

ALLISON

Systems Corporation



Doctor Blades

Alloy steel doctor blades that resist wear are fairly common, but for critical Flexo and Gravure applications, one material stands out.

Not just in the lab, but in the field, Allison Systems' Gold doctor blades combine material, edge shapes, and specialized heat treating to bring you outstanding performance.

ALLISON SYSTEMS

Wear Resistance

Allison Gold doctor blades are made from a tool-steel alloy that provides truly exceptional wear resistance. If you are looking for a blade that lasts longer when used with white inks containing abrasive titanium dioxide (TiO₂), high-solids inks, metallic inks, or any other difficult and/or abrasive inks, an Allison Gold doctor blade is for you. Allison Gold (QRE) doctor blades, which are made with a specialized heat treating process, can provide up to ten times the life of carbon steel blades while not increasing overall blade hardness.

Total press performance is often severely limited by blade wear with abrasive applications. Allison Gold doctor blades will allow you to keep running and therefore make money many times the cost of the blades.

Reduce Cylinder Damage

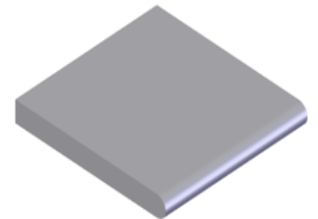
In addition to the abrasive wear caused by difficult inks, Allison Gold doctor blades are also resistant to adhesive wear—a welding-like effect that quickly degrades blades and can damage gravure cylinders and flexo anilox rolls. Adhesive wear can lead to a build up of metal on the surface of the cylinder or machine grooves or score lines below the surface of the cylinder.

Allison Gold doctor blades have also been proven to reduce or eliminate cylinder damage due to their unique metallurgical property that produces wear particles that are much smaller than the typical steel used for doctor blades. When used properly, the wear particles will not form the metal slivers associated with other steels that can become trapped under the doctor blade and cause cylinder damage.

Rounded Edge

There are many variations on the Gold edge shapes, but when it comes to solid whites and very abrasive applications, the Rounded (RND) edge Gold blades may be just right.

Traditionally, abrasive whites or coatings do not require the fine working tip that process color work or high line screen cylinders require. When this is the case, Allison recommends RND edge blades. Rounded edge blades provide a strong, rigid, precision polished working edge that is not easily damaged at an economical price.



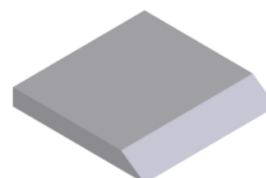
Allison Rounded (RND) Edge.

Beveled Edges

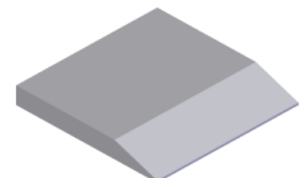
When working with process colors and/or high line screen cylinders, you need a doctor blade with a small footprint that will wipe the surface of the cylinder clean.

Allison offers Gold doctor blades with two bevel variations for this task, Standard (STD) and Superhoned® (SUP). STD will give you a rigid, finer initial working tip, and SUP will have a more consistent footprint as the blade wears.

Contact Allison Systems for recommendations for which bevel is best for your application.



Allison Standard (STD) Edge.



Allison Superhoned® (SUP) Edge.

GOLD DOCTOR BLADES

Flexo

Applications

Allison Gold (QRE) Doctor Blades with a rounded edge or one of Allison's beveled edges can be used with any anilox roll and ink combination where longer blade life and reduced anilox scoring is desired.

UV Ink Spitting

As shown in the image below, UV ink spitting in flexo applications can be a problem if you are not using the correct blade. To prevent spitting, UV inks require a blade with a rigid working edge that remains nearly constant throughout



the press run. Allison Gold (QRE) doctor blades have been proven to help reduce or eliminate UV spitting issues.

Gravure

Applications

Use Gold (QRE) doctor blades with one of Allison's beveled tips for water or solvent based gravure inks to clean up cylinders where localized blade wear results in haze and/or streaks with these inks.

Use Gold doctor blades with a rounded tip for big solids, like whites, on long-running gravure jobs or coating applications.

Gold doctor blades may be used in very long-run gravure applications or any gravure application that can benefit from extreme long life with a working edge that remains nearly constant throughout the run .

Gravure Haze Fighter

Problems with Hazing and streaking have a number of causes but a common one is localized wear of the doctor blade over isolated vignettes surrounded by areas of non-printing "land" area. The resulting "bridging" effect results in a dirty wipe, haze, and/or streaks.

Attempting to fix the local problem by putting more force on a lamella-type blade can easily result in haze over the entire cylinder as the tip deflects and runs too flat for a clean wipe.

Allison Gold doctor blades help address this problem in two ways:

First they are made of a wear-resistant tool-steel and, secondly, Allison uses a variety of triangular based edge shapes, thereby strengthening the tip to prevent it from over deflecting and running too flat under typical loading conditions.



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