

**White Paper**

# **Which Head Style For Me?**



**January 2006**

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## **Which Head Style For Me?**

### **All These Different Racquets, What's The Difference ?**

Plastic, Graphite, Split Cane, Round Cane and even Plastic Coated Cane why so many racquets and why should you buy one over the other. In this article I will try and explain the principle differences between each of the racquets available and the benefits of one over another.

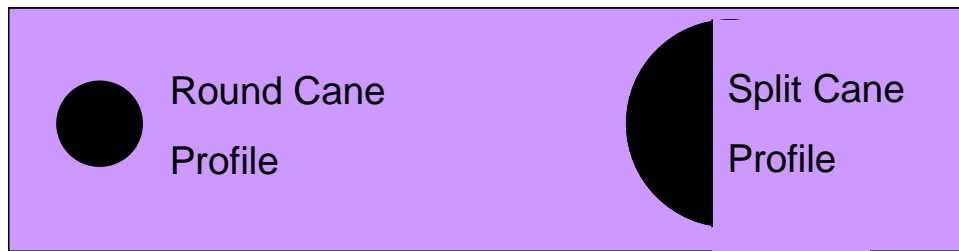
So why should you believe me and not any old racquet seller, I believe I am the only racquet maker in the world who can write such an article with a completely unbiased opinion, for you see unlike all other racquet makers we manufacture each and every style of racquet commercially available in the world allowing me to talk honestly on the merits and pitfalls of each type of racquet. Our competitors however will tell you how wonderful their specific models of racquet are and how all other styles are no good (funny that).

If you have read some of my previous articles you will have already read my statement "that the Type of Head a racquet has is probably the least most important part of the racquet", and this is exactly why there are so many different flavours of racquet heads on the market today. Hence you will notice that what style of head you choose to play with doesn't matter you can still play for your country, Just look at the last World Cup almost every model of racquet was used by one player or another.

That being said the style or racquet head still causes much debate between players and it is for this very reason that we make all styles, Unlike my competitors I believe it is not up to me to tell you what style of racquet you should like.

### **Cane Heads**

Cane head racquets have been in the game since the inception of polocrosse and typically come in 2 styles split cane and round cane. Traditionally polocrosse players almost exclusively used a single piece of round 12mm cane bent into the shape of polocrosse head, whilst in the early days of polocrosse these racquets worked well as the game became faster and harder it was found that the cane used in round cane polocrosse heads was simply not mature enough to handle the pressures applied to it, the traditional round cane head rapidly became a thing of the past as a creative New Zealand racquet maker invented what we now know today as the split cane head. A split cane head as its name suggests is made from a piece of cane up to 25mm in diameter split in half to form a half round profile and then bent into shape, This technique offers the player the lightweight nature and balance of traditional cane heads whilst adding a superior strength to the head.



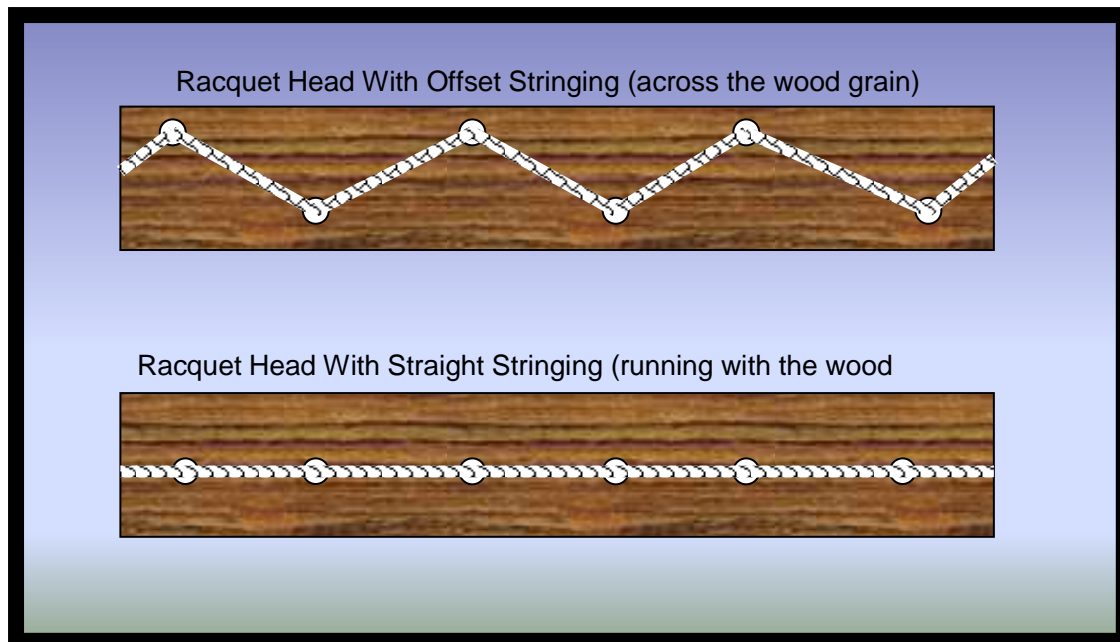
Although still manufactured by a few makers including us the round cane variety of racquets are now almost obsolete as although they are lightweight because of the density of the head they are prone to breaking easily, The split cane head racquets on the other hand are partially robust and are potentially the best feeling racquet you can use. This is because as cane is a natural product it is possible to balance a lightweight head to a lightweight cane or a stiff head to a stiff cane. This is made possible because each and every split cane head is different in weight and flex as is every cane shaft allowing the racquet maker to provide absolute perfect balance.

