Ping G400 Fitting Overview

Every 18 months, the golf industry asks the question “what will Ping do next?” For good reason, as Ping has always been one of the leaders in the golf industry when it comes to innovation. Many of the concepts and designs that you see in golf clubs today started out in a Ping golf club (the anser 2 putter, cavity back irons, etc.) Karsten Solheim, the founder of Ping, was not afraid to challenge conventional wisdom, or to think outside the box when it came to the design of a golf club if he felt that it would make the club perform better. That philosophy has not changed in the 50 years that Ping has been in business.

With that in mind, we are at the point now where Ping is due to release a new line of “G” product. The new product was announced on July 10th and is named G400. For the Driver, there are three different models that are designed for different players. The Standard G400 is designed with more of a neutral bias and is designed for the majority of golfers. The G400 “SF Tec”, or Straight Flight Tec, is designed for the golfer who tends to fade the ball too much. The SF Tec has internal weighting and a slightly closed clubface to help that player correct their big miss. Finally the G400 “LS Tec” or Low Spin Tec is designed for the stronger player who needs help in reducing their spin rate in order to maximize the distance of their tee shots. All three of these drivers will retail at $399 with the stock Alta CB shaft. There is a Tour Shaft that Ping offers for a $35 upcharge in the G400, along with a few different aftermarket options that will be available for a $75 upcharge.

So what is new about the G400 driver? The short answer is, a lot. For starters, Ping has reduced the size of the G400 driver from 460cc to 445cc, which is interesting because Ping has always been a company that is known for producing a forgiving golf club, and reducing the size of a driver will generally make that club less forgiving. The reason Ping reduced the size of the G400 driver is aerodynamics. The smaller head allows the player to swing the club faster, which will yield more distance all things being equal. More speed is great, but not at the expense of forgiveness which is where it gets interesting. Ping was able to save more weight in the clubface and the crown of the G400, which allowed them to take that weight from areas of the club where they did not want it, and move it to areas where they do want it (low and back). Because of these weight savings, the G400 actually has the lowest and deepest center of gravity of any Ping driver, along with the highest Moment of Inertia of any Ping driver. Moment of Inertia, or MOI, relates to an object's resistance to twisting, and the more a golf club twists on a mis-hit, the less forgiving that particular club is. Being able to combine the lowest Center of Gravity along with the highest Moment of Inertia in a 445cc clubhead will allow for faster clubhead speeds combined with more forgiveness. This combination will lead to longer and straighter tee shots for the golfer.

Of course this is all great in theory, but if all this technology does not perform in the hands of an actual human being it is all for nothing. Or put another way, it time to show the numbers! For this test, we are going to take a look at the numbers from a fitting that was done for one of our instructors from the Kendall Academy, Scott Hayes. Scott is a very accomplished

golfer who played golf for the University of Michigan for 4 years, along with competing professionally. Scott was playing the G LS Tec Driver with 9 degrees of loft set at standard, with a Graphite Design Tour AD DI 6X Shaft. His main concerns with his current driver were not being able to hit a draw as easily as he would have liked, and also that he felt like he might have been losing carry distance due to his spin rate being too low. All of the data shown below is with Scott's gamer shaft put into each head with various settings with the goal of improving on his gamer driver.

Head	Club Speed	Ball Speed	Launch Angle	Spin Rate	Carry	Total	Land Angle	Height
Gamer	109.9	163.1	11.7	1677	274.1	305.9	33	88
G400 LS 8.5	111.2	163.8	12.4	2074	280.4	308.7	35.2	97
G400 9	110.8	164	11.8	2568	279.9	304.4	38.4	104.6
G400 9 Little Minus	112.2	167.2	12.1	2024	287	315.8	34.8	97

First, lets take a look at the numbers for his gamer. Scott was swinging his gamer 109.9 miles per hour and producing 163.1 miles per hour of ball speed. HIs launch angle was 11.7 degrees with a spin rate of 1677 rpms. This produced a carry distance of 274.1 yards on average with a total of 305.9. The major issue I see here is the spin rate, which is extremely low. For his launch angle, I would prefer to see a spin rate in the 2000-2300 range. The problem with having such a low spin rate is that there is not enough lift and drag to keep the ball in the air. This creates a falling out of the sky effect that will cost the golfer distance and consistency, as a lower spin ball flight tends to be more inconsistent as well. One last benefit to a higher spin rate for Scott would be to help him hit a draw more consistently. A draw ball flight will tend to spin less than a fade ball flight, so a driver that is not spinning enough for the golfer will tend to be difficult to turn over as well. Helping Scott obtain a slightly higher spin rate would provide a few benefits for him, lets see how that was done.

The first driver tested was the G400 LS Tec set at 8.5 degrees. Scott was able to swing the G400 1.3 mph faster than his gamer right off the bat, which shows that the improved aerodynamics are working. That extra clubhead speed translated into slightly more ball speed, at 163.8 compared to 163.1. His launch angle and spin rate both increased with the new G400 head, jumping up to 12.4 degrees and 2074 rpms respectively. This combined to give Scott a carry distance of 280.4 yards with a total of 308.7. A modest gain and a much more consistent

ball flight, but there was something left to be desired. That is where the standard G400 head comes in.

The standard G400 head is more neutral bias when compared to the G400 LS Tec, which has a slight fade bias. This should make the standard G400 head easier to hit a draw with when compared to the G400 LS Tec. With that in mind, we handed Scott the standard G400 head set at standard to see what the results would be. The initial results were encouraging, with Scott again gaining clubhead speed (110.8 mph) along with ball speed (164mph). His spin rate jumped up to 2568 with a launch angle of 11.8 degrees which produced a carry distance of 279.9 yards and a total 304.4 yards. Also this head was much easier for him to turn over, which accomplished one of his main goals. The only concern was that his spin rate was slightly on the high side, with a couple of his shots getting into the high 2000's. Luckily, there was room to tweak the loft down in order to eliminate those higher spinning shots.

The last set up and eventual winner for Scott involved moving the adjustable hosel to the little minus position, which takes the 9 degree head and turns it down to 8.4 degrees. Scott averaged 112.2 mph of clubhead speed and 167.2 mph of ball speed with this set up. That is over 2 mph faster in clubhead speed and ove4 4 mph faster in ball speed, which is a significant difference. Scott's launch angle was 12.1 degrees with a spin rate of 2024, which produced a carry distance of 287 yards and a total distance of 315.8 yards. This is a 13 yard increase in carry and a 10 yard increase in total over Scott's current gamer, along with the ability to his his desired draw much easier with the new club as evidenced by the dispersion chart. Scott claimed to have hit some of the best tee shots of his life with this particular set up, and it is hard to argue against that with looking at the numbers. This process just shows how important a proper clubfitting can be, as a 13 yard gain in carry distance for player of Scott's caliber will pay huge dividends on the course.

Ping Golf has always been at the forefront of innovation in the golf industry. The G400 product line is no exception to that statement. There are different models within this product line that will cater to different golfers with different needs. As shown by the data from Scott's fitting, getting the right clubhead and loft setting for a particular player's swing can show a huge benefit for the golfer. With the G400 now available to be custom fit in the Cluboratory, my question is, what are you waiting for?