

INFO



SMN 6

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SPECIAL APPLICATION NEEDLE **SAN® 6**

Developed for sewing applications in the processing of jeans clothing



High productivity combined with protective handling of the fabric stands for the SAN® 6. The following sewing problems were the reason for this development:

Skip stitches

They mostly appear at seam cross sections and on thick material parts.



Needle breakage

Frequent causes are high penetration forces and strong needle deflection.



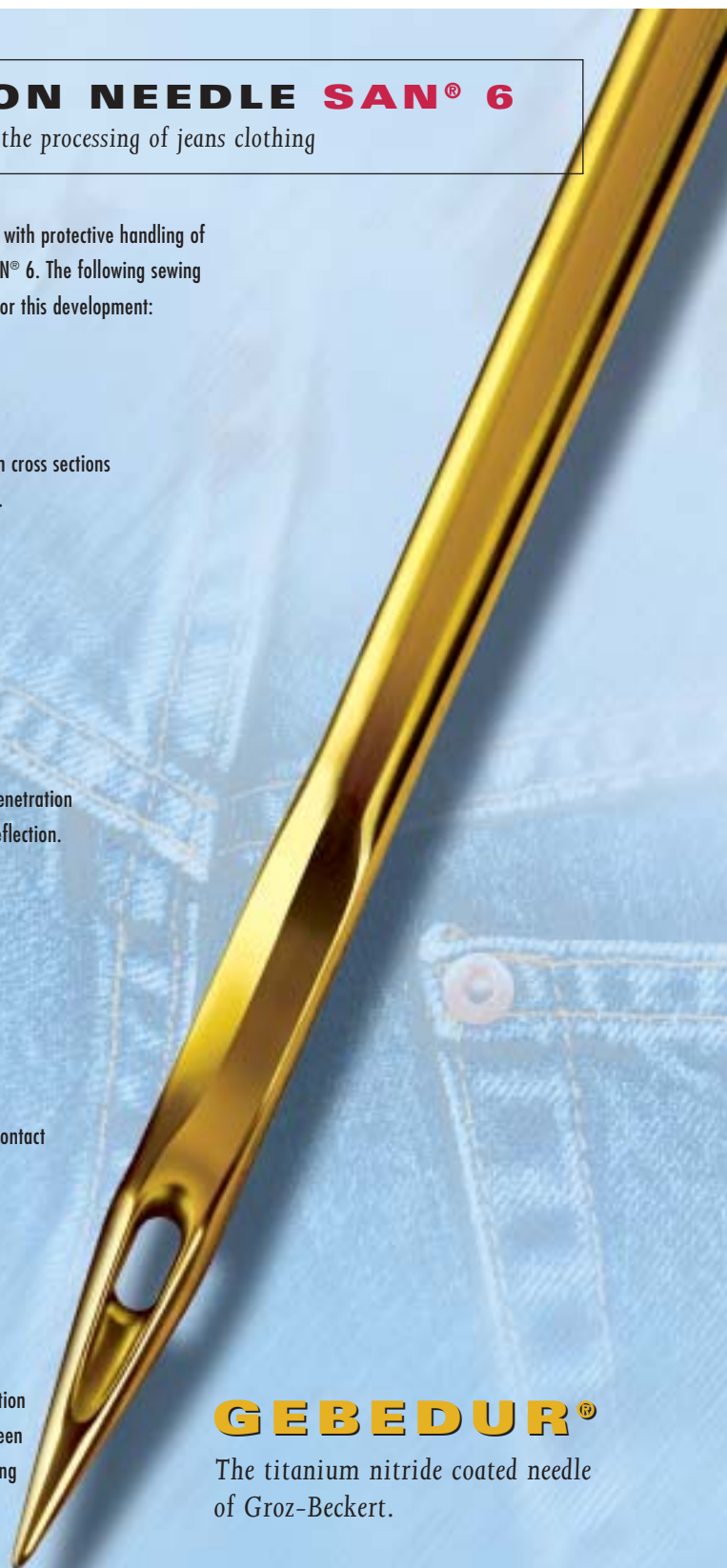
Point damages

As a rule, the cause is the contact with the hardened looper.



