CBG ACCIAI

Made in Italy

PRINTING DOCTOR BLADES

& FLEXO GRAVURE


CBG ACCIAI



Company & Facilities

14.000 m^2 dedicated to stock & production

90+ years experience in manufacturing high precision steel blades out of the best Swedish steel

88 specialized distributors & agents selling millions of meters every year all over the world

70 qualified employees with unique know-how and top quality attitude

4th founding family generation running the company

1 daily goal: providing best tools to all converters in the globe

STEEL GRADES

Original Swedish Steel

RED LABEL

TOP quality carbon Swedish steel

SELECTED refined chemical composition

HIGH CONSISTENCY carbide dispersion

STRICTEST tolerances



BLACK LABEL

NEW high carbon alloyed Swedish steel

SUPER REFINED structure for the most uniform wear

INNOVATIVE hardening & tempering process for an increased wear abrasion resistance

IMPROVED doctoring precision and superior lasting



GOLD LABEL

LONG LIFE micro alloyed high density Swedish steel

UNIQUE chemical composition

HIGHEST wear resistance

IDEAL for long runs and very abrasive inks



BLUE LABEL

EXTRA FINE carbon Swedish steel

SPECIAL metallurgical structure

UNIFORM & MINIMAL carbide size

EXTREMELY PURE chemical composition



SILVER LABEL

STAINLESS extra fine Swedish steel

TOTAL oxidation and corrosion protection

HIGH wear resistance

PERFECT for water based inks and to solve rust problems



WHITE LABEL

PLASTIC with medium & high density

OPTIMAL flexibility and adaptability

GOOD wear resistance at medium working speed

SPECIFIC for corrugated printing with water based inks



TECHNICAL DATA

RED LABEL printing doctor blades (High carbon steel)	
Surface:	bright polished
Tensile strength:	1960 ± 100 N/mm² (580 Hv)
Straightness maximum deviation:	1,0/3000 mm

BLACK LABEL printing doctor blades (High carbon Cr alloyed steel)	
Surface:	bright polished
Tensile Strength:	2060 ± 100 N/mm² (605 Hv)
Straightness maximum deviation:	1,0/3000 mm

BLUE LABEL printing doctor blades (Extra refined high carbon steel)	
Surface:	bright polished
Tensile strength:	1960 ± 100 N/mm² (580 Hv)
Straightness maximum deviation:	0,6/3000 mm

GOLD LABEL printing doctor blades (Micro alloyed steel)	
Surface:	yellow polished
Tensile strength:	2100 ± 100 N/mm² (615 Hv)
Straightness maximum deviation:	1,3/3000 mm

SILVER LABEL printing doctor blades (Stainless steel)	
Surface:	bright polished
Tensile strength:	1910 ± 100 N/ mm² (565 Hv)
Straightness maximum deviation:	1,1/3000 mm

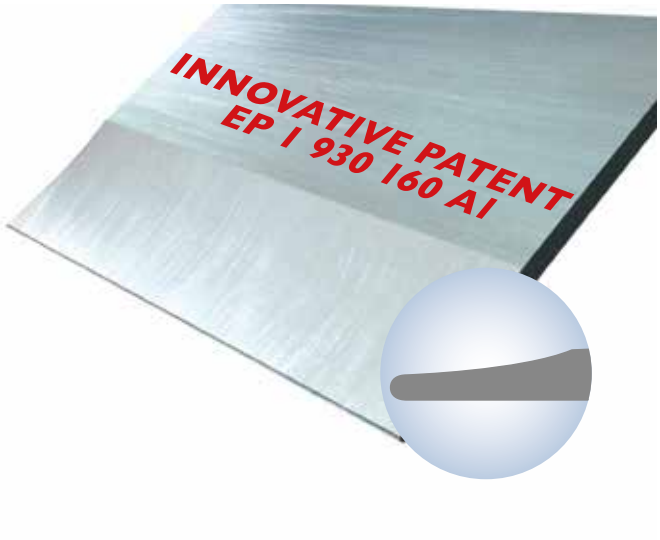
ALL LABELS	
Flatness maximum deviation:	0,3% across the strip width
Width tolerance (blade):	± 0,10 mm if blade width < 50 mm ± 0,15 mm if blade width ≥ 50 mm
Thickness tolerance (blade):	± 0,009 mm if blade thickness ≤ 0,152 mm ± 0,011 mm if blade thickness > 0,152 mm
Width tolerance (lamella):	± 0,025 mm
Thickness tolerance (lamella):	± 0,003 mm
Contact edge roughness:	Ra 0,10 ± 0,05 µm

EDGE PROFILES

FLEXO&GRAVURE

WING LAMELLA®

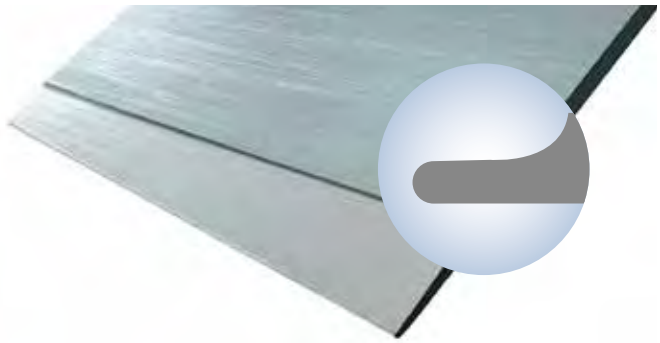
Special pre-honed doctor blades
EXTREMELY HIGH printing definition (tiny letters, pictures, drawings…)
LONGER lamella life
SLOWER & MORE UNIFORM blade wear
REDUCED lamella bending: real working angle equal to nominal
ELIMINATION of steel burrs & slivers (flexo)
BETTER chamber sealing with consequent less ink spilling and waste (flexo)
LESS oscillation-bound cracks (gravure)
QUICK run-in time thanks to rounded tip Mirror Edge®



FLEXO&GRAVURE

SC - LAMELLA

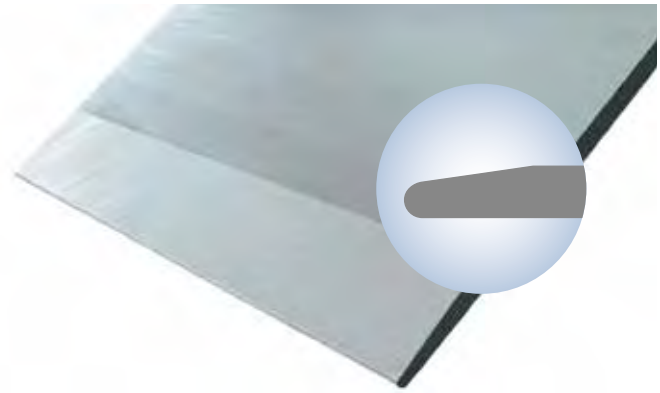
Standard pre-honed doctor blade
EXCELLENT printing definition under all conditions
FULLY SATISFACTORY ratio lasting-quality
QUICK run-in time thanks to rounded tip Mirror Edge®



