

Information and Q&A About Single Length Irons



The concept of making each iron in a set the same length is not new. Eric Cook's Iso-Vibe Golf Company in Canada began offering single length sets of irons to the North American golf market in 1986. Perhaps the best known introduction of a single length set of golf clubs was the former Tommy Armour Golf Company's release of their EQL single length woods and irons in 1989. Since that time, a handful of lesser known, under-marketed companies have offered single length sets of irons, mainly through an on line direct-to-golfer offering.

The concept of single length irons received a huge boost in general awareness from the publicity of amateur golfer Bryson deChambeau's victories in both the USA National Collegiate Athletic Association (NCAA) and US Amateur championships in 2015 using a single length set of irons. Bryson Dechambeau became only the 5th player to achieve this very prestigious amateur championship "double" in the same year, something that had only been done by Jack Nicklaus, Phil Mickelson, Tiger Woods and Ryan Moore. All of a sudden a larger number of golfers became aware of

single length irons and with it, a serious level of curiosity whether a Single Length set could be a viable change to make in their own equipment.

As is the case with any new and different golf equipment concept that gains awareness and attention, there are a lot of questions as well as a bit of misinformation and misunderstanding concerning single length sets of irons. As the leader in golf equipment performance research, Tom Wishon Golf Technology is pleased to once again offer the most truthful, factual and understandable information to help golfers understand the concept of Single Length set design.

Following are a number of questions with answers pertaining to the concept and performance of Single Length sets of irons. If you have questions beyond the following, we welcome you to ask by sending us an email at <mailto:peter.qvarfordt@wishongolf.com>

What is the Reason a Golfer Might Consider Making a Change from Normal Incremental Length Irons to a Single Length Set of Irons?

The technical basis behind the creation of a set of single length irons is to say that if all the clubs have the same length, the same total weight, the same headweight, and the same balance point it will enable the golfer to use the same stance, posture, spine angle, swing plane – the same everything in the swing. As such, the single length approach has a chance to offer a higher level of swing repeatability and shot consistency for each of the clubs in the set.

At the same time, it must be said that many golfers have achieved very good swing and shot consistency using irons built to normal incremental lengths which are very accurately custom fit to their size, strength, athletic ability and swing characteristics. However, if a golfer has suffered from chronic or occasional shot inconsistency, converting to a single length concept could offer some help.

What is the Technical Explanation to Support an Argument About Single Length Irons Being Better for a Golfer than Conventional Incremental Length Irons?

In a single length set of irons, every club is made so that everything that has anything to do with swing feel is the same in each club – same length, same shaft weight, same total weight, same head weight, same swingweight, same balance point, same MOI, and the same shaft stiffness/bend profile design. The only element that is different within single length clubs are the loft angles, to enable the single length clubs to each hit the ball different distances.

Normal incremental length sets of irons cannot duplicate that many different fitting elements. While it is possible to build incremental length sets of irons to all be matched to the same MOI, each club will be different in total weight, head weight, swingweight, and balance point.

As such, the technical reason for creating a single length set of irons is to offer the golfer a chance for improvement in swing repeatability, swing consistency and shot consistency because every club is as perfectly matched for every possible aspect that has anything to do with swing feel.

Why Did Sets of Irons Evolve to be Made to Different Lengths?

The purpose of a set of irons is to have each iron hit the ball a specific different distance with equal distance gaps between clubs through the set. That enables a golfer to choose an appropriate club for the different distances golfers will find themselves from the greens when playing a round of golf.

Early club designers learned there were a number of things in the design of irons that would cause each club to hit the ball a different distance. First is a different loft angle on each iron, with the spacing in degrees of loft the same between each iron. Second is a progression of different lengths so the golfer's clubhead speed would intentionally change to coordinate with the different lofts to hit the ball a different distance with each iron. Third is an increase in the total weight of the irons as they become shorter, which coordinates with the shorter length to cause the golfer to swing the shorter clubs at progressively slower swing speeds.

More recently, research into shot performance has shown that the distance between the different irons in a set comes 80-85% from the loft angle change from club to club, and 15-20% from the length change from club to club through the set. As such, length change within a set of irons is much less important for a distance difference between irons than are the differences in the loft angles through the set. This opens the door for a single length set to be a viable alternative to the conventional incremental length set.

Why Haven't any of the Big Golf Companies Created and Offered a Set of Single Length Clubs?

