EMERSON EXCHANGE 2025

ACCELERATING INNOVATION

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Catalyzing Change: A Collaboration to Crack the Code in Catalyst Activation

3-1805

Emerson Exchange 2025

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EmersonExchange@Emerson.com

- ✓ What does success really look like in a high-stakes industrial project ?
- ✓ What Role does Collaboration & Innovation play in simplifying complexity in project

Neil Gordon

President and Founder | Solusions Engineering & Consulting Inc.

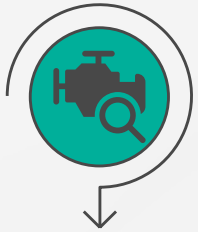
Trishin Naidu

Account Manager, Capital Projects | Lakeside Process Controls

Solusions Engineering & Consulting Inc.

Engineering Solutions

- Bespoke engineering solutions for thermal applications



System Expertise

- Design, supply, &service of systems

Technical Knowledge

- Extensive Knowledge in all catalyst activation system elements

Industry Focus

- Cement
- Mining
- Petrochemicals
- +more

Global Experience

- 30+ years experience
- 20+ Systems deployed

Solusions Engineering & Consulting Inc.

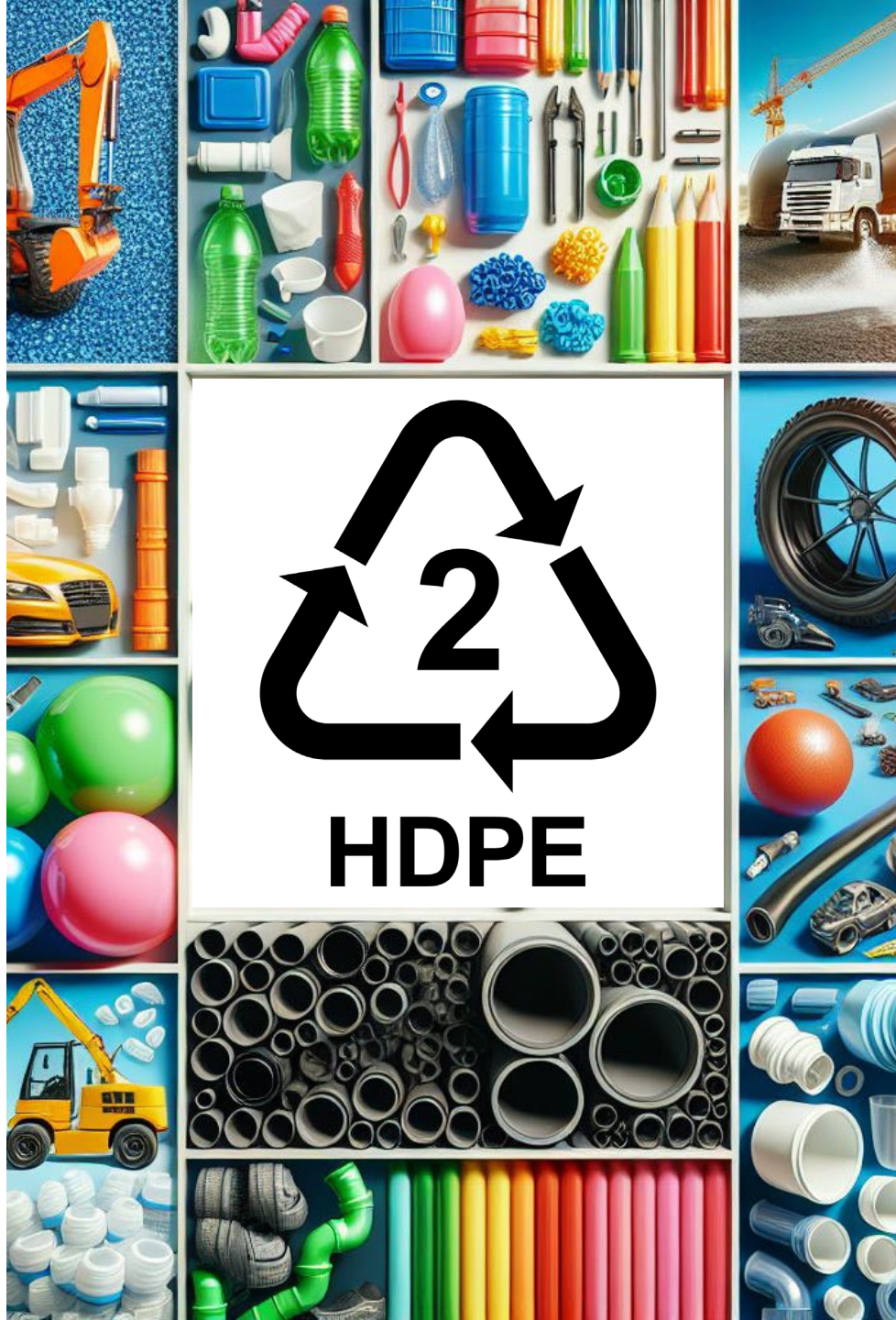
Project Overview

Golden Triangle Polymers

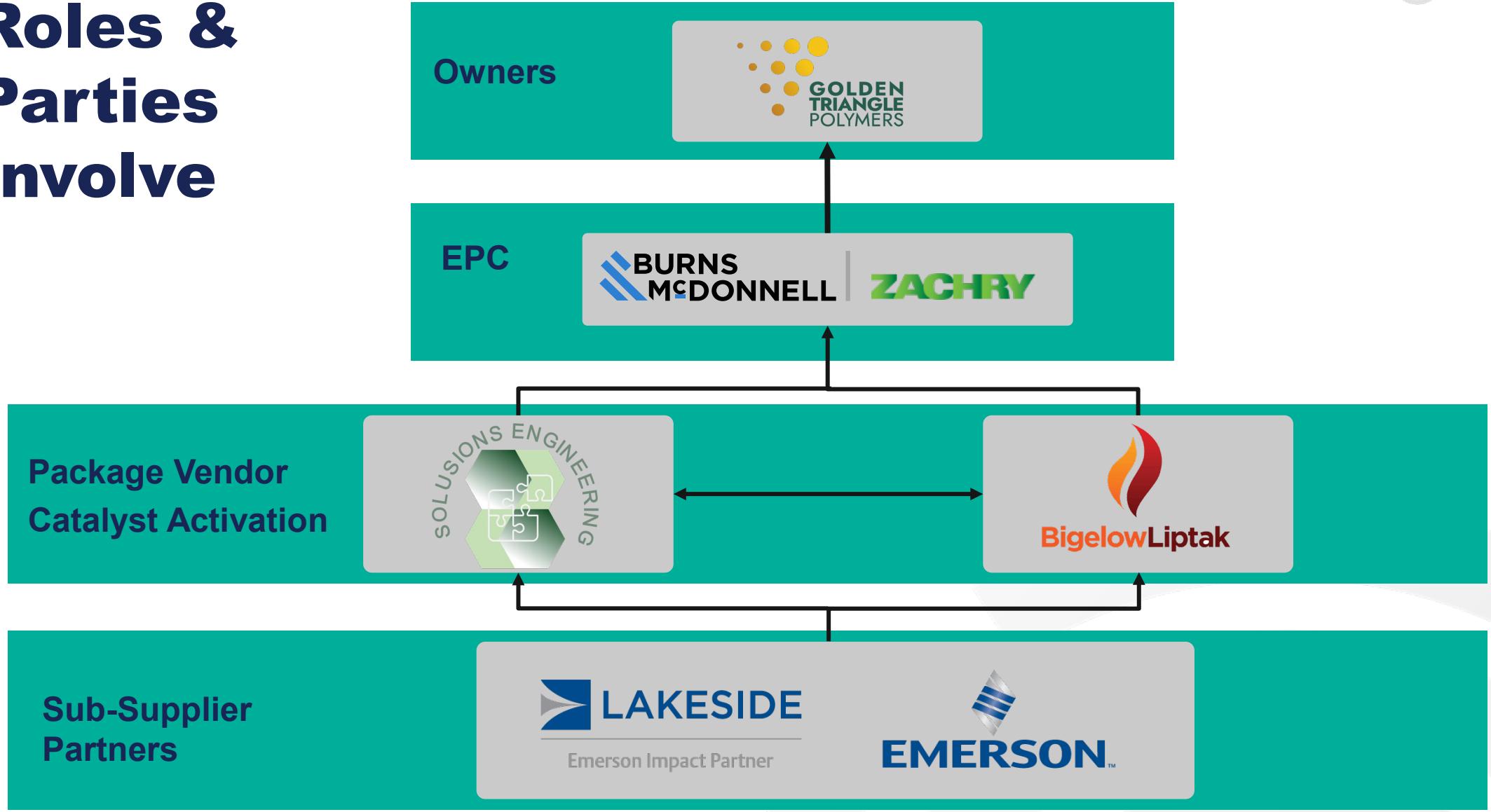
Golden Triangle Polymers

Why HDPE?

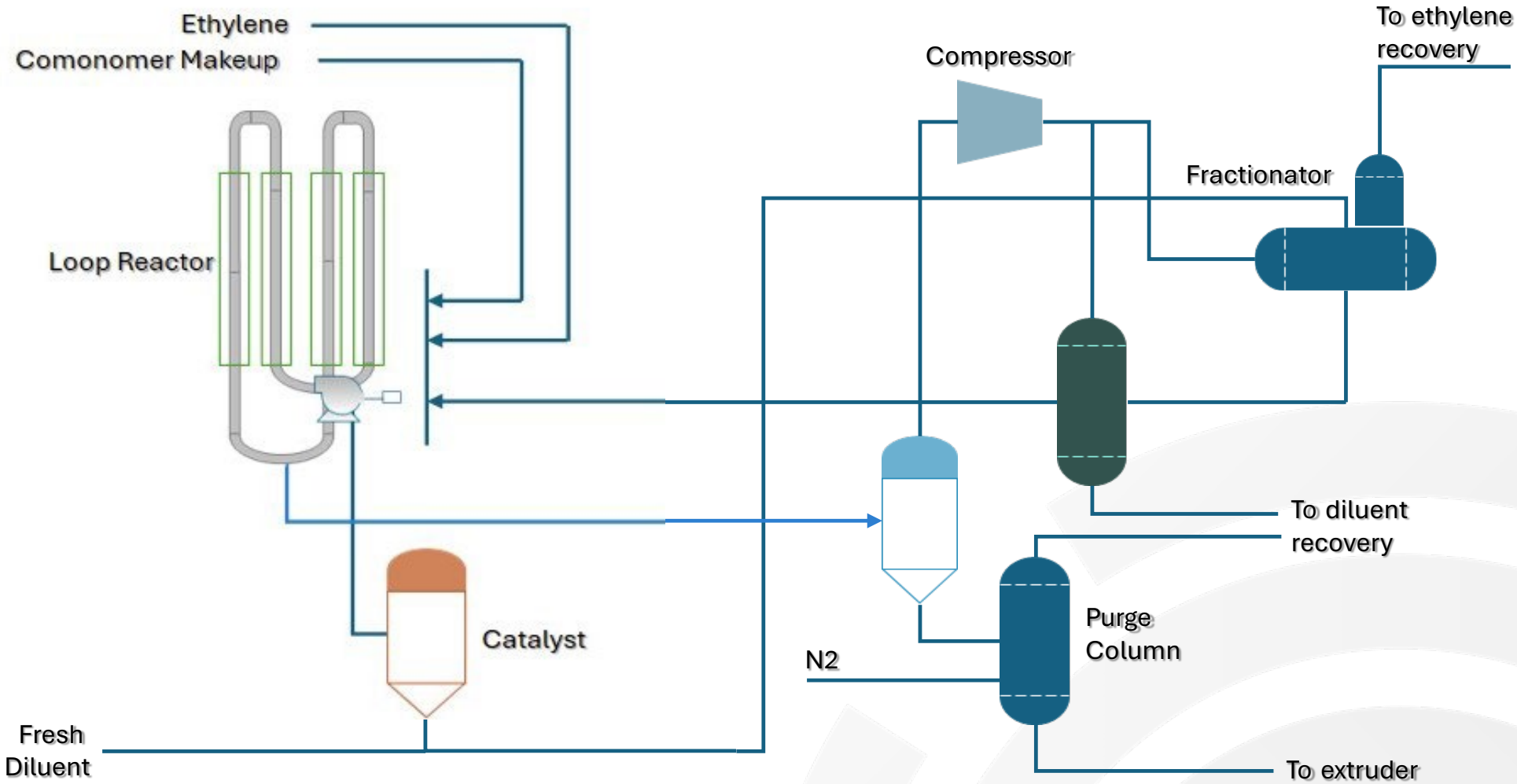
- 100% recyclable
- Global market demand is growing at expected 4-6% CAGR
- Versatile material used heavily in:
  - Construction
  - Packaging
  - Automotive industries.



