

Oil and Gas Analyzer Maker Envent Quadruples, Taps Acumatica Manufacturing ERP to Support Fast Growth

OVERVIEW

Envent, a global firm based in Calgary, Alberta, makes oil and gas analyzers for worldwide customers. Its founding engineers bootstrapped the company for many years. When revenues started to climb three years ago, executives realized its legacy systems couldn't support its growth. Envent deployed Acumatica Manufacturing Edition, gaining real-time financial visibility, and improved inventory and manufacturing operations while supporting four-fold revenue growth.

KEY RESULTS

- Implemented a single, connected, modern ERP tailored to manufacturing operations
- Gained real-time visibility into operations for the first time in 20 years, improving profitability
- Quadrupled manufacturing throughput, growing from 2 units to 20 units in a 12-week period
- Improved inventory transparency, allowing better adjustment of inventory levels
- Reduced inventory carrying costs by millions of dollars, improving cash flow
- Gained a modern CRM, improving sales productivity and sales visibility
- Maintained quality reputation while increasing product availability dramatically
- Automated manual processes, increasing employee productivity and customer satisfaction
- Gained multi-currency and multi-tenant functionality, speeding its worldwide expansion
- Acquired remote access from anywhere, increasing productivity while saving time

CHALLENGES

Based in Calgary, Alberta, Canada, Envent Engineering designs, manufactures, sells, and services analytical equipment that measures and analyzes levels of hydrogen sulfide, total sulfur, methane, oxygen, carbon monoxide and moisture, primarily for the oil and natural gas industries.

In addition to its Calgary operations, the 20-year-old company has operations in Houston, Texas; and offices in Mexico City, Mexico; Mumbai, India; and Beijing, China. Expansion possibilities include additional offices in Brazil and Dubai.

"We have a good reputation for quality and making robust products that operate in the most hostile areas of the world where they are not necessarily supervised," says Andy Hodgson, Envent Chief Executive Officer, who joined the company three years ago. "They just plug and play, and customers often run them until they fail."

"We write our own software. We write our own firmware, and we design and build just about everything that goes into our analyzers except the enclosure or box that the analyzer goes in, and the power supply."

The company earned a stellar reputation and gained a market-leading position because it makes and delivers high-quality analyzers in 10 to 14 weeks. Because analyzers are mostly a tertiary product for its competitors, turnaround times for competitors are typically 52 weeks, Hodgson says. "In addition to the quality of our products, we make a lot of sales because we can deliver them faster."

Sulfur analyzers are also known as "grudge buys" since governmental regulatory agencies require oil and gas companies to have them. "They buy because they have to," Hodgson says.

Envent's manufacturing facility has attained ISO 9001:2015 certification and is COR-certified.

The manufacturer was founded by several engineers who operated it leanly with less than 15 employees for its first 15 years. Engineers focused on building a better mousetrap and making it great. But five years ago, sales took off and the company has more than quadrupled since then.

"We've had just unprecedented growth in the last five years, and we've almost doubled every year in terms of gross revenue and staff," Hodgson says, adding that headcount has surpassed 100.



Company

Envent Engineering
<https://enventengineering.com>

Industry

Manufacturing: Sulfur analyzers for the oil and gas industry

Number of Employees

Approx. 100 full time employees

Location


Calgary, Alberta; with operations in Houston, TX, and offices in Mexico City, Mexico; Mumbai, India; and Beijing, China


Products

Acumatica Advanced Distribution Edition and Manufacturing, with:

- MRP
- Inventory Control
- BOM
- Order Management
- Product Configurator
- CRM
- Canadian Localization
- Exchange Integration
- Financials
- Project Accounting
- Multiple Currencies

Customer Social Sharing Details

 www.youtube.com/user/EnventEng

 www.linkedin.com/company/envent-engineering-ltd

Partner Details

 **AQRUS**

Aqurus Solutions
www.aqurus.ca

That fast growth, however, was hard to manage with the manual and rudimentary systems Envent had in place. Those challenges were magnified when the pandemic hit, and supply chains were disrupted.

