LZ-2290A Series
Computer-controlled, Direct-drive, High-speed, 1-needle, Lockstitch, Zigzag Stitching Machine

LZ-2290A Series
A single LZ-2290A Series machine is extremely versatile and can perform many different stitching patterns.
The next-generation standard zigzag stitching machine LZ-2290A Series

A single LZ-2290A Series machine is extremely versatile and can perform many different stitching patterns.

It comes in two different models, one with standard specifications and the other with an anti-material slip capability. For both models, there are two subclass models, i.e., the "minute-quantity lubrication type" and the "dry-head type", which eliminates oil stains on sewing products. You may select the best-suited model from the diversified subclasses according to your applications.

The machine is also provided with a newly-developed operation panel, the IT-100. With this operation panel, you can easily establish settings for stitch shapes and stitches, as well as conduct setup change, thereby achieving further increased availability.

The machine is provided with many different stitching patterns.

The machine is provided as standard with fourteen different basic zigzag stitching patterns grouped into eight different types. You can choose the zigzag stitching pattern you want directly on the operation panel (IT-100) of the machine body. The zigzag width, needle throw position and number of blind stitches can also be easily adjusted on the operation panel.

A single unit is extremely versatile and can perform straight stitching, standard zigzag stitching, 2-step zigzag stitching, 3-step zigzag stitching, scallop stitching, and blind stitching. As a result, the system is available for a far wider range of applications.

### Sewing pattern

<table>
<thead>
<tr>
<th>Name of pattern</th>
<th>Straight stitch</th>
<th>Standard zigzag</th>
<th>2-step zigzag</th>
<th>3-step zigzag</th>
<th>Scallop (left)</th>
<th>Scallop (right)</th>
<th>Blind stitch (left)</th>
<th>Blind stitch (right)</th>
<th>Custom pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stitch pattern</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Standard</td>
<td>Crescent</td>
<td>Equal-width</td>
<td>Equal-width</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Standard</td>
<td>Crescent</td>
<td>Equal-width</td>
<td>Equal-width</td>
<td></td>
</tr>
<tr>
<td>Number of stitches</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>24</td>
<td>12</td>
<td>24</td>
<td>12</td>
<td>3-250</td>
</tr>
</tbody>
</table>

Advanced operation panel IT-100

A liquid crystal display has been adopted. It displays stitch shapes, zigzag width and standard lines with pictographs and settings all together on one screen to improve operability of the panel.

The machine has added capabilities that make the most out of the computer-controlled sewing machine functions, such as program stitching (constant-dimension sewing), cycle sewing and continuous sewing. With these capabilities, the machine is able to respond to sewing in various processes.

Custom pattern data can be stored using the same USB memory. This enables the sharing of custom patterns, not only in one plant, but also among two or more sewing plants, by exchanging data via e-mail systems.

Example of screen displays

Scallop stitch shape setting

Continuous sewing

Maintenance function
Custom patterns can be created on the operation panel with ease.

- **Custom patterns**
  - Original sewing patterns can be quickly created and stored in memory.
  - Max. 20 patterns, Max. 500 stitches/pattern.

- **Condense custom patterns**
  - The user can specify original condense custom patterns.
  - This type of pattern is very effective at producing improved bartacks and keeping seams from being left undone.

- **Soft-texture seam quality.**
  - The thread tension mechanism, bobbin case and feed timing have been improved to produce soft-textured seams.
  - 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.

- **Hook-driving shaft offset mechanism**
  - For the minute-quantity lubrication type hook, 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 improves durability of the hook. In addition, the hook configuration is carefully designed to avoid needle breakage.

- **Cycle sewing**
  - The machine is able to sew different patterns while changing them in sequence.
  - Max. 10 patterns, Max. 20 steps / pattern, and Max. 500 stitches / step

- **Program stitching**
  - As many as 20 different constant-dimension stitch patterns can be programmed.
  - The maximum number of stitches that can be set for one step is 500.

- **Continuous stitching**
  - Custom patterns can be joined.
  - Max. 10 patterns, Max. 20 steps / pattern, and Max. 500 stitches / step

- **Setting the number of stitches for a blind stitching pattern**
  - The user can set the number of stitches for a pattern. (3 to 250 stitches.)

- **Setting of the left and right stopping positions**
  - The left and right stopping positions of the needle can be controlled.
  - These settings are effective when performing corner stitching for label attachment or decorative stitching on the fronts of garments.

- **Cycle setting**
  - It is used for reinforcing bartacks or bartacks.

- **Mirror inversion switch**
  - The position at which the blade point of the hook tacks the thread is almost uniform.

