

## 4.4.4 Entering vertical and lateral pitch for thumb

# Entering vertical and lateral pitch for thumb

[https://www.youtube.com/embed/fV6mpL92qgs?si=JWuEWy9rxomxlr\\_L](https://www.youtube.com/embed/fV6mpL92qgs?si=JWuEWy9rxomxlr_L)

Thumb pitch works on the same principle as finger pitch — the hole is drilled at an angle rather than straight down, tilted to match the natural resting position of the bowler's thumb. However, thumb pitch has a proportionally larger effect on feel and release than finger pitch, because the thumb is the first finger to exit the ball during the delivery. Small pitch changes at the thumb produce noticeable differences in how the ball comes off the hand. Vertical and lateral pitch are entered separately for the thumb, just as they are for the fingers.

For a full explanation of how vertical and lateral pitch are defined and measured, see 4.3.3 — *Inputting vertical and lateral pitch for fingers*. This page covers thumb-specific considerations and how to enter the values in the spec sheet.

# ☐ Thumb Vertical Pitch — Key Differences from Finger Pitch

Vertical pitch for the thumb follows the same forward/zero/reverse axis as the fingers, but the typical ranges and their effects differ significantly.

| Direction | What it means for the thumb                                                              | Typical use                                                                                                                  |
|-----------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Forward   | Hole tilts toward the palm. The bottom of the thumb hole leans toward the fingers.       | Helps a bowler who grips tightly or has difficulty releasing — forward pitch encourages the thumb to exit cleanly.           |
| Zero (0)  | Hole drilled perpendicular to the ball surface.                                          | A common neutral starting point, particularly for conventional grips.                                                        |
| Reverse   | Hole tilts away from the palm. The bottom of the thumb hole leans away from the fingers. | The most common thumb vertical pitch for fingertip bowlers — reverse pitch on the thumb promotes a cleaner, earlier release. |

## Typical vertical pitch ranges for the thumb

- ☐ **Fingertip grip:**  $\frac{1}{4}$ " to  $\frac{1}{2}$ " reverse is the most common starting range.
- ☐ **Conventional grip:** 0" to  $\frac{1}{4}$ " forward is typical — conventional bowlers generally benefit from less reverse or slight forward pitch at the thumb.
- ☐ **Two-handed bowlers:** thumb pitch varies widely and often requires individual assessment — many two-handed players use minimal reverse or zero pitch. *Verify with Spectre team: confirm whether Spectre Cloud has any specific field or flag for two-handed bowler configurations.*
- ☐ Reverse thumb pitch beyond  $\frac{3}{4}$ " is uncommon and should be verified before drilling — it may indicate a measurement error or an atypical release that warrants closer discussion with the bowler.

**Note:** The thumb and finger pitches do not need to mirror each other. It is entirely normal — and common — for a bowler to have reverse pitch on the thumb and forward pitch on the fingers simultaneously. Each hole is fitted independently.

# ↔ Thumb Lateral Pitch — Key Differences from Finger Pitch

Lateral pitch on the thumb describes the tilt toward or away from the fingers (toward the middle finger side, or away from it). Because the thumb sits on the opposite side of the ball from the fingers, the directional language can feel counterintuitive when transferring from a legacy fitting sheet — take care with the direction entry.

| Direction         | What it means for the thumb                            | Typical use                                                                                                             |
|-------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Toward fingers    | Thumb hole tilts in the direction of the finger holes. | The most common lateral direction for the thumb — mirrors the natural inward angle of the thumb when gripping the ball. |
| Zero (0)          | No lateral tilt.                                       | Used as a neutral baseline or for bowlers with a very straight thumb position.                                          |
| Away from fingers | Thumb hole tilts away from the finger holes.           | Less common — occasionally used for bowlers with a pronounced outward thumb angle.                                      |

## Typical lateral pitch ranges for the thumb

- ☐ **Most bowlers:** " to " toward fingers is the standard starting range.
- ☐ Lateral thumb pitch beyond " in either direction is uncommon — verify before drilling.

## ☐ Entering Thumb Pitch in Spectre Cloud

1. In the spec sheet, navigate to the **Thumb Pitch** fields within the Thumb section.
2. Enter the **vertical pitch value** — the amount in inches — and select the direction: , , or .
3. Enter the **lateral pitch value** and select the direction: , , or .
4. Review both entries against your fitting notes before moving to the next section.

