Pump & Oil collecting system

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(Catalogue、Manual)

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■ Note

● Please note that the contents of the materials may change without notice.

● This catalogue will be published in June 2025.

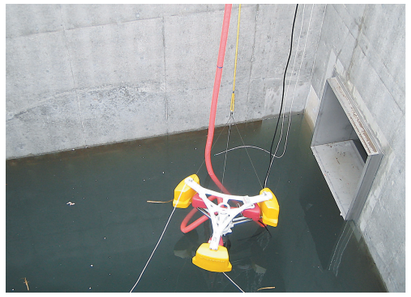
Float pump for collecting floating objects and oil on the water surface

GYROSKIMMER

World Chemical Co.,Ltd.

GYROSKIMMER

Fulfilling lineup



Installed in a rainwater pit.

Installed in a centralized coolant tank.

Use

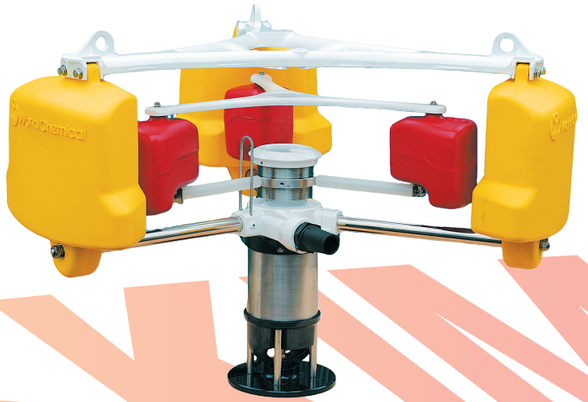
1. For collecting and transporting floating oil from centralized coolant tanks.
2. For collecting and transporting floating oil mixed with abrasive materials such as slurry and sludge.
3. For collecting and transporting scum from wastewater treatment plants.
4. For collecting floating oil when washing contaminated soil.
5. For collecting spilled oil from rivers and harbors.
6. For collecting floating resin pellet or powder.

YD-600GYP

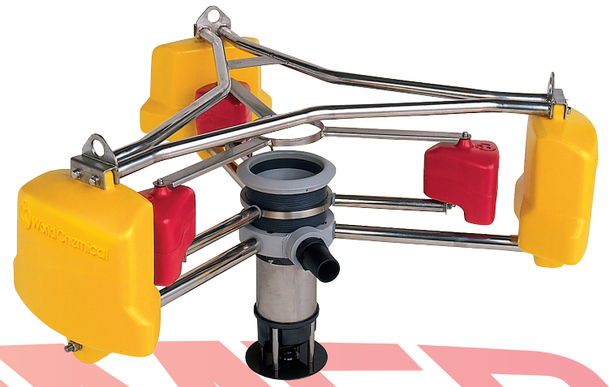
YD-800GYP

Features

1. The double float structure smoothly follows the swaying of waves and fluctuations in the liquid level, allowing the surface oil to be continuously collected.
2. This skimmer is equipped with a floating pump, so one unit can collect and transport floating oil.
3. YD-810GYP has stable durability even when oil is mixed with highly abrasive cutting chips, abrasive grains, soil, etc.
4. Two types are available: single-phase 100V and industrial 3-phase power (excluding YD-1200GYP).
5. Weight reduction is achieved by using powder coated aluminum molded parts and a pump made from lightweight stainless steel and resin.

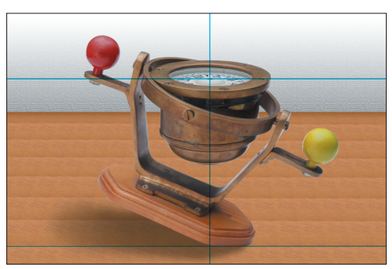


YD-1000GYP



YD-1200GYP

It always keep in parallel with the liquid level in order to collect the surface oil.
This is a "GYROSKIMMER" whose movement resembles a compass.



