

**RACLA**<sup>®</sup>  
RACLA DOCTOR BLADE

**PROD. RACLE DOCTOR BLADE**

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Reg. Soc. Trib. Busto A.- R.E.A. 256826 – C.C.I.A.A. Varese n 12861  
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## History

Racobla Srl is a leading company in the manufacture of Racle - Doctor Blade for flexographic, tampon printing and gravure.

Founded in 1980's by Leontino Zennaro, Rabobla Srl is a modern and technology society based on the high quality in the production of Racle - Doctor Blade. In fact the name comes from the two fist letters of Racle - Doctor Blade – Ra do bla.

Thanks to our experience in manufacturing and realisation on costumers specification as well as a strong co-operation with our clients and the use of technologically advanced equipments, our Racle - Doctor Blade grant high-quality standards because they are made with high technical specifications and certified steels.

The perfect co-operation between our skilled and competent staff and the technical departments of our clients has facilitated the solution of any kind of problem and provide personalized products.

We follow the manufacturing step by step, by checking every phase thoroughly, while our customer service staff is always at client's disposal for any information regarding our production.

This has enabled us to establish and keep business partnership with important companies both on a national and international market.

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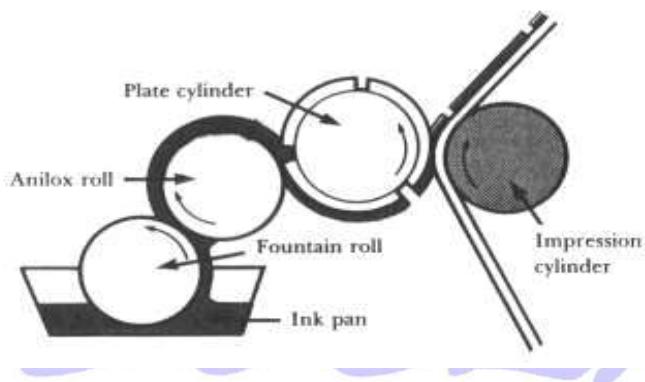
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## Flexography

Flexographic presses are capable of producing good quality impressions on many different substrates and is the least expensive and simplest of the printing processes used for decorating and packaging printing. The use of flexographic printing presses is on the rise. There are two primary reasons for this: 1) it is a relatively simple operation; and 2) it is easily adapted to the use of water-based inks. The widespread use of water-based inks in flexographic printing means a large reduction in VOC emission compared to the heat set web or gravure printing processes.

It is also known as flexographic printing or flexo.

Flexography is a form of rotary web letterpress, combining features of both letterpress and rotogravure printing, using relief plates comprised of flexible rubber or photopolymer plates and fast drying, low viscosity solvent, water-based or UV curable inks fed from an "Anilox" or two roller inking system. The flexible (rubber or photopolymer) plates are mounted onto the printing cylinder with double-faced adhesive. Plates are sometimes backed with thin metal sheets and attached to the cylinder with fastening straps for close register or ink alignment. This adds additional cost to the plate and requires more makeready time, but when quality printing is critical this type of plate can make the difference.



Flexography uses fast-drying inks, is a high-speed print process, can print on many types of absorbent and non-absorbent materials, and can print continuous patterns (such as for gift wrap and wallpaper). Some typical **applications** for flexography are paper and plastic bags, milk cartons, disposable cups, and candy bar wrappers. Flexographic printing may also be used for envelopes, labels, newspapers, comics, directories, newspaper inserts, catalogues, foil, acetate film, brown paper, and other materials used in packaging.

Large quantities of inks are used during normal runs on flexographic presses; however, some printers are able to recycle a majority of their spent inks and wash waters. Major chemicals used in flexography include plate making solution, water and solvent based inks, and blanket/roller cleaning solvents.

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## Tampon printing

Pad printing is a printing process that can transfer a 2-D image onto a 3-D object. This is accomplished using an indirect offset (gravure) printing process that involves an image being transferred from the printing plate (cliché) via a silicone pad onto a substrate (surface to be printed). Pad printing is used for printing on otherwise impossible products in many industries including medical, automotive, promotional, apparel, electronics, appliances, sports equipment and toys. It can also be used to deposit functional materials such as conductive inks, adhesives, dyes and lubricants.

The tampon printing process is used to transfer the ink from an etched printing plate to any kind of surface using a silicone rubber pad. The main advantage of this method of printing is its ability to print on virtually any kind of irregular surface. It is used to print plastics, metals and ceramics for use in the industrial, automotive, white goods and retail markets.

It is also known as pad printing.

Tampon printing began to conquer market in the early 1970's, especially in printing areas where other methods showed their limits or could not be used altogether.

- Printing irregular shapes and surfaces
- Printing complicated substrates at a reasonable speed
- Printing of fine detailed images
- High quality printing on irregular surfaces.



