



indJet®

Selective Removal of Mercaptan Sulphur from ATF

A viation Turbine Fuel (ATF) is one of the major petroleum products from a petroleum refinery. Global demand for aviation fuel has been continuously increasing owing to rise in airline passenger traffic and increasing demand for air cargo transportation. In India, the growth in air travel is expected to rise in coming years. Envisaging the growth potential and strategically important nature of the fuel, indJet® technology has been developed for production of ATF of emerging specifications.

indJet® is a low severity hydrotreating technology, which selectively removes mercaptan sulphur from ATF feed stream with minimal removal of other sulphur compounds. indJet® is an eco-friendly technology as it does not involve commonly used hazardous caustic as process chemical.

Salient Features

- Low severity operation
- Selectively removes mercaptan sulphur to < 10 ppm (well below the norm of < 30 ppm)
- Significant colour improvement meeting Saybolt specification
- Customized catalysts and efficient reactor internals developed by IndianOil R&D
- Flexibility to use reformer off-gas instead of pure hydrogen
- Possible to revamp existing caustic-based units keeping same post-treatment vessels for salt dryer and clay treatment
- Process can be extended for production of PCK (Pipeline Compatible Kerosene)

Commercial Experience

- 400 KTA grassroots unit for production of ATF and PCK commissioned in July, 2022 in one of the Indian refineries

Major Benefits

- Negligible hydrogen consumption (< 0.1 wt%)
- No requirement of Make-Up Compressor (MUC) and Recycle Gas Compressor (RGC), reducing the Capex/Opex
- Capable to process feedstock with higher mercaptan sulphur
- Processing of high TAN feedstock
- Eco-friendly as it does not use of any hazardous chemical
- Cost-effective solution for production of low sulphur ATF in case of enforcement of stringent regulations