Please watch the video.

Excellent collecting ability

Ex.：Collecting site of oily scum floating in raw water tank at food factory.

When started to collect

After 2.5 hours

GYROSKIMMER

< Model description >

YD - 600 GYP - Y6 V 06 620 N T

- **600** — Float dia.
- **GYP** — Model: GYP / PS / RSS / JFL
- **Y6 V 06 620** — Submersible pump
  - **Y6** — Power: A6：0.25 k W (1PH) / Y6：0.25 k W / A0：0.4 k W (1PH) / 00：0.4 k W / 01：0.75 k W / 02：1.5 k W
  - **V** — Cable material: V：VCT / P：2PNCT
  - **06** — Cable length: Length：meter (Standard＝06：6m)
  - **620** — Frequency/Voltage: 510：50Hz/100V / 520：50Hz/200V / 538：50Hz/380V / 540：50Hz/400V / 610：60Hz/100V / 620：60Hz/200V / 622：60Hz/220V / 640：60Hz/400V / 644：60Hz/440V
- **N** — Trash prevention net: N：With the net / No indication：Without the net
- **T** — Special condition: T：Special type / No indication：Standard type

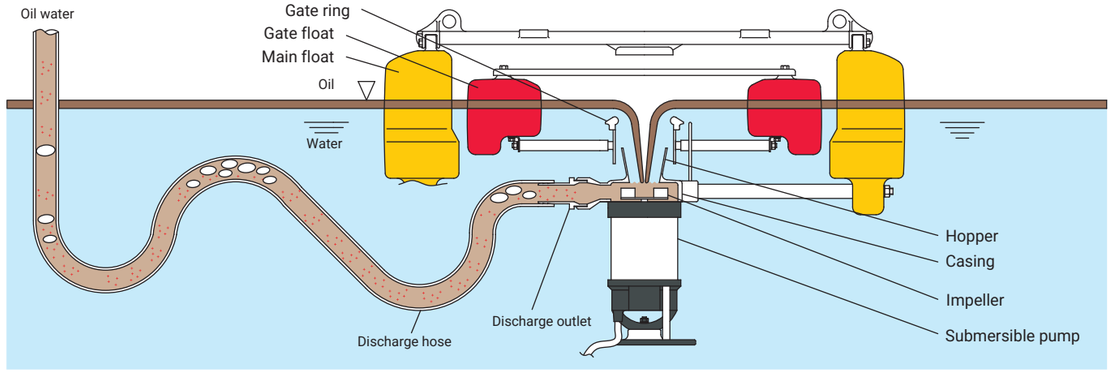
※ Please ask us about other voltage, if necessary.

< Double float structure >

Oil floating on the surface of the water is usually spread out and not very thick.
When collecting surface oil, the most important aspect of skimmer design is how to reduce excess water suction and improve oil-water collecting efficiency.
The double-float structure is designed to follow flexibly the up-and-down swing of the skimmer due to wave swaying and air entrainment, as well as fluctuations in the liquid level, to continuously collect surface oil at all times.

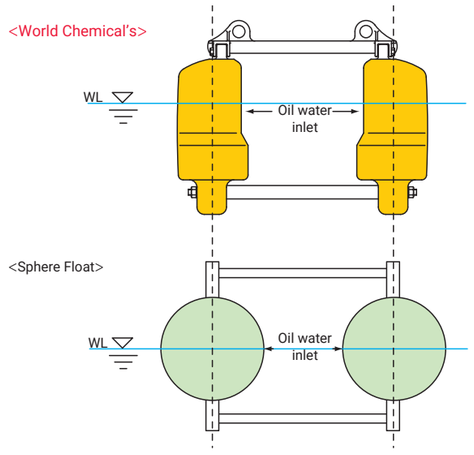
Please watch the video. (You Tube)

※ The inflow rate can be adjusted by simply adjusting the gate ring.