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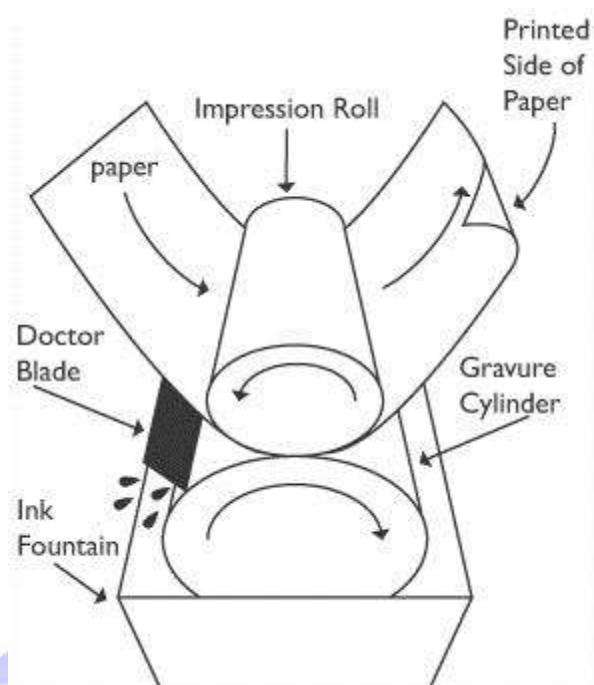
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## Gravure

Rotogravure is a type of intaglio printing process; that is, it involves engraving the image onto an image carrier. In gravure printing, the image is engraved onto a cylinder because, like flexography, it uses a rotary printing press. The vast majority of gravure presses print on rolls (also known as webs) of paper, rather than sheets of paper. (Sheetfed gravure is a small, specialty market.)

It is also known as roto or helio gravure.



Rotary gravure presses are the fastest and widest presses in operation, printing everything from narrow labels to 4 m -wide rolls of vinyl flooring. Additional operations may be in-line with a gravure press, such as saddle stitching facilities for magazine/brochure work. Once a staple of newspaper photo features, the rotogravure process is still used for commercial printing of magazines, postcards, and corrugated (cardboard) product packaging.

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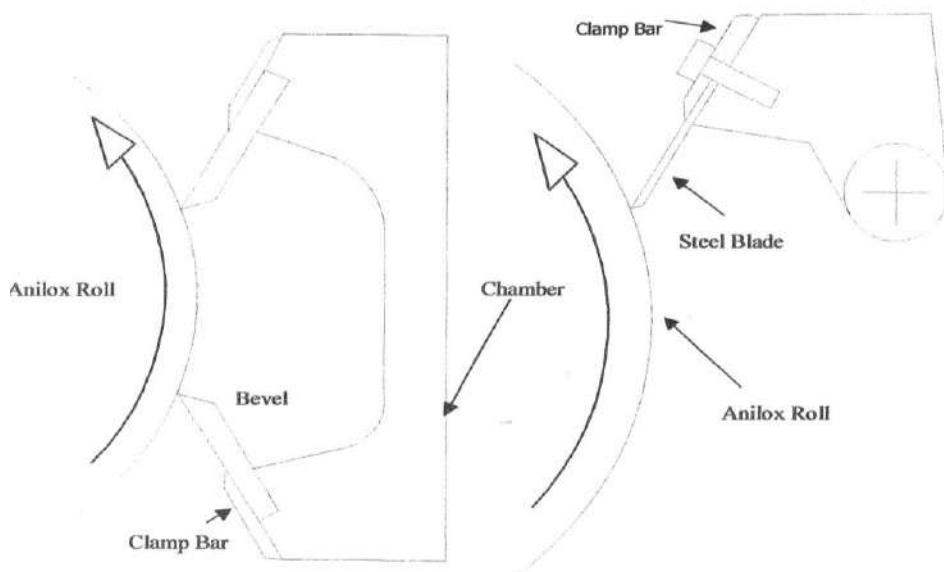
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## Product specifications

Radobla DB are available in different widths and thickness to suit your specific requirement. This section helps you choose the right one for your machine and application.



Radobla DB type	Specification	Radobla
Application	Rotogravure and Flexographic printing with solvent based inks and coatings	
steel	High quality precision carbon and stainless strip steel	
packing	Rolls in dispenser boxes & pre-cut to size (price addition)	50m /100m
Blade width	10-80 mm	8 - 80mm
Blade thickness	0.15 mm/0.20 mm	0.08 – 0.50 mm
Lamella width	0.05 -0.125 mm	0.05 – 0.15 mm; special lamella on request
Lamella thickness	1.3 – 1.7	1.2 – 1.8; special lamella on request

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**These are our Edge:**

**TYPE BN/BE PRINTING DOCTOR BLADES**

These blades are traditional blades with full thickness thought the width with both edge rounded. They are generally supplied with edges rounded extra smooth, mirror polished. They are ready to use.

**TYPE PA PRINTING DOCTOR BLADES**

These blades are with lamella edge or with a step edge, which is thinner than blade thickness. They are supplied with one deburred edge and other with lamella a constant reduction of thickness of blades with a round extra smooth mirror polished edge to help the quick set up of the blades reducing the waste.

These type of blades are most frequently used in gravure, flexo and tamp graphic printing particularly in the publication industry.

**TYPE LA PRINTING DOCTOR BLADES**

These blades are bevelled/ sharp with a normal bevel from 3° to 87° on request. They are supplied with one deburred edge and the bevelled edge polished.

This blade is a particular type of LA printing doctor blades.

**TYPE PL & PLP PRINTING DOCTOR BLADES**

These blades are made of special plastic, polyester or polyethylene for flexo and corrugated printing .