It is important to recognise that whilst a split cane racquet is probably the best balanced racquet to play with (balance wise) they do need substantially more looking after than a plastic or graphite head racquet. When owning a cane head racquet you must always keep the spreader (provided with the racquet) in the head when the racquet is not in use, This stops the racquet from changing shape if it gets waterlogged or exposed to extremes in temperature.

#### **Traps to beware of when buying and using cane head racquets.**

As cane is a natural product it is important to make sure that each head is free from imperfections that may weaken the head, Whilst it is not always possible to view a new racquet when ordering it be sure to instil in the manufacturers mind that you will not accept a cane head racquet with any imperfections in the head.

All cane head racquets are made from cane obviously a natural timber that like all wood has a grain, it is important to ensure that the holes drilled into the head to house the polocrosse net are offset the avoids the cane potentially splitting along the grain.



### **Plastic Coated Cane Head Racquets**

An innovation developed by us the plastic coated split cane head has now be copied by many other racquet makers around the world. The plastic coated cane head racquet exhibits all of the same advantages and disadvantages of the traditional cane head as outlined above with one important and significant difference. The cane in the head of the racquet is coated in a special highly resilient plastic. This assists the racquet in repelling water and as a result aids in preserving the life of your racquet.

Although this protective coating repels almost all water it is still important to use a racquet spreader (supplied with new racquet) when the racquet is in storage this simply assures that for whatever reason, moisture or temperature variations will not effect the shape of the racquet head.

It also is important to understand that by choosing to apply a plastic coating to your racquet head you do add an additional +/- 10% to the head of the racquet compared to a standard cane head racquet.

### **Traps to beware of when buying and using plastic coated cane head racquets.**

Probably the most important thing to remember when buying a plastic coated split cane racquet is to ensure the maker you are dealing with is reputable, there are a number of makers who have taken to using their reject cane and coating it with plastic so you cannot see the cane in the head. Because many makers use cheap offshore labour to make their racquets and never get to see what cane is under the plastic I generally recommend to people, if your racquet maker cannot honestly say they have personally seen the piece of cane used in your racquet stay away.

Secondly extremely important in the use of plastic coated cane head racquets is maintenance. If you get a hole in the plastic sheath around the cane head it is

imperative you repair it (the best way is with either insulation tape or silicone). Because the plastic coated head is sealed if moisture gets in through a hole or tear it is far more difficult for it to escape than if it was escaping from a standard cane head.

## **Plastic & Polymer Head Racquets**

This is where I get many of the racquet makers offside especially those that only make plastic head racquets. As I personally believe that plastic/polymer heads are probably the worst available racquets playing wise. Don't get me wrong they are not bad racquets by any means. Probably one of the most popular options in the world is the plastic head racquet because of its durability. Typically a quality (notice I said quality refer to traps below) plastic head racquet will outlast a cane racquet 2 to 1. Unfortunately though polymer/ plastic heads are typically mass produced and as such matching the perfect piece of cane to each plastic head is difficult.

Whilst we sell almost as many polymer head racquets as any other model we generally recommend the Polymer head racquets for those who know they are not going to look after their racquet.

