



Roll models

**PUTTER
FACE INSERT
TEST**

What's the best putter face to help you hole more? We tested this year's most popular models on a Quintic Ball Roll system to find out

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Virtually every new putter launched comes with the promise of better roll. Whether the improvement comes from face grooves, a new insert or milling pattern, the designer's intention is always to reduce the amount putts skid, impart more top spin and get putts rolling smoother, sooner. If they do that, they're more likely to hole their line – and go in.

TaylorMade's Spider Tour Red – used by Masters champion Sergio Garcia among other big-name tour players – sports 45-degree grooves on its insert. Odyssey's O-Works 'microhinge' insert is said to redefine what golfers consider to be good roll; and Ping says its variable width and depth groove geometry adds consistency.

We, like you, would love to know which putter actually rolls putts the best. It sounds like a simple test, but we soon realised there's a lot more to it...

How we measured roll

Quintic Ball Roll is the system used by the R&D teams at many of the top putter manufacturers. A camera captures an astonishing 360 frames per second to reveal how putts launch off the face, turning that information into digital images and data. The system's also used by many of the world's best putting instructors.

We chose three of our favourite putters from each of the blade, mallet and MOI categories within our 2017 Top Gear tests, featuring the latest face tech.

We collaborated with putting guru Dr Paul Hurrion and used the putting robot and high-speed Ball Roll camera set up at his Quintic lab in Birmingham. Every putter was mounted in the robot and hit 10 putts from 18 feet, while the camera and software looked on. We measured how every putt launched off the face, how far it

skidded and how much back or topspin was imparted.

And because we realise golfers aren't robots, we spent a day at The Putting Studio at Crews Hill Golf Club, near Enfield, testing each putter from the same distance on a Quintic system. After crunching all the data we averaged our findings across all three testers (the robot, James and Simon) and came up with our conclusions on which is the best rolling putter in each of our three categories.

The testers

 **James Wood, PGA Pro**
Crews Hill Golf Club, Accredited Quintic Ball Roll Centre.

 **Simon Daddow**
Handicap 10
TG Equipment Editor

Odyssey O-Works #1 £179

BLADES

- www.odysseygolf.com ● **Toe hang:** Moderate
- **Average skid distance:** 21.7 inches ● **Average topspin:** 31.91rpm

TECH: Odyssey says the new O-Works insert promotes immediate topspin, reducing skid and improving accuracy regardless of your stroke. The insert is a blend of 150 stainless steel 'microhinges' (which help lift the ball into roll at impact) and a thermoplastic elastomer surround to ensure great feel and feedback.

VERDICT: Odyssey promised the new O-Works insert would deliver better roll – and our results totally back up their claims. The #1 not only produced the least amount of skid (averaged across two testers and the robot) of the three

blades tested, it also generated the most topspin, too.

It's important to remember personal preference came into it for our human testers as it's impossible to hide the looks, feel, grip type and how different amounts of toe hang better suited our human strokes. But across the board the O-Works is really strong.

Interestingly, the blade category skidded putts for longer with less topspin (than the mallets), which we reckon can be partly explained thanks to the centre of gravity being closer to the face which means less forgiveness on off-centre strikes.



Microhinges
L-shaped stainless steel hinges are embedded into the elastomer insert.

Feelgood factor
The steel hinges blend with the elastomer to deliver a sense of crispness within a generally soft impact feel.



EVN Roll ER2 £249

- www.evnroll.com ● **Toe hang:** Slight
- **Average skid distance:** 22.5 inches
- **Average topspin:** 21.31rpm

TECH: Milled grooves are wider in the centre of the face and narrower towards the toe and heel. Designer Guerin Rife says "more face is more hit" so the same energy is transmitted to off and on centre hits, improving distance control.

VERDICT: EVN Roll have burst onto the scene for good reason. Simon's been a big fan since testing in January. The slight toe hang really suits his stroke, so it's no surprise it produced the lowest skid numbers for all putters tested in his hands. Topspin numbers were just below average for all the putters tested.



