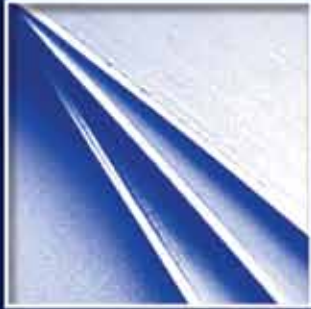


# BLADES





*I*t takes more than just a great idea to start a company. It takes the right market focus, a good management and an extensive network of resources and industry contacts to build a successful enterprise.

Convertech Equipment Pvt. Ltd., an ISO 9001:2000 certified company manufactures high quality Doctor Blades for Rotogravure & Flexographic printing. It's growth from traditional roots in early 1990s has been characterised and fostered by people and personalities into an ultra-modern manufacturing plant in which dimensions have changed, but not the quality demand of the founders.

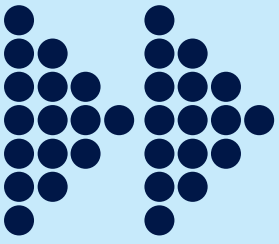
Further, product care and constant willingness to improve and innovate has been our second nature.

CONVERTECH DOCTOR BLADES

DOCTOR BLADES

DOCTOR BLADES

CONVERTECH



# CONTINUING EXCELLENCE

## TECHNICAL SPECIFICATIONS

**BONUS** - high precision Doctor Blades are manufactured from a highly refined strip steel specially selected for doctor blades. The final product is finished with an extra smooth edge ensuring that the blades perform a clean wiping action on the gravure cylinder/anilox roller immediately on start-up. Bonus Doctor Blades are used for Rotogravure & Flexographic printing, as well as for coating applications – an essential part of the process for achieving top quality printing.

These doctor blades are available in several varieties and edge configurations based on customer applications and process requirements. These are enumerated here under:

### HIGH CARBON STEEL BLADES

**BONUS - STANDARD** : High density carbon steel doctor blades having a refined microstructure suitable for Standard Rotogravure & Flexographic printing and coating applications with solvent and water based inks.

**BONUS - PLUS** : High density carbon steel doctor blades having an Ultra-refined microstructure which allows for low friction doctoring with minimum wear ensuring long running life. This blade is useful for long run jobs and/or when working with abrasive inks to ensure efficient printing press performance with minimum downtime.

**BONUS - ULTRA PLUS** : Premium High Quality doctor blade manufactured from a specially formulated steel suitable for low pressure doctoring at high line speeds with even longer running life. Suitable for both Gravure and Flexo printing.

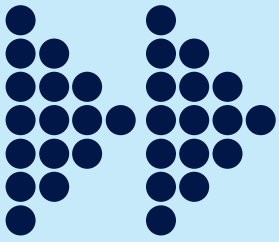
### BONUS - EXCEL

Top of the line High performance doctor blade offering long running life with excellent properties to eliminate streaks and drag outs. Suitable for high quality Rotogravure and Flexographic printing.

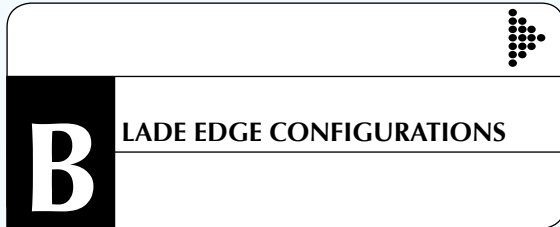
### STAINLESS STEEL BLADES

#### BONUS - STAINLESS

Ultra-refined High quality doctor blades for high corrosion resistance and long running life. Useful when printing with water based inks with high pH value.

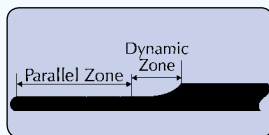


# CONTINUING EXCELLENCE



**BONUS Doctor Blades** are available in several edge configurations:

## LAMELLA EDGE



BONUS Doctor Blade

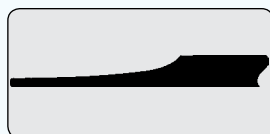
Also commonly called STEP Edge, it is the most commonly used edge configuration preferred by customers.

Incorporating the latest technology, **BONUS Doctor Blades** increase productivity, improve quality and reduce wastage or rejections. The unique shape of the lamella ensures that a constant contact area with the cylinder is maintained throughout the life of the blade, resulting in uniform printing during the print run. Thus no resharpener is required.

