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

A mobile lever equipped with a vacuum suction cups lifts the sheets from the inbox tray and inserts them into the plotter. Depending on the thickness and rigidity 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 crop mark reading for every sheet; a camera equipped with i-mark technology performs crop mark reading adjustments in a few tenths of a second. Crop mark reading offsets grade and distortion which occur using digital printing systems; the precision grade achieved is approximately 0.2 mm.

The sheet size that may be used ranges from the A4 format to 35cm wide; the suction cups are positioned at a distance of 24cm; for the A4 format, the sheet must be positioned on the long side.

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 grammage ranging from 200 to 350gr.

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.
Crop mark reading through a dedicated video camera and the i-mark software allows the use of crop marks as small as 4 mm. This allows maximizing the use of the sheet and minimizing excess material. A border of 20 mm on two sides must be maintained while on the other two sides, the machine can cut up to the edge of the paper even though users usually leave a gap of 5 mm, which is also the usual border used in laser printers. Crop marks are squares measuring 4 mm 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 crop mark reading when precision cutting not required.

The system comprises three separate components: inserter, cutting plotter and exit tray. These three parts are positioned one above the other and they must be positioned on a table, where the exit tray may be left hanging above the edge. The dimensions are quite small; the table on which to machine may rest can be as small as 60 x 67 cm. The machine is connected to a computer using a USB cable; its dedicate software must be installed on a PC running on Windows; 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 crop marks, while the rest of the graphic may stay on non-visible levels. Sample operation may be viewed on the ddcutter channel on YouTube.