

## High-speed, 1-needle, Lockstitch, Zigzag Stitching Machine

## LZ-2280N SERIES

LZ-2280N (standard zigzag)

(standard zigzag/with lower knife)

LZ-2282N-7 (standard zigzag/with lower knife and automatic thread trimmer)

LZ-2284N (with standard/3-step zigzag stitching pattern changeover function)

(with standard/3-step zigzag stitching pattern changeover function and automatic thread trimmer)

LZ-2286N (3-step zigzag)

Z-2288N (with changeable pattern cams)

LZ-2285N (fagoting)

(standard zigzag/with anti-material-slip capability)

(with standard/3-step zigzag stitching pattern changeover function and anti-material-slip capability)

.-2284NU-7

(with standard/3-step zigzag stitching pattern changeover function, anti-material-slip capability and automatic thread trimmer)

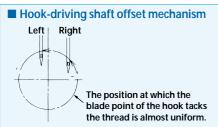


#### High-speed, 1-needle, Lockstitch, zigzag Stitching Machine

## LZ-2280N SERIES

The hook driving shaft offset mechanism assures trouble-free and consistent zigzag stitching

The machine is equipped with a hook-driving shaft-offset mechanism which places the hook-rotating shaft off-center from the center of zigzag stroke of the needle. This mechanism allows the blade point of the hook to catch the needle thread every time regardless of the needle throwing direction. As a result, the machine is immune to sewing troubles such as stitch skipping and thread breakage, annoyances likely to occur with the conventional machine, especially when the needle throws to the right.



The market-proven hook and thread take-up lever enables sewing with upgraded consistency with a lower tension applied to the thread

With its market-proven hook and thread take-up lever, the machine produces highquality, uniform seams even when sewing at extremely low thread tensions.

In addition, these new components prevent stitch skipping and thread breakage during sewing and offer dramatically improved responsiveness to thread changing.

The machine uses a wide range of thread types such as synthetic thread, spun thread, and cotton thread



Greater durability is secured by preventing the hook from heating up when the machine is running at high speeds

The inner hook is finished with titanium to keep it from becoming hot. The machine requires only a very small quantity of oil. This prevents oil stains on the material and the improves durability of the hook. In addition, the hook configuration is carefully designed to avoid needle breakage.



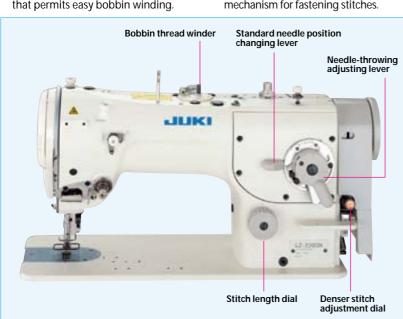
LZ-2288N

# The highly reliable machine head is structured to reduce operating noise and prevent oil leakage

The shape of the machine frame is designed to reduce vibration and noise during sewing. By applying three safeguards in the machine's design, oil leakage is completely eliminated. The shape of the machine arm is designed to prevent oil from gathering, the direct oil-circulation method is adopted to circulate the oil directly from the oil sight window to the oil pan, and a high-quality packing is incorporated. In addition, a bobbin thread winder is built in at a position that permits easy bobbin winding.

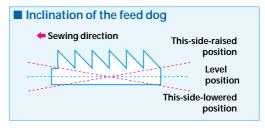
## The machine ensures easy adjustment of zigzag width and feed pitch

A special dial with a built-in lever for adjusting zigzag width is adopted for easier handling. The machine is also provided with a lever for changing the needle-throwing position that makes it convenient to set the sewing position from the material edge. This enables the operator to minutely adjust the needle-throwing position without readjusting the positions of other components such as the guides and binders. In addition, the machine is provided with a denser stitching mechanism for fastening stitches.



The adjustable range of the feed mechanisms has been widened, thereby upgrading the machine's responsiveness to materials

The feed mechanism has been improved by widening the adjustable range of the height and inclination of the feed dog. Inclination of the feed dog can be widely adjusted to a this-side-raised position, level position, or this-side-lowered position. This facilitates sewing of overlapped sections of material that have to be securely held between the presser foot and the feed dog during sewing.



