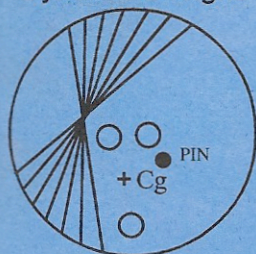


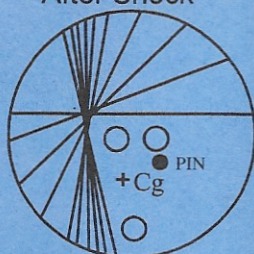
## THINGS TO REMEMBER!

- **CAUTION: DO NOT DRILL ANY HOLES DEEPER THAN 2-3/4"!**
- The After Shock performs best on heavy oil, it is not recommended for use on dry lanes.
- Length and backend reaction measurements (*relative to the lane conditions bowled on*) are based on the comparison of the other drillings - **1 being the least and 5 the most.**
- All recommended starting top weights can range within (+/-) 1/2 oz.
- All ending weights should be within 1/4 oz. of the recommended weight.
- Recognize that all illustrations are shown for right-handers. They must be reversed for left-handers.
- Do not position the extra-hole below the positive axis point, in order to avoid the track flare crossing over the extra-hole.
- Flare illustrations and Flare Potential measurements may vary due to axis tilt and number of revolutions applied by the bowler.
- Due to the After Shock's uniquely higher Rg (Radius of Gyration) and the high differential, the track flare becomes more prominent down the lane resulting in more backend reaction.

All Other  
Dynamic Designs



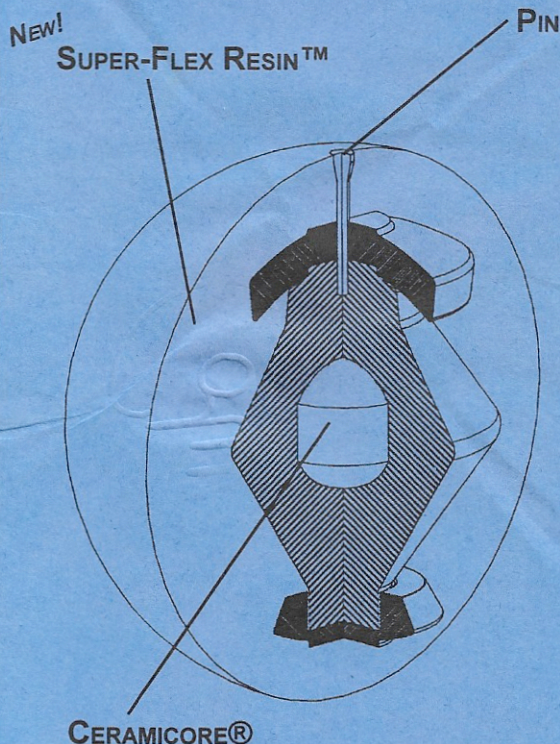
The  
After Shock™



## Dramatically Simplified



### PROFESSIONAL DRILLING SYSTEM

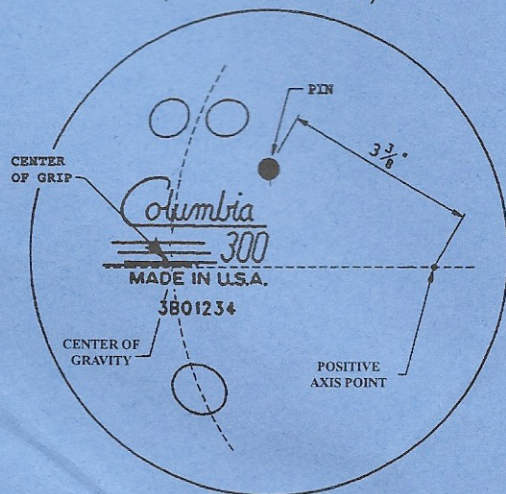


COLUMBIA 300

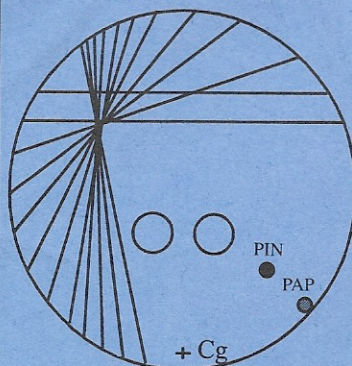
Columbia bowls the world over.™



## #5 PIN 3-3/8" FROM POSITIVE AXIS POINT (No Extra Hole)



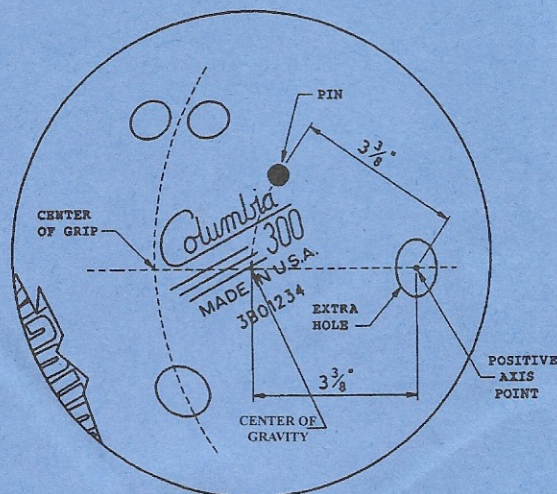
LENGTH	THREE
BACKEND REACTION	FOUR
STARTING TOP WEIGHT	3.5 oz.
PIN LOCATION FROM CG	2" to 3"
ENDING WEIGHTS	1/2 positive
FLARE POTENTIAL	HIGH



