





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

## **Zing! Pearl Drilling Chart Performance Layout Specs** Layout Low RG Int Diff **Total Diff RG PAP Differential Undrilled** 2.499 0.020 0.051 0.055 **Maximum Flip** Pin Over 70° x 3 3/4" x 20° 0.030 0.057 0.065 2.517 Α В **All Purpose** Pin Over 45° x 4 1/4" x 35° 0.025 0.051 0.057 2.525 C **Smooth Hook** Pin Over 15° x 4 1/2" x 35° 0.014 0.045 0.047 2.533 D Pin Under 75° x 5" x 80° **Length with Control** 0.025 0.040 0.047 2.525 Е Pin Over 90° x 2 1/4" x 45° **Total Control** 0.027 0.056 0.036 2.507 **Maximum Flare** 65° x 4" x 30° with balance hole 0.044 0.071 0.085 2.533

"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.

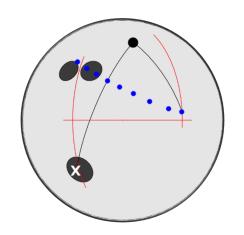
<sup>\*</sup>Layout F - Maximum Flare utilizes a balance hole and is not USBC compliant as of August 1, 2020



## **Suggested Layouts for Asymmetric Cores**

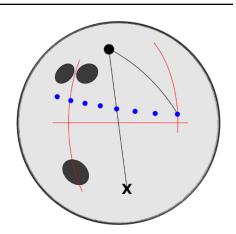
A – Maximum Flip

Pin Over 70° x 3 3/4" x 20°



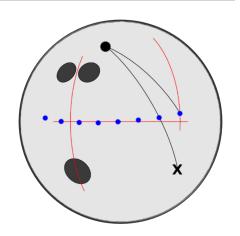
B - All Purpose

*Pin Over* 45° x 4 ½" x 35°



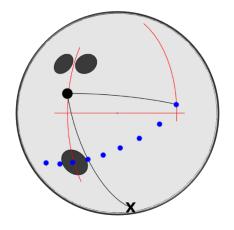
C - Smooth Hook

Pin Over 15° x 4 ½" x 35°



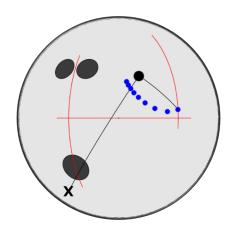
D – Length with Control

*Pin Under* 75° x 5" x 80°



E - Total Control

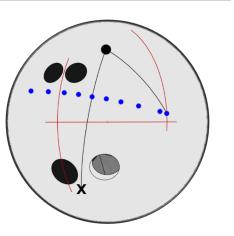
Pin Beside 90° x 2 1/4" x 45°



F - Maximum Flare

65° x 4" x 30° with balance hole

\*Not USBC Compliant as of August 1, 2020



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 revs up.