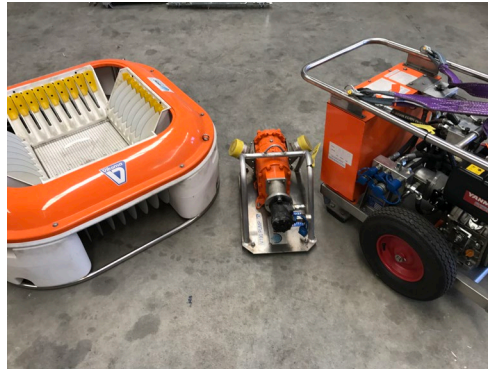


# Standard Operating Procedure

## 20 K Komara Disc Skimmer



### Equipment description

The Komara 20K disc skimmer system is a self-contained, versatile oil recovery system, comprising an oleophilic disc skimmer, diesel power pack, transfer pump and all the associated hoses and connectors. The system will operate in most environments and will recover a wide range of oils at more than 20m<sup>3</sup>/hr, with more than 90% oil pick-up.

The system can be used in ports and harbours, shoreline operations, coastal waters, offshore and almost any similar environment where oils are required to be removed from a water source.

The four independently driven banks of discs create a 360 degree 'flow' of pollutant towards the skimmer head.

The disc scrapers are manufactured from a specially designed flexible polymer, which precisely follows the contour of the disc and ensures that even the lightest oils are recovered with high efficiency.

The Power Pack comes complete with a Viko Pump V190 positive displacement pump which is a powerful transfer pump with excellent suction performance, enabling high volumes of high viscosity contaminants to be recovered and discharged. The pump can run dry without damage. The pump rating is 60m<sup>3</sup>/hr and the system oil recovery rate is more than 30m<sup>3</sup>/hr.

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### Technical Specification

<b>Skimmer Weight:</b>	150kg	<b>Hydraulic pressure:</b>	2100psi
<b>Power Pack Weight:</b>	200kg	<b>Capacity / hour:</b>	20m <sup>3</sup>
<b>Suction connection:</b>	3 inch	<b>Power type:</b>	Hydraulic
<b>Hydraulic fittings:</b>	Tema female/male		
<b>Hydraulic flow:</b>	<25 lpm		

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### Health and Safety



All PPE to be appropriate for area of operation.

To safely operate this equipment 2- 4 people are required.

Note: The above listed Personal Protective Equipment (PPE) is to be used as a guide. A life jacket may or may not be required, dependent on the deployment platform.

## Safe Operating Requirements

- All personnel are to be trained in the use of the Komara 20K Skimmer and accessories or under the close supervision of a trained operator
- Job Safety Analysis (JSA) to be conducted prior to work commencing. Identification of the following safety factors are critical, but not limited to:
  - o Manual Handling,
  - o Slips/Trips/Falls,
  - o Vehicle/Vessel Movements,
  - o Pinch Points and Personnel
  - o Contamination/Decontamination.
- Ensure adequate Personal Protective Equipment (PPE) is worn – as detailed above.
  - o \* Life jackets must be worn near water depending on operation.
- A communication plan must be decided upon to ensure clear and concise communication at all times
- All incidents, accidents and near misses must be reported as per AMOSC HSSE Plan.

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## Operational instructions

### Emergency shutdown

#### Locate Emergency Stop, Engine Stop before starting the Power Pack.

In the event that an emergency shutdown is required, the following measures should be taken:

- Shut down power pack immediately where safe to do so.
- Return the hydraulic flow control to the “off” position.

### Pre-start checks

- Ensure that fuel and oil levels are checked and within manufacturers recommendations on the power pack.
- Check hydraulic hoses for damage or wear.
- Visually inspect the skimmer and accessories for damage or wear.
- If applicable, ensure that all lifting equipment is in date and in good condition.
- Lay out hydraulic hoses and connect the power pack to the skimmer ensuring that any spilt hydraulic fluid is captured.
- Ensure the locking rings on the hydraulic fittings are locked in place.

**Note - Failure to correctly connect all hoses may result in failure and extensive damage to the pump unit.**

- Connect the solid 3” suction hose between the skimmer and pump.
- Connect the lay flat discharge hose between the pump and waste storage.
- Attach floats to the suction hose near the skimmer to support the hose in the water.
- Ensure that the hydraulic flow control is in the “off” position – located on top of hydraulic tank
- Ensure that the engine stop control is in the run position and start the engine.
- Check the operation of the disks.
- Stop the engine.

### Operation

- When the skimmer has been deployed, start the engine.
- Open the hydraulic flow control valve; start the discs rotating by operating speed controller, located on top of the hydraulic tank.
- The speed of disc rotation is set after observing the skimmer and adjusting according to oil/water behaviour on the discs.  
Excessive disc rotation speed will reduce oil recovery efficiency by collecting water.
- Review and check all fittings and discharge hose for leaks
- Once the operation is complete, stop the power pack and set the hydraulic flow control to the “off” position.

- Remove the skimmer from the water, minimising any secondary contamination.

**Caution**

- If the skimmer and accessories are contaminated with oil, care must be exercised when retrieving the skimmer to avoid causing secondary contamination. Ground sheet/Sorbent boom/bunded area should be used to mitigate this.
- Drain all suction and discharge hoses, flushing through to remove remaining contamination.
- Disconnect hydraulic hose connections and fit dust covers. Ensure that spilt hydraulic fluid is captured.

**Caution**

- If the skimmer and accessories are contaminated with oil, place them onto a ground sheet, seal and take it to a bunded cleaning station to be washed.

**Post operation – Contaminated skimmer**

- Establish a bunded cleaning station.
- Clean skimmer and accessories with hot water. **DO NOT** use detergents on disc surfaces, as they reduce the recovery efficiency. If required, diesel fuel can be used to assist with the cleaning of the skimmer and accessories.
- The skimmer and accessories are to be dry prior to maintenance inspection, re-stowage and storage
- Ensure all equipment is returned to response ready condition.

Note - Maintenance of the skimmer and accessories are to be performed as listed below.

**Post operation – Uncontaminated skimmer**

- The skimmer and accessories should be laid out and washed with fresh water.
- The skimmer and accessories are to be dry prior to maintenance inspection, re-stowage and storage

Note - Maintenance of the skimmer and accessories are to be performed as listed below.

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**Additional Information**

**Maintenance**

- All maintenance and repairs are to be completed in accordance with either the manufacturer or AMOSC procedures.
- All equipment must be left in an operational condition when not in use.
- All defects must be repaired or the equipment is to be “tagged out” for maintenance and repair.

**Related Documents**

**AMOSC HSSE Plan  
PN08 - HSSE Policy**