Roles & Parties Involve

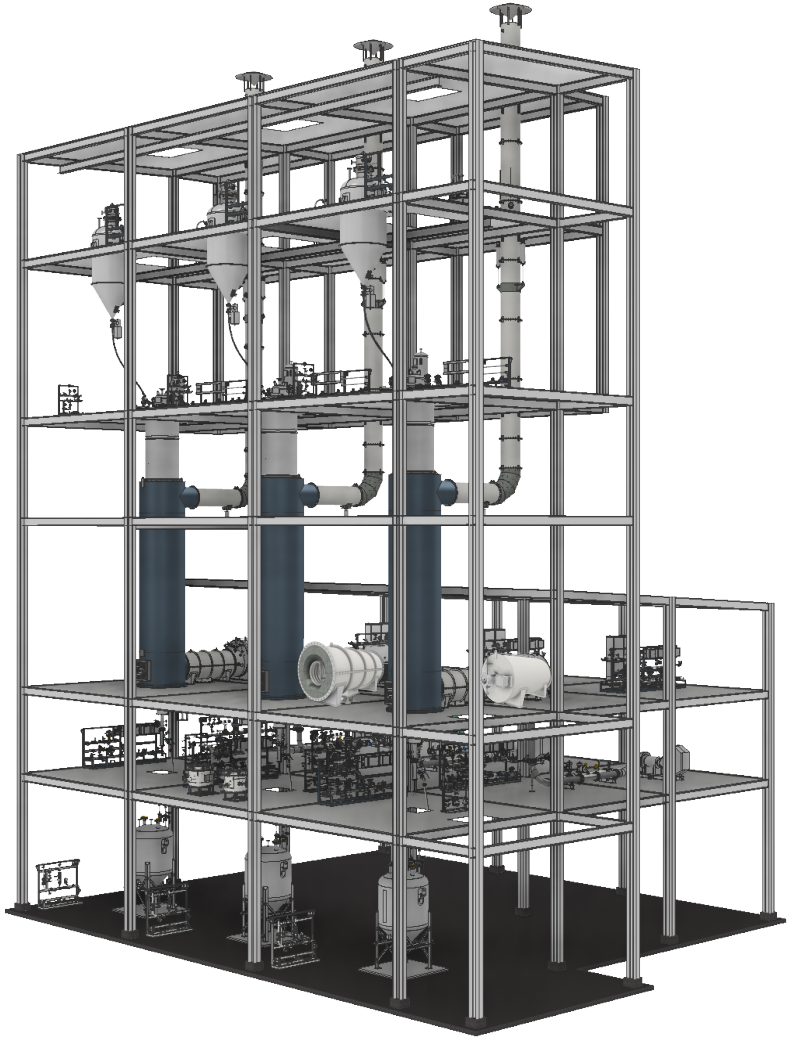


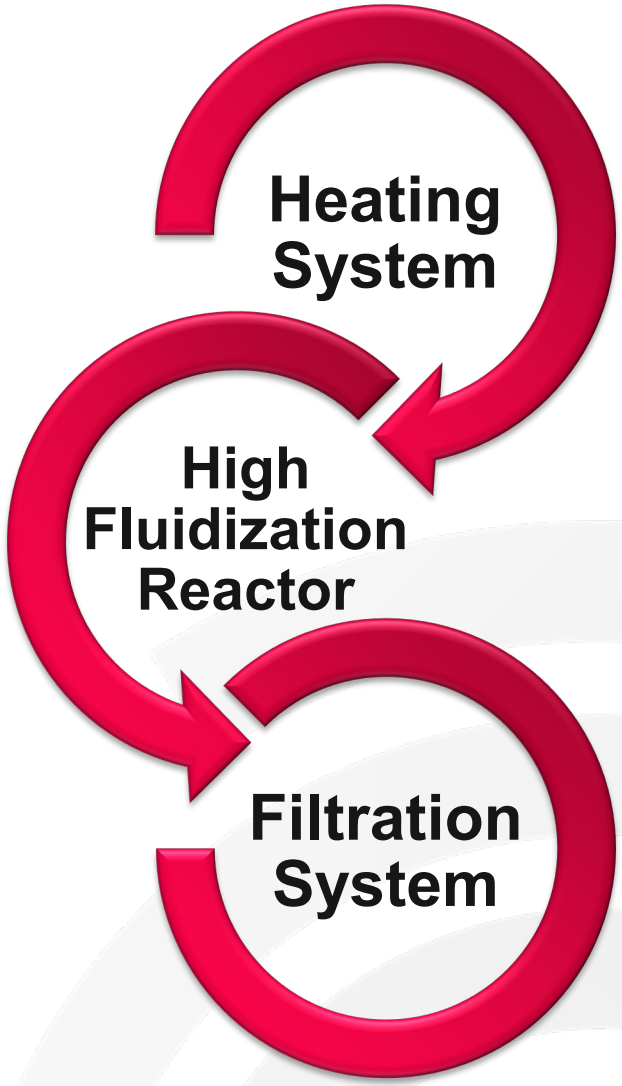
Process & Technology



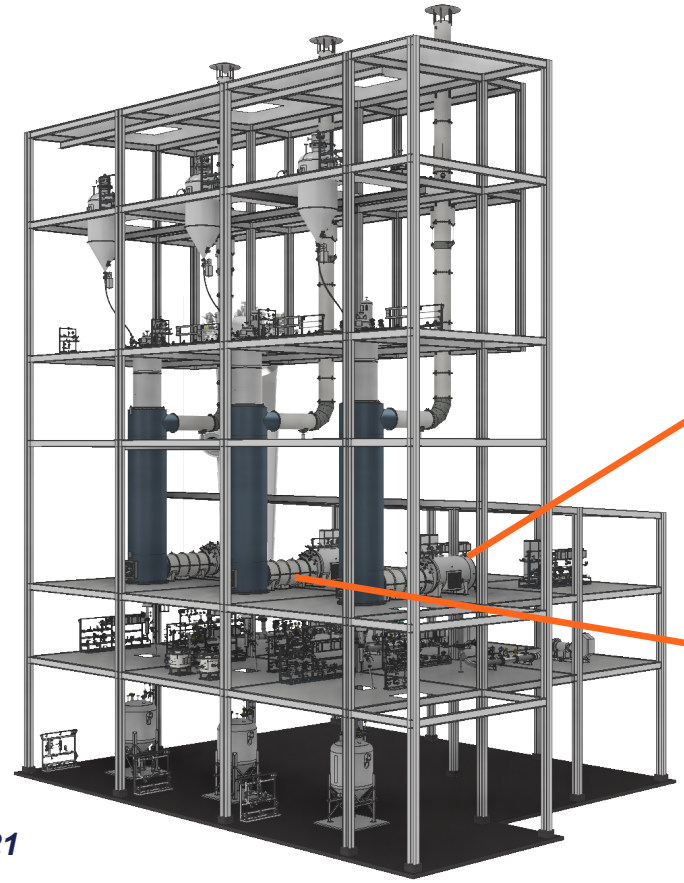
Project Execution

