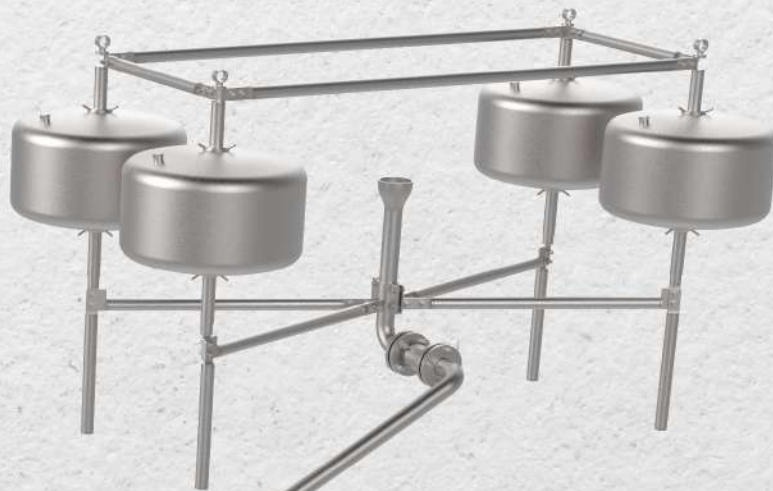


FLOATING FUNNEL

A Gravity Oil Skimmer Product

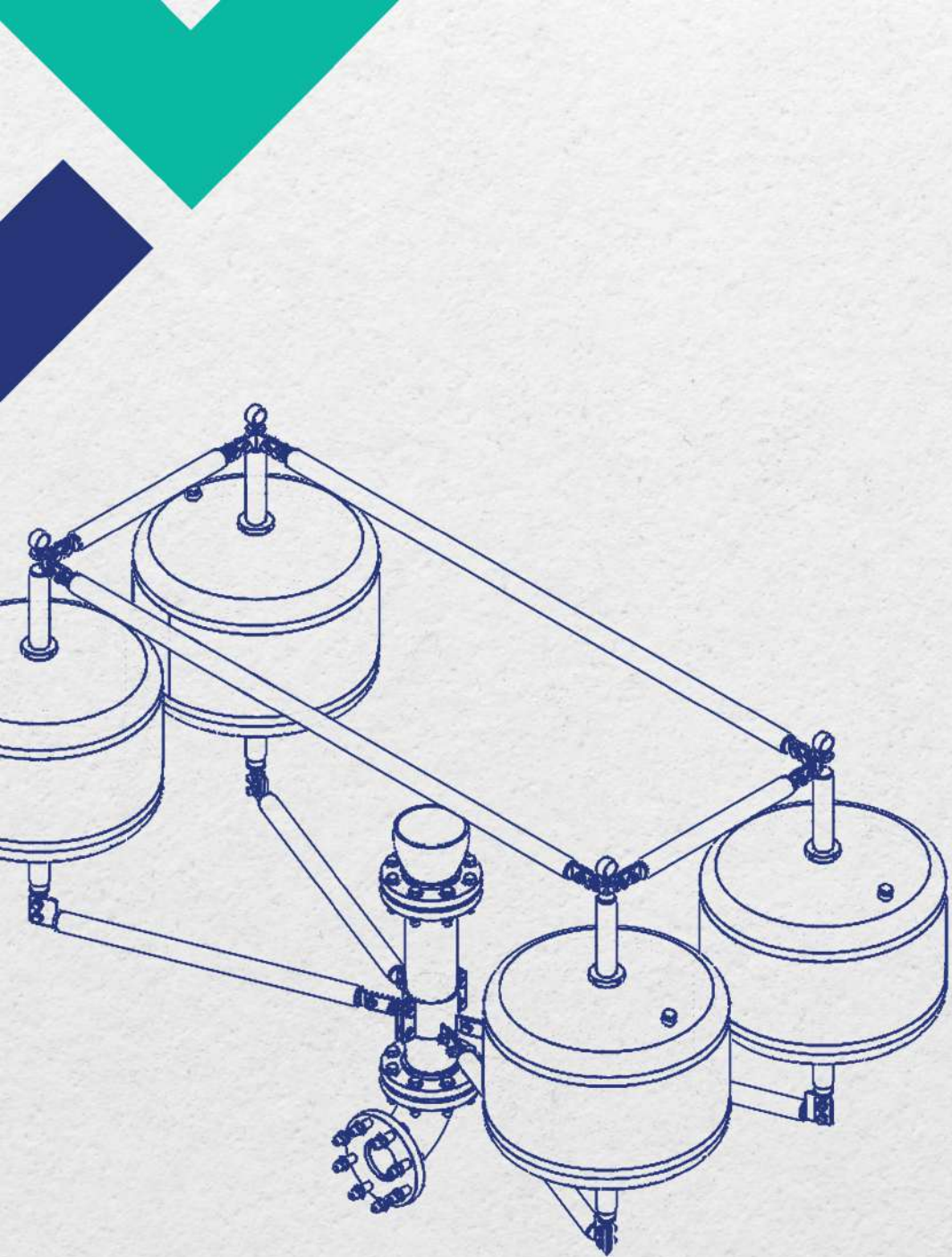




FLOATING FUNNEL

The floating funnel oil skimmer stands as a stalwart and cost-effective solution in the realm of free-floating oil extraction, whether ensconced within a closed roof tank, be it of the floating, dome, or cone variety, or out in the open expanse of tanks. Our ingeniously designed skimmer possesses a self-operating prowess, capitalizing on the principles of buoyancy inherent to its floating structure, coupled with the steadfast force of gravity propelling the effluent through the funnel skimmer's outlet.

At its core, this marvel comprises the central funnel, the floating body assembly, and a supple hose pipe or an artfully articulated arm boasting a swivel joint. Due to surface tension free-floating oil travels towards the funnel and drains out from the bottom of the



ABOUT PROBLEM



Float puncture

Puncture of the float may take place inside the tank which can lead to potential operational problems.



Locating skimmer position

the skimmer position inside a tank can be challenging, especially if it's not immediately visible or if there are complexities in the tank's design.



Skimmer requires constant manual adjustments

When a skimmer requires constant manual adjustments, it can be a significant operational issue.



Twisting of suction hoses

This issue is particularly relevant in situations where precise positioning and stable operation are crucial.



High Cost

The high cost associated with additional electrical or moving parts in a floating skimmer can present several significant challenges.

OUR SOLUTION

Float

Fully submerged floats are used in our system in order to nullify the system weight. It is filled with foam. Before filling the foam, the float is pneumatically tested at 0.5 PSI for any leakage.

Skimmer Head

The Skimmer Head is a compact assembly with a four-bar mechanism, adjustable floats, and a central funnel. It includes a guide roller for stability. Position adjustments are effortlessly made with float adjustment nuts.

Guide Pole

Guide pole helps the movement of skimmer head in a single vertical direction thus avoiding hitting of skimmer head with tank internals and side.

