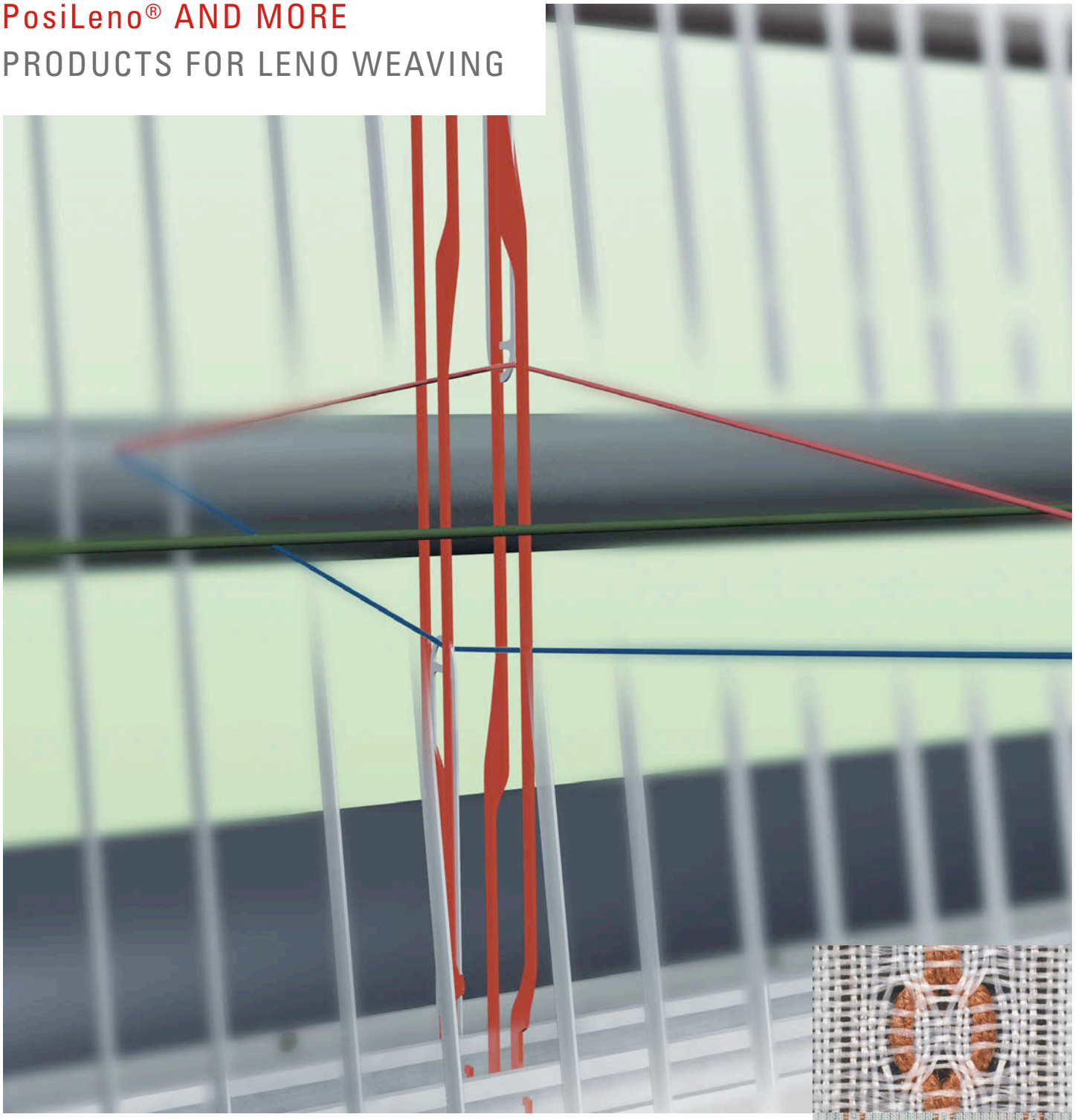
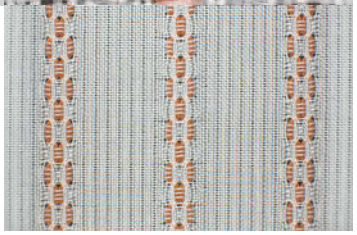
GROZ-BECKERT®

Grob®

PosiLeno® AND MORE
PRODUCTS FOR LENO WEAVING





Leno fabrics are used increasingly in technical applications, resulting in attractive market potential. PosiLeno® – the new simplified and flexible leno system – makes performance increases of more than 100 percent possible. Moreover, Groz-Beckert offers further efficient products for everything related to leno weaving.

