

API OIL SEPARATOR

Wastewater from restaurants, laundries and household contain significant amounts of oil, grease and detergents. Oil especially is very troublesome due to its persistence and solubility at relatively low temperature, which makes their removal very difficult. Grease on the other hand has a detrimental effect on biological matter and hence needs to be removed before any treatment as involving microorganisms.



API Oil Separator

Mechanism

The API Oil Separator is provided to remove the free-floating oil from wastewater. The process employed here is in line with the practice of American Petroleum Institute, which has widely developed such measures for liquid oil separations.

Free-floating oil is separated from the wastewater under quiescent condition offered by API Separator type units. The separation of the used oil is based on the theory of gravity separation. The units are designed for oil of specific gravity 0.92 and that of wastewater as 0.995 at operating temperature of 50° C. The average diameter of oil globule to be removed is assumed as 0.015cm and absolute viscosity of 0.01 centipoise.

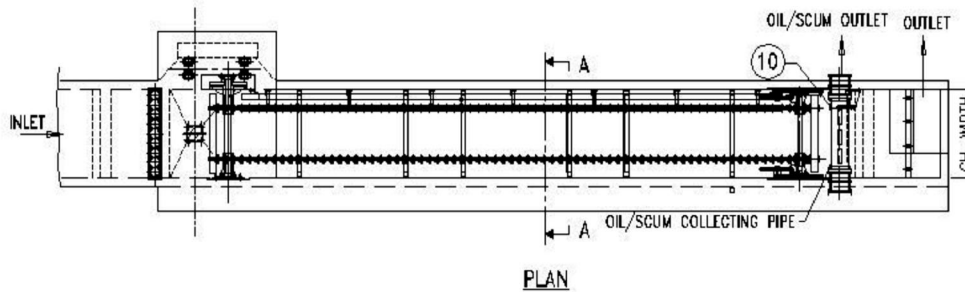
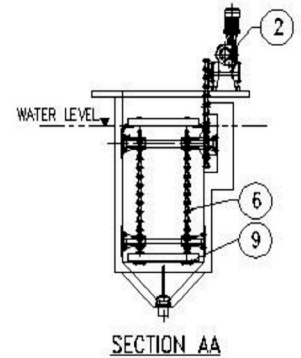
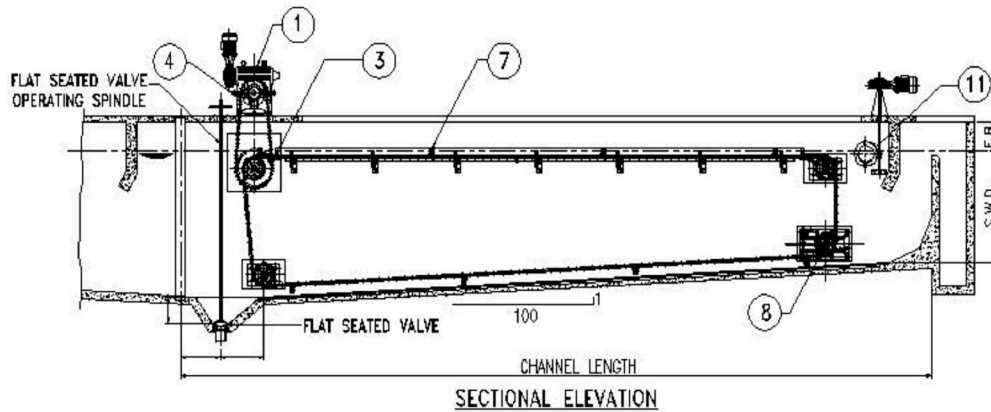
Pre-separator channel is provided to reduce the turbulence of water before it is allowed to flow through the separator. The wastewater passes through the pipe diffusions of the API Separator, which increases the velocity of the water and as a result the oil globules get separated from the wastewater and rise to the surface. The oil skimming mechanism subsequently removes this oil.

Performance

Voltas API Oil Separators are equipped to remove up to 90% free oil depending on inlet loading conditions.

Applications

The API Oil Separator is generally used in treatment schemes for refinery and steel plant effluents. Another area where this separator comes in handy is in the removal of oil and grease from kitchen wastes.



11	WORM AND WORM WHEEL ASSY.
10	SKIMMER PIPE ASSY.
9	BOTTOM GUIDE ASSY.
8	CHAIN TENSIONING DEVICE
7	WOODEN LOGS
6	CONVEYOR SPROCKET
5	CONVEYOR CHAIN (WITH F2 ATTACHMENTS.)
4	DRIVE SPROCKET
3	DRIVEN SPROCKET
2	DRIVE CHAIN
1	WORM REDN DRIVE UNIT
SR NO.	DESCRIPTION

General Arrangement of a Typical API Oil Separator

Size Range

Voltas has supplied Oil Separators of sizes ranging from 4 M to 50 M in length and 1 M to 5.5 M in width.

Material of Construction (Under Water Parts)

Mild Steel Epoxy Coated/ Galvanized/ FRP Coated/ Stainless Steel 304/ Stainless Steel 316

Note: Bill of materials and details indicated in General Arrangement drawing is only to give an idea about equipment configuration. Specific scope of supply will be as per mutual agreement after discussion.

For more information contact:

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