## The machine comes with a micro-lif

Thanks to the micro-lift mechanism, the rise of the presser foot can be finely adjusted using a screwdriver. This will prove effective when you need to perform sewing operations with the presser foot kept in a slightly raised position such as when reinforcing the material or attaching tapes.



#### Highly reliable models in the LZ-2280N series that respond to many different kinds of sewing specifications.



## Standard zigzag stitching machine **LZ-2280N**

The standard zigzag stitching machine creates softly finished seams.

The needle rocking mechanism is provided with a triangular cam which helps produce beautiful seams with consistency.



## 3-step zigzag stitching machine **LZ-2286N**

The maximum needle throw is 10 mm. The needle rocking mechanism means a higher degree of accuracy, thereby leading to a very high performance.



Standard wider zigzag stitching

#### LZ-2281N

Two kinds of gauges can be selected in accordance with the application of the machine: an A-type gauge with a zigzag width of 5 mm, and a B-type gauge with a zigzag width of 8 mm. The needle rocking cam is provided with a triangular cam which helps produce beautiful seams with consistency.



## Fagoting machine LZ-2285N

The pressure provided by the left- and right-hand sections of the fagoting holder can be separately adjusted in order to prevent an uneven material feed

High-speed, 1-needle, Lockstitch, Zigzag Stitching Machine [with Standard/3-step Zigzag Stitching Pattern Changeover Function]

 $LZ_2234N_2LZ_2234N_2$  (with automatic thread trimmer)

# The world's first zigzag stitching machine provided with a standard/3-step zigzag stitching pattern changeover function

Switch between the standard zigzag stitching pattern and 3-step zigzag stitching pattern with simple one-touch control.

• The operator can easily switch the needle-throwing pattern between the standard and 3-step zigzag stitching patterns using the lever located in the free space under the arm. (Time required:

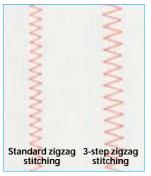
When changing the sewing product or design, there's no need to adjust the sewing machine head or machine layout.

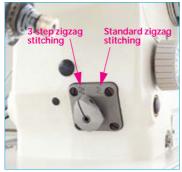
Equipped with two different functions, the machine is available to handle a wider range of application

 Designed to handle both standard and 3-step zigzag stitching, the machine offers increased availability.



The needle sway is reduced by approximately 25 % and operating noise by 2 to 2.5 dB compared with JUKI's conventional replaceable-cam type zigzag stitching machine.





 Standard/3-step zigzag stitching pattern changeover lever



LZ-2284N-7-WB/CP-160B



- Simple lever operation achieves changeover between standard zigzag stitching and 3-step zigzag stitching.\*
- \* To switch the zigzag stitching type, operate the lever with the needlebar held at its lowest dead point.

High-speed, 1-needle, Lockstitch, Standard Zigzag Stitching Machine with Lower Knife

## LZ-2232N-7 (with automatic thread trimmer)

# The LZ-2282N/-2282N-7 effectively supports the operator in the lace-attachment process for foundations, dramatically increasing productivity.





LZ-2282N-7-WB/CP-160B

#### Productivity is dramatically increased

The machine incorporates a built-in lower knife that trims only the lower material. This allows the machine to simultaneously attach lace to the body of the foundation and trim only the body during processes to attach lace to the bottoms or tops of slips or to the joint seam lines of shorts.

## The machine demonstrates consistent trimming performance

• The knife is driven by a motor that runs independently from the sewing machine motor. With this feature, the knife can continue to run at a high speeds during trimming even when the speed of the machine is reduced during startup or when sewing curved sections. Furthermore, the knife is placed just beside the needle to provide a constant trimming width even on the curved sections.

