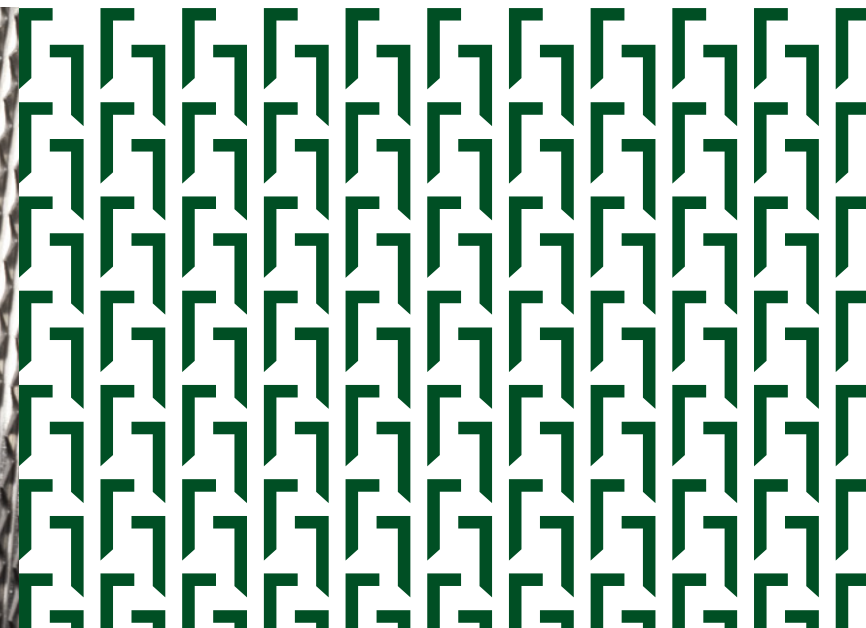
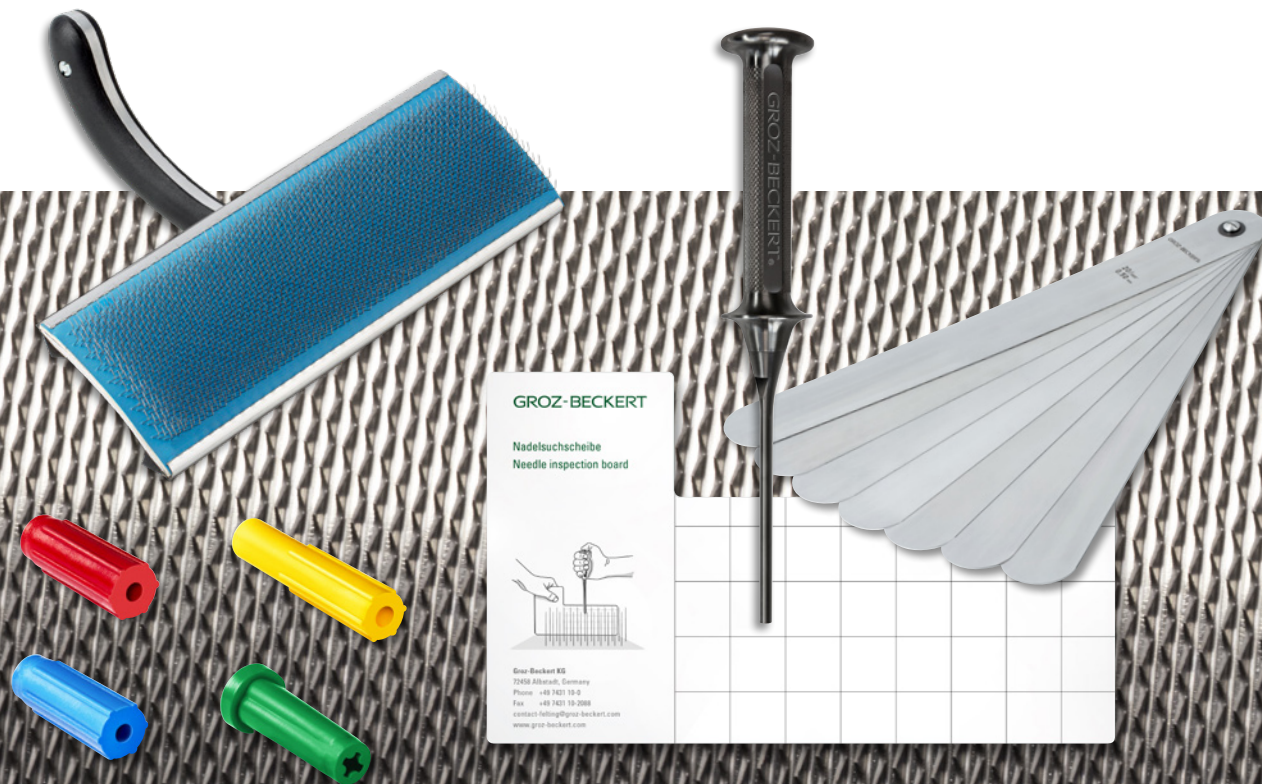
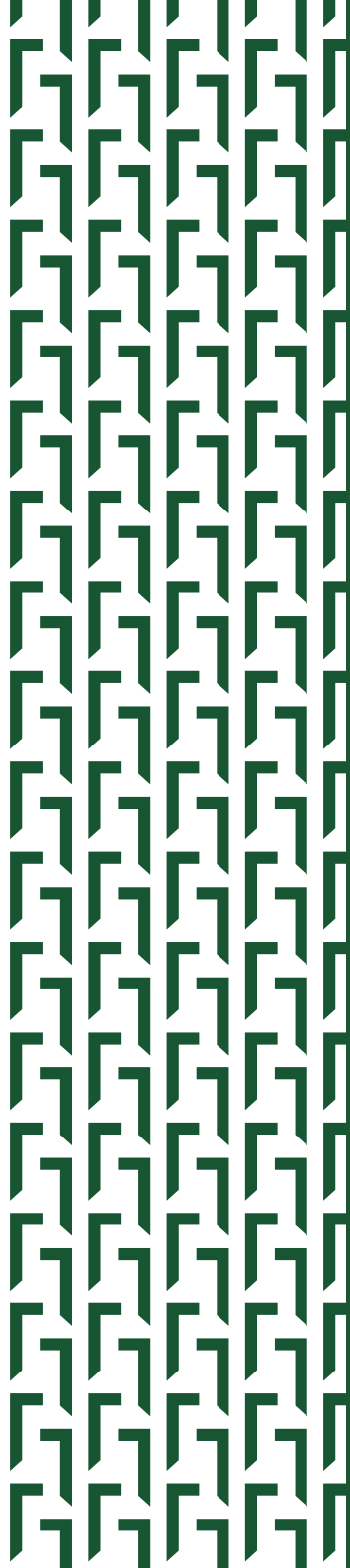