Thread breakage

Caused by poor loop formation and insufficient space between thread and needle for picking up by the looper.



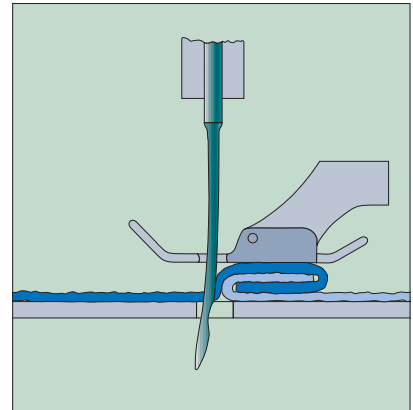
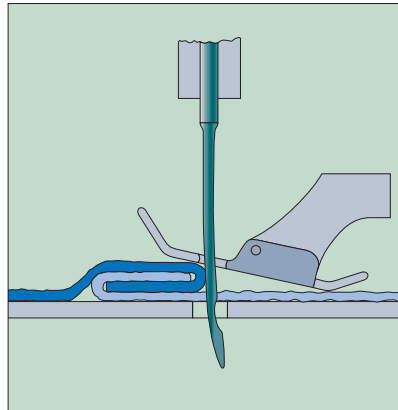
GEBEDUR®

The titanium nitride coated needle of Groz-Beckert.

THE SAN® 6 GEBEDUR® NEEDLE AND ITS ADVANTAGES

NEEDLE STABILITY

Skip stitches and needle breakage mostly arise by a strong needle deflection at sewing cross seams. High sewing speeds and heavy materials lead to needle deflection, especially at cross seams. The weaker the needle, the stronger the needle deflection. To counteract this, increased demands on the needle stability are required.

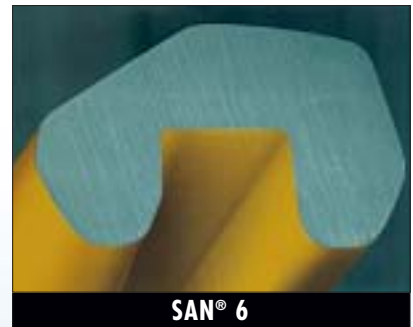


SCARF CROSS SECTION

The special shape of the scarf cross section gives the SAN® 6 needle a higher stability in the scarf area. The lateral chamfer on the scarf protects the looper point from being damaged.



Standard



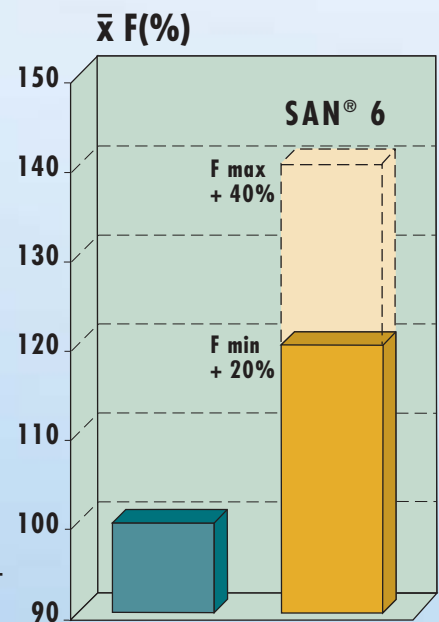
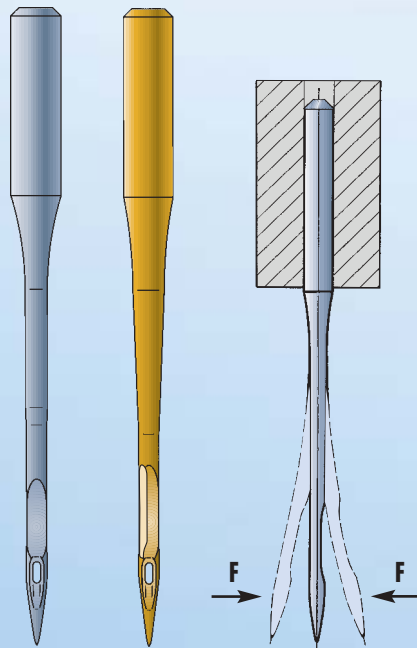
SAN® 6

Scarf cross section

BLADE PROFILE

The conical blade and the newly designed scarf cross-section give the SAN® 6 a higher bending resistance of 20 - 40% in comparison to the standard needle.

