



## Anatomy of a Custom Built Rod

### Part 5 –Guides

By Andres Perez, Blue Bay Custom Fishing Rods, LLC

*Note that the opinions and explanations expressed below are based on personal experiences and are not typical to every custom rod builder.*

*As complicated as rod blanks can be, guides can be just as or even more complicated. Much like blanks, guides come in different styles, sizes and materials. Guide frames are available in either double or single footed and come in a variety of materials such as stainless steel or titanium. The guide ring is also available in different materials and ceramics.*

For the purpose of this write-up, we will cover the most common materials available from some of the major brands of guides, including Fuji, American Tackle, Pacific Bay (Pac Bay) and Alps.

- **Single or Double Foot:** The decision to go with either single or double foot guides is mainly dependant on the power

rating of the rod that is to be built and the type of rod. Single foot guides are more often used on lighter rods, where double foot guides are used on heavier rods. It is also dependent on preference. Many bass anglers prefer the double foot guides on all of their casting rods, no matter the power rating. Lighter spinning rods are often built with single foot guides and heavier spinning rods are built with double foot guides. Fly rods of all weight categories are built with single foot or double foot guide as the stripper guide and snake guides for the remainder of the rod. Double foot guides also provide a wider range of customization with in-lays, patterns and marbling between the two feet of the guides. These types of decorative features are known as underwraps, where the overwrap is what holds the guide's foot to the blank.

- **Material of Frame:** Guide frames come in different grades of stainless steel and titanium. The following is a quick summary of both.
  - **Stainless Steel:** These are the most common due to their high resistance to corrosion and price. Stainless steel is also more rigid and harder to bend. This makes the guide more durable and is less common for the ring to pop out.
  - **Titanium:** Titanium is virtual corrosion free. However, due to the increase in price, most anglers prefer to use stainless steel. Titanium guides also bend easier than stainless steel which allows for the ring to pop out much easier.

- **Material of Ring:** The ring within the frame which guides the fishing line is available in many different materials and ceramics. Most companies produce different quality of materials and not all carry the same. The following is a list of materials available from each of the major guide manufactures listed above:

#### **Fuji:**

- **Silicon Carbide (SiC):** The SiC is Fuji's top quality ring. It is lightweight, and durable. It also is one of their most expensive types of guides.
- **ALCONITE®:** ALCONITE is a black ring. Per Fuji's specifications, it is approximately the same strength and hardness of the SiC ring. The ALCONITE is less expensive without the loss of performance
- **Silicon Nitride (SiN):** SiN is a hard and tough ring that is used for wire lines and larger heavier rods where long runs are expected. The ring's material is an excellent heat dissipater.
- **HARDLOY®:** HARDLOY is one of Fuji's more common rings. At an economical price, they are extremely tough.
- **Aluminum Oxide:** Like the HARDLOY, Aluminum Oxide offers an economical option for a quality ring.

#### **American Tackle:**

- **NanoLite:** These are hard and durable rings. The hardness allows for thinner rings and thus reducing the weight.
- **HALIDE:** Much like Fuji's Aluminum Oxide, these rings are more economi-

cal and are based on the same materials. These are the most commonly used rings by American Tackle.

- **DuraLite:** These are a higher grade of Aluminum Oxide, which allow for a thinner ring and reduced the overall weight of the guide. According to American Tackle, these are the rings that are most popular with rod manufacturers.
- **Zirconia:** These are extremely hard and smooth ceramics. They are also available in silver, gold, "Holographic" and "Tru-Blue".
- **NanoPlasma:** These are similar to the NanoLite; however, they are coated like the Zirconia to provide different color options.

#### **Pac Bay:**

- **minima 4:** These are 304 stainless steel rings with slim profile and light weight when compared to conventional ceramic rings.
- **minima 3:** Similar to the minima 4. These rings are made of 304 stainless steel.
- **PACBAY 4 Stainless Steel:** These are standard in selected boat guides and tops. The steel is infused with chromium and nickel and are also Super Hard Chromed to ensure wear resistance. These are available with various PVD coatings.
- **Tungsten Carbide:** These are extremely groove resistant and are resistance to the corrosive effects of saltwater. These properties make them ideal for Wire Line boat rods. They are also able to withstand the continuous

back and forth abrasion found in down-rigger and wire line trolling situations.

- **Agate:** These are made of natural agate and exhibit unique natural coloration. These guides are the ideal for a classic fly rod.
- **Silicon Carbide (SiC):** These rings are diamond polished to a smooth surface and provide abrasion, corrosion, and thermal shock resistance.
- **Zirconia:** Zirconia has similar qualities to the SiC rings and also presents the ideal surface for applying an incredibly smooth PVD (Physical Vapor Deposition) finish. This creates a low friction surface that actually becomes a part of the ring material making it ideal for braided lines.
- **Hialoy:** Hialoy are strong and durable rings at an economical price. They are made of a herder grade of Aluminum Oxide.
- **Aluminum Oxide:** These are diamond polished with a black surface. These are the most widely used rings and offer strength and durability at an economical price.
- **Titanium Oxide:** These are similar to the Aluminum Oxide and are the most affordable rings offered by American Tackle.

#### Alps:

- **Zirconia:** Zirconia has similar qualities to the SiC rings mentioned above. These rings create a low friction surface that makes it ideal for braided lines.

- **Hard Aluminum Oxide:** As mentioned above, these are diamond polished with a black surface. These rings offer strength and durability at an economical price.

- **Roller Guides:** Unlike the ring guides, roller guides do not have rings. They rely on roller mounted to a frame to guide the fishing line over the blank. Roller guides are typically designed for heavier rods. Therefore, they are provided in a double foot configuration and are available in different grades of stainless steel and titanium.

- **Number of Guides and Placement:** The number and placement of guides on a blank is the most important process in rod building. A properly planed rod will have sufficient guides placed in the optimal location to increase casting distances and properly distribute the force exerted on a blank by the fishing line. Both casting and static load tests are performed on all of our rods, prior to wrapping, to ensure the optimal number of guides and placement for each individual rod.

- **Guide Preparation:** Proper guide foot preparation is a major step in order to minimize the chances of the cracking of the epoxy at the base of the guide's foot. This is an extra step taken by a quality custom rod builder to ensure years of service.

- **Inlays:** Inlays are single or multiple thin lines of threads added to underwraps or overwraps as a decorative feature. They are usually made of contrasting colors as highlights or metallic thread. Some can be extremely elaborate with fading effects

between colors or “olive branch” inlays, which resemble a stem with leaves.

- **Trim Bands:** Trim bands are similar to inlays but are usually done at the ends of a wrap and consist of multiple threads in width. They frame the wraps and provide a contrast that is appealing to the eye.

**Guide Selection:** Most anglers will already have a preference when it comes to the brand and style of guides they want on their custom rod. However, a rod builder will guide the angler and assist in determining the proper guide selection for a specific build.

**Next: Part 6 – Decorative Features**

Thank you for your time and hope to hear from you soon,

Andres Perez  
Blue Bay Custom Fishing Rods, LLC  
[www.BlueBayRods.com](http://www.BlueBayRods.com)  
Miami Springs, FL