

Manufacturing: Architectural Products

Doors, Windows, Cabinets, Staircases, and Prefabricated Buildings

Industry Digest



SUMMARY

Architectural products manufacturers are underserved by today's ERP business applications. For example, few ERP systems provide native applications to configure dimensional products such as doors, windows, cabinets, staircases, millwork, or prefabricated buildings. As a result, architectural product manufacturers are forced to customize inferior product configurators. Alternatively, they must invest in costly custom integration projects to connect expensive best-of-breed configurators that are difficult to maintain and support.

Acumatica Manufacturing Edition is one of the few modern cloud-based ERP applications on the market with a robust, out-of-the-box product configurator.

Further, Acumatica supports matrix inventory items with a native connector for Arena's product lifecycle management application to harmonize bills of material between engineering and production applications. Quickly create custom architectural products with Manufacturing Estimates based on prior estimates or existing bill of materials and routings. Native service management empowers remote workers with access to information anytime, anywhere, on any device.

This Industry Digest provides an overview of the architectural products manufacturing industry with insights into the industry's future, critical features to consider when evaluating a new ERP application, and a list of resources for additional information.



Discover How Manufacturers Succeed with Acumatica



Manufacturers of architectural products such as doors, windows, millwork, staircases, cabinets, and prefabricated buildings have a lot in common. Most of these businesses make variable products that require special software with rule-based product configuration ensuring that unique finished goods can be manufactured based on option and value dependencies with formulas to calculate material requirements, costs, and customer prices.

Matrix-items based on item attributes are common for inventory management, purchasing and sales. Create custom architectural products with manufacturing estimates by copying previous estimates or modifying existing bill of materials and routings. CAD and PLM application connectors harmonize engineering bills of material (eBOMs) with manufacturing bills of materials (mBOMs) mitigating manual data entry between systems.

Construction felt the impact of the global coronavirus pandemic. However, the market rebounded quickly as housing renovations and new construction soared in 2021, fueling the architectural products manufacturing market. Below are a few statistics showing how major industry segments are expected to rebound and grow:

- Windows and Doors: The market is expected to grow at 6.2% CAGR from \$153 billion in 2020 through 2027.
- Cabinets: Forecasts project the cabinet market to grow at 4.6% annually to \$17.3 billion by 2023.2
- Modular Buildings: The modular building market is projected to grow at 5.75% CAGR from 2020 to 2025, reaching \$108.8 billion.³

Similar growth is expected for staircase, millwork, and other architectural product market segments. This growth is related to government infrastructure investments, increased consumer disposable income, and home remodeling for the work-from-home workforce.

Other trends affecting the industry include a new focus on eco-friendly technologies for more efficient windows and doors, modern technologies such as folding glass walls, self-darkening windows, and improved slide-glide shelving for increased loads. In addition, innovation across all industry segments is expected as consumers demand more features from existing products. For example, many cabinet companies are now integrating electronics such as USB charging stations, hands-free features, remote controls, and other technologies into standard and custom products.

Architectural product manufacturers are classified primarily in SIC Codes 2431-2452 and 3441-3448. The table below provides a summary of architectural product market segments based on the number of employees.⁴

INDUSTRY SEGMENT	1-20	21-50	51-100	101-250	251-500	501+	TOTAL
Staircases	251	52	16	7	0	0	326
Doors and Windows	1,592	506	246	197	70	57	2,668
Kitchen and Bath Cabinets	1,671	301	102	85	28	29	2,216
Millwork & Architectural Products	7,610	1,283	457	284	66	57	9,757
Prefabricated Buildings	4,679	325	179	190	69	42	5,484
TOTAL	15,803	2,467	1,000	763	233	185	20,451

- 1. Source: Global Market Insights
- 2. Source: Freedonia Group
- 3. Source: Markets and Markets
- 4. Source: Data Axle

"Acumatica was definitely the right choice . . . we were looking for two main things reall—it should be easy and great integration. Definitely, from all the systems we looked at, Acumatica won it big time."

- SENDY STERN, SVP OF TECHNOLOGY, FABUWOOD



The <u>Acumatica Manufacturing System Evaluation Checklist</u> provides a starting point to evaluate ERP requirements, including financial, purchasing, sales, inventory, customer management, retail point of sale, commerce, and business intelligence applications. The checklist below provides a shortlist of critical ERP features specific to the architectural products manufacturing industry.

