

**Plant #  
617**



## Styrene Monomer Plant - 500,000 TPY

**Capacity:** 500,000 TPY

**Products:** Styrene Monomer

### Major Equipment

- Alkylator
- Transalkylator
- Fresh benzene treater
- Dehydro benzene treater
- Benzene distillation column
- Lights removal column
- Ethylbenzene distillation column
- Steam superheater
- Dehydrogenator
- Styrene monomer reactor
- Air cooler
- Off-gas compressor
- EB/SM splitter
- Styrene monomer distillation column
- Ethylbenzene recovery column
- Benzene-Toluene splitter

### Brief Plant Description

The plant includes one (1) ethylbenzene (EB) production unit and two (2) styrene monomer (SM) production units. Each unit has reaction and distillation sections. SM Unit 1 has operation capacity of 200,000 TPY; SM Unit 2 operation capacity 300,000 TPY. In the EB reaction, vapor ethylene and liquid benzene are fed into alkylation reactor filled with zeolite catalyst. In the SM reaction, EB and high temperature steam are fed into dehydrogenator with iron(III) oxide catalyst. Unused catalyst is available at additional cost.

**For more  
information contact**

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