

AMS-210E Series

Computer-controlled Cycle Machine with Input Function

AMS-210E-2210
220mm(x) × 100mm(y)

AMS-210E-1306
130mm(x) × 60mm(y)

AMS-210E-1510
150mm(x) × 100mm(y)

AMS-210E-2206
220mm(x) × 60mm(y)

AMS-210E series

1306 / 1510 / 2206 / 2210

130mm(x) × 60mm(y) 150mm(x) × 100mm(y) 220mm(x) × 60mm(y) 220mm(x) × 100mm(y)



AMS-210E series

The total cycle time is substantially reduced.

Computer-controlled cycle machine with greater improvement of basic functions compared with the conventional machine.
 Preparing 4 different sewing areas corresponding to application.

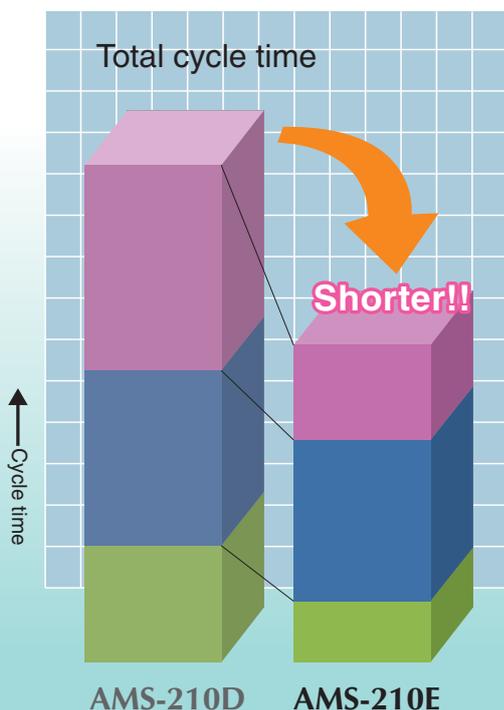


AMS-210EHS-1306



Intelligent panel IP-410

Productivity



The cycle time is dramatically reduced by **35%** as compared with that of the conventional models.

Not only the instantaneous acceleration at the beginning and instantaneous deceleration at the end of sewing, but also the increased speed of thread trimming action and work clamp lifting action have contributed to substantially reduced total cycle time.

- Beginning of sewing (the presser foot comes down ~ 8 stitches)
- During sewing (44 stitches)
- End of sewing (4 stitches ~ the thread trimmer cuts thread and the work clamp foot goes up)

*Sewing pattern used for comparison: Semi-circular shape pattern, 2.1 mm-pitch, and 56 stitches Application: Shoes

AMS-210E-1306/IP-410

<130mm(X)× 60mm(Y)>

AMS-210E-1510/IP-410

<150mm(X)×100mm(Y)>

AMS-210E-2206/IP-410

<220mm(X)× 60mm(Y)>

AMS-210E-2210/IP-410

<220mm(X)×100mm(Y)>

Application

The machine can be used for free pattern stitching, parts sewing, reinforcement stitching, etc.

Practical applications include attaching labels, emblems or name labels, attaching Velcro, decorative stitch to pockets and special bartacking.

The machine supports a broader range of materials and various sewing specifications.



Sewing emblems



Reinforcement stitching



Decorative stitch to hip pockets of jeans



Sewing labels (FU05 type inverting clamp device)



Maximum sewing speed:

The machine achieves the highest sewing speed of 2,700rpm for a computer-controlled cycle machine.



Work clamp lifter:

Thanks to the stepping motor drive, the work clamp lifter's operating time has been reduced to one-fourth that of the conventional device.*



Instantaneous acceleration:

The maximum sewing speed is reached by the 2nd stitch from the beginning of sewing.



Instantaneous deceleration:

The machine remains at the maximum sewing speed until just before the end of sewing and decelerates instantaneously.



Thread trimming:

A stepping-motor controlled thread trimming mechanism is employed to perform high-speed thread trimming without fail.

*Only for AMS-210E-1306

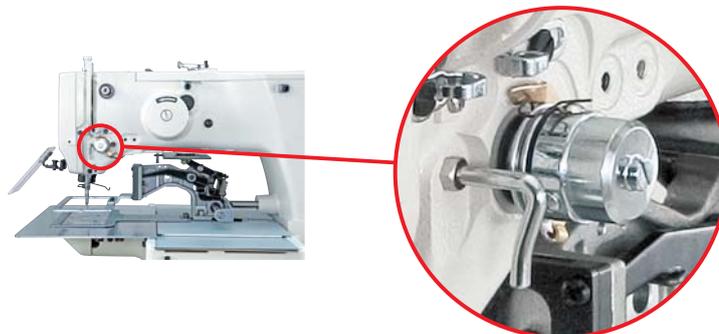
In addition to the substantial improvement of seam quality and operability, the machine demonstrates flexible responsiveness to diverse kinds of materials.

