



eXensys Micro Vertical Solution

Micro-Vertical – Chemicals

Agenda

Industry Overview

Industry Characteristics

Key Processes 'n' Challenges

eXensys Best Practices



Industry Overview

Micro-Vertical – Chemicals

Over the last fifteen years the Indian chemicals industry has graduated from manufacturing principle chemicals in a highly regulated market to being a mature industry in a liberalized economy. The chemical industry is among the fastest growing ones in India. The bulk of chemicals produced in India comprise either upstream products or intermediates, which go into a variety of manufacturing applications including fertilizers, pharmaceuticals, textiles and plastics, agrochemicals, paints and dyes.

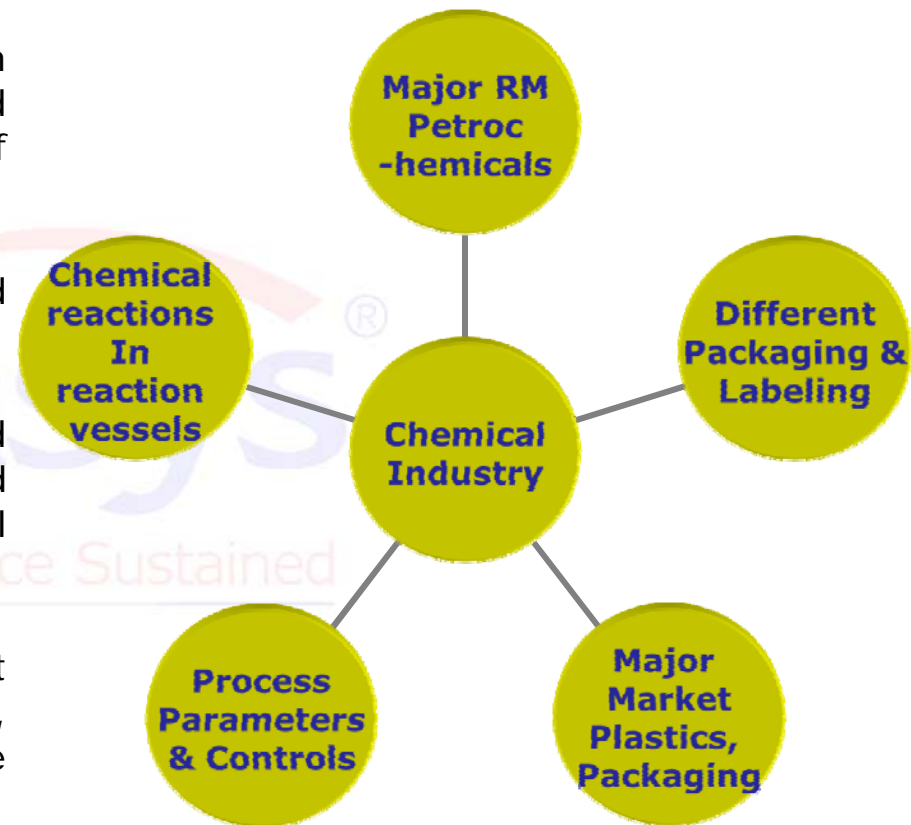
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Industry Characteristic

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- Chemical processes such as chemical reactions are used in chemical plants to form new substances in various types of reaction vessels.
- In many cases the reactions are conducted in special corrosion resistant equipment at elevated temperatures and pressures with the use of catalysts.
- The products of these reactions are separated using a variety of techniques.
- The processes and product are usually tested during and after manufacture by dedicated instruments and on-site quality control laboratories.
- Polymers, the largest revenue segment at about 33 percent of the basic chemicals dollar value, includes all categories of plastics and man-made fibers
- The major markets for plastics are packaging, followed by home construction, containers, appliances, pipe, transportation, toys, and games
- The principal raw materials for polymers are bulk petrochemicals.



Key Processes 'n' Challenges

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Key Processes

- Recipe Management (Production/Packaging)
- Process Parameter and Control
- Research & Development
- Quality Control
- Inventory and Logistics
- Accounts Management & Legal\Statutory Compliance
- Preventive & Breakdown Maintenance

Challenges\Pain Areas Business Performance Sustained

- Customers requiring different Packaging for the same item
- Poor Management of Items with different concentration levels
- In-Efficient Inventory Management for shorter shelf life
- Improper Handling Customer complaints
- Lack of integration between departments
- Non-Meeting Customer Demands viz., Low Price & Tight Delivery Schedules

eXensys Best Practices

Micro-Vertical – Chemicals

S.No	Pain Areas	Why do companies fail?	eXensys Best Practice
1.	<ul style="list-style-type: none"> ➤ Customers requiring different Packaging for the same item ➤ Managing Items with different concentration levels 	<ul style="list-style-type: none"> ➤ Lack of proper recipe management ➤ Lack of awareness on product specifications 	<ul style="list-style-type: none"> ✓ Separate Recipes for Production and Packaging ✓ Recipe Management as per Potency factor ✓ Flexibility to Issue item with different concentration factor if the required concentration is not available
2.	Efficient Inventory Management for shorter shelf life	<ul style="list-style-type: none"> ➤ Improper administration of warehouses ➤ Poor inventory valuation methods 	<ul style="list-style-type: none"> ✓ Accurate inventory visibility ✓ Multi-level warehouse structure ✓ Inventory Issues based upon FIFO strategy
3.	<ul style="list-style-type: none"> ➤ Handling Customer complaints ➤ Lack of integration between departments 	<ul style="list-style-type: none"> ➤ Lack of Lot recall system ➤ Lack of metrics & tools that aid in decision making 	<ul style="list-style-type: none"> ✓ Lot Recall report for identification of lots of Raw Materials for a finished good ✓ Real-time update of accounts and other key processes on invoicing, returns etc
4.	Meeting Customer Demands viz., Low Price & Tight Delivery Schedules	<ul style="list-style-type: none"> ➤ Lack of control on operation and its costs ➤ Poor Production planning 	<ul style="list-style-type: none"> ✓ Available-to-Promise and order confirmations ✓ Accurate data for manufacturing decisions through strong planning on machine utilization, online WIP components costing

