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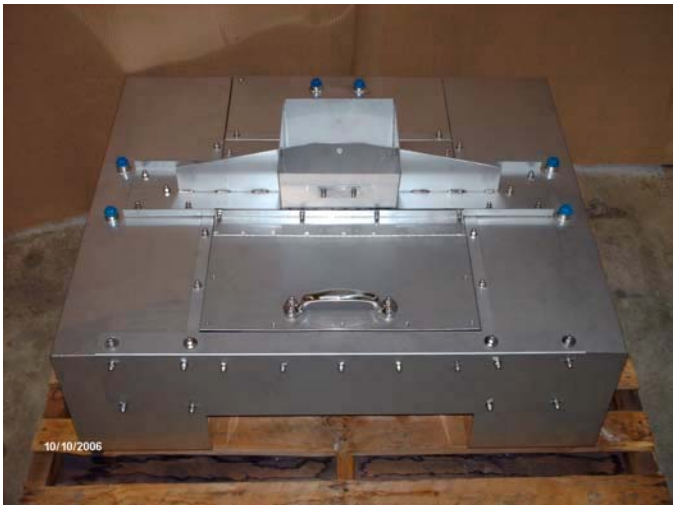
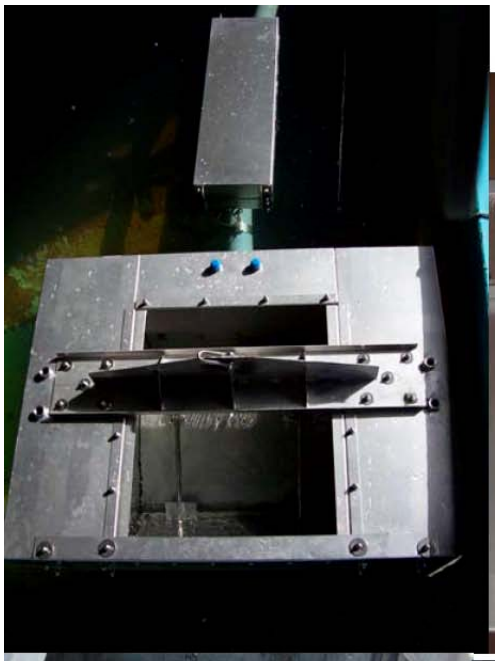
Floating decanter internal operations

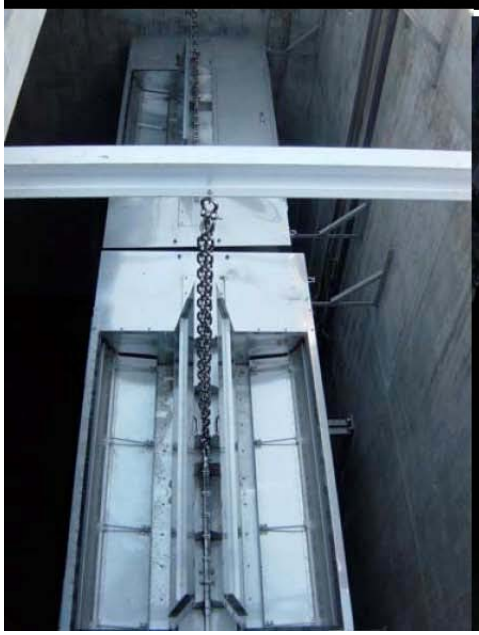
Skimoil floating decanters are 100% stainless steel construction.

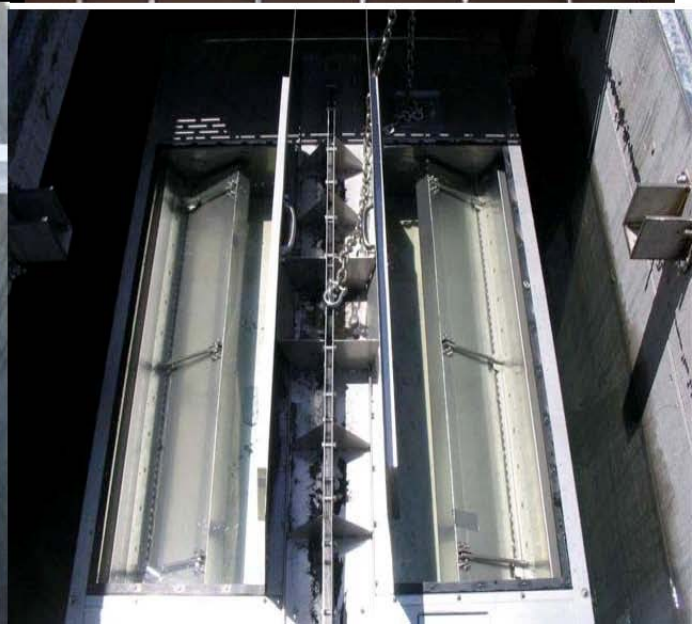
Each decanter has fill and drain ports in each floatation tank to adjust buoyancy of the units. (Fill ports are shown as blue caps below.)



