

TERRAPIN

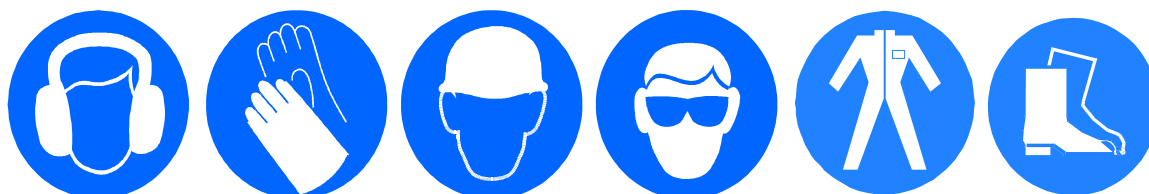
DESMI TERRAPIN (PTFE) FLOATING SURFACE SKIMMER WITH EXTERNAL FLOATS



Article No.: 68 39 07

HEALTH AND SAFETY

Minimum PPE to be worn



In ALL cases:

- Do not operate equipment unless you are confident and competent to do so
- Read ALL the Operational Work Instruction BEFORE commencing the operation
- Know the Emergency Shut Down Procedure before USING the equipment

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1 PRODUCT GENERAL DESCRIPTION

The DESMI TERRAPIN (PTFE) is a self-adjusting weir skimmer ideal for installation in tanks, industrial separators, wells, and sumps where floating oil and other floating liquids need to be recovered.

At the heart of the DESMI TERRAPIN (PTFE) is the self-adjusting weir that automatically sets the depth of the weir according to the pumping rate. Pump faster and the weir will sink lower and take a deeper cut. Pump slower and the weir will rise and take a finer cut.

The DESMI TERRAPIN (PTFE) has been designed with industrial applications in mind. The unit is a free floating weir skimmer with an outlet under the skimmer.

1.1 ON DELIVERY

- Check on delivery that the shipment is complete and undamaged.
- Defects and damages, if any, are to be reported to the carrier or the supplier immediately in order that a claim can be advanced.



1.2 DESCRIPTION

The DESMI TERRAPIN (PTFE) is constructed in marine grade stainless steel, molded polyethylene, and polyurethane - making it resistant to oils and many environments found in industrial applications.

The self-adjusting weir will descend to the lower position when the suction rate is increased and take a deeper skim of the liquid. The DESMI TERRAPIN (PTFE) has a bottom connection for tanks and larger bodies of water.

If the bellow looks like the picture, this is NOT a construction fault in the material.



At slower suction rates the weir will be in a higher position providing finer skimming of the surface.



External floats assembly on DESMI Terrapin

2 TECHNICAL DATA

2.1 SPECIFICATIONS

Specifications		
	Unit	Terrapin
Diameter excl. floats	M	0.41
Length x Width x Height	M	0.76 x 0,66 x 0,41
Weight (dry)	Kg	14
Draft	M	0.33 max.
Drive	-	Suction
Outlet – recovered oil		5/4" Camlock Male

2.2 PICK-UP RATES

Pick-up rates cannot be specified.

The pick-up rate very much depends on the oil viscosity and the thickness of the oil layer.

In general, the pick-up rates are increasing concurrently with viscosity, oil layer thickness and suction speed.

The water content of the picked-up product can be very low but tends to increase with increased speed.

3 TRANSPORTATION/STORAGE

The skimmer is to be lifted in the external float arms.

Store the skimmer standing on the keel (upright) away from sunlight, and do not leave anything on top of it.

Products and wastewater are to be disposed of in an environmentally safe manner, in observance of local regulations.

4 OPERATION

The DESMI TERRAPIN (PTFE) is a self-adjusting weir skimmer that can recover a wide range of oils and products floating on the water surface. It is ideal for small industrial separators, tanks, and waters.

