**Introduction**

The Pit Purification Solution is a portable unit providing staged filtration for cleaning drill water. All filters are made of non-corrosive stainless steel and designed for water. The water to be cleaned passes through a series of filters providing progressively finer filtration.

The drill water first passes through a twist flow strainer, which is effective at removing coarse particles through a unique inlet arrangement and housing design that uses centrifugal force to separate solids from the fluid. The water then enters a backflushing filter that captures solid particulate that are smaller in size. Because of the way these first two filters operate, they have the added bonus of not requiring the elements to be replaced, and thus can remain functional indefinitely.

Next in line is a duplex bag filter housing, which features an extremely high dirt holding capacity. Unlike the first two filters, the bag elements will need to be changed out periodically.

The photos below show the filter housings described above.