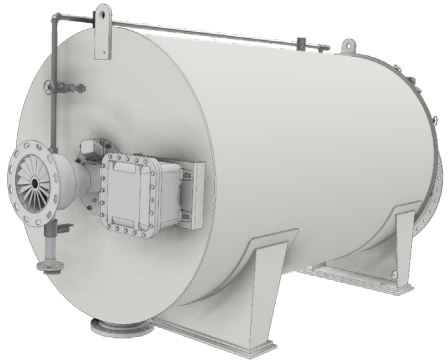
Catalyst Activation Process Subsystems

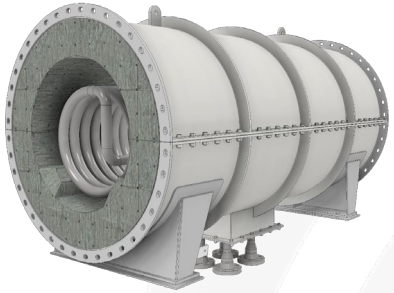


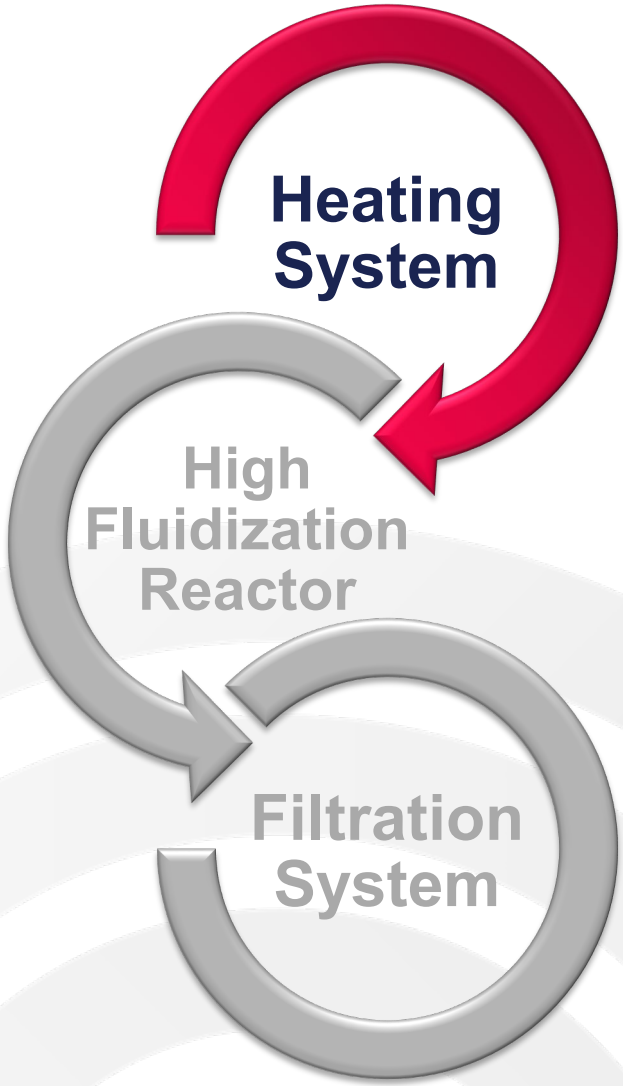


Catalyst Activation Process Subsystems

