

AFA SYSTEMS LTD.

LEADER IN INNOVATIVE AUTOMATED
PACKAGING SYSTEMS

Family owned and operated, AFA Systems Ltd. (AFA) is a secondary packaging machinery manufacturer whose focus is to provide the best in engineered product handling and packaging solutions. Extensive experience coupled with state-of-the-art engineering tools and facilities assures customers a proven partner for fulfilling their packaging automation requirements. Whether it is robotics, cartoners, conveyor systems, packaging, or high-speed assembly, AFA supplies custom-designed, end-of-line automation solutions for a

variety of industries, worldwide.

AFA President and owner Paul Langen, and his son Eric Langen (International Sales Manager), keep the family business on track and excelling, accompanied by a highly-skilled team of specialists and a culture that promotes innovation.

“The business came out of Langen packaging, which was started by my father in the 1950s,” says Paul. “It involved cartoning, case



AT A GLANCE AFA SYSTEMS

WHAT: Leader in Innovative Automated Packaging Systems

WHERE: Headquarters in Brampton, Ontario

WEBSITE: www.afasystemsinc.com

packing, and palletizing, basically end-of-line automation for the packaging industry. That business grew and was sold in 1996 to a publicly traded company in England called Molins PLC, which continues to operate today under Molins Langen Packaging. I ran that business

A LEADER IN INDUSTRIAL 3D PRINTING SOLUTIONS FOR END USE PARTS



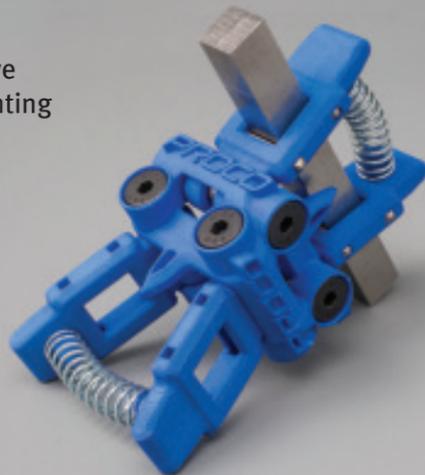
CASE STUDY: AUTOMOTIVE ASSEMBLY

A Japanese automaker wanted to use quick nest changeovers for their door panel assembly lines in Ontario. Previously the nests were permanent fixtures. Anubis 3D designed and engineered a 3D printed cam-lock mechanism allowing an incredible 30 second nest changeover.

Our team of engineers and designers consistently produce the most effective solutions using state of the art 3D printing and additive manufacturing for:

- End of arm tooling
- Jigs and fixtures
- Automotive nests & assembly nests

Clients include: Fanuc, ABB, Husky, Magna, AFA, ATS, DV Electronics, Kuka Robotics, Toyota, MPAC Group, Flextronics and more.



PRINT ON DEMAND AVAILABLE.

If you already have a 3D print ready file, our team can expertly guide you through the production process.

Anubis Industrial Solutions Inc.
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 Mississauga, Ontario L5L 5Z3 Canada

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for Molins until 2000, when I left the company and became involved in a microwave popcorn packaging development. That led to a license with a U.S. company to manufacture the popcorn packaging, which in turn led to the acquisition of AFA Systems. AFA was an industrial automation company at the time.”

AFA continued to grow, and in 2002 it acquired Nordel Packaging that did end-of-line cartoning and case packing. The two entities merged under AFA Systems and have since been providing packaging automation to a variety of industries – pharmaceutical, food, beverage, automotive – any kind of end-of-line packaging that puts products into cartons, cases, and ultimately onto a pallet for end-users.

Today, AFA is a global business employing 60 people at its head office and production facility in Brampton, Ontario and a second office in Shang-

hai, China. As a design/build company, AFA does the engineering and design work and assembles the machinery. Every order is unique to the application. The company focuses on high-end automation and sells only 10 percent of its volume in Canada; 50 percent in the U.S.; and 40 percent throughout the rest of the world. A great many AFA designed/assembled machines are operating in North and South America, Asia, and Europe.

Paul notes, “We don’t have different divisions – everything falls under the umbrella of automation and that’s becoming so much broader in scope. We’re heavily into the use of robotics to do many operations. Almost 50 percent of our 60 employees are highly-skilled in technical engineering – both electrical and mechanical.”

Eric adds, “We have an internal sales staff of three people responsible for doing the quotes and floor plans - either to end users that come

Innovative solutions for modern manufacturing

Our vision at Anubis 3D is to lead the transformation of plastics additive manufacturing to a mainstream industrial manufacturing process in North America.

