

**JUKI®**

*Super-high-speed, Overlock / Safety Stitch Machine*

# *MO-6900S Series*



*MO-6914S*

# MO-6900S Series

***High-quality machine with easier operation and increased reliability.***

The MO-6900S Series is a new and powerful overlock/safety stitch machine that has been developed to offer increased reliability and ease-of-use, while upgrading seam quality at higher sewing speeds. It responds to a wider range of materials and processes to finish high-quality soft-feeling seams. With the operating noise having been reduced and increased durability ensured, the cost-effective MO-6900S Series is a leading machine in the new era.



*MO-6904S*



*MO-6916S*

● ***The machine ensures both beautiful and upgraded seam quality at higher speeds.***

Since the machine comes with a needle-thread take-up mechanism as well as a looper thread take-up mechanism, to offer upgraded responsiveness from light- to heavy-weight materials with a lower applied tension, it achieves well-tensed soft-feeling seams that flexibly correspond to the elasticity of the material at the maximum sewing speed of 8,000 to 8,500rpm. To offer improved sewing capabilities as well as to prevent stitching misshapes, the machine is equipped as standard with the needle thread heat remover and needle cooler.



● **Runstitching in general fabric**  
**MO-6914S-BE6-307**

● ***The machine has been developed with the intention of providing an extended service life.***

The machine incorporates various mechanisms as standard, such as a differential-feed micro-adjustment mechanism and an external adjustment mechanism for adjusting the feed dog inclination as well as increasing the differential feed ratio, which can be easily adjusted to finish seams that perfectly match the material to be used. Comfortable operation is all but guaranteed, by a wider area around the needle entry, the adoption as standard of a micro-lifter feature that offers improved responsiveness to materials and provides the operator with upgraded operability, and by the reduction of operating noise and vibration, which has been achieved by designing an optimally balanced machine.

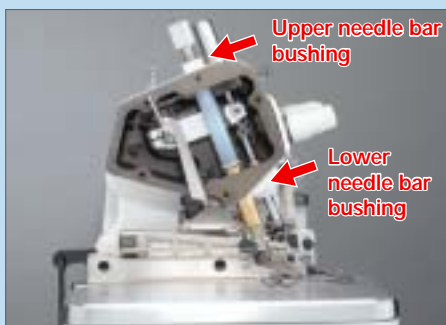


**Differential-feed micro-adjustment mechanism**

**Micro-lifter**

● ***Further increased reliability.***

The introduction of a shield-structured needle bar mechanism and upper and lower needle bar bushings, contributes to increased durability and reliability. Additionally, the machine incorporates an improved feed mechanism and upper looper unit as well as coming standard with a cartridge type oil filter and cooling fan, thereby ensuring enhanced reliability.



**Upper needle bar bushing**

**Lower needle bar bushing**














● ***Devices intended for conventional JUKI machines are also interchangeable.***

Gauges and devices you have used with your existing JUKI machines are also interchangeable with no additional machining required (excluding the LB Series). This eliminates both the waste of resources and unwanted extra costs.






## SUBCLASS MACHINE LIST

 Seams	 Model No.	 Materials	 Number of needles	 Number of threads	 Needle gauge (mm)	 Overedging width (mm)	 Number of feed dog rows	 Stitch length (mm)	 Bottom differential-feed ratio	 Presser lifting amount (mm)	 Needle system	 Max. sewing speed (rpm)	Remarks
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### <1-needle overlock>

