



SPECIAL NEEDLE SAN® 12

PERFECT 2-NEEDLE DECORATIVE SEAMS



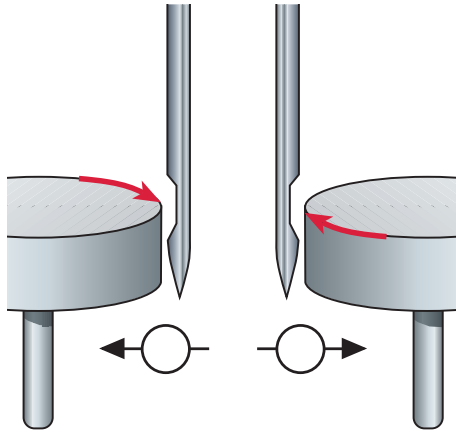
In the production of high-quality leather products, great value is placed on the perfect appearance of decorative seams. This is particularly the case in the fields of automotive engineering, upholstered furniture and accessories. The style of the stitches can be either slanted or straight, but the seam must always have an even appearance. Groz-Beckert has developed a special solution precisely for this purpose. Cutting point needle SAN® 12, available in variants LR and S, fulfils these high quality demands for leather products.

Another technical innovation from Groz-Beckert for uncompromising customer demands and product quality.

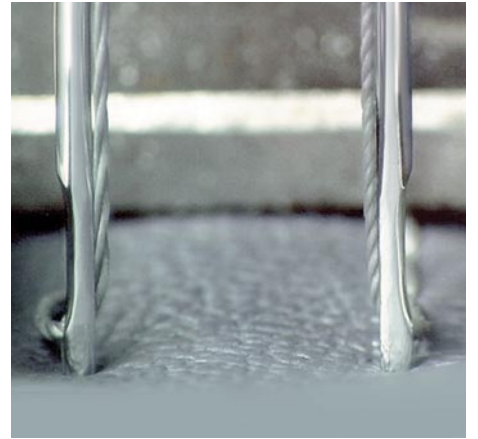
DECORATIVE SEAMS IN 2-NEEDLE LOCKSTITCH PROBLEMS

2-needle machines produce two adjacent seams in a single work process. Ideally, the left and right-hand seams should have an identical seam appearance.

However, due to the different threading direction and loop pickup between the left and right-hand needle, the appearance of the seams can be different in the left and right-hand seam.



LOOP PICKUP



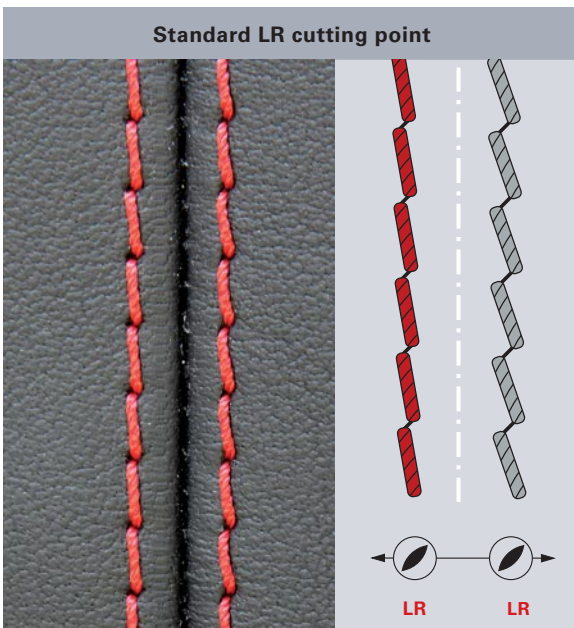
TWIST DISPLACEMENT

In practice, this is a problem which often occurs, irrespective of whether decorative seams with slanting stitches (LR cutting point) or straight stitches (S cutting point) are required.

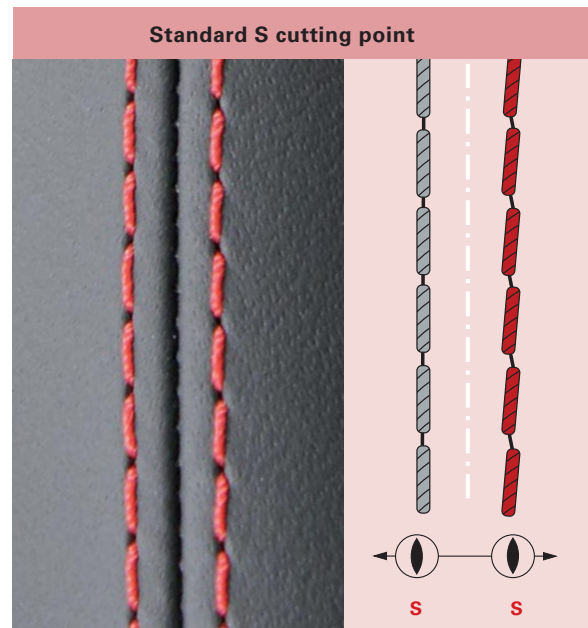
Examples of uneven seam appearance using standard needles

When LR-cutting point needles are used, the stitches in the left-hand seam usually appear slightly less decoratively slanted than in the right.

