

Automatic Pocket Welting Machine with Automatic Welting Patch Feeder

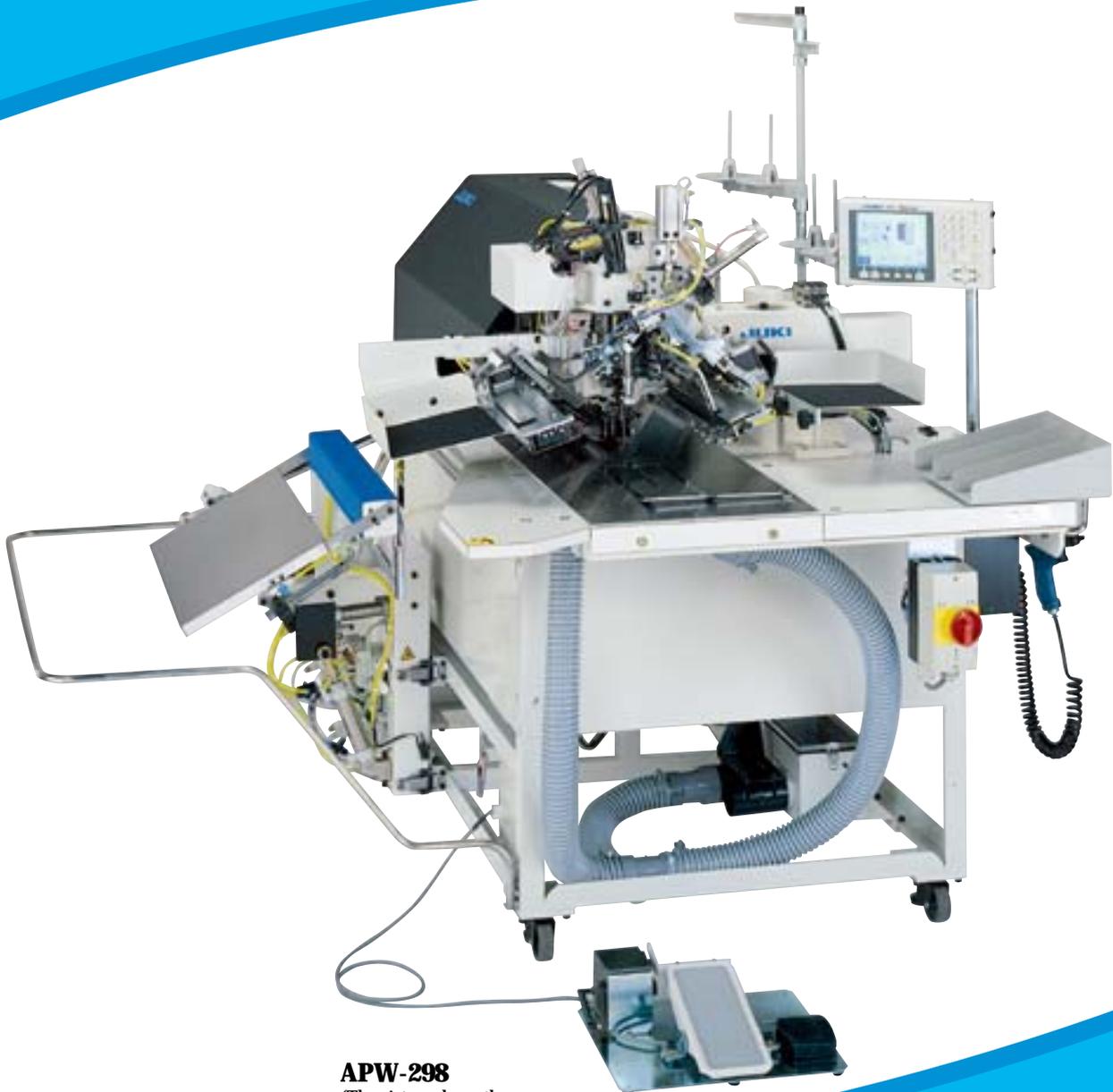
APW-297 (for straight pocket with flap)

APW-297B (for sewing bottoms)

APW-298 (for slanted pocket with flap)

The machine dramatically upgrades seam quality and increases productivity in every sewing process, including the after-process.