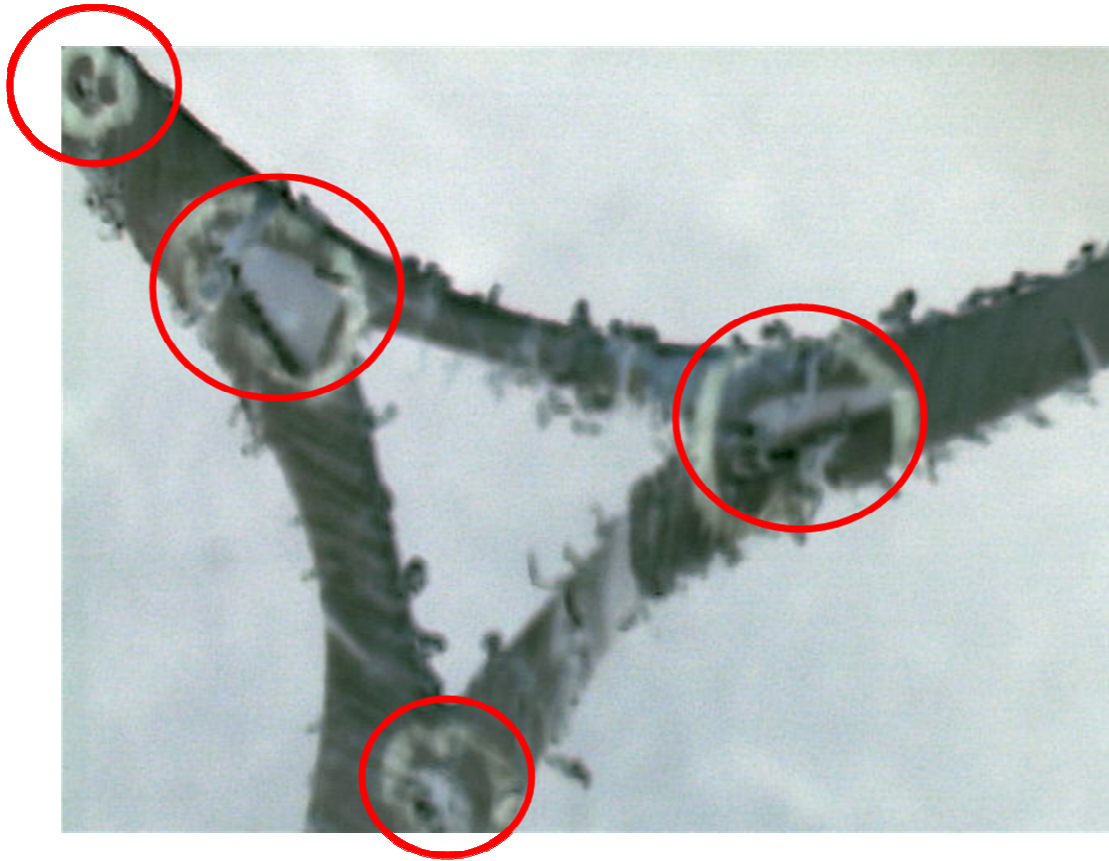
Typically as previously mentioned the major advantage of plastic head racquets is that they are exceptionally robust however probably the two biggest disadvantages are firstly generally all makers' plastic heads are heavier than cane or our graphite heads. Secondly being polymer/plastic they are very susceptible to changing characteristics depending on the whether conditions. For example on a hot day a plastic head will be far more flexible than it will be on a cold day.

Typically recommend plastic head racquets for beginners who are liable to tread on their racquets and don't want the hassle of having to remember a spreader.

### **Traps to beware of when buying and using plastic polymer head racquets.**

Probably the most important factor in buying any plastic head polocrosse racquet is to ask about the manufacturing process. It is critical to ensure your new racquet is free from manufacturing defects. I will explain more below but if your racquet manufacturer either injection moulds their heads or cuts them from sheet material (chopping board) steer well clear.

Injection Moulding, the process of injection moulding has been used to make polocrosse heads by a number of racquet manufacturers most have given the process away however a few still continue. The biggest problem with this process is that it is potentially subject to air bubbles forming inside your head resulting in an uneven density throughout. These air bubbles are obviously weaknesses in the structure of the head and as a result the racquet is often prone to premature breakage. In the real world a manufacturer may be able to reduce the cost of each head by mass producing them with injection moulding techniques however unfortunately in this case the cheaper cost of production is offset by the sacrifice in quality.



**A Picture of Injection Moulded Head sliced down the centre to expose air bubbles.**

My recommendation to all users of plastic heads supplied by manufacturers who injection mould is when your racquet breaks (and it will) slice the broken head down the centre check if it is full of air bubbles and if it is send it back to the maker demanding a refund or replacement.

Beware I know of one specific injection moulded plastic head racquet maker who has had so many racquets break from air bubbles that they now push the 12 month warranty story. That's all well and good you can get a replacement at no cost if your racquet breaks in within the first 12 months but what happens when it breaks and lets you down in the finals? As injection moulded heads only cost next to nothing to make replacing a lot of broken heads is not a concern for such makers I recommend asking them to put their money where there mouth is and offer a refund for racquets broken within the first 12 months.

