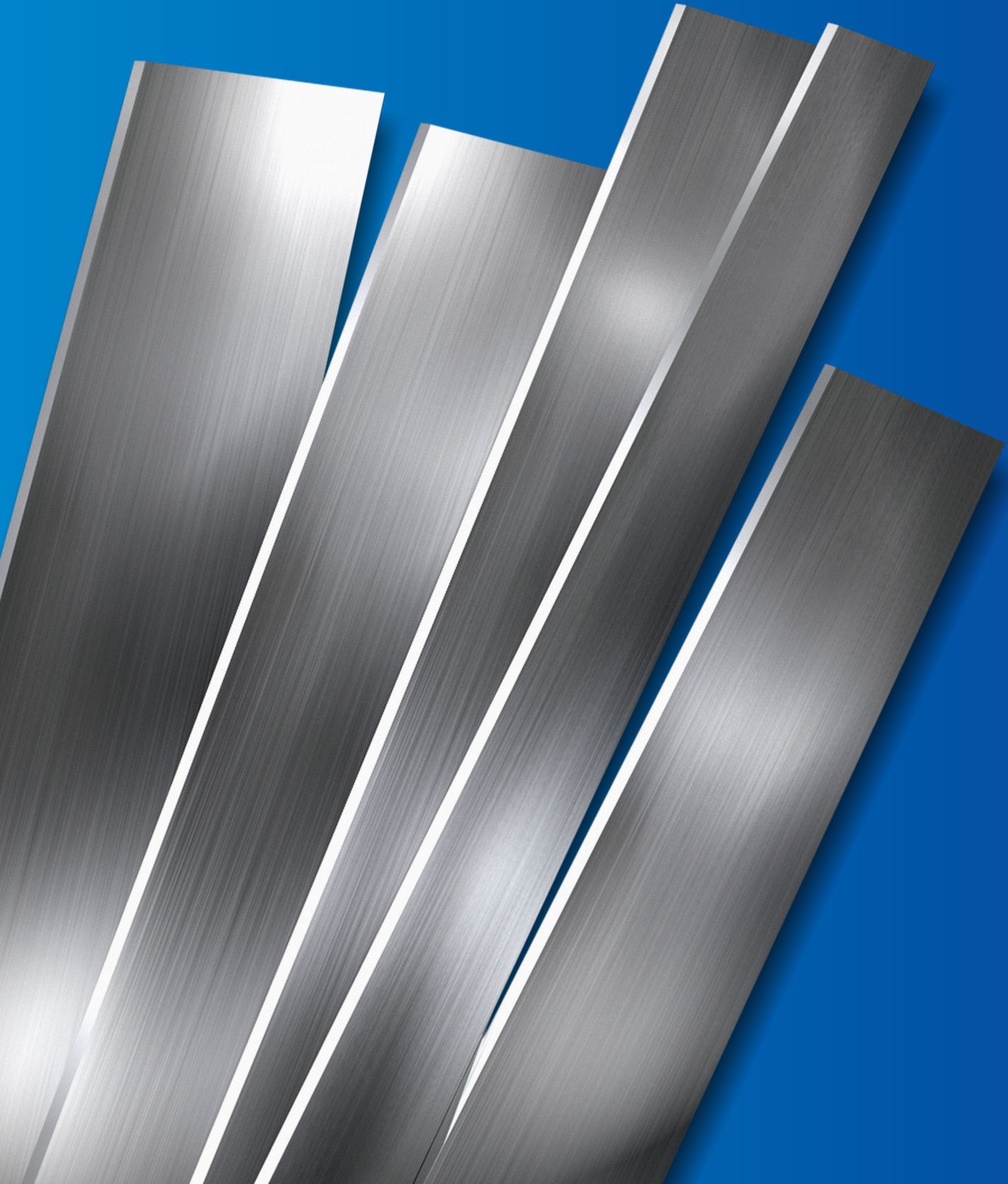


THE SWEDISH DOCTOR BLADE



ABOUT PRIMEBLADE

PrimeBlade Sweden AB is a global manufacturer and supplier of Doctor Blades for flexo, gravure, offset printers, and coating applications. Together with our Swedish raw material supplier and end users the doctor blade was produced to improve production quality, blade life, and to increase machine speeds.

Our Doctor Blades are available in all different edge types, standard thicknesses and widths. They are supplied in 100 meter / 328 foot rolls in easy-to-use cassettes, or cut in lengths to meet your needs.

The pre-ground blades have radius-ground edges, enhancing blade functionality. The blade and cylinders last longer than conventional blades. The pressure exerted by the blade on the cylinders is constant, eliminating uneven blade wear.

The company was formed by a dedicated team with long experience from the printing, doctor blade and steel industry. Our goal is to help our clients improve their business by continuously developing new and innovative products for them and delivering renowned service.

