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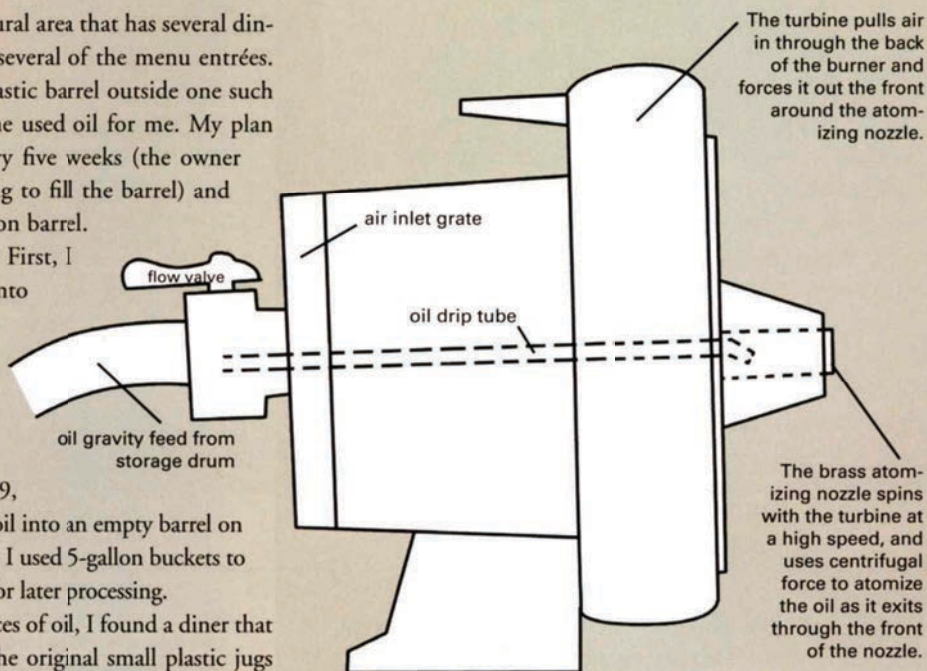
## FRENCH FRIED POTS

by Kent McLaughlin

I am fortunate to live in a very rural area that has several diners that use vegetable oil to fry several of the menu entrées. Initially, I placed a 30-gallon plastic barrel outside one such diner that had agreed to save the used oil for me. My plan was to swap out the barrel every five weeks (the owner predicted it would take that long to fill the barrel) and replace it with an empty 30-gallon barrel. I learned two facts immediately: First, I couldn't lift the full barrel of oil onto the back of my pick-up truck. Secondly, used, hot oil will melt plastic barrels.

I modified my plan by purchasing a manual bilge pump from West Marine (model # 2845519, \$36.99) and simply pumped the oil into an empty barrel on the truck. Once the oil was home, I used 5-gallon buckets to offload the oil into larger barrels for later processing.

After searching for other sources of oil, I found a diner that replaces the used oil back into the original small plastic jugs that it came in. The smaller containers eliminated the need for the bilge pump and barrels and greatly simplified the gathering process. Before using, the oil requires filtering to remove any



### All Carbon is not Equal

A few years ago, when I seriously began to explore this fuel for the kiln, I came across a student's masters thesis dealing with vegetable oil. A portion of the discourse dealt with poly-unsaturated and saturated oils used in cooking. Further searching led me to a way more information than I wanted or needed. The one thing I learned was that these fuels have more carbon atoms in their molecules than propane. This also coincided with my carbon trapping shino glaze period. I thought the two would be a perfect match. I discovered that although there may be more carbon atoms in the oil molecules, the bond between the carbon atoms seemed to be much stronger, freeing up less carbon to trap on the shino glaze. The initial firings produced very little carbon trapping. Now, I fire the kiln using oil and with the propane burners throttled way back and the primary air almost closed to help create a reducing atmosphere. I'm very happy with those results.

food particles. My filter is a homemade porcelain bowl (14½ inches wide × 5 inches deep) intended to be a sink with a 2-inch drain hole in the bottom. It fits perfectly over a 5-gallon pail. I used JB Weld to glue a 40-mesh stainless steel screen over the hole to act as a filter. When the pail is about half full of the filtered oil, I then pour it into my 55-gallon drum. The filtering/pouring process continues until the 55-gallon drum is about three quarters full. This ensures that there is plenty of fuel for the firing.

Once the kiln is preheated with propane to Cone 012, the oil burner is placed into its burner port and started. The heat in the kiln will ignite the oil. I use around 25 gallons of oil when I fire the kiln. The BTU rating on fry oil is approximately one and a quarter times that of propane so I estimate a savings of about 30 gallons of propane per firing. My firings are in the Cone 10+ range. The fuel cost savings are just a part of this equation. Some of my other considerations are renewability, sustainability, using a domestic fuel source and environmental concerns.

*Kent McLaughlin will be teaching a course on vegetable oil firing at Penland School of Crafts in Spring 2008. For more information, visit [www.penland.org](http://www.penland.org).*