

LET'S TALK DRIVERS!



Who builds the best driver? How much is real design, materials and technology, and how much is just marketing hype. Do they really come up with world breaking technology every year, or do the major OEM club manufacturers just using marketing and buzzwords to sell their latest and greatest models?

The fact is, the USGA back in 1998 came up with the rule that restricted the “rebound” or “trampoline” or “spring effect” of the face of the clubhead. (USGA R32, History of Equipment Rules) That is the COR (Coefficient of Restitution) limit is .83.

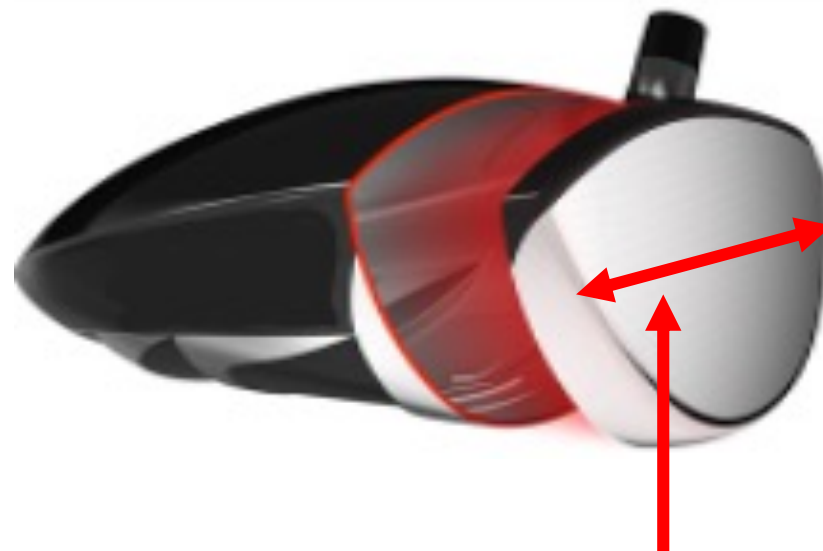


Since then, every club manufacturer has been able to build a head that meets that maximum limit. So theoretically no one's head can perform better than another. But that does leave smash factor, or energy transfer of off-center hits to come into play. And there are differences in that performance. Most of the rest of the difference in distance is relative to the shaft. But that's another paper.

There are two basic designs for driver heads. Welded face insert, and cupped face design.



Typical Face Insert about 2" wide
Just a bit wider than the golf ball 1.7"



Cupped Face construction about 4" wide.
Result in bigger hitting area for off center hits



Welded Face Insert is a much cheaper way to build a club head. Cupped Face are hand built.



King Cobra



Callaway

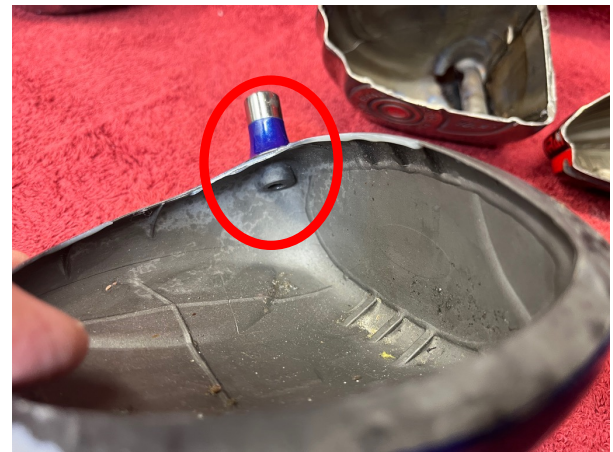
Taylormade



PING



Krank Fire to Bang Bang-O-Matic Design, Material and Construction Comparison.



Both use a more expensive deep cupped face design, with a solid shell, with a full length shaft hosel to connect the top of the head to the bottom sole for extra rigidity. Both use a special hardened beta-titanium face material for the highest allowable COR/CT. Both are basically the same face dimensions. Both use an internal air chamber design to maximize energy transfer. Both are hand built, not mass produced.



BANG

GOLF



Since inception in 2000 Bang Golf has been a leader in designing and manufacturing golf drivers for **Long Drive Contests**. Scott Smith using the **Bang-O-Matic driver** still holds the World's longest drive of 539 yards for over 15 years. Bang also holds the Woman's World long drive record of 362 yards! The Bang-O-Matic driver has won 6 world long drive championships since its debut in 2004 plus having 4 staffers in the Top 12 in the World Championships using the Bang O Matic driver.

Bang Golf titanium drivers feature a **heat treated 15-3-3-3 Beta Titanium face** that is thinner than conventional titanium allowing for maximum COR/CT rebound effect. A unique wave design on the top plate called **Flow Alignment System (FA)** directs more energy from the club head to the ball with less power dispersion. Most modern-day drivers deliver only 78% of the proper directional energy toward the ball with 22% dispersion of energy. With the unique Flow Alignment System technology, the energy transfer rate is increased up to 94%. This contributes to a straighter and farther drive! And finally, the more costly tooling design using Cup face design enlarges the effective face area and sweet spot.



SUPER-HOT FORGED BETA TITANIUM FACE

(Pure Super Hardened Beta-Titanium /Grade.4) From triple plasma welding, the latest super hardened Beta Titanium, to added sole plate louver placement for maximum energy transfer back to the golf ball. We push every possible advantage to gain performance. We do not build cast drivers. We only build 100% Cupped Faced Forged Drivers. There is no comparison in performance or durability.

HIGH (COR) COEFFICIENT OF RESTITUTION DESIGN

COR is the measurement of how a ball, slingshots off the face of a driver. The conforming COR limit of the USGA is .830. We have increased the Formula FIRE COR to .890. The result is increased ball speed, decreased spin and of course, longer drives.



KRANK

GOLF

FORMULA FIRE



- 3 Different Driver Face Thicknesses
- Match Your Swing Speed To The Driver Face Thickness
- Gain 20 to 40 More Yards Off The Tee Box
- Get Maximum Ball Speed For Every Swing Speed
- Fully Adjustable – Loft, Lie and Face Angle
- Deep Cupped Face Forged "Super Hardened" Beta Titanium
- 100% Handmade
- Maximum Body Rigidity For Extreme Energy Transfer
- Weight Management System
- High COR Technology*

*Only FORMULA FIRE X and FORMULA FIRE XX

FORMULA FIRE PRO
 USGA CONFORMING
 SWING SPEED RANGE 105mph and HIGHER

FORMULA FIRE X
 HIGH COR - 340 CT
 SWING SPEED RANGE 105 mph - 85 mph

FORMULA FIRE XX
 SUPER HIGH COR 400 CT
 SWING SPEED RANGE 85 mph and SLOWER

KRANK

GOLF