FLEXO&GRAVURE

TMC - BEVEL

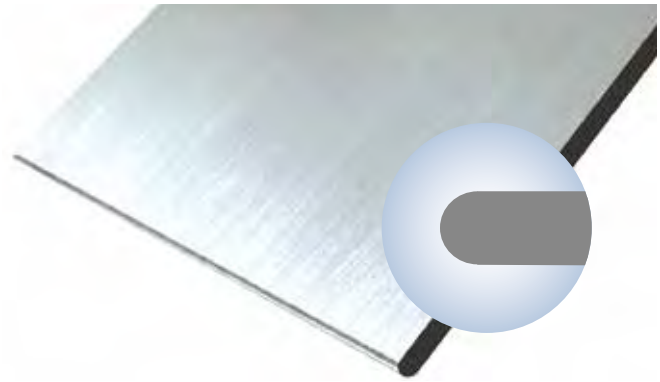
Straight bevel pre-honed doctor blade
IDEAL blade for high pressure working conditions (minimal blade deformation)
PERFECT for short jobs
QUICKEST run-in time thanks to very thin rounded tip Mirror Edge®



FLEXO

N - ROUND EDGE

Rounded edges doctor blade
HIGHEST blade rigidity
LONG lasting
Slow run-in time (depending on thickness)
Medium printing definition
SUGGESTED for full tones & anilox with few lines/cm



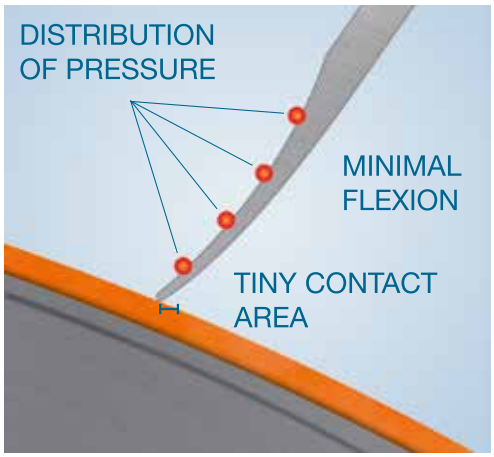
WING LAMELLA®: Boost your Printing Quality

EP1930 160 A1

WING LAMELLA®

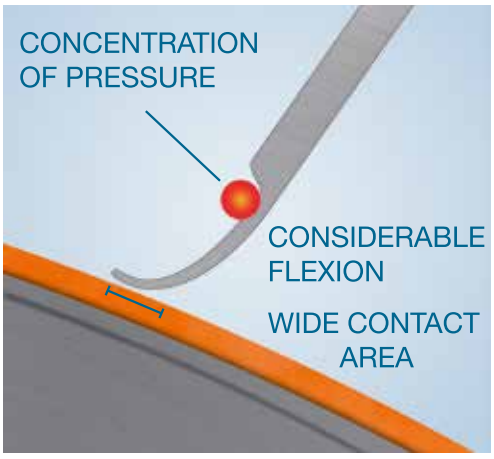
INNOVATIVE PATENT • EP 1 930 160 A1





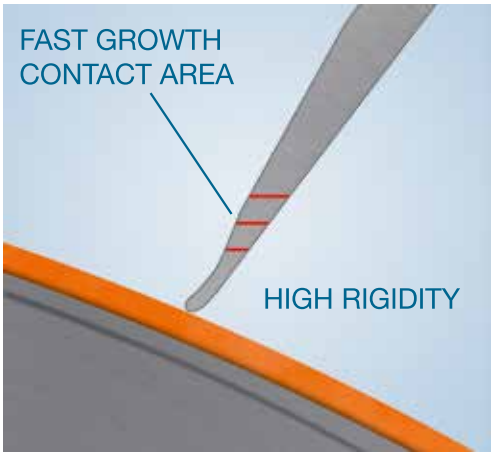
STANDARD LAMELLA





TMC BEVEL





PROFILE SPECIFICATIONS RANGE

Blade Profile	Width (mm)	Thickness (mm)	Profile Specifications	
			Range	Standard
WING	from 8 to 90	0,102 0,152 0,203 0,254 0,305 0,381	Lamella 1,0 min - 4,0 max mm x from 0,04 mm	Thickness 0,152 mm: 2,47 x 0,065 mm Thickness 0,203 mm: 2,86 x 0,095 mm Thickness 0,254 mm: 3,20 x 0,125 mm
SC	from 8 to 90	0,102 0,152 0,203 0,254 0,305 0,381	Lamella 0,5 min - 2,5 max mm x from 0,04 mm	Thickness 0,152 mm: 1,3 x 0,068 mm Thickness 0,203 mm: 1,3 x 0,100 mm Thickness 0,254 mm: 1,3 x 0,130 mm
TMC	from 8 to 90	0,102 0,152 0,203 0,254 0,305 0,381	Bevel from 2° to 60°	4° & 15°
N	from 8 to 90	0,065 0,076 0,102 0,152 0,203 0,254	Round	radius = ½ thickness

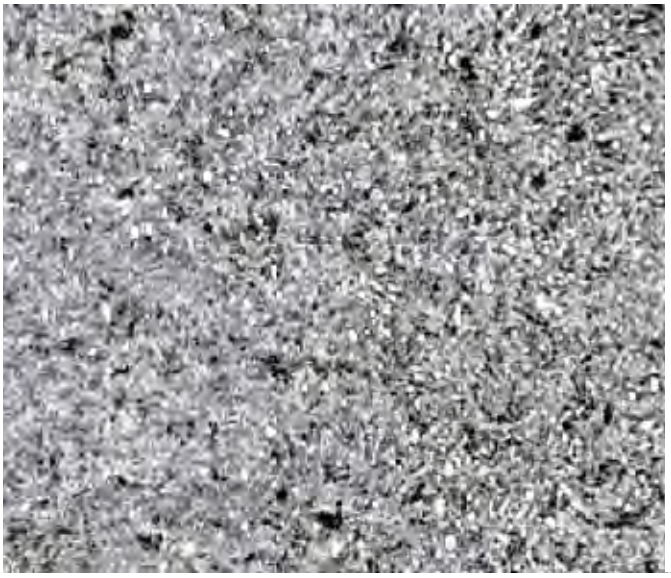
Custom-made sizes and/or edge profiles are available upon request

WHY A 1st CLASS BLADE

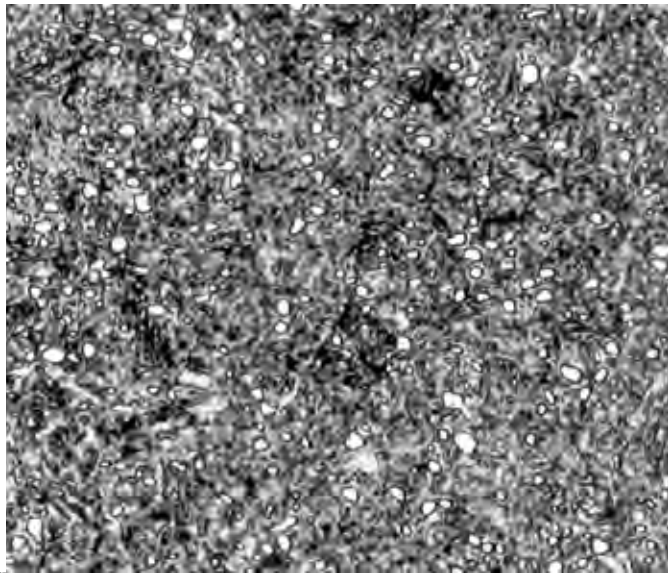
METALLURGICAL STRUCTURE & CARBIDE DISPERSION

Uniform & slow blade wear depend on:

- Pure chemical composition
- Small size of carbides
- High density (no porosity)
- Lack of non metallic inclusions
- Fine carbide dispersion through steel section
- Undifferentiated metallurgical structure



SUPER REFINED 1000x



STANDARD 1000x

STRAIGHTNESS

Strict straightness tolerance:

- perfect parallelism blade-cylinder
- low working pressure
- uniform blade wear all through its length
- long blade lasting



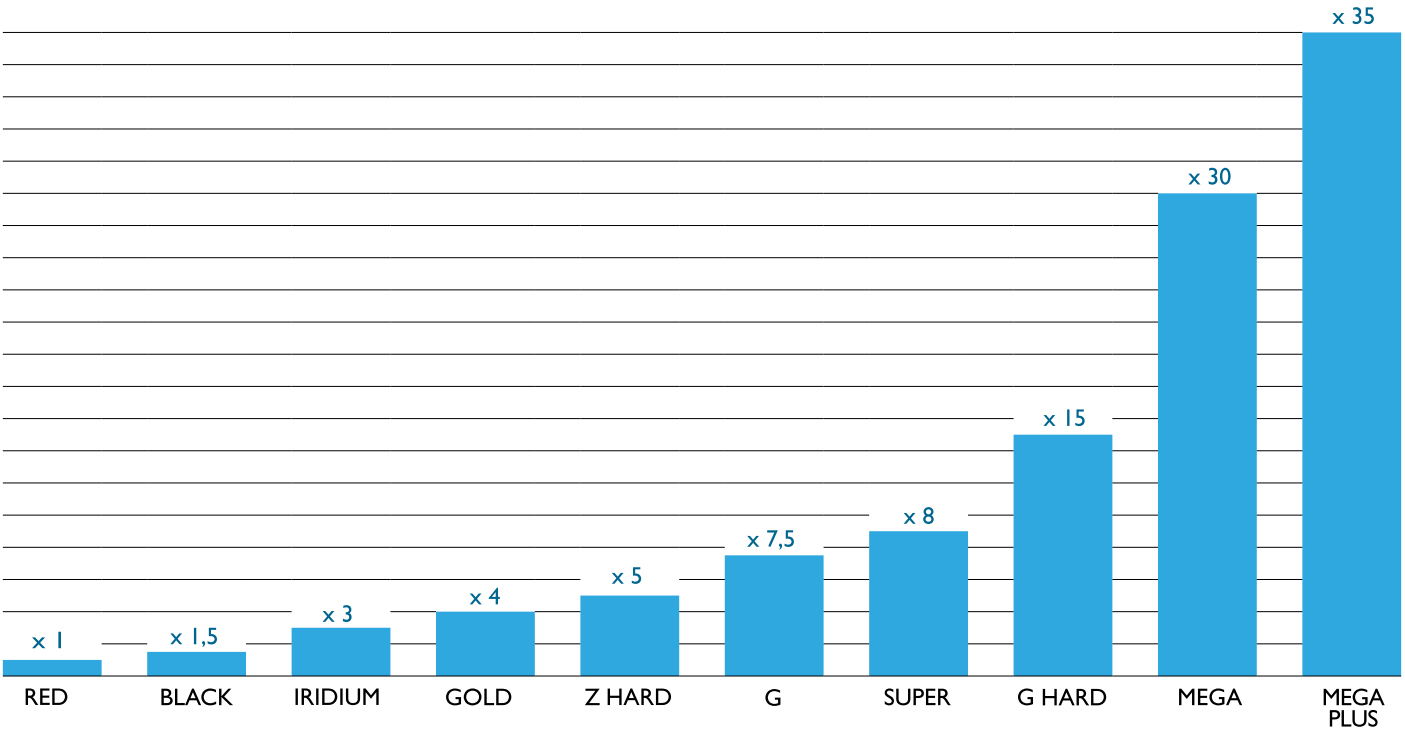




COATED BLADES

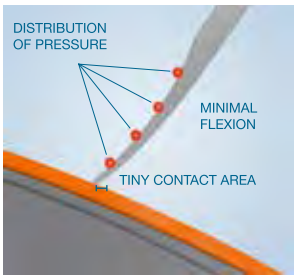
FLEXO	ROTO	SOLVENT	WATER	UV	
•		•		•	SUPER
•		•		•	IRIDIUM
•		•	•	•	M
•	•	•	•	•	Z PLUS
•	•	•	•	•	Z HARD + Z FLEXO HARD
•	•	•	•	•	G
•	•	•	•	•	G PLUS
•	•	•	•	•	G HARD
	•	•	•	•	G RAMIC
•	•	•	•	•	MEGA
•	•	•	•	•	MEGA PLUS