They can be supplied with rectangular deburred edges or bevelled/ sharp ( standard angle 20° or on request ) with long bevelled/ sharp, lamella tip or log lamella tip or with rounded edge

These blades are frequently used in flexo-printing machines as containment blades or as working blades in narrow web sector (polyester).

Polyethylene blades are common used in corrugated printing or with glues.

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**These are our Special Edge:**



**TYPE PAS PRINTING DOCTOR BLADES**

These blades are a lamella or step blades with a long lamella usually from 1.8 mm to 3.

The long lamella is ideal for long work, the conformity of edge permit a quick start up on the machine and the long lamella improve the blades life time.

This edge is available both for steel and plastic ( KITO & ADA Blades)



**TYPE LAS PRINTING DOCTOR BLADES**

These blades have a long sharp/ bevelled edge up to 2.7 mm suitable for work that need high pressure and high speed adaption of blade.  
Available for steel blades (LAS blades ) and for plastic blades (LUXOR Blades )

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**TYPE ZEUS PLASTIC BLADES**

These special rounded edge for polyethylene plastic blades born on our customers request for a blades with high performances during glue's spreading

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## Technical specifications

Radobla Doctor Blades are used for Rotogravure & Flexographic printing everywhere you can use the Doctor Blades, as well as for coating applications.

Our DB are available in several varieties and edge configurations based on customer applications and process requirements.

### Carbon steel blades – C.S. R1

Carbon steel doctor blades having a refined microstructure suitable for standard Rotogravure & Flexographic printing and coating applications with solvent.

COD.PROD.	SIZE	TRADITIONAL	LAMELLA	SHARP
-----------	------	-------------	---------	-------

010008	10 X 0,08	*
020008	20 X 0,08	*
030008	30 X 0,08	*
040008	40 X 0,08	*
050008	50 X 0,08	*
060008	60 X 0,08	*

020010	20 X 0,10	*	*	*
025010	25 X 0,10	*	*	*
030010	30 X 0,10	*	*	*
035010	35 X 0,10	*	*	*
040010	40 X 0,10	*	*	*
050010	50 X 0,10	*	*	*
060010	60 X 0,10	*	*	*

020015	20 X 0,15	*	*	*
025015	25 X 0,15	*	*	*
030015	30 X 0,15	*	*	*
035015	35 X 0,15	*	*	*
038015	38 X 0,15	*	*	*
040015	40 X 0,15	*	*	*
045015	45 X 0,15	*	*	*
050015	50 X 0,15	*	*	*
060015	60 X 0,15	*	*	*
070015	70 X 0,15	*	*	*

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COD.PROD.	SIZE	TRADITIONAL	LAMELLA	SHARP
020020	20 X 0,20	*	*	*
025020	25 X 0,20	*	*	*
030020	30 X 0,20	*	*	*
035020	35 X 0,20	*	*	*
040020	40 X 0,20	*	*	*
045020	45 X 0,20	*	*	*
050020	50 X 0,20	*	*	*
060020	60 X 0,20	*	*	*
020025	20 X 0,25	*	*	*
030025	30 X 0,25	*	*	*
035025	35 X 0,25	*	*	*
040025	40 X 0,25	*	*	*
050025	50 X 0,25	*	*	*
060025	60 X 0,25	*	*	*
020030	20 X 0,30	*	*	*
025030	25 X 0,30	*	*	*
030030	30 X 0,30	*	*	*
040030	40 X 0,30	*	*	*
050030	50 X 0,30	*	*	*
060030	60 X 0,30	*	*	*
070030	70 X 0,30	*	*	*
020040	20 X 0,40	*	*	*
030040	30 X 0,40	*	*	*
035040	35 X 0,40	*	*	*
040040	40 X 0,40	*	*	*
050040	50 X 0,40	*	*	*
060040	60 X 0,40	*	*	*
070040	70 X 0,40	*	*	*
020050	20 X 0,50	*	*	*
030050	30 X 0,50	*	*	*
040050	40 X 0,50	*	*	*
050050	50 X 0,50	*	*	*
060050	60 X 0,50	*	*	*
070050	70 X 0,50	*	*	*

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**Carbon steel blades – C.S. R2**

Carbon steel doctor blades having a composition and hardness suitable for standard Labels, Narrow and Wide Web Flexographic printing and coating applications with solvent

COD.PROD.	SIZE	TRADITIONAL	LAMELLA	SHARP
010015	10 X 0,15	*	*	*
015015	15 X 0,15	*	*	*
020015	20 X 0,15	*	*	*
025015	25 X 0,15	*	*	*
030015	30 X 0,15	*	*	*
035015	35 X 0,15	*	*	*
038015	38 X 0,15	*	*	*
040015	40 X 0,15	*	*	*
045015	45 X 0,15	*	*	*
050015	50 X 0,15	*	*	*
060015	60 X 0,15	*	*	*
070015	70 X 0,15	*	*	*
010020	10 X 0,20	*	*	*
015020	15 X 0,20	*	*	*
020020	20 X 0,20	*	*	*
025020	25 X 0,20	*	*	*
030020	30 X 0,20	*	*	*
035020	35 X 0,20	*	*	*
040020	40 X 0,20	*	*	*
045020	45 X 0,20	*	*	*
050020	50 X 0,20	*	*	*
060020	60 X 0,20	*	*	*

