AMB-289

Computer-controlled, High-speed, Single-thread Chainstitch, Button-neck-wrapping Machine

JUKI®

(Table stand is optionally available.)

AMB-289

The range of applicable buttons is further extended.
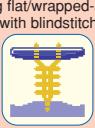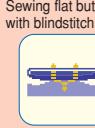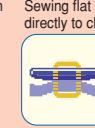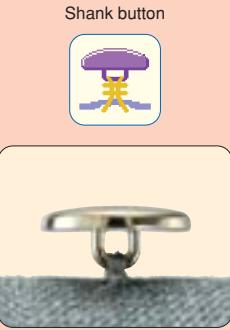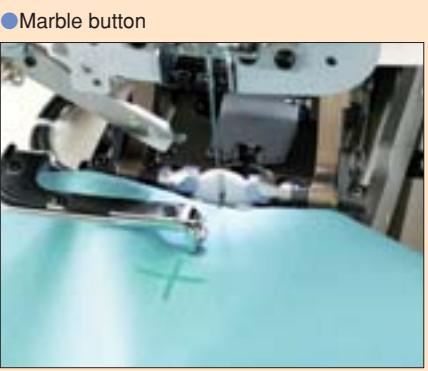
AMB-289

The machine comes with a newly developed active-tension system ideal for the careful sewing of beautiful seams.

This single machine can also sew flat buttons, shank buttons, marble buttons and stay buttons (counter buttons).

- The stay button (counter button) sewing capability is a vital addition to the impressive application range of the AMB-289.
- Sewing methods and sewing shapes can be easily reset on the operation panel.

- In combination with the independent-drive needle-throwing method, the adoption of the Y-feed on the body side and X-Y feed on the button-sewing side enables the AMB-289 to sew patterns with variable numbers of buttonholes (such as four-holed front buttons and two-holed stay buttons).

Sewing flat/wrapped-around button with blindstitch	Sewing flat button with blindstitch	Sewing flat button directly to cloth	Shank button	Marble button	Stay button (counter button)

● Flat button

● Shank button

● Stay button (counter button)

● Marble button

The AMB-289 performs button-sewing and neck-wrapping in a single cycle.

The machine performs neck-wraps in the second process (with the neck-wrap sewing unit installed).

The cycle time has been reduced to bolster productivity.

- The sewing speed has been enhanced to dramatically increase productivity.
- As compared with manual button sewing, the AMB-289 achieves productivity as high as 5 times.

Comparison of productivity

〈Condition〉 4-holed button sewing
Button sewing: 8 stitches × 2
Neck wraps: 10 stitches
Hours of work: 8 hours
Allowance rate: 25 %

AMB-289
Normal sewing speed
Button sewing speed 1,000sti/min
Neck wraps speed 1,500sti/min

The number of buttons to be sewn / 8h
1,986 pieces

Cycle time 7.6 sec/1 piece＋Material picking/placing action: 4 sec

Conventional machine AMB-189NR
Normal sewing speed
Button sewing speed 740sti/min
Neck wraps speed 740sti/min

The number of buttons to be sewn / 8h
1,704 pieces

Cycle time 9.5 sec/1 piece＋Material picking/placing action: 4 sec
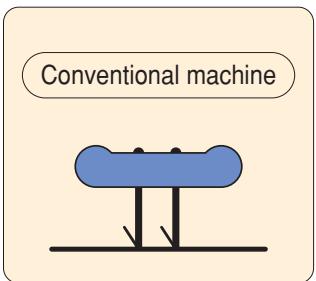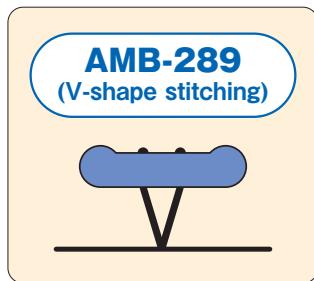
Manual button sewing

The number of buttons to be sewn / 8h
417 pieces

Cycle time 55 sec/1 piece (including the material picking/placing action)
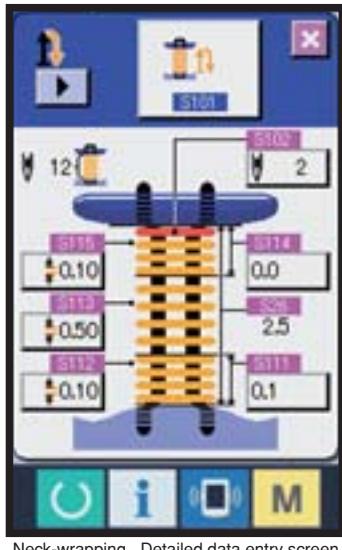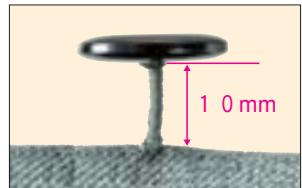
The AMB-289 promises upgraded-quality neck-wrapping.

