



4216 Maray Drive Rockford, IL 61107
P: 815.399.8803 F: 815.399.8804
www.ingeniumtech.com

SUMMARY

Cherry Valley Tool Inc. (CVT) was a small machining company that specialized in vertical turning. They were in dire financial shape with the banks threatening foreclosure and suppliers demanding their accounts receivables. CVT's president and owner wanted to sell the business. Without a dedicated leader and with dwindling cash flow the company was headed for bankruptcy. At this point a prospective new owner and the bank approached Ingenium for help in turning around Cherry Valley Tool. Ingenium agreed to lead the task in bringing this company back to life.

Ingenium's turnaround work involved two major activities. First, Ingenium would need to settle CVT's business and financial issues and set up the new ownership structure. Ingenium management formed a joint venture with the new partner, negotiated with the banks for settlements on CVT's notes, and convinced a vital customer to dramatically increase their business with CVT. Secondly, Ingenium's Operations Consulting team would use their technical expertise to lead CVT through a dramatic and very rapid production turnaround. Over a six month period and with a minimum disruption to production, Ingenium's Operations Consulting team:

- Planned and executed the entire move of the facility to a new location
- Assisted in hiring, training, and integrating 40 new employees
- Specified, ordered, and installed over \$2.0M in new machinery and equipment

At the conclusion of the turnaround Ingenium was successful in implementing both the business and technical services required and CVT's financial health went from bankruptcy to thriving.



Results of Ingenium Services		
	Before	After
Annual Sales	\$1.8M	\$6M
Employees	17	57 initially with Ingenium help 93 at full growth implementati
Facility	50,000 sq.ft.	125,000 sq.ft.
Machines	50	62
Financial Health	Bankruptcy	Thriving



PHASE 1: BUSINESS AND FINANCIAL ISSUES

The first order of business for the Ingenium team was to hammer out financial details with the banks and the new partner. Going forward quickly and successfully would depend upon getting all parties to be in agreement. Ingenium's Operations Consulting team focused on creating a master business plan which would be used to clearly communicate the risks and opportunities of the project and to serve as a platform for building confidence and trust in the new company. This refined plan was used as the blueprint for the project and was shared with all parties concerned (as appropriate) including investors, customers, suppliers, and employees.

Key findings highlighted in the plan included:

- Top-line growth was essential for CVT's turnaround
- CVT's costs were under control
- Suppliers had been happy to work with CVT before the hard times hit
- Key customers' markets were at last picking up after a deep recession

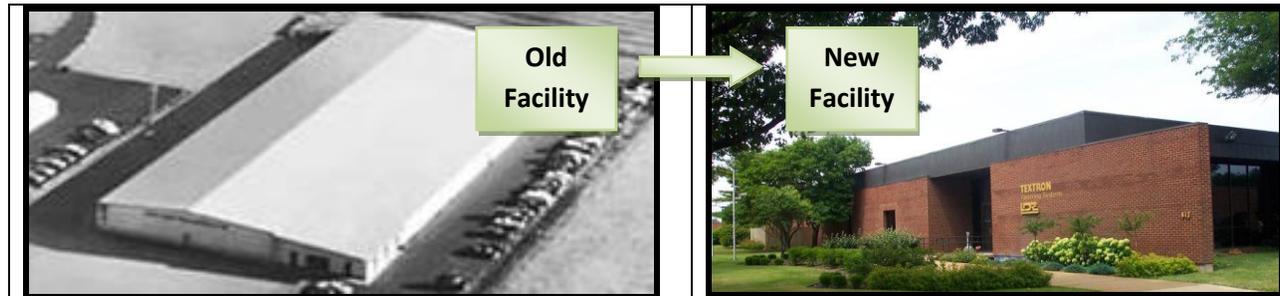


At the conclusion of the discussions an agreement was reached: Ingenium and the new partner would become co-partners, buy out the current owner of CVT, and settle debts with the banks.

With the reassurances of the master plan and CVT's new management team, CVT's largest customer agreed to stick by CVT during the turnaround and to dramatically increase their business with CVT. This infusion of new work would provide a fourfold increase in revenue and was central to the success of CVT's turnaround. This new business would require a larger facility, more employees and significant re-capitalization. The Ingenium team had established credibility in the business plan so the bankers were agreeable to provide the necessary funding.

PHASE 2: THE MOVE

In March 2004 Ingenium began the second phase of the turnaround: planning and execution of the build-out move of the factory to a recently vacated building about twenty miles away from its present location.



The move was scheduled to take 6 months and would include:

- Transferring 17 existing employees
- Adding 40 new employees
- Moving 35 existing machines
- Purchasing 12 new machines
- Moving the tool room and all other shop support functions
- Modifying the recently vacated building for power, shop air, and process coolant
- Moving all materials
- Moving all office equipment and records

The 12 new machines were being purchased to support CVT's new growth business and would need to be integrated into the new facility and move schedule.

