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What is a Power Sluice or Highbanker?

A power sluice, also called a highbanker, is a piece of equipment that uses a pump to force water through a sluice to mimic the natural flow of a stream. Sometimes a hopper with spray bars is employed, where the gravel is introduced into the sluice, to wash the gravel over a classifier screen to remove pieces of rock that are too large to go through the sluice. The water pump can be either electric or gas powered. If the unit is designed to catch and recirculate the water it is called a recirculating power sluice, or recirculating hibanker.

Rather than haul material to the water, you can bring a lightweight, efficient power sluice to the water source. The [power sluice](#) can work remote placer deposits hundreds of feet away from the water source. In the case of recirculating units, they can be operated in desert areas with very little water.

The typical hopper design washes clay and debris with a high pressure washing spray bar and all washed material becomes classified to less than a half inch for selective recovery. The spray bar may be equipped with a water valve for ease of controlling the flow in the sluice.

The sluice itself is constructed like a normal stream sluice except it is equipped with an adjustable independent leg support system that enables the power sluice to be assembled on any type of terrain in a matter of minutes.

Combination Power Sluice Dredges

If a power sluice uses a high-pressure gasoline engine, it is relatively easy to adapt it so that it can also function as a dredge. Combining the popular power sluice and portable dredge creates an efficient recovery system that can be used in most any situation. Typically these dredges have 1.5 to 2.5 inch [suction nozzles](#) and are designed to work in shallow water without the need of underwater diving equipment or air compressors.

Gasoline or Electric Pump?

There are advantages and disadvantages to everything and choosing between an electric or gas pump is puts you in the same dilemma. 12-volt electric pumps are lighter and quieter than their gasoline-powered counterparts but require a battery. Large 12-volt electric pumps can deliver a lot of water flow but do not have the head pressure that a gasoline pump can deliver.

Generally, if you want to make a nice quiet power sluice or recirculator, a 12 volt electric pump is recommended. These pumps are submerged and make no noise. If you prefer a [high banker](#) with high pressure spray bars, or to use the unit as a dredge, you are going to need a gas-powered pump.