Nonwovens

Accessories for the maintenance of roller cards
and support during the needling process





Contents

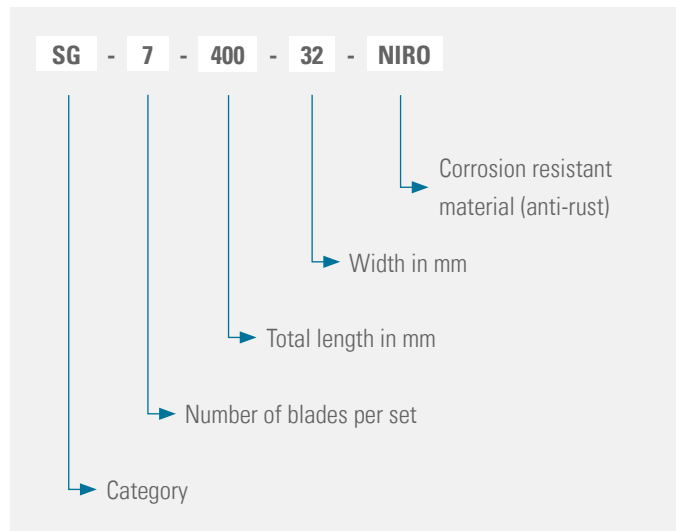
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Setting gauges and flat gauges

Product features and recommendations

- **Single setting gauges** are designed for safe and easy handling when used with the plastic handle.
- **Sets of multiple setting gauges** allow for quicker dimension changes, improving efficiency during adjustments.
- **Narrower gauges** are more flexible and easier to bend, making them ideal for use on rollers with small radii.
- **Wider gauges** offer greater stability and are more resistant to deformation, especially bending at the teeth.
- **Short and long setting gauges** differ in handling and application, depending on the specific machine setup.

We recommend using separate setting gauges for card entry setup and doffer setting (fine-tuning). Coarse wires in the card entry area can cause rapid wear on the gauges, which may result in inaccurate gaps and performance issues in the doffer and finer sections.



Category	Item designation	Item no.	Comment
 Settings gauges	SG 400x45 0,10/4	P202896	made of stainless steel with plastic handle
	SG 400x45 0,15/6	P202897	
	SG 400x45 0,20/8	P202898	
	SG 400x45 0,25/10	P202900	
	SG 400x45 0,30/12	P202901	
	SG 400x45 0,40/16	P287132	
	SG 400x45 0,50/20	P202902	
	SG 400x30 2,00/80	P242241	
 Setting gauge sets	SG7 300x45 NIRO (0,10/4; 0,15/6; 0,20/8; 0,25/10; 0,30/12; 0,40/16; 0,50/20)	P258451	
	SG10 300x45 NIRO (0,08/3; 0,10/4; 0,13/5; 0,15/6; 0,18/7; 0,20/8; 0,25/10; 0,30/12; 0,40/16; 0,50/20)	P302362	
	SG7 400x32 NIRO (0,10/4; 0,15/6; 0,20/8; 0,25/10; 0,30/12; 0,40/16; 0,50/20)	P273362	
	SG10 400x32 NIRO (0,08/3; 0,10/4; 0,13/5; 0,15/6; 0,18/7; 0,20/8; 0,25/10; 0,30/12; 0,40/16; 0,50/20)	P289017	
	SG7 400x45 NIRO (0,10/4; 0,15/6; 0,20/8; 0,25/10; 0,30/12; 0,40/16; 0,50/20)	P258449	
	SG6 400x45 NIRO (0,60/24; 0,70/28; 0,80/32; 0,90/36; 0,30/12; 1,00/40; 1,20/48)	P258452	
	SG10 400x45 NIRO (0,08/3; 0,10/4; 0,13/5; 0,15/6; 0,18/7; 0,20/8; 0,25/10; 0,30/12; 0,40/16; 0,50/20)	P289019	
	FG9 64,5x30 NIRO H (0,12/5; 0,15/6; 0,18/7; 0,20/8; 0,23/9; 0,25/10; 0,28/11; 0,30/12; 0,35/14)	P256620	
 Flat gauge Set			

