

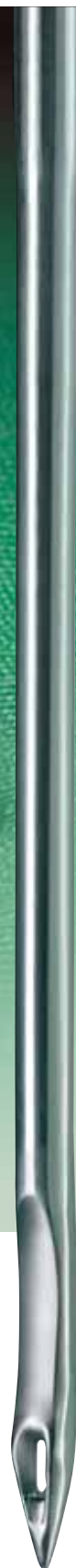


**BUTTON SEWING** – ACCURATE  
WITH GROZ-BECKERT NEEDLES



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



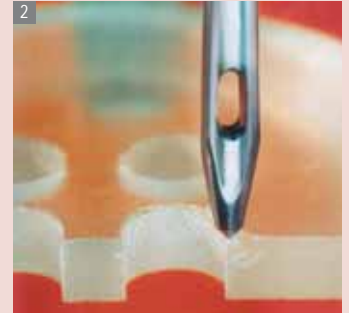
Stub

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

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

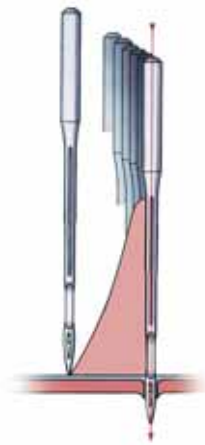
When they hit the edge of a button, such needles produce an indentation which in turn acts as a fixture for the needle (Fig. 1).

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

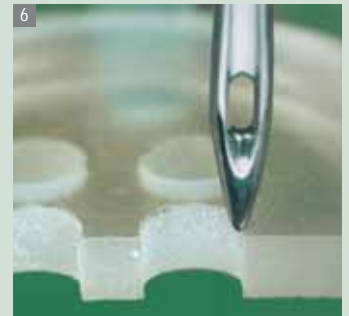


RG

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.

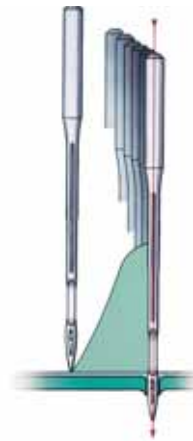
#### Results:

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

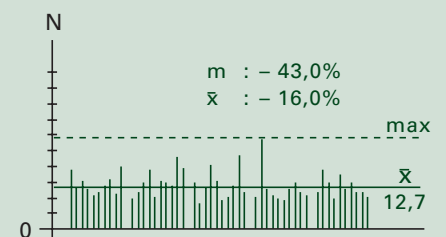


### Low penetration resistance

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.



### Groz-Beckert Needle



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.

