

The Most Important Elements of Clubfitting

Tom Wishon Golf Technology

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Why Offer Full Specifications Clubfitting to Your Golfers?

- The Golf Industry's Golf Equipment Business Model is Standard Off the Shelf
- The Evolution of Standard Golf Club Specifications Now Prevents Many Golfers from Achieving their Potential


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Why Offer Full Specifications Clubfitting to Your Golfers?

- Today's Standard Specifications
 - Drivers are much too long
 - Fairway Woods are too long, too closely spaced in loft/length
 - Iron lofts are too low
 - Shaft Flexes have no standard
 - Poor Set Makeup options and advice
 - Retail Fitting is not Full Specifications fitting


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What is Full Specifications Clubfitting ?

- Full Specifications Fitting
 - All 12 fitting specs for all clubs
- Golf Industry Typical Fitting
 - Only 3 or 4 fitting specs within a more narrow range of fitting options and only for a few of the clubs in the set

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- Full Specifications Fitting
 - Length Shaft Weight Swing Weight
 - Loft Shaft Flex Set Makeup
 - Lie Shaft Bend Profile Grip Size/Style
 - Face Angle Total Weight Clubhead
- Golf Industry Fitting
 - Driver - Loft, Face Angle, Lie (within a limited range)
 - Shaft Flex- (but with no standards and few shaft weight options)

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- Who Benefits the Most from Full Specs Fitting?
 - Middle Handicap
 - Women
 - Low Handicap
 - Beginners (makes swing coaching more successful)
- How do Golfers Benefit from Full Specs Fitting?

(one or more of the following for >70% of all golfers)

 - 10 more yards distance
 - 10 - 20 yard reduction of slice/hook
 - 2 - 5 more fairways/ greens
 - 2 - 3 more "up & downs"
 - 4 - 5 fewer putts

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1. Length

A. Wrist - to - Floor (as a starting point only)

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Wrist To Floor Measurement for Initial Club Lengths

Wrist to Floor	Driver Length	5-Iron Length
27" to 29"	42"	36 1/2"
29" to 32"	42 3/4	37
32" to 34"	43 1/2	37 1/2
34" to 36"	44	38
36" to 37"	44 1/4	38 1/4
37" to 38"	44 1/2	38 1/2
38" to 39"	44 3/4	38 3/4
39" to 40"	45	39
40" to 41"	45 1/4"	39 1/4
41" to 42"	45 1/2"	39 1/2
over 42"	46 and up	39 3/4 and up

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1. Length

A. Wrist - to - Floor

B. Analyze Golfer

- 1) Swing Path
- 2) Transition / Tempo
- 3) Wrist - Cock Release
- 4) Golfer's Athletic Ability


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1. Length (Drivers)

- 45" or Longer
Smooth transition/ tempo + square to inside-out path + later release + good golf athletic ability
- 43" to 43.5"
Faster tempo, outside-in path, early to midway release, below average golf athletic ability
- 44"
Average tempo, slightly-outside in path, midway to somewhat late release, average golf athletic ability


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1. Length (Fairway Woods)

- Once the best driver length is chosen for the golfer...
 - The "2nd longest hitting wood" should be 1" shorter. 1.5" shorter if golfer has outside-in path or faster tempo or less golf athletic ability
 - Then 1" between woods to ensure proper distance gaps


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1. Length (Hybrids/ Irons)

- Once the best 5-Iron length is chosen for the golfer...
 - Hybrids ARE irons so they should be fit to be the same length as the iron of the same loft
 - Consider 3/8" increments between the irons

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2. Loft (Drivers)

- Clubhead Speed
- Angle of Attack
- Fairway Conditions [+ wind & weather]

Two Ways to Find the Best Driver Loft for a Golfer

- 1) Launch Monitor
- 2) Fitting/ Swing Evaluation + Chart of Known Lofts vs. Swing Speed and Angle of Attack

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2. Loft (Drivers)

- Launch Monitor Fitting

TRACKMAN Driver Fitting Chart: TOTAL Optimizer

Club Speed (mph)	Attack Angle (deg)	Ball Speed (mph)	Launch Angle (deg)	Spin Rate (rpm)	Carry (yards)	Total (yards)	Dynamic Loft (deg)
75	-5	107	11.8	3214	140	182	14.9
75	0	109	13.0	2506	147	195	15.3
75	5	111	15.3	1976	156	206	17.1
80	-5	115	10.1	3078	154	188	12.8
80	0	117	12.1	2494	163	199	14.3
80	5	118	14.8	2005	174	209	16.5
85	-5	123	9.3	3110	169	215	11.9
85	0	125	11.7	2568	180	228	13.8
85	5	125	14.0	1964	189	241	15.5
90	-5	131	8.5	3122	185	231	10.0
90	0	132	10.8	2517	196	245	12.8
90	5	134	13.8	2021	207	259	15.3
95	-5	138	7.9	3144	201	247	10.2
95	0	140	10.5	2565	213	262	12.3
95	5	141	13.0	1949	223	276	14.4

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2. Loft (Drivers)

- Fitting / Swing Evaluation

Optimal Driver Loft for Maximum Carry Distance

Clubhead Speed	Angle of Attack	Driver Loft for Max. CARRY
70 mph	-2°	18
	0°	17
	+2°	15
80 mph	-2°	15
	0°	14
	+2°	13
90 mph	-2°	12.5
	0°	11.5
	+2°	10.5
100 mph	-2°	12
	0°	10.5
	+2°	9.5
110 mph	-2°	10.5
	0°	9
	+2°	8

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2. Loft (Fairway Woods)

- Don't Automatically think 3-wood. Think in terms of the golfer's "2nd Longest Hitting Wood"
- What is the golfer's lowest loft Wood they can hit consistently up in the air
- Then choose the rest of the woods based on loft increment vs. clubhead speed

<80mph	→	5° to 6°
80 - 100mph	→	4° to 5°
>100mph	→	3° to 4°

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2. Loft (Hybrids/ Irons)

- Hybrids ARE irons
- What is the golfer's lowest loft iron they can hit consistently up in the air
- Stronger loft irons are OK as long as you are careful with the set makeup recommendation (stronger loft irons will require more hybrids or fairway woods)

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3. Face Angle (Woods & Hybrids)

- Face Angle is the very best way to use clubfitting changes to reduce an accuracy problem
- A 1° change in face angle results in a 4 to 5 yard change in slice or hook at a carry distance of 200 yards
- Offset driver models can also help reduce a slice for certain golfer swing types

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4. Shaft Weight

- Shaft Weight controls Total Weight
- Forceful transition
Aggressive tempo
Physically strong
- Smooth tempo
Gradual transition
Physically weaker

Heavier Shaft Weight

Lighter Shaft Weight

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4. Shaft Weight

Shaft Weight Selection Guidelines

Transition/Tempo	Strength	Wood Shaft Weight	Iron Shaft Weight
#1	#1	> 60g	> 70g
#1	#2	> 60g	70 to 80g
#1	#3	60 to 75g	85 to 95g
#2	#1	60 to 70g	90 to 100g
#2	#2	60 to 75g	90 to 110g
#2	#3	70 to 85g	95 to 115g
#3	#1	70 to 80g	100 to 115g
#3	#2	75 to 90g	110 to 125g
#3	#3	80 to 95g	115 to 130g

#1 Transition/Tempo = Smooth/Gradual
#2 Transition/Tempo = Average Force
#3 Transition/Tempo = Forceful/Aggressive

#1 Strength = Below Average
#2 Strength = Average
#3 Strength = Above Average

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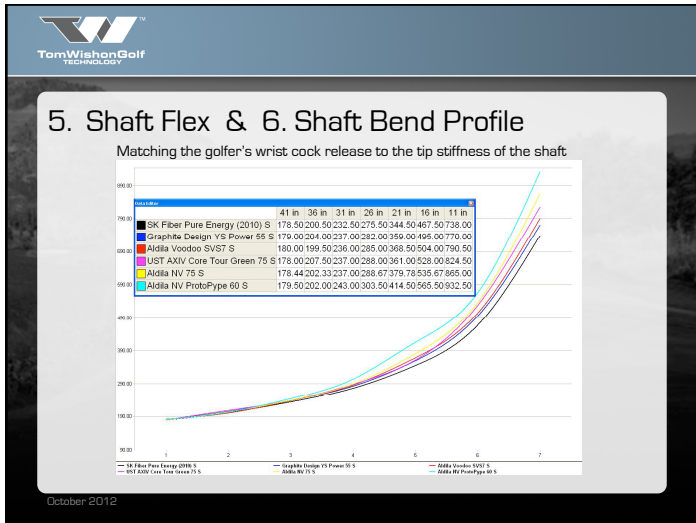
5. Shaft Flex

6. Shaft Bend Profile

Must Be Fit to the Golfer's:

- Clubhead Speed
- Transition Force
- Downswing Tempo
- Point of Wrist – Cock Release
- Golfer's Preference for Feel

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5. Shaft Flex & 6. Shaft Bend Profile

The golfer's preferences for the bending feel of the shaft. . .

How does this Affect the Shaft Fitting Process ?


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7. Total Weight & 8. Swing Weight
(The Head Weight Feel)
- When you fit the shaft weight you have fit the total weight
 - Swing weight (head weight feel)
 - Transition force
 - Downswing tempo
 - Golfer's preference for head weight feel
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7. Total Weight & 8. Swing Weight
- Swing Weight (head weight) Fitting
- The more forceful/ aggressive the transition/ tempo, the greater the head weight feel should be
 - The more passive/ smooth the transition/ tempo, the less the headweight feel could be
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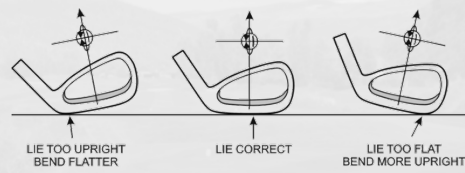
7. Total Weight & 8. Swing Weight

An Alternative to Swing Weight Fitting -
MOI Matching



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9. Lie Angle



Driver	→	Less Important
Fairway Woods	→	More Important
Hybrids/Irons	→	Most Important

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9. Lie Fitting

Always Perform Dynamic Lie Fitting

- Lie Board Method
- Ink Line on Back of Ball Method


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10. Set Makeup

One of the Most Important Fitting Elements

- Replace hard to hit clubs with easier to hit clubs that go the same distance
 - The "2nd longest hitting wood"
 - High loft woods or hybrids vs. lower loft irons
 - Considerations for strong loft iron sets
 - Wedge fitting to match the sand, grass, and greens design

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11. Grip Style / Size

- It is all about the golfer's preference
 - Texture, tackiness, color
 - Golfer comfort

Grip size measurement charts are OK to begin the process for fitting grip size, but **the golfer's comfort preference is most important**

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12. Clubhead Design Selection

	Performance	Preference/Mental
MOI	✓	
Center of Gravity	✓	
Offset		✓
Size		✓
Cosmetics		✓
Face Design	✓	
Sole Design	✓	

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12. Clubhead Design Selection

“Within the clubhead models that meet the golfer's preference for size/ shape / offset/ appearance, choose the ones that have the highest MOI / forgiveness with a sole design that matches the type of grass where the golfer plays”

- More Distance
 - High COR face
 - Lower lofts (but watch the set makeup)

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Thank You for your
Interest
and for your
Attention

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