< Specially molded main float shape >

The distance between the oil water inlet areas has been widened by slimming the main float's draft. Floating oil and scum with viscosity flow smoothly into the suction inlet compared to spherical floats. In addition, the underwater section is thickened to provide the buoyancy necessary to keep GYRO SKIMMER afloat.



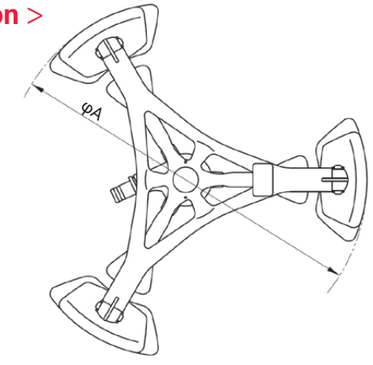
< Specification >

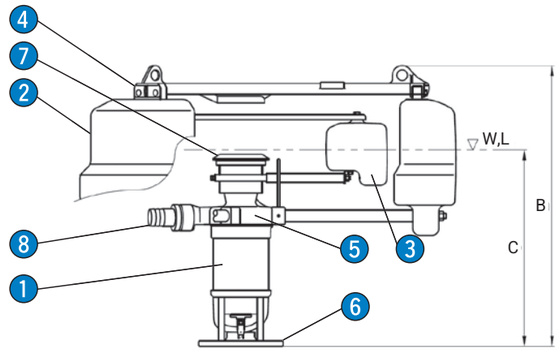
Product		Floating skimmer with a submersible pump			
Conditions of Use		Wastewater from ambient temperature to 40 degrees (Max.). (Acid & Organic solvents cannot be mixed in.)			
Objects to be collected		Mineral oil, animal and vegetable oil, scum, and powder floating on water surface			
Model		YD-600GYP	YD-800GYP	YD-1000GYP	YD-1200GYP
Installation area (approx.)		Approx. 1 m x 2 m tank	Approx. 2 m x 3 m tank	Approx. 3 m x 3 m tank	Approx. 5 m x 5 m tank
Spec.	Performance	THD 4 m x 15 L/min.	THD 4 m x 40 L/min.	THD 7 m x 50 L/min.	THD 7m x 100L／min.
	Gate ring cap diameter	φ60 mm	φ95 mm	φ95 mm	φ165 mm
	inflow head	5 mm	7 mm	10 mm	10 mm
	Power	1PH, 100V 0.25kW 50/60Hz	1PH, 100V 0.25kW 50/60Hz	1PH, 100V 0.4kW 50/60Hz	3PH, 200V 0.75kW 50/60Hz
		3PH, 200V 0.25kW 50/60Hz	3PH, 200V 0.25kW 50/60Hz	3PH, 200V 0.4kW 50/60Hz	
	Outline	φ560 x 538.5H (100V) 528.5H (200V) (mm)	φ780 x 674H (100V) 663H (200V) (mm)	φ1000 x 651H (100V) (200V) (mm)	φ1200×659H (mm)
	Weight	Approx. 13kg	Approx. 22kg	Approx. 23kg	Approx. 28kg
	Bore	φ25 hose joint	φ38 hose joint	φ38 hose joint	φ50 hose joint
	Submersible pump	Main body：SUS304 / Impeller：Glass fiber reinforced ABS resin			
		Shaft seal：Double mechanical seal			
Material	Frame	AC（Surface polyester resin powder coating）			SUS304
	Casing	SCS13	AC（Surface: Polyester resin powder coating）		PVC
	Float	Main float / Gate float：PE resin molding (exclusive use)			
	Cable	Cabtyre cable for submersible pump：VCT×6m			
Accessary	Discharge hose	Flexible hose φ25×5m	Flexible hose φ38×5m	Flexible hose φ38×5m	Flexible hose φ50×5m

Spec. change	Cable extension	Cabtyre cable for submersible pump extension：Please consult with us for 10m/15m/20m/25m or more. (For single-phase, 100 V, the maximum length is 10 m.)
	Cable material	Cabtyre cable for submerislb pump material change (Standard: VCT → 2PNCT selectable)
	Different voltage	Submersible pump voltage change (for 3-phase motors)
	Hose extension	Please request the desired hose extension length.
Option	Anti-dust measures	PE “dust-preventing net” can be attached to the entire circumference of the GYROSKIMMER. (1” wide mesh)

＊The contents are subject to change without notice for product improvement.

