

5.4.3 Entering V-only cut values and reading output

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5.4.3

oval method

With Oval Cut Direction set to **V** and your press confirmed to produce a pure vertical stretch, entering a V-only cut in the Oval Calculator is the most streamlined input workflow Spectre Cloud offers — a single cut value plus the starting bit size, and the result is calculated immediately. This page covers how to enter that value, what the output displays, and how to read it correctly before transferring it to a spec sheet.

What You Are Entering

In V-only mode the Oval Calculator requires two inputs per row. The horizontal dimension is not entered — Spectre Cloud treats it as equal to the starting bit size and does not prompt for it.

-  **Starting bit size** — the diameter of the round bit used to open the hole before the oval cut
-  **V cut value** — the vertical stretch applied beyond the round hole, entered as a fraction or decimal depending on your input mode
-  **H value** — not entered; held internally at the starting bit size with no horizontal stretch
-  **Resulting oval** — displayed as the V dimension only, or as a V × H pair with H equal to the starting bit, depending on your display configuration
-  **DIFF** — calculated automatically as the decimal equivalent of the V cut value

☐☐ How to Enter a V-Only Cut Value

☐☐ Desktop

1. Open the **Oval Calculator** and confirm the mode selector shows **V** or **V-only**.
2. Click the **Starting Bit** field and enter the drill bit diameter — as a fraction (e.g.,) or decimal (e.g.,) depending on your input mode.
3. Press **↓ (arrow-down)** — focus moves to the **V cut** field.
4. Enter the vertical cut width (e.g.,) or). Apply a minus sign if the cut was made in the negative vertical direction — see **5.2.6** for sign conventions.
5. Press **↓** to confirm. The oval result and DIFF appear immediately.

☐☐ Mobile / Tablet

1. Open the **Oval Calculator** and confirm **V** or **V-only** mode is selected.
2. Tap the **Starting Bit** field and enter the bit diameter.
3. Tap the **V cut** field and enter the vertical stretch value. Apply a minus sign if the direction is negative.
4. The oval result and DIFF appear automatically once both fields are filled.

☐☐ Reading the Output

After confirming the V cut entry, Spectre Cloud displays the calculated result for the row. In V-only mode the output is more compact than a full V/H session — the emphasis is on the vertical dimension and the DIFF, with the horizontal value either omitted from display or shown implicitly as equal to the starting bit.

Output Field	What It Shows	Example Value
V dimension	Starting bit size plus the V cut width — the larger of the two oval dimensions	1-1/16
H dimension	Starting bit size only — unchanged, no horizontal stretch applied	1 (may be implicit rather than displayed)
Oval result	V dimension as the primary value — displayed alone or as V × H depending on display configuration	1-1/16 or 1-1/16 × 1
DIFF	Decimal equivalent of the V cut value — always equal to the cut width in V-only mode	0.0625

Note: Whether Spectre Cloud displays the H dimension explicitly alongside the V dimension in V-only mode, or shows only the V result, may depend on your app version and display settings. ⚠️ *Verify the exact output format against your live instance — contact the Spectre team if the display differs from the description above.*

Example Outputs — Common V-Only Entries

Starting Bit	V Cut	V Dimension	H Dimension	DIFF
1"	1/32"	1-1/32"	1"	0.03125
1"	1/16"	1-1/16"	1"	0.0625
1"	3/32"	1-3/32"	1"	0.09375
1"	1/8"	1-1/8"	1"	0.125
1-1/16"	1/16"	1-1/8"	1-1/16"	0.0625
1-3/16"	1/8"	1-5/16"	1-3/16"	0.125

Sense-Checking Your Output

Before confirming the row and moving on, verify the output against these expectations for a valid V-only result:

- **V dimension is always larger than H** — if the output shows H larger than V, check that the mode selector is set to V-only and not H-only; the inputs may have been applied to the wrong axis
- **H dimension equals your starting bit size exactly** — any difference indicates either a data entry error or that a horizontal component was introduced at the press; switch to V/H mode and record both values if the H reading differs from the starting bit
- **DIFF equals your V cut width in decimal** — in a pure V-only workflow these two values are always numerically identical; a mismatch points to a starting bit entry error
- **DIFF is non-zero** — a DIFF of 0.0000 in a row that should have an oval means the V cut field was confirmed as zero or left blank; review the entry before applying it to the spec sheet
- **Do not accept a V dimension equal to the starting bit size as correct** — if V equals the starting bit, no vertical stretch was recorded; the row describes a round hole, not an oval

□ Tips for V-Only Entry

- □ **Use the arrow-down key throughout** — starting bit to V cut to confirmation is a two-key workflow in V-only mode; it is the fastest oval entry sequence in the calculator (see **5.2.7**)
- □ **Add multiple rows with the + button for multi-hole sessions** — V-only mode supports multiple rows exactly as described in **5.2.5**; each row holds its own starting bit and V cut entry and produces its own result and DIFF independently
- □ **Cross-check against a physical gauge reading if available** — the V dimension in the output should match your gauge's toe-to-heel reading within your shop's measurement tolerance; if it does not, recheck the starting bit entry before confirming
- □ **Record the V cut width in your press notes even if only the result goes on the spec sheet** — knowing the cut width that produced a given oval helps reproduce the fit if the starting bit changes on a future drilling
- □ **Do not switch to V-only mode mid-session if a horizontal component is discovered at the gauge** — finish the session in V/H mode and record both values; switching modes partway through a spec sheet creates inconsistent records

□□ V-Only Output on the Spec Sheet

When V-only oval data is applied to a spec sheet, the record will reflect the compact single-axis format. Drillers reading the spec sheet at a future date should understand that:

- □ The oval value shown is the **full V dimension** of the hole — not the cut width alone
- □ The **H dimension is implicitly equal to the starting bit size** — no horizontal stretch was recorded because none was applied
- □ The **DIFF confirms the stretch amount** — the decimal difference between the V dimension and the starting bit size gives the cut width directly

If your shop documents oval cut widths rather than final hole dimensions on spec sheets — writing `1/16"` rather than `1-1/16"` — confirm how Spectre Cloud formats the V-only output field on your spec sheet template before relying on it for staff communication.

Related Sections

- 5.4.1 — Setting up: Oval Cut Direction = V in Settings
- 5.4.2 — When to use V-only mode and which drill presses it suits
- 5.4.4 — Worked example: V-only oval from start to finish

- 5.2.4 — Reading the DIFF (decimal difference) auto-calculation
- 5.2.5 — Adding oval cut rows using the + button
- 5.2.6 — Entering V and H cut values (positive and negative)
- 5.2.7 — Confirming cuts using the arrow-down key

Tip: V-only mode's greatest advantage is speed — two fields, two keystrokes with arrow-down, one result. In a high-volume session with multiple holes all sharing the same starting bit, the entry rhythm becomes automatic quickly. If you find yourself pausing to wonder whether an H value should be entered, that pause is a signal to switch to V/H mode and measure both axes — the speed advantage of V-only is not worth a spec sheet that misses a horizontal component.

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