



This is not required as fuel does not have to be forced through compressed air.

I make my own injector to a small size as standard types are heavy. The spring required has to be on the heavy side to return the nozzle valve quickly on its seat. This nozzle is called a pintle type with a needle valve seat at 60 degrees. As the seat at the body is at 59 degrees, the needle valve has a cutting action when shutting, causing a fine spray of fuel at *very* high pressure. Do not hold a hand under spray. The seat will last for years as fuel acts to cushion the seat. Water must be kept out of fuel. If this injector is too difficult to make up, use a standard small injector that will take a pintle nozzle (Bosch 15S2) and set it to 700 psi.

The injector can be mounted to suit a top or bottom fired generator and must be mounted in the centre of combustion chamber with combustion air entering at side on a tangent to give better mixing with fuel. I have tried injectors mounted in the air stream, and cannot get the combustion to be perfect this way. A small amount of refractory helps when burning heavy oil. The injector preheat pipe must be mounted at opposite end of fire box. Use a loose tube with lock nut to hold the injector for easy servicing. The spark ignition is shown in the next illustration. This can be fitted under nozzle.

Many of the application details are different in another version of my fuel injection burner which I have had working and for which no spark is required.