● The AMB-289 finishes four-holed buttons with a hand-stitched appearance (V-shape stitching) by fixing the tucking position at a preset location. This results in the sewing of a neat seam on the wrong side of the garment and neck-wrap knots at a single location. Seam quality is further enhanced as a result.

AMB-289 (V-shape stitching)

Conventional machine

● The neck-wrap data can be finely adjusted via the entry screen of the operation panel to enhance the sewing quality. The distribution of neck wraps on the upper and lower parts of the button neck, a crucial point in determining the quality of neck-wrapping, can be adjusted to prevent buttons and button necks from becoming unstable and tilting.

● The neck-wrapping height can be adjusted by up to 10mm.

1 0 mm

Neck-wrapping   Detailed data entry screen

Newly developed active tension (electronic thread tension control system)

● The newly introduced active tension system further improves responsiveness and allows delicate tension setting when the user changes fabrics.

● Thread tensions for button sewing and neck wrapping can be separately set on the operation panel.

● The machine stores sewing conditions in memory on a pattern-by-pattern basis. Required sewing conditions can be exactly reproduced for every pattern.

Active tension

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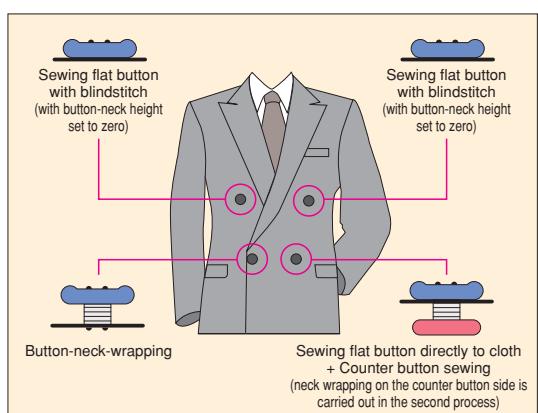
Superb functions for improving seam quality
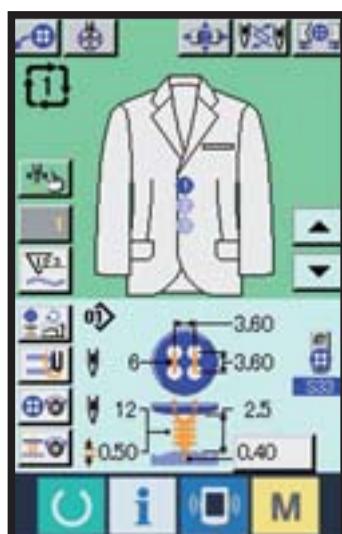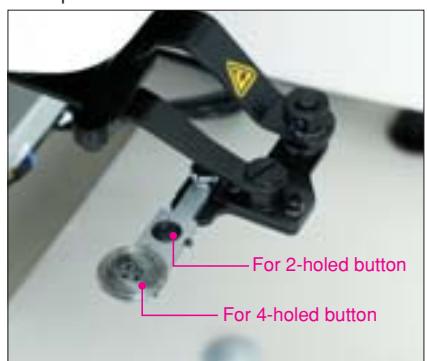
● The remaining length of needle thread can be adjusted according to the type of material or thread to be used. It effectively prevents thread from slipping off the material at the start of sewing.

● The AMB-289 does not require the use of exclusive thread intended for button sewing. General-purpose cotton threads and spun threads are both applicable, depending on the type of material.
A full range of thread counts from #60 to #30 can be applied. This ensures use for diverse processes.

● The thread-trimming position is set to reduce the remaining length of thread on the material to a minimum.

● The machine incorporates a thread-fray prevention function that ensures the tying of strong and reliable knots at the last stitch.

● The number of stay stitches, which increases strength of button sewing stitches, can be set on the operation panel within the range of 0 and 3 stitches.

