

Varifocal
**BUYERS
GUIDE**

How to choose the right lenses
for your needs.

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VILLAGE OPTICIAN
EXCEPTIONAL EYEWEAR

Why this guide is for you.

This guide will definitely help if you've ever thought;

Why do I need varifocals?

How do they work and what will they actually do for me?

Which bit am I supposed to look through?

What are the differences between varifocal lenses?

Why is the “design” so important?

Why do they differ so much in price?

What if I can't get used to them?

If you are thinking about trying varifocal glasses for the first time, or if you already wear varifocals and want to understand a bit more about them, then this is for you.

If you have never had varifocals before, then you will not know that there isn't just “A varifocal”. Unfortunately, there are loads of them! I was compelled to write this, as too often there is a lack of advice and explanation given to first time varifocal wearers (which impacts their wearing success), and even people who already wear varifocals aren't advised or given a choice of lens.

The options available in varifocal lenses can be confusing.

In this guide I will help to give you a clear and simple understanding of what they are and why it is so important that you understand the differences before you buy them. I'll try to give you the tools you need to make your choice of varifocal lenses.

And why listen to me? Well, I'm a fully qualified optometrist with over 20 year experience and I am co-owner of an award winning independent Opticians with 4 practices. If someone has a problem with their varifocals they tend to come to me.

The Basic Concepts - Why do I need a varifocal?

Let me introduce you to “Presbyopia”

So, let's start at the beginning. When we get into our 40s (some in our early 40s, others make it closer to 50), most of us will notice that we are having a little trouble focusing on things up close, like small print. We start to push it away to make it clearer

and soon get to the point when our arms aren't long enough. This is the natural loss of focus with age and its technical name is Presbyopia. For many people a pair of reading glasses will sort this out – if you need to see something up close you can pop them on.

The problem with reading glasses is you can only see up close with them.

Anything past your arms' length will be blurred when you wear them. People who already wear glasses for distance will have to change glasses for reading, which

soon becomes annoying. So what can we do if we want to see distance and read small print in one pair of glasses?

The best solution for this is, yes you guessed it, the varifocal.

Varifocal lenses give you vision at all distances, from up close reading, all the way out to the far distance. This means you can use one pair of glasses for driving, reading and computer work. There is no need to

chop and change glasses, or to put up with only having one clear area of vision. And, no, it doesn't have a line across.

So how do they work?

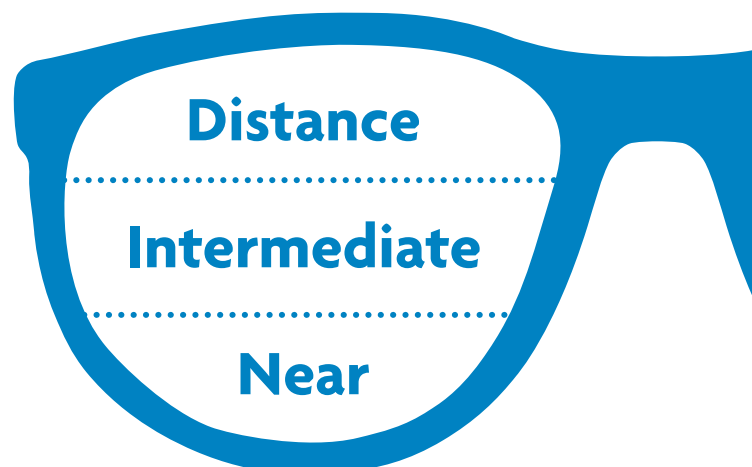
Now things are starting to get a little technical. The strength of your glasses is the power of lenses needed to correct your specific eye problem. The

strength of the lenses to correct the far or distance vision is different to the strength of the lenses needed to correct the near or close up vision.

This means you will need two different powers in the same lens to see across the room and up close.

To make the varifocal work the power has to change from the distance strength at the top of the lens, to the reading strength at the bottom.

