

The Natural Angle

VOLUME 18: ISSUE 3

THIS NEWSLETTER PUBLISHED FOR MONETTA FARRIER SPECIALTIES, INC.

Using Hoof Casts to Enhance Farriery: a New Perspective

By Stephen E. O'Grady, DVM and Derek Poupard, CJF

INTRODUCTION

The equine foot, with healthy structures, is superior in its natural or barefoot state as opposed to the shod state with regards to accepting the weight of the horse, shock absorption and dissipating the energy of impact (Davies 2007).

However, the domestic use of the horse invariably necessitates applying shoes for several reasons:

- Protection when wear on the ground surface of the foot exceeds growth at the coronet.
- Maintaining or enhancing functionality such as providing safety and traction
- Therapeutic aid to improve the structures of the foot and treat disease/lameness.

There are many aspects of barefoot methodology that can be applied to, or combined with traditional farriery, and warrant consideration. The first author has been consistently successful in improving the structures of the hoof capsule, especially the palmar section of the foot, in a huge number of horses by leaving the horse barefoot for a short period of time. The use of hoof casts is not new

to veterinary medicine as they are used for fractures, laminitis, avulsions, and countless other problems affecting the equine foot. Recently, casts have gained popularity in farriery to maintain horses in the barefoot state, hoof wall defects, white line disease and compromised feet where shoes are not an option.

HOOF CASTS

Hoof casts have always been used in veterinary practice to treat foot problems when indicated, but I was never an advocate for using them in farriery. My main concern was the restrictive nature of the cast that impeded the physiological function of the foot and the inconsistent methods of application. Recently, Derek Poupard, CJF, DipWCF pioneered a revolutionary new technique for cast application and launched a company

known as Hoofcast LLC. The technique is geared toward providing strength, protection and stability to the hoof capsule yet does not interfere with, or compromise, foot function. There are many reasons why this cast application can and should become a viable aspect of good basic farriery. The use of a foot cast presents a viable option to farriers that can be used on its own merits when necessary, or combined with traditional farriery.

Scenarios where a cast is beneficial:

- Rehabilitating the foot in the barefoot state
- Transitioning the horse from being shod to barefoot
- Permits light exercise when horse is being maintained in the barefoot state
- Stabilizing / increasing thickness of a thin or compromised hoof wall
- Aids in attaching a shoe using nails
- Stabilizing hoof wall defects (toe, quarter and heel cracks)
- White line disease
- Can be used as an alternative to glue-on shoes



Continued on page 2

Continued from page 1

APPLICATION OF THE CAST

The cast application described here will be different than the one currently being used. Trimming the foot prior to cast application is always a crucial step and will depend on whether the foot is being rehabilitated for a hoof capsule distortion, being transitioned to barefoot or going to be shod. Briefly, if the horse is going to be left barefoot, the foot to be casted is brushed briskly with a wire brush, no horn is removed from the solar surface of the foot, the heels of the hoof capsule are trimmed to the plane of the frog if possible and the edges of bearing border of the hoof capsule is rounded using the rasp at an angle. If the horse is being shod, the guidelines for trimming will adhere to the principles of good basic farriery. Briefly, the authors draw a line across the widest part of the foot and trim the foot appropriately, attempting to achieve approximate proportions on either side of the line with the heels of the hoof capsule and the frog on the same plane (**Figure 1A**).

To apply the cast, the outer surface of hoof wall at the heels is cleaned with a rasp and the remainder of the outer surface is sanded using a 3M® medium grit sanding block (**Figure 1B and 1C**). A thick focal layer of an acrylic adhesive compound of your choice is applied to the outer surface of the hoof wall at the heels, as this will act as the anchor point to stabilize the cast. A thin layer of acrylic is randomly spread on the remainder of the outer hoof wall, stopping below the coronet. Starting at the heels, 2- or 3-inch casting tape is wrapped around the perimeter of the foot (**Figure 2A, 2B and 2C**). The cast is applied, without being immersed in water first, as this allows the acrylic to permeate between the fibers of the cast which forms a bond with the outer hoof wall. The cast will extend to just below the coronet and at least 0.5 inches below the hoof wall to create a fold onto the ground surface of the foot. The cast can be thickened at the heels and/or the quarters, by creating some folds by layering the cast back and forth and then enveloping the folds as one continues to wrap around the perimeter of the foot. With the cast in place, a sponge soaked in water is used to thoroughly wet the cast, which causes it to cure. This step is unique to this application, as the acrylic incorporated in the cast that adheres to the outer