“Just our availability alone gives us a huge market share, but we can only deliver on those promises by having materials at-hand, having skilled labor at-hand, and having everything we need in the right quantities at the right time to do proper quality-controlled assembly,” Hodgson says.

Rudimentary Systems

Three years ago, Hodgson was hired to modernize Envent and grow it into a mid-sized firm. He quickly learned he faced a huge challenge. Like many engineering-led companies, the executives focused more on building great products not back-office support systems. Fundamental financial questions like product profit margins or number of units made took a lot of work to acquire.

When he joined Envent, it had two locations, the headquarters in Calgary and an operation in Houston, Texas. Each location was run separately, with different legacy accounting packages, other siloed systems, and tons of spreadsheets and databases.

Procuring materials for manufacturing was rudimentary at best. “It’s almost embarrassing to talk about,” Hodgson says. “The engineering team would literally stand around and say, ‘Well, it’s gonna need one of these, and it’s gonna need one of these. And then when it was all built according to what the engineering team thought it needed, they would do an as-built AutoCAD drawing of it after-the-fact, and then figured out pricing.”

That’s right; determining actual costs happened after they agreed on a price with the customer.

“We’d have a real moving target of our actual profitability on these systems one by one,” he says. “The records were so dubious that when someone wants to buy another system, it is very, very hard to figure out what you sold them the first time.”

They simply relied on best guesses and collective memories in the absence of data. “That’s a train wreck,” he says.

With mostly manual systems, information was historical and very anecdotal. “It was literally clipboards hanging on nails on the wall and very primitive,” Hodgson says. “We were surviving and had a pretty stable market share, but we weren’t growing. What was important was making the product, not a profit.”

Hodgson’s first order of business was finding a modern financial system that could unite its two locations, and then modernizing production, which was largely a made-to-order operation akin to a custom clothes tailor, he says.

“It became very labor intensive to prepare financials for board meetings and quarterly reports,” he says. “It was pretty much a bunch of spreadsheets, but really the back-of-the-napkin is probably more accurate.”

Without a CRM, gathering data was difficult at best because each salesperson had their own cobbled-together systems with data stored on cell phones. “It was quite primitive,” Hodgson says. “It was very disorganized with very disparate systems. It is actually quite shocking how this company had succeeded in spite of itself on many levels.”

Production Challenges

Procurement was complex because it took some 1,800 different parts to make an analyzer. Some items required a six-month lead time, while others were in inventory. Such complexity was hard to manage manually. When the company received an upswing in orders and started carrying a backlog, they invested a lot of money in inventory.

“We were probably sitting on over \$4 million of inventory and had another \$3,000,000 on route at any point in time in order to address some \$8 million worth of booked orders,” Hodgson says.

Without a robust inventory system, “We had an abundance of some things - probably a 10-year supply of some items and a two-week supply of other things.”



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– Andy Hodgson,
Chief Executive Officer,
Envent Engineering

Like others worldwide, Envent encountered supply chain issues during the pandemic, most importantly with micro-processors, and had to turn to the grey market while also dealing with scarcity issues and escalating costs. “Items that used to cost \$13 started costing \$1,300,” Hodgson says. “Those issues quickly eat into your gross margin rapidly.”

“Everyone knew that we had to do something differently in order to succeed, and so the appetite was there for a new platform,” Hodgson says. “The appetite was also there with our younger workforce members. These were the 22-year-old engineers who were appalled at the kind of banging-rocks-together-to-make-sparks level of technology we were using.”

SOLUTION

Envent evaluated SAP’s small business solution, NetSuite, a custom program, and Acumatica Cloud ERP. Hodgson had used the enterprise edition of SAP at his previous employer, a competitor to Envent.

The evaluation team eliminated SAP from contention “because of its pure price point.” “It was just prohibitively expensive for us to entertain,” says Hodgson. “I remember (at his previous firm) we probably spent 1,000-man hours just trying to populate it and three years later it was still an incomplete system. Having a mid-size business adhere to what would apply to a multinational company became really onerous to keep accurate.”

