

Fluid Catalytic Cracking Working Demonstrator - Glass



Model: 132-FCCU

One of the most important conversion processes used in petroleum refineries, fluid catalytic cracking (FCC) is a chemical process that takes place in a fluid catalytic cracking unit (FCCU) (also known as a Cat Cracker). Part of many refining processes, FCC is a secondary unit operation that converts the heavy portion of crude oil feedstock into lighter petroleum products, such as liquefied petroleum gas, butane, gasoline, light gas oil, heavy gas oil, and clarified slurry oil.

FCC breaks down large hydrocarbon molecules into smaller molecules by exposing them to extreme heat and a solid, sand-like catalyst, such as bauxite, silica-alumina, zeolite, or aluminum hydrosilicate. The resulting effluent then gets processed in a fractionator to separate it into intermediate products.

Bayport Technical's Fluid Catalytic Cracking Working Demonstrator (132-FCCU) is a training aid that teaches users the basics of the fluid catalytic cracking process. The unit consists of a reactor, generator, standpipes, risers, and an air blower that forms the catalyst circulation system.

The catalyst flow is controlled by the valves on the reactor and regenerator standpipes. Circulation fluidizing of the catalyst is achieved by injecting air into the air inlet of the regenerator, the steam inlet of the stripper, and the feed inlet to the reactor riser. It is controlled by three individual needle valves.

Evaluations of start-up, operation, and shut down procedures in these units can be invaluable to educators, as demonstrations of catastrophic events may be safely simulated.

The unit includes a reactor, regenerator, standpipes, risers, air blower, and stripper.

SPECIFICATIONS

- Reactor
- Regenerator
- Standpipes
- Risers
- Air blower
- Stripper

UTILITIES

- Requires 115V/60Hz/1ph electrical.

PRODUCT DIMENSIONS

- Base enclosure approximately 25" X 18" X 12 ¼" (overall unit height approximately 44 ¼").

Address

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