



Doctor blades



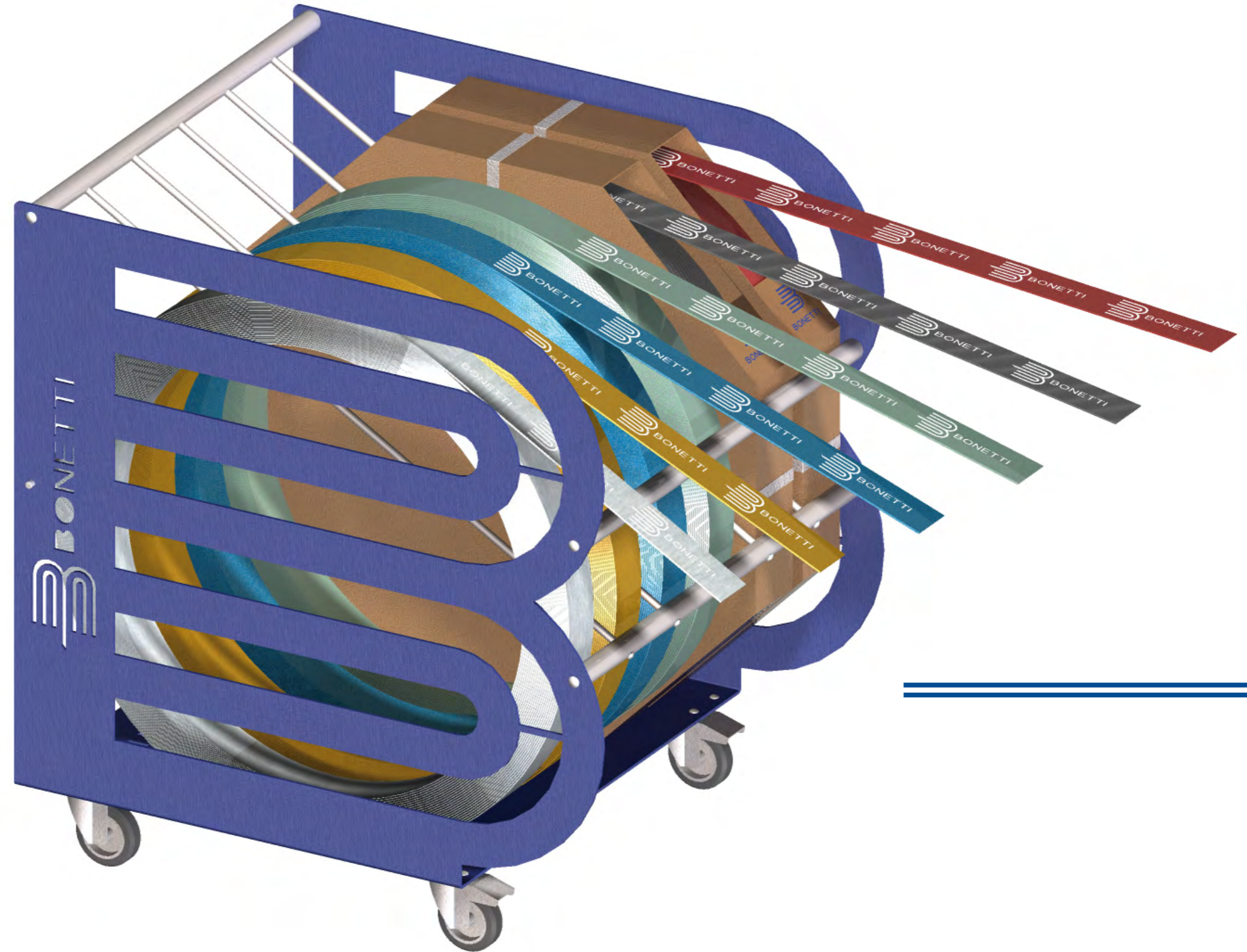
# DOCTOR BLADES

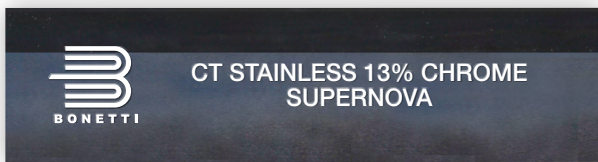
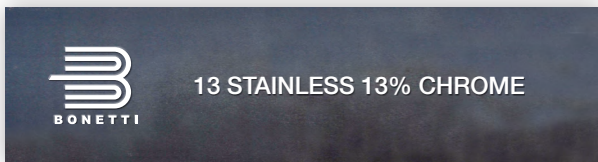
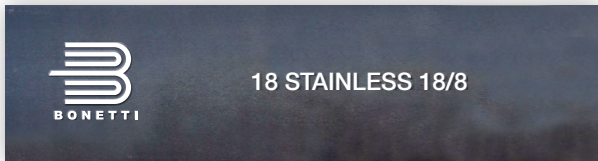
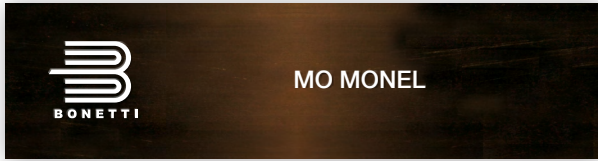
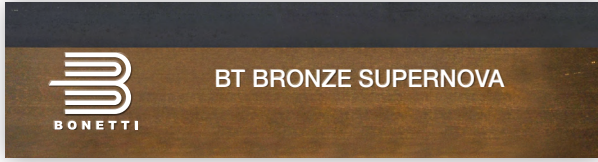
BONETTI manufacturing Plants in Europe and North America supply a wide range of doctor blades suitable for all possible applications on the paper machine.

The combination of a strong presence within all paper manufacturing Countries in the world and the centralization of all application experiences within the BONETTI R&D Center, allow for continuous "state-of-the-art" doctoring solutions. This practice has been one of the keys of BONETTI's success.

The perpetual development and demands of paper making technologies is the motivation for constant research of new materials to better satisfy paper makers' requests.

Inventories of various materials in BONETTI warehouses and manufacturing facilities throughout the world allow fast and efficient deliveries to clients.





**BZ - BRONZE**

Hard rolled bronze.  
Hardness  $\geq 205$  HV.  
Standard thicknesses: 0,89 - 1,25 mm (.035" - .050")

**BT - BRONZE SUPERNOVA**

Hard rolled bronze with tungsten carbide coating.  