PosiLeno® – THE POSITIVELY CONTROLLED LENO SYSTEM

IT MAKES LENO WEAVING DOUBLY WORTHWHILE

Upper shed leno lifting frame

- PosiLeno® controls are fixed to the lower frame rod
- Doup frame moves upward

PosiLeno® from Groz-Beckert

PosiLeno® is the innovative, flexible and heald-based leno weaving system. Optimized shed formation movements for doup frame, heald frame and warp yarn have successfully doubled output in relation to conventional leno systems – and that's not all.

The positively controlled leno system is applicable to all fabric constructions with leno binding – technical fabrics, domestic textiles or clothing. The system is applicable to both the upper/lower shed leno technique and the upper shed leno technique with fixed auxiliary frame.

The new leno assembly consists of two lifting frames and one positively controlled doup frame equipped with leno healds that have been optimized in their design. Movement of the lifting frames controlled by either a dobby or a cam shedding motion drives the positively controlled driving element of the doup frame. By means of pairs of specially designed driving levers and articulated connections, lifting frame movement generates an optimized movement of the doup frame and leno healds. Previous requirements for hardware for the upper or lower connection of leno springs and leno yokes are eliminated.

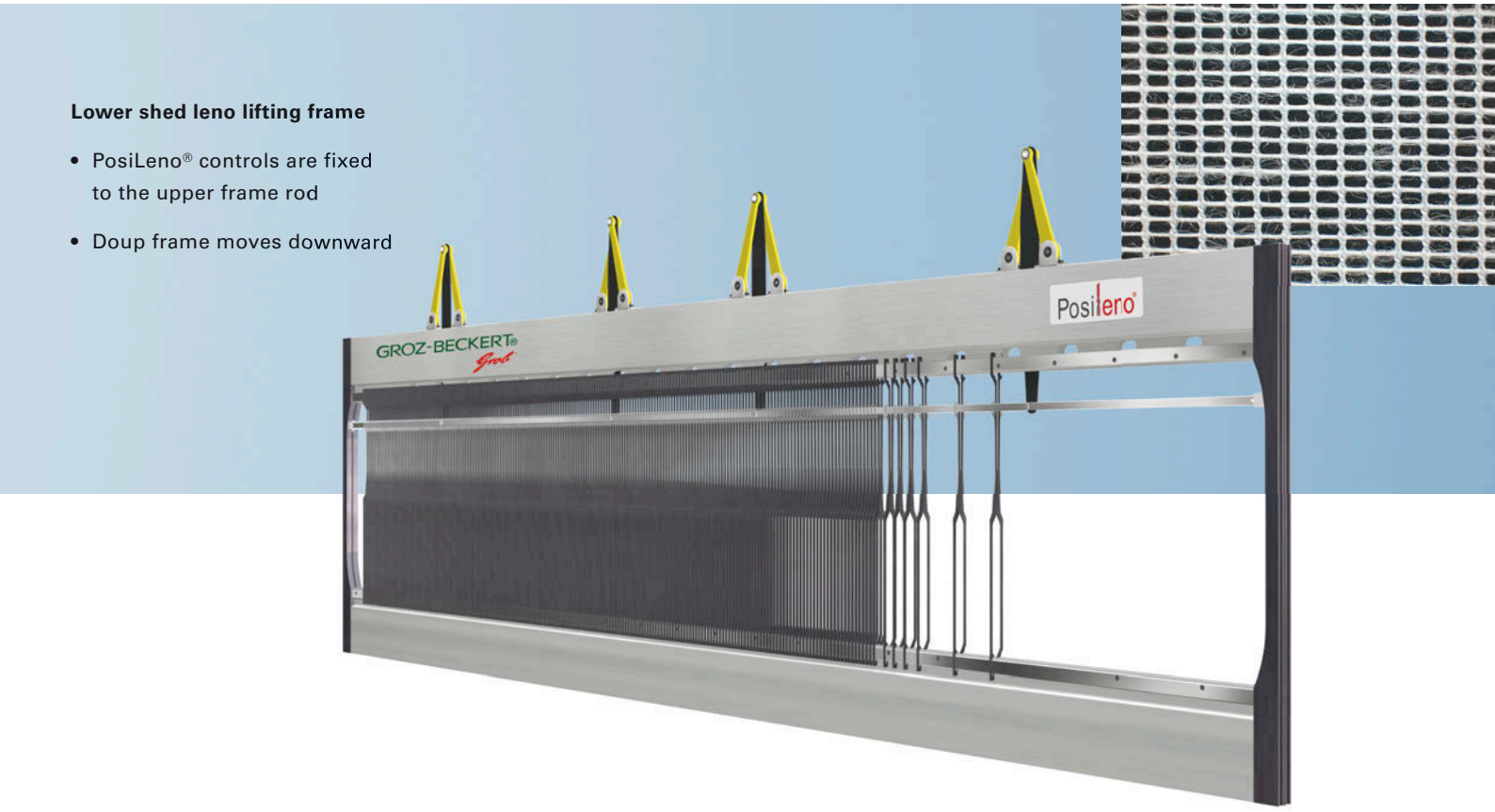
The patent for the positively controlled leno system is pending.

