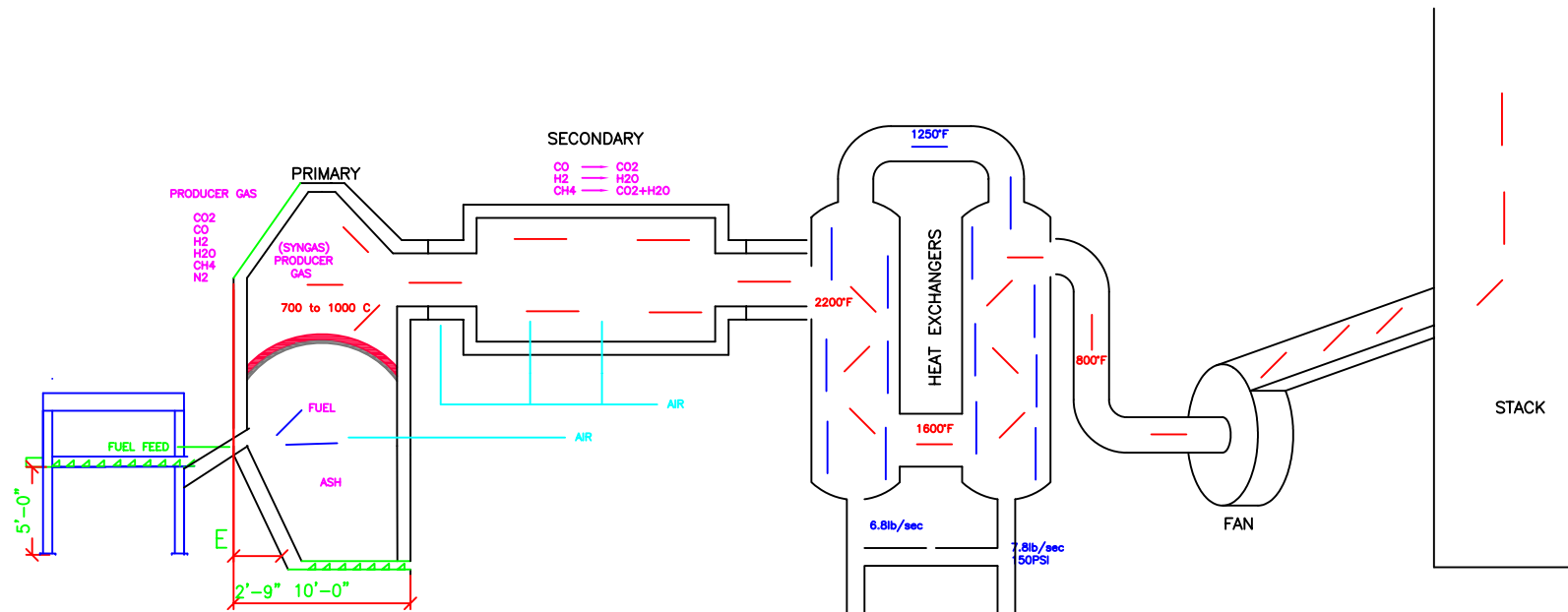


Flow Description Westwood Energy Gasification

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Gasifier Technician



Fuel is introduced into the primary chamber. As it nears the surface of the fuel bed the water and volatile material evaporates and travels through the hot char area at the surface of the fuel bed. As there is little or no oxygen available to react the gas it passes through to the oxidizer where we stage the air to maintain a constant temperature and completely react the gases. The objective in the primary chamber of this technology is to create as little disturbance as possible by limiting the amount of air that goes into this chamber. This helps prevent the launching of particulate. The second objective of this area is to keep a steady temperature below the reaction temperature of many of the compounds that create problems to the environment.

In the Oxidation chamber we introduce the rest of the air for complete reaction of the carbon and hydrogen compounds to CO₂ and H₂O. The completely reacted gas is then passed to a heat exchanger for energy applications.

The system has a Natural gas back up system to ensure that the temperature profile is maintained despite variations in fuel and moisture content. This unit will also be activated in case of shut down or mechanical failure of the equipment.