



**WHITEPAPER**

**DIGITAL VS PAD  
PRINTING**

 **BERGSTEIN**

## DIGITAL PRINTING VS PAD PRINTING

*An explanation why single pass digital printing is an interesting substitute for pad printing*

We at Bergstein Digital B.V. are convinced that our digital single pass printers are a future proof and time/cost saving solution for direct to shape printing. With this whitepaper we would like to take the opportunity to inform others of the findings that we have collected over the past 15 years. The pros of single pass printing in comparison with pad printing.

In some cases, pad printing can also be a match for your products, whenever number of products/ designs and colors are at a minimal. But with digital printing, you are able to ramp up production speed and quantities in a blink of a second.

Review the following bullet points, in which we try to explain why single pass digital printing could be an interesting substitute for pad printing.



[Image of a single pass printer]

## PRINTING ON DEMAND

### DIGITAL PRINTING

With digital printing, you can easily print the number of products that are needed per shift/day/week. No waste of printed products but only printing what is requested. No more stockage of printed products and no older stockage which is not sellable anymore.

### PAD PRINTING

Normally bigger number of products are printed to cover stocks, because less set up times are needed as there set up times only cost time and money.

## PERSONALISATION OF PRODUCTS

### DIGITAL PRINTING

Each product can be printed with a different logo, barcode, or artwork. By placing different files in a queue, it is possible to digitally print different file nonstop on the fly.

### PAD PRINTING

If it not possible to personalize each product using pad printing. For each printjob a new cliché that comes with the turnover time, own colors and sizes.

## NO CHANGE-OVER TIMES (FILES OR COLORS)

### DIGITAL PRINTING

Changing print jobs and / or print colors are done within seconds. It is only a matter of changing files in the computer, and the printer is ready to print!

### PAD PRINTING

The normal chaning time to print another job and/or a different color will take at least thirty minutes to one hour, depending on the number of colors or files to change.

## LESS COSTS OF SUPPLIES

### DIGITAL PRINTING

The only supply that is needed during printing digitally is the used ink for the artwork or logo.

### PAD PRINTING

The supplies that are needed to change files and inks are clichés, pads, inks, solvents, cleaning fluids and other cleaning material.

## NUMBER OF PRODUCTS

### DIGITAL PRINTING

Using a digital printer means less labor for printing the same number of products. With a digital printer huge numbers of parts as well as small numbers of products can be printed per hour.

### PAD PRINTING

Using a pad printer, always bigger number of products are needed to make the print profitable. Too small runs are inefficient and big numbers per hour are mostly not possible.

## NO WASTE WHEN PRINTING NEW FILE/COLOR

### DIGITAL PRINTING

After selecting a new file and/or new color, the first print is already aligned and ready to print.

### PAD PRINTING

If a new file and/or color is installed, several products are needed to check the print quality and color. Adjustments are always needed to align multiple colors, which costs products and time.

## CURING OF THE INK

### DIGITAL PRINTING

The used ink is an UV-ink, which means that the ink will be dried using an UV-lamp and will dry immediately. After printing, the products are ready to be packed!

### PAD PRINTING

The used ink is a solvent-bases ink, which means that the ink needs to be dried in air, which can take upto 24 hours before the ink is completely cured and ready to be packed.

## COST PRICE PER PRINT

### DIGITAL PRINTING

The cost price per print is only the cost price of the ink used for the artwork or logo.

### PAD PRINTING

The cost price per print is the cost of the ink, solvent and hardener, the pads and the clichés, as well as the costs for the cleaning fluid and other cleaning materials and the costs of the ink residuals wasted.

## CONSTANT PRINT QUALITY

### DIGITAL PRINTING

Because of the use of a re-circulation system, the ink remains a constant viscosity and temperature so it will always print with the same quality!

### PAD PRINTING

Due to temperature differences (summer and winter temperatures) as well as humidity changes in the room, the print quality may change a lot which will lead to bad print results. The ink needs to be adjusted before getting good results.

## COLOR ADJUSTMENTS

### DIGITAL PRINTING

Changing some parameters in the software will lead to upgrading colors, to get darker or lighter colors. These changes can be done in seconds.

### PAD PRINTING

If the color is not right, the complete color needs to be taken out, upgraded and mixed, then the new color needs to be put back in the machine before printing. This process sometimes has to be repeated several times until the right color is achieved and ready to print.



[Image of a Bergstein Flow Module]

## SUMMARY

1. Less costs in supplies when using digital;
2. Less costs in working hours employees when using digital;
3. Less costs in number of employees when using digital;
4. Less costs in set-up times when using digital;
5. Less costs in 'wrong printed' parts when using digital;
6. Ink is directly dry after printing when using digital;
7. Less waste of supplies when using digital;
8. Less products in stockage when using digital;
9. Personalization of products when using digital;
10. Always a constant print quality when using digital;
11. Color changes in seconds when using digital.



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**THANK YOU**

**FOR READING**

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