

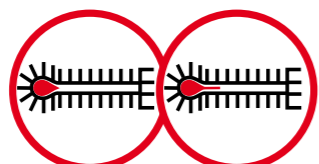
## Ultraflex

Ultra Flexibility on Men's Suit Applications

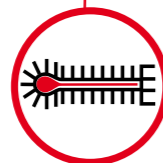
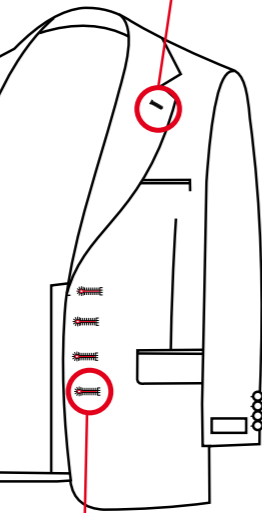
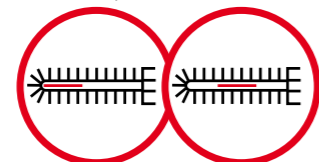
The Ultraflex is a specially designed model for buttonhole applications on men's suit which increases the operator's productivity since both lapel and jacket front buttonholes are sewn and cut in one sewing sequence without changing any knives and cutting blocks. The lapel buttonholes are cut fully or partially.

All buttonhole parameters including the required cutting position and cutting length of the lapel buttonhole is easily saved in the memory. The machine can be optionally equipped with an optical sensor system to automatically alternate between lapel and front buttonholes.

The Ultraflex is supplied with LTT-long tail thread trimming mechanism. The machine is equipped with the thread nipper to ensure that the first buttonhole stitch is formed properly.

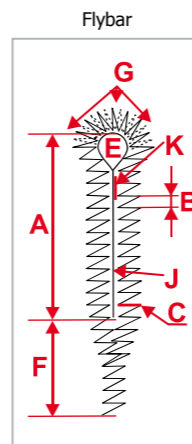


Lapel Buttonhole

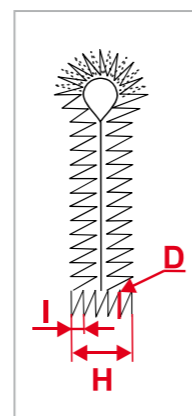


Front Buttonhole

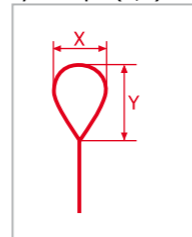
ES-505 Ultraflex	
Cutting Length (Eye Buttonhole)	5-30 mm
Cutting Length (Straight Buttonhole)	8-25 mm
Sewing Length	13-30 mm



Crossbar



Eye Shape (X;Y) mm



Technical Specifications ES-505	
Stitch Type	Single needle double chainstitch with or without gimp (401)
Sewing Speed	up to 2,700 spm
Buttonhole Length	Adjustable in increments of 1 mm AF Model 8 to 50 mm; 2 to 3.5 mm* LTT Model 13 to 38 mm CT Model 13 to 30 mm Ultraflex Model 2 to 7 mm
Buttonhole Types	*
Sewing Start in Round End Buttonhole	
Stitch Den'sity	0.5 - 2.0 mm adjustable in increments of 0.1 mm
Automatic Cutting Length	yes
Stitch Bite	1.6 - 3.0 mm
Eye Shape (X;Y) mm	No Eye; 2.2 x 3.0; 2.8 x 4.2; 3.0 x 4.6; 3.2 x 5.0; 3.4 x 4.2
Fly Bar Length	3,0 - 20,0 mm
Number of Eye Stitches	4 to 20
Number of Stitches in the round end	4 to 20
Length of Crossbar	3 to 6.5 mm
Crossbar density	0.5 - 1.5 mm adjustable in increments of 0.1 mm
Clamp Foot Height	12 mm
Sewing Thickness	8 mm
Buttonhole Cutting	Cut Before, Cut After, No Cut, Partial
Cutting Space	-0.5 to 1.2 mm
Thread Trimming	AF top thread only RDE all threads short CT all threads short LTT all threads long
Cycle Sewing	21 buttonhole combinations in 47 programs
Sewing Light	in the head
Recommended Needle	AMF Reece Series 579, size Nm 90, 100, 110
Recommended Thread	High Quality Core Spun Polyester; size 80, 100, 120; gimp size 30 and higher
Air Requirement	0.5 MPa (5 bar), (72 psi)
Electrical Supply	230V, 50/60 Hz 1 phase (according to EN 60204-1)
Dimensions Head and Table	1200 mm (w) x 790 mm (D) x 1140 mm (H)
Weight	230 kg
Dimensions Packed	1250 mm (w) x 1350 mm (D) x 1460 mm (H)
Weight	330 kg

Accuracy of illustration and description of equipment shown herein apply to products as manufactured at time of publication.