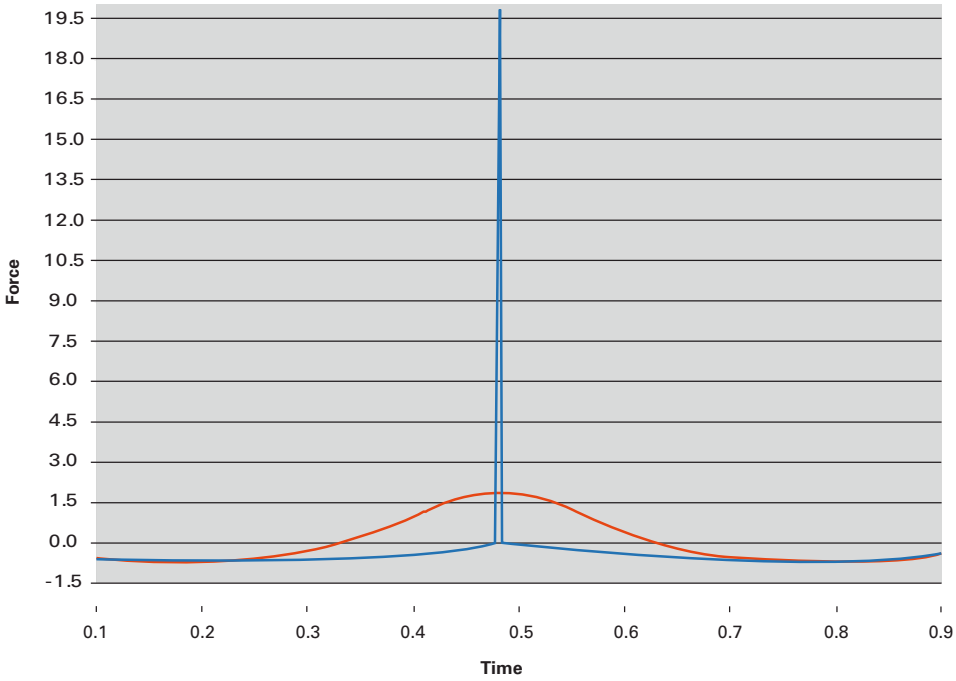
Outstanding characteristics include:

- 100 % higher production speeds on existing systems
- Unlimited patterning possibilities
- Full article-change flexibility retained
- Standard fabrics can be produced on the same weaving machine just as before
- Simple way to start leno weaving
- Can be used on modern machines
- Reduced stress on heald frames and doup frames despite higher rpm, due to optimized shed formation movements.

Lower shed leno lifting frame

- PosiLeno® controls are fixed to the upper frame rod
- Doup frame moves downward

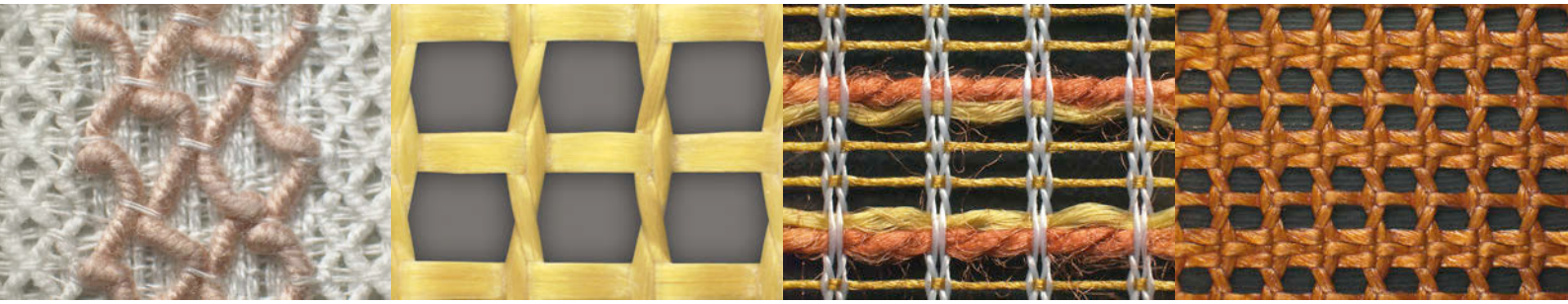




doup frame PosiLeno®
doup frame, traditional system

COMPARISON OF ACCELERATIONS WITH TRADITIONAL SYSTEM AND WITH POSILENO®.

