

Complex Precision Machined Components and Assemblies for the Semiconductor Equipment, Medical Device and Aerospace Industries



Greg Olson
CEO

Talon Innovations Corporation

CEOCFO: *Mr. Olson, what is the focus for Talon today?*

Mr. Olson: Talon Innovations is a provider of complex precision machined components and assemblies primarily for the semiconductor equipment, medical device, and aerospace industries, and in other technology driven industrial markets as well.

CEOCFO: *What makes something complex and what are some of the things that would go into a piece that gets that definition?*

Mr. Olson: There are many aspects that would make a product “complex”. One is a complicated geometry. It is very difficult to machine parts with the complex geometries we regularly encounter. Another factor that makes a product complex is a very smooth surface finish and cleanliness that is required on internal surfaces of parts. Dimensional tolerances that are extremely tight, where machined dimensions must be accurate within tenths of a thousandth of an inch provide for machining challenges. These types of features are technically hard to achieve and that is what we specialize in. We find that we excel in doing things that other companies cannot or will not do.

CEOCFO: *Do all your engagements include customization?*

Mr. Olson: We have two parts of our business. One is our proprietary product line we call TMS, which stands for Talon Modular System. TMS is a platform for management of gases and fluids. We create a very condensed panel of fluid/gas paths constructed with standard components that are configured specifically for our customer’s requirements for the management, flow and control of fluid and gases into a process. While it is our own product line, each panel is customized for the customer’s process. In addition to our proprietary side of our business, the larger part of our business is contract manufacturing where we custom manufacture components and then assemble those components for customers. Many of our products require complex machining, CNC tube or wire bending, high purity welding, special surface treatments and chemical cleaning, and clean room packaging – all of which we do in house. So yes, nearly all we do involves customization for our customers’ requirements.

CEOCFO: *When a client comes to you do they know what they want and how it should be developed?*

Mr. Olson: Usually they have a good idea but they look to Talon engineers to help finalize or co-develop the final design. A big reason for our success is that Talon engineers get deeply involved with customer engineering groups to optimize designs for cost and performance. A typical example would be a customer coming to us with a drawing of a component or assembly. We put red ink all over it and then engage in a long conversation with their engineering groups. Our two engineering groups, together, come up with an improved design. I have a team of about 16 engineers, myself included as an engineer. So we very often collaborate with our customers to help them help themselves. Another key part of this co-development process is our rapid prototyping capability. We have a dedicated rapid prototype manufacturing cell that is focused on making parts that are in development where customers need fast delivery and ability to respond to design changes quickly.

CEOCFO: *What does the acquisition of Vulcan Machine bring to the table?*

Mr. Olson: We acquired Vulcan for three primary reasons. One is capacity. We have grown our business at our Minnesota headquarters so much that we were looking for additional capacity. Second is diversification. We are looking to

expand beyond the markets we serve and Vulcan was heavily into aerospace, which was one of our lesser markets that we served out of our headquarters in Minnesota. Finally, Vulcan Machine has some capability we do not have and we have some capability they do not have, so together, we can target more applications.

CEOCFO: *Why now?*

Mr. Olson: My mission is to grow the value of my business by offering more capabilities and capacity for our customers, and to ensure long-term security for my employees. A key part of that mission is an acquisition strategy. This was the first one we have executed and we have several other targets that we are pursuing. We are continuing to grow organically and we want to grow through acquisition as well. It is part of our standing strategy.

CEOCFO: *Is there a general roll up in the industry or is it the right time for Talon to grow?*

Mr. Olson: I think many of our customers want suppliers that are stable, that have multiple locations for business continuity purposes, that have broad capabilities and they want suppliers that can scale up with their business growth. Many of the customers that we serve are trying to consolidate their supply chain. The more capable I am as a supplier I am much more likely to be the type of supplier they consolidate to. That is what we have seen and that is how we have grown the last few years. Therefore, we have been the beneficiary of some roll up in the industry.

“Customers today require increasingly complex machined parts and more elaborate assemblies with more exotic materials like titanium, Hastelloy, and nickel. They need parts done right and done fast. They want to minimize supply chain costs. Talon Innovations recognizes that and we are proud of our ability to meet those needs with our proven record of superior CNC machining skills, our robust engineering support, and our ability to provide one stop shopping with vertically integrated capabilities such as welding, cleaning, surface treatments, assembly, and more.”- Greg Olson

CEOCFO: *What is new in the machining industry?*

Mr. Olson: I think the machining industry is constantly changing in terms of the capabilities of the machines. The machines today are much more capable in terms of their ability to hold these types of tolerances and complexity. Our five axis CNC machines are capable of incredibly complex geometries including very contoured curved surfaces. The machining equipment is changing really in reaction to the increased complexity of machined parts required by customer applications including the use of exotic alloys like Hastelloy that are difficult to machine. I think one of the biggest things we are looking at in the future is additive manufacturing that is becoming more and more talked about. We believe that in the future additive manufacturing will replace some machining on a broader scale. We will probably need to invest in some additive manufacturing equipment that can do 3D metal printing that can be used in concert with machining.

