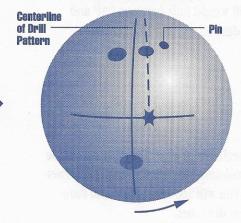
# DRILLING INSTRUCTIONS FOR THE AMF NINJA



drilling instructions.

The AMF Ninja features an innovative drilling system that enhances ease of drilling by utilizing clear markings to identify both the pin placement ( ) and the center of gravity ( ). By following the instructions listed below, you will be able to achieve any desired ball **NINIA** reaction. It should be noted the instructions are for right-handed bowlers. Drilling for left-handers is simply a mirror image of the right-handed

# **Standard Label Drilling:**



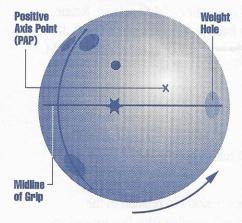
# Purpose:

This drilling produces strong hooking characteristics. Basic drilling is recommended for use on the largest variety of lane conditions.

#### **Procedure:**

Rotate ball slightly counterclockwise to place Shirken (CG) on ring finger line (this line located approximately 1/2 inch on positive side of center line of drill pattern) and place pin in 1:00 o'clock position in relation to Shirken (CG). Desired pin placement is 4-1/2 inches from positive axis point (PAP). Use weight hole at PAP if necessary to reduce side weight and decrease ball reaction (more control).

## **Leverage Drilling:**



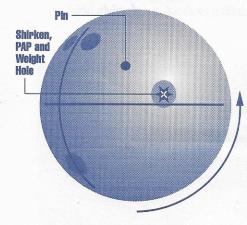
# Purpose:

This drilling can be considered the traditional leverage drilling. It produces maximum break point and the sharpest hook angle. Use 1/2 to 3/4 ounce positive side weight to create maximum backends and to create area.

#### Procedure:

Rotate ball 45 degrees counterclockwise. Place pin at 12:00 o'clock position in relation to the Shirken (CG). Pin location is 3-3/8 inches from the positive axis point (PAP). Weight hole is drilled between PAP and a point 3 inches to the right of PAP to produce desired top and side weight. In order to control the break point and the possible overreaction of the ball, reduce side weight.

# **Axis Leverage Drilling:**



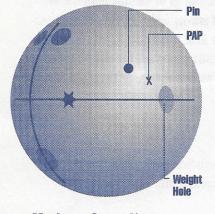
#### Purpose:

This drilling is recommended when Leverage Drilling (#2) produces too much ball reaction. This allows for long skid with controllable reaction at break point. Good all around drilling producing moderate hook with moderate flare pattern.

#### **Procedure:**

Use ball with less than 3-1/2 oz. top weight. Rotate ball 90 degrees counterclockwise. Place Shirken (CG) at positive axis point (PAP) and point pin at ring finger hole. Only use balls with pin out at least 2-3/4 inches for this drilling. Place weight hole at PAP to achieve desired side weight. Recommended side weight is 1/2 to 3/4 ounce positive side weight.

#### **Heavy Oil Drilling:**



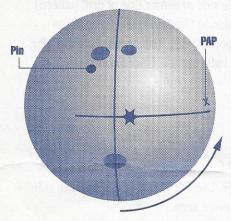
This drilling is recommended for *beavily* oiled lanes and lanes with moderate to heavy carry down on backends. This drilling decreases amount of skid in front part of lane and produces heaviest roll pattern.

#### Procedure:

Purpose:

Leave pin at 1:30 o'clock position in relationship to Shirken (CG). Place pin 2 inches from positive axis point (PAP). If necessary, drill weight hole between PAP and a point 3 inches to the right of PAP to produce desired top and side weight.

#### **Maximum Control/ Minimum Hook Drilling:**



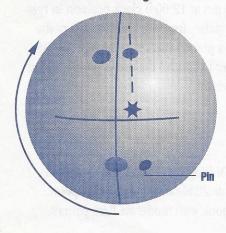
#### Purpose:

This drilling is the least hooking and most controllable of all drillings. It should be used for maximum control of break point for violently overreacting backends (wetdry) or freshly oiled lanes with no carry down. You will see very little or no flare with this drilling. This drilling also works well on dry lanes.

# Procedure:

Place Shirken (CG) 1/2 inch to positive side of center line of drill pattern. Rotate ball counterclockwise until pin is 6-1/4 inches from positive axis point (PAP). If necessary to decrease ball reaction, place weight hole at PAP to reduce side weight.

#### **Full Roller Drilling:**



## Purpose:

This drilling designed to meet the needs of full rollers only.

#### Procedure:

Rotate ball clockwise to place pin at 5:00 o'clock position in relation to the Shirken (CG). Place the Shirken (CG) on the ring finger line (this line located approximately 1/2 inch on positive side of center line of drill pattern). Resulting ball should have 1/2 to 3/4 ounce finger weight after drilling (without use of weight hole).

#### Scuffing:

The hookability of the Ninja ball can be greatly increased by scuffing. Ball should be scuffed with new scuffing pad or 400 grit sand paper. Ball can be returned to original condition by buffing with rubbing compound or using a well maintained compound ball polisher.

