Golf Lab Bulletin: October 10, 2012

New "Golf Lab Iron Build" -

Heavier Heads, Lighter Shafts

Radar Shaft Fitting Explained

Hi from San Carlos,

This might be the most important article that I've ever written. It describes new ideas about weight and balance in irons. I also explain how we use radar as the ultimate tool to fit shafts.

With over a year in development and testing the "Golf Lab Build" for irons is a proven success. We discovered a better way to build irons with lightweight graphite shafts.

The "Golf Lab Build" could be controversial. As far as I know, no other clubfitter in the world recommends 65 to 80 gram graphite iron shafts for low index players with high swing speeds. It goes against tradition.

It's about time for a change. 60 years of the "same old thing" in irons is

enough.

$2000 sets of irons require hands-on testing to appreciate feel and prove performance. To be sure, we built ten complete sets of custom irons for on-course testing. Miura and Vega forged heads - AeroTech, Matrix, UST and ACCRA shafts in weight ranges from 65 to 95 grams. Best of Breed across the board.

In head-to-head testing over the last year, 30 out of 36 players chose the "Golf Lab Build". That is a severe test. The minimum price for our Miura and Vega irons is $250 per club. The "competition" is half that. When players buy at double the price, you know there's something special happening.

"Golf Lab Build" irons feel better and perform better than any iron you have ever hit. (Probability: 85%)

AeroTech Steel Fiber Acceptance on PGA Tour

We are in a new era for iron shafts. Matt Kuchar and Brandt Snedeker have been playing 95 gram Aerotech Steel Fiber shafts on Tour with great success.

Two dozen PGA Tour players are testing AeroTech Shafts. Every major shaft manufacturer is trying to get their graphite iron shafts in play on the PGA Tour.

There is no doubt. If you are over 40 and still playing heavy steel shafts, you will achieve measurable, immediate improvement in distance and dispersion with lightweight graphite iron shafts. That claim is easy to test indoors with radar and outdoors with your hands, eyes and ears.

Lightweight shafts are not for seniors only. Tyler Garrett - a professional tournament player - has been using 70 gram Aerotech Steel Fiber shafts in his irons for the last six months. He wouldn't still be playing them if they didn't perform better.

If you are wondering "which brand?" - the choice is easy. All the buzz on the PGA Tour is about AeroTech Steel Fiber. If you are buying your first

lightweight shafts, AeroTech is the logical choice. Why not take the Pros' choice?

In one of the most interesting examples of "it ain't broke, don't fix it, AeroTech has not changed their Steel Fiber shafts in twelve years. Not even the paint job. Your clubs won't go out of style in a year. That's nice.

The Simplified Physics

With Tour Players moving to 95 gram graphite shafts from 130 gram steel shafts, there is room for normal amateurs to go even lower.

Substitute a 65 gram graphite shaft for a 130 gram steel shaft. That's two ounces of club weight. In the golf club world, that's a ton.

Lighter weight shafts produce higher swing speeds. That's a natural result - but not our main goal. We're looking for more efficiency from the same swing.

We change the balance between the shaft and the head. Our custom irons take 6-9 grams of extra head weight. That adjustment increases head feel in contrast with the light shaft weight.

Extra head weight promotes a subtle change in a player's swing. More club head mass transfers more energy to the ball with the same swing. Most players see an immediate five yard increase in distance with no increase in swing speed.

We don't fit for distance. We fit for accuracy and consistency. Distance is a nice extra.

Any irons can be rebuilt with lightweight graphite shafts. You can revive your favorite set from the past for a whole new set of memories. Rebuilding a set of irons with AeroTech Steel Fiber shafts is $85 per club.

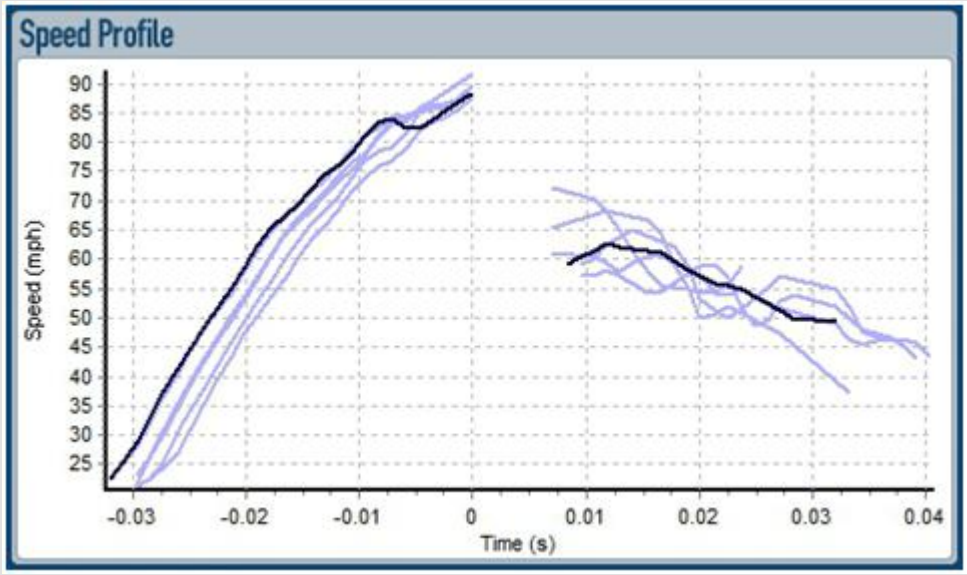
The Key to Shaft Fitting for Irons is Radar

After thousands of launch monitor fittings - I know that traditional launch monitor "fitting by the numbers" doesn't work for irons.