When S-cutting point needles are used, the stitches in the right-hand seam usually appear slightly less straight than in the left.



UNEVEN SLANTING STITCHES



UNEVEN STRAIGHT STITCHING

PROBLEM SOLUTION

Groz-Beckert has developed a cutting point needle called the SAN® 12. This has made it possible to improve and match more closely the appearance of the two lines of stitching in 2-needle decorative seams, both in seams with slanting and with straight stitches. This has been achieved in both **SAN® 12 LR** and **SAN® 12 S** needles by precise alignment of the cutting geometry using a special blade surface. This feature can also be used to differentiate between the SAN® 12 needles and standard needles.



FOR PERFECT DECORATIVE SEAMS – THE SPECIAL APPLICATION NEEDLE SAN® 12

Examples of even seam appearance achieved with SAN® 12 design needles

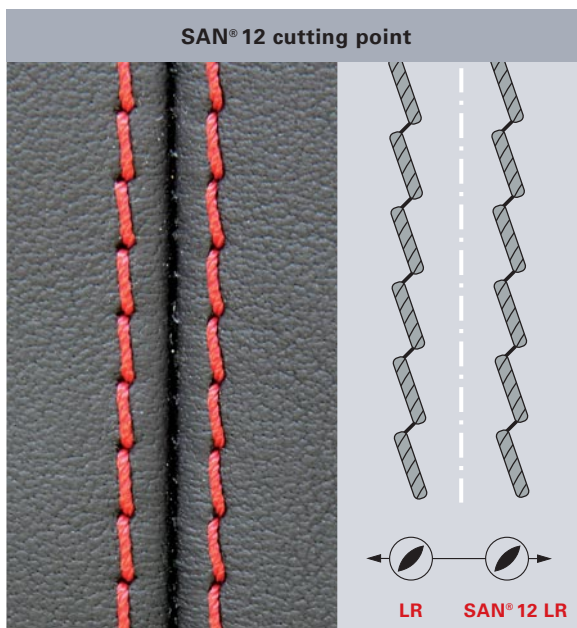
Use of the SAN® 12 LR:

In order to achieve an even and harmonious seam appearance with slanting stitches, the **SAN® 12 LR** is used only on the right-hand needle.

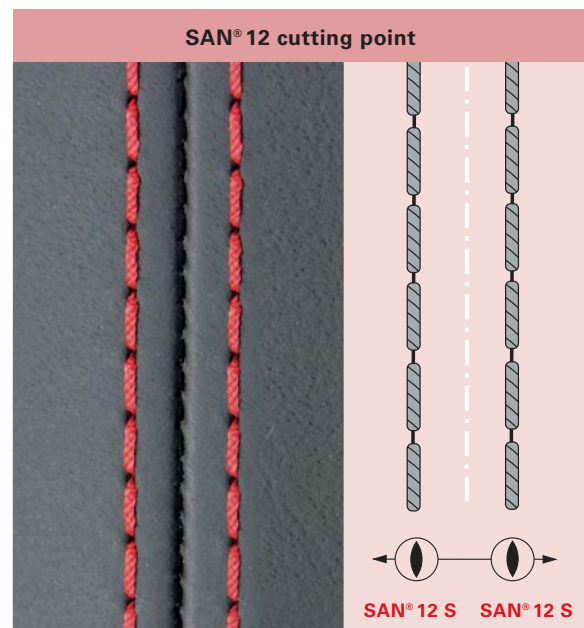


Use of the SAN® 12 S:

For an even seam with straight stitches, the **SAN® 12 S** is used on both needles.

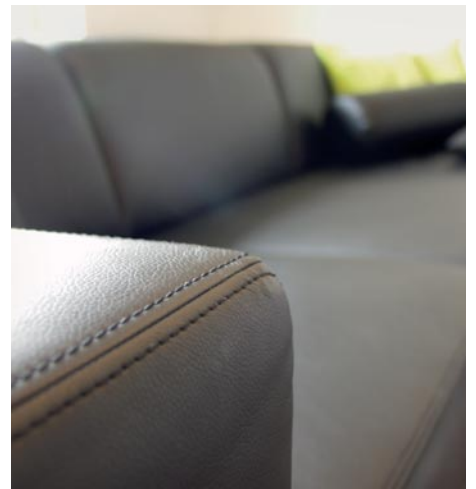


EVEN SEAM WITH SLANTING STITCHES



EVEN, STRAIGHT SEAM APPEARANCE

EXAMPLES OF USE FOR 2-NEEDLE DECORATIVE SEAMS



The Groz-Beckert SAN® 12 needle.

Meets the highest demands for decorative double seams. Ideal for use in the automotive, upholstered furniture and top quality accessories sectors.

- Even seams
- Perfect appearance

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