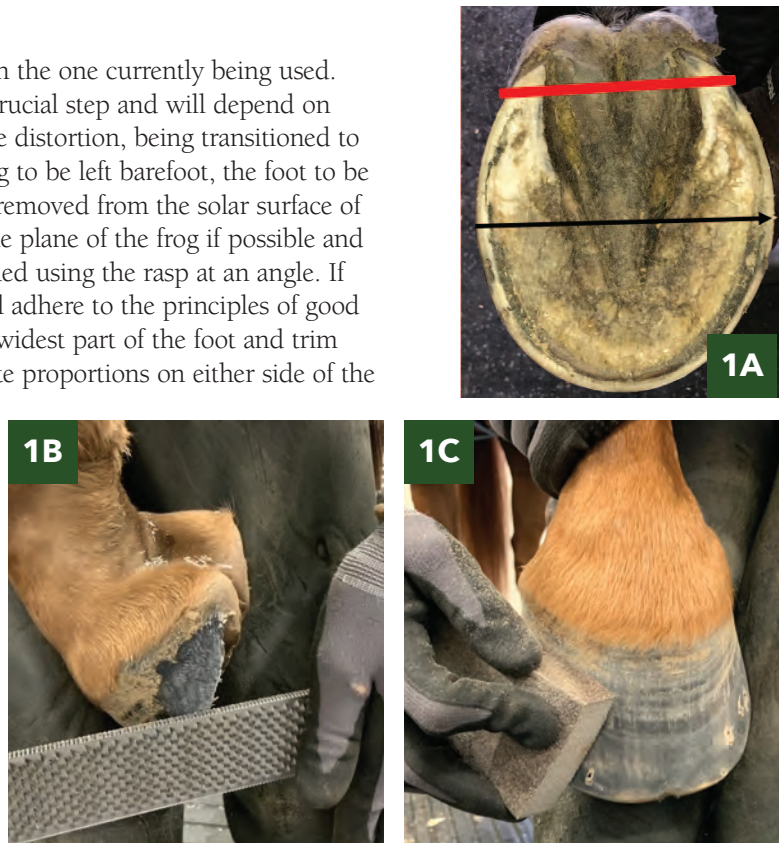
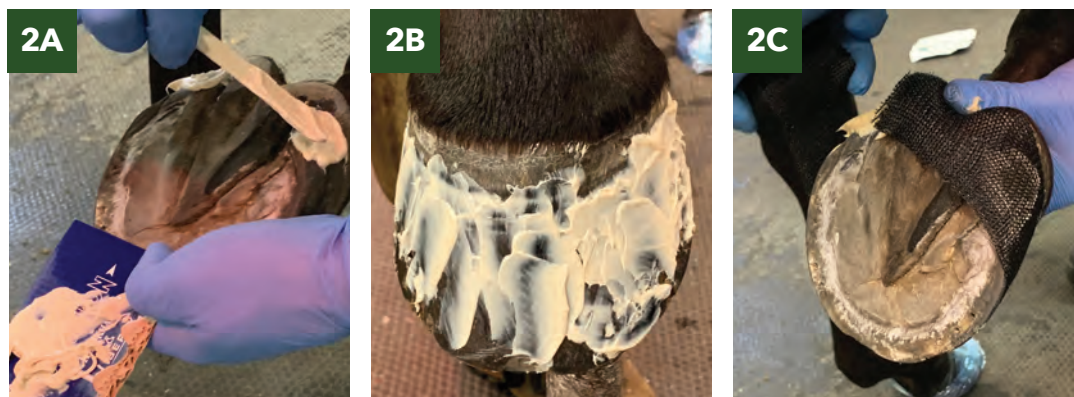


Figure 1. (A) Foot being trimmed to remain barefoot shows a black line drawn across the widest part of the foot, approximate proportions on either side of the line. The red line shows the hoof wall and frog on same plane. **(B)** The heels being cleaned with a rasp on outer surface of the hoof wall. **(C)** Outer hoof wall being sanded to remove any debris.

Figure 2. (A) A thick layer of acrylic being applied to the cleaned heels. **(B)** A light coating of acrylic applied to the outer surface of the hoof capsule. **(C)** Cast is started at the heel and continued around the perimeter of foot (note how the acrylic permeates the casting tape).



Continued on page 3

Continued from page 2

hoof wall is now beginning to cure and the water added to the cast now causes the cast to cure. Interestingly, neither the reaction of the acrylic or the cast interfere with the other. Finally, the cast is covered with plastic wrap and the foot is placed on the ground to flatten the cast on the solar surface of the foot. (Figure 3A, 3B, 3C and 3D).

The most unique part of this application is removing the section of cast that bridges the bulbs of the heels. Once the cast has cured, using the edge of the rasp, the cast is scored on either side of the frog from the frog sulci to the edge of the cast at the hairline of heel bulb. The score lines are now cut through using a thin hoof knife or some form of saw blade or gigli wire. The first author uses a hacksaw blade handle (available from Amazon®) which can be used with one hand and cuts easily through the cured cast. The section of cast that covers the base of the frog is removed and the edges of the cast are smoothed with a rasp and blended with the heel bulb (Figure 4A & 4B & 5C).

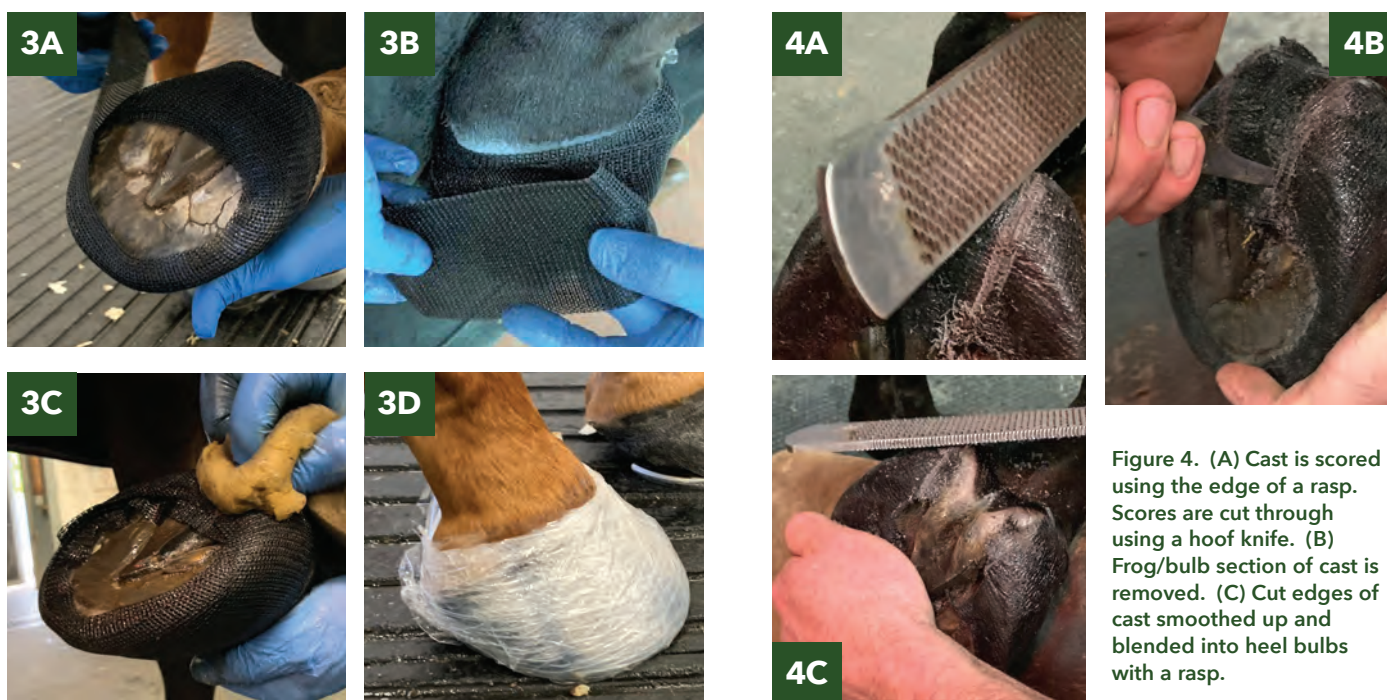


Figure 3. (A) Cast folded and covering the bearing border of the foot. (B) Cast folded back and forth to increase thickness. (C) Sponge used to wet cast when in place. (D) Foot covered with plastic wrap.

Figure 4. (A) Cast is scored using the edge of a rasp. Scores are cut through using a hoof knife. (B) Frog/bulb section of cast is removed. (C) Cut edges of cast smoothed up and blended into heel bulbs with a rasp.

Continued on page 4

SO MUCH EXTRA AND NOW CLIPPED

THE NEW KERCKHAERT SX-10 IS NOW AVAILABLE WITH CLIPS

Kerckhaert SX-10 Clipped and Unclipped Front and Hind

Excellent choice for farriers looking for additional strength, wear, nailing and modification options.

CLIPPED SIZES: 1, 2, 3

UNCLIPPED SIZES: 0, 1, 2

QUARTER CLIPPED FRONTS

SIDE CLIPPED HINDS

[LEARN MORE AT WWW.FARRIERPRODUCTS.COM](http://WWW.FARRIERPRODUCTS.COM)

Continued from page 3

Figure 5. (A, B) Lateral, dorsal, and solar view of the cast in place. (C) Note the protection and stability of the heels.

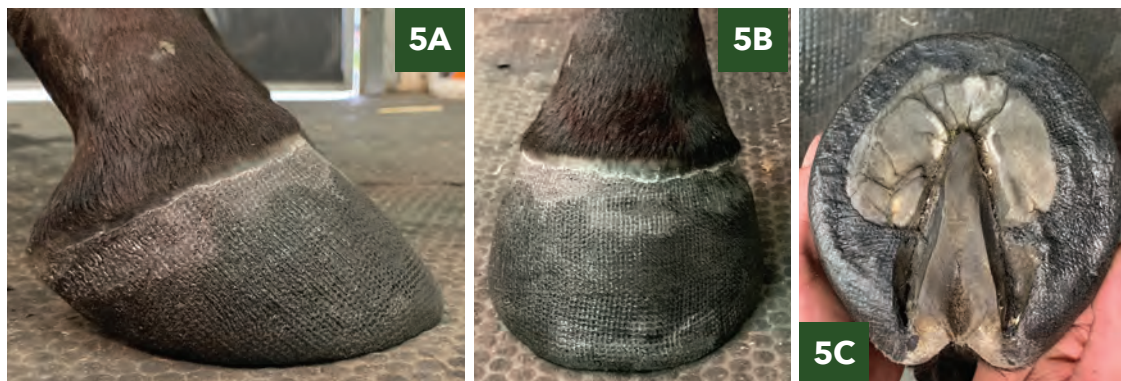


Figure 6. (A, B) Lateral and dorsal view of a foot with a shoe applied after application of a cast.



Finally, any cast material above, or at the coronet, is removed by light rasping as the acrylic does not extend to coronet, so cast is not adhered to this area (Figure 5). Following the curing process, a shoe can now be applied to the casted foot (Figure 6).

CONCLUSION

Let's be clear, the authors are not advocating hoof casts as an alternative to farriery - rather an option to combine with or enhance good basic farriery. It can readily be noted, the application of a hoof cast, as described above, adheres to the outer surface of the hoof, affords protection, and provides strength and stability to the hoof capsule while allowing the full physiological function of the foot. The increase bulk added to the hoof wall allows a shoe to be attached in cases where nailing was difficult. Furthermore, the cast forms an interface at the heels that adds protection and decreases wear that arises from the heel moving against the shoe during weight bearing. This method of cast application has huge implications when considering any aspect of farriery, whether the horse is shod or barefoot. The reluctance of many veterinarians, farriers and horse owners to remove the shoes to rehabilitate the hoof capsule or transition to being barefoot is the initial discomfort the horse may experience and the damage to the hoof capsule without the protection of a shoe. Here is a hoof cast application that will bridge that gap, while allowing the structures of the hoof to adapt, strengthen, change foot conformation, and restore. The potential uses for this hoof cast application are unlimited and only now being imagined. ■

Dr. Steve O'Grady operates Virginia Therapeutic Farriery which is a referral practice devoted to therapeutic farriery located in Keswick, Virginia. Website: <https://www.equipodiatry.com>
Disclaimer: Dr. O'Grady has no financial interest in Farrier Product Distribution (FPD) or Hoofcast LLC but routinely uses and recommends their products in his veterinary practice.
Derek Poupard is the head farrier for Godolphin with locations in Dubai and Newmarket, England. Disclaimer: Derek Poupard has a financial interest in Hoofcast LLC.

MAKE THE CHOICE FOR BETTER RESULTS

CHOOSE LIBERTY NAILS



LIBERTY HYBRID NAILS

The bevel angle on the trademark face allows the nail to lock in better in all types of shoes punched for E-Heads, including concave. The slightly larger specifications of the shank immediately under the head provide additional strength and better fit in the pritcheling of the shoe.

AVAILABLE IN STEEL AND Cu SHIELD SIZES 2, 3, 4, 5 & 6



LIBERTY LX NAILS

The LX style nails are a hybrid head design that is similar to the E head but is more rectangular. Often used in rim or concave style shoes, but also in European style flat shoes as well.

AVAILABLE IN STEEL AND Cu SHIELD SIZES 50, 55, 60, 65 & 70

VIEW THE FULL LIBERTY NAIL LINE AT FARRIERPRODUCTS.COM

Keep Your Belts Clean For Increased Efficiency and Longer Life

We have all heard the sayings “time is money” and “wasted time is wasted money.” The use of grinders to modify shoes and buffers to dress hooves not only improves time efficiency; it also reduces wear and tear on the body by eliminating the need for additional forging, hot rasping or the use of a finish file. Using grinders and buffers becomes inefficient when one does not care for them properly, causing a premature end to their usefulness.

Improvements in abrasive component technology have greatly enhanced material removal rates and the life of the abrasive. However, without proper care, belts and sleeves can have their lives shortened, even with the new improvements. One of the primary reasons for shortened belt life is loading. Belt loading tends to occur most often when grinding or sanding non-ferrous metals such as aluminum.

Using grinders and buffers becomes inefficient when one does not care for them properly.

It can also occur when working with softer materials such as leather and urethane pads or, in the case of buffer sleeves, hoof wall material. In any of the aforementioned cases, the material being ground away becomes trapped in-between the abrasive particles to the point that there is no longer definition between the particles. Cutting performance is greatly reduced when this happens and it is often incorrectly assumed the belt has reached the end of its serviceable life.

Luckily, belt loading is easily remedied in seconds with the use of a rubber belt cleaning stick. With regular cleaning you can expect to see increased belt life and reduced working time. The steps below show the proper use of the rubber belt cleaning stick to save you time and money. ■



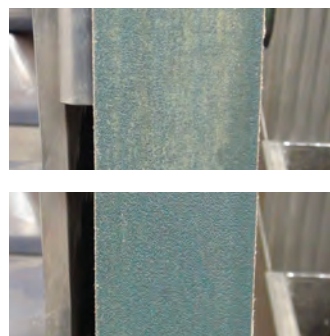
A zirconia belt with material loading present.



To clean belt, place rubber cleaning stick on belt at a 45° angle.



Turn on grinder. Maintain contact with belt and sweep side-to-side to clean.



Belt Comparison
(Top) Dirty, (Bottom) Clean



A hoof buffer sleeve loaded with hoof material.



To clean sleeve, hold buffer against rubber stick and run drill. Sweep buffer side-to-side until material is removed. Be sure to set drill direction to ensure rotation is throwing material down and not up.



A clean hoof buffer.

TOOL TIPS

MAINTAINING YOUR HOOFJACK HOOF STAND: CLEANING THE TENSION KNOB

The tension knob of the Hoofjack hoof stand is put under a lot of stress with daily use. Tightening and loosening the knob allows dirt and other particles in the threads to build up in the nut over time. This buildup can wear tension knob threads, eventually causing it to become loose or not tighten at all. It is important to note that the threads of the tension knob are designed to be softer than the threads in the nut. This is to prevent damage to the nut. Over-tightening of the tension knob can cause premature wear or damage to the threads, so be sure to hand tighten only. With a little bit of preventative maintenance (every 30 days is recommended) and care, you can prolong the life of your tension knob threads.



NEW TENSION KNOB (RIGHT) COMPARED TO HEAVILY WORN TENSION KNOB (LEFT). THIS IS AN EXTREME EXAMPLE THAT DOES NOT REFLECT NORMAL WEAR AND TEAR.



RUN A 3/8"-16 TAP THROUGH THE OPENING OF THE TENSION KNOB NUT – A SINGLE TIME SHOULD BE ENOUGH.



RAZOR+

LONGER LIFE – ENHANCED PERFORMANCE

"I've used the RAZOR Plus on 100 horses so far. It's the best I've seen yet. The smooth side is really smooth and the rough side is really aggressive. It doesn't clog."

Ed Reardon, Missouri

"The RAZOR Plus is awesome! It lasted a long time for me."

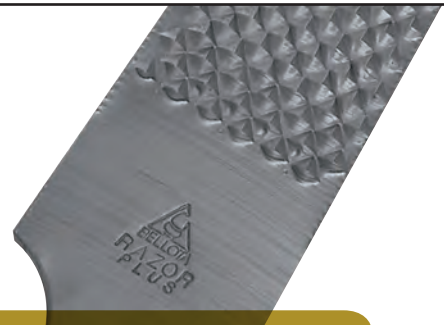
Eddie Williams, Kentucky

"I really like the RAZOR Plus. It held up well and did a nice job for me. I will use this rasp."