- **Condense custom patterns**
  - Automatic reverse feed function is required.
  - Start and end of sewing: A maximum of 20 different patterns, with a max. of 64 steps/pattern.
  - The machine, with its automatic thread trimmer, is able to leave shorter thread after thread trimming as compared with the conventional machines.

- **Abundant variation in stitching.**
  - The machine produces beautifully finished scallop stitches on front part of a girdle, etc.
  - For the scallop stitch, the starting position for sewing can be selected between the top and bottom of a scallop.

- **Setting of the left and right stopping positions**
  - The left and right stopping positions of the needle can be controlled.
  - These settings are effective when performing corner stitching for label attachment or decorative stitching on the fronts of garments.

- **Continuous stitching**
  - Custom patterns can be joined.
  - Max. 10 patterns, Max. 20 steps / pattern, and Max. 500 stitches / step

- **Program stitching**
  - As many as 20 different constant-dimension stitch patterns can be programmed.
  - The maximum number of stitches that can be set for one step is 500.

- **Multi-layer stitching**
  - It is used for reinforcing bartacks or bartacks.

- **Continuous stitching**
  - Custom patterns can be joined.
  - Max. 10 patterns, Max. 20 steps / pattern, and Max. 500 stitches / step

- **Program stitching**
  - As many as 20 different constant-dimension stitch patterns can be programmed.
  - The maximum number of stitches that can be set for one step is 500.
With the culmination of advanced technologies, the LZ-2290A Series

**Newly developed larger-size machine head with a long arm.**

Wider space under the arm

JUKI has developed a new high-long arm machine head one size larger than the head for the conventional lockstitch machine. With its wider area under the arm, the machine permits easy handling of the sewing material for improved operability. The shape of the jaw gives the operator a clear view of the area around the needle.

Excellent basic performance.

High productivity

- In the standard zigzag stitching mode with the zigzag width set to 4mm, a frequently selected operating condition, the machine sews at a top speed of 5,000sti/min, that is the world’s highest available speed as a computer-controlled zigzag stitching machine, to increase in productivity.
- (The dry-head type and the anti-material-slip type machines are excluded.)

The maximum zigzag width: 10mm

- A zigzag width of as large as 10mm is possible for all types of stitch shapes. Sewing troubles such as stitch skipping or thread breakage will never occur even when sewing at the maximum zigzag width.
- A gauge that supports 10mm is required.

Reduced noise and vibration

The machine comes with a more rigid and well-balanced machine head frame. This, coupled with the direct-drive method, dramatically reduces the noise and vibration of the machine and helps reduce operator fatigue.

Increased feed amount

- Since the machine supports the feed amount as large as 5mm, this single machine is able to handle various feed types from standard feed to coarse feed. The coarse feed is effective when sewing stretched elastic tapes in processes such as elastic tape attachment to waistbands in shorts. (For the anti-material-slip type machine, the maximum feed amount is 2.5mm.)
- The stitch dial is a stepless adjustable type. This enables fine adjustment of the feed amount.

**Excellent maintainability.**

- The machine is structured without an oil pan. Oil is supplied from the oil tank installed on the machine to the hook and needle bar.
- In addition, the oil hole is located on the machine arm. This is quite helpful to female operators; since oiling can be carried out without tilting the machine head.
- Time and effort are conventionally required to remove the knee lifter and cover. This means the machine head can be easily tilted when cleaning the machine or performing maintenance.
- A safety switch is mounted on the machine head. If the machine is tilted with the power on, the safety switch is activated and disables the machine operation. In this disabled condition, the machine will never run even if you depress the foot pedal.

- The machine is provided as standard with a micro-lifter screw. This helps prevent material slippage or damages when using elastic materials.
The machine comes with a completely non-lubricated head to prevent oil stains on sewing products.

Computer-controlled, Direct-drive, High-speed, 1-needle, Lockstitch, Zigzag Stitching Machine (dry-head type)

- The non-lubricated head will never scatter oil, promising cleanly finished sewing products free from oil stains.
- In addition, the machine and table will not be stained with oil during the gauge changing or maintenance on the machine such as cleaning.
- The machine offers a service speed of as high as 4,000stitches/min for zigzag stitching. With this speed, the machine can be effectively used in various zigzag stitching processes.
- The newly developed special-race plastic hook offers increased durability and upgraded sewing capabilities. It responds beautifully to various types of thread. The hook helps the machine produce consistent high-quality seams by eliminating changes in the thread tension caused by fluctuating oil levels.
The machine prevents material slippage when using slippery materials.

Computer-controlled, Direct-drive, High-speed, 1-needle, Lockstitch, Zigzag Stitching Machine (with anti-material-slip capability)

- Newly developed feed mechanism prevents the material slippage that is likely to occur when sewing slippery or elastic materials used for girdles or bodysuits.
- The machine never fails to produce beautiful, high-quality seams regardless of changes in the sewing material to fabrics such as power net and tricot.
- The effects of the machine may not be obvious on some types of materials.
- The machine's bottom feed method prevents material slippage. Since the LZ-2290A-SU-7 is identical with the standard model in terms of its appearance and gauge parts, workability is entirely unaffected.