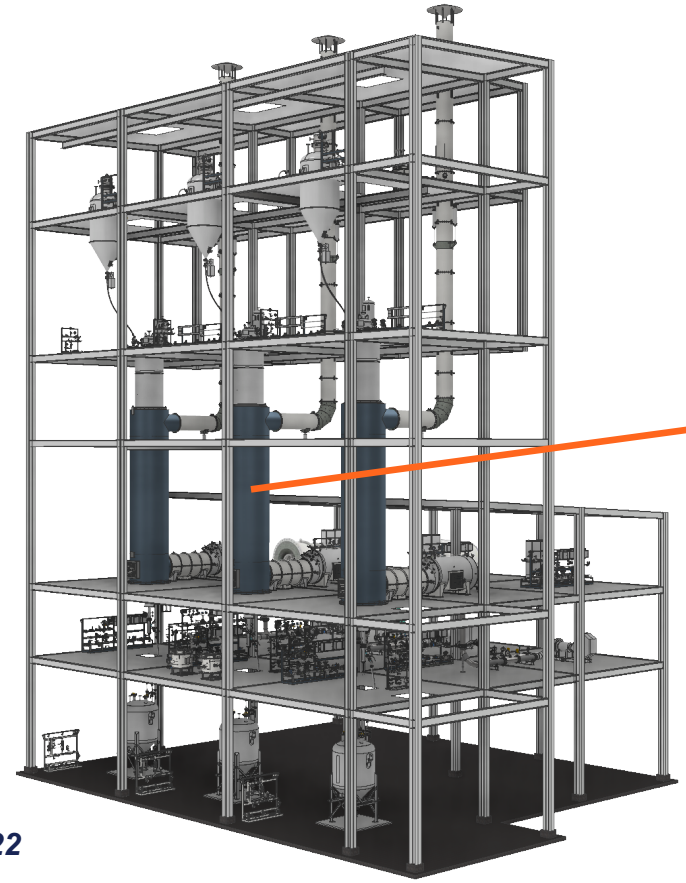


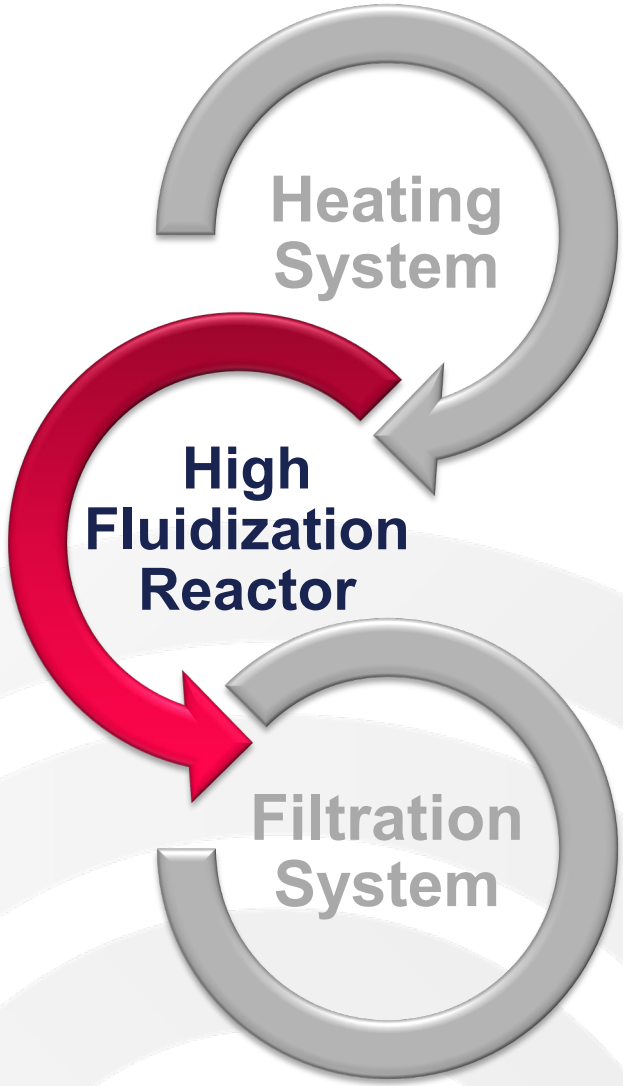






Catalyst Activation Process Subsystems





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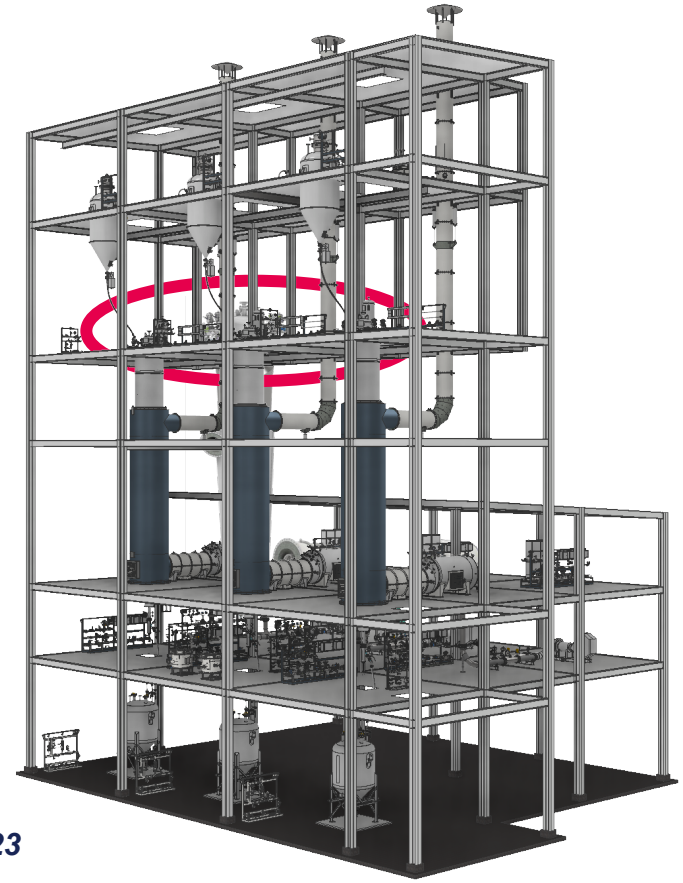