FLEXO BLADE LASTING

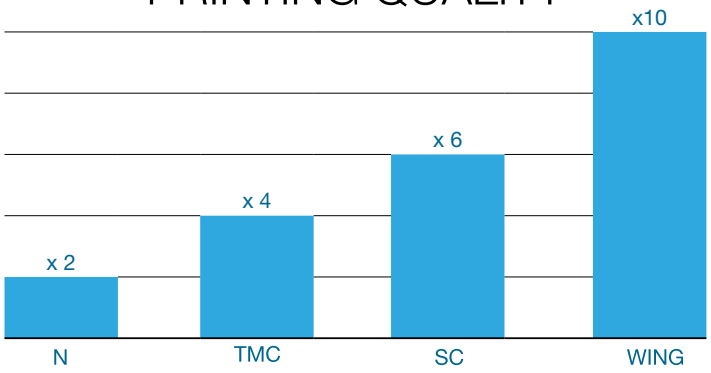


WING Lamella®

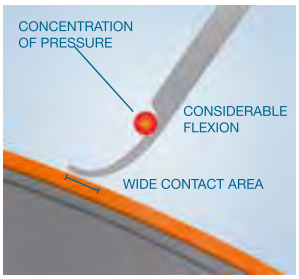
INNOVATIVE PATENT
EP 1 930 160 A1



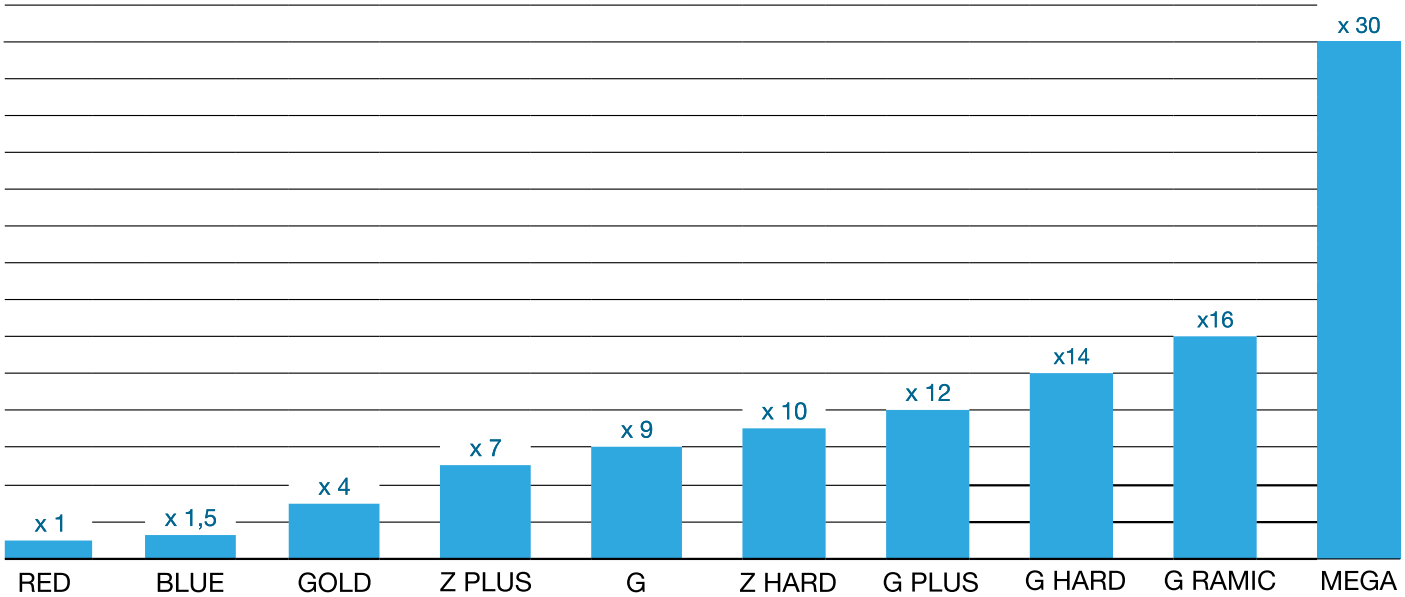
PRINTING QUALITY



STANDARD Lamella



ROTOGRAVURE BLADE LASTING



FULL CERAMIC COATINGS

G

ENGINEERED FOR **ROTOGRAVURE AND FLEXO**

CERAMIC high density full blade coating (innovative technology)

STABILIZATION of chrome surface roughness

HIGHEST printing definition and quality

SOLUTION for all veiling troubles

STRONG LUBRICATION of blade contact surface

INCREASED wear resistance

LONGEST LASTING



G PLUS

ENGINEERED FOR **ROTOGRAVURE AND FLEXO**

HIGHEST concentration of ceramic particles

SPECIFIC for chrome major roughness problems

SOLUTION for worst veiling troubles

IDEAL for cylinders partially engraved

ELIMINATION of chrome polishing effect



G HARD

ENGINEERED FOR **ROTOGRAVURE AND FLEXO**

IMPROVED surface hardness

LONGEST runs

IDEAL for extremely long jobs without blade change





G RAMIC

INNOVATIVE **CERAMIC COATING** INCREASED DENSITY

INCREASED CERAMIC content

INCREASED hardness

LONGEST runs



ICE

ENGINEERED FOR **COLD SEAL**

ENRICHED chemical composition

VERY LOW friction

COOL working temperature

SELF CLEANING surface

IDEAL for cold seal & thick inks

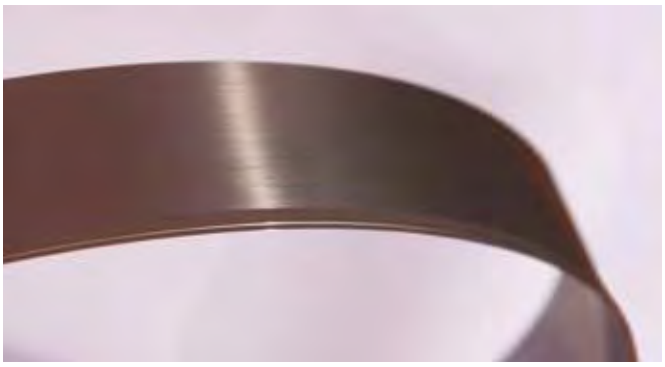


EDGE CERAMIC COATINGS

Z PLUS

Innovative CERAMIC High Density Coating with increased Ceramic Concentration – Medium / High Hardness

ROTO: superior printing definition and consistency / very long lasting



Z HARD

CERAMIC High Density Coating with High Hardness
Extreme lasting with excellent printing quality
Suitable for any ink including abrasive and metallic



Z FLEXO HARD

Specific for FLEXO
Dedicated to Label
Long Lasting
Excellent with UV INKS



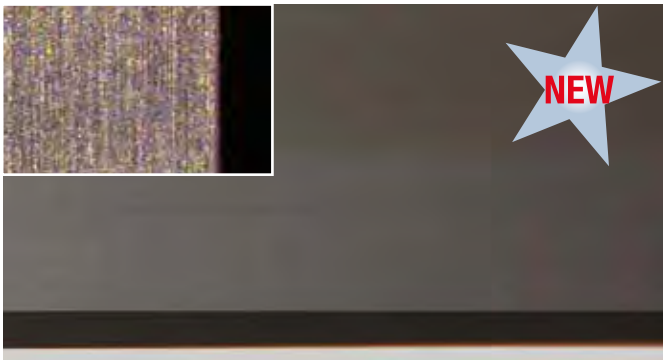
MEGA

EXTREME Lubricant Coating
HIGH Hardness
UNIQUE long lasting
SEVERE wear resistance



MEGA PLUS

UPGRADED Version of MEGA
IDEAL for very abrasive INKS



THE "**FLEX**CLUSIVE" COATINGS

SUPER

ENGINEERED FOR **FLEXO**

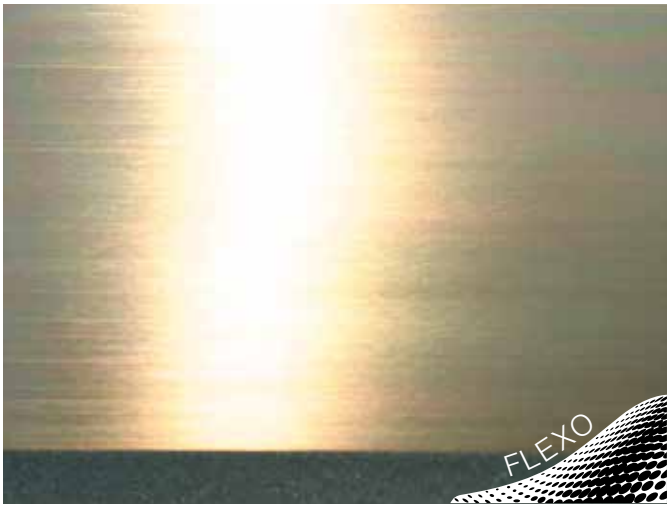
LONG LASTING lubricant coating specific for flexo
HIGH wear resistance
LOW friction blade/cylinder
IMPROVED anilox life
TOP printing quality
VERY LONG LASTING (Up to 4 weeks on white ink)
IDEAL for abrasive inks



