3D Printing Bridge Calibration Test (Basic & Advanced)

Iker Libano | KNIN Custom

VIEW IN BROWSER

updated 12. 11. 2025 | published 12. 11. 2025

Summary

Two test models to calibrate bridge flow and speed in your slicer. Use them to find the perfect settings for unsupported

3D Printers > Test Models

Watch the video tutorial

In the video, I explain:

-How bridge flow and speed affect the print.

-Why more flow gives smoother results.

-How to tune these settings in **OrcaSlicer**.

-How to combine this with **Tree Supports → “Critical regions only”** to skip supports in bridges automatically.

About this model

This is a **bridge calibration test** designed to help you fine-tune the **flow**, **speed**, and **cooling** parameters of your 3D printer for perfect bridges — **no supports needed**.

You’ll find **two STL files** included:

BRIDGE CALIBRATION.stl → Simple version for short bridges (perfect for initial tests).

ADVANCED BRIDGE CALIBRATION.stl → To push your settings further.

Both files let you test different **Bridge Flow Ratios** (1.0 / 1.5 / 2.0) and **Bridge Speeds** (25 / 15 / 10 mm/s).
You can print them one after another and easily see which combination gives the best results on your printer.

Recommended settings

Parameter	Suggested values
Flow	150 – 200 %
Speed	10 – 15 mm/s
Fan	100 %
Layer height	0.2 mm
Material	PLA (recommended)
Nozzle	0.4–0.6 mm

These values are what worked best for me on a FlashForge AD5X with a 0.6 mm nozzle.

Why this test matters

Most slicers are tuned for printing on solid layers, but **bridges behave differently** — there’s nothing underneath, so the filament doesn’t get squished or widen as usual.
That’s why increasing the **bridge flow** often gives better results: wider lines that touch each other and stay straight in the air.
Combining that with **lower speed** and **maximum cooling** produces clean, smooth bridges without sagging.

Notes

You can download both STLs and print them separately.

For faster comparisons, print at 1 wall / 10 % infill.

Share your results — I’d love to see how your bridges turn out!

More resources

Complete Fusion 360 Course (in Spanish):
https://knincustom.com/pages/cursos

Find us on YouTube:
https://www.youtube.com/@KNIN_Custom

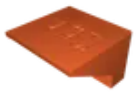
This remix is based on

None

Model files

bridge-calibration.stl

Basic bridge test



advanced-bridge-calibration.stl

More complex bridge test

License

This work is licensed under a
Creative Commons (International License)

Public Domain

✔ | Sharing without ATTRIBUTION
✔ | Remix Culture allowed
✔ | Commercial Use
✔ | Free Cultural Works
✔ | Meets Open Definition