



# Maximize Xylene Loop profitability

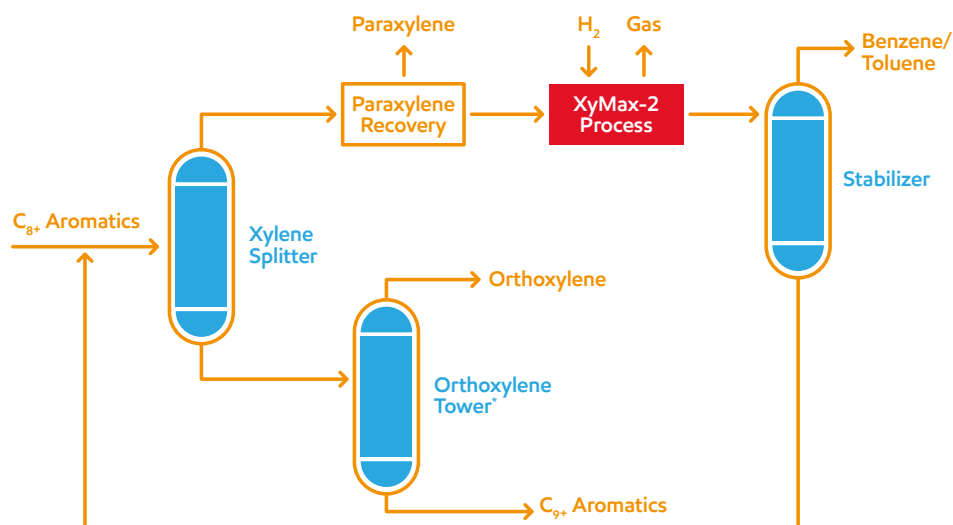
Maximize PX production/reduce losses/debottleneck your facility

Energy lives here™

The XyMax<sup>SM</sup>-2 process is the latest generation of vapor phase isomerization technology and is available for license by ExxonMobil directly, as well as by Axens as part of the ParamaX<sup>®</sup> technology suite for grassroots aromatics complexes.

### XyMax-2 flowscheme

The following simplified flowscheme shows the XyMax-2 process in a typical fractionation and recovery section of an aromatics complex.



\* If orthoxylene is a desired product

### Key benefits

- Smaller unit ideal for grassroots projects
- Higher capacity – revamps
- Extremely long catalyst cycles
- Improved process performance
  - Ultra-low xylenes losses
  - Lower operating costs
  - High PX approach to equilibrium
  - Higher EB conversion
  - Higher benzene purity
  - Consistent yields and conversion across the cycle
  - Unmatched process performance and catalyst cycles

## **XyMax<sup>SM</sup>-2 process: lower operating costs, ultra-low xylenes losses, extremely long cycles**

XyMax-2 process is the seventh generation of vapor-phase isomerization technology licensed by ExxonMobil. The process features a higher activity catalyst, higher weight hourly space velocity (WHSV), and expanded temperature window compared to prior ExxonMobil vapor phase isomerization technologies. The XyMax-2 process is ideal for debottlenecking xylenes isomerization units as it requires lower catalyst volumes than any process currently in service, achieves higher ethylbenzene (EB) conversion per pass, and offers the flexibility of operating at temperatures similar to or lower than existing processes. The XyMax-2 process offers significant advantages over competing processes, including:

- Higher WHSV
  - Higher throughput for revamps
  - Reduced unit size for grassroots applications
  - Lower catalyst inventory
- Ultra-low xylene losses
- High Paraxylene approach to equilibrium (100% or more) throughout the cycle

- Low operating costs
  - Lower reactor temperature
  - Lower hydrogen to hydrocarbon ratio
  - Higher EB conversion reducing EB traffic in the xylenes loop
- Higher benzene product purity
- Extremely long cycles with consistent conversions and yields throughout the cycle

### **Support from initial consultation throughout the life of the operation:**

- Initial discussions to confirm client objectives and tailor the solution
- Detailed Yield Estimate
- Feasibility Study
- Commercial Proposal
- Process Design Package
- Technology transfer, training, catalyst loading and start-up support
- Technology improvements
- Performance monitoring and technical assistance throughout the life of the catalyst

### **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.

Ultra low xylenes losses and unmatched performance with the XyMax-2 process.

Collaborate with us today.  
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