Each floating decanter has “flow-controlled” weirs. The lengths of the weirs dictate the maxim flow rate each decanter can achieve. The smaller 11800-DH has a single 0.5 meter weir on one side of the decanter. The 11830-DH has two 1.5 meter weirs on opposite sides of the decanter. (Shown below are the 11800-DH and 11830-DH)

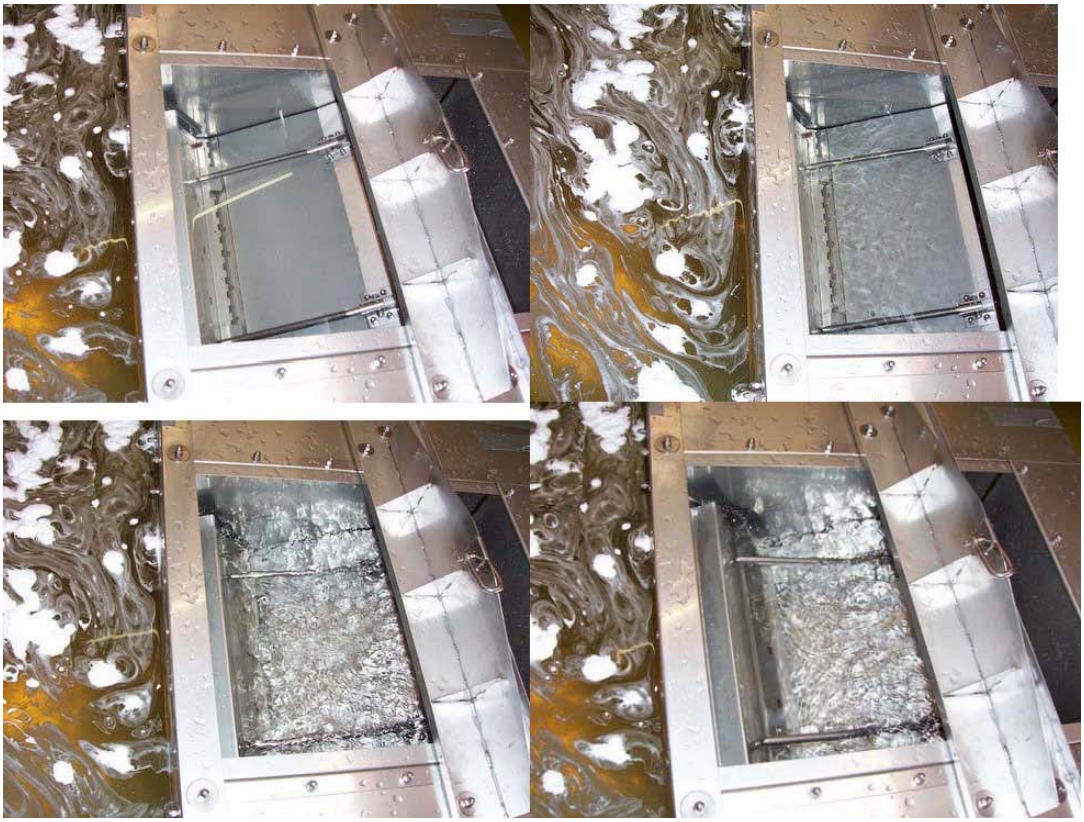






The “flow-controlled” weirs are unique in the industry. The weirs and flow automatically adjust to the flow rate being allowed to exit the decanter. On gravity flow deployments a valve is needed to control the decanter. This valve should be one that can control the flow being allowed to exit.

Shown below is a decanter in different stages of operation. In the top left picture it shows the decanter with the valve closed. As the valve is opened the weir drops, releasing the rods that hold the “trap door” closed. The weir will continue to lower until it equalizes with the flow being allowed to exit. The foam floating on the surface is not affected by the flow being drawn into the decanter 6” to 8” below the surface.



The “trap door” is held closed by the rods on the weir, when the valve is closed. As the valve is opened the weir lowers and allows the rods to release the “trap door”. As the water lowers in the decanter sump the pressure from the water out side the decanter forces the “trap door” open. The pictures below show a cross section of the decanter. The entrance into the decanter sump is on the right hand side.

Skimoil decanters have no spring, motors or actuators. The only moving parts are the hinges for the weirs and rods. This will allow for years of reliable service.

Typical deployments allow the decanter to gravity flow. Elevations of fluid in the sump in relationship to the exit flange elevation affect the maxim flow that can be achieved. Fluid levels in the surge tank that the decanter discharges into also will affect the flow rate of each decanter.

The valve discussed is not quote with the equipment. The valve needs to have the ability to control the flow in different positions of open.

Pictures of some of the many decanters are attached for your review.