

PRODUCT DATA SHEET



Oil Water Separator (OWS)

water | wastewater | sewage

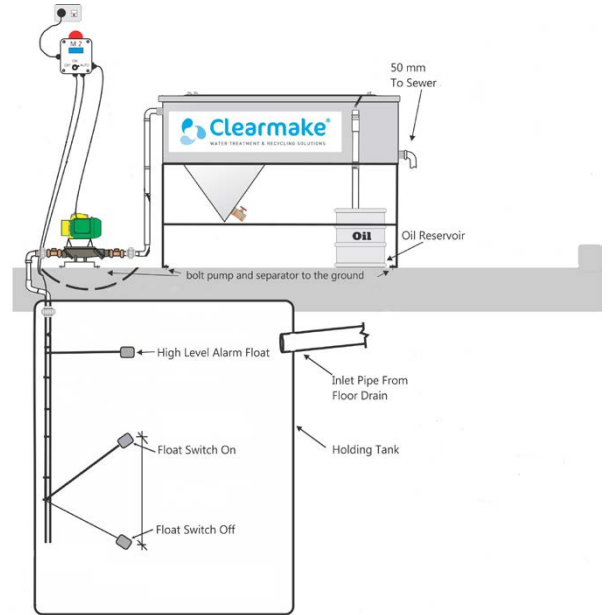
OVERVIEW

Clearmake™ oil water separators are designed to remove free floating hydrocarbons such as diesel, hydraulic fluid and oil as well as heavier suspended solids from a waste water stream. This form of treatment is the minimum required prior to trade waste (sewer) discharge for any wash bay where hydrocarbons may be present. Clearmake™ Separators are approved by:
 Sydney Water - Ref: 2006-365
 WA Water Corporation - Ref: JT1_2010_01224V01

CONSTRUCTION

Standard Clearmake™ separators are constructed from high quality 304 stainless steel. They can however be upgraded to 316 grade stainless steel for marine or corrosive environments. Larger models have frames manufactured in hot dipped galvanised steel.

Superior Vertical Tube Coalescing (VTC) technology facilitates improved separation, via the unique spiral tubes, designed to assist in exercising the free floating oils to the surface. These specifically designed VTC blocks also provide optimum flow, serviceability and durability.



TREATMENT RATES

Standard treatment rates range from 800 to 25,000L/h and custom systems can be manufactured to treat flow rates in excess of 250,000L/h.

CONTROL SYSTEMS

Clearmake™ controllers are manufactured to Australian Standards and configurations are available to meet Council requirements Australia wide. The standard controller includes start/stop functionality, high level alarm, strobe light, hour run meter and audible alarm. All separator control systems can be designed and manufactured to meet higher IP ratings, intrinsically safe standards for hazardous areas, spill control and general or specific mine specifications. The Clearmake™ standard controller comes with IP 53 rated GPO to facilitate site installation and pump replacements. Higher IP rated enclosures are available upon request.

STANDARD SPECIFICATIONS

Parameter	Units	CB1.0	CL1.5	CL3.0	CL5.0	CL10	CL15	CL20	CL30	
Treatment Rate	L/hr	800	1,000	1,500	4,200	7,200	11,000	15,000	25,000	
Inlet TPH	ppm	<5,000 (Typical)								
Temperature	°C	25								
Density of Oil	kg/m ³	893								
Density of Water	kg/m ³	997								
Viscosity	Poise	0.00888								
TPH Discharge Level	ppm	<10 without bag filter (<5 with bag filter*)								
Efficiency Removal of oil droplet size	-	> 10µm 95% > 20µm 98% > 25µm 100%								
Dimensions (not including WOR)	L	1,280	1,231	1,841	2,174	2,585	3,201	3,201	3,734	
	W	360	445	445	698	1,366	1,366	1,765	1,765	
	H	780	1,255	1,255	1,490	1,412	1,587	1,587	1,787	
Power Consumption (estimate)	kw	0.4		0.5	1.1		1.5	3.0		
Power Supply	V	AC 240 (AC 415 optional)								
Waste Oil Reservoir	L	20				N/A				
IP Rating	-	IP 53 (GPO) (IP 54 controller optional)					IP 54 (IP 65 optional)			

* Bag filter only available for CL1.5 and CL3.0

The Clearmake™ Vertical Tube Coalescing (VTC) technology is effective in removing small oil droplets, with a 95% removal rate of droplets as small as 10 micron and a 100% removal rate of droplets as small as 25 micron. Where oil droplet size is considered to be predominantly smaller than 10 micron i.e. emulsified, physical separation technology becomes less effective and chemical separation technology such as [Dissolved Air Flotation](#) (DAF) should be considered.