The power gradually changes in very small steps down the lens to create the different visions. So not only do you get distance and reading vision, you also get computer and desk vision too, all in one pair of glasses. We call these different parts of the lens Distance, Intermediate and Near.



So which bit do I look through?

To see different distances all you need to do is to look through different parts of the lens.

This is a lot easier and more natural than it sounds.

Here are some examples; when driving you would be sat upright, naturally looking through the top part of the lens which is your distance power to see

down the road. If you are looking at your phone, you naturally tilt your head a little and drop your eyes, so will be looking through the reading part of the lens.



In a perfect world we would now have 100% clear vision no matter which part of the lens you look through. Unfortunately real life doesn't work like

that and a pesky thing called Physics dictates how the lenses work. To understand why, we need to get a little technical again.

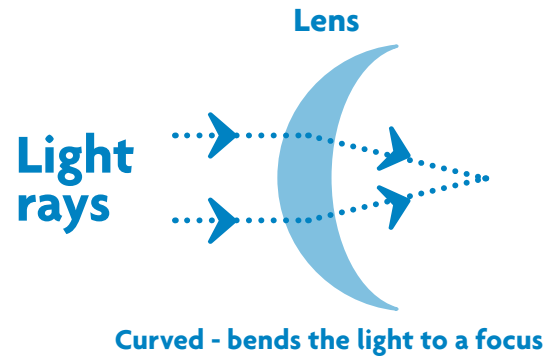
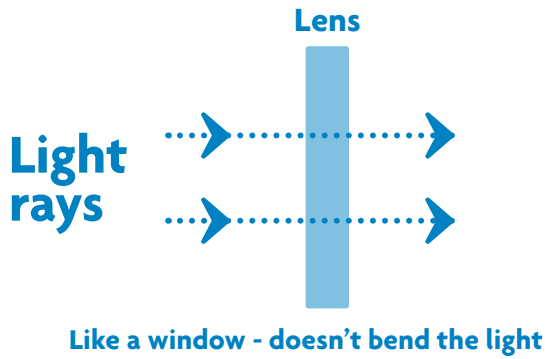
The power or strength of glasses are determined by 2 things; the material the lens is made from and the curves on that lens.

The amount a material bends light is known as it's Refractive Index and is why certain types of plastics can be used to make lenses.

If a lens is made from a plastic that doesn't bend light that much, (a low refractive index), you need a thicker piece of it to bend the light by a certain amount. If another plastic bends light a lot (a high refractive index), you need

a thinner piece to bend the light by the same amount.

Next the curves – the curves are what focuses the light, creating the strength of the lens. If the lens wasn't curved at all, light would just pass straight through it, the lens would have no power – just like a window. It's the curves and the refractive index of the material in combination that produce the power of the lens.



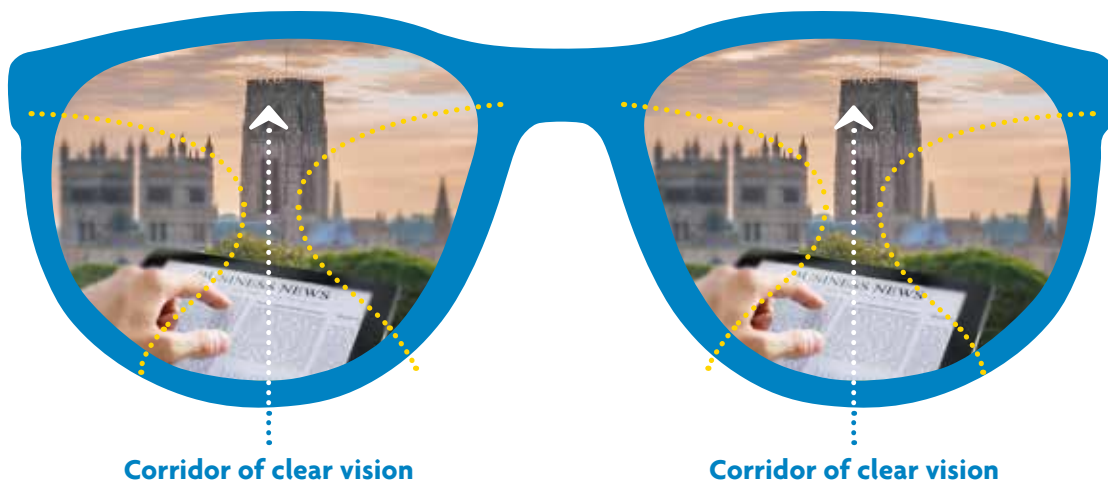
Still with me? Great - So to change the power down the lens we have to change the curves – sounds easy enough but unfortunately physics doesn't like that.

