

4 TPD Sulferox (SFX) Unit for Sale

Capacity: 4 TPD Sulfur

Raw Materials: Sour Gas, Aqueous Ferric Iron Fe(III), Hydrogen Sulfide

End Product: Elemental Sulfur, Treated Gas

Process Information

The SFX Process is a continuous reduction-oxidation (redox) process that converts hydrogen sulfide in sour gas to elemental sulfur through the reaction with aqueous ferric iron. Solid sulfur particles (cake) are formed and removed by thickening and filtering of the process stream.

Major Equipment

- LP Gas Absorber
- Flash Vessel Separator
- Sour Water Stripper
- Vertical Regeneration Vessel
- Water Cooled Heat Exchanger
- Larox Filter

Applications

- Refinery Hydrotreater off-gas
- Amine off-gas
- Refinery process streams
- Coke oven gas
- Primary Natural Gas Treating
- Associated Gas (Onshore & Offshore)



BRIEF PLANT DESCRIPTION

Phoenix Equipment has this refinery Sulferox (SFX) unit available for sale immediately. This 4 TPD SFX unit reduces the hydrogen sulfide in sour gas streamed from the refinery, producing non-toxic elemental sulfur and treated gas. The Sulferox Process uses three (3) steps in the process: absorption, regeneration, and sulfur recovery. During absorption, the sour gas stream comes into contact with aqueous ferric iron Fe(III), which oxidizes the hydrogen sulfide forming elemental sulfur. Regeneration involves the re-oxidation of the iron(III) using an air blower to maintain a supply of active iron. To maximize sulfur recovery, the elemental sulfur formed in the first reaction is concentrated in a surge tank and then filtered out. The filtrate is returned to the process for maximum ferric iron solution recovery. The filter consists of a number of pressure plates which are locked together to form chambers for filtering the slurry and are then opened to allow release of the formed cake.

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)