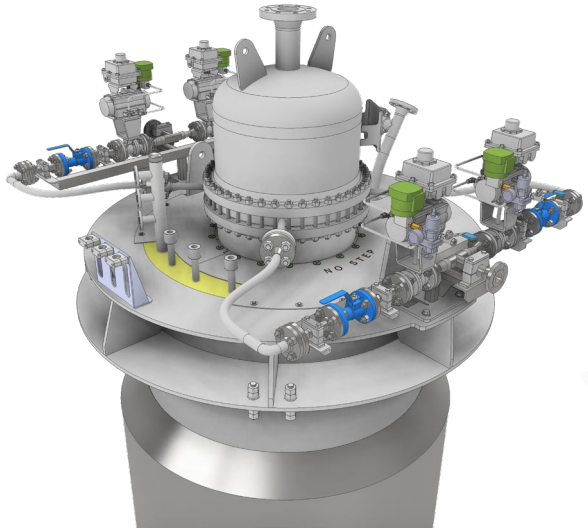

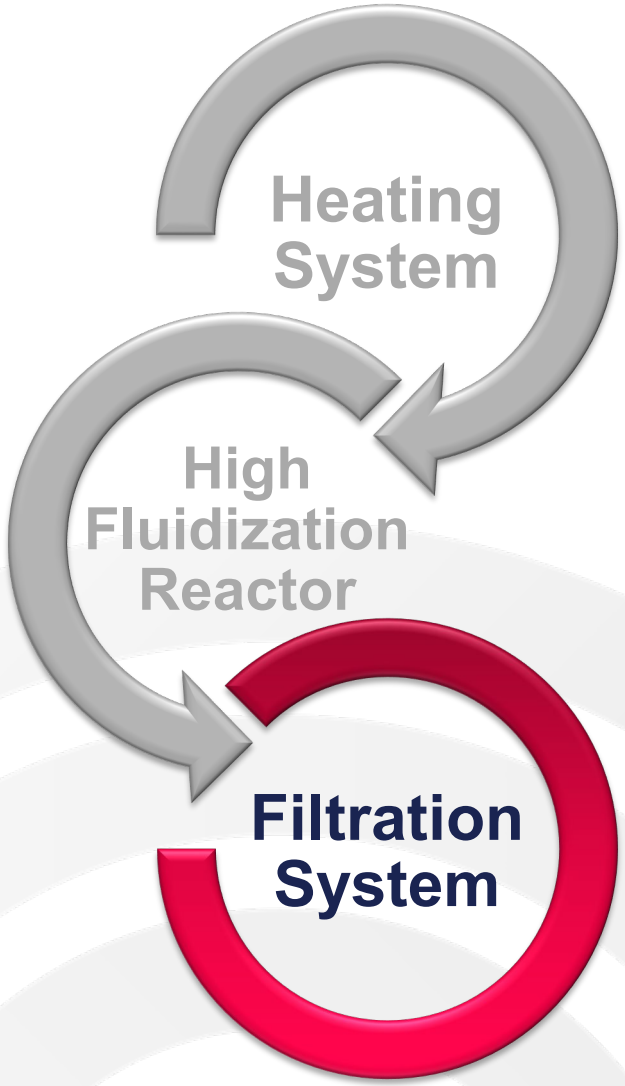

Emerson Automation Solutions

DeltaV™

Safety Instrumented System
Burner Management System

Fisher™

Fisher Control Valves
Fisher Pressure Regulators
Pressure Safety Valves (Anderson Greenwood & Crosby)
Rupture Discs (BS&B)

Rosemount™

Rosemount Pressure Transmitters
Rosemount Temperature Transmitters & Sensors
Rosemount Flowmeters (Differential Pressure & Coriolis)

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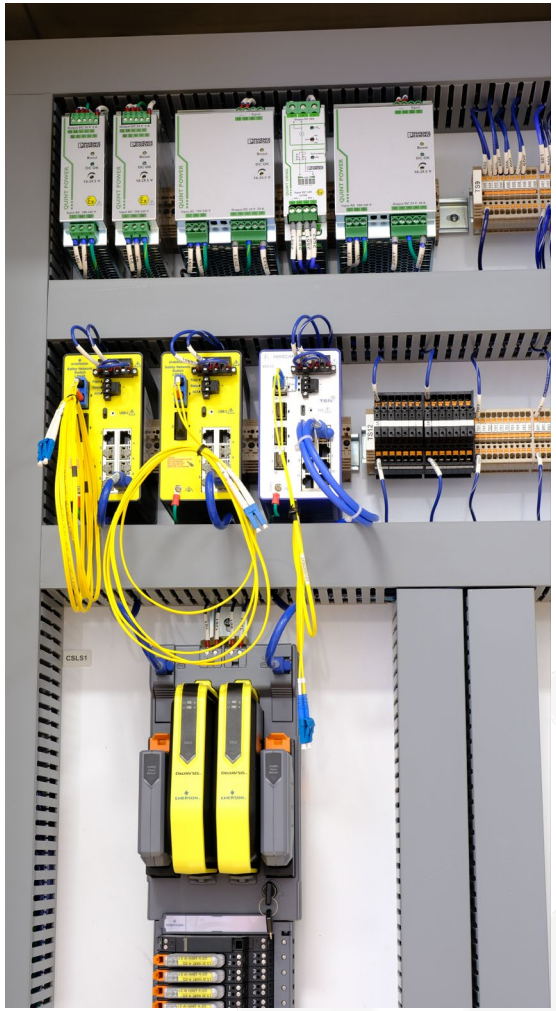
Process Subsystems



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Challenges, Solutions & Keys to Success

CRITICAL PROJECT SCHEDULE

CHALLENGE

- Tight timelines and milestones

SOLUTIONS

- Standardization on Emerson Solutions
  - Safety systems, measurement, and final control solutions

SUPPLY CHAIN

COMPLEX ENGINEERING

INTEGRATION WITH BOP SYSTEMS

Challenges, Solutions & Keys to Success

CRITICAL PROJECT SCHEDULE

SUPPLY CHAIN

CHALLENGE

- Delays and availability of materials
  - Availability for materials globally impacted delivery schedules
- Complex Sourcing:
  - Numerous components & vendors involved - potentially 30+ on project