#### ● For runstitching in general fabric




	MO-6904S-0D4-300	L~M	1	3	-	3.2	2	4	1:0.7~1:2	7	DC×27 #11	8,500	
	MO-6904S-0E4-300		1	3	-	4.0	2	4	1:0.7~1:2	7	DC×27 #11	8,500	
	MO-6904S-0F4-300		1	3	-	4.8	2	4	1:0.7~1:2	7	DC×27 #11	8,000	
	MO-6904S-0D6-300		1	3	-	3.2	3	4	1:0.7~1:2	7	DC×27 #11	8,500	
	MO-6904S-0E6-300		1	3	-	4.0	3	4	1:0.7~1:2	7	DC×27 #11	8,500	
	MO-6904S-0F6-300		1	3	-	4.8	3	4	1:0.7~1:2	7	DC×27 #11	8,000	
	MO-6904S-0D4-3F0		1	3	-	3.2	2	4	1:0.7~1:2	7	DC×27 #11	8,500	For soft-chains
	MO-6904S-0E4-3F0		1	3	-	4.0	2	4	1:0.7~1:2	7	DC×27 #11	8,500	
	MO-6904S-0D6-3F0		1	3	-	3.2	3	4	1:0.7~1:2	7	DC×27 #11	8,500	
	MO-6904S-0D4-3F6		1	3	-	3.2	2	4	1:0.7~1:2	7	DC×27 #11	8,500	
	MO-6904S-0E4-4FH	M~H	1	3	-	4.0	2	4	1:0.7~1:2	7	DC×27 #11	7,500	For soft-chains Upper looper extra high throw type
	MO-6904S-0E4-40H		1	3	-	4.0	2	4	1:0.7~1:2	7	DC×27 #11	7,500	Upper looper extra high throw type
	MO-6904S-0E6-40H		1	3	-	4.0	3	4	1:0.7~1:2	7	DC×27 #11	7,500	
	MO-6904S-0F6-500		1	3	-	4.8	3	4	1:0.7~1:2	7	DC×27 #14	8,000	
	MO-6904S-0F6-50H		1	3	-	4.8	3	4	1:0.7~1:2	7	DC×27 #14	7,500	Upper looper extra high throw type

#### ● For blind hemming


L121: Blind stitch hemming attachment



	MO-6905S-0D4-210/L121	M~H	1	3	-	3.2	2	4	1:0.7~1:2	5.5	DC×27 #9	7,500	Upper looper extra high throw type
	MO-6905S-0E4-41H/L121		1	3	-	4.0	2	4	1:0.7~1:2	5.5	DC×27 #9	7,500	

#### ● For rolled hemming (folded downward)




	MO-6904S-0A4-150	EL~L	1	3	-	1.6	2	4	1:0.7~1:2	5	DC×1 #8	8,500	
	MO-6904S-0A5-150		1	3	-	1.6	1	4	1:0.7~1:2	5	DC×1 #8	8,500	

### <2-needle overlock>

#### ● For runstitching in general fabric




	MO-6914S-BD4-307	L~M	2	4	2.0	3.2	2	4	1:0.7~1:2	6.5	DC×27 #11	8,000	
	MO-6914S-BE4-307		2	4	2.0	4.0	2	4	1:0.7~1:2	6.5	DC×27 #11	8,000	
	MO-6914S-BD6-307		2	4	2.0	3.2	3	4	1:0.7~1:2	6.5	DC×27 #11	8,000	
	MO-6914S-BE6-307		2	4	2.0	4.0	3	4	1:0.7~1:2	6.5	DC×27 #11	8,000	
	MO-6914S-BE6-20H		2	4	2.0	4.0	3	4	1:0.7~1:2	6.5	DC×27 #11	7,500	
	MO-6914S-BE4-40H	M~H	2	4	2.0	4.0	2	4	1:0.7~1:2	6.5	DC×27 #11	7,500	Upper looper extra high throw type
	MO-6914S-BE6-40H		2	4	2.0	4.0	3	4	1:0.7~1:2	6.5	DC×27 #11	7,500	
	MO-6912S-CE4-40H		2	4	2.4	4.0	2	4	1:0.7~1:2	6.5	DC×27 #11	7,500	
	MO-6912S-DF6-507		2	4	3.2	4.8	3	4	1:0.7~1:2	6.5	DC×27 #14	7,500	For imitation safety-stitching
	MO-6912S-DF6-50F		2	4	3.2	4.8	3	4	1:0.7~1:2	6.5	DC×27 #14	7,500	

