



## Skimmers

TM - Trade Mark of Ultraspin Pty Ltd  
File Name: skimmer, rev 8.doc  
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The Ultraspin surface skimmer is designed to remove oil, fats and floating material from tanks, sumps, interceptors and other effluent pits. It may also be used in open waters such as lakes, harbours and lagoons. It is a true self-adjusting, weir-type, oily-water skimmer.

### SKIMMER FEATURES

- Surface skim-height is fully self-adjusting to take the finest cut of surface liquid despite changes in flow rate or fluid viscosity.
- Continues to work effectively even if the whole skimmer tilts in relation to the water level. Tilting often occurs in confined pits or when the suction hose is twisted.
- Suitable for unmanned operation, reducing painstaking, labour intensive maintenance, and reducing the costs associated with manning and maintenance.
- Fluid is skimmed from all directions.
- Can be supplied with purpose-built trash screen.
- Designed for use in tanks and pits.

### TYPICAL APPLICATIONS

- Oil skimming from effluent collection pits, tanks, interceptors, etc.
- Often used with oily-water separator systems.
- To provide a skimmed feed to oily-water treatment systems such as Ultraspin separators, coalescing plate separators and DAF separators.
- Oil spill clean-up on open waters such as lakes, rivers and harbours.



Above; Ultraspin S1-40 Skimmer



Above: Ultraspin S2 Skimmer

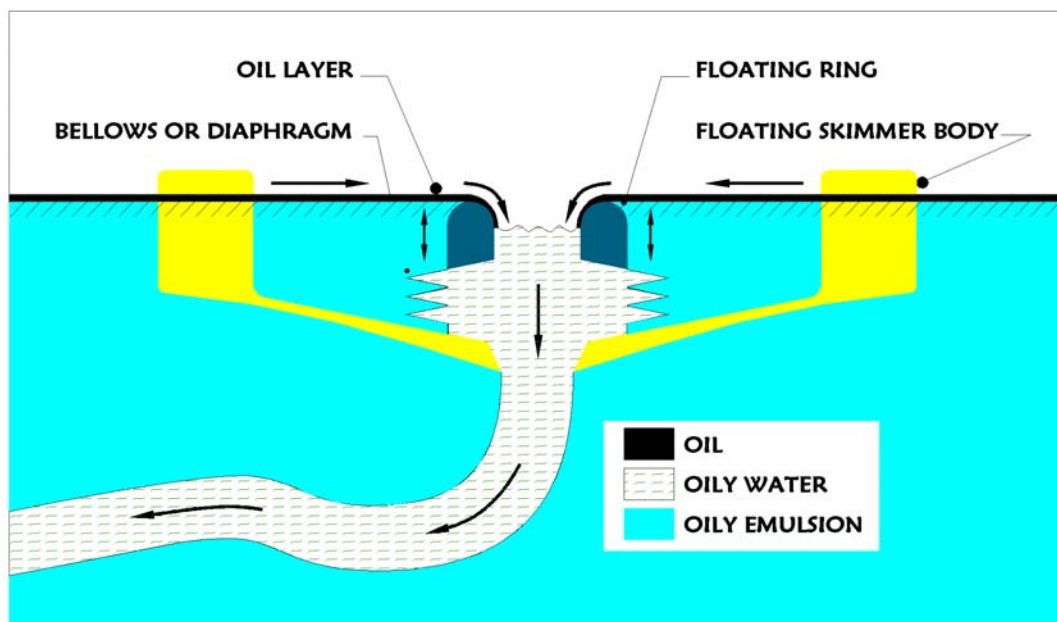


Above: Ultraspin S1 Stainless Steel Skimmer

## HOW IT WORKS

The main components of the skimmer are a floating central ring, a flexible diaphragm/bellow and a floating body assembly. The floating central ring, shaped like a doughnut, sits in the centre of the skimmer. A diaphragm/bellows forms a sealed chamber between the skimmer body and central ring. The flexibility in the diaphragm/bellows allows the ring to float independently of the skimmer body; this gives the skimmer its ability to self-adjust. The ring floats on the fluid in the pump-out chamber on the inside of the diaphragm. The body of the skimmer holds the components together and provides the floatation for the assembly.

A hose and pump are connected to the skimmer outlet. As the fluid is pumped away, the floating ring sinks thus allowing fluid to flow over the top, like a weir, and into the pump-out chamber. As the flow is increased, the ring sinks deeper into the fluid so that more fluid passes over the top of the ring and into the pump-out chamber. This is what makes the skimmer fully **self-adjusting**.



