High octane. Ultra-low sulfur. Meet increasingly stringent gasoline sulfur requirements.

SCANfining™ technology offers a cost-effective solution for meeting the low sulfur requirements of gasoline. The technology removes sulfur with minimum octane loss by utilizing a jointly developed ExxonMobil/Albemarle catalyst technology coupled with ExxonMobil’s hydroprocessing design. With over 40 licensed units in operation, ExxonMobil brings demonstrated industry experience in offering customizable solutions to meet today’s refining challenges.

Innovation
This robust catalyst system was designed through years of experimentation, resulting in a highly selective catalyst for removal of sulfur from FCC full-range naphtha. The technology allows multiple benefits, such as minimum hydrogenation of olefins (thus preserving octane), and reduced hydrogen consumption – up to 30-50% less than conventional hydrofinishing.

SCANfining solutions

Hydro desulfurization (HDS) treating depends on FCC feed qualities

- SCANfiner II
  - Gasoline euro V and Tier III standards
  - Option 3
- SCANfiner I plus Zeromer
  - Option 2
- SCANfiner I
  - Option 1

Key benefits

Lower operating cost
- Lower hydrogen consumption
- Meets ULSG (10 ppm sulfur) at minimal octane loss

Tailor-made solutions
- ExxonMobil’s experience in inventing, design and operating the technology
- Customized solutions engineered to a variety of configurations
Flexible solutions
ExxonMobil’s customized solutions enable investment staging to meet the site-specific sulfur requirements. Depending on the product sulfur requirements, one or two reactors can be offered. SCANfining™ can be retrofitted using existing equipment and there are multiple configurations that can best adapt the process to site-specific conditions, resulting in optimized investment. Zeromer™ technology can also be used for the catalytic destruction of mercaptans. Operational feedback and further research and development improve this technology continuously.

Proven global operations
SCANfining technology has been proven worldwide in successful commercial use since the 1990’s. With over 40 units in operation or design around the world, SCANfining is a proven, attractive option for competitively meeting increasing stringent gasoline sulfur specifications.

Staged investment technology options
• 95% HDS with SCANfiner I configuration
• 99% HDS with SCANfiner II configuration

SCANfining services include:
• Support for licensees from initial consultation through technology transfer and availability of improvements
• Initial, non-confidential based meeting to discuss key features and advantages of technologies available for license, followed by technology-specific confidentiality agreement, based on identified needs
• Detailed technical proposal on identified needs and feedstocks
• Technology transfer and consultation during project execution

• Training, commissioning, start-up and initial operation support
  - Detailed procedure manuals
  - ExxonMobil mechanical design specifications
  - Operations, maintenance and engineering training
  - Start-up team
  • Technology improvement exchange, available with access to improvements to the licensed technology

About us
ExxonMobil helps refiners and petrochemical manufacturers increase capacity, lower costs, improve margins, reduce emissions and operate safe, reliable and efficient facilities. Along with a commitment to helping to implement best practices and to achieve better results, we provide cutting-edge proprietary catalysts and license advantaged process technologies for refining, gas and chemical needs.

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