● The tucking depth is increased to 5mm to ensure a consistent tucking depth in soft materials such as knits.

● The feed accuracy is as high as 0.1mm. This promises an accurate needle entry position and tucking depth.

Cycle sewing
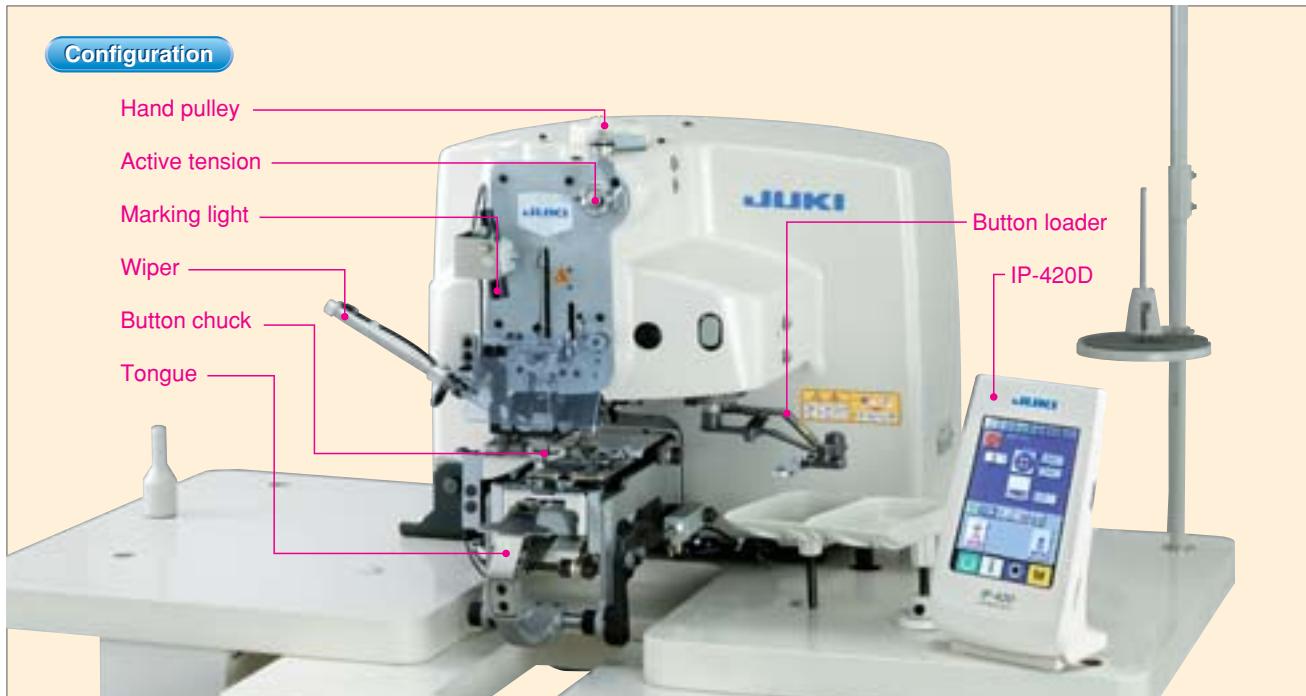
● The machine sews buttons on a double-breast suit, a garment that requires the sewing of different types of buttons, in a continuous manner.

● Cycle sewing data can be set/edited with the sewing item graphically displayed on the operation panel (the number of buttons, button sewing locations, and sewing order of buttons).

● The button loader can feed two types of buttons in a single sewing cycle.

Sewing flat button with blindstitch (with button-neck height set to zero)

Sewing flat button with blindstitch (with button-neck height set to zero)

Button-neck-wrapping

Sewing flat button directly to cloth + Counter button sewing (neck wrapping on the counter button side is carried out in the second process)

Example of combination of button carriers

For 2-holed button

For 4-holed button

Button loader

Cycle sewing   Data entry screen

Hand pulley

Active tension

Marking light

Wiper

Button chuck

Tongue

Button loader

IP-420D

The machine comes with new functions to improve workability.