SOLUTIONS

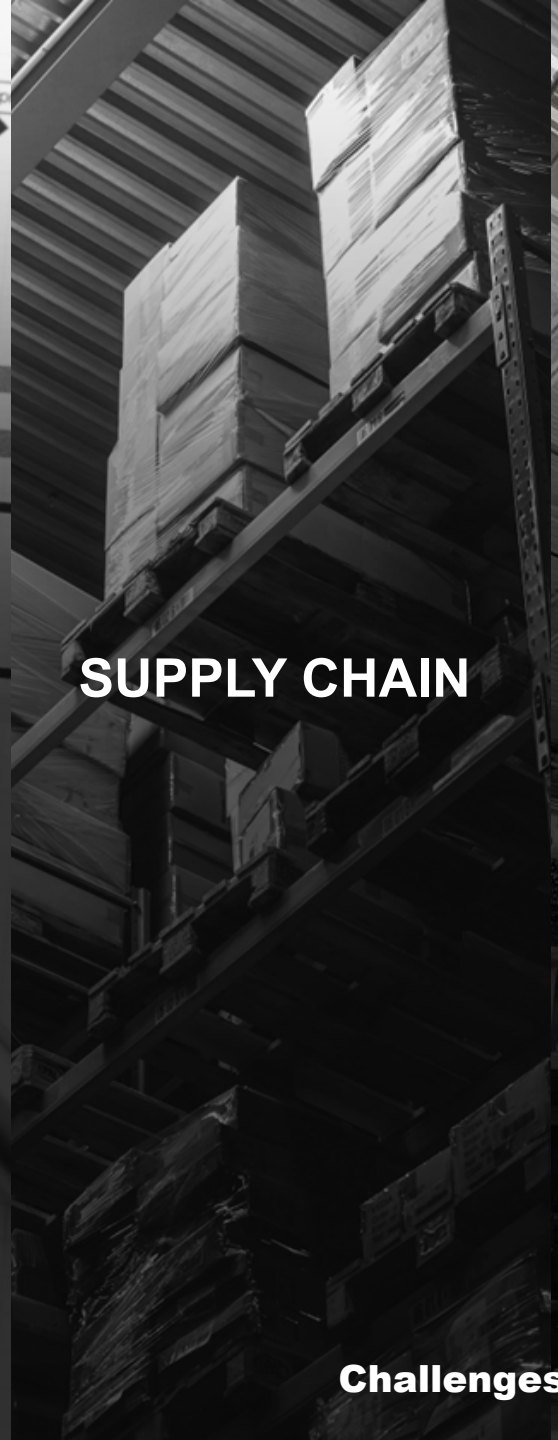
- Emerson Portfolio Standardization

COMPLEX ENGINEERING

INTEGRATION WITH BOP SYSTEMS

Challenges, Solutions & Keys to Success

CRITICAL PROJECT SCHEDULE



SUPPLY CHAIN

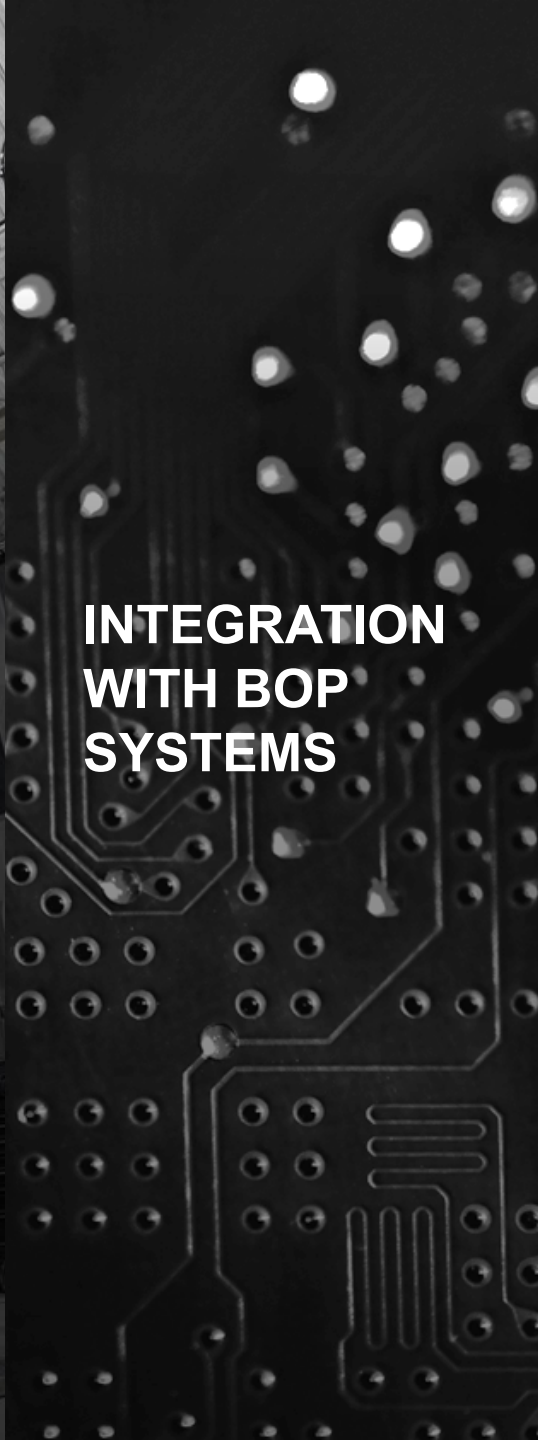
COMPLEX ENGINEERING

CHALLENGE

- Design and fabrication of Catalyst Activation Trains

SOLUTIONS

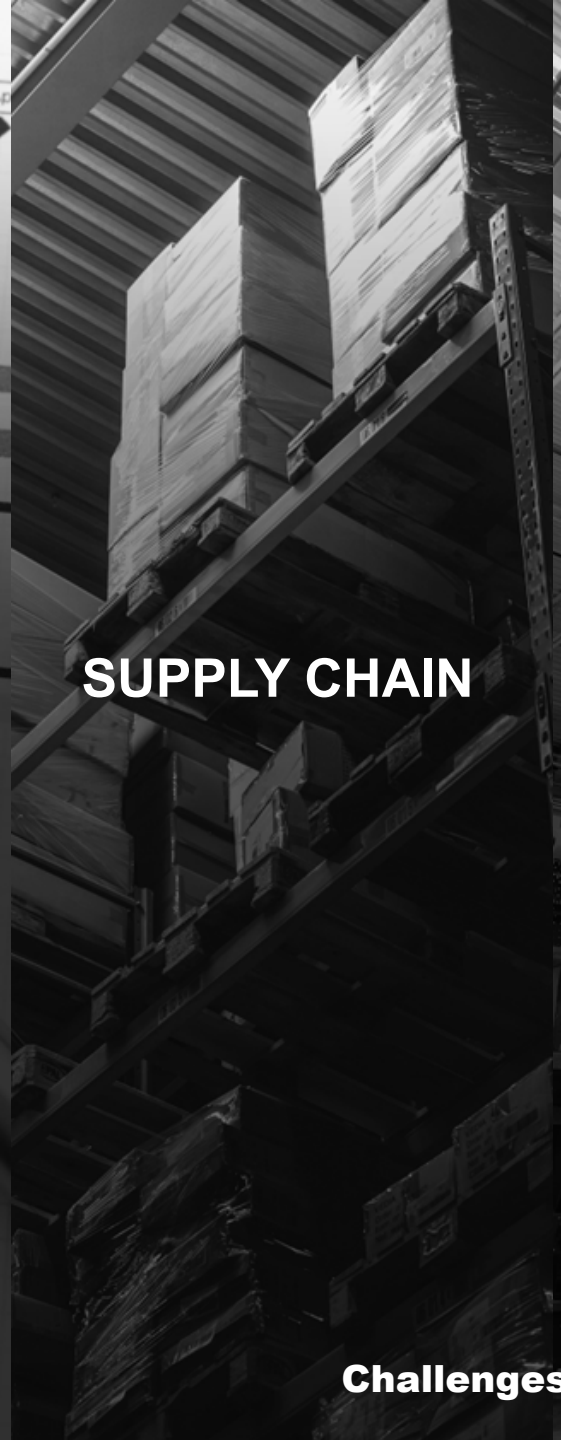
- Partnership with Lakeside
  - Critical project support and reduced learning curve



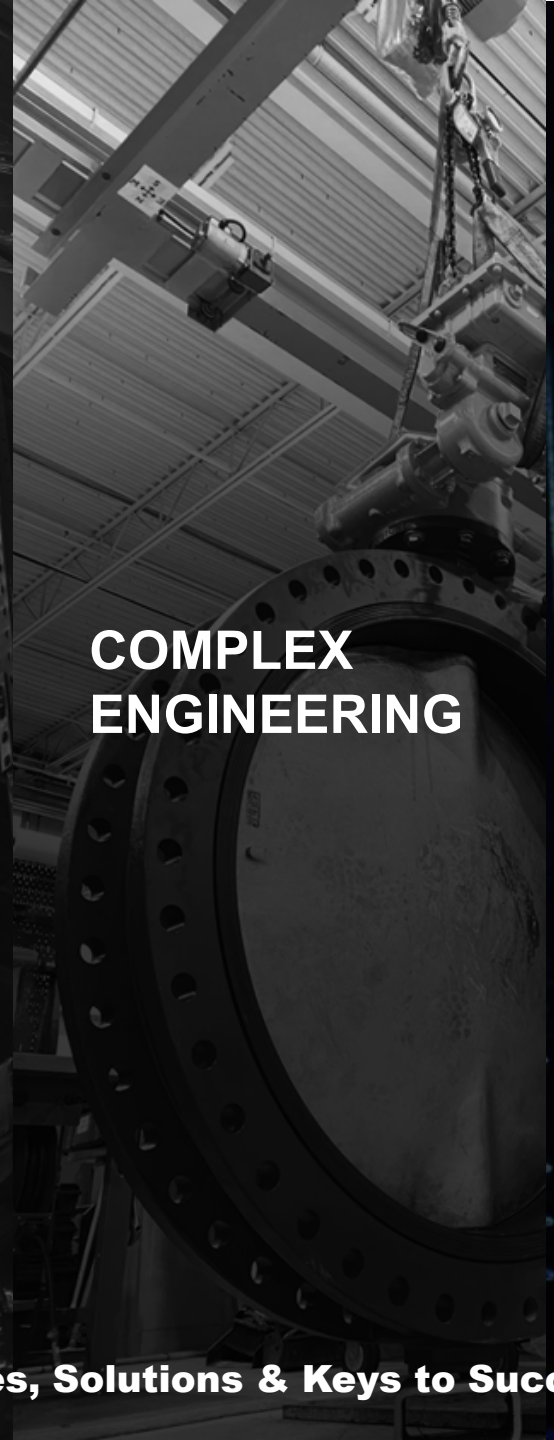
INTEGRATION WITH BOP SYSTEMS

Challenges, Solutions & Keys to Success

CRITICAL PROJECT SCHEDULE



SUPPLY CHAIN



COMPLEX ENGINEERING

INTEGRATION WITH BOP SYSTEMS

CHALLENGE

- **Advanced Technologies**: Utilizes DeltaV distributed control and safety instrumented systems.
- **Enhanced Monitoring**: Employs Rosemount gas analyzers and chromatograph solutions.
- **Operational Benefits**: Minimizes complexities and reduces risks through predictive technologies.

SOLUTIONS

- Emerson DeltaV SIS & Integrated Control
  - Reduced engineering effort

Challenges, Solutions & Keys to Success

Results & Benefits

EFFICIENCY GAINS

- Reduction in engineering time and system integration by ~37%

COST SAVINGS

- Standardization leading to ~6% cost savings

PROJECT DELIVERY

- Completion within the contract schedule
- Moving from critical path to non-critical path
- Improved installation and construction scheduling

SUSTAINABILITY & ENVIRONMENTAL IMPACT

- Use of innovative emissions reduction technology
- Sustainable practices and technologies

Conclusion

- **Summary of Key Points**
  - Project Significance: Strategic collaboration leveraging cutting-edge, sustainable technology.
  - Innovative Solutions: Standardization on Emerson Process Automation solutions.
  - Lessons Learned:
    - Effective project management and collaboration overcome critical challenges.
    - Integration of advanced technologies leads to efficiency gains and cost savings.

- **Final Thoughts:**
  - Importance of Collaboration:
    - Essential for successful execution of complex engineering projects.
    - Strong partnerships and open communication are key.
  - Role of Innovation:
    - Drives efficiency, reduces costs, and enhances project quality.
    - Continuous investment in R&D is crucial.

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