

HOW CALLAWAY INCORPORATED SERIOUS PERFORMANCE TECHNOLOGY INTO A PLAYERS IRON

Compared to game-improvement irons, players irons are typically forged out of soft steel (in Callaway's case, Apex irons consist of forged 1025 carbon steel), with a thinner sole and topline, less offset and a higher CG. That makes this type of iron sleek, attractive and highly workable, but also less forgiving and not as easy to launch. For years, this category advanced little in terms of performance technology, in large part because the head's characteristics made it difficult to make adjustments that would affect real change in impact dynamics, and because the softer steel was subject to failure when technological enhancements required even minor structural changes.

However, during the past few years Callaway has led the way in advancing players irons through technology. With the new Apex 19 iron, Callaway engineers have continued making exceptional progress at infusing serious performance technologies into a small, forged 1025 carbon steel clubhead. The result is a multi-piece, multi-material iron that's easier to launch and promotes more distance without sacrificing the size, shape and feel that better players demand in this category of iron.

Apex 19 - A Technology-packed Players Iron

Like the Apex CF16, the model it replaces, Apex 19 employs Callaway's proven Face Cup technology, which promotes faster ball speed on both center and off-center hits for more distance. However, Callaway engineers were also able to bring two additional, proven technologies to Apex 19 for the first time in this type of iron: MIM'd tungsten weighting for precision CG positioning, to optimize flight in the long- and middle-irons, and urethane microsphere technology, to improve sound and feel.

MIM stands for Metal-Injection Molding, a process that results in a dense, precisely shaped, precisely weighted piece of tungsten. Using this process gives Callaway engineers strict control over the size, shape and weight of each tungsten piece, which in turn allows precise control over the CG position in each individual iron, promoting easier launch in the long- and middle-irons, and a lower, more controllable flight in the short-irons.

Urethane microsphere technology was introduced last year in Callaway's Rogue irons. It involves a pocket of a specially formulated urethane, infused with approximately 500,000 miniscule "microspheres," positioned behind the clubface, touching the back of the face. This microsphere-infused urethane flattens under pressure, allowing the urethane to behave in a porous manner, permitting it to compress and "give" with relative ease. That allows the urethane to absorb undesirable vibration at impact without slowing the face's speed. Arriving at the precise shape and positioning of the urethane to achieve maximum benefit in each iron required extensive experimentation and computer modeling. The benefit of urethane microsphere technology is clear: Significantly better sound and feel without sacrificing ball speed and distance.

Apex 19 also features Callaway's Spin Control VFT (Variable Face Thickness) technology, wherein the face thickness is thinner and thicker in strategic areas to promote less spin off the long-irons for more distance and more spin off the short-irons for increased control.

Together these technologies - Face Cup, MIM'd tungsten weighting, urethane-infused with microspheres and VFT spin-control - makes the Apex 19 easy to launch, delivers a soft and agreeable sound and feel, promotes fast ball speed, and promotes better spin characteristics throughout the set. All of that makes Apex 19 a great option for golfers who typically game Player's irons, but it's also brought this category within reach of golfers who love the look, feel and performance of this type of club but don't think they're good enough to game it. The technologies that promote more speed, easier launch and fantastic feel has made it possible for a much wider range of golfers to play this type of iron.