Hand card holder, hooks and roller picker

Hand card holder and hand cards

Category	Item designation	Item no.	Rib thickness (mm)	Comment
Hand card holder	HCH 280 mm	P202887		
Hand cards with clip	HC No. 4 (23) 260x90 mmw	P256911	6,53-4,23 (V4-V6)	on request also without clip packing unit 5 pcs.
	HC No. 8 (25) 260x90 mm	CS0241390	4-2,54 (V8-V10)	
	HC No. 12 (27) 260x90 mm	P256914	2,5-1,65 (V12-V14)	
	HC No. 18 (30) 260x90 mm	P202892	1,6-1,27 (V16-V20)	
	HC No. 22 (32) 260x90 mm	P242783	1,25-0,38 (V22-V39)	



Hand card with holder



Roller picker

Hooks and roller picker

Category	Item designation	Item no.	Comment
Flexible wire puller	FP 250	P286013	for flexible card clothing
Roller picker	RP 500	P203003	incl. 2 spare tips and 4 spare springs packing unit 2 pcs.
	RP spare part set	P272041	contains 10 spare tips and 10 spare springs
Fiber hook	FH 350	P287209	for removing fibers out of tight spots



Flexible wire puller



Fiber hook

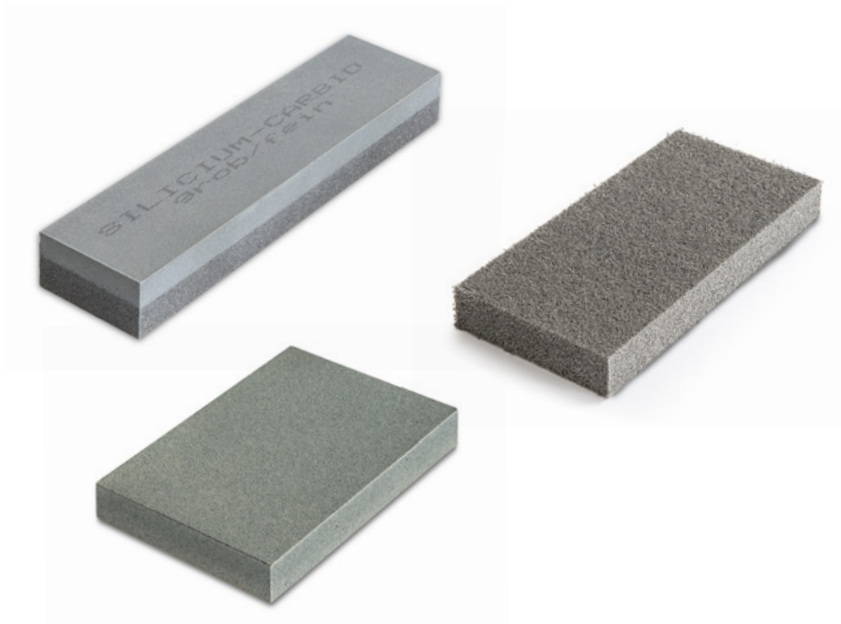
Brushes, sponges and grinding tools




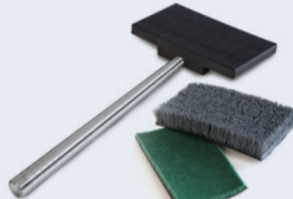

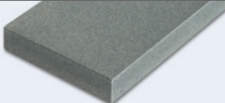
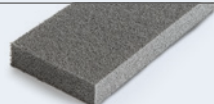

Cleaning and maintenance of card clothing

Card clothing has to be handled with care during cleaning. To avoid damage, we strongly recommend using soft, non-aggressive tools only.

Polishing or grinding of card clothing should be considered a trouble-shooting measure, not a standard procedure. Our card clothing is manufactured with high precision and does not require any post-installation treatment under normal operating conditions.

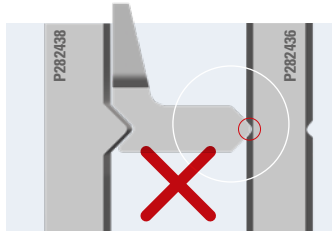
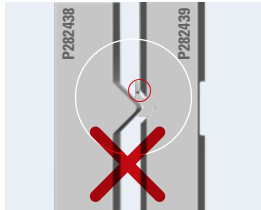
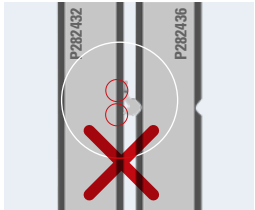
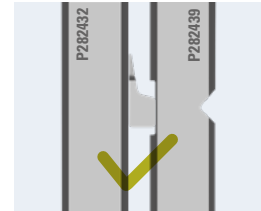
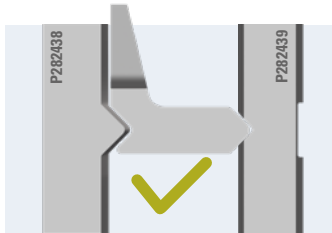
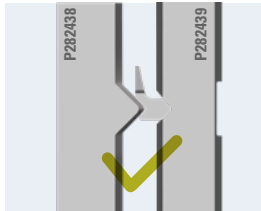
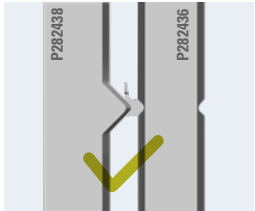
If your application depends on regular treatments to function properly, this may indicate that the card clothing specification needs to be reviewed. In such cases, please do not hesitate to contact us for personalized advice and support.



