

# 4.1.5 Bridge: standard bridge sizes and their purpose

## Bridge: standard bridge sizes and their purpose

4.1.5 concept

The **bridge** is the distance between the near edges of the middle and ring finger holes on a drilled bowling ball. It is one of the smallest measurements on a spec sheet — typically between  $\frac{3}{16}$ " and  $\frac{1}{2}$ " — but it directly influences finger comfort, grip stability, and the consistency of the release. This page explains what the bridge does, what the standard sizes are and why they differ by grip type, and when a non-standard bridge is appropriate.

### ☐☐ What the Bridge Does

The bridge serves two related purposes: it provides the structural integrity of the land area between the two finger holes, and it determines how closely the middle and ring fingers sit together on the ball during the grip and release.

- ☐ A correctly sized bridge allows both fingers to load evenly against their respective hole edges — or insert surfaces — without crowding or spreading.
- ☐ Too narrow a bridge risks weakening the land area between the holes, potentially causing cracking under repeated impact — particularly in harder coverstock materials.

- ☐ Too wide a bridge forces the fingers apart, reducing the sense of a unified two-finger contact point and potentially affecting the angle of finger lift at release.
- ☐ The bridge measurement is recorded on every Spectre Cloud spec sheet and is used by the **Autofill Bridge** setting (2.6.5) to pre-populate the correct standard value based on grip type.

## ☐☐ Standard Bridge Sizes

Two standard bridge widths are recognised by IBPSIA and used as the default starting points in Spectre Cloud:

Grip Type	Standard Bridge	Rationale
<b>Fingertip</b>	1/4"	The shallower insertion depth of a fingertip grip places the fingers closer together on the ball surface — a narrower bridge maintains comfortable finger proximity without crowding
<b>Conventional</b>	3/8"	The deeper insertion depth of a conventional grip positions the fingers at a wider natural spacing — a slightly broader bridge accommodates this without creating a gap that feels unnatural

**Note:** These standard values suit the overwhelming majority of bowlers in each grip category. In Spectre Cloud, the **Autofill Bridge** setting (2.6.5) applies these values automatically when grip type is recorded on the bowler's profile — the fitter is only required to intervene when a non-standard bridge is needed.

## ☐☐ The Full Bridge Size Range

While 1/4" and 3/8" are the standard starting points, bridge sizes can be adjusted in both directions to suit individual bowler anatomy. The table below covers the common range and the fitting scenarios each size typically addresses.

Bridge Size	Typical Use Case	Notes
3/16"	Bowlers with very closely spaced fingers; youth bowlers with small hands	Narrowest commonly used bridge — verify land area integrity before drilling, particularly on reactive resin balls

Bridge Size	Typical Use Case	Notes
1/4"	Standard fingertip grip	IBPSIA standard for fingertip; default in Spectre Cloud for fingertip bowlers
5/16"	Fingertip bowlers with slightly wider natural finger spacing; transitional semi-fingertip	One step wider than fingertip standard — a common adjustment for bowlers who find 1/4" slightly cramped
3/8"	Standard conventional grip; wider fingertip fittings	IBPSIA standard for conventional; default in Spectre Cloud for conventional bowlers
7/16"	Conventional bowlers with wide finger spacing; larger hands	Less common — verify that the wider bridge does not create an uncomfortable gap between fingers during delivery
1/2"	Largest hands; specific anatomical requirements	Uncommon — used only when smaller bridges consistently produce finger crowding or discomfort; physical fitting essential

**Note:** ⚠️ *Verify with your Spectre team: confirm the full range of bridge values supported as input in Spectre Cloud's spec sheet bridge field, and whether values outside the common range require manual text entry or are available as selectable increments.*

## ☐ Factors That Influence Bridge Size Selection

For the majority of bowlers, the standard bridge for their grip type is the correct choice and requires no adjustment. The following factors are the most common reasons a fitter might deviate from the standard:

### Finger Spacing

The natural spacing between a bowler's middle and ring fingers at rest — before any intentional spreading — is the primary driver of non-standard bridge selection. Bowlers whose fingers naturally sit closer together than average benefit from a narrower bridge; those whose fingers naturally sit further apart may prefer a wider one.

- ☐ Observe the bowler's natural hand position before measuring — do the fingers sit together, or is there a visible gap between them?

- □ A quick physical test: have the bowler grip a fitted ball and note whether the middle and ring fingers appear crowded against each other or comfortably separated.

