

# SD100-VIK STAR DISC MAXI SKIMMER

TECHNICAL SPECIFICATION

# VIKOMA

Oil Recovery Skimmer System



A heavy duty, high capacity toothed disc skimmer ideal for use in open waters to recover high viscosity oil up to 1,000,000 cSt

The SD100 - VIK Star Discs Maxi Skimmer System is a robust, toothed disc skimmer making it suitable for the most challenging conditions



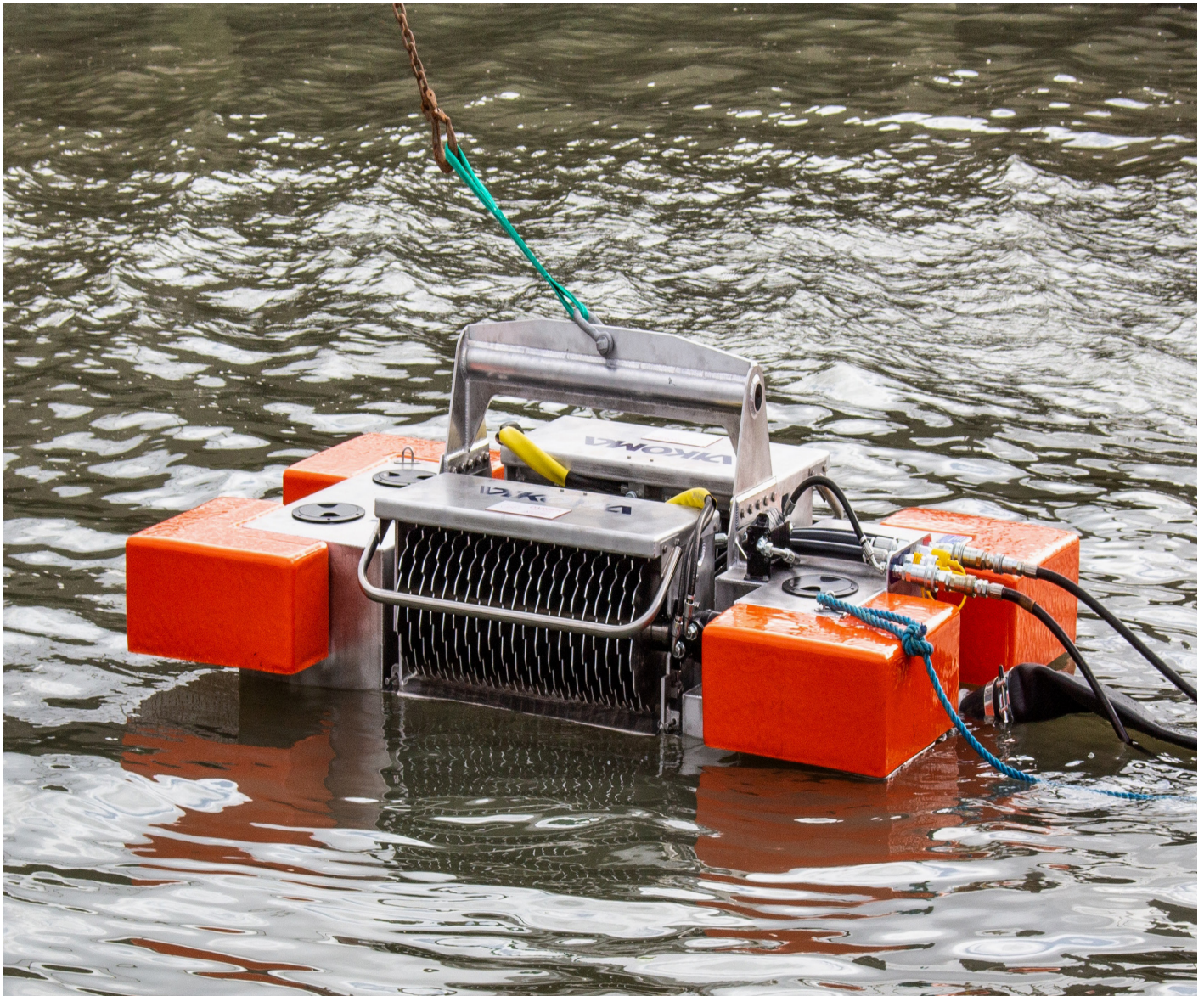
Vikoma has an ongoing development programme, we reserve the right to amend the information contained in this leaflet without prior notice. All quoted dimensions and quantities are nominal.



