



Less can mean more.

Make your feeds more valuable with FLEXICOKING™ technology.

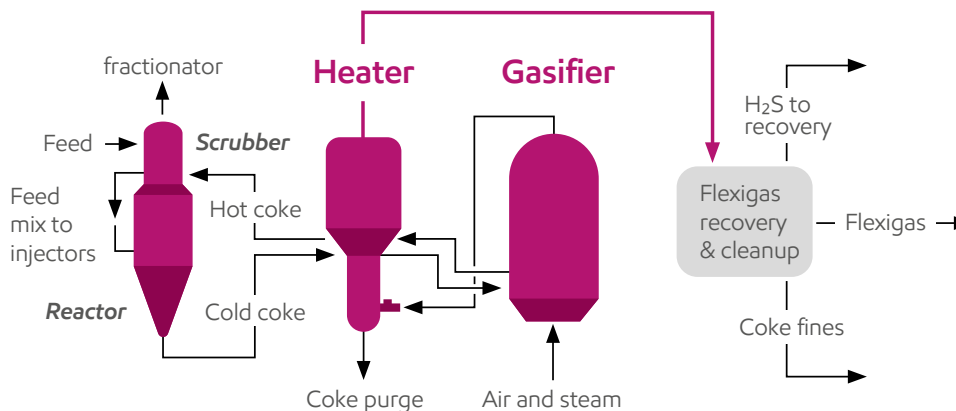
Energy lives here™

FLEXICOKING™ technology is a commercially proven, cost-effective, continuous fluidized bed process that thermally converts heavy feeds to lighter products and flexigas. FLEXICOKING technology, as an integrated process, offers great flexibility when upgrading residuum, as it provides high-value liquid products as well as clean flexigas that can be used as refinery fuel or for power generation.

How FLEXICOKING technology works

The vacuum resid feed enters the scrubber for "direct-contact heat exchange" with the reactor overhead product vapors. The higher-boiling point hydrocarbons (~975°F+/525°C+) present in the reactor product vapors condense in the scrubber and

return to the reactor, in mixture with the fresh feed. Lighter overhead product vapors in the scrubber go to conventional fractionation and light-ends recovery. The feed is thermally cracked in the reactor fluidized bed to a full range of gas and liquid products, and coke.



Key benefits

- Cost-effective investment**
 - Simple integrated steam/air gasification and carbon steel construction
 - Reduced plot space requirement
- Environmental benefits**
 - Continuous non-batch operation and closed coke handling system, resulting in low particulate and fugitive hydrocarbon emissions
 - Converts coke to clean, economical Flexigas which lowers SOx and NOx emissions
- Flexible & multi-purpose**
 - Handles wide variety of feeds:
 - Deep cut vacuum resid
 - Atmospheric resid
 - Oil sands bitumen
 - Heavy whole crudes
 - Deasphalting unit bottoms
 - Fluid catalytic cracking bottoms
 - Ebullated-bed bottoms