



HOW TO PICK A DIAMOND THAT SPARKLES MORE THAN ANY OTHER

A man's wife has more power over him than the state has.

Ralph Waldo Emerson

Choosing a high-performance diamond is all about increasing your diamond's sparkle through the way the diamond has been cut. In this chapter, I cover high-performance diamonds, including what you can expect from them and how to choose the best one in your price range.

But first I run through some of the characteristics you should expect to see (or not see) in all diamonds.

DIAMOND MYTHS

Blame it on crime movies or old wives' tales, but certain myths exist about diamonds and their characteristics. I run through some of these myths in this section, and why they're incorrect.

Diamonds are indestructible

I know they say that a diamond is the hardest gem on the earth, but this by no means makes it unbreakable or indestructible. When a diamond is being formed, it usually occurs in what we call an ‘octahedral habit’ – which is basically two pyramids with their bases stuck together.

The weakest point on this diamond is the line that runs parallel to any flat facet face. So diamonds are really a lot like timber. They have lines of strength and lines of weakness. If you hit the diamond on the right angle with the right amount of force, you will chip it all the way from the edge to the bottom.

Diamonds can crack

If you have seen the movie *Cool Runnings*, you will know the line, ‘Bones don’t break; they shatter’. Diamonds don’t crack a little – they either splinter all the way or they don’t. So don’t worry if you bump a diamond. Much like all the times you have dropped your smart phone on the ground, the diamond will either be broken or will be fine. (Who hasn’t experienced that nervous anticipation as you slowly turn your phone over and the great relief when you see that everything is fine? Matched only by the sadness when you drop it for the 15th time and you see that it has smashed.)

You can’t fix a diamond

You can fix a diamond but, unfortunately, the only way to do so is to polish the chip out. Depending on the size of the diamond and the extent of the damage, this may or may not be financially viable. If the worst happens, take it to a diamond specialist for the best advice on what the next best course of action is. Hopefully you also took out insurance that covers chipped diamonds. (For more about insurance, see chapter 12.)

You can tell a diamond is real if it can scratch glass

This is for all the movie buffs who have seen too many great robbery movies. Yes a diamond can scratch glass, but so can a lot of other stones like quartz. It isn't a conclusive test to start scratching glass with your diamond.

A cubic zirconia is a created diamond

No – a cubic zirconia is a completely different stone. Beware of anyone who tries to use the word 'diamond' when selling these.

And can you really tell the difference between a diamond and a cubic zirconia? At about \$1 a stone, I certainly hope so. While some may be fooled for the first five minutes, I can guarantee you that within a day of wearing a cubic zirconia (CZ) the difference will be as clear as day and night. Because CZs don't have the same refractive properties as diamonds, they will dull very quickly as soon as your partner gets a little hand cream or soap behind them. And because they are really quite a soft stone, they will also chip and wear very quickly.

So now that you know a bit more about what to expect from all diamonds, what can you expect from high-performance diamonds?

HIGH-PERFORMANCE DIAMONDS

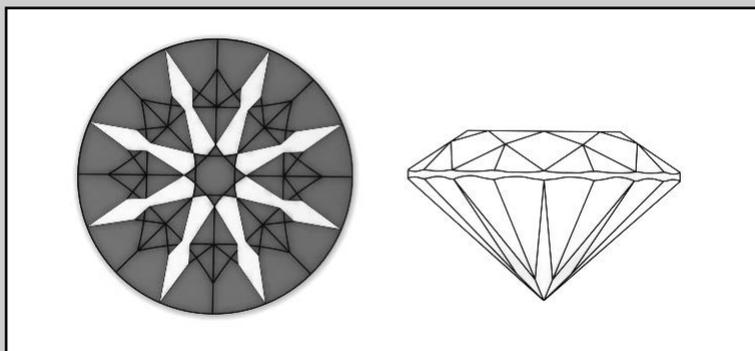
Diamond super cuts, or high-performance diamonds as I like to call them, are diamonds that give unbelievable sparkle, like a Passion8 'hearts and arrows'. A true super cut is one that has been specially selected from the rough crystal to be cut as a high-performance diamond. Not all crystals are the same, just like no two pieces of timber are the same. This means the better the crystal, the better the finished result.

What are 'hearts and arrows'?

Hearts and arrows are an effect you can see when you view a round diamond through a specialised viewer – one that has a magnifier and a blue (or red) filter in it. The filter is designed to show the way light is travelling through and leaving the stone. It will also show a trained observer how precisely all the facets have been cut, and whether there are any facets that are out of alignment.

