

THE EXPERTS IN INK TRANSFER TECHNOLOGIES



DOCTOR BLADES FOR FLEXO NARROW WEB APPLICATIONS

Doctor blade life on modern flexo presses, with their combination anilox roller/doctor blade inking systems, is of great importance. The surface of ceramic anilox rollers 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 in water-based, narrow web applications. Our most popular tip configuration is a lamella tip of 95 microns and this combination is widely used in all types of narrow web presses. It provides a clean, continuous wipe on mid to high anilox line screens.



BLUESTAR MULTIBLADE

This multifaceted blade is made by using a specialized process designed to promote blade tip stability and reduce wear at the contact point. The elongated modified tip for flexo printing controls ink film thickness to perfection, while reducing tip deflection caused by high blade pressure and high press speeds. This design allows you to use lower blade pressure, resulting in less waste, reduced downtime and longer blade life.



MULTIFLEX

This combination of special engineered steel and tip configuration was designed to reduce or eliminate UV spitting on specific narrow web presses where doctor blade adjustment is limited.



PEARLSTAR

New coating technology significantly reduces ink adherence to the doctor blade and lowers friction values. This has proven to greatly reduce or eliminate UV spitting in Flexo label printing. Because of its non-stick properties, it can also be used as a containment blade in chamber applications to reduce back doctoring. It also performs very well with (cold seal) lacquers and in combination with adherent fluids.



LONGLIFE

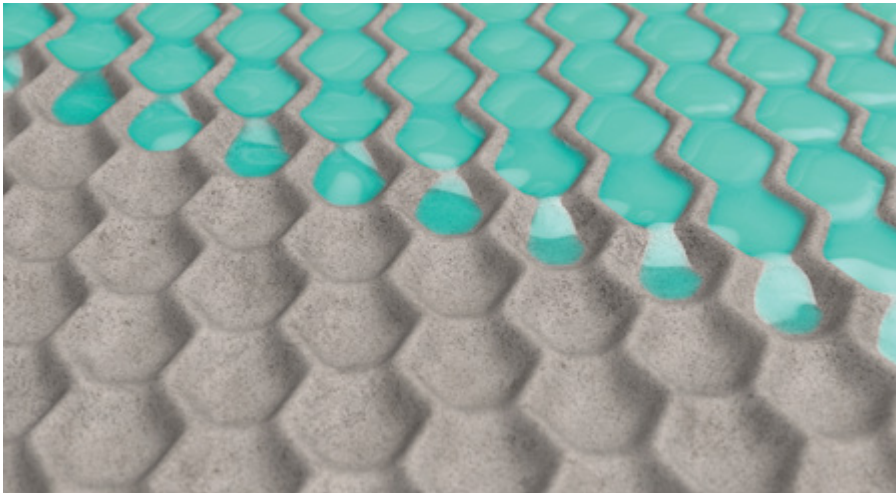
The doctor blade of choice for fighting print defects, such as streaking. It is commonly used for abrasive inks and coating. This hardened-coating significantly lengthens blade life, therefore reduces the amount of steel contamination in the ink. Fewer blade changes are needed, resulting in reduced downtime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



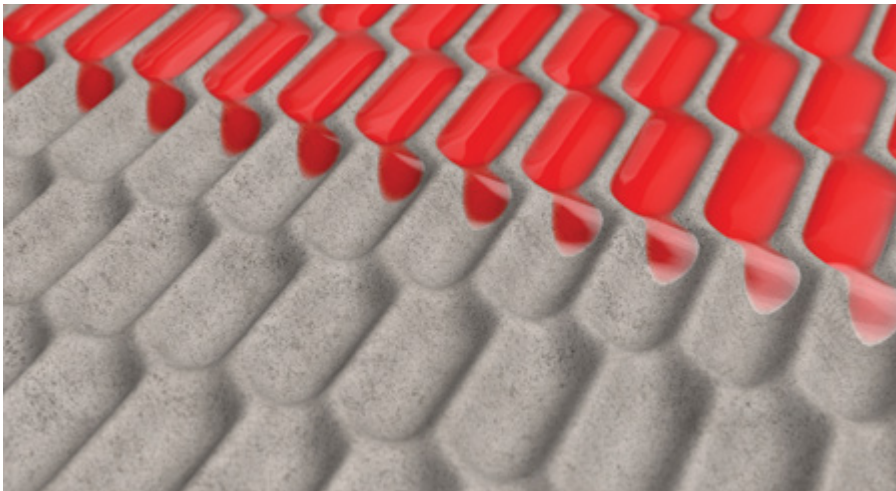
ONE STEP

A long time standard used in UV printing to reduce UV spitting. Its special base material and tip design allows for clean doctoring regardless of ink viscosity and can be used on medium to high anilox line screens. A good choice for use with more viscous inks.