*Verify with Spectre team: confirm the exact direction labels used in the Spectre Cloud UI for thumb lateral pitch — specifically whether the app uses "toward fingers," "toward middle finger," or a left/right convention relative to the bowler's hand orientation. Also confirm whether pitch is entered as fractions or decimals for the thumb, consistent with finger pitch entry.*

# ☐ Transferring Thumb Pitch from Legacy Fitting Sheets

Legacy fitting sheets use a variety of notations for thumb pitch. The translation table from 4.3.3 applies here as well, with one additional consideration for lateral direction:

| Legacy notation                                                                                                     | How to enter in Spectre Cloud                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="text" value="¼R"/> / <input type="text" value="¼ Rev"/> / <input type="text" value="¼ Reverse"/>       | Vertical: <input type="text" value="¼"/> , direction: <b>Reverse</b>                                                                                                                            |
| <input type="text" value="¼F"/> / <input type="text" value="¼ Fwd"/> / <input type="text" value="¼ Forward"/>       | Vertical: <input type="text" value="¼"/> , direction: <b>Forward</b>                                                                                                                            |
| <input type="text" value="0"/> / <input type="text" value="Zero"/>                                                  | Vertical or lateral: <input type="text" value="0"/> , direction: <b>Zero</b>                                                                                                                    |
| <input type="text" value="¼ In"/> / <input type="text" value="¼ toward fingers"/> / <input type="text" value="¼T"/> | Lateral: <input type="text" value="¼"/> , direction: <b>Toward Fingers</b>                                                                                                                      |
| <input type="text" value="¼ Out"/> / <input type="text" value="¼ away"/>                                            | Lateral: <input type="text" value="¼"/> , direction: <b>Away from Fingers</b>                                                                                                                   |
| <input type="text" value="¼L"/> or <input type="text" value="¼R"/> used for lateral (left/right convention)         | Determine whether left/right refers to the bowler's perspective or the ball face — then map to toward/away from fingers accordingly. When in doubt, confirm with the bowler or original fitter. |

**Tip:** Left/right lateral notation on legacy cards is the single most common source of thumb pitch transfer errors. A  entry means something different for a right-handed bowler than a left-handed bowler, and some older cards recorded lateral from the ball's perspective rather than the bowler's. Always clarify the convention before entering.

## ☐ Tips for Accurate Thumb Pitch Entry

- ☐ When fitting a new bowler, the IBPSIA auto-suggestion feature in Spectre Cloud can provide a recommended starting thumb pitch based on grip type and span. Use it as a reference point, then adjust based on the bowler's release and any feedback from previous drillings.
- ☐ If a returning bowler reports that their thumb feels like it is catching or dragging on release, the vertical pitch is almost always the first thing to adjust — typically increasing the reverse pitch by  to .
- ☐ Record the bowler's reported feel alongside the pitch values in the **Notes** field — knowing that a previous drilling at  felt slightly tight helps you calibrate the next adjustment accurately.

- ☐ Do not assume thumb pitch from a previous ball applies unchanged to a new one — different ball weights, slug materials, and hole depths can all affect how a given pitch feels in practice.
- ☐ Do not confuse thumb vertical pitch with thumb forward/reverse pitch on legacy cards that use inconsistent terminology — confirm the axis before entering.

## Related Sections

- 4.3.3 — Inputting vertical and lateral pitch for fingers
- 4.3.4 — CLT (Corrected Lateral Tilt) and its effect on lateral pitch
- 4.4.2 — Entering thumb hole size
- 4.4.5 — Thumb slug and insert entry
- 4.5 — IBPSIA auto-suggestions

**Tip:** Thumb pitch is the measurement bowlers are most likely to have strong opinions about — many competitive bowlers know their preferred pitch values from memory and will tell you exactly what they want. When a bowler gives you their pitch preferences directly, record them as stated and note in the **Notes** field that the values came from the bowler's own specification. This protects both the bowler and the shop if a fit question arises later.

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Revision #3

Created 11 May 2026 16:04:32 by Admin

Updated 22 June 2026 18:51:08 by Frankie