PITBULL® PUMPS CREATE AN OIL WATER SEPARATOR OUT OF A CONVENTIONAL SUMP

Overview: Shown are two Pitbull® pumps in standard ‘gravity fed’ mode. They will only cycle when their pump chambers are filled. This requires the liquid level outside the pump to be near the top of the pump chamber (as shown with dotted line). The ‘water’ pump fills from deep in the sump, taking in only water but cannot fill completely enough to cycle unless the level is at the dotted line. It will hold this liquid level, cycling to match the incoming flow.

Oil coming into the sump will float on the surface in a layer that becomes thicker as it collects until it builds up to the ‘oil’ pump intake (just slightly above the ‘dotted’ operating level being held in the sump). From this condition forward, any oil coming into the sump carries over into the ‘oil’ pump intake and any water sinks and is picked up by the ‘water’ pump.

The key concept here is that the pumps are not pulling suction, but run instead by gravity. This keeps them from upsetting the hydraulics of oil/water separation as virtually all other pumps will. In addition, the Pitbull® pump is extremely gentle and non-shearing on fluids, minimizing emulsion and dissolved content. Our pumps are even certified for pumping live organisms.

Using this configuration allows almost any pit or tank to be used as a separator, and when applied to a free standing tank the pumps need only to be connected to the overflow legs to give 100 psi discharge pressure capacity to a gravity driven process.

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