



## Mechanically Removing Small Plastic Particles Out Of Cooling Tanks

### Question

I am currently working on a project where I am trying to mechanically remove small plastic particles out of a coolant tank. The particles settle onto the bottom and I am working on trying to get a way to convey them out into a hopper/ dump station to get rid of them. When the plastic collects on the bottom of the tank it creates a mud-like substance. Is there a good way to convey small particles out of a liquid?

### Answer

A screw classifier is the solution for separating the small plastic particles from the liquid. A screw classifier is basically an inclined screw conveyor with a large reservoir or tank for holding the combined liquids and solids. The solids are allowed to fall to the bottom of the tank by gravity. The inclined screw rotates at a very slow speed to prevent turbulence and conveys the solids out of the liquid to a discharge point. The reservoir or tank has a wiper on the backside to allow the liquids to reach a specific level before discharging. The liquids can then be recycled back into your process.

KWS designs and manufactures screw classifiers for many different industries including plastics recycling and water treatment. The screw classifier design for your application is based on total flowrate of solids and liquids. The reservoir or tank must be large enough to allow the solids to settle out without turbulence from the incoming flow. The inclined screw is sized based on the solids flowrate. Please submit the flowrate of both the solids and liquids and we would love to help you with your application.



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