500,000 TPY Purified Terephthalic Acid (PTA) Plant for Sale

Capacity: 500,000 TPY

Raw Materials: Paraxylene, Acetic Acid Solvent, Terephthalic Acid

Products: Purified Terephthalic Acid (PTA)

Basic Information
Purified terephthalic acid (PTA) is a raw material used in making high-performance multi-purpose plastics such as polybutyl terephthalate (PBT), polyethylene terephthalate (PET), and polytrimethylene terephthalate (PTT). Purified terephthalic acid (PTA) is made by causing a reaction between the secondary petroleum product paraxylene (PX) and acetic acid.

Major Equipment
- Pressure Vessels
- Reactors
- Pressurized Pumps
- Columns
- Compressors
- Rotary Steam Tube Dryers
- Scrubbers
- Valves
- Steam Turbine
- Cooler Condenser
- Off-gas Expander
- Mix Drums
- and Much More!

BRIEF PLANT DESCRIPTION

Phoenix Equipment has for sale a 500,000 TPY Purified Terephthalic Acid (PTA) Plant available immediately. In this PTA plant, para-xylene is reacted with air in a large reactor vessel in the presence of acetic acid solvent. This reaction causes terephthalic acid (TA) to crystallize out of the solvent. The TA is extracted via rotary vacuum filtering before being dried via rotary steam tube dryers. The crude terephthalic acid (CTA) is stored in a silo while the unit separates solvent and recovers water during the catalyst recovery of cobalt-manganese-bromine. To purify the crude terephthalic acid, CTA is re-slurried with water and heated before being fed through high pressure pumps to the purification reaction stage, where impurities are reacted with hydrogen over a catalyst bed. The resulting purified terephthalic acid (PTA) is crystallized and separated from water in 2 stages of horizontal decanter centrifuges before being dried in a rotary steam tube dryer.