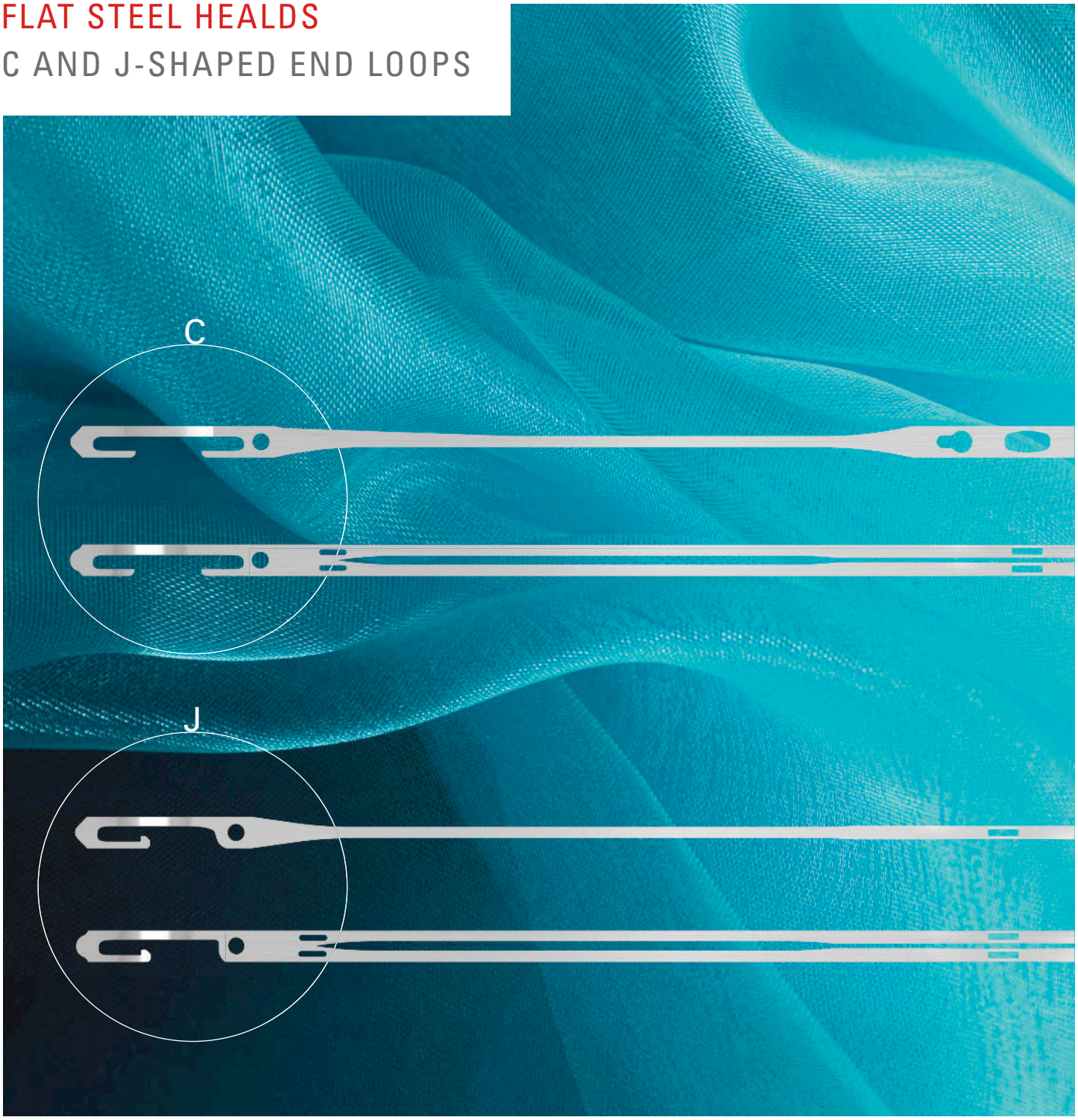
GROZ-BECKERT®

Grob®

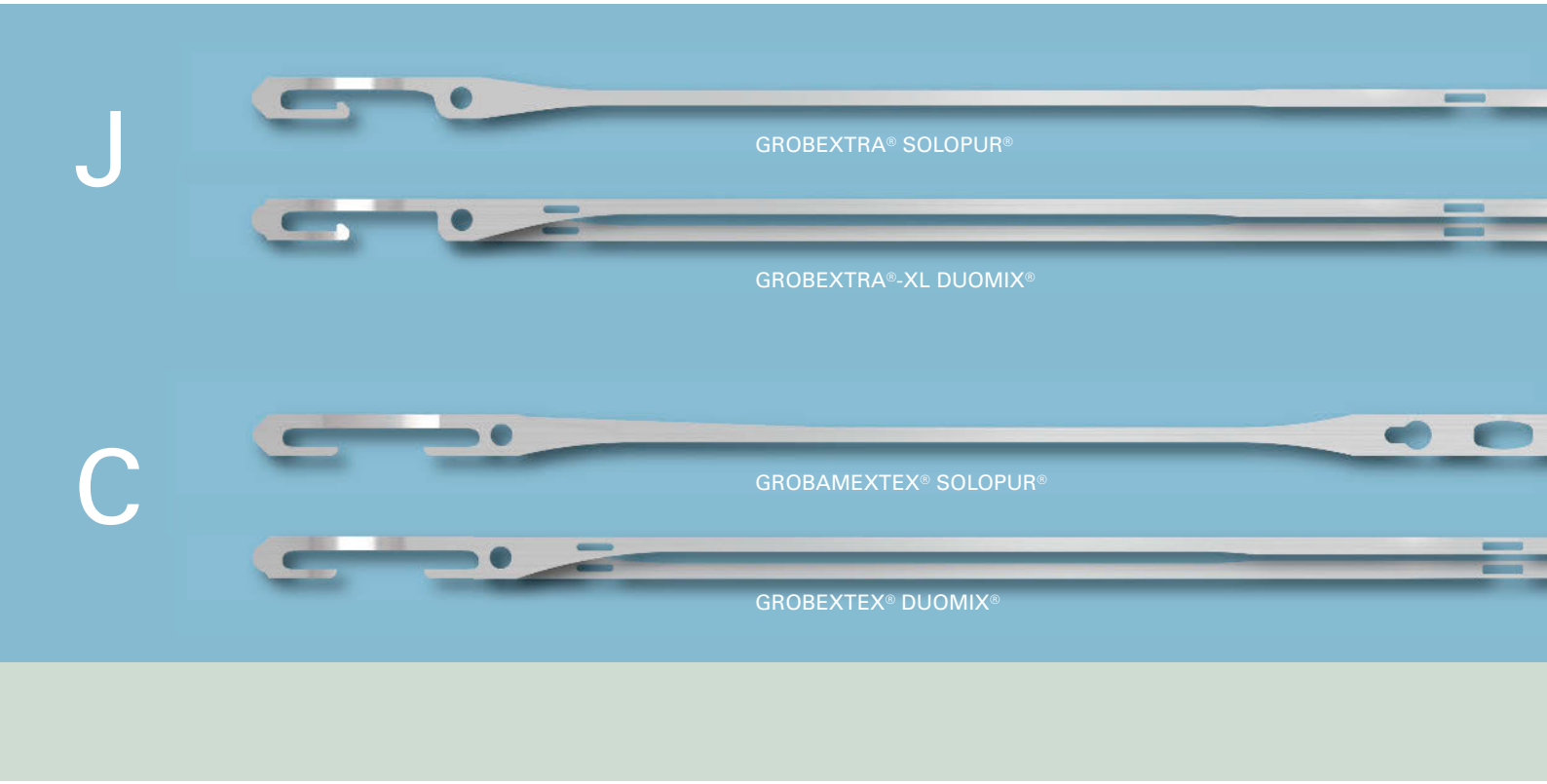
FLAT STEEL HEALDS

C AND J-SHAPED END LOOPS



Functionally efficient healds may be small in size, but they are a decisively vital detail when it comes to the economy and productivity of a weaving machine. Rapid warp preparation, a high weft insertion rate, minimal production disruptions and flawless fabric quality: With Groz-Beckert healds all these benefits come together for optimum results in day-to-day weaving operation.

GROZ-BECKERT FLAT STEEL HEALDS:
RELIABLE QUALITY FOR PRODUCTIVE WEAVING MACHINES



The material: lightweight yet rigid and durable

Groz-Beckert healds are produced from GROBINOX® tempered stainless steel, making them highly resistant, even for use with water jet weaving machines. Non-standard nickel plated versions are also produced. Through close cooperation with weaving machine manufacturers and users, we ensure that our products remain abreast of the latest weaving requirements.

