

5.2.8 Worked example: full V/H oval from start to finish

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TIP

example

This page walks through a complete, real-world oval calculation from first opening the Oval Calculator to the finished values recorded on a spec sheet. It brings together all the concepts covered in this chapter — cut direction settings, input modes, V and H values, the DIFF, multiple rows, and keyboard navigation — in a single worked example you can follow step by step.

The Scenario

A returning bowler, **Maria**, is having a new ball drilled to match her existing fit. Her previous spec sheet shows a three-hole layout with ovals on all three holes. You are re-drilling to the same oval specifications. Before opening the Oval Calculator, you have confirmed the following in Settings:

-  **Oval Cut Direction:** (vertical first, then horizontal)
-  **Input mode:** Bit Size (fraction)

Maria's three holes and their target values are:

Hole	Starting Bit	V Cut	H Cut
Middle finger	1	+1/16	0
Ring finger	1	+1/16	0

Hole	Starting Bit	V Cut	H Cut
Thumb	1-3/16"	+1/8"	+1/16"

Step 1 — Open the Oval Calculator and Check Settings

1. Navigate to the **Oval Calculator** from the main menu.
2. Confirm the mode selector at the top shows **Bit Size (Fraction)**. If not, switch modes before entering any values.
3. Confirm the cut direction indicator shows **V/H**. If your shop is configured for H/V, the column order in your results will be reversed — go to Settings and update **Oval Cut Direction** before proceeding if needed (see **5.2.1**).

The calculator opens with one blank row ready for input. You will use the **+ button** to add the remaining two rows after completing the first.

Step 2 — Enter the Middle Finger Oval (Row 1)

1. Click into the **Starting Bit** field of Row 1. Type **1**.
2. Press **↓ (arrow-down)** — focus moves to the **V cut** field.
3. Type **1/16** (positive — no minus sign needed).
4. Press **↓** — focus moves to the **H cut** field.
5. Type **0** — Maria's middle finger has no horizontal oval.
6. Press **↓** to confirm. Spectre Cloud calculates immediately:

Field	Value
Resulting oval (V/H)	1-1/16 × 1
DIFF	0.0625

The DIFF of **0.0625** confirms a 1/16" stretch on the vertical axis only. Row 1 is complete.

Step 3 — Add and Enter the Ring Finger Oval (Row 2)

- 1. Click the + **button** to add Row 2.
- 2. Click into the **Starting Bit** field of Row 2. Type 1.
- 3. Press ↓ — focus moves to the **V cut** field.
- 4. Type 1/16.
- 5. Press ↓ — focus moves to the **H cut** field.
- 6. Type 0.
- 7. Press ↓ to confirm. Results for Row 2:

Field	Value
Resulting oval (V/H)	1-1/16 × 1
DIFF	0.0625

Row 2 matches Row 1 exactly — both finger holes share the same oval, which is consistent with Maria's previous spec sheet. This match is a good sign before proceeding to the thumb.

Step 4 — Add and Enter the Thumb Oval (Row 3)

- 1. Click the + **button** to add Row 3.
- 2. Click into the **Starting Bit** field of Row 3. Type 1-3/16.
- 3. Press ↓ — focus moves to the **V cut** field.
- 4. Type 1/8 (positive).
- 5. Press ↓ — focus moves to the **H cut** field.
- 6. Type 1/16 (positive — the thumb has a smaller oval cut on the horizontal axis as well).
- 7. Press ↓ to confirm. Results for Row 3:

Field	Value
Resulting oval (V/H)	1-5/16 × 1-1/4
DIFF	0.0625

The thumb oval is larger than the finger holes overall (a wider starting bit plus cuts on both axes), but the DIFF is the same 0.0625 — because the difference between the two thumb dimensions (1-5/16 minus 1-1/4) is also 1/16". This is a good illustration of how the DIFF reflects the *spread* of the

oval, not its overall size.

Step 5 — Review the Complete Set

With all three rows complete, the Oval Calculator now shows the full picture for Maria's ball before anything is committed to the spec sheet:

Row	Hole	Starting Bit	V Cut	H Cut	Oval (V/H)	DIFF
1	Middle finger	1"	+1/16"	0	1-1/16 × 1	0.0625
2	Ring finger	1"	+1/16"	0	1-1/16 × 1	0.0625
3	Thumb	1-3/16"	+1/8"	+1/16"	1-5/16 × 1-1/4	0.0625

Before applying these results to the spec sheet, run through this quick checklist:

- Both finger holes show identical ovals and DIFFs — consistent with Maria's previous spec
- The thumb starting bit (1-3/16") is larger than the finger bits (1") — as expected for a thumb hole
- All DIFF values are positive decimals — no anomalous zeroes or unexpected results
- No rows have blank fields — all entries are complete
- Cut direction is V/H throughout — matching Maria's existing spec sheet format

Step 6 — Apply Results to the Spec Sheet

- With all rows confirmed and the review checklist passed, proceed to apply the oval data to Maria's spec sheet.
- Transfer each row's oval dimensions and DIFF to the corresponding hole fields on the spec sheet — middle finger, ring finger, and thumb in order.
- Save the spec sheet. Maria's new ball is now documented with a complete, accurate oval record that any driller in your shop can reproduce in the future.

□ What This Example Demonstrates

- □ **Settings first** — confirming cut direction and input mode before entering data prevents format mismatches on the spec sheet
- □ **Arrow-down navigation** — stepping through all fields with the keyboard keeps entry fast and reduces click errors
- □ **Multi-row review before committing** — seeing all three holes together makes consistency checks easy and catches mistakes before they reach the spec sheet
- □ **DIFF as a sense check** — identical DIFFs across the finger holes confirmed the entries matched Maria's previous record before the thumb row was even started
- □ **Positive and negative signs** — all cuts in this example were positive, but the same workflow applies when negative values are needed; the sign is entered in the V or H field and the DIFF remains a positive decimal regardless

Related Sections

- 5.2.1 — Setting up: Oval Cut Direction (V/H) in Settings
- 5.2.2 — Entering Starting Bit and Oval Width — Bit Size mode
- 5.2.3 — Entering Starting Bit and Oval Width — Decimal mode
- 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
- 5.3 — Applying Oval Calculator Results to a Spec Sheet

Tip: Save a copy of this worked example — or adapt it with your own shop's most common hole sizes — and use it as a training exercise for new staff. Running through a three-hole oval session on a test bowler profile before going live is the fastest way to build confidence with the Oval Calculator workflow. ⚠ *The oval dimensions and DIFF values shown in this example are calculated from standard fraction-to-decimal conversions and should be accurate, but verify the exact display format and field labels against your live Spectre Cloud instance before using this page as a staff reference.*

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