



CLUBMATE **GOLF** AUSTRALIA
GOLF CLUB COMPONENTS

eTECHREPORT

Welcome to the February issue of Tom Wishon's eTech Report!

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CX Micro Wedge Shows its Unique Face in Golf Digest

In the Equipment section of the March issue of Golf Digest, TWGT's new CX-Micro wedge design is presented to the magazine's 1.5 million subscribers in a large feature photo which shows the CX-Micro's CNC Milled face and unique "Micro-Groove" scoreline design.

Golf Digest Equipment Editor Mike Stachura wrote briefly about the CX-Micro wedges – ". . . and the thinly spaced grooves and milled face on the Wishon CX Micro. That means features like the groove depth and edges can be milled more precisely, and depending on the player, the ball and the conditions, this can provide spin and control benefits."

With greater visibility for one of TWGT's original clubhead designs like this being in the game's largest consumer publication, Clubmakers can use this presentation to show their prospective customers that TWGT designs are being noticed for their unique performance oriented features and thus gain a little more credibility for the custom fit clubs you offer to help golfers obtain more game improvement.



Do Your Golfers Need More “Bench Depth” in their Sets?

In team sports, it’s become very common for the best teams to have specialty players who come off the bench to contribute their playing skills in special game situations. Because no two courses are exactly the same in their shotmaking requirements, and because we golfers play in all types of weather, more and more serious golfers have found that having different clubs to move into the starting line-up when playing conditions dictate is a pretty smart concept with which to play your best.

Last season, Clubmakers got first wind of one example of this concept when Phil Mickelson stunned the golfing world by carrying two different drivers in the bag; one for all out distance on wide open holes and one for control on tight fairways. There are several other areas in clubfitting where alternative clubs can and should join the starting line-up depending on the course design or weather conditions. The purpose of this article is to expose Clubmakers to the different areas where golfers who play different courses or tee it up in different weather conditions can and should take advantage of having different clubs ready to join the bag when conditions dictate. With this knowledge you can call your past fitting customers and let them know you can help them with their game even more!!



Alternative Drivers and Special Tee Shot Woods

Phil Mickelson’s concept of carrying two drivers in the bag at the same time is not specifically what TWGT is talking about when it comes to having a second or third driver. A variety of different course designs and weather conditions can easily dictate the use of a driver with a totally different set of specifications.



Obviously, all golfers want to have a primary driver with which they can achieve the greatest total distance their swing speed and swing characteristics will allow. As the first team driver, this club must be fit with the best overall combination of length, loft, face angle, shaft, grip size and swingweight to match to the golfer’s swing speed, angle of attack, direction tendencies, hand comfort, swing tempo, transition and release to ensure the highest percentage of on center hits.

When fitting the loft of such a driver, attention has to be paid to the golfer’s primary home course with respect to the condition of the fairways and how they limit or enhance roll. Dry, hard and short grass means a little less loft to give up some carry distance to achieve a flatter angle of descent of the ball to achieve more roll on the fairways. Lush, moist and longer grass means fitting the loft to achieve maximum carry for fairway conditions which

will not yield much roll. TWGT's Trajectory software can help a lot in coming up with the right loft for maximizing carry or roll.

When accuracy is at a premium off the tee on par-4 and par-5 holes, an alternative driver built 1" or 2" shorter in length than the primary driver length and with a little more loft can make a difference in hitting tight fairways and preventing the ball from rolling too far into the rough when a less than perfect swing results. Obviously, the more misdirection the golfer has with their 'first string' driver will dictate how much shorter the control driver should be, with the point being shorter for those who need the most control.

If wind is an off and on but regular companion for the golfer, having a back-up driver with less loft or a shaft design that can keep the launch angle down and trajectory lower will be a way to squeeze out a little more distance on the upwind holes. For downwind holes, the 3-wood will be as good as a higher loft driver for its ability to launch the ball higher to ride the wind for more distance, and will prevent the golfer from having to give up a club just to carry two drivers.

If the golfer plays multiple courses with different fairway grass/ground conditions, having a slightly lower loft driver to maximize roll on courses with very firm turf will ensure greater roll. While having a slightly higher loft driver which maximizes carry will cover the distance requirement on courses which yield little roll.

When it comes to building a control driver for use on tight courses or tight holes, a lower loft 3-wood head with a face that achieves the COR maximum of 0.830 is going to be just as good, performance wise, as a driver head with the same loft. One advantage in using a 12°, 13° or 14° loft 3-wood head is its increased headweight. For some golfers a control driver may have to be 42-43" in length to allow the golfer to better keep the club on plane and on path to ensure more accuracy. Using a driver head to build a 42-43" length control club often does not allow the clubmaker to achieve the golfer's ideal swingweight or MOI; a 3-wood head will.