Physics doesn't like that one little bit! Physics says if we change the curves it will create distortion which means the vision becomes blurred.

All varifocal lenses push this distortion to the sides. When we talk about the design of the lens we mean what have they done to remove or minimise the distortion or blur.

The design is one of the most important factors of the lens when choosing which one to buy – it is the

thing that either gives you great areas of clear vision, or poor, restricted areas of vision.



Buyers top tip 1

If you have a stronger lens prescription (over 4.00), especially for reading, there will be more blur in the lens. So, if your prescription is strong then think carefully about choosing a better design of lens to minimise the blurred areas.

Varifocal designs.

Not all varifocal designs are equal.

You would be forgiven for thinking that all varifocals would give you the best areas of vision possible, or that all Opticians would automatically offer you the best, but unfortunately they don't. Some Opticians will only

offer you the cheapest they can, as they assume that is what you will want. They aren't giving you the all the options. This removes your choice of some pretty good products and solutions to your visual needs.

So why are they different prices at different Opticians?

Some varifocals are cheaper for a reason – they are not the best design, which means they are not going

to give you the best areas of clear vision.

You can tell a lot about the design of the lens purely by the price of it.

If a varifocal is too cheap, then it's not going to be a very good design. It's very likely an older design of lens. (Can you imagine going into the phone shop and they tried to sell you a 10 year old phone rather than the new model, just because it was cheaper?) Unfortunately, over the years, Opticians adverts have

taught the public to compare Opticians and their glasses solely based on price and not on the quality of their products, or the vision they will achieve. A consequence of this is that some Opticians now think that the public only want the cheapest and don't offer the newest and best technologically advanced lenses.

It's not that some Opticians are just more expensive, it's that some Opticians are offering you a better solution to the problem and ultimately better vision.

Different varifocal designs

Nearly all Opticians will have a selection of lenses for you to choose from, offering you different grades of varifocal design (I'll come back to this later). These

different grades are usually offered as three tiers – basic design, mid-range design and top of the range design.

#1 Basic Design

A basic or older varifocal design will have more blur at the sides. This will have a narrower area of clear vision down the middle of the lens. This is called the corridor, so a basic varifocal will have a narrower corridor.

What it means for you – The different distances of vision will all be there but you may find the field of view limited (not very wide) or notice a lot of blur at the sides. The world can also swim in-front of

your eyes if you move your head quickly. They can sometimes be hard to get used to, or to find the areas of vision you want to look through.