Sewing quality

Active tension

The machine achieves uniformly tensed seams with increased accuracy.

Market-proven active tension has been introduced to the needle thread tension controller. With the active tension, pinpoint changes in the needle thread tension during sewing are enabled. The needle thread tension, therefore, can be set in conjunction with the material thickness and can be corrected according to the direction of sewing on a stitch-by-stitch basis through the operation panel. Since the needle thread tension is reproducible, supporting a broader range of sewing conditions, the time required for setup changing upon process changeover can be reduced.

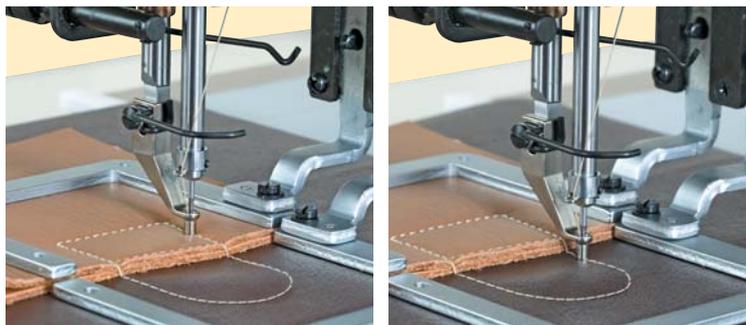


Close-up picture of active tension

Programmable intermediate presser

Height of the intermediate presser can be adjusted during sewing.

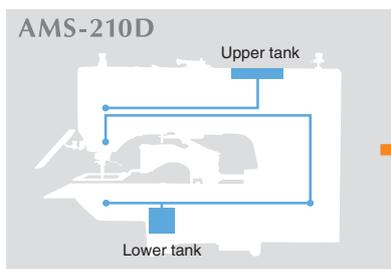
To support the sewing of multi-layered parts of materials, the lower dead point height of the intermediate presser can be changed steplessly during sewing (standard: 0~3.5mm; maximum: 0~7.0mm). The intermediate presser will now be able to clamp the material without fail, thereby preventing troubles in sewing, such as stitch skipping and thread breakage. Furthermore, flaws on the sewing product are prevented by maintaining the intermediate height as desired according to the material thickness. (The intermediate presser stroke is adjustable between 0 and 10mm.)



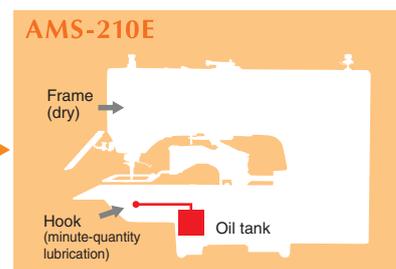
Semi-dry

The advanced dry technology prevents oil stains.

The frame (needle bar unit and thread take-up unit) is lubricated with grease, and the hook is fed with a minute quantity of oil from the oil tank. JUKI's advanced dry technology, which is utilized in a number of our sewing machine models, protects your products from being stained with oil.



Lubrication / circulation diagram



Lubrication diagram

Operability

Work clamp lifting method

Various types of machines are available for different applications.

Stepping motor work clamp (monolithic feeding frame)

The intermediate height setting of the feeding frame, which has not been possible with the conventional magnet drive, is now possible. This facilitates positioning of the sewing product and operation of the machine, resulting in increased operation efficiency.

Pneumatic work clamp (separately-driven feeding frame)

The right and left pieces of the feeding frame are independent from each other and can be separately lifted or lowered. This type of feeding frame is effective for separately clamping the body and part or to sew sewing products that has differences in thickness.

Pneumatic work clamp (monolithic feeding frame)

Both the feeding frame (right and left parts) are monolithically structured. This type helps reduce the time required to set the material on the machine. It effectively works in the reinforcing stitching or shape-tacking process.

An introduction to the improved JUKI subclass models

AMS-210EHL-1306/7300

<slide-type thread take-up lever>

The machine with a slide-type thread take-up lever is designed for improved stitching with heavy threads tension. JUKI's unique active tension mechanism which has been re-designed specifically for heavy-weight materials, as well as the slide-type thread take-up lever which is suited for sewing heavy-weight materials, increase the maximum tension by **50%** more compared to that of the standard models of the JUKI AMS Series machines. The new model improves seam quality (thread tension) for sewing seat belts and general heavy-weight materials such as container belts and bags.



