5.6.2 CENTER method explained — how pitch is placed at center of oval

CENTER method explained — how pitch is placed at center of oval

> `5.6.2` pitch

The **CENTER method** is the second oval calculation approach available in Spectre Cloud's Oval Calculator. Where the EDGE method anchors pitch to the leading edge of the oval cut, the CENTER method places the pitch reference point at the **geometric centre** of the finished oval hole. For many shops and fitting styles, this is the more intuitive of the two approaches — and for certain bowler profiles, it produces the most comfortable and consistent result.

□□ What the CENTER Method Does

When Spectre Cloud calculates drill coordinates using the CENTER method, it treats the middle of the oval — the point equidistant from both ends of the elongated cut — as the reference point for pitch placement. The hole is positioned on the ball surface so that this centre point lands at the bowler's specified pitch angle and span distance.

In practical terms, this means:

- Pitch is measured and applied to the **centre of the finished oval hole**.
- Drill coordinates are calculated from the nominal span and pitch values without an edge-offset correction applied.
- The method is consistent and predictable — the same span and pitch inputs produce the same drill position every time, regardless of oval size.
- For bowlers with **zero, slight, or reverse pitch**, the centre and edge of the oval converge closely enough that the distinction between CENTER and EDGE becomes negligible.

The Geometry Behind CENTER

When a round hole is drilled, there is no ambiguity — the centre and the edge are defined by the same pitch reference. The moment an oval is introduced, the hole gains length along one axis, and the centre and leading edge are no longer the same point. The CENTER method takes the position that the **nominal centre of the hole** is the correct reference — matching how span is traditionally measured to the centre of a finger hole in most fitting systems.

1. Spectre Cloud takes the bowler's span measurement to the **centre of the finger hole** as its baseline.
2. It applies the specified pitch angle at that centre point.
3. The oval cut is then added symmetrically around that centre — extending equally in both directions along the oval axis.
4. The resulting drill coordinates place the hole so the oval's midpoint sits at the intended span and pitch position.

Note: Because the oval extends equally from the centre, the leading edge of the finished hole ends up slightly closer to the palm than the pitch specification implies. For small ovals this difference is negligible; for larger ovals it becomes more perceptible. See the comparison table below for guidance on when this matters.

CENTER Method vs. EDGE Method — Key Differences

Factor	CENTER method	EDGE method
Pitch reference point	Geometric centre of the oval	Leading edge of the oval
Effective pitch felt by bowler	Slightly less than specified with larger ovals	Closer to the specified pitch value

Factor	CENTER method	EDGE method
Best suited for	Zero, slight, or reverse pitch; small ovals	Higher forward pitch, larger ovals
Drill position on ball surface	Placed at nominal span and pitch location	Shifted toward palm to compensate for edge offset
Calculation simplicity	Straightforward — no edge offset applied	Adds edge-offset correction step
Legacy system compatibility	Matches many older fitting formulas	More aligned with current IBPSIA guidance

How to Select the CENTER Method in Spectre Cloud

1. Open **Settings** from your profile menu (top-right corner).
2. Navigate to the **Oval Calculator** section.
3. Locate the **Oval Calculation Method** preference.
4. Select **CENTER** from the available options.
5. Save your settings. All new spec sheets will use the CENTER method for oval calculations going forward.

Note: Switching methods does not recalculate existing spec sheets. If you change from EDGE to CENTER (or vice versa), only spec sheets created after the change will reflect the new method.

When to Use the CENTER Method

- When fitting bowlers with **zero pitch, slight forward pitch, or reverse pitch** — where the edge offset correction of the EDGE method adds unnecessary complexity.
- When using **small oval cuts** (`1/8"`) where the difference between centre and edge reference is too small to affect fit.
- When your shop has historically calculated ovals using a **centre-referenced formula** and your existing spec sheet records were built on that basis — maintaining CENTER keeps new records consistent with your history.
- When transitioning bowlers from a **legacy pro shop system** that used centre-based oval math — matching the method avoids introducing a systematic shift in their specs.

- For **house ball fitting** or rental fleet work where high precision on pitch delivery is less critical and speed and consistency matter more.
- Reconsider CENTER for bowlers with **3/8" or larger ovals combined with significant forward pitch** — in these cases the EDGE method will deliver a more accurate result.

A Practical Example

Consider the same bowler from the EDGE method example: `3/8"` forward pitch on the ring finger, `1/4"` oval cut. Using the CENTER method, Spectre Cloud places the hole so that the *centre* of the finished oval sits at the `3/8"` forward pitch position. The leading edge of the oval — where the finger actually contacts the near wall — lands approximately `1/8"` closer to the palm, producing an effective pitch closer to `1/2"` forward.

For some bowlers this slight amplification of forward pitch is actually preferable — it can enhance the feeling of forward roll without requiring a pitch change on paper. Experienced fitters who prefer CENTER often know this effect and account for it intentionally when specifying pitch values.

Tip: Some veteran fitters deliberately use CENTER and specify a slightly lower forward pitch value than they would under EDGE — knowing the centre-reference method will deliver a little extra effective forward pitch at the finger contact point. If you are switching a long-time bowler from a CENTER-based system to EDGE, consider reducing their forward pitch by `1/8"` and checking fit before committing to the change.

Related Sections

- 5.6.1 — EDGE method explained — how pitch is placed at edge of oval
- 5.6.3 — Choosing between EDGE and CENTER for your shop
- 5.5.1 — Setting up: Oval Cut Direction = NONE in Settings
- 5.5.2 — Using the oval cut chart to determine cuts manually
- 4.x — Creating and editing spec sheets

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