FEATURE	BENEFIT	PRIORITY	Acumatica	
Rules-Based Configurator	Rules-based manufacturing product configurator to define attributes and values to create a unique bill of material, routing, inventory item, cost, and price for finished goods.		~	
Configuration Formulas	Calculate configured bills of material requirements, costs, and prices using custom formulas.		~	
Manufacturing Estimates	Create custom estimates for architectural products from scratch or by copying existing estimates or bills of materials.		~	
CAD/PLM Connectors	Use connected applications to synchronize engineering bills of materials from popular CAD or PLM applications to manufacturing bills of material in the ERP application.		~	
Engineering Control	Manage Engineering Change Requests (ECR) and Engineering Change Order (ECO) for product revisions.		~	
Production	Track production orders, work in process, and job costs.		~	
Planning and Scheduling	Generate time phased MRP plans based on forecasts and actual customer demand. Manage your shop floor schedule with a visual schedule board and finite capacity constraints.		~	
Service Management	Optional mobile field service for installation and repair with mobile apps for time, expense, and job activities.		~	
Inventory Management	Multi-warehouse, perpetual inventory, kitting, disassembly, lot/serial tracking, replenishment, and physical inventory.		~	
Matrix Items	Create and manage matrix items based on size, color, and other attributes. Matrix items streamline item management, purchasing, and sales processes.		~	
Item Suggestions	Configure item substitutions, up-sell, and cross-sell suggestions manually or using artificial intelligence.		~	
Warehouse Management	Native WMS with barcode scanning, prioritized picking queues, and paperless, directed picking for warehouse and manufacturing transactions.		~	
Commerce Connectors	Native commerce storefront integration for B2B and B2C online sales with bidirectional ERP integration.		~	
Point of Sale	Point of sale app with connected receipt printers, cash registers, barcode scanners, and credit card terminals.		~	
EDI Transactions	Connected EDI for customer and vendor transactions.		~	
CRM	Embedded CRM for marketing, sales, and support.		~	
Purchasing	Purchase management with blanket orders and requisition management with vendor bids and approvals workflow.		~	
Projects	Optional project accounting for managing larger projects, resource schedules, material requirements, and billing.		~	
Financials	Streamline and automate financial reporting with a full suite of native accounting applications.		~	
Business Intelligence	Gain real-time insights into your business with role-based dashboards, business analytics, reports, and inquiries.		~	

INDUSTRY Resources



Resources are provided below for architectural product manufacturers engaged in staircase, cabinets, windows, doors, and related architectural products industries in their digital transformation projects. Attend industry trade shows, read about ERP software and technologies in trade media and industry analyst reviews, network with peers in associations, and access Acumatica resources to learn more about ERP software to automate and streamline business and sales operations.

INDUSTRY EVENTS

- AIA Conference on Architecture (Link)
- Closets Conference & Expo (Link)
- Door & Access Systems Events (Link)
- FGIA Annual Conference (Link)
- FIT Show UK (Link)
- Glass Processing Automation Days (Link)
- GlassBuild America (Link)
- Glasstech Canada (Link)
- International Door Association Expo (Link)
- International Woodworking Fair (Link)
- KBIS Kitchen and Bath Industry Show (Link)
- NFRC Annual Meeting (Link)
- NGA Glass Conference (Link)
- SMA Annual Conference (Link)
- WinDoor Annual Conference Canada (Link)
- Window & Door Manufacturers Conference (Link)
- World Millwork Alliance Annual Conference (Link)

INDUSTRY ASSOCIATIONS

- American Institute of Architects (Link)
- Association of Closet & Storage Professionals (Link)
- Cabinet Makers Association (Link)
- Door & Access Systems Manufacturers Association (Link)
- Fenestration & Glazing Industry Alliance (Link)
- Fenestration Canada (Link)
- International Door Association (Link)
- Kitchen Cabinet Manufacturers Association (Link)
- Manufactured Housing Institute (Link)
- Metal Building Manufacturers Association (Link)
- Modular Building Institute (Link)
- Modular Home Builders Association (Link)
- National Assoc of Architectural Metal Manufacturers (Link)
- National Glass Association (Link)
- National Kitchen and Bath Association (Link)
- Stairbuilders and Manufacturers Association (Link)
- Window & Door Manufacturers Association (Link)