Reinforcement stitching on seat belts

Model name	AMS-210EHL-1306/7300
Sewing area	130mm(X)X60mm(Y)
Feeding frame type	Pneumatic feeding frame (lifting amount: 30mm)
Needle	DPX17 #25 (max. #26)
Thread	#2~#8 (nylon, Tetron)
Dimensions / Weight	In conformance with the standard model

Max. sewing speed	2,000rpm (when stitch length is 4.5mm or less)
Thread take-up	Slide-type thread take-up lever (dry frame)
Needle thread tension	Active tension for heavy-weight materials (tension increased by 50% more compared to that of the standard model)
Hook	Double-capacity shuttle hook
Wiper	Side wiping type
Thread trimming	Stepping motor drive

The large-sized liquid crystal touch panel, which has been developed to ensure ease of operation, dramatically increases efficiency in edit work.

IP-410F

Operation panel IP-410F provided with programmable functions

The IP-410F touch panel offers market-proven ease of operation. It is provided with a wide screen and programmable functions. Input and edit data while observing the needle-entry points visually. The color LCD unit displays sewing data such as stitch shape, needle thread tension, enlargement / reduction ratio, maximum sewing speed and the number of stitches at a glance. For data edit operations, detailed data is shown on the screen simply by lightly pressing the display icon, thus contributing to dramatically enhanced efficiency.

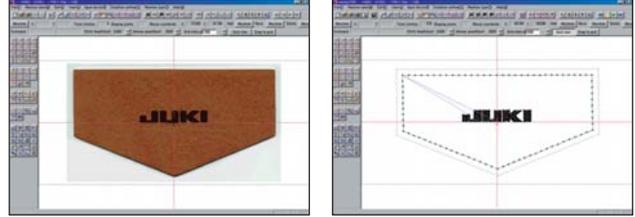


Options

Programming software for computer-controlled sewing machine PM-1

Since sewing data can be created/edited on the computer, a complicated and elaborate stitch shape can be sewn with increased efficiency as compared with the IP-410F.

Test-stitching can be done on site as many times as desired by directly connecting the machine to the computer. This helps the operator eliminate stress in editing work and allows him/her to sew a pattern for a desired design.

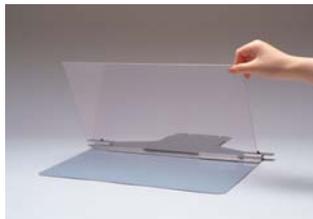


Devices / Parts

Model	Part No.	Description	Feature
FU-05*	—	Pneumatic inverted clamp device	The model is best-suited to circular sewing, for attaching small patches such as labels and emblems. *For the S type (motor-driven work clamp), the air unit asm. is required.
MU12*	—	Milling unit	The unit can be mounted on the main body of the sewing machine to carry out the milling operations of work clamps or feed plates.
—	40036526	AMS-210E (MU12) set	It is a replacement parts set to be used with the MU12 (milling unit).
—	40035867	Side wiper asm.	A side wiping type is also available depending on the sewing products or sewing conditions.
—	B4150210DA0	Wiper relay cable asm.	
—	40035692	Needle cooler (asm.)	It blows air on the needle to prevent thread breakage due to heat. *For the S type (motor-driven work clamp), the AMS-210E pneumatic set is required.
—	40035693	Air unit asm.	The unit is required when the S type (motor-driven work clamp) uses FU-05 (pneumatic inverted clamp device) and needle cooler.
—*	B2594210DA0	Cassette holder (asm.)	The next material to be sewn can be placed between the top and bottom plates of the cassette holder while the machine is still engaged in the sewing of the currently set material.
—*	B2593210DA0	Cassette holder fixing base (asm.)	
—	B2585210DB0	One-touch utility clamp *Exclusive to the monolithic feeding frame	The feeding frame and the feed plate can be quickly changed without any tools.
—	B2586210DB0	One-touch utility clamp *Exclusive to the separately-driven feeding frame	
—	40040138	Pedal SW cable set	Possible to add SW to the 2-row pedal (PK78) (possible to make 3 consecutive motions)
—	40042352	Mechanical air valve unit	Possible to make up and down movements same as manual pedal. *The unit is not applicable to the machine head provided with motor-driven work clamp.