Level Indicator

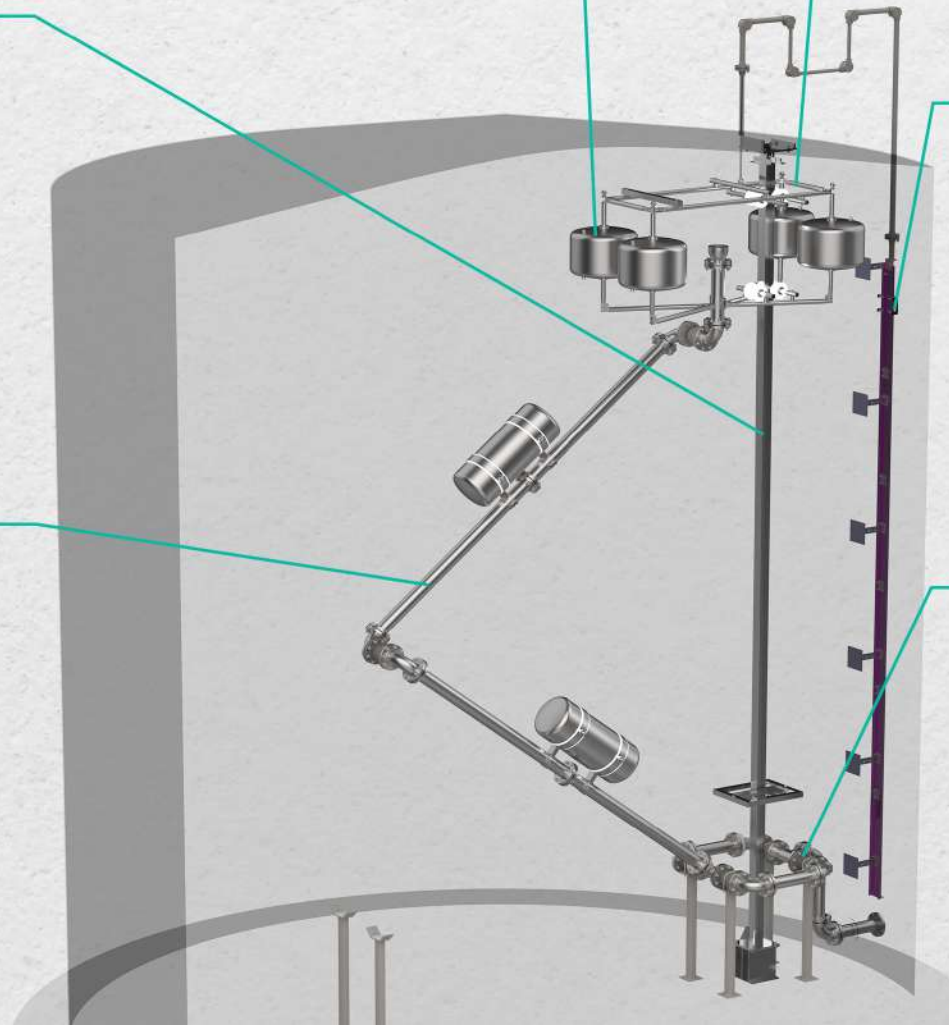
Level Indicator used in our system is of Float and Board Type. Level Indicator shows the relative position of skimmer. The scale is painted with white epoxy paint and the numbers are riveted / bolted with the scale

Articulated Pipe

Our system consists of Single & Double articulated arms. MOC of all pipes and fittings will be SS316L, SS304, SS304L, SS316, Duplex Steel, Super Duplex Steel, Inconel or the material on the request.

Swivel Joint

The swivel joint has a step design with four seals for submerged use. It operates in balance, halting axial movement of the long articulated arm, thus reducing system load risk and eliminating off-center movement.



SALIENT FEATURE

- ✔ High Capacity Operation - Proficiently handles substantial quantities of floating oil from tanks.
- ✔ Robust Construction - Built with a solid, reliable, and sturdy framework for lasting performance.
- ✔ Customized Material & Arrangements - Tailored to specific MOC & arrangements based on individual requirements.
- ✔ Precised Float Adjustment - Each unit tested in the test tank for reliable setting of funnel position.
- ✔ Cost-Effective Maintenance - Low maintenance requirements, reducing overall operational costs.
- ✔ 360-Degree Fluid Intake - Draws fluid from all directions around the skimmer for comprehensive cleaning.
- ✔ Material Certification Assurance - Comes with appropriate test certificates ensuring the quality and integrity of the materials used.

Types of Arrangements we Offer

Flexible hose and Guide rope / Guide pole

Guide rope/pole helps the movement of skimmer head in a single vertical direction due to which the oil skimmer travels in a guided direction thus avoiding hitting of the skimmer head with any tank internals & sides. One end of flexible hose pipe is connected to funnel outlet & other end of the pipe will be connected to oil outlet nozzle at tank through flanges. The floating oil enters in the funnel mouth and passes through the flexible hose to the outlet of tank.

