



Glass Cutting Optimization API

Glass is scored and snapped edge to edge — a 2D guillotine problem the same engine that powers the CutOptim app solves over HTTP. Send the panels and the stock sheets as JSON; get back a guillotine-valid cut plan, the yield and an inline SVG for the cutting table.

15–30%

STOCK WASTED, IN-ORDER CUTTING

2D

POST /v1/OPTIMIZE/2D

Zero kerf

SCORE-AND-SNAP

Live

SAME ENGINE AS THE APP

Live today — not a pre-release. The plan an API call returns matches what the CutOptim app shows, and every plan is producible on a straight-line glass table.

Why glass shops need it

Glass is expensive, and the risk of breakage makes waste minimisation critical. Cutting a batch of panels in the order they arrive wastes a published **15–30% of the sheet**; a 2D optimizer rearranges the panels across the stock to bring that well down.

Doing it by hand does not scale to a job of dozens of panels. Doing it **inside your own quoting or ERP software, through the API**, does — on every order, automatically.



What you send, what comes back

Send the panels (`w × h`, with quantities) and the stock sheets as JSON. The response carries the full guillotine cut plan, each cut's stop position, the sheet count and the yield. Set `kerf` to `0` for score-and-snap — no material is removed.

Mark a coated or mirror lite `rotatable: false` and the engine keeps it in its orientation while turning the panels that can rotate. Ask for `include: ["svg"]` and the layout comes back as a drawing inline.

POST /v1/optimize/2d

```
{
  "parts": [
    { "name": "Pane A", "w": 800,
      "h": 600, "qty": 6 },
    { "name": "Low-E lite", "w": 1200,
      "h": 900, "qty": 4,
      "rotatable": false }
  ],
  "stock": [{ "w": 3210, "h": 2250, "qty": 10 }],
  "options": { "kerf": 0 },
  "include": ["svg"]
}
```

200 OK

```
{
  "engineVersion": "1.0.0+8682",
  "guillotineValid": true,
  "metrics": {
    "sheetCount": 4, "yieldPct": 87.0
  },
  "sheets": [ /* layout + cut plan */ ],
  "svg": "<svg ...>"
}
```

Free: `POST /v1/validate/2d` checks a job with no key and no quota. Every plan is guillotine-valid — the straight edge-to-edge cuts a glass table can actually make.

Why build on this engine

Deterministic — reproducible for quotes and audits. The same request always returns the same cut plan: no randomness, no clock in the algorithm. A quote built from an API call can be reproduced months later for an audit or a repeat order, and results can be cached and diffed in tests.

GUILLOTINE-VALID

Straight edge-to-edge cuts — the only cut a glass table can make. A producible flag on every plan.

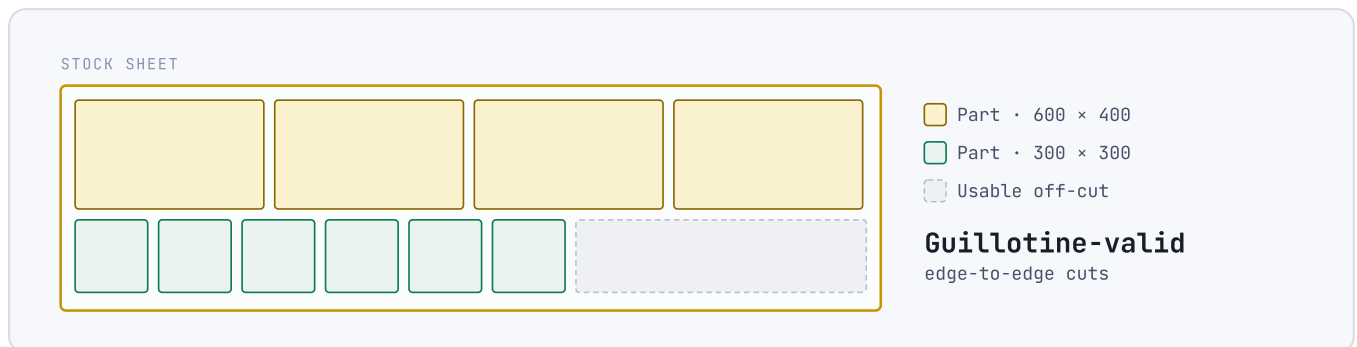
ZERO KERF

Set kerf to 0 for score-and-snap, or a small value for laminated glass on a diamond wheel.

COATING AWARE

rotatable: false locks a Low-E or mirror lite to its orientation while other panels still turn.

What the plan looks like



One stock sheet, schematic. Panels packed by the guillotine algorithm — every cut runs straight from edge to edge, the only cut a glass table can make; the dashed area is the usable off-cut. The API returns this as coordinates plus the cut sequence, and as an inline SVG if you ask.

Integrate in three steps

- 1 **Validate for free** — `POST /v1/validate/2d` confirms your payload with no key and no quota.
- 2 **Get a sandbox key** in the dashboard and start the 14-day trial.
- 3 **Call optimize** and read the plan straight into your ERP, quote or machine file.

Pricing

€49 /month

- **10,000 requests / month** — hard cap, no overage, no surprise bill.
- **14-day trial** · billed in EUR.
- Higher volume or separate staging keys? Tell us your numbers.

See the plan on your panels

Send us a sample panel list and we'll return the guillotine plan the API produces on your own stock sizes. Or start the 14-day trial and call it today.

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