Although somewhat more rare, there are courses which have a greater number of dog leg holes in one direction than the other. For such courses, being able to intentionally draw or fade the shot around the dog leg can offer as much as 2 to 3 clubs less into the green. In such a case, choosing a driver head with a little more face angle designed in the predominant direction of the dog-leg holes can allow the golfer to use their conventional swing and have the ball work in the direction of the dog-legs.

Alternative Fairway Woods

Instead of automatically fitting each golfer with a 3-wood as their longest fairway wood, TWGT recommends Clubmakers first evaluate each golfer's ability to get the ball well up in the air off the fairway before choosing what will be their "second longest hitting wood." Today's typical 3-wood has a loft between 13° and 15°, which is too low for the ability of most golfers to hit the ball well up in the air to fly from a typical fairway lie.

On the other hand, if the golfer is on the verge of being able to hit a 3-wood off the deck, but is better fit with a 16° to 17° fairway wood for their "second longest hitting wood," if the golfer plays courses with lush or longer fairway grass, the ball could sit up well enough to allow them to use a 14° to 15° 3-wood. Vice versa, for dry, tight fairway grass, more loft and a more shallow face height are going to get the job done better.



Likewise, if the golfer needs the added distance of a 3-wood for long second shots and is "on the cusp" between being able to hit a 3-wood loft high and consistently enough to merit its addition to the bag, a more shallow face model can sometimes get the golfer into a more consistent launch angle off the fairway. Another reason for a golfer to have a 3-wood 'ready to come off the bench', even if the golfer does not have the consistency and launch angle to merit a 3-wood as a regular part of the bag, is for use off the tee on tight par-4 and par-5 holes. If the golfer plays courses with a multiple number of tight driving holes and needs a 42" to 43" length to control the swing enough to stay in play, a "thriller", a.k.a. driving 3-wood can be a real help. For proper swingweight or MOI fitting, think driver head for the control driver if the golfer's best control length is 43.5" to 44", but think strong 3-wood, if the golfer's best control length needs to be 42" to 43".

For most golfers, the loft difference between fairway woods should be 4° to 5°. Only for high swing speed golfers (>100mph) will a 3° difference be OK, while the loft gap may need to be 6° between fairway woods for golfers with a much slower (< 70mph) swing speed. For lush, longer grass fairways, a fairway wood set up of 14°/18°, 14°/19°, 15/19° or 15/20° (for 90-100mph, go 4° difference, for 75-90mph, go 5° difference) may be best because the taller grass will allow the ball to sit up more, thus making it much easier for the golfer to get the ball well up to fly off the deck. And if the fairway conditions are dry and thin, a fairway wood set up of 16°/20°, 16°/21°, 17°/21° or 17°/22° will help the golfer get the ball up more consistently from tighter lies.

Additional Hybrids

Everyone knows how popular hybrids have become in the past few years as a long iron replacement. However, the majority of golfers think only of the 3- and 4-hybrids to replace their 3- and 4-irons, yet most 5-irons today have a loft between 25° and 27°, which is a loft that most golfers cannot hit high and consistently solid more than 50% of the time. Given the fact that most 5-irons today have the loft of yesterday's 3- or 4-irons, it seems inconceivable that any golfer with a 12 handicap or higher should be using a conventional 5-iron instead of a 5-hybrid of the same loft and length.

If fit properly, for most golfers, hybrids will hit the ball higher than the conventional irons they replace. This could be a problem for some golfers when the wind picks up. Therefore, on windy days, it may be smarter for the golfer to shift back to the lower hitting iron of the same loft and length. However, if the golfer cannot hit their conventional long irons solid more than one out of three shots, they would be better off having to deal with the wind on more solidly hit, high hybrid shots than continuing to struggle with the lower lofted conventional irons.

One of the best ways to "urge" a golfer to extend the number of hybrid clubs through the 5-iron and even the 6-iron is to volunteer to build one for them to hit. Remember, today's 6-irons have the loft of yesterday's 4- and 5-irons so they too can be tough to hit consistently well for middle to higher handicap golfers. Once the golfer actually hits a 5- and/or 6-hybrid that is fit to their needs, you'll find they come back and pay you for the clubs far more than they would ever "stick you" for them.

Which Wedges for Which Course Design

Very good ball strikers have known the need for having different wedges with different lofts and sole angles for a pretty long time. Fairly good to less skilled players usually do not. Therefore it is up to you, the Clubmakers, to inform golfers why they may need to keep a different sand wedge or lob wedge around the house for use when different course design conditions dictate.



