The special application needle MR

For high reliability when creating multidirectional seams

GROZ-BECKERT

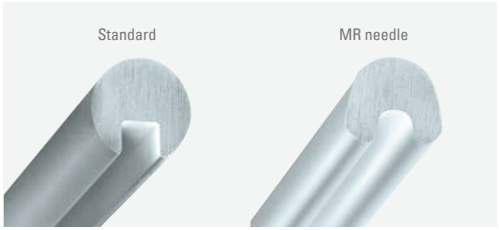
Special features of the MR needle

Stability:
Thanks to its special blade and scarf geometry, the MR needle is extremely resistant to bending (deflection resistance). This gives it a very high level of stability over its entire working range.

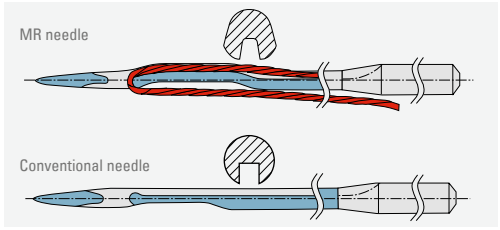
Thread protection:
The very deep and long shaped scarf allows for very tight adjustment of the looper to the needle. The deep thread groove which extends to the eye area guarantees optimal protection of the thread.

Cross-section at eye center:
When penetrating the material, the needle reaches its maximum penetration forces in this needle area. These forces increase disproportionally as the displacement cross-section increases. The MR needle was designed so that its penetration force in the eye area is less than that of a standard needle.

Thread loading:
When changing the sewing direction, the sewing thread is pulled out over the needle in different directions. During its downward stroke, the needle slides along the tensioned sewing thread. This can result in changes in the thread twist, and consequently to negative loop formation.

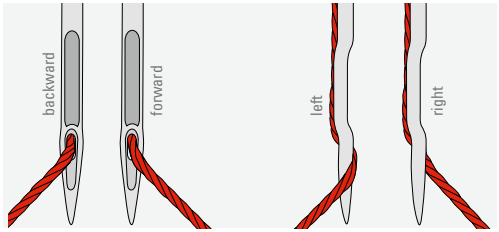


Blade cross-section

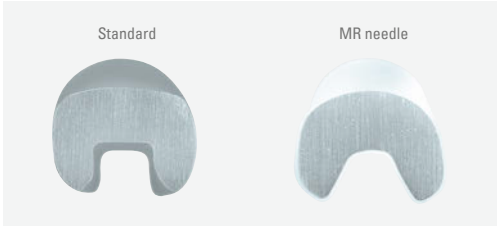




Standard



Sewing direction



Scarf cross-section

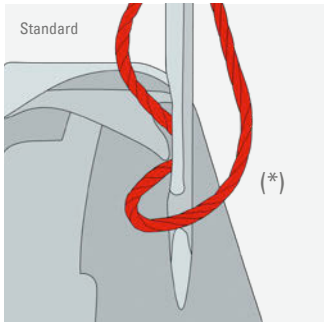


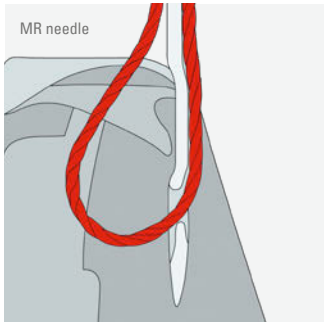
MR needle

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Loop formation:

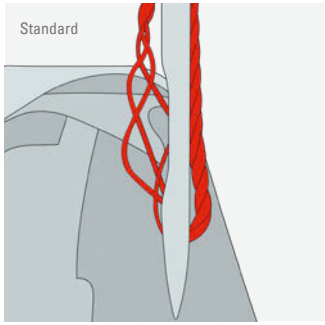
The special asymmetrically shaped thread sliding area inside the eye of the MR needle guarantees stable loop formation even under unfavourable sewing conditions. This eliminates the possibility of unfavorable loop formation (*) and thread twist.

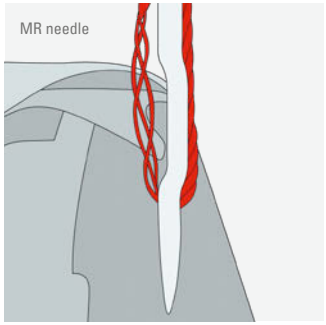




Thread pick-up:

Difficult sewing operations can result in the thread unwinding during loop formation. Single yarns or filaments can be caught on and torn off by the hook point. The risk of unwinding is reduced by the special thread guiding of the MR needle. Its extreme scarf depth permits very tight hook point adjustment, resulting in optimum loop pick-up reliability.





The MR product range:

	Size range								
	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0
GB designation	**65–70**	**75–80**	**85–90**	**95–100**	**105–110**	**120**	**125–130**	**140–160**	**180–200**
DB x 1 MR	•	•	•	•					
DB x 1 MR FFG	•	•	•		•				
62 x 45 MR							•	•	
62 x 57 MR							•		
UY 128 GAS MR FFG		•		•	•	•	•	•	
134 K MR					•		•		
134 MR	•	•	•	•	•	•	•	•	
134 MR FFG	•	•	•		•	•	•	•	
134 MR FFG GEBEDUR®	•	•	•	•	•	•	•	•	
134 MR FG					•	•	•	•	
134-35 MR			•		•		•		
135 x 17 MR			•	•	•	•	•	•	•
135 x 17 MR FFG							•		
135 x 17 MR GEBEDUR®							•		
135 x 17 SAN® 1 MR FFG					•	•			
1906 MR FFG	•	•	•						
4510 MR FFG					•		•		
5205 MR							•		
8199 MR							•		

The advantages of the MR needle at a glance:

- Allows extremely tight adjustment of the hook to the needle
- High immunity to skipped stitches
- Less thread splicing
- Less thread breakage
- Optimal protection of the sewing fabric
- High productivity thanks to reduced machine downtime
- Reduced production costs

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