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# ES-505

## New Generation Electronic Eyelet Buttonhole Machine

New revolutionary design, four patented mechanisms, currently the highest sewing speed in the market, excellent traditional buttonhole quality, large full color touch screen display – all presented in the new AMF Reece electronic eyelet buttonhole machine ES-505.





## Features

### Currently the fastest machine available, running at 2,700 spm

Unbeatable sewing speed adjustable from 1,500 spm to 2,700 spm directly from the touch screen display. Different sewing speed can be programmed at the start/stop position, around the eye and in the cross bar finish to ensure excellent sewing quality even on difficult materials.

### New modular design of the sewing head with integrated sewing motor (1)

The new concept of the sewing head enables sewing in vertical or horizontal direction and provides the operator with larger handling space in the sewing area. The new, stronger main drive increases machine performance and is integrated in the sewing head.

### The sewing head can be fixed onto the sewing table or supplied as submerged according to the customer's preference.

### New patented balancing and sewing drive mechanism

Developed to increase the machine performance, lifetime and decrease the machine vibration.

### Incorporated Round LED Lights (2)

Incorporated LED sewing lights around the cutting block eliminates darker spots in the sewing area and provides optimum light conditions while working on the machine.

### No need of mechanical adjustments when changing the stitch bite

A new technical solution for the stitch bite, including the two basic widths, 1.9 and 2.7 mm, ensures that full stitch bite range is now controlled from the touch screen display only.

### New vertical cutting system instead of standard lever cutting (3)

The vertical cutting improves the buttonhole cutting in its whole length. The lever cutting system has been replaced by pneumatically controlled vertical cutting mechanism applying the same pressure throughout the buttonhole length and providing the operator with clean and reliable buttonhole cutting on all types and multiple layers of material.

### Independent thread tension of all threads

The needle, looper and gimp thread tensions can be separately adjusted from the sewing head without the need to tilting the sewing head. This system improves the sewing quality on different fabrics and therefore the final buttonhole appearance.

### Pneumatic System Controls

Pneumatic system controls are used for the clamping, spreading, cutting of the material, thread nipper, stitch bite, suction system and also for the thread tension of needle, looper and gimp thread.

### Cycle Sewing

The cycle sewing allows up to 21 different buttonhole combinations to be sewn in 47 different programs. The operator can set the machine to sew any of the required buttonhole styles, i.e. to cover all buttonhole applications on a formal jacket. All settings can be done easily by the operator on the touch screen display.

### New longer clamp feet (4)

The machine is equipped with new longer clamp feet. The longer arms improve the material handling and provide the operator with more space when clamping the sewn garment. Availability of different types of clamp feet for a variety of applications ensures optimum fabric clamping.

### Convenient maintenance (5)

The sewing head opening is very easy with the support of a gas spring. The head can be opened in several levels depending on the operator's needs. Larger machine base also provides better access to adjusting mechanisms.

### Optimization of the sewing mechanism

The optimization of the main stitch cam eliminates the machine vibration and reduces the noise level.

### Improved Lubrication System

New design ensures quick and sufficient oil distribution to the critical parts of the machine and reduces maintenance time. There are two central oil indicators on the machine.

### Waste Material Removal and Suction System

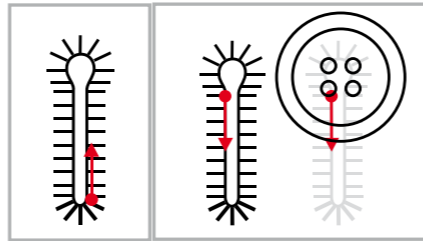
The waste material removal & suction system helps to keep the working environment cleaner by removing the cut-off threads and cut-off eye material from the sewing area into a waste bag. This pneumatically controlled system prolongs the knife lifetime and provides improved buttonhole cutting.

## Applications and Sewing Patterns

The ES 505 machine can be used for a wide range of applications which are suited to all needs of the clothing manufacturer, both large and small. This machine can handle all types of garments ranging from light to heavy weight materials including denim and leather. The applications of the machine can be found on formal menswear, ladies' wear, jeans, casual trousers and other outerwear.

The ES 505 machine can sew a variety of buttonhole shapes with or without gimp including the round eyelet. Depending on the manufacturer requirements, up to 99 different stitching patterns can be set in the memory of the machine.

When sewing the round end finish, the operator can set two different start positions, which are either in the first row or in the eye. When the eye start is selected, the finished buttonhole looks much cleaner since the trimmed thread ends are covered by the button, especially on trouser applications.



## Thread Trimming Mechanisms

**AF (Adjustable Flybar)** Model recommended for all buttonhole applications that require only top thread trimming. The size of buttonholes is adjustable from 10 to 50 mm, in increments of 1 mm.

**CT (Cord Trim)** Model for use on jeans, trousers or other applications where all threads need to be trimmed from the very end of the buttonhole. Buttonhole sizes ranging from 14 to 35 mm can be sewn by using the two different clamp set.