IRIDIUM

ENGINEERED FOR **FLEXO**

LUBRICANT coating specific for flexo
LOWEST friction blade/cylinder
IMPROVED anilox life
LONG LASTING
HIGH printing definition
TOTAL SHIELD against rust & corrosion
IDEAL for water based inks



M

ENGINEERED FOR **FLEXO**

FULL LOW HARDNESS Coating With superior lubrificant properties and total rust protection.
TOP cylinder care
PERFECT for water base inks





COMMON SIZES



STEEL	
THICKNESS mm	WIDTH mm
0,065	10
0,076	10
0,102	10-15-20-25-30-35-40-50-60
0,152	8-8,5-10-12,7-15-17-19-20-22-25-25,4-28,6-30-32-35-38,1-40-41,3-45-50-52-50,8-55-60-63-65-70-80-90
0,203	10-12,7-15-17-19-20-25-25,4-28,6-30-32-35-38,1-40-45-50-52-55-60-70-80
0,254	20-25-25,4-28,6-30-32-35-38,1-40-50-60
0,305	20-30-35-40-50-55-60-70-80-90
0,381	40-50-60

PLASTIC	
THICKNESS mm	WIDTH mm
0,35	20-25-30-32-35-40-45-50-60
0,50	25-30-32-35-40-45-50-60
0,80	25-30-32-35-38-40-45-50
1,30	25-30-32-35-38-40-45-50
1,60	25-30-32-35-38-40-45-50
2,00	25-30-32-35-38-40-45-50









HOW DOES YOUR CBG BLADE LOOK LIKE

WING



SC



TMC



N



G - G PLUS - G HARD - G RAMIC



Z PLUS



HOW DOES YOUR CBG BLADE LOOK LIKE

IRIDIUM



GOLD



Z HARD – Z FLEXO HARD



SUPER



MEGA

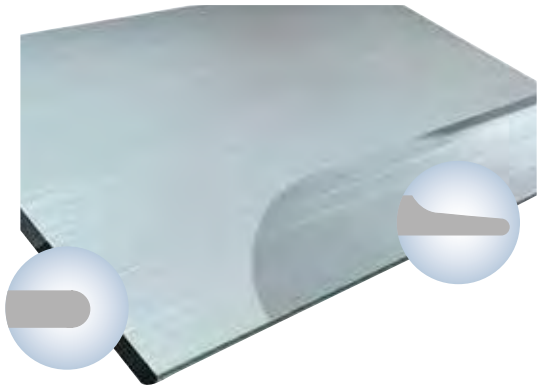


SPECIALS

VARI-THICK

To achieve the best performance and reduce blade's cracks at cylinder extremeties (mostly on gravure presses due to holder oscillation) we developed VARI-THICK® execution. It consists of a lamella blade (either WING or SC profile) "tailor ground" matching the cylinder's engraved portion and with full thickness ends. This allows to enjoy all doctoring benefits of a pre-honed blade as well as crack resistance properties of rounded edge blades.

TOP QUALITY doctoring
REDUCED cracks at cylinder extremeties (up to -70%)
INCREASED blade stability all along printing process



ROUNDED CORNERS & HOLES

For operator safety reasons, cut tolength blades can be supplied with SMOOTH ROUNDED CORNERS (instead of traditional sharp squared corners) which allow a safe handling of the blade. BURRS FREE extremeties grant an easier insertion of the blade into the holder.

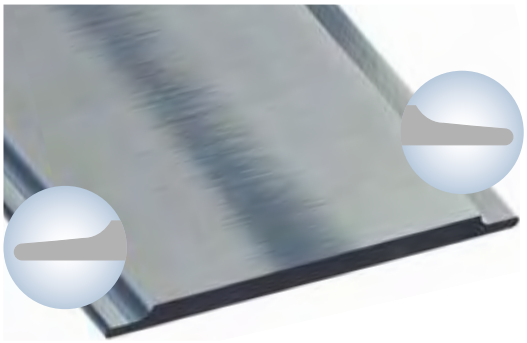
For special holders, blades can be supplied with holes for a more stable fixing.



DOUBLE LAMELLA EDGE

For those printers who have the possibility to use different blade width, we can supply blades pre-ground on both edges.

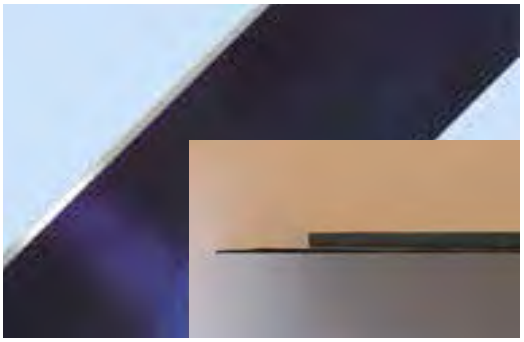
Such execution is available in both WING & SC types.



BACK-UP BLADES

In order to increase doctor blade rigidity while maintaining the proper flexibility of the pre-ground zone we suggest to use a back-up blade to be coupled with the doctoring blade.

Materials:	High tensile strength carbon steel & stainless steel
Width:	Doctor Blade width -3 mm or -5 mm
Thickness:	0,30-0,38-0,45-0,50-0,60-0,70 mm



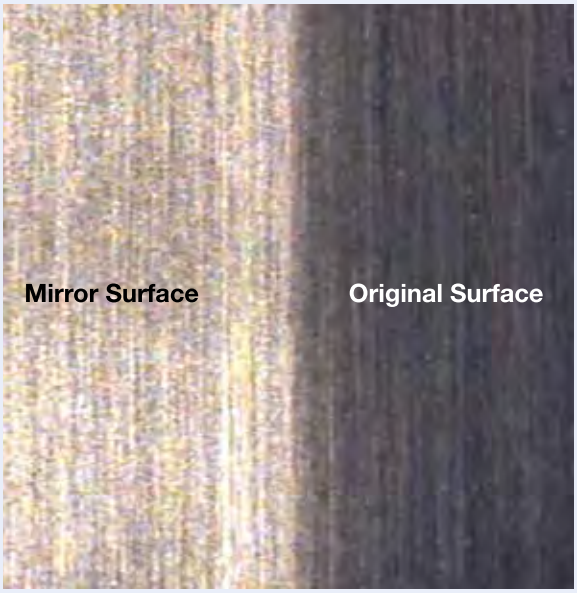
MIRROR SURFACE
REVOLUTION IN FINISHING

NEW

MIRROR-LIKE finishing of edge surface
EXTREME SMOOTHNESS of the edge



SUPERIOR ink doctoring
AVAILABLE under any profile (WING, SC, TMC, N)



