

Science Made Successful

Andrew Bass, DiplEngTech'86, BEng'88

by J. Andrew Deman

ANDREW BASS is President and Founder of Angstrom Engineering, one of the fastest growing companies in Canada

At the age of 23, Andrew Bass came to Lakehead armed with four years of experience in the workforce and the desire to become a Professional Engineer. Through his dedication and belief in the entrepreneurial spirit, Bass has made his dreams come true.

Bass has made it his life's work to develop and market hightech, custom-made vacuum chambers. "The equipment that we make is what's referred to as high-vacuum research equipment." His wife jokingly puts it another way, referring to these vacuum chambers as simply "toys for mad scientists."

As the President and Founder of Angstrom Engineering, in Cambridge, Ontario, Bass finds his work in high demand these days. Angstrom's vacuum chambers are used by high-profile clients ranging from Princeton University to NASA. In 2003, Angstrom was named to PROFIT magazine's list of Canada's top 100 fastest growing companies.

What can vacuum chambers do? "They are used to put down a very, very thin film on materials," says Bass, "They can be used in manufacturing semi-conductors, eyeglasses, industrial glass, aluminizing plastic, protective coating on turbine blades, and even solar cells.

Bass first became aware of vacuum chambers while he was an employee of a large mechanical engineering company. When the company went under, Bass decided to apply the skills and knowledge that he had acquired, this time as an entrepreneur. This decision would become the impetus behind Angstrom Engineering.

"Fifty percent of our business is for organizations researching organic light-emitting diodes (LEDs), a new type of material being researched for Palm Pilots, or cell phones, for example. Ultimately, we're reaching toward flat panel monitors; the dream is that you'll be able to roll up your computer screen and put it into your pocket, then unroll it when you want it."

Bass finds himself in an unusual position. When Angstrom first took shape in 1992, he worked alone. Since then, the company's expansion has forced him to take on staff, leaving Bass wearing two hats as both engineer and entrepreneur. "I found that as a one-person operation, I was able to do all of the engineering. Now we have a staff of technologists, and I've had to basically give the engineering function away. You can't do everything. At times, I find myself getting more into sales than engineering, but every now and then I manage to roll up my sleeves and get back into what I enjoy doing most."



As to the success of Angstrom Engineering, Bass credits, in part, the advantage of the smaller business. “When a company calls us, they know that they’re going to get an answer.” This simple dedication to the client promotes both customer loyalty and referrals, two important factors in the company’s growth.

These days, as a boss, Bass strives to bring the camaraderie that he experienced during his university days to his business team. “There was a core group of us that stuck together, studied together, and drank together. For lack of a better description, university is ‘time in the trenches.’ That’s some of the energy that I’ve hoped to capture in my own company.”

This manner of bringing life experience to the business sector is Andrew’s advice to the next generation of entrepreneurs: “Look at what you have going for you, what’s working in your life – community, partnership, friendship – and realize that it can apply in business.”

It was with his core group of Lakehead friends that Bass learned an early lesson in market timing. “We used to go to a local hall for a take-out meal just before closing time. The men would always be the ones dishing the pasta up and, by that time of night, they had gone through at least two or three good bottles of wine, so our pasta portions would be twice the volume. The servers were always a lot happier at the end of the evening than at the start, so you see, timing is everything!”

Bass is looking toward the future, bringing Angstrom technologies to higher levels and new markets. “We’re starting to see our name out there a lot more. That market recognition gives you a little more power, and you get more people contacting you.”

So it is that through the high-tech world of vacuum chambers, this Lakehead alumnus has built for himself a business to be proud of, and a life worth noting.

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