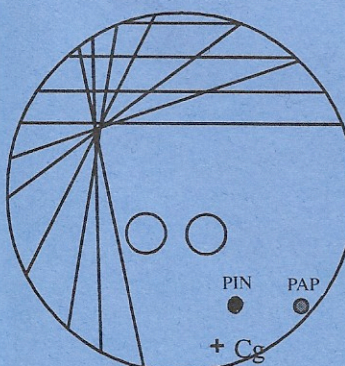
lane. Compare this to other "high differential" cores which flare more early on the lane due to their lower Rg.

This drilling pattern is recommended on conditions with heavy oil in the pines. Locating the pin 3-3/8" from the PAP maximizes the flare potential of this weight block. Due to the high Rg of the After Shock, the flare is more significant further down the lane, producing more skid in the front part of the

## #6 LEVERAGE WEIGHT PIN & CG 3-3/8"



LENGTH	ONE
BACKEND REACTION	THREE
STARTING TOP WEIGHT	3.5 oz.
PIN LOCATION FROM CG	1" to 2"
ENDING WEIGHTS	1/2 positive
FLARE POTENTIAL	HIGH

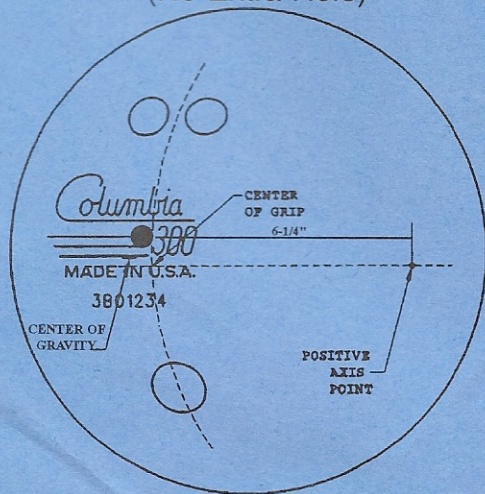


lutions may track over the extra hole. Those players should use drilling #5 for oily conditions.

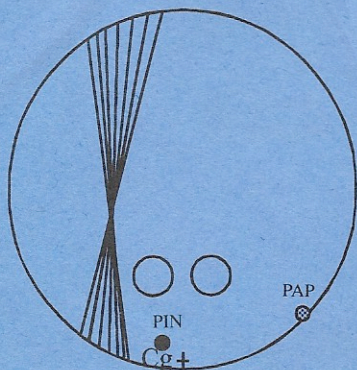
This drilling is only recommended for the straighter players with fewer revolutions, or on conditions that are extremely oily. Use of this drilling on dryer conditions could produce a "hook-stop" reaction due to the ball expending all of its energy before it gets to the backends. Players with a high track or many revolutions



# #1 PIN 6-1/4" FROM POSITIVE AXIS POINT (No Extra Hole)

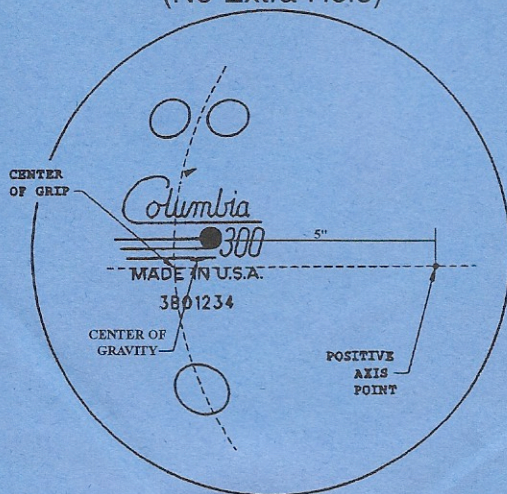


LENGTH	FIVE
BACKEND REACTION	TWO
STARTING TOP WEIGHT	3.0 oz.
PIN LOCATION FROM CG	0" to 1"
ENDING WEIGHTS	1/2 negative
FLARE POTENTIAL	LOW

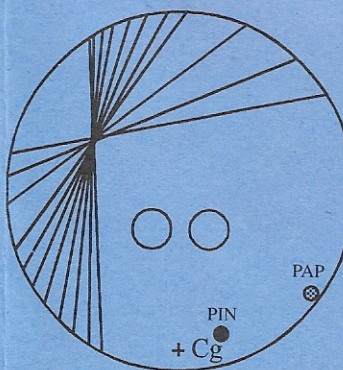


This drilling pattern is recommended for players wanting to play a straighter line on a dry condition. Locating the pin 6-1/4" from the axis point with a "pin in" ball, minimizes the flare, producing good length with minimal hook down the lane.