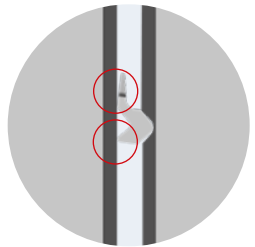
Category	Type	Item designation	Item no.	Comment
Brass brush		BB 4x18 rows with handle	P210795	for cleaning card clothing
		BB 8x20 rows without handle	P287130	
Steel brush		SB 8x20 rows without handle	P287131	for cleaning card clothing on welding spots and in the case of aggressive contamination
Nylon brush		NB brush holder	CS0238335	for cleaning and brushing card clothing
		NB nylon brush fine	CS0238337	
		NB nylon brush coarse	CS0238336	
Polishing sponge		PS 240x25x60mm	P316814	for smoothing of the surface area
		PS 150x20x100mm	P256891	for deburring card clothing to the tooth base/medium
		PS 205x25x100 mm	P348426	for deburring card clothing to the tooth base/soft
Re-sharpening stone		GS SC 50x25x200mm	P340446	coarse/fine combination

Ceramic brakes

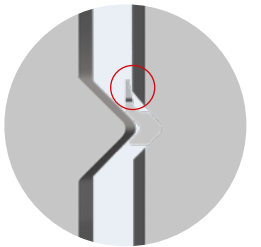
Groz-Beckert card clothing requires ceramic brakes and ceramic guiding fingers to avoid any risk of damages. Carbid tools are not allowed, except for V4 and V5 card clothing rib fineness.



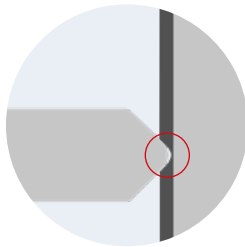
Wrong usage!



V-interlocking rib shapes mount only with correct ceramic brake set



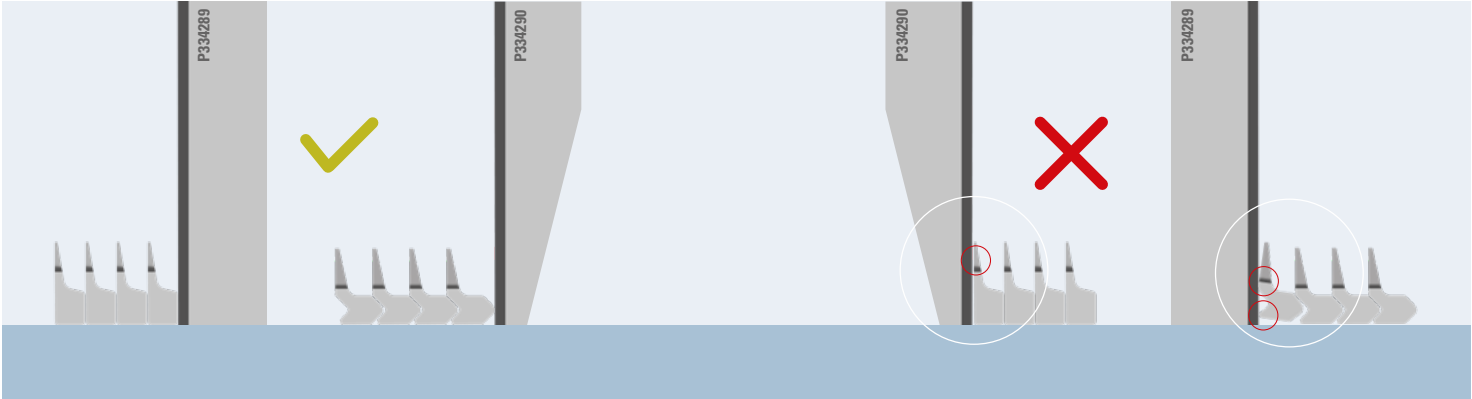
Mount V32 – V39 only with P0000000282436, wire teeth shall not touch the ceramic breaks



Do not mount V4 – V6 with P0000000282436, due to bad guiding

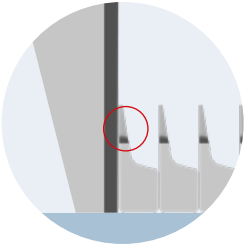
Material designation	Material number	
CBN NP 50X5X16	P0000000282432	
CBN V NEG FINE BOTH SIDES 50X5X16	P0000000282436	
CBN V POS 50X5X16	P0000000282438	
CBN U NEG/V NEG COARSE 50X5X16	P0000000282439	

Ceramic guiding fingers

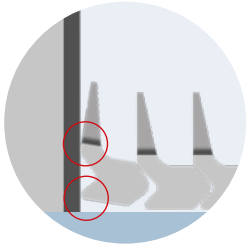


Wrong usage!

Material designation	Material number	
CBN GUIDE COARSE FINGER 14X2,8X26+	P0000000334289	
CBN GUIDE FINE FINGER 14X2,8/1,1X26+	P0000000334290	



Tooth will be damaged if guiding finger pushes against the side surface of the tooth.



Rib will be damaged if guiding finger pushes against the side surface of the tooth.



