

Technology+Practice

Processing of men's trousers flies –
Comparison of conventional and automated production methods
with cut-to-length zippers or endless zippers

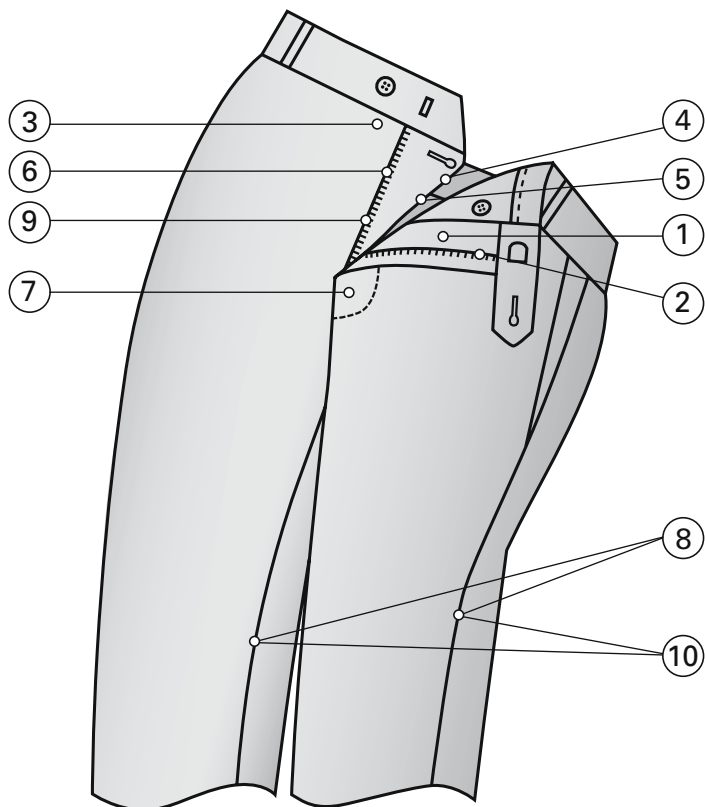
Method 1 – Conventional processing with cut-to-length zippers



This processing method makes high demands on the operators and requires intensive training. The quality of work depends on many factors and an accurate repetition cannot be guaranteed. If operators change because of illness, holidays etc. the performance and the quality standard cannot even nearly be maintained. The costs of the fixed cut-to-length zippers are a further negative aspect. Also the high wage costs caused by the use of standard machines must not be disregarded in this respect.

Disadvantages:

- High zipper costs
- Extensive storage / logistics
- Fluctuations in production quality
- High personnel costs



Operation	Op No.	Seam pattern	Equipment	Operators required		Trousers/ 480 min.
				1.000 Trousers	1.500 Trousers	
Fuse left fly	1		Ironing table	0,56	0,84	1.770
Sew zipper on left fly piece (2 seams)	2		281-140342	0,67	1,00	1.500
Overedge right fly piece	3		8704-O42-M00P	0,38	0,56	2.600
Sew fly lining on right fly piece	4		281-140342	0,46	0,69	2.200
Iron fly piece before and after sewing	5		Ironing table	0,38	0,56	2.600
Sew zipper on right fly piece	6		281-140342	0,46	0,69	2.200
Sew left fly piece on front trousers and topstitch; sew cross seam; sew right fly piece on front trousers; topstitch left fly according to template	7		272-140342	4,35	6,53	229
Sew side seams and inseams	8		550-8-2	4,06	6,10	250
Topstitch right fly piece	9		272-140342	1,50	2,25	680
Iron side- and inseams open	10		Ironing table	3,00	4,50	335
Operators required				15,82	23,72	

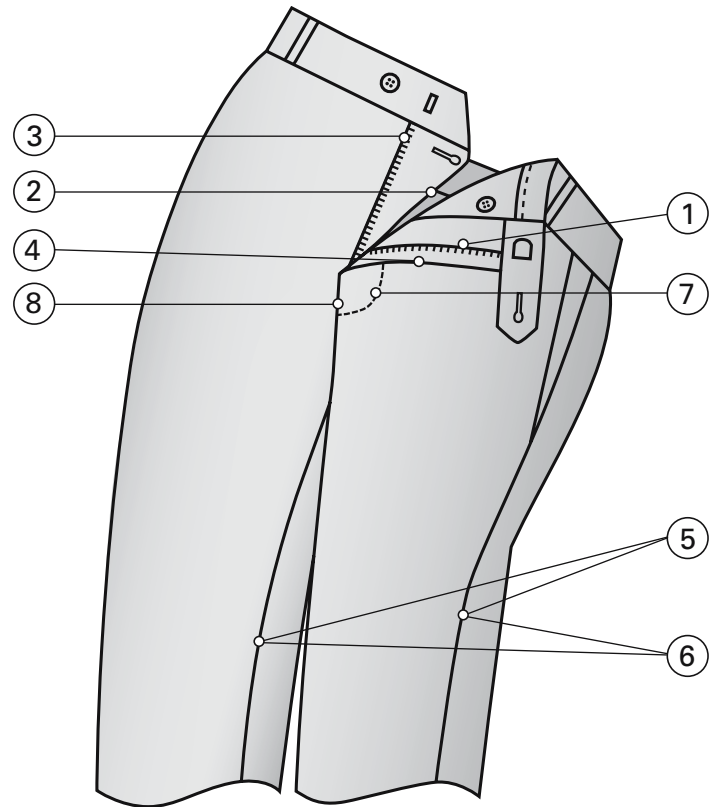
Method 2 – Automated processing with endless zippers


