GEMINI - AUTOMATIC DIGITAL DIE CUTTER

SMART SOLUTIONS FOR THE LABELING INDUSTRY



This machine allows die cutting without operator on adhesive sheets and digital prints on cardboard, silk-screen prints and print shop materials.

A mobile lever lifts the sheets from the loading-feeding tray and inserts them into the plotter.

Depending on the thickness of the sheets, the machine may insert from 40 to 120 sheets; while the machine is in operation, additional sheets may be added without having to stop the machine.

The system is equipped with an internal vacuum compressor, which does not require external air connections.

Proper alignment is achieved by black mark reading for every sheet; a camera equipped with i-mark technology performs black mark reading adjustments in a few tenths of a second.

Black-mark reading offsets grade and distortion which occur using digital printing systems; the precision grade achieved is approximately 0.0079" (0.2mm).

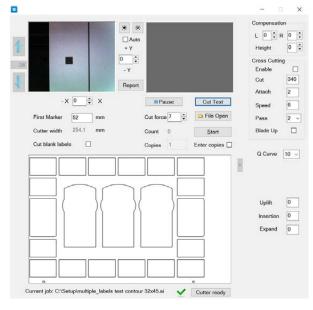
The sheet size that may be used ranges from the A4 to A3 format.

In addition to the half cut for adhesive sheets, heavy cutting may also be performed for all the applications which require that, such as labels, business cards, shaped business cards, small boxes and more; it successfully cuts cardboard with weight ranging from 7.05 to 12.35 ounces (200 to 350 gr).

Cutting is performed in hatching mode, which leaves continuity points on the material to avoid detachment during cutting operations; cutting parameters are set by the program.

The plotter blade is designed with two positions; in the through cutting mode, it works by an opening which prevents the blade from wear while cutting the material.

Speed varies depending on the complexity of the outline, on average it runs 30-40 seconds when cutting adhesives, while for through cutting the speed is much slower and therefore it is more apt for small jobs or simple cuts.



Cutter management tool.

Exemples of cutting sheets.





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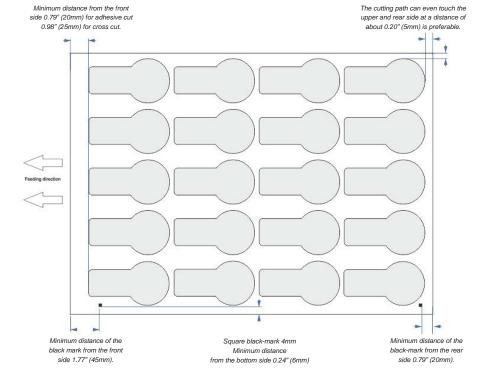
Black-mark reading through a dedicated camera and the i-mark software allows the use of black marks as small as 0.16" (4mm).

This allows maximizing the use of the sheet and minimizing excess material.

A border of 0.79" (20mm) on two sides must be maintained whereas on the other two sides, the machine can cut up to the edge of the paper even though users usually leave a gap of 0.20" (5mm), which is also the usual border used in laser printers.

Black-marks are squares measuring 0.16" (4mm) per side, normally printed in black; for silk screen prints, any color darker than the print will work; in the even the cutting involves white prints over dark sheets, square holes over the white print are required.

Automatic cutting may be used without black-mark reading when precision cutting is not required.





- Table space lenght 31.89" (81cm)
- Exit tray 13.78" (35cm)
- Plotter width 37.56" (70cm)



The exit tray extends for 13.78" (35cm) and must be positioned in a location free of tight passages to avoid hitting it when walking by.

The dimensions are quite small; the table on which to machine may rest can be as small as 23.62" x 26.38" (60cm x 67cm).

The system is composed of three separate components: loading-feeding tray, cutting plotter and finished sheets tray. These three parts are positioned one above the other and they must be positioned on a table, where the finished sheets may be left hanging above the edge.

The machine is connected to a computer using a USB cable; its dedicate software must be installed on a PC running on Windows 8 up; those using exclusively Mac technology may install 'Parallel' compatibility software or opt to purchase a small notebook.

The software manages the file in Adobe Illustrator format created both by Mac and Pc; it can also manage files created in CorelDraw. The cut outline must be saved together with the black marks, whereas the rest of the graphic may stay on non-visible levels.