

SAM PUTTER FITTING

A properly fitted putter is fundamental to consistent, successful putting. When a putter doesn't match the player, compensations in the stroke become unavoidable. One of the most common issues is excessive putter length, which can lead to increased face rotation, inconsistent swing path, and poor impact consistency.

SAM PuttLab fitting protocols provide a structured, data-driven fitting process that interactively guides players and fitters through all key elements of putter fitting to ensure the putter matches the individual stroke. Fitting with SAM PuttLab protocols gives golfers a much more objective and precise way to improve putting performance compared with traditional “feel-based” fitting.

Key advantages include:

- **Objective, data-driven fitting** using 70+ stroke measurements like aim, face angle, path, rotation, launch conditions, tempo, consistency.
- **Accurate putter matching** for head style, balance, length, lie, loft, grip, weight, based on your natural stroke.
- **Improved consistency and distance control** by identifying the real causes of missed putts.
- **Clear separation of technique vs equipment issues**, helping avoid unnecessary equipment changes.
- **Greater confidence on the greens through a more repeatable setup and stroke.**

Additionally, SAM PuttLab offers helpful tools inside of a fitting process:

- **Comparison protocols** allow to directly evaluate the differences between putter options.
- **Tour-level benchmarking** of all data against elite player data.
- **Immediate visual feedback** with 3D stroke analysis and video replay.

SAM PuttLab fitting is not just for elite players. Fitters commonly use it for beginners through professionals because even small putting gains can lower scores significantly.

One of the key insights from SAM-based fitting is that great putting is less about achieving a perfect stroke and more about creating a consistent, repeatable motion. SAM Fitting Protocols are designed to enhance repeatability and minimize compensations.

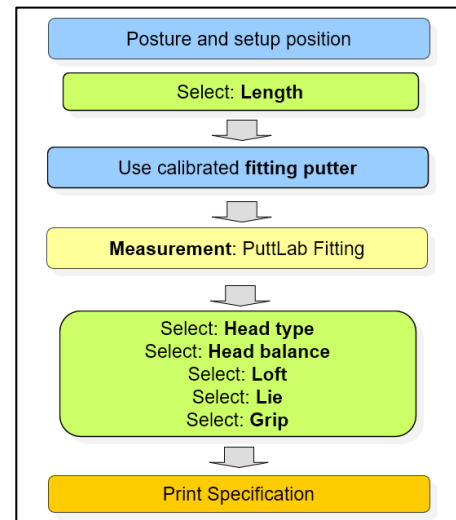
The fitting process can be divided into two main areas. **Static fitting** focuses on the player's setup and primarily determines the correct putter length and eye position relative to the ball. **Dynamic fitting** evaluates all the movement characteristics of the stroke, with particular emphasis on the conditions at impact.

SAM Fitting Protocols

The SAM Fitting protocol is a simplified and guided putter fitting process within SAM PuttLab designed to help fitters quickly identify the most suitable putter specifications for a player.

Using real stroke data, SAM PuttLab analyses key parameters including aim, face angle, path, rotation, impact, launch, and—most importantly—consistency. Based on these measurements, the system delivers clear recommendations for the key elements of putter fitting.

The protocol guides the fitter step-by-step through both static and dynamic fitting, making the process efficient, repeatable, and easy to understand for golfers of all skill levels. Its goal is to match the putter to the player's natural stroke, reducing compensations and improving consistency on the greens.



Static Fitting

Static fitting includes the factors putter length, static loft and static lie. To adjust length and lie, a simple scheme is used. Three reference lines are considered in the side view of a player's setup:

- Eye roughly over the ball
- Hands hanging under the shoulders, over the tips of the feet
- Extension of the putter shaft into the forearms

To determine the correct length of the putter, the player is first brought into a reference setup. The arms should hang relaxed under the shoulders with the shoulders width apart. The upper body is comfortably bent forward at an intermediate angle.

The player then adjusts their position forward or backward until their eyes are directly over the ball, verified using a mirror. Next, the hands are brought together in a neutral “prayer” position, allowing the arms to swing freely to both sides. An adjustable fitting putter is then placed centrally in the hands, and the correct putter length can be read from the scale or measured accordingly.

The static lie can be read in exactly this position. If there is no fitting putter, you can see how the normal putter stands in this position. Whether this position actually suits the player is checked by closing his eyes, standing up and then addressing again. If the positions consistently differ, a compromise should be found.

