



# Riding the Titanium Line

**L**ondon's Park Royal tube station is one of those 1930s Art Deco landmarks that conjures up an era of burgeoning technology and manufacturing excellence.

Its Streamline Moderne silhouette sits like a moored cruise ship at the edge of Ealing's Western Avenue, home to the optical industry's own Streamline Moderne, Charmant.

Despite its rather Gallic sounding name, Charmant is a company with its roots steeped in Japan and also in technology. The company was founded in Sabae City, Fukui, by Kaoru Horikawa in 1956. Horikawa, who remains the chairman today, started in the lens business but during the 1960s and 70s moved into frames. Charmant quickly grew, expanding into the US and then Europe and by 2011 was making 7.4 million frames for 110 different countries from factories in Japan and China.

Louise Brunton, general manager of Charmant UK, takes up the story: 'At the same time as this was happening Mr Horikawa realised that there was a market for titanium eyewear and that's where Charmant became a pioneer. The success of the titanium eyewear grew and grew and grew and in my opinion we are the world's number one manufacturer of titanium eyewear today.'

Back in the 1980s this was the classic rimless eyewear, very simple, very classic pieces, nothing extraordinary,

High-tech frames can be found in the most unexpected of places.

**Chris Bennett** jumped on the Piccadilly Line to find out more



known for is very well made technical product.'

Charmant's Line Art is the result of eight years of joint research between Charmant and Tohoku and Osaka Universities which together developed a titanium that could be manipulated and a laser method of cutting it.

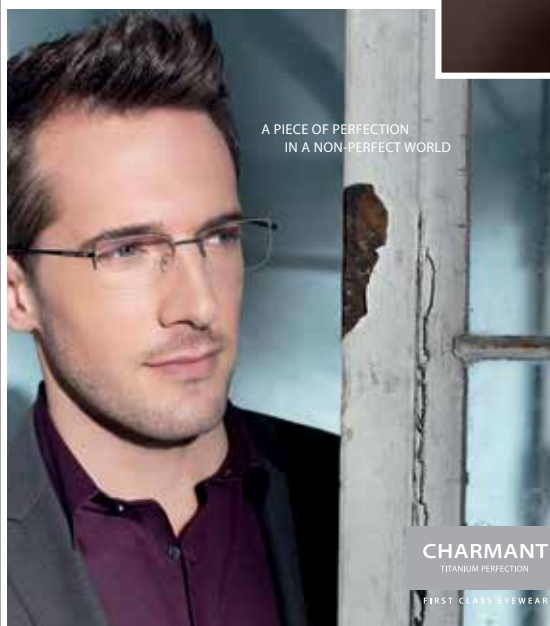
'Titanium is usually used for products that are very simple. If you want something a little more complicated it's mixed with nickel to make an NT alloy, which is fine, but it's not always what you want. What you want is a pure titanium product without nickel which can be manipulated into a very nice design but still have all of the advantages of titanium, light, durable, strong,' says Brunton.

'With regular titanium materials and techniques you cannot get this kind of product. The material has a strong molecular structure that can withstand the laser cutting technique. So the combination of the two has resulted in what we call Excellence Titanium. This patented material is the metal used for Line Art and within some of our other product ranges. Brunton says this allows light, filigree frames, which can accept a high prescription to be made while remaining robust and durable. 'It is only made in Japan, in Sabae City.'

### Memory plastics

Charmant's latest foray into high-tech materials has seen it look to the world of plastics. 'We are about to release Ultem,' says Brunton, who goes on to describe the benefits of this lightweight, durable, memory material. Ultem is currently used in applications as diverse as medical equipment and the Airbus A380, but its resistance to heat, stress, and chemical interaction make it suitable for frames. 'We looked at the characteristics and developed a range around Ultem. Despite its many advantages it is no more expensive than existing optical plastics and we have incorporated it into Esprit and Puma. A colourful range of frames aimed at younger wearers who want a robust product will be launched on the market in September.'