The novel shaping process of the lamella also ensures that there are no longitudinal grinding scratches or shed marks. Also, the parallel zone of the lamella ends in a smooth taper called dynamic zone which reduces vibrations and fatigue.

## STRONG LAMELLA

This is basically a lamella type blade where the lamella edge is tapered between 5 to 30 microns, instead of being of a constant thickness. This type of lamella edge helps to minimize print errors in spite of poor doctor blade settings making it a little more "forgiving". The blade has a

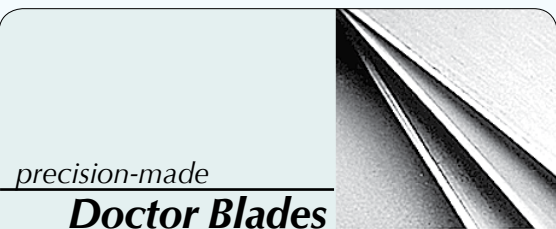


BONUS Doctor Blade

gradual contact edge and has increased strength to better support the lamella.

## OTHER EDGE CONFIGURATIONS

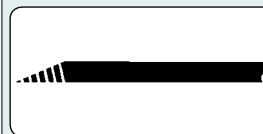
Are available on request, e.g., Round Edge Blades.



*precision-made*

## Doctor Blades

## *The Bonus Advantage over conventional blades*

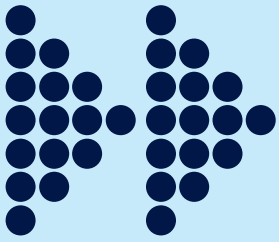


Conventional Doctor Blade



BONUS Doctor Blade

- The blade life is at least upto 6 times longer than a conventional blade.
- The contact area remains constant throughout the entire life of the doctor blade.
- No change in the tonal values through blade wear.
- Minimal doctor blade pressure reduces chrome destruction and extends cylinder life.
- Less wastage and rejections.
- No running-in time required.
- No doctor blade grinding equipment required.
- Less downtime caused through replacement of doctor blades
- Constant conditions for proofing (no tonal variations and easy colour matching).

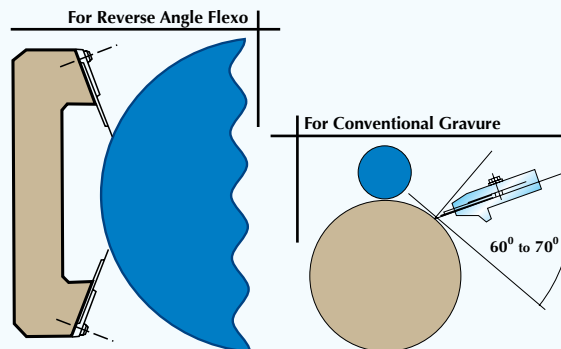


# CONTINUING EXCELLENCE

P

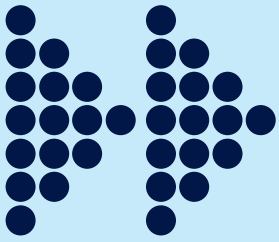
**PRODUCT SPECIFICATIONS**

**BONUS** Doctor Blades are available in different widths and thicknesses to suit your specific requirement. This section helps you choose the right one for your machine and application.

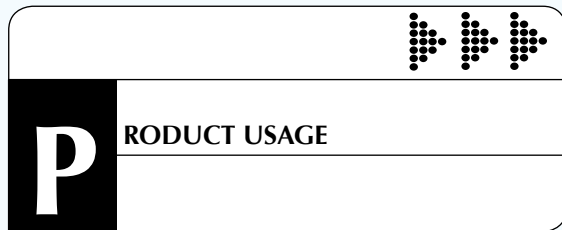


**Product Specification**

BONUS Doctor Blade type	Standard/Plus/Stainless Steel
Application	Rotogravure and Flexographic printing with solvent based inks and coatings
Steel	High quality precision "carbon & stainless strip steel"
Packing	Rolls in dispenser boxes & pre-cut to size (price addition)
Blade width	10 - 80 mm
Blade thickness	0.15 mm/0.20 mm - other thicknesses on demand
Lamella	50-125 µm +/- 5 µm On request specified lamella can be provided



# CONTINUING EXCELLENCE



Keeping ink off non-image areas is a fundamental concern in every printing process. In offset, such control is a complex interaction of ink, water, plate and blanket.