TWGT's book, *Common Sense Clubfitting: The Wishon Method*, includes a tremendously helpful section in Chapter 7 which describes all of the differences in grass type, grass length, sand type, sand depth, and green design which all can dictate the need for wedges of different loft and sole angle to execute the shots more consistently. If you don't have a copy, you really need this book to expand your fitting knowledge, especially when it comes to accurate wedge fitting for all golfers. In short. . .

1. For taller grass around the greens or Bermuda type strains of grass, the more bounce sole angle will help the golfer execute chips and pitches more consistently. Conversely, the tighter the lies around the green, the less bounce sole angle is needed.
2. The more the greens are elevated above the surrounding areas or for greens with shelves and tight pin placements, the more loft is needed on the wedges to get the ball up to stop. Add taller grass to this and you are talking about more loft plus more bounce. Add thin, firm turf and you need more loft plus less bounce.
3. The larger the greens and the flatter they are with respect to contours and the surrounding areas, the less loft is needed on the wedges to play for more of a roll after landing type of shot.
4. The lighter, fluffier and deeper the sand in the bunkers, the more bounce is needed on the wedges to be used from the sand. Vice versa, the more coarse and shallow the sand in the traps, the less bounce is needed.
5. The steeper the golfer swings the wedge down into the ball, the more bounce is needed on top of whatever the grass or sand conditions dictate. And the more level the golfer swings the wedges down into the ball, the less bounce is required on top of the grass and sand conditions.

Talking to your golfers about "different horses for different courses" is a great way to increase your business and is another way custom fitting can help all golfers enjoy the game a little more at the same time. A win-win situation in other words!

Rob Sines Becomes Newest Member of the TWGT Team

Tom Wishon Golf Technology is pleased to inform Clubmakers that Rob Sines has moved to Durango and joined with our company to allow TWGT to offer more support in clubmaking and clubfitting knowledge to Clubmakers. Rob comes to TWGT with seven years experience in the industry in all facets of custom clubmaking practice and technology. Prior to joining TWGT Rob was with the GolfWorks where he gained a depth of experience by handling responsibilities from clubmaker training schools to clubmaking production to technical assistance.

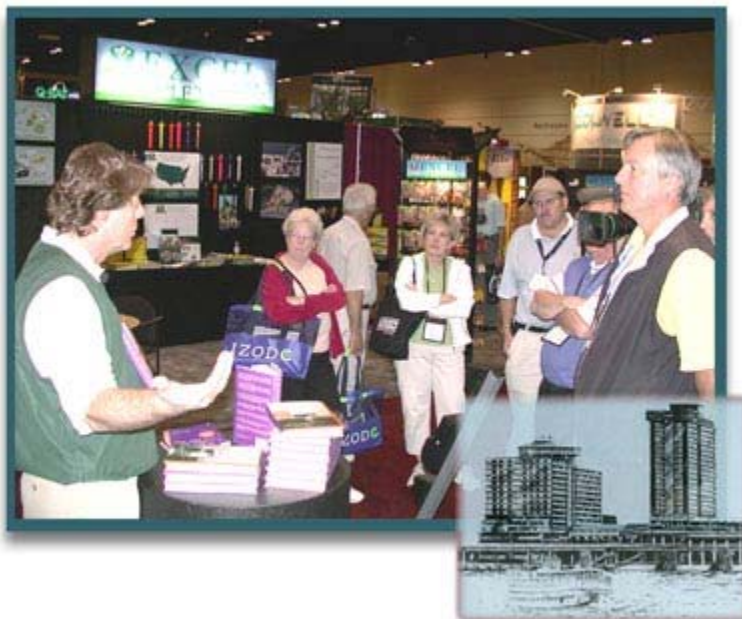
Rob will join with TWGT National Accounts Manager Matt Mohi in contacting custom Clubmakers to explain and discuss the differences TWGT can make to their businesses through our programs to increase consumer awareness of custom fitting and by offering golfers the very best in original clubhead, shaft, grip and fitting technology product designs.



TWGT Marks Fifth Appearance at Upcoming PCS Expo

March 8-10 Signals the dates for the 2007 Expo of the Professional Clubmakers' Society at the Galt House Hotel and Convention Center in Louisville, KY. It also signals the fifth PCS Expo in which Tom Wishon Golf Technology has played a significant role in presenting the most up to date original clubmaking designs and technical information in the golf industry to the PCS members in attendance. With as busy as we have been, it is hard to imagine this is the start of our fifth year in business!