Arrows

The arrows can be seen when looking at the diamond face up – that is, the way it would normally be set in a ring. When you're looking at the arrows, ideally you want to see a perfectly formed arrow head and shaft. The arrow shaft should be a nice thickness – not too thin (like needles) and not too fat. (Just like the cereal commercial 'Not too heavy and not too light – just right'.) Likewise, the arrow head should line up with the arrow shaft and be perfectly formed. Basically, what the viewer is showing you is the reflection of what is happening on the other side of the stone. So if one of the arrows is malformed, it is because there is a faulty facet on the opposite side of the diamond. (See following figure for an example of the arrow effect.)

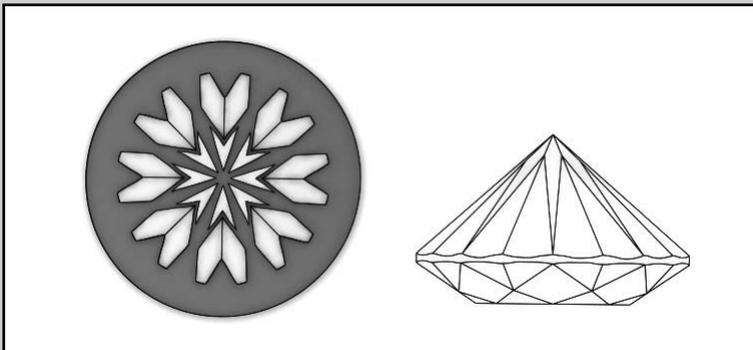


The other main thing to look for when looking top down at your diamond is that a small octagonal circle appears in the middle of the stone. If the circle is too big, off-centre or misshaped, this indicates an incorrectly cut table facet (the biggest top facet on a diamond). While new to viewing diamonds, you will need the viewer to see this effect. However, with practice you will start to see the arrows without the viewer.

If you look through a hearts and arrows viewer and see nothing but blue or red, this is a good sign that the diamond isn't cut to the optimum hearts and arrows formula.

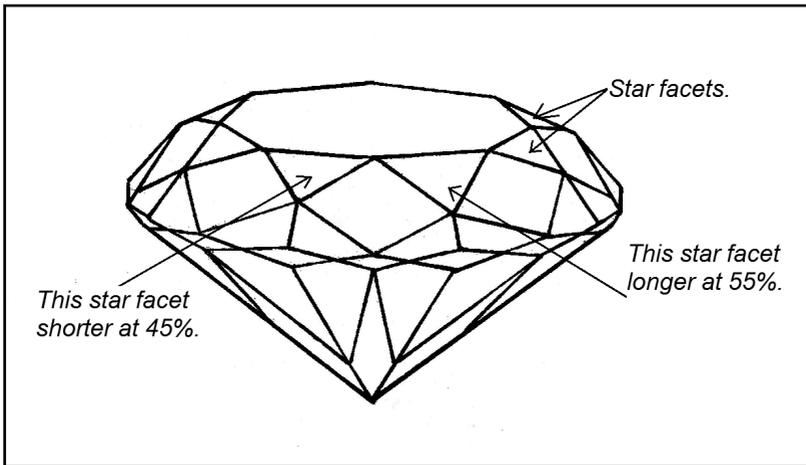
Hearts

This is the effect that you will see when you turn the diamond over, so the culet (point) of the diamond is facing up. When you place the viewer over the diamond from this angle, you should see eight little hearts. In a perfectly cut diamond, the symmetry of the hearts should be even. In less well-cut stones, you might notice that one side is higher or bigger than the other. While most diamonds will show the image of the hearts, it is the arrows that are the hardest to perfect. (See following figure for an example of the hearts effect.)



What makes high-performance diamonds unique?

The precision of their cutting. I call this the Rolls Royce standard to cutting. While most jewellers understand that a diamond's sparkle is linked to the symmetry of its facets, the truth is it is a lot more complicated than that. We know that a diamond with a star facet should be 50 per cent of the way from the table to the edge of the stone. In some stones, you may have one that is 55 per cent while the next one is 45 per cent. This would still give you an average of 50 per cent, but the effect of this variation is a reduction in the optimum sparkle. While this might be acceptable for some excellent cut grades, a high-performance diamond should be aiming for perfection and for all facets to be exactly 50 per cent. (See following figure for an example of star facets on a diamond.)



But let's assume that they do all have a 50 per cent facet length. The requirements for a perfectly cut diamond don't stop there. This is because a facet doesn't just vary in length – it can vary in its rotation or pitch as well. Imagine sliding down a slippery slide that was angled to one side. You would fall off the slide before you hit the bottom. It wouldn't matter if the slide was the right length or angle.

This is the effect that irregular facets can have on the sparkle. Light is dispersed out the side of the stone, instead of up towards your eyes. A high-performance cutter is fanatical about making sure not just all the facets are the right lengths but also the angles are correct and perfectly matched to mathematical proportions. This fanaticism is what guarantees the best end result – a high-performance diamond.