In **Gravure**, it is a mechanical operation, simpler in nature but with its own complexities. The action of the doctor blade is fundamental to the successful operation of a gravure press. It must operate durably and efficiently to ensure the excellent quality, high speed and consistency required for modern gravure operations. **"BONUS"** Doctor Blades are also widely used in coating applications as well as **Flexographic printing**, that is, wherever control over ink or coating is essential in the process of printing.

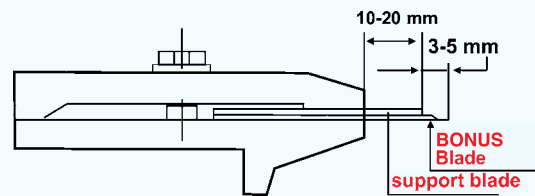
Proper mounting and usage of doctor blades on the printing press ensures that you get longer life and excellent wiping action from the doctor blade.

## Preparation for mounting BONUS Doctor Blades

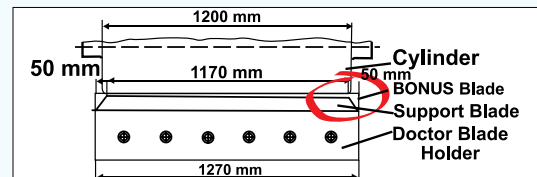
- The Blade Holders must be clean at all times. No ink sedimentation between the blade and the Blade Holder should be permitted.
- Ensure that the blade fits firmly and without undulations at all times.
- Mount the Doctor Blade in the Blade Holder and ensure that it fits uniformly. The lamella should face upwards and be visible.
- Always tighten the screws from the middle outwards. The distance between the Support Blade tip and the Blade Holder should be about 10-20 mm.
- The Support Blade must be clean and uniform and should be mounted on top of the doctor blade as

shown in the figure below. To permit flexibility and proper lubrication, the thickness of the support blade should be from 0.3 — 0.4 mm.

To give more flexibility at the doctor blade

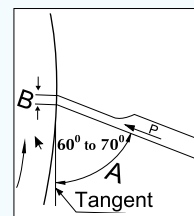


ends, the edges of the Support Blade should be tapered. This will increase the working life of the printing cylinder as well as the doctor blade.



## Contact Angle and Pressure

The doctor blade contact angle is one of the most important points in order to achieve a brilliant and clean printing result.



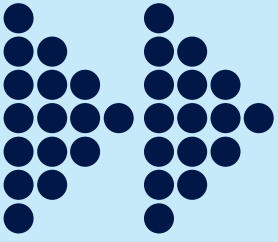
If the angle is set to the ideal 60 to 70 degrees, the contact area between the blade and the cylinder will be minimal.

Having a minimal contact width will automatically allow the operator to use a minimum of doctor blade pressure. The lower pressure will allow for a longer doctor blade life as well as much less cylinder wear.

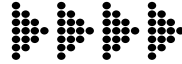
Adjust the Blade Holder for uniform setting. Gently increase the pressure till a good wipe is obtained.

## Rounding the cylinder ends (Radius)

The cylinder edges should be rounded with a 3-5 mm radius to minimize doctor blade wear as it oscillates on the face of the cylinder.



# CONTINUING EXCELLENCE



## M

### MISCELLANEOUS SUGGESTIONS

- To obtain a good wipe, the roughness of the cylinder after plating, should be between 0.3-0.5 microns for films/foils, and 0.5-0.8 microns for paper. This will also help the lubrication of the blade.
- Inspect the Lamella (BladeTip) for any accumulation of ink or dirt. If such accumulation occurs, clean with pencil styled sharpened bit of wood, applying light pressure.
- If the same blade is being used for various substrates, before changeover, clean the blade tip with fine abrasive paper #600.

***Our specialists have a thorough knowledge of the Rotogravure & Flexographic printing process, which allows them to suggest optimal solutions/remedies to your doctoring & other printing related problems.  
So come and talk to us!***

#### WHAT TO ORDER?

70 µm for gravure — general packaging, plastic films and foils

100 µm for gravure — paper and decor printing

100 µm for flexo, ANILOX, coatings

125 µm for flexo, ANILOX in conjunction with ceramic rolls



***Dispenser Box*** \_\_\_\_\_  
***the perfect protection***  
***for transport & storage*** \_\_\_\_\_

Easy unreeling



No danger of injuries



Made of corrugated cardboard for  
ecological recycling or disposal

eco-friendly

***Packaging***





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