Coating Hardness HV 1050-1150.  
Standard thickness: 1,25 mm (.050")

**MO - MONEL**

Monel K 500 Grade D, artificially aged.  
Hardness HRC 25-44.  
Standard thickness: 1,25 mm (.050")

**18 - STAINLESS STEEL 18/8**

Hard rolled AISI 301 austenitic stainless steel.  
Hardness HRC 44-48.  
Standard thickness: 1,25 mm (.050")

**13 - STAINLESS STEEL 13% Cr**

Hardened and tempered AISI 420 martensitic stainless steel (13% Cr).  
Hardness HRC 42-46.  
Standard thickness: 1,27 mm (.050")

**CT - STAINLESS STEEL 13% Cr SUPERNOVA**

Hardened and tempered AISI 420 martensitic stainless steel (13% Cr) with tungsten carbide coating.  
Coating Hardness: HV 1050-1150.  
Standard thickness: 1,27 mm (.050")

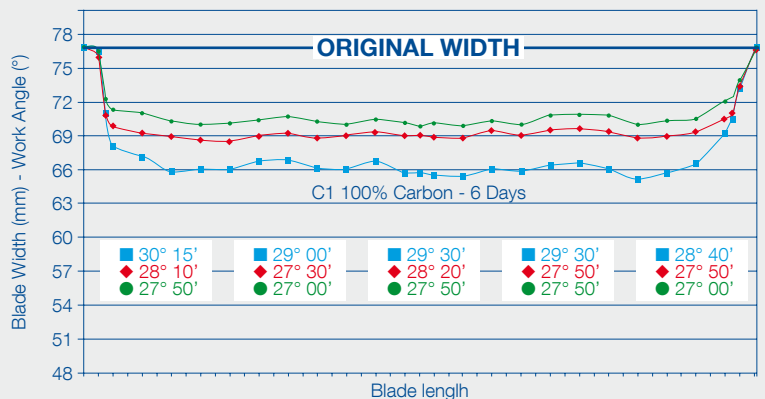
**ST - HARDENED STEEL**

Hardened and tempered steel with 0,75% Carbon content.  
HV 475-515.  
Standard thicknesses: 0,80 - 1,00 - 1,2 mm (.032" - .039" - .050")

**CASE HISTORY:  
WEAR PATTERN ON CARBON FIBER  
DOCTOR BLADES**

With the Leopard Doctor blade you can expect consistently longer blade lifetime, hence fewer blade changes and higher machine efficiency.

Leopard Doctor blade, suitable for demanding applications and a must for your ceramic rolls.





