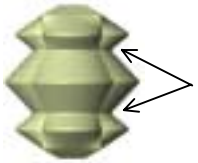
Information Sheet

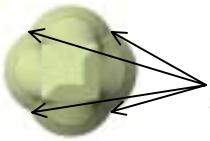
DETONATOR - *Proactive*

Specifications

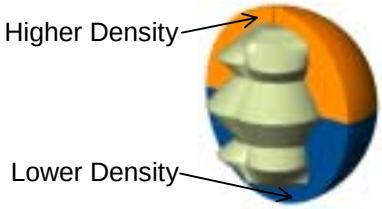
Part Number
60-103622-93x
Coverstock
Proactive MTX-1
Color: Black
Hardness: 77-79
Factory Finish
35-Micron Trizact
Core Dynamics
RG Max: 2.585”
RG Min: 2.538”
RG Diff: 0.047”
RG Avg: 4.7
Performance
Hook Potential: 140
Length: 45
Breakpoint Shape: 45
Available Weights
12-16 Pounds



Single-Density Mirror-Imaged top and bottom sections create Geometrically Balanced Inner Core Construction for more stable rotation.



Four-Sided Symmetry for increased inner core surface area bonding and core integrity.



A split density outer core with Higher and Lower Density sections moves Top Weight control to the Perimeter. This creates a ball with Top to Bottom Geometrically Balanced core Construction while providing standard Top Weight and Pin-Out specifications.

Proactive MTX-1 Coverstock that provides superior Traction in oil to help shots inside of target still hit hard and a immense hook potential to allow shots wide of target to recover and get back to the pocket.

Reaction Characteristics

The Fuze Detonator features a new Proactive/Particle coverstock that uses the Raging Red Fuze’s Aggressive Reactive (AR) coverstock as the base. The AR material has been specially formulated to retain the characteristic Brunswick Aggressive Reactive reaction to the outside dry boards and backends of typical league conditions, while at the same time providing increased mid-lane traction in the heavier oiled sections of the lane. Adding Brunswick’s patent pending Proactive/Particle Technology to this AR base creates a high-load coverstock that provides excellent traction in the oiled areas of the lane, while generating a strong, smooth, even arc off the dry boards. This combination results in a high hook potential ball that is forgiving of shots both inside and outside of target on typical league conditions.

Like all Fuze balls the Detonator features Brunswick’s **Geometrically-Balanced Core Concept**, for enhanced mid-lane recovery and controllable breakpoints. The Detonator’s high traction coverstock requires a higher RG-average for optimum coverstock/core match so the core from the Raging Red Fuze has been modified by shifting some of the mass from the inner core to the split density outer core, raising the RG-average and decreasing the RG-differential.

Average RPM players will find that due to its significantly increased mid-lane traction, the Detonator provides more overall hook potential than the Navy Sparkle Fuze while, high RPM players will find that the increased mid-lane traction and smoother breakpoint shape combine to produce more mid-lane control and forgiveness. All types of players will find that the Detonator’s increased traction in the oil will help save shots that are inside of target on typical house shots, while the high hook potential will help shots that miss wide of target get back. These forgiving characteristics make the Detonator an excellent match for all types of bowlers on medium to oily lane conditions.

Notes on Drilling

The Fuze Detonator features a core with 4-Sided Symmetry to help lock the core in place. While Asymmetric in appearance, the detonator core design is dynamically symmetric and behaves like a traditional symmetric core design. Thus, even though it is 4-sided, the Fuze Detonator can be drilled using the included techniques developed for symmetric core balls.

The Fuze Detonator is a high differential ball (Rgdiff.=0.047”) which makes it easy to create the large amounts of track flare preferred by most average rev rate players on typical house conditions. High rev rate players will have to guard against using high flare layouts which can cause early roll and an inconsistent breakpoint. See the included High-Differential drilling instructions for details.