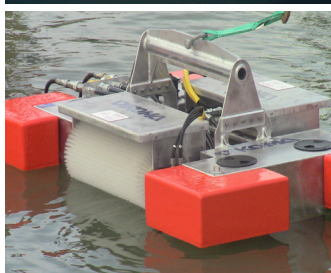
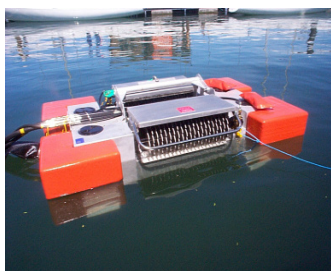
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## Ensuring an effective solution to your oil spill requirements!

- Ideal for use in open water to recover high viscosity oil up to 1,000,000cSt
- Skimmer head recovers oil at up to 100m<sup>3</sup>/hr
- Two hinged 'star' disc banks
- It is a robust, toothed disc skimmer making it suitable for the most challenging conditions



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The SD100 -VIK Star Disc Maxi Skimmer system comprises of the SD100 -VIK heavy and able slicing clumps oil skimmer, power pack and hose kit with a hose reel for storage of the hoses.

The SD100 -VIK Star Disc Maxi Skimmer is fitted with twin disc banks to recover high viscosity oil at a rate of up to 100m<sup>3</sup> per hour, making it ideal for large offshore spills. It can be supplied with optional interchangeable brush units to assist in the recovery of lighter oils.

The robust aluminium construction and fenders make this skimmer suitable for the most challenging conditions.

The toothed disc bank lifts the heavy oil up and over a raised weir lip designed to minimise the amount of free water pick up, making this skimmer the most efficient type of weir skimmer available on the market.

The on board positive displacement Vikopump, rated at 100m<sup>3</sup>/hr is designed to transfer even the heaviest of oils and if required can increase viscosity efficiency by the addition of water injection system.

The SD100 -VIK Star Disc Maxi Skimmer can handle floating debris due to its hinged disc bank and ability to run in reverse. Smaller debris can pass through the discs and is collected in a grill above the sump without affecting the operation of the skimmer.

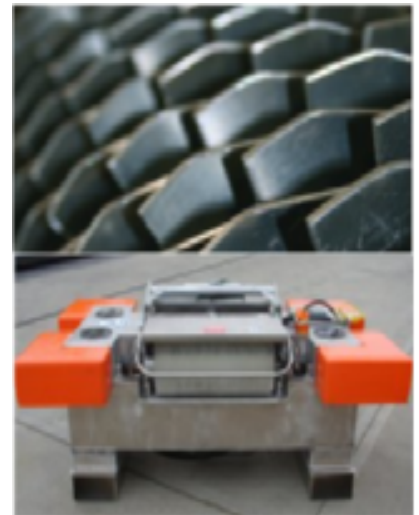
The SD100 -VIK Star Disc Maxi Skimmer has been used successfully in icy conditions, the strong toothed discs and pivoting disc banks enable the skimmer to be relatively unaffected by ice intake.

For heavy ice situations a steam injections system is available as an option, to facilitate the flow of oil within the recovery hoses.

The system is supplied with the powerpack, which incorporates two important safety features: a sparks from the exhaust ignition source; and an engine overspeed shutdown valve to protect the engine and operatives. Thrusters and remote controls are available for increased manoeuvrability.

### Product Benefits:

- High capacity skimming for viscous oils.
- Two hinged "star" disc banks
- Recovers oil to 100m<sup>3</sup>/hr



