



### **E-Fuel100 Fact Sheet**

E-Fuel Corporation  
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### **E-Fuel Corporation**

E-Fuel was founded in 2007 by entrepreneur Tom Quinn and ethanol scientist Floyd Butterfield to create the world's first home ethanol product for people who want to break their dependency on oil. E-Fuel has created a business model and product design that makes home ethanol access practical and cost competitive against gasoline. To achieve this, E-Fuel focused on three goals:

1. Removing the costly oil infrastructure from the process of producing and delivery of E-Fuel ethanol
2. Use of carbon credits to reduce pricing of ethanol feedstock
3. Stimulate E-Fuel ethanol demand through low cost of ethanol fuel (under a \$1 per gallon)

### **E-Fuel100 MicroFueller™**

MicroFueller is the world's first home ethanol product – a non-combustion ethanol micro-refinery system that combines a pump operation together with the ethanol production unit. These two features make it possible to produce and manage an individual's fuel needs without any reliance upon the costly oil industry infrastructure. MicroFueller solves the ethanol transportation issue by containing the refinery and pump delivery system within the same system – in other words, people can produce where they consume, using the MicroFueller to both create ethanol and pump their vehicle with fuel.

The MicroFueller is designed to be both environmentally sound and a money saving device for consumers—two important characteristics not often found in the same product.



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MicroFueller can be setup and operated in the back yard or side yard within 50 feet of your vehicle. It comes equipped with a 50 foot retractable fuel hose and nozzle, so the hose can be extended as far as the front yard for vehicle fueling.

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To make ethanol accessible and easy to use, a pump station is included in the MicroFueller's design, mimicking the same user-friendly LCD interface found at any local gas station pump. Micro-sensors and state-of-the-art membrane technology help house the MicroFueller in an appliance-size unit suitable for a backyard. Using sugar as opposed to starch (e.g. corn) keeps the unit size small and processing time short. It also solves the negative impact of using only corn, which has the least amount of CO2 carbon reduction benefit when compared to other feedstocks.

### **First of its kind**

The MicroFueller is unique as its inventor, ethanol scientist Floyd Butterfield, designed the ethanol distillation membrane system to replace the dangerous combustion heating elements used in commercial ethanol production. This makes the MicroFueller safe for use in the backyard or small business premises, such as restaurants and bars interested in turning discarded alcohol into ethanol. One other unique characteristic is the inclusion of a pump system, allowing the production and consumption of ethanol to occur on the same spot.

### **How it works**

Step one: The feedstock/E-Fuel yeast mix or discarded liquor are loaded through the fermentation tank door opening.

Step two: The user activates the LCD micro control panel for either fermentation (for feedstock) or distillation (for discarded liquor) mode to begin the MicroFueller ethanol production process.

Step three: Load weight sensors measure and determine the appropriate amount of water to flow into the tank for proper fermentation. As the fermenting sugar begins its natural ethanol conversion process, high tech ceramic cooler and heater devices under the micro control system maintain the temperature conducive for ethanol fermentation.

Step four: The completed dilutive ethanol mix is transferred to the distillation system for alcohol water separation. First separation occurs by vaporizing the mix in a vertical column tube which is then transferred to a membrane system for final alcohol separation.

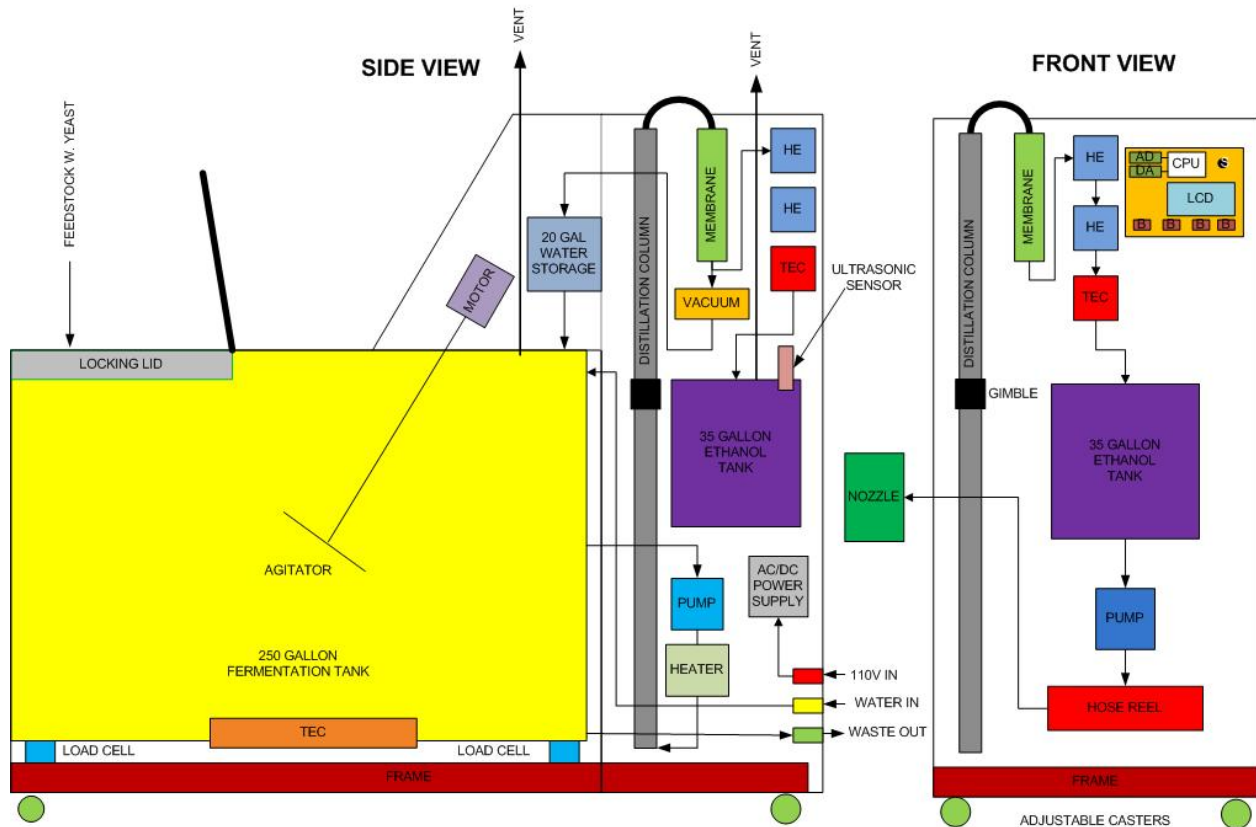
Step five: After both purified water and alcohol exit, the membrane distillation system sends the liquids to be cooled before entering their completed storage containers. The ethanol is now ready to be pumped into the customer's vehicle using the pump operation.

