MANUFACTURING PROCESS

Posted by Scott

Sep 11

I can say that without a doubt we are the premier mouth guard company in the world. We started from manufacturing guards on a vacuum forming machine and then graduated to the thermoforming process. I believe that it is very important for customers and potential buyers to understand how a custom mouth guard is manufactured and what they are actually paying for. Every mouth guard we make is completely custom starting from the first layer. I want this particular blog to be understandable for everyone that reads it so I will not be using a lot of dental words that no one understands to explain the process. This is meant to inform you on the process the many companies are using and how a Python Guard differs from these processes. I recently attended a sports dentistry convention where they showed dentists how to manufacture custom mouth guards. The dentist giving the instruction has lead the Sports Dental Association for many years and is highly regarded in the field of sports dentistry. The dentist were presented a mold of the mouth and showed how to manufacture a guard without any graphics. The dentists applied two layers of mouth guard 3mm thick and then trimmed the edges of the mouth guard. This is the method they are teaching dentists using a thermoform machine but many dentists only use a vacuum form machine which is only 1 layer thick and the thickness is only able to be controlled by the size of the material that is used. The process took approximately 30 minutes to perform and costs you around $300.00. The problems that I saw with how they manufactured their mouth guards were mainly pertaining to thickness. The dentists have a large amount of clinical knowledge but lacked the practical knowledge required to make a usable custom mouth guard. If you’ve never used a custom mouth guard it’s very difficult to understand where thickness is needed and where thickness is a hindrance.

Python Guards starts with 2mm material that reduces itself to 1mm after heating. Instead of putting another 2mm material on top we start hand building just the outside of the guard (outside of teeth) until we reach the desired thickness while following the shape of the customer’s mouth. Once we reach the thickness desired we grind the guard until completely smooth. Then we place the colored material on top of the built up guard so that it seals the over the edges of the first layer. We then place the graphic on top followed by 2 mm clear material. The process we use is not followed by any other mouth guard company because it takes approximately 4 hours to manufacture 1 mouth guard and costs around $95.00. The thickness on the inside of the guard is around 2mm thick but most importantly it fits comfortably because we start with a thin layer. Because I have the clinical and
practical knowledge from training as a fighter I understand exactly where mouth guards can be uncomfortable and overly thick but just as important I understand what is comfortable. I use MMA as an example because it is a sport that requires a huge amount of cardio but this same technique is used for all mouth guards manufactured by Python Guards. Dentists may not like what I’ve stated but it’s time for clients and customers to know what their purchasing and how mouth guards defer from manufacturer to manufacturer. My goal is to educate people thinking about purchasing mouth guards not sell them on how good Python’s custom mouth guards are. As long as individuals know exactly what their buying then I’ve done my job.

Priority #1 —is You!

Posted by Scott

Sep 11

Python Guards was started with a vision and that vision was to become the top manufacturer of custom mouth guards in the world. Today I can say that we have become one of the leading manufacturers of mouth guards in the world but only because of the customers we have. Many companies forget where they come from and who got them there. We have never lost site of the customer and that is why we will always be grateful and in debt to all of our customers over the past few years. With this in mind I want to make sure that everyone knows and understands that I am always available to answer any question they may have no matter if it deals with a mouth guard or helping them obtain a fight. We are here to serve you and make sure you get exactly what you pay for whether we’re making a mouth guard for an NFL player or an amateur fighter, everyone is treated equally. Python Guards makes customer service our top priority because we understand that without you we wouldn’t be making Mouth Guards. The reason that I felt it was important to discuss this issue was that I want everyone who orders a mouth guard from us to understand that I am always reachable and that at no time will you ever burden me with a phone call, text or email.

I also have a contact form on this blog and the contact form on our main website Python Guards

Choosing a Design

Posted by Scott
Over the past 3 years I have compiled customer feedback which has enabled me to make changes to how we conduct business to better suit our customers. One of the top issues is how and when do you choose the design of the guard. I want to first discuss is how to come up with your design. Python Guards spends a huge amount of time coming up with designs and trying new techniques to make us one of the premier mouth guard companies in the world. The major keys to coming up with and making designs work is the amount of space allotted to work with. We have approximately ½” to ¾” of an inch to work with and we have to stay away from the top edge of the guard about 1-2mm so that the material has something to bond too. When choosing a design we generally stay between the left k9 and right k9, anything past those areas is invisible to someone looking at the guard. I look at a mouth guard much the same way as a tattoo artist looks at skin, most things are possible but some things are impossible. In order to come up with a design that you happy with you have to have clean art work, meaning if it’s a low resolution jpeg file I will have to redraw it as line art (a vector file). Programs such as paintbrush use pixels (small squares) to draw lines which leave a jagged edged line instead of a straight line like a pen or pencil would. So if it’s a jpeg, tif, or bmp extension I will more than likely have to redraw the item. Hopefully this bit of information will aid you in choosing a design that will make your mouth guard come alive. Most importantly remember the space requirements are ½” to ¾” tall and 2” – 2 ¼” long.