< Dimension >





mm

	Voltage	A (Outer)	B (Height)	C (Below the draft)
YD-600GYP	100V	φ560	538.5	413.5
	200V		528.5	403.5
YD-800GYP	100V	φ780	674	459
	200V		663	448
YD-1000GYP	100V	φ1000	651	455
	200V			
YD-1200GYP	200V	φ1200	659	462

1	Submersible pump	6	Cable protection base
2	Main float	7	Gate ring
3	Gate float	8	Hose joint
4	Main flaot frame		
5	Casing		

We have experience in pumice stone collecting.

By changing the casing structure and impeller material inside the submersible pump, pumice stones floating on the sea were collected. We have a variety of other experience and can make proposals that suit your site. Demonstrations are also available in some cases, so please feel free to contact us about collecting floating oil and solids.

Pumice stone collecting Click here for video (YouTube)

Heavy duty type

Use

1. For collecting floating oil mixed with cutting chips from centralized coolant tanks.
2. For collecting floating oil mixed with mud and sand at contaminated soil remediation sites.

Feature

The combination of a SiC double mechanical seal and an FC pump is ideal for collecting oil mixed with slurry and sludge.

Model		YD-810GYP
Installation area (Approx.)		Tanks of approx. 2 m × 3 m
Spec.	Performance	Hea 4 m × 40 L/min.
	Gate ring gap diameter	φ95 mm
	Inflow head	10 mm
	Power	Single phase: 100V 0.25kW 50/60Hz
		Three phase: 200V 0.25kW 50/60Hz
	Outline	φ780 × 711H (100V) (200V) (mm)
	Weight	Approx. 22 kg
	Bore	φ38 hose joint
	Submersible pump	Main body / Impeller : FC
		Bearing seal : SiC double mechanical seal
Material	Frame	AC (Surface: Polyester resin powder coating)
	Casing	PP
	Float	Main float / Gate float : PE resin molded product
	Cable	Cable for Submersible pump : VCT × 6m
Accessary	Discharge hose	Flexible hose φ38 × 5m

Small type

Use

The small float (φ450 mm) can be used in narrow places such as manholes.

Feature

The combination of a SiC double mechanical seal and an FC pump is ideal for collecting oil mixed with slurry and sludge.

Model		YD-40PS
Installation area (Approx.)		Tanks of approx. 2 m × 2 m
Spec.	Performance	Hea 4 m × 50 L/min.
	Gate ring gap diameter	Each φ100 mm at two locations
	Inflow head	Each 15 mm at two locations
	Power	Single phase: 100V 0.25kW 50/60Hz
		Three phase: 200V 0.25kW 50/60Hz
	Outline	φ450 × 568H (100V) (200V) (mm)
	Weight	Approx. 22 kg
	Bore	φ38 hose joint
	Submersible pump	Main body / Impeller : FC
		Bearing seal : SiC double mechanical seal
Material	Casing	FC
	Float	Main float : FRP / Gate float : HI. PVC
	Cable	Cable for Submersible pump : VCT × 6m
	Anti-dust net	PE
Accessary	Discharge hose	Flexible hose φ38 × 5m

Large type (High head)

Use

1. For collecting floating oil in deep pits where self-priming is not possible.
2. For installation of deep floating oil pits with a lot of slurry and sludge, such as scale pits.

Feature

1. When the head is 15 m, the capacity is 100 L/min.
2. The combination of a SiC double mechanical seal and an FC pump is ideal for collecting oil mixed with slurry and sludge.

Model		YD-160PS
Installation area (Approx.)		Tanks of approx. 10 m × 10 m
Spec.	Performance	Hea 15 m × 100 L/min.
	Gate ring gap diameter	φ175 mm
	Inflow head	12 mm
	Power	Three phase: 200V 0.25kW 50/60Hz
	Outline	φ1600 × 1013H
	Weight	Approx. 75 kg
	Bore	φ50 hose joint
	Submersible pump	Main body / Impeller : FC
		Bearing seal : SiC double mechanical seal
Material	Casing	PP
	Float	Main float : PP / Gate float : PP
	Cable	Cable for Submersible pump : VCT × 10m
	Anti-dust net	PE
Accessary	Discharge hose	Flexible hose φ50 × 5m

JETFLO

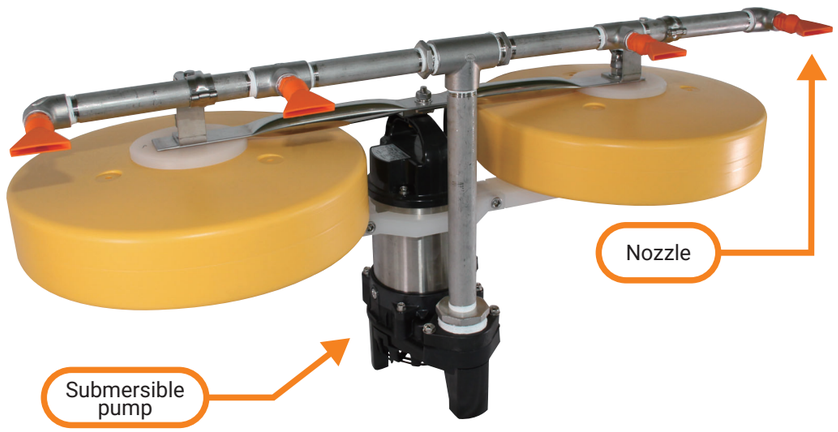
Floating scum sweeper

JETFLO

Water jets create a current on the water surface,
helping to collect oil and scum.

〈 **Model** 〉

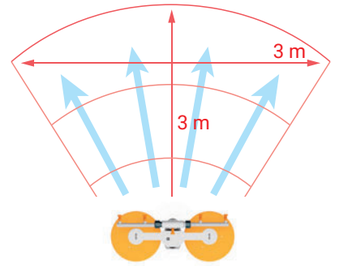
YD–25JFL



< Specification >

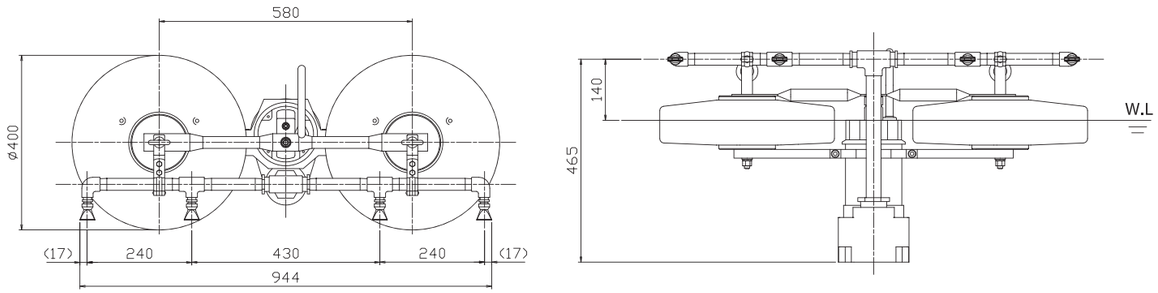
Model		YD-25JFL
Spec.	Performance	Head 1 m x Capacity (Jet) 200 L/min.
	Range	From 1 to 3 m
	Power (Submersible pump)	Single phase 100 V / 0.4 kW (50/60 Hz) Three phase 200V / 0.4 kW (50/60 Hz) Insulation : E, With thermal protector
	Outline	L 944 x W 400 x 465 H (mm)
	Weight	Approx. 18 kg
	Liquid temp.	Up to 40 degrees
Material	Submersible pump	Main body / Impeller : FC Sealing : SiC double mechanical seal
	Nozzle	Quantity : Four Shape : Flare, Width : 45 mm, Material : POM
	Float	Outline : Φ400, Material : PP
	Cable	Cable for Submersible pump : VCT x 6 m
Option	Control pannel	ON/OFF switch, Electromagnetic Switch, Intermittent operation timer

< Range >



The angle of the jet
can be freely changed by you.

< Outline dimension >

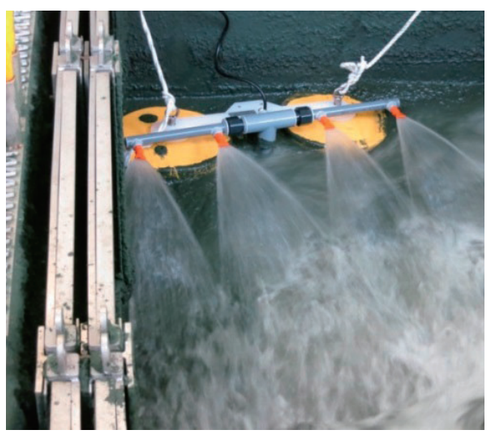


Use

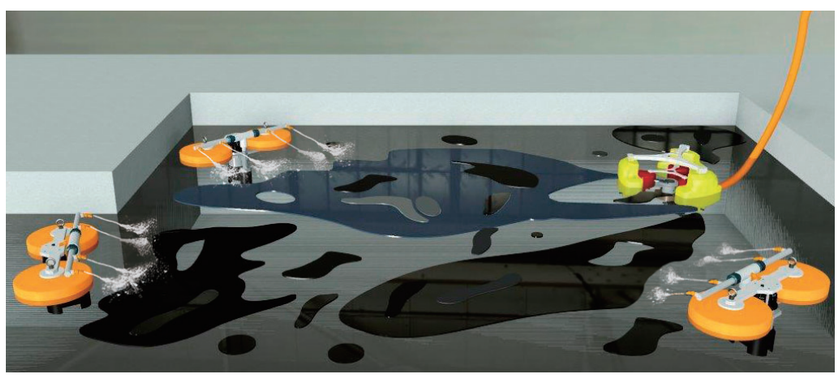
1. For collecting waste from paint recycle pits.
2. For collecting scum from wastewater pits in food factories.
3. For collecting blue-green algae and floating plants.

Features

1. This is a floating jet device (following changes in the water surface).
2. The generated flow carries away the highly viscous floating scum with poor fluidity, facilitating smooth collecting.
3. The creation of a current makes it easier for dry floating matter to be broken down, increasing to collect efficiently.
4. The spray angle can be changed to accommodate scum characteristics, foam, etc.
5. For large pits or pits with complex shapes, installing multiple JETFLOs can increase to collect efficiently.



Please watch
the movie.



Floating objects are collected as efficiently as a broom!

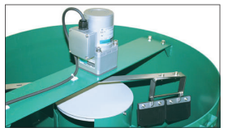
Oil separator : FO Ideal for GYRO SKIMMER

Separator : FO

Two different models, large and small, the 200FO and 400FO, are available.
Use in conjunction with the GRO SKIMMER.

Features

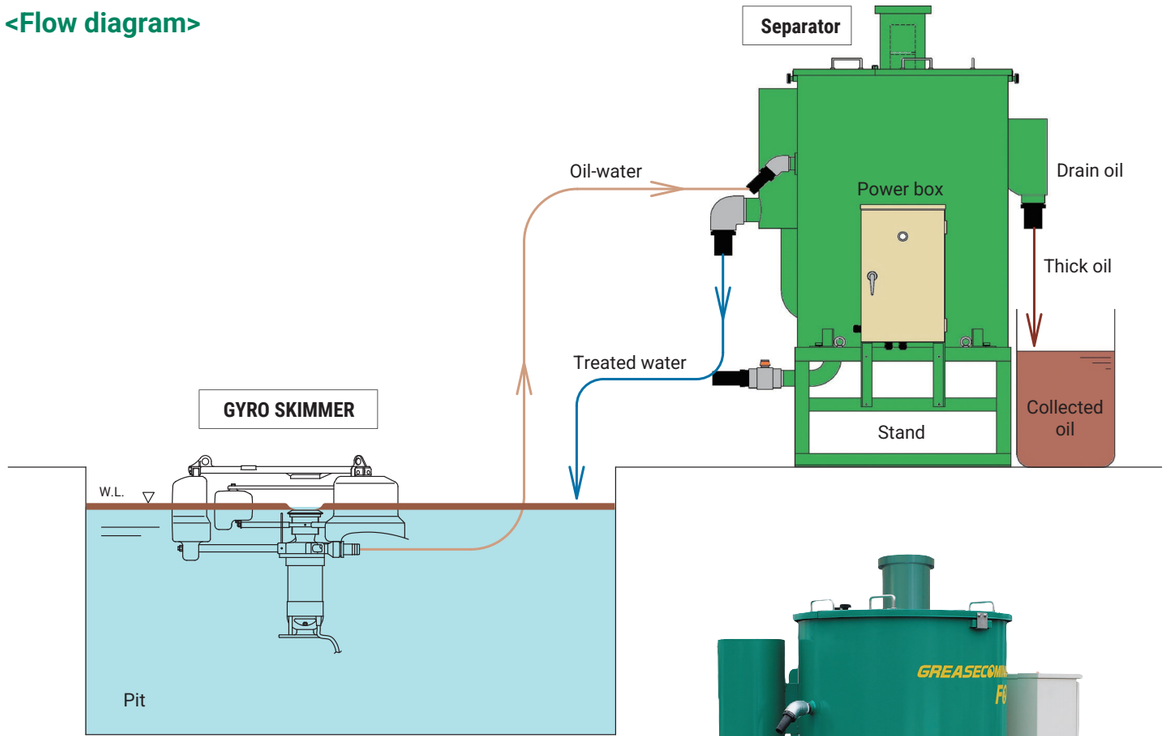
1. A control panel with a built-in inverter is attached to the main body of the separator, and GYRO SKIMMER can be started/stopped from the FO separator side.
2. The control panel is equipped with inverters for GYRO SKIMMER and the separator scraper.
3. By controlling GYRO SKIMMER with an inverter, it is possible to handle liquids that tend to foam easily and improve oil-water separation.
4. The scraper attached to the separator, which forcibly drains oil, is inverter controlled, allowing optimal adjustment of oil viscosity.



Scraper

Please watch the video.

