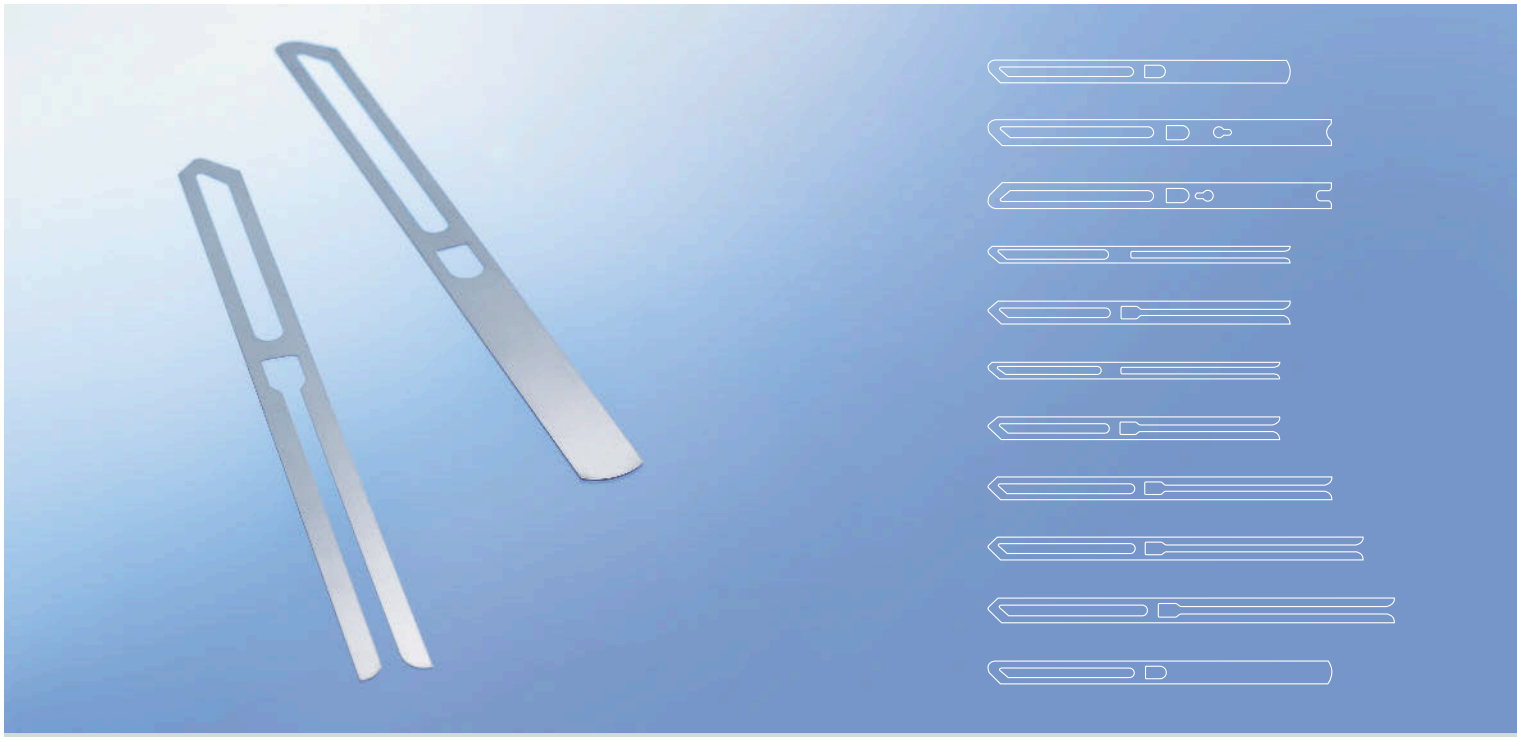
GROZ-BECKERT®

Grob®

DROP WIRES
FOR WARP STOP MOTIONS

Despite their enormous diversity, drop wires from Groz-Beckert have three important things in common: They take the strain from operating staff, they permit the production of superlative quality fabric – and thanks to minimized false stops, they ensure maximum overall efficiency.