Tampicos

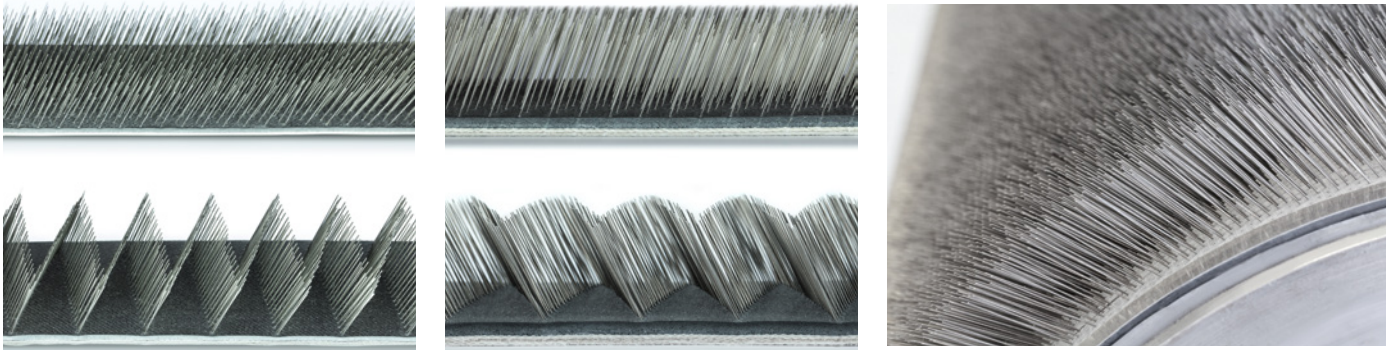
Material number	Tampico*
CSO229946	TAMPICO BLACK 35 / 23
CSO229947	TAMPICO WHITE 45 / 35
CSO238168	TAMPICO WHITE 45 / 25
CSO240589	TAMPICO WHITE 45 / 31
P00000000256921	TAMPICO BLACK 35 / 31
P00000000256922	TAMPICO WHITE 45 / 23
P00000000256923	TAMPICO WHITE 45 / 33
P00000000257464	TAMPICO WHITE 35 / 18
P00000000264285	TAMPICO WHITE 45 / 28



*The first number (e.g. 35) describes the width, while the second number (e.g. 23) describes the total height in mm.

Designation of flexible wires and fillets

Manufacturing code																	
Manufacturing code – examples	Basic type	Wire N° (English)	Wire N° (French)	Foundation type	Number of layers	Linen	Plating	Width (Setting)	Grinding	Setting pattern	Hardening	Back ply	Product Code	Length strip (Setting)	Length strip (Foundation)	Packaging Unit (Only FCN)	Clipping
FCN30PU4ply-N25-B-DP-52,5m	FCN	30	18	PU	4	-	N	25	-	-	-	B	DP	-	-	52,5m	-
FFW26OPCR9plyL-46SG-EHP	FFW	26	10	OPCR	9	L	-	46	SG	-	EHP	-	-	-	-	-	-
FFY26OPCR5plyLSS38EG-H21	FFY	26	10	OPCR	5	L	SS	38	EG	-	-	-	-	-	-	-	-
FS26VR4ply-N20SG-B-10C321018/1022C	FS	26	10	VR	4	-	N	20	SG	-	-	B	10C32	1018	1022	-	C
Explanation	FCN* = Fillet cotton (SS) FFW = Fillet flexible wire (NW) FS = Fillet strips (SS) FFY = Fillet fancy (Volant) (NW)	see DIN ISO 4105	see DIN ISO 4105	MP = Multiplast (orange). Compare fillets with > 10 layers OPCR = Oil proofed cushion rubber (black)/ Kammgarn/ worsted/fancy PU = Polyurethan (blue) VR = Vulcanised rubber (blue regular)/ Streichgarn/ woolen FA = Without rubber/only fiber foundation	„-“ = No Linen L = 1 Linen	„-“ = No plating N = Nickel plated SS = Stainless	in mm	„-“ = No grinding BG = Back grinded SG = Side grinded EG = Even grinded DP = Diamont point (oblique cut) SG+BG = Even, side and back grinded	„-“ = Standard pattern OS = Open set (ca. -10 % PPSI) EOS = Extra open set (ca. -30 % PPSI) (Setting 25/6) ZZ = Zig-zag pattern	„-“ = No hardening EHP = Extra hardened point	„-“ = No back ply B = Back ply	Product code-market/OEM specific codes	in mm	in mm	in m (only fillet cotton/short staple)	„-“ = No clipping C = Clipping	