Static loft can be measured with a loft meter. The standard loft is currently two to four degrees, but there are also putters on the market with reduced loft of just one degrees. Depending on hand position and position of the shaft, the loft at setup can be changed. Many tour players deloft their putters using a “forward press” to allow for a flatter launch angle and topspin.



Dynamic Putter Fitting

SAM PuttLab is a perfect measuring tool for dynamic putter fitting. Dynamic fitting includes selection of putter design, putter head balance, adjusting the dynamic loft and dynamic lie, grip configuration, and more sophisticated aspects such as weighting. The data can also be used to confirm previous selections e.g. related to the length of the putter.

SAM PuttLab offers unique fitting protocols which guide you interactively through the fitting process. The **EasyFit protocol** is a one measurement process for the most important fitting aspects. The **PerfectFit protocol** is a two measurement protocol also covering extended aspects such as head and shaft weighting.

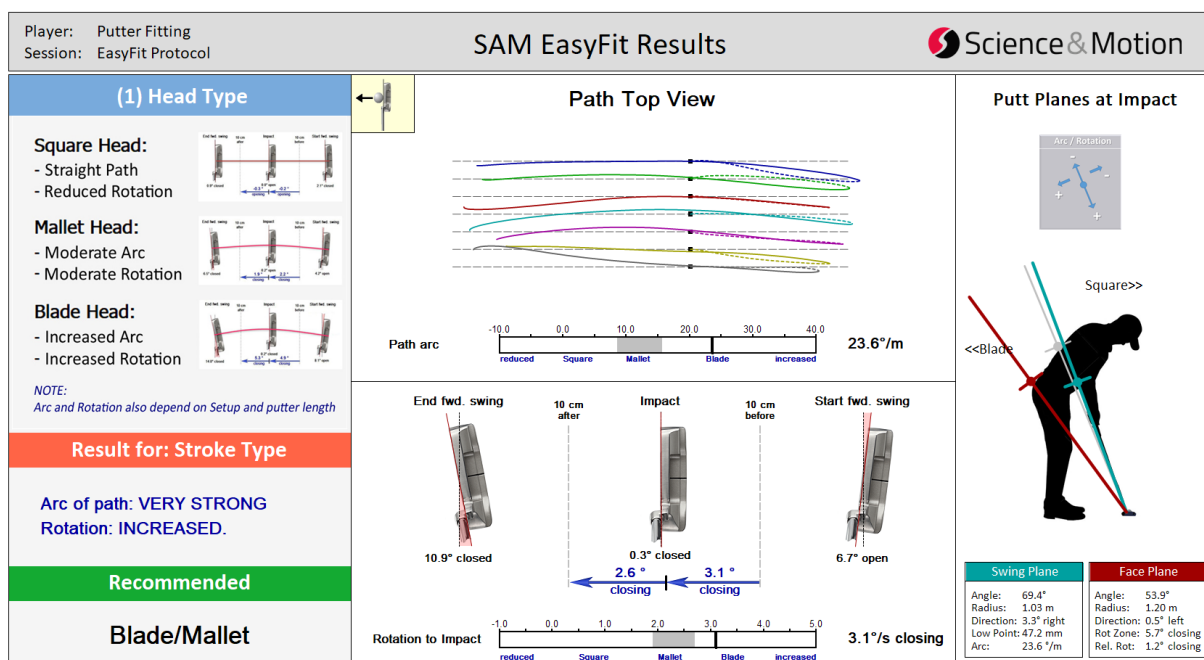
Factor	Selection depends on:	EasyFit	Perfect Fit
Length	Find a neutral setup using mirror or camera	static	static
Head Type	Assess arc and absolute rotation	X	X
Head Balance	Assess rotation relative to path	X	X
Loft	Adjust loft and rise angle for optimal launch and spin	X	X
Lie	Putter is flat onto the ground	X	X
Grip	Consistency of Rotation, consistent putting	X	X
Shaft, Offset	Check direction and consistency of aiming		X
Additional head weight	Supports smooth movement, slows down swing times		X
Shaft weighting	Calms the hands, improves inconsistent rotation		X

Head Type

The choice of putter head type should reflect the characteristics of the player's putting stroke, particularly in terms of absolute face rotation and stroke path arc.

