
Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, technical proofs (TP), and all past articles are available online at billiards.colostate.edu. Reference numbers used in the articles help you locate the resources on the website.

This is the sixth and final article in a series dealing with the “System for Aiming With Sidespin” (SAWS), a full-length instructional video I released recently on DVD and for stream or download. SAWS covers a new system to compensate your aim for cue ball (CB) deflection and object ball (OB) throw when using sidespin. It uses combinations of Back Hand English (BHE) and Front-Hand English (FHE), and it can be applied to any cue, bridge length, and shooting style. A detailed table of contents of SAWS along with a video overview can be found at DrDaveBilliards.com/saws. In the last few issues, I have covered how to adjust your aim for both throw and CB deflection. This month, I will look at several interesting game-situation examples, showing how the SAWS system is applied.

The shots in this article are taken from the [Sidespin Shot Examples handout](#) available on the [SAWS resource page](#). I will go through the first four shots. The SAWS video demonstrates how to apply the system to all 18 shots in the document. **Diagrams 1** and **2** show shots 1 through 4 from the first two pages of the handout. Each shot diagram shows the ball layout and has a place to write in the BHE/FHE percentages from your calibration drill results. My results are shown in **Diagram 3**. If you have not completed the BHE/FHE calibration drill yet, refer back to my recent articles and see the [SAWS BHE/FHE calibration handout](#) on the SAWS resource page. When you are done, you should know the percentages of BHE and FHE to use for every shot distance and speed for your specific cue and bridge length. I will use my numbers in the examples here. I will also indicate where I am making adjustments for draw and follow, and throw.

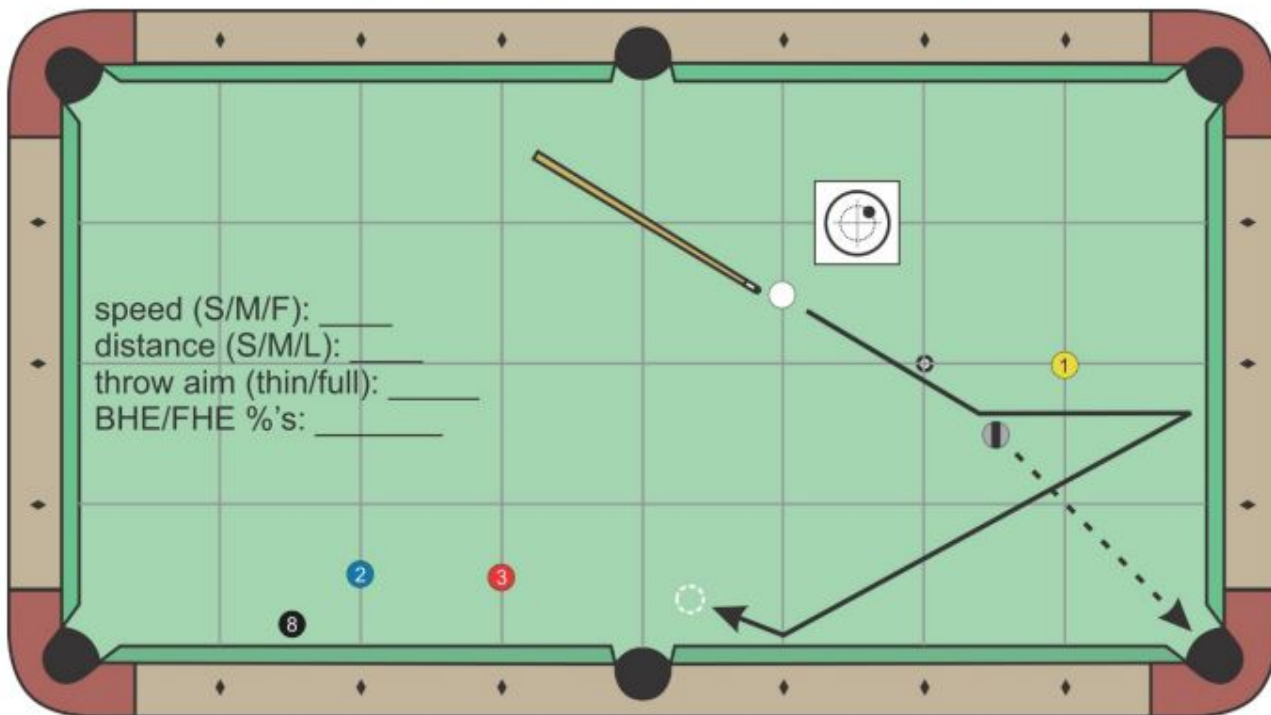
I will explain things in detail only for the first shot, but I apply the same approach to the others. Before continuing, I want to stress the importance of reliable aiming. If you are not able to pocket center-ball cut shots consistently, you won't have much success with using sidespin. If you want help with aiming, see the [online aiming tutorial](#) on the SAWS resource page.