CEOCFO: *3D printing has been around for a while. Has it hit that tipping point?*

Mr. Olson: 3D printing has been around for non-metallic substrates for quite some time. It is still somewhat new and in development for 3D printing of metals in terms of high production capabilities. I think it is still growing – it certainly is not used on a broad scale today. I do not think it is quite to the tipping point yet. The industry has not really gone that way. There are certain applications that are friendly to that. We still think it is in the development phase but heading towards broader use. However, it will not likely ever completely replace the need to CNC machine parts.

CEOCFO: *What is your geographic reach today?*

Mr. Olson: Geographically we are quite broad. Most of our customers for the semiconductor market are in the Silicon Valley in California, Oregon, and Austin Texas. We send many parts to Korea, Singapore and other Southeast Asian countries. We are starting to sell more and more into China now that they are ramping up their semiconductor efforts there. In terms of aerospace, we are somewhat regional now but are expanding our reach. We serve some aerospace customers in Florida, Texas and California. Our medical device business serves customers across the country. For a small Minnesota company, we have quite a global reach, Less than 2% of my sales are actually within the state of Minnesota. In addition to our operations in Minnesota and Florida, we have a wholly owned subsidiary in South Korea that is primarily a sales and inventory location with some assembly capabilities where we can directly serve Korean customers.

CEOCFO: *Do companies in Korea and China like that fact that it is USA made or is it the product itself?*

Mr. Olson: Yes, there is definitely a perception of USA quality and additionally the Midwest quality and work ethic that Minnesota brings to the table. For instance, many of my customers in Silicon Valley or even in Korea have dozens of machine shops within fifty miles of their facilities, yet they are coming to Minnesota for parts. When I ask them why they come to Minnesota when they could go right outside their doors, it is all about quality, responsiveness and the work ethic

that we have. Overseas, it is the same thing. In many of those geographies, competitors could certainly buy the equipment to do machining but they do not have the experience and the long-standing capabilities that we have developed over decades to achieve some of the things we can do. It is our capability and quality that drive different geographies to come here.

CEO CFO: *How are you prepared and preparing for the challenges of adding on new businesses and working with facilities at different locations?*

Mr. Olson: What we've done here in Minnesota, is what we are doing in Florida and our future acquisitions. First and foremost, I focus on building a strong management team. For instance in Minnesota, a majority of my management team came from much larger companies and multibillion-dollar companies. We bring in big company practices to prepare our company for expansion. I call it putting our big boy pants on to grow this business in a disciplined way with disciplined processes without bringing the bureaucratic obstacles of a big company. We leverage our big company experience and keep our agility of the small company. We also have a big focus on training so that all the locations are trained in our thought processes and business practices.

CEO CFO: *What is different about your way of thinking and business practice?*

Mr. Olson: We were founded as a machining company. However, our way of thinking is to be much more than a machining company. We have vertically integrated many processes and we try to become experts on the applications we serve so we can understand where our products are going. For a company of Talon's size, we have a significant proportion of engineers. With our engineering capabilities and vertical integration, not only will we provide machined parts, but we will put those parts together into a complex assembly of valve manifolds, medical instruments, and so on. Some of our products have 200-300 parts on a bill of material that we are assembling. We are cleaning, welding and performing surface finish operations such as electro polish, passivation and heat-treating. We have tried to become more of a one-stop shop which many customers value because most of our customers are trying to consolidate their supply chain. That is definitely a trend. When they go to consolidate, we are in a position to leverage that effort because we can do more than machining here.

CEO CFO: *What are the challenges you foresee as you are growing and changing? Do you see a change in the administration as a potential problem for the business?*

Mr. Olson: Semiconductor is historically a cyclical business. We always try to remain mindful about the ebb and flow of semiconductor. We have been up in down years so we've shown we have enough strength to weather the storm on those types of things. We try to plan for normal economic cycles in the various industries we serve. Part of our strategy with acquisition and organic growth is to be diversified to help protect ourselves against specific industry cycles. My biggest challenge today on a regional level is labor. The people who we hire are highly skilled technicians that are running multimillion-dollar machines and they are programmers, engineers and machinists that require a lot of training to be able to program and run this equipment. Therefore, labor is a big challenge for us. Minnesota has one of the lowest unemployment rates in the country. We have a hard time finding good people and we've had to get creative with enriching our benefits packages and offering sign on bonuses. We also grow our own people internally through internal training programs and we have been awarded grants from the state of Minnesota to help with that. So, our challenges are managing the cycles of business and managing our ability to hire all the right people. So far, we've been successful at both.

CEO CFO: *How does Talon stand out?*

Mr. Olson: I think what makes us stand out is the combination of our technical capability, our reputation for quality, our speed, and the fact that we partner with customers from an engineering perspective to help them optimize their own products. In addition, it is the one stop shopping capability we offer that customers can get several manufacturing operations done here and minimize their supply chain costs. That is how we differentiate ourselves and how we have been winning and growing. When I took over the company a few years ago, we had 85 employees and today we have 250 employees. We are growing quite successfully with those strategies.



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