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**SUPPORTING BLADES**

**BLUE STEEL – R4**

COD. PROD.	SIZE	TRADITIONAL
020040	20 X 0,40	*
030040	30 X 0,40	*
040040	40 X 0,40	*
050040	50 X 0,40	*
060040	60 X 0,40	*
070040	70 X 0,40	*
080040	80 X 0,40	*
020050	20 X 0,50	*
030050	30 X 0,50	*
040050	40 X 0,50	*
050050	50 X 0,50	*
060050	60 X 0,50	*
070050	70 X 0,50	*
080050	80 X 0,50	*
020060	20 X 0,60	*
030060	30 X 0,60	*
040060	40 X 0,60	*
050060	50 X 0,60	*
060060	60 X 0,60	*
070060	70 X 0,60	*
080060	80 X 0,60	*

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**CLASSIFICATION - R3**

COD.PROD.	SIZE	TRADITIONAL	LAMELLA	SHARP
010010	10 X 0,10	*		
020010	20 X 0,10	*		
030010	30 X 0,10	*		
035010	35 X 0,10	*		
040010	40 X 0,10	*		
050010	50 X 0,10	*		
060010	60 X 0,10	*		
020015	20 X 0,15	*	*	*
025015	25 X 0,15	*	*	*
030015	30 X 0,15	*	*	*
035015	35 X 0,15	*	*	*
040015	40 X 0,15	*	*	*
045015	45 X 0,15	*	*	*
050015	50 X 0,15	*	*	*
060015	60 X 0,15	*	*	*
020020	20 X 0,20	*	*	*
025020	25 X 0,20	*	*	*
030020	30 X 0,20	*	*	*
035020	35 X 0,20	*	*	*
040020	40 X 0,20	*	*	*
045020	45 X 0,20	*	*	*
050020	50 X 0,20	*	*	*
060020	60 X 0,20	*	*	*
020025	20 X 0,25	*	*	*
025025	25 X 0,25	*	*	*
030025	30 X 0,25	*	*	*
035025	35 X 0,25	*	*	*
040025	40 X 0,25	*	*	*
050025	50 X 0,25	*	*	*
060025	60 X 0,25	*	*	*

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020025	20 X 0,25	*	*	*
025025	25 X 0,25	*	*	*
030025	30 X 0,25	*	*	*
035025	35 X 0,25	*	*	*
040025	40 X 0,25	*	*	*
050025	50 X 0,25	*	*	*
060025	60 X 0,25	*	*	*

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**CLASSIFICATION R<sub>3</sub> SUN**

COD.PROD.	SIZE	TRADITIONAL	LAMELLA	SHARP
020015	20 X 0,15	*	*	*
025015	25 X 0,15	*	*	*
030015	30 X 0,15	*	*	*
035015	35 X 0,15	*	*	*
038015	38 X 0,15	*	*	*
040015	40 X 0,15	*	*	*
045015	45 X 0,15	*	*	*
050015	50 X 0,15	*	*	*
060015	60 X 0,15	*	*	*
070015	70 X 0,15	*	*	*
020020	20 X 0,20	*	*	*
025020	25 X 0,20	*	*	*
030020	30 X 0,20	*	*	*
035020	35 X 0,20	*	*	*
038020	38 X 0,20	*	*	*
040020	40 X 0,20	*	*	*
045020	45 X 0,20	*	*	*
050020	50 X 0,20	*	*	*
060020	60 X 0,20	*	*	*
070020	70 X 0,20	*	*	*
020025	20 X 0,25	*	*	*
025025	25 X 0,25	*	*	*
030025	30 X 0,25	*	*	*
035025	35 X 0,25	*	*	*
040025	40 X 0,25	*	*	*
050025	50 X 0,25	*	*	*
060025	60 X 0,25	*	*	*

Other size available on request

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**LEOPRINT COATING D.B.**

COD.PROD.	SIZE	TRADITIONAL	LAMELLA	SHARP EDGE
020010	20 X 0,10	*	*	*
025010	25 X 0,10	*	*	*
030010	30 X 0,10	*	*	*
035010	35 X 0,10	*	*	*
040010	40 X 0,10	*	*	*
050010	50 X 0,10	*	*	*
060010	60 X 0,10	*	*	*
020015	20 X 0,15	*	*	*
030015	30 X 0,15	*	*	*
040015	40 X 0,15	*	*	*
050015	50 X 0,15	*	*	*
060015	60 X 0,15	*	*	*
070015	70 X 0,15	*	*	*
020020	20 X 0,20	*	*	*
030020	30 X 0,20	*	*	*
040020	40 X 0,20	*	*	*
050020	50 X 0,20	*	*	*
060020	60 X 0,20	*	*	*
070020	70 X 0,20	*	*	*
020025	20 X 0,25	*	*	*
030025	30 X 0,25	*	*	*
040025	40 X 0,25	*	*	*
050025	50 X 0,25	*	*	*
060025	60 X 0,25	*	*	*
070025	70 X 0,25	*	*	*
020030	20 X 0,30	*	*	*
030030	30 X 0,30	*	*	*
040030	40 X 0,30	*	*	*
050030	50 X 0,30	*	*	*
060030	60 X 0,30	*	*	*
070030	70 X 0,30	*	*	*

