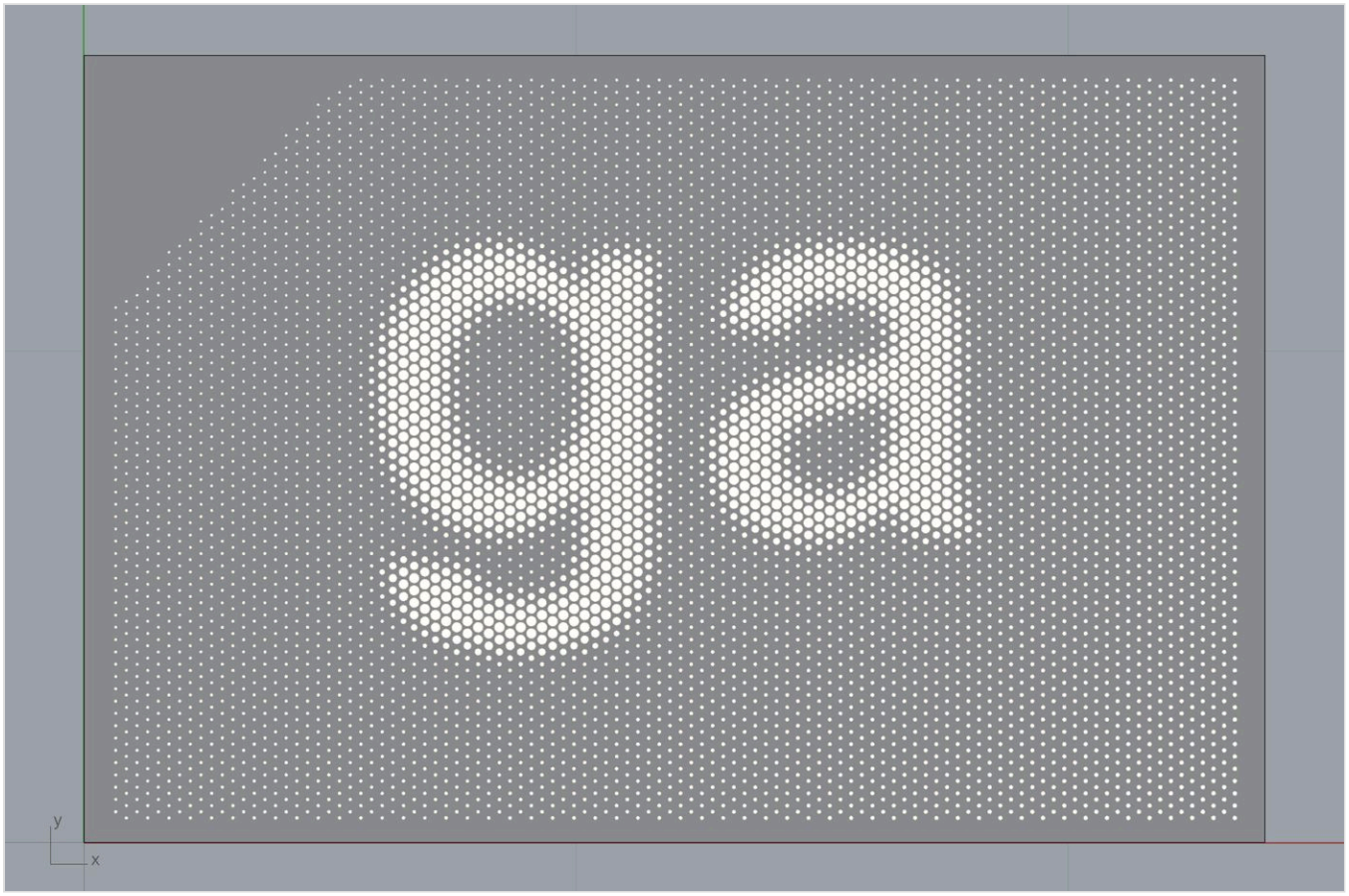
FACADE AND FABRICATION

PERFORATED SHEET

Image or attractor perforation with fabrication rules and open area



FREE | RHINO 7 · RHINO 8 | NATIVE COMPONENTS ONLY | VERSION 1.0 · NOVEMBER 2026

A grid of holes on a metal sheet, sized by the tone of an image or by the distance from an attractor. Hole diameters are clamped by fabrication rules: minimum hole at least the sheet thickness, a minimum bridge between holes and a solid edge margin. The panel reports hole count, open area and the checks.

Free to use in your own projects, commercial ones included. Please do not resell or re-upload the files: share the link instead.

HOW TO USE

1. Open the file: a 2.4 × 1.6 m sheet appears, perforated from the embedded sample image.
2. Choose 'Driver': Image or Attractor. For an image, double-click the Image Sampler and load yours.
3. Choose the grid and set the pitch, smallest and largest hole in millimetres.
4. Set sheet thickness, minimum bridge and edge margin; check that 'Sheet data' says OK.
5. Bake 'Holes' and 'Sheet outline'.

OPTIONS

Grid: Square
Holes on a square grid.

Grid: Staggered 60
Holes on a staggered 60 degree grid: more holes in the same area, more even look.

Driver: Image
Hole size from the image tone (the image is saved inside the file).

Driver: Attractor
Hole size from the distance to the 'Attractor' point.

Invert (toggle)
Swaps dark and light: big holes where the image was small, and vice versa.