## Poly Blades and Cotton



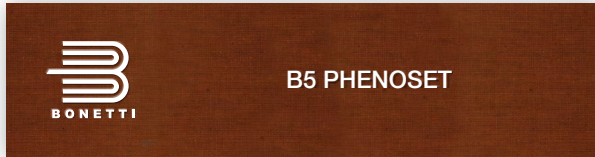
### A3 - POLYSET

Ultra High Molecular Weight virgin polyethylene.  
Temperature resistance up to 80° C.  
Standard thickness: 5/3 mm (.20"/.12")



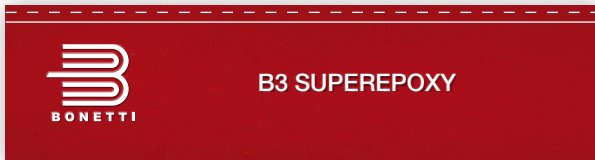
### A1 - SUPERPOLYSET

Ultra High Molecular Weight polyethylene reinforced with glass fibers.  
Temperature resistance up to 80° C.  
Standard thickness: 5/3 mm (.20"/.12")



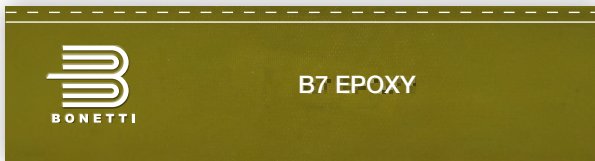
### B5 - PHENOSET

Cotton fiber layers pressed with phenolic resin.  
Temperature resistance up to 120°C.  
Standard thicknesses: 2,30 - 2,80 mm (.090" - .110")



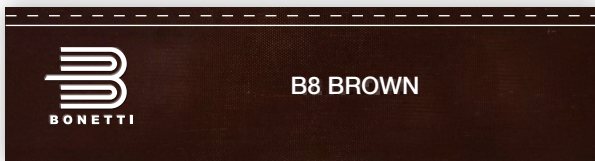
### B3 - SUPEREPOXY

Fiberglass asymmetric layers arranged to obtain superior resistance to wear and pressed with epoxy resin.  
Temperature resistance up to 175°C.  
Standard thicknesses: 1,45 - 1,80 - 2,80 mm (.055" - .071" - .110")



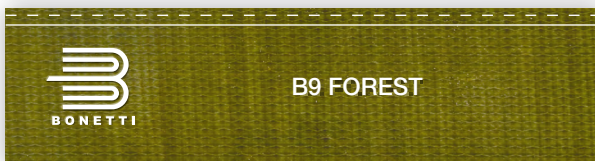
### B7 - EPOXY

Fiberglass layers pressed with epoxy resin.  
Temperature resistance up to 175°C.  
Standard thicknesses: 1,45 - 1,90 - 2,30 - 2,80 mm (.055"-.075"-.090"-.110")



### B8 - BROWN

Fiberglass layers pressed with epoxy resin.  
Temperature resistance up to 165°C.  
Standard thicknesses: 1,45 - 1,90 mm (.055" - .075")



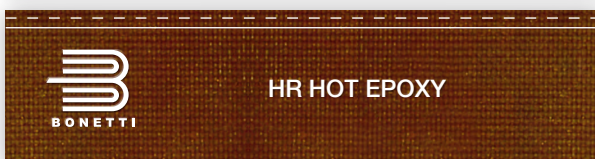
### B9 - FOREST

Special fiberglass layers with epoxy resin.  
Temperature resistance up to 175°C.  
Standard thicknesses: 1,50 - 1,85 mm (.059" - .073")



### BR - ABRASIVE

Fiberglass layers with addition of abrasive fillers to improve the cleaning action, pressed with epoxy resin. GRIT 150.  
Temperature resistance up to 175°C.  
Standard thicknesses: 1,50 - 2,00 mm (.059" - .079")

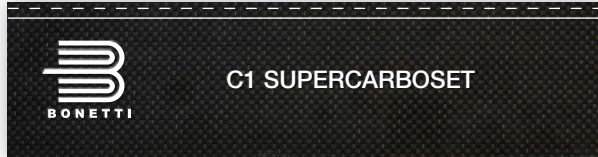


### HR - HOT EPOXY

Fiberglass layers, pressed with high temperature resistance epoxy resin.  
Temperature resistance up to 230°C.  
Standard thickness: 1,40 mm (.055")