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**NMB PRINT COATING D.B.**

COD.PROD.	SIZE	TRADITIONAL	LAMELLA	SHARP EDGE
020010	20 X 0,10	*		
025010	25 X 0,10	*		
030010	30 X 0,10	*		
035010	35 X 0,10	*		
040010	40 X 0,10	*		
050010	50 X 0,10	*		
060010	60 X 0,10	*		
020015	20 X 0,15	*	*	*
030015	30 X 0,15	*	*	*
040015	40 X 0,15	*	*	*
050015	50 X 0,15	*	*	*
060015	60 X 0,15	*	*	*
070015	70 X 0,15	*	*	*
020020	20 X 0,20	*	*	*
030020	30 X 0,20	*	*	*
040020	40 X 0,20	*	*	*
050020	50 X 0,20	*	*	*
060020	60 X 0,20	*	*	*
070020	70 X 0,20	*	*	*
020025	20 X 0,25	*	*	*
030025	30 X 0,25	*	*	*
040025	40 X 0,25	*	*	*
050025	50 X 0,25	*	*	*
060025	60 X 0,25	*	*	*
070025	70 X 0,25	*	*	*
020030	20 X 0,30	*	*	*
030030	30 X 0,30	*	*	*
040030	40 X 0,30	*	*	*
050030	50 X 0,30	*	*	*
060030	60 X 0,30	*	*	*
070030	70 X 0,30	*	*	*

**PROD. RACLE DOCTOR BLADE**

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Reg. Soc. Trib. Busto A.- R.E.A. 256826 – C.C.I.A.A. Varese n 12861

C.F.: 02410830125 – P.I: 02410830125

e-mail: info@radobla.com

**STAINLESS STEEL BLADES**

Ultra-refined high quality DB for high corrosion resistance and long running life. Useful when printing with water based inks with high PH value.

COD.PROD.	SIZE	TRADITIONAL	LAMELLA	SHARP EDGE
020010	20 X 0,10	*	*	*
025010	25 X 0,10	*	*	*
030010	30 X 0,10	*	*	*
035010	35 X 0,10	*	*	*
040010	40 X 0,10	*	*	*
050010	50 X 0,10	*	*	*
060010	60 X 0,10	*	*	*
020015	20 X 0,15	*	*	*
030015	30 X 0,15	*	*	*
040015	40 X 0,15	*	*	*
050015	50 X 0,15	*	*	*
060015	60 X 0,15	*	*	*
070015	70 X 0,15	*	*	*
080015	80 X 0,15	*	*	*
020020	20 X 0,20	*	*	*
030020	30 X 0,20	*	*	*
040020	40 X 0,20	*	*	*
050020	50 X 0,20	*	*	*
060020	60 X 0,20	*	*	*
070020	70 X 0,20	*	*	*
080020	80 X 0,20	*	*	*
020025	20 X 0,25	*	*	*
030025	30 X 0,25	*	*	*
040025	40 X 0,25	*	*	*
050025	50 X 0,25	*	*	*
060025	60 X 0,25	*	*	*
070025	70 X 0,25	*	*	*
080025	80 X 0,25	*	*	*

**PROD. RACLE DOCTOR BLADE**

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COD.PROD.	SIZE	TRADITIONAL	LAMELLA	SHARP EDGE
020030	20 X 0,30	*	*	*
030030	30 X 0,30	*	*	*
040030	40 X 0,30	*	*	*
050030	50 X 0,30	*	*	*
060030	60 X 0,30	*	*	*
070030	70 X 0,30	*	*	*
080030	80 X 0,30	*	*	*

**STAINLESS STEEL BLADES FOR TISSUE PRINTING**

COD.PROD.	SIZE	TRADITIONAL	SHARP EDGE
020020	20 X 0,20	*	*
030020	30 X 0,20	*	*
040020	40 X 0,20	*	*
050020	50 X 0,20	*	*
060020	60 X 0,20	*	*
070020	70 X 0,20	*	*
080020	80 X 0,20	*	*
030030	30 X 0,30	*	*
035030	35 X 0,30	*	*
040030	40 X 0,30	*	*
050030	50 X 0,30	*	*
060030	60 X 0,30	*	*
070030	70 X 0,30	*	*

ON REQUEST OTHER SIZE

## PROD. RACLE DOCTOR BLADE

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## DIFFERENCE BETWEEN POLYESTER AND POLYETHYLENE

The Polyester doctor blade is a durable, long-life blade designed to replace steel and reduce Anilox scoring in chambered doctor blade systems.

Polyester's durability and ability to reduce Anilox scoring make it a good value option as a containment blade in wide web and offset coating applications.

Polyester will work in any application as a containment blade. If a steel blade is required to meter, polyester is a great alternative as the containment blade to help reduce scoring.

Performance advantage:

- reduce scoring
- reduces cost
- increased Anilox life
- reduced workplace injury

Market served:

- envelope
- narrow web
- Sheetfed offset
- wide web

Max temperature: 60°C

Polyethylene UHMW doctor blade is the original ultra high molecular weight polyethylene doctor blade developed for reduce scoring and extended life. UHMW is most often used in corrugated and envelope pressrooms as both a metering and containment blade.

