Your scope needs to be suited to your discipline, and be able to see you through changeable conditions

Scoping the options

There's plenty of varieties of scope and scope accessories out there, so **Duncan Busby** examines what you should be looking for when buying one

Scopes are one of the most customisable parts of your setup, and if you look up and down the shooting line you are unlikely to see two alike; with countless combinations of scope size, aiming devices and lens magnification available, how do you know what will work best for you?

Some decisions are purely logical, like making a choice based specifically on your chosen discipline of archery. Other options though, require a little experimentation, and are based on your own personal preferences. In this first of a two-part article, I hope to outline the different options available and help you find the scope that will work best for you.

Firstly, and most obviously, there are different sizes of scope available. The scope's size is determined by its outside diameter, and typically, scopes range from the smaller 29mm diameter up to the larger 42mm. The size you go for will depend on the type of archery you will be shooting, smaller scopes like the 29mm models are perfectly suited to target archery; this is because their smaller size will give the most arrow clearance at longer distances. They are easier to centre in your peep sight, and as you are only really concerned with the small part in the middle, there is no need to see the entire target face. Larger models are more prevalent in field archery, and sometimes in indoor archery; shorter distances are normally shot in these disciplines so you won't need as much clearance for your arrows, and larger scopes also have a bigger field of view, which allows more light in and makes the sight picture brighter in low light conditions.

Different sized lenses can affect your sight picture and clearance, so experiment to see what you find works best

The second choice you need to make is the power of the lens in your scope. Different manufacturers measure the strength of their scopes using two different systems: 'Magnification', which would, for example, be marked as '6x lens', and Dioptres, where strength measurements are given in decimals, e.g. '0.75 lens'. There is, in actual fact, no correlation between dioptres and magnification. Put simply,

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A sun shield can help improve visiblity outdoors

Fibre optic aiming systems offer a high-visibility option

dioptres are used as an industry standard way of measuring the true power of the lens, whereas magnification will depend on how far the lens is from your eye. So be cautious when buying a lens that is rated in magnification alone, as it may end up being very different from what you expected.

The power of lens you go for is mainly down to personal preference, but be careful if you decide to use a high power lens (a 1.0 dioptre or above) as the image can be blurred and may require a clarifying peep sight. Higher power lenses can also seem dark in low light conditions, and can make it seem almost impossible to hold the bow steady as they can over magnify the bow's movement as well as the target. Lower power lenses give a much steadier and crisper sight picture and a bright view of the target, they can, however, be a little harder to centre perfectly on the middle because of the smaller image picture, especially when you're shooting at longer distances. A typical choice for target archery would be either a .55 dioptre or a .75 dioptre lens, and these should be sufficient to see the target perfectly at longer distances without making it seem too big or blurred at the shorter ones. These magnifications are again popular in field and indoor archery due to their bright and clear sight picture.

The most customisable parts of your scope are arguably the most important

The most customisable parts of your scope, and arguably the most important, are the aiming components. These consist of the spirit level and the device used for aiming, and many scopes come with a good range of parts to customise your sight picture. Different sized and coloured spirit level bubbles can be useful for shooting in difficult light conditions, and for people who struggle to see the bubble clearly. There are also hundreds of possible aiming options to choose from, ranging from stick-on dots and rings to high-visibility fibre optics, and all of these come in a huge range of colours and sizes too. Your aiming apparatus is the most important part of your scope set up, as it's the part that aligns your bow with the centre of the target, so choosing the correct one for you is an important process. Though it can be complicated and take some time, it's important to be patient and make sure you get hold of a good range of options to allow you to work out which is the best setup for you. Don't worry if you're still a little confused, as I will be covering this process in more detail in the next issue.

It is also worth considering investing in certain scope accessories designed to help you when shooting in adverse conditions – and these additions can include rain and sun shields, covers and scope ring decals. These can be invaluable when trying to shoot in less than ideal weather. Not every company makes these parts for their scopes, but you can find that items made by a different company may fit, just make sure you find one that is designed to be used on the same sized scope as yours and don't be afraid to modify things slightly to get a perfect fit. You will be amazed at the difference a rain or sun shield can make to the visibility of the target – I would advise everyone to carry one in their kit bag.

You needn't spend a fortune on your scope as there is a model to suit almost every budget, although you should ensure that it comes with a good quality removable lens, as this will make the biggest difference in the quality of your sight picture and enable you to change your scope's magnification quickly and easily.

With so many aiming options available you should be able to find a setup to perfectly suit your style of archery and optical needs, just don't forget to make sure you have plenty of weather-proofing accessories for your scope so it's ready for anything the season throws at you.

Look out for part two of this article in the next issue where I will be explaining how to set up your scope and experiment with your sight picture.

For any further information or to contact me please go to:
www.duncanbusbyarchery.com

Different sizes and colours of sight bubble can be used in difficult light conditions

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