With the first shot in **Diagram 1**, you need to follow forward with right spin to get shape on the 8 next. The natural follow angle sends the CB straight into the end rail and the right spin makes the CB rebound to the right. This a medium distance shot that requires medium speed, and my calibration table in **Diagram 3** calls for 70% BHE and 30% FHE. To keep things simple, you could just use these numbers as is; but if you want to be more accurate as you improve and gain more experience with the system, you can make adjustments for draw and follow effects. With follow, you should increase FHE; and with draw or backspin, you should increase BHE. The ideal amount to add depends some on shot distance and speed and the amount of top or bottom spin, but the simplest approach is to always use a 10% adjustment. This is a good average value that works well for most follow and draw shots. This shot requires follow, so I would add 10% FHE, changing my 70/30 to 60/40.

The amount of sidespin required depends on the amount of rebound angle change you need off the cushion. You will learn how much spin to use for different types of shots with experience, and it will depend some on table conditions. That's why it is important to do drills and practice shots like the ones in the sidespin shot examples handout.

Concerning compensating aim for throw, you could just decide to not adjust at all for throw, especially when you first work with the system. For many shots, throw is small enough to neglect, especially when the OB is close to the pocket. Instead, you could use all the information covered in my previous two articles to decide when and how much to adjust. To keep things simple, I think the best approach is to just aim to the right or left of pocket center based on the expected throw direction. The cut and spin direction in shot 1 will throw the OB to the left some, so you should aim at overcut the shot slightly toward the right side of the pocket to compensate.

1 – Right english to change the rebound angle to the right



2 – Left english to change the rebound angle to the left

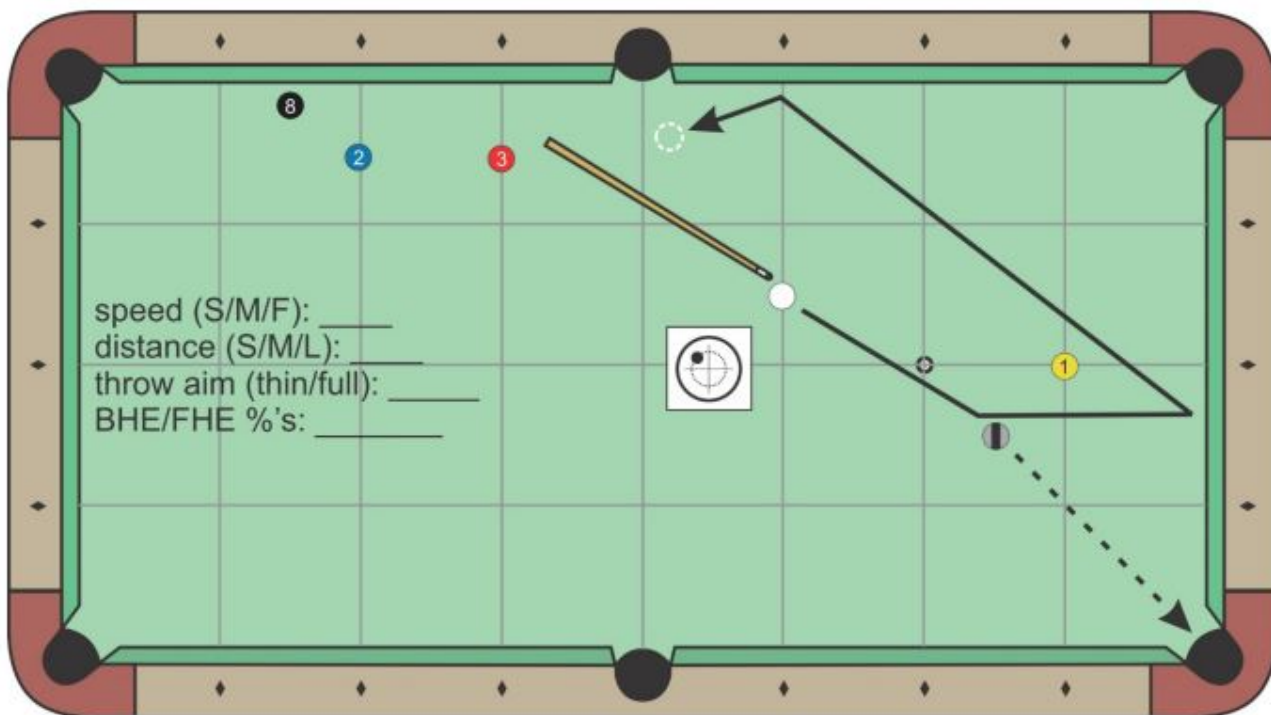
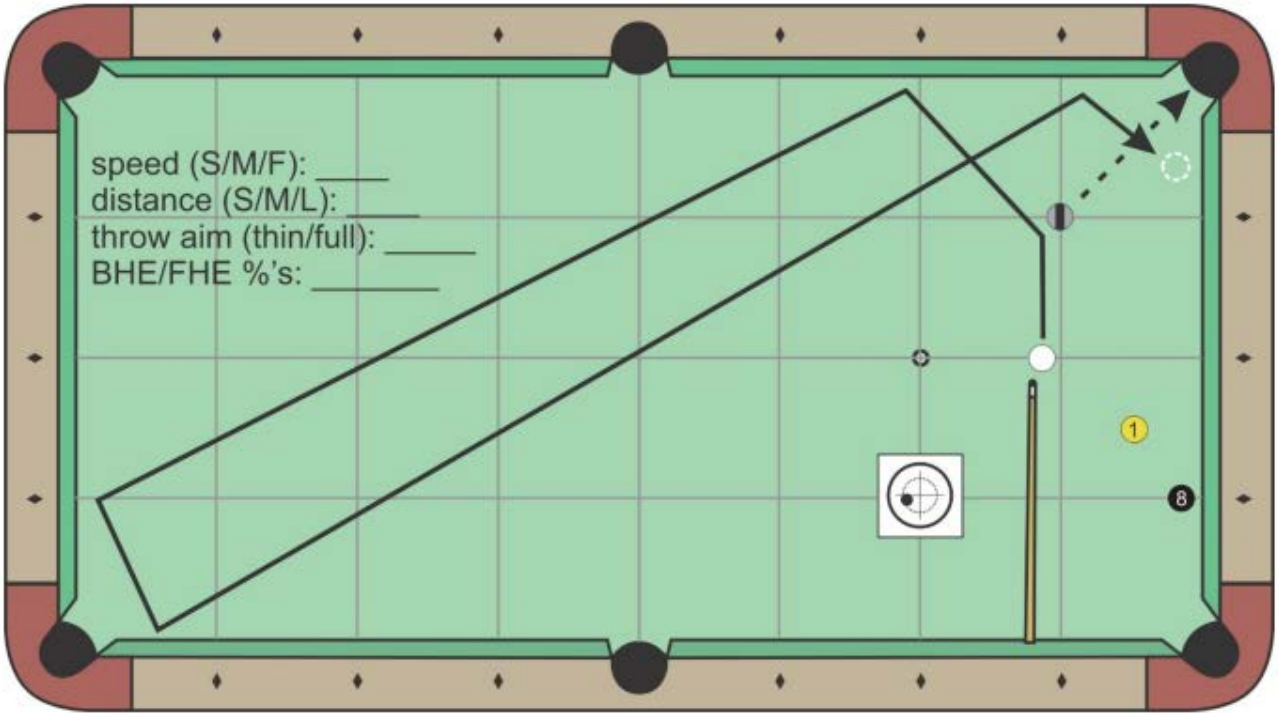