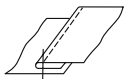

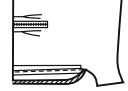


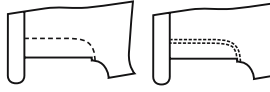


When using sewing automates characterized by high performance and a nearly perfect repetition, even when operated by unskilled personnel, up to 50% of personnel costs can be saved. This production method guarantees quality improvement combined with cost reduction. Therefore for more than 80% of the manufacturers of men's trousers consider the processing of endless zippers as an absolute must.

Advantages:

- Low zipper costs
- Easy storage / logistics
- Personnel costs reduced by up to 50%
- Constant high-level quality
- Short training times



Operation	Op. Nr.	Seam pattern	Equipment	Operators required		Trousers/ 480 min.
				1.000 Trousers	1.500 Trousers	
Sew zipper on left fly piece, add nonwoven tape at the same time	1		1710-5	0,21	0,31	4.800
Fell fly lining on right fly piece	2		550-2-1	0,46	0,69	2.200
Separate zipper; serge right fly, attach zipper to the edge at the same time	3		8704-O42-M00P	0,48	0,72	2.100
Fell left fly piece on front trousers; attach right fly to front trousers	4		2211-5	0,48	0,72	2.000
Sew side seams and inseams automatically	5		1282-5	2,50	3,75	400
Iron side- and inseams open	6		Ironing table	2,50	3,75	400
Topstitch left fly piece	7		1911-5/1931-5	0,54	0,81	1.800
Align zipper; punch zipper end part	8		Punch for zipper end parts	0,73	1,10	1.400
Operators required				7,90	11,85	

Operating means for the processing of cut-to-length zippers – Conventional method



281-140342: Op. No. 2, 4, 6



8704-O42-M00P: Op. No. 3



272-140342: Op. No. 7, 9



550-8-2: Op. No. 8

281-140342: Single needle lockstitch machine with bottom feed, thread trimmer and automatic backtacking.

8704-O42-M00P: Single needle three-thread overlock machine, stitch type 504, with differential bottom feed and edge trimming device.

272-140342: Single needle lockstitch machine with bottom feed and needle feed, thread trimmer, sewing foot lift and automatic backtacking.

550-8-2: Engineered sewing station for closing side seams and inseams with single needle double-chainstitch machine and edge guide attachment.

Operating means for the processing of endless zippers – Automated method



1710-5: Op. No. 1



550-2-1: Op. No. 2



8704-O42-M00P: Op. No. 3



2211-5: Op. No. 4



1282-5: Op. No. 5



1931-5, 1911-5: Op. No. 7

1710-5: Sewing unit for sewing endless zippers on fly pieces. Twin needle double-chainstitch machine with top puller feed, belt feed, zipper cutter and small parts stacker.

550-2-1: Engineered sewing station for fly processing. Single needle lockstitch machine with bottom feed and needle feed, notching device and guide attachment.

8704-O42-M00P: Single needle three-thread overlock machine, stitch type 504, with differential bottom feed and edge trimming device.

2211-5: Sewing unit for short seams with lockstitch head for automatic felling of the left fly piece and for attaching the right fly piece.

1282-5: Sewing unit for closing side seams and inseams with safety seam or double-chainstitch seam with contour guide attachment and automatic fullness distribution via step motorcontrolled, differential needle feed and bottom feed for the alternate distribution of up to 5 fullness values, optionally in the upper or lower material ply.

1931-5/1911-5: Sewing units for topstitching the left fly piece, with single seam (1911-5) or alternatively with single seam or double seam (1931-5). The seam end is always precisely in the seam shadow of the waistband edge.

This comparison is restricted to the two most commonly used methods. For more detailed information corresponding brochures are available. We are also well prepared to send our experts to your factory for individual consultation in order to analyse the method preferred by you and to optimize it as far as possible.

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