4.4.2 Entering thumb hole size

Entering thumb hole size

> 4.4.2 thumb

Once the thumb hole shape is selected, the spec sheet requires the actual size of the thumb hole. Whether the bowler uses a bare thumb, a slug, or an insert, the size entry tells Spectre Cloud — and ultimately the drill press operator — exactly how large to make the hole. Getting this measurement right is critical: the thumb hole is the primary control and release point for the ball, and even a small sizing error has a noticeable effect on how the ball feels and performs.

□□ What "Thumb Hole Size" Means

For a **round** thumb hole, size is a single diameter value — the width of the circular hole at the point of insertion. For an **oval** thumb hole, size is two values — width and depth — entered independently. In both cases, the size entered in Spectre Cloud represents the finished hole that the bowler's thumb will sit in, which may or may not be the same as the drill bit OD depending on whether a slug or insert is used.

Setup	What "size" refers to	What to measure
Bare thumb, no slug or insert	The hole drilled directly into the ball	The bowler's thumb at the point of insertion
Thumb slug	The inner diameter of the slug after installation	The bowler's thumb — the slug is sized or shaped to match; the pilot hole is drilled to the slug's OD
Thumb insert (STD or VACU)	The inner diameter of the insert	The bowler's thumb — the insert is selected to match; the pilot hole is drilled to the insert's OD

Important: The thumb hole size and the drill bit OD are two different values whenever a slug or insert is used. The size field records what the bowler's thumb fits into; the OD field records what goes into the ball. Do not enter the same value in both fields for slug or insert fittings. See *4.4.4 — Thumb slug and insert entry* for OD details.

How to Measure Thumb Hole Size

Thumb hole size is measured directly from the bowler's thumb during the fitting. The goal is to find the diameter (or width and depth, for oval) at the **point of comfortable insertion** — where the thumb naturally sits when gripping the ball.

1. Ask the bowler to relax their thumb completely — no tension, no forced straightening.
2. Using a thumb gauge, digital calipers, or a ring sizer, measure the thumb at the point of insertion. For most fingertip and conventional bowlers this is just below the first knuckle joint.
3. For a **round hole**, record a single diameter. If the thumb reads differently in two directions, note which dimension is larger — this may be an indication that an oval hole would serve the bowler better.
4. For an **oval hole**, record width (across the knuckle) and depth (front to back) independently.
5. Add the appropriate **fit allowance** to the raw thumb measurement before entering into Spectre Cloud — see below.

Fit Allowance — Sizing the Hole Correctly

A thumb hole drilled to exactly the bowler's thumb measurement will be too tight — the thumb needs a small amount of clearance to insert and release cleanly. The fit allowance is added to the raw thumb measurement to produce the correct hole size.

- A typical fit allowance for a bare thumb hole is `1/32"` to `1/16"` over the raw thumb measurement — enough for a firm but comfortable fit with no wobble.
- Bowlers who prefer a **relaxed fit** (common for two-handed bowlers or those with a relaxed thumb release) may use a larger allowance — up to `3/32"` or more.
- Bowlers who prefer a **snug fit** (common for players using thumb tape to fine-tune) typically use a smaller allowance and rely on tape to dial in the final feel.

- ⚠ Do not drill to the raw thumb measurement without allowance — a zero-clearance hole will grip the thumb on release and cause injury risk over time.

Tip: Many experienced operators size the thumb hole to feel slightly loose at the time of drilling, knowing the bowler will use **thumb tape** inside the hole to tighten the fit to preference. If the bowler is a regular tape user, confirm their tape thickness preference before finalising the size entry — one layer of standard tape reduces the effective hole diameter by approximately `1/32"`.

⌨ Entering Thumb Hole Size in Spectre Cloud

1. In the spec sheet thumb section, confirm the hole shape is set correctly — `Round` or `Oval` — before entering size. The shape selection determines which size fields are displayed.
2. For a **round hole**: enter the single diameter value in the thumb size field.
3. For an **oval hole**: enter the width value and the depth value in their respective fields.
4. Confirm the value includes your fit allowance — Spectre Cloud records what you enter; it does not automatically add clearance.
5. Proceed to the pitch and slug/insert fields.

Verify with Spectre team: confirm whether thumb hole size is entered in fractional inches, decimal inches, or millimeters — and whether Spectre Cloud displays the value in a different unit than it is entered. Also confirm whether the IBPSIA auto-suggestion feature offers a recommended thumb hole size based on the measured thumb diameter.

⌨ Typical Thumb Hole Size Ranges

Bowler type	Typical thumb hole diameter	Notes
Adult male	`1⅛"` – `1¼"`	Wider range; hand size varies significantly
Adult female	`1"` – `1⅛"`	Narrower range on average
Youth	`¾"` – `1"`	Re-measure at every visit — thumb size changes quickly

Note: These ranges are general references only. Individual thumb anatomy varies widely and values outside these ranges are entirely normal. Never reject a measurement because it falls outside a typical range — measure carefully and trust the result.

Tips for Accurate Thumb Size Entry

- Measure the thumb at the **same time of day** the bowler typically bowls — thumbs swell slightly with warmth and activity. A measurement taken cold and relaxed in the morning may produce a hole that feels tight after three games in a warm bowling centre.
- If a returning bowler reports the thumb hole consistently feels tight after a few frames, check whether the previous spec sheet size accounted for swelling — a `1/32"` increase in hole size often resolves the complaint.
- Record both the raw thumb measurement and the entered hole size in the **Notes** field for new bowlers — this makes it easy to reconstruct the fit allowance decision on future visits.
- Do not copy thumb hole size from a previous spec sheet on a different ball without re-measuring — thumb size is the measurement most likely to have changed between visits.
- Do not use the finger hole size as a reference for thumb size — they are unrelated measurements.

Related Sections

- 4.4.1 — Selecting "Round" thumb hole on the spec sheet
- 4.4.3 — Thumb pitch (forward, reverse, lateral)
- 4.4.4 — Thumb slug and insert entry
- 4.3.7 — Insert type and size: STD vs. VACU, selecting drill bit OD
- 4.5 — IBPSIA auto-suggestions

Tip: Thumb sizing is as much an art as a measurement — experienced operators develop a feel for how a given bowler's thumb behaves over time. Until that relationship is established, erring slightly large and letting the bowler manage final fit with tape is a safe, reversible approach. You can always add tape to tighten; you cannot un-drill a hole that is too small.

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