

## Short Description

Feedstocks and additives evaluation for coker units by conducting experimental tests in a delayed coker pilot plant. Studies of the operating conditions effects (P,  $T^a$ , water flow)

This evaluation provides the performance and quality measures of the products obtained, as well as the morphology of the coke obtained.

## Deliverable

Technical report of the requested evaluation, including: material balance, operating conditions and obtained yields.

Quality analysis of the products obtained (Optional)

## Benefits

- Feedstocks evaluation to the coker unit to maximize the more profitable products
- Additives evaluation to maximize the margin of the unit
- Unit operating conditions optimization

## Differential Features

- Experimental study capacity at laboratory scale and pilot plant
- Easily scalable results by being able to correlate the Pilot Plant and the industrial unit
- Use of advanced feeding load and product characterization techniques (Optional)
- Confidentiality of information related to operations.



Pilot coker plant



## Requirements

- Definition of scope and objectives of the evaluation to be carried out
- Physical samples of the feed and additives to be used
- Typical operating conditions and yields of the coker unit to correlate with the pilot plant

## Limitations

- Prior to the evaluation, the proposed feedstocks and additives will be analyzed in order to validate the technical feasibility and additional actions necessary for its evaluation in the pilot plant. Based on this analysis, the final evaluation proposal will be made to the client

## The Product in Depth

Analysis of the performance obtained with different feedstocks to the coker unit, prior to its use or tests in real units. In addition, it allows the analysis of the performance of different additives, being able to make comparisons between feedstocks with / without additive.

Determination of the impact of the typical operating conditions of the coking process ( $T^a$ , Pressure, recycle, heater steam water flow ...)

Apart from the performance analysis, the quality of the products can be analyzed using different tests in the laboratory, both for liquid products and for the coker obtained.

## Some Use Cases

- Feedstocks evaluation to Coker units in order to maximize the more profitable products
- Additives evaluation to the feeding loads of Coker units in order to maximize the margin of the unit
- Operating conditions evaluation for the optimization of the unit