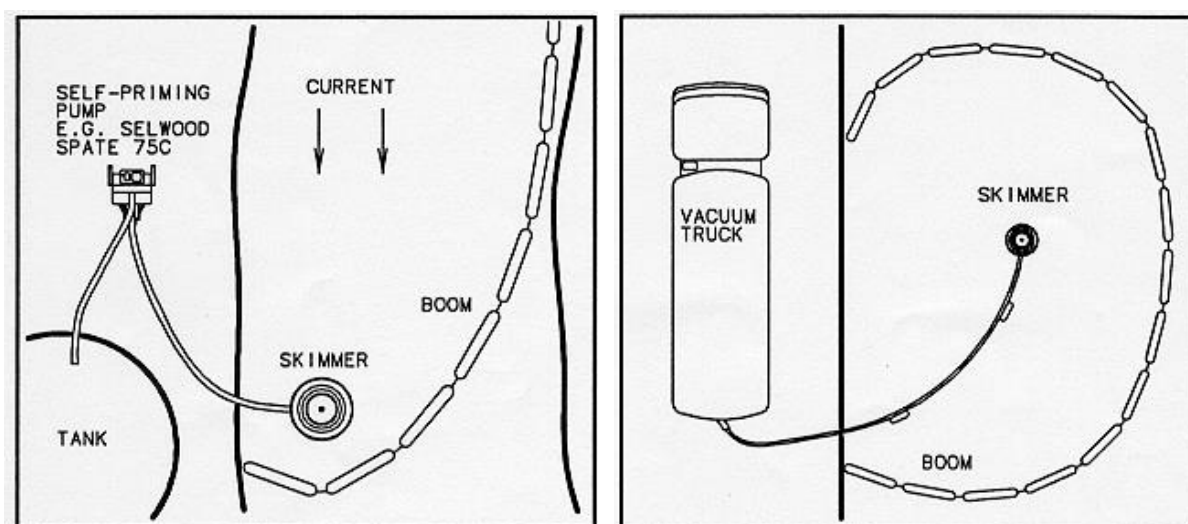
This skimmer can be coupled directly to a vacuum truck or other suction pumps such as diaphragm pumps.

4.1 OPERATING MODE

If a long suction hose is used, the weight of the hose should be supported by floats (not included), ropes or similar. Avoid altering the attitude of the skimmer head in the water. If the skimmer is tipped at an angle, it will affect the performance of the weir.

The density of the water and the thickness of oil layer will influence the draft of the skimmer and thereby also the horizontal level of the weir lip. If the skimmer takes too much water in, or not enough oil, the external floats can be adjusted manually in horizontal position.

Connect the suction hose to the pump unit or to other suction device such as a vacuum truck.



4.2 LAUNCHING THE SKIMMER

Lower the skimmer into the water, take care that the skimmer is deployed in such a way that it becomes filled with liquid. Start the pump.

The weir lip position relative to the oil/water is automatically controlled by the pump flow. More flow (higher pump RPM) lowers the weir lip, and less flow (lower pump RPM) makes the weir lip rise.

During operation, the wire screen may become filled with debris. Clean the screen periodically to allow free flow of oil into the skimmer. Viscous and thick oils may not flow well through the screen. If this is the case the screen can be removed, take other measures to prevent trash entering the skimmer. If a blockage should occur, stop pumping and clean out or back flush the head.

You may observe that the external floats move up/down while skimming. This is due to the changing weight of the skimmer and hose. The weir will adopt its own position in the water according to the pumping rate.

4.3 AFTER OPERATION

Lift the skimmer out of the water by means of the suction hose or a rope tied to the external float arms. Empty the contents of the skimmer. Disconnect the suction hose from the skimmer. Disconnect the suction hose from the pump unit. Hand clean all the equipment with a cleaning agent consistent with the skimmed medium.

Do not use steam, solvents, or high temperatures for cleaning.

The DESMI TERRAPIN (PTFE) is made of robust materials, so generally no preventative maintenance is needed - just clean the skimmer after use and inspect the bellows for damage.

Store the skimmer standing on the keel (upright) away from sunlight, and do not leave anything on top of it.

4.4 PARTS LIST

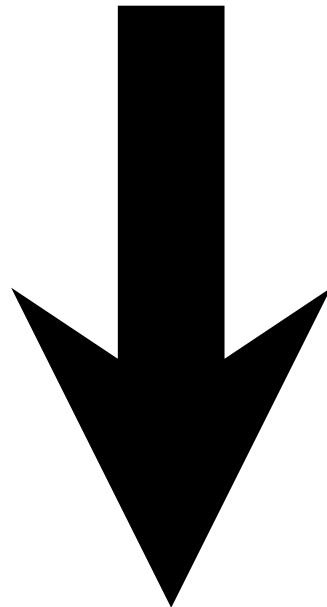
683907	DESMI TERRAPIN SKIM. EX. FLOAT	1
48001302	STABILIZER SET FOR TERRAPIN	1
C913101	SET OF BRACKETS FOR EXT. FLOAT	1
C868701	FLOAT FOR STABILIZER SET-BL-12	3
C787101	ELBOW 90° 5/4" - PP	1
C364401	5/4" CAMLOCK F125-PP MALE	1
185473	BELLOW FOR TERRAPIN	1

5 ATTACHMENTS

5.1 General Informations & Safety Precaution

5.2 Signs

5.1



1 General Information

As all products are subject to continuous development, the company reserves the right to alter the specifications and information given in this manual without prior notice.

Whilst every care has been taken in the preparation of this publication the information it contains must not be regarded as binding.

Amendments to this publication will only be issued to cover the design changes which fundamentally alter the construction or operation and servicing procedures.

