### Instruments



Another key reason for Leicester Optical's success is its staff. Most are 'multi-departmental' with account staff and customer service employees also able to glaze. 'We have six people full-time glazing, but four others that can step in whenever necessary,' says Keily. 'This is because I like to use people that have experience in the job to provide the customer with good service.'

He adds that four of the Leicester Optical's employees have been with the company for at least 10 years.

#### Partnership with Essilor

Success and growth have not gone unnoticed; Essilor announced it had acquired 80 per cent of the business in October (News 29.10.10). However, Keily emphasises that the business will continue to operate in the same manner as before and will continue to offer the same range of products.

'Part of our selling point is that we can give cross-brand technical advice and if you can't get the prescription you want from one brand of lens, then maybe we can suggest something else,' he explains.

Despite offering its own comprehensive range of lenses, Keily says that Leicester Optical heavily promotes major lens brands including Essilor's Varilux, Nikon, Zeiss and Hoya as well as other unbranded solutions. He also sources lenses from the US. 'We do a few unique lenses such as 1.67 blended lentics and 1.67 round seg Transitions. I'm proud of the variety offered by Leicester Optical,' he says. 'Our customers benefit from my 30 years' and Teresa's 20 years' experience of dealing with different types of lenses.'

The company also provides complete frame and lens packages from manufacturers including Stepper, Optical Service UK and International Eyewear, while its rimless service has achieved approval from Marchon, Minima, Silhouette and Stepper.

Although Keily says that the recent economic downturn has slowed the rate of growth, the company is still looking to expand further. As well as enlarging its range of stock lenses to include 1.6 and 1.67 multi-coated stock available for by-return service, the company has also bought an extra van. This will enable the expansion of its delivery service which goes to Leicester, Leicestershire villages, Coventry and Nottingham. Next-day delivery for stock and surfaced lenses and next day on outsourced stock will be offered, whatever the brand.



# **Automatic mapping**

**Sue Rose** tries out the Visionix VL3000, the very latest in lensmeters, and is impressed with what it has to offer

n automatic focimeter is what I was asked to review and I admit to having pre-conceived ideas as to the purpose of this type of instrument. The instrument under review, however, carries the label of 'Visual Lens Mapper'. It was immediately apparent that the VL3000 has so much more to offer than a simple focimeter and has to be worthy of a far grander title.

Having had experience of dispensing, manufacture and now teaching, I was able to see how the VL3000 might perform within a lab, as a dispensing tool and also as an aid to learning.

There are three main functions available to the user, one of which is the automatic lensmeter mode. The accompanying literature describes the automatic lensmeter mode as 'back office' as opposed to the 'front office' label applied to the other two modes. Presumably this is due to its functionality for quick lens neutralisation, centring and marking but lack of theatre when compared to the other functions.

#### Impressive as a lensmeter

The lensmeter mode uses a traditional type of lens rest and lens clamp. A conventional graticule with concentric

rings to represent prism dioptres is displayed on the larger than average screen and can be used in Cartesian notation, or at the press of a button, a number of other notations are available. The cylinder axis is easily switchable from one form to another and the dioptre reading is available in a variety of steps according to desired accuracy.

A 'must have' feature for all in denial of presbyopia is that of the progressive lens measurement system. With automatic prompts to position the lens correctly for the distance and near readings, the long winded process of locating lens etchings, recognising lens design, finding the relevant templates and eventually marking the lens appropriately before reading the powers is long gone. It is surprising how quickly the powers are obtained, even with relatively little experience in using the instrument.

#### **Beyond convention**

When selecting the oddly named wavefront frame analysis mode, a lens detection tray is used as an alternative to the conventional lens rest and is slotted into place. The VL3000 has an integral drawer in which the accessories are neatly housed. All of the accessories are of sturdy construction

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## Instruments



and feel as though they will withstand unsympathetic use. The tray allows the lens to be measured at over 1,500 beam points across its surface to enable the lens to be mapped. This is in contrast to the small optic zone read by traditional focimeters.

The ability to map the lens area enables the VL3000 to detect and recognise lens types automatically. The prescription is displayed for both lenses once they are assessed. This mode also employs a spectacle holder, which simply folds into position.

The addition is also measured, where applicable. To add to this a large colour image of both lenses is displayed on the screen within a schematic frame shape. Progressive, bifocal and trifocal lenses produce a representative image. In the case of the progressive the lens corridor and the position of distance and near areas are displayed. The lens table is moved to a pre-determined position to assess the vertical position of the fitting cross.

The image displayed when neutralising single-vision lenses shows the optical characteristics where the power across the lens is mapped in a contour fashion, giving rise to a ring of concentric circles or oval shapes depending upon any cylindrical component and its orientation.

#### **Boost sales and troubleshoot**

With the spectacle holder flipped down, the progressive lens analysis function can be explored. This is where I believe the VL3000 is an impressive sales tool. By placing either an uncut or an edged lens upon the lens detection tray, the VL3000 reads through its many matrix points to reveal in colourful glory a superb image of the lens in the form of an isocylinder plot.

I often turn to many of the manufacturers' bibles to help identify and decide upon the suitability of claimed merits of some progressive lens designs. The isocylinder plots to which we are accustomed are generally based on a plano distance with a +2.00D addition. In reality of course the lenses worn by our patients with their infinite power combinations, may not have identical plots to those represented in the sales literature.

It was interesting to use this function to see exactly how different lenses appear in order to determine their qualities. In real time display the isocylinder plots are shown in 0.25D steps in colour.

At the touch of a button these images can be brought to life in three dimensions. Up to three lenses



The VL3000 showing an isocylinder plot



A lens on the lens detection trav can be mapped in this way and the information stored and displayed side by side for direct comparison. There are a variety of potential applications for this including troubleshooting where lens choice could be inappropriate. I suspect, however, that the ability to directly compare corridor lengths and widths will aid the sale of more modern individualised and freeform lens designs.

#### **Pre-screen and connect**

With the addition of an external printer, the images produced on the screen of the VL3000 can be printed and stored. However, in this

increasingly paperless world where accurate records must be kept, the information gathered can be stored owing to the full connectivity of the VL3000. It appears that Visionix is forward thinking and has allowed for a number of connections including keyboard and mouse. A PC can also be connected to receive output.

This allows for a number of possibilities with regard to entering information so that it can be kept with the patient's records. I can envisage many of the instruments used within the practice being fully connected, putting an end to staff running about with printouts or scraps of paper on which details of tonometry, fields and current prescriptions are recorded, all of which can be lost or misinterpreted along the way.

#### Value and versatility

Systems of lens analysis have come on a long way in a relatively short time. Although some of the features are common to many of the instruments available it appears that Visionix has given a great deal of thought to the needs and demands that will be made of this instrument

Although bearing a resemblance to a focimeter, the other functions of the VL3000 expand its use beyond simple lens neutralisation and make it a valuable addition to practice equipment.

There are 11 language options to choose from and, although not available on my test machine, there is also an optional UV analysis device.

Whether it is in a production lab, a hospital clinic or more likely a high street practice, the VL3000 will not disappoint. The speed at which lenses can be analysed by even the least experienced members of staff is probably due to the good ergonomics and common-sense prompts.

Where the VL3000 really excels is in its ability to display images that most patients can decipher, to justify sales of premium lenses. Troubleshooting is made easier with features such as the isocylinder plots and prismatic effect displays. The fact that this instrument can be fully integrated into an optical environment and used in many ways also makes it a valuable addition.

I can honestly say that I am not looking forward to the time when the chaps come to collect it.

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