#### **Upgraded operability**

Since the knife stops at the upper position of its stroke at all times, the material can be smoothly placed on the machine. The knife height can easily be changed by operating the lever mounted on the front face of the machine in accordance with the type of material to be used. If the knife height is set at 0 (zero), the working surface of the machine will become flat. In this case, the knife-driving mechanism will be automatically turned off, permitting machine use for typical standard zigzag stitching operation.

#### Application (attaching lace)

Shorts

Camisole

Slip

Petticoat

Underwear

#Flare pants



 The lower material is trimmed and attached with lace simultaneously.



• The knife is driven by a dedicated motor.



• The knife height can be changed with ease.

High-speed, 1-needle, Lockstitch, **Zigzag Stitching Machine** 

LZ-2200 (with changeable pattern cams)

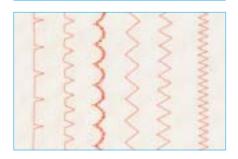
The machine can widely respond to various kinds of pattern stitching simply by going through a quick procedure to replace the cams.



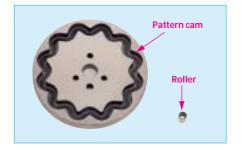
The machine is able to perform

The cam ensures simple and quick can be completed within

Highly-durable pattern cam is used.



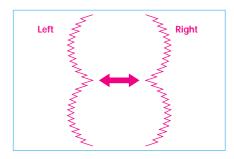




While the machine is equipped with a changeable pattern cam, it is













#### ■ Specification of pattern cam

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Name of pattern	Standard zigzag	3-step zigzag	2-step zigzag	Standard scallop	Crescent scallop	Equal-width scallop	Equal-width scallop	Blind stitch	Blind stitch	Blind stitch	Blind stitch
Part No.	22568851	22568950	22569057	22569156	22569255	22569354	22569453	22569552	22569651	22569750	22569859
Part name	Pattern cam A	Pattern cam B	Pattern cam C	Pattern cam D	Pattern cam E	Pattern cam F	Pattern cam G	Pattern cam H	Pattern cam J	Pattern cam K	Pattern cam L
Max. zigzag width (mm)	<b>*</b> 6.0	8.0	8.0	8.0	8.0	8.0	8.0	6.0	6.0	6.0	6.0
Max. pattern width (mm)				2.4	3.6	3.4	2.4				
Number of stitches/pattern	2	6	4	24	24	24	12	4	6	8	12
Stitch pattern	MMM.	<b>NN</b>	<i>\\</i> \\\	Right North Right North Right North Right North Right North Right	Right Right	Right HHAMHAM THAMHAHAMAHAMAHAMAHAMAHAMAHAMAHAMAHAMAHA	Right / Now / Left	Right	Right	Right	Right

<sup>\*</sup> For standard zigzag stitching and blind stitching, set the zigzag width to 5 mm or less when the machine runs at a sewing speed of 4,200 rpm or more.

High-speed, 1-needle, Lockstitch, Zigzag Stitching Machine with automatic thread trimmer

LZ-2232N-7 (with lower knife)
LZ-2284N-7 (with standard/3-step zigzag stitching pattern changeover function)



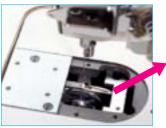
LZ-2284N-7-WB/CP-160B

# By employing a thread trimmer that cuts the thread without fail, extra thread-cutting processes are eliminated, and beautiful seams are speedily obtained.

Simplified thread trimming mechanism cuts the

The thread trimming mechanism which is equipped with a knife slide mechanism.

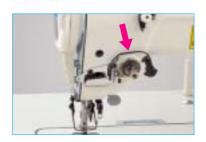
This means that the thread trimmer cuts the thread regardless of the needle entry both when the needle throws to the right and left. The thread trimmer is driven by the recognized "solenoid and cam system" that is used for JUKI lockstitch machines. This means that the thread trimmer is highly reliable. Since the knife unit is installed on the slide plate, it can be removed/installed with ease. So, easy maintenance is ensured.





The machine is equipped, as standard, with a needle thread feeding device

The machine comes with a needle thread feeding device which feeds the needle thread only by the required amount at the start of sewing. Thanks to the device, not only stitch skipping and slip-off of the needle thread are prevented, but also the length of thread remaining at the needle eyelet after thread trimming can be shortened.



