

CUSTOMER: **Dec-O-Art, Inc.** □ 3914 Lexington Park Drive □ Elkhart, Indiana 46514 □ www.dec-o-art.com

Family Business Leads Through Innovation.

Dec-O-Art was founded in 1971 by Charles Dosmann who had grown tired of the insurance business and was looking for a way to use his hands in creative endeavors. Since he lived near Elkhart, Indiana, which had become something of a mecca for manufacturing Recreation Vehicles (RVs), he didn't have to look too far. He realized there was great potential in the production of warning and information labels that manufacturers needed for their RV's and trailers. So, he opened shop in an 800 square foot former neighborhood grocery store hoping to earn enough money to support his wife and nine children. His modest goal was soon realized and surpassed. Business increased quickly and several of Charles' sons soon joined the company.



Dec-O-Art flourished over the years and enjoyed a steady expansion of both the physical facilities and the variety of printing services the company was able to offer. Upon Charles' retirement in 1988, the second generation of Dosmanns took over the management of the family business. Under the supervision of Tony, Dan, Carl, Fred, and Ron, the once tiny shop with a single employee grew to encompass a 30,000 square foot complex, with 60 dedicated employees, and a nationwide network of more than a thousand customers. Today, the third generation of the Dosmann family is participating in the ownership of the company, with Nathan Dosmann proudly serving as President of the company.



Dec-O-Art's production facility in Elkhart, IN still serves the RV industry by supplying warning and information labels.



By the 2000s the company had expanded its offering into a wide range of products for compliance labeling and durable goods branding. This led them to license a patented Japanese manufacturing process which authorizes them to create 3-dimensional graphics that have a very convincing chrome appearance. Dec-O-Art has branded their dimensional graphics as DecoForm. Carl Dosmann, Director of Process Development explains, *"We've gone into more decorative markets now, and our DecoForm products are produced using high-frequency forming to create 3-dimensional product decals, badges, or nameplates that can look like chrome injection-molded parts."* But inherent in anything that looks like a high-shine metal, is that any imperfection destroys the illusion ... and this is where Dec-O-Art had a real big problem.



The process for manufacturing DecoForm relies on a high-quality tool (or form) made on a CNC milling machine from a non-ferrous alloy. The tool is secured on the top part of a vertical press and layers of PVC and/or polyurethane are stacked on the platen below. The press is operated to lower the tool down to strike the platen. Energy is used to liquefy the plastic while maintaining the quality of the aesthetic layer. The materials take the form of the tool made on the milling machine. A speck of dirt or hundredth of a mm of variance will cause a defect in the product that could be unacceptable. Since a single tool can be used to make tens of thousands of parts it is critical that they are made perfectly.



The company was having a lot of issues with the tools being made on their CNC mill. Carl explains, *"We spent a lot of time re-making dies because they weren't level. There was far too much variation in the tool. Because we were new to machining, we kept thinking it was us."* Over time, they realized that the mill that they had purchased was not ideal for their application and its limitations created a lot of inefficiencies. Carl elaborates, *"The process was tedious and fraught with opportunities for error. Because we only had 7 tool positions, we had to make sure that we changed the tools for every job and put them in the right holders. Sometimes we'd run out of places to put all the tools we needed for a particular job, so we'd have to break the machining into 2 different G-Codes. There were other issues along the way, but we knew this was not the way it should be."*



Dec-O Art's patented process produces compelling graphics featuring chrome-like elements even on fabric.



Just a year into using the machine, Carl's feeling that there had to be a better way, motivated his research of other machining technology. He found DATRON on the internet and then sought them out at a tradeshow where he was very impressed with the samples they were milling. He recalls, *"One of the problems we had was surface finish. Even using an 8mm endmill to smooth off a plate you could feel the edges from the different passes and paths. So, when I picked up a part that just came off the DATRON machine at the trade show and felt a perfect surface, I knew I was headed in the right direction."*



Then, Carl initiated a conversation with DATRON who provided him with sample cuts. He subsequently proposed their technology to his company as a solution to their problem. This was happening almost concurrently with what ended up being a breakdown of their current CNC which had ceased to function at all. President, Nathan Dosmann recalls, *"The original CNC manufacturer offered us a deal that we really couldn't pass up. They offered a replacement that was built to overcome the pitfalls of the previous generation at a significant discount. So, we gave it another shot."*

Unfortunately, that was not the case, and they lost more time and materials and became extremely frustrated with what it meant for their business. Out of the 200 to 300 tools that they made, they had to throw out an equal amount because they weren't made correctly. Carl recalls, *"It was frustrating and a drag on morale and our profitability."*

Ultimately, they returned to the idea of switching to the DATRON technology that had been proven out, and they purchased a DATRON neo high-speed milling machine. This award-winning machine was the first in DATRON's line to use the DATRON next control software which is 100% accessed by a touchscreen to provide efficiency to users and a very short learning curve to new operators. That was certainly the case with Dec-O-Art and they were quickly up and running after 2 days of training. Nathan says,

"Having this technology has been a huge leap for us as a company. I think the biggest advantage we've seen with the Neo is the reliability of the machine. Our prototype time is down 50%. This is the result of a substantial decrease in the amount of extra labor that had to be applied to make the tool work – not to mention the reduction in the number of tools we have to make to get a quality tool. Now, it works right from the milling machine to the press – prototype done! The DATRON neo is 20% faster in cycle time with far better detail and quality in the finished part. It may be intangible, but the stress level of the department has gone down substantially. I can't measure that, I can't count that, but I can tell that the morale of the team is improved and the environment is so much more relaxed given that they know what they put in the machine is going to come out just the way they're expecting it."



DATRON neo operator Amy Kist setting up the machine.



As a result of this efficiency, they are now able to approach their customers with a new-found confidence and they are seeking a higher-end position in the market. They have many competitors doing something similar for fabric applications, but they tend to be very generic and simply designed. Dec-O-Art offers emblems with a lot more detail, texture, and precision – in a much shorter timeframe. Carl says, *“We’re in a marketing position that’s so much better than before.”* Nathan agrees, *“Especially in the soft goods industry, time is of the essence and the new DATRON neo gives us the time back that we thought we had lost. If you’re spending time trying to get the right part with a bad die or your customer is waiting on product from you, that’s a precarious position. You’ve got to deliver faster with better detail and that’s what the DATRON has given us here.”*

The ease of use and flexibility of the DATRON has had other unexpected benefits and the company has been able to use it to improve other processes outside of the purpose that they purchased it for. Carl explains,

“We’re also using the Neo to make aluminum embossing dies used to produce graphic overlays for membrane switches and pads. This was not something we had planned for the Neo when we bought it, but since we were outsourcing, we decided to do them in-house. We figure we’re going to save 50-80% of the cost and the turnaround time will be a couple of hours in-house compared to 10 days when we outsourced the work.”



Amy Kist, shows off finished form as it comes off the DATRON neo.

Regarding their overall experience with DATRON Nathan says, *“DATRON carries a lot of the values that our company does – service, quality of product, and support. Just like our product speaks for itself, DATRON’s product speaks for itself. In our business, the tool (form) is the foundation for a successful, quality product. The Neo gives us the opportunity to manufacture beautiful graphics and emblems for our customers through high quality tools.”*