The shape: narrow yet durable

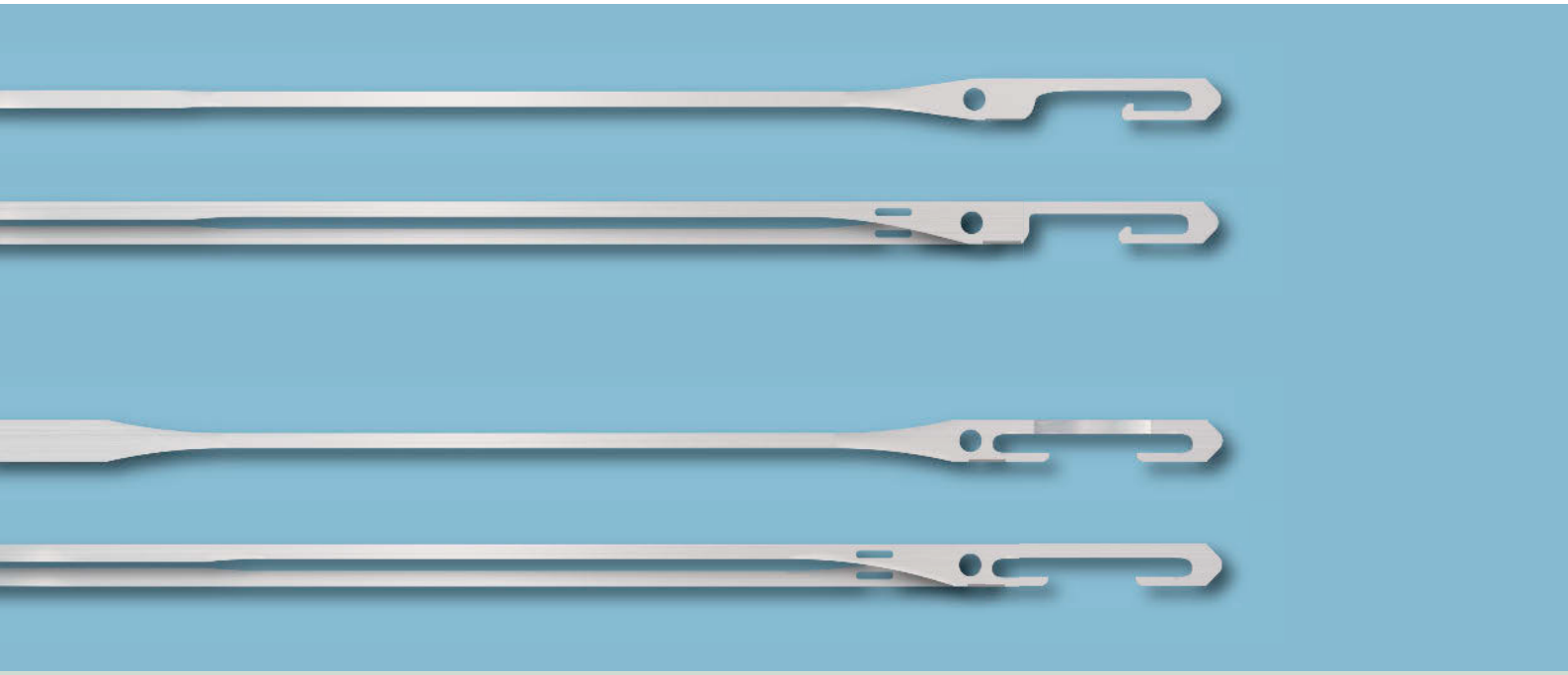
Because the end loop is the most stressed part of the heald, Groz-Beckert makes use of the entire material width to ensure the desired degree of stability. The design of the end loops ensures good running properties during warp preparation and helps prevent the heald rotating around its longitudinal axis during weaving. In the shed forming area, the heald is punched to an optimum width to reduce friction between the warp yarn and heald to a minimum.

GROBEXTRA®-XL healds reduce wear on healds and heald carrying rods

In order to minimize damage to heald carrying rods and healds, the end loops are extended towards the centre of the heald. This design is used predominantly together with heald frames in which the heald movement is dampened, but even in conventional heald frames they bring about a wear-reducing effect. Healds with an OPTIFIL® thread eye are supplied as standard with an XL end loop version.

SOLOPUR® and DUOMIX®

Depending on the density of the warp, SOLOPUR® healds are available for single-rowed thread eyes, and DUOMIX® for double-rowed thread eyes.



Superpolished GROBmicro PLUS healds

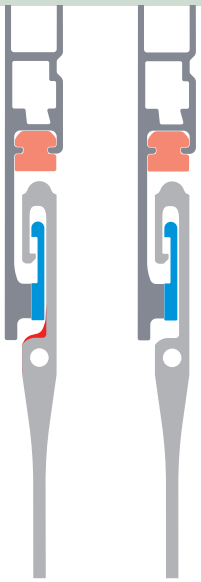
GROBmicro PLUS healds offer an ultra-fine surface finish of the kind required for successful weaving of sensitive microfibres and finest filament yarns. These healds are also available with the OPTIFIL® thread eye, which measures 5.5 x 1.2 mm.