LENO WEAVING



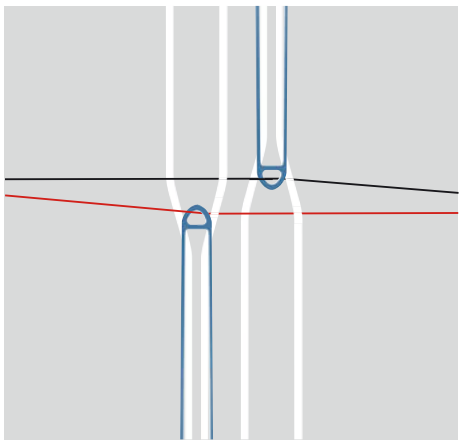
Groz-Beckert – Specialist and Partner for Leno Weaving

With a unique wealth of experience, broad specialist knowledge with regard to material combinations, and designs and solutions for virtually all conventional weaving machines, Groz-Beckert makes the difference. Leno weaving harnesses from Groz-Beckert offer the highest quality – and a high level of flexibility that is unparalleled. This applies to the diversity of bindings, the patterning and, not least of all, to the selection of the most varied warp yarns.

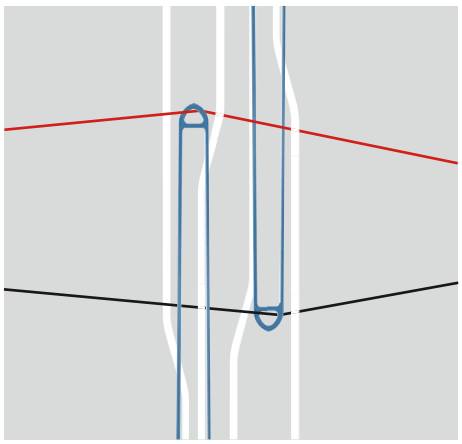
There are therefore no limits on creativity in leno fabric production. Short changeover times on existing weaving machines, at relatively low and calculable prices, go without saying.

Tried and tested assortment

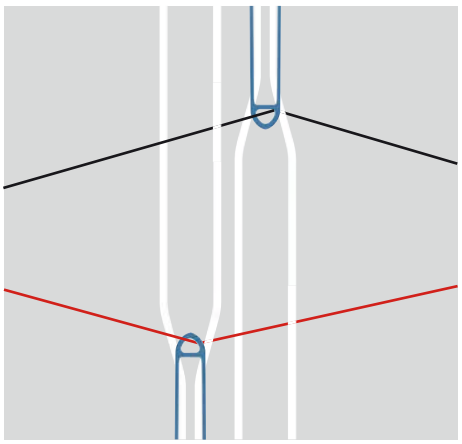
The extensive portfolio of leno healds, based on steel or on FER+SYN® plastic, is still available for processing the most diverse warp yarns. The same applies to the corresponding heald frames.



Optimal design of the leno healds is guaranteed by sufficient distance between the heads of the doup healds while the heald frames remain the same.



The leno end is raised into the cross shed, the standard end is lowered into the cross shed.



Change from leno weave to plain weave: the leno end is in the lower shed, the standard end in the upper shed.

NEGATIVELY CONTROLLED LENO WEAVING SYSTEM

THE INTELLIGENT ALTERNATIVE FOR LENO WEAVING

Perfect components, complete solution

A complete leno heald consists of two lifting frames and a doup frame. Suitable lifting frames are the tried and tested GROBTEX® and GROBTRA® ALrefix® heald frames with frame staves of light metal that are 84 mm, 96 mm or 120 mm in height – according to the heald frame length. Depending on the type of weaving machine, the heald frames are equipped with lateral supports made from pressed wood or light metal, as well as suitable driving connections. The design with free-standing doup heald carrying rods facili-tates visibility and accessibility during set-up of the leno weaving harness.

The leno doup frame consists of two doup heald carrrying rods measuring 9 mm x 1.5 mm. They serve to guide the carrying rods that control the doup healds. The rod ends are kept together with wear-resistant endpieces. Two or more leno yokes and leno springs – depending on the length of the leno heald frame – enable the doup frame to be pulled down in upper shed leno. In lower shed leno the doup frame is pulled up.

