

THE CALLAWAY GUIDE TO CUSTOM FITTING





Callaway Golf's OptiFit® Fitting System is the ultimate custom fitting solution from golf's leading innovator.

The system allows for an extraordinary fitting experience by letting golfers get custom fit quickly and easily with the optimal head and shaft for their driver and/or irons.

That's playing smarter. That's a better game by design.

TOOL KIT

- A Test Grips
- B Ball Marking Clip
- C Ruler
- D Optifit Torque Wrench
- E Sharpie Pen
- F Driver and Iron Impact Tape



- 1 -** Conduct a pre-fit interview and identify potential areas of improvement. Use the list of questions on the next page of this section to get a complete understanding of the players needs, beliefs and desires before starting any testing.
 - 2 -** Using the information gained from the pre fit interview use the driver head selection chart in this section to help you get to the appropriate club quickly. Try and focus on the main needs and desires of the player.
- Top Tip:** Only change one thing at a time when possible so you can see the impact of those changes.
- Note:** If the pre-interview doesn't lead you in a specific direction, then start with a driver loft, shaft material, flex and length that best matches the consumer's current equipment.
- 3 -** Have the customer hit their driver if they have it so you have a base performance to compare to. Remember to ask for their feedback after they hit each new club.
 - 4 -** Once you have selected the driver that will best address the most critical needs of the golfer, have the golfer hit 5 to 7 shots and observe ball flight changes as well as question them for their feedback. Use impact tape every time you try a new club to monitor the results.
 - 5 -** Make adjustments based on ball flight and/or launch monitor results. Remember to follow the order of adjustment at the start of this section and only address one variable at a time. Have the golfer hit another 5 to 7 shots after each adjustment.
 - 6 -** Based on observing the consistency of impact location, trajectory, control, distance and feel make a final driver recommendation to the golfer.

DRIVER IMPACT LOCATION > BALL FLIGHT

HEEL STRIKE

- FADE / SLICE
- HIGH SIDE SPIN



CENTRE STRIKE

- STRAIGHT
- LOW SIDE SPIN



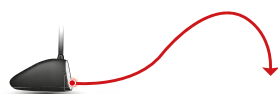
TOE STRIKE

- DRAW / HOOK
- HIGH SIDE SPIN



LOW STRIKE

- LOW LAUNCH
- HIGH SPIN



CENTRE STRIKE

- OPTIMUM LAUNCH
- OPTIMUM SPIN



HIGH STRIKE

- HIGH LAUNCH
- LOW SPIN



Note: The fitter must understand the importance of impact location vs. resultant ball flight. The players' ability to have a consistent impact location must always be assessed using impact tape to identify best performing head type.

DRIVER QUESTIONS TO ASK AND WHY

What is your main goal in purchasing a new driver?

This will often create a 'pause' while they think. If they are struggling to answer then prompt them with these thoughts:

More confidence / Hit it further / Greater accuracy / Enhanced workability

This will establish the critical areas you need to work on - use the head selection chart to guide to the right starting point of head model design.

How often do you play?

Will help you fine tune your recommendation e.g. if the player plays frequently you would decide to give them the 9.0° loft rather than the 10.5° loft.

What is your current loft of driver?

Gives you a reference point for what to recommend after referencing how often they play.

What is your current flex of driver?

Gives you a reference point for what to recommend after referencing how often they play.

Are you consistently hitting the Fairways?

Tells you if their current club makeup suits them.

Do you hit your three wood further than your driver?

Is shorter length and more loft a better option i.e. 13.5 HT driver under length.

How far do you hit your driver on average?

Do not expect a factual answer but if you know the approximate distance this will indicate flex - see shaft flex guidelines in the launch parameter section for details.

Do you have a fast/medium or slow tempo?

Will they need to move out of the normal flex for that swingspeed e.g. a fast tempo may need a stiffer shaft than their swingspeed suggests - see shaft section for more details on how to select.

How many times do you use your driver in the round?

Do they need more confidence from a forgiving head design.

Do you get much run?

This is indication of loft. Low run means too much loft and a lot of run may mean not enough loft.

What sort of course do you play on?