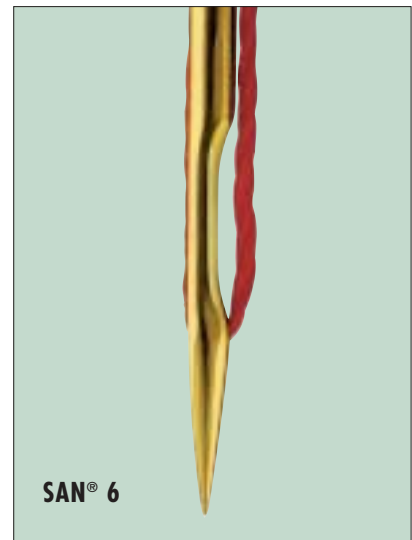
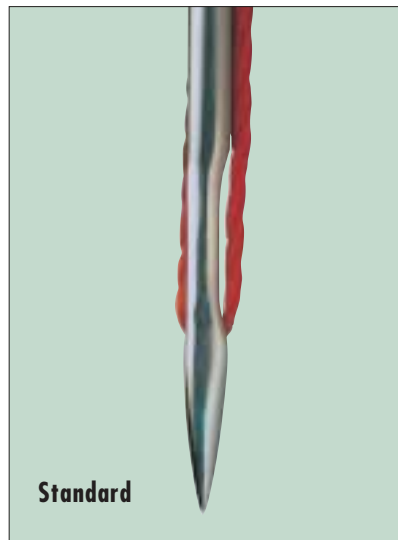
Scarf and blade profile prevent needle breakage, skip stitches and thread breakage. The looper point is protected.



IMPROVED LOOP FORMATION

The guiding of the thread in the eye and scarf area causes a significant improvement of the thread protection and pick up of the thread by the looper. Even with an extremely poor loop formation the looper has the possibility to pick up the needle thread.

Needle breakages and skip stitches are removed to a large extent.

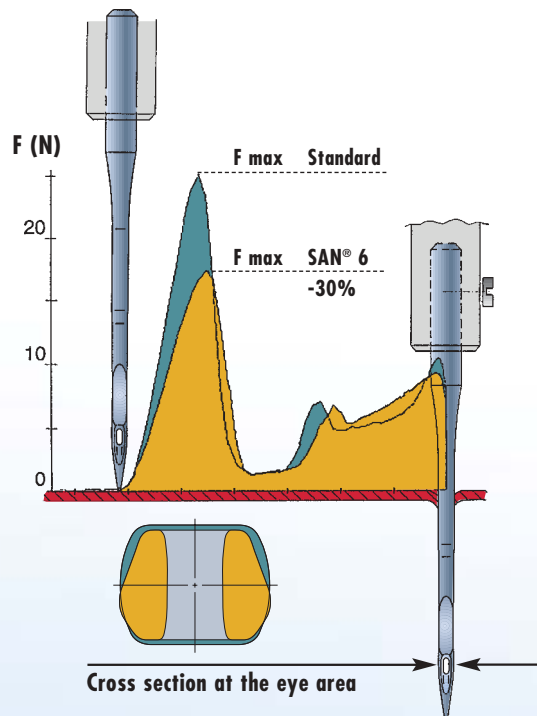


FORCE DISTRIBUTION DURING PENETRATION

The consequent development leads to the special blade shape and to a further improvement of the needle.

The reduction of the cross section at the eye area was a further step to reduce the penetration force.

Depending on the needle system, the average penetration force lies up to 30% below a standard needle.