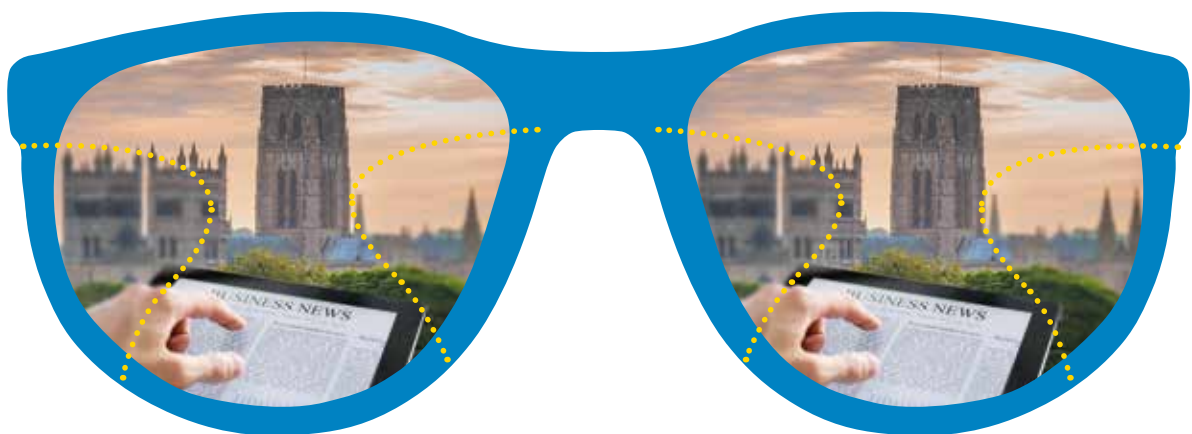


#2 Mid-Range Designs

A mid-range lens will have more technology and design used to reduce the side blur and give a wider corridor of clear vision.

What it means for you – better areas of vision, more stable vision with reduced swim effect and they are usually easier to get used to than a basic varifocal.

There are some very good options in the mid-range market for price conscious buyers.

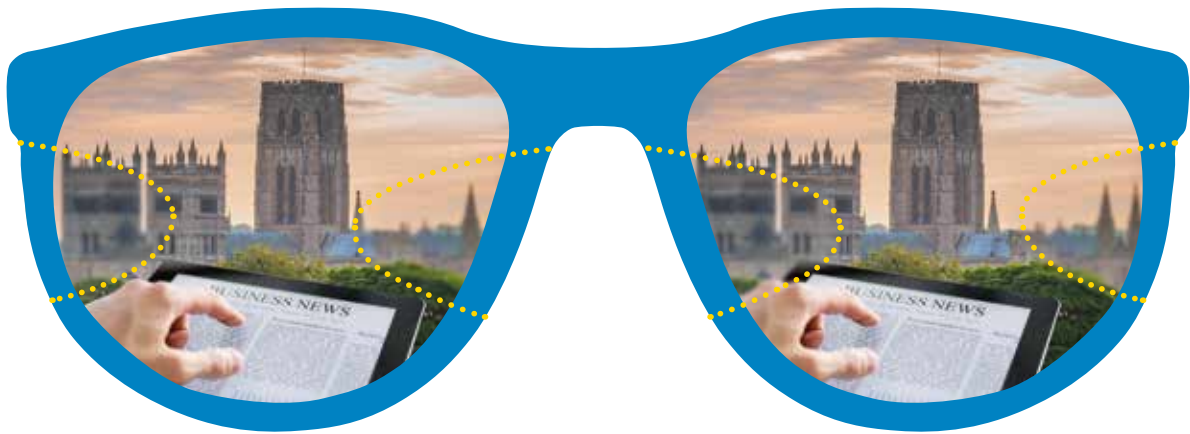


#3 Top of the Range Designs

These will have the very latest technology (the clever calculations and manufacturing techniques) used to reduce distortion, side blur, improve image stability (it won't swim or move side to side, in front of your eyes) and give the most natural vision possible in a varifocal.

What it means for you – The best and widest all round vision available in a varifocal. Less distortion at

the sides of the lenses and much easier to get used to (they call this easy adaption).



Buyers top tip 2

If you spend a lot of time on computers, then think carefully about varifocal design - it needs to give you enough width to see the whole of the screen. Even though this is a varifocal guide, you may even benefit from a type of lens called an office or computer lens – they take some technology from varifocals to give the computer and reading distance but not far distance vision.

Some little extras.