Chiefly because of a lack of confidence that such a different type of set could garner enough demand to justify the cost of development and marketing to be able to last for 2 or more years in the market. When Tommy Armour Golf offered their single length EQL model, it did not exactly show much in the way of longer term success for the

costs associated with its development and promotion.

Golf has always been a game steeped with traditions. Golfers as a whole have demonstrated a general and consistent tendency to not deviate too far outside the norm of such traditions in the game.

This is also true when it comes to certain aspects related to golf clubs. It has been proven over and over that developments in the design, shape and concept of golf clubs have to remain within a narrow range of change – if you go too far outside the box of tradition, golfers will reject such changes and will simply refuse to purchase the clubs if they are considered to be “too different”.

Most of the golf companies have believed that a single length set of golf clubs would push things too far in the minds of most golfers so the sets would not be able to sell in a high enough volume to justify the cost of development, inventory and marketing.

If the clubs are all to be made to one Length and one Lie Angle, what is there for golfers to be custom fit in a set of Single Length Irons?

Every one of the key fitting specifications in any set of irons, that's what – the lofts, lies, shaft flex, shaft bend profile, shaft weight, total weight, headweight feel (swingweight or MOI), grip style and grip size. Not only that, but it is possible that some golfers could be more comfortable with a slightly different single length than other golfers. In short, even though the lengths of each iron will be the same, what that length should be as well as each one of the other key fitting specifications should be custom fit and custom built for each golfer.

Single length does NOT mean “one size fits all” in the manner of the way big golf companies sell their clubs in standard form, off the rack. Single length sets still need to be properly custom fit to each golfer based on their size, strength, athletic ability and swing characteristics.

What About Single Length Clubs for Tall or Short Players? Such Players Regularly are Fit for “overlength” or “underlength” irons in conventional iron sets. What About “overlength” or “underlength” in Single Length sets?

That's an interesting point in Single Length set fitting. Think about it this way, using the following example. Let's say you have two golfers and after a fitting analysis for a conventional set of irons, it is determined that Golfer A needs his lengths to be +1” over standard, while Golfer B is best fit into a standard length set. That means the 5 iron in Golfer A's set would be 39” while the 5 iron in Golfer B's set would be 38”.

But let's say that both Golfers become aware of the Single Length concept and express an interest to be fit into such a set. And let's also say that the Single Length set both see is offered in a "standard" single length of 37". Does Golfer A need his Single Length set to be 38" since he was advised to use a +1" over standard length in his conventional set of irons?

Probably not, and here's why. In Golfer A's conventional set of irons, 37" is the length of his +1" over length #9 iron. While in Golfer B's conventional iron set, 37" is the length of his standard length #7 iron. Thus it could be said that the 37" single length would be a proper fit for either golfer, even though in a conventional set Golfer A measured to need +1" longer than standard.

Interesting, eh?

In the end, there may be an occasional situation in which a golfer who needs a longer length in a conventional iron set may need the length of a Single Length set to be a bit longer than the length range the set was designed to follow. However, we do urge clubmakers to try to keep all golfers within this range between 36.5 and 37 inches for purposes of more successfully fitting the golfer to a suitable total weight + headweight feel in the clubs.

Are Single Length Irons Better for Average to Less Skilled Golfers or are they Viable for Good Players as well?

During the time between the mid 1980s and mid 2010s when only a few isolated companies offered single length sets of irons, most people were led to believe that single length irons were more aimed at average to less skilled golfers. It can be said that Bryson deChambeau's wins in the NCAA and US Amateur pretty much blew that thought out of the water.

As with normal sets of irons aimed at average vs good players, the main differences fall in the areas of traditional vs game improvement iron HEAD designs, coupled with fitting differences in the shafts, total weight, swingweight (headweight feel), lie and grip size/style. Most companies that offer Single Length irons are not likely to offer multiple clubhead models as they do with conventional length iron models unless the demand for such a delineation in Single Length head model were to become large enough to justify a better player version to contrast to the game improvement version.

What is the Potential Drawback in Using a Set of Single Length Irons vs a Set of Conventional Incremental Length Irons?

There are three primary areas in which previous Single Length irons have fallen short of the performance golfers are used to with their conventional incremental length iron sets.

Depending on the single length chosen, the golfer may lose enough clubhead speed with the lower loft irons to cause a loss of distance for the lower number irons in a Single Length set vs in a conventional length set.