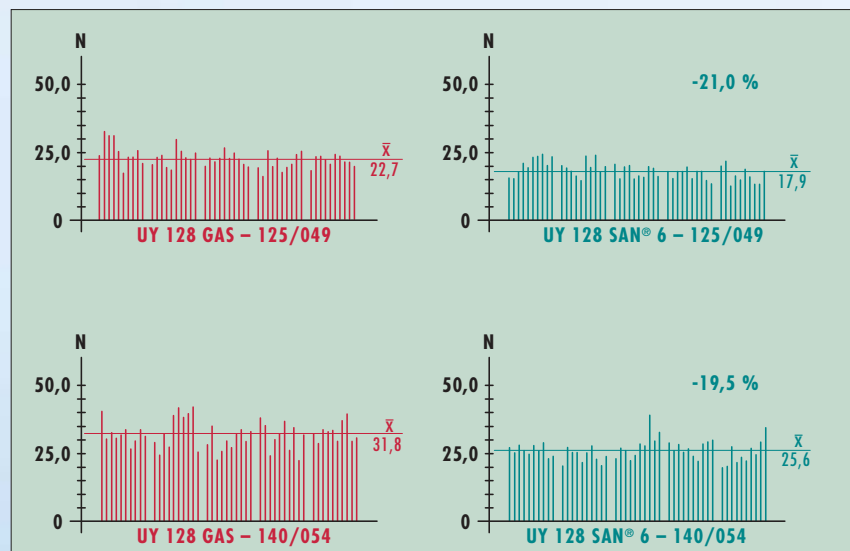


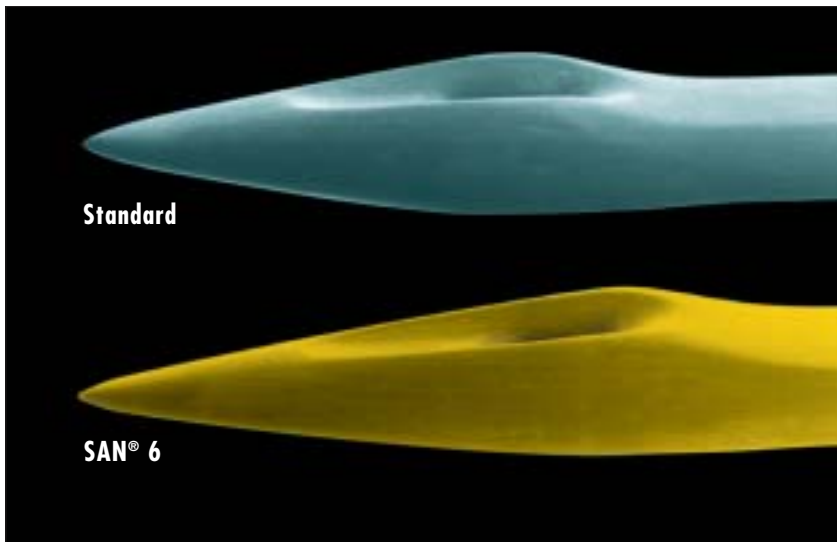
MEASURING OF THE PENETRATION FORCE - EXAMPLE: UY 128

50 penetrations each in comparison:

In the average the SAN® 6 size Nm 125 / 049 has a 21% lower penetration force. The difference at Nm 140 / 054: 19,5% lower penetration force at SAN® 6.

This means - the needle load is less and produces a lower temperature. The machine runs quieter and has more security in function. The fabric is protected.



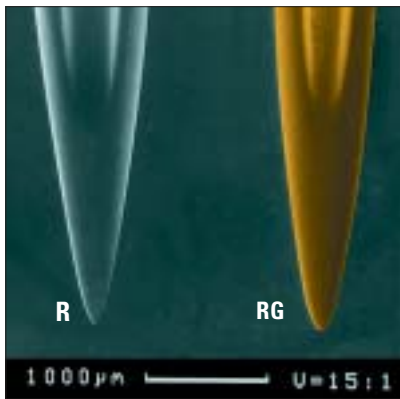


OPTIMISED POINT SHAPE

The especially slim shaped point style and small ball-point tip guarantee remarkable protection of the fabric during the sewing process.