#### ● For gathering

S162: Swing-type gathering device (manual-lever operated)



	MO-6914S-BE6-327/S162	L~M	2	4	2.0	4.0	3	3.2	1:0.9~1:2.6	6	DC×27 #11	7,000	
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#### ● For tape attaching

G02, G39: Tape attaching presser foot Q141: Tape guide



	MO-6914S-BE6-44H/G39/Q141	M~H	2	4	2.0	4.0	3	3.2	1:0.9~1:2.6	7	DC×27 #14	7,000	Upper looper extra high throw type
	MO-6914S-BE7-44H/G02/Q141		2	4	2.0	4.0	4	3.2	1:0.9~1:2.6	7	DC×27 #14	7,000	

Seams	Model No.	Materials	Number of needles	Number of threads	Needle gauge (mm)	Overedging width (mm)	Number of feed dog rows	Stitch length (mm)	Bottom differential-feed ratio	Presser lifting amount (mm)	Needle system	Max. sewing speed (rpm)	Remarks
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### < Safety stitching >



#### ● For runstitching in general fabric

	MO-6916S-DD6-300	L ~ M	2	5	3.2	3.2	3	4	1:0.7 ~ 1:2	7	DC x 27 #11	8,000	
	MO-6916S-DD6-3F0		2	5	3.2	3.2	3	4	1:0.7 ~ 1:2	7	DC x 27 #11	8,000	For soft-chains
	MO-6916S-DE4-300		2	5	3.2	4.0	2	4	1:0.7 ~ 1:2	7	DC x 27 #11	8,000	
	MO-6916S-DE6-300		2	5	3.2	4.0	3	4	1:0.7 ~ 1:2	7	DC x 27 #11	8,000	
	MO-6916S-FF6-300		2	5	4.8	4.8	3	4	1:0.7 ~ 1:2	7	DC x 27 #11	8,000	
	MO-6916S-BE4-40H	M ~ H	2	5	2.0	4.0	2	4	1:0.7 ~ 1:2	7	DC x 27 #11	7,500	Upper looper extra high throw type
	MO-6916S-DE4-40H		2	5	3.2	4.0	2	4	1:0.7 ~ 1:2	7	DC x 27 #11	7,500	
	MO-6916S-DE6-40H		2	5	3.2	4.0	3	4	1:0.7 ~ 1:2	7	DC x 27 #11	7,500	
	MO-6916S-FF6-40H		2	5	4.8	4.8	3	4	1:0.7 ~ 1:2	7	DC x 27 #11	7,500	
	MO-6916S-DD6-500		2	5	3.2	3.2	3	4	1:0.7 ~ 1:2	7	DC x 27 #16	8,000	
	MO-6916S-FF6-500	H	2	5	4.8	4.8	3	4	1:0.7 ~ 1:2	7	DC x 27 #16	8,000	
	MO-6916S-DF6-50H		2	5	3.2	4.8	3	4	1:0.7 ~ 1:2	6.5	DC x 27 #16	7,500	Upper looper extra high throw type
	MO-6916S-FF6-50H		2	5	4.8	4.8	3	4	1:0.7 ~ 1:2	6.5	DC x 27 #16	7,500	
	MO-6916S-FH6-50H		2	5	4.8	6.4	3	4	1:0.7 ~ 1:2	6.5	DC x 27 #16	7,500	
	MO-6916S-FF6-60H		2	5	4.8	4.8	3	4.5	1:0.9 ~ 1:1.7	5	DC x 27 #21	7,000	For jeans Upper looper extra high throw type
	MO-6916S-FH6-60H	2	5	4.8	6.4	3	4.5	1:0.9 ~ 1:1.7	5	DC x 27 #21	7,000		

#### ● For gathering S159: Swing-type gathering device (interlocked with pedal) S161: Swing-type gathering device (manual-lever operated)



