

25,000 Nm³/hr Hydrogen Plant for Sale

Capacity

Hydrogen 25,000 Nm³/hr
Balanced Gases from PSA unit as tail gas to Reformer

Feedstock

Natural Gas (Methane)
LPG (Liquid Petroleum Gas)

Products

Hydrogen 99.99 mol%
(CO + CO₂ max. 10 ppmv)
High pressure steam 40 Bar at 350 °C

Process Technology

Foster Wheeler

History

Build in 2007

Major Equipment

- Methane Gas Compressor
- LPG compressor
- LPG vaporizer
- Reformer
- Hydrodesulphurization Reactor
- Sulphur Absorber
- Adsorber
- Waste Heat Boiler
- Steam Drum
- Blow Down Drum
- Feed Gas Knock-Out Drum
- Tail Gas Knock-Out Drum
- Shift Converter



BRIEF PLANT DESCRIPTION

Phoenix Equipment has this used Hydrogen Plant for sale. Methane is supplied the gas compressor, mixing with LPG (if supplied) and recycled gas at a total flow rate of 15.8 tons/hr at 30 Bar. The gas compressor is a LMF type B254-360N3.3 electrically driven 6KV 1400KW, 3 stage piston type. It delivers 10,400 Nm³/hr, suction pressure 2.8 bar, discharge pressure 33 Bar, 375 rpm. The mixed gas is fed to the top section of the reformer which is gas fired by flue gas. It is heated to 300°C in two passes and fed to the hydrodesulphurizer reactor, which is loaded with 5 tons of CoMo catalyst. The gases then pass through two sulphur absorber reactors which have 15.8 tons of zinc oxide catalyst in both. Then, the gas passes through the radiant section of the reformer to heat to 520°C and then through the reformer tubes at 27 bar. There are totally 96 tubes. The H₂/CO rich gases exit the reformer tubes at 875°C, passing through the reformer waste heat exchanger. The plant includes a complete pressure swing absorption unit for final hydrogen product purification.

For more information contact -

Edward Zhang, Plant Sales
plants@phxequip.com
+1 732.520.2187 (Direct Dial)
+1 845.242.3378 (Mobile)

To discuss plants you are selling -

Jesse Spector
plants@phxequip.com
+1 732.709.7157 (Direct Dial)
+1 908.902.8854 (Mobile)