The printing, coating and packaging industries demands are constantly increasing to optimize blade lifetimes and achieve higher and more consistent quality. To meet these demands we have developed a new technology for grinding and polishing, XM-Technology. This technology optimizes the lamella properties and tolerances.

Our wide range of services, support and advice around the world includes:

- technical printing support
- analysis of printing problems
- information to optimize printing / coating performance
- recommendations on best suited materials for production needs
- metering and control in the transfer process

PRIMEBLADE PROFILES

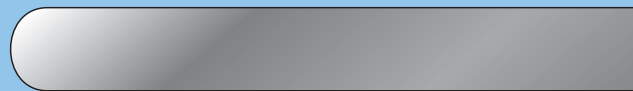
PROFILE 10

- Used in coating, gravure and flexo printing
- Wipes well up to the point that the contact zone becomes too large
- Available in bevel edge of 2°–30°



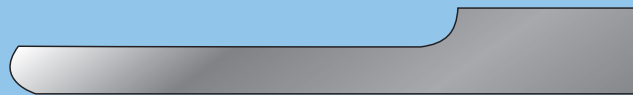
PROFILE 25

- Used in coating, gravure and flexo segments
- Polished radius ends for instant run
- Excellent seal against roller
- Double sided radius edge



PROFILE 50

- Most frequently used edge in coating, gravure, flexo and offset industry
- Constant contact area during wear
- Lower friction and wear against roller
- Standard dimension 1,3/0,07mm (0,05/0,0027") for gravure and 1,3/0,10mm (0,05/0,0039") for flexo, can be produced according to most customer requirements



PRIMEBLADE PRODUCTS

PrimeBlade® 100 (Polymers)

Advanced engineered polymers that are mainly used within the Flexographic industry. A very popular containment blade in chamber systems and within the tissue and corrugated industry.

PrimeBlade® 300 (Carbon)

The standard carbon steel used worldwide by printing houses. Unlike many of the low quality carbon steel on the market our 300 series has more carbides / μm^2 in the steel microstructure.

PrimeBlade® 400 (Stainless)

A better choice of blade when corrosion is an issue. Enhanced rust resistance properties when water based inks are used. Performs well against fast oxidation of the blade tip and abrasive conditions. Produced with a refined particle microstructure and denser particle distribution, helping to protect against steel particle contamination of the inking system. Hardened stainless steel and heat treated. Improves doctor blade life compared to carbon steel.

PrimeBlade® 500 (Refined stainless)

Used when extended lifetime is desired. Improved against fast oxidation of the blade tip and abrasive conditions, as well as against steel particle contamination of the inking system. Produced with an excellent particle microstructure and denser particle distribution. Hardened stainless steel and heat treated to reach our high quality standards. Excellent against corrosion problems when water based inks are used.

PrimeBlade® 600 (Refined carbon)

Our 300 series times two—twice as many carbides/ μm^2 . Wears down into much finer particles, causing less print complications and extending blade life. A high quality carbon steel, compared to other carbon steel blades.

PrimeBlade® 800 (Micro alloyed tool steel)

Special micro alloyed tool steel with increased hardness and ductility for improved wear resistance and superior blade life.

**NEW
PATENTED
NANO
TECHNIQUE**

PrimeBlade® 900 Nano (Nano-treated)

New revolutionary patented metallurgic treated steel blades. We're the only supplier of these exclusive and incomparable blades.

We developed them together with our partners in Nano technology because printers were looking for a solution to increase productivity, printing quality and reduce downtime due to the lack of blade longevity. The latest Nano technology has been used to optimize the properties and performance of the steel.

The blade will outlast any non-ceramic blade on the market, without any of the brittleness associated with long life blades. The friction towards the cylinder or anilox roll is reduced by approx 40–60%. Printing

quality is significantly increased. Treatments do not have any of the harmful environmental side effects that the commonly used ceramic and nickel coatings have.

PrimeBlade® Type 900 Nano advantages:

- Longer life wear resistance
- Perfect towards abrasive inks, such as white inks etc.
- Less adjustment of the doctor blade chamber
- Breaks down in much smaller particles
- Reduction of 40–60% friction on the cylinder
- Maximized print quality
- Cleaner wipe
- No ceramic particles involved
- Less particles sticking to the blade

PrimeBlade® 900 Nano I

**SPECIAL TREATED
REFINED CARBON
STEEL**

Thickness: 0,076 mm –
0,38 mm
Straightness: 1,0 mm/
3000 mm
Hardness: 850 HV
(top surface only)

PrimeBlade® 900 Nano II

**SPECIAL TREATED
REFINED STAINLESS
STEEL**

Thickness: 0,076 mm –
0,38 mm
Straightness: 1,0 mm/
3000 mm
Hardness: 850 HV
(top surface only)