Diagram 1 First page from Sidespin Examples handout

3 – Running english to go around the table



4 – Reverse english to hold the CB

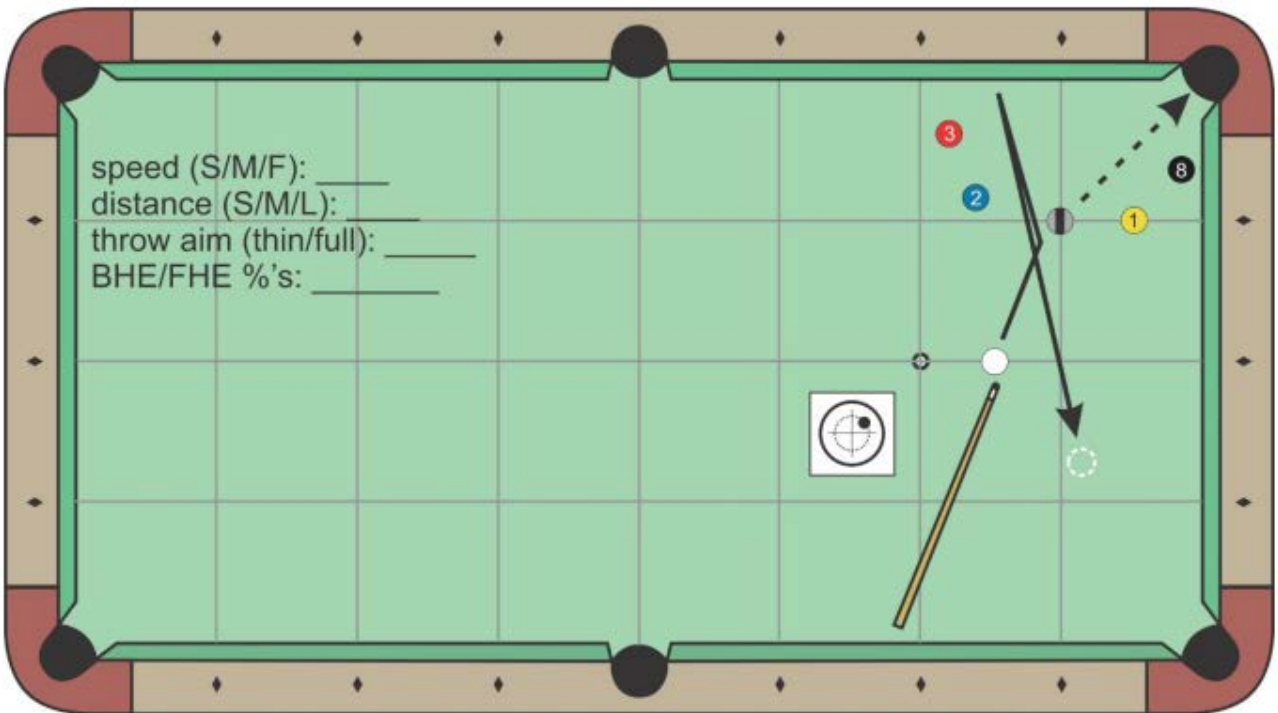


Diagram 2 Second page from Sidespin Examples handout

		speed		
		slow	medium	fast
distance	short (1')	BHE: 60% FHE: 40%	BHE: 80% FHE: 20%	BHE: 90% FHE: 10%
	medium (3')	BHE: 40% FHE: 60%	BHE: 70% FHE: 30%	BHE: 85% FHE: 15%
	long (6')	BHE: 30% FHE: 70%	BHE: 60% FHE: 40%	BHE: 80% FHE: 20%

Diagram 3 Dr. Dave's BHE/FHE Calibration results

It is best to pick your BHE/FHE numbers and compensate your aim for throw first, before you get down on the shot. That way, you won't need to think about or judge anything when you are in your stance. You will just need to align your vision and cue for center-ball aim, already adjusted for throw. Then you do the BHE/FHE pivots without thinking, to apply the desired amount of sidespin and automatically compensate for net CB deflection. All of this might sound complicated, but it is not, especially after you practice with the system. And the system is a lot more reliable and less confusing than trying to use your intuition and judgement to compensate for everything together, especially if your intuition and judgement are not solid based on countless years of successful practice and experience.

Everything is the same with the second shot shown in **Diagram 1** except for spin direction and throw. You need a large amount of left sidespin because the CB will be heading straight into the cushion, and the required rebound angle change is large. The amount of spin required will depend some on table conditions. And with all these diagrammed shot examples, it will also depend on exactly where you place the CB and OB on the table. Small changes in ball positions can affect angles and required spin amounts a lot. Since the amount of outside spin is greater than the gearing amount, you should aim to the left side of the pocket to account for spin-induced throw (SIT).

The third shot, shown in **Diagram 2**, requires running english to send the CB around the table for a shot at the 8. This is a short shot requiring fast speed, and my calibration table calls for 90% BHE and 10% FHE. Since a lot of spin is appropriate with this shot, you should aim full to compensate for SIT.

The fourth shot, shown in **Diagram 2**, requires reverse english to hold the CB at the bottom end of the table for a shot at the 8. This is a short shot requiring medium speed, and my calibration table calls for 80% BHE and 20% FHE. This shot requires follow, so I would add 10% FHE, changing my 80/20 to 70/30. There will be cut-induced throw (CIT) to the left, so I will aim to overcut the shot slightly.

I hope you enjoy and benefit from practicing all of the sidespin shot examples in the handout. It helps to watch the SAWS video and read this article, but you obviously need to experience them yourself at a table to learn how to apply everything I have covered.

As you improve your aiming and shot-making skills and gain more confidence and experience with the SAWS system, you will learn to make more accurate adjustments for draw and follow effects, and throw, but be sure to keep things simple at first.

I hope you have enjoyed and benefited from my series of articles dealing with the "System for Aiming With Sidespin" (SAWS). If you want to learn more, visit DrDaveBilliards.com/saws. Also check out online video [NV J.9](#) that shows examples of the SAWS system being applied to a wide range of interesting game-situation examples.

Good luck with your game,
Dr. Dave



normal video

NV J.9 – "Got English?" – How to Aim Using Sidespin, With Game-Situation Examples

PS:

- I know other authors and I tend to use lots of terminology, and I know not all readers are totally familiar with these terms. If you ever come across a word or phrase you do not fully understand, please refer to the [online glossary](#) at billiards.colostate.edu.

Dr. Dave is a PBIA Advanced Instructor, Dean of the Billiard University, and author of the book: [The Illustrated Principles of Pool and Billiards](#) and numerous instructional DVD series, all available at: DrDaveBilliards.com.