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INDUSTRY NEWS

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POLYSCIENCE: COMMITMENT TO QUALITY

Making the world a better place through innovation, opportunity, and respect for the environment... PolyScience is going places.

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In business for more than 50 years, PolyScience has been an integral part of innovation in the cannabis vertical for more than a decade. Philip Preston, president of PolyScience, has approached the cannabis industry as he has with many of his pursuits – to make the world a better place through innovation, create opportunities for people, and respect for the environment. He takes us on a journey through PolyScience’s past and where it is going.

PolyScience was in business way before the cannabis industry became so in vogue, wasn't it?
Well, my father started PolyScience in 1963 and obviously I was still pretty busy with grade school at the time. As I got older, I spent some time working on racing cars with a pit crew. Some of my best mechanical engineering knowledge came from those years. I've worked in every position at PolyScience from assembly to shipping to sales and marketing, and I took over PolyScience operations in 1982.



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In the cannabis industry there's a lot of Johnny-come-latelys, but PolyScience isn't one of those, right? What does that mean as far as quality when you're talking about the cannabis industry?

Well, with more than 50 years of experience in manufacturing precise temperature control equipment, certainly we have not only tremendous experience, but we also have developed a great deal of structure to how we do things here. In that we have a very mature ISO-9001 certified quality system that really is something that everyone in this business lives by, because in that spirit you will continuously improve the product and the process.

Additionally, we have a structured ISO-14001 environmental system in place because I believe that we should not only provide the highest quality products, but we should leave a minimal footprint in doing so.

Did cannabis find PolyScience or did PolyScience find cannabis?

Getting into the cannabis market is something that happened a little by chance. There was a customer that contacted us and because we've got an excellent sales and customer service team, they looked into the application and what products we offer that will fulfill our customer's needs. And then as that evolved, we really started to dedicate more resources to that and better tailor products to the specific needs of the cannabis market.

When and where did PolyScience begin?

PolyScience began in our garage, a two-car garage, in Evanston, Illinois, and then shortly after that we built our first building in Evanston. We were there until about 1972 when we moved to Niles, Illinois, and we have been in several different facilities here in Niles. Today, we have more than 70,000 square feet of manufacturing space and also a fulfillment center just down the road for all of our outgoing shipments. We also have a fulfillment center just outside of Amsterdam, so we've come a long way from that two-car garage.

What did PolyScience first produce?

Our very first product we manufactured was a flow-through chiller. At that time, though, there was a lot more diversity to PolyScience and a sister company that was called Preston Publications. We published *The Journal of Chromatographic Science*, *The Journal of Analytical Toxicology*, and *The Photo Techniques Magazine*. There was also a chemical division of PolyScience where we produced and purified more than a thousand different chemicals as reference standards for chromatography analysis. And then as we expanded, we acquired a manufacturing facility company that was making electronic test equipment, and there was even a short period of time in the early 1970s where PolyScience built oscilloscopes, capacitance testers, and even Geiger counters. Making the Geiger counters was one of my jobs in high school.



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How does PolyScience's philosophy translate to opportunities?

Our company philosophy is very driven through customer satisfaction and designing the right products for that need. I think, though, that this question also ties in to creating opportunities for growth with people that work for PolyScience. We want to take a fresh look at how customers are using our products and using our statistical data. That's part of our quality system, to show where there are shortcomings in the product and then always drive the combination of those two things together to create the new products, new features, and opportunities to prevent any future failures.

The reaction from the cannabis industry has been incredibly positive, hasn't it?

It has. People have really embraced what we are doing because while there are lower-cost solutions in the market, our high level of commitment to quality product and having it made in the USA allows immediate access. Whether it's a customer service person to help with an application or if you really need to speak with the engineer, the people that actually designed that product are available. And given we are manufacturing them just outside of Chicago, should there ever be a need for sending a product in for service or getting replacement parts, those are immediately available.

