

MONSTER FRENZY



Part Number

60-103779-93X

Coverstock

N'Control PowerStock - Reactive

Color: Blue Pearl/ Red Pearl

Hardness: 77-79

Glow Engraving

Surface Finish

Rubbing and Finishing

Compound Double Buff

Core Dynamics

RG Max: 2.577

RG Min: 2.536

RG Diff.: 0.041

Average RG: 4.5

Performance

Hook Potential: 90

Length: 125

Typical Breakpoint Shape: 85

Available Weights

10-16 Pounds

(10-11 use a spherical offset core
no riser pin)

Hook Potential:



Length:



Breakpoint Shape



Flare Potential:



RG-average:



Reaction Characteristics – Release the Frenzy

With the Monster Frenzy, Brunswick has combined the low-RG core from the successful Monster SmashR, with N'Control PowerStock skid/snap Reactive coverstock, to produce a strong skid/snap reaction that clears the front and explodes on the backend.

The combination of skid/snap coverstocks and low-RG core systems has produced some of the most forgiving and broadly appealing ball reactions in the history of bowling. The skid/snap coverstock gets the ball through the heads, the low-RG core system helps to promote mid-lane recovery, the skid/snap coverstock creates a strong backend reaction that is made smoother and more controllable by the low-RG core system. Maximum forgiveness and versatility in a bowling ball.

Utility

•**Out of the Box:** With its high gloss surface high rev rate players will find the Monster Frenzy matches up well on medium-oily to medium dry lane conditions or lane surfaces that tend to hook early, while players with more average rev rates will find it best suited to medium lane conditions.

•**When dulled:** The Frenzy's hooking action will increase and its arc will become more even, creating a better match-up for oily lane conditions and for smoothing over/under reactions seen on wet/dry lane conditions.

The Frenzy's N'Control PowerStock skid/snap Reactive coverstock and early revving mass distribution make the Frenzy an ideal match for high RPM players on medium-oily to medium-dry lane conditions and a good medium oil ball for medium RPM players.

Reaction Setup

The **Monster Frenzy** can be drilled using the standard drilling techniques developed for two-piece balls, see the included drilling instructions for reaction characteristics and layout details.

The **Monster Frenzy** is finished with a high gloss surface which enhances its appearance **and** reduces hooking action in the oil. High gloss finishes can sometimes cause over/under reactions, too little hooking action in the oil, then too much hooking action off the dry, which can be hard to control. To increase hooking action and smooth out the ball reaction dull the surface, first with a fine 800-1000 grit abrasive. If more hooking action and a smoother reaction is desired dull the surface of the ball with a coarse 320-400 grit abrasive.

Brunswick's Monster-Series delivers the bowling industry's widest range of Proactive and Reactive ball reactions available at the mid-price point. At rock bottom prices to boot!

High-Differential Symmetric Core Bowling Balls (12-16 pounds)

Brunswick's ball drilling instructions include eight layouts; one group of four **earlier rolling reactions** (1E-4E), and one group of four **later rolling reactions** (1L-4L). Both groups contain layouts that adjust performance from **high flare and hook potential** to **low flare and hook potential**. Not every layout is appropriate for all types of releases. Brunswick separates bowler's release characteristics by RPM rate and Track position.

- **High-RPM players** and **Medium-Low RPM players**. High RPM players rev the ball at rates greater than 300 RPM. On the men's tour, rev rates range from approximately 250-450 RPM. Most of the men's tour players you see on TV would be considered High RPM players. High RPM players can be sensitive to "over-flaring" which can make the ball hook early and be inconsistent at the breakpoint. Brunswick recommends low to medium flare layouts for High-RPM rate players
- **High-Track players** and **Medium-Low Track players**. High Track players have tracks within 1" of the thumb and finger holes and will usually have a horizontal axis measurement near 6" from grip center. Medium-Low track players have tracks that are greater than 1" from the thumb and finger holes and typically have horizontal axis measurements that are from 3 1/2" – 5".

After determining your bowler type and ball reaction needs, see the table below for recommended layouts. The Symmetric Core Layout sheet is divided into two columns for "**Earlier Rolling**" and "**Later Rolling**" Reactions.

- **Earlier Rolling Reactions** match up best to oilier and wet/dry lane conditions, or for players who have problems with the ball going too long before changing direction. These will typically be players who have high ball speeds and/or medium-low RPM rates
- **Later Rolling Reactions** match up best to shorter patterns and drier lane conditions, or for players who have problems with the ball hooking or changing direction too early. These will typically be players who have medium-slow ball speeds and/or high RPM rates.

<u>Track</u>	<u>RPM rate</u>	<u>Earlier Rolling Layouts</u>	<u>Later Rolling Layouts</u>
High	High	3E	2L,3L,4L
High	Medium-Low	No early rolling reactions	1L,2L,3L,4L,
Medium-Low	High	2E,3E,4E	2L,3L,4L
Medium-Low	Medium-Low	1E,2E,4E	1L,2L,3L,4L

Brunswick recommends positioning the Heavy-Spot / CG to end up with 3/4 -1oz. of positive side weight and a small amount of finger/thumb weight (less than 1/4 oz.) after drilling. This leaves the driller plenty of room to modify the ball reaction with an X-hole, yet doesn't require that an X-hole be used to make the ball ABC legal.