THIS IS HIGH-GRADE MACHINE LEADS THE INDUSTRY TOWARD THE NEW CENTURY.



APW-298

(The picture shows the unit equipped with optional devices.)

APW-297 APW-298

- In addition to improved seam quality and increased productivity, the APW-297 and APW-298 also delivers dramatic improvements in basic performance such as better maintainability, reduction in thread length after thread trimming, and the adoption of a needle-feed type machine head and direct-drive machine-activating method.
- Newly developed welting patch cutting device and automatic flap/ pocket bag feeder are now optionally available. These components work to upgrade seam quality and further increase productivity over all processes, including the after-process.



APW-297

NEWLY DEVELOPED DEVICES (OPTIONAL) FOR UPGRADING THE BASIC PERFORMANCE OF THE MACHINE

*The same optional parts are offered for the APW-297 and APW-298. Since optional parts can't be retrofitted to the machine after purchase, be sure to specify any that you may need when placing your order.

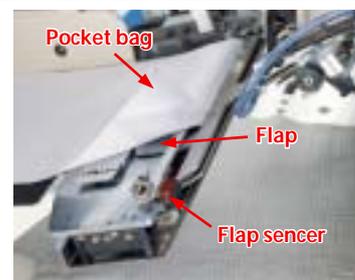
Welting patch cutting device: SA102

- ◆ The knife is motor-driven. To cut the welting patch as short as possible, it automatically adjusts itself to the sewing length established on the operation panel. This enables more consistent welting patch feed and folding operations.
- ◆ The welting patch cutting knife is located under the welting patch table. This keeps the knife from damaging the garment body. In addition, the knife can be changed with ease.
- ◆ Welting patch cutting, a job conventionally done by hand in the after-process, is no longer required. The result is a substantial reduction in the processing time.
- ◆ The clamp exclusively used during welting patches cutting allows the cutting device to cut welting patches even when the binder is in the lower position. This further eliminates wasted time due to welting patch cutting.



Automatic flap and pocket bag feeder: SA104

- ◆ The device works to sew the flap and pocket bag at the same time with the pocket bag placed on the flap.
- ◆ Simultaneous sewing of a flap and pocket bag produces beautifully finished welts free from uneven material feed. In addition, there's no longer any need to attach the pocket bag on the flap side, a task normally required in the after process.



Automatic flap feeder: SA103

- ◆ The fulcrum at the center of the automatic flap feeder claw clamps flaps securely and automatically feeds them to the sewing position. This promises increased productivity.



HIGHER PRODUCTIVITY

The length of thread remaining after thread trimming is further reduced to eliminate thread picking

- ◆ The length of thread remaining at the beginning and end of the seam has been shortened to 15 mm for needle thread and 22 mm for bobbin thread.
- ◆ Thread picking to streamline the after process is no longer required.
- ◆ The shortened remaining length of thread can reduce bobbin thread waste, increase the number of welts sewn per bobbin, and reduce the frequency of bobbin thread changing.



Shortened cycle time

- ◆ When running at its maximum sewing speed of 3,000 rpm, the machine increases the traveling speed of the clamp foot and promises an extremely rapid response time at startup and stop. This explains the machine's unrivalled production speeds among automatic welting machines.
- ◆ The operator can set the next welting patch, flap (with the automatic flap feeder), and garment to be sewn while still sewing those currently set. This shortens the cycle time and increases productivity.

Productivity:

Sewing welts without flaps → 2,900 pcs./8 hours
 Sewing welts with flaps → 2,400 pcs./8 hours
 (with the automatic flap feeder)

(Sewing conditions: Sewing length...150 mm; Allowance...25%)

THE MACHINE IS EQUIPPED WITH EXCELLENT CAPABILITIES AS STANDARD

Needle-feed system using a stepping motor

- ◆ The needle-feed completely synchronizes with the clamp foot travel. This reduces resistance between the clamp foot and material, thereby improving seam quality.
- ◆ The operator can set the length of needle-feed and the ON-OFF condition of the needle-feed system on the operation panel. As a result, the machine can quickly respond to a wide variety of materials and sewing conditions.
- ◆ The operator can also establish the needle-feed length for reverse feed sewing individually on the operation panel.