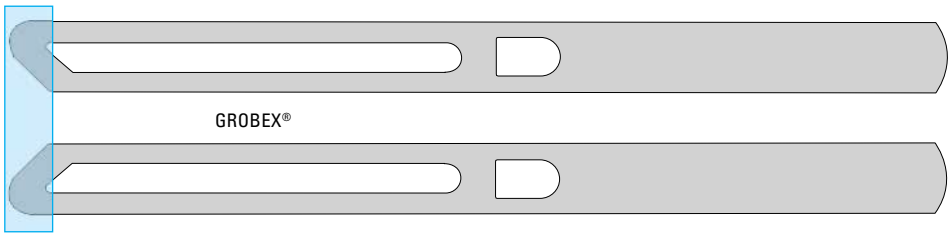
SECURITY COUPLED WITH MINIMAL REACTION TIMES



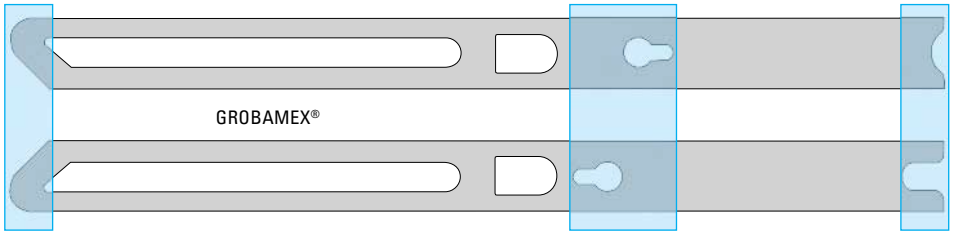
When it comes to warp monitoring, drop wires from Groz-Beckert help maximize performance by individual and careful control of each individual warp yarn. They ensure weaving machine stoppage in the event of an irregularity within just fractions of a second.

DROP WIRES FROM GROZ-BECKERT IN COMPLIANCE WITH ISO STANDARD 1150:

GROBEX®
DROP WIRES WITH ANGULAR UPPER ENDS IN UNILATERAL ALIGNMENT.



GROBAMEX®
DROP WIRES WITH ANGULAR UPPER ENDS IN UNILATERAL ALIGNMENT AND KEYHOLE OPENINGS BELOW THE THREAD EYE.



A PRODUCT RANGE TO COVER EVERY NEED

Individual possibilities

The tolerances of all standardized and non-standardized drop wires from Groz-Beckert comply with the demands of different drawing-in systems. If necessary, detailed agreement may be required to determine which drop wire type is best suited for an existing or new machine. In this case, dialogue with the manufacturer is advisable.

Table 1: Drop wires in accordance with ISO standard 1150

These drop wires comply with every application requirement for efficient operation on all the world's most commonly used automatic drawing-in systems. GROBEX® drop wires have angular upper ends in unilateral alignment. GROBAMEX® drop wires additionally have keyhole openings underneath the thread eye.

Table 2: Drop wires in accordance with ISO standard 441

These drop wires are not specifically designed for use on drawing-in machines. However, they can be utilized on newer drawing-in systems.

ISO 1150 drop wires for electrical yarn stop motions, suitable for automatic drawing-in

1

Type designation	Length L mm	Width b mm	Thickness s mm	Length L1 mm	Weight g	
EGU 1809 EX EGU 1809 AMEX 1-2	145	11	0.2 0.3 0.4 0.5	65	1.9 2.9 3.8 4.8	 EX
EGU 1810 EX EGU 1810 AMEX 1-2	165	11	0.2 0.3 0.4 0.5 0.6	65	2.2 3.3 4.4 5.5 6.6	 AMEX

GROZ-BECKERT® | info | WEAVING 6

ISO 441 drop wires for electrical warp stop motions

2						
Type designation	Length L mm	Width b mm	Thickness s mm	Length L1 mm	Weight g	
EOU 1435	145	8	0.2	53	1.1	
EOU 1425	145	7 11	0.2 0.2 0.3 0.4	53	0.9 1.7 2.5 3.3	
EOU 1424	165	8 11	0.2 0.2 0.3 0.4 0.5 0.6	65	1.2 1.9 2.9 3.8 4.8 5.8	
EOU 1405	180	11	0.2 0.3 0.4 0.5 0.6	65	2.2 3.3 4.4 5.5 6.6	