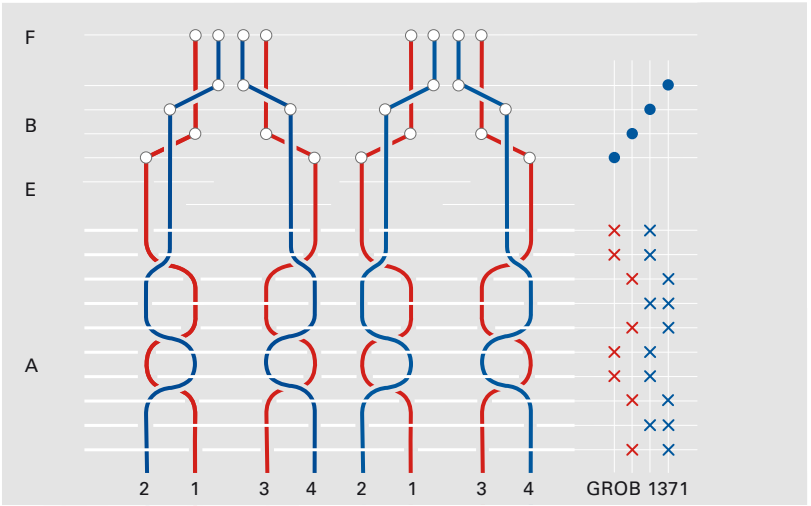
Heald frame lengths of more than 2,800 mm and three control positions per heald frame guarantee the stability of the lifting frames, with the aid of special intermediate supports. These are fitted with an additional sliding component, and their special shape prevents any excessive friction between the support and the doup frame. If required, the intermediate supports can be easily repositioned between the doup rods.

The advantages over rail guidance leno systems:

- Unlimited patterning possibilities
- Full flexibility for article changes as well as production of standard frame fabrics on the same machine

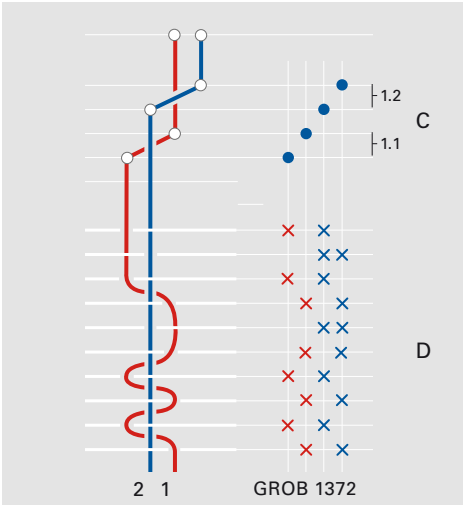
SPECIFICATION TABLE FOR LENO HEALDS

Trade mark	Leno healds				Distance insede end loops		Max. shed opening		Max. density		Suitable for warp yarns				
	Lifting healds		Doup healds											Engl. no.	
	Plastic	Rustproof steel	Strip steel nickel-plated				Plastic	Rustproof steel	Plastic	Rostproof steel	Tex system	Metric no.	Silk titre	Cotton	Worsted yarn
	mm	mm	mm		mm		mm	mm	per cm	per cm	Tt	Nm	Td	NeB	NeK
	3.50 x 1.50	2.45 x 0.27	126 x 9 x 0.3		331		80	95	3	5	125	8	1100	5	7
GROBTEX®	3.50 x 2.00	2.50 x 0.60	126 x 11 x 0.5		331		80	95	2	3	170	6	1500	4	5
GROBTRA®	3.50 x 1.50	2.45 x 0.27		152 x 9 x 0.3		382	105	120	3	5	125	8	1100	5	7
	3.50 x 2.00	2.50 x 0.60		152 x 11 x 0.5		382	105	120	2	3	170	6	1500	4	5
	3.50 x 1.50	2.20 x 0.30	111 x 9 x 0.3		331		88	88	3	5	125	8	1100	5	7
GROBTRA®	3.50 x 2.00	2.50 x 0.60	111 x 9 x 0.5		331		88	88	2	3	170	6	1500	4	5
PosiLeno®	3.50 x 1.50	2.20 x 0.30		136 x 9 x 0.3		382	110	110	3	5	125	8	1100	5	7
	3.50 x 2.00	2.50 x 0.60		136 x 9 x 0.5		382	110	110	2	3	170	6	1500	4	5



A BINDING
B THREADER
C STEP SEQUENCE
D PEGPLAN
E FEED SLOT
F WARP BEAM

1 AND 3 LENO
2 AND 4 LENO



1.1 Upper shed leno heald for right hand thread 1 and 3

1.2 Lower shed leno heald for standing end thread 2 and 4

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