As well as quality of build and high-tech materials, Brunton says it is



says Brunton. 'The other exciting story was that as well as titanium eyewear we were starting to take on licensed products. Esprit, Elle – we took on Hugo Boss, Puma, Lacoste. We have Trussardi, so we had a wider portfolio including sunglasses.'

While brands such as Hugo Boss and Lacoste have since left the portfolio, this has allowed Charmant to continue its development of materials for the less outré styling of its house brands while partnering with more fashion forward houses.

'Being of a Japanese heritage, there is a lot of emphasis put on quality,' says Brunton. 'These days some of the product is made in China but the level of quality remains superb. What we are



## Featuring frames



Esprit Eyewear: girl ET17408-577, boy ET17411-543

Charmant's human touch and service that endears it to customers. 'We are not one of these organisations that has lots of stipulations, rules, parameters and minimums. We are fairly relaxed about selling to people because we understand that there are all sorts of customers out there and all sorts of consumers and we try and cater to as many people as possible.'

### Independent focus

While Charmant has sold to multiples in the past, and may again, in the future its focus is the independent sector. 'At the moment we are in a situation where we really want to provide products for people who just don't want the same as everybody else. We are focused on the mid-price independents and we like to be able to give people support.'

Without wishing to sound like David Cameron, Brunton adds: 'We are all in this together. We are producing the products that will end up on somebody's face and you want somebody to have a nice experience, so it's not a grudge purchase. Customers need to know that someone has taken the trouble to produce a product that fits well, looks good, lasts and won't need a lot of maintenance or repairs. The worst thing for an optician is having a customer come back within six months because the product has broken.'

The watchword is consistency and Charmant isn't looking to take over the world, she says. 'We have full national coverage and there is no plan to grow in a major way. What I would like our customers to know is that we are here for them. There has been a lot of chopping and changing in the supply business and that can be very disruptive.'

'We just want to offer a product that is reasonably priced, well made with very good aftercare services.'

The 10 head office staff provide ordering customer care and stock replenishment which includes the provision of spare parts. Out on the road a further 12 staff provide nationwide coverage to 2,000 practices. The warehouse stocks around 20,000 pieces plus spare parts. Most staff have been with Charmant for 10 years or more, says Brunton. 'Customers always talk to a person when they call the company. Our stock is UK-based so we can fulfil orders in 24 hours. We want to appeal to customers who have tried other products they are not too happy with.'

She concludes with the bold claim: 'Our products are better made than most of the products out there.' ●



## Instruments

# Master test

Bill Harvey reports on how the new Topcon Maestro is working in private practice

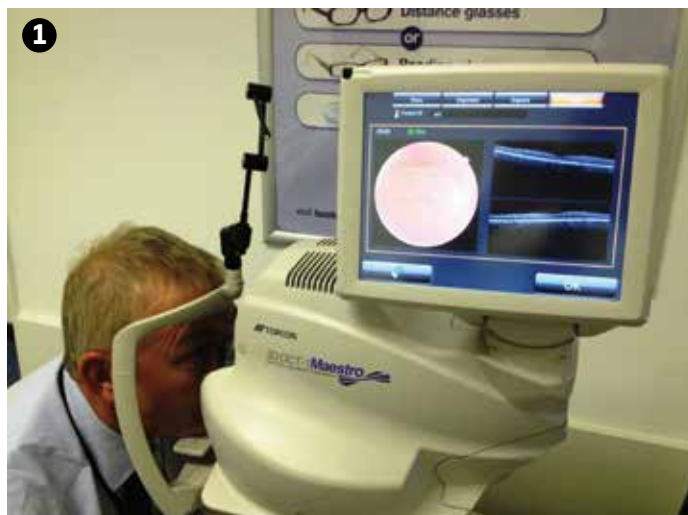
Over the past few weeks I have had access to the new Topcon Maestro in a private practice and can report a few positive findings from this short trial. Before installation, a number of provisos were stipulated as essential for the nature of the high street practice. The unit needed to have a minimal footprint, had to be easy to operate from either the patient or the operator point of view, had to be quick in operation, had to have a data output that was easy to display or transfer and easy to interpret. It would also be useful to know that any data gathered might be compatible with any data further or previously gathered at a different centre with which the practice might be corresponding or to where the patient might be referred.