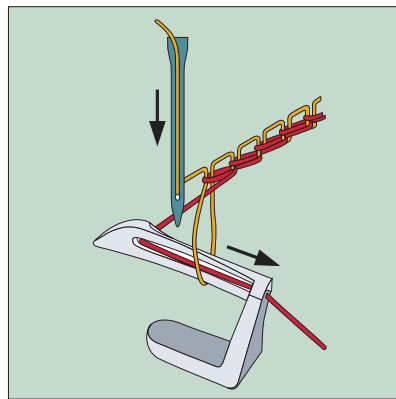
The special shape of the RG-point and the extremely hard titanium nitride surface coating protect the fabric from damages.

The penetration work of the needle is reduced, the lifetime of the point is extended.

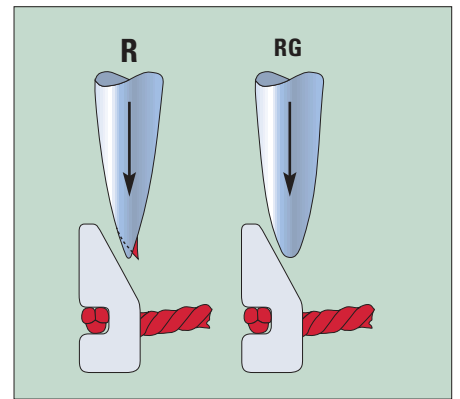


USE ON CHAIN STITCH MACHINES

The sensitive, sharp R-point is already damaged after a short sewing time by contact with the backside of the hardened looper.



Due to the light ball point and the special shape of the point, which is adapted to the backside of the looper, the RG-Point has an increased working time without any damage.



Advantages:

- Less material damages, reduced penetration forces
- Less needle deflection (skip stitches, needle breakage, thread breakage)
- High process security

