- Why go to a bigger diameter disc?
- What materials do you use to make your rotors?
- Laser cut vs. stamping
- Why the Wave® pattern?
- Do holes in discs help?
- Stainless Steel vs. Nylon or Rubber line
- Does Galfer make brake calipers and levers?
- Who does the testing on Galfer products?
- Why do your front sportbike line kits not follow the stock routing?
- What brake pad material should I use?
- What is the difference between your line kits?
- What is the difference between your rotor options?
- Who can I call if I have more questions?

**1. Why go to a bigger diameter disc?**

*A larger diameter disc provides more power and modulation. By using our CNC billet aluminum bracket and moving the caliper outboard, you multiply the braking force applied to the front wheel. You also increase modulation or the ability to control braking forces, specifically at the upper end of the braking spectrum right before wheel lockup occurs. As a byproduct of the larger rotor, you also increase thermal mass or the ability to dissipate heat. This in combination with our patented and trademarked wave and tsunami rotor designs provides optimum cooling for any application. The only downside to a larger rotor is that it is now slightly more susceptible to damage from rocks, stumps, and other objects while riding. For this reason, many of our customers as well as pro race teams run rotor guards to keep their Galfer oversize rotors out of harm's way. Most aftermarket guards will accommodate up to a 270mm rotor just fine.*

*On the street, rotors are already big. Additionally, to help with distributing braking power to both sides of the wheel, many high performance machines have a dual rotor set up.*

**2. What materials do you use to make your rotors?**

Galfer uses only virgin 420-high carbon stainless steel for all of our brake rotors. Metal has a memory which means that when you heat up a piece of metal and it expands, good memory characteristics allow it to go back to its original shape without much deformation from the original shape. It's as simple as this: It goes back to its original shape and specs faster. The reason we use virgin steel instead of recycled is we can control the level of contaminants in the steel offering consistent steel composition from one rotor to the next.

**3. Laser cut vs. stamping**

*While stamping is great way to mass-produce large quantities of rotors, it is not the best for performance applications. Stamping is a fairly violent procedure where extreme forces are applied to the material in order to punch out the desired shape. The material can easily be warped during this process and the material will retain memory or trauma even after grinding or heat-treating is performed. Stamping tolerances also vary greatly with the age of the tooling, as the dies degrade with each use. Although it is not the cheapest, or fastest method, Galfer decided long ago to laser cut all of their rotors. This process provides the most consistent cut quality and leaves the rotor substantially flatter than stamping. Due to the short lead-time from R&D, to design and testing, it also allows us to come to market with new applications faster than many of our competitors and continuously improve our designs without the need to retool.*

**4. Why the Wave® pattern?**

The Galfer Wave® rotors are more than a design feature. On a normal round rotor, the leading edge (think toe-in) of the brake pad is in contact with the entire height of the blade as the pressure is applied. Because the contact covers the entire height of the blade heat buildup takes much less time to occur and you end up with heat related problems like brake fade, thermal lockup, and inconsistent braking performance. What the Wave® pattern does is take that leading edge of contact between the blade and pad and constantly move it up and down, thus minimizing heat build up and its inherent problems. Cool air is also introduced in greater amounts. In addition, through centrifugal force, any foreign matter is thrown clear of the outer rim of the blade and doesn't get lodged in the pad material.

**5. Do holes in discs help?**

Well, it depends what you mean by "help". Holes in the "blade" of a disc (the part that the brake pad sweeps over as it is in motion) will save a bit of weight but contrary to public opinion, they do not help to cool a braking system. Notice on Moto GP motorcycles and most race cars, there are no holes on the rotors. There are actually situations where holes can be detrimental to your braking. In muddy conditions, dirt gets trapped in these holes and proceeds to chew up pads that, in turn will chew up rotors because of the constant uneven abrasion between the pads (which have the dirt imbedded in their surface) and the rotors, which get gouged to heck by that dirt. If you'll notice, if there are holes in a Galfer rotor, they are never round. They are usually oval, teardrop or cylindrical in shape so that foreign debris is directed away from the rotor via centrifugal force.

**6. Stainless Steel vs. Nylon or Rubber line.**

If there is one item you can get that will make an instant, noticeable improvement to your brake feel and performance, switching to a stainless steel braided line is it! When you squeeze your brake lever and force fluid through the hydraulic line to the caliper, the line expands under pressure. This means that a good portion of the effort you put forth from your hand DOESN'T get to the caliper! It makes the line expand. By switching to a stainless steel braided brake line, you restrict the lines expansion characteristics. This means that your hand pressure goes directly to the caliper.

**7. Does Galfer make brake calipers and levers?**

No. In the past, Galfer has made billet aluminum calipers for a few motorcycle observed trials applications. Galfer products are specifically designed to make your current braking system better, regardless of their manufacturer.

While Galfer USA does not make brake levers, we do offer a full line of Accossato brake and clutch levers.

**8. Who does the testing on Galfer products?**

Galfer USA tests every product we sell through our R&D Department and our Racing Teams. Galfer USA supplies athletes and teams in road racing and off-road with rotors, pads, and lines. Each product is tested in real world race conditions, and then, through constant feedback, we adjust and perfect each piece making it ready for the consumer market. Teams like Red Bull Road Race Factory, JCR Honda, Meen Motorsports, JRGMX, Rockstar Energy Factory Husqvarna, HMC/ KTM, Cycletrader.com Rock River Racing, and Lucas Oil Troy Lee Designs KTM are among the many teams that use and test Galfer braking products. In fact, the same products available to the consumer are the same products used by our race teams.

**9. Why do your front sportbike line kits not follow the stock routing?**

Almost all of our front line kits are 2 line systems that have both lines exiting from the master cylinder and then going down to their respective calipers. We have found that this type of routing allows for shorter lines, which allows for a firmer brake feel. Read more brake line installation information.

**10. What brake pad material should I use?**

All of our brake pad materials are made with you and your riding style in mind. Take a look at our brake pad section to help determine which pad material will be best for your type of riding. To help you make your decision, check out our brake pad friction chart, or watch our video guide to brake pad compounds. You can also give us a call, we would be happy to go over this with you 1-800-685-6633.

**11. What is the difference between your line kits?**

All of our line kits are application specific, meaning not all of our brake line options are available for every bike. For a list of what brake line kits are available, take a look at our brake line section. To help determine what kit may be best suited for your bike and riding style, check out our brake line kit video below or give us a call 1-800-685-6633. Once you've purchased your brake lines, be sure to read our brake line install tips.

**12. What is the difference between your rotor options?**

All of our rotors are application specific, meaning not all rotor options are available for every bike. For a list of what types of rotors are available, take a look at our rotor section. To find out what rotors are available for your bike and to help determine which will be best suited for your type of riding style, check out the rotor video or give us a call 1-800-685-6633

**13. Who can I talk to if I have more questions?**

If you have further questions, please feel free to Contact Us.