Helps understand if they need accuracy or length.

Do you play on the same course all the time?

Do they need adjustability i.e. longer v more accurate.

Do you play when it's cold?

Do they need more loft and club speed to counteract the slower ball speed.

DRIVER QUESTIONS TO ASK AND WHY (CONTINUED)

Do you play when it's wet?

More carry required. You may need to increase loft/launch angle.

Do you play when it's windy?

Lower ball flight required. You may need to reduce loft/launch angle.

Do you play when it's hot and dry?

Maximize the 'run' conditions - choose club to hit with maximum carry and least spin.

Do you have good and bad days with the driver?

Do they need a backup driver - safe option?

DRIVER ORDER OF ADJUSTMENTS

HEAD - Always start by selecting the appropriate head as this will have the most immediate and maximum impact of all the components. Use the head selection chart in this section to help find what head will impact the customer's shots in the best way.

- a) Head Model: A standard head model should help reduce a push or fade, while a Tour model should encourage less pull/draw.
- b) Centre of Gravity Position (CG): A Draw-biased CG will help straighten out a slice. A Neutral CG encourages workability for better players.
- c) Loft: Higher loft increases launch angle and back spin; lower loft decreases both. The optimum range is a launch angle of 10- to 14-degrees and back spin in the 2400 to 3000 RPM range.

SHAFT - Once the head has been selected you need to get the 'feel' right for the customer. Read the 'Perfect shaft fitting' section for more details.

- a) Shaft Weight: The feel of heavier shafts may be preferred by golfers with high clubhead speed and give greater control. Lighter shafts may help increase clubhead speed and clubhead feel.
- b) Shaft Flex: Suggested shaft flex and weight starting point based on driver distance or use a launch monitor and reference the information against the information charts at the back of this handbook.

Average drive less than 180 yards (165m): Women's Flex Graphite

Average drive 180-210 yards (165-190m): Light Flex Graphite

Average drive 210-240 yards (190-220m): Regular Flex, 55-65 grams

Average drive 240-275 yards (220-250m): Stiff Flex, 60-75 grams

Average drive greater than 275 yards (>250m): X-Stiff Flex, 75 grams and above

- c) Shaft Length: Shorter shafts are easier to control and tend to be a better fit for golfers with shorter stature. Longer shafts fit tall golfers better and may help golfers gain distance by increasing clubhead speed.

GRIP - Complete the process by selecting the correct size and preferred style - see the 'Perfect Grip Fitting' section for more detail.

Top Tip: After each change ensure you check the results by using the face impact tape and noting the impact location of the shots.



IRONS FITTING STEPS

1 - Conduct a pre-fit interview and identify potential areas of improvement. Use the list of questions on the next page of this section to get a complete understanding of the players needs, beliefs and desires before starting any testing.

2 - Using the information gained from the pre fit interview use the head selection chart in this section to help you get to the appropriate club quickly. Try and focus on the main needs and desires of the player.

Top Tip: Only change one thing at a time when possible so you can see the impact of those changes.

3 - Have the customer hit their 7 iron if they have it so you have a base performance to compare to. Remember to ask for their feedback after they hit each new club.

4 - Once you have selected the iron that will best address the most critical needs of the golfer, have the golfer hit 5 to 7 shots and observe ball flight changes as well as question them for their feedback. Use impact tape every time you try a new club to monitor the results.

5 - Make adjustments based on ball flight and/or launch monitor results. Remember to follow the order of adjustment at the start of this section and only address one variable at a time. Have the golfer hit another 5 to 7 shots after each adjustment.

6 - Based on observing the consistency of impact location, trajectory, control, distance and feel make a final recommendation to the golfer.