Fine Tuning Ball Reactions with an X-Hole

X-Holes can be used to **increase** or **decrease** track flare.

- **Increasing track flare** in an existing ball will tend to make the ball more aggressive, hook more, hook earlier and react stronger to the dry areas of the lane.
- **Decreasing track flare** in an existing ball will tend to make the ball less aggressive, go longer, hook less and react smoother to the dry areas of the lane (less over reaction).

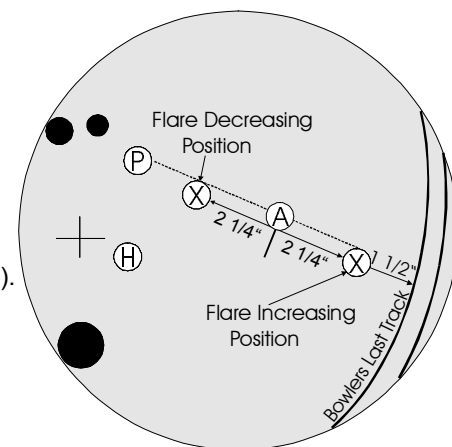
Brunswick is recommending a simplified **one-hole size / two-hole position** technique that covers the vast majority of ball reaction changes that can be accomplished by drilling an X-hole.

- Use a **1" drill bit, 3" deep**, to both increase or decrease track flare.

Note: Larger and deeper X-holes result in only slightly greater increases or decreases in track flare. The one-hole size technique has the added advantage of avoiding problems with illegal static weights. As long as the ball was originally laid out with at least 3/4 oz. of positive side weight and a small amount of finger/thumb weight, the 1" X 3" hole using either of Brunswick's recommended X-hole positions will keep you out of static weight trouble.

Brunswick recommends using a position 2 1/4" **past** the bowlers axis to increase flare, and using a position 2 1/4" **back toward the pin** to decrease flare. Using the line connecting the bowlers "axis" and the "pin" as a reference line (see diagram). The X-holes should be on or slightly below the reference line (holes on the line will sometimes drop the narrow point of the track and cause the track to flare over the finger holes).

Warning: Drilling a "flare increasing" hole can result in the track flaring over the X-hole. After checking the position of the bowlers last track, make sure the "flare increasing hole" is at least 1 1/2" from the bowlers last track (see diagram above). If necessary shorten the distance from axis in order to keep the "flare increasing hole" at least 1 1/2" from the bowlers last track.



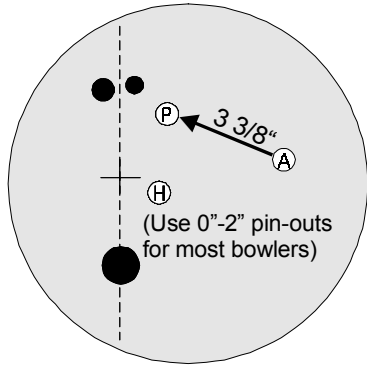
High-Differential Symmetric Core Layout Sheet

(RGdiff. 0.040 and above)

Earlier Rolling Reactions

High Flare High Hook Potential

Later Rolling Reactions



1E (Heavy Oil)

Maximum hook potential for **Medium-Low RPM** players.

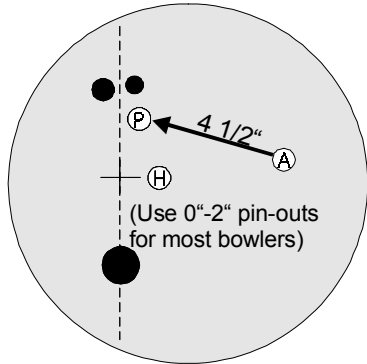
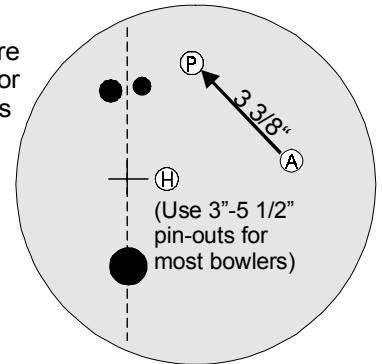
This layout may hook early and be inconsistent at the breakpoint for **High-RPM** players, use layout #2E instead.

This layout may hit the finger holes for **High-Track** players, use layout #1L instead.

1L (Heavy Oil)

Maximum hook potential with less mid-lane and more backend than layout #1E for **Medium-Low RPM** players

This layout may hook early and be inconsistent at the breakpoint for **High-RPM** players, use layout #2L instead.