Also depending on the single length chosen, the golfer may find that shot distances with the high loft irons and wedges are longer than the golfer was used to in the conventional length set. This could happen if the single length is more than 1" longer than the length of the high loft irons/wedges in the conventional set.

Following from both #1 and #2 above, the distance gaps between each single length iron could be compressed, shorter than what the golfer was used to with the conventional set of irons.

It must be noted that the main reason these problems have occurred with previous Single Length iron sets are because the sets were made with conventional steel clubheads with the same lofts and 4* loft gaps used in conventional iron sets, coupled with a single length that was >1" shorter than the low loft iron lengths and >1" longer than the high loft iron lengths in the golfer's conventional set. In other words, by customizing the length, the lofts and loft gaps, and the clubhead design, it is possible for a modern Single Length set to overcome these previous problems that have been seen with existing Single Length sets.

Can a Conventional Set of Incremental Length Irons be Converted into a Set of Single Length Irons?

Not without either a lot of lead tape on the lower loft heads and a lot of grinding of weight off the higher loft heads in the conventional set. Not to mention the potential difficulty of bending the lie angle of some of the heads to the required lie for the golfer for the one single length chosen.

In a Single Length set, all the clubheads must be designed and manufactured to be the same exact headweight AND with the same lie angle. This is a requirement for the Single Length clubs to all end up with the same total weight, same swing weight, same head weight feel and same balance point – the elements that ensure each club exhibits the same swing feel.

Conventional set clubheads have to be designed each with a different lie angle and each with a different head weight to coordinate with the different lengths to allow the clubs to end up with the same swingweight.

Golfers who are interested in a Single Length set are going to have to test hit clubs properly engineered and manufactured for assembly as a Single Length set to be able to try the concept. It is completely impractical to alter an existing iron set to the Single Length concept.

What About Woods? Can a Single Length Set of Woods Also be a Viable Change for a Golfer to make with his or her Equipment?

Tommy Armour Golf Company thought so back in 1989 when they introduced the EQL full sets of golf clubs. In the EQL all the woods from driver to 7-wood were made to be the length of a standard 5-wood – 42”. This became the biggest area of golfer dissatisfaction with the EQL. While the golfers could hit the 42” driver with improved consistency and accuracy, the much shorter 42” length brought about a significant loss of clubhead speed which resulted in a marked loss of driver distance for most of the golfers who tried the EQL.

Take distance away from the driver and you end up with a very unhappy golfer. As such this was one of the main things that killed the possible success of the EQL.

With Single Length irons it is possible to change lofts and engineer a higher COR face into the design of the low loft irons to prevent them from losing distance when built to a single length that is shorter than the length of the low loft irons in the conventional set. Not so with a driver. Drivers have been at the top of the COR limit in the rules for over 15 years. And lower loft doesn't add distance because with the driver, loft has to be matched to the golfer's clubhead speed to maximize distance for each golfer.

So if you build a driver as short as a 5 wood, for many golfers that will result in a drop in clubhead speed and distance that cannot be made up in any other way other than to go back to a longer length.

Why Haven't Other Tournament Golfers Begun to Change to Single Length Irons since Bryson Dechambeau's Success in High Level Amateur Tournaments ?

If you think normal amateur golfers cling to tradition and resist change, just wait until you take a look into that trait among tour pros and very serious competitive amateurs. Shoot, there are still a lot of those players clinging to a muscleback blade in their

irons!

But one can never say never. Even though Bryson Dechambeau is a top ranked amateur, the day will come when he will move on to the PGA Tour. If he continues to play well as a pro, you can count on the fact that a few of his fellow pros are going to be very curious to the point of wanting to at least experiment in the off season with a Single Length set.

On the other hand, Dechambeau employs a very different swing technique with his Single Length set that may very well cloud and confuse the way other pros look at the possible use of a Single Length set. Single Length sets do NOT require the Moe Norman Single Plane swing technique to perform as designed. Bryson Dechambeau just happened to combine a Single Length set with his desire to pursue the Single Plane swing technique.

But because Dechambeau would be the only player on tour using a Single Length set and the only player using a Single Plane swing, it is possible that other pros may have the mistaken belief that to play a Single length set requires switching to the Single Plane swing technique. For those who mistakenly adopt this belief, it is unlikely those players will ever touch a Single Length set.

But for pros who understand that a Single Length set could be used with any swing technique, who knows. Many tour pros have always been known to have a case of “rabbit ears”, meaning when they see someone else using something new and doing well, they get the interest to try it as well in their ongoing search for the perfect club!