Bobbin thread is retained with a low tension, thereby preventing stitching troubles at the start of sewing

The bobbin thread is retained with a low tension after thread trimming, which enables the bobbin thread to smoothly come out of the hook. As a result, tensing-up of thread and stitch gathering are prevented.



#### Newly developed control box/Compact motor unit

#### SC-910/M91

- SC-910 model control box is resistant to voltage fluctuations. It comes with a compact and energy-saving type switching power supply system that does not use a transformer. This contributes to improved reliability.
- The M91 model compact motor unit featuring low vibration and low noise capabilities is installed on the control box.
- The number of revolutions can be selected from among three different types (standard, slow and fast) according to the preference of the operator. In addition to this feature, the control box incorporates many different functions for upgraded workability.



#### The operation panel can be selected according to the process.

#### **IP-100B**

- The operation panel has been provided with a large user-friendly LCD.
   A pictograph and set values are shown on the same screen, which promises improved operability of the panel.
- The operation panel has been provided with a variety of communication and maintenance control features and is able to store data on a SmartMedia or personal computer.
- The features of the operation panel can be updated without the need for changing the PWB/ROM.



#### CP-160B

- Pattern sewing can be performed by the number of stitch control feature.
- Four different kinds of pattern sewing are possible: automatic reverse stitching, constant-dimension sewing, rectangle-shape sewing, and multi-layer stitching. The maximum number of stitches that can be set for automatic reverse stitching (single or double) is 19.



High-speed, 1-needle, Lockstitch, Zigzag Stitching Machine with Anti-material-slip Capability

LZ-2230NU LZ-2234NU

(standard zigzag)

(with standard/3-step zigzag stitching pattern

changeover function)

LZ-2284INU-7 (with standard/3-step zigzag stitching pattern changeover function and automatic thread trimmer)

With its newly developed feed mechanism, the <LZ-2280NU> Series zigzag stitching machine totally eliminates uneven feed of the upper and lower cloths, enabling even an unskilled operator to surpass even an expert in manual feed adjustment in producing beautiful seams.

Uneven feed of the upper and lower cloths is totally eliminated

With its newly developed feed mechanism, the machine prevents "uneven feed of the upper and lower cloths" when sewing girdles and body suits made of slippery, elastic materials.

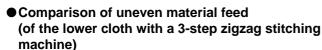
#### Simplified mechanism for easy operation

Drop-feed sewing machines are widely said to feed in the lower cloth more quickly than the upper cloth. However, this machine prevents uneven feed of the upper and lower cloths in spite of its a drop-feed mechanism. In appearance, the gauge parts are identical to those of a conventional zigzag stitching machine, and operability is in no way affected by the newly developed feed mechanism.

## The machine flexibly responds to many different materials

The machine only requires simple adjustments when changing the material\* to power net and tricot, never failing to produce beautiful seam quality free from uneven feed of the upper and lower cloths.

\* For some types of materials, the machine will not effectively prevent uneven feed of the upper and lower cloths.





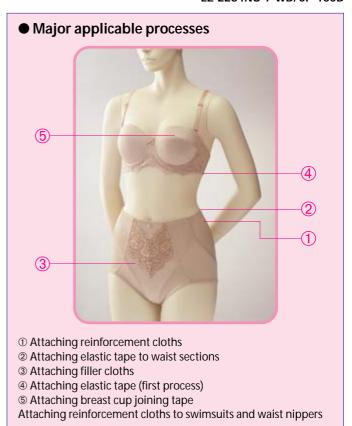
LZ-2280NU series



**Conventional machine** 



LZ-2284NU-7-WB/CP-160B



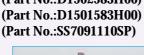
#### **Major options**

#### Presser foot connecting components

Presser connecting rod (Part No.:D1502583H00) Presser bar Screw

The aforementioned parts are used when a lockstitching type presser foot is installed on the machine.