BAKE

Holes | Sheet outline

GOOD TO KNOW

- Ask your fabricator for their minimum hole and bridge: the defaults are common values, not a standard.

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INPUTS

PARAMETER	RANGE	DEFAULT
Sheet width (m)	0.20 – 4.00	2.40
Sheet height (m)	0.20 – 4.00	1.60
Pitch (mm)	5.0 – 100.0	25.0
Contrast (gamma)	0.20 – 3.00	1.00
No hole below tone	0.00 – 0.50	0.06
Min hole (mm)	1.0 – 50.0	4.0
Max hole (mm)	2.0 – 100.0	21.0
Sheet thickness (mm)	0.5 – 10.0	2.0
Min bridge (mm)	0.5 – 20.0	3.0
Edge margin (mm)	0 – 200	40
Grid	Square · Staggered 60	Staggered 60
Driver	Image · Attractor	Image
Invert	on / off	off

GEOMETRY YOU CAN REPLACE

Attractor · Point

RESULTS AT DEFAULT VALUES

SHEET DATA

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Holes: 6205   open area: 10.7 %
Diameters used: 4.0 to 21.0 mm
Min hole >= thickness: OK
Narrowest bridge 4.0 mm >= thickness: OK
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INSIDE THE DEFINITION

STAGES, LEFT TO RIGHT AND TOP TO BOTTOM

1 INPUT sheet m, holes mm

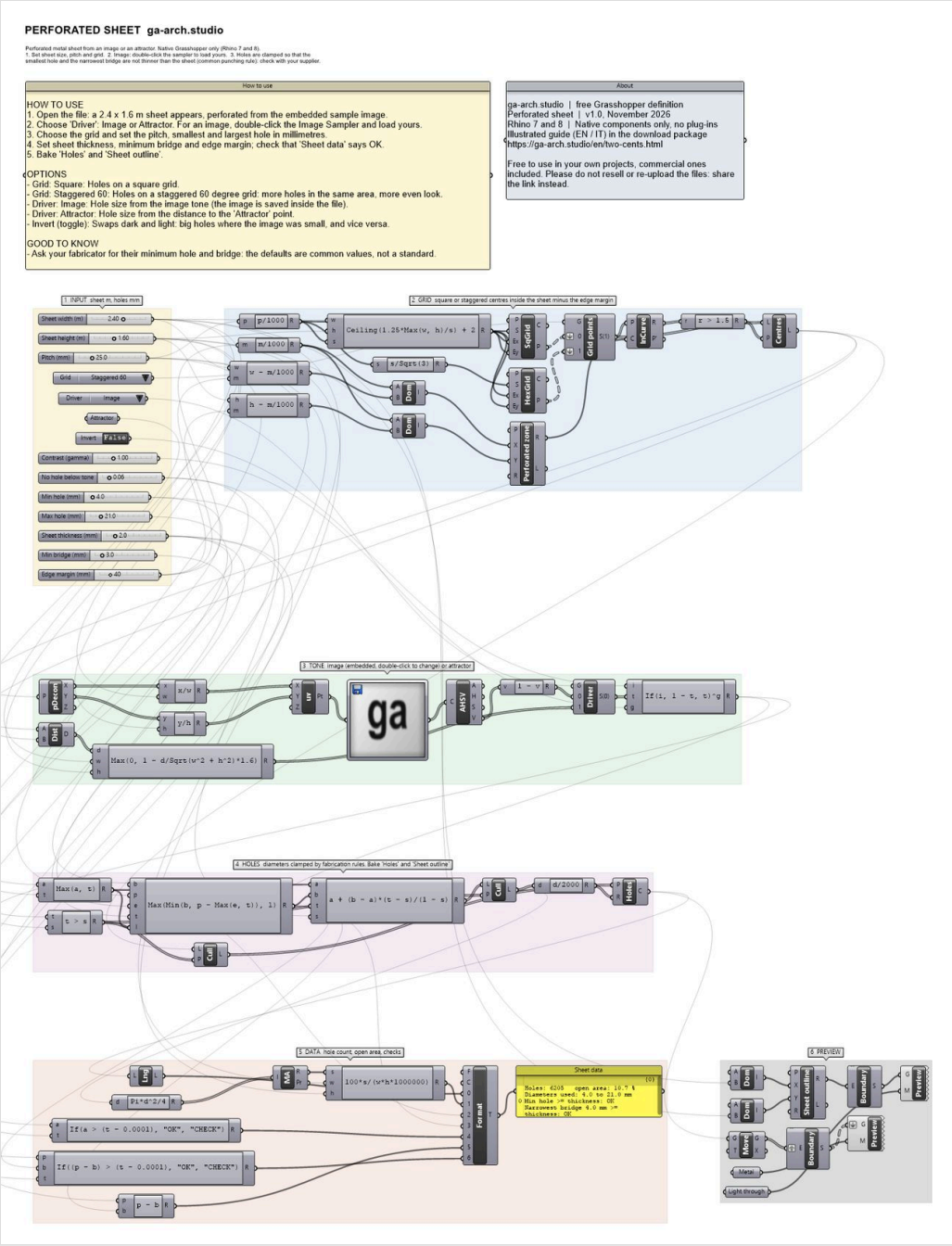
2 GRID square or staggered centres inside the sheet minus the edge margin

3 TONE image (embedded, double-click to change) or attractor

4 HOLES diameters clamped by fabrication rules. Bake 'Holes' and 'Sheet outline'

5 DATA hole count, open area, checks

6 PREVIEW



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