Ultraspin manufactures two styles of skimmer. The first style is designed as a floating skimmer and usually has a hose attached (S1 and S2). The second, "J" style (S1-J, S2-J), is designed so the body of the skimmer is attached in a fixed position, but the inner weir ring floats as with the first style. Often the "J" style is preferred when access is limited or the liquid level moves over a small band.

Ultraspin also designs and manufactures oily-water treatment systems with capabilities of over 100 m<sup>3</sup>/h. Industries that use these systems include:

- Refinery /Petrochemicals
- Dairy and Food Manufacture
- Vehicle Washing



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Above: Ultraspin skimmer operating in pit at a coal mine



Above: Ultraspin S1 skimmer operating in a small pit



Above: S2 skimmer operating in a pit at a food processing plant



Above: S1 skimmers operating in a pit for a mine site in South Africa

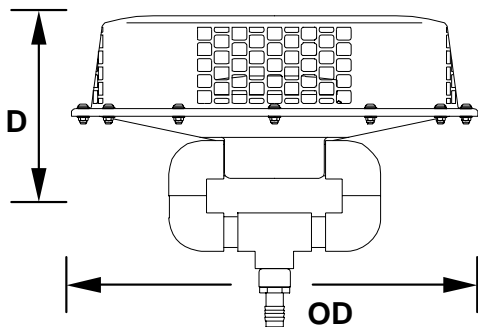


# Skimmers

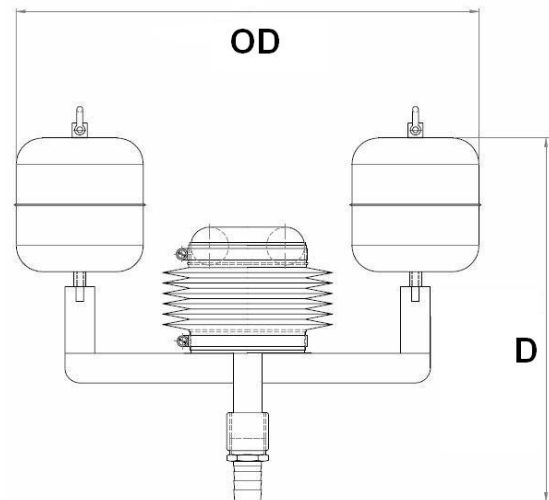
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## DIMENSIONS AND SPECIFICATIONS

Model No:		S1	S1-J	S1 Stainless Steel	S2 Stainless Steel		
<b>Specifications</b>	Maximum Flow	General	m <sup>3</sup> /h	5	5	7	25
		Oily Water	m <sup>3</sup> /h	5	5	5	12
	Typical Fluid pH		pH	5--11	5--11	5--11	5--11
	Temperature		°C	0--70	0--70	0--70	0--70
<b>Dimensions</b>	Min Working Depth		mm	250	250	750	800
	Outside Diameter	"OD"	mm	570	430	620	1050
	Depth	"D"	mm	230	620	490	550
	Dry Weight		kg	5.5	5	5	16
	Connection		mm	1½" tail	1½" BSPM	1½" tail	2½" BSPF
	Nominal Hose Size		mm	40	Not Applicable	40	80
<b>Materials</b>	Access opening required		mm	570	370 □ or 430 O	630	1050
	Diaphragm			Viton	Not Applicable	Not Applicable	Not Applicable
	Bellows			Not Applicable	Viton	Viton	Viton
	Floating Ring			MDPE	MDPE	MDPE	316 SS
	Floats			Polyethylene	Not Applicable	316 SS	316 SS
	Trash Screen	Optional Extra		Polyethylene	Stainless Steel	Stainless Steel	Not Available
	Body			Polyethylene	316 SS/ Gal	316 SS	316 SS
<b>Options</b>	Attachments			ABS	Stainless Steel	Stainless Steel	Stainless Steel
	Suction Hose			Available	Not Applicable	Available	Available
	Tethering Eyebolt			Optional Extra	Not Applicable	Included	Included
	Hose Floats – Longer or heavier hoses may require a hose float, consult Ultraspin			Available	Not Applicable	Available	Available



Above : Standard S1 Skimmer



Above: S1 Stainless Steel Skimmer