FEB-I

FLEXIBLE FILTERING ENVIRONMENTAL BARGES

MODULAR, FLEXIBLE, AND EASY TO CONFIGURE

FLEX-FEB

EMERGENCY RESPONSE

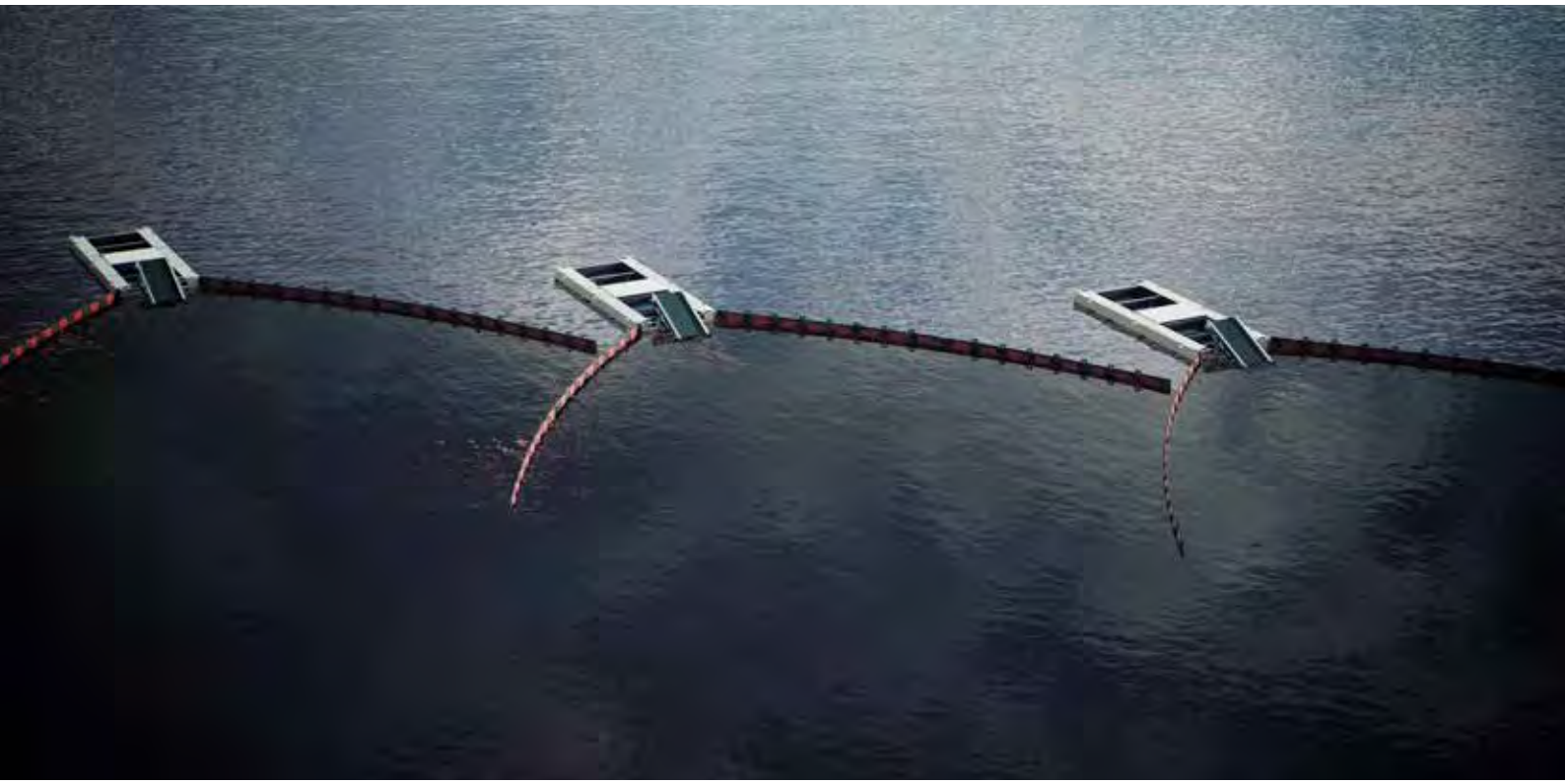
FLEX-FEB defines a good emergency response as *an effective set of measures with a short response time*. To meet this, an effective emergency response must consist of three elements:

- The right equipment for the task.
- Operating personnel trained to operate the equipment.
- Short response time.

All three elements must be present for an emergency response plan to work.

FEB-I ADDRESSES THESE CHALLENGES

FEB-I is suitable and efficient for any emergency response task on water, and compared to conventional emergency equipment, FEB-I is significantly cheaper, yet so intuitive and easy to operate that it requires only a brief instruction to operate. Because FEB-I is independent of a mother ship it can be stored locally, and easy handled and transported. Therefore the response time is substantially reduced.