Performance advantages:

- standard plastic blade
- increased Anilox life
- reduced workplace injury

**RACLA DOCTOR BLADE**

markets served:

- coating and laminating
- corrugated
- Envelope
- newspaper

Max temperature: 82°C

**PROD. RACLE DOCTOR BLADE**

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**PLASTIC POLYETHYLENE BLADES**

COD.PROD.	SIZE	TRADITIONAL	SHARP EDGE
020080	20 X 0,80	*	*
030080	30 X 0,80	*	*
040080	40 X 0,80	*	*
050080	50 X 0,80	*	*
060080	60 X 0,80	*	*
070080	70 X 0,80	*	*
02010	20 X 1,0	*	*
03010	30 X 1,0	*	*
04010	40 X 1,0	*	*
05010	50 X 1,0	*	*
06010	60 X 1,0	*	*
07010	70 X 1,0	*	*
0201,5	20 X 1,5	*	*
0301,5	30 X 1,5	*	*
0401,5	40 X 1,5	*	*
0501,5	50 X 1,5	*	*
0601,5	60 X 1,5	*	*
0701,5	70 X 1,5	*	*
02020	20 X 2,0	*	*
03020	30 X 2,0	*	*
04020	40 X 2,0	*	*
05020	50 X 2,0	*	*
06020	60 X 2,0	*	*
07020	70 X 2,0	*	*

**PROD. RACLE DOCTOR BLADE**

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**PLASTIC POLYESTER BLADES**

COD.PROD.	SIZE	TRADITIONAL	SHARP EDGE
020020	20 X 0,20	*	*
030020	30 X 0,20	*	*
040020	40 X 0,20	*	*
050020	50 X 0,20	*	*
060020	60 X 0,20	*	*
070020	70 X 0,20	*	*
020035	20 X 0,35	*	*
030035	30 X 0,35	*	*
040035	40 X 0,35	*	*
050035	50 X 0,35	*	*
060035	60 X 0,35	*	*
070035	70 X 0,35	*	*
020050	20 X 0,50	*	*
030050	30 X 0,50	*	*
035050	35 X 0,50	*	*
040050	40 X 0,50	*	*
050050	50 X 0,50	*	*
060050	60 X 0,50	*	*
070050	70 X 0,50	*	*
0201,1	20 X 1,1	*	*
0301,1	30 X 1,1	*	*
0351,1	35 X 1,1	*	*
0401,1	40 X 1,1	*	*
0501,1	50 X 1,1	*	*
0601,1	60 X 1,1	*	*
0701,1	70 X 1,1	*	*

\* OTHER SIZE ARE AVAILABLE ON REQUEST

**PROD. RACLE DOCTOR BLADE**

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## Blade edge configurations

Lama PA -PAX



This is the most commonly used edge configuration preferred by customers. The unique shape of the lamella ensures that a constant contact area with the cylinder is maintained throughout the life of blade.

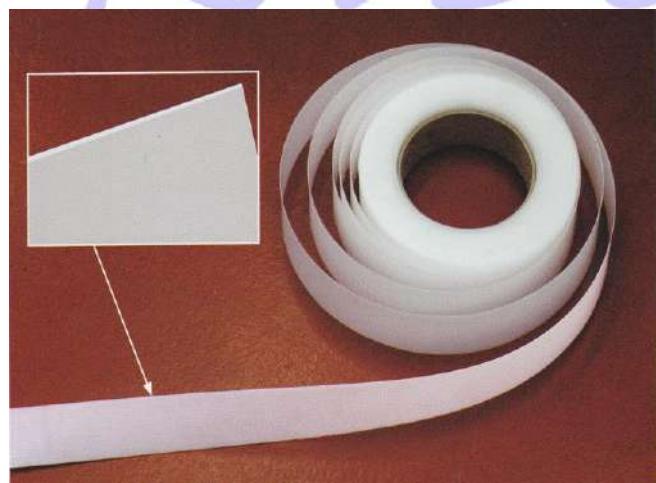
lama affilata- sharp



lama BE -BEX



Lama Squared



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## Coating and packing



Our box is made in recycled-cardboard eco-friendly.

The standard box contain 100m.

Label shows all information about the Blade inside, like batch code, width, thickness, lamella measures, type of material ecc....

RÀDOBLA

The roll inside is protect with polystyrene shrink film.

There is a slot in the box to facilitate the use of

**PROD. RACLE DO**



**PROD. RACLE DOCTOR BLADE**

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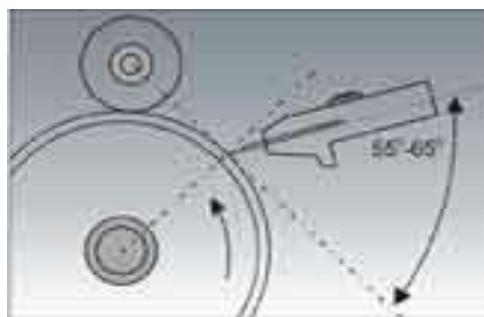
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## Recommended doctor blade settings