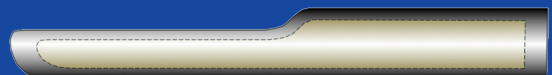
PrimeBlade® 900 Nano III

**SPECIAL TREATED
MICRO ALLOYED TOOL
STEEL**

Thickness: 0,15 mm –
0,30 mm
Straightness: 1,0 mm/
3000 mm
Hardness: 850 HV
(top surface only)



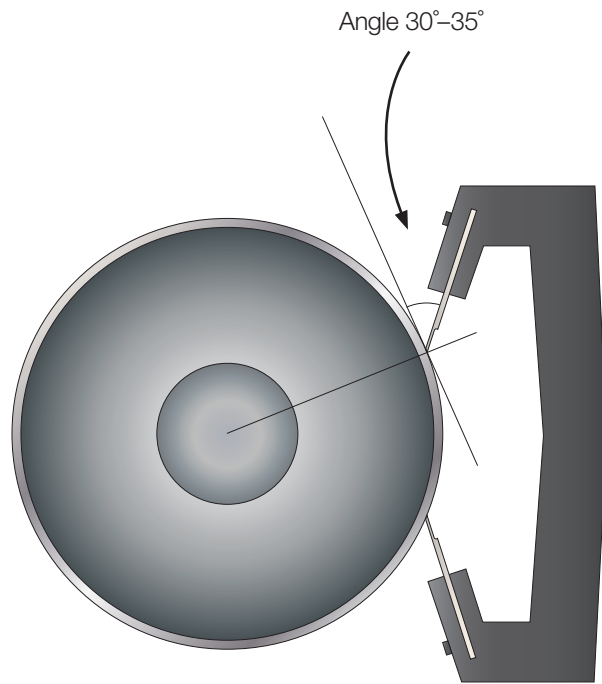
Non-treated



Nano-treated

FLEXO CHAMBER SETTING

Use the same blade type and edge on both sides. There is less chamber pressure against the anilox and a more controllable and uniform ink transfer. Different blade types can cause uneven pressure against the anilox.