## Fiberglass

# Carbon Fiber



## C1 - SUPERCARBOSET

100% Carbon fiber layers pressed with epoxy resin.  
Excellent chemical resistance.  
Temperature resistance up to 175°C.  
Standard thicknesses: 1,45 - 2,00 mm (.055" - .079")



## LE - LEOPARD

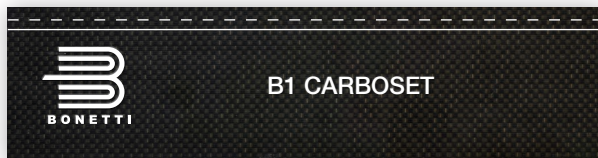
100% Carbon fiber layers pressed with enhanced epoxy resin to obtain excellent resistance to wear.  
Excellent chemical resistance.  
Temperature resistance up to 175°C.  
Standard thicknesses: 1,45 - 2,00 mm (.057" - .079")



## LR - LEOPARD ABRASIVE

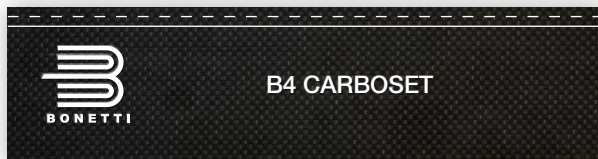
100% Carbon fiber layers pressed with enhanced epoxy resin and addition of abrasive fillers for an excellent cleaning action combined with an outstanding resistance to wear. GRIT 600.  
Temperature resistance up to 175°C.  
Standard thickness: 2,00 mm (.079")

# Carbonfiber + Fiberglass



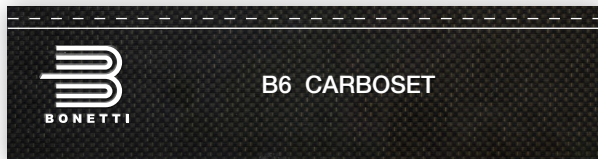
## B1 - CARBOSET

Fiberglass and 2 carbon fiber layers pressed with epoxy resin.  
Temperature resistance up to 175°C.  
Standard thicknesses: 1,45 - 2,00 mm (.055" - .079")



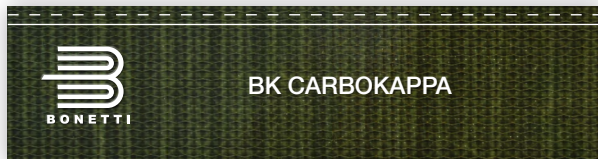
## B4 - CARBOSET

Fiberglass and 4 carbon fiber layers pressed with epoxy resin.  
Temperature resistance up to 175°C.  
Standard thicknesses: 1,45 - 2,00 mm (.055" - .079")



## B6 - CARBOSET

Fiberglass and 6 carbon fiber layers pressed with epoxy resin.  
Temperature resistance up to 175°C.  
Standard thickness: 2,00 mm (.079")



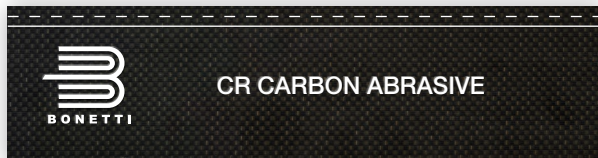
## BK - CARBOKAPPA

Fiberglass and 1 carbon fiber layer, pressed with epoxy resin.  
Temperature resistance up to 175°C.  
Standard thicknesses: 1,50 - 2,00 mm (.059" - .079")



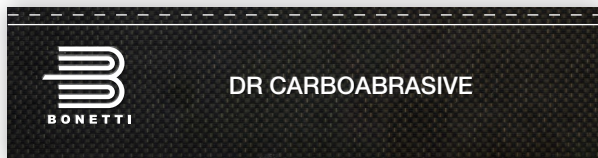
## BU - CARBOSET

Fiberglass and 4 carbon fiber layers pressed with epoxy resin. Layers are arranged to obtain high flexibility in length and excellent stiffness in width (machine direction).  
Temperature resistance up to 175°C.  
Standard thicknesses: 1,45 - 2,00 mm (.057" - .079")



## CR - CARBON ABRASIVE

Fiberglass, 2 carbon fiber layers and 1 abrasive layer to improve the cleaning action, pressed with epoxy resin.  
GRIT 320.  
Temperature resistance up to 175°C.  
Standard thickness: 1,40 mm (.050")



