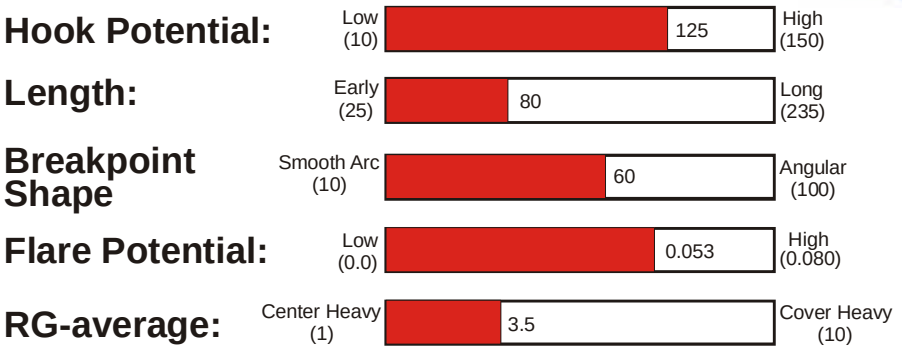
Brunswick — Fuze Eliminator - Proactive

Part Number
60-103802-93X
Coverstock
Low-Load Proactive / Particle
Color: Royal Blue
Hardness: 77-79
Red/White Glow Engraving
Surface Finish
Cerium Oxide Trizact
Core Dynamics
RG Max: 2.546
RG Min: 2.493
RG Diff.: 0.053
Average RG: 3.5
Performance
Hook Potential: 125
Length: 80
Typical Breakpoint Shape: 60
Available Weights
12-16 Pounds



Reaction Characteristics – Conquer the Puddle

Have you ever had your ball "Over Skid" in the center of the lane, then on your next shot, make a move to the outside and have your ball react like someone kicked it toward the middle. Conquer the puddle and eliminate those over/under reactions with the **Fuze™ Eliminator™.** The Fuze Eliminator features a Low-Load Proactive® coverstock combined with a Low RG, High Differential core to provide a unique ball reaction not currently available in the Brunswick line.

While the core shape of the Eliminator is the same as that of the Fuze Igniter, the density profile within the core has been modified. By making the inner core heavier, the Overall RG has been lowered and the Differential RG raised compared to the Fuze Igniter. This produces a strong, heavy ball roll that allows the characteristics of the cover to show through.

The coverstock on the Fuze Eliminator has been created by combining the Aggressive Reactive from the Raging Red Fuze with a Low-Load of Proactive particles. This produces an extremely versatile coverstock that provides more traction in the oil than a straight reactive without sacrificing the back-end hooking characteristic of reactive coverstocks.

The core and coverstock combination that has been developed for the Fuze Eliminator produces a ball that reads the oil pattern on the lane well, without over reading it. The Eliminator is strong in the mid-lane and back-end without giving up being clean through the front. Compared to other Low-Load particle balls, the core/cover combination of the Eliminator is more versatile and less sensitive to the bowler's speed variation from shot to shot and the break down of the lane condition over time. On a typical house shot the Eliminator stays on line in the oil and maintains good contact with the lane without wanting to either hook early or slip in the oil. As the lane breaks down, shots that are tugged up the oil line hold and hit, while shots that are swung to the dry early recover continuously down the lane.

Utility

•**Out of the Box**: With it's Cerium-Oxide high gloss finish the Eliminator will match up well on medium to oily lane conditions.
•**When dulled:** The Eliminator's hooking action will increase and its arc will become more even, creating a better match-up for oily lane conditions and further smoothing over/under reactions seen on wet/dry lane conditions.

The Fuze Eliminator matches up well for most bowlers on medium to oily lane conditions. The Fuze Eliminator is an excellent choice for those bowlers looking for a strong reactive type ball performance while avoiding the over/under reaction to house conditions typical of pure reactive coverstocks.