## PRODUCT RANGE BUTTON SEWING NEEDLES:

System	Size-Range	Ident-No.	GB-designation	System	Size-Range	Ident-No.	GB-designation	System	Size-Range	Ident-No.	GB-designation
29 ELS	100 - 130	13	517.174 AC01 RG	1661 EXT LG	60 - 125	9	470.174 AC03 RG	SY 4539	130 - 150	7	470.174 AC01 RG
29 L	60 - 125	6	470.174 AC01 RG	1661 EXT LG	130 - 150	7	470.174 AC01 RG	SY 4631	100 - 140	12	502.174 AC01 RG
29 L	130 - 150	7	470.174 AC01 RG	1661 LG	60 - 150	4	412.174 AC01 RG	SY 4632	100 - 140	12	502.174 AC01 RG
29 LES	60 - 150	8	470.174 AC02 RG	1661 M	60 - 150	1	371.174 AC01 RG	SY 7226	50 - 200	3	381.200 AC02 RG
29 LSS	60 - 125	9	470.174 AC03 RG	1985	60 - 150	1	371.174 AC01 RG	SY 7585	60 - 150	8	470.174 AC02 RG
29 LSS	130 - 150	7	470.174 AC01 RG	1986	60 - 150	4	412.174 AC01 RG	SY 7586	60 - 150	8	470.174 AC02 RG
29 S	60 - 150	1	371.174 AC01 RG	1987	60 - 125	9	470.174 AC03 RG	SY 7587	60 - 150	8	470.174 AC02 RG
108 x 1	60 - 140	2	373.163 AC02 RG	2018	60 - 150	4	412.174 AC01 RG	SY 7700	100 - 130	13	517.174 AC01 RG
108 x 3	60 - 140	2	373.163 AC02 R	2091	60 - 125	6	470.174 AC01 RG	SY 8138	60 - 150	4	412.174 AC01 RG
134 - 35 K	50 - 200	3	381.200 AC02 RG	2091	130 - 150	7	470.174 AC01 RG	SY 8661	60 - 150	4	412.174 AC01 RG
175 x 1	60 - 150	1	371.174 AC01 RG	2091 K	60 - 125	6	470.174 AC01 RG	SY 8662	60 - 150	4	412.174 AC01 RG
175 x 3	60 - 150	4	412.174 AC01 RG	2091 K	130 - 150	7	470.174 AC01 RG	SY 8701	50 - 200	3	381.200 AC02 RG
175 x 5	60 - 150	1	371.174 AC01 RG	2091 KK	60 - 150	8	470.174 AC02 RG	SY 8724	60 - 150	1	371.174 AC01 RG
175 x 7	60 - 125	6	470.174 AC01 RG	2091 LGK	60 - 125	6	470.174 AC01 RG	SY 8727	60 - 150	4	412.174 AC01 RG
175 x 7 KK	60 - 150	8	470.174 AC02 RG	2091 LGK	130 - 150	7	470.174 AC01 RG	SY 8728	60 - 125	6	470.174 AC01 RG
175 x 9	60 - 125	9	470.174 AC03 RG	2134 - 35 K	50 - 200	3	381.200 AC02 RG	SY 8728	130 - 150	7	470.174 AC01 RG
175 x 9	130 - 150	7	470.174 AC01 RG	SY 2851	60 - 150	1	371.174 AC01 RG	BQ x 1	60 - 140	2	373.163 AC02 RG
175 x 13	100 - 140	12	502.174 AC01 RG	SY 2852	60 - 150	1	371.174 AC01 RG	DP x 35 K	50 - 200	3	381.200 AC02 RG
175 x 15	60 - 125	6	470.174 AC01 RG	SY 3049	60 - 140	2	373.163 AC02 RG	LS x 18	60 - 125	9	470.174 AC03 RG
175 x 15	130 - 150	7	470.174 AC01 RG	SY 4051	60 - 150	4	412.174 AC01 RG	LS x 18	130 - 150	7	470.174 AC01 RG
175 x 25	100 - 140	12	502.174 AC01 RG	SY 4052	60 - 150	4	412.174 AC01 RG	MT x 190 K	60 - 140	5	445.200 AC02 RG
175 x 31	60 - 150	4	412.174 AC01 RG	SY 4531	60 - 125	6	470.174 AC01 RG	TQ x 1	60 - 150	1	371.174 AC01 RG
175 x 33	60 - 150	4	412.174 AC01 RG	SY 4531	130 - 150	7	470.174 AC01 RG	TQ x 3	60 - 150	4	412.174 AC01 RG
178 H	60 - 150	4	412.174 AC01 RG	SY 4533	60 - 125	9	470.174 AC03 RG	TQ x 5	60 - 150	1	371.174 AC01 RG
190 K	60 - 140	5	445.200 AC02 RG	SY 4533	130 - 150	7	470.174 AC01 RG	TQ x 7	60 - 125	6	470.174 AC01 RG
332 LGH KSP	90 - 140	10	485.198 AC02 RG	SY 4536	60 - 125	6	470.174 AC01 RG	TQ x 7	130 - 150	7	470.174 AC01 RG
332 LGH KSP KK	110 - 120	11	485.198 AC03 R	SY 4536	130 - 150	7	470.174 AC01 RG	TQ x 9	60 - 125	9	470.174 AC03 RG
1661	60 - 150	1	371.174 AC01 RG	SY 4538	60 - 125	9	470.174 AC03 RG	TQ x 9	130 - 150	7	470.174 AC01 RG
1661 ELG	60 - 125	9	470.174 AC03 RG	SY 4538	130 - 150	7	470.174 AC01 RG	TQ x 13	100 - 140	12	502.174 AC01 RG
1661 ELG	130 - 150	7	470.174 AC01 RG	SY 4539	60 - 125	6	470.174 AC01 RG	TQ x 14 N	60 - 150	8	470.174 AC02 RG

The program will be extended when required.

