

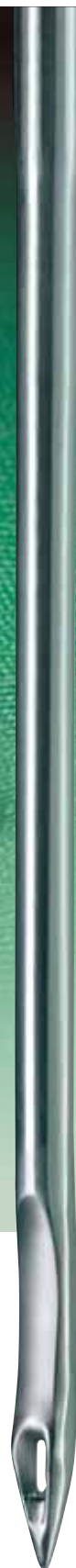


**BUTTON SEWING** – ACCURATE  
WITH GROZ-BECKERT NEEDLES



The semi or fully automatic function of button sewing machines places rather extreme demands on the sewing machine needle. The needle has to guide the sewing thread through the holes of the button and into a penetration hole which becomes tighter with every stitch. Whenever the needle hits the edge of the button, it has to be flexed into the hole at that very instant.

The slight ball point shaped RG-point proved successful, especially when sewing knitwear.



## BUTTON SEWING WITH TRADITIONAL NEEDLES AND ...

### Traditional needles



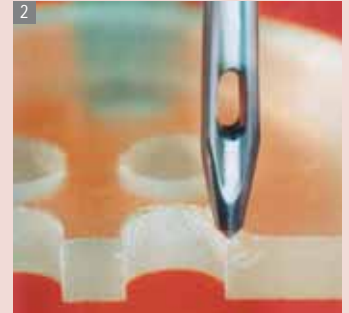
Stub

Traditional needles for button sewing are equipped with extremely obtuse-angled, sharp points.

**Common point designations:**  
Stu, Stub, H Set, EH Set etc.

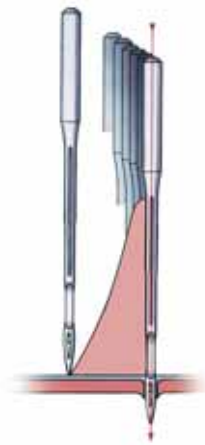
When they hit the edge of a button, such needles produce an indentation which in turn acts as a fixture for the needle (Fig. 1).

As a consequence the edge may break out (Fig. 2) or the button bursts. Alternatively, the needle will bend under the buckling load (Fig. 3). It gets crooked and it will break either immediately or during the next needle bar stroke (Fig. 4).



### Penetration resistance

Conventional needles have a higher penetration resistance. This means the load on the needle is higher. The result is a higher needle consumption.



### Conventional needle



COMPARISON PENETRATION FORCES:  
50 PENETRATIONS NEEDLE CLASS 2091 SIZE 110  
ON 2 PLYS OF DENIM

### Common problems with traditional needles



THE BUTTON CAN BE DAMAGED.



THE NEEDLE CAN BEND AND BREAK.



DAMAGE OF THE SEWING MATERIAL

## ... WITH GROZ-BECKERT NEEDLES

### Groz-Beckert Needles

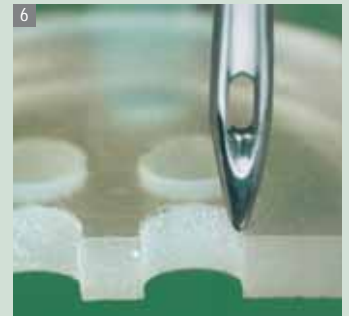


RG

Almost all Groz-Beckert button sewing needles are equipped with a special shape RG-point. Owing to its particular geometry, this slim point avoids any surface marking when it strikes the button (Fig. 5). The needle flexes easily into the hole of the button (Fig. 6). The occurrence of damage to the button is almost eliminated. The needle is protected against overloading and the problem of needle breakage is greatly reduced.

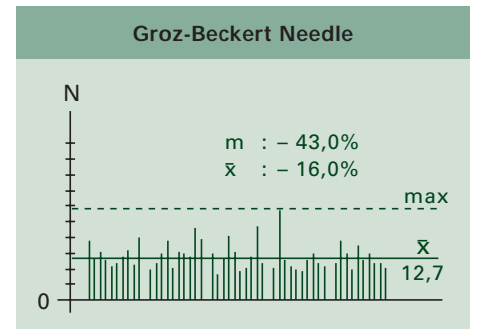
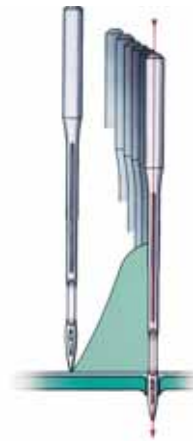
**Results:**

- Proper function of needle and machine (Fig. 7)
- Diminished machine downtime
- Improved button sewing quality



### Low penetration resistance

The penetration resistance is reduced up to about 43% due to the very specific shape of button sewing needles made by Groz-Beckert. As a result, the needle has to cope with lower forces and the fabric is handled gently. The sewing thread is guided through the button and the fabric with low friction applied. Predamage to the thread is avoided and stable button sewing is produced.



COMPARISON PENETRATION FORCES:  
50 PENETRATIONS NEEDLE CLASS 2091 SIZE 110  
ON 2 PLYS OF DENIM

### Button sewing needles of Groz-Beckert and their advantages

- Low forces during penetration take away the load edge on fabric and needle.
- The problem of choosing a wrong point style for the different fabrics is eliminated.
- Special points like FFG and FG for knitted fabric are not necessary
- Needle wear and usage is reduced.
- Stock keeping is simplified and the cost is reduced because the standard button sewing needle of Groz-Beckert takes care of all the application variety.