With the OPTIFIL® thread eye, Groz-Beckert supplies pioneering design manufactured to the highest standard of quality

What makes the special shape of the OPTIFIL® thread eye so effective is that it is optimized both for the warp thread passing through the eye and also for the adjacent threads.

The OPTIFIL® thread eye makes available significantly more space for the thread, allowing a 30 % higher row density compared to healds with a standard thread eye.

Instead of coming into contact with edges, the warp yarn moves across flat surfaces. This reduces contact pressure and consequently also friction. Depending on the pattern, the number of heald frames can be reduced, so allowing increased weaving machine operating speeds.



TO REDUCE DAMAGE TO THE HEALD CARRYING RODS AND TO THE HEALDS, GROBEXTRA®-XL HEALDS ARE FITTED WITH EXTENDED LOOP ENDS.

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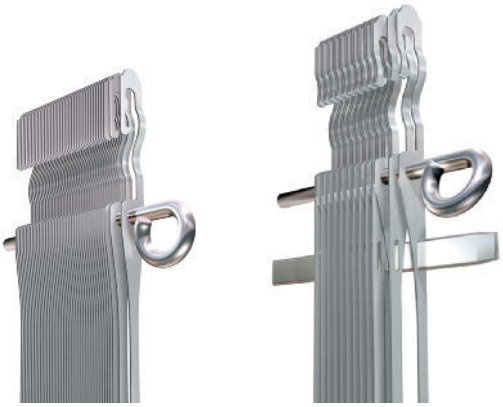
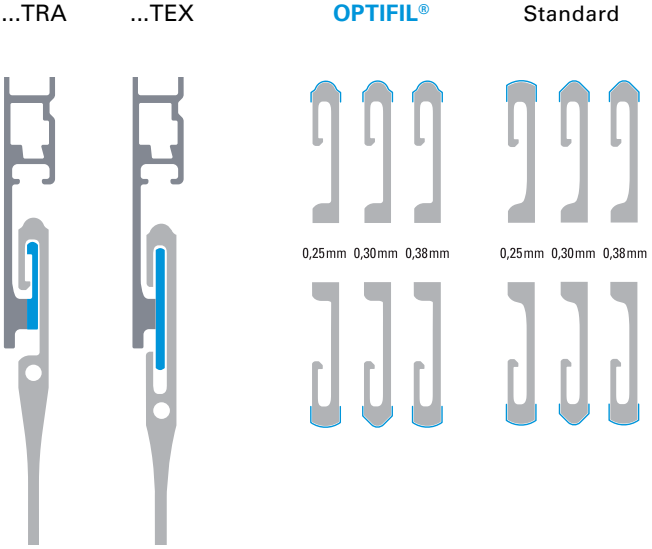


Identification of material thickness

To allow the different material thicknesses to be quickly identified, the ends of the healds are differently shaped. The upper loop ends of healds with the OPTIFIL® thread eye are given a special shape.



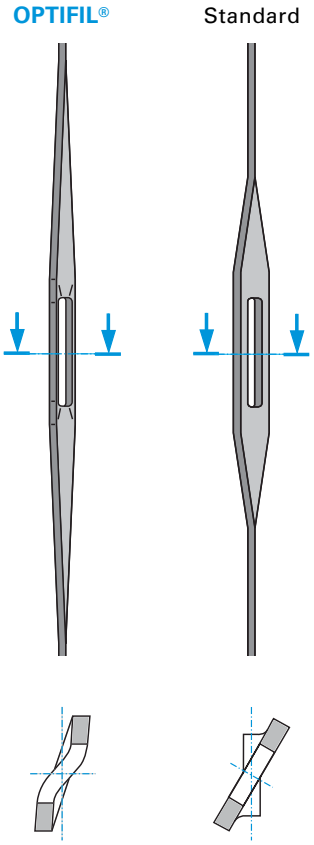
Meticulously engineered solutions down to the smallest detail

PORTER for transport and storage

Groz-Beckert healds are designed with threading holes at the end loops to allow the insertion of PORTER rods for transportation purposes.

DIVI for separation

Healds with two-rowed thread eyes must be separated from healds with single-rowed eyes prior to automatic drawing in. DIVI sorting slots are designed to allow separation with the relevant dividing rods.



WITH OPTIFIL®, HEALD DENSITY CAN BE INCREASED BY UP TO 30 % PER HEALD FRAME AND PER CENTIMETRE. THIS ALLOWS THE NUMBER OF HEALD FRAMES TO BE REDUCED DEPENDING ON THE WEAVE.