#### Capacity

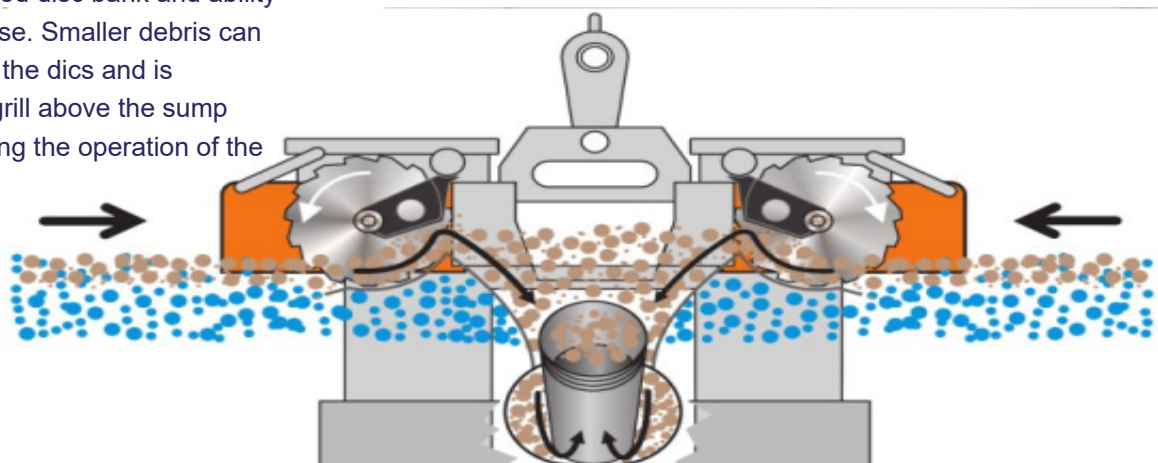
100m<sup>3</sup> per hour

#### System Components

SD100-VIK Star Discs Maxi Skimmer head with Integral Lobe Pump.  
Diesel Hydraulic Powerpack Hose Kit.

#### System Components

Steam Injection  
Water injection system for very high viscosity oil.  
Remote controlled thrusters.



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# SD100-VIK STAR DISC MAXI SKIMMER

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## TECHNICAL SPECIFICATION

### Application

The SD100 - VIK Star Disc Maxi Skimmer is a very versatile oil skimmer capable of recovering heavy and able slicing clumps oil and a wide range of viscosities. The skimmer houses two powered oil recovery modules which recover oil to a central hopper with an onboard pump mounted directly beneath. Star Disc recovery modules are intended for recovery of very heavy oil. Brush modules are used for recovery of lighter and emulsified products. Recovery rates of viscous and emulsified oils can be up to a maximum of 100m<sup>3</sup>/hour. Efficiency of oil pickup can be very high and can exceed 95% (oil to free water).

### Dimensions

Length	225 cm
Width	137 cm
Height	128 cm
Weight	437 kg (without hoses)
Draft	61cm

### Construction

Body	Marine grade aluminium
Buoyancy	4 built in compartments with additional closed cell buoyancy foam
Star discs	Aluminium alloy, two banks
Wipers (star disc)	Urethane
Brush	Two banks of brush
Combined materials	Stainless Steel
Discs speed	Variable to 40 rpm max
Drive	Orbital rotor hydraulic motors
Lifting	Central lifting point Forklift pockets

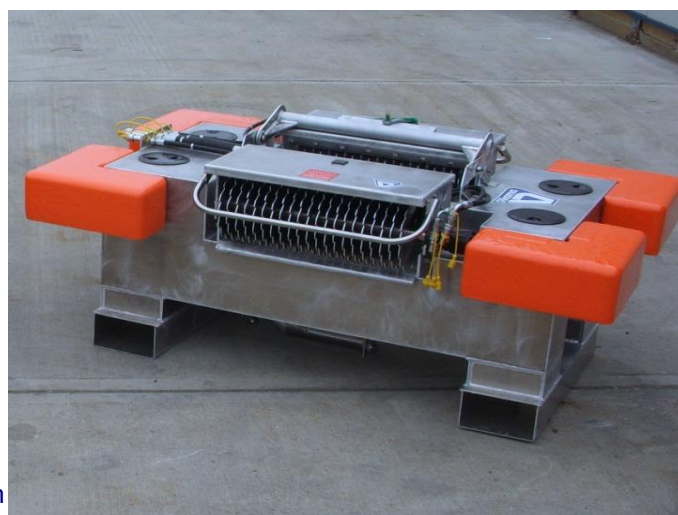
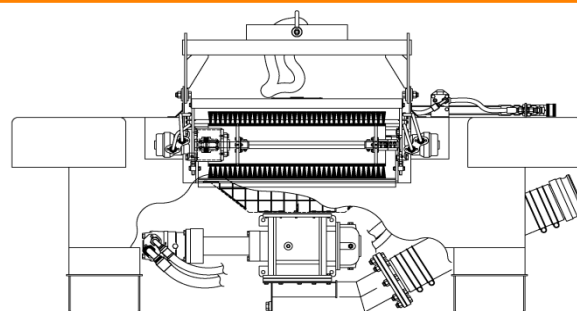
### Hydraulics

Operating pressure	160 bar (200 bar max.)
Connection	Quick release couplings (QRCs)
Flow rate	20 litres/minute
Brush/Discs	Pressure 3/8" QRC male Return 1/2" QRC female
Pump	125 litres/minute Pressure 3/4" QRC male Return 1" QRC female

(Note: on Vikoma equipment, forward hydraulic flow is from the female coupling).

