4.3.2 Entering span measurements (Full Span and Cut to Cut)

Entering span measurements (Full Span and Cut to Cut)

https://www.youtube.com/embed/qvs9ONhVLCo?si=7B14sm9wtKOk2ZZm

Span measurements define the distance between the thumb hole and each finger hole on a bowling ball. Spectre Cloud supports two primary span measurement methods — **Full Span** and **Cut to Cut** — and it is important to enter the correct type to ensure accurate drilling. Using the wrong method will produce holes that are drilled in the wrong position, even if every number looks correct on screen.

□□ Understanding the Two Span Types

Full Span (F)

A **Full Span** measurement is taken from the **near edge of the thumb hole** to the **near edge of the finger hole** — that is, the distance measured along the surface of the ball from the edge of one hole to the edge of the other, with the bowler's hand in its natural relaxed position over the ball.

- The most common measurement method used in North American pro shops.
- Measures the actual gap between the two holes — the distance of ball surface the bowler's skin bridges.
- Easy to take with a standard span gauge or ruler directly on the ball blank.

Cut to Cut (C)

A **Cut to Cut** measurement is taken from the **center of the thumb hole** to the **center of the finger hole**. It is a center-to-center measurement rather than an edge-to-edge measurement.

- Common in some European fitting traditions and in certain legacy pro shop software systems.
- Produces a consistent reference point regardless of hole diameter — useful when hole sizes vary significantly.
- Less intuitive to measure directly on a hand — typically calculated or taken from a fitting device rather than measured freehand.

The Relationship Between Full Span and Cut to Cut

Because Full Span measures edge-to-edge and Cut to Cut measures center-to-center, the two values differ by the **radius of the thumb hole** and the **radius of the finger hole** combined. In practical terms:

- Cut to Cut is always **larger** than Full Span for the same bowler.
- The difference equals half the thumb hole diameter plus half the finger hole diameter.
- For a typical adult fingertip bowler, Cut to Cut runs roughly `½"` to `¾"` longer than Full Span — but this varies with hole size.

Important: Never enter a Cut to Cut value into a Full Span field, or vice versa. Even a small mismatch will result in holes drilled in the wrong location. If you are unsure which method was used on a legacy fitting sheet, check the raw numbers against typical ranges for your bowlers — Full

Span for an adult fingertip bowler typically falls between `3⅝"` and `4⅝"`; Cut to Cut values for the same bowler will read higher. When in doubt, re-measure.

□□ Entering Span Measurements in Spectre Cloud

1. Open the spec sheet and confirm the **Span Type** is set correctly — `F` for Full Span or `C` for Cut to Cut — before entering any numbers. The span type selector must match the method used to take the measurement.
2. Enter the **middle finger span** in the Middle field.
3. Enter the **ring finger span** in the Ring field.
4. Double-check both values against the fitting sheet before moving on — transposing middle and ring span is one of the most common data-entry errors.

Verify with Spectre team: confirm the exact field labels and UI layout for span entry — specifically whether Middle and Ring are entered as separate fields or as a combined span with an offset value.

□□ Recording Span from a Hand Measurement

If you are measuring a bowler's hand directly rather than copying from an existing fitting sheet, follow these steps for a Full Span measurement:

1. Ask the bowler to place their hand flat and relaxed on a flat surface or span gauge.
2. Align the gauge (or ruler) from the crease of the thumb — the point where the thumb meets the palm — toward the middle and ring fingers.
3. For a **fingertip grip**, measure to the first knuckle crease of each finger.
4. For a **conventional grip**, measure to the second knuckle crease of each finger.
5. Record middle and ring measurements separately — they are almost always different.

Tip: Always measure both hands if the bowler is new to your shop, even if they bowl with only one hand. Hand dimensions can vary between left and right, and having both on file is useful if the bowler ever requests a second opinion or switches equipment.

□□ Typical Span Ranges for Reference

Bowler type	Grip	Typical Full Span (middle)	Typical Full Span (ring)
Adult male	Fingertip	4⅛" – 4½"	3⅞" – 4¼"
Adult female	Fingertip	3¾" – 4⅛"	3½" – 3⅞"
Adult (either)	Conventional	4½" – 5"	4¼" – 4¾"
Youth	Conventional	3" – 4"	2¾" – 3¾"

Note: These ranges are general references only — individual hand anatomy varies widely. Never reject a measurement simply because it falls outside a typical range. Flag outliers for a second look, but trust a careful measurement over a table.

□ Common Mistakes to Avoid

- □ **Mixing span types** — entering a Cut to Cut value in a Full Span field is the single most common span entry error. Always confirm the span type selector before entering numbers.
- □ **Transposing middle and ring** — middle span is almost always longer than ring span for the same bowler. If your middle value is shorter than ring, double-check before saving.
- □ **Copying from a worn or faded fitting card without verifying units** — some older cards recorded spans in millimeters. Spectre Cloud uses inches. *Verify with Spectre team: confirm whether Spectre Cloud supports millimeter entry or inches only.*
- □ **Using a tight or forced hand position during measurement** — always measure with the hand relaxed. A forced stretch or curl produces a span that will feel uncomfortable once drilled.

Related Sections

- 4.2.3 — Selecting span type (F, C, O)
- 4.2.4 — How to identify grip type from a measurement sheet
- 4.3.3 — Entering pitch values
- Book 05 — Oval Calculator (for Oval span type)

Tip: If a returning bowler says their previous ball always felt slightly stretched or cramped, the first thing to check is whether the original spec sheet used Full Span or Cut to Cut — and whether that

matches what was actually drilled. A span type mismatch is one of the most common causes of an otherwise correct-looking spec sheet producing an uncomfortable fit.

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