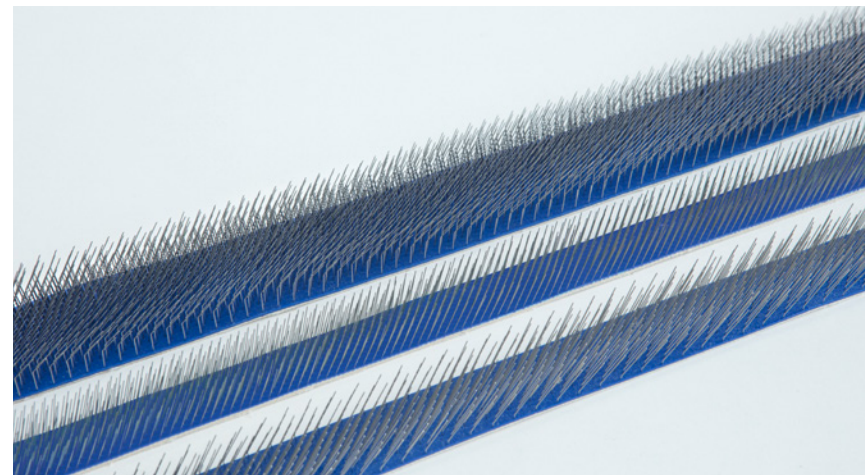


Fillets wire numbers

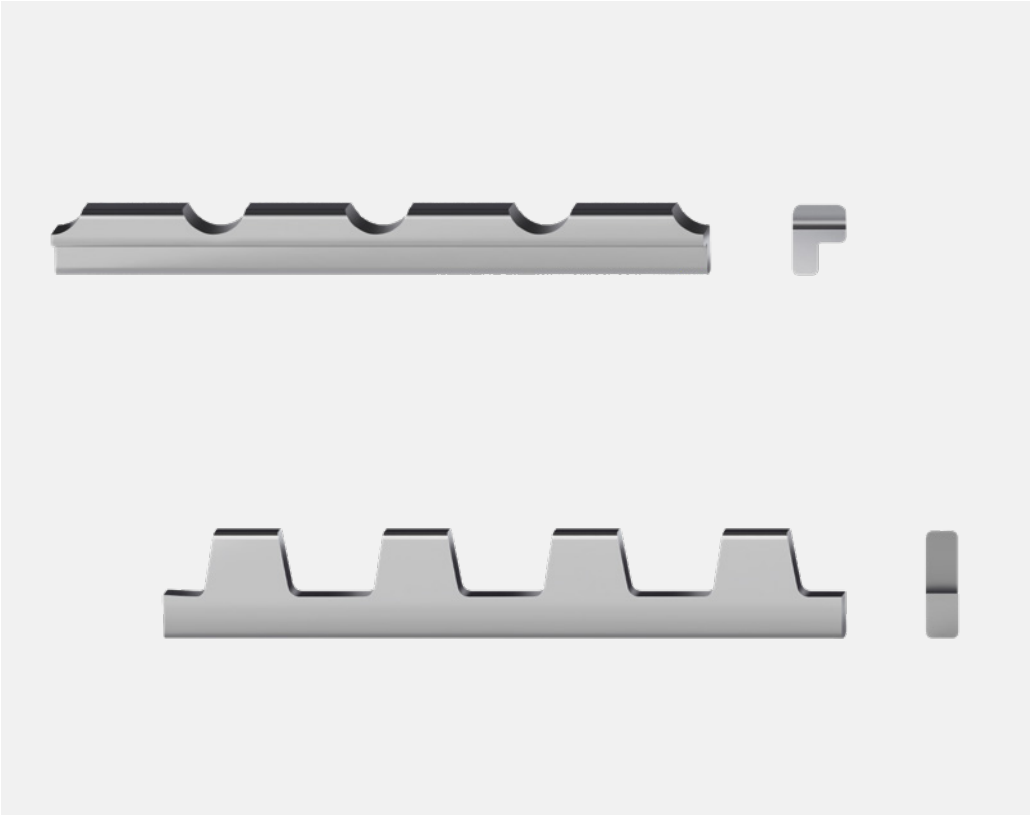
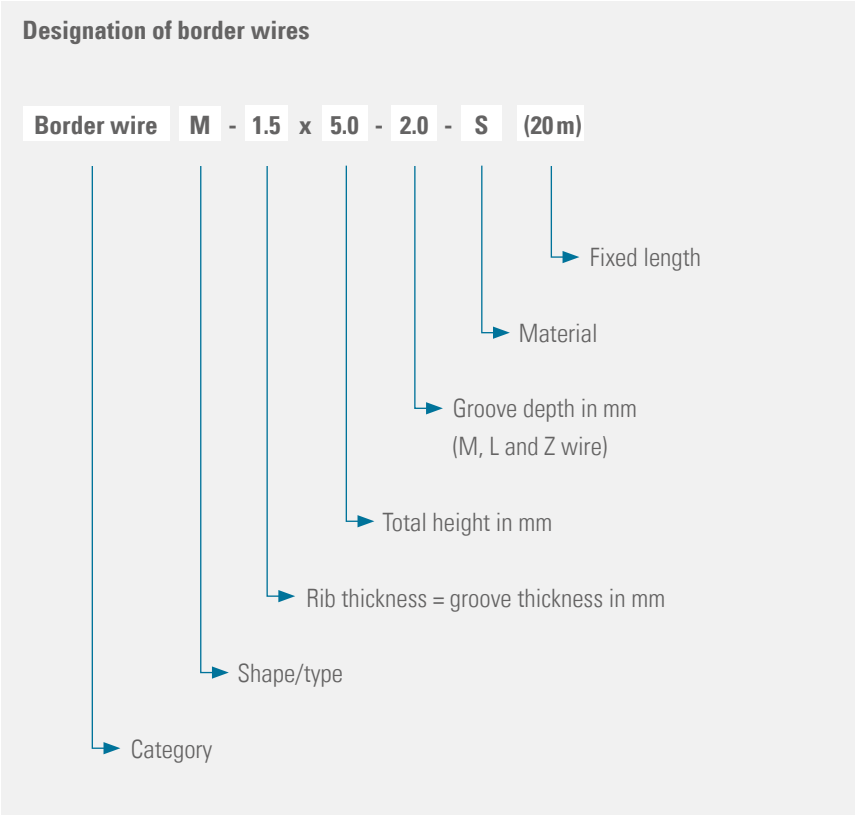
Round wire diameter [mm]	Fine cotton	Wire N° (English)	Wire N° (French)
0,91		20	0
0,81		21	0
0,71		22	2
0,63		23	4
0,58	30	24	6
0,53	40	25	8
0,48	50	26	10
0,43	60	27	12
0,405	70	28	14
0,38	80	29	16
0,355	90	30	18
0,33	100	31	20
0,305	110	32	22
0,28	120	33	24
0,255	130	34	26
0,23	140	35	28
0,205		36	30

Flexible wire width selection

Roller type	Worsted fillets	Woolen fillets	Fancy fillet
Stripper	< 36 mm	< 36 mm	38 / 46 mm
Worker	36-46 mm	36-46 mm	
Transfer	36-51 mm	36-56 mm	
Doffer	36-51 mm	51-56 mm	
Cylinder	51 mm	56-60 mm	



Base wires, spacer wires and border wires

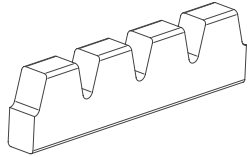


Border wires are wires used for the roller edges in grooves – the connection between the card clothing and the roller itself. They are made from steel.