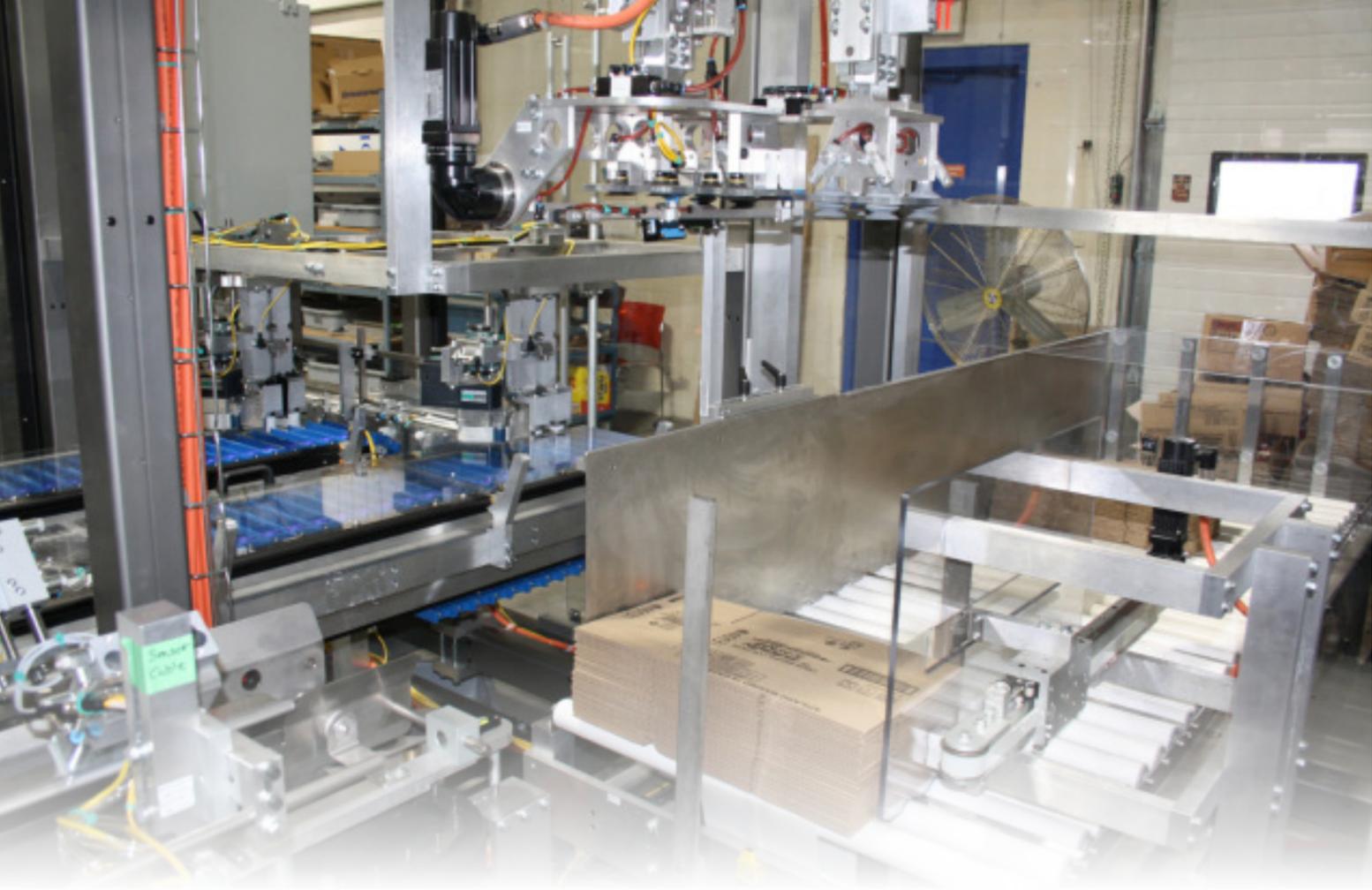
Currently we manufacture more 3D printed EOAT every month than any other company in the world.

Anubis 3D uses Additive Manufacturing to produce end used and functional parts. This technological breakthrough makes the fabrication of new shapes and complex geometrical features possible. Today these technologies are more accessible than ever before, however as they are incorporated into industrial manufacturing processes an in-depth knowledge of mechanical engineering becomes essential. Anubis 3D has been leading the design process development bringing our knowledge of Additive Manufacturing to our Mechanical Machine Design along with Finite Element Analysis and Topogra-

phy Optimization with industrial application requirements. Our engineers have spent decades on the production floor and are have in-depth knowledge of production challenges and designing for lean manufacturing.

APPLICATIONS

- Dynamic and static EOAT for Delta & collaborative robots
- Vacuum manifolds
- Injection molding EOAT
- Pick and place systems
- Quick change over connectors
- Automotive assembly nests
- Check fixtures for Automotive
- Overmolding Urethane on 3D printed Nylon
- 3D printed Urethane molds
- Ball Bearing Carriages
- Sand casting patters



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to market to every application, and then have the customer do their process to suit that machine. Whereas, we're more inclined to engineer a solution."