Major applicable processes
1. Attaching reinforcement cloths
2. Attaching elastic tape to waist sections
3. Attaching filler cloths
4. Attaching lace to bottom sections
5. Attaching reinforcement cloths
6. Attaching filler cloths

Computer-controlled, Direct-drive, High-speed, 1-needle, Lockstitch, Zigzag Stitching Machine with Automatic Thread Trimmer
LZ-2290A-SS-7-WB
### List of the major gauges

<table>
<thead>
<tr>
<th>Max. zigzag width</th>
<th>Throat plate</th>
<th>Feed dog</th>
<th>Presser foot (with finger guard)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. feed amount: 2mm</td>
<td>1004101</td>
<td>2250164</td>
<td>With a recess on the reverse side of the presser foot</td>
<td>2250369 Light-in-weight type</td>
</tr>
<tr>
<td>Max. feed amount: 2mm</td>
<td>2250066</td>
<td>2250500</td>
<td>Light-in-weight type with the front fulcrum</td>
<td>2250165</td>
</tr>
<tr>
<td>Max. feed amount: 2mm</td>
<td>2250218</td>
<td>2250209</td>
<td>Light-in-weight type</td>
<td>2250165</td>
</tr>
<tr>
<td>Max. feed amount: 2mm</td>
<td>2250276</td>
<td>2250260</td>
<td>Light-in-weight type</td>
<td>2250354</td>
</tr>
<tr>
<td>Max. feed amount: 2mm</td>
<td>2250150</td>
<td>2250515</td>
<td>Light-in-weight type</td>
<td>2250353 Front fulcrum type</td>
</tr>
<tr>
<td>Max. feed amount: 1.6mm</td>
<td>2250280</td>
<td>2250465</td>
<td>Light-in-weight type</td>
<td>2250465 Light-in-weight type with the front fulcrum</td>
</tr>
<tr>
<td>Max. feed amount: 5mm</td>
<td>2250250</td>
<td>2250809</td>
<td>Presser foot with tape guide</td>
<td>2250809</td>
</tr>
<tr>
<td>Max. feed amount: 1.3mm</td>
<td>2250284</td>
<td>2250408</td>
<td>Presser foot with tape guide</td>
<td>2250408</td>
</tr>
<tr>
<td>Max. feed amount: 2.5mm</td>
<td>2250251</td>
<td>2250457</td>
<td>Light-in-weight type with the front fulcrum</td>
<td>2250457 Light-in-weight type with the front fulcrum</td>
</tr>
</tbody>
</table>

- **Max. feed amount:** 2mm
- **Max. feed pitch:**
- **In addition:** Please refer to the manufacturer’s specifications.
- *Suits to sewing tasks that require frequent changes in the needle throw position.*
- *Light-in-weight presser foot prevents jumping at the time of high-speed sewing.*
<table>
<thead>
<tr>
<th>Max. zigzag width / Max. feed pitch</th>
<th>Throat plate</th>
<th>Feed dog</th>
<th>Presser foot (with finger guard)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td>Light-in-weight type</td>
</tr>
<tr>
<td></td>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
<td>Light-in-weight type</td>
</tr>
<tr>
<td></td>
<td><img src="image7.png" alt="Image" /></td>
<td><img src="image8.png" alt="Image" /></td>
<td><img src="image9.png" alt="Image" /></td>
<td>Light-in-weight type</td>
</tr>
</tbody>
</table>

- For standard zigzag stitching
- For attaching tape to brassieres, etc.

Max. feed is 5 mm for the LZ-2290A-SS(-7). Since the max. feed is 2.5 mm for the LZ-2290A-SU(-7), gauges have to be selected with care.

In addition to the above-listed ones, many different gauges and attachments for zigzag stitching are available. Please contact us for details.
**Options**

<table>
<thead>
<tr>
<th>Model</th>
<th>Part No.</th>
<th>Description</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>400-10795</td>
<td>Automatic reverse feed kit</td>
<td>When this device is installed, the LZ-2290A-MM (without automatic thread trimmer) can perform reverse feed operation. The mirroring switch for scallop stitching is used as the push-button-type reverse feed switch.</td>
</tr>
<tr>
<td>-</td>
<td>400-03640</td>
<td>Optional switch kit</td>
<td>This handy switch is used to control various functions*. It is most effective when operating the machine in a standing position. (Needle up/down correction, 1-stitch correction, reverse-stitch correction, auto lifter and thread trimmer, etc.)</td>
</tr>
</tbody>
</table>

**AK121**

- GAK-A21000B0 Auto-lifter (pedal-driven)

- D1501-583-H00 Presser bar
- D1502-583-H00 Presser connecting rod
- B1551-586-000 Presser foot connecting foot
- SS-7090910-TP Screw
- 225-26578 Hard-point hook

The non-rotary bobbin eliminates irregular stitches which have a tendency to occur at some sewing speeds and bobbin-thread tension fluctuations which have a tendency to occur according to the bobbin thread remaining on the hook. Since the bobbin thread is fed without rotating the bobbin, the bobbin never idles.