Spacer wires are, like border wires, made from steel, and used in between the card clothing in a standing or laying position to decrease the PPSI.

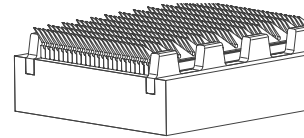
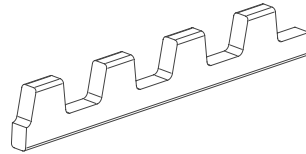
Aluminum base wires are used under the card clothing to increase the roller diameter. After the installation, the wire needs to be ground.

Base wires

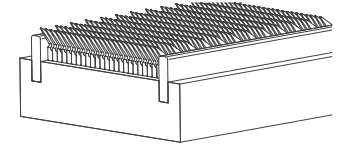
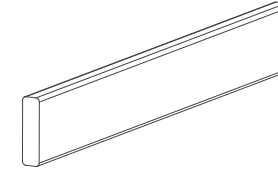


Material designation	Material number	g/m
Base wire-M-2.5x6.0-0-A	P0000000324837	34.73
Base wire-M-2.5x9.0-0-A	P0000000324839	51.31

Border wires

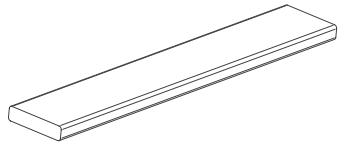


Material designation	Material number	g/m	m/kg
Border wire-M-1.5x5.0-2.0-S (20 m)	P0000000324830	37.63	26.57
Border wire-M-1.5x6.5-2.0-S (20 m)	P0000000324825	46.6	21.46
Border wire-M-2.0x6.0-2.0-S (20 m)	P0000000324832	58.11	17.21
Border wire-M-2.0x11.0-2.3-S (20 m)	P0000000324827	122.23	8.18

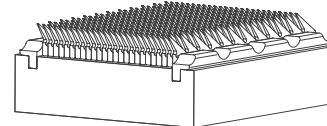
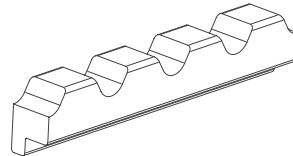


Material designation	Material number	g/m	m/kg
Border wire-L-1.0x3.5-0-S (20 m)	P0000000324786	26.8	37.31
Border wire-L-1.5x3.5-0-S (20 m)	P0000000324810	40.51	24.69
Border wire-L-1.5x4.5-0-S (20 m)	P0000000324797	52.25	19.14
Border wire-L-1.5x5.5-0-S (20 m)	P0000000324802	64	15.63
Border wire-L-1.5x9.0-0-S (20 m)	P0000000324806	105.11	9.51
Border wire-L-1.5x11.0-0-S (20 m)	P0000000324808	128.6	7.78
Border wire-L-1.6x4.0-0-S (20 m)	P0000000324793	49.51	20.2
Border wire-L-1.6x6.0-0-S (20 m)	P0000000324804	74.57	13.41
Border wire-L-2.0x4.5-0-S (20 m)	P0000000324799	69.87	14.31
Border wire-L-2.0x6.0-0-S (20 m)	P0000000324795	93.36	10.71

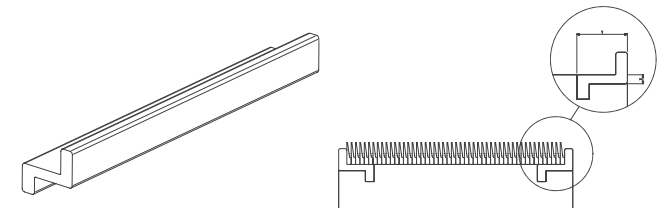
Spacer wires



Material designation	Material number	g/m
Spacer wire-L-1.3x2.0-0-S	P0000000324844	19.75
Spacer wire-L-1.5x6.5-0-S	P0000000324846	75.74
Spacer wire-L-1.9x3.43-0-S	P0000000324845	50.43



Material designation	Material number	g/m	m/kg
Border wire-L-1.2x2.7-1.5-S (20 m)	P0000000324823	32.85	30.44
Border wire-L-1.2x3.2-1.5-S (20 m)	P0000000324818	40.64	24.61
Border wire-L-1.5x6.5-1.8-S (20 m)	P0000000324821	144.42	6.92



Material designation	Material number	g/m	m/kg
Border wire-Z5.5-1.6X6.2-3.3-S (20 m)	P0000000324834	112.96	8.85
Border wire-Z6.5-1.6X6.2-3.3-S (20 m)	P0000000324836	122.74	8.15

* Our border wires are available in different lengths only on request.

** Our border wires have a tolerance of -0.02 / -0.05 in thickness.
We recommend -0.05 / -0.08 for the groove width.

*** Only for Z-shapes, the step height (X) should be 1.3 mm with a tolerance of +0 / -0.2, and the width (Y) is 5.5 or 6.5mm, depending on the wire type (e.g. Z6.5).