Single Arm

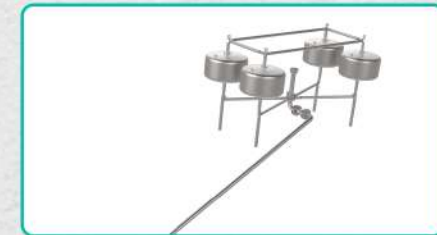
Due to the flexibility of flexible pipe air gets trapped in the hose. To overcome this, we use an articulated pipe instead of hose pipe. Depending on the diameter and height of the tank articulated arm can be single arm or double arm. The floating funnel sucks the floating oil in the tank and it is delivered through the articulated pipe at the bottom of the floating funnel.

Double Arm & Guide Pole

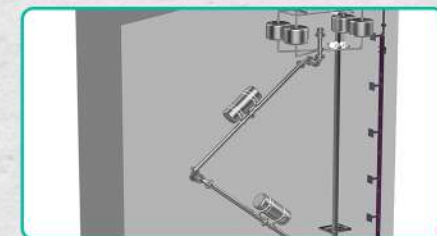
In some cases where the geometry of the tank doesn't allow the use of a single articulated pipe a double articulated pipe is used. As per our experience, the double articulated arm performance is very much dependent on the movement of each arm. In some cases, it is observed that one arm starts moving and the second arm doesn't move until the chain locking both the arm is tensioned. This restricts the performance of the oil skimmer in all positions. In order to overcome this problem 'POTENTIAL ENGINEERING' has introduced a Guide pole in the double articulated arm oil skimmer, which ensures the movement of both arms simultaneously.



Flexible hose and Guide rope / Guide pole

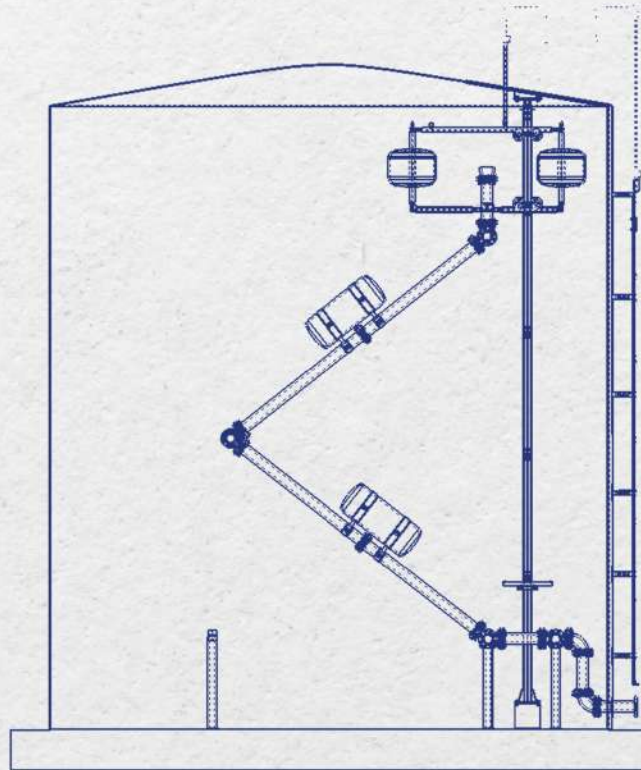


Single Arm



Double Arm & Guide Pole

MODEL SELECTION MATRIX



SKIMMER TYPE	MOC	SIZE OF SKIMMER	GUIDE TYPE	NO OF ARM	ACCESSORIES
Floating funnel with hose pipe	MS	2"	Guide Pole	Single arm	Hose Support
Floating funnel with articulated pipe	SS304	3"	Guide Rope	Double arm	Pipe Support
	SS304L	4"			Level Indicator
	SS316	6"			Drum
	SS316L,	8"			
	Inconel				
	Duplex Steel				
	Super Duplex				

For custom sizes, please contact our sales team, sales@potential.net.in



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