What were some of the struggles PolyScience had to overcome that stand out?

I think as a small business, you are always faced with that struggle of operating within the constraints of cash flow. Because you always have more ideas than you have money, I think it came down to saying "let's do the best we can" in promoting the product and really make sure you funnel most of the money back to the R&D and the production side. And I think a lot of people that are developing a small business can really appreciate how many hats you have to wear and that there will be a very long time before you're well compensated for wearing all those hats.

How does PolyScience gain market share and recognition?

We've always relied very heavily on gaining market share through successful implementations of the product because I think that is what the customer will believe rather than looking at some huge ad campaign or just throwing dollars around telling the world how great we are. Growing market share comes through finding someone that you can work with and doing a really great job for them and then everyone that has a similar need will see that success. It's truly demonstrating rather than just talking about it. As I always say, words are cheap.

What is your current product line for cannabis products?

Well, PolyScience offers a full range of liquid temperature control solutions. Heating circulators, refrigerated circulators, recirculating chillers, and probe-type coolers that are used quite often in cold traps of vacuum systems. This gives a wide range of capacity, of heat removal and pumping, and fulfills a large percentage of the needs found in the cannabis industry.

Where do you distribute?

Our distribution is really handled in two different and distinct ways. A large percentage of our business is working very closely with partners who manufacture the solution and require the temperature control devices that we build as part of their entire package. Then, in some ways, we also will work with distribution companies that are offering a very wide range of products to service a market.

How many people work for PolyScience?

PolyScience currently has just under 200 people working with us.

What are the strengths of PolyScience?

Our greatest strength at PolyScience is the team of people that work here because there is tremendous dedication to the core values that we have of that strong commitment to the customer, the strong commitment to quality, and a strong commitment to the environment while offering a product with an excellent overall value.

What is your proudest moment at PolyScience?

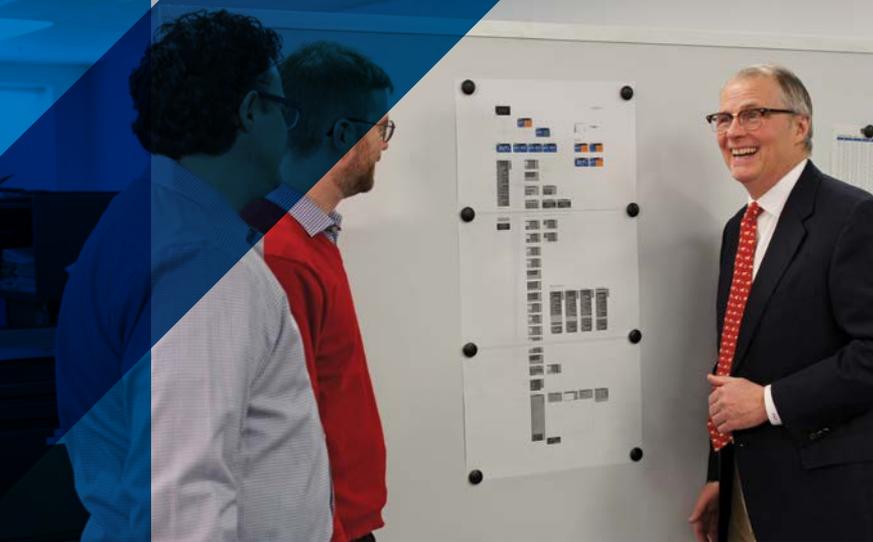
I've been extremely fortunate to have the experiences in the temperature-control world cross paths with really game-changing technologies. And I've been very proud to be involved with many of these, whether it was sous-vide cooking or ways that we have helped emerging technologies. I think the absolute proudest moment was when I worked very closely with Sedus on a temperature cycling unit. At the time, I didn't know what the technology was, but I knew how to solve the temperature part of that application and it turned out to be a technology called polymerase chain reaction, which is known as DNA amplification. I actually built the large part of the unit that tested OJ's glove and all of the equipment that we manufactured then was subsequently used in mapping the human genome.