Place a separate order for the parts





#### Automatic reverse feed function

This device allows a machine without thread trimmer to perform automatic reverse feed function. (Part No.:22561559)



#### Tension-free feeder (Tape feeder) V059

- •The amount of tape to be fed can be adjusted in accordance with the sewing speed of the machine.
- •Power supply can be changed over between "single-phase, 100 V" and "3-phase, 200V."
- •It is adaptable to processes for attaching reinforcement tape, attaching elastic tape or lace to foundation. (Part No.:MAV059000AA)

#### Pedal-operated reverse feed stitching device [RF-1]

The device enables the operator to perform reverse feed stitching using the pedal without using the right hand.

(excluding the LZ-2285N)



#### Plastic hook

Effectively prevents oil leakage (Part No.:22526669) \*Used together with a screw in the front side of the hook driving shaft (Part No.:11079506)

#### Hook with a hard blade point

Prevents the blade point of the hook from wearing out (Part No.:22526560)

#### Elastic tape tensing device S189

- •Applies tension to desired portions of the tape fed from tension-free tape puller.
- ●The device is started/stopped by operating the knee switch. This increases operator productivity without interrupting the sewing work.

S189A (Pneumatic type) (Part No.:MAS189000AA) S189B (Solenoid type) (Part No.:MAS189000AB)



#### Hook with non-rotational bobbin

Hook (Part No.: 235-23152) Bobbin case asm. (Part No.: 235-22550) (Part No.: 235-23004) **Bobbin** 

The hook with a non-rotational bobbin eliminates sewing troubles resulting from bobbin idling. It provides a uniform bobbin thread tension at all times, thereby guaranteeing a consistent stitch formation.



#### **■**When you place orders

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

#### ●LZ-2280N series (Without automatic thread trimmer)

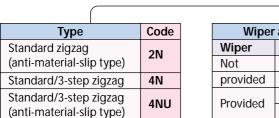


Туре	Code
Standard zigzag	ON
Standard zigzag/with anti-material-slip capability	ONU
Standard wider zigzag (with a gauge for 5 mm zigzag width)	1NA
Standard wider zigzag (with a gauge for 8 mm zigzag width)	1NB
Standard zigzag/with lower knife	2N
With standard/3-step zigzag stitching pattern changeover function	4N
With standard/3-step zigzag stitching pattern changeover function and anti-material-slip capability	4NU
With standard/3-step zigzag stitching pattern changeover function and with a tape attaching foot capability	4NT
3-step zigzag	6N
3-step zigzag/with a tape attaching foot	6NT
With changeable pattern cams/Standard zigzag	8NA
With changeable pattern cams/3-step zigzag	8NB
With changeable pattern cams/2-step zigzag	8NC
With changeable pattern cams/Standard scalloping	8ND
With changeable pattern cams/Crescent scalloping	8NE
Fagoting	5N

Automatic reverse f	Code	
Provided		0B
Not provided		$\mathbb{X}$

●LZ-2284NT, -2286NT and -2285N are not classified by the automatic reverse feed function.

#### ●LZ-2280N-7 series (With automatic thread trimmer)



Wiper	and automatic reverse fe	eed function	n
Wiper	Automatic reverse feed	function	Code
Not	Not provided		00
provided	Provided		0B
Provided	Not provided		WO
	Provided		WB

Auto-lifter	Code
Provided (AK83)	AK
Not provided	> <

#### PSC box



PSC box					
For JUS (LA)*	Single-phase	100 ~ 120V	PFL	S	
For JUS*, General Export	3-phase	200 ~ 240V	PFL	D	
For General Export	Single-phase	200 ~ 240V	PFL	K	
For EU (CE)	Single-phase	200 ~ 240V	PFL	N	
For China	Single-phase	200 ~ 240V	PFL	U	