Refer to the following [test results](#) that were undertaken to demonstrate the effectiveness of the Oil Water Separator in removing free floating hydrocarbons from a wastewater stream and the additional reduction that is possible when filter bags are used. The following independent product [appraisal report](#) undertaken by the [Water Services Association of Australia](#) (WSAA), validates the Clearmake™ design as fit for purpose to treat oily water prior to entering a sewer network.

STANDARD INCLUSIONS

✓ = Standard Supply o = Optional Supply - = Not Applicable

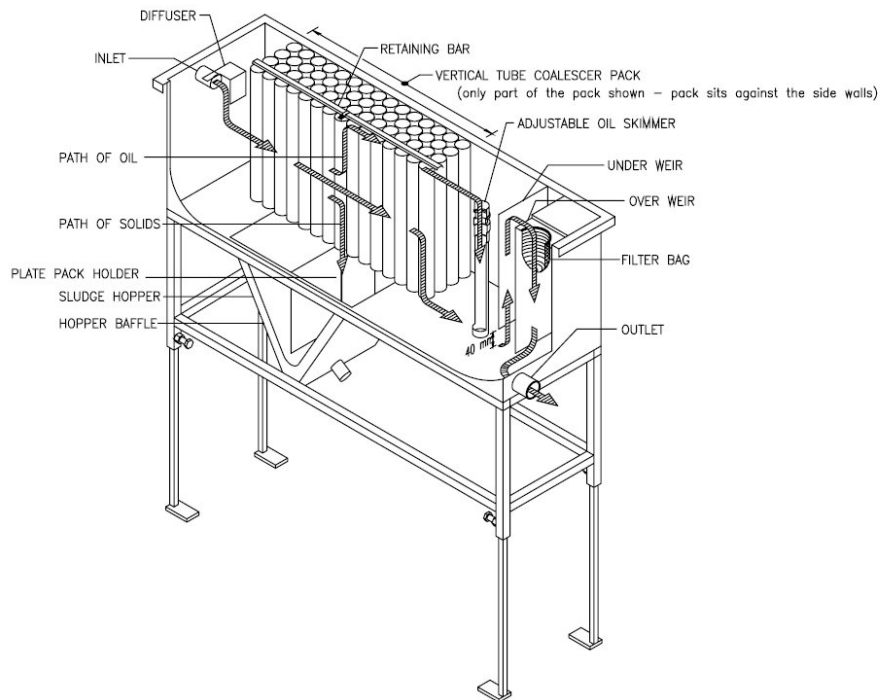
Equipment	CB1.0	CL1.5	CL3.0	CL5.0	CL10	CL15	CL20	CL30
304 Stainless Steel Separator	✓	✓	✓	✓	✓	✓	✓	✓
304 Stainless Steel Frame	✓	✓	✓	✓	-	-	-	-
Galvanised Frame	-	-	-	-	✓	✓	✓	✓
Feed Pump Diaphragm	✓	✓	✓	✓	✓	✓	-	-
Feed Pump Helical Rotor	o	o	o	o	o	o	✓	✓
VTC Coalescing Blocks	✓	✓	✓	✓	✓	✓	✓	✓
Pump Controller	✓	✓	✓	✓	✓	✓	✓	✓
Waste Oil Reservoir	✓	✓	✓	o	o	o	o	o
Final Bag Filter	-	✓	✓	-	-	-	-	-

MODEL SELECTION

- 1.0
- 1.5
- 3.0
- 5.0
- 10
- 15
- 20
- 30
- XX



CL --



OPTIONS

- 316 Stainless steel
- SM Skid mounted
- PCX Custom controller
- 54 IP 54 rated
- 65 IP 65 rated
- HR Helical rotor pump
- DP Diaphragm pump
- WOC Waste oil reservoir custom
- MMF Multi media filtration
- CAR Activated carbon filtration
- SHSF Chlorine sterilisation
- pH pH correction
- SEN Oil in water sensor
- CUS Custom specifications



NEED A QUOTE?

