites, rivers, harbors and other calm waters. The SFB is manufactured from high visibility PVC and is easy to deploy and recover. The cylindrical floats inside the boom are made of closed cell foam. The SFB is one of the most widely utilized floating containment booms due to its cost-effective construction, rapid and easy deployment and multiple usage areas.



Foam Filled Boom, height: 350-1500 mm (14-59 in)



Solid Flotation Boom, height: 360-920 mm (14-36 in)

Inflated Booms

Lamor's portfolio of air inflated oil containment booms consist of a range of booms in various sizes and materials pending usage and scenario. The Inflatable Light Boom (ILB) is manufactured in PVC/PU and Neoprene and comes in sizes 500-1200 mm. The ILB can be stored on reels and is rapidly deployed by only two operators; typically 250 m in 15 minutes.

It is reusable and easy to clean using the Lamor Boom Washing Machine.

The Heavy Duty Boom (HDB) meets all the demands of an offshore boom. It is manufactured by vulcanizing two layers of synthetic fabric with oil resistant rubber as outer layer, which is also UV resistant. Inflation of the HDB is quick due to the patented Lamor F1 air valve and Lamor Air Blower. Sizes vary from 900 to 2000 mm.



Heavy Duty Boom - (Rubber & Neoprene), height: 900-2000 mm (35-79 in)

The AutoBoom and UniBoom are Lamor's leading Single Point Inflation Booms. Their unique design enables storage of up to 600 m on a compact reel. As the boom is deployed from the reel, it is automatically inflated from a single air source, enabling unparalleled rapid deployment offshore. Upon inflation, the internal design automatically separates the flotation chambers.

Beach Sealing Booms

Beach Sealing Boom, also called the tidal seal boom, is a specialty boom that is used to seal the critical area between the shore and the water. It consists of three chambers; the bottom two chambers are filled with water and the upper chamber is filled with air. When the tide is out, the water chambers seal against the beach/water interface. As the tide rises, the boom lifts off the beach/water interface and performs as a normal boom.



Beach Sealing Boom, height: 550 mm (22 in)



Uniboom X, height: 1900-3000 mm (75-118 in)



Inflatable Light Boom (PVC/PU & Neoprene), height: 650-1650 mm (26-65 in)



AutoBoom (PU & Neoprene), height: PU 550-1820 mm (22-60 in), Neoprene 970-2000 mm (38-79 in)



The FOB can also be deployed in ice conditions



Hydraulic Storage Reel



Foam Filled Booms stored on racks, in a container



UniReel



Boom recovery unit



Rapid Boom Bag on Storage/Transport Skid



Rapid Boom Pack



Boom Washing Units (Over the side and on land)



Diesel driven air blower DAB 200

Rapid Boom Pack

The boom pack enables a rapid response, it can be towed by a vessel of speeds up to 20 knots. After usage, the boom is re-packed in its deployment ready pack for future use. The solid float boom is stored in its dedicated deployment ready pack. When deployed, it is pulled by a boat or vessel directly into the water for towing; 150 m of the boom is discharged in less than a minute. The boom pack is stored and transported on an aluminum storage/launch chassis that can be lifted by truck and transported on a trailer. dredging or other type of construction work in a port, harbor, river or lake. These materials are often drifting at a greater depth than usually covered by the skirt of a containment boom.

Oil storage

Floating Bladders
Oil Storage Barges
Temporary Storage On-land

In all oil spill response operations, temporary storage of the recovered oil plays an important role in the efficient clean-up operations before the oil is transported further for processing for reuse or disposal. For this purpose, Lamor can offer a variety of solutions for use on-land or deployment at sea.

Inflation and deployment of the oil storage barge can be conducted in less than an hour by two persons utilizing e.g. a Lamor air blower. Its towing speed is 10 knots when empty and 4.5 knots when loaded.



Collapsible oil storage tank, LPP 6 C 75 and Minimax 12 skimmer

On-land

The Lamor Collapsible Tanks fulfill the basic need to temporarily store recovered oil on site. The modular storage tanks are highly flexible for storing recovered oil in remote locations and they can quickly be erected for instant operational use and disassembled compactly for transportation and storage.