To make it even more confusing, there are other terms which you may hear as you find out about varifocals:

1) Personalisation Some varifocal designs can be personalised. This is a true tailor made lens, designed specifically for you, your lens power and the frame you have chosen to use. This has the effect of improving the areas of clear vision even more in the lens. Personalised lenses need extra measurements taking, usually the tilt of the frame as it sits on you, how curved the frame is and how far away it sits

from your eyes. Sometimes even just measuring the natural reading distance and adding this into the lens gives really good personalisation results. This means the lens can be made for exactly how it sits in front of you. You could choose two different frames and the personalised lenses for each could be slightly different to maximise the areas of vision as they sit in the different frames.



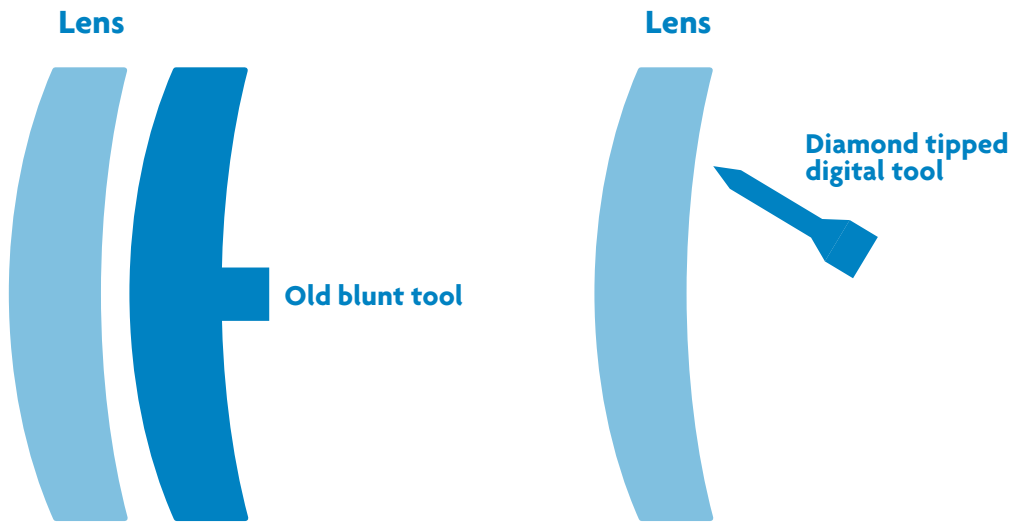
The same prescription in different frames will be personalised different to fit each face

Buyers top tip 3

If someone offers you a tailor made lens find out what extra measurements they will take. They may just be calling it tailor made, when in fact there are no extra enhancements to the lens at all. Also, many of the top of the range varifocals will be personalised without it even being mentioned.

2) Freeform/Digital – Freeform/digital lenses became a big thing in optics quite a few years ago. Freeform is the registered name of a manufacturing process, what we call digital lenses. Varifocals (and other lenses) used to be made by a curved tool rubbing away at the back of a block of lens material. The maths has been around for a long time to know what we wanted to do with the curves at each point on the lens surface

to make the vision better, but we could never make it with the old blunt tool. Digital lens manufacture has changed this, as we now have diamond tipped manufacturing machines that can cut every single point on the lens surface, making it exactly as we want it. They are known as digital lenses as we can now use computers to create the designs to make the areas of vision better and better.