BLADE GUILLOTINE

PROFESSIONAL blade guillotine for cutting to length

CLEAN & PRECISE perpendicular easy cut

COMFORTABLE tailor made seat for CBG d.blades package

REVERSIBLE & RESHARPENABLE hard metal knives for life time lasting





PACKAGING
RECYCLABE AND SUSTAINABLE



PROFESSIONAL safe & heavy packaging

PLASTIFIED water proof cardboard

SMOOTH & EASY blade's pull out

VACUUM WRAPPING for extreme protection





C.B.G. ACCIAI
Made in Italy



RACLE AUTOAFFILANTI PER ROTOCALCO & FLESSOGRAFIA

PRINTING DOCTOR BLADES FOR ROTOGRAVURE & FLEXO

UCHILLAS AUTOFILANTES POR HUECOGRAVADO & FLEXOGRAF

RACLES PRÉAFFUTÉES POUR HÉLIO & FLEXO

LBSTSHÄRFENDE RAKELSTÄHLE FUR TIEFDRUCK & FLEXODR

ROTOGRAVURA & FLEXOGRAFI

10 mm DOCTOR BLADE HOLDER



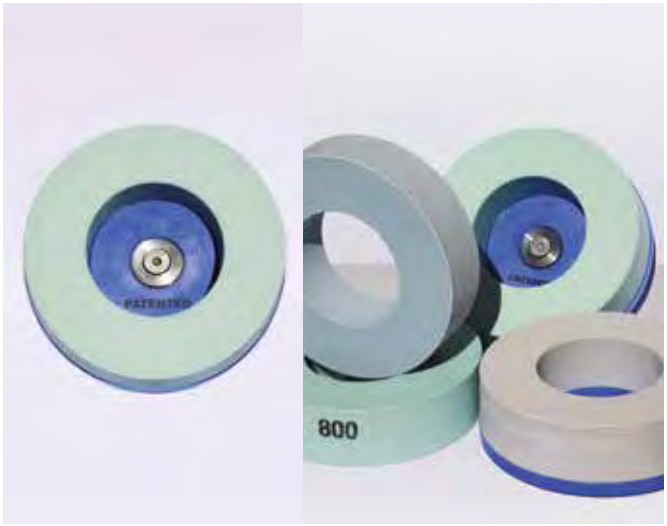
Made in full STAINLESS steel (all parts & rivets)

Available in FLAT & BENT versions

Recommended with Back Up 8-8,5 mm to increase 10 mm blade rigidity

POLISHING STONES & FILMS
for Rotogravure Cylinders





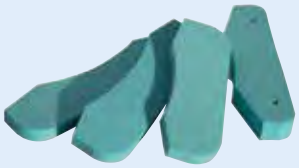
FLEXO SEALS

High precision seals with strict tolerances made of 6 different FOAM grades suitable for all applications (solvent base, water base, UV) aimed to a proper ink chamber sealing and a long lasting (up to 250-300'000 m runs).
Seals are produced with any shape on demand, using CNC technology with high cutting precision which grants a smooth contact surface seal-cylinder.
Extreme flexibility in manufacturing out of samples and drawings as well as in modifing shapes & sizes.

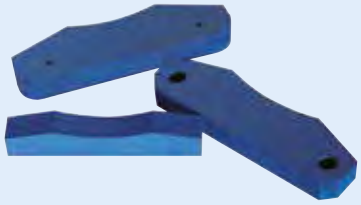


FOAM GRADES

FLEXO 1
medium hardness & medium density
most commonly used



FLEXO 2
high hardness & medium density
high working pressure



FLEXO 3
medium-low hardness & high density
very high wear resistance



FLEXO 4
medium-low hardness & medium density
very high wear resistance



FLEXO 8
low hardness & low density
medium working pressure



FLEXO 9
Low hardness & medium density
extreme wear resistence properties



LONGLIFE SEALS

DOUBLE COMPONENT INNOVATIVE SEALS

Specific for High Speed Presses & Very Long Runs (to be used in combination with CBG ACCIAI Coated Blades range selection).

Outstanding performance compared to any conventional seal.

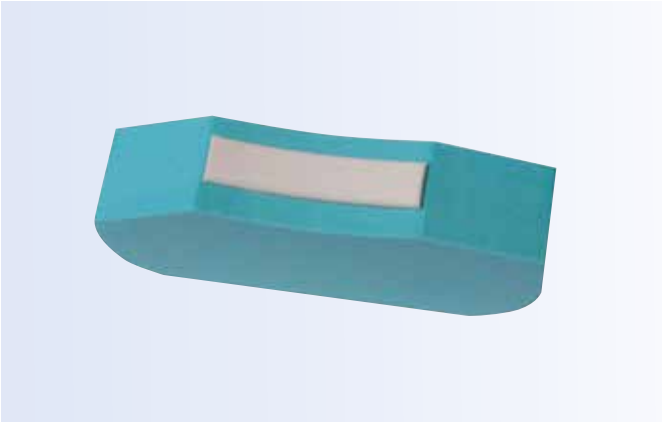
ZERO LEAK factor. Save ink. Keep press clean.

Available for any press model.