Pneumatic inverted clamp device

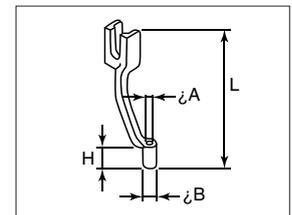


Cassette holder



One-touch utility clamp

* Exclusive part for sewing area code 1306 (X:1306 mm; Y:60 mm)
* Parts for any area other than the above are available on special order.



Intermediate presser

Needle / Needle hole guide / Intermediate presser corresponding table

Application	Needle	Needle hole guide		Intermediate presser	
	Number	Part No.	Needle hole diameter	Part No.	Dimension (øA×øB×H×L)
Knit and knitting fabric (option)	#09~#11	B242621000C	ø1.6	B1601210D0E (option)	ø1.6×ø2.6×5.7×37.0
Light- to medium-weight (S type)	#11~#14 ^{*1}	B242621000A	ø1.6	40023632 (standard)	ø2.2×ø3.6×5.7×38.5
Medium- to heavy-weight (H type)	#14~#18 ^{*2}	B242621000B	ø2.0	B1601210D0FA (option)	ø2.2×ø3.6×8.7×41.5
Heavy-weight (option)	#18~#25	B242621000D	ø2.4	B1601210D0BA (option)	ø2.7×ø4.1×5.7×38.5
Heavy-weight (slide-type thread take-up lever: standard)		B242621000F	ø3.0		
Extra heavy-weight (option)		B242621000G	ø3.0 (with counterbore)	B1601210D0CA (slide-type thread take-up lever: standard)	ø3.5×ø5.5×5.7×38.5
For the prevention of stitch skipping on heavy-weight materials (option)		B242621000H	ø3.0 (with eccentric)		

S type : Fitting thread numbers #80 - #20
*1 The needle equipped as standard (DPX5 #14)

H type : Fitting thread numbers #50 - #02
*2 The needle equipped as standard (DPX17 #18)

When you place orders

Please note when placing orders, that the model name should be written as follows:

[Machine head]

Application	Code	Feeding frame type	Code	Applicable model	Sewing area	Code
Light- to medium-weight	S	Motor-driven work clamp	S	AMS-210E1306	X:130mm - Y:60mm	1306
Medium- to heavy-weight	H	Pneumatic work clamp	L	AMS-210E1306, 1510, 2206, 2210	X:150mm - Y:100mm	1510
					X:220mm - Y:60mm	2206
					X:220mm - Y:100mm	2210

AMS210E **S** **Z**

Stitch type	Code	Option	Code	Subclass	Code	Pedal switch	Code	Applicable model
Standard	S	Not provided	Z	Standard	5000	PK 2-pedal unit (PK78)	C	AMS-210E*S1306, *L2206
				Subclass	5001	PK 3-pedal unit (PK47)	D	AMS-210E*L1306, *L1510
				Slide-type thread take-up lever*1	7300	PK 2-pedal unit*2	F	AMS-210E*L2210

*1 Slide-type thread take-up lever is only provided for the AMS210EHL1306S27300.
*2 With a mechanical valve pedal

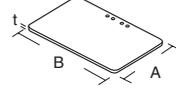
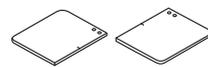
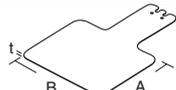
[Control box]

MC583 **I P 4 1 0 F**

Power supply		Code	Operation panel		Code
3-phase	200~240V	E	IP panel for AMS-210E (CompactFlash)	IP410F	
Shingle-phase	200~240V	K			
	CE 200~240V (not provided with power switch)	N			

●To order, please contact your nearest JUKI distributor.

Blank materials to be machined

Part No.	Description		
40035606	Feeding frame blank (with knurl)		A × B × t 97 × 164 × 4 (mm)
40035607	Feeding frame blank (without knurl)		
40035608	Feeding frame blank (without knurl / right and left combined use)		97 × 81.5 × 4 (mm)
40035609	Feeding frame blank, right (with knurl)		
40035610	Feeding frame blank, left (with knurl)		
B2556210D0A	Lower plate blank (with knurl)		168 × 131 × 1.2 (mm)
B2556210D0B	Lower plate blank (without knurl)		