Needle board inserts

Needle board inserts serve to stabilize the needles in the board

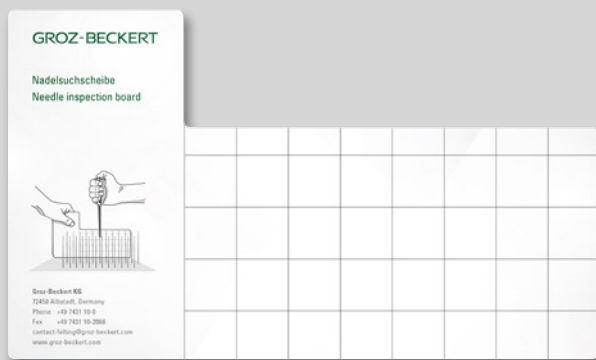
As the needle board ages, the hole diameter changes, which can compromise straight needle guidance in the board.

Under certain circumstances, this can lead to greater needle deflection when penetrating the nonwoven fabric, possibly impacting the stripper or base plate, and breaking.



Article no.	Designation			Color
643641	15 gg	9/16	G1	Blue
643931				Yellow
644071				Green
643651				Red
643631				White
643741	15 gg	9/16	G2	Blue
643731				Yellow
643751				Red
643711				White
644091	15 gg	9/16	G5	Blue
644111				Yellow
644081				Red
644101				White
643621	13 gg	15/16	G1	Green
643991	15 gg	15/16	G1	Blue
644051				Yellow
644061				Green
643661				Red
643981				White

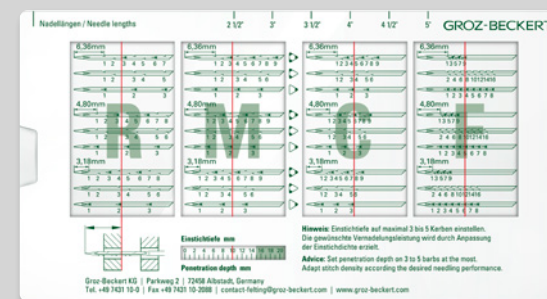
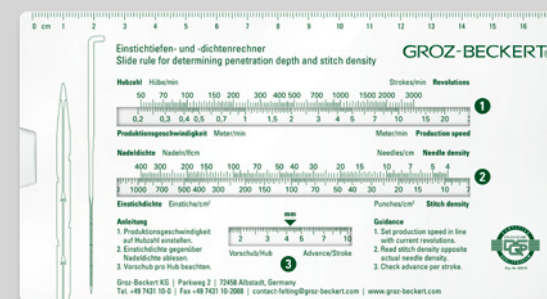
Needle inspection board, positioning disc and combined calculator



Material no. 644971



Material no. 644961



Material no. 644951 (DE-EN) / 644931 (EN-ZH)

Needle inspection board

To achieve the optimum punching result, the right machine parameters are just as important as correct positioning of a suitable felting needle, by means of the crank, as this has a direct impact on the alignment of the working part.

It is practically impossible to locate individual damaged needles in the board.

A suitable aid for more quickly locating and exchanging broken and bent needles in the board is the Groz-Beckert needle inspection board.

Crank positioning disc

When it comes to crank positioning, Groz-Beckert refers to the needle perspective looking at the needle point with the crank aligned downwards.

With the aid of this disk, all possible scenarios can be depicted and clearly indicated for users.

This allows users to simulate the relative rotary position between the crank and working part while looking at the needle crank / at the rear of the disk, and to then take a reading of the number of degrees at the front of the disk.

Slide rule for determining stitch density and penetration depth

The stitch density and penetration depth are key machine parameters when manufacturing needle punched nonwovens, as the correct machine setting determines the final optical and physical results in the fabric.

Groz-Beckert therefore recommends the use of its combined calculator for stitch density and penetration depth.

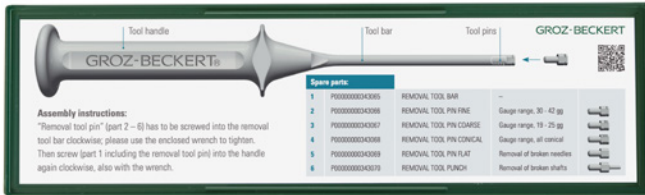
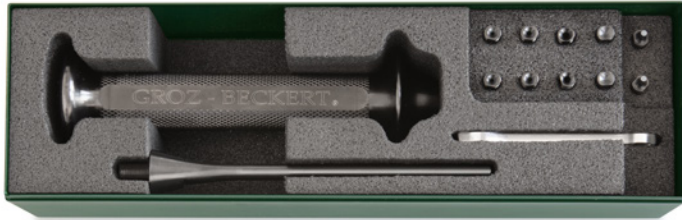


For more information, visit the Customer Portal

Needle removal tool

With the help of the Groz-Beckert needle removal tool, needles can be easily and precisely removed from the needle board.

Its interchangeable pins for various gauges and applications ensure smooth removal of the needles – whether removing individual needles, entire segments or the complete needle board.



Category		Item no.	Description
Bar	Removal tool bar	P0000000343065	
Pins	Removal tool fine pin	P0000000343066	Gauge range 30 – 42 gg
	Removal tool coarse pin	P0000000343067	Gauge range 19 – 25 gg
	Removal tool conical pin	P0000000343068	All gauge ranges, conical
	Removal tool flat pin	P0000000343069	Removal of broken needles
	Removal tool punch pin	P0000000343070	Removal of broken shafts

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