Chapter 1 : How do you run 100 balls?

"If you do what you've always done, you'll get what you've always gotten." - Tony Robbins



ow do you run 100 balls? It's easy. Don't miss.

"Don't miss" is not a flippant answer. Many pros and road players began their careers with just this simple advice from pool hall old-timers. Before the information age a new player might not get much more instruction. Only the most determined pool fanatics would spend the time and effort necessary to figure out this crazy game. Danny McGoorty would spend hours watching the top players. He would make mental notes and then rush over to his home room to try and work out how to make the shots he saw. Once Irving Crane was having trouble during a tournament and asked Willie Mosconi for advice. Willie's advice was, "Don't miss." Luckily, the internet has made access to advice and instruction monumentally easier to find. More importantly, the pool culture has shifted such that players of today are much more eager to share their knowledge and, hopefully, elevate the status of this beautiful game.

In a way this book is about how not to miss. Though my approach is more cerebral. If you never missed, you would run 100 balls every time. Yet even the best pros do not run 100 balls every time. Even the best pros sometimes miss. What then, is the point of saying, "Don't miss"? First, it is a metaphor for

ball on the rail. You can almost never plan the entire rack at one time. Grouping your plan into sequences of three to four balls each is a great way to bring efficiency and confidence to your routine.

Finally, I will mention one specific aspect of the shot routine that deserves special attention. Shoot every shot twice. Once in your mind and then in reality. There are two reasons for rehearsing the shot in your mind. First, have you ever missed a shot, then set it back up and made it the second time? We all have. Believe it or not, sometimes you will visualize the shot and miss the shot in your mind! Shooting the shot in your mind first gives you a chance to consider how misses happen (by rushing the shot) and be certain your plan is the right one. Secondly, rehearsing the shot in your mind first makes certain that you have made decisions about all aspects of the shot – what part of the pocket to hit, the exact aiming point, and the exact path and distance for the cue ball. Bring up a YouTube video of high jumpers or pole vaulters and watch their faces before they begin. You can see the concentration in their eyes and self-talk on their lips as they rehearse and 'see' every part of the maneuver before they begin. With practice your pre-shot visualization will be so quick for most shots that spectators will not even notice. Make shoot-every-shot-twice a routine part of your routine.

Minimal Effort, Maximum Precision

Pocketing 100 balls in a row without missing takes a lot of work. Both mental and physical work. Just as a consistent shot routine simplifies the mental procedure, advanced players employ a technique that simplifies the physical process. Whether the game is Straight Pool, 8-ball, 9-ball or 10-ball. What all advanced players train to accomplish on every shot is -- a smooth stroke. What is meant by a smooth stroke? Consider the table at Illustration 1.2.

There are fifteen balls on the table, plus cue ball. Assume that your opponent just missed the break shot while spreading the balls. The table is wide open. Can you see a simple pattern that will result in a good break shot on the 15-ball? The pattern is absolutely fool proof! Keep looking until you think you have found it.

Problems and Solutions

Here is a clue for you: the pattern for running this rack involves shooting fourteen STOP SHOTS in a row! Start with the 1-ball and shoot every ball in numerical order. Does it look easy? Well, good, it should look easy. After all what is so hard about a stop shot, right? Please set up the balls on your practice table as illustrated and give it a try. If you have never seen this drill before I assume that you failed to run all fourteen balls on your first try. You may have missed the long 4-ball in the corner. Or you may have let the cue ball slide too low after pocketing the 2-ball. Maybe you were not perfectly straight on the 9-ball and the cue ball drifted over and landed against the rail. There are many pitfalls in what at first glance looks like a simple sequence.

But I said the drill was fool proof. How can that be? The answer is – by developing a smooth stroke. Because only with a silky-smooth stroke can a player consistently pocket every shot with absolutely no cue ball movement to gain a perfect stop shot on the next ball. In fact, I make a distinction between a stop shot and a 'stick' shot. A stop shot in this sense is when the cue ball might move slightly, no more than inch or so, after contacting the cue ball. But with a stick shot the cue ball will not move after contact with the cue ball, not even the slightest wiggle in any direction. Why is this important? Because consistent play at an advanced level requires maximum precision with minimal effort that can only be achieved with a smooth stroke.

Consider the simple stop shot at Illustration 1.3. Any pool player can pocket this object ball while stopping the cue ball. And you can do it at a range of speeds from soft to hard. But not with perfect precision. Note that the dashed lines show the shot is not lined up with the exact center of the pocket opening. If the object ball is sent into the center of the pocket opening the cue ball must slide a bit to the left (from the shooters perspective). Now, in many situations this movement is regarded as trivial and will likely have no ill effect on the run-out. But what if you cut the ball slightly like path a? You might find the cue ball against the rail and be unable to cue the next shot as planned. Or path b could cause the cue ball to fall out of our preferred pattern – like the fifteen-ball run-out above.

Advanced players aim with greater precision not just to ensure the ball is pocketed but also to control the cue ball more precisely. If you train for greater precision in your game, you will see longer runs in Straight Pool (and easier runouts in other games). Next, consider the physics of what is happening in this simple stop shot. The cue ball is struck slightly below center which causes it to slide (it does not spin either forward or backward) the entire distance to the object ball. Upon contacting the object ball mostly all the cue ball's energy is transferred to the object ball. How precisely the cue ball strikes the exact center of the object ball determines if the cue ball moves to the side a bit after the 'stop' shot. And whether the cue ball moves (even a tiny bit) forward or backward depends on the combination of where you strike the cue ball on its vertical axis and the power applied to the shot.

A stop shot, then, is when there is some movement, no matter how slight, after the cue ball contacts the object ball. But a stick shot means that the cue ball does not move, not even the tiniest bit, in any direction. You might be thinking, well so what? The reason a stick shot is so important is because it is most easily achieved when the minimum force necessary is applied, and maximum precision of the aiming point is attained. And when you see this combination in action, we call it – a smooth stroke. The video clip "Stop vs Stick" demonstrates the difference.



Illustration 1.1, Stop vs Stick Shot

These are the two keys to a smooth stroke – minimal effort and maximum precision. There are many professional players who consistently perform with a smooth stroke, but I will mention two standouts. Search YouTube for Straight Pool videos featuring Steve Mizerak and Ruslan Chinakhov. At first glance it might look like they are just hitting the ball softer than most players. But it is much more than that! Their smooth stroke means that their internal pool-shooting computer is finely attuned to the physics of rolling balls on a high-thread count worsted wool fabric.

If your cue ball moves even slightly on the short -- simple straight shot example above, then how far is it moving out of line on longer cut shots? Developing a smooth stroke means fewer missed shots because you are shooting softer and more accurately. Also, because you train for higher precision on every shot it takes no additional effort when you face a "difficult" shot. And when you are attuned to the minimal force necessary for any shot it is much easier to judge just how much force to apply when the shot needs to be struck harder.