

The Cluboratory
at



Analysis of Cobra F9
Driver
Fairways
Irons

Test Performed: November 10, 2018
Release Date: January 18, 2019

by
Shawn Zawodni

Table of Contents

Abstract.....	2
Objective.....	3
Specs & Technology.....	3
Results & Discussion.....	6
Conclusion.....	7

Abstract:

Cobra has been on the leading edge of innovation, and pushing the envelope of what's accepted in the equipment industry for a while now. With Lexi Thompson, Ricky Fowler, and Bryson Dechambeau leading their tour staff, you can tell they're targeting a younger, edgier, more open minded group of golfers. It's no secret that they just have the balls to do things that other companies in the industry aren't willing to do.

The F8 lineup from Cobra which was released for the 2018 season was one of our best testing, best selling lines of equipment this past year. But the F8 lineup of golf clubs is not without its faults. The driver produces some of the fastest ball speeds in the industry, but creates excessive backspin on shots impacted lower on the face. All clubs will launch lower and spin higher when contacted low on the face but the F8 driver produces significantly higher spin numbers relative to the industry. The F8 fairways were a home run, but we were constantly asked from customers why Cobra didn't mill the face of the fairway when they did it to the driver. The F8 irons, like the driver, produced some of the fastest ball speeds in the industry, but lacked some forgiveness relative to competing irons in the genre. Cobra has addressed these issues and fixed them for F9.

F9 is poised to be one of our top testing and selling companies in 2019. By decreasing backspin on low face impact with the driver, players will see increased distance and a reduced dispersion when compared to F8. The CNC face on the fairway woods provides a more precise, faster contact surface for the ball. Cobra kept the baffler technology on everything that's supposed to contact the ground (fairways and hybrids) while integrating the Speedback technology for increased forgiveness and distance. The irons maintain their incredible energy transfer that we saw in the F8 irons, but we saw an increase in forgiveness and a decrease in dispersion making it one of our top irons to beat.

Objective:

The Cobra F9 lineup offers many technological advancements such as Speedback, precision CNC milled face, and carbon wrap crown. The objective of this lab is to determine the performance of the new Cobra F9 series of clubs, and to compare the performance to that of the previous generation F8. We are also going to create discussion about performance of F9 relative to the rest of the industry.

Specs & Technology:

Drivers:

- Three lofts are offered: 9°, 10.5°, and 12°. All lofts come with a loft sleeve that is adjustable up or down 1.5°, and have a weight on the bottom that is adjustable from front to back. The front position creates a more forward center of gravity for a lower spinning, more penetrating ball flight. The back weight position creates a higher MOI (moment of inertia, a measurement of forgiveness), more stable driver head for increased forgiveness on off center hits. All drivers are black with both yellow and white trim available.
- Lie angles (in STD face position):
 - 12° = 59.5°
 - 10.5° = 58.5°
 - 9° = 57.5°

As the lofts increase, the lie angle of the club becomes more upright. This helps to create a more draw biased club which is usually needed for players that need higher lofts (this is not always the case).

- Stock shafts include
 - UST Helium for a lightweight option for lower to medium speed players
 - Project X HZRDUS Smoke 60g; provides good control for mid to high speed players
 - Fujikura Atmos Tour Spec Blue 6; good all around mid profile shaft
 - Fujikura Atmos Tour Spec Black 7; strong shaft for high speed
- The major technological advancement in the F9 driver comes from a combination of aerodynamic improvements as well and center of gravity optimization that Cobra calls Speedback. Cobra states:

“Speedback technology delivers our most aerodynamic clubhead shape and is the first to combine a raised skirt, raised tail/aft, a raised & rounded crown, and a rounded frontal perimeter that reduce drag for maximum club speed.”

Bottom line, Cobra has increased the aerodynamics of the head which results in faster clubhead speed.

Cobra has taken this technology one step further. Typically the design features needed to make a driver head aerodynamic move mass away from the optimum place to put mass in a driver, which is as low as possible. Cobra took this into account and came up with an ultralight carbon wrap crown. The F8 already had a carbon fiber crown. Cobra took the carbon crown and wrapped it around the edges of the F9 driver head creating an even lower center of gravity. Cobra did everything

Fairways:

- Cobra is offering 2 fairway options: the F9 and the F9 Tour. Both include Cobra's new Speedback technology, increasing the aerodynamic efficiency of the driver while lowering the center of gravity of the club. They also share the same 1.5° loft sleeve that the driver has. The other significant piece of technology added to the F9 is the CNC machined face creating a lighter, faster, more consistent face. They also share Baffler technology which are two rails on the bottom of the club which helps improve turf interaction and helps keep the face square no matter what the loft setting is.
- The F9 has a tungsten weight positioned low and far back away from the face creating a very stable, forgiving, high launching fairway wood. The standard head is larger than the tour head for increased stability and forgiveness. There are 3 different loft options available: 3-4 which adjusts from 13° to 16°, 5-6 which adjusts from 17° to 20°, and a 7-8 which adjusts from 21° to 24°.