*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

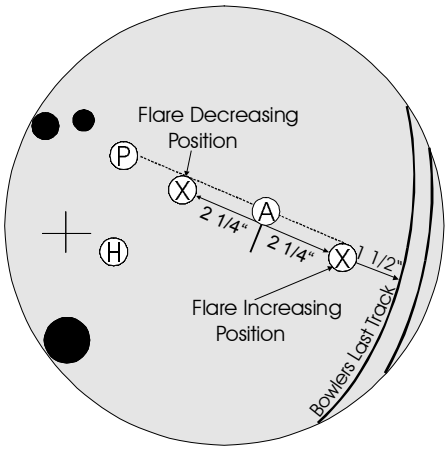
Brunswick recommends positioning the Heavy-Spot / CG to end up with ¾ -1oz. of positive side weight and a small amount of finger/thumb weight (less than ¼ oz.) after drilling. This leaves the driller plenty of room to modify the ball reaction with an X-hole, yet doesn't require that an X-hole be used 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.

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High-Differential Symmetric Core Layout Sheet

(RGdiff. 0.040 and above)

Earlier Rolling Reactions

High Flare
High Hook Potential

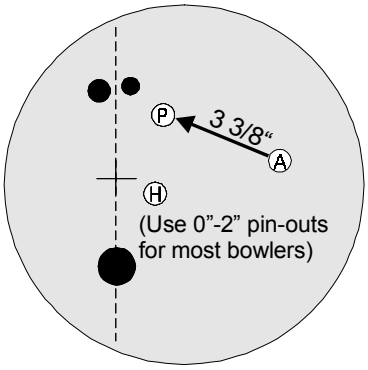
Later Rolling Reactions

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.

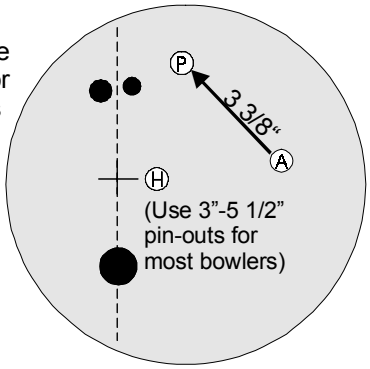
This layout may hit the finger holes for **High-Track** players, use layout #1L instead.



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.

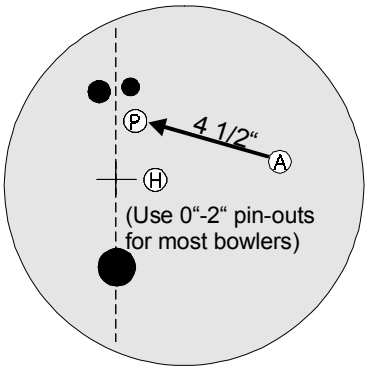


2E (Medium Oil)

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.

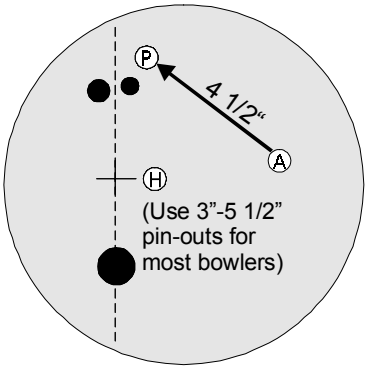


2L (Medium Oil)

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

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

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

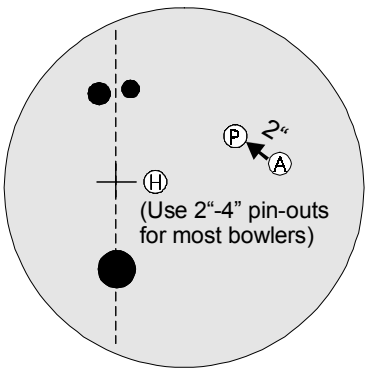


3E (Oily Wet/Dry's)

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.

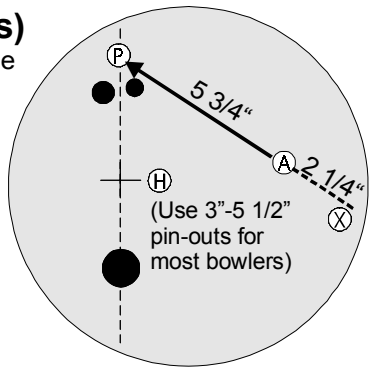


3L (Hooking heads)

High RG pin 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.

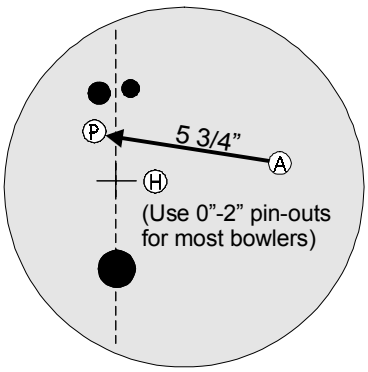


4E (Hooking Wet/Dry's)

Smooth reaction for moderating wet/dry lane conditions

Lower hook potential than layout #3E.

