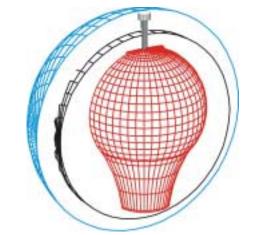
## Information Sheet Brunswick

## Monster ScreamR Reactive

## Specifications

Part Number 60-103613-93X Coverstock N'Control PowerStock - Reactive Color: Blue w / Violet Pearl Hardness: 77-79 Surface Finish Rubbing and Finishing Compound **Double Buff Core Dynamics** RG Max: 2.546 RG Min: 2.514 RG Diff.: 0.032 Average RG: 3.8 Performance Hook Potential: 80 Length: 140 Typical Breakpoint Shape: 85 **Available Weights** 10-16 Pounds





#### **Reaction Characteristics**

With the Monster ScreamR Brunswick has moved it's popular N'Control PowerStock coverstock system to the mid-price point. N'Control PowerStock, first used on the Command Zone (1999) and Command Zone Arc (2000) delivers a fundamentally more skid/snap ball reaction than the PowrKoil Reactive coverstock family. The Monster ScreamR features a low-RG, medium flare compound core system utilizing a super- high-density version of the inner core that was made famous by the Teal RhinoPro.

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.

The Monster ScreamR has been previously introduced as the X-Zone Tour Edition-2. The X-Zone TE-2 has been held in such high regard by the Brunswick ProStaff, independent Touring Pro's and top amateur players that we are making the identical ball reaction available in the Monster Mid-Price Series.

Compared to current Reactive Monsters, the Monster ScreamR has a similar hook potential but a more skid/snap arc. See the Brunswick Ball Comparison Chart for the relative reaction characteristics of all current Brunswick balls.

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

### **Drilling Information**

The Monster ScreamR is a low differential ball (Rgdiff.=0.032") to help guard against over-flaring, which can cause early roll and inconsistent breakpoints. Over the past 5 years almost every ball introduced has had a high differential which works well for average rev rate players on typical house conditions. This practice has caused those bowlers with higher rev rates to feel that they have to place the pin in a weak position (5" or more from axis) to have any hope of getting a good ball reaction. The lower differential in the Monster ScreamR allows a wide range of drilled reactions to be created. To max-out the reaction of the Monster ScreamR, high rev rate players will need to drill leverage pin positions, while more average rev rate players will need to add a flare increasing extra hole. See the included drilling instructions for details.

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

#### Brunswick Drilling Instructions For Brunswick Low-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  $3\frac{1}{2}$ " - 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>	RPM rate	Earlier Rolling Layouts	Later Rolling Layouts
High	High	3E	All the later rolling
High	Medium-Low	No early rolling reactions	layouts can be
Medium-Low	High	2E,3E,4E	used by
Medium-Low	Medium-Low	1E,2E,4E	all types of players

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 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 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 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).

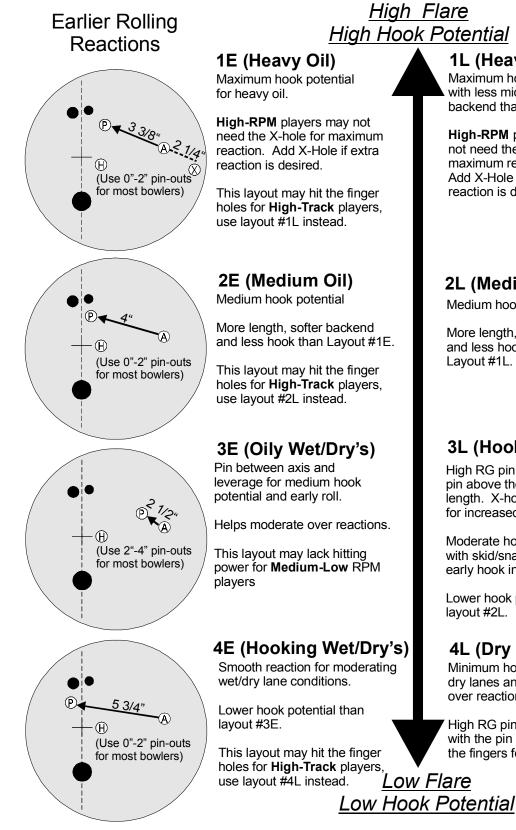
Warning: Drilling a "flare increasing" hole can result in the track flaring over the X-hole. After checking the position of the bowlers last track, make sure the "flare increasing hole" is at least 1 1/2" from the bowlers last track (see diagram above). If necessary shorten the distance from axis in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

e Decreasing osition	
2 1/4° 2 1/4° 8 1/2°	
Flare Increasing Position	
2 Mil	

**Brunswick** 

## Low-Differential Symmetric Core Layout Sheet

(RGdiff. Below 0.040)



1L (Heavy Oil)

Maximum hook potential with less mid-lane and more backend than layout #1E.