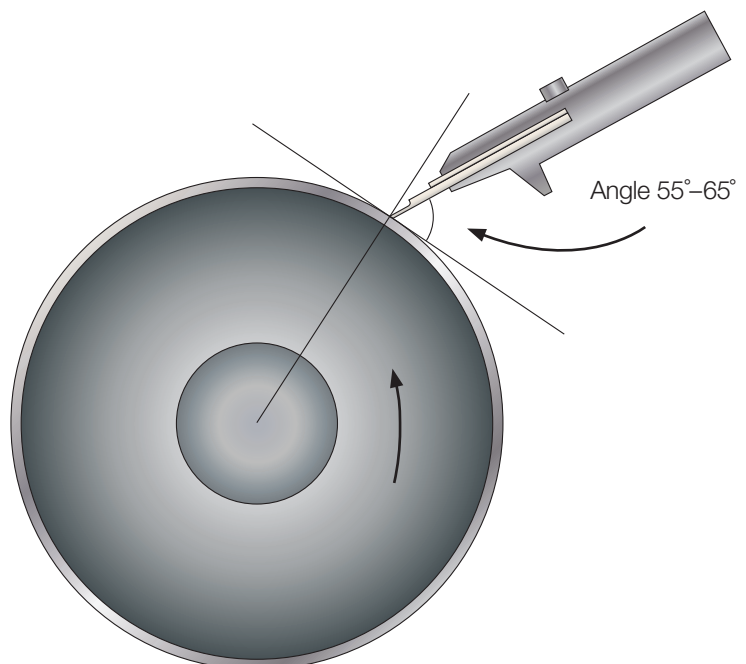
COUNTER/ SUPPORT BLADE

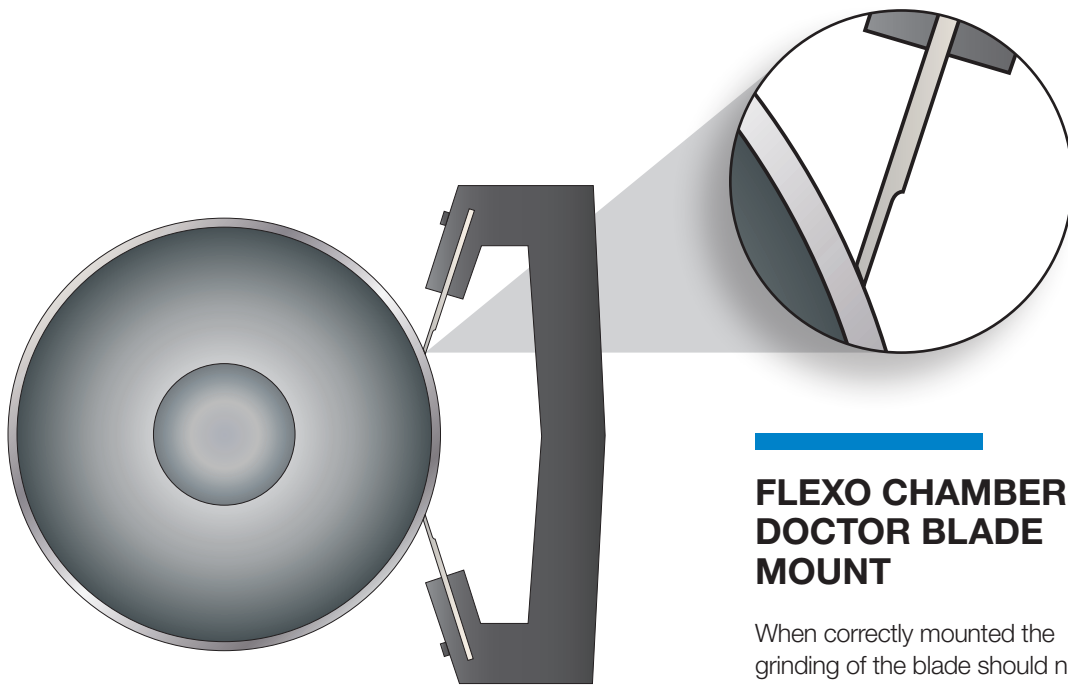
To reduce doctor blade force and wear at cylinder ends cut back-up blade/ counter blade at an angle at each end. Upper cut (at the red line) in back-up/ counter blade must stop min 10–20 mm from cylinder end at full oscillation on each side. Effect is lost if the cut point does not always stay on the cylinder surface area.



GRAVURE SETTINGS

Angle set-up is 55°–65° against the printing cylinder for a cleaner wipe and less risk of 'metal-hair' forming on the blade edge. Lower angles increase the risk of print defects. Lower blade pressure can be used with a higher blade angle.



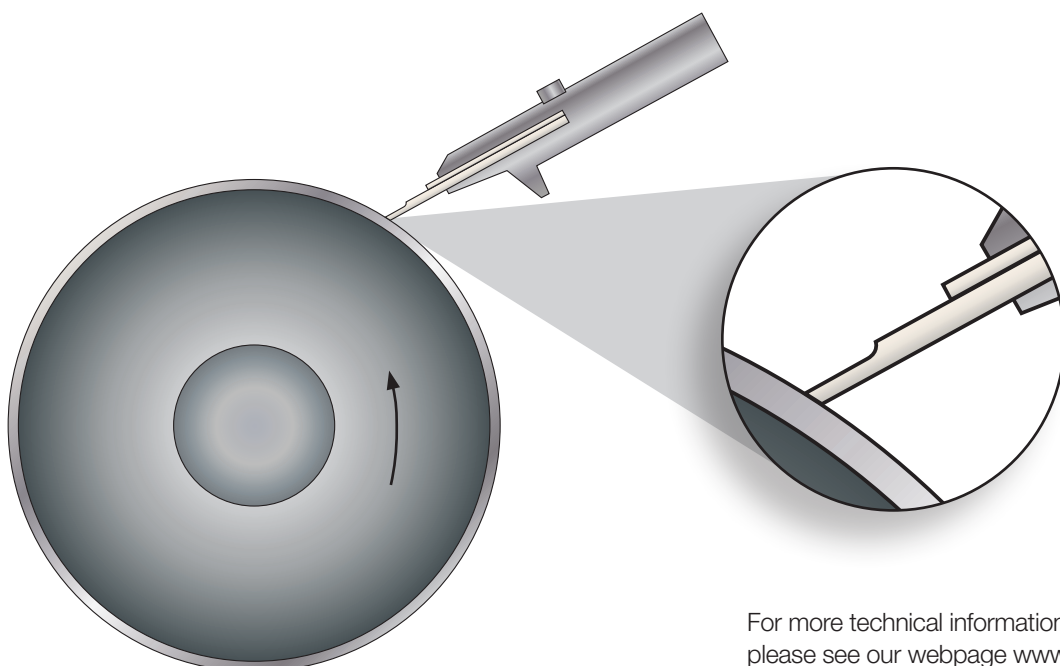


FLEXO CHAMBER DOCTOR BLADE MOUNT

When correctly mounted the grinding of the blade should not be visible, i.e. inside the chamber.

GRAVURE OR SINGLE BLADE FLEXO MOUNT

Mount the lamella doctor blade in the blade holder so the grinded side faces away from the printing cylinder or anilox.



For more technical information,
please see our webpage www.primeblade.se