The first of the requirements are met easily by the Maestro. The footprint is less than many autorefractor table top units and the unit is easy to wheel around an open flat space if required. I took feedback from non-optometric staff members who, after a single morning of training from Topcon after the installation, found the capture of data very easy indeed.

### Touchscreen operation

The machine is operational in normal lighting conditions and simply requires some patient information input (including ethnicity) to get started. It is also very easy to set up the patient appropriately and all users I spoke with like the touchscreen operation (Figure 1). The programmes to be used are pre-set by the clinic, which in itself is an easy operation, but allows the operator to concentrate simply on patient interaction and data gathering. Choice of test and information interpretation is not their remit.

The only problem of any significance that has arisen with image capture is related to fixation. It







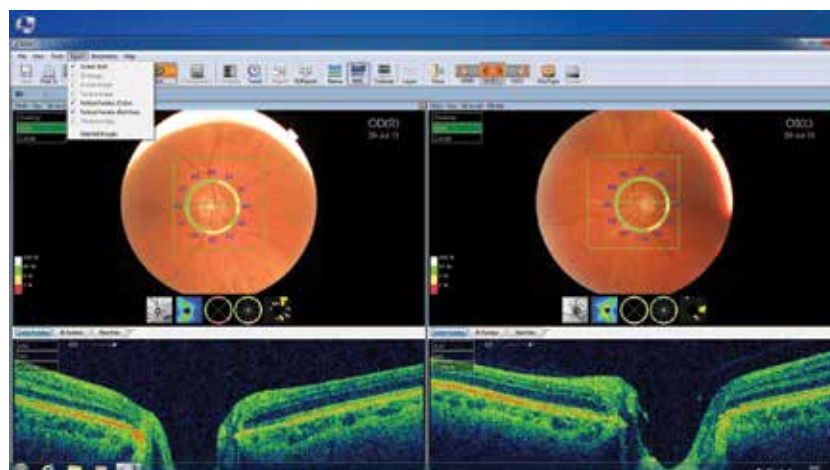
# Instruments

is imperative to ensure the patient maintains good fixation (a process made easy by a tracking facility) and is also aware of what he is meant to be looking at. Anyone aiming to operate an OCT should always act as a patient first so they can instruct the patient in the full knowledge of what he is seeing throughout the test.

## Clinical data

The display of data on the Maestro will be familiar to the many readers using existing Topcon OCT systems. Figure 2 shows the disc comparison screen for a patient of interest. The patient has borderline pressures but no defect on full threshold field testing, no obvious disc asymmetry on ophthalmoscopy and no relevant family history of glaucoma. They do, however, show pigment on the corneal endothelium. Note how the comparison display has the annular retinal nerve fibre thicknesses superimposed over the disc images. Though primarily green, these thicknesses are also seen as yellow in some areas, more so for the right eye. Moreover, the thickness values are reduced generally for the right eye, in particular in the vertical nasal aspect.

A composite plot analysis of the two eyes (Figure 3) shows how the right eye has undergone loss of retinal nerve fibre tissue. The 'twin



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peak' contour chart (top middle) clearly shows disparity between the two profiles. The comparison with normative database flags up that the right is suspicious, as clearly displayed in the circular pie charts, the right eye one of which is flashed with red. This is a lovely example of how a patient might be referred (this patient is being treated with ocular hypotensives in his right eye) on the basis of OCT data where he might not have been referred without the instrument. Indeed, one could easily argue that the OCT allows detection of suspect eyes, possibly early glaucoma, which might otherwise have passed all other tests adequately. This reinforces the value

