

An Interview with Mr Nauticam

By Dr Alex Tattersall

Recently I made the long trip to the town of Tangxia in Guangdong Province, Southern China to visit the manufacturing facilities of Nauticam International Ltd., and to meet the driving force behind this wave-making new brand, Mr Edward Lai. Brimming with infectious, creative enthusiasm and animated excitement, Edward was only too happy to share the story behind the Nauticam phenomenon with me. I took the opportunity to ask a few questions:

Where did this all begin?

Definitely with my father. He started a Hong Kong based injection molding company in the 1970s producing small household products. It was his influence that led me to start my own business in the early 1990s, despite his discouragement that the economy at that time was in decline. I have always felt the desire to strive to produce higher and higher quality products and we enjoyed much success for 2 decades attracting a range of very prestigious, premium-end clients including Nokia, Gillette, Microsoft and Compaq. Their demands for exceptional precision allowed little tolerance in our manufacturing process and we made major investments in state-of-the-art high precision machinery.



How then did you develop the idea of Nauticam?

Like many other companies, we were hit hard by the recent economic downturn as many of our customers began looking for ways to cut their costs. As we are from Hong Kong and we operate manufacturing plants in China, from a political perspective, we are in some ways treated as foreigners. For this reason we are unable to enjoy the government support and preferential treatments which are available to Chinese-run companies and ultimately we became uncompetitive. I have four daughters, all of whom were studying in the UK at the time and we were no longer receiving any substantial orders for our premium products. These were very difficult, worrying times for us and we needed a new strategy.

I have always loved photography and had recently discovered the pleasure of combining this with another of my passions, diving. Before I conceived the idea of starting Nauticam, I always questioned the ergonomics of the housing in my hand, and continuously thought I could perhaps provide a better solution. I always seem to do



Mr Nauticam, Edward Lai (centre), and R&D team consider new solutions. (photo courtesy of Kenji Ohmura)

Jacqueline Lai developing a 3D model. (photo courtesy of Kenji Ohmura)



this, look at a product and think about the design issues, even when I am brushing my teeth. I realised that we have the resources, machinery and workforce available to produce such a housing to an exceptionally high standard and so began the



Terry, head designer for Nauticam, considers a new style of strobe mounting

Nauticam journey. In fact, our machinery works to tolerances which far exceed those required for underwater housing manufacturing enabling us to produce the high build and finish quality which can be seen in our products.

What is the source of your innovations and how are these realised in the product range?

I do have to modestly claim ownership of many of the ergonomic innovations incorporated into the Nauticam product range but I must also acknowledge the huge amount of input from the many dedicated underwater photographers I have had the pleasure of meeting in recent years. They have continually provided us with essential, invaluable feedback which we have, as far as possible, incorporated into the improvement of our designs. I'm also lucky to have a competent and dedicated design team, many of whom have been with me since I started in the 1990s, who take the concepts and develop them into a tangible reality.

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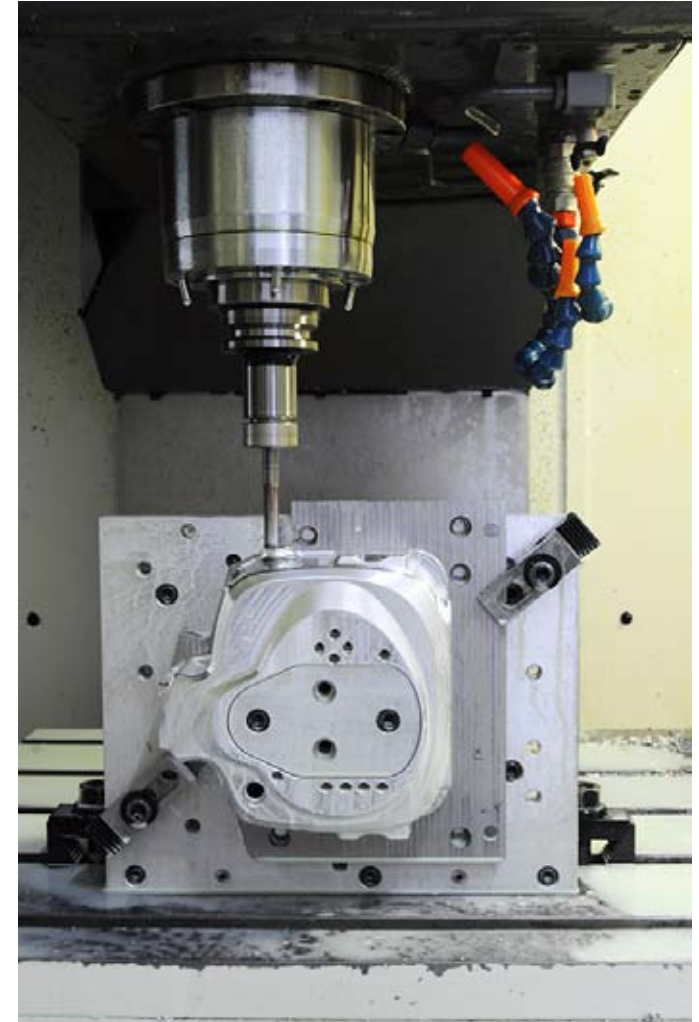