	MO-6916S-FF6-42H/S159	M ~ H	2	5	4.8	4.8	3	3.2	1:0.9 ~ 1:2.6	6	DC x 27 #14	7,000	Upper looper extra high throw type
	MO-6916S-DE4-42H/S161		2	5	3.2	4.0	2	3.2	1:0.9 ~ 1:2.6	6	DC x 27 #11	7,000	

#### ● For rolling-in tape N077: Clean finish top and bottom



	MO-6945S-ED4-360/N077	L ~ M	2	4	4.0	3.2	2	4	1:0.7 ~ 1:2	5	DC x 27 #14	7,000	2-needle type for double-chainstitch on pocket bags
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### < 3-needle safety stitching >



	MO-6943S-1D6-40H	M ~ H	3	6	4.8 +2.0	3.2	3	4	1:0.7 ~ 1:2	6.5	DC x 27 #11	7,500	Upper looper extra high throw type
	MO-6943S-1D6-50H		3	6	4.8 +2.0	3.2	3	4	1:0.7 ~ 1:2	6.5	DC x 27 #11	7,500	

## SUBCLASS

Diversified subclass machines are available. The selection of a machine that best matches the processes in concern are permitted.



● Blind hemming  
MO-6905S-0E4-41H/L121  
(L121: Blind stitch hemming attachment)



● For gathering  
MO-6914S-BE6-327/S162  
(S162: Swing-type gathering device)



● For rolling-in tape  
MO-6945S-ED4-360/N077  
(N077: Clean finish top and bottom)

## DEVICES AND ATTACHMENTS

Model	Part No.	Description		
<b>● Chain-off thread trimming device</b>				
T039	MAT-039001A0	One-touch type tape cutter and chain-off thread trimming device (electromagnetic type)		
	MAT-039002A0	For 110, 115, 220, 240V		
T040	MAT-040001A0	Automatic tape cutter + chain-off thread trimming device (number-off-stitch control and electro-magnetic type)	For semi-sunken type	For 110, 115, 220, 240V
	MAT-040002A0		For 220, 380, 415, 440V	
	MAT-040001AA	For fully-sunken type	For 110, 115, 220, 240V	
	MAT-040002AA		For 220, 380, 415, 440V	
T041	MAT-041000A0A	Pneumatic flat cutter		
T042	MAT-042000A0	Pneumatic side cutter (for overlock machine)		

### ● Blower-type chain-off thread suction device

MC-7A	Blower-type chain-off thread suction device + cloth chips
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### ● Pneumatic chain-off thread suction device

MC-4	Specific to chain-off thread, pedal-operated
MC-5	Specific to chain-off thread
MC-8	Pneumatic chain-off thread + cloth chips
MC-9	Function of MC-8 + auto-lifter
MC-24	Pneumatic chain-off thread + cloth chips

\*The aforementioned devices are not equipped with air regulator.  
Please purchase the following components when you need to regulate air pressure.

	PF-0552010-B0	Air regulator (F.R. unit asm.)
	GMD-01080000 x 2	Fixing screw for F.R. unit asm.
	F1021-003-000	Tube connector (male)
	GAS-12063000 *	One-touch connector * Selection parts instead of the tube connector

### ● Auto-lifter

AK32	GAK-320000A0	Pneumatic type (knee-operated)
AK49	GAK-490000A0	Pneumatic type (pedal-operated)
AK101	GAK-A01000A0	Pneumatic type (for servomotor)

Model	Part No.	Description	Feature
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### ● Gathering device

S159	MAS-159000A0	Swing-type gathering device (interlocked with pedal / for safety stitch machine)	The attachment opens with the presser foot pedal. This facilitates material setting on the machine. Furthermore, knee-control type differential-feed adjusting device is built in the attachment. It controls a differential-feed ratio as desired, thereby enabling the operator to make beautiful gathers.
S160	MAS-160000A0	Swing-type gathering device (interlocked with pedal / for overlock machine)	
S161	MAS-161000A0	Swing-type gathering device (manual-lever operated / for safety stitch machine)	The attachment is used to perform two different processes, joining fabric process and gathering process, at a time.
S162	MAS-162000A0	Swing-type gathering device (manual-lever operated / for overlock machine)	The attachment can be opened/closed by using the lever (manually operated). The differential-feed ratio is controlled with the knee lever.