GROZ-BECKERT® | info | WEAVING 6

WEIGHTY ARGUMENTS

Determination of drop wire weights

Tex tex	Metr. count. Nm	Denier Td	Engl. Count NeB	Weight g
- 9	- 111	- 80	- 66	- 1.3
9 - 14	111 - 71	80 - 125	66 - 42	1.3 - 1.9
14 - 20	71 - 50	125 - 180	42 - 30	1.9 - 2.6
20 - 25	50 - 40	180 - 225	30 - 24	2.6 - 3.2
25 - 32	40 - 31	225 - 290	24 - 18	3.2 - 3.9
32 - 58	31 - 17	290 - 520	18 - 10	3.9 - 5.2
58 - 96	17 - 10	520 - 860	10 - 6	5.2 - 7.8
96 - 136	10 - 7	860 -	6 - 4	7.8 - 13,0
136 - 176	7 - 6	-	4 - 3	13,0 - 18.2
176 -	6 -	-	3 -	18.2 - 22.7

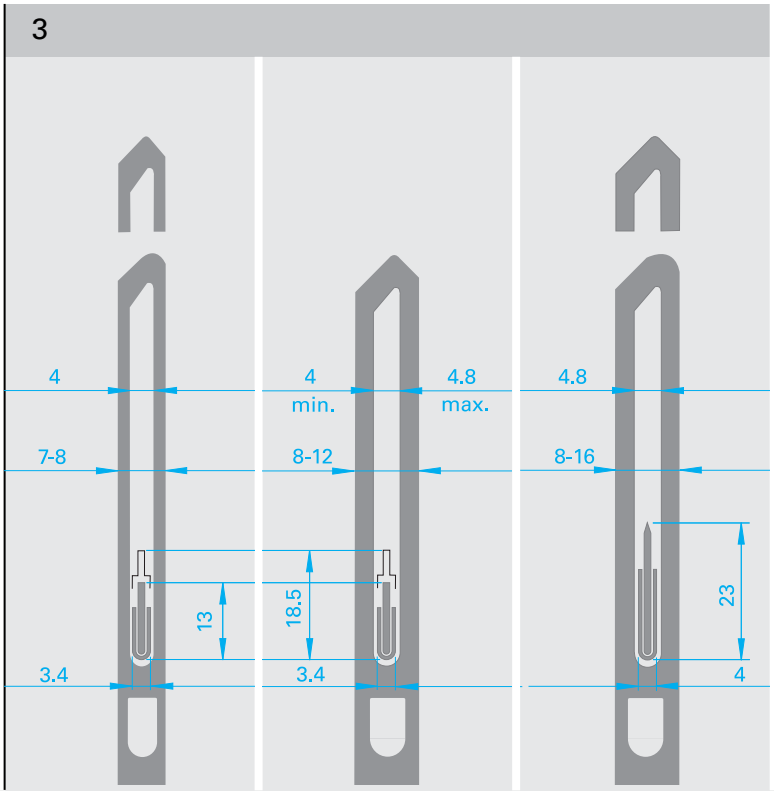
Guidelines for weights and densities have been developed through our extensive application experience. Warp yarn types, required densities, or pattern parameters also influence drop wire specifications. For particularly high-speed weaving machines, up to 30 % higher drop wire weights are recommended.

Maximum drop wire densities

Thickness s = mm	Number per row cm	Number per row inch
0.2	20	50
0.3	14	36
0.4	10	26
0.5	7	18
0.6	5	13
0.65	4	10
0.8	3	8
1.0	2	5

