

MOSKITO®



OIL REMOVAL FROM SUNKEN SHIPS

In a safe, field proven, cost effective and predictable way



- ROV OR DIVER ASSISTED
- LIGHTWEIGHT AND VERSATILE
- 300 M SYSTEM DEPTH RATING
- MAGNETIC ATTACHMENT
- ELECTRICALLY DRIVEN
- PRECISE AND ACCURATE



The patented Moskito® is a compact and versatile tool for oil removal from sunken or otherwise damaged vessels. It's based on an electromagnetic tripod, which enables it to attach to flat or curved surfaces without the need for hot work or penetration of the hull plate.

Moskito® Unit

The Moskito® is an electric, remotely operated hot tap tool developed for recovering hydrocarbons from sunken vessels. Using patented technology, three steps are combined in one machine and performed as one continuous and uninterrupted operation. This involves securing the machine to hull, drilling drain holes for inlet and outlet, and fastening valve and hose connection.

The entire process is performed and monitored from a surface laptop. ROV's or divers are only used to position the tool on the wreck, open and close the valve and connect hoses if required. The Moskito® is secured to the hull using three powerful electromagnets. The tripod legs are controlled individually with high precision, allowing the operator to align the machine accurately on curved or uneven surfaces.

The light-weight umbilical is suitable for medium water depth, without the need for any tether management system. For greater depths, the Moskito® can be run directly via the ROV.

Drill Unit

The Drill Unit is at the heart of the machine. The operator controls rotational speed and feed speed during the drilling process. The special drill bit design latches onto the shell plating immediately after penetration. When the Moskito® is released from the hull, the Drill Unit remains firmly in place. The drill bit can be opened and closed by a valve and an ROV hose connection. Once the hose is connected to the Drill Unit, the valve can be opened and the oil is pumped to the surface.



MOSKITO® SPECIFICATIONS

WEIGHT IN AIR

115 KG

L X W X H (WITHOUT CAGE)

830 X 600 X 500 MM

POWER REQUIREMENT

230 V AC
600 WATT

DRAIN HOLE DIAMETER

4 INCH

WEIGHT IN WATER

0 – 50 KG

DEPTH RATING

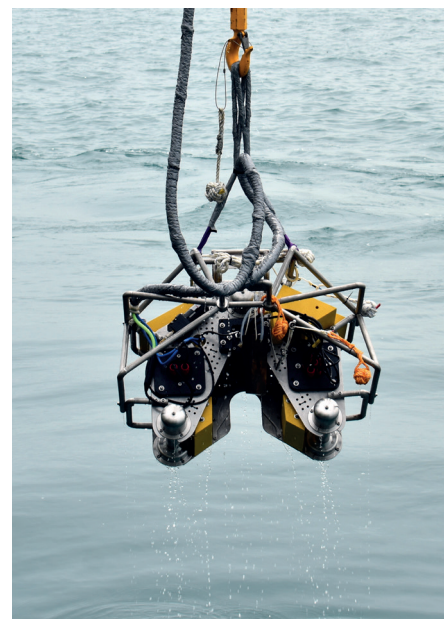
300 M

TYPICAL DRILLING FEED SPEED

0.5 MM/MIN

STEEL THICKNESS

UP TO 25 MM





Pump Unit

Heavy oils, deep water, low temperatures and highly viscous fluids impose extreme demands on the pumping system. Miko's heavy-duty pumping spread utilizes a positive displacement pump submerged onto the wreck as close as possible to the tapping location. The pump can lift fluids of any viscosity, ranging from diesel to heavy fuel or crude oils.

The suction hose is equipped with a coupling that is stabbed onto the Drill Unit. The automatic latching system, along with the robust and simple release mechanism, makes the connection and disconnection an easy task for both divers and ROV. The pump is run by an electric motor which is controlled through a frequency converter on the surface. The control panel gives direct feedback of the power consumption at any given moment. This enables the crew to maximise the pumping speed to the conditions at hand while the power consumption indicates whether the pump is lifting seawater or oil. The amount of water pumped is thereby kept to a minimum.

The oil is pumped into a tank chosen specifically for the task, such as ISO tanks on deck, or the surface vessel's internal tanks. At extreme depths, submerged tanks may be considered.

Qualifications and references

The Moskito® is developed with financial support from the Norwegian Coastal Administration and has successfully been used in oil removal operations in Chile, the Singapore Strait and off the Swedish coastline.

PUMP CHARACTERISTICS

WEIGHT IN AIR

330 KG

L X W X H

1350 X 800 X 800 MM

POWER REQUIREMENT

17.5 KW

WEIGHT IN WATER

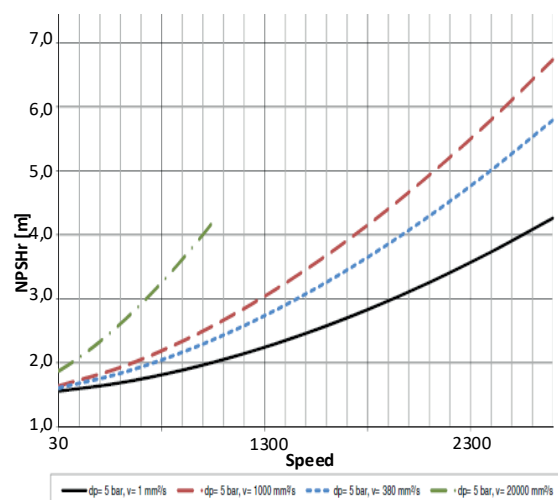
0 KG

DEPTH RATING

300 M

MAX. FLOW

50 M³/H





mikomarine.com