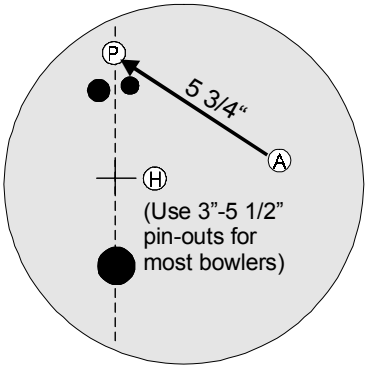
This layout may hit the finger holes for **High-Track** players, use layout #4L instead.



4L (Dry lanes)

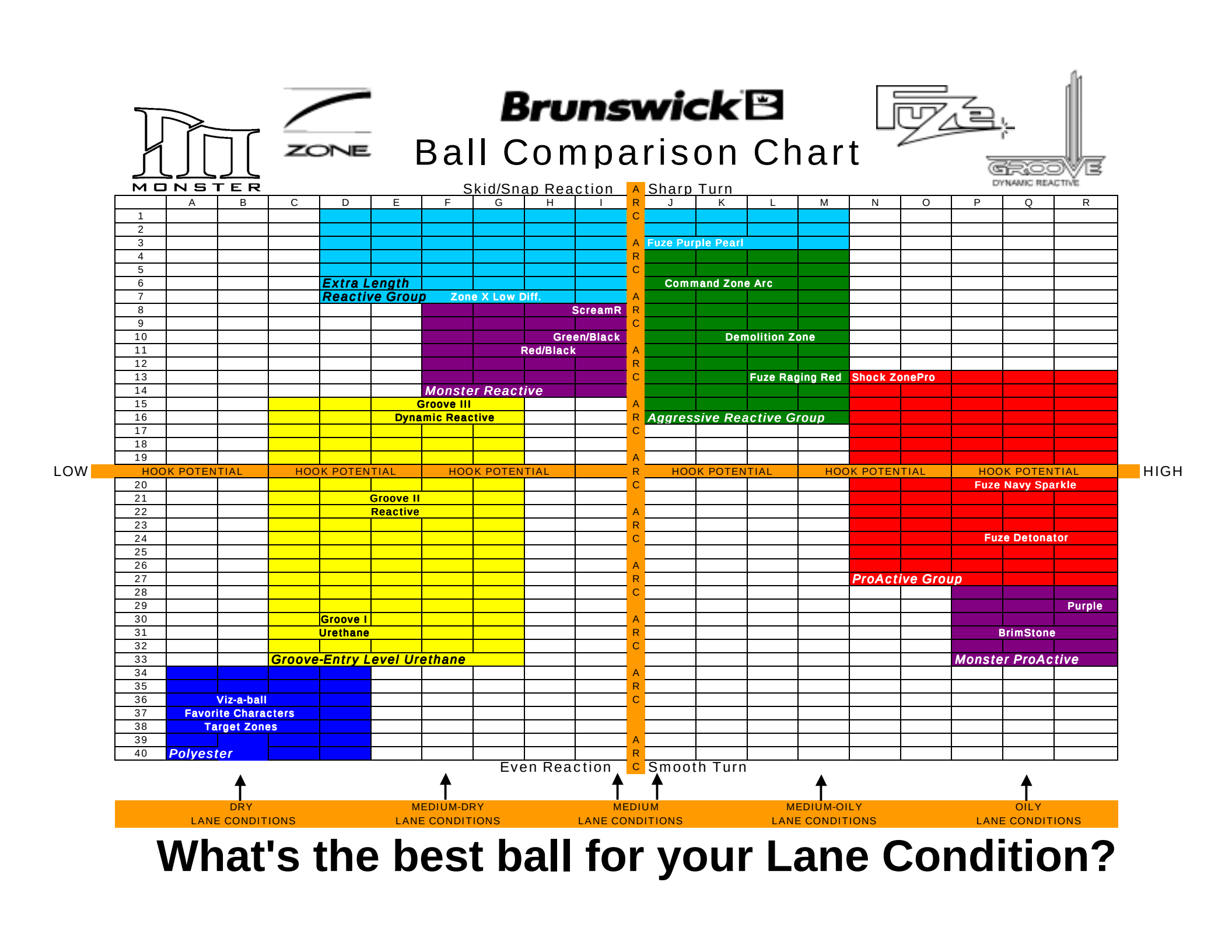
Minimum hook potential for dry lanes and moderating over reactions.