# #2 PIN 5" FROM POSITIVE AXIS POINT (No Extra Hole)



LENGTH	FIVE
BACKEND REACTION	FIVE
STARTING TOP WEIGHT	3.5 oz.
PIN LOCATION FROM CG	0" to 2"
ENDING WEIGHTS	1/2 positive
FLARE POTENTIAL	MEDIUM

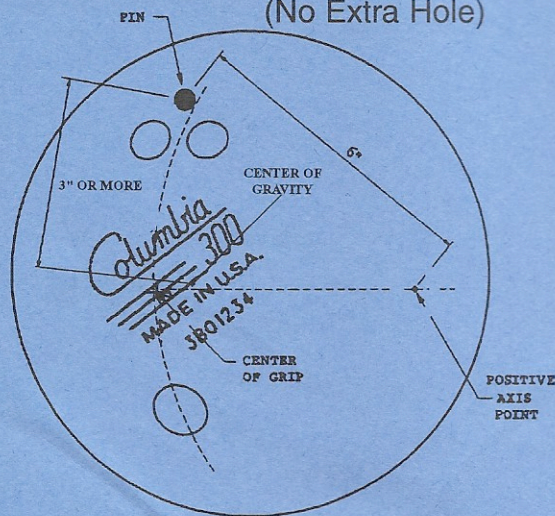


This drilling creates good length with a strong backend reaction, best on medium condition with carry down. Realize that with this weight block's high differential, the difference of a pin 6-1/4" from the axis (#1 drilling) and a pin located 5" from the axis (#2 drilling) is quite substantial.



#3

# **PIN OUT 6" FROM POSITIVE AXIS POINT** (No Extra Hole)



LENGTH

FOUR

BACKEND REACTION

THREE

STARTING TOP WEIGHT

3.5 oz.

PIN LOCATION FROM CG

3" +

ENDING WEIGHTS

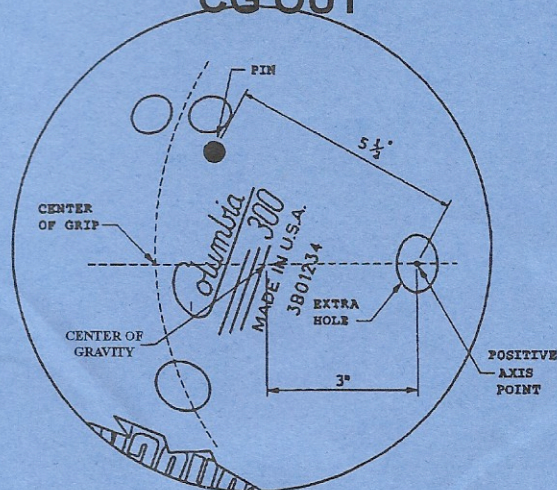
1/2 positive

FLARE POTENTIAL

MEDIUM

#4

# **PIN 5-1/2" FROM POSITIVE AXIS POINT, CG OUT**



LENGTH

THREE

BACKEND REACTION

TWO

STARTING TOP WEIGHT

3.0 oz.

PIN LOCATION FROM CG

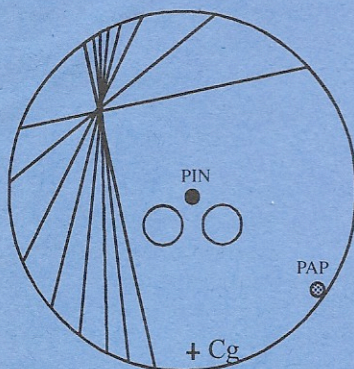
2" to 3"

ENDING WEIGHTS

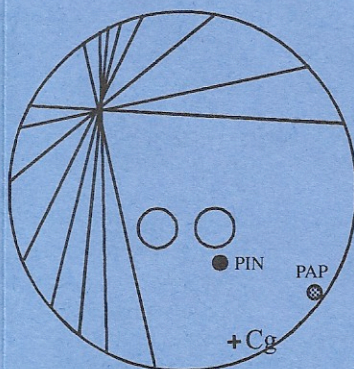
1/2 positive

FLARE POTENTIAL

MEDIUM



By selecting a pin out ball for this drilling, the flare potential is increased thus producing an earlier break point than drilling #1. This also produces more reaction down the lane due to the positive side weight and track migration.



This drilling is effective on conditions with heavy oil in the heads and pines with medium to dry backends. By swinging the CG out 3" from the positive axis point (PAP) and the pin 5-1/2", you produce early roll in the pine area, reducing the over-reaction on the backend.

This is a popular drilling that most pros carry with them on the PBA tour.