Dramatically reduced oil stains
● As the machine requires no lubrication, oil spatters and all other lubrication-related troubles are eliminated. Sewn garments have dramatically fewer oil stains as a result.
　＊Periodical greasing is required for some of the mechanical structures.
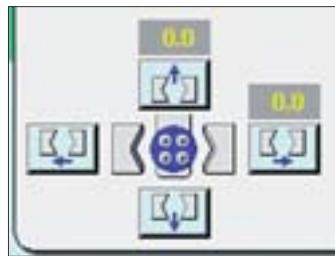
Dramatically reduced vibration and noise
● The adoption of the needle-throwing mechanism dramatically reduces the vibration and noise usually produced during the neck-wrapping procedure.

The machine is provided as standard with a button loader.
● The machine is provided as standard with a button feeder that lets the operator place the next buttons to be sewn during overlapping-style work.
● The button-delivery position between the button loader and button chuck can be easily adjusted on the operation panel. No tools are required.

Setting of longitudinal and lateral adjustments of button chuck.

LED now adopted
● The AMB-289 is provided as standard with an LED-type handy light and marking light. The sewing area is now brighter and more viewable than it would be under the incandescent light of a conventional machine. LED light also offer the advantage of a longer service life. The machine is optionally provided with a marking light for sewing flat buttons directly to cloth.

Convenient hand pulley
● The hand pulley is mounted on the top of head. This makes it easy to check the needle entry point.

The button loader gauge for the conventional model can also be used with the AMB-289.
● The set pins and four-holed and two-holed button carriers used with the AMB-189NR (the conventional model provided with a button loader) can also be used with the AMB-289.
　＊The AMB-289 requires dedicated set pins for shank buttons, marble buttons, and metallic buttons (optional).
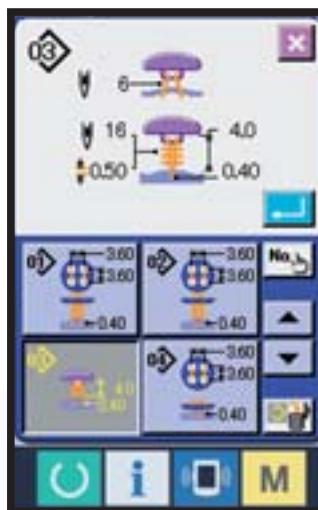
Safety design
● The safety-first design makes it impossible to start the machine without buttons set on the button chuck.
● If the machine head tilts while the power ON, the safety switch automatically shuts down the machine even when the pedal or knee switch is pressed.

The color panel IP-420D provides excellent operability.

● The operation panel is a touch-sensitive type LCD. The clear graphical displays make it much easier for the operator to set or modify sewing data.
● A CompactFlash™ card can be used to store and transfer sewing data. This makes it possible for sewing machines at one or more factories to share data. In addition to the CompactFlash TM, the machine is provided as standard with a USB connector. As a result, the use of a USB flash drive or card reader enables the storage and transmission of sewing data by means of various kinds of media (such as a floppy disk, SmartMedia, CompactFlash and SD card) to enable sewing using the same sewing data among sewing machines in a plant or among subcontract plants.
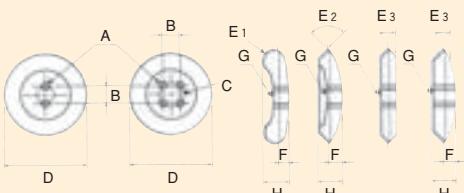
Shank buttons
Data selection screen
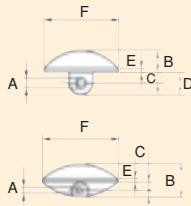
■Applicable button requirements

Specifications for 4-holed and 2-holed buttons
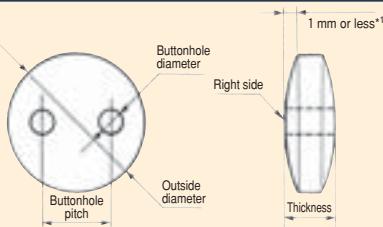
A	Buttonhole diameter		Needle: φ1.5mm or more when using #12～#16 Needle: φ2mm or more when using #12～#18
B	Distance between buttonholes		1.5～6.0mm
C	Buttonholes		All holes must be located equidistant from the center of each button
D	Outside diameter		Min. φ8mm Max. φ32mm Line height within ±0.25mm
E₁	Button with a round edge		R(roundness) of button edge must be a 3mm radius or less
E₂	Button with a V-shaped edge		Within 120° angle
E₃	Button with an angular edge		The thickness must be 5mm or less
F	Bulge		5mm or less
G	Area around buttonholes		Must be smooth
H	Thickness		8mm or less

