

# Boiler operator steam plant operations

## book 1

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**What are the basics of boiler operation?** Working Principle of Boiler Hot gases are produced by burning fuel in the furnace. These hot gases are made to come in contact with the water vessel where the heat transfer takes place between the water and the steam. Therefore, the basic principle of the boiler is to convert water into steam by using heat energy.

**What are the operations of a steam boiler?** They convert energy into steam through a process of fuel combustion and heat exchange, and provide power, heating and control functions to meet the demands of industrial production. The design and optimisation of each component has a significant impact on the efficiency, safety and reliability of the boiler.

**How does a steam boiler work step by step?** Steam boilers function by creating a combustion reaction by electrical ignition between air and fuel. This causes tubes within the boiler that are immersed in water to heat up. The heat raises the water temperature