## DR - CARBOABRASIVE

Fiberglass and 4 carbon fiber layers with epoxy resin and abrasive fillers.  
GRIT 600.  
Temperature resistance up to 175°C.  
Standard thickness: 1,90 mm (.075")



## Wire section

Roll Location	Roll Description	Blade Angle	Blade Load	Recommended Blade Type		
				< 600 M/min	600-1000 M/min	> 1000 M/min
<b>WIRE ROLL</b>	Rubber 21-45 PJ	20°	90-110 N/m	A3	A3	A1
	Rubber 4-20 PJ	25°	90-110 N/m	A3-B5	A1-B5	A1-B5
	Rubber 0-3 PJ	25°	90-110 N/m	A3-B9	B7-B8-B9-B1-BU	B7-B8-B9-B1-BU
	Ceramic	25°	90-110 N/m	B1-B4-B6-B7-B8-B9-LE-BU	B1-B4-B6-B7-B8-B9-LE-BU	C1-B1-B4-B6-B7-B8-B9-LE-BU
<b>BREAST ROLL</b>	Rubber 21-45 PJ	20°	90-110 N/m	A3	A3	A1
	Rubber 4-20 PJ	25°	90-110 N/m	A3	A1-B5	B5
	Rubber 0-3 PJ	25°	90-110 N/m	A3	A1-B5-B7-B8-B9-B3	A1-B5-B7-B8-B9-B3
<b>COUCH ROLL</b>	Rubber 21-45 PJ	20°	90-110 N/m	A3	A3	A3
	Rubber 4-20 PJ	25°	90-110 N/m	A3	A1	A3
	Rubber 0-3 PJ	25°	180-200 N/m	A3	A1-B7-B3	A1-B7-B4-B6
	Copper	25°	180-200 N/m	B7-B8	B3-B7-B1	B3-B7-B1
	Stainless steel	25°	180-200 N/m	B7-B8	B3-B7-B8-B9-B1	B3-B7-B8-B9-B1

## Press section

Roll Location	Roll Description	Blade Angle	Blade Load	Recommended Blade Type		
				< 600 M/min	600-1000 M/min	> 1000 M/min
<b>FELT ROLL</b>	Rubber 4-20 PJ	25°	110-130 N/m	B5-B7-B8-B9	B5-B7-B8-B9	B5-B7-B8-B9
	Rubber 0-3 PJ	25°	110-130 N/m	B7-B8-B9	B7-B8-B9	B7-B8-B9
	Stainless steel	25°	150-180 N/m	B7-B9-B3-B1	B7-B9-B3-B1	B7-B3-B9-B1
<b>PRESS ROLL</b>	Rubber 0-1 PJ	25°	250-300 N/m	13CR-18/8-B3	13CR-18/8-B1-B4-B6-C1	13CR-18/8-B6-C1
	Ceramic	27°	300-400 N/m	C1-B4-B6-CR-LE-LR-BU-DR	C1-B4-B6-CR-LE-LR-BU-DR	C1-B4-B6-CR-LE-LR-BU-DR
<b>VENTA-NIP</b>	Rubber 0-3 PJ	25°	250-300 N/m	B7-B8-B9	B7-B8-B9	B7-B8-B9
	Stainless steel	25°	250-300 N/m	B7-B8-B9	B3-B7-B8-B9-B1	B3-B7-B8-B9-B1

## Dryer section

Roll Location	Roll Description	Blade Angle	Blade Load	Recommended Blade Type		
				< 600 M/min	600-1000 M/min	> 1000 M/min
<b>DRYER CAN</b>	Cast iron	30°	180-250 N/m	BZ-B7-B8-B9-ST-BR-BK	BZ-B7-B8-B9-ST-BR-B1-BK	BZ-B3-B7-B8-B9-ST-BR-B1
	Chilled iron	30°	180-250 N/m	BZ-B7-ST-BR-BK	BZ-B7-ST-BR-B1-BK	BZ-B3-ST-BR-B1
	Chrome plated	30°	180-250 N/m	B7-B8-B9-B1-BR-BK	B7-B8-B9-B3-B1-BR-BK	B7-B8-B9-B3-B1-C1-BR
<b>POPE REEL</b>	Cast iron	30°	180-250 N/m	BZ-B7-ST-BR-B1-DR	BZ-B7-ST-BR-B1-C1-DR	BZ-B3-ST-BR-B1-C1-DR
<b>CALENDER ROLL</b>	Chilled iron	25°	150-200 N/m	B3-B7-B8-B9-B1-C1-HR	B3-B7-B8-B9-B1-C1-HR	B3-B7-B8-B9-B1-C1-HR
	Cast iron	25°	150-200 N/m	B3-B7-B8-B9-B1-C1-HR	B3-B7-B8-B9-B1-C1-HR	B3-B7-B8-B9-B1-C1-HR
	Rubber 85-90 Shore D	16°	30-50 N/m	ST	ST	ST

## PACKAGING

Bonetti doctor blades are normally packed in coil form, inside corrugated boxes on wooden pallets. To fit box carts, Bonetti can supply upon request special octagonal corrugated boxes with doctor blades coiled, connected at the ends.



