

Waste Water Evaporators

INOV8 has manufactured a unique line of waste water evaporators for 15 years – designed to save operating costs for businesses that generate waste water. Typical evaporators use very expensive electricity or natural gas or propane to eliminate the bulk of the water. Less expensive fuel oil or diesel cannot be used except in INOV8 evaporators. So the huge cost advantage of the INOV8 evaporator is in operating cost savings. Fuel expense would be meaningless however, if the evaporator was designed poorly with low efficiency. So INOV8 carefully designed the evaporator body with durable stainless steel that is surrounded by water so that the steel never exceeds the temperature of boiling water (212°F). As the flame temperature approaches 2000 degrees F there is nothing to slow the transfer of heat into the water. There can be no higher heat transfer efficiency than this design.

When that high heat transfer efficiency is combined with low cost fuel or even free fuel (if it is available), there can be no more cost effective way to permanently dispose of dirty water. Competing evaporator designs brag about their low cost of disposing of one gallon of dirty water to be between \$0.03 and \$0.12. INOV8 reduces that significantly to less than one penny per gallon. If waste oil is available, then it reduces even further to **\$0.0021** per gallon.

When using waste oil the operating costs are basically the electric consumption of the burner and controls approximated at 20 amps or 2.4 kW per hour. Multiply that consumption rate by the per kilowatt rate in your area. Then divide by the number of gallons to be evaporated per hour.

$$2.4 \text{ kWh} \times \$0.08 / 60 \text{ gallons per hour} = \$0.0032 \text{ disposal cost per gallon}$$

Other Impressive Financial Results

When businesses invest in capital equipment they consider what the “return” on their investment needs to be. They compare to what could be gained by putting the equivalent investment into the bank or into stocks and bonds instead and determine what an acceptable yield (in percentage) would be over the life of the equipment (for example a 10 year period). Assuming they want a moderate yield of 8% the return on investment for a recent evaporator client was **298%** per year or **2,985%** over 10 years. Their payback was calculated using the disposal costs they no longer were paying. Their savings was such that the purchase price of the evaporator was covered in **four months**.

Many states offer incentives for energy efficient capital equipment purchases with tax incentives or rebates. Those add even more to the returns. There are very few capital purchases that come close to these returns and paybacks. Any accountant would give their blessings for such a great capital investment opportunity.