- Players who show significant face rotation or a pronounced path arc typically benefit from smaller head shapes such as blade putters, which feature fewer visual distractions and a more minimal design.
- Players with minimal face rotation and a relatively straight stroke path are generally better suited to larger head designs, such as square or high-MOI putters, which often include more alignment features and visual aids.
- Players with intermediate levels of face rotation and path arc are usually best matched with mid-sized mallet-style putters that balance stability with some adaptability to the stroke.

If impact location is inconsistent or frequently misses the sweet spot, a higher-MOI putter head can help improve stability and forgiveness at impact.



Example of an Easy Fit report page on Head Type

Head Balance

The choice of putter Head Balance should reflect the player's relative face rotation, meaning how much the face rotates compared to the stroke path, resulting from additional rotation introduced by the hands around the shaft.

- Players with significant relative face rotation typically benefit from a toe-hang putter that supports face rotation. This includes Blade or Mallet designs with approximately 45°–60° of toe hang.
- Players with moderate relative rotation are generally suited to intermediate or slight toe-hang designs (around 30°) or face-balanced options. A small amount of toe hang can enhance feel by introducing subtle rotational feedback through the hands.
- Players with little to no relative rotation, or those who tend to open the face against the path arc, are usually best matched with face-balanced putters, which resist rotation and help maintain a square face to the target line.
- For players aiming for a truly neutral stroke with minimal or no relative rotation, torque-balanced designs can be beneficial, as they are engineered to remain stable and neutral throughout the natural swing plane.

Loft & Lie

The dynamic loft is considered together with the angle of attack to the ball. Both factors can be influenced by putter specs but also by ball position. When putting on fast greens, the dynamic loft should be around two degrees resulting in flat launch and early roll, and the impact angle should be three to four degrees upwards (only 1-2 degrees for crosshanded grips). Consequently, with a neutral hand position, a putter with two degrees of loft should be played. If the setup position is maintained, the dynamic lie should correspond to the set static lie.

Grip type

Selection and thickness and weight of the grip correspond to consistency of face rotation and on overall consistency of the putting. A thicker grip makes the hands more stable during the putt and should be preferred by amateurs. If face rotation is smooth and consistent, and if there are no problems with active hands a thin grip be chosen to support feel which is important for distance control. If there are problems with active hands a thicker and more heavy grip should be chosen.

Offset

In some concepts, offset is used to correct misalignment. Theoretically, with the same ball position and more offset, the clubface should point more to the left. However, this effect is not uniform, and adjusted offset also changes the visual impression of the face at address. Shaft offset is also a matter of visual preferences.

Head Weight

The weight of the putter head influences overall swing behaviour and can often be easily adjusted using small weight inserts. For players with irregular motion or an inconsistent rhythm, a slight increase in head weight can help stabilise and smooth the stroke. However, too much head weight can make the putter feel overly top-heavy, reducing sensitivity and feedback and potentially compromising distance control. Lighter putters, by contrast, are often better suited to players with a naturally sensitive touch, offering enhanced feel and more precise pace control.

Shaft weighting

Shaft weighting (pluggable weights positioned under the handle) calms the movement, but more importantly, also calms the wrists. This is a perfect solution if the player is suffering from Yips like problems. At the same time, the putter head still feels light, which means that the important feel is retained. If the putter has been shortened, the missing weight at the top of the grip can be replaced with a weight insert.

SAM Fitting Result Report

The SAM EasyFit result report is the output document generated after a fitting session using the EasyFit protocol within SAM PuttLab. It translates the player's measured stroke data into clear, practical equipment recommendations.

Based on this analysis, the report provides structured fitting recommendations for the most important putter specifications.

Player: Peter Session: 2023-07-23 16:25 (M)		SAM EasyFit Results		Science & Motion	
Data		Fitted Putter Specs			
Lastname: Firstname: Peter Date: 23.07.2023 Old Putter Brand: Odyssey Twoball Head design: Square Head balance: Face-balanced Offset: centershaft Length: 35.0 Loft: 3.0 Lie: 71		Head Type: Blade Head Balance: Zero-torque Length: 33.5 Loft: 2.0 Lie: 70 Grip: Midsize Offset: no offset Head weight: 340 Shaft weight: 50			
Head	Alignment	Grip			
					