## Hand Size and Age

- □ Youth bowlers with small hands often benefit from a narrower bridge —  $\frac{3}{16}$ " is common for younger children.
- □ Adult bowlers with very large hands may find the standard bridge too narrow regardless of grip type — a wider bridge provides more comfortable finger separation.

## Insert Type

- □ Some insert styles — particularly those with wider flanges or non-standard profiles — can affect the effective finger spacing. [△ Verify with your Spectre team: confirm whether Spectre Cloud's Autofill Insert OD setting \(2.6.6\) accounts for insert flange width when suggesting a bridge value, or whether bridge and OD are calculated independently.](#)

## Injury or Physical Condition

- □ Bowlers recovering from finger injuries, or those with joint conditions affecting finger mobility, may require a non-standard bridge to reduce stress on the affected joint.
- □ Record any injury-related bridge adjustments in the bowler's profile notes — future fittings should reference this context rather than defaulting to the standard value without checking.

## Land Area Integrity

The **land area** is the surface of the ball between the two finger holes. As the bridge narrows, the land area shrinks — and below a certain width, the land area may not provide sufficient structural support between the holes under the repeated impact of bowling.

- □ The land area concern is most relevant at bridge sizes of  $\frac{3}{16}$ " or below — at these widths, verify that the ball's coverstock and construction can support the narrow land before drilling.
- □ Harder, denser coverstock materials (urethane, particle) are generally more tolerant of narrow bridges than softer reactive resin covers.
- □ The total land area also depends on finger hole diameter — larger holes on a narrow bridge produce a smaller land area than smaller holes on the same bridge. Account for both dimensions when evaluating a narrow bridge spec. [△ Verify with your Spectre team:](#)

*confirm whether Spectre Cloud displays or calculates land area from the bridge and hole diameter values on a spec sheet, or whether this calculation is left to the fitter.*

- Do not drill a bridge narrower than  without careful assessment of the specific ball and coverstock — some ball manufacturers publish minimum land area guidelines for their products.

## Bridge and the Auto-Suggestion Chain

The bridge measurement is one of several values that feed into Spectre Cloud's downstream calculations. It is part of the input set used by **Autofill Cut to Cut (2.6.9)** to derive the Cut to Cut span from insert dimensions — a correct bridge value is essential for an accurate Cut to Cut autofill result.

- If a non-standard bridge is entered manually on a spec sheet, the Cut to Cut autofill will use the manually entered value — not the standard default.
- If the bridge is changed after the Cut to Cut has been autofilled, confirm whether the Cut to Cut value updates automatically. *△ Verify with your Spectre team: confirm live update behaviour for Cut to Cut when bridge is changed on an in-progress spec sheet, consistent with the question raised in 2.6.9.*

## Bridge on the Spec Sheet

The bridge field appears in the insert and finger hole section of the Spectre Cloud spec sheet. When **Autofill Bridge (2.6.5)** is enabled and grip type is recorded, the field is pre-populated with the standard value for the bowler's grip. The value can be overridden at any time by entering a different measurement directly.

- The autofilled bridge value is displayed in whatever unit and format is set for the account — fractional or decimal, consistent with chapter 2.3 display settings.
- A manually entered bridge is saved to the spec sheet history and is visible when the sheet is reviewed or cloned.
- When cloning a spec sheet, the bridge value carries forward — confirm it is still appropriate for the new ball before saving. *△ Verify with your Spectre team: confirm that bridge is included in the cloned field set, consistent with the clone behaviour questions raised in 3.2.4.*

## Related Sections

- 4.1.4 — Pitch terminology: Forward, Reverse, Lateral, Zero pitch explained
- 4.1.3 — Grip type definitions: Fingertip vs. Conventional
- 4.1.2 — Span types explained: Full Span vs. Cut to Cut vs. Oval Span
- 2.6.5 — Autofill Bridge: auto standard bridge (1/4" fingertip, 3/8" conventional)
- 2.6.9 — Autofill Cut to Cut: based on insert type/size
- 4.1.6 — Creating a new spec sheet (*if applicable*)
- 9.x — Tips and Troubleshooting: land area and narrow bridge considerations

**Tip:** The bridge is the one spec sheet measurement that is as much about the ball as it is about the bowler. When in doubt, default to the IBPSIA standard for the grip type — it is the value that works correctly for the widest range of bowlers and ball constructions, and it is the value Spectre Cloud will suggest automatically. Non-standard bridges should always be the result of a specific observed fitting need, not a default assumption.

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