Control box	Code
Standard	S

#### ●Motor for SC

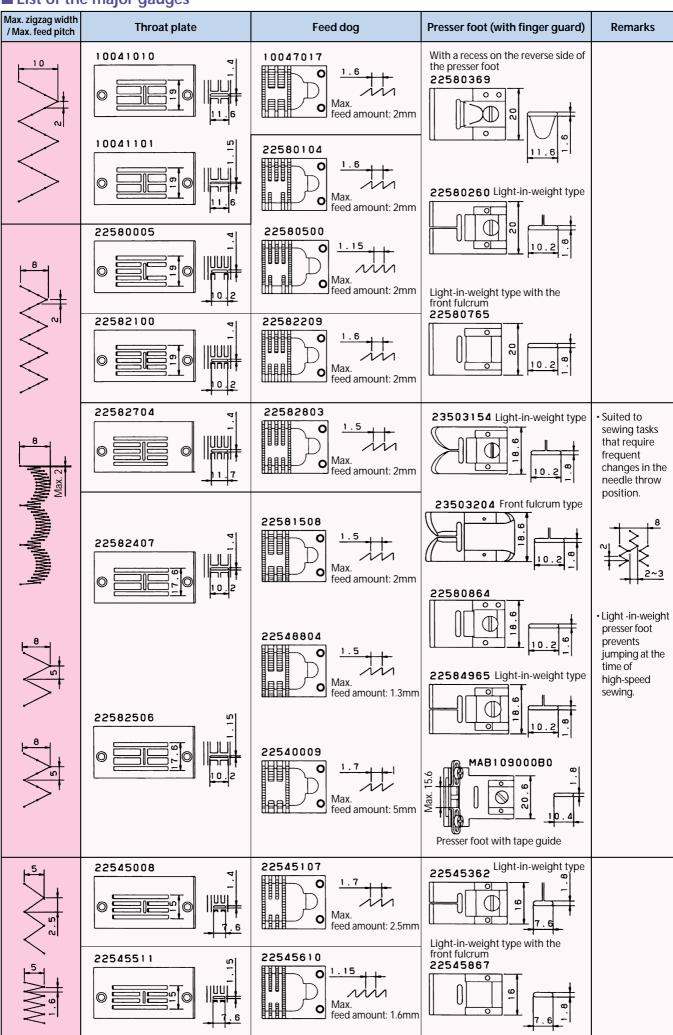
# Pulley belt Code Standard S

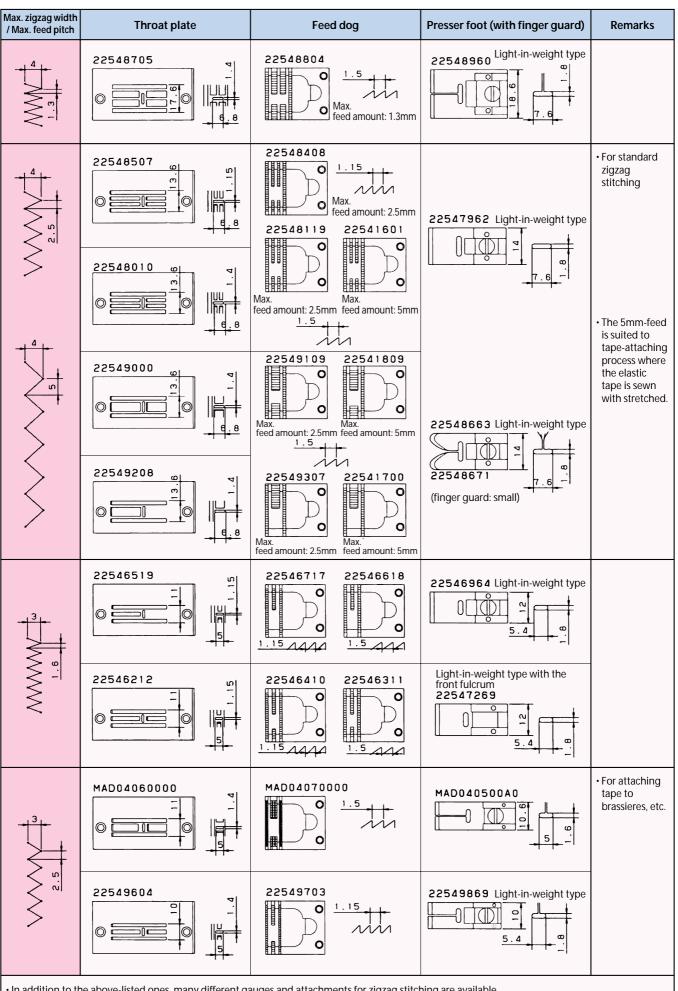
#### ●Operation panel

Operation panel	Code
IP-100B	IP100B
CP-160B	CP160B

<sup>\*</sup> JUS: North America and Central and South America.