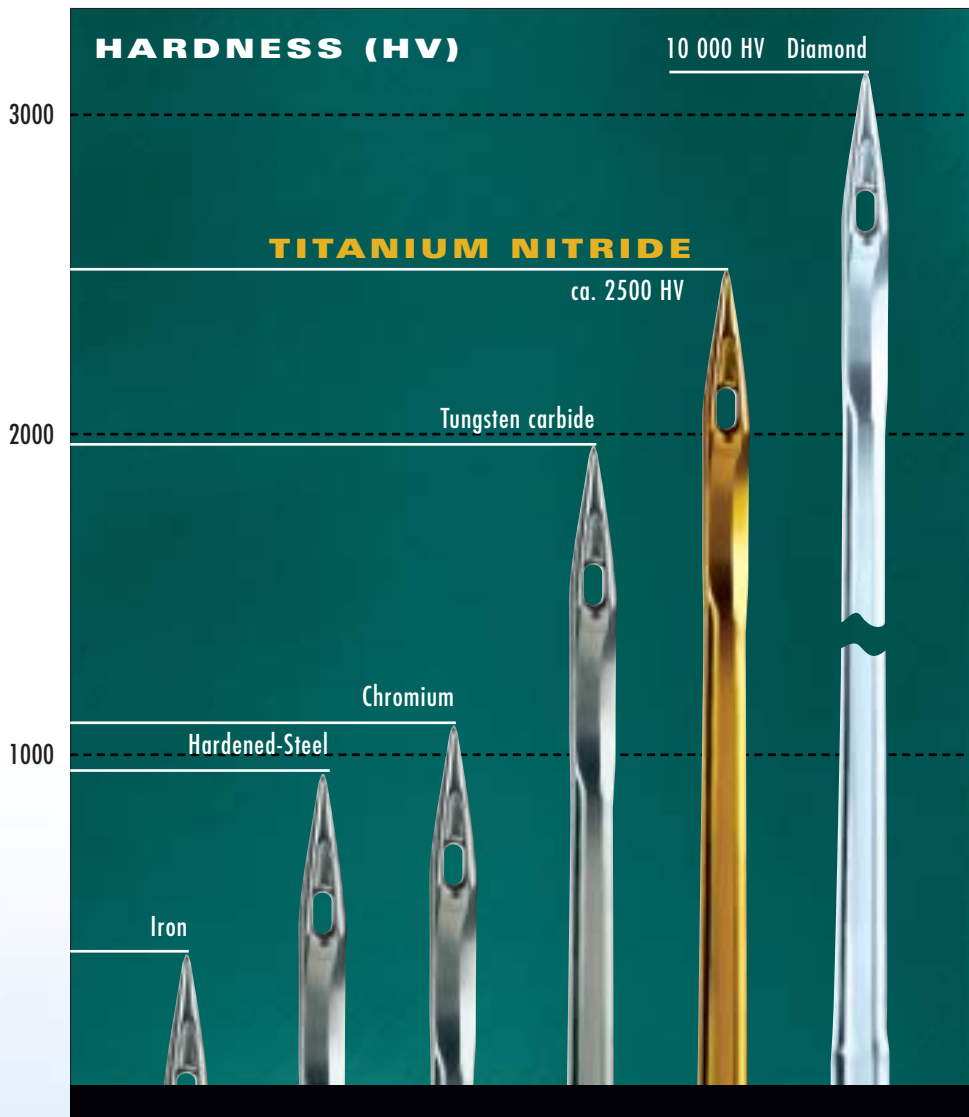


GENTLE FABRIC PROCESSING WITH SAN® 6

With the slim and rounded RG-point and the special blade shape the SAN® 6 stands for:

- High seam quality
- Less material damage
- Less skip stitches

COMPARISON OF THE GEBEDUR® COATING IN HARDNESS



The titanium nitride coating provides the SAN® 6 needle with better protection from wear and tear as well as damages.

Feedback from industry confirms the progress of the SAN® 6 GEBEDUR®. Especially when sewing Jeans the SAN® 6 GEBEDUR® achieves a longer working time.

The results are:

- High seam quality
- High productivity

GROZ-BECKERT
– THAT SUBTLE DIFFERENCE.



RESULTS OF THE SAN® 6 DEVELOPMENT WORK

PROGRAMME:

(will be extended when required)

ADVANTAGES:

- High productivity due to less machine downtime
- Reduced production costs
- High security against skip stitches
- Gentle fabric processing
- Extremely tight adjustment to the looper is possible
- Less needle consumption
- Reduced machine load
- High protection against wear by GEBEDUR®
- Optimal protection of the hook and loop point

Systems	Thickness (Nm)
62 x 57 SAN® 6 GEBEDUR®	110
62 x 57 SAN® 6 GEBEDUR®	125
62 x 57 SAN® 6 GEBEDUR®	140
UY 128 SAN® 6 GEBEDUR®	90
UY 128 SAN® 6 GEBEDUR®	100
UY 128 SAN® 6 GEBEDUR®	110
UY 128 SAN® 6 GEBEDUR®	120
UY 128 SAN® 6 GEBEDUR®	125
UY 128 SAN® 6 GEBEDUR®	140
134 SAN® 6 GEBEDUR®	90
134 SAN® 6 GEBEDUR®	100
134 SAN® 6 GEBEDUR®	110
134 SAN® 6 GEBEDUR®	120
134 SAN® 6 GEBEDUR®	125
134 SAN® 6 GEBEDUR®	140
135 x 17 SAN® 6 GEBEDUR®	110
135 x 17 SAN® 6 GEBEDUR®	125
135 x 17 SAN® 6 GEBEDUR®	140
149 x 5 SAN® 6 GEBEDUR®	110
149 x 5 SAN® 6 GEBEDUR®	125
149 x 5 SAN® 6 GEBEDUR®	130
149 x 5 SAN® 6 GEBEDUR®	140
UY 180 SAN® 6 GEBEDUR®	125
UY 180 SAN® 6 GEBEDUR®	140

You can get our needles from: