



METSI ENVIRO TECH PVT LTD

Innovative Technological Environmental Solutions

CLAIRE FONTAINE® FOOD WASTE, OIL & WATER SEPARATOR

Introduction

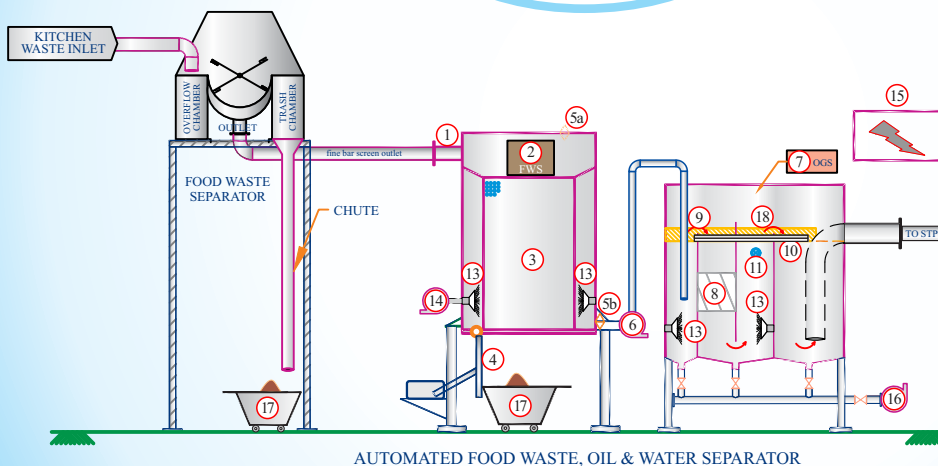
Gravity separators have huge disadvantages as the oil has to be removed physically or pumped out via a truck. The periodicity is critical and if it is not done in time, the oil and grease enters the waste water tank. This adversely affects the subsequent treatment.

CLAIRE FONTAINE® Food Waste, Oil & Water Separator feature a split design where food waste and Fatty Oil & Grease (FOG) are processed separately using automation for better operational efficiency and ease for the operator.



LEGEND

- ① WASTE WATER INLET.
- ② FOOD WASTE SEPARATOR (FWS).
- ③ PERFORATED STRAINER.
- ④ HYDRAULIC DUMP DOOR.
- ⑤a HIGH LEVEL WATER SENSORS.
- ⑤b LOW LEVEL WATER SENSORS.
- ⑥ TRANSFER PUMP.
- ⑦ OIL & GREASE SEPARATOR.
- ⑧ SYNTHESIZER MEDIA PACK.
- ⑨ GREASE LAYER.
- ⑩ SS GREASE SUCTION PIPE.
- ⑪ HEATER
- ⑫ VACUUM TANK & VACUUM PUMP.
- ⑬ SPRAY CLEANING NOZZLES
- ⑭ SPRAY CLEANING PUMP
- ⑮ CONTROL PANEL.
- ⑯ SLUDGE PUMPS
- ⑰ TROLLEY.
- ⑱ SIGHT GLASS.



CLAIRE FONTAINE® Food Waste, Oil & Water Separator

Principles of separation / synthesizing

- Oil is not soluble in water at atmospheric pressure.
- Whatever is soluble is only an emulsion and not a solution
- Water is denser than oil based solvents
- Oil always tends to separate and float on water

Food Waste Separation

- Food waste is separated in an SS strainer.

- Food waste separated is conveyed through a specialized screw conveyor.

Oil and Grease Separator (OGS)

- Heater is used to thin out oil and grease for better evacuation.
- Baffles are placed inside OGS to ensure that oil floats on top and water flows underneath.
- A Vacuum pump evacuates oil from the oil & grease floating in the top layer.

Technology

- Oil and water passes through gravity or is pumped into the oil and water separator system.
- Oily water enters the separator where solids are captured in the SS strainer. Dump door or Screw Conveyor removes debris automatically.
- Solid particles trapped in the first trash chamber drops automatically into the trolley.
- Oil rises to the top of the separator and is continuously removed automatically with the help of optical sensors.

Key Features

- Food Waste Separator (FWS) has a perforated sheet is removed automatically.
- Transfer Pumps transfers the liquid into the OGS Separator
- OGS Separator has a hopper for settling
- Grease evacuation is enabled via heaters and evacuation pipes that are connected to the vacuum tank
- Sampling Port is a spring loaded valve
- Sight Glass is for observation
- SS Trolley is to collect segregated solid food waste
- Spray cleaning pump gets rid of deposits and declogs strainer holes.

- Heating mechanism is provided for oily fats from solidifying.
- Vacuum system evacuates oil free water in to the oil tank.
- Oil content in the output water will be less than the regulatory norms.
- Drain valve under the system will let out the accumulated sludge.

Note : For separation of any emulsified oil, additional treatment is required.

Materials of Construction

Separators are made of stainless steel or mild sheet, sand blasted and powder coated.

There are no consumables or replaceable filters in our system.

Additional Product Range

- Coolant recycling systems
- Oil cleaning systems
- Coolant cracking systems
- Oil centrifuges
- Hydrocyclone liquid - solid separator
- Emulsified oil removal
- Helipad oil removal

SEMI & FULLY AUTOMATED MODELS

MODEL.	CAPACITIES	FWS Size (In Mtrs)	OGS Size (In Mtrs)
CFA01	1 m3/hr.	Dia.600 x 1250H.	1500x600x800 H.
CFA02	2 m3/hr.	Dia.600 x 1250H.	1500x650x800 H.
CFA03	3 m3/hr.	Dia.600 x 1250H.	1500x600x900 H.
CFA04	4 m3/hr.	Dia.960 x 1250H.	1500x650x900 H.
CFA05	5 m3/hr.	Dia.960 x 1250H.	1550x 600x1000 H.
CFA06	6 m3/hr.	Dia.960 x 1250H.	1600x 650x1000 H.
CFA07	7 m3/hr.	Dia.960 x 1250H.	1820x 650x1000 H.
CFA08	8 m3/hr.	Dia.960 x 1250H.	1820x 700x1050 H.
CFA09	9 m3/hr.	Dia.960 x 1250H.	1900x 700x1125 H.
CFA10	10 m3/hr.	Dia.1100 x 1250H.	2050x 725x1250 H.
CFA11	11 m3/hr.	Dia.1100 x 1250H.	2050x 750x1250 H.
CFA12	12 m3/hr.	Dia.1100 x 1250H.	2100 x 800x 1250 H.
CFA13	13 m3/hr.	Dia.1100 x 1250H.	2150 x 850x 1250 H.
CFA14	14 m3/hr.	Dia.1100 x 1250H.	2200 x 850x 1250 H.
CFA15	15 m3/hr.	Dia.1100 x 1250H.	2200 x 1000x 1250 H.
CFA20	20 m3/hr.	Dia.1100 x 1250H.	2700 x 1000x 1250 H.
CFA25	25 m3/hr.	Dia.1100 x 1250H.	2700 x 1250x 1250 H.

MANUAL OGS MODELS

MODEL.	CAPACITIES	Size (In Mtrs)
CFM01	1m3/hr.	1.90Lx0.32Wx0.90mH
CFM02	2m3/hr.	1.90Lx0.60Wx0.90mH
CFM03	3m3/hr.	1.90Lx0.60Wx1.20mH
CFM04	4m3/hr.	2.10Lx0.60Wx1.20mH
CFM05	5m3/hr.	2.25Lx0.60Wx1.20mH
CFM06	6m3/hr.	2.35Lx0.75Wx1.20mH
CFM07	7m3/hr.	2.40Lx0.80Wx1.25mH
CFM08	8m3/hr.	2.50Lx0.90Wx1.25mH
CFM09	9m3/hr.	2.50Lx1.10Wx1.25mH
CFM10	10m3/hr.	2.72Lx1.22Wx1.22mH

MANUAL OGS - UNDER THE SINK

MODEL.	Size (In Mtrs)
CFU01	0.70Lx0.0.46Wx0.35mH
CFU02	0.90Lx0.0.45Wx0.45mH
CFU03	0.90Lx0.0.60Wx0.60mH