Should I Seriously Consider Buying a Set of Single Length Irons?

We're a little prejudiced at this point at Wishon Golf because we feel the major changes we have made in the design of the Sterling Single Length clubheads, coupled with our understanding now of the concepts of proper fitting of Single Length sets, we feel it is a possible way for a very high percentage of golfers to gain a little bit to a moderate improvement in swing and shot consistency.

At the same time, we'll be the first to say that hit testing of the Sterling Single Length design showed that there will be some golfers for whom switching from a conventional incremental length set to a Single Length set will just be too strange, too different and too weird for lack of a better term. We certainly expect that a certain number of golfers will hit the Single Length set just fine, but will not be able to mentally get used to the fact that all their irons are the same length and to be played with the same stance and ball position.

That's precisely why we are strongly advising clubmakers to encourage interested golfers to “try before you buy”. And by try we mean to take at least 2 to 3 weeks to

hit at least a 5, 7, 9 or a #5 and 9 iron from the Single Length set before they make a decision to buy the set.

We know from 2 years of development work that the Sterling Single Length set does have all the requirements to deliver a seamless transition for shot distance with each club compared to a conventional set, while at the same time offering the main benefit of the Single Length concept of identical swing feel for every club.

- Sterling #5 is offered in an option between high COR hybrid and high COR iron for different player types.
- Sterling #5, 6, 7 irons are all high COR face, variable thickness face design, with low CG and slightly stronger lofts to ensure no loss of distance for these clubs compared to their longer length in a conventional set.
- Sterling #8 through SW are all one piece cast carbon steel body cavity back irons made in 5* loft increments to also ensure not hitting the ball too far for these clubs compared to their slightly shorter lengths in a conventional set.
- Sterling Single Length is designed to be built to the golfer's choice of either 37" (Std #7 iron) or 36.5" (Std #8 iron) or in between. These are shorter lengths than other single length sets by intent to offer better shot consistency and a higher percentage of on center hits for each club. With the high COR #5, 6, 7 the shorter single length of the Sterling won't result in a loss of distance compared to the golfer's #5, 6, 7 irons in a conventional length set.
- All of the Sterling clubheads are bendable for lie and loft by +/-4°. Not only is this critical for proper lie angle fitting for every golfer, it is also a way to tweak the distances and distance gaps between irons. Golfers come in a variety of different clubhead speeds and angles of attack into the ball. CH Speed and A OF A have a huge bearing on how far a golfer hits any loft and how much distance any loft gap will exhibit between clubs. With eminent bendability of the Sterling Single Length clubheads, it will be possible to offer any golfer a final tweak of the lofts to achieve his most comfortable distances with each iron as well as suitable distance gaps between each Single Length club.

Hybrid #5



Hi Core Irons #5, #6 & #7



Soft Steel #8, #9, Pw, Aw & Sw



Facts:

ITEM #	Head	Loft	Lie	Face Angle	Weight	Bulge	Roll	FP/Offset	Side Angle
865-5-HYB	5-Hybrid	23°	63°	0° square	274g	18°	GRT	16mm - fp	N/A
865-5-IR	5-Iron	23	63	N/A	274	Flat	Flat	4mm - off	4°
865-6-IR	6-Iron	27	63	N/A	274	Flat	Flat	3.5mm - off	4
865-7-IR	7-Iron	31	63	N/A	274	Flat	Flat	3.5mm - off	4
865-8-IR	8-Iron	35	63	N/A	274	Flat	Flat	3mm - off	5
865-9-IR	9-Iron	40	63	N/A	274	Flat	Flat	3mm - off	5
865-PW-IR	PW	45	63	N/A	274	Flat	Flat	2.5mm - off	6
865-GW-IR	GW	50	63	N/A	274	Flat	Flat	2.5mm - off	6
865-SW-IR	SW	55	63	N/A	274	Flat	Flat	2.5mm - off	11

Face Material - #5H, #5i, 6i, 7i - HS300 High Strength Steel

Head Material - #5H - 17-4 Stainless Steel; #5i-SW - 8620 Carbon Steel

Body and Face Material: #8, 9, P, G, S - 8620 Carbon Steel

Weight Bore: Hosel weight bore in all heads

Hand Select Options: #5H - +/-1* loft; +/-2g headweight

Bending Options: #5H - +/-4* lie/face angle; #5i-SW - +/-4* loft/lie

Bore Diameter: 0.370" parallel on all Sterling clubheads