Now that we have discussed how to choose a design that will work in the amount of space provided we need to discuss at what point do you send the design to me. As you can see there are over 100 designed guards on the website ranging from fangs to pictures of the last supper. When you first order a Python Mouth Guard you will receive an impression kit and a set of instructions. In the set of instructions you will notice that it tells you to download the lab script from the web site under the “Lab Script” link on the left side of the page. This lab script lets me know the color of the mouth guard along with a block that tells me what you want. After you fill out all of the information and have completed the impression you will then place everything inside of a box, at this time you can place any pictures of the graphic or a picture of a guard you have seen inside the box with all of the information. If you do have the electronic image of the graphic please send it to graphics.pg@gmail.com. The sooner you send the graphic to me the less time it will take to manufacture the guard. If you have a questionable graphic that you think may be difficult send it prior to ordering the guard. I rarely run into a situation that doesn’t work out but there is always the possibility of a graphic turning out incorrectly. We have added an extra step in the process which has improved our quality control greatly. Prior to the last layer being placed on the mouth guard we send a picture to you for verification so that you can see what the guard looks like prior to completion. I hope this answers all of your questions pertaining to graphics and the limitations of the graphics.
When MMA blew on the scene in the early 90’s there was very little protection required and very little thought was put into the fight gear of a fighter. Since then we have seen advances in nearly every aspect including mouth guards. My job as a manufacturer of mouth guards is to design a mouth guard specifically for MMA. MMA mouth guards and boxing mouth guards are designed specifically to distribute the blow through out the mouth instead of just at the point of impact. We take care in only building up the facial (outside) of the guard so that the MMA mouth guard isn’t thick on the inside, which causes most individuals to gag. Many manufacturers are just adding 2 3mm pieces of material to build up the guard. This is a very quick but inefficient way of manufacturing guards for sports such as MMA and boxing. A huge benefit to the MMA mouth guard is that Python mouth guards extend as far up as possible to protect the roots of the tooth. Like traditional boil and bite mouth guards many manufacturers are just going up slightly above the teeth which doesn’t do anything to keep the teeth in place when someone takes a shot to the face. Python mouth guards are not designed just for pro athletes at the top of their game, everyone can benefit whether you’re just getting into the sport, sparring or an amateur. The most ridiculous statement I hear from a fighter is, “I can’t afford a custom mouth guard”. The dental industry makes a ton of money on replacing teeth every year but many times you can’t just replace one tooth because it requires a 2 or 3 unit bridge, which destroys a tooth on either side. The standard cost of a 3-unit bridge is about $1200.00; the price of a Python mouth guard is around $95.00 so you do the math. It’s my job to manufacture the best and most functional mouth guard in the industry and I pride myself on the fact that we understand what our customers need and what they expect out of a mouth guard.

Pro Guard Plain – A single colored mouth guard
Pro Guard with text – A single colored mouth guard with a single name across the front, the text man is multi-colored.
Guard with multiple writing – A single colored mouth guard with as much text as you can fit on the mouth guard.
Guard with 2 color split – A 2 color guard that can be split vertically either in the center or off center. Price also includes text of choice.
Guard with custom logo – A single colored guard with your logo. The file with the logo is preferred in .ai, .eps, or a vector file, high-resolution jpg files are fine as well.
Marbled Guard – This guard design was originated by Python Guards. The guard has a single background color with a color swirled on top, see photo page for examples. Note: red looks pink on a white back ground.
3-color split – You get a choice of 3 different colors to be placed on your guard. This style works really for individuals that want to mimic a country flag.

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About this blog

Thank You for checking our blog. We are committed to keeping you up to date on the latest happenings, newest products from Python Guards. We also will be talking about general industry topics. If you have something you would like us to talk about here, use the contact form and let us know!