

THE EXPERTS IN INK TRANSFER TECHNOLOGIES



DOCTOR BLADES FOR FLEXO WIDE WEB APPLICATIONS

Doctor blade life on modern flexo presses, with their combination anilox roller/doctor blade inking systems, is of great importance. The cleanest possible wipe requires minimal doctor blade pressure to prevent excessive blade and anilox wear.

Equally important for blade life is the relationship between cell configurations (shape / count) and the blade tip thickness. Daetwyler manufactures a wide variety of doctor blades to meet your specifications and applications.



Daetwyler



STANDARD

This special design of our European steel is the most commonly used product for wide web applications. Tips Available : [Lamella](#) / [Radius](#)



MULTIFLEX

A cost-effective alternative to coated doctor blades, Multiflex is made from a specially engineered steel designed to extend blade life without the added cost of coatings. The optimized tip geometry provides the rigidity to resist flex while maintaining a fine contact point for a clean, consistent wipe. Its corrosion-resistant properties make it well suited for water-based ink applications.



LONGLIFE PRO

This advanced coated blade is designed to deliver clean, consistent doctoring performance across a wide range of flexo applications. It performs reliably under higher speeds, varying ink systems, and changing press conditions, maintaining a stable wipe throughout the tonal range. The low-friction coating is gentle on anilox surfaces while extending blade life and reducing the need for readjustment during runs.

Tips Available: [Lamella](#), [Multiblade](#)



LONGLIFE

The doctor blade choice for fighting print defects, such as streaking. It is commonly used for abrasive inks and coatings. This hardened coating significantly lengthens blade life, therefore reduces the amount of steel contamination in the ink. Fewer blade changes are needed, resulting in reduced downtime and waste.

Tips Available : [Lamella](#) / [Radius](#) / [Multiblade](#)



OPTILIFE PLUS

The newest development from MDC is a high-tech coating that guarantees the longest service life for flexo printers. This doctor blade is particularly well suited for all abrasive and white inks, water-based inks, lacquers, and coating applications. This blade is very gentle on the anilox rollers thanks to a reduced coefficient of friction from the nickel coating and 100% corrosion resistance. Great cost to performance ratio from the Daetwyler coated line of high-performance products.



GAMUTSTAR

A new coating designed to extend blade life and reduce anilox scoring, while providing the cleanest possible wipe. This is specifically suited when blade changes need to be predetermined (such as in ECG printing). This allows the blades changes to occur at specific times, eliminating unnecessary downtime.

Multiple Tips Available : [Radius](#) / [Lamella](#)

CONTAINMENT BLADES

Daetwyler offers multiple solutions for doctor blades used for containment purposes.

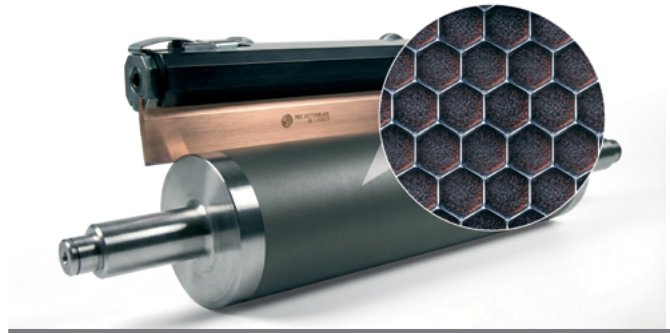
PolyPro – Available in thicknesses of .007", .015" and .020". These are the most common and cost effective containment blades.

OptiPro Plus – Often used in combination with longer lasting coated blades such as Longlife, Starlife or GamutStar. A good fit for ECG printing and also for abrasive inks and coatings

PearlStar – This blade has a proprietary coating that repels ink. This repelling property added together with low friction values make it ideal for customers experiencing back doctoring issues.

ANILOX ENGRAVING SELECTION BY APPLICATION

In wide web printing, ink transfer is highly sensitive to changes in speed, viscosity, and press conditions. Anilox engraving plays a critical role in how ink is released — but real-world performance depends on how that release behaves under dynamic operating conditions. The special engineered engravings are based on how they transfer ink on press, not just theoretical volume.