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PRODUCT DATA SHEET



Floating Suction Skimmer (SK)

water | wastewater | sewage

OVERVIEW

The MAK Water Floating Suction Skimmer (SK) is designed to effectively remove free floating oil or hydrocarbons from the surface of wastewater in a holding tank. The four-arm, stainless steel and plastic ball float assembly sucks the oil through a flexible vacuum delivery hose and is pumped to a treatment system. It is a durable and low investment unit that requires very little maintenance.

This unit is recommended as pre-treatment in conjunction with the [Clearmake™ Oil Water Separator](#).

STANDARD SPECIFICATIONS

Parameter		Units	SK-40	SK-80
Flow range			Up to 4,200 L/hr (OWS CB-1.0 – CL-5.0)	Up to 25,000 L/hr (OWS CL-5.0 – CL-30)
Dimensions	Height	mm	300	420
	Length	mm	650	1,098
	Width	mm	650	1,098
Inlet and hose diameter		mm	DN40 (hose ID 32mm)	DN80 (hose ID 75mm)
Hose length		m	2.8 (other lengths available on request)	8.0 (other lengths available on request)
Materials			SS304 (optional SS316) body with plastic floats and fittings	
Net weight (approx.)		kg	4	10

STANDARD INCLUSIONS + OPTIONS

✓ = Standard Supply ○ = Optional Supply - = Not Applicable

Equipment		SK-40	SK-80
Body with adjustable suction plate	Of stainless steel 304	✓	✓
	Of stainless steel 316	○	○
Plastic floats and connection fittings		✓	✓
Flexible suction hose		✓	✓
Inlet screen (5mm)		○	○

MODEL SELECTION

40 DN40 inlet with 2,800 mm flexible suction hose

80 DN80 inlet with 8,000 mm flexible suction hose

SS304 304 Grade Stainless Steel

SS316 316 Marine Grade Stainless Steel

28 2.8 m hose

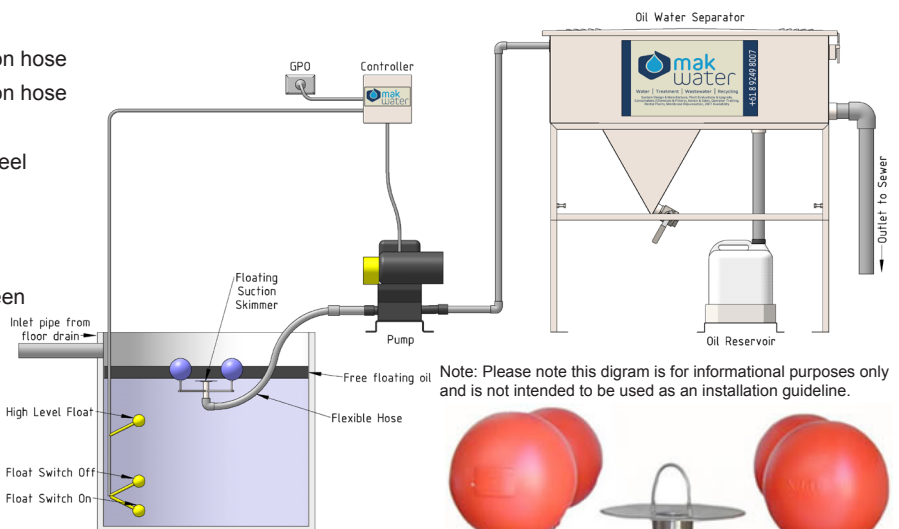
80 8.0 m hose

XX Custom length hose

X Without 5mm screen

S With 5mm screen

SK - - - - -



Note: Please note this diagram is for informational purposes only and is not intended to be used as an installation guideline.



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