



PRO DRILLING INSTRUCTIONS

STORM LEGEND

- = Major Pin
- 🌀 = Center of Gravity (CG)
- PAP = Positive Axis Point
- ⊗ = Balance Hole
- = Ball Track
- ==== = Perpendicular Axis Line (PAL)
- RAD = Mass Bias Location

BALANCE HOLE LOCATION GUIDE

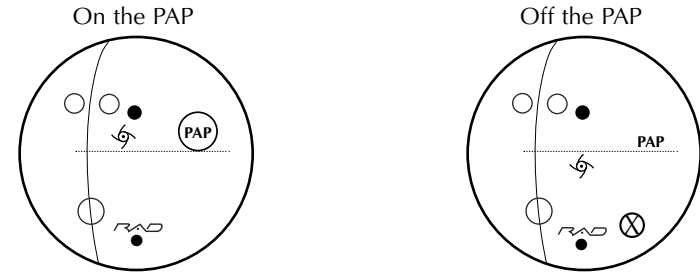
EXTRA HOLE PLACEMENT:

- On the PAP - Will produce earlier roll and a smoother break point.
- Off the PAP - Will produce much earlier roll with increased hook potential.

For heavy oil and players with low rev rates, always use layouts that utilize an extra hole for a stronger ball reaction.

STORM WARNING

High rev players should use extra holes located no farther from the grip center than the PAL. Also, for these players, consider using a smaller drill bit (7/8" and down) and drilling deep to remove excess weight.



STORM XTRAS SURFACE REACTION GUIDE

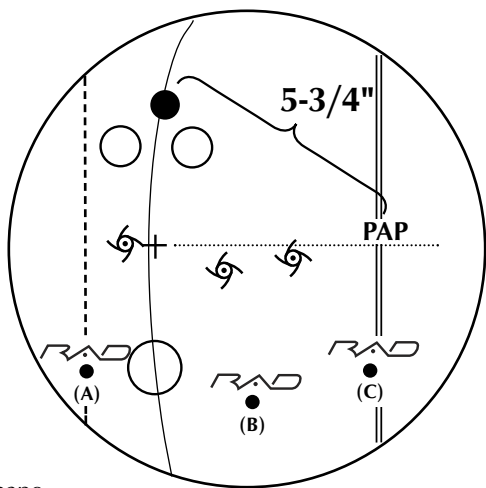
BALL REACTION	PROCEDURE	RESULT
Too much skid - not enough hook	Sand ball with 800-320 grit wet/dry sandpaper or Scotch-Brite (as you decrease in grit the ball will hook earlier)	Earlier roll with stronger hook
Good	Clean ball with Storm Xtras Reacta-Clean or Proacta-Clean	Consistent ball reaction with increased pin carry
Slightly early hook	Polish ball for 30-90 seconds with both Storm Xtras Step #1 and Step #2	Increased length - increased backend
Good with slightly early hook	Polish ball for 30-90 seconds with Storm Xtras Step #1	Increased length - increased backend
Early hook	Polish ball for 30-90 seconds with both Storm Xtras Step #1, Step #2 and Step #3	Increased length - increased backend
Early hook - over hook	Polish ball for 30-90 seconds with both Storm Xtras Step #1, Step #2, Step #3 and Xtra-Shine/Proacta-Shine	Increased length - increased backend
Early hook - over hook	Polish ball for 30-90 seconds with both Storm Xtras Step #1, Step #2, Step #3 Proacta-Shine/Xtra-Shine and Diamond Gloss	Increased length - increased backend

No matter what surface you use, Storm Xtras Reacta-Clean and Proacta-Clean pulls the oil out of the shell, restoring the tacky feel, resulting in a more consistent ball reaction with increased pin carry.

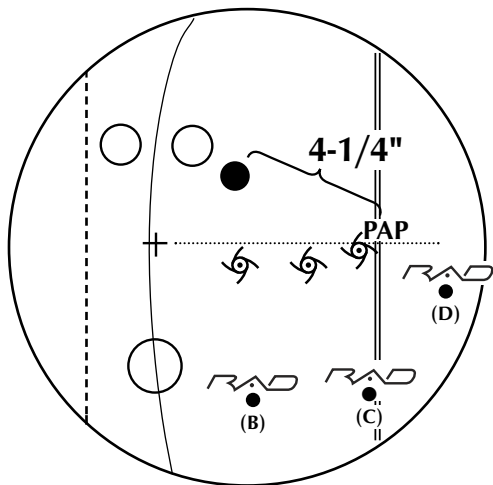
The following layouts are for right-handed players.
Remember to flip or rotate to produce "mirror-image" for left-handed players.

LAYOUT #1

- With this layout, we place the pin 5-3/4" from the PAP, above the finger holes, to produce length on drier conditions.
- Next we select a mass RAD position suitable for our desired breakpoint shape.
 - (A) RAD in the Ball Track - designed to produce a late and smooth breakpoint.
 - (B) RAD in the Strong Position - this will produce an earlier and sharper breakpoint than Position A.
 - Good for extreme entry angle!
 - (C) RAD on the Perpendicular Axis Line (PAL) - produces the earliest breakpoint of the three positions while providing a controllable and "readable" backend.
 - Works great on heavy oil patterns!
- Be sure to check for excess side weight and finger/thumb weight, as a balance hole may be necessary for any of these layouts. If one is required, draw a line from the center of the grip through the CG and extend to the PAL. This will be the location of the balance hole.



NOTE: For reaction adjustments, consult the Ball Surface Guide at the end of these instructions.