NetSuite was also eliminated from the list. “They are pretty good at selling the dashboards to executives rather than selling the data entry screens to the people who are going to be working with it,” Hodgson says.

Envent chose Acumatica Manufacturing Edition for several reasons. “It actually looked good to everybody from the beginning,” Hodgson says. “Because we run two sets of books, we could start with two tenants and modify that in the years ahead to one tenant with two branches.”

In addition, Acumatica offered multi-currency functionality, which was critical since Envent has word wide operations.

“It also works a very well from a P&L, with all the standard balance sheet reporting, and it exports nicely if you want to do additional analysis in a different format,” Hodgson says. “NetSuite doesn’t export very nicely.”

Envent also liked Acumatica’s unlimited user pricing, which allowed everyone to work in the ERP simultaneously, and allowed executives to concentrate on running the company as opposed to worrying about escalating per-user licensing costs.

Acumatica Manufacturing Edition, Hodgson learned, offered Canadian localization, MRP, bill of materials and routings, inventory control, order management, as well as financials, project accounting, and Acumatica’s CRM.

“We landed on Acumatica mostly from an accounting-driven decision and knowing that with a partner, we could salvage a lot of our data. They could populate it in the right boxes, and we could work from a point forward rather than spending a whole lot of time populating it from scratch,” Hodgson says.

He also liked the ERP’s deep functionality from order-to-cash, and the ability to add modules as Envent needed them. “We can roll it out over time slowly, and on an as-needed basis, so that probably made the sale better than anything else,” he says.

“Once we had the opportunity to test drive it and to see our data in play, I think the accountants were the first to be happy and then it kind of went department by department after that.”

Acumatica partner Aqurus Solutions helped Envent deploy Acumatica.

Implementation

Like several Acumatica customers, Envent executives initially chose to run its new ERP concurrent with its legacy systems.

“Implementation went really well, and it was up and running in a very short period of time,” Hodgson says. “But we made a caution-based decision to run concurrently for a while. That doubled the workload and made for an unhappy period. In hindsight, we should have just proceeded with the leap of faith that Acumatica was going to be adequate and capable of what we needed it to be.”



““ Our adoption of Acumatica was concurrent with our expansion... If we had had all these orders come in without having a better data management system, we probably would have been a train wreck. ””

– Andy Hodgson,
Chief Executive Officer,
Envent Engineering

Part of that decision stemmed from that knowledge that reviews of Acumatica seemed too good to be true, he says. “As part of our due diligence, we asked around and were put in contact with other companies that had gone through the process and they were all so good that they seemed almost staged,” Hodgson says, adding he’s now one of those avid Acumatica advocates.

“If I were giving an assessment of Acumatica, I’d be hard pressed to say where it didn’t do something for us,” he says. “I’ve not only have I found it to be everything I thought it would be, but I found out working with the partner was almost intrinsic to the success of our implementation.”

BENEFITS

Real-Time Data Improves Visibility

“Our adoption of Acumatica was concurrent with our expansion and growth,” Hodgson says. “I would be the first to say that it probably made a lot of the growth possible. If we had had all these orders come in without having a better data management system, we probably would have been a train wreck.”

Acumatica provides access to real-time data, which Envent didn’t have previously. “What we have is near instantaneous data reflected in real time, which is wonderful to see as sales are made,” he says. That’s particularly important for traveling salespeople and executives.

“There are a number of us that are open somewhere on planet Earth around the clock, so real-time information is critical to us. And it’s not batch processing; it’s real-time data processing.”

Creating financial reports is easier and takes less time. Previously, Hodgson requested information from others three days before he needed it to create reports for an upcoming board meeting. He often had to bug his team to get their data to him. Now, Hodgson accesses data by himself whenever he needs it, which has saved him and others days of data collecting.

“Acumatica is always available around the clock, and it’s cloud-based, which is an enormous advantage,” he says. “I do all of my regular reporting and examination of the numbers from wherever I am, and it’s quite often in airports. I’ve got the perfect snapshot for all the information I need to do my job.”