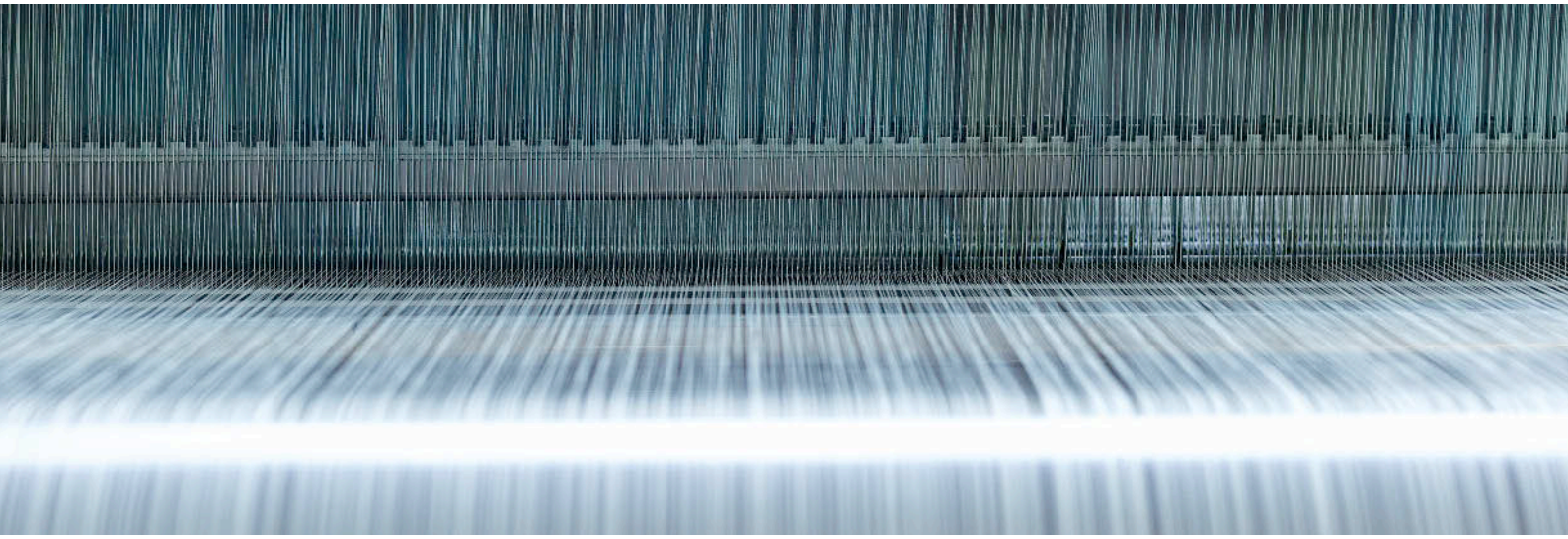
Drop wire weight depends on warp yarn specifications. For spun yarns and high-speed weaving machines, heavier drop wires are recommended to ensure immediate detection.

3



The punched recesses known as contact slots in the upper part of the drop wire are determined in their length and width by the contact bar of the warp stop motion. If the specifications are precisely followed (see table 3), the stop motion system is guaranteed to function perfectly.

THE SUCCESS OF THE WHOLE DEPENDS ON THE DETAIL



A large assortment for every requirement

New weaving machines are normally equipped with electrical warp stop motions which are fitted with compatible drop wires. Groz-Beckert offers a wide assortment of different drop wires and maintains large inventory quantities. Overall, products from Groz-Beckert are known around the world for their quality and absolute reliability.

User friendly, simple warp preparation

Drop wires from Groz-Beckert are delivered lined up in rows on auxiliary rods. The only exception to this are drop wires of 0.5 mm and thicker with GROBAT® rust protection. All drop wires can be installed immediately without any need for further preparation.

Proven shapes and weights for optimum fabric quality

The centre of gravity of the 145, 165 and 180 mm long drop wires is below the warp yarn. This ensures that drop wires maintain consistent contact with the warp yarns, ensuring minimized friction resistance. Various thickesses and lengths used in combination provide a large selection of different weights, permitting trouble-free adjustment to different warp yarn qualities and counts and increased weaving machine speeds.

Increased security and minimized wear thanks to optimum material quality

The U-shaped thread eye of drop wires provides a large contact surface – allowing straight passage of the yarn through the eye. Thanks to the optimized shape used in combination with a low-friction surface, warp yarns are monitored with the utmost care. Drop wires with thicknesses between 0.2 and 0.4 mm are manufactured at Groz-Beckert in GROBINOX® stainless steel. Thicker drop wires are also available with a durable GROBAT® rust protection.

EN | 09.2012

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