<Flow diagram>

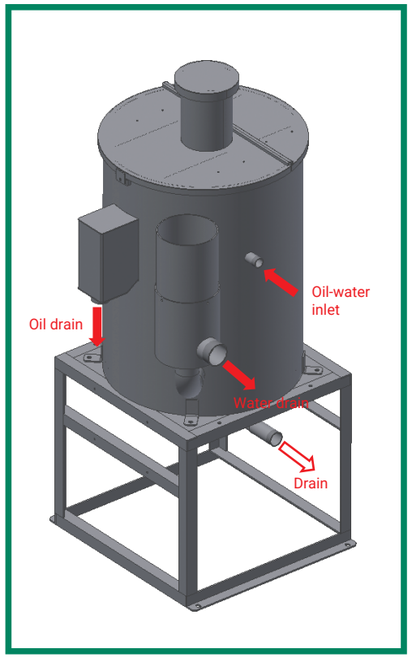


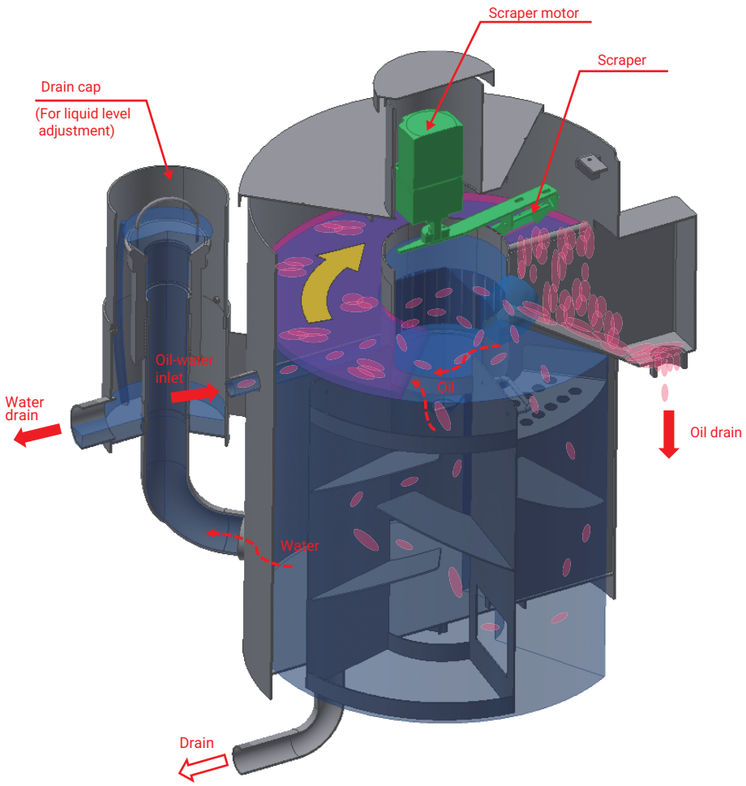
1. The placement of the power supply box and oil drain port differs from that of the actual equipment.
   Please refer to the assembly outline drawing.

2. A tank for collected oil is not included.

200FO separator

<Separator>





<Specification>

Model		YD-200FO	YD-400FO
Suitable model		YD-600GYP series	YD-800/810/1000/1200GYP/40PS series
Structure		Specific gravity difference separation method, Forced oil drainage method by using a large scraper	
Capacity		Approx. 200L	Approx. 390L
Outline		1086×810×1642H (including Stand)	1311×944×1742H (including Stand)
Material		SS	
Weight		Approx. 155 kg (Full water: Approx. 350 kg)	Approx. 225 kg (Full water: Approx. 620 kg)
Paint		Interior and exterior surfaces: Epoxy resin paint (paint color: Munsell 2.5G4/8 approx. color)	
Bore		Water inlet : φ25 hose joint	Water inlet : φ38 hose joint
		Water drain outlet : φ38 hose joint	Water drain outlet : φ65 hose joint
		Oil drain outlet : φ50 hose joint	Oil drain outlet : φ65 hose joint
		Drain outlet : φ38 hose joint	Drain outlet : φ50 hose joint
Scraper		Waterproof geared motor drive (The rotation speed can be changed by inverter control.)	
		Three phase, 200V, 40W, Waterproof geared motor	Three phase, 200V, 60W, Waterproof geared motor
Control box		Made of SS, Outdoor type Indicator light : White, Illuminated Push Button Switch for Driving : Red, IIIluminated Stop Push Button Switch : Green	
		Internal equipment : Earth leakage breaker, Inverter x 2 (Controll & start/stop the pump / scraper), Terminal block (Primary side & device connection)	
Accessary		Drain hose x 3 m, Oil drain hose x 1 m (with hose bands)	
Special change	Timer	Calendar timer (16 times per day x One week) can be stored inside the control box.	
	Material	Separatore made of SUS.	
	Control box	Can be changed to no control box.	

＊ The contents of this manual are subject to change without notice due to product improvements.