Newly developed division binder

- ◆ The front binder goes up during sewing. This upgrades productivity by allowing the operator to easily set the next garment to be sewn while the machine is still sewing the current one.
- ◆ The binder comes straight down after clamping a welting patch. This prevents the welting patches from sagging due to air resistance, thereby improving the consistency of welting patch feed. In addition, the operator has a wider view around the sewing area when the binder is in the upper position.



The front binder goes up

Crank-type folding plate

- ◆ The folding plate folds the welting patch and presses it down. This ensures that the folding plate can flexibly respond to changes in material thickness.
- ◆ The folding plate clamps welting patches securely and prevents slippage of welting patches made of slippery material.



Before folding



Folding

Automatic welting patch feeder

- ◆ To ensure consistent welting patch feed, the automatic welting patch feeder securely clamps welting patches made of soft materials or without interlining cloth.
- ◆ With the automatic welting patch feeder, the operator can set the next welting patch to be sewn while the machine is still sewing the current welt. This increases productivity.



(*The photo shows the automatic welting patch feeder with the welting patch cutting device installed.)

Large-size operation panel with improved capabilities

- ◆ The panel is an interactive type that uses large icons for easy operation.
- ◆ The error messages that appear on the display are highly detailed and given in characters. The messages clearly inform the operator of the appropriate corrective action.



As many as 100 different patterns can be stored in memory and 10 different cycle sewing programs can be established.

- ◆ As many as 100 different sewing patterns can be stored in memory, each with its own settings for sewing length, operation of the knife, operation of the stacker, and other sewing conditions. In addition, new patterns can be created quickly using the copy function.
- ◆ For cycle sewing, as many as 10 different programs can be registered. As many as 5 different sewing patterns can be programmed in combination in each program.



The direct drive method is adopted to drive the machine

- ◆ The direct drive reduces machine time by instantly responding to machine startup and stop commands from the operator.
- ◆ The direct drive uses no belt. This eliminates sewing troubles caused by the belt such as contamination of the material and thread entanglement.
- ◆ The direct drive reduces noise and vibration during operation to create a more comfortable work environment.



Compact AC servomotor

APW-298 for slanted pocket with flap

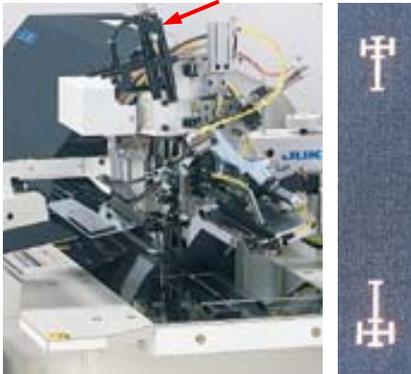
- ◆ The function to separately drive the needle bars allows flexible setting of the welt angle, - a key advantage in the sewing of various kinds of pocket shapes such as slant pockets and welt pockets.
- ◆ The machine is equipped as standard with JUKI's unique seven-set turret-type corner knife. By responding to various sewing conditions such as slanted sewing angles, different sets of corner knives can be used separately to produce welts with increased accuracy.



THE MACHINE IS EQUIPPED AS STANDARD WITH A HOST OF CAPABILITIES THAT INCREASE EFFICIENCY

Dart reference marking lamp

The lamp makes it easier to set a garment body on the machine. Moreover, the positioning of the garment body no longer has to be marked.



Bobbin thread remaining amount detecting device

The detecting device warns the operator to replace the bobbin thread before it runs out. This prevents sewing troubles such as re-sewing.



Bobbin thread winder

Since the bobbin thread winder is driven by an external motor mounted outside the sewing machine, the bobbin thread can be quickly wound while the machine is at rest. This improves the workability of bobbin thread changing.



OPTIONS

* The same optional parts are offered for the APW-297 and APW-298. They can be retrofitted to either machine.

● Dart stretcher: SA106

- The dart stretcher holds the end of the material when making a welt on a darted part of the material to make it easier to set the darted part and improve the reliability of the welting.