HIGH EFFICIENCY INK RELEASE

For applications requiring consistent ink delivery across solids and screens

- Increased ink release compared to conventional engravings
- Supports combination printing with fewer anilox changes
- Maintains performance across a wide range of print conditions



HIGH SPEED STABILITY

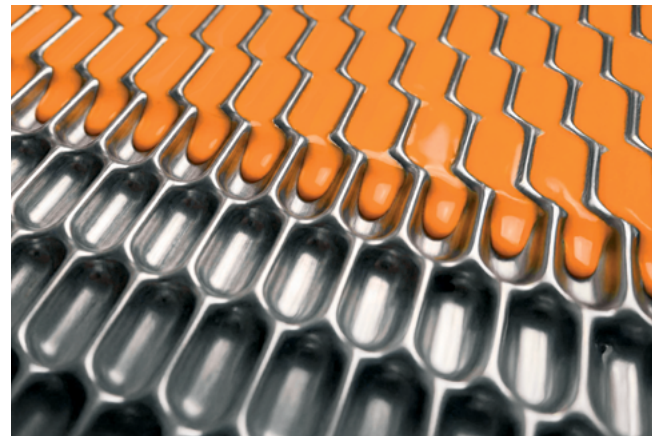
For presses operating at higher speeds or under demanding conditions

- Maintains consistent ink transfer at elevated speeds
- Reduces instability such as spitting and aeration
- Improves repeatability across longer runs

WHITE INK PERFORMANCE

For applications requiring high opacity and smooth laydown

- Improved coverage and opacity
- Reduced pinholing and surface defects
- More uniform ink film across the substrate

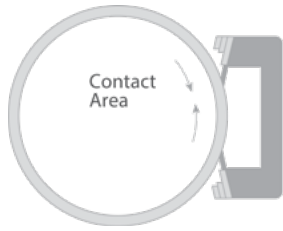


COATINGS AND HIGH VISCOSITY FLUIDS

For varnishes, adhesives, and coating applications

- Improved transfer of higher viscosity materials
- Reduced foaming and surface defects
- More consistent and even coating laydown

Final print performance depends on the full system — engraving, blade geometry, ink behavior, and press conditions working together.



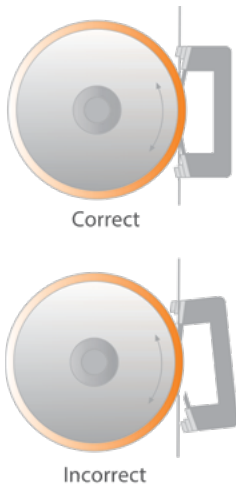
THE CORRECT PRESSURE

Minimum pressure ensures consistent blade wear and extended anilox life. The thinner the tip, the less pressure required to achieve a clean and brilliant printing result. It is recommended to use the same material on both sides of the chamber to eliminate uneven pressure. Increased pressure leads to a deflection of the doctor blade, resulting in a reduced angle and therefore in an increased contact area. The actual wiping is done by the back of the blade, leading to excessive anilox and blade wear.



THE INCORRECT PRESSURE

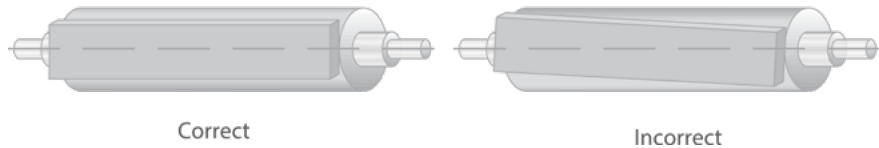
Or excessive blade pressure creates free floating metal slivers that contaminate ink systems. When a hard particle becomes trapped between the deflected blade tip and the anilox, this particle rides there, effectively destroying rows of cells. These rows of cells appear as thin bands running the circumference of an anilox and are commonly called score lines.



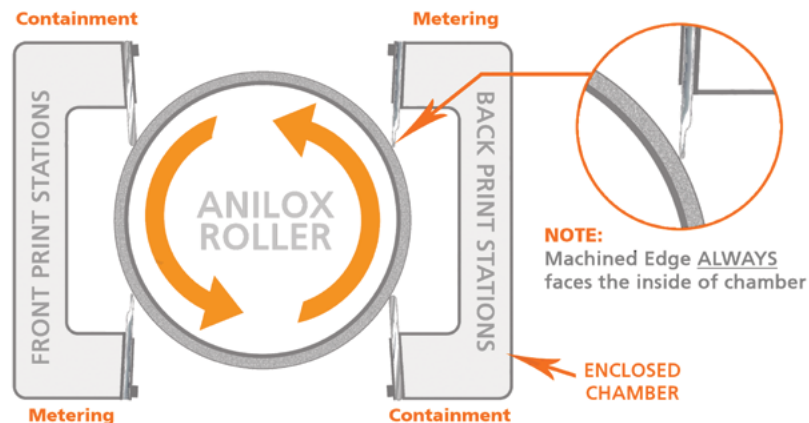
PROPER SYSTEM ALIGNMENT

For consistent ink metering, best print quality and optimized blade life, an enclosed chamber system requires perfect alignment (both horizontal and vertical) so that both blades have equal amounts of pressure. Incorrect alignment creates uneven blade pressure, blade wear and/or ink leakage.

A common error that results from correcting alignment problems is excessive blade pressure. This excessive pressure will lead to a variety of previously discussed problems, like score lines.



DAETWYLER PROPER MACHINED TIP INSTALLATION FOR ENCLOSED CHAMBERS



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