**LTT (Long Tail Trimmer)** Model used mostly on tailored clothing, when the end of the buttonhole is left open and the long tails of the threads are pulled through the buttonhole to be tacked in a separate operation. Buttonhole length can be set from 13 to 38 mm. All threads are trimmed with a 20-30 mm tail depending on the buttonhole size.

## Optional Accessories

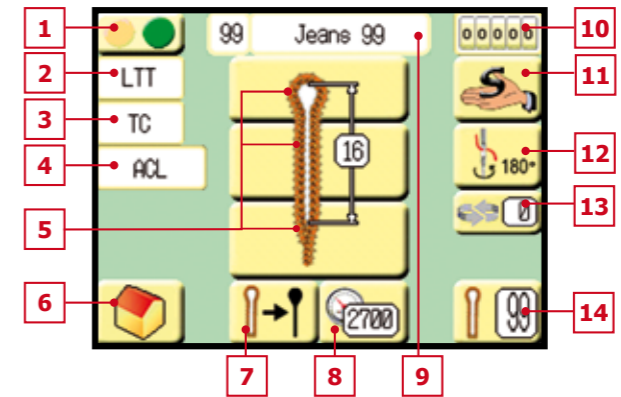
**Thread Nipper (6)** holds the top thread at the start of the sewing cycle to ensure that the first stitch is formed properly especially on difficult fabrics. The new concept of the thread nipper gives a more reliable grip of the top thread. The thread nipper makes two different movements vertical and horizontal, to bring the thread closer to the needle. It is standard on the LTT and Ultraflex models and optional on the AF and CT models.

**Hand Start Control or only One Pedal** can be optionally ordered to operate the machine. The hand start control is recommended for standing operators and is placed on the machine bedplate. All standard machines come with 2 pedals (each pedal has one position) – left pedal to close the clamp feet and right pedal to start the sewing. The optional one pedal can execute both steps.

**Optional cutting knives, cutting steels, clamp feet, throat plates, work mats** are available and can be ordered from our spare parts department if required. For further information please visit our web site [www.amfreece.com](http://www.amfreece.com).

## High Resolution Full-Color Touch Screen Display

5.7" LCD high resolution touch screen display is fixed onto the machine table and incorporates new sewing functions. The use of easily understood symbols makes the machine very easy to operate, minimizing training time.



1. Display Machine Status
2. Machine Model Modification
3. Thread Catcher
4. Lapel System
5. Buttonhole Setting
6. Home Position
7. Cutting Selection
8. Sewing Speed
9. Customized Program Name
10. Production Counter
11. Service Mode
12. Easy Threading Button
13. Cycle Mode
14. Buttonhole Program Selection

## ES-505 Indexer

The ES 505 Indexer machine is specially designed for sewing multiple buttonholes on jacket sleeves and jeans fly fronts at required distances between each buttonhole. The indexer unit ensures that buttonholes are sewn automatically one after another according to parameters set by the operator on the touch screen display.

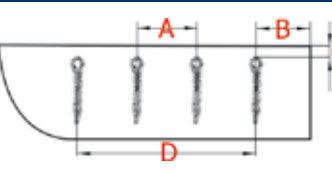
The new structural design of the indexer unit, placed behind the clamp feet, ensures easy access to the race area if needed. The indexer unit does not need to be disassembled when taking off the clamp plates in order to change necessary parts.

## Available Indexer Models

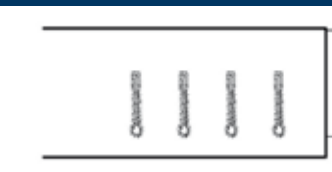
**AFS Model** - model is recommended for sewing of regular eyelet buttonholes with single thread, ranging from 10 to 50 mm in length on jacket sleeves. Model is supplied with thread nipper that holds the top thread at the start of sewing, to ensure that the first stitch is formed properly especially on difficult fabrics.

**CTS Model for jacket sleeves and CTJ Model for jeans fly fronts** - both models are used for applications with double thread, with or without gimp where all threads are trimmed from the very end of the buttonhole. A buttonhole length of 13 to 35 mm can be sewn with use of different clamp sets. The CT model for jacket sleeves application is also equipped with the top thread nipper, which especially helps on crossbar buttonhole applications.

Machine Model	AFS	CTS	CTJ
Applications	jacket sleeve		jeans fly front
Stitch Type	single chainstitch	double chainstitch with or without gimp	
Thread Nipper	Yes	No	
Number of Buttonholes	1 - 6 buttonholes		
Distance between Buttonholes	A	8 - 150 mm	
Distance from Fabric Edge-(horizontal)	B	30 mm	
Distance from Fabric Edge-(vertical)	C	10 - 80 mm	
Max. Horizontal Feed Amount	D	150 mm	



jeans fly front



jacket sleeve