Cutting plastic heads from sheet material (commonly chopping board) results in a head that is prone to shape shifting in essence after a hard impact the head does not return to shape quickly, whilst these heads are very tough they are typically rather soft resulting in them contorting under pressure, right at the critical moment. In addition as most of these heads are cut from chopping board the plastic is designed for indoor use and as such has not been UV stabilised hence in the outdoor game of polocrosse after a period of time the sun penetrates these heads and makes them brittle.

At RRIOTT Polocrosse we use a secret 3 stage process to make our Polymer heads. Our process allows us to ensure the pitfalls above are avoided and we can assure all of our customers that we do not use any of the processes above.

## **Graphite Head Racquets**

What about graphite head racquets ? well if nothing else they look really good with flash paint jobs and cool graphics. Graphite head polocrosse racquets are used by many a player throughout the world for a couple of reasons. Typically because they are made from aviation ceramics they are very light weight in the head which makes them particularly good for juniors and ladies. The second reason users tend to lean towards graphite head racquets is because they can order the exact same racquet head should they break and existing racquet. Same weight and flex which allows users anywhere in the world to replace their own head and end up with a racquet exactly as it was before it was broken.

Graphite heads are favoured because regardless of environmental conditions they are always the same unlike injection moulded plastic heads that will become soft in hot weather and brittle in cold weather or cane heads that are inclined to fill up with water when playing in the wet.

Because of the inherent stiffness in each graphite head players that like a stiff racquets are partially drawn towards graphite head racquets.

### **Traps to beware of when buying and using graphite head racquets.**

Whilst there is very little to be aware of when buying a new graphite racquet it is important to be aware of the following. Some racquet manufacturers who market graphite head racquets have in the interests making their racquets as strong as possible and in order to keep the price down have opted to use a high fibreglass content in their racquets. Whilst this does contribute to a longer life it makes racquets extremely head heavy. This is obviously only a problem if you buy your racquet sight unseen as you do not have the opportunity to feel it, however it is important that if you buy a racquet via mail order or the like that that you have the protection of a money back guarantee.

The second item to be aware of is that whilst they are stronger than a traditional cane racquet Graphite head racquets will break!! It is a commonly held misconception that because graphite racquets are made from items like carbon fibre and Kevlar that they are indestructible. Not true!! Whilst they are durable graphite head racquets do break and the biggest issue is that when they do unlike cane head racquets that may fracture or split and can be nursed through the rest of a game a broken graphite head is broken and can not be used at all once broken.

## **Summary**

In summary whilst there are many types of polocrosse racquets and heads around the world and I am sure they will continue to develop the general opinion is that none are significantly miles ahead of the rest, when you get down to the nitty gritty some may be more durable but not as well balanced, others may be nice and light but not as strong. Hence the decision really is up to the individual.

Whilst this is my opinion only, I can assure you of one thing a racquet maker that makes only plastic head racquets will tell you that the plastic head racquet is the absolute best. And a racquet maker that makes cane head racquets only will tell you cane head racquets are the best. Obviously these makers are bias and their opinions seldom hold weight amongst serious polocrosse players for if one type of head was better than all the rest then everybody would be using it.

Should you have any questions at all with regards to polocrosse racquets or head selection please feel free to contact me on [jmarriott@polocrosse.info](mailto:jmarriott@polocrosse.info)



### **About The Author**

Jeremy Marriott is a 3<sup>rd</sup> generation polocrosse player from Melbourne Australia his family have nearly been involved in the sport of polocrosse since its inception. Many of Jeremy's family have represented Australia at international test level and every member of Jeremy's immediate family have represented their state at the Australian National Titles.

Jeremy an avid polocrosse player himself and his wife Peta also a representative player run a small prestige polocrosse racquet and equipment business in Australia manufacturing and shipping polocrosse racquets and equipment throughout Australia and the world.

Having played polocrosse almost all his life and been making polocrosse racquets ever since leaving school Jeremy Marriott is considered one of the world's utmost authorities on polocrosse racquets, racquet mechanics and racquet technique. Being a certified NCAS (National Coaching Accreditation Scheme) coach Jeremy has been asked to coach and talk polocrosse events throughout the Australia and the world including at the Australian Institute of Sport.

Currently still playing A Grade polocrosse for the Corio polocrosse club in Victoria, Jeremy is one of the only racquet makers in the world who actually still play the game and as a result Jeremy understands the requirements of the most demanding players.

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