#### ■ List of the major gauges





<sup>•</sup> In addition to the above-listed ones, many different gauges and attachments for zigzag stitching are available. Please contact us for details.

#### **■**Specifications

Model	Without automatic thread trimmer	LZ-2280N	LZ-2281N	LZ-2282N	LZ-2284N	LZ-2286N	LZ-2288N	LZ-2285N
name	With automatic thread trimmer	_	_	LZ-2282N-7	LZ-2284N-7	I	_	-
Stitch	system	Standard zigzag	Standard wider zigzag	Standard zigzag (with lower knife)	Standard/ 3-step zigzag	3-step zigzag	With changeable pattern cams	Fagoting
Stitch	pattern				^ <del>-</del>	<b>\\\</b>	Refer to the specifications for pattern cam	<b>\</b>
Max.s	ewing speed	5,500rpm			5,000rpm			4,000rpm
Max. z	igzag width	5.0mm	5.0mm (A type) 8.0mm (B type)	4.5mm	5.0mm (standard) 10.0mm (3-step)	10.0mm	8.0mm (standard:6.0mm)	8.0mm
Max. f	eeding amount	2.5mm	2.5mm (A type) 5.0mm (B type)	2.5mm	2.5mm (standard) 2.0mm (3-step)	2.0mm	2.5mm	2.2mm
	utting allowance er knife	_	_	3.0mm	_	_	_	
Lower	knife driving od	_	_	AC motor	_	_	_	_
Lift of foot	the presser	By hand: 5.5mm/By knee: 10.0mm By hand: 4.0mm By knee: 8.5mm By hand: 5.5mm/By knee: 10.0mm					By hand: 5.5mm By knee: 8.0mm	
Hook			DP hook (with titanium-treated inner hook)					
Thread	d take-up				Rotary type			
Lubric	ation				Fully automatic			
Lubric	ating oil			JUKI New Defrix	Oil No.1 (equiva	lent to ISO VG7)		
	Needle (at the time of delivery)		SCHMETZ 438SUK (#75), ORGAN DP x 5 (#70)					SCHMETZ 438SUK (#80)
	Needle position changing mechanism			Provided as standard				
	se feed ing mechanism	Provided as			s standard			_
	throw direction e-over mechanism	_	_	_	_	_	Provided as standard	_
Needle patter	e throw n cam	Triangular cam Grooved cam				ed cam		
	er of pattern specified	_	_	_	_	_	11*	_

\*LZ-2288N:

Selectable from five different cams; Standard zigzag stitching cam, 3-step zigzag stitching cam, 2-step zigzag stitching cam, standard scalloping cam, crescent scalloping cam. Other cams are optionally available.

#### Anti-material-slip type

Model	Without automatic thread trimmer	LZ-2280NU	LZ-2284NU			
name	With automatic thread trimmer	_	LZ-2284NU-7			
Stitch pattern						
Max. sewing speed		4,500rpm				

• To order, please contact your nearest JUKI distributor.







JUKI CORPORATION HEAD OFFICE

The environmental management system to promote and conduct 0the technological and technical research, the development and design of the products in which the environmental impact is concluded.

withe 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 sale and maintenance service of the data entry system and in the purchase, distribution and sale of the household commodities including the healthcrae products.



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 $\begin{tabular}{ll} $\star$ Specifications and appearance are subject to change without prior notice for improvement. \end{tabular}$ 

\* This catalogue prints with environment-friendly soy ink on recycle paper.