PLANNING

"Our client was obviously quite lean on staff," states Ellwyn Englof, Principal Ingenium Consultant on the project, "with only the General Manager, a facilities maintenance guy, and a Quality Assurance guy available on a part-time basis to work this project, we had to get their input in short bursts, do our planning work, and then touch base with them to confirm our recommendations."

One of the initial realizations on Ingenium's part was that the client management team saw the move quite simplistically as "Let's just call a rigger and pick up all the stuff at the current location, get it to the new location, and put it in place as we see fit." Ingenium's staff knew a detailed shop layout was required in order to have the right long-term solution for production and to have a working document for all of the contract services. The contractors would need to quote, design, and procure, so needed a solid working document from which to quote.

Ingenium convinced the client management team that the planning phase was the key factor in the success of the transition. Ingenium worked to get to a 90+% layout level of accuracy. In the end, CVT management came to understand the beauty of the planning phase and believed the planning piece went a long way toward keeping the project on the initial budget and schedule.

WORKING IN PARALLEL

For CVT's move to happen quickly, Ingenium identified the need to work three areas in parallel: →

1. Work with local service providers to agree on specs and cost-effective facility service modifications

Once initial layout work and a detailed building survey were completed Ingenium staff could see mismatches between the more ideal production layout and the way the existing building services were run. Ingenium made initial contact with local service contractors and conducted first-pass meetings to have the contractors provide their guidance allowing Ingenium to make layout vs. costs-of-services trade-offs. These discussions led to “tweaks” to the layout which our client approved and also allowed the service contractors to be smarter about the work to be quoted. These up front discussions saved time and change-order costs as the project moved along.

2. Bid, down-select, and place contracts for long lead-time services for the power, compressed air, HVAC, building renovation/prep and overhead cranes

3. Keep the supplier of the new machine tools on task and on schedule

Because CVT was so short of staff, the supplier of the new machine tools was awarded a “turn-key” contract to process, tool up, and prove-out the new machines and equipment. This required many visits to their facility and countless hours expediting their work. The machine tool supplier had understaffed their part of the project and in the end was forced to ship the machines and tooling not totally proven out to the new location and complete their work in the new facility.

ONE, TWO, THREE,...GO!

It's always a scramble on site between the various services contractors. Knowing that, Ingenium put a construction manager on site to coordinate between the layout requirements and each of the service contractors and their desire to put in their ducts, pipes, busses, etc., in the most logical way for themselves. It is essential to pick a site manager who is strong in keeping his eyes on the end goal while keeping peace between all the service contractors and their sometimes conflicting demands. “The schedule, cost, quality and contractor relations trade-offs just came rolling in every day, every hour,” reports Frank Buchmann, Ingenium's site construction manager, “so an ability to manage in chaos is essential during the build-out and move phases.”

The client's production broke into several product families and, fortunately, machine groupings, so a move sequence was agreed based on trade-offs between:

- Customer order due dates
- Complexity of moving and re-installing the machines and equipment
- Ability to build up "safety stock" prior to the move
- Ability to staff up at the new location so the current-location workers could continue to
- support current production at the existing location
- Time-line for the arrival of the new machines and tooling

Not surprisingly, even with the best of planning, emergency customer orders came in and CVT's management team wanted to delay / shuffle the move sequence order. Also, some areas of the building renovation/prep fell behind a bit, some machines didn't move as well as others (they were old and fragile) so there were start-up problems at the new location, and "mover's remorse" set in at times. In the end, Ingenium's experience and confidence and the rigger's skill to quickly move the machines and equipment convinced the client that they just needed to "bite the bullet" and move as quickly as possible to the new location rather than to try and solve daily incoming problems from two locations.

Finally, there were a number of infrastructure issues that had to be overcome because the facility purchased was part of a larger, integrated campus. Installing a new telephone system and separating an integrated campus power grid were the biggest, most time consuming, and frustrating challenges. Cooperation and clear communication between the previous owners and the new owners and the service providers was key. CVT was never without power to support production but it took a long time to separate the campus power grid. The telephone system conversion was a frustration during the transition because there were so many groups involved with the conversion. In the end, it took time and patience but Ingenium managed to get the telephone system running smoothly.

RESULTS

Ingenium is very proud to have helped CVT accomplish their turnaround and return to profitability. Here is a list of our achievements on the project →

INGENIUM'S ACHIEVEMENTS

- *The move took CVT from bankruptcy to profitability on the strength of significant top-line growth and a well planned and executed move.*
- *The core employees from the old location were able to keep the business going during the planning and move phases.*
- *The new layout supported CVT's on-going production needs perfectly.*
- *The move of existing machines, equipment, and support departments and documents went in an organized, well-orchestrated manner.*
- *Integration of the new machines and equipment went well.*
- *When CVT moved into the new location they had significantly more space, people, and production which kept the new growth and momentum going.*
- *The project came in on budget and on time.*
- *Everybody stayed friends at the end of the day.*

Measured in all regards this turnaround was a shining success.