

NASH Compressor Systems for Delayed Cokers



Nash Liquid Ring Compressors can scrub coke fines better and result in less downtime than any other technology.

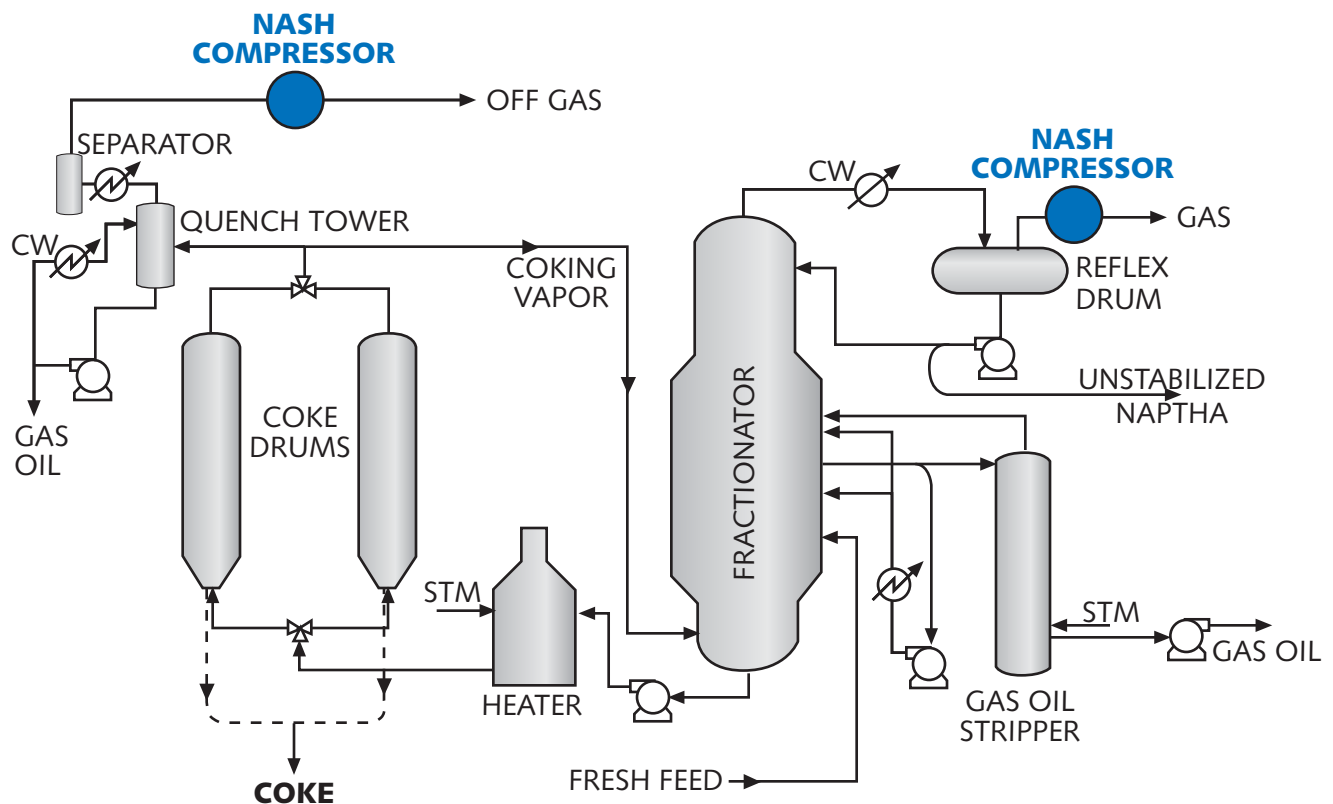
Delayed Coker System

The increased use of heavy crude is resulting in more refineries using a delayed coker system. This process consists of heating a residual oil feed to its thermal cracking temperature in a furnace with multiple parallel passes. This cracks the heavy, long chain hydrocarbon molecules into coker gas oil and petroleum coke.

The cracking begins in the furnace, continues in the transfer line and finishes in the coke drum. In the drum, gas oil and lighter components are separated from any liquid or solids and directed to a fractionation column. The compressor's pressure/volume controls the quality of the coke. In addition to adding to the coke's quality, the Nash compressor easily scrubs any coke fines that are moved along with the gas stream and thus prevents downtime.

The fractionator separates the drum effluent into various products, based on boiling point fractions, and again a Nash compressor helps to concentrated and recycle the gases pulled out of the top of the fractionator.

Once the coke drum is full of solidified coke, the hot mixture from the furnace is switched to the second drum. The initial drum is steamed to further reduce hydrocarbon content of the petroleum coke and then water quenched to cool it. The top and bottom heads of the drum are removed and solid coke is cut away from the drum with a high pressure water nozzle. Meanwhile, the second drum is repeating the process. This is a refinery's only continuous batch process.



Nash compressors are used to safely and reliably recover petroleum vapors vented from the coke. Typically, these gases are condensed, collected, and used for fuel.

Nash compressors bring you:

- Isothermal compression
- Reduced operating costs
- Versatility for alternate feedstocks
- Reduced water treatment costs
- Improved environmental control
- Increased product yield
- Ability to automate system



Vectra XL 750



NAB1500 Compressor Package

NASH
Div. of Gardner Denver
9 Trefoil Drive
Trumbull, CT 06611 U.S.A.
tel: 800 553 NASH
+ 203 459 3900
fax: + 203 459 3988
nash@gardnerdenver.com
GDNash.com