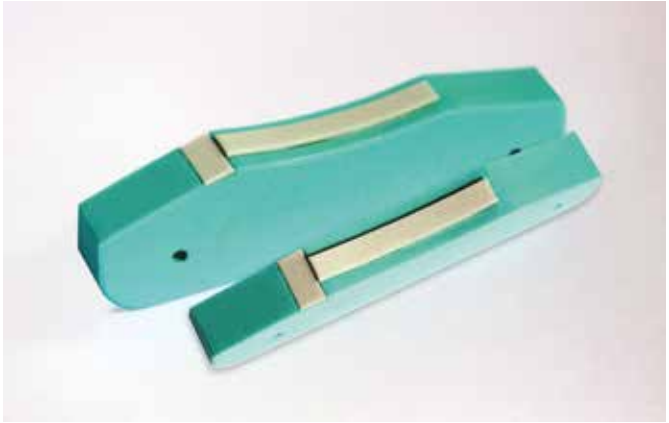
P

FLAT ANTI FRICTION INSERT



PT

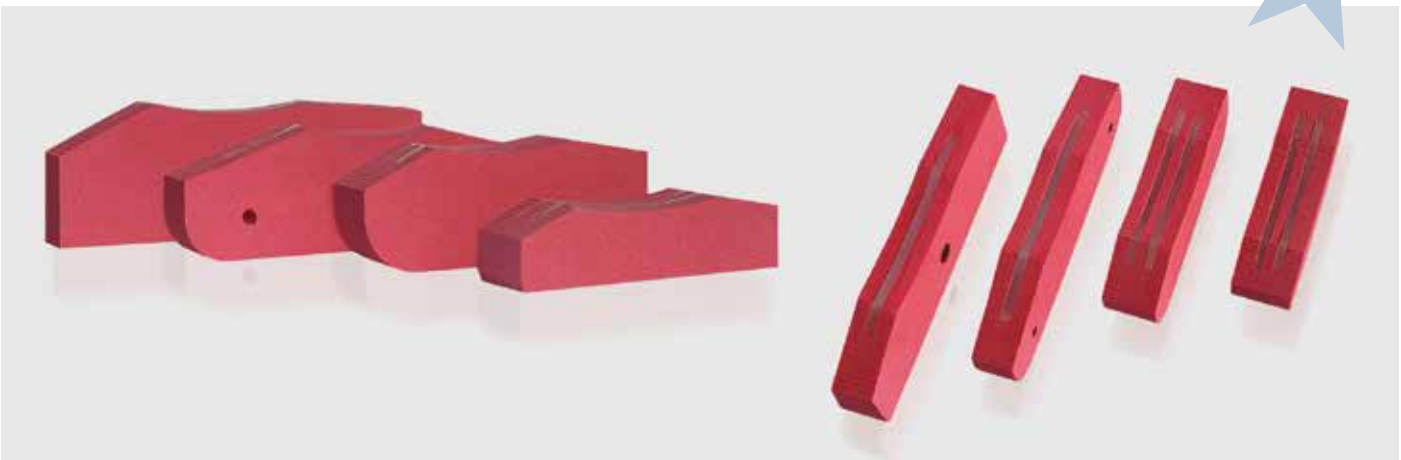
DOUBLE FLAT ANTI FRICTION INSERT



PV

VERTICAL ANTI FRICTION INSERT

NEW



FLEXO SEALS

SELF LUBRICANT SEALS

REVOLUTIONARY self lubricant seals.
Seals are impregnated with lubricant oil to reduce friction & covered with a **shell of solid rubber** to bear any working pressure.
Lasting beyond 1'500'000 m runs.



PURE FELT SELF LUBRICANT SEALS

Made with the most pure high density felt

Soaked with highly lubricant oil

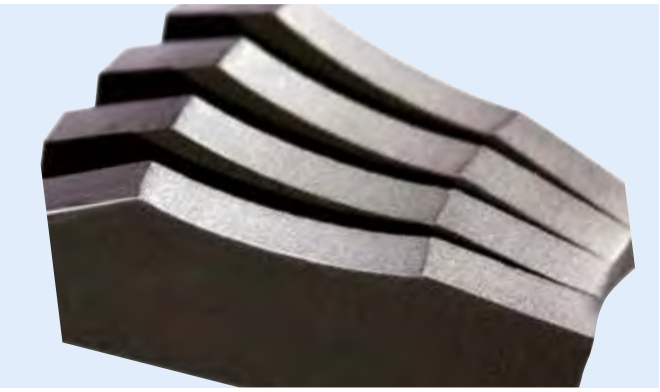
Excellent Chamber sealing

Suitable for Medium Runs



COATED SEALS x000

Special anti-friction coating to improve seal life x 3-4 times.
Ideal combination with FLEXO 3 & 4 foam grades.
Lasting beyond 800'000 m.

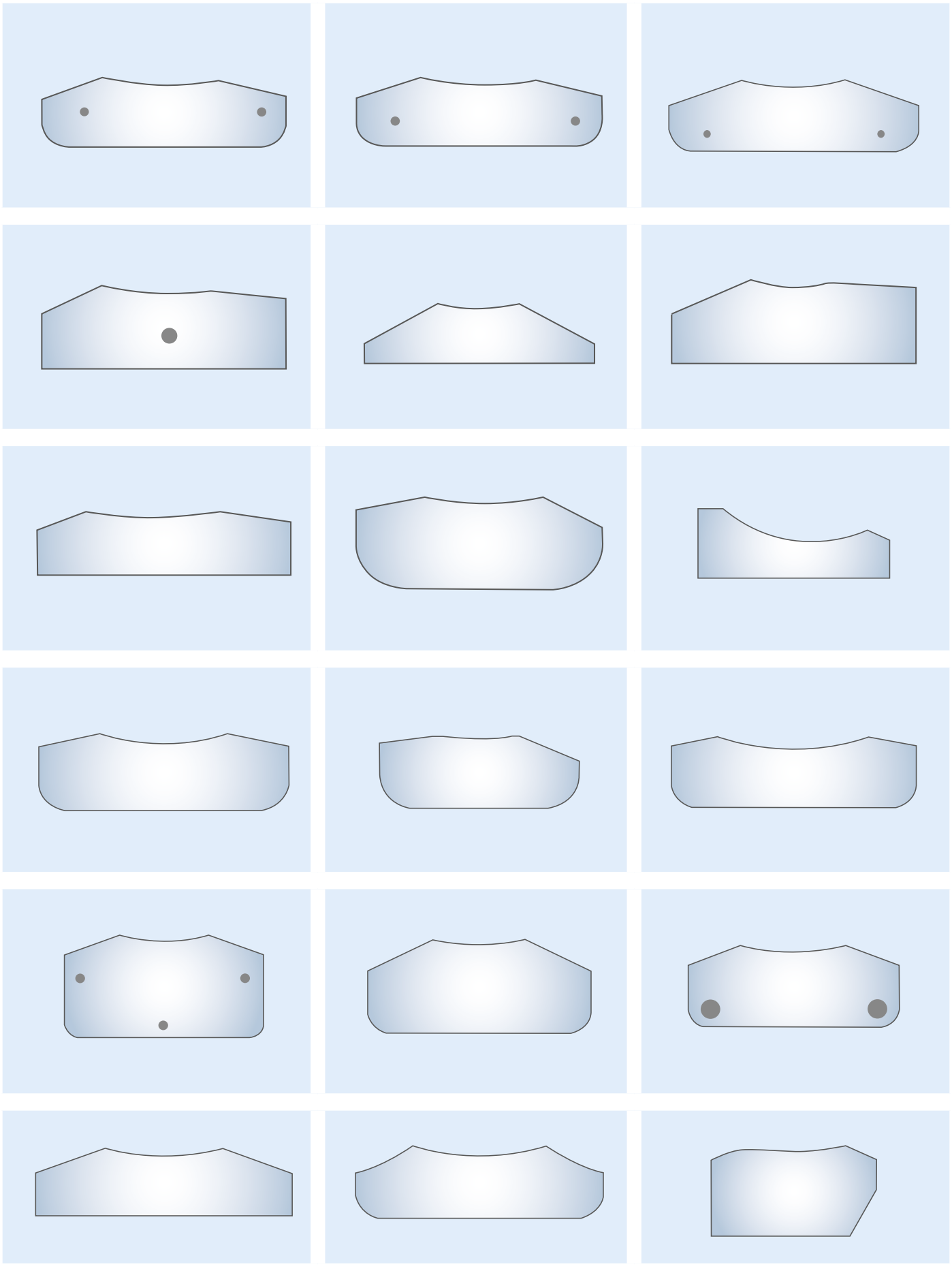


"GREAZEAL"

Special food-contact approved grease to be used with CBG seals (any kind).
It helps sealing the flexo chamber, drastically reducing ink leaks.
It improves lubrication limiting seal wear.



