

HAWK

BEFORE DRILLING

In order to achieve maximum ball reaction, it helps to know the following information about the bowler and the lane conditions he or she encounters.

You Want To Know

The Bowler's: 1/ Ball Speed, 2/ Axis Rotation, 3/ Axis Tilt, 4/ Desired Flare, 5/ The Lane Conditions and 6/Revolutions... either Blend, Top Hat (wet/dry), or Track Shot.

Drilling For Maximum Results

Once you know these six variables, you can choose from three different Arc Drillings, Forward Roll Drillings, and Strong Drillings for the Hawk to produce maximum results.

Things To Remember

1. **Arc Drillings** are best for bowlers with slower ball speeds and less axis rotation. These drillings produce smaller entry angles and should be used when playing outside angles or when the bowler has to play in a zone.
2. **Forward Roll Drillings** produce the highest rev-rates, so they should be used for heavily oiled lanes and carry down. Bowlers with higher ball speeds, large axis rotation and axis tilt (spinners) will benefit most.
3. **Strong Drillings** create the highest entry angles of all the CG placements available. They work best when playing inside angles and when the bowler is trying to create area on the lanes with medium carry down.
4. **The Hookability and Breakpoint** of the Hawk can be changed by altering the surface of the ball through polishing or sanding.
5. **Consider Axis Rotation** when choosing the proper drilling technique for your customer. Bowlers with less than 45 degrees of axis rotation tend to use arc or strong drillings to help their rolls maintain rotation to the pins. Bowlers with more than 45 degrees of axis rotation tend to use forward roll drillings which provide the added revolutions needed to help gain control of the break point.

Core	Dual Torque Blocks
Coverstock	Super - Flex™
Flare Potential	6" (.048 RG Diff)
RG	Medium (2.584)
Hook Rating	12-21
Back end	20
Finish	1000 grit sheen

6. **Track Flare Management** should be considered before drilling. Determine how much flare your customer needs to obtain the desired reaction. Using a leverage drilling with 6.5" of flare will not produce a SNAPPING MOTION ON HEAVILY OILED LANES. The more flare that is used, the earlier and more the ball will hook.

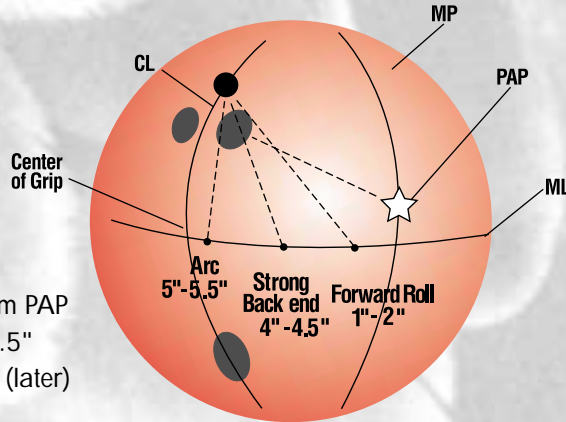
7. **With all drillings**, keep the pin 1½" on the grip side of the midplane and above a line drawn from the bowler's PAP through his ring finger hole to prevent the ball from rolling over the gripping holes.

Key to drilling diagrams:

- = Pin (top of weightblock)
- = Center of Gravity (CG)
- ☆ = Positive Axis Point (PAP)
- = Balance Hole
- CL = Centerline of Grip
- MP = Midplane
- ML = Midline

In these drillings, **HIGH RG** refers to a drilling that produces a longer skid and a later breakpoint. **LOW RG** refers to a drilling that produces earlier roll and more revolutions.

HIGH RG DRILLING

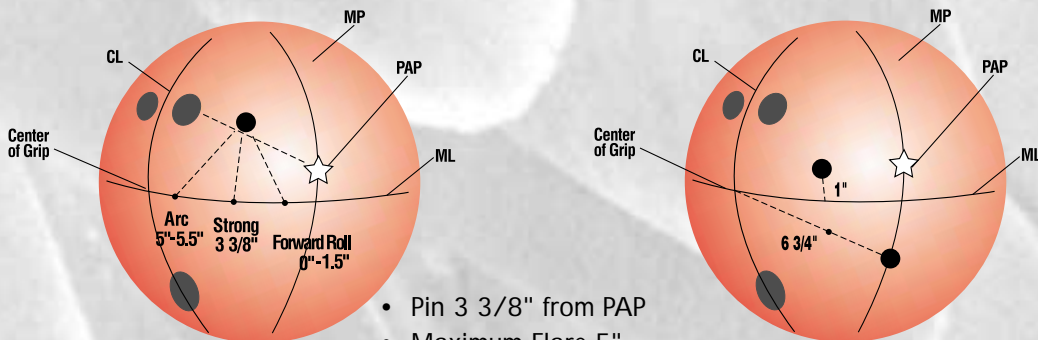


- Pin 5" - 5.75" from PAP
- Small Flare 2" - 2.5"
- Maximum Length (later)
- Smallest Hook
- Drier Lane Conditions

Full Roller Drillings

Use a traditional pin at 7:30 for maximum hook and a pin at 5:00 for more length and control.

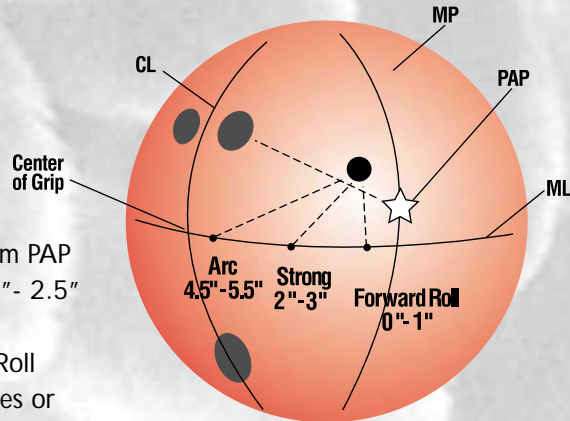
LEVERAGE DRILLINGS



- Pin 3 3/8" from PAP
- Maximum Flare 5"
- Early Break Point
- Maximum Hook
- Heavily Oiled Blended Lanes

- Use 3 oz. or less TW
- Use pins up to 3" out
- Place pin 3 3/8" from PAP at 11:00 in relation to CG and 1" above midline of grip
- Heavily oiled lanes with heavy carry down
- Great for bowlers with higher ball speeds and 45° axis rotation or more

LOW RG/STABLE PIN



- Pin 1.25" from PAP
- Small Flare 2" - 2.5"
- Small Hook
- Early Stable Roll
- Wet/Dry Lanes or Track Shots

Combining Price and Performance

It is rare that a bowling ball will give you great performance and not blow you away in price! When designing the Hawk, AMF spared no expense except for your pocket. This ball features Dual Torque Block Technology, which has been dynamically balanced and produces a medium RG and 6" of flare. When combined with Super - Flex™ Reactive coverstock, the same shell that made the original Night Hawk famous, the Hawk produces enough hook and backend to handle any condition you can throw at it.

