



Printing method: On-demand inkjet
Nozzle configuration: 48 nozzles
(4 columns of 12 nozzles)
Resolution: 360 dpi
Printing direction: Bidirectional printing with logic seeking
Paper feed method: Friction feed (front-top)
Power supply voltage: AC, 120V, 220-240V
Dimensions: (W) 435 x (D) 264 x (H) 154 mm
Weight: Approx. 4.8 kg

Product Features

Used in today's Epson Stylus inkjet printer lineups, Micro Piezo inkjet technology underpins the superb image quality and high speed delivered by Epson's inkjet printers. Micro Piezo technology using a multi-layer actuator print head made its debut in the Epson Stylus 800 inkjet printer (known in Japan as the MJ-500).

Micro Piezo technology, which was developed in March 1993 as a next-generation technology for inkjet printers, employed a high-output, high-response multi-layer piezo head as an actuator. Epson's Micro Piezo technology already offered excellent firing uniformity, but this new development brought it to a new level: Inkjet output and laser-printer output became virtually indistinguishable.

Amid increased demands for high-quality printer output, the advent of Micro Piezo technology was an important milestone that recast the image of inkjet printers.

Compatible with A4-sized paper, the Epson Stylus 800 was Epson's first inkjet printer aimed at home users. Capable of high-speed printing of alphabet characters at 150 characters per second (cps) in 10 characters per inch (cpi) mode and 180 cps in 12 cpi mode, the Epson Stylus 800 also offered resolution of 360 dpi and a high level of print quality that could be mistaken for laser output. Also, the printer's use of a print head that never needed to be replaced kept ink cartridge prices reasonable. One A4-sized page cost a few cents to print. With the printer itself priced attractively, the inkjet printer became much more attainable for many users.

Background

Epson, the leader of the impact dot-matrix printer market, had already begun to work on a quiet, high-resolution printer not using impact technology in 1978. One byproduct of this research on several different systems was the SQ-2000, the first on-demand inkjet printer to use a piezo element. Still, however, research into other methods of printing continued. Afterward, in 1988, the company made a decision to direct resources into improving the piezo system and to develop a print head. The opportunity for this development to take a great leap forward came through the use of a multilayered piezo element. This element enabled Epson engineers to reduce driving voltage and make the print head smaller, which was the first Micro Piezo print head developed independently by the company. Finally, in 1993, the first inkjet printer equipped with this print head, the Epson Stylus 800, was released into the market.

Impact

Unlike print heads used in other printing systems, the Micro Piezo print head did not heat the ink. Since the ink was not heated, Epson had much more flexibility in formulating its inks. This next-generation print technology helped whet the market's appetite for a shift to color printing. These R&D activities also led to the creation of the Epson Stylus Color. Finally, as a symbol of the warm reception directed at this high-performance inkjet printer's development, Epson was awarded the prestigious 43rd Okochi Memorial Production Prize in March 1997.