Please pass this user manual on to the next user or to the following owner.

Upon receipt, check that the delivery is complete and undamaged. Any deficiencies or damage must be reported immediately to the transport company and the supplier. In order that a claim may be valid.

2 Safety Precaution when Working with oil spill products

The entire user manual must be read thoroughly before the equipment is transported, lifted, installed, assembled and any other activity described in this user manual. Everyone who is working with this equipment must read this user manual before it is taken into operation.

Notice that it may not be possible to study the manual during operation of the machinery.

The user is responsible for compliance with the safety requirements described in this user manual.

Keep all advice and warning stickers/signs in legible condition. Be aware and keep respect for the description it says.

As basic only use products from DESMI Ro-Clean together with other approved equipment from DESMI Ro-Clean.

Only connect skimmers and winders with power packs they have been delivered with or which have been approved by DESMI Ro-Clean.

In general, only use the equipment under the right working circumstances.

Before starting any machine, make sure that nobody is in the danger area (moving parts on engine or machinery), that all safety guards are in place and that the operator has a clear view of the working area, including personnel and machines connected to the power pack.

Do not start combustion engines in closed or badly ventilated rooms or if there is a danger of hazardous atmospheres. Avoid breathing-in of exhaust fumes.

The machines are not ATEX approved and must not be used in explosive atmospheres.

To lift the machines only use the forklift channels, lifting eyes or lifting handles placed on the machines for that purpose.

Never remove any side covers/plates around any equipment, if not complied with safeguards against unintended start.

When stored or in operation on a ship secure all equipment safely to the deck.

The owner is responsible for ensuring that every operator of this equipment must be correctly instructed in use of the equipment and frequently keeps updates in the use of power pack / oil skimmer / oil containment boom systems in order to work safely with these systems.

Use safety gloves, safety shoes, and safety clothes during operation or maintenance. Use eye protection and safety gloves when connecting/disconnecting hydraulic hoses as well when filling tanks with fluids.

During operation, all personnel must pay attention to the danger of falling due to oily surfaces or hoses between power packs and connected machinery.

Stop engines and disconnect battery terminals and hydraulic hoses before maintaining the equipment.

Stop the engine before connecting or disconnecting hydraulic hoses, and make sure that all valves in connection with the couplings are closed. If not, this can cause a risk of a high-pressure leak and cause personnel danger.

Never use any spray starting aids.

Observe the hydraulic oil level and temperature frequently during operation.

Stand in front of the control panel and keep safety distance to the sides of the power pack during operation. Do not lean against the machine as this may vibrate and the engine, exhaust pipe and fumes can be very hot.

Never use power packs with detent control levers for powering boom winders.

Never use any equipment for irrelevant use, only use the product for what it's made for.

Always use ear protectors when operating power packs or hydraulic motors.

Sucking in of solid particles by air blower should always be avoided as these may be ejected from the discharge flange at high speed and cause injury.

When using an air-blower: Never put fingers or other objects into the suction/pressure hoses. Never point pressure hose against any loose or not fastened objects.

Beware of use during operation with mop-rope equipment as the rope consists strong forces that will pull the machine against the water. Make sure that all parts are secured safely to deck or solid ground before start.

During deployment of skimmers the personnel must pay attention to the danger of skimmers and hoses being caught by moving as well as rotating elements such as ships and ship screws.

Keep a safety distance to skimmers of minimum 1,4 meter.

The sound pressure level of skimmers in water or oil does not exceed 70 dB (A)

When operating skimmers on land the safety area must be marked by barrier tape in a height of 1 meter and at least 1,4-meter length from the skimmer.

When testing skimmers on land make sure that these are grounded to avoid sparks from static electricity.

When operating winders or equipment connected with winders always have clear communication with the bridge onboard involved ships. Involved ships must be careful not to pull the boom off the winder, and careful roll-out the boom with a speed that allows the personnel to inflate/deflate the boom.

Make sure only to connect a power pack with spring loaded handles when operating winders. This secures that all equipment stops if not used.

All personnel except the winder operator must keep a safety distance of minimum 2 m to the boom during use. The operator must be placed where it gives a complete view to the entire operation and to his colleagues.

Never place anything or any person on the boom during operation, or during inflation/deflation.

Never try to move the boom without a power pack connected.

During operations with booms always pay special attention to weather/currents conditions that consist of strong powers which can easily pull equipment off the ground/deck and can cause hazardous damage for the personnel working and/or the equipment. Always secure the winder safely.

When operating cranes: Pay attention during operation not to hit any objects as this can cause serious damage for other personnel and/or equipment.