Floating Oil Bladder LFT

Floating Bladders & Oil Storage Barges

The floating storage tanks, or bladders, have a low draft, which make them ideal for temporary storage in confined areas such as estuaries and rivers. Lamor offers a range of bladders, with storage capacities from 5-100 m³ (176.6-3531 ft³). Depending on the operational requirements, the oil bladders can be towed alongside or behind a ship. They can be deployed manually and be ready to use in less than five minutes.

The inflatable barges have storage capacities ranging from 10 m³ (353 ft³), 25 m³ (883 ft³) to 50 m³ (1766 ft³). They are durable, long lasting and manufactured from hypalon neoprene fabric enabling deployment in extreme climatic conditions and temperatures while giving the barges an exceptional resistance to hydrocarbons

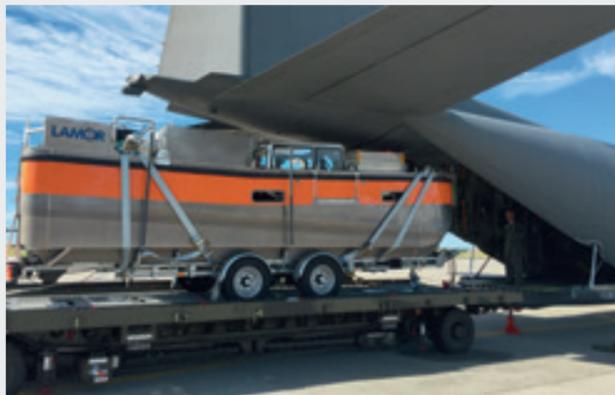


Oil Storage Barge

Vessels

& Workboats

Lamor's portfolio of workboats ranges from landing crats to ice-class oil recovery vessels. One of the latest additions are the very popular multi-purpose shallow draft vessels designed for safe oil spill recovery operations in coastal waters as well as open sea under adverse weather conditions. Dedicated oil recovery vessels designed and manufactured by Lamor are in operation world-wide, e.g., in the Arctic Pechora Sea or the Caribbean.



Ultra Shallow Workboat loaded on Hercules aircraft

Workboats

The ultra shallow draft vessels have specially fitted side cassettes with a recovery capacity of 20 m³/h (88 gpm) and all tanks have oil bag inserts for easy disposal of recovered oil. The landing crafts are also engineered to serve as workboats in other tasks and operations as well as support for other vessels. The vessels are easy to transport on their own trailers and two of the smaller 7.4 m (24.3 ft) vessels can also effortlessly be loaded onto a Hercules C-130 aircraft.



Ultra Shallow Draft Workboat



Ultra Shallow Draft Workboat equipped with side cassette for oil recovery





Boom Towing Boat BTW



Landing Craft LC 9000



Landing craft LC 7500



Shallow Draft Vessel LWO

Containerized Systems

Lamor produces a wide range of steel and aluminum containers that is developed based on years of experience on-scene in oil spill response operations. The container is adapted from a new build certified for sea transport 20 foot ISO container for easy deployment offshore. In addition to transportation of the equipment, the container is especially designed for storage and deployments of OSR equipment. From tropical harbors to the challenging Arctic, Lamor has the optimal containerized solution that can be fully customized to any scenario or climatic conditions.



Containerized system

Container 20 ft with side and end doors

The containers can be equipped with several door access options, retractable roof, hydraulically operated floors, air conditioning, heating and a wide variety of different furnish options.

A typical containerized system for offshore use contains Heavy Duty Oil Booms on a reel, a Multiskimmer LMS 50/70 with brush modules, a GTA 50 oil transfer pump, a hydraulic power pack LPP 56, a hydraulic air blower HAB 200, and necessary ancillary equipment, hoses, spare parts etc.



Fast deployment of containerized system



Trailerized oil spill response equipment



Containerized Solution for Heavy Duty Oil Boom HDB 1500



Containerized solution incl. power pack, hose reel and hydraulic control set for skimmers



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