- Check blade holder for damages (dents, nicks or bends). Make sure it is clean inside.
- Use a backup blade of >0,5mm thickness.
- Cut backup blade to 45° angle at ends. (To reduce cylinder endwear).
- Set the blades straight in holder. Make sure there is no waviness in blades.
- When bolts/screws are used for tightening of blade holder, tighten from centre and out crosswise. Use a torque-wrench if possible.
- Use measuring tape or other precise measuring tool for setting blade extensions. (Or end-stops/pins if present in blade holder).
- Start with the following blade extensions: Back-up blade 20mm and metering blade 4mm ( $\pm 1$ mm). If necessary increase or decrease back-up extension.
- Check doctor blade tip with nail for nicks. Be careful, it's sharp!
- Tighten blade holder securely to machine.
- Try to get 55-65° attack angle between doctor blade and cylinder.
- Start with a blade pressure of  $\approx 0,5\text{-}1,0$ bar, increase more if there is no clean wipe, but try to use as low blade pressure as possible. (Less blade flex and blade/cylinder wear).
- Set oscillation to  $\approx 20\text{-}25$ mm (If not possible to reach, use maximum stroke length).
- Make sure the oscillation stroke is smooth, without jerks or stops.
- If there is a need to use a "slur-stick" use a very sharp tip and low force (preferably a round stick).

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## Imperial / Metric Conversion chart

**width**

imperial	imperial	metric
3/4 "	0,75"	19,05 mm
	0,787"	20mm
7/8"	0,875"	22,225mm
1"	1"	25,4mm
1 1/2"	1,125"	28,575mm
1 1/4"	1,25"	32mm
1 3/8"	1,375"	35mm
1 1/2"	1,5"	38mm
	1,575"	40mm
1 5/8"	1,625"	41,275mm
1 3/4"	1,75"	44,45mm

**thickness**

imperial	imperial	metric
7/1000	0,007"	0,19mm
10/1000	0,010"	0,25mm
15/1000	0,015"	0,37mm
20/1000	0,020"	0,5mm
25/1000	0,025"	0,64mm
28/1000	0,028"	0,71mm
30/1000	0,030"	0,8mm
35/1000	0,035"	0,9mm
40/1000	0,040"	1 mm
50/1000	0,050"	1,25mm
60/1000	0,060"	1,6mm
70/1000	0,070"	1,8mm
80/1000	0,080"	2mm
90/1000	0,090"	2,3mm
100/1000	0,100"	2,54mm
125/1000	0,125"	3,2mm
157/1000	0,157"	4mm

### Conversion formulas:

mm: 25,4 = inches

inches x 25,4= mm

**PROD. RACLE DOCTOR BLADE**

**RACLA DOCTOR BLADE S.R.L.**

## PROD. RACLE DOCTOR BLADE

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flexo printing issue	cause	solution
adhesion  ink does not adhere sufficiently to the substrate, it can be removed by scraping with nails, crinkling or with a sticky tape	1 ink is not suitable for substrate	1 ensure that the correct ink is being used for the substrate
	2 ink is too thin/thick	2 use the correct viscosity and ensure that the right amount of ink is used. Reduce the dilution or add virgin ink
	3 wrong or weak solvent mixture	3 ensure correct solvent mixture to facilitate good forming and wetting behaviour
	4 inadequate heat or drying applied	4 increase volume and temperature of the air. Certain inks must be fused to the substrate coating
	5 inadequate or over-treatment of substrate surface	5 check treatment level of the substrate
	6 the surface of the substrate was contaminated by solvent or additive	6 wash an area of the substrate and print . Apply an adequate primer
	7 pH value too low (water-based inks)	7 correct pH value as requested
	8 printing on the wrong side of the substrate	8 check the substrate and print on the correct side
blocking  the printed substrate sticks together in the reel even with moderate pressure -or due to variation in temperature. It is impossible to unroll the web	1 the ink does not dry, or dries too slowly on the substrate	1 correct/ adjust the percentage of solvent - use a solvent with higher evaporation level check dryers
	2 trapped solvent/amine in ink film	2 use less heat during start, adjust the viscosity and the ink film thickness. Check dryers
	3 the rewound web is too warm	3 reduce web temperature with a cooling system to a value around 5° C (41°F) of ambient temperature. Install chill rollers or adjust the temperature of the dryer
	4 the rewinding tension is too high	4 reduce web tension
	5 substrate is treated on both sides with different treatment.	5 avoid excessive web tension in the re-winder, apply a non blocking varnish in the last printing unit
	6 plasticisers in substrate tend to migrate (e.g. some vinyl films)	6 avoid excess web tension in the re-winder, use a non-blocking varnish, use non-migrating inks
	7 moisture on web surface	7 avoid over-chilling which allows condensation to form on substrate surface
	8 printing speed is too high	8 adjust printing speed
brittleness	1 excessive heat or too long UV exposure causing moisture and plasticiser migration	1 check web temperature -adjust heat and/ or increase the dryer air volume