Buyers top tip 4

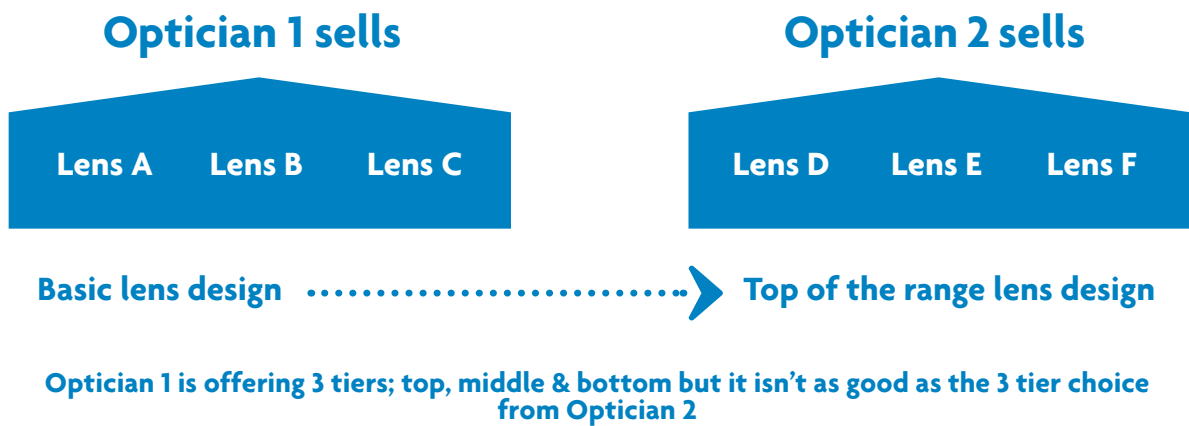
Digitally manufacturing lenses will improve the clear areas in the lens, but don't be fooled into thinking any lens with a mention of Freeform or digital will be the best. If it is the only selling point of the lens then chances are it's not a very good design. Your Optician should be able to explain what the benefits of the lenses are to you. For example here at Village Optician all the varifocals we offer are digital, so we don't mention it as a benefit of any particular lens. Each lens we offer has its own features and therefore benefits to the wearer.

How can you compare varifocals between Opticians?

You may wonder why the prices of varifocals can differ so greatly from one Optician to the next. If you have followed me so far you will be starting to understand why.

This all has to do with which lenses the Optician (or their head office) has chosen to use. Here, we are back to the different grades I mentioned before. For example, if there were 6 lenses available, graded

from basic design to the very latest best design, one Optician may choose to offer you the bottom 3 lenses and present them to you as their top, middle and bottom choice. Another Optician, however, may choose to use the top 3 lenses and still present them to you as their top, middle and bottom choice, but their offering to you would be far greater in terms of lens design and quality of finish, therefore giving you better vision.



This does make it hard to compare different Opticians varifocals when the best in one isn't the same as the best in another.

Buyers top tip 5

If you are comparing, you should ask what the exact lens is. The Optician should be able to tell you exactly what it is, the manufacturer, the design and where it is made. Quick rule of thumb; a £500 set of varifocals will be very, very different to a £100 set of varifocals.

Getting used to varifocal.

Some people will find it hard to get used to varifocals. There, I've said it, I'm not going to hide it. It's my job to prepare people and help them get used to them, not to pretend that it isn't hard sometimes.

Some people will find it hard to get used to varifocals.

No one knows who these people are, there is no way of telling. It is all to do with the way the brain takes in the changes in the vision. Just because you have a friend who didn't like varifocals doesn't mean that you can't use them. There are so many factors as to why someone didn't get on with a varifocal. Whenever people have tried before and not got on with them, I always run through a few things.

Here is what I want to know.....

- 1)** How long ago did you try them? It could be they tried them 10 years ago, the designs are far better now than ever so chances are any problems they did have in old varifocals won't happen with new varifocals.
- 2)** Did anyone remeasure or refit them for you? The vast majority of problems people have with varifocals are due to the fitting of the lens into the frame, or the frame fit itself. It may have been easily solved by remeasuring and refitting the frame or lenses.
- 3)** What was it exactly that you didn't like/couldn't see? This will tell me a lot, for example, was the field of view too narrow? Was it that they couldn't find the reading part? Did they feel dizzy? We now have solutions to so many of these types of issues in modern varifocals and knowing previous problems means we can tailor the lens to avoid them.

- 4)** How much did you pay for them? No, not just being nosy, this could tell me so much as to how "good" the varifocal was – as I mentioned earlier on – a very cheap varifocal won't be a very good varifocal.