This year will be no different than the past in that TWGT founder Tom Wishon will be delivering a technical seminar, with staff members Matt Mohi and Rob Sines joining to man the TWGT exhibition booths to show Clubmakers the best original clubhead, shaft, grip and fitting technology designs as well as share the latest information in clubmaking technology.



One of the best reasons to participate is the fact that the TWGT Forum does not have any "flamers" or, for lack of a better term, does not have any "jerks". Golfing and clubmaking friendships have been formed from the Forum because it is all about pure enjoyment and fun.

TWGT will be showing Clubmakers the latest original clubhead, shaft and grip designs and making Clubmakers aware of how the Search and 12 Myths books can, will and are increasing the demand for custom Clubmakers services. While Tom never seems to plan his seminar topics until the last minute, PCS members in attendance at the 2007 Expo can look forward as usual to hearing the latest in up-to-date custom fitting and custom clubmaking technical information from Tom to expand their depth of knowledge in the craft.

An Open Letter to Clubmakers – a.k.a. A February Blog from Tom

Wow, another year about to unfold. It blew me away when I had the thought that we are heading to the fifth PCS Expo show as TWGT. It hasn't really been that long since we started the company, has it? OK, it has. But what a four years it has been so far. There are times I feel like it was just yesterday that we started TWGT. Then again, with the passion I have for trying to make a difference for Clubmakers, there has been a day here or there when I feel like it has been decades we have been working to communicate to custom Clubmakers the difference TWGT can make for their business as we continue to chip away at changing the way golfers think about their clubs.

But as I look back over these four years since starting the company, I really am pleased with what we have done, what we are doing and what we truly believe we can do in the future to make REAL custom fitting gain the respect it deserves in this industry. In the face of the massive marketing programs of the big brand name companies, and realizing that we are the ONLY company taking the message of real custom fitting to consumers through the Search books and ongoing push for publicity, we really are pleased that we are making progress. To date, the first Search book has sold over 40,000 copies and is still going strong. With Search Driver joining it on all the major bookstore shelves last fall,

Clubmakers now have two books for golfers to read and learn how much smarter it is for them to put their club buying needs in YOUR hands. And with the 12 Myths booklets being a superb and inexpensive way for each of you to get the message of custom fitting to golfers, we have created a "grass roots" marketing campaign that is definitely making TWGT a recognized brand and generating the beginning of a real demand for YOUR custom fitting services.

But it's only a meager beginning so far. To those of you who realize the potential TWGT's designs and consumer books can bring to your business, we all here at TWGT sincerely thank you for your support. To those of you who do not yet work with us and thus do not yet realize that what we are doing really can help your clubmaking business, part of me wants to jump through the computer and grab you by the shoulders to say, "what are you waiting for?!!" OK, that's the passionate part of me about our work and what we are starting to accomplish. The practical part knows that you may not wish to really push your clubfitting business to a higher level; or you like your current clubmaking supplier better than TWGT. For the life of me, you'll have to forgive me for saying I can't understand that!!!

When I had a chance to sit down and page through our 2007 catalog, I really had the feeling that when you look at our whole product line for custom clubmaking, there cannot possibly be a better overall line of original clubhead designs on the planet. We really do have all of the possible custom fitting needs for golfers covered with the clubhead models in the 2007 catalog. And when you look at the design technology behind each of the models, well, I'm prejudiced of course, but there are quite a number of designs that I am very proud of for what they can offer in real performance differences for golfers.

Still, even though I really love the "work" of product design and development, I think that the thing that keeps me getting up in the morning to come to "work" with energy is the fact that I truly believe we CAN and WILL trigger a mini-revolution in the way a lot of golfers look at their golf clubs. I have always wanted to be able to do something in my work that would make regular golfers realize how much smarter it would be for them to head to a good clubmaker's shop to be custom fit from the ground up as opposed to buying standard made clubs off the rack.

We know we're starting to get there because we hear and see things on a more regular basis that tells us a little wave of awareness in custom fitting is growing thanks to the Search books. But we have so much farther to go to get to the point where more and more people call you or walk into your shop asking to be fit. This year we think we have a couple of things up our sleeve to accelerate this growth of custom fitting awareness. And as they are about to unfold or launch, we certainly will tell you all about them.

In the meantime, I thank those of you who do work with us for your ongoing support and encouragement. For those of you who are really into custom clubmaking and don't yet understand how TWGT really can help increase your business or why we are better at what we do than any other company on the planet, give us a chance to show you. Call us. Email us. Tell us to prove it to you. We do have the best clubmaking designs, we are the source of the most up to date, helpful and factual technical information, we are generating consumer awareness of what you do, and we are a darn nice group of people to work with.

What more could you want from your custom clubmaking supplier!!!