Previously, his reports contained historical data and was “dubious,” he says. “It usually took a couple of weeks, and we would have a board meeting a month after a fiscal quarter just so that we had fairly reasonable closed numbers to talk about.”

Trying to factor in currency exchange rates at the time the numbers were produced was a headache. “That time lag was very hurtful and led to providing misleading information,” he says.

Quadrupled Manufacturing Production Capacity

Thanks to Acumatica, Envent executives have increased its manufacturing throughput, and now the company makes four times the number of analyzers in a single year.

“We now do as much in a fiscal quarter that we used to do in a year,” Hodgson says. “Our production capacity is four or five times the size that it was two years ago.”

“If we were shipping two analyzers a week and it was a 12-week order fulfillment, that same 12-week order fulfillment stayed the same, but we’re putting out 20 analyzers after the adoption of Acumatica. The actual time to build any analyzer is roughly the same, but it’s how many of them we can build concurrently that changed.”

Event could not accept orders over a certain amount in a 12-week production run in the past, Hodgson says. “Getting international orders for 30 to 40 analyzers at a time with very short turnarounds, we wouldn’t in our wildest dreams accepted an order like that three years ago.”

Most importantly, Envent knows what it costs to build each item and what its profit margin is, which is information executives didn’t have previously. Suffice to say, the company has increased its profitability.

“Just from efficiency alone, we’re more profitable,” Hodgson says. “We buy the proper materials and know what they cost. We also know how many times a year we can convert cash to inventory back to cash again.”

Given the length of time it takes to build items, Envent’s cash to inventory rate is 3.5 times a year.



Seamless Visibility Between Locations

Envent's Calgary operations now has full visibility into what's happening in Houston, and vice versa. "It's hard to quantify or estimate, but we now have visibility. Our American branch can see what's going on in Canada seamlessly. And when Mexico comes online, we'll see what they're doing seamlessly."

With a connected system, every office knows what every other office has in inventory, which wasn't the case previously.

Since Envent services its analyzers throughout an item's life, parts sales make up about 12 percent of Envent's total revenue. But without a good inventory system previously, no one knew how many of an item's parts were already slotted for a customer, which may have lowered its customer satisfaction from time to time.

"We burned ourselves many times in the past by selling things that were already spoken for because there was no system in place," Hodgson says. "Customers might get angered by delays or analyzers arriving incomplete and promises of making items complete down the road. That kind of rings hollow."

With Acumatica, employees have access to real-time inventory levels, which has greatly reduced errors. "We now actually have standing inventory," Hodgson says. "We actually make some common stock analyzers and then can add customization on an as-needed basis." That couldn't be accomplished before because no one knew if they had enough in inventory to assemble analyzers to stock, he says.

Streamlined Operations

With Acumatica's CRM, Envent's inside and outside sales teams are much more coordinated in their sales efforts because they collaborate and share information easily. They no longer duplicate efforts and know whom others have contacted.

Thanks to Acumatica's project accounting functionality, Envent can now take advantage of Canada's Scientific Research and Experimental Development credits, which allows companies to recoup 35 percent of up to the first \$3 million in qualified R&D expenses and 20 percent for additional costs as a tax deduction.

"We weren't taking advantage of SHRED credits in the past because the record keeping was just too chaotic to make a reasonable case for it," Hodgson says. With Acumatica, "the project accounting dimension for R&D projects is working very well. We can track hours, costs and materials purchased and allocate those costs appropriately."

New Global Locations

With Acumatica in place, Envent executives look forward to fine-tuning operations and adding locations around the world.

"It's going to be invaluable having a cloud-based platform like this with so many people working remotely," Hodgson says. "It's critical and going to help us grow into multiple inventory locations, and with multi-currency, we'll be able to see all of the banking information from each of our branches in real time, and real-time data like that is critical."

"Acumatica is particularly good for a manufacturer with multiple locations," Hodgson adds.

"I think that's really where it shines. And if you operate in different time zones, need to consolidate financials and present them, I think the ease that we do it with now is just in a different league than in the past."

"I would absolutely say that Acumatica is preferred and recommended platform."