We will always ask clients to try their varifocals for at least 2 weeks. From experience this is usually the magic amount of time for the brain to work it all out. BUT, we always ask people to put them on and leave them on. The brain needs time to adapt to the different areas of vision and the way it now perceives the world around it. It is no good putting them on for an hour, feeling things are strange, taking them off and doing the same the next day, and so on. You will never get used to varifocals like that.

I must also stress that the opposite is true! Some people find it incredibly easy to get used to varifocals. There are many people who will put them on and get used to them within the first hour. Again, no one knows who these people will be – there is no way of telling. I will warn all varifocal clients of possible adaptation issues and many will ask what all the fuss was about when they have no adaptation issues at all.

FAQs.

What if I can't get on with varifocals?

As I mentioned, the vast majority of teething problems may well be due to frame fitting, measurements or design, and can usually be adjusted, changed or upgraded. There are a small number of clients whose brain will just not adapt and this is what we call "non tolerance". At The Village Optician, we are very aware that this can happen so we offer a non-tolerance

guarantee on all varifocal lenses. We have a 30 day non-tolerance period, if a client really can't get on with varifocals (so it just doesn't need a refit or design change) we will swap the lenses to something else that they can use and give a refund of any difference in the lens price paid between the varifocal and new lens. This means there is no risk in trying varifocals.

Should I try a cheaper varifocal first, before I pay for a good one?

Some people will have the idea of trying out varifocals by going for a cheaper design, with the intention of upgrading their glasses to better top-of-the-range lenses later on. This is definitely the wrong way to do it. Better design varifocals are actually easier to get used to, whereas cheaper, more basic designs are harder to get used to. The varifocal guarantee means that you don't have to do it this way round – just go for the best

design you feel comfortable paying for.

This guide should have now given you some help in understanding how varifocals work and the differences between the lenses Opticians will offer you. You are now better equipped to make your choice of varifocals and the Optician you buy them from.

Good luck in finding the right varifocal for you!

What we do at Village Optician

After reading this, you will probably be wondering which varifocals we use here at Village Optician, well, here's what we do. Being truly independent

we choose which lenses to offer you and we decide on these based on the vision they provide and the finished quality of the products.

We have 2 tiers of lenses; Bespoke and Premium lenses.

Our Bespoke lenses

For our Bespoke lenses we use Tokai. They are the crème de la crème of the lens world.

Tokai are a Japanese company that produce top quality lenses and are only available from

independent Opticians. They are constantly innovating new lens design and technologies, currently producing the worlds thinnest plastic lenses and specialising in minimising distortion in high powered varifocals. They also have a revolutionary

additive to their lenses called Lutina, which blocks more high energy UV than sunglasses do (and they are clear every-day lenses!)

We offer 2 different designs of Tokai varifocal, one specifically for higher powers and one for more standard powers. Both of these lens designs are excellent. All of their varifocals are digital, and as they are custom made and can take up to 3 weeks to be ready.

I wear Tokai varifocals as my first choice and I currently have 6 pairs of them!

Our Premium lenses

Our Premium range of lenses are made a little closer to home by a Scottish company called Caledonian Optical in Aberdeen. We chose to use them due to the excellence of the designs and the quality of the digital lenses they produce. With them, we offer 3 tiers of lens; entry level, mid and top of the range. Even the entry level lens is an excellent design; as I mentioned before, the tiers are relative and depends on which lenses the Optician decides to use. All of these varifocals come with an 18 month anti scratch guarantee. Again these lenses are only available from independent Opticians.

Our best-selling varifocal is their top of the range lens called the ARC Steady. The ARC Steady has amazing technology to reduce distortion and upon its' release in 2018 won the award for lens product of the year, which goes to show you how good it is. And, yes, I do have some ARC Steady varifocals and I have to say they are very, very good – I can see why our clients love them and why they are our best-selling lenses!



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