

7,200 Nm³/h Hydrogen Purification Plant for Sale

Capacity: 7,200 Nm³/h

Product:

99.9% pure hydrogen
Outlet gas pressure 16 barg

Raw Materials:

Mixture of hydrogen and methane, which contains small quantities of ethane, nitrogen, carbon dioxide and carbon monoxide.
Inlet gas pressure 18 Barg.

Year Built: 1997

Year Shut Down: 2014

Process:

PSA (Pressure Swing Adsorption), including four (4) basic process steps:

- Adsorption
- Depressurization
- Regeneration
- Repressurization

Modular design and prefabricated equipment.

Major Equipment:

- Absorption column
- Cyclonic separator
- Tail gas drum
- Valve skid
- Intermediate storage tank
- Digital control system



BRIEF PLANT DESCRIPTION

The purpose of this hydrogen purification plant is to purify raw hydrogen which is mixture of hydrogen and methane, also containing small amount of ethane, nitrogen, carbon dioxide and carbon monoxide. The inlet gas has pressure at 18 bar. The outlet hydrogen product has purity of 99.9 vol. % and at 16 bar. The unit is controlled through a "digital system of control command". The digital regulation is configured and programmed for the specific applications. The plant uses PSA process. The contaminated feedstock gas is pumped into absorption column. The impurities in the feedstock gas are adsorbed onto the internal surfaces of the adsorbent beads, leaving hydrogen in the vessel. Pressure in the column is reduced, releasing the impurities from the adsorbent material. Two (2) fuel gas compressors of 3 700 Nm³/h each are available with this hydrogen plant sales package. Equipment is skid-mounted for easy relocation. Maintenance necessity is limited to routine actions, which can be carried out by the operators on site.

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