The MicroFueller will convert sugar feedstock into ethanol in approximately one week (the quality of the sugar will affect the fermentation time). Alcohol, on the other hand, will convert to ethanol in a matter of hours.

### **MicroFueller features and components**

1. A safe non-combustion membrane distillation system
2. 50 foot fueling hose, nozzle and pump system
3. User friendly LCD user touch interface
4. Dual key electrical and mechanical pump locking system
5. Discarded alcohol recovery mode, which creates ethanol from discarded alcohol
6. Small and lightweight solid structure made from a hot fuel compatible plastic design
7. Very low power consumption (150watts per day of operation typical)
8. Set-it-and-forget-it distillation operation, no constant monitoring

# MICRO FUELER



## Where to buy a MicroFueler unit and for how much

MicroFuelers are available online for sale internationally from FOB Hong Kong, China, FOB Paso Robles CA USA, United Kingdom and Brazil or at the [www.efuel100.com](http://www.efuel100.com) website. Orders are being processed for anticipated 2008 Q4 delivery in the priority in which they are received. The international list price is USD \$9,995. In the US, a 30% ethanol federal tax rebate is available, lowering the price to USD \$6,998 after rebate. E-Fuel also provides a wait list program requiring a deposit of USD \$3,000.

## Carbon Credit Coupon Program

E-Fuel is the only company in the world offering customers a discount program modeled on the Kyoto Protocol's "cap and trade" system. E-Fuel's exclusive Carbon Credit Coupon Program will reward MicroFueler owners for reducing their carbon footprint by allowing them to purchase discounted E-Fuel-certified sugar feedstock for ethanol production. By using E-Fuel's sugar-based ethanol, consumers can reduce their carbon emissions by 85% when driving.

More details on E-Fuel's carbon credit program will follow in the months ahead.

## Rewarding customers

By using MicroFueler and participating in E-Fuel's carbon credit program, customers can make ethanol for less than USD \$1.00 per gallon. The US Farm Bill, AKA the Food, Conservation, and Energy Act of 2008, established a sugar-to-ethanol program that allows surplus sugar to be sold for biofuels at 2 cents per pound, lowering the cost of Efuel100 production even more. If customers use discarded alcohol, that price drops to USD \$0.10 per gallon.

## Why ethanol?

1. It has a positive effect on your wallet: In some cases, fuel mileage can be lowered or improved depending upon the type of ethanol blend used. Ethanol is more efficient than gasoline because it burns slower. In general, the higher your vehicle's engine performance, the more ethanol will improve fuel mileage. This is why IndyCar™ and other high performance race cars use ethanol. Also, U.S. residents and businesses may apply for 30% tax rebate based on the cost of their Micro Fueler units.
2. It helps the environment: It reduces our reliance on finite fossil fuels, particularly oil. MicroFueler creates ethanol from sugar, the world's most widely available feedstock, which doesn't compete against our food supply, as is the case with corn. Studies demonstrate that sugarcane is up to 8 times more efficient for making ethanol than corn, and that powering automobiles on ethanol, as opposed to gasoline, will reduce a vehicle's carbon emissions by 85%.
3. It makes business sense: Restaurants, bars, wineries, breweries and distilleries discard tens of thousands of gallons of waste alcohol each year. The MicroFueler can be used in a distillation only system mode to convert discarded beer, wine or liquor into ethanol, offering such businesses an unexplored goldmine of revenue. Since fermentation is not required, any combination of discarded alcohol mixed together can be poured directly into the Micro Fueler fermentation tank to be converted into ethanol.