Specifications for shank and marble buttons

A	Buttonhole diameter	φ1.5mm or more
B	Thickness	6.8mm or less
C	Distance from the bottom of the button head to the center of the buttonhole	Shank button: 1～6mm Marble button: 1.5mm or more
D	Length of shank	8mm or less
E	Straight section on the side of button	3.5mm or less
F	Outside diameter	Min φ8mm, Max. φ32mm
G	Distance from the center of the hole to the button edge	2mm or less
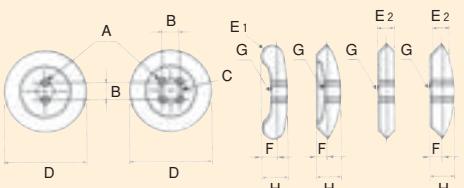
Specifications for stay buttons

Type	Outside diameter	Buttonhole diameter	Buttonhole pitch	Thickness
Type A	8.5mm	2.5mm	3.1mm	2.0mm
Type B	10.2mm	3.2mm	4.0mm	2.0mm

(commedable dimension)

*1 Requires the use of stay buttons with a projection height of 1mm or less on the top.

Specifications for counter buttons
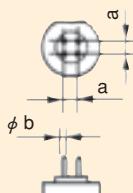
A	Buttonhole diameter		Needle: φ1.5mm or more when using #12～#16 Needle: φ2mm or more when using #12～#18
B	Distance between buttonholes		2.0～5.0mm
C	Buttonholes		All holes must be located equidistant from the center of each button
D	Outside diameter		Min. φ8mm Max. φ25mm Line height within ±0.25mm
E₁	Button with a around edge		R(roundness) of button edge must be a 2mm radius or less
E₂	Button with an angular edge		The thickness must be 5mm or less
F	Height of button edge		2mm or less
G	Area around buttonholes		Must be smooth
H	Thickness		5mm or less
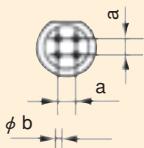
■List of button carrier
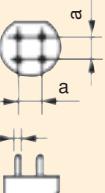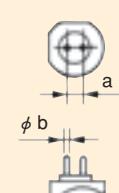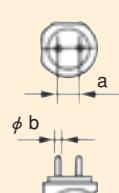
	For 4-holed button			For 2-holed button	
1	2	3	4	5	

Mark	Part No.	Dimension(mm)		Mark	Part No.	Dimension(mm)		Mark	Part No.	Dimension(mm)		Mark	Part No.	Dimension(mm)		Mark	Part No.	Dimension(mm)	
A	17856600	a	2.0	D	17856907	a	2.8	K	17857608	a	4.0	M	17858002	a	2.0	U	17858705	a	4.0
		b	1.0			b	1.2			b	1.4			b	1.0			b	1.4
B	17856709	a	2.4	E	17857004	a	2.8	K1	17857707	a	4.0	N	17858101	a	2.4	V	17858804	a	4.2
		b	1.2			b	1.4			b	1.8			b	1.2			b	1.4
C	17856808	a	2.6	F	17857103	a	3.0	L	17857806	a	5.0	P	17858200	a	2.6	W	17858903	a	4.4
		b	1.2			b	1.2			b	1.8			b	1.2			b	1.4
				F1	17857202	a	3.0					Q	17858309	a	2.8	X	17859000	a	4.6
						b	1.4							b	1.2			b	1.4
				G	17857301	a	3.2					R	17858408	a	3.0	Y	17859109	a	4.8
						b	1.4							b	1.2			b	1.4
				H	Standard 17857400	a	3.4					S	17858507	a	3.2	Z	17859208	a	5.0
						b	1.4							b	1.4			b	1.4
				J	17857509	a	3.6					T	Standard 17858606	a	3.4				
						b	1.4							b	1.4				

