Processing of leather

Perfect end result with tips and recommendations from Groz-Beckert

GROZ-BECKERT

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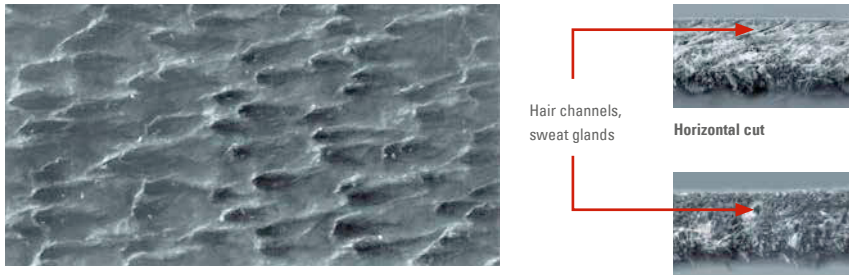
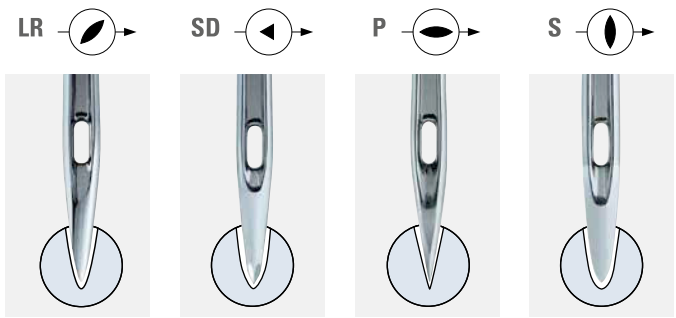
Using cutting points

Leather has a different structure in lengthwise and crosswise direction. Sewing leather with a cloth point would therefore result in a different seam appearance depending on the sewing direction. A cutting point must therefore be used to create uniform stitching in all sewing directions.



Structure of leather



Examples of different cutting points: LR, SD, P and S (from the left)

Seam strength with leather

Seam strength is extremely important when sewing leather:

The thread

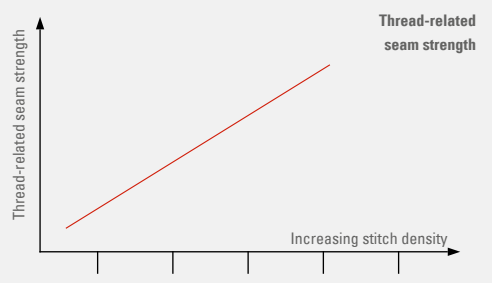
The higher the stitch density (number of stitches per cm), the more thread there is in the seam. This means that, with an increasing number of stitches, the thread-related seam strength is also increased.

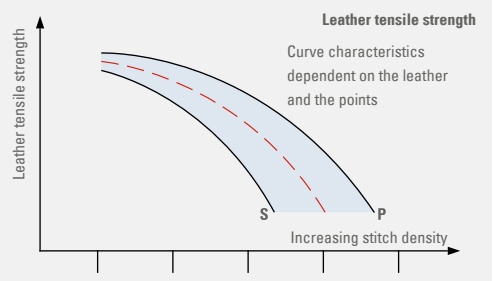
The leather

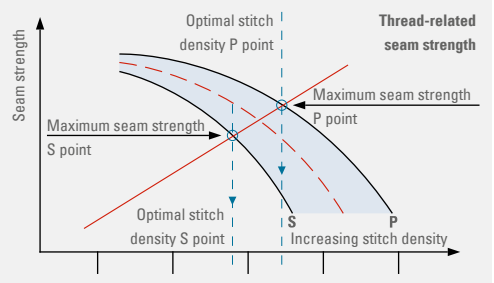
The higher the stitch density and the bigger the needle, the larger the perforation in the leather. Regardless of the needle size, the perforation and the leather tensile strength also depend on the needle point used. The highest leather tensile strength is achieved with a P point, the lowest tensile strength is achieved with an S point.

The seam

The maximum seam strength is achieved if both the leather and the thread break when the seam is torn (transverse force) (= intersection point of the thread-based seam strength and the cutting point-dependent leather tensile strength). When the cutting point and thread parameters are changed, the stitch length must be adapted again to achieve the maximum seam strength.







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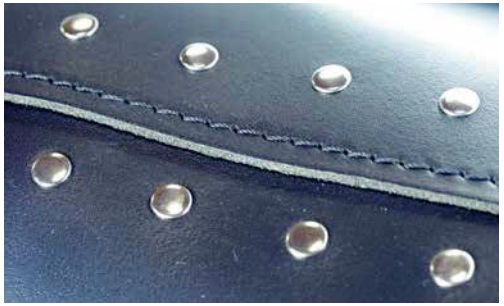
In addition to the desired seam appearance, the seam construction and the type and characteristics of the leather are also key when selecting the suitable point style:

Characteristics of the leather	Examples of end products	Seam type	Recommended point
Soft leather	Clothing leather, jackets, pants, fine leather goods	Joining and staying seams	Needles with low cutting effect: SD or R
		Elevated lockstitch seams	Needles with low cutting effect: SD or R
Soft to medium-hard leather	Automotive, upholstery, bags, leather clothing	Joining and staying seams	Needles with low cutting effect: SD or R; P point possible for a high seam strength and uniformity
		Elevated lockstitch seams	Depending on the desired seam appearance, an LR point is the best choice for decorative effects, an S point for straight seams
Medium to hard leather	Shoes, boots, bags, luggage, accessories	Joining and staying seams Back seams or heel stitching at shoes	P point (stitching holes close with seam load – high seam strength); R or SD are further options
		Elevated lockstitch seams	Depending on the desired seam pattern, an LR point is the best choice for decorative effects, an S point is best for straight seams
Hard or thick leather	Belts	Elevated lockstitch seams with significant decorative effects	P or LR
		Elevated lockstitch seams for straight decorative effects	D, DH, S
Special applications			
All common leather types	All leather products: Automotive, leather clothing, shoes, upholstery etc.	Multi-directional sewing operations, computer embroidery	SD or R
All common leather types	All leather products: Automotive, leather clothing, shoes, upholstery etc.	Embroidery	R or RG
All common leather types	Car seats, upholstered furniture, car interiors	2-needle decorative seams with slanted seams	SAN™ 12 LR
All common leather types	Car seats, upholstered furniture, car interiors	2-needle decorative seams with straight seams	SAN™ 12 S

Soft leather



Hard leather

2-needle decorative seam