

### Frequently Asked Questions

### Q: If Petrogen systems have been around for 30 plus years, why haven't I heard of them?

A: Petrogen faces a distribution challenge. Cutting torches are sold almost exclusively by welding stores, which are mostly owned by gas companies. These gas companies rely heavily on gas sales as their primary source of profit . Therefore, it is not in their best interest to promote Petrogen Systems.

### Q: Why can't a Petrogen Torch weld?

A: Welding requires a neutral flame (neither oxidizing, nor carburizing) which liquid fuels are not capable of making. The liquid fuel flame produces too much oxidation (nearly 100% based on oxygen purity) which does not allow the two metals to melt together. This higher oxidation rate, on the other hand, is what makes the Petrogen system more efficient at cutting.

### Q: Aren't liquid fuels dangerous?

A: It is actually the liquid fuels that account for the majority of the Petrogen systems safety. Because of them: fuel line flashback is eliminated, sparks are less harmful, leaks are detectable, and system transport is much safer.

## Q: What allows the Petrogen Torch to cut through layers and air gaps?

A: There are two contributing factors for Petrogen ability to make layered and air gap cuts.

- 1. The highly oxidizing flame burns ALL the iron in the steel, adding to the heat (instead of acetylene only melting 30% of the iron which absorbs heat).
- 2. Liquid fuels release BTU's for longer, so the BTUs in the secondary flame have enough heat to continue heating deep into the steel.

#### Q: What is the lifespan of Petrogen tips?

A: Petrogen tips are known to last for a year plus with regular use. This is because, when the liquid fuel evaporates inside the tip, it creates a refrigerant effect. The larger the tip, the cooler it runs. Other reasons for longer tip life are the higher oxidation rate which creates less harmful debris, and the coupling distance that can be reached to distance the tip from potentially damaging heat.





# Q: Why would I change out my acetylene or propylene or propane which work just fine?

A: By switching to Petrogen you will start saving money on fuel cost (90% compared to acetylene), on oxygen consumption (30% compared to propane), and with increased efficiency.

### Q: Can you cut stainless steel or cast iron with the Petrogen Torch?

A: Petrogen systems, like other cutting torch systems, can manage to melt non-ferrous material, though can not gain proper ignition to achieve a cut. With regards to cast iron, it is important to keep in mind that there are many grades of cast iron. The quality of the cut is relative to the amount of iron in the material. The higher the iron content, the closer the cast iron will cut to regular steel. Some grades of cast iron have so little iron content that ignition is impossible.

### Q: Does Petrogen offer a warranty?

A: Yes, any Petrogen product found to be defective in materials or craftsmanship will be repaired or replaced at no charge during the warranty period (25 Years).

### Q: Can't I just retrofit my current torch setup?

A: No. Petrogen's Liquid fuel tips, torches, tanks, and hoses are all designed specifically for liquid fuels. Operators may reutilize their oxygen regulator/s and oxygen hose/s if they wish.

### Q: What kind of liquid fuels are recommended for use with the Petrogen Torch?

A: Any grade gasoline, "White" gas, camping fuel and stabilizer additive fuels all work well. You can also use diesel, biodiesel, or kerosene with the addition of the Multi-Fuel Adapter and High Heat Tip/s.

#### Q: Who is currently using the Petrogen Torch?

A: Thousands of people worldwide in every industry and service including fire/rescue, military, demolition, construction, fabrication, mining—in short wherever steel needs to be cut efficiently and safely.

#### Q: What temperature does the Petrogen Torch burn at?

A: Oxy-propane reaches 4900F, oxy-gasoline reaches 5200F, and oxy-acetylene reaches 5600F. Though, temperature is not as important as rate of BTU release. Liquid fuels release BTU's faster than any other cutting fuel, bringing the steel to its 2000F melting point faster than the other fuels.

