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Hydrogen Plant - 750 Nm3/hr (26,500 SCFH)

Capacity: 750 Nm3/hr (26,500 SCFH)

Raw Materials: Natural Gas.

Process Information: Hydrogen is produced by steam methane reforming of natural gas at high temperatures and high pressures in the presence of catalysts followed by a pressure swing adsorption (PSA) unit for the purification of hydrogen.

Major Equipment

- Burner, Ignition burner
- Reformer and Reformer tubes
- Syngas header, Combustion air blower
- Heat exchanger (Luvo)
- Feed heat exchanger and Feed heat exchanger (pre-
- Hydrator (including installed catalyst)
- Desulphuriser (including installed catalyst)
- Feed-steam heat exchanger
- Steam boiler
- Blowdown vessel
- BFW pre-pump, BFW main pump, BFW Tank
- Degasifier and CO shift (including installed catalyst)
- Syngas Cooler, Separator, Bypass
- PSA Adsorber Vessel, Tail Gas Buffer Tank

Brief Plant Description

Used 750 Nm3/hr (26,500 SCFH) Caloric designed Steam-Methane-Reformer (SMR) Hydrogen Plant. Hydrogen is produced by steam methane reforming of natural gas at high temperatures and high pressures in the presence of catalysts followed by a pressure swing adsorption (PSA) unit for the purification of hydrogen. High purity hydrogen at 99.999 vol%, max. 1 ppmv CO. 290 psi (20 bar) supply pressure @104F (40C) max temperature, natural gas feed, no export steam. Plant design consists of internal cooling water system and redundant chillers. 26 kW shaft power required, 400V/50Hz/3Phase, Compact skid mounted design, PLC panel. The plant already dismantled, ready for relocation.

Products

Hydrogen