

Hydrocracking Processes

A Eurotek training course



ERS Hydrocracking Processes

An introduction:

Refiners worldwide face increased regulation and demand for ultra clean transportation fuels. Economics drive refiners to maximise the yields and conversion of their ever increasing heavy crude oil feedstocks. More and more refiners are turning to hydrocracking to meet these challenges. The ERS Hydrocracking course is a comprehensive core skills course for professionals dealing with all aspects of Hydrocracking units. The course will be highly valuable to all engineers involved in the operation, design and troubleshooting of Hydrocracking facilities.

Learning objectives:

Upon completion of this course, participants will have gained a solid understanding of the key elements of:

- Hydrocracking Chemistry,
 - Equipment purposes,
 - Processing Objectives,
 - Design,
 - Operation,
- of Hydrocracking Units.

This will include the impact of;

- Feed quality,
 - Catalyst,
 - Operating conditions,
 - Unit design,
- on product qualities.

and some very practical insights into:

- Monitoring
- Troubleshooting
- Optimisation
- Safe operation



Who should attend?

ERS Hydrocracking is a comprehensive core skills course for professionals dealing with all aspects of the Hydrocracking units.

The course will be:

- Invaluable to all engineers involved in the operation, design and troubleshooting of Hydrocracking facilities.
- Highly useful to technical and operations planning personnel needing a perspective of how Hydrocracking fits into the operation of a complete refinery.
- A provider of knowledge of what matters in Hydrocracking to those who are experienced in other refinery processes and Managers of Hydrocracking Processes

Description:

The course is aimed at giving a practical overview of VGO & Resid hydrocracking. Today, refiners are faced with the challenge to maximise the yield of clean transportation fuels from crude oil. Hydrocracking provides the means to produce maximum low sulphur distillates, particularly kerosene, jet and diesel. This course provides a detailed overview of hydrocracking technology and covers the general theory and principles of hydrocracking chemistry and reactor kinetics. The course also covers the practicalities and impacts of hydrocracker design, feed effects and process variables. The third section covers plant monitoring, troubleshooting, product recovery and emergency procedures. A special section has been added that focuses exclusively on residuum processing.

This course will address both vacuum gas oil and residuum Hydrocracking, it will explain the differences and advantages of the different processes and configurations as well as giving a detailed review of the fundamentals behind hydrocracking technology.

This course provides an in depth yet practical review of hydrocracking technology today. The course will cover both theory and practical applications including a detailed look into the design, monitoring and troubleshooting of hydrocrackers.

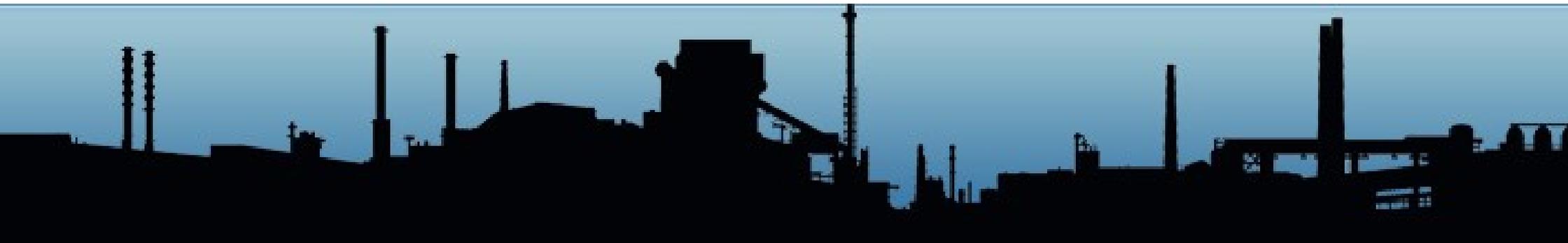


Course Presenter

Jake Gotham is a director of InSite Technical Services. Jake is a chartered chemical engineer and fellow of the Institution of Chemical Engineers with more than twenty years' experience in the refining industry

His career has had a strong hydroprocessing focus, including periods directly responsible for the operation of hydroprocessing units, working in Chevron's central hydroprocessing group and CLG's hydroprocessing technology licensing group

His consulting activities with InSite have included overseeing the debottlenecking study of hydroprocessing assets, technology selection for hydroprocessing projects, pre-commissioning and start-up activities of several hydrocrackers and representing hydroprocessing licensors and catalyst suppliers with technical service activities.



Course programme

Day 1

- Introduction
- Chemistry
- Process configurations
- Catalysts
- Q&A Session for Day 1 Topics

Day 2

- Kinetics
- Feed effects
- Process variables
- Q&A Session for Day 2 Topics

Day 3

- Reactor internals
 - Product recovery
 - Shutdown guidelines
 - Catalyst changeouts
- Q&A Session for Day 3
Topics

Day 4

- Start-up guidelines
- Emergency guidelines
- Q&A Session for Day 4
Topics

Day 5

- Monitoring &
troubleshooting
- Metallurgy & corrosion
 - Q&A Session for Day 5
Topics





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Training Courses

