

The Art and craft movement

Rory Brogan visits the Silhouette plant in Austria and finds the future is clearly rimless, with a concentration on manufacturing solutions and Titan Minimal Art

Visitors to Silhouette's vast plant in Linz may be surprised at the level of hand finishing in making such pared down frames as Titan Minimal Art.

The family-owned company has a customer in NASA, but the space-age screwless and hingeless eyewear still owes much to human intervention, with a total of 80 people involved in each frame's manufacture. Each model goes through 180 work phases and 140 manipulations, some of which are hidden from the prying eyes of those touring the plant.

Silhouette was formed in 1964 by husband and wife team Arnold and Anneliese Schmied who wanted to produce frames integrating fashion under a name that would be recognisable worldwide. Now 84, Schmied senior is still a regular at the headquarters, where today's rimless eyewear seems light years away from the early acetate models. One design on display is the collectible Futura sunglasses from the mid 1970s which had a starring role in the *Emmanuelle* film.

Silhouette, one of the largest employers in the design-oriented city, has now been taken over by sons Klaus and Arnold. Klaus, in charge of production, explains that they have resisted pressure to join the manufacturing exodus to China. They looked to Asia, but decided that it would be too difficult to transfer the know-how, much of which is second nature to its long-serving employees.

'We decided to stay in Austria for as long as possible and try to be smarter. The labour costs are extremely high so we have to look for new solutions for quality products. In Austria there's no chance to make cheap frames. It's not a solution for us. We only do exclusive frames at a high price and the costs are integrated.'

The company has learned from its mistakes and one of those was trying



1 An early sunglass design; **2** And an early optical frame; **3** The collectible Futura sunglass that found fame in the mid-1970s

to produce a lower cost line for the US market, which it eventually discontinued. In any case, trying to produce two different qualities on one site would bring the quality down, he explains.

Schmied adds that Silhouette has taken a different approach to other European manufacturers, whose thousands of brands can be seen at trade shows and whose models he describes as interchangeable. Unlike the fashion brands, Silhouette no longer updates its collections four times a year, reducing its cycle, which, he says, stops the best ideas being lost on the market.

Its only licences are the sporty Adidas and the high-end Daniel Swarovski, and along with Silhouette that is where the concentration will remain. 'We could have had a lot of licences over the years, but three brands are perfect for us and there is a lot of work and opportunity to make more out of these.'

The company now makes over three million frames a year, almost two million of which are under the Silhouette name, and exports make up 95 per cent. Given the fact that there are eight million Austrians, he suggests there is plenty of room for growth,



Klaus Schmied: resisted pressure to join the manufacturing exodus to China

especially with the ageing population.

Much of the emphasis is on quality, working on difficult solutions and fine tuning. For example, the manufacturing machinery is bought off-the-peg and then improved by Silhouette engineers. 'We could use them as standard machines, but you have to be a little better,' says Schmied.

Forty tool makers at the plant produce moulds that are accurate to 1,000th of a millimetre and are on hand for repairs. The moulds, worth in the region of €7,000 each, are cleaned after each process by the machine operator to ensure the smooth surface finishing.

Some of the small differences in Silhouette's frames may not be immediately obvious, says Schmied, for example the 0.9mm dimensions, but if you wear the frames constantly you notice them.

NASA was clearly impressed enough to choose the 1.8g Titan Minimal Art



as standard eyewear for its astronauts. 'We did not pay them, just as we do not pay for actors to wear our frames. We still believe if they want them, they should buy them.'

Time-consuming production stages include rolling in ceramic and wood chips to remove any sharp edges, followed by tumbling in walnut chips and titanium colouring techniques including sputtering. There are numerous cleaning steps and checks throughout the manufacturing cycle, with a final inspection and hand finishing.

Silhouette therefore has the confidence to offer a long guarantee. 'We're high end so we give more of a guarantee. It has to be excellent quality if we are selling at a high end price. It mustn't come apart after a year or two and if something happens we replace it fast.'

He gives the example of working with the SPX material in the early days, making thick and light designs using an in-line system. 'They broke and we had no idea why. Then we discovered the supplier had changed the mixture of the material, so we overcame that.'

While SPX is very much part of Silhouette's future, with a large new

Titan Minimal Art in its first incarnation (above left) and the award-winning second design

SPX moulding unit added last year, Titan Minimal Art is the star act. The hingeless model was the creation of designer Gerhard Fuchs and was first launched in 1992. However, at that point the lenses were attached to a continuous bridge made from age-hardened copper alloy, so durability was an issue.

That was all to change in the late 1990s, when Silhouette decided it was time to have another go at the design, in spite of reservations from Arnold Schmied senior about revisiting the concept.

Fuchs then spent hours working behind the scenes, almost covertly, to come up with the solution. He had joined Silhouette as a tool-maker in 1981, aged just 15, and was promoted to the design department 10 years later when his frame drawings on sandpaper were shown by his boss to the company founder. Once he had been discovered, there followed a design course in Germany and the fruits of his tooling and design experience have led to numerous iF and redot awards for Silhouette. He now has his own design studio in Tyrol, in addition to his Silhouette role.

