



# Speed Trials

Speed sells, but is it right for you? **Duncan Busby** looks into the effects of bow speed and how you can use it to your advantage

**N**ow we're into the New Year you may have noticed many of the top bow manufacturers advertising their new products; among the many specifications they list, one of the first things most archers will look at is the bow's speed. It's no secret that speed sells, but how prudent is it to base your decision to buy a bow, even to a small extent, on this figure? In this issue I take a look at bow speed; I'll be finding out how accurate the manufacturers' claims really are and whether or not we actually benefit from shooting a faster bow.

## The truth about speed

Bow speed is measured in foot per second (fps), but the actual figure advertised by the manufacturer will depend entirely upon how it has been measured; as a way to standardise bow speed tests, both the International Bowhunters Association (IBO) and the Archery Manufacturing Organisation (AMO) established comparison methods that resulted in all bows being tested under strict criteria.

The IBO rating, which is the most commonly used today, is tested on bows set at 70lbs with a 30" draw length, using an arrow that weighs 350gn. Though the speeds advertised by bow manufacturers are fairly accurate, target archers will most likely find them unobtainable. Typically, your own bow may be considerably slower than advertised; on average, a loss of one inch of draw length will affect your speed by around about 10fps, and every 10lb drop in draw weight will knock a further 12-15fps off your bow's speed. Your arrow will probably be heavier than the one used in the test, which will again lower the speed of your bow, as will certain vane combinations. It's also likely the test bow will have nothing added to the string, such as no peep sight or D-loop; and since it is in the manufacturers' best interests to achieve the highest possible ratings, these further differences mean faster speeds are much more obtainable.

So, although advertised speeds are a useful tool in gauging a bow's capability, they are not a direct representation of what you will achieve. This shouldn't be something



A chronograph can be used to measure how fast an arrow travels in fps

## Equipment



Having used both slow and fast bows, Duncan says your choice will come down to your draw length, poundage, and archery application

to be overly concerned about though – a compound that's marketed at around 300-310fps is considered fast enough for most target archers, and even in real terms should provide you with all the speed you need to hit any outdoor distance while maintaining a good level of shootability.

### Why go slow?

Until around 10 years ago a bow with an IBO rating of around 300fps was a popular choice for an archer on the international circuit, but these days it is considered to be on the slow side. Many of the world's top shots have increased their speed slightly, and today shoot bows with an IBO rating of around 310fps, which can still be considered reserved when compared to the latest offerings.

In the real world, bows of this IBO rating will be delivering speeds of between 250 and 280fps, depending on your draw length, poundage and arrows.

Whether or not you choose a slower bow will depend on your requirements; archers with longer draw lengths in particular may find that speed is rather limiting, since fast bows generally demand a stiffer arrow spine. This is fine for archers with shorter draw lengths who can simply cut down their arrows in order to stiffen them up, but if you need to keep your arrows long you can be limited by the products available. Though arrow manufacturers are releasing spines that are stiffer than ever before, bows are getting faster and faster, meaning they may soon be struggling to keep up. So if you do have a large draw length, it is worth considering what arrows you need before you commit to buying a quick bow.

Indoor archers may also find that a fast bow is not of much benefit; many of the world's top compound shots will actually try to slow down their bows indoors by lowering their poundage or choosing to shoot heavy arrows. A slower bow will limit the effects of a poorly-aimed shot, particularly at shorter distances. Since the arrow will spend more time in contact with your bow, you should have more control over where it hits; this can be quite effective in 'steering' shots that have not been perfectly aimed (it's for this same reason that faster bows can make aiming rather more critical to your results). As your arrow is spending more time on the rest, some care must be taken to ensure your follow through is clean and consistent; a sloppy or erratic release could affect where your arrows hit and ultimately cause sporadic results.

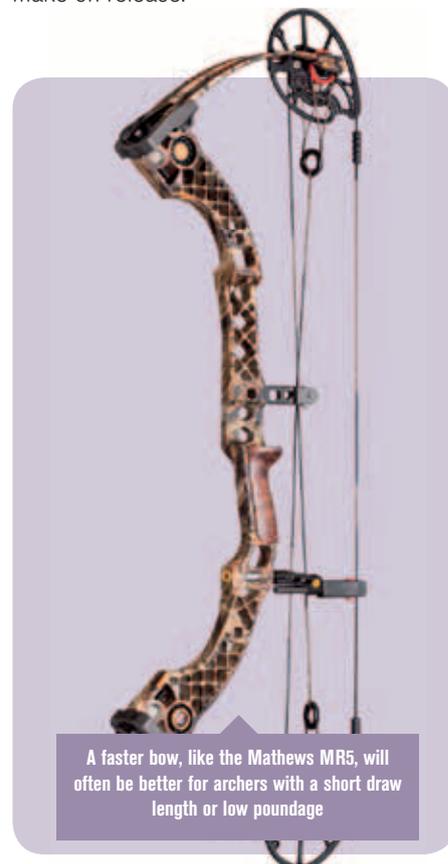
Finally, as a rule, slower bows tend to have a longer axle-to-axle length and as a result, a more comfortable string angle; this creates stability and can help you to be more consistent in both your form and aim, which is very desirable in a target bow.

### Why go fast?

A fast bow is generally defined as anything over an IBO rating of 320fps, though some compounds today can even reach 360fps! Where these bows are generally marketed as hunting or field bows, they have been used to achieve some fantastic results on the target range. In real terms, bows of this calibre will achieve speeds of around 290 to 300fps, again depending on your specific setup.

Although such fast bows are not usually considered suitable for target shooting, there are some instances where they can

be of benefit. In an ideal world we would all want a bow that hits exactly where it's aimed, but how often do you shoot in ideal conditions? A faster bow, providing it is well tuned, will be less affected in adverse weather; higher arrow speed will reduce the negative effects of wind and rain; and as your arrow will spend less time on the bow, admittedly by only a few milliseconds, it will be less affected by any movement you make on release.



A faster bow, like the Mathews MR5, will often be better for archers with a short draw length or low poundage

More speed can be desirable on a field course too; you will find the faster your bow is the less you will need to move your sight between distances, so if you misjudge a distance by a few metres, an arrow out of a faster bow will hit closer to the middle of the target than an arrow out of a slower one. In direct contrast to indoor target archery, speed becomes an advantage when you add the complication of gauging angles and distances.

Faster bows can also be of benefit to those of you with shorter draw lengths or low draw weights. Since the speed of your arrow will be limited by your setup, by shooting a faster bow you can expect to achieve similar speeds to those of archers using a conventional target bow at a greater length and poundage.

### Which way to go?

So, should you choose your bow based purely on its speed? The answer to this will depend on your draw length and poundage, and what you want to use your bow for.

Speed can be an asset, but used improperly it can become detrimental. I have shot with both slow and fast bows over my career, and have found that nerves and tiredness have usually been a deciding factor in which bow I choose. If your bow cannot give you the results you want consistently, it limits your choice of arrow, or it adversely affects your technique, you too may need to reassess your choice of speed. ☺

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Duncan used a slower bow to win Back2Back at the Ricoh in December: if it suits you, speed doesn't have to be a deciding factor