



**DUTCH INNOVATION**  
in combating oil pollution

## COMPACT 502

Containerized self-deploying  
sweeping arm system



### General

Dimensions: According 20 Ft container  
Total weight: 9950 kg  
Preservation: Four layer offshore coating  
Others:  
- Stability outriggers with jacks  
- Storage box for towing rope, bridle and chains, hoses and fittings  
- Tarpaulin

### Oil recovery system

Rigid sweeping arm: Compact 5 m  
Skimmer: Weir type skimmer (optional: brush, disk or drum)  
Skimmer pump type: Submersible screw centrifugal impeller pump  
Skimmer pump capacity: 150 m<sup>3</sup>/hr.  
Weight: 1300 kg  
Dimensions: 5.3m x 2.3m x 1.6m (l x w x h)  
Wind force: Max. 6 Beaufort

### Powerpack

Diesel engine: Spring started.  
Power: 36,5 kW at 2150 rpm  
Hydraulic pumps: Main: 64 l/min at 290 bar  
Variable displ. pump - LS  
Pilot: 12 l/min at 30 bar

### Crane

Lifting capacity: 1300 kg at 6,1m (offshore)



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### Introduction

One of the most uncertain factors of combating oil spills is that they occur on unexpected moments at unexpected places. This might in unfortunate cases be in remote areas where no oil spill recovery equipment is readily available.

For quick intervention Koseq developed the Compact 502 system: a transportable and flexible "all in one solution". It turns almost any ship into a most effective oil recovery vessel, from a small bunker vessel to a large offshore supplier. The 20 Ft container sized system is built around our well proven and optimized Compact 5 rigid sweeping arm. Besides the sweeping arm, the system is equipped with a knuckle boom crane, a diesel driven hydraulic power pack, a counter ballast tank for extra stability and an integrated equipment/tool box, oil drip tray and outriggers with leveling jacks.

For safe and easy handling of the Compact 5 arm the knuckle boom crane possesses our specially designed hoist winch with catcher system. The catcher system reduces undesired movement of the sweeping arm while hoisting. Once the Compact 5 arm is over the side of the vessel the crane winch will lower the unit into the water. The crane winch has as well a specially designed tensioner system which makes it possible to keep the wire attached to the sweeping arm by slacking the wire so the sweeping arm has enough space to move freely over the waves.

To tow the Compact 5 alongside the vessel, the rigid sweeping arm is connected to the ship by a tow line to a bow bollard of the vessel.

Due to the forward movement, the oil/water mixture is pushed into the pump well from where the hydraulically driven submersible pump delivers the recovered oil/water mixture directly to the storage tanks on-board the vessel.



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### **Compact**

The compactness of the system enables the oil spill responder to truck the complete system to the vessel of opportunity. Recovery operations can commence immediately without having to connect the unit to the vessel systems.

To facilitate transportation on aircrafts and storage on smaller vessels, the Compact 5 sweeping arm has now one movable end and two dismountable sections to reach a smaller footprint. The container sized frame is built modular and symmetrical, and allows easy installation and maintenance of the equipment and a flexible set-up of the system.

### **Effective**

The basic function is similar to our other rigid sweeping arm systems. The unit is free floating and trailed alongside by the oil spill recovery vessel to recover the oil.

Moving through the oil spill, the oil is guided by the rigid sweeping arm and pushed into the pump well. The reliable, high capacity hydraulic driven submersible pump is directly placed behind the height adjustable weir bar and delivers the recovered oil directly to the storage tanks onboard the vessel. The pump, the height adjusted weir bar and the debris screen are remotely controlled by only one operator.

The complete system is executed mechanical / hydraulic without vulnerable electrical components. Optionally the system can be executed with a brush, disk or drum skimmer that can also be deployed without the rigid sweeping arm.

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