2E (Medium Oil)

Maximum hook potential for **High-RPM** players

Medium hook potential for **Medium-Low RPM** players

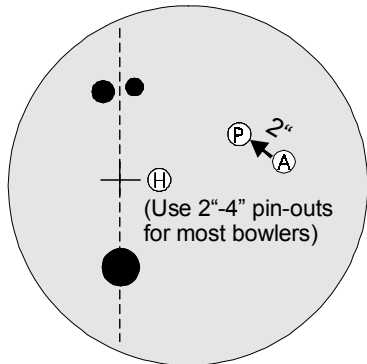
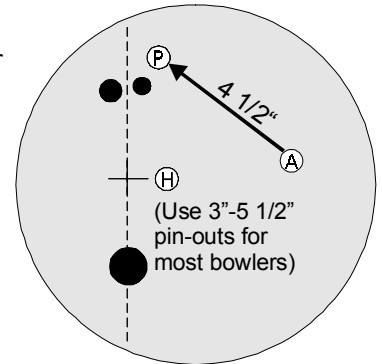
This layout may hit the finger holes for **High-Track** players, use layout #2L instead.

2L (Medium Oil)

Maximum hook potential for **High-RPM** players.

Medium hook potential for **Medium-Low RPM** players

Less mid-lane and more backend than layout #2E.



3E (Oily Wet/Dry's)

Pin between axis and leverage for medium hook potential and early roll.

Helps moderate over reactions.

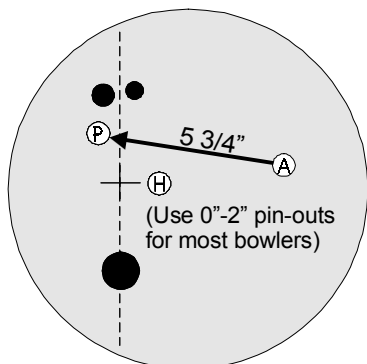
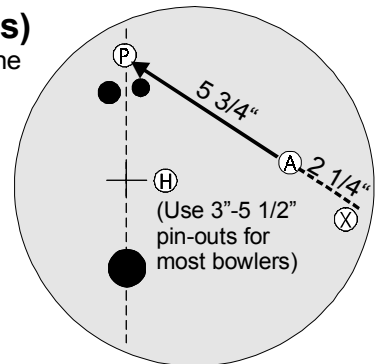
This layout may lack hitting power for **Medium-Low RPM** players.

3L (Hooking heads)

High RG pin position with the pin above the fingers for length. X-hole positioned for increased flare.

Moderate hook potential with skid/snap arc to fight early hook in the heads.

Lower hook potential than layout #2L.



4E (Hooking Wet/Dry's)

Smooth reaction for moderating wet/dry lane conditions

Lower hook potential than layout #3E.

This layout may hit the finger holes for **High-Track** players, use layout #4L instead.

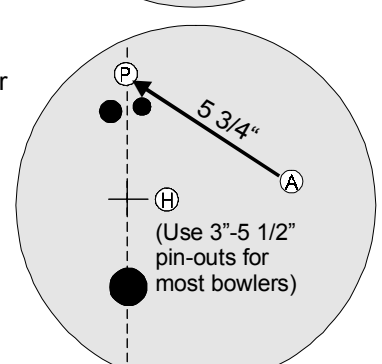
4L (Dry lanes)

Minimum hook potential for dry lanes and moderating over reactions.

High RG pin position with the pin above the fingers for length

Low Flare

Low Hook Potential



Note: Finger, thumb and X-holes must have at least a moderate bevel and the riser Pin (P) must be at least one inch from any drilled hole to comply with the Brunswick warranty



"Out of the Box" Ball Comparison Chart - 2002/2003

Skid/Snap Reaction
Sharp Turn

	DRY LANE CONDITIONS				DRY TO MEDIUM LANE CONDITIONS					MEDIUM TO OILY CONDITIONS				OILY LANE CONDITIONS				
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1																		
2																		
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20	HOOK POTENTIAL				HOOK POTENTIAL					HOOK POTENTIAL				HOOK POTENTIAL				
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	DRY LANE CONDITIONS				DRY TO MEDIUM LANE CONDITIONS					MEDIUM TO OILY CONDITIONS				OILY LANE CONDITIONS				

Even Reaction
Smooth Turn

Brunswick Ball Brands

Fuze - High Performance Proactive - Big hook potentials and even arcs for all types of bowlers on oily lane conditions

Fuze - High Performance Reactive - A wide range of Reactive choices for medium-dry to oily lane conditions

Monster - Mid-Price - Close to the best for less. More bang for the buck. The Bowling Industry's widest range of Reactive and Proactive reactions at the mid-price point.

Groove - Your first performance ball - Plastic slips, Groove grips. Ready to start hooking the ball?

Move up from Plastic to Proactive, Reactive and Urethane coverstock technology. Get in the Groove!

Polyester: Target Zone, Kids Favorite Characters and Viz-A-Ball. Glow-in-the-Dark patterns and colors. 360 degree Limited Edition Graphics. Minnie, Mickey, Snoopy and more.