THE FLEXIBLE ENVIRONMENTAL BARGE

FLEX-FEB has developed and built the world's first Flexible Filtering Environmental Barge, the FEB-I, which provides a unique on-site collection and filtration capacity for the protection of the marine environment.

In one single operation, the FEB-I can collect oily water (and/or other waste) from the surface, filter the water and return the cleaned water to the sea. In addition, the barge can effectively store the collected oil until it can be pumped to a tank farm and recycled.

The filtering environmental barge is modular, flexible and can be easily configured to meet individual customers' needs.

The FEB-I is always ready for use, because it is maintenance-free as it is made of seawater-resistant aluminium. The skimmer is powered by two large lithium batteries that are encapsulated in the pontoons.

WHEN SHORT EMERGENCY RESPONSE TIME IS ESSENTIAL

Four FEB-I stacked inside a transport cradle have the same dimensions as a 20 ft ISO shipping container, and as such the FEB-I module can be stored, transported and handled anywhere in the world with already available standard equipment – within a very short time.

The equipment can be deployed as a stand alone unit directly from the shore, from a port, at sea from a larger vessel or from a helicopter – depending on the scope of the task and the geographical location.

This illustration is a reconstruction of a live scenario from SEP 2024, where the ship Adolf Jensen ran aground near Nanortalik in South Greenland and sank with 20 tons of diesel oil on board.

OPERATING THE FLEXIBLE FILTERING ENVIRONMENTAL PROTECTION BARGE

In the event of an oil pollution scenario, caused by e.g. a collision, grounding or the like, immediate action must be taken by deploying oil booms to prevent the oil from spreading and/or reaching the coast.

Oil booms can be deployed by larger or smaller vessels, depending on weather conditions and availability, and held in a static position with anchors, or moored to fixed points on shore. The oil booms may also be held in dynamic position by means of vessels. Oil booms are affected by wind, current and sea, and the oil boom will most often form an arch / curve where the oil accumulates.

The Flexible Filtering Environmental Protection Barges can be towed to the oil boom from the leeward side of the boom and with oil skimmers (regardless of type) collect the oil from the surface on the windward side of the oil boom.

The barges' on-site filtration capability enables collection of large quantities of oil-mixed water from the surface and concentration of the oil in the barges, which enable the limited tank capacity available to be used for storage and transport of oil – and not large quantities of water!

OPERATES IN BOTH SHALLOW WATERS, LAKES, RIVERS AND OFF-SHORE

The distinctive feature of the Flexible Filtering Environmental Barge is a constant draft regardless of the load condition. Furthermore, the payload capacity consists of close to 100% oil, whereas storage tanks onboard a conventional environmental protection vessel is typically utilized less than 20% (the rest is water).

When deploying a number of FEB-I in the shallow water zone, a relatively large collection and payload capacity can be easily achieved at short notice.

THE BARGES CAN BE USED FOR SEVERAL PURPOSES

The main purpose of the environmental barges is to be an effective tool for oil spill response both off-shore and in shallow water, but the barges can also be used for several other purposes, such as collection of seaweed / eelgrass close to the shore – read more at www.flex-feb.com or study the product sheets.

Making the Flexible Filtering Environmental Barges available to voluntary organizations, e.g. naval home guard or rescue personnel, ensures a routine and familiarity with the equipment, which will be invaluable when the barges are to be deployed in a live scenario.

FLEX-FEB is continuously developing additional functional equipment to be used with the barge.

IN BRIEF FEB-1 BARGE PROVIDES SEVERAL ADVANTAGES:

- Short response time
- Easy transport and handling – 20 ft container format, fits into commonly available transport and handling systems
- Easy operation – does not require specially trained personnel
- Can be used for several purposes
- Low CapEx
- Low OpEx

FLEX-FEB's basic idea is to be a Centre of Knowledge for maritime environmental protection, as well as developing and offering functional equipment for maritime environmental protection.

OUR MISSION

We enable authorities and companies to collect polluting elements from the surface of the water, primarily in shallow waters, in a simple and cost-effective way, by offering a flexible and easy-to-use environmental protection barge with additional functional equipment and services.

OUR VISION

We want to be the credible and preferred partner in combating oil pollution in shallow waters, and we will deliver cost-effective and easy-to-use solutions with "on-site" filtration capacity all over the world.

FLEX-FEB ApS is registered in Denmark and owned by Jens Walther and Erik Schmidt; both of whom are former officers of the Royal Danish Navy.

FLEX-FEB

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