Radar looks at the player and the club. If you haven't been fitted with radar - you owe it to your game to book a radar shaft fitting. The key to fitting with radar is that shaft performance is displayed visually.

Swing Speed Graph

We rely on two graphs. The first is speed of the clubhead from waist level to impact:

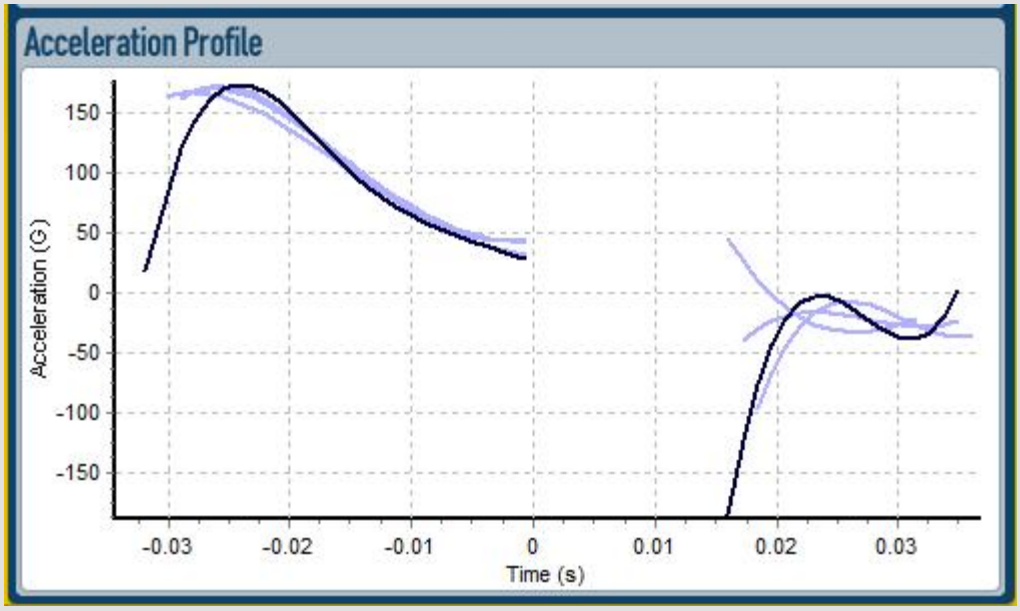


This graph tells us a lot about the player's swing. A player with consistent swing speed lays tracks down one on top of another. If there is a "power leak" in a player's swing - this graph reveals it. Notice the little dip just before impact. That's a power leak. There is some inconsistency in swing speed.

Radar is becoming increasingly important as a teaching tool. You can see why.

Club Head Acceleration Graph

This graph reveals the magic. It tracks clubhead acceleration in a "window" from belt level to impact.



If there is a "perfect graph" this is a close example. The "hump" is the player's maximum acceleration - the moment of release. It is well inside the radar window. Declining acceleration with no random movement just before impact is the pattern that indicates consistency.

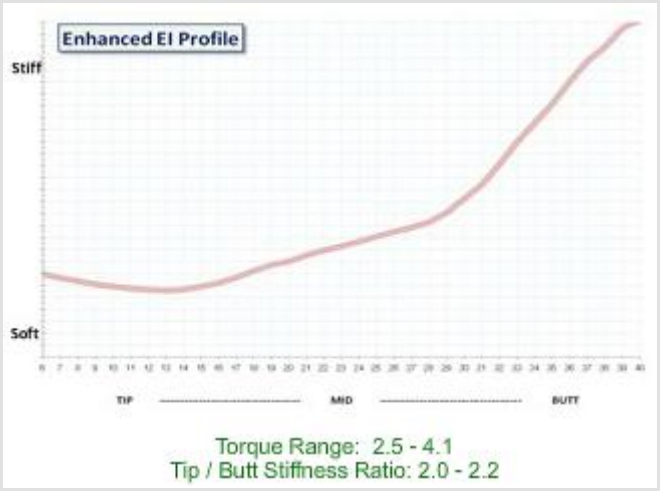
Shaft fitting with radar is an emerging science. Look for continuous updates on the Golf Lab Blog. www.calgolflab.com/blog/dashboard.

Understanding Shaft Flex Profile

Each shaft has different characteristics. Shaft design is revealed in an "EI Graph".

The guru of shaft analysis is Russ Ryden. He invented a machine and wrote software that produces the only professional, independently verified EI Graphs. He built 15 of the machines. The Golf Lab is a licensee of the Fit2Score System.

This is what a Fit2Score EI Graph looks like:



You read an EI Graph from right to left. This is the UST ATTAS 3. The graph indicates a very stiff butt with a relatively soft mid-section. The tip firms up. The Fit2Score system allows side by side comparison of any common shaft in the North American market.

What We Learn from Your Radar Fitting

We know the flex profile of every shaft that we test.

We know how every shaft we test performs with your swing.

When we find the shaft that produces the radar tracing with the correct pattern and consistency, we will have found the shaft that performs the best with your swing.

That's the most certain and accurate way to fit shafts.

Radar Shaft Fitting: 1.5 hours. $150.

Best regards,

Leith Anderson and the Golf Lab Gang.

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