● Automatic pocket bag presser: SA107

- The automatic pocket bag presser is used to hold pocket bags under the garment body when welting and pocket bag sewing are performed concurrently.



● Clamp bar stacker: SP44

- Since the main body of the stacker swings around to catch a material, even smaller garment bodies can be consistently stacked (350 mm from the pocket position at the minimum). Stacked garment bodies are secured with the bar.
- This prevents a stacked garment body from slipping down.



● Right single-welt and double-welt changeover device: SA111

- The device opens/closes the clamp foot by fingertip control. This enables easy changeover of the sewing machine specification between double-welt and right-single-welt types simply by changing the binder.



● Automatic interlining feeder: SA109

- To improve workability, the automatic interlining feeder automatically delivers rolled interlining cloth onto the table and cuts it.

● Suction device: SA108

- The device picks up the garment body by suction force to facilitate setting of materials on the machine. Use the device with suction motor (SA91).

● Suction motor: SA91

- This is the blower motor for the suction device (SA108).

● Auxiliary receiving plate (right): SA73N

(Part No.: GSA-73000A0B)

- This is the receiving plate for accessories for welting patches, etc.

● Shim device: SA112

(Part No.: GSA-112000A0)

- This device encloses a garment body between its upper and lower parts and feeds it to the needle entry area. It is especially useful for difficult-to-feed garment bodies.

● Stand for standing work: SA110

- This stand is mounted under the main body of the machine to adjust the height of the main body to standing work.

WHEN YOU PLACE ORDERS

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

Pocket lip width (needle gauge: mm)	Code
10	B
12	C

Stacker	Code
Not provided	Z
SP44 Clamp bar stacker	N
SP45 Roller stacker	P

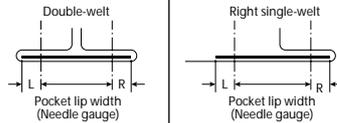
Single-welt change-over function	Code
Not provided	Z
SA111 (right)	G

Power supply	Code	
Single-phase 220V	D	
3-phase	220V	K
	380V	L

APW 297
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Automatic welting patch feeder	Code
Standard: Automatic welting patch feeder (right)	R
SA102 Welting patch cutting device	A

Automatic flap feeder	Code
Not provided	Z
SA103 Automatic flap feeder (left)	A
SA104 Automatic flap and pocket bag feeder (left)	B



Welt patch and welt patch base plate							
Double-welt				Right single-welt			
Pocket lip width (needle gauge: mm)	Size of welt patch base plate		Code	Pocket lip width (needle gauge: mm)	Size of welt patch base plate		Code
	L-size	R-size			L-size	R-size	
10	3.8	3.8	B0	10	3.8	8.5	M4
12	4.8	4.8	B9	12	4.8	10.5	M5

Option	
Name of optional device	Code
Not provided	ZZ
SA106 Dart stretcher/ SA107 Automatic pocket bag presser/ SA108 Suction device/ SA109 Automatic interlining feeder	J0
SA106	J1
SA106/SA108/SA109	J2
SA106/SA108	J3
SA106/SA107	J4
SA106/SA108/ SA91 Suction motor/SA109	J5
SA109	J6
SA106/SA107/SA108	J7
SA106/SA107/SA108/SA91	J8
SA106/SA108/SA91	J9
SA106/SA116 Vacuum table	K0
SA106/SA107/SA116	K1
SA106/SA108/ SA105 Automatic pocket bag feeder (right)	K2
SA106/SA108/SA105/SA109	K3
SA106/ SA115 Automatic interlining presser	K4
SA106/SA107/SA108/SA91/SA105	K5
SA108/SA91/SA109	K6
SA105/SA106/SA109	K7
SA112 Shim device	K8
SA106/SA107/SA108/SA91/SA73	K9

The same optional parts are offered for the APW-297 and APW-298.