IRONS IMPACT LOCATION > POTENTIAL CAUSES

TOE

- STANDING TOO FAR AWAY
- CLUB TOO SHORT
- VERY OUT-IN PATH



HEEL

- STANDING TOO CLOSE
- CLUB TOO LONG
- VERY IN-OUT PATH



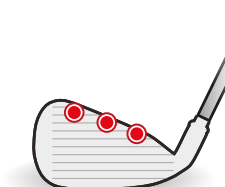
THIN SHOT

- LIFTING IN SWING
- CLUB TOO SHORT
- TOO SHALLOW ATTACK ANGLE



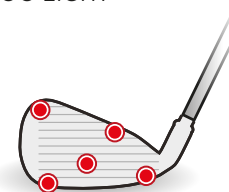
FAT SHOT

- LOSING HEIGHT IN SWING
- CLUB TOO LONG
- TOO STEEP ATTACK ANGLE



SCATTERED

- TECHNIQUE INCONSISTENT
- CLUB TOO LONG
- SHAFT TOO LIGHT



Note: When fitting irons, always identify optimum length and weight of shaft to achieve optimum impact location. Use a new impact tape for each test and compare hit locations to assess optimum setup.

IRONS QUESTIONS TO ASK AND WHY?

What is your main goal in purchasing new irons?

This will often create a 'pause' while they think. If they are struggling to answer then prompt them with these thoughts:

More confidence / Hit it further / Greater accuracy / Enhanced workability

This will establish the critical areas you need to work on - use the head selection chart to guide you to the right starting point of head model design.

What is your handicap?

This is an early indicator of what clubs may be appropriate e.g. game improvement iron head for a high handicapper.

Do you find it easy to get the ball in the air?

This will help understand if they need a low centre of gravity.

Is your ball flight high medium or low?

Don't expect a factual answer here but at least you will understand what they believe. Make observations on the ball flight to check the answer against reality. If their perception is different to yours you will be prepared to approach the subject already knowing what they believe which makes the process much easier!

Do you have a preference for how the club looks at address?

This will help to understand if they prefer a thick or thinner top line.

Note: that you should always try and get the performance right first. If they don't like the look of the best performing head then you can explain which would be the best alternative.

Do you want the benefit of high quality feedback into the hands after each shot?

Remind them that this feedback comes with a price - harsher feel and loss of distance/control on miss-hits.

Do you often hit the ground before ball and lose distance?

You might not get an factual answer here so ensure you look out for this pattern when they start hitting shots.

Do you have confidence to hit your irons well?

This will help you decide if they need a large hitting area to give them confidence. Select but of course check to see how they respond to the look once they have it in their hands.

Is your bad shot a slice?

Having a more offset head can help this for some players.

Are you looking to be able to shape the ball both way's?

If the player is a good standard they may prefer clubs with smaller heads and less offset. If this is not something they want (or need) then avoid the clubs in this section.

IRONS ORDER OF ADJUSTMENTS

HEAD - Always start by selecting the appropriate head as this will have the most immediate and maximum impact of all the components. Use the head selection chart in this section to help find what head will impact the customers shots in the best way.

Top Tip: After each change ensure you check the results by using the face impact tape and noting the impact location of the shots.

- a) Head Model: Game Improvement models offer more forgiveness on miss-hits and encourage a higher trajectory. Tour models offer better feedback and workability for the better player.

SHAFT - Once the head has been selected you need to get the 'feel' right for the customer. Read the 'Perfect shaft fitting' section for more details.

- a) Shaft Weight/Material: Steel shafts are heavier, offering stability and enhanced control for players with high clubhead speed. Graphite is lighter, which may increase clubhead speed for slower swingers and dampen vibration. Graphite may also benefit golfers with minor aches and pains, such as tendonitis.
- b) Shaft Flex: Suggested shaft flex starting point based on 7-iron carry distance or use a launch monitor and reference the information against the information charts at the back of this handbook.

>110 yards (100m) and below:	Women's Flex Graphite
110 to 130 yards (100-120m):	Light Flex Graphite
130 to 155 yards (120-140m):	Uniflex and Regular Flex
155 to 175 yards (140-160m):	Stiff Flex
175 yards (<160m) and above:	X-Stiff Flex

SHAFT LENGTH - Shorter shafts fit golfers with shorter stature and/or long arms. Golfers who are taller or have short arms may need longer shafts. Quality of contact is a factor and should be considered when fitting for length so use the impact tape to monitor this. Note: When iron shafts are shortened, they become lighter and the lie angle becomes dynamically 1 degree flatter for every ½" reduction. The opposite is true for longer clubs, which become heavier and more upright.