## PROD. RACLE DOCTOR BLADE

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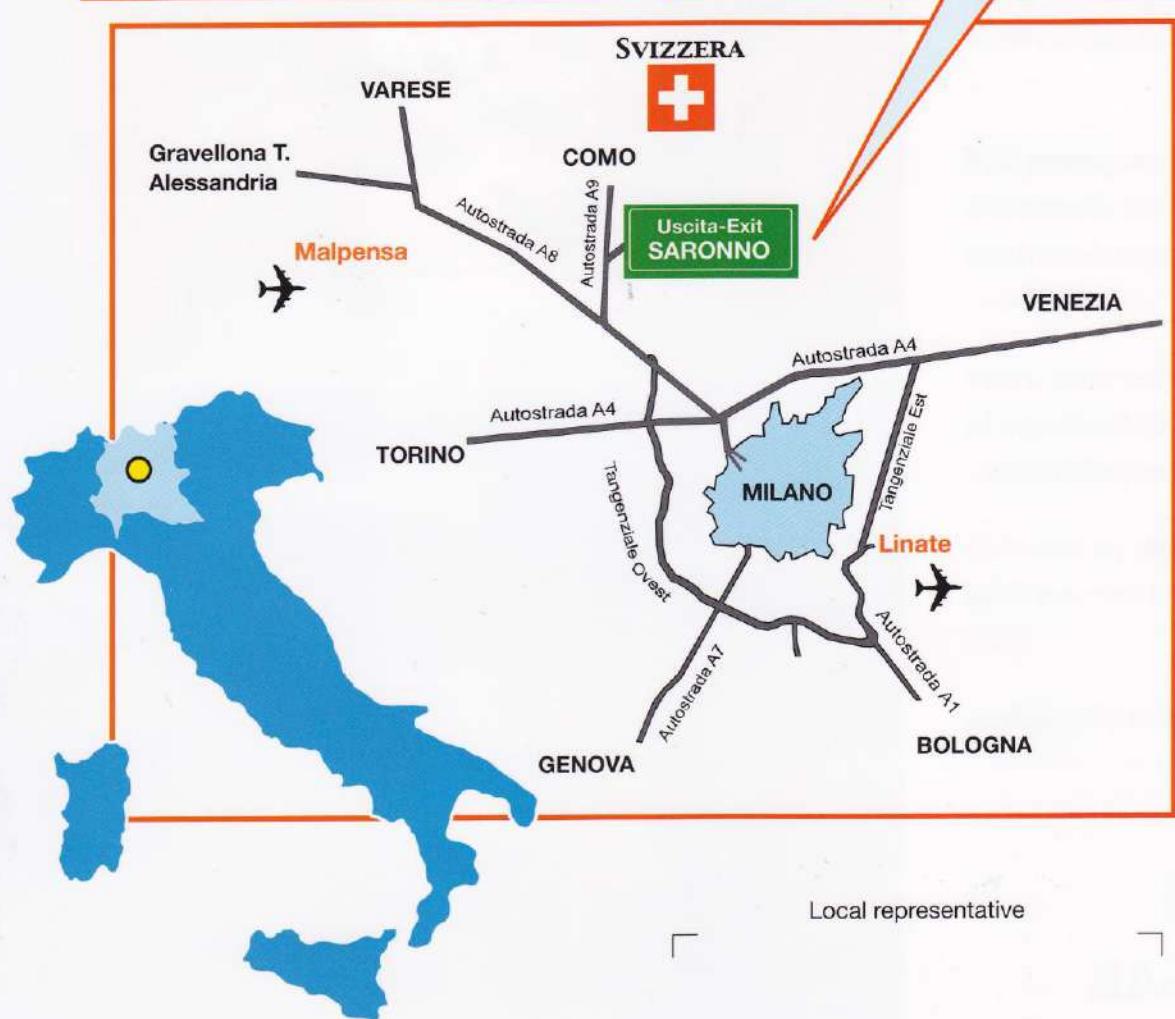
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ink film on substrate cracks or splits when bent.	2 poor ink adhesion	2 adjust power of the UV lamps
<b>creasing</b>  the substrate is wrinkled during the print		1 apply spreading rollers
	2 web guide malfunctioning	2 check the web guiding system. Position the web in a way that the reel cores during rewinding the web are the same distance from the web are the same distance from the shaft end (right and left) on the re-winder and un-rewinder - to ensure a minimum of side movements of the web
	3 press out of alignment	3 adjust press and especially all rollers
	4 debris on rollers	4 clean all rollers
	5 heated-up web	5 reduce web temperature
	6 substrate gauges vary	6 replace substrate
	7 wrinkles in the web prior to print	7 replace the web
	8 to high/low web tension	8 adjust web tension
	9 wrong setting of the pressure roller (banana roller) on the central impressions roller	9 check the position of the rollers
<b>dot dipping</b>  some dots on the printing forme are smaller than the cells of the anilox roller: during the inking of the forme some dots enter the cells of the anilox roller which leads to ink covered dot shoulders. These dots transfer more ink compared to other dots of the same size.	1 the screen of the anilox roller is too large in relation to the screen of the printing forms	1 use an anilox roller with a finer screen
	2 the small dot sizes on the forms are irregular and some smaller than standard dimension	2 check the printing form thickness - use a printing form with a large screen, increase the smallest dot size on the form in relation to the minimum dot size allowed by the screen of the anilox roller
	2 wrong ink viscosity	2 check ink viscosity and keep the correct value during the run with recommended solvent blend
	3 excess dot again	3 adjust the pressure to the minimum (kiss print) and/or use a softer mounting tape
	4 excess pigmentation	4 adjust ink colorant strength with balanced extender
	5 ink film too thick	5 reduce ink viscosity. Adjust the printing speed or the volume of the anilox roller. Adjust doctor blade to recommended pressure
	6 ink contaminated	6 wash printing units, or change the ink
	7 inadequate pressure setting between printing form and anilox roller	7 adjust pressure setting



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RACLA DOCTOR BLADE

**PRODUZIONE RACLE DOCTOR BLADE**