[ ] Provided as standard

■ Specifications

Model name		AMB-289
Stitch type		Single-thread chainstitch
Sewing speed	Max. sewing speed	1,800sti/min (neck-wrapping), 1,200sti/min (button sewing)
	Normal sewing speed	1,500sti/min (neck-wrapping), 1,000sti/min (button sewing)
Application		Sewing of various button types (buttons to be sewn by machine)
Button size		Sewing button without neck-wrapping : φ8～φ38mm Sewing button with neck-wrapping : φ8～φ32mm Counter button : φ8～φ25mm
Display screen for setting basic shape-setting		Distance between buttonholes: 1.5～6.0mm (in increments of 0.1mm) Height of neck-wrap: 0, 1.5～10.0mm (in increments of 0.1mm) Number of cross-over stitches: 2～64 (in increments of 2)
Needle		ORGAN SM×332EXTLG-NY (standard needle), (at the time of delivery #14) #12～#18
Thread		SPUN #60～#30, Cotton thread #60～#30
Thread take-up		Needle thread take-up
Needle bar stroke		60.0mm
Needle throwing system		Stepping motor
Feed system		Stepping motor
Auto-lifter		Stepping motor
Cloth feeding system		Pneumatic
Thread trimming system		Pneumatic
Thread tension adjustment		Active tension (Newly developed electronic thread tension control system)
Number of data that can be input		Max. 99 patterns
Number of cycle stitch patterns		The number of registered patterns: 20 (30 patterns for one cycle)
Operation panel		Color LCD touch panel: IP-420D
Button loader		Provided as standard
Product count		Provided as standard (up/down system)
Lubrication		No lubrication ＊ Periodic greasing is required.
Power requirement and power consumption		Single-phase 200～240V, 3-phase 200～240V/400VA
Compressed air and air consumption		0.5MPa(5kgf/cm^2), 11dm^3/min
Dimensions		600mm(W)×600mm(D)×400mm(H)
Weight		Machine head: 65kg, Control box: 13kg

＊"sti/min" stands for "Stitches per Minute."

★CompactFlash™ or CFA specification compatible media.
★CompactFlash™ is a registered trademark of SanDisk Corporation, U.S.A.
★Other company names and product names/brand names are trademarks or registered trademarks of the respective companies.
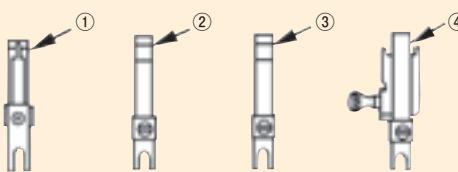
■ Options

Part No.	Description
40021446	Marking light asm.
40021447	Counter button B asm.
40020807	Counter button feed plate asm.

■ Button set pins (options)

No.	Part No.	Description
1	17974056	For marble button
2	17974254	For shank button (φ1.5～φ2.0mm)
3	17974452	For shank button (φ2.0mm or more)
4	40023428	For metallic button

■ Options (assembly parts)

Part No.	Part name	Use
40020779	Tongue for knit (with a thread clamping function)	For preventing thread from twining at the beginning of sewing
40020766	Tongue stopper SS (1.7mm)	For light-weight materials
40020771	Tongue stopper T (6.0mm)	For heavy-weight materials
40020774	Tongue stopper guide D (6.0mm)	For knits
40020763	Tongue stopper guide	For tongue of AMB-189
40024296	Tongue stopper spacer B assembly	For light-weight materials
40024298	Tongue stopper spacer C assembly	For light-weight materials
40021017	Button clamp jaw attachment A for tucking and neck-wrapping	For tucking and neck-wrapping
40021014	Button clamp jaw attachment B for tucking and neck-wrapping	For tucking and flat-stitching
40021019	Tongue D	For preventing tongue from damaging fabrics
40021016	Tongue spacer	For adjusting tucking amount
40020815	Counter button feed plate B	For counter buttons
40020818	Counter button feed plate C	For 2-holed stay buttons
40020813	Counter button guide lever B	For thin buttons
40020821	Stay button clamp jaw lever (left)	For thin buttons
40020822	Stay button clamp jaw lever (right)	For thin buttons
40020832	Flat fabric clamp A (6.0mm)	For preventing fabric from flopping
40020833	Flat fabric clamp B (3.0mm)	For preventing fabric from flopping (for 2-holed buttons)

■ When you place orders

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

[Machine head]

AMB289☐

Option	Code
With a movable eye-guard	A
With a movable eye-guard Fully equipped with set-pins and carrier-pins	B

[Control box]

MC640☐IP420D

Power supply		Code
3-phase	200～240V	E
Single-phase	200～240V	K
	CE 200～240V (not provided with power switch)	N

Operation panel	Code
IP panel for AMB-289	IP420D

● To order, please contact your nearest JUKI distributor.