Bettinardi BB1F £249

- www.bettinardi.com ● **Toe hang:** Strong
- **Average skid distance:** 24.9 inches
- **Average topspin:** 11.5rpm

TECH: Bettinardi offers three different face milling styles, which all deliver a different feel. The honeycomb pattern on the BB1F produces the firmest feel.

VERDICT: The traditional toe and heel weighted blade design, with a strong toe hang, means it wouldn't be our human tester's preferred flatstick (only because of their stroke type). But our robot couldn't notice the difference, and the BB1F skidded putts for longer than any other putter on test and generated the second lowest topspin numbers.

Odyssey O-Works R-Line £179

MALLETS

- www.odysseygolf.com ● **Toe hang:** Face balanced
- **Average skid distance:** 22.9 inches ● **Average topspin:** 48.6rpm

TECH: The mallet R-Line has obvious differences to the bladed #1 but for the purposes of this test – which focuses on face technology – the two are the same. R-Line's face features the same blend of 150 stainless steel 'microhinges', designed to deliver quick roll, and the thermoplastic elastomer surround to promote feel and feedback.

VERDICT: Odyssey's blurb on the O-Works insert talks about better roll, and boy does it deliver when housed in the R-Line's mallet head. It's widely accepted that the more topspin you create, the better a putt rolls across a

green's surface, so it's no surprise the R-Line, with the O-Works insert and its forgiving, wide and stable head, generated the highest average topspin for all putters tested. For Simon, it produced a whopping 82.4rpm of topspin, which is really impressive. For James it was second only to the TaylorMade TP Collection Berwick. Skid distance wasn't right at the very top of the pile, but it was right on the test average. For us, it shows there's real roll benefits from that new insert, which is now available on 10 different models, including 2Ball and counterbalanced Tank options.



Spin control
Impressive topspin data validates the performance of the roll-encouraging microhinges.

Big choice
This insert is now available in eight tour-proven head shapes.



TaylorMade TP Berwick £199

- www.taylormadegolf.com ● **Toe hang:** Face balanced
- **Average skid distance:** 22.7 inches
- **Average topspin:** 34.6rpm

TECH: The head is milled from 303 stainless steel yet the insert is 6061 aluminium. Face grooves are milled at a 45° angle up into the insert, which they say gets putts rolling 10-20% sooner.

VERDICT: The Berwick might look ordinary, but its performance when it comes to skid and topspin performance is nothing short of first class. The insert material is different to the popular Spider Tour, but crucially the 45° groove pattern is the same. For James it produced his best topspin numbers and it was well inside Simon's top three for roll, too.



Ping Vault Oslo £275

- www.ping.com ● **Toe hang:** Face balanced
- **Average skid distance:** 23.1 inches
- **Average topspin:** 29.2rpm

TECH: TMilled grooves are deeper in the centre so off-centre hits experience greater energy transfer and speed up, so they go as far as on-centre strikes.

VERDICT: Just like driver fittings there's tons of variables to consider when it comes to testing putters. But with the three mallets in our test producing the most topspin and the least skid (tied with the MOI) there's an obvious trend. The Oslo produced more topspin than any other in the hands of our robot, which says it's capable as any of rolling putts as smoothly across a green. ▣

EVNRoll #7 £275



- www.evnroll.com ● **Toe hang:** Slight
- **Average skid distance:** 20.8 inches ● **Average topspin:** 19.2rpm

TECH: This high-MOI putter has the same face technology as the bladed ER2. Its milled grooves are wider in the centre to take some of the heat out of the impact, and narrower towards the toe and heel to give strikes away from the centre more speed. In that way, the same energy is transmitted to off and on-centre hits, improving distance control.

Rife also believe the milling pattern helps accuracy through gear effect, which produces spin that counters the aim of the blade. That should mean a better line on toe strikes, which open the face at impact, and heel strikes which tend to shut the blade.

VERDICT: All the EVNRoll putters really impressed our panel during our Top Gear tests this year, and it's great to see their performance backed up with some really solid skid and roll data.

The ER7 generated the lowest skid average of all the putters tested, and for James it was his lowest-skidding putter with just 15 inches of travel before putts started rolling perfectly across the green's surface.

