

DOUBLE THUMB DRILLING™

*Please note that the following reading is not for the faint of heart and will **REQUIRE** several readings to understand what's being presented! A good understanding of the [DUAL ANGLE DRILLING TECHNIQUE™](#) and the [GRADIENT LINE BALANCE HOLE™](#) are a strong prerequisite. The end result is that the combination of all three techniques will redesign ball drilling as we know it today. We welcome you to join us in this new frontier!*

BASICS

The **Double Thumb** drilling technique will result in the drilled ball having the strongest mass properties without risking the chance of the ball flaring over the balance hole.



On an existing ball, draw a 30° angle to the VAL. Place the Pin 4" from the **PAP** on the 30° angle line. Draw the base line to pass ½" to the right of the thumb (½" from the outer sleeve of a Switch Grip). Measure the **drilling angle** to be used as it will be different for every **PAP**.



Layout the new ball with the measurements derived from the existing ball. Draw a horizontal line through the center of the thumb hole. Measure 1 1/2" from the right edge of the thumb on that line (1 1/2" from outer sleeve on a Switch Grip). Drill the balance hole 3" deep, pitched 3/4" to the right. Because the hole is pitched, the maximum legal size for the hole is 1 1/8".

MOST DYNAMIC LAYOUT / BALANCE HOLE COMBINATION

Use for players seeking the STRONGEST ball reaction possible. Recommended pin distance should be between 3.5" and 5.5". Pin to PSA line located 1/2" right of thumb hole with the Balance Hole located 1 1/2" right of the thumb hole, pitched 3/4" right. Since the balance hole for this drilling will be pitched 3/4" right, it is **VERY IMPORTANT TO LIMIT THE BALANCE HOLE SIZE TO 1 1/8" OR LESS**. This is done in order to comply with the USBC Rule regarding balance hole size limit, which states *that no balance hole shall be larger than 1/4" across the opening of the hole.*

In the following examples, while the Angle to the VAL (30°) and the PIN to PAP distance (4") will always remain constant for this drilling technique, the **DRILLING ANGLE WILL NOT**. In order to determine the drilling angle needed (based on an individual bowler's PAP), you will need to reverse the layout procedure on an existing bowling ball from that bowler.

LAYOUT

45° Drilling Angle

X 4" Pin to PAP

X 30° Angle to the VAL

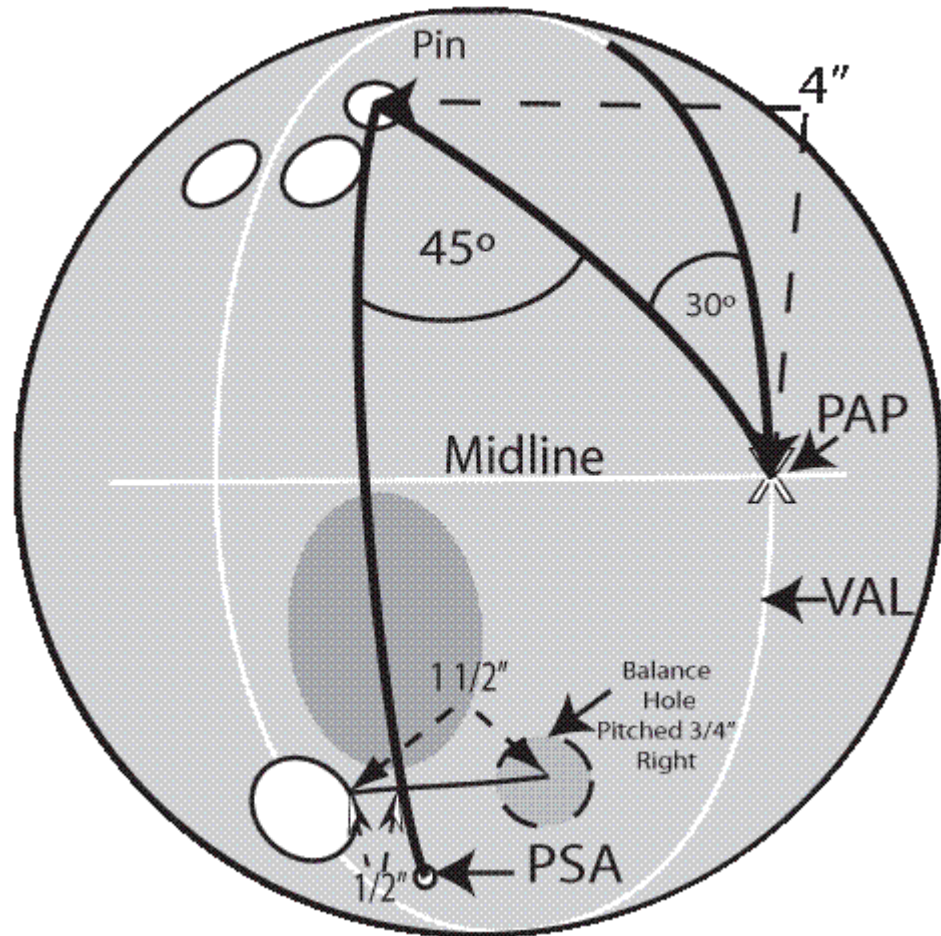
TRADITIONAL LAYOUT NUMBERS

Pin to PAP distance = 4"

MB to PAP distance = 4 1/4"

Pin to VAL distance = 1 7/8"

Uses a PAP of 4 over by 0 ↓



LAYOUT

60° Drilling Angle

X 4" Pin to PAP

X 30° Angle to the VAL

TRADITIONAL LAYOUT NUMBERS

Pin to PAP distance = 4"

MB to PAP distance = 5"

Pin to VAL distance = 1 7/8"

Uses a PAP of 5 1/4 over by 0 ↓

