

Plant #  
**542**



## 46.5 MMSCFD SYNGAS (HYCO) Plant for Sale

**Capacity:** 46.5 MMSCFD

**Raw Materials:** Natural Gas

**Process Information:** Down-fired SMR that includes feed preparation, reformer, syngas cooling, steam generation, hydrogen separation, carbon dioxide removal section (amine section), and carbon dioxide compression for recycle.

### Major Equipment

- Hydrotreater
- Desulfurizer
- Shift reactor
- Steam methane reformer
- Cross exchanger
- CO2 compressor
- CO2 stripper
- CO2 absorber
- Hydrogen membrane separation unit
- Syngas cooler
- Boiler

### Brief Plant Description

Steam Methane Reformer is located in Lake Charles, LA with direct access to natural gas and hydrogen pipeline. Unit is Linde-designed down-fired SMR that includes feed preparation, reformer, syngas cooling, steam generation, hydrogen separation, carbon dioxide removal section (amine section), and carbon dioxide compression for recycle. The SMR has 120 radiant-section catalyst tubes in three rows with 40 tubes in each row. Originally built in 1994 as part of a hydrogen plant, the SMR was initially shut down in 2005. In 2015, the unit was converted from a full-scale hydrogen plant to a syngas plant to feed an adjacent gas-to-liquids plant. SMR was redesigned and upgraded by Linde to improve several sections and to increase the syngas capacity as well as to add new radiant tubes and (36) new low NOx burners. All 36 burners are forced draft, natural gas down-fired, arch mounted burners. They are all single-jet, low-NOx units from Zeeco. The burners are designed to utilize a mixture of hydrogen and natural gas. The plant is being kept under a nitrogen blanket. All electric motors are being "bumped" weekly or they have been removed and are in climate-controlled storage. Many spare parts are available. Full technical documentation available. Unit can be purchased with real estate and Fischer Tropsch GTL Plant #543 and Wax Upgrade Plant #544 for operation in place.

**For more  
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