LIE ANGLE - Lie angle should be fit last because it is affected by shaft length and flex. A lie angle that is dynamically upright will tend to cause less push/fade or more pull/draw because the loft of the iron face is pointing more to the left. A flat lie will cause push/fade or less pull/draw.

GRIP - Complete the process by selecting the correct size and preferred style - see the 'Perfect Grip Fitting' section for more detail.

IRONS PERFECT LIE ANGLE FITTING

1 - Using the sharpie pen and the plastic tool provided with your system, draw a straight line on one half of the ball.

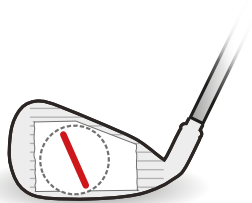
2 - Place the ball on a low tee so that the ball is at turf level with the line vertically positioned so that the club will contact the line at impact.

3 - Place a piece of face impact tape on the 7 iron and have the golfer hit a shot.

4 - Look at the line mark on the impact tape.

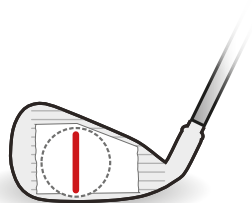
5 - The resulting "ink-line" on the face tape indicates the dynamic lie angle. If the top of the line is more towards the toe than the bottom of the line then the club is playing too upright for the golfer (toe up). If the top of the line is more towards the heel of the club than the bottom then it is playing too flat (toe down).

6 - If the test indicates that the lie angle should be adjusted, then you can have the golfer hit one of the upright or flat clubs in your system to verify.

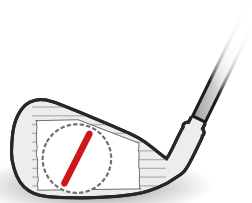


TOO UPRIGHT

Change the selection to a flatter lie



CORRECT LIE



TOO FLAT

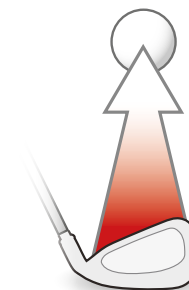
Change the selection to a more upright lie

IRONS PERFECT LIE ANGLE FITTING

A Lie angle that is too upright may result in shots that are pulled (goes to left for right handed players). Conversely, a lie angle that is too flat may result in shots that are pushed (goes to the right for right handed players). It is important to make sure your shot pattern and shot shapes are as consistent as possible.



TOO UPRIGHT



CORRECT LIE



TOO FLAT

LENGTH OF CLUBS

A club that is too short may:

- Force too much spine tilt
- Make the player swing on a more upright plane
- Decrease distance through loss of clubhead speed

A club that is too long may:

- Force an upright spine and make the player swing on a flatter swing plane
- Increase backspin and launch angle
- Cause uneven distance gaps between irons

LIE ANGLE

An excessively upright lie angle may:

- Cause the heel of the golf club to dig
- Cause the golf ball to go to the left (for right hander)

An excessively flat lie angle may:

- Cause the toe of the golf club to dig
- Cause the golf ball to go to the right (for right hander)

GRIPS GRIP FITTING TIPS

OBJECTIVE

Your aim with fitting the grip is to make sure it is both comfortable and that it encourages good hand action.

FITTING SEQUENCE

1 - Check the glove size of the player and use the reference chart to get an idea of what grip size may be appropriate.

2 - Ask your customer to grip a club with both hands and waggle the club as if in preparation to hit a shot.

3 - Have the customer keep their grip on the club but lift the club head up to your hands while maintaining the same tension in their grip on the club.

4 - Gently tug the head and sense how tightly the player has gripped the club. Also if the grip is easy to twist or not.

5 - Ask the player to remove the lower hand from the club so you can see how they have placed the upper hand on the club.

INDICATING SIGNS:

- If the fingers are digging excessively into the palm and the middle parts of the fingers are turning white this could be an indication that the grip is too thin.
- This can cause over gripping which will create tension in the forearm muscles, encourage excessive hand action as well as hinder the rhythm of the swing.
- Typical shots from a grip that is too thin would be a 'pull' or a 'hook'.
- If the fingers only lightly touch the palm and the player feels they cannot grip the club securely this may be an indication that the grip is too thick.

Note: Players often like the feel of a thicker grip but beware of balancing this preference with the resulting shots. A grip that is too thick can neutralise the smaller muscles in the forearm and make it difficult for the player to square the clubface to the target line. Typical shots from a grip that is too thick would be a 'push' or a 'slice'.

GRIPS TESTING WITH THE SAMPLE GRIPS

GLOVE SIZE	GRIP SIZE
Ladies	Ladies
S	Mens Undersize
M, MC, MLC, ML, LC	Standard Mens
L, XLC, XL	Midsize (or +4 wraps)
XXL	Jumbo (or Mid +4 wraps)



1 - Place your choice of grip size in the players hand and hold the end of the shaft to simulate head weight. This will give them a better sense of how the different size grip will feel.

2 - Waggle the end of the shaft and note if the tension as improved and how mobile the wrists are.

3 - Finally, check the top hand position again to see if there is an improvement.

SHAFTS PERFECT FITTING

Shaft fitting is a skill that can be learned through experience and by applying a consistent methodology. The notes below are designed to give you a start in effectively selecting from what can be a bewildering number of custom options to find a great performing shaft for your customers. Use them to get you started but also trust your observations and skill to delve deeper when necessary.

Top Tip: It is unlikely that there is one 'perfect' shaft for any player. It is more likely that there will be a number of shafts that work equally well all of which could be from different brands. As long as the following boxes are ticked you will have a great option for your customer:

- The club feels good
- The strike pattern is consistent (technique allowing)
- The shot pattern is consistent (technique allowing)

Note: The following guidelines are designed to help you select the appropriate shaft - it is not an exhaustive method and it is not possible to know if the shaft will be right for the player until you have seen them hit it and understand their needs and desires.

Top Tip: Always use face impact tape when making each change and keep a sheet of paper with each impact test on for comparison.

SHAFTS FITTING STEPS

Weight can have a big impact on the resulting shots. This is because it can affect the players timing and their swing dynamics. Treat this aspect of shaft selection with care as follows:

1 - First check the players current shaft weight and ask the following question:

- Does the club feel too heavy, too light or just right?

2 - Watch some shots and note the following:

- Is the player's tempo fast, medium or slow?
- Is the shot pattern scattered, consistently straight, consistently left or consistently right?

3 - Once you have the above information you can select a shaft for the player to use as follows:

- If the shaft feels just right and the shot pattern is consistently on target or consistently left/right of target then keep the weight the same or at least within 5 grams of the original.
- If the shaft feels just right but the shot pattern is scattered then look at the tempo of the swing.
- If the tempo is fast it is possible that the shaft is too light for the player to control effectively. Try a heavier shaft in 5 gram increments and compare the strike pattern using face tape to see if it works better. Always check with the player if the feel has changed each time.

Note: Some players will not have any real perception of changes in terms of 'feel'. If this is the case then its fine for you to go purely by the results shown in ball flight and impact tape.

Top Tip: If you are looking for more clubhead speed then going to a lighter shaft is a good idea. Just make sure the shaft is not too light for the player's strength or they can lose control.

SHAFTS LENGTH

If you are looking for more clubhead speed then longer shafts are one way of doing this. This is not recommended in drivers as longer shafts are more difficult to control and 46" is plenty long enough for most players no matter how tall they are.

Top Tip: There will be a point when the club is too long for the player and results in the swingspeed dropping. The correct length is the one that maximises clubspeed but also does not sacrifice on control.

Check the strike pattern and if it is scattered then try a shorter shaft in ½" increments. Keep doing this until you find the best combination of distance and consistency of strike. Typically shortening the shaft by ½" - 1" can have a significant impact on accuracy without significantly decreasing clubspeed. Beware of going beyond 1.5" shorter though. If this is required it may be a better option to look at a strong lofted 3 wood instead.

SHAFTS FLEX

The degree or amount a shaft bends longitudinally.



- Easy way to compare shafts, statically
- Very little uniformity in the industry
- Frequency is an accurate way to measure shaft flex

If you know the swingspeed this is a good starting point to test a flex. If you don't know the swingspeed then use the typical yardage to pick an appropriate flex. Speed and yardage guidelines for flex are in this handbook.

First check the players current shaft flex and ask the following question:

- Does the club feel too stiff, too flexible or just right?

Once you have picked a flex it should be at the selected weight from step 1. Again, watch some shots and note the following: (continued on next page)

- Is the player's tempo fast, medium or slow?
- Is the shot pattern scattered, consistently straight, consistently left or consistently right?

SHAFTS FLEX (CONTINUED)

- Is the strike pattern consistent?
- If the shot pattern is consistently on target and it feels good to the player then that flex should be appropriate. Check the strike pattern to be sure.
- If the shots are consistently pushed, then it's possible that the shaft is too stiff for the player. Try a softer flex.
- If the shots are consistently hooking or are inconsistent in distance then it's possible the shaft is too flexible.

Top Tip: The tempo is a key consideration here. Two players swinging at the same speed but each with a different tempo could have completely different shaft recommendations. As a general rule if the tempo is fast and the clubs is not working or does not feel right then change to a stiffer flex. If the tempo is slow then check a softer flex.

SHAFTS FREQUENCY

The number of complete vibrations or oscillations that a body undergoes during a unit of time - VERY dependent upon weight, length and swingweight.

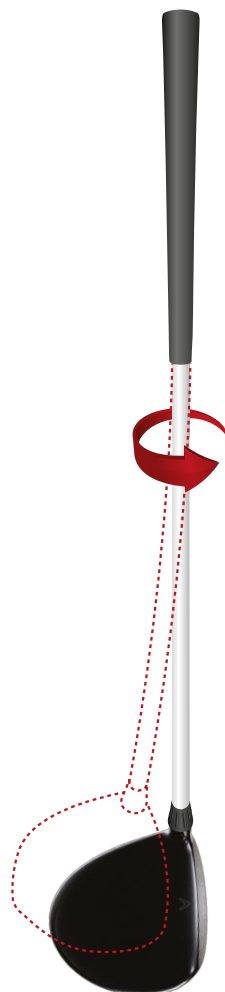


When the frequency measurement is available from a manufacturer (not all of them publish this measure), it will help to compare a flex between brands. For example Brand A and B may both have a regular flex shaft but the frequency will be different. Typically there are 10 cpm between flexes but brand A may designate 250 - 260cpm as their regular flex while Brand B may start at 255. An average standard club golfer would not be able to detect a difference of 5cpm or less.

SHAFTS TORQUE

The angular rotation (degrees) about the shafts longitudinal axis when a load is applied at a specified location.

- Once you have established the weight, length and flex you can fine tune the performance with the Torque. Contrary to popular belief this will have no impact on the accuracy of the shot at impact.
- If the player still has a scattered strike pattern after you get to this stage then a higher torque (3.5-6 degree) would be appropriate. This will help to make miss-hits feel better.
- If a player has a high swing speed and tends to strike relatively towards the centre of the head then they it is likely they will prefer a lower torque (2.5 - 3.5 degree) for a stiffer feel during the downswing and strike.



SHAFTS FLEX POINT

Finally the last step of the shaft selection jigsaw is to consider the players launch angle. The reality is that the flex point will probably not have a great deal of impact on how high the ball takes off. If you really want to increase or decrease the launch angle then the main influencer here will be the loft of the clubhead. However when trying to select the correct shaft it is certainly prudent to observe the following:

- If the player needs more height to his shots then select a shaft with a lower flex point.
- If the player needs to lower his ball flight then select a shaft with a higher flex point.

Which Brand?

This is the least important aspect from a fitter's point of view. Players may have a personal preference for a brand or even a model which is fine but all of the shafts we include in our offering have been rigorously tested by us before being approved for use with our clubheads.

Note: Each brand utilises their own technology of which the information is available on their websites.



LOW FLEX POINT

HIGH FLEX POINT

Note: The section of the shaft with the greatest amount of elasticity, generally expressed as low, mid, or high. The diagram and resulting trajectories shown are **NOT TRUE** for all players.

SHAFTS SELECTION GUIDE

To give you a guide to selecting the most appropriate shaft for a type of player we have filtered the European custom shaft list into an easy to understand set of groups.

All you need to do is:

- 1 - Find out the players swingspeed
- 2 - Decide if their swing tempo is slow, medium or fast

What you'll notice is that the faster the swing speed the firmer the flex of shaft recommended. The faster the tempo the heavier the shafts recommended. The weight of shaft is a key factor when choosing a shaft that feels and performs best for a player.

Remember - this is a guide only - you will not know if a shaft works for someone until you test them with it.

Note:

- If the player has a clubhead speed that is borderline between shaft flexes, try both flexes of shaft to decide consistency of performance for the player.
- Fit the player typically to within 5 grams of the selected weight range to suit tempo of swing.

DRIVER SHAFT FITTING

CLUBHEAD SPEED	TEMPO	SHAFT FLEX	WEIGHT
< 70 MPH (113 KM/H)	SLOW	WOMEN'S	≤ 55G
70 - 80 MPH (113 - 128 KM/H)	SLOW	LIGHT	45G
	MEDIUM		↕
	FAST		60G
80 - 90 MPH (128 - 144 KM/H)	SLOW	REGULAR	55G
	MEDIUM		↕
	FAST		70G
90 - 105 MPH (144 - 168 KM/H)	SLOW	STIFF	60G
	MEDIUM		↕
	FAST		75G
> 105 MPH (168 KM/H)	SLOW	X-STIFF	75G
	MEDIUM		↕
	FAST		90G

IRONS SHAFT FITTING

CLUBHEAD SPEED	TEMPO	SHAFT FLEX	WEIGHT
< 60 MPH (97KM/H)	SLOW	WOMEN'S	≤ 55G
60 - 70 MPH (97 - 113KM/H)	SLOW	LIGHT	55G
	MEDIUM		↕
	FAST		75G
70 - 80 MPH (113 - 129KM/H)	SLOW	REGULAR	55G
	MEDIUM		↕
	FAST		125G
80 - 90 MPH (129 - 145KM/H)	SLOW	STIFF	75G
	MEDIUM		↕
	FAST		125G
> 90 MPH (<145KM/H)	SLOW	X-STIFF	85G
	MEDIUM		↕
	FAST		120G

LENGTH + LIE MEASUREMENT

HORIZONTAL = PLAYER HEIGHT																									VERTICAL = 1ST CREASE OF WRIST-TO-FLOOR MEASUREMENT									
M/CM	1.52	1.54	1.57	1.60	1.63	1.65	1.68	1.70	1.73	1.75	1.78	1.80	1.83	1.85	1.88	1.91	1.93	1.96	1.98	2.01	2.03	INCHES												
78	-2	-2	-2	-1.5	-1.5	-1.5	-1.5	-1	-1													30.5												
79	-2	-2	-1.5	-1.5	-1.5	-1.5	-1	-1	-1	-1												31												
80	-2	-1.5	-1.5	-1.5	-1.5	-1	-1	-1	-1	-0.5												31.5												
81	-1.5	-1.5	-1.5	-1.5	-1	-1	-1	-1	-0.5	-0.5	-0.5	-0.5										32												
83	-1.5	-1.5	-1.5	-1	-1	-1	-1	-0.5	-0.5	-0.5	-0.5	-0.25	-0.25									32.5												
84		-1.5	-1	-1	-1	-1	-0.5	-0.5	-0.5	-0.5	-0.25	-0.25	-0.25	STD								33												
85			-1	-1	-1	-0.5	-0.5	-0.5	-0.5	-0.25	-0.25	-0.25	-0.25	STD	STD							33.5												
86				-1	-0.5	-0.5	-0.5	-0.5	-0.25	-0.25	STD	STD	STD	STD	STD	STD						34												
88					-0.5	-0.5	-0.5	-0.25	-0.25	STD	STD	STD	STD	STD	STD	STD	0.25					34.5												
89						-0.5	-0.25	-0.25	STD	STD	STD	STD	STD	STD	STD	STD	0.25	0.5				35												
90							-0.25	STD	STD	STD	STD	STD	STD	STD	0.25	0.25	0.5	0.5	1			35.5												
91								STD	STD	STD	STD	STD	STD	0.25	0.25	0.5	0.5	1	1	1.5		36												
93									STD	STD	STD	STD	STD	0.25	0.25	0.5	0.5	1	1.5	1.5	2	36.5												
94										STD	STD	STD	STD	0.5	0.5	1	1	1.5	1.5	2	2	37												
95											0.25	0.25	0.5	0.5	1	1	1.5	1.5	2	2	2.5	37.5												
97												0.5	0.5	1	1	1.5	1.5	2	2	2.5	2.5	38												
FEET		5'0"	5'1"	5'2"	5'3"	5'4"	5'5"	5'6"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	6'4"	6'5"	6'6"	6'7"	6'8"												