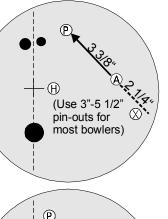
High-RPM players may not need the X-hole for maximum reaction. Add X-Hole if extra reaction is desired.

## 2L (Medium Oil)

Medium hook potential

More length, softer backend and less hook than Layout #1L.

Later Rolling Reactions



 $\oplus$ (Use 3"-5 1/2" pin-outs for most bowlers)

## 3L (Hooking heads)

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

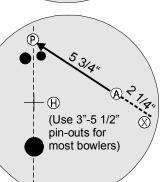
Moderate hook potential with skid/snap arc to fight early hook in the heads.

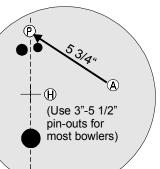
Lower hook potential than layout #2L.

## 4L (Dry lanes)

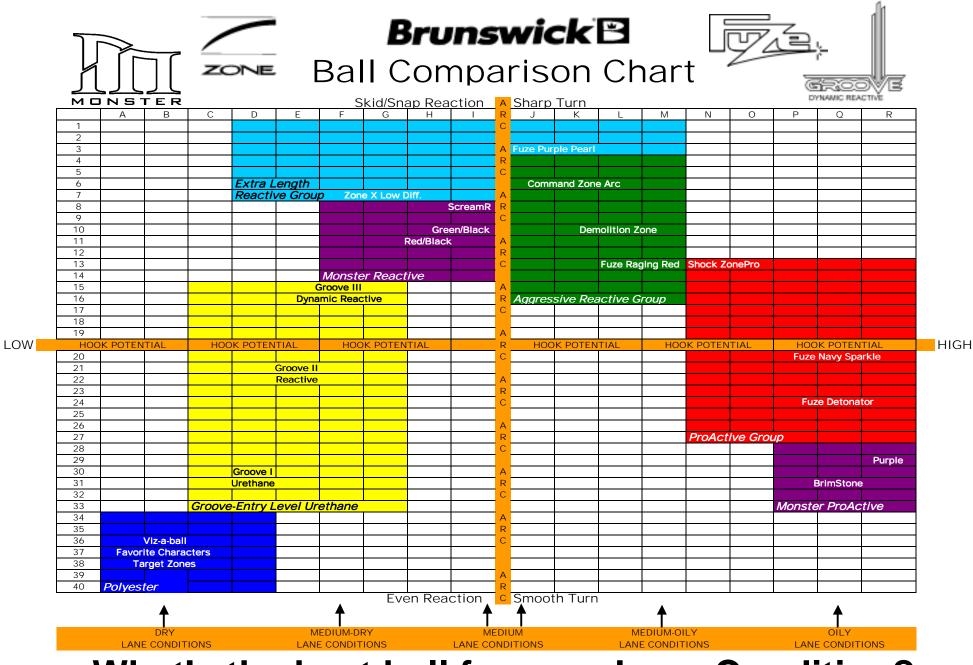
Minimum hook potential for dry lanes and moderating over reactions.

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





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?

# 

## *Brunswick zo*ℕ■ Ball Specification List



Balls	Hook Potential	Length	Typical Breakpoint Shape	Coverstock		Mass D	istribution I	Numbers		Available
High Performance - ProActive Group				Factory Finish		RG-max	RG-min	RG-diff	RG-avg	Weights
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 - Fuze Raging Red	Aggressi 110	ve Rea 100	ctive Gro 75	oup 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	0.033	4.5	12-16
										12-16
Command Zone Arc	95	115	85	N'Control PowerStock	Rubbing & Finishing Compound-Double Buff	2.560	2.510	0.050	3.9	ŀ

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