### ● Blind hemming device

L121	MAL-121000A0	Blind stitch hemming attachment	A ruler used for blind hemming in knits
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### ● Piping folder

M056	MAM-0560J0A0	Piping folder	This piping folder makes a piping first, then turns up the tape.
M075	MAM-0750J0A0	Piping folder (to be used with knit tape)	This attachment can be used for both "cotton bias tape with gimp" and "knit tape". The operation mode can be changed over with a fingertip control.
M076	MAM-0760N0A0	Ready-made piping folder	The dimension of ready-made tapes can be adjusted within the range of 8 to 13mm.
M077	MAM-0770M0A0	Piping folder for gathering	The attachment makes gathers on the lower fabric while making decorative piping.

### ● Guide, Ruler

H153	MAH-153000A0	Cloth edge guide ruler (for overlock machine)	A swing type edge guide.
H154	MAH-154000A0	Cloth edge guide ruler (for safety stitch machine)	
Q141	MAQ-141000B0	Tape guide	This attachment is used attached on the machine head (face plate). It is used for tapes with the width of 7mm or less.

### ● Feller, Binder

K006	MAK-00601000	Upturn feller	This feller is exclusively used with the 3C0 throat plate. It is attached on the throat plate.
N067	MAN-0670D0A0	Reinforcement tape attachment binder (finished width: 4mm)	This binder binds the edge of a pocket bag while cutting round its periphery.

### [Reference]

Combination table of "chain-off thread suction device" and "auto-lifter" which correspond to "chain-off thread trimming device".

Chain-off thread trimming device	Chain-off thread suction device	Auto-lifter	
T039	+	MC-7A	AK101 (JUKI servomotor)
		MC-8	AK101 (JUKI servomotor)
		MC-9	(MC-9 is equipped with auto-lifter.)
T040	+	MC-7A	AK32 (any motor will do)
		MC-5	AK32 (any motor will do)
		MC-24	AK32 (any motor will do)
T041 or T042	+	MC-7A	AK49 (Motors other than JUKI servomotors are applicable.)
		MC-4	AK101 (JUKI servomotor)
		MC-8	AK101 (JUKI servomotor)
		MC-9	(MC-9 is equipped with auto-lifter.)

## WHEN YOU PLACE ORDERS

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

Stitch type	U.S.A	Code
1-needle overlock	504	04
1-needle overlock for blind hemming	505	05
2-needle imitation safety stitch	512	12
2-needle overlock	514	14
2-needle safety stitch	516	16
3-needle safety stitch		43
2-needle double chain stitch		45

Type	Code
Standard	S

Device and attachment	Code
Tape attaching presser foot / Tape guide	G02/Q141
Tape attaching presser foot (for sewing sharp curves)/ Tape guide	G39/Q141
Blind stitch hemming attachment	L121
Swing-type gathering device (interlocked with pedal / for safety stitch machine)	S159
Swing-type gathering device (manual-lever operated / for safety stitch machine)	S161
Swing-type gathering device (manual-lever operated / for overlock machine)	S162
Clean finish top and bottom	N077

MO69   S        /

Needle gauge (mm)	Overedging width (mm)	Feed dog	Code
	1.6	2-row	0A4
	1.6	1-row	0A5
	3.2	2-row	0D4
	3.2	3-row	0D6
	4.0	2-row	0E4
	4.0	3-row	0E6
	4.8	2-row	0F4
	4.8	3-row	0F6
2.0	3.2	2-row	BD4
2.0	3.2	3-row	BD6
2.0	4.0	2-row	BE4
2.0	4.0	3-row	BE6
2.0	4.0	4-row	BE7
2.4	4.0	2-row	CE4
3.2	3.2	3-row	DD6
3.2	4.0	2-row	DE4
3.2	4.0	3-row	DE6
3.2	4.8	3-row	DF6
4.0	3.2	2-row	ED4
4.8	4.8	3-row	FF6
4.8	6.4	3-row	FH6
4.8+2.0	3.2	3-row	1D6

