





## **Drilling Angles shown are for 5" PAP – Adjust for other PAPs**

Bigfoot Hybrid Drilling Chart						
Layout	Layout Specs	Low RG	Int Diff	Total Diff	Performance Differential	RG PAP
Undrilled	-	2.468	0.000	0.053	0.053	
Maximum Flip	Pin Over 70° x 3-1/2" x 20°		0.020	0.064	0.067	2.505
Most Versatile	Pin Over 75° x 4" x 30°		0.019	0.061	0.064	2.511
Smoother Motion	Pin Over 80° x 4-1/2" x 40°		0.017	0.055	0.058	2.515
Smaller Hook	Pin Besides 90° x 2 1/4" x 45°		0.011	0.049	0.050	2.491
	Layout Undrilled Maximum Flip Most Versatile Smoother Motion	Layout Specs  Undrilled -  Maximum Flip Pin Over 70° x 3-1/2" x 20°  Most Versatile Pin Over 75° x 4" x 30°  Smoother Motion Pin Over 80° x 4-1/2" x 40°	Layout Specs Low RG  Undrilled - 2.468  Maximum Flip Pin Over 70° x 3-1/2" x 20°  Most Versatile Pin Over 75° x 4" x 30°  Smoother Motion Pin Over 80° x 4-1/2" x 40°	Layout         Layout Specs         Low RG         Int Diff           Undrilled         -         2.468         0.000           Maximum Flip         Pin Over 70° x 3-1/2" x 20°         0.020           Most Versatile         Pin Over 75° x 4" x 30°         0.019           Smoother Motion         Pin Over 80° x 4-1/2" x 40°         0.017	Layout         Layout Specs         Low RG         Int Diff         Total Diff           Undrilled         -         2.468         0.000         0.053           Maximum Flip         Pin Over 70° x 3-1/2" x 20°         0.020         0.064           Most Versatile         Pin Over 75° x 4" x 30°         0.019         0.061           Smoother Motion         Pin Over 80° x 4-1/2" x 40°         0.017         0.055	Layout         Layout Specs         Low RG         Int Diff         Total Diff         Performance Differential           Undrilled         -         2.468         0.000         0.053         0.053           Maximum Flip         Pin Over 70° x 3-1/2" x 20°         0.020         0.064         0.067           Most Versatile         Pin Over 75° x 4" x 30°         0.019         0.061         0.064           Smoother Motion         Pin Over 80° x 4-1/2" x 40°         0.017         0.055         0.058

This chart uses a 5" horizontal axis co-ordinate. Adjust the drilling angle for other horizontal co-ordinates. Always use the pin to PAP distance and VAL angle to get the desire ball motion.

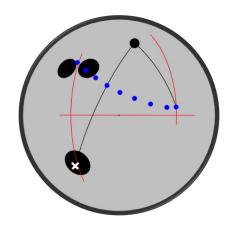
"Performance Differential" is a term used to accurately describe the track flare of a ball. The TRUE amount of track flare of a drilled ball is related to both the intermediate and total differential of the drilled ball. The "Performance Differential" of the drilled ball measures the relationship between the intermediate and total differential to give an accurate measure of the amount of track flare in the drilled ball.



## **Suggested Layouts for Symmetric Cores**

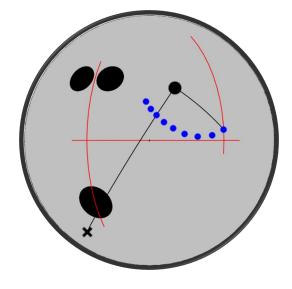
A – Maximum Flip

Pin Over 70° x 3½" x 20°



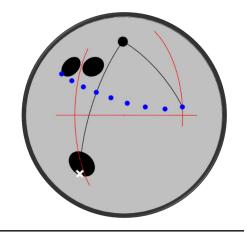
**D** –Smaller Hook

Pin Under 90° x 2 1/4" x 45°



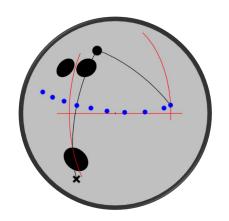
B - Most Versatile

*Pin Over* 75° x 4" x 30°



C - Smoother Motion

*Pin Over* 85° x 4-1/2" x 40°



The "X" on the diagrams indicates the Preferred Spin Axis (PSA / Mass Bias) of the drilled ball, and the line that connects the PSA and PIN after drilling is referred to as the "Pin to Spin Line". The important feature of the "Pin to Spin Line" is that the ball revs up when the migrating axis crosses this line so the sooner the migrating axis crosses the "Pin to Spin Line", the sooner the ball rev up.