COMMON SHAPES



CBG ACCIAI

GREENKLEAN

INNOVATIVE ECOFRIENDLY CLEANING PRODUCTS FOR SOLVENT-UV-WATER BASED INKS



INNOVATIVE ECOFRIENDLY
CLEANING PRODUCTS
FOR **ROTOGRAVURE** AND **FLEXO** CYLINDERS

	TYPE OF INK	FREQUENCY	PACKAGE	POSSIBLE DILUTION	ALUMIUM SAFE				SUITABLE FOR
GREENKLEAN PROFONDO	SOLVENT + UV	**DEEP**	1,00 kg	READY TO USE	YES	YES	YES	YES	Inking cylinders deep manual cleaning
GREENKLEAN ACQUA +	WATER	**DEEP**	0,75 kg	READY TO USE	YES	YES	NO	NO	Inking cylinders deep manual cleaning
INKLEAN UNIVERSALE	SOLVENT + UV + WATER	**DEEP**	1,00 kg	READY TO USE	NO	NO	NO	NO	Inking cylinders deep manual cleaning
GREENKLEAN ACQUA	WATER	DAILY	25-200-1.000 kg	UP TO 1 TO 10	YES	YES	YES	YES	Inking cylinders, chambers & any press part pumped in the ink circuit or manually
INKLEAN DAILY	SOLVENT + UV	DAILY	25-200-1.000 kg	READY TO USE	YES	YES	NO	YES	Inking cylinders, chambers & any press part pumped in the ink circuit or manually
STAINLESS STEEL BRUSH	SOLVENT + UV + WATER	DAILY & DEEP	1 pc	-	-	-	-	-	Only for ceramic cylinders
BRASS BRUSH	SOLVENT + UV + WATER	DAILY & DEEP	1 pc	-	-	-	-	-	Only for chrome plated cylinders
MICRO SPONGES	SOLVENT + UV + WATER	DAILY & DEEP	50 pcs.	-	-	-	-	-	For any cylinder



CBG ACCIAI

MADE IN EU

Via Carducci,680 | 21042 Caronno Pertusella (VA) | ITALY
Tel. +39 0296450176 | Fax +39 029658904 | info@cbgacciai.com

SLITTING RAZOR BLADES

for FILMS, ADHESIVE TAPES and else

THE STEEL

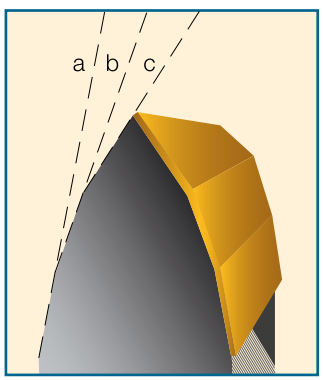
CBG ACCIAI Slitting Razor Blades are manufactured with the best Swedish steel.
The absolute cleanness of the chemical composition and the homogeneity of the structure guarantee the lack of non-metallic inclusions (that could cause micro-cracks along the shaving edge) and uniform wear of the edge.
The hardening and tempering procedure leads to a higher hardness that makes the steel become extremely resistant to the friction wear.
CBG ACCIAI razor blades are available in stainless steel as standard specification and some items in high carbon steel too. Stainless steel prevents from oxidation and corrosion when blades are in contact with solvents, other aggressive chemicals or when used in very wet environments.

TECHNOLOGY & QUALITY

The peculiar characteristic of CBG ACCIAI Slitting Razor Blades is the “variable angle” slitting edge. The technology consists in a double or triple edge sharpening with decreasing inclinations which results in a slitting edge with variable angle.
This advanced technique allows to drastically diminish the friction between blades and slit material, first reducing the mutual overheating (avoiding micro-weldings and/or burnings) and secondly the wear of the razor blade’s slitting edge.

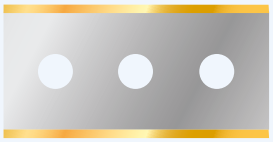
THE COATINGS

The sharp edges of CBG ACCIAI Slitting Razor Blades are all coated using sophisticated technologies to improve blade life. The extreme hardness of the materials used for coating, its high adesivity to the steel and the low friction factor dramatically improve the blade life by reducing the wear of slitting edges.
The coating protects the blade by wear whatever is the material to slit.
Aside the standard coating grade other coatings are available on request for specific needs.





3FBT
43 x 22,2 x 0,10 / 0,15 / 0,20 / 0,30 / 0,40



3FBQ
43 x 22,2 x 0,10 / 0,15 / 0,20 / 0,30 / 0,40



1A60
57 x 19 x 0,38



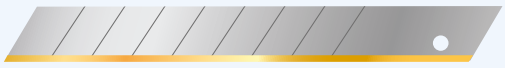
2FBS
38 x 8 x 0,25



CUTTER 18 mm
PRE - CUT
100 x 18 x 0,50



CUTTER 18 mm
SOLID
100 x 18 x 0,50



CUTTER 9 mm
PRE - CUT
85 x 9 x 0,40



CUTTER 9 mm
SOLID
85 x 9 x 0,40



CUTTER 9 mm 30°
PRE - CUT
90 x 9 x 0,40



TRP
52/61 x 19 x 0,65

QUALITY CERTIFICATE

This is a translation of certificate N. IT98/0277

The quality management system of

C.B.G. ACCIAI S.r.l.

Head Office and Plant:
Via G. Carducci, 680 - 21042 Caronno Pertusella (VA) - Italy

Warehouse:
Via G. Ferraris, 343 - 21042 Caronno Pertusella (VA) - Italy

has been assessed and certified as meeting the requirements of

ISO 9001 / UNI EN ISO 9001:2015

For the following activities

Production of pre-sharpened and not pre-sharpened steel blades for rotogravure printing, flexographic printing, silk-screen printing, coating, refining and coupling machines.

EA Sector: 17

This certificate is valid from 31/01/2020 until 30/01/2023 and remains valid subject to satisfactory surveillance audits.
Re certification audit due before 30/01/2023.
Issue 10. Certified since 23/12/1998.

The audit leading to this certificate commenced on 22/01/2020.
Previous issue certificate validity date was until 30/01/2020.

ACCREDIA

SGQ N° 0015 A

Membro di MLA EA per gli schemi di accreditamento SGQ, SGA, PRD, PRS, ISP, GHG, LAB, LAT, PTP e RMT, di MLA IAF per gli schemi di accreditamento SGQ, SGA, SSI, FSM, PRD e PRS e di MRA ILAC per gli schemi di accreditamento LAB, MED, LAT, ISP e PTP

Signatory of EA MLA for the accreditation schemes QMS, EMS, PRD, PRS, INSP, GHG, TL, CL, PTP and RMT, of IAF MLA for the accreditation schemes QMS, EMS, ISMS, FSMS, PRD and PRS and of ILAC MRA for the accreditation schemes TL, ML, CL, INSP and PTP

Authorized by
Paola Santarelli

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OFFICE & FACTORY





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