Bobby Menker, Kentucky

"The RAZOR Plus is a very good rasp. I love it. I've done a lot of horses with it and it has held up well. I will buy more."

Dennis Passa, Minnesota



LEARN MORE AT WWW.FARRIERPRODUCTS.COM



RUN YOUR TAP THROUGH THE NUT UNTIL THE TIP IS VISIBLE INSIDE THE SLEEVE.



TENSION KNOB NUT VIEW.



THE TAP AFTER CLEANING. NOTE THE DEBRIS ON THE TIP.



Spend Less, Get 30% More

Vettec 210cc cartridges hold 30% more material and cost less, giving you more value for your hard-earned money.

VETTEC EQUIPAK CS

- 60 Second Set Time
- Auto-Mix Cartridge System
- Copper Sulfate Infused

VETTEC ADHERE

- Very Low VOC (volatile organic compounds)
- Auto-Mix Cartridge System
- High Strength Urethane Adhesive
- 60 Second Set - Weight-Bearing in 3.5 Mins



View the full Vettec Equine line at farrierproducts.com

NEW

THE KERCKHAERT STEEL COMFORT SPORT



Clips between the second and third nail holes



Marked to drill for traction devices in the heel area



Punched for E-head, Hybrid, and 5 Combo Slim



V-Crease



5 nail hole pattern



Sole relief

learn more at farrierproducts.com

THE NATURAL ANGLE is published to provide you with new and useful information about the industry. It is published through a cooperative effort of FPD, Kerckhaert Horseshoes, Liberty Horseshoe Nails, Bellota, Bloom Forge, Vettec and your supplier.

Articles in this publication are the property of *The Natural Angle* and cannot be reprinted without express permission. For information concerning reprints, please contact Dan Burke, FPD, P.O. Box 1328, Shelbyville, KY 40066 or Email: fpd@farrierproducts.com.

If you have questions, comments or ideas concerning the articles published in the Natural Angle, please contact your distributor. We welcome your input. *The Natural Angle* is designed and edited by Graphic Response. ■

Find These Quality Products Monetta Farrier Specialties

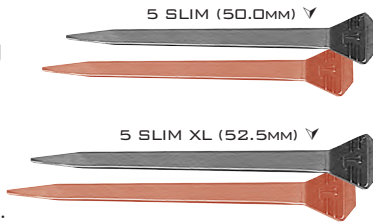
Classic Roller Clipped

This half round style boasts more ground surface than a true half round, but you get the full benefit of ease of break-over that half round shoes are noted for. The full shape of the front pattern allows for easy fitting. The width gives a great base of support. Available in quarter clipped or toe clipped front, side clipped hind. Classic Roller Fronts are symmetrical. Punched for E-head.



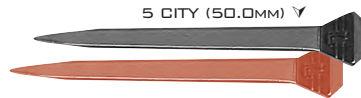
Liberty Slim Nails

Slim blade nails are used primarily for riding horses. The slimmer blade is preferred by many farriers because it displaces less hoof and reduces damage to the wall. The head sizes are often the same as their City head counterpart. Available in Steel and Cu Shield.



Liberty City Nails

City nail blades are slightly larger in dimension than Slim nails to provide more strength and durability. Available in Steel and Cu Shield.



Bellota Top Level Rasp (14")

The Bellota Top Level rasp is 12% wider (2" wide) and 10% thinner than regular rasps for perfect leveling balance and control. Aggressive rasp side (8 teeth/row) for easy cut, ideal for trimming and intermediate file side for excellent and efficient finish. Same weight as regular rasp models.

Bellota Top Level Long Rasp (17")

A longer version of the Top Level, ideal for larger hooves.

Outfitting Southeastern Farriers for Over 30 years

GREAT SERVICE AND QUALITY FARRIER SUPPLIES ARE OUR PRIORITY

MONETTA
FARRIER SPECIALTIES, INC.

MONETTA
FARRIER @TRYON

Aiken, SC
803.685.5101

Columbus, NC
828.894.0280

www.monettafarrier.com

Return Service Requested

Monetta Farrier Specialties, Inc.
1755 Park Ave SE
Aiken, SC 29801

FIRST CLASS
U.S. POSTAGE
PAID
HAGERSTOWN, MD 21740
PERMIT NO. 184