Note: STD Does not have a colour on the club



3 UP

2 UP

1 UP

STD

1 FLAT

2 FLAT

3 FLAT

DRIVER LAUNCH PARAMETERS

SHAFT FLEX GUIDELINES (DRIVER) APPROX.				
CLUBHEAD SPEED	SHAFT FLEX	BALL SPEED	LAUNCH ANGLE	BACK SPIN
< 70 MPH (113 KM/H)	WOMEN'S	UNDER 105 MPH (167 KM/H)	13° - 15°	2600 - 3000 RPM
70 - 80 MPH (113 - 128 KM/H)	LIGHT	100 - 128 MPH (161 - 206 KM/H)	13° - 15°	2500 - 2800 RPM
80 - 90 MPH (128 - 144 KM/H)	REGULAR	120 - 143 MPH (193 - 230 KM/H)	12° - 14°	2400 - 2800 RPM
90 - 105 MPH (144 - 168 KM/H)	STIFF	133 - 164 MPH (214 - 264 KM/H)	11° - 13°	2200 - 2700 RPM
OVER 105 MPH (>168 KM/H)	X-STIFF	OVER 155 MPH (249 KM/H)	10° - 12°	2100 - 2600 RPM
< 180 YARDS: (<165M) WOMEN'S	180 - 210 YARDS: (165 - 190M) LIGHT	210 - 240 YARDS: (190 - 220M) REGULAR	240 - 275 YARDS: (220 - 250M) STIFF	> 275 YARDS: (>250M) X-STIFF

IRONS LAUNCH PARAMETERS

SHAFT FLEX GUIDELINES (7-IRON) APPROX.				
> 175 YARDS: (160M) X-STIFF	155 - 175 YARDS: (140 - 160M) STIFF	130 - 155 YARDS: (120 - 140M) REGULAR	110 - 130 YARDS: (100 - 120M) LIGHT	< 110 YARDS: (<100M) WOMEN'S
6500 - 7500 RPM	17.0 - 20.0°	OVER 121.5 MPH (196 KM/H)	X-STIFF	(H/M/KM 161 - 141) HPM 001
6300 - 7300 RPM	18.0 - 21.0°	(H/M/KM 173 - 210) HPM 108 - 130.5	STIFF	(H/M/KM 141 - 129) HPM 80 - 90
5600 - 5500 RPM	20.0 - 22.0°	(H/M/KM 181 - 191) HPM 95 - 116	REGULAR	(H/M/KM 129 - 113) HPM 70 - 80
4900 - 5900 RPM	21.0 - 23.0°	(H/M/KM 191 - 130) HPM 81 - 102	LIGHT	(H/M/KM 113 - 97) HPM 60 - 70
00200 - 00404 RPM	23.0 - 25.0°	(H/M/KM 130) HPM 81	S.NEMOW	(H/M/KM 97) UNDER 09 HPM
BACK SPIN	LAUNCH ANGLE	BALL SPEED	SHAFT FLEX	CLUBHEAD SPEED



WARNING: Drivers & Irons:

Only trained personnel should attach a clubhead to a shaft. Securely attach clubhead by turning the correct Optifit torque wrench until it “clicks.” Do not attach clubhead by any other means. Failure to follow these instructions could lead to serious injury.

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