The company is authorized by the Association of Professional Engineers of Ontario to offer professional engineering services, and AFA's Certified PMMI Training program can be tailored to meet a customer's specific needs for training machine operators, mechanical technicians, and electrical technicians. "We have a select number of Service Technicians who complete service on our machines in the field," says Eric. "They go through our Association training course to ensure they use best practices when they're doing machine training for operators and maintenance technicians at

the end user's plant."

In the next few months, AFA is expanding operations; doubling the size of the facility. Paul expects that new tax changes introduced in the U.S. will benefit many large manufacturers to purchase new equipment and he wants to be ready. "We're already seeing a very big uptick in our inquiry levels and people looking for automation solutions. I think, generally, there's a big move towards automation in virtually every country. We have significant orders from China, Argentina - places that you think have low labor costs, but these companies are all committed to automation and the benefits it brings to the table."

To improve efficiency, AFA recently updated its ERP system, so all employees on the floor will

directly to our company, or through agents and distributors around the world that bring us projects to quote on. That's our primary function. Our sales staff isn't the traditional sales force that knocks on doors to drum up business. We attend five or six trade shows a year - two in the US. and four international ones. It gives us the opportunity to get face time with our customers, as well as with agents and distributors in those regions. We belong to the PMMI (Packaging Machinery Manufacturers Institute) - an American-based organization that we joined because the U.S. is our biggest market."

Eighty percent of AFA customers are large entities - consumer product manufacturers like Kimberley-Clarke, Clorox, Kellogg's, General Mills, and other Fortune 1000 companies. The last 20 percent are smaller manufacturers that don't typically have the technology or funding to support

the type of machinery AFA supplies. Paul explains, "We do an engineer-to-order build. The packaging industry itself is very diversified. Even with smaller companies offering similar products, manufacturing techniques vary, which determines how they want to go to market with the product. That makes their requirements different, even within the same product."

Surprisingly, only three countries in the world provide 90 percent of the packaging automation machines - the U.S., Germany, and Italy. Paul says, "China is coming on, but mostly for commodity-type machines that are very low priced and difficult to integrate from an automation perspective. Our primary differentiator from those international competitors is that we are more inclined to design, build, and engineer to a specific application. The industry has traditionally been focused on developing a machine that they want





soon be connected via tablets. They'll be able to view drawings, find out what parts are missing, find out how to assemble the components, take high-speed video for troubleshooting projects, and be connected, not only with the internet, but with teams throughout the organization. All this is happening in the next few months. As for energy conservation, Paul admits, "We're not a heavy user of power ourselves, so we don't have that many opportunities to do 'green' operations, but we have gone to LED lighting. And we're trying to become far more electronic than pneumatic in our machinery, which uses significantly less energy to operate on a consistent basis."

Looking five years ahead, the plan is to continue to grow the business, grow the footprint, and expand and improve AFA coverage throughout the globe. According to Paul, "We're

looking at some joint ventures, particularly in southeast Asia, China, and South America. These are things we're studying strategically, to evaluate the benefits of being local, while also having the ability to provide world-class engineering and machinery. The marketplace is changing so rapidly with the introduction of more electronic motion control systems, robotics, etc. It's the old story of keeping up with the Joneses. We're unusual in the Canadian market, as Canada is certainly not known as a hotbed for packaging automation, but we're known well as an innovative company supplying very cost-effective solutions."

Eric chimes in on the power of diversity for building a strong company. "We have a very diverse culture here at AFA. About 90 percent of our workforce is from different countries – China,

Hong Kong, Romania, India, all over the world. Diversity helps sponsor a culture of innovation here, and that's reflected in our machine designs and I think it also helps us export our machinery worldwide. We have an international culture and we're

PREFERRED VENDOR

■ Anubis Industrial Solutions Inc.

www.anubis3d.com

Anubis Industrial Solutions specializes in providing professional engineering services to companies with industrial manufacturing operations. Strategically placed, with offices in Canada and Egypt, the company offers services throughout North America, Europe, The Middle East, and Africa, serving the pharmaceutical, consumer goods, chemical processing, and food and beverage packaging sectors.

Anubis has the experience to effectively offer the most efficient, cost-effective, custom engineered solutions aimed at optimizing and simplifying the most complex of manufacturing challenges; its strength lies in its ability to integrate all aspects

open to new ideas, open to exporting machines to different countries such as Ecuador, Brazil, and Argentina. Those factors have really promoted growth in our company and made it unique in the marketplace."

of a project from the feasibility review stage to project start-up.

Anubis launched Anubis 3D, the new Additive Manufacturing "3D Printing" division for functional prototypes and short production runs. Anubis3D is comprised of a team of highly trained designers and engineers who consistently produce the best mechanical design and solution for all 3D printing projects, and the company's expertise in product development and prototyping has positioned it for leadership in this rapidly emerging field.

The company's goal is to provide every customer with the unsurpassed excellence of engineering expertise and unmatched customer service. Anubis is committed to establishing long-term relationships with its clients so that it may successfully serve all their growing needs.