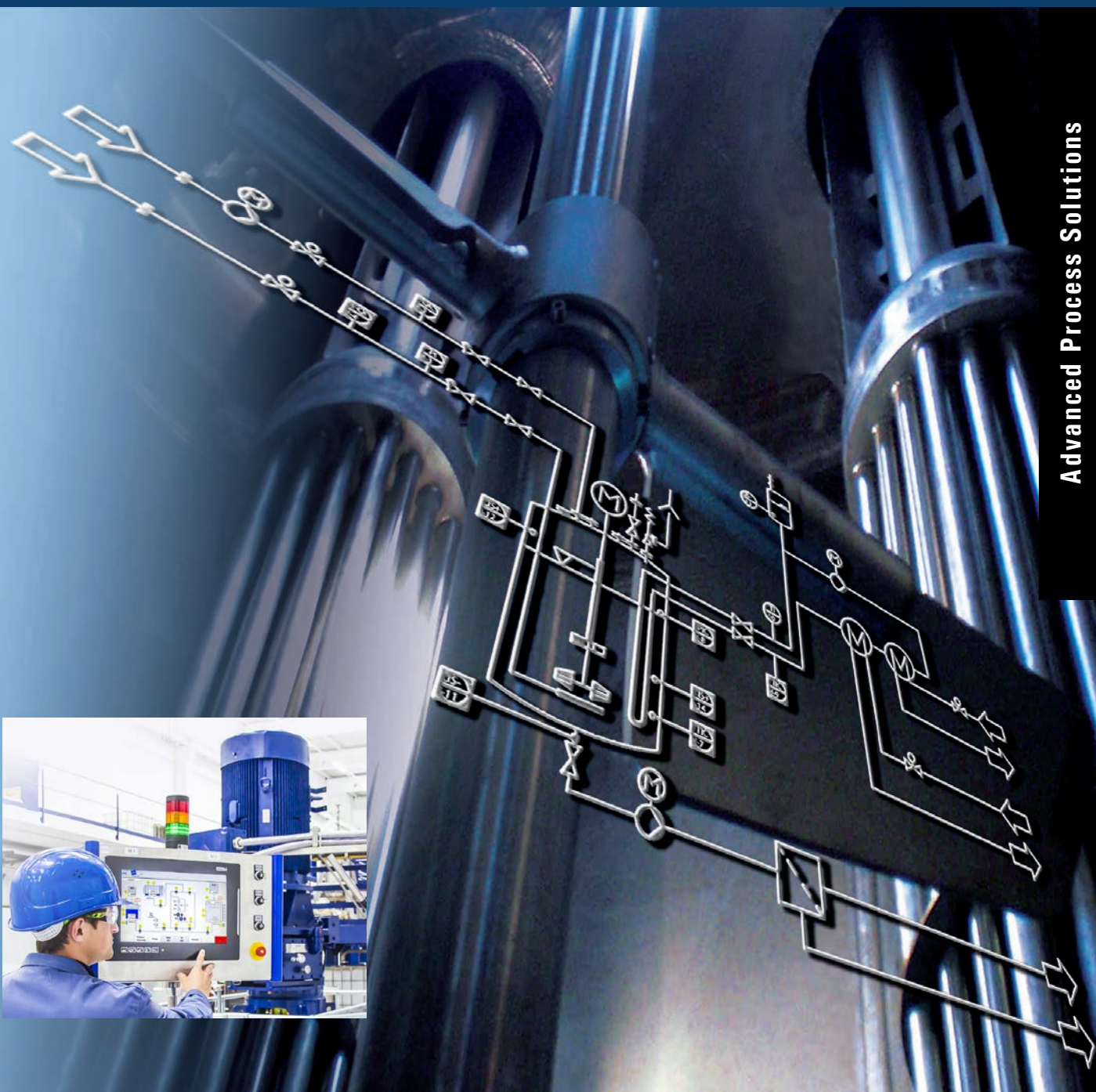


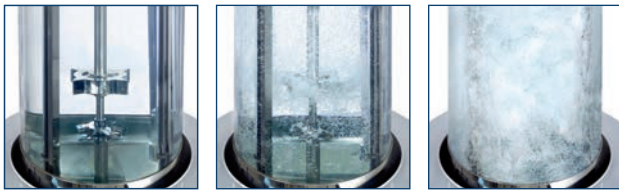
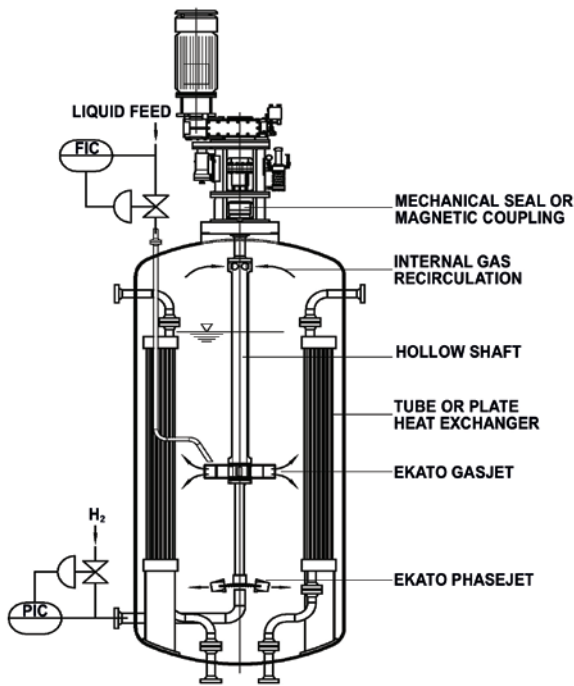
EKATO HYDROGENATION PLANTS

Your fast lane to production

Advanced Process Solutions



EKATO - High Performance Hydrogenation Reactor



EKATO Combined Gassing

EKATO R&D Capabilities

- Development & optimization of hydrogenation process
- Pilot tests to collect process data & consumption figures
- Assessment of catalyst performance, selectivity & yield
- Determine optimum process conditions
- Scale-up to commercial scale
- Industrial process development

Complete Hydrogenation Plants made by EKATO

- Process review and upgrade analysis
- Scale-up capabilities