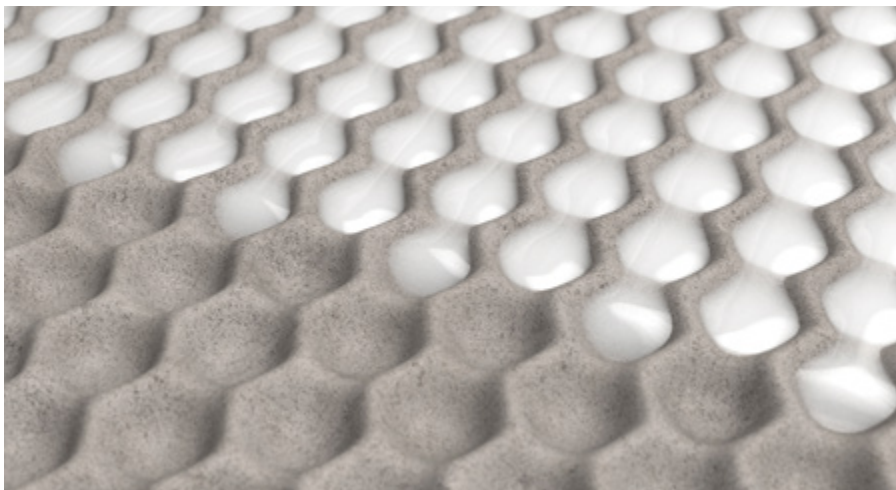
Fluid Hex with Stableflex Control UV spitting in medium to high lines screens



Fluid UV with One Step Control UV spitting while printing strong line colors



HOW with Longlife Print strong white ink, similar to screen printing





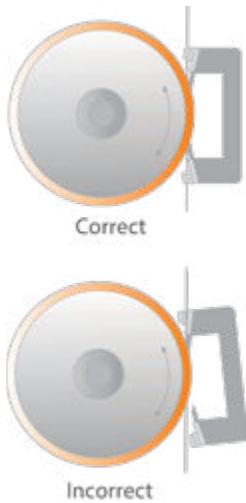
THE CORRECT PRESSURE

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

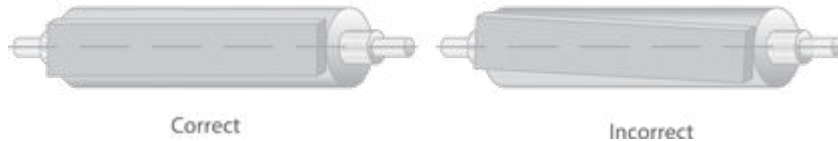
Or excessive blade pressure creates free floating metal slivers that contaminate ink systems. When a hard particle becomes trapped between the deflected blade tip and the anilox, this particle rides there, effectively destroying rows of cells. These rows of cells appear as thin bands running the circumference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



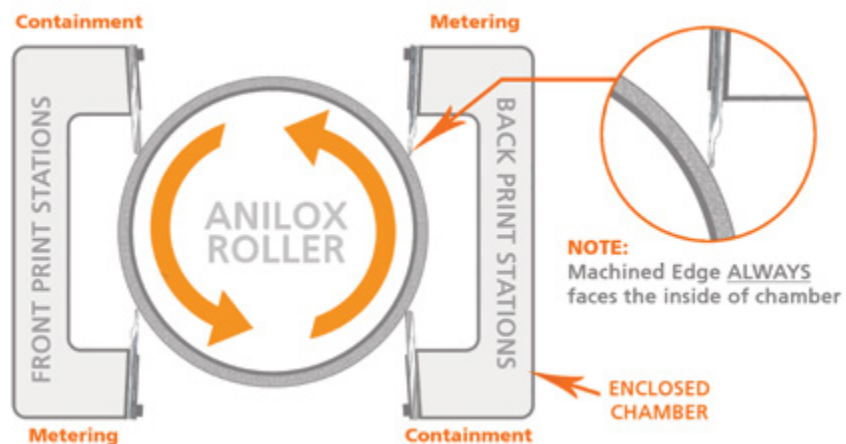
PROPER SYSTEM ALIGNMENT

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.



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