5.2.6 Entering V and H cut values (positive and negative)

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> 5.2.6 oval method

When recording oval cuts in Spectre Cloud, each hole's oval is described by two directional values — a **V (vertical) cut** and an **H (horizontal) cut**. These values can be entered as **positive or negative numbers**, reflecting the direction of the oval stretch relative to the hole center. Understanding how positive and negative cut values work ensures your spec sheet accurately captures not just the size of the oval but the direction it was applied.

□□ What V and H Cut Values Represent

The V and H fields do not simply record the finished hole dimensions — they describe the **directional offset** of the oval cut from the center of the starting round hole. The sign of each value (positive or negative) indicates which side of center the cut was made toward.

- □ A **positive V value** indicates the oval cut was made toward one vertical direction (e.g., toward the bowler's toe)

- □ A **negative V value** indicates the cut went the opposite vertical direction (e.g., toward the heel)
- □ A **positive H value** indicates the oval cut was made toward one horizontal direction (e.g., toward the inside of the hand)
- □ A **negative H value** indicates the cut went the opposite horizontal direction (e.g., toward the outside)
- □ A value of `0` in either field means no cut was made in that direction — the hole is round on that axis

Together, the V and H values describe the full oval shape and orientation for a given hole, giving any driller who opens the spec sheet enough information to reproduce the cut exactly on a future ball.

□□ Positive vs. Negative: The Sign Convention

The positive and negative convention in Spectre Cloud follows a consistent directional reference for each axis. Cuts made in the **primary direction** of each axis are entered as positive; cuts made in the **opposite direction** are entered as negative.

Field	Positive (+)	Negative (−)	Zero (0)
V (Vertical)	Cut toward toe / forward direction	Cut toward heel / reverse direction	No vertical oval — round on V axis
H (Horizontal)	Cut toward inside / thumb side	Cut toward outside / pin side	No horizontal oval — round on H axis

Note: The exact directional reference (which physical direction maps to positive vs. negative) may vary depending on your shop's conventions and how Spectre Cloud is configured. ⚠ *Verify the positive/negative sign convention against your Spectre Cloud setup and confirm with the Spectre team if the directional labels in your app differ from those described above.*

□□ How to Enter V and H Cut Values

□□ Desktop

1. In the Oval Calculator, locate the **V** and **H** input fields for the row you are working on.
2. Click the **V field** and enter the vertical cut value. Type a minus sign (`–`) before the number if the cut was made in the negative direction (e.g., `-0.0625`). Leave as a positive number or omit the sign for a positive cut (e.g., `0.0625`).
3. Click the **H field** and enter the horizontal cut value using the same sign convention.
4. Spectre Cloud updates the DIFF and oval result automatically once both values are entered.
5. If either axis has no oval cut, enter `0` in that field — do not leave it blank.

□□ Mobile / Tablet

1. Tap the **V field** for the row. The numeric keyboard appears.
2. To enter a negative value, tap the **+/− toggle** or type the minus sign before your number, depending on how Spectre Cloud presents the input on your device.
3. Enter the cut value and tap **next** or tap the **H field** to move to the horizontal entry.
4. Repeat for the H field, applying a negative sign if needed.
5. The oval result and DIFF update automatically once both fields are filled.

□□ Example V and H Entries

Hole	V Value	H Value	What It Describes
Middle finger	`+0.0625`	`0`	Oval cut in positive vertical direction only — round on H axis
Ring finger	`-0.0625`	`0`	Oval cut in negative vertical direction — round on H axis
Thumb	`+0.0625`	`+0.0625`	Equal oval cuts on both axes — a balanced oval on both V and H
Thumb (asymmetric)	`+0.125`	`-0.0625`	Larger positive vertical cut, smaller negative horizontal cut
Any hole (round)	`0`	`0`	No oval — perfectly round hole on both axes

□ Tips for Entering Cut Values Accurately

- **Establish a sign convention for your shop and stick to it** — the positive/negative system only produces useful spec history if every driller in your shop uses the same directional reference. Document your convention and include it in staff onboarding.
- **Enter `0` explicitly for axes with no cut** — a blank field and a zero are not the same thing in a spec record. Always enter `0` to confirm a round axis was intentional rather than accidentally skipped.
- **Double-check the sign before saving** — a positive and negative value that are otherwise identical describe cuts in opposite directions. A sign error on a spec sheet can send a future driller the wrong way.
- **Do not enter absolute hole dimensions in the V and H fields** — these fields capture directional cut offsets, not finished hole sizes. Entering the full hole diameter here will produce incorrect oval and DIFF results.
- **Do not leave both fields at zero unless the hole is genuinely round** — if you drilled an oval and enter `0 / 0`, the spec sheet will record a round hole and the DIFF will show `0.0000`, losing the oval data entirely.

How V and H Values Relate to the DIFF

The DIFF displayed by Spectre Cloud is always a positive decimal representing the total magnitude of the oval — it does not carry sign information. Two holes with V/H entries of `+0.0625 / 0` and `-0.0625 / 0` will produce the same DIFF (`0.0625`), but their spec sheets tell a different story about which direction the cut was made. Always read the V and H values alongside the DIFF — the DIFF tells you *how much* oval there is; the V and H signs tell you *which way* it goes.

Related Sections

- 5.2.1 — Setting up: Oval Cut Direction (V/H) in Settings
- 5.2.4 — Reading the DIFF (decimal difference) auto-calculation
- 5.2.5 — Adding oval cut rows using the + button
- 5.2.7 — Applying Oval Calculator Results to a Spec Sheet
- 4.x — Spec Sheets: Recording Hole Measurements

Tip: If your shop is setting up Spectre Cloud for the first time, take five minutes to drill a practice hole, measure it with a gauge, and enter the V and H values both ways — positive and negative — to confirm you understand which direction each sign represents in your setup before it matters on a live bowler's spec sheet.

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