Material		Application	Special machine classification	Code
Extra light- to light-weight	Light-weight materials such as men's shirts	Rolled hemming	Standard	150
Light- to medium-weight	Specific to knits	Runstitching	Upper looper extra high throw	20H
Light- to medium-weight	For general fabrics	Runstitching	Standard	300
		Runstitching	Upper looper high throw	307
		Gathering	Upper looper high throw	327
		Rolling-in tape	Standard	360
		Soft-chain	Standard	3F0
		Soft-chain	Throat plate and feed dog both provided with a lip	3F6
Medium- to heavy-weight	Specific to knits such as sweaters	Runstitching	Upper looper extra high throw	40H
		Blind hemming	Upper looper extra high throw	41H
		Gathering	Upper looper extra high throw	42H
		Tape attaching	Upper looper extra high throw	44H
		Soft-chain	Upper looper extra high throw	4FH
	Medium- to heavy-weight materials such as denim	Runstitching	Standard	500
		Runstitching	Upper looper high throw	507
		Runstitching	Swim suits	50F
		Runstitching	Upper looper extra high throw	50H
		For heavy-weight materials	Runstitching	Upper looper extra high throw

## AC SERVOMOTOR (SC-380)

### ● Machine head

MO69   S        /         /SY35

Built-in synchronizer		
Set speed *		Code
MO-6904S	8,000rpm	SY35
MO-6914S, 6916S	7,500rpm	

\* Select a sewing speed that is lower than the machine head's maximum sewing speed by 500rpm.

● To order, please contact your nearest JUKI distributor.

## SPECIFICATIONS

Model name	MO-6904S	MO-6914S	MO-6916S
Stitch type	1-needle overlock	2-needle overlock	Safety stitching
Stitch style in the U.S.A.	504	514	516
Max. sewing speed	8,500rpm	8,000rpm	8,000rpm
Stitch length	0.8 ~ 4mm		1.5 ~ 4mm
Needle gauge (mm)	-	2.0, 2.4, 3.2	2.0, 3.2, 4.0, 4.8, 4.8+2.0
Overedging width (mm)	1.6, 3.2, 4.0, 4.8	3.2, 4.0, 4.8	3.2, 4.0, 4.8, 6.4
Differential feed ratio	For gathering 1:2 (max. 1:4), For stretching 1:0.7 (max. 1:0.6)		
Needle bar stroke	24.5mm		
Inclination angle of the needle	20°		
Needle bar bushing	Upper/lower bushing method		
Needle	DC x 27(excluding some subclass model)		
Max. lift of the presser foot	7mm(excluding some subclass model)		
Max. presser foot pressure	63.7N (6.5kg)		
Stitch adjusting method	By push-button		
Differential-feed adjusting method	By lever (with micro-adjustment)		
Weight of the machine head	28kg		
Lubrication	Automatic		
Lubricating oil	JUKI Machine Oil 18 (equivalent to ISO VG18)		
Needle cooler	Provided as standard (excluding MO-6945S)		
Needle thread heat remover	Provided as standard (excluding MO-6945S)		
Micro-lifter	Provided as standard		



### JUKI CORPORATION HEAD OFFICE

The environmental management system to promote and conduct  
 ①the technological and technical research, the development and design of the products in which the environmental impact is considered,  
 ②the conservation of the energy and resources, and the recycling, in the research, development, design, distribution, sale and maintenance service of the industrial sewing machines, household sewing machines and industrial-use robots, etc. and in the purchase, distribution and sale of the household commodities including the healthcare products.

**JUKI**<sup>®</sup>  
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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.