LH



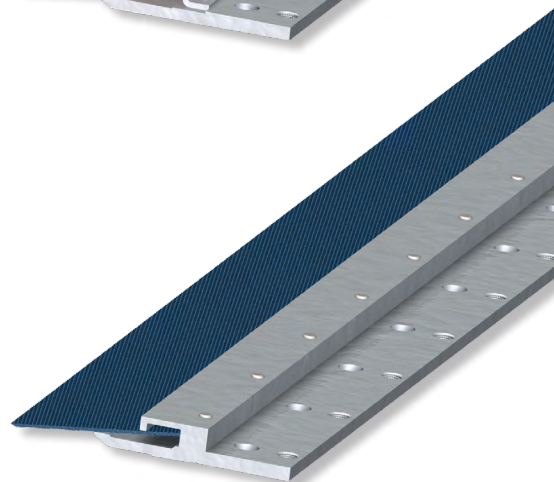
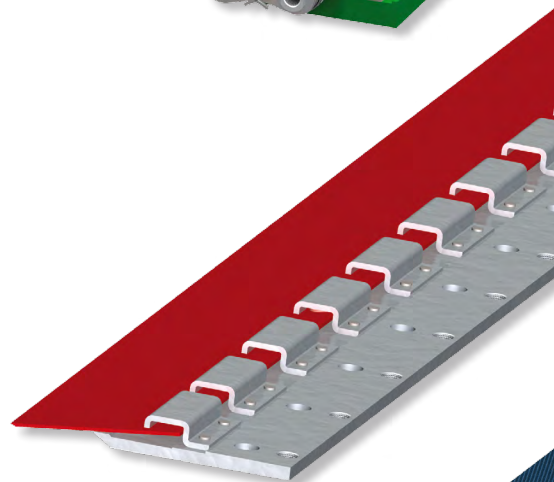
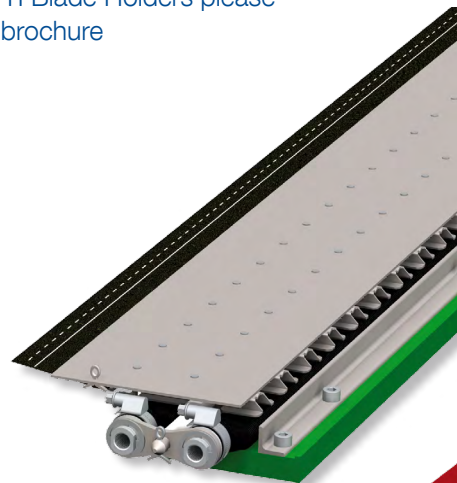
RH



Note: Packaging and shipping method of the blades may vary, depending on country of manufacture.

## BLADE HOLDERS

For the BONETTI Blade Holders please refer to related brochure



Established in 1923 Bonetti has been successfully supplying the pulp and paper industry since more than 50 years. The renowned reliability and quality of coater blades gave rise to the first requests for doctor and creping steel blades in the late 1960's. Synthetic-material doctor blades became available in the 1980's. Challenged by ever-changing doctoring technology, Bonetti has then successfully developed "hi-tech" materials to meet specific Customer needs. In the mid-1990's Doctoring and Creping Systems were a natural addition to the Bonetti Product lines. High-quality Doctor Holders, Systems and Spare Parts, with innovative design



features have since been manufactured and installed throughout the world. To meet worldwide product demands, four (4) new manufacturing facilities were inaugurated in the 1990's and 2000. Sturtevant, WI USA; Hagen, Germany; Cantalupo, Italy; Trois-Rivieres, QC Canada; now complement world headquarters in Lainate, near Milan in Italy. Bonetti's success has always been based on a timely response to the needs and demands of the markets it serves. For more than 50 years, and now in the third generation of family ownership, Bonetti has been and will continue to be a global partner of paper mills and paper-machine manufacturers worldwide.

[www.bonetti.com](http://www.bonetti.com)

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