Tom Wishon

The Swiss Army Knife of Custom Clubmaking – 915F/H Fairway or Hybrid

Early in February when I was reading one of the threads on our TWGT Clubmaking Forum, I had a real laugh when I read Matt Mohi's comment about the new 915F/H fairway or hybrid clubhead designs – "they are so versatile in fitting, they are like the Swiss Army Knife of custom clubmaking." I can say this is the first time I have had one of my head designs compared to a pocket knife, but in this case, I kind of liked the analogy because of the length fitting versatility we designed into the 915F/H models!

What makes the new 915F/H heads so versatile is the fact these heads are designed with TWO weight bores. That allows each 915F/H to be fit and build as a regular fairway wood, or as a much shorter length hybrid club, and still be able to end up at the right swingweight for whatever length to which they are built.

If building to fairway wood length and use, we recommend using any wood or fairway wood shaft. If building to a hybrid long iron length, we recommend using either one of the GI-335 graphite hybrid iron shafts in our line, or the Series 5 steel 335 shaft with its special tip trimming for hybrid long iron installation. For building "in between" lengths, we would recommend using the GI-335's or Series 5 Steel and tip trimming ½" more for each 1" increase in the playing length over and above the lengths for hybrid long irons in the chart.



Head	Fairway Wood Length Options	Hybrid Long Iron Length Options	"In Between" Length Options
915F/H - 13°	42"-43.5"	40.5" - 41"	41" - 42"
915F/H - 16°	41.5" - 43"	40.5" - 41"	40.5" - 41.5"
915F/H - 18.5°	41" - 42.5"	39.5" - 40"	40" - 41"
915F/H - 21 °	40" - 41.5"	39" - 39.5"	39.5" - 40"

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Enough about the length thing, OK? So you know it's versatile that way in your fitting. I'm really pleased with the head's performance elements on top of the length fitting options offered by the 915F/H's.

1. This is the first time we have ever experimented with a variable thickness face design on an investment cast face and body and the results are very good. Not only is the sound really nice from the 915F/H heads (yes, sound today IS important) but the impact feel is a little hotter and the distance for each loft is very good compared to conventional single thickness face 17-4 stainless steel investment cast wood type faces.
2. Take a good look at the playing sole width of the 915F/H models. We created the same sole width for head to ground contact that we use on the 321 and 785 hybrid clubheads so the 915F/H could be more playable from rough than a fairway wood of this "footprint size". With this more narrow sole

design from front to back, golfers can hit pretty much any shot desired from normal rough.

3. If you had the thought, "hey that topline on the 915F/H looks a little like the 730CL fairway woods," well, you're right. We liked the bold, bead blasted topline of the 730CL fairway heads so much as an alignment aid that we decided to design the same look feature into the 915F/H heads. And based on initial reaction from the Clubmakers who have fit golfers with these heads so far, so do the golfers!

All New TacTrac Grips Coming Shortly

Another one of the very new clubmaking designs that TWGT is excited about are the all new seamless urethane TacTrac Grips. When looking at urethane material grips currently on the market, Clubmakers either see a conventional leather style wrap or a non-wrap style that has a seam stitched up the back. While these seams on other urethane grips are slight, they still can be felt by the golfer and as such, can be a detriment to the feel and comfort of the grip.

TWGT's urethane material TacTrac grips are manufactured by an all new process that allows the non-wrap style of the grip to be formed with no seam whatsoever. For golfers who prefer the non-wrap style of rubber grips but like the feel of a urethane material, the TacTrac grips will be very popular.

Clubmakers, please do take note that to offer your golfers the unique, "just the right tackiness" feel of the TacTrac grips, you're going to have to get used to a little different installation technique. To form a seamless urethane surface on the grips, the underlisting has to be made from a plastic material, and not rubber. This means the underlisting of the TacTrac grips will not expand and stretch like rubber so you cannot install TacTrac grips on a shaft butt diameter that is larger than the 0.600" core of the TacTrac men's models or 0.580" core size of the TacTrac Lady grip.



Installation of the TacTrac grips is still done with conventional 2-way grip tape and normal grip solvents, but the grips require more force to push them fully on the shaft than an all rubber grip or a urethane wrap/seamed grip on a rubber underlisting. One or two installations and you'll have it down – just be sure to use a liberal amount of grip solvent and fully wet the grip tape before installation to ensure adequate lubrication for sliding on the grip.

With the TacTrac men's standard, men's +1/32" oversize, ladies standard and putter grip, it's a great chance for you to try these completely new grips and feel something in your contact with a golf club you have never felt before – the right amount of tackiness with no seam to get in the way of full comfort for the golfer's hands. Expected in Australia around March 7.

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