Myth Busted?

A New England Superintendent tests flag sticks to see how they react when golf balls hit them

By RICH GAGNON
Superintendent, Segregansett Country Club, Taunton, Massachusetts

One of my first jobs after accepting the superintendent position at Segregansett Country Club in Taunton Mass., was to sit down with my green chairman at the time, Chris Ryding, and figure out which pins/flagsticks the members wanted on the golf course. I had three full sets of completely different style pins and no idea which one they preferred.

Par Aide manufactured all three different style flagsticks, which are listed in the company’s catalog as:
- the half-inch solid regulation fiberglass flagstick,
- three-quarter-inch tapered tournament flagstick, and
- one-inch Aluminum/ fiberglass tournament flagstick.

Ryding and I agreed on the three-quarter-inch tapered tournament flagstick, which seemed to look better and would be more durable because of its weight and thickness. We didn’t give it much more thought than that.

That is until a complaint rolled in from a member that changed our way of thinking a bit. The complaint was that we needed to get rid of the “metal” flagsticks because the ball bounces off them too hard and is less likely to fall into the hole. I was told we needed to go back to the half-inch, solid regulation fiberglass flagsticks. I assured the chairman the flagsticks were made of fiberglass and the only metal component was the ferrule on the bottom and the screw threads on the tip, which held the flag on. I was told that regardless of what the flagsticks were made of, fewer balls go in the hole with the flagsticks we were currently using.

A couple years passed. The same three-quarter-inch tapered tournament flagsticks were being used, but now I had a new chairman, Earl Dion. The old complaint had resurfaced with a new set of ears to listen, and I was asked if it was a legitimate complaint once again. It seemed that if all the flagsticks were eight feet tall and had a half-inch-wide base made of fiberglass that it wouldn’t affect the ball dropping into the hole or kicking to the side. After hearing this complaint yet again, I figured I’d try to put the myth to rest - that the flagsticks we were using were reducing the chances of the ball dropping into the hole.

Segregansett has 20 members who have a USGA handicap index of 2 or lower, 12 members who qualified for the Massachusetts Amateur Championship in 2007 and two members who played in national USGA events last year. The members have the reputation of being one of the best playing memberships in the state. I wasn’t about to win any debate with any of them about what a ball does or doesn’t do when it hits a flagstick. That is unless I had data to back up what I said.

Set it up

To conduct this test, I used all three sets of pins. I set a regulation cup into a green mowed at one-eighth inch on a flat surface and set up a transit tripod several feet away from the cup. Then I cut a 10-foot section of PVC irrigation pipe, set it on the tripod and raised the entry point of the pipe two feet off the ground, with the exit end of the pipe 14 inches from the hole resting on the green. All the flagsticks had flags on them, the ferrules were all the same, and the Par Aide cup was set at regulation depth.

Assistant Superintendent Tate Asselin and I rolled 100 balls through the PVC pipe at each of the flagsticks. We removed a ball from the cup every time one landed in it to make sure the balls leaning against the flagstick didn’t have any effect on vibration or stability. We wanted to simulate a chip shot as it hits the flagstick but wanted to make sure all balls hit the flagstick dead-on at a normal pace to see how the ball reacted.

We understood that, in the real world, any perfect chip shot that just drops in the hole wouldn’t be affected by which flagstick was in the cup and any ball skulled or off center wouldn’t be impacted either. What we wanted to avoid was the ball traveling too fast, too slow or too off center. The 10-foot pipe set up at two feet off the ground on one end and 14 inches from the hole on the other end seemed to be the perfect combination for simulating a direct hit at a medium pace.

As the flagstick test was under way, Asselin thought it would be a good idea to take the test to another level and use the exact same make of ball to assure consistency and accuracy. I’m sure some balls might react differently than others based on their individual characteristics, and the idea was a great one, but our final decision to use 100 random golf balls, not 100 of the same kind. This was based on one factor: I wanted to duplicate what is actually happening on the golf course when my membership hits the flagstick on a chip shot. What better way to test for this than having 100 random balls that were hit by the membership at one time, picked up by me after they were lost and eventually used in this experiment?

