CYIENT
Nothing Less

17% More Output. 60% Smaller Footprint. 70% Less Energy.

Co-engineered a first-of-its-kind vertical bodymaker for a global can-making machinery OEM



Business challenge

As packaging manufacturers pushed for faster lines, lower operating costs, reduced energy use, and machines that could fit tighter factory layouts, the customer saw an opportunity to redefine its flagship bodymaker. The challenge was to deliver all these gains in one machine, without compromising strength, reliability, safety, manufacturability, or global compliance.

- Raise throughput while reducing footprint, energy consumption, and operating cost.
- Re-engineer a complex, high-speed bodymaker without weakening machine strength, reliability, or safety.
- Build manufacturability and global regulatory compliance into the design from the start.
- Work through incomplete, non-standard legacy inputs, including handmade drawings, outdated records, and metric drawings that had to meet U.S. standards.
- Convert undocumented shopfloor changes and fragmented history into validated, release-ready product data without slowing innovation.

Overview

For a global maker of beverage-can machines, fresh engineering ideas set the company apart, and every millisecond, square foot, and watt affects its customers' profits.

To redesign its flagship can bodymaker, the customer needed more than extra engineering hands. It needed a long-term partner with deep knowledge of high-speed can-making machines and worldwide product compliance.

For more than 10 years, Cyient has worked as part of the customer's team across 10+ machine areas, helping design a next-generation bodymaker and supporting design, cost-saving engineering, manufacturing, controls, and after-sales documentation across its product lines.

The Cyient solution

Cyient brought one integrated engineering model into two connected priorities: co-developing a next-generation bodymaker and strengthening the engineering backbone across the customer's machine portfolio.

Co-engineering a next-generation bodymaker

- Took the program from feasibility, concept, and detailed design through manufacturing release and post-build support.
- Reoriented the bodymaker from horizontal to vertical to improve material flow and reduce footprint.
- Simplified the sheet-metal drawing process to reduce forming steps and improve throughput.
- Built simulation-led validation, manufacturability, and global regulatory compliance into the design early.

Strengthening machine operations at scale

- Benchmarked existing platforms and mapped critical subsystems across key can-making machine areas.
- Developed drive concepts, functional diagrams, compact layouts, and manufacturing-ready design outputs.
- Integrated dry-forming innovations including punch cooling, redesigned ram and domer, contamination seals, and a mechanically actuated stripper.
- Applied value engineering across assemblies, including integrated castings to reduce cost and weight without compromising strength.
- Modernized 1,300+ legacy drawings into 3D models, assemblies, drafts, BOMs, PLM/ERP-ready releases, and standardized manuals.

Business impact

Cyient helped the customer turn a next-generation bodymaker program and broader machine-operations work into measurable gains in productivity, footprint, energy use, cost, and engineering readiness.

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Product performance gains

- **60% smaller footprint** freed valuable shopfloor space
- **17% higher throughput** driven by machine reorientation and fewer forming steps
- **70% lower energy consumption** strengthened the cost and sustainability proposition
- **Compliance built in early** reducing late-stage risk

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Portfolio-wide engineering impact

- **16% product cost savings** through value engineering without compromising strength or function
- **1,300+ drawings modernized** converted into CAD, BOMs, and release-ready outputs
- **10+ machine areas supported** spanning design, manufacturing, controls, automation, and documentation

Engineering excellence. Nothing Less.

This is intelligent engineering in action: not technology layered on, but engineering judgment built into every stage of the product lifecycle. By uniting product insight, simulation-led validation, value engineering, manufacturing readiness, and lifecycle documentation, Cyient helped convert an ambitious bodymaker program into measurable gains in throughput, footprint, energy use, and product economics, backed by the same partnership model that has powered 10+ years of continuous innovation with the customer.

Ready to build intelligence into every stage of your product lifecycle?

Get in touch with us, today!

Cyient is a global lifecycle engineering services company powering mission-critical industries from design to aftermarket across products, plants, and networks. With 300+ customers and 15,000+ associates across 30+ countries, we combine human expertise, deep domain knowledge, and AI to deliver intelligent engineering for every lifecycle across Aerospace and Rail, Automotive and Mobility, Connectivity, Energy, Healthcare, Mining, Utilities, and beyond.

To learn how we deliver exemplary outcomes, nothing less, visit www.cyient.com.

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