



# MDC<sup>®</sup> DOCTOR BLADES

## Flexo Printing



### General

Modern flexo presses are equipped with an anilox roller/doctor blade combination as an inking system. Flexo printing presses are available in many different sizes from 200 mm to over 4 meter. While single reverse-angle blade systems are used for the smaller presses, the midsize and larger presses are normally equipped with enclosed doctor blade systems. Printing speed also varies from 50 m/min. to 450 m/min.. The wiping doctor blade is always applied in a reverse angle between 30° – 40°. Due to the abrasive surface of ceramic anilox rollers, minimal doctor blade pressure is always recommended. Equally important for good doctor blade life is the relationship between cell configurations (shape/count) and blade tip thickness. MDC **SOFT** blades have been used very successfully in achieving longer blade life, in most cases 2–3 times higher than most doctor blades. For high viscous inks (UV inks) or abrasive inks (metallic inks) the use of the MDC **LOGLIFE** blade can increase the blade life up to 10 times.

The flexo industry uses mainly 0.20 mm thick blades, in some cases 0.15 mm. Enclosed blade systems do not require a back-up blade. Based on the application, lamella, bevel or straight blades with rounded edges, like the MDC **FLEXOLIFE** blade, are used to meter the ink. For high quality process printing, the label printing industry uses a lamella as thin as 75 microns. As a rule, a thinner blade edge allows for a cleaner wipe.

### THE RIGHT MDC DOCTOR BLADE FOR FLEXO PRINTING



**MDC SOFT**

This blade is made of carbon doctor blade steel and is coated with nickel-based material. The coating is resistant to corrosive inks and lacquers and protects the contact zone from oxidation. Especially for high pH inks, this blade significantly reduces score lines in flexo applications.



**MDC FLEXOLIFE**

The blade with radius edges on both sides. This economical blade is specifically designed for flexo applications. It provides extended blade life while reducing anilox wear. Can be used with solvent or water-based inks.



**MDC LOGLIFE**

The lamella has a hardened coating to significantly lengthen the life of the blade. This is the best doctor blade choice used to fight printing defects since it provides clean doctoring, resists corrosion, reduces steel contamination of the ink and significantly lowers waste levels. Less blade changes are needed, resulting in reduced downtime.



**MDC STANDARD**

The award winning blade with a consistent tip thickness. The contact area remains unchanged throughout the entire life of the blade, therefore, no changes in tonal value or gradation occur due to the wear. The special polished contact zones of these doctor blades guarantee a quick start-up without problems.



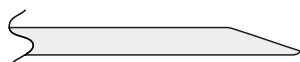
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**MDC BEVEL**

The configuration of the blade edge minimizes wear-in time and the sharp blade edge allows for a clean wipe. Due to the stiffer tip, these blades are somewhat more resistant to tip breakage. Bevel blades with angles between 4° to 45° are commonly used for process inks and short runs.



**MDC NON METALLIC**

Non-metallic blades are available for specific printing applications and as containment blades in enclosed doctor blade chamber systems. There are many materials to choose from, such as UHMW, Fiberglass composite and Polyester. These blades come in a variety of thickness and widths. MDC representatives are available to assist in evaluation and selection of the correct blades for all applications.

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### Standard Dimensions & Specs:

- MDC Doctor Blades are available in widths of 8 – 80 mm.
- Standard blade thickness: 0.15 mm, 0.20 mm.
- Blades are available in pre-cut sizes of any length or in coils of 50 m, 100 m and 200 m.
- The recommended blade tip dimensions are:

<b>Cell Count</b>	<b>Lamella Thickness</b>	<b>Lamella Length</b>
80 – 240 l/cm	125 micron	1.7 mm
240 – 450 l/cm	100 micron	1.3 mm
above 450 l/cm	80 micron	1.3 mm

# Special blade sizes and requirements are considered upon request.

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### Other MDC Doctor Blades available:

- **MDC ULTRALIFE**
- **MDC COMBI BLADE**
- **MDC ONE STEP BLADE**
- **MDC STAINLESS BLADE**
- **MDC ANGLE BLADE**
- **MDC MULTIBLADE**
- **MDC PUNCHED BLADE**

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Learn more about MDC's solutions by consulting your MDC representative for other configurations, or visit us at:  
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**INNOVATIONS FOR THE PRINTING INDUSTRY**