### Integral Transfer Pump

Type	Lobe pump mounted under body
Drive	Orbital rotor hydraulic motor
Discharge pressure	6.5 bar
Discharge outlet	6" male camlock
Max. solids handling	25 mm



### Shipping Details (skimmer/ hoses)

Length	238cm
Width	149cm
Height	129cm
Weight	728Kg

### Standard Equipment

- Operating and maintenance manual
- Lifting sling (SE/6035)

### Optional Accessories

- Storage cassette with fork pockets, used with dual function system for spare disc or brush modules (HU/0489)
- Polyurethane cover for skimmer (8055CV)
- Water injection kit to improve pumping capability of viscous oils (OS/0059 Includes water pump unit (WI/0035), head kit (WI/0020), water injection hoses & hydraulic hoses)
- HU/0450 Spares kit (SK/0958)
- HU/0590 Spares kit (SK/0959)
- HU/0495 Spares kit (SK/0962)

Oil Recovery Skimmers System



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# POWERPACK for SD100-VIK SKIMMER

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Powerpacks

## DIESEL HYDRAULIC POWERPACK

### Application

This Portable Diesel Hydraulic Powerpack is configured to supply the hydraulic power and controls necessary to operate a SD100 - VIK Skimmer system to a maximum capacity of 100m<sup>3</sup>/hr

### Dimensions

Length	191 cm
Width	106 cm
Height	139 cm
Weight	950 Kg (system dry mass) 1250 Kg (with fuel/oil)

### Construction

Frame	Mild steel, painted (option stainless steel)
Hydraulic tank	Mild steel 158 litre capacity Diesel
Diesel Fuel Tank	Aluminium alloy 115 litre capacity
Cover panels	Glass reinforced plastic
Paint finish	Shot blasted steel with 2 coats polyurethane primer and 2 coats polyurethane top coat RAL 2008
Lifting	Central lift point and fork pockets.

### Performance

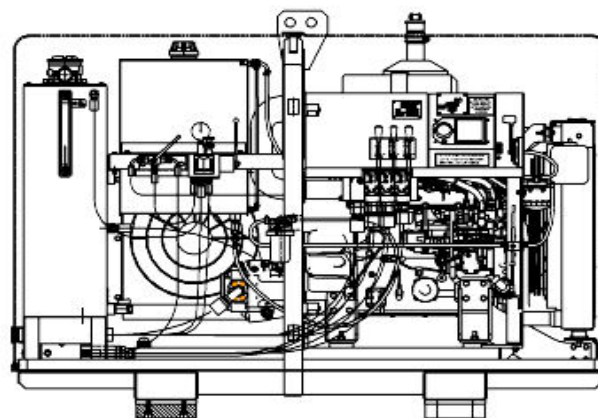
170 bar maximum system pressure.

Flow control valves (friction lever type)

½" QRCs	0-30 l/min
1" QRCs	0-125 l/min (option 0-90 l/min)
½" QRCs	0-20 l/min

Uncontrolled Connections

1" Pressure, 1" Return QRCs



### Shipping Details

Length	203cm
Width	122cm
Height	149cm
Weight	1044Kg (dry)

### Standard Accessories

1 x Lifting sling & shackle  
Operation and maintenance manual

### Optional Accessories

Overall PVC weather cover  
Hydraulic pressure washer (PW/0200)  
Spares Kit, comprehensive  
Spares Kit, Service



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### Engine

Yanmar, Four cylinder; water-cooled; diesel emission compliant to Stage 3A & Interim Tier 4.

Continuous Rating	46kW at 2,500 rpm
Maximum	51.1kW at 2,500 rpm
Running Speed	2000 – 2500 rpm
Safety Devices	Automatic air intake shut off valve for over speed protection. Exhaust spark arrestor. Low engine oil pressure shut-down High coolant temperature shutdown. Hydraulic oil low level shutdown Hydraulic Oil high temperature shutdown
Running time at 50% load	16 hours

### Hydraulics

Hydraulic Pump	Axial piston type directly coupled to engine
Cooling	Hydraulic oil cooled via a secondary radiator
Filtering	Re-usable suction strainer Return line filter with disposable element
RMax. Output	145 litres/min @ 175 bar (option 125 litres/min @ 170 bar)
Hydraulic Couplings	Quick release couplings (Pressure female, return male)

### Instrumentation/ Controls

#### Hydraulic

- LS & PC control (user select)
- Pressure relief valve
- System Pressure gauge
- Hydraulic supply isolation valve
- Oil level/temp sight glass
- Speed controls: 3 flow control valves (friction lever type); option 2 flow control valves

#### Engine

- Speed control
- Fuel level sight gauge
- Key switch-off, run, heater, start Battery isolator
- Alternator light
- Electric start
- Oil temperature warning light Oil pressure warning light Blocked air filter indicator Hour meter