We absolutely love that story. What significant things have you learned about the cannabis industry so far and how has it affected development of what you make?

Yeah, I think what I've learned from the cannabis industry is that it's an industry faced with the challenges of rapid growth and a lot of people with an entrepreneurial spirit having to face the challenges of running a successful business. I think that the combination of skills is probably much harder than most people in this industry realize. I've also seen that challenges from a product perspective and in that this industry moving as rapidly as it, they always



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want more. And whether it's more in terms of cooling capacities, temperature ranges, or reliability, that is what I see as the growing demand in this market. And we're very excited about some of the things that we have done in terms of launching cold trap minus-80 chillers that are better suited to the specific needs of this market. And we are about to launch a new line of chillers that will give much more information to the user. They will give a lot more flexibility of how they can be used, the types of applications, and, most importantly, I think is that they are designed with a tremendous level of inherent reliability.

You've grown up in this company, what have you learned?

Well, you know, when I look back to 1982, I actually used to print three business cards — sales manager, general manager, and president because it depended on which hat I would be wearing at that moment. The things I've learned are that it is a really fun ride, but it is a far more complex world today. When I look back to 1982, I would be answering the phone — no one owned a cell phone — we ran the company without a computer, I would type all of the orders that we would receive on an IBM Selectric typewriter, and I thought that was really a cool piece of equipment. All of our marketing efforts were space advertising in trade publications or direct mail which is basically put the catalog in the mailbox and hope for the best.

Today it's much more complicated. You know, we didn't have structured quality systems in place back then — documented training, work instructions, and prints and procedures. Today's world of marketing has changed radically, there are always more places to promote a product, whether it's the old-school direct mail or Google, who would love to sell you solutions. There are lots of good publications out there that are targeting both through space advertising and web-based advertising.

I think it comes down to it's just a much more complex world today and it really is much more of a challenge for that entrepreneur starting a new business.

What advice do you have for these entrepreneurs?

A true entrepreneur always has a very clear vision and they know what their product will look like this year, next year, five years from now, they know the direction things are going. I think one of the most important things is to make sure that you are always

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driving that agenda and creating a sense of urgency and communicating to the team of people you work with what your vision is.

Also, being prepared to work very long hours, wear lots of hats, be grossly underpaid, knowing that there are tremendous rewards for it because it offers some unique rewards when you can control your destiny and also feel as though you are having a very positive impact on, to some level, the world and certainly on the people that you work with.

What makes your employees so awesome?

I think that one of the things that really makes the team at PolyScience extraordinary is that everyone is pulling for a common goal and it's very clear to people what we are trying to do, and everyone is showing that dedication to that goal every day here. It is a lot of fun because even though liquid temperature control may not sound that exciting, it continues to be a really fun challenge every day to figure out how to do it better, how to make sure it's done on time, and how to communicate that to our potential customers.

You're not just a guy in a corner office. You have a garden that you've designed, you work on motorcycles, science and engineering, and this company is your passion. You really live this don't you?

Yeah, I love when I have the opportunity to turn wrenches on an old car or work on new designs for new products. I love thinking of ideas that could solve some of the world's problems whether I have the power within me to do that or not. This is something that is very much a part of my life, I love what we're doing at PolyScience. It comes home with me — like taking our temperature control technologies then incorporating geothermal heating and cooling into my home.

And when I developed a culinary division of the business that led to building a small farm at my house that now I'm able to donate a significant amount of food to the food bank every year from that. Of course, the natural evolution there would be then becoming a beekeeper and raising chickens and growing fruit trees, so it's a very strange combination of things. I'm a farmer, auto mechanic, and engineer with a specialty in temperature control. I think it's just a matter of being engaged and it doesn't matter what it is as long as you really take a deep dive into everything that catches your interest. 🍷