APW-297B (for sewing bottoms)

Pocket lip width (needle gauge: mm)	Code
10	B
12	C

Stacker	Code
Not provided	Z
SP44 Clamp bar stacker	N
SP45 Roller stacker	P

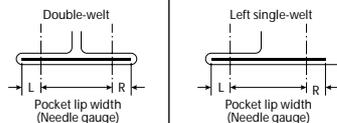
Single-welt change-over function	Code
Not provided	Z
SA111 (left)	H

Power supply	Code	
Single-phase 220V	D	
3-phase	220V	K
	380V	L

APW297

Automatic welting patch feeder	Code
Standard: Automatic welting patch feeder (left)	L
SA102 Welting patch cutting device (left)	B

Automatic flap feeder	Code
Not provided	Z
SA103 Automatic flap feeder (right)	C



Welt patch and welt patch base plate							
Double-welt				Left single-welt			
Pocket lip width (needle gauge: mm)	Size of welt patch base plate		Code	Pocket lip width (needle gauge: mm)	Size of welt patch base plate		Code
	L-size	R-size			L-size	R-size	
10	3.8	3.8	B0	10	8.5	3.8	M6
12	4.8	4.8	B9	12	10.5	4.8	M7

Option	
Name of optional device	Code
Not provided	ZZ
SA106 Darts stretcher	J1
SA106/SA108 Suction device	J3
SA106/SA107 Automatic pocket bag presser	J4
SA106/SA107/SA108	J7
SA106/SA107/SA108/SA91 Suction motor	J8
SA106/SA108/SA91	J9
SA106/SA116 Vacuum table	K0
SA106/SA107/SA116	K1

SPECIFICATIONS

Model name		APW-297	APW-297B	APW-298
		For straight pocket with flap	For sewing bottoms	For slanted pocket with flap
Max. sewing speed		3,000rpm (1,000 ~ 3,000rpm)		
Stitch length	Regular stitching	Standard: 2.5mm (2.0 ~ 3.4mm)		
	Fastening stitching	Standard: 1.0mm (0.5 ~ 1.5mm)		
	Safety stitching Back-tack stitching	Standard: 2.0mm (0.5 ~ 3.4mm)		
Kinds of welts		Parallel double-welt, parallel single-welt (with/without flaps)	Parallel double-welt, parallel single-welt, slant double-welt, slant single-welt, trapezoidal stitching (with/without flaps)	
Sewing length (welt length)		18 ~ 180mm * (in increments of 1mm) (as small as 25mm when the corner knife is used)		
Number of patterns that can be stored in memory		100 patterns		
Number of cycles that can be stored in memory		10 programs (1 program Combination of 5 patterns at the maximum)		
Needle gauge		10mm, 12mm, 14mm (optional **)		
Needle (at the time of delivery)		ORGAN Mt x 190 Standard (#16) #16 ~ #18 SCHMETZ 190R Standard (Nm100) Nm100 ~ Nm110	ORGAN DP x 17 Standard (#16) #16 ~ #18 SCHMETZ SY3355 Standard (Nm100) Nm100 ~ Nm110	
Needle bar stroke		34.4mm	33.4mm	
Thread		SPUN #50		
Hook		Vertical-axis 1.6 fold-capacity hook		
Machine head		2-needle, needle-feed, lockstitch machine with center knife	2-needle, needle-feed, lockstitch machine with organized split needle bar and center knife	
Machine head motor		Compact AC servomotor (direct-drive system)		
Thread take-up		Slide type		
Lubrication		By an oiler (machine head and hook)		
Lubricating oil		JUKI New Defrix oil No. 2 (equivalent to ISO VG32)		
Needle-feed system		Stepping motor control		
Cloth feeding system		By servomotor drive		
Automatic welting patch feeder		Provided as standard		
Bobbin thread remaining amount detecting device		Provided as standard		
Bobbin winder		By an external motor		
Power consumption		550W		
Compressed air and air consumption		0.5MPa (5.0kgf/cm ²), 40Nℓ/min		
Total weight		330kg	350kg	
Dimensions (excluding the stacker)		980mm (W) x 1,650mm (D) x 1,200mm (H)		

* The machine also supports longer sewing length (220mm).

** When the needle gauge of 14mm is used, the corresponding optional parts must be purchased.



APW-298 (The picture shows the unit equipped with optional devices.)

● To order, please contact your nearest JUKI distributor.

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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 catalog is printed on recycle paper.