



GUIDE FOR BALL PERFORMANCE & ASYMMETRIC DRILLING

SURFACE TUNING: Ball finish is the most important variable in ball reaction. MOTIV™ covers can be tuned to adjust the reaction if the 'box finish' is not desired. Power Gel® Polish can be used to add length to a ball. When less length is needed and more traction is desired, Power Gel® Scuff is recommended.

BALL CLEANING: It is extremely important that bowling balls are cleaned frequently. At minimum, clean after every bowling session to maintain full performance. We also recommend using a towel to removing lane oil from the ball surface during play. This reduces oil saturation and maximizes the life of the ball. Power Gel® Clean is a powerful bowling ball cleaner that is recommended for MOTIV™ equipment.

STORAGE: Extreme temperatures may damage MOTIV™ bowling balls. Do not store in an area where temperatures will drop below 40°F or rise above 125°F.

DRILLING: This MOTIV™ Asymmetric Drilling Guide provides basic layout options. We expect that pro shop professionals have extensive knowledge of various drilling procedures and techniques for fine tuning ball layout. This includes selecting intermediate pin distances and adjusting CG and MB (PSA) placement. The exact layout selected may be a modified version of the layouts in this guide. Some of the variables to consider are ball specifications, bowler delivery, and lane conditions.

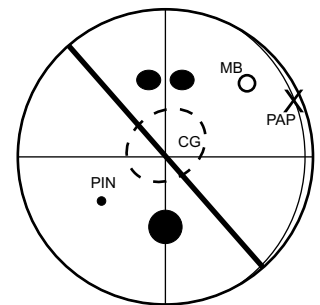
IMPORTANT: 1. All holes must be beveled after drilling. 2. Check side and top weights to ensure compliance with USBC specifications. If needed, drill a balance hole to make adjustments. 3. Make sure pin placements are in the pin-safe zone for high track layouts.

GET MOTIVATED™

MTVASDGV1

FULL ROLLER - STRONG ARC

PIN LOCATION: Place Pin 3-1/2" from the center of the span in 7:30 position. A 3-4" pin distance is best for full roller to keep CG in the area shown. Place MB (PSA) in a 2:30 position, relative to the center of span.



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ASYMMETRIC DRILLING GUIDE

LENGTH LAYOUT

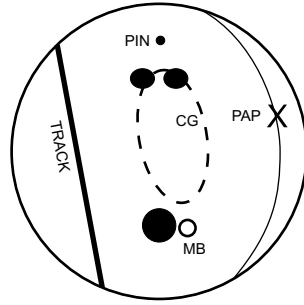
TRADITIONAL METHOD:

PIN TO PAP: 5" (13cm)
 PAP TO MB: 5.5" (14cm)
 BUFFER: 2.5" (6cm)

ANGLE METHOD:

DRILLING ANGLE: 70°
 PIN TO PAP: 5" (13cm)
 VAL ANGLE: 30°

MEDIUM TRACK EXAMPLE



LENGTH & BACKEND LAYOUT

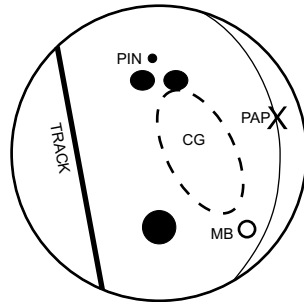
TRADITIONAL METHOD:

PIN TO PAP: 5" (13cm)
 PAP TO MB: 4" (10cm)
 BUFFER: 3" (8cm)

ANGLE METHOD:

DRILLING ANGLE: 45°
 PIN TO PAP: 5" (13cm)
 VAL ANGLE: 45°

MEDIUM TRACK EXAMPLE



MIDLANE HOOK & BACKEND

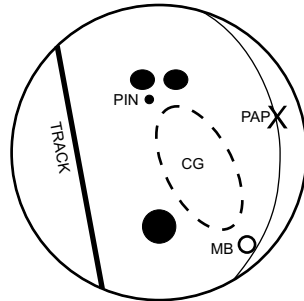
TRADITIONAL METHOD:

PIN TO PAP: 5" (13cm)
 PAP TO MB: 5" (13cm)
 BUFFER: 4.5" (11cm)

ANGLE METHOD:

DRILLING ANGLE: 60°
 PIN TO PAP: 5" (13cm)
 VAL ANGLE: 70°

MEDIUM TRACK EXAMPLE



STRONG LAYOUT

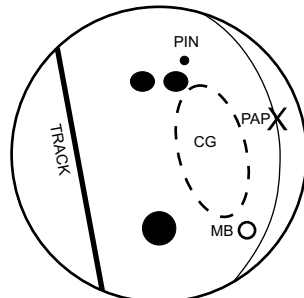
TRADITIONAL METHOD:

PIN TO PAP: 4" (10cm)
 PAP TO MB: 4" (10cm)
 BUFFER: 2.5" (6cm)

ANGLE METHOD:

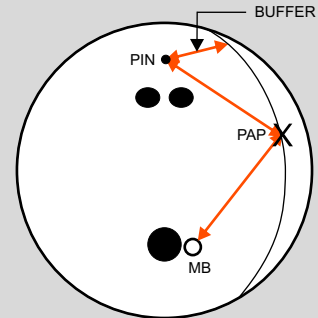
DRILLING ANGLE: 40°
 PIN TO PAP: 4" (10cm)
 VAL ANGLE: 40°

MEDIUM TRACK EXAMPLE



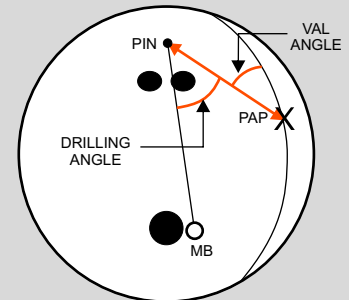
TRADITIONAL LAYOUT METHOD

The traditional method for laying out a ball for drilling utilizes the PIN to PAP distance, the PAP to MB (PSA) distance, and a Buffer, which is the perpendicular distance from the PIN to the VAL. See diagram below.



ANGLE LAYOUT METHOD

The angle method for laying out a ball for drilling utilizes a Drilling angle, the PIN to PAP distance, and a VAL angle. See diagram below.



NOTE: THE LAYOUTS ON THIS PAGE ARE FOR MEDIUM TRACK RIGHT-HANDED BOWLERS. REVERSE FOR LEFT-HANDED BOWLERS AND ADJUST FOR LOW AND HIGH TRACK BOWLERS.