- Woodworking Machinery Industry Association (Link)
- Wood Machinery Manufacturers of America (Link)
- World Millwork Alliance (Link)

TRADE MEDIA AND ANALYSTS







- Closets & Organized Storage Magazine (Link)
- Door & Access Systems Magazine (Link)
- Door and Window Market (Link)
- FDM+C Magazine (Link)
- Fenestration Review Canada (Link)
- Furniture & Joinery Production (Link)
- Glass Canada Magazine (Link)
- Glass Magazine (Link)
- International Door Association Magazine (Link)
- Kitchen and Bath Business (Link)
- Manufactured Housing Review (Link)
- Metal Architecture (Link)
- SMA Stairways Newsletter (Link)
- Window + Door Magazine (Link)
- Window & Facade Magazine (Link)
- Windows Active Magazine UK (Link)
- WMA Millwork & More Magazine (Link)
- Woodworking Network (Link)

ACUMATICA RESOURCES

Access the online Resource Center to learn more about Acumatica Manufacturing Edition, Product Configurator, Engineering Change Control, Acumatica for Arena Native Connector, Manufacturing Estimates, and other resources for architectural products manufacturers.

Visit Resource Center

"The quote to cash cycle is the lifeblood of our business, and Acumatica has given us the tools to manage it effectively and efficiently every step of the way. We have valuable tools to see what's coming, to do all our forecasting through dashboards, and focus on key customers."

- TIM PATTON, ICT DIRECTOR, SAM GROUP







Discover why so many architectural products manufacturers rely on Acumatica Manufacturing Edition to maximize resources, reduce costs, and improve profits. An extensive suite of connected business applications provides unparalleled manufacturing depth for production, estimating, engineering, material planning, scheduling, product configuration, and manufacturing data collection.

ACUMATICA FOR THE ARCHITECTURAL PRODUCTS MANUFACTURING INDUSTRY

Acumatica provides unmatched functional breadth with last-mile features such as disassembly, engineering change control, demand forecasting, and outside processing to streamline critical manufacturing processes. Production Orders support make to stock, make to order, engineer-to-order, job shop, and configure-to-order manufacturing. In addition, project accounting provides project-centric manufacturers with production and resource planning for specific manufacturing projects.

Commerce connectors streamline online (B2B or B2C) product sales. Native service management provides contract management, appointment scheduling, warranties, equipment management, and mobile apps for remote workers. Balance supply and demand with inventory, sales, and purchasing on top of a comprehensive suite of accounting applications. Leverage automation, workflows, and document management to connect data and processes throughout all parts of the manufacturing business for improved customer service, customer retention, and growth.

Acumatica Manufacturing Edition provides a modern platform for developing rapid integrations to modern technologies, such as cloud computing, big data and analytics, and additive manufacturing for streamlined processes and meaningful insights into manufacturing operations.

Acumatica delivers an unparalleled experience for users and customers alike. It is built on a scalable and future-proof cloud ERP platform with open architecture and backed by the industry's best value-added reseller (VAR) network.

"A couple of things that we've never been able to do in the past that we will be able to do now that we have Acumatica . . . number one—we have lots and lots of reworks—we've never had a good tool to measure what the cost is of those reworks . . . number two is that we know that we have a lot of downtime in the shop where people . . . are not being productive and we've never had a way to really measure that. So, we can look to where we can streamline operations, make things better, so there's a better flow . . ."

- KEN GOLD, DIRECTOR OF FINANCIAL SYSTEMS, SALTER SPIRALSTAIR



Acumatica Cloud ERP is a comprehensive business management solution that was born in the cloud and built for more connected, collaborative ways of working. Designed explicitly to enable small and mid-market companies to thrive in today's digital economy, Acumatica's flexible solution, customer-friendly business practices, and industry-specific functionality help growing businesses adapt to fast-moving markets and take control of their future.

For more information on Acumatica, visit www.acumatica.com or follow us on LinkedIn.