DESMI Ro-Clean assumes no liability for any personal injury or damage to the equipment or other material damage resulting from:

- Any amendments to the equipment not approved by DESMI Ro-Clean
- A failure to observe the safety regulations or other instructions in this user manual
- The use of non-original spare parts that do not satisfy precisely the same, strict quality requirements as original DESMI Ro-Clean spare parts

NOTE: This safety precaution list is a standard list from various products and can contain not applicable regulations which are useful for all equipment. Some regulations are covering more than one product if not specially described.

NOTE: DESMI Ro-Clean advice that all personnel involved in any operation using our products will go through all relevant aspects from this safety precaution, and that all personnel are well introduced to their duties.

NOTE: Refer to user manuals for ancillary equipment

MARINE & OFFSHORE

DESMI Ro-Clean A/S
Hestehaven 61
DK-5260 Odense S
Denmark

INDUSTRY

Tlf.: +45 65 48 16 10
Web: www.desmi.com

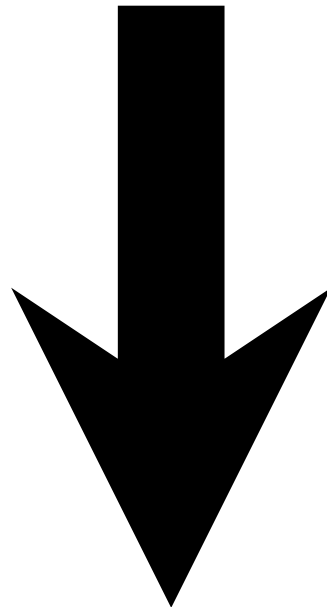
ENVIRO-CLEAN

DEFENCE & FUEL

UTILITY

CVR-nr.: 69042910
VAT-nr.: 69042910
Bank: Jyske Bank SWIFT/BIC (JYBADKKK)
DKK account: 5059-0005000006
EUR account: 5059-0005000014
USD account: 5059-0005000022
GBP account: 5059-0005000048

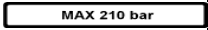
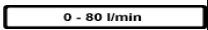
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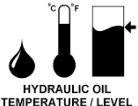


Description of signs used at DESMI Ro-Clean products.

Prohibition Sign:	
	NO UNAUTHORISED ACCES
Warning Signs:	
	LIFTING POINT
	CAUTION
	MAY RESULT IN LOSS OF FINGERS OR LIMBS
	KEEP HANDS CLEAR OF MOVING MACHINERY
	BEVARE OF MOVING MACHINERY
Mandatory Action Signs:	
	WEAR EAR PROTECTION
	WEAR FOOT PROTECTION
	WEAR HAND PROTECTION
	READ INSTRUCTION BEFORE USE
	WEAR EYE PROTECTION
	WEAR HARDHAT, WEAR EAR PROTECTION, WEAR GLASSES

Info Signs:

	MAX bar. Maximum fluid pressure on inlet or outlet of equipment. Placed on power packs and hydraulic oil recipient units.
	LITRES / MINUTE. Range of hydraulic oil flow. Placed next to hydraulic couplings and control levers.
	FORWARD / REVERSE. Direction of control lever. Indicates forward and reverse motion of connected equipment. Placed next to control levers.
	STOP. Stop the machine. Placed next to a stop lever on machines with build in engines.
	OIL DRAIN. Where to connect oil drain from hydraulic motors. Placed next to hydraulic drain couplings.
	AIR BLOWER. Air blower for inflating and deflating floatation chambers. Placed next to hydraulic couplings and control levers.
	FUEL. Where to fill machine with fuel. Placed next to tank filler cap.
	HYDRAULIC OIL. Where to apply hydraulic oil for machine. Placed next to hydraulic tank filler cap.
	RO-MOP. Shows Rope Mop oil skimmer unit. Placed next to hydraulic coupling and control levers.
	WINDER. Shows winder for storage and handling of oil containment boom. Placed next to hydraulic couplings and control levers.
	HYDRAULIC OIL PRESSURE. Indicates hydraulic oil pressure. Placed next to the hydraulic oil pressure gauge.

	PUMP. Shows a pump to pump fluid. Placed next to hydraulic couplings and control levers.
	SKIMMER. Shows an oil skimmer of any kind. Placed next to hydraulic couplings and control levers
 HYDRAULIC OIL TEMPERATURE / LEVEL	HYDRAULIC OIL TEMPERATURE / LEVEL. Shows hydraulic oil temperature and level. Placed next to hydraulic oil level and temperature gauge on hydraulic tanks.
	THROTTLE. Indicates where to adjust throttle on machines. Placed next to the throttle lever on machines.
	THRUSTER. Thruster for propelling equipment through the water. Placed next to hydraulic couplings and control levers.
	HOSE REEL. Hose Reel for storage and handling of hoses. Placed next to hydraulic couplings and control levers.