How much extra and why?

On average you can pay between 15 and 20 per cent more for a high-performance diamond. This will vary a little depending on the size and quality of the stone you are looking at. Beware of imitations. Just like the fake Nike shoes and socks you might buy at the local overseas market, a lot of imitation hearts and arrows diamonds are out there. Rather than a diamond specially selected as a hearts and arrows diamond and then cut by a master cutter, these cheaper knock-offs are simply selected by merchants who look through their existing stock for anything that closely resembles a ‘hearts and arrows’ effect. They then try to charge you the extra premium for a perfectly cut stone. It should either be a perfect cut or it’s not – close enough is just not good enough if you are chasing the best cut diamond on the market.

A high-performance diamond will cost a little more for a few reasons. Firstly, the cutter is generally sacrificing more of the initial rough diamond crystal to end up at a smaller but more perfectly cut diamond. Because they have paid the same money for the initial crystal as the next cutter, the price of a smaller perfectly cut diamond is equivalent to a larger, less well cut diamond.

Secondly, an expert diamond cutter can spend as much as six times longer cutting a higher performance diamond. When you consider that the average cutter will make only 10 per cent margin for their expertise in cutting, this extra time is an extremely large sacrifice. A cutter is paid on the amount of stones they can polish, so a cutter who cuts six averagely cut stones will make more than one who cuts one perfectly cut diamond.

Thirdly the expertise of the cutter is greater. It can take more than 20 years to become an expert cutter qualified enough to consistently cut a high-performance diamond. Imagine a master diamond cutter who has spent their life perfecting the act of cutting a diamond then taking on an apprentice to follow in their footsteps. The apprentice then starts learning year after year, diamond after diamond, acquiring all the best skills and techniques handed down from one cutter to another. Mastery like this can never be rushed.

Tom and Mary's story: choosing a diamond

Having been educated in the world of high-performance diamonds, Tom decided on the exact criteria he was hoping to fulfil. He knew that he wanted a perfectly cut diamond, so the obvious choice was to go for a Passion8 'hearts and arrows' diamond – so the diamond would sparkle more brilliantly than any other diamond around. He was happy with an E colour, because he really couldn't see that much difference in colour between the D and E coloured diamonds that he had been looking at. The clarity grade that he had chosen was an SI1, with an inclusion on the edge of the stone that the jeweller could easily cover with a claw. Now all he needed to do was have it all put together.

Is it just a brand?

While this might be a criticism that some jewellers make, you have to look past the name and see what the brand stands for. Nike might be just a brand of clothes and shoes, but most people would agree that their products are of a certain quality and standard.

When considering a branded high-performance diamond, it is important to ask the following:

- ◆ What are the company's processes for deselecting stones and its quality control to ensure that only the most perfect stones make the grade?

- ◆ Do they have a reputation to uphold?
- ◆ What are their standards?
- ◆ What are they prepared to accept and, more importantly, what are they prepared not to accept?

Expert advice from Des Miller – Passion8 Diamonds founder and former president of the World Federation of Diamond Bourses

Just because a diamond is cut to traditional ideal proportions does not mean that it will have the perfect hearts and arrows pattern. Rather, all facet groups of the diamond have to be in precise alignment with each other. If the cut of the diamond is even *slightly* out (asymmetrical) the pattern will be out (distorted) and the diamond will not qualify to be a true hearts and arrows diamond. For this reason, true hearts and arrows diamonds are often referred to as 'super ideal cut diamonds'.

To achieve super ideal cut status, the cutter has to be exceptionally well skilled, and must sacrifice much more rough weight (yield) and invest far more time in cutting and polishing this exceptional fine make diamond. Only a fraction of 1 per cent of all diamonds manufactured worldwide meet the criteria to become a super ideal cut diamond. Hence the reason they come at a premium. These super ideal cut diamonds are valued for their rarity and uniqueness, and the quality in their cut. They are sold 'branded' 'co-branded' or 'non-branded' on the world markets.

Branded hearts and arrows usually meet a specific set of criteria guaranteed by vendors of the brand. For example, brands such as Passion8 Diamonds guarantee their perfect hearts and arrows diamonds.

Generally, brands represent standards, guarantees and principles. Passion8 Diamonds guarantees that every round brilliant diamond cut diamond in their collections is natural and conflict free, was purchased from legitimate sources, has been graded excellent for cut polish and symmetry by the Gemological Institute of America (GIA), and exhibits eight perfect hearts and eight perfect arrows. These factors are important when purchasing a product of such high value – a rarity that is destined to last for generations.