

PROCESS INDUSTRIES FOR MICROSOFT DYNAMICS™ AX

Solutions for the Chemical Industry

From regional companies to international conglomerates, chemical manufacturers face distinct challenges arising from expanding regulatory requirements, cost containment demands, complex sales channels, and intense competition. Process Industries for Microsoft Dynamics AX for the chemical industry provides tools to control and maximize manufacturing assets, minimize operating costs, and understand the impact of decisions on orders, production, inventory, and distribution.

Benefits:

- Improved operational excellence
- Reduced inventories and improved customer service
- Faster response to opportunities and disruptions
- Improved ability to comply with quality and safety requirements
- Support for specialty chemicals and commodity chemical requirements
- Positive return on investment (ROI)

Respond Faster to Opportunities and Disruptions

Each day, chemical manufacturers face an increasingly volatile and unpredictable operating environment. With Process Industries for Microsoft Dynamics AX, you can better predict the impact of disruptions or operational changes and quickly address any situation.

Meet Quality, Safety, and Compliance Requirements

Document standard processes and track operations to support detailed reporting requirements. Traceability, lot requirements, production statistics reporting, specification management, and change management capabilities can help you control your processes better, detect exceptions early, and consistently produce the highest quality products. By tracking items from cradle to grave, you can implement effective recall procedures with complete forward and backward traceability of any material.

Improve Operational Excellence

Process Industries for Microsoft Dynamics AX helps maximize yields and reduce energy costs while simultaneously achieving quality standards. It can help control and optimize your operations, as well as provide the visibility you need to better understand the relationships among orders, production, inventory, and distribution. Microsoft Dynamics AX can help you increase margins through improved utilization, improved customer service, and fewer lost sales; reduce costs by lowering operating and raw material expenses; and cut inventories by reducing raw materials, intermediates, and finished products.

Reduce Inventories and Improve Customer Service

Process Industries for Microsoft Dynamics AX reduces inventories without compromising delivery performance. By accurately depicting real-time inventory levels, you can adjust forecasts and inventory restocking points to ensure adequate supplies. You can also prioritize accounts to support different customer service levels and generate production plans that minimize the impact of setup and changeovers.

Contain.	Qty/Cont.	Qty/UOM	Disposition c.	Disposition status
1GAL				Unavailable
5GAL				Unavailable
1GAL			Damaged	Unavailable
1GAL			Available	Available
1GAL			Damaged	Unavailable
1GAL			Damaged	Unavailable
1GAL			Damaged	Unavailable
5GAL	23.00	582.00	Damaged	Unavailable
5GAL	26.00	645.00	Available	Available
5GAL	7.00	165.00	Available	Available
1GAL	5,100.00	1,500.00	Available	Available
5GAL	12.00	300.00	Available	Available
5GAL	2.00	45.00	Available	Available
5GAL	2.00	60.00	Available	Available
5GAL		3.00	Available	Available
5GAL	4.00	90.00	Available	Available
1GAL			Available	Available
1GAL	20.00	6.00	Available	Available
1GAL			Available	Available
1GAL			Available	Available
1GAL			Available	Available

Process Industries for Microsoft Dynamics AX enables users to define multiple attributes, or dimensions for ingredients and other materials. This capability gives users a straightforward way to classify, manage, and access information about material with many critical characteristics.

Features Overview

Co-Product/By-Product Management	Support co-product and by-product tracking to help optimize decisions. Analyze co- and by-product attributes and costs, compare the costs and benefits of selling or disposing of them, and credit their values to the appropriate finished goods.
Yield Planning and Tracking	Establish standards for yield using formulas, and then track and report actual yields against those standards to quickly identify out-of-tolerance conditions, isolate the cause, and take corrective actions.
Attribute Tracking and Dynamic Formula Adjustment	Define and maintain an unlimited number of qualitative and quantitative attributes at the product and lot levels. Adjust formulas automatically based on the actual characteristics of input materials to ensure consistent quality of final products.
Input-Driven Process Specification	Accommodate an unlimited number of inputs and outputs within the process specification through a recipe system that defines all of the resources of production, including ingredients, machines, labor, utilities, and quality assurance variables.
Optimized Picking	Pull inventory in optimal sequence, employing “best before” management. Employ either first expired/first out (FEFO) or first in/first out (FIFO) calculations for inventory picking, reducing inventory, and eliminating waste.
Batch Optimization and Balancing	Produce against given batch sizes, so every batch can be fully consumed (immediately packed to finished goods level). Batch balancing helps maintain a selection of the products most likely to be needed in stock as well as the coherence and traceability of multilevel production.
Variable Inventory and Order Tracking	Monitor inventory using dual units of measurement to manage total weight as well as packaging units (catch weight calculations). Track order status using real-time updates on net purchasing, production and capacity requirements, and graphical symbols for each level of the formula or recipe.
Customizable Item and Dimensionality Structure	Define multiple inventory dimensions and gain insight into the dynamics of your stocking practices, including packaging codes, variations to the main item, lot management, and inventory status. Conduct comprehensive “where-used” analysis, including alternate formula and recipe tracking.
Detailed Production Costs Analysis	Analyze and monitor production costs and requirements for each component of a sales order using graphical representations of multilevel formulas and recipes.
Customized Product and Packaging Capabilities	Provide your customers with increased packaging flexibility by defining effective units of measure. Enable customers to request multiple quality specifications per product while maintaining inventory visibility. Support highly flexible configurations and packaging types while combining similar products in production to improve machine utilization.
Centralized Quality Control and Regulatory Support	Use integrated quality control and lot traceability to link raw materials through each operation of the production process to final delivery at the customer site.

Improve Production Planning and Inventory Management

Minimize overruns and underruns, and use shelf-life tracking to consider expiration dates during production and distribution. You can centrally manage co-products and by-products in your formulas or recipes, and always know the correct inventory status for any given item.

Achieve a Positive ROI

Because Process Industries for Microsoft Dynamics AX is built on proven Microsoft products and technologies, your business can take advantage of existing IT investments such as Microsoft® Office System applications and the Microsoft Windows Server System™. Your company can also realize quick payback on your investment. According to a research study by Nucleus Research, Inc. conducted in 2004, 75 percent of participating Microsoft Dynamics AX (formerly Microsoft Business Solutions–Axapta®) customers achieved a positive ROI within an average of only 23 months.*

*Nucleus Research, Inc. *The Real ROI from Axapta*. Research Note E116, October 2004.

For more information about Process Industries for Microsoft Dynamics AX, visit <http://www.microsoft.com/dynamics/ax>.

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