

# Axens engineering services



## Revamping

Reforming, Hydrotreating, Hydrocracking, and more ...



## Speed up your revamp with Axens

Unit revamping is becoming increasingly **complex**, and operators want to execute these projects on a **fast-track basis**.

For a successful revamp project, no matter its degree of complexity or your tight schedules, Axens is your unique contact during the phase preceding detailed engineering.

Axens' offer is based on solid expertise and several decades of experience

- » as a manufacturer and supplier of continuously improving catalysts
- » as a reference company for **technology licensing** with strong basic engineering capabilities
- » in **project management** of integrated offers with several entities.

Our team of **equipment specialists** and our **extensive network** of detailed engineering contractors and equipment manufacturers complete this offer.

## A pragmatic approach

Before the detailed engineering design, Axens carries out scoping and feasibility studies to help you to select the most appropriate schemes:

- » The **scoping study** evaluates feasible options by identifying the major modifications specific to each given revamp scenario. Elements such as rough cost estimates for new or modified equipment, and budget prices for catalysts are supplied to enable you to select one or more revamp scenarios.
- » The **feasibility study**. Once the revamp scenarios are clearly identified, a process study ensures the feasibility of the selected revamp case. The deliverables from the process study, including refined cost estimates, will enable you to take your final decision.

Axens can then complete a process design package, which may include basic engineering deliverables such as equipment rating and sizing, layout arrangements, piping modifications, utility system impacts, and safety reviews.

# Axens Scope of

## Axens' experience

Axens' revamp experience covers most of the refining technologies:

- » Semi-regenerative & CCR Reforming
- » Naphtha and gasoline hydrotreating
- » Diesel and kerosene hydrotreating
- » Vacuum gasoil hydrotreating
- » Mild hydrocracking
- » High conversion hydrocracking
- » Catalytic cracking FCC/RFCC
- » Oligomerization
- » Selective hydrogenation
- » And much more...





STUDY 10-30 weeks

Work



► DETAILED ENGINEERING







## ***Your objectives in focus***

***Make the most of today's and tomorrow's  
challenges with leading-edge solutions from Axens***

- Clean and alternative fuel technologies
- Petrochemicals
- Energy efficiency
- High performance catalysts & adsorbents
- Revamps

*Single source technology and service provider*  
ISO 9001 – ISO 14001 – OHSAS 18001

[www.axens.net](http://www.axens.net)

**Axens**  
IFP Group Technologies