- Complete engineering package
- Process solution with guaranteed results

Reactor Technology

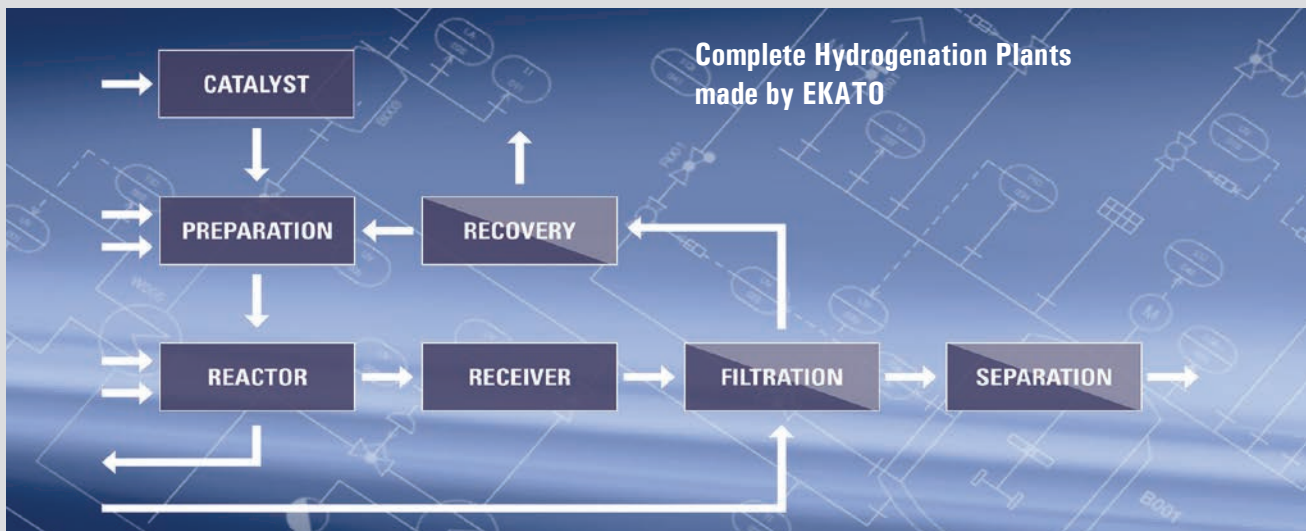
- Mass transfer calculation
- Heat transfer calculation
- Design of agitation systems
- Vessel engineering, FEA
- Manufacturer's expertise

Engineering

- Tailor-made plant engineering as per your process requirements
- Engineering & equipment packages
- Project management and realization as EPC
- Functionality, safety, expertise
- International standards
- Professional documentation

Auxiliary Systems

- Heating & cooling systems
- Catalyst preparation
- Catalyst filtration
- Catalyst deactivation
- Vacuum systems



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