

3 mm Kerf + Fit Test

A compact slot gauge for finding a practical press-fit value before you cut a full LaserNest project.

2.75	2.80	2.85	2.90	2.95	3.00	3.05	3.10	3.15	3.20
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RED = CUT BLUE = ENGRAVE IMPORT AT 1:1 SCALE

How to use the gauge

- 1 Measure first.** Check the real sheet thickness with calipers in several places. A sheet sold as 3 mm may not measure exactly 3.00 mm.
- 2 Import without scaling.** Use the SVG or AutoCAD R12 DXF. Confirm that the gauge is 160 x 60 mm before cutting.
- 3 Use a material offcut.** Apply your normal focus, speed and power settings. Lightly engrave the blue labels, then cut the red outline.
- 4 Test every nearby slot.** Slide the same material into the openings. Choose the value that grips securely without splitting the wood or needing excessive force.
- 5 Record the result.** Keep the winning value with your machine, lens, material batch and cut settings. Re-test after changing any of them.

What the numbers mean

Each label is the vector width of that slot, from 2.75 mm to 3.20 mm in 0.05 mm steps. The finished opening will also reflect your actual kerf. This is why a physical test is more reliable than assuming a generic kerf value.

Important

Laser settings vary by machine, wattage, lens, focus, material and ventilation. This guide does not prescribe speed or power. Use safe settings recommended for your equipment and supervise the machine at all times.

Fit-test record

Keep one row for every material batch or machine setup. A new lens, focus height or supplier can change the result.

Date	Material / batch	Measured	Machine / lens	Best slot

Quick troubleshooting

Every slot feels loose: confirm that the file was imported in millimeters at 1:1 scale, then check focus and the actual material thickness.

Every slot is too tight: check for unintended scaling or duplicated cut lines. Re-run the test after correcting the file setup.

The result changes across one sheet: measure several areas. Plywood and MDF thickness can vary within the same panel.

Ready for a full project?

Browse production-ready SVG, DXF and CNC designs at lasernest.pages.dev, then purchase securely through **LaserNestDesignsART on Etsy**.

This free test file may be used in your own workshop. Do not resell, redistribute, upload, share or include the digital files in another bundle.