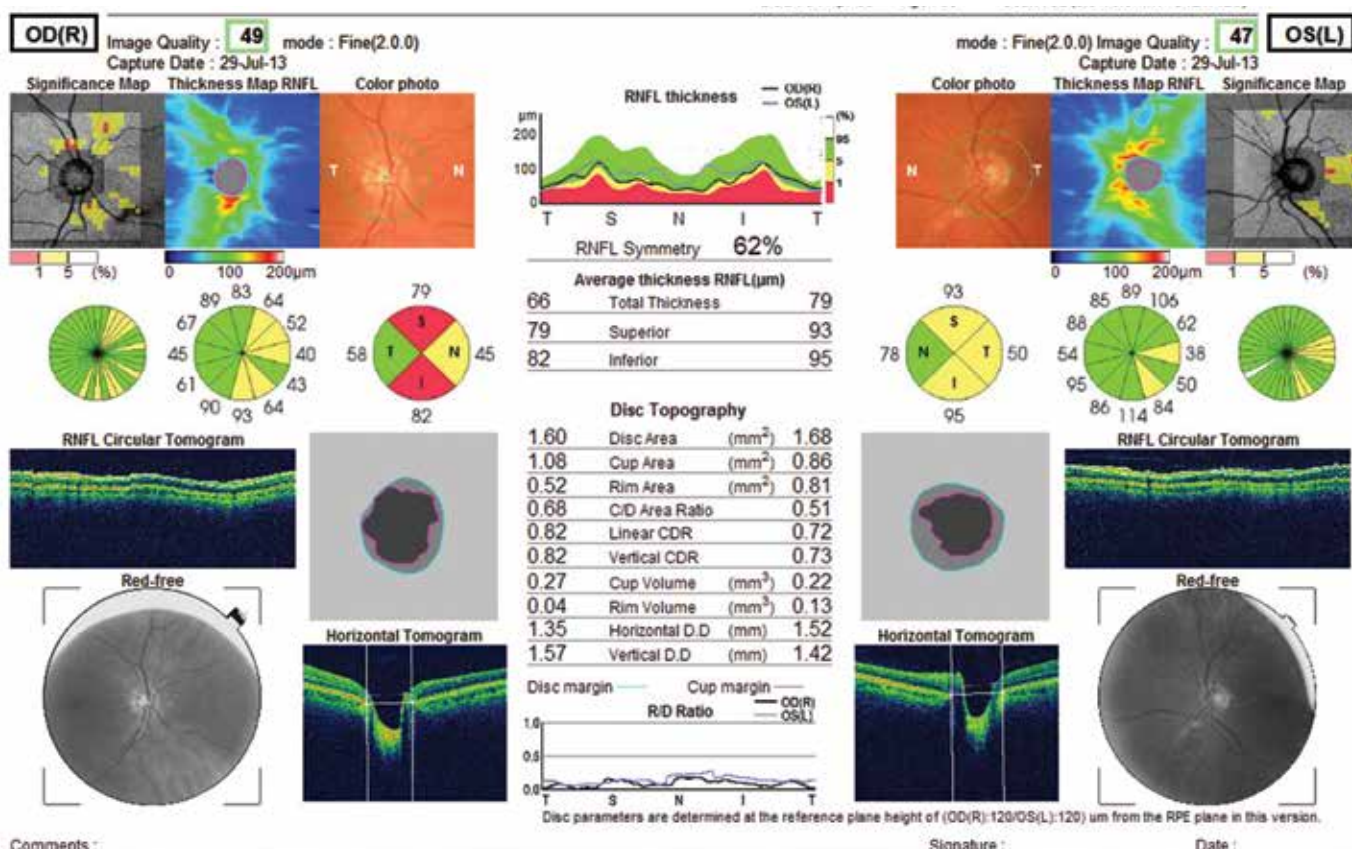
of OCTs in eye health screening.

The aim is to transfer data from capture through to consulting rooms but there are also USB outputs if other modes of transfer are required. The transfer allows a high volume of capture in multi-test room practices while allowing the practitioner to undertake full evaluation alongside the patient.

## Verdict

So, as long as fixation is clearly maintained, the Maestro passes with flying colours. ●

● Thanks to Topcon for loan of the instrument Tel: 01635 551120



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