

95,000 SCFH Hydrogen Plant for Sale

Capacity

Hydrogen 95,000 SCFH (2,600 Nm³/hr)

Feedstock

Natural Gas

Products

Hydrogen 99.9 % purity

Process Technology

Howe Baker Engineering of USA

History

Build in 1992

Raw Material and Utility Consumption

(Per 1000 SCF)

Natural Gas 974.33

Electricity 10.11

Major Equipment

- Atlas Copco Instrument Air Compressor
- Atlas Copco Instrument Air Dryer
- Norwalk Hydrogen Compressor
- Howden Natural Gas Compressor
- PSA Vessels
- Syngas Reformer
- Deltak Boiler
- Process Steam Generator
- Steam Drum
- Hydrotreater
- Desulfurizer
- PCS7 Siemens Control System
- Belco Demineralized Water Tank



BRIEF PLANT DESCRIPTION

Phoenix Equipment has this used Hydrogen Plant for sale. Natural gas enters the plant at approximately 50 PSIG, and is compressed to approximately 370 PSIG at 190 degrees F. This feed gas stream is preheated to approximately 750 degrees F, and then goes to the hydrotreater where the organic sulfur compounds react with the recycle hydrogen and are converted to hydrogen sulfide over the cobalt-moly hydrotreating catalyst. The feed gas then flows through the desulfurizers where the H₂S reacts with the zinc oxide catalyst, to form zinc sulfide, which is retained by the zinc oxide catalyst. The desulfurized feed gas mixes with steam, and flows through the reformer convection section where it is superheated to approximately 950 degrees F in the reformer feed preheat coil. The feed mixture then is fed to the reformer furnace, where it flows up through the nickel reforming catalyst at a temperature of approximately 1440 degrees F. The flue gas from the reformer is approximately 1900 degrees F is used to preheat the feed gas, steam generator, steam Super-heater, and boiler feedwater preheat circuit.

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