Specifications

Model name	AMS-210ESS1306	AMS-210EHS1306	AMS-210ESL1306	AMS-210EHL1306
Sewing area	130mm(X)×60mm(Y)			
Feeding frame type	Motor-driven feeding frame (lifting amount: 25mm)		Pneumatic feeding frame (lifting amount: 30mm)	
Application	Light- to medium-weight DPX5(#14)	Medium- to heavy-weight DPX17(#18)	Light- to medium-weight DPX5(#14)	Medium- to heavy-weight DPX17(#18)
Compressed air / Air consumption	—		0.35~0.4(max. 0.55)MPa / 1.8dm ³ /min(ANR)	
Dimensions / Weight	1,200mm×710mm×1,200mm / Machine head: 69kg, Control box: 16.5kg			

Model name	AMS-210ESL1510	AMS-210EHL1510
Sewing area	150mm(X)×100mm(Y)	
Feeding frame type	Pneumatic feeding frame (lifting amount: 30mm)	
Application	Light- to medium-weight DPX5(#14)	Medium- to heavy-weight DPX17(#18)
Compressed air / Air consumption	0.35~0.4(max. 0.55)MPa / 1.8dm ³ /min(ANR)	
Dimensions / Weight	1,200mm×770mm×1,200mm / Machine head: 73kg, Control box: 16.5kg	

Model name	AMS-210ESL2206	AMS-210EHL2206
Sewing area	220mm(X)×60mm(Y)	
Feeding frame type	Pneumatic feeding frame (lifting amount: 30mm)	
Application	Light- to medium-weight DPX5(#14)	Medium- to heavy-weight DPX17(#18)
Compressed air / Air consumption	0.35~0.4(max. 0.55)MPa / 1.8dm ³ /min(ANR)	
Dimensions / Weight	1,200mm×710mm×1,200mm / Machine head: 75kg, Control box: 16.5kg	

Model name	AMS-210ESL2210	AMS-210EHL2210
Sewing area	220mm(X)×100mm(Y)	
Feeding frame type	Pneumatic feeding frame (lifting amount: 30mm)	
Application	Light- to medium-weight DPX5(#14)	Medium- to heavy-weight DPX17(#18)
Compressed air / Air consumption	0.35~0.4(max. 0.55)MPa / 1.8dm ³ /min(ANR)	
Dimensions / Weight	1,200mm×770mm×1,200mm / Machine head: 77kg, Control box: 16.5kg	

Specification common to all models (The machine with a slide-type thread take-up lever is excluded.)

Max. sewing speed	2,700rpm (when stitch length is 3mm or less)
Stitch length	0.1~12.7mm (0.05mm step)
Needle bar stroke	41.2mm
Lift / Stroke of the intermediate presser	Lifting amount: 20mm / Stroke: Standard 4mm (0~10mm)
Variable lower position of the intermediate presser	Standard 0~3.5mm (max. 0~7mm)
Needle thread tension	Active tension (electronic thread tension control mechanism)
Hook	Double-capacity shuttle hook
Storage of pattern data in the memory	EEP-ROM: Max. 200 patterns (max. 20,000 stitches / pattern) CompactFlash: Max. 999 patterns (max. 50,000 stitches / pattern)
Enlarging / Reducing facility	1~400% (0.1% step), Pattern enlargement / reduction can be done by increasing / decreasing either stitch length or the number of stitches
Bobbin thread / Product counter	Up / Down system (0~9,999)
Lubrication / Lubricating oil	Only the hook section needs a minute-quantity lubrication (tank system), JUKI New Defrix Oil No.2 (equivalent to ISO VG32)
Sewing machine motor	Compact AC servomotor (direct-drive system)
Power requirement / Power consumption	Single-phase, 3-phase 200~240V / 500VA

CompactFlash™ or CFA specification compatible media.
* CompactFlash™ is a registered trademark of SanDisk Corporation, U.S.A.



JUKI CORPORATION HEAD OFFICE
Juki Corporation operates an environmental management system to promote and conduct the following as the company engages in the research, development, design, sales, distribution, and maintenance of industrial sewing machines, household sewing machines, industrial robots, etc., and in the provision of sales and maintenance services for data entry systems:
① The development of products and engineering processes that are safe to the environment
② Green procurement and green purchasing
③ Energy conservation (reduction in carbon-dioxide emissions)
④ Resource saving (reduction of papers purchased, etc.)
⑤ Reduction and recycling of waste
⑥ Improvement of logistics efficiency (modal shift and improvement of packaging, packing, etc.)

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* Specifications and appearance are subject to change without prior notice for improvement.
* Read the instruction manual before putting the machine into service to ensure safety.
* This catalogue prints with environment-friendly soyink on recycle paper.