Results that matter?

After 300 balls were sent through the pipe, the results were in. With the flagstick we were using (three-quarter-inch tapered), 67 percent of the balls fell into the cup. With the half-inch flagstick, 72 percent of the balls fell into the hole. The complaints were valid, but barely. At a

(Continued on Page 23)
Myth Busted—
(Continued from Page 22)

5% difference in the members' favor, it appeared that for every 20 chip shots that hit the flagstick dead-on, one more fell into the cup with the half-inch flagstick compared to the three-quarter-inch tapered flagstick. Although not a major difference, there still was a difference.

"If I hit the flagstick with 100 chip shots this year, I want the five birdies — there's a difference!" Dion says. "If I go up against a good chipper in the club championship, I want the three-quarter-inch flagsticks in. Who wouldn't?"

Most golfers would say there's no difference which flagstick was in the cup. And, statistically, the 5% difference in our results would probably hold true for 100 coin tosses. But one flagstick had to win the race and the results would never turn out 50/50 anyway. There might not seem to be a difference between the half-inch and the three-quarter-inch flagsticks, but when the two pins were matched up against the one-inch flagstick, the results proved there can be a significant difference between flagsticks and the percentage of balls falling into the cup. The biggest shock of all was that with the one-inch flagsticks, no balls fell into the hole. That's right, none. It's hard to imagine there would be such a big difference, especially since the bottom 12 inches of all three flagsticks is exactly the same width (half-inch) and made of fiberglass.

Weigh in

I took things a step further and wanted to see if weight had any effect on the results since the area that the ball was hitting was exactly the same on all the flagsticks. The three-quarter-inch flagstick was heavier than the half-inch one, but the one-inch flagstick was lighter than the three-quarter-inch flagstick. Weight, materials and width in the impact area all have no effect on the results.

Is 5% difference enough to change the flagsticks at Segregansett to the half-inch ones? It's still debatable, but I can assure you that after reading the results of our experiment you'll never see the one-inch flagsticks in our cups again. That is, until my chairman goes up against a good chipper in the club championship.

Flag Sticks

By STEVE GARSKE, President, Par Aide Products Co.

I am pleased to have the opportunity to comment on Rich's article regarding the different flag sticks. The article is well written and to the extent of his testing and based on his testing method, we are quite certain his results are undeniable.

Some history: What Par Aide has always called its Tournament pole, was originally brought to market in the early '60s. For many years it was commonly found in use for PGA Tour events.

It was made of a heavy gauge, wedged aluminum which gave it the tapered top section. The bottom was a steel shank inserted on one end into the aluminum and had a ferrule on the other. The steel shank was exposed about 8" to conform to the USGA regulations for a flag stick. Needless to say, a chipped ball was all but hitting a solid wall upon impact and the ball did indeed bounce off, irritating the low handicap golfers. Likely due to this issue our sales declined in the early '80s to where we were phasing it out. However, it didn't end there. They liked the look and wanted to continue with this flag stick style. We re-engineered it with the lighter aluminum body and the fiberglass top and bottom shanks.Apparently it was acceptable as the Palmer courses used them with their distinctive striping pattern on their courses around the world. The popularity of this flag stick grew and is growing today.

I believe that this flag stick has a place in golf. It is commonly chosen by Superintendents who have a membership who appreciate the greater visibility it provides. Others like the ability to custom paint, and repaint, and others just like the look. I would, however, generally agree with Rich Gagnon and would not choose it for use on a country club that has a high number of low handicappers.

What a long, strange trip our 1" Tournament Pole has taken. While it wouldn't impact the relative results, Rich found, it does make me wonder when the golf ball itself, forever "improved" for greater distance, etc., will react in a similar manner to all flag sticks.

Please allow me to reiterate our appreciation of Rich Gagnon's interest and effort on this issue. It's this kind of feedback that drives us to constantly look for improvements and to innovate. Thank you, Steve Garske, President, Par Aide Products Co.

(Editors Note: Steve Garske was asked to respond/comment on the original test by Superintendent Rich Gagnon.)