High precision machinery in the manufacturing process

There are always areas for improvement and I'd like to take this opportunity to welcome any feedback or suggestions for improvements from any users of our products. As we have the complete manufacturing process at our fingertips, we can afford to be creative and continually implement any suggestions from our end users into our new products. Being open to suggestions and reactive in this way to our customers is an enormous part of our business philosophy.

Did you expect your products to receive the attention that they have?

We were, of course, always unsure about how the market would react to our products. I remember when we were preparing for DEMA 2008, where we first showcased our initial prototype of the white balance port, we really had no idea what the reaction would be. The people we met in the industry on that occasion though really seemed to appreciate something new, something



High precision machinery machines housings from a solid block of aluminium.

innovative and we met lots of the people at DEMA who are now our business partners. We are, of course, absolutely delighted with the reaction to our products. In fact, I have to say that the demand for our products has been unexpectedly high and we have had to modify our production



Quality control is something they have always prided themselves in.

process and employ new staff in order to meet customer demand. I should also point out that our customers should be assured that the quality of our products will not be compromised as a result of this significant demand. It has been an invigorating yet tumultuous couple of years but I think now we are learning from our experiences, both good and bad, and settling down into a more mature and efficient production process.

Can you tell me a little about your production process?

We use Unigraphics CAD (Computer Aided Design) for 3-D product design and CAM (Computer Aided Machining) to generate our machining programs. These are used to operate our high precision CNC (computer numerical controlled) machine tools. Basically this means that we have a seamless computerised process which takes the initial product conception, through product



Checking the dome ports

design to product realisation. This also means that we have the flexibility to make modifications to product design as feedback from consumer use and our own product testing is given to us.

Quality control is something we have always prided ourselves in and each individual Nauticam component, of which there are more than 400 in each housing, goes through strict quality and measurement control. We currently have more than 70 staff involved in the company, the majority of whom are directly involved in the manufacturing process. As a boss, I invest as much as possible in my staff and I'm also happy to say that Nauticam has recently become a real family business. My second daughter, Jacqueline, has recently returned from the UK after successfully completing a degree and Master's programme in Mechanical Engineering at Imperial College, London. I'm very proud of her achievements and am looking forward to her input into the company, I hope I can get a good return on my investment (laughs)....



NA-D90 prior to anodising

Canon or Nikon?

No comment... (smiles) ... actually, I am a man who is fascinated even perhaps a little obsessed by ergonomics. I do feel that the Nikon is more ergonomically thoughtful than the Canon. I sometimes say to people that the Nikon is a camera



Lens and port combination testing chamber.



Almost ready – the assembly line

designed firstly by photographers whereas the Canon is a camera designed firstly by microchip engineers. The end results are of course comparable but I think I'll always be a Nikon man primarily for their ergonomics.

What are your plans for Nauticam in the future?

We will continue striving for

greater ergonomics on our housings and incorporating the ideas and feedback of our end users into our designs. We think there is still much to learn in this respect. The next Nauticam model will be for the Canon 550D which will introduce many new innovative solutions. We are also working on a very exciting solution to the problem of camera flash recharge time. We can't have Dr Alex Mustard missing his seahorse birthing shots

again (see Nauticam D700 review by Dr Alex Mustard on Wetpixel).

When our feet touch the ground and we move into a more established production process, we also have plans to invest in anti-shark finning campaigning. We feel that as one of the few underwater photography companies fully based in China, we have a responsibility to this cause and we hope to be able to use our status to contribute to putting an end to this barbaric tradition.

I think it is fitting to end this

interview by saying that we know, as a newcomer to the underwater housing market there has understandably been some speculation as to our longevity and commitment. Indeed, we all see underwater housing manufacturers come and go, I just wish to reassure our current and future customers that Nauticam is a product range that is absolutely here to stay.

Alex Tattersall
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