Reaction Setup

The **Fuze Eliminator** 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 **Fuze Eliminator** is finished with a high gloss surface which enhances it's 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 the fine 5-micron Trizact abrasive. If more hooking action and a smoother reaction is desired dull the surface of the ball with a coarser 10 or 35-micron Trizact abrasive.

For the most up to date Product Line Information go to ***www.brunswickbowling.com***

Brunswick Drilling Instructions For 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 ½" – 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.

Track	RPM rate	Earlier Rolling Layouts	Later Rolling Layouts
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

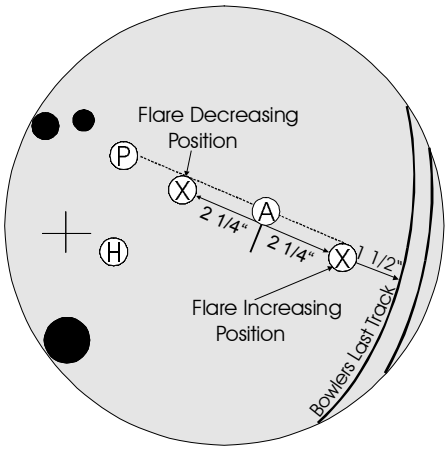
Brunswick recommends positioning the Heavy-Spot / CG to end up with ¾ -1oz. of positive side weight and a small amount of finger/thumb weight (less than ¼ oz.) after drilling. This leaves the driller plenty of room to modify the ball reaction with an X-hole, yet doesn't require that an X-hole be used 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 ¾ 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 ¼" **past** the bowlers axis to increase flare, and using a position 2 ¼" **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 ½" 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 ½" from the bowlers last track.

Brunswick

High-Differential Symmetric Core Layout Sheet

(RGdiff. 0.040 and above)

High Flare
High Hook Potential

Earlier Rolling Reactions

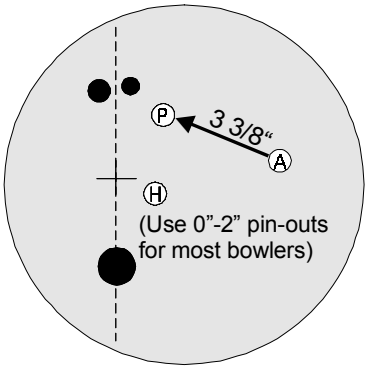
Later Rolling Reactions

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.

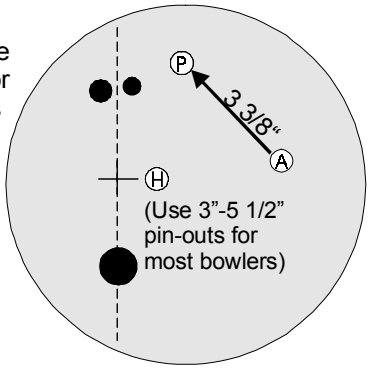
This layout may hit the finger holes for **High-Track** players, use layout #1L instead.



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.

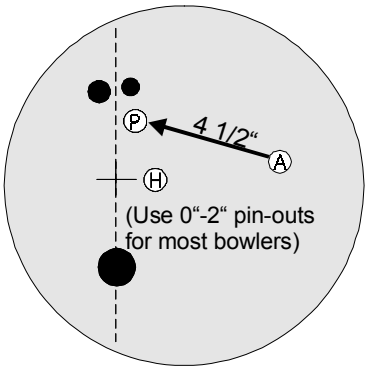


2E (Medium Oil)

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.