At the heart of the Titan Minimal Art re-launch was the discovery of hyper-flexible Japanese titanium alloy, the ideal material for the three-piece mounting system. A prototype was created and the hingeless version with a new plug-in connection was arrived at in 1999.

Future plans

The company will continue this focus on lightweight materials, technology and screwless creations, according to Sonia Serlenga, an industrial designer originally from Milan who is also on Silhouette's creative team.

The company does not pay stars to wear its creations



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Rimless designs and the philosophy of 'openness' and 'seeing without limitations' make Silhouette frames a sophisticated alternative to short-term fashion needs, she says.

Serlenga seeks inspiration from nature, travel and magazines, as well as product from other fields. These include the classic lines of furniture, the reduced design of the iPod, even the sporty colours and contours of climbing shoes.

Silhouette, adds Fuchs, looks to the future when designing, unlike fashion that looks to the past. 'We try to evolve the product, making timeless designs, so that in 20 years they still look good, like the Charles and Ray Eames chair, for example.'

The latest developments to the Titan range include a new titanium alloy and a new bridge, as well as materials with special matt and rubberised finishes for a better grip. The sides of some of the new designs are wider, yet still flexible and feature contrast inner detailing.

Schmied says that Silhouette's philosophy is to get the product right and then talk about it, but not as loudly as some companies.

'The principles are still the same as 50 years ago – you have two eyes and two ears. But we've always been known for making something new, we're always slightly different to the industry.'

The company's decision to concentrate on rimless is not a gamble, he says, as the frames are so neutral you can sell them to anyone who likes light designs they don't want to hide behind.

Silhouette's success has also brought attention and offers from other companies, but it is resolutely a family-owned firm, without any reliance on banks for funding. As a result, he says it has not been forced to grow to meet the needs of others.

'If we grow, we grow out of our own possibilities.'

Mould making at the plant

The making of a modern classic

Arnold Schmied, responsible for marketing and sales in Albany, in the US, describes the goal for 2008 as getting back to recent levels of success. Silhouette, he says, will stay true to its principles of long-term solutions, not 'here today gone tomorrow styles', making sure people find what they want in its three lifestyle areas – elegant, casual and modern classic.

'In the past three to four years we focused on classic vision and it was a mistake not to cater for others with more avant garde pieces,' he says.

Titan Minimal Art he describes as Silhouette's 'best selling design by so far that it is not funny', at seven million pieces and counting. It became a 'mega trend' because of its lightness and people who wore it recommended it to friends, something he can back up with testimonials from more than 1,600 US wearers.

Search for perfection

The search for a perfect rimless design was something of a holy grail. 'Benjamin Franklin had the first rimless frames and every company tried make the perfect version without success.'

Up until six years ago there was no other choice, he says. The company tried its hardest but neither the material nor the lenses were available previously. Then super-elastic materials were combined with Gerhard Fuchs' design for delicate, durable frames. 'Before Titan Minimal Art there

hadn't been a frame on the market that you could put on anyone's face – from a child to a grandmother, with the option to change the lens shape. It has universal appeal.

'It gives the advantage of unblocked peripheral vision. It is so elastic, there is no traditional frame that is so durable. Aesthetically, there are no screws and it is easy for the optician to put together.'

He adds that when people try Titan Minimal Art there is a paradigm shift – they will not go back to anything else. 'It was the same when everyone wore mineral lenses and CR39 was introduced. Now worldwide just 3-5 per cent wear mineral glass lenses. Markets do change.'

While the delicate Titan Minimal Art

design does not distort the wearer's face and 'blends in beautifully', he likens the current trend for heavy acetates to a beautician selling a green undertone to a consumer instead of a flattering beige or brown.

'People on average change their eyewear every four and a half years. Some opticians sell those massive plastic designs so customers will come back quickly. In-your-face design is not aesthetically pleasing for a long time. It's like the difference between subtle, real jewellery and fashion jewellery which is much more in your face.'

The craft of the optician

Titan Minimal Art also gives the optician the opportunity to tailor-make frames for their client. 'It gives craftsmanship back to the optician.'

This also gives them a lead over the internet, which he does not see as a major threat as you miss out on the ophthalmic precision, the fit and knowledge of the dispenser. 'When people are dealing with their eyes, they prefer to go to a master optician.'

Silhouette therefore concentrates most of its promotional effort on independent opticians and in the US, for example, only 3 per cent of its business is through chains.

Schmied adds that research and development and quality control are the mainstays of the company. 'We want to move on and get better. It's in our DNA. We find new developments

intriguing. We do the best we can do with everything. Some of the little things to some extent could be done by machines, but frames must fit perfectly like shoes. It needs to feel right when you slide it on the face at first.'

Demonstrating the sharp edges of a competitor's frame, he explains: 'As a test my father used to blindfold me and get me to pick our frames out from a group of designs just by feel. If you cannot identify them, then something is wrong. Our frames give out a subliminal message. They are perfect for the optician.'

Silhouette is ready for the next phase, he says, but it will not be about growth per se. 'We are not about pumping out frames.'



Arnold Schmied: 'Frames must fit perfectly like shoes'