



Sulfuric Acid Plant - 230 TPD

Capacity: 2100 TPD

Process Information: Double-absorption sulfuric acid to process an acid stream from an acid gas removal unit (AGR), an ammonia acid gas stream from an ammonia stripper

Major Equipment:

- AGR Gas KO Drum
- Decomposition Furnace
- Waste Heat Boiler
- Gas Cooling Tower
- Weak Acid Coolers
- Effluent Stripper
- Drying Tower
- Main Compressor and Motor
- Converter and Heat Exchanger
- Interpass Heat Exchanger
- Interpass Absorption Vessel
- Final Absorption Vessel
- Product SO₂ Stripper

Brief Plant Description

Used double-absorption sulfuric acid plant designed by MECS (Monsanto Enviro-Chem System, Inc.) to process an acid stream from an acid gas removal unit (AGR), an ammonia acid gas stream from an ammonia stripper, and a sulfur dioxide stream from a hot gas cleanup unit (HGCU). The acid gas removal unit is a conventional amine unit using MDEA. The ammonia stripper unit is a steam stripping system that removes the hydrogen sulfide, carbon dioxide, ammonia and other gases from sour water. The hot gas cleanup unit uses a solid reactant to remove sulfur compounds from a gas stream and is then regenerated with dry air. The plant produced industrial grade 98% sulfuric acid. The plant consists of 4 process sections: (1) Formation of sulfur dioxide (SO₂) gas in the decomposition furnace with the combustion of H₂S gas. (2) Cooling and purification of the SO₂ process gas. (3) Convention of the SO₂ to sulfur trioxide (SO₃) gas. (4) Absorption of the SO₃ in sulfuric acid.

**For more
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