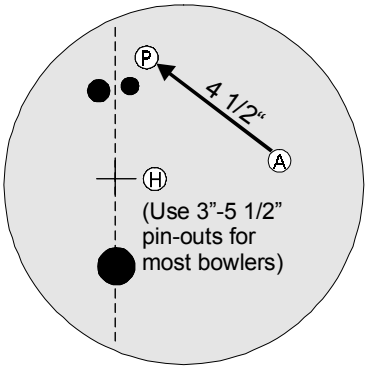


2L (Medium Oil)

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

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

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

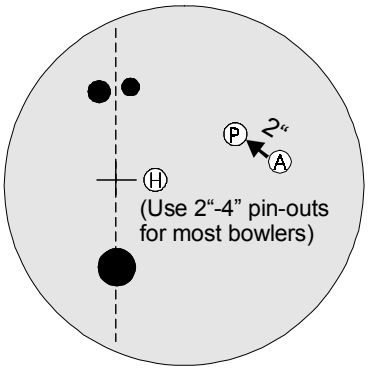


3E (Oily Wet/Dry's)

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.

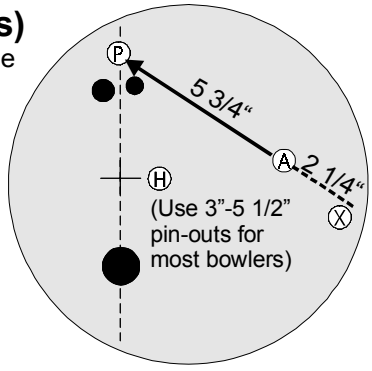


3L (Hooking heads)

High RG pin positon 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.

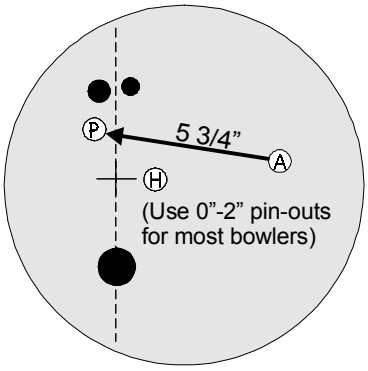


4E (Hooking Wet/Dry's)

Smooth reaction for moderating wet/dry lane conditions

Lower hook potential than layout #3E.

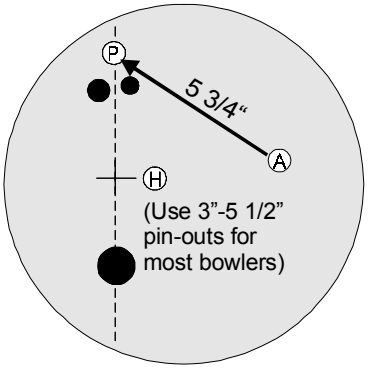
This layout may hit the finger holes for **High-Track** players, use layout #4L instead.



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

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

Skid/Snap Reaction
Sharp Turn

	DRY LANE CONDITIONS				DRY TO MEDIUM LANE CONDITIONS					A	MEDIUM TO OILY CONDITIONS				OILY LANE CONDITIONS				
	A	B	C	D	E	F	G	H	I	R	J	K	L	M	N	O	P	Q	R
1										C									
2																			
3										A	Fuze Purple Pearl								
4										R									
5										C									
6												Fuze Igniter							
7										A									
8								Monster ScreamR		R	Monster Frenzy								
9										C									
10																			
11							Monster Red/Black			A									
12										R									
13						Power Groove				C			Fuze Raging Red						
14						Reactive													
15										A									
16										R				Monster SmashR					
17										C						Fuze Eliminator			
18														Power Groove					
19										A				Proactive					
LOW	HOOK POTENTIAL		HOOK POTENTIAL		HOOK POTENTIAL					R	HOOK POTENTIAL			HOOK POTENTIAL			HOOK POTENTIAL		HIGH
20										C									
21																			
22										A									
23										R									
24										C							Fuze Detonator		
25																			
26										A									
27										R									
28										C									
29																		Swamp Monster	
30				Groove						A									
31				Urethane						R									
32										C									
33																			
34										A									
35										R									
36	Viz-a-ball									C									
37	Favorite Characters																		
38	Target Zones																		
39										A									
40										R									
	DRY LANE CONDITIONS				DRY TO MEDIUM LANE CONDITIONS					C	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.

Updated October 2002