FLEXIBILITY FOR ALL DRAWING-IN AND WEAVING MACHINE TYPES

To simplify the process of selecting the correct product from the comprehensive Groz-Beckert heald assortment, trade marks composed of different syllables are used. The suffix TRA, for instance, is indicative of J-shaped end loops, while TEX indicates C-shaped end loops.

Groz-Beckert healds are manufactured in compliance with the very narrowest tolerances, paying meticulous attention to ensure the utmost regularity of all shapes and tolerances, even in large-scale series production. This is vital to ensuring optimum heald performance on automatic drawing-in machines.

The tables provided on pages 5 and 6 describe the specific heald characteristics for certain drawing-in machines.

Healds with OPTIFIL® thread eye cannot be combined with standard healds in automatic drawing-in machines.

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The Groz-Beckert heald range – an overview

	Drawing-in machines				End loops					Position of eyes						Material
SOLOPUR flat steel healds with laterally open J or C-shaped end loops	Stäubli and VEGA		Reed Chatwood		Upper and lower corrugated	Upper corrugated, lower flat	Upper and lower alternately corrugated or flat	J - shaped	C - shaped	Single row, symmetric	Single row, symmetric suitable for double row		Double row, asymmetric SOLOMIX + INTERMIX	In the centre	5 mm above the centre	Stainless steel
Symbols																
Trade marks	...EX...	...EX...	...AM...	...IM...				...TRA	...TEX	SOLOPUR®	SOLOMIX®	INTERMIX®	DUOMIX®			GROBINOX®
GROBEXTRA®	●					●		●		●	●	●	●	○	●	●
GROBEXTEX®		●			●				●	●				●		●
		●				●			●		●	●	●	●		●
GROBIMEXTEX®		●		●			●		●		●	●	●	●		●
GROBAMEXTEX®		●	●		●				●	●				●		●

○ Only with end loop distance of 280 mm (11") and smaller

Groz-Beckert: A reliable partner for all your weaving needs

Alongside the most commonly used healds, Groz-Beckert also manufactures special designs to customer order. For additional weaving machine components such as heald frames, warp stop motions and drop wires as well as leno accessories, please refer to our extensive range of catalogues or contact us to speak to one of our competent advisors.

Determination of the most suitable heald

Suitable for warp yarns					Maximum density per heald frame				Flat steel healds with laterally open J or C-shaped end loops			
			English count		Standard thread eye		OPTIFIL® thread eye					
Tex system	Metric number	Denier	Cotton	Worsted	SOLOPUR®	DUOMIX®	SOLOPUR®	DUOMIX®	Cross section	Thread eyes	Trade mark	
Tt	Nm	Td	NeB	NeK	per cm	per cm	per cm	per cm	mm	mm		
30	34	300	20	30		20		28	5.5 x 0.25	5.5 x 1.2 [1]	GROBEXTRA®	J
30	34	300	20	30	12	18	15	23	5.5 x 0.30	5.5 x 1.2 [1]	GROBEXTRA®	
72	14	650	8	12	8		10		5.5 x 0.30	6.5 x 1.8	GROBEXTRA®	
					7		9		5.5 x 0.38			
						12		15	6 / 7.2 x 0.30			
250	4		2		6		8		5.5 x 0.30	6.5 x 2.5	GROBEXTRA®	
					6		8		5.5 x 0.38			
250	4		2	4	10				5.5 x 0.30	8.0 x 3.8	GROBEXTRA®	
					8				5.5 x 0.38			
30	34	300	20	30		20		28	5.5 x 0.25	5.5 x 1.2 [1]	GROBEXTEX®	C
30	34	300	20	30	12	18	15	23	5.5 x 0.30	5.5 x 1.2 [1]	GROBEXTEX®	
						15		17			GROBIMEXTEX®	
72	14	650	8	12	8		10		5.5 x 0.30	6.5 x 1.8	GROBEXTEX®	
					7		9		5.5 x 0.38			
250	4		2		6		8		5.5 x 0.30	6.5 x 2.5	GROBEXTEX®	
					6		8		5.5 x 0.38			
250	4		2	4	10				5.5 x 0.30	8.0 x 3.8	GROBAMEXTEX®	
					8				5.5 x 0.38			

The dimensions of Groz-Beckert healds comply with ISO standards 11677-1 and 11677-2

1) GROBmicro PLUS surface is only available with OPTIFIL® thread eye 5.5 x 1.2 mm

GROZ-BECKERT KG
PO Box 10 02 49
72423 Albstadt, Germany
Phone +49 7431 10-0
Fax +49 7431 10-2777
sales-w@groz-beckert.com
www.groz-beckert.com

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