Hybrids:

- I did not include hybrids in this test because I did not have a F9 sample to hit. Per specifications, the hybrids share a lot of the same technological advancements as the fairways when compared to the F8.

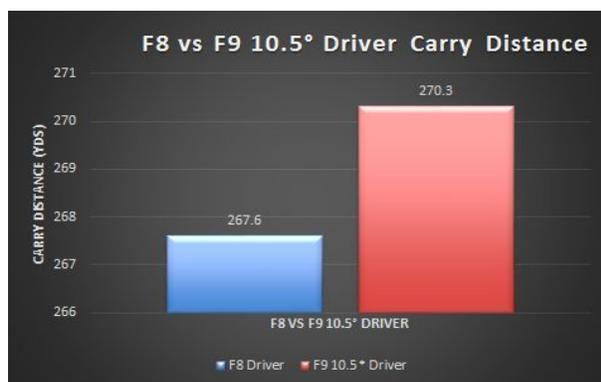
Irons:

- The F9 irons feature a forged then milled, variable thickness face for high energy return to the ball. They also feature 33g of strategically placed tungsten for increased stability and forgiveness. The Speedback technology also makes an appearance in the irons as well. The Low CG Speedback sole creates low and deep center of gravity helping to hit a high, straight, long ball. The irons also feature a variable groove design depending on the loft of the club. The 4-7 irons feature a V groove to help “reduce spin for increased distance and flight time”. The 8-PW feature U grooves for “optimized spin for improved control and accuracy. The GW and SW feature tightly spaced grooved to help increase spin.
- The lofts of the F9 irons are a little more spaced out. The 4 iron is 19.5°, the 7 iron is 29.5°, and the PW is 44°. The lofts are gapped out a little more than other irons in this genre helping people to actually hit the longer irons different distances. The length of the 7 iron is 37.25” which is pretty close to the industry average. The lie angle of the 7 iron is 63.5° which is about 1° upright from industry average.
- Stock shaft options:
 - Steel: KBS Tour 90
 - Graphite: Fujikura Atmos
 - Many other shafts are available custom for either no cost or an upcharge

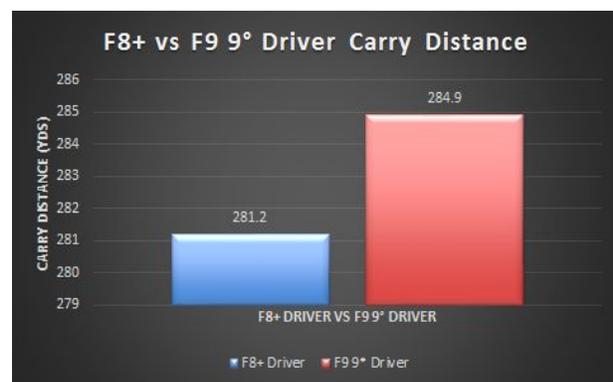
Results & Discussion:

Choma	F8 Iron	F9 Iron	F8 Driver	F9-10.5 Driver	F8+ Driver	F9-9 Driver	F8 3wood	F9-14.5	F8+ 3w	F9-13.5
Ball Speed	134.5	137.7	-	-	174.2	177.1	-	-	-	-
Launch Angle	13.8	14.2	-	-	10.0	9.5	-	-	-	-
Spin Rate	5853.0	5162.0	-	-	2491.0	2619.0	-	-	-	-
Carry Distance	192.9	202.8	-	-	293.5	299.6	-	-	-	-
Dillon										
Ball Speed	119.7	122.6	157.0	159.6	158.0	159.0	148.0	147.6	146.8	146.4
Launch Angle	16.0	16.9	11.2	11.7	12.4	12.1	10.8	11.6	11.5	10.4
Spin Rate	6400.0	5635.0	3222.0	2914.0	2368.0	2571.0	3740.0	4073.0	3540.0	3008.0
Carry Distance	169.7	177.9	260.0	265.2	267.4	270.9	235.9	233.2	236.3	235.3
Zawodni										
Ball Speed	128.0	132.0	167.4	169.4	169.8	170.1	159.6	158.3	160.2	160.2
Launch Angle	15.7	15.4	8.9	7.4	9.0	8.9	6.0	10.3	6.0	5.4
Spin Rate	6880.0	5924.0	3545.0	3537.0	3242.0	2633.0	4139.0	4274.0	3670.0	3217.0
Carry Distance	181.2	192.3	275.1	275.3	282.7	284.3	246.2	250.8	251.6	249.3
Averages										
Ball Speed	127.4	130.8	162.2	164.5	167.3	168.7	153.8	153.0	153.5	153.3
Launch Angle	15.2	15.5	10.1	9.6	10.5	10.2	8.4	11.0	8.8	7.9
Spin Rate	6377.7	5573.7	3383.5	3225.5	2700.3	2607.7	3939.5	4173.5	3605.0	3112.5
Carry Distance	181.3	191.0	267.6	270.3	281.2	284.9	241.1	242.0	244.0	242.3

Table 1, Cobra F8 & F9 test data



Graph 1, Cobra F8 driver vs. F9 10.5° carry distance

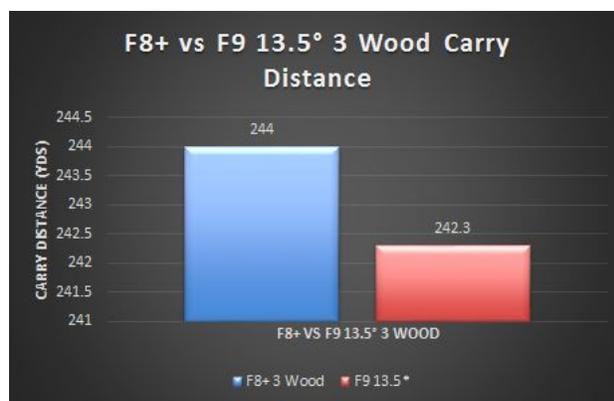


Graph 2, F8+ vs. F9 9° driver carry distance

The F9 10.5° carried on average 2.7 yards longer than the F8 driver and the F9+ carried on average 3.7 yards longer. The primary reason the F9 driver is longer than the F8 is due to higher ball speed on off center hits. Center face contact produced comparable ball speeds for both drivers, but the F9 excelled in miss-hits.

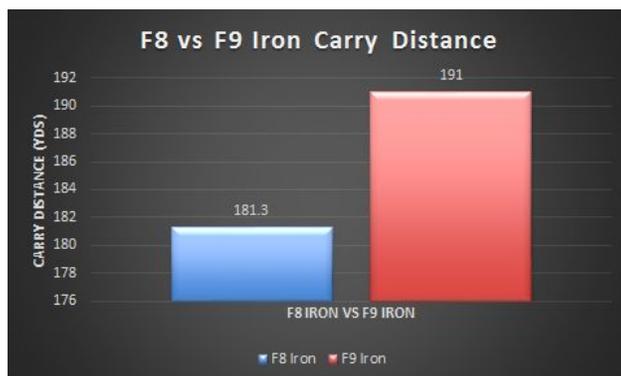


Graph 3, F8 vs. F9 14.5° 3 wood carry distance



Graph 4, F8+ vs. F9 13.5° 3 wood carry distance

There was very little distance difference between the F8 and F9 fairway woods. The F8 and F8+ fairway woods were excellent and the F9's definitely are not a step back. Both the F8 and the F9 went within 2 yards of each other.



Graph 5, F8 vs F9 iron carry distance

The F9 irons may be the most impressive of the test group. We saw a full club gain in distance over the F8, and the F8 was already one of the longest irons on the market! The distance gain was due to an increase of 0.3° launch angle, and an increase of 3.4 mph ball speed. On a subjective level the F9 had a nice clean look to it despite it being a game improvement size iron. The F9 iron also had a crisp, clean, solid feel. The severity of a miss-hit was significantly reduced when compared to the F8.

Conclusion:

The Cobra King F8 line of clubs was one of the top testing of 2018 and the F9 lineup had only improved. Cobra took care of the excessive spin of the F8 driver when contacted below the centerline of the face. The F9 irons are some of the fastest, most efficient we have ever seen, not just compared to the F8 but to all other irons in the industry. I'm excited to put the Cobra F9 clubs in people's hands in 2019!