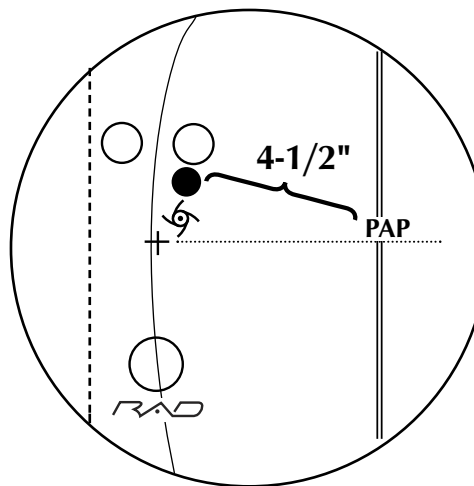


LAYOUT #2

- With this layout, we place the pin 4-1/4" from the PAP. This position will produce medium to high flare, great for players trying to "open up" on a medium to heavy oil lane condition.
- For bowlers with medium to high rev rates, this in position will often produce the most overall hook throughout the entire lane!

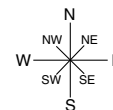
- Now select a RAD position:
 - (A) Locate the RAD halfway between the ball track and PAL to produce a sharp breakpoint
 - (B) Place the RAD at the PAL for an earlier, smoother breakpoint.
 - (C) Place the RAD 2" past the PAL for a very heavy midlane roll on long oil patterns.
- Be sure to check for excess side weight and finger/thumb weight, as a balance hole may be necessary for any of these layouts. If one is required, draw a line from the center of the grip through the CG and extend to the PAL. This will be the location of the balance hole.

NOTE: For reaction adjustments, consult the Ball Surface Guide at the end of these instructions.



LAYOUT #3

- Place pin and CG 4-1/2" from PAP.
- Use scale to determine static balance.
- Produces length and an arcing backend.
- A layout every player should have in their bag.

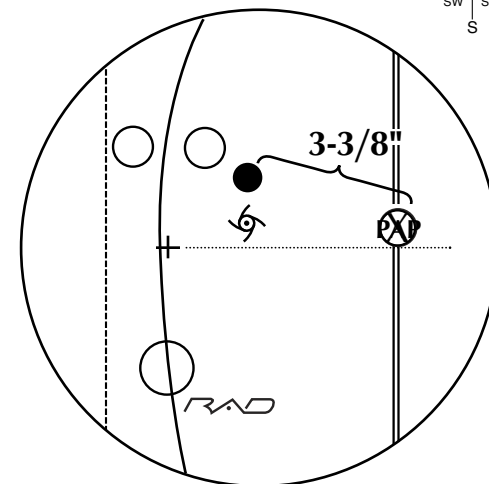


LAYOUT #4

- Place pin and CG 3-3/8" from PAP.
- Use scale to determine both side and finger weight.
- Locate balance hole on the PAL and remove excess side weight to 3/4 ounce positive.

NOTE: To remove excess finger weight, drill finger holes 2.5" deep.

- Produces maximum flare and hook.
- Works especially well for Tweeners and Stokers!

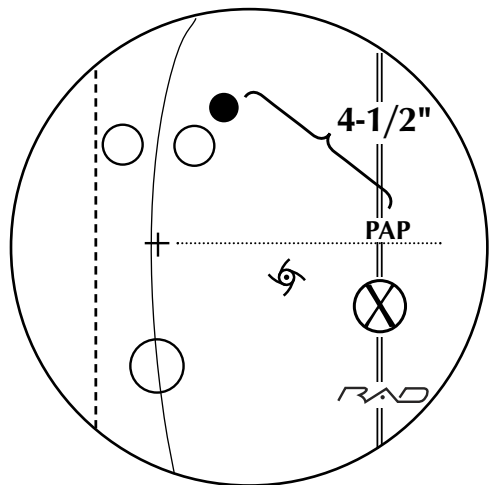
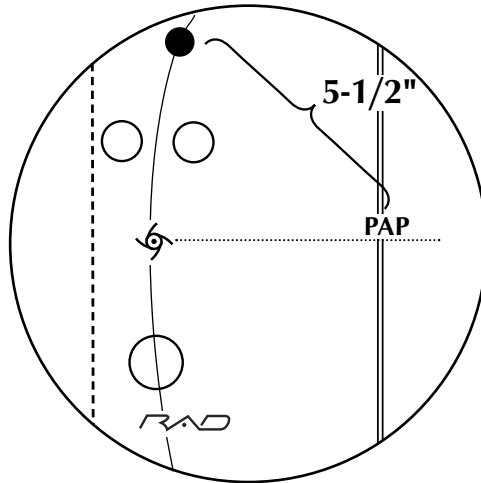




PIN-OUT DRILLINGS - 4 to 5-1/2"

LAYOUT#5

- Place pin and CG 5-1/2" from PAP.
- Locate RAD in between ball track and strong position.
- Use scale to determine static balance.
- To locate a balance hole if necessary, draw a line from grip center through CG and extend to axis midplane.
- High track players will benefit from this layout.



LAYOUT#6

- Place pin and CG 4-1/2" from PAP.
- Place RAD on the axis midplane.
- Use scale to determine static balance.
- To locate a balance hole if necessary, draw a line from grip center through CG and extend through axis midplane.
- This drilling will help generate more midlane roll.

WEIGHT BLOCK DESIGNS

Based upon the proven principles of Storm's patented split-density designs, RAD technology features unique shapes and new concepts in ball design.

These innovative cores and weight blocks are the most dynamic designs available today!

Every ball with RAD technology is "factory spun" to ensure a precise mass bias location. This gives you even more confidence in selecting your layouts.



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