

# WEIRBOOM SYSTEM

TECHNICAL SPECIFICATION

## WEIRBOOM SYSTEM

**Part No: OS/0180 180 Tonne System (3 Weir)**  
**OS/0210 210 Tonne System (4 Weir)**

### Application

A re-usable, combined oil containment and recovery system with either an 180 m<sup>3</sup>/hr or 210 m<sup>3</sup>/hr recovery capability. The continuous 370m/376m boom is deployed in a "J" shaped configuration between two vessels. The oil is deflected into the apex of the boom where the weirs and pumps are located. There are three/four weirs spaced at 6m intervals and located at the oil/water interface. Behind each of these weirs is a transfer pump which moves the oil that falls over the weir along the discharge tube to the primary towing vessel. This system has been used with great success in various oil spill incidents.

The system is supplied as 2 items, the reel with boom and pumps and the 20 ft ISO container that contains the remainder of the equipment.

### Boom Construction

The boom consists of an air tube and water ballast tube to maintain constant contact with the sea surface at the optimum level for oil collection. The discharge tube is integral to the boom and a further air tube provides stability and carries the hydraulic hoses to operate the pumps.

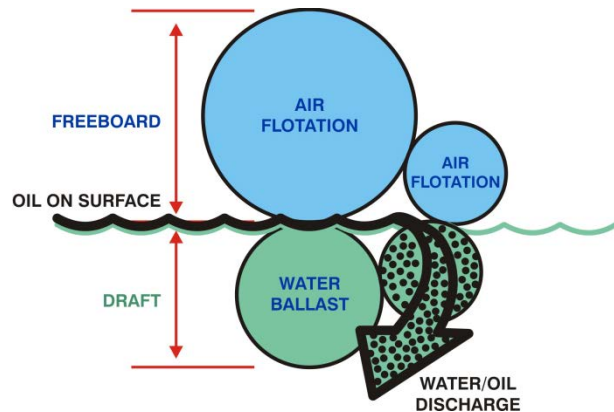
Boom material	Reinforced, double faced neoprene fabric, vulcanised under pressure to guarantee seam integrity
Weir section	70.5 metres long (180) 76.5 metres long (210)
Deflector section	300m long

### Air Inflation

Hydraulically driven, freestanding Air Fan manufactured in aluminium alloy.  
Standby air supply by an engine driven air fan

### Water Ballast Pump & Discharge

Water ballast for the boom is provided by a continuously running, hydraulically driven, water pump, located and attached to the water tube. The water pump is manufactured in aluminium alloy and supported by a buoy, which also supports the recovered oil discharge tube. The buoy is manufactured from a polyurethane foam core, coated with a polyurethane elastomer skin.



oil recovery skimmers

### Shipping Details

	Container	Reel	Fleeting Spool
Length	605cm	390cm	130cm
Width	245cm	250cm	94cm
Height	260cm	250cm	153cm
Weight	7200Kg	5350Kg	230Kg

### Standard Equipment

Operation and maintenance manual

### Optional Accessories

Spares Kit SK/9000 comprising of:  
Weir Pump SK/1090  
System hoses SK/0160  
Water Pump SK/0750  
Cold glue repair kit SK/1000  
1mtr site press portable vulcaniser PS/0110

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**Vikoma**  
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## Reel

The boom complete with pumps and relief valve, are deployed and recovered from a hydraulically powered reel system. The reel incorporates a powered fleeting roller and arm that assists with the boom recovery.

Lifting: 4 lift points.

Weight: 5350kg

Dimensions: 389 x 250 x 250cm (Base footprint 389 x 222cm)

## Power Packs

Hydraulic supply for the system is by two diesel engine, water-cooled, electric start power packs, enclosed in GRP covers. The units are fitted into the container from which they are to be operated. Both Power Packs exhausts are vented through the container side.

Each unit has designated items of equipment to power, but in an emergency situation, each has the capability of supplying power to all the items of equipment, which allows the complete system to operate, albeit at a reduced rate.

## Container

20ft container with full side opening and end door. The Powerpacks are fitted in to the container, which also provides storage for discharge pump, air fan, suction, discharge and hydraulic hoses, control console, discharge assembly and spares (where ordered).

Dimensions: 20ft ISO container

Weight: 7200kg

## Weir Pumps

3 or 4 hydraulically driven vane pumps located in the 4-tube element of the boom.

Pumps are controlled from the control console.

## Recovered Oil Discharge Pump

Hydraulically driven, free standing, rotary lobe pump. The pump is fitted with a relief valve on the suction.

## Pressure Relief Valve (Dump valve)

A mechanical relief valve is fitted in the recovered oil discharge tube, which will sense any pressure build up due to wave/sea motion.

## Control Console

All controls for the system are located on a freestanding moveable Control Console. All hydraulic connections are of the quick release type.

## Towing Warps

The boom is fitted with nylon webbing tow straps at both ends of the boom. Tow ropes are attached to the straps for towing and securing the boom during deployment.

## System Hoses

Hydraulic hoses for the operation of all equipment.

Pump Suction hose is 4 x 4.5m lengths of semi-rigid hose (8" bore), with 6" Camlock couplings.

Discharge hose 6" Lay flat (2x15m).



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