Versatile edge holder for ink collector and platen in a large format printer

Title

Versatile edge holder for ink collector and platen in a large format printer

Abstract

When printing in different medias edge holders are used to prevent that the edges of the substrate lift up creating media-crashes with the carriage and causing damages to the print-heads. Till now, our printers have one design of edge holders when printing on the normal platen, and another design of edge holders to be used when printing with the ink collector. The ink collector is a kit used when printing on porous materials.

This disclosure presents a versatile design of edge holder that can be used in both situations, platen and ink collector. The customer does not need any more two different sets of edge holders, same design can be used with normal platen and with ink collector. The installation procedure and customer’s experience is also the same for normal platen and ink collector.

Problems solved by the invention

Till now two different sets of edge holders were needed: One set to be used in normal platen; another set to be used with the ink collector. That means the user needs to have both to cover both applications, and he/she also needs to learn how to use two different designs.

Prior solutions and their disadvantages

Two different designs for each usage mode: normal platen for non-porous materials; ink collector for porous materials.

Description of the invention

The invention consists on using exactly the same design of edge holders for both use cases: normal printzone and ink collector. In order to achieve that, the interfaces between the edge holder and the ink collector, and between the edge holder and the normal platen are kept the same, that is: one side contains a magnet to ensure the edge holder keeps down and does not crash with the carriage; the other side has a mechanical cam to apply tension to the strip of the edge holder. The interfaces for the magnet and the cam of the edge holder are in both, the normal platen and the ink collector, and as a result, the user can use the same edge holder for both applications.
The following pictures summarize the previous description:

**Media Edge Holder interfaces**

- Same interfaces between MEH – Ink collector and MEH – platen
- Same MEH for Ink collector and platen.

Figure 1 Interfaces between edge holder - ink collector, and edge holder - platen.
Advantages of the solution over what has been done before

- Better user experience.
- User only needs to learn how to use one edge holder for all applications, instead of one per application.
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