



Process Application

GSE has applied its technology to provide process models for a wide range of industrial processes, from polymers to tobacco, to specialty chemicals, and to the [Oil & Gas](#) industries. [Petroleum Refining](#) is a regular user of process simulation and has some of the more complex process models in the catalytic cracking area. GSE is active in providing models in these areas and its experience includes modeling all of the sections for the FCC process including the reactor and regenerator, the main fractionator and its side stripper, and the gas concentration units. These do not have to be used or supplied as a complete package, but can be independent from each other. Some of the process models provided by GSE:

- Crude distillation unit
- Vacuum distillation
- Crude desalter unit
- FCC unit
- Dual fuel heater
- Hydrotreater
- Catalyst reformer
- Natural gas plant
- Boiler plant
- MTBE reaction
- Tobacco processing
- Selexol H₂S removal
- Nitrogen re-injection unit
- Tail gas unit (SCOT)
- Hydrogen recovery
- Polymer reactors
- Glycol dehydration
- Amine treater unit
- Lysine (corn fermentation)
- Ammonia plant
- Off-shore platform
- Beer filtration
- Polymer finishing line
- Dehydrogenation
- Utilities & Electrical distribution
- Methanol