Like the EVNRoll ER2 (blade) it didn't quite impart as much topspin as the very best across all categories, but it did generate more topspin than the other two MOI putters we tested.



TaylorMade Spider Tour Red £269

- www.taylormadegolf.com ● **Toe hang:** Moderate ● **Average skid distance:** 23.8 inches ● **Average topspin:** 17.34rpm

TECH: The 45° face grooves of the Red are just like those on the TP Collection Berwick, but the insert is different.

VERDICT: There's not a hotter putter on tour right now. Sergio, DJ, Day, Rahm... they've all got one. Its toe hang and flow neck are tailored specifically to Day's personal preference, but where our human testers spotted this our robot obviously didn't. On the robot the Spider produced the least amount of skid of any putter tested, which goes some way to explaining why so many tour pros are going gaga over it.



Ping Sigma G Wolverine T £175

- www.ping.com ● **Toe hang:** Face balanced ● **Average skid distance:** 23.7 inches ● **Average topspin:** 3.71rpm

TECH: A milled 6061 aluminium insert has grooves of varying width and pitch to improve touch and distance control on every putt, says Ping.

VERDICT: The Wolverine's head shape may be pretty funky, but its long alignment stripe couldn't be simpler. Our test pro wasn't a massive fan of the head, though, which could have played a part in the data collected. But it couldn't hide how the Wolverine was the only putter on test to post backspin numbers – you actually want topspin – from two testers (James and the robot).



Sweet face
A progressive milling pattern broadens the sweetspot across the entire contact area.

Pick your head
There are eight models in the EVNRoll line-up, from blades to high-MOI mallets.



Niceroll
You could really improve yours by getting fitted.

Six things we learned...

The biggest takeaway is that everyone's stroke is different - so get fitted!

- 1 We should get fitted for putters in the same way we do a driver.** Putters are the most used clubs in our bag. And if you haven't noticed prices are rising close to driver limits... yet how many of us have been fitted for a putter? A proper fitting not only helps improve skid and roll, but also aim and on-centre strike consistency as well as a ton of other crucial variables.
- 2 There's every chance you're not aiming at the hole.** Part of using Quintic's Ball Roll software is initially setting the putter up squarely to the hole, and it's measured using a laser. Incredibly, on more than one occasion, Simon (who's a reasonable putter) set the putter face up aiming outside the hole, even though he thought he was aiming straight at the target.
- 3 Putters perform very differently in the hands of a robot.** We often toy with the idea of robot testing at TG, and always come back to the same conclusion – golfers are not robots. Our putting robot imparted topspin on only two of the nine putters tested; all of the others had backspin. But it was vice versa for the humans. With only one putter generating backspin (Ping Sigma G Wolverine T for James), it tells us that while robots come into their own for not being brand-led, or having an opinion, they should only ever be part of a test.
- 4 Skid and roll should only be part of the equation when looking at a new putter.** We're certainly not saying because a putter rolls better than another it's a better putter for everyone. It's vitally important you like your flatstick and its design suits your putting stroke. Roll and skid are just two factors to consider when choosing a new putter; head shape, grip, toe hang and length are all just as important.
- 5 You want as much topspin as you can get your hands on.** We all want to hit smooth-running putts, but just like drivers, until we get on a launch monitor we probably don't understand how our putts launch off the putter face. For top-quality putting you want as much top spin as you can get your hands on. Simon's pronounced forward press and 'on-the-up' stroke meant he consistently imparted the most topspin.
- 6 So which putter rolls the best?** Six of the nine putters we tested produced either the lowest skid or the most amount of topspin for either an individual tester or averaged across all three testers. Each tester needs to marry up that skid and roll performance with a putter that's suited to their own stroke and eye, to find their perfect model. Do that and you breed lasting confidence which inevitably leads to holing more putts. It's probably not the conclusion we wanted, but there's no best rolling putter solution for everyone. Based on our results though, we reckon if you're looking for a new putter in 2017 you'd be pretty foolish to not give the Odyssey O-Works range at least a try.