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

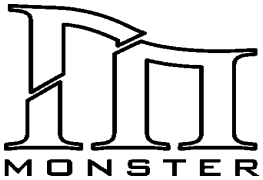


Low Flare
Low Hook Potential

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



What's the best ball for your Lane Condition?



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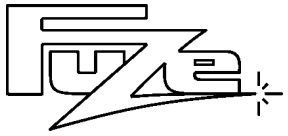
Ball Specification List



Balls	Hook Potential	Length	Typical Breakpoint Shape	Coverstock	Factory Finish	Mass Distribution Numbers RG-max	RG-min	RG-diff	RG-avg	Available Weights
High Performance - ProActive Group										
Fuze Detonator	140	45	45	ProActive MTX-1	35-micron Trizact	2.585	2.538	0.047	4.7	12-16
Fuze Navy Sparkle	140	65	60	XLP-Extra Length ProActive MTX-2	Cerium-Oxide Trizact	2.666	2.614	0.052	6.8	12-16
Shock ZonePro	115	100	75	ProActive DTX-3	Cerium-Oxide Trizact	2.639	2.591	0.048	6.1	12-16
High Performance - Aggressive Reactive Group										
Fuze Raging Red	110	100	75	AR (Aggressive Reactive)	Rubbing & Finishing Compound-Double Buff	2.559	2.504	0.055	3.8	12-16
Demolition Zone	105	105	75	PowerKoil 18	Rubbing & Finishing Compound-Double Buff	2.579	2.531	0.048	4.5	12-16
Command Zone Arc	95	115	85	N'Control PowerStock	Rubbing & Finishing Compound-Double Buff	2.560	2.510	0.050	3.9	12-16
High Performance - Extra Length Reactive Group										
Fuze Purple Pearl	90	145	95	XLR-G2 (Extra Length Reactive)	Rubbing & Finishing Compound-Double Buff	2.569	2.546	0.023	4.5	12-16
ZoneX Blue Pearl Low-Diff.	70	175	75	XLR (Extra Length Reactive)	Rubbing & Finishing Compound-Double Buff	2.613	2.589	0.024	5.8	12-16
Monster - Mid Price Series										
ScreamR Reactive	80	140	85	N'Control PowerStock	Rubbing & Finishing Compound-Double Buff	2.546	2.514	0.032	3.8	10-16
Purple ProActive	150	25	30	ProActive ETX-4	10-micron Trizact	2.601	2.551	0.050	5.1	10-16
Brimstone Red ProActive	140	15	20	ProActive ETX-3	35-micron Trizact	2.593	2.558	0.036	5.0	10-16
Green/Black Reactive	80	135	80	PowerKoil 17	Rubbing & Finishing Compound-Double Buff	2.584	2.531	0.053	4.5	10-16
Red/Black Reactive	75	140	75	PowerKoil 17	Rubbing & Finishing Compound-Double Buff	2.579	2.544	0.035	4.7	10-16
Groove - Entry Level Urethane										
Groove III Dynamic Reactive	70	170	70	Reactive	Rubbing & Finishing Compound-Double Buff	2.701	2.665	0.036	8.0	10-16
Groove II Reactive	60	195	60	Reactive	Rubbing & Finishing Compound-Double Buff	2.690	2.673	0.017	8.0	10-16
Groove I Urethane	50	210	40	Urethane	Both polished and 320 grit	2.703	2.684	0.019	8.3	10-16
Polyester										
Target Zones	25	235	30	Polyester	Rubbing & Finishing Compound-Double Buff	2.715	2.696	0.019	8.7	6,8,10-16
Favorite Characters	25	235	30	Polyester	Rubbing & Finishing Compound-Double Buff	2.715	2.696	0.019	8.7	6,8,10-16
Viz-a-Ball	25	235	30	Polyester	Rubbing & Finishing Compound-Double Buff	2.715	2.696	0.019	8.7	6,8,10-16