**Non-rotary bobbin**

The non-rotary bobbin requires an exclusive hook, bobbin and bobbin case.

**When you place orders**

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

- **Without automatic thread trimmer**

<table>
<thead>
<tr>
<th>Machine head type</th>
<th>Code</th>
<th>Type</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>S</td>
<td>Standard</td>
<td>S</td>
</tr>
<tr>
<td>Dry-head</td>
<td>D</td>
<td>Anti-material-slip type</td>
<td>U</td>
</tr>
</tbody>
</table>

- **With automatic thread trimmer**

<table>
<thead>
<tr>
<th>Machine head type</th>
<th>Code</th>
<th>Type</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>S</td>
<td>Standard</td>
<td>S</td>
</tr>
<tr>
<td>Dry-head</td>
<td>D</td>
<td>Anti-material-slip type</td>
<td>U</td>
</tr>
</tbody>
</table>

**LZ2290A**

- Automatic reverse feed function
  - Not provided
  - Provided

**LZ2290A**

- Wiper/Automatic reverse feed function
  - Provided

- Auto-lifter
  - Not provided
  - Provided

For LZ-2290A-SU (anti-material-slip capability), select "Not provided."
### Specifications

<table>
<thead>
<tr>
<th>Machine head type</th>
<th>Dry-head type</th>
<th>Minute-quantity lubrication type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model name</td>
<td>LZ-2290A-DS</td>
<td>LZ-2290A-DU</td>
</tr>
<tr>
<td></td>
<td>LZ-2290A-DS-7</td>
<td>LZ-2290A-DS-7</td>
</tr>
<tr>
<td></td>
<td>LZ-2290A-SS</td>
<td>LZ-2290A-SS-7</td>
</tr>
<tr>
<td></td>
<td>LZ-2290A-SU</td>
<td>LZ-2290A-SU-7</td>
</tr>
<tr>
<td>Type</td>
<td>Standard</td>
<td>Anti-material-slip capability type</td>
</tr>
<tr>
<td>Max. sewing speed</td>
<td>4,000sti/min*</td>
<td>5,000sti/min*</td>
</tr>
<tr>
<td>Max. zigzag width</td>
<td>10mm (in increments of 0.1mm)</td>
<td></td>
</tr>
<tr>
<td>Thread take-up</td>
<td>Rotary type</td>
<td></td>
</tr>
<tr>
<td>Needle throw mechanism</td>
<td>Computer-controlled</td>
<td></td>
</tr>
<tr>
<td>Max. Stitch length</td>
<td>5.0mm</td>
<td>2.5mm</td>
</tr>
<tr>
<td>Max. number of stitches</td>
<td>500 stitches/pattern</td>
<td>500 stitches/pattern</td>
</tr>
<tr>
<td>Continuous stitching pattern</td>
<td>Max. 10 patterns, 20 step, 500 stitches/step</td>
<td>500 stitches/pattern</td>
</tr>
<tr>
<td>Bobbin thread winder</td>
<td>Provided as standard (operation panel: IT-100D)</td>
<td>Built-in machine head</td>
</tr>
<tr>
<td>Machine head drive</td>
<td>Compact AC servomotor (direct-drive system)</td>
<td></td>
</tr>
<tr>
<td>Lubrication</td>
<td>No lubrication</td>
<td>Minute-quantity lubrication to needlebar and hook (no oil pan system)</td>
</tr>
<tr>
<td>Lubricating oil</td>
<td>JUKI New Defrix Oil No.1 (equivalent to ISO VG7)</td>
<td></td>
</tr>
<tr>
<td>Distance from needle to machine arm</td>
<td>300mm</td>
<td></td>
</tr>
<tr>
<td>Bed size</td>
<td>178mm x 517mm</td>
<td></td>
</tr>
<tr>
<td>Power requirement/Power consumption</td>
<td>Single-phase 100–120V, 200–240V, 3-phase 200–240V</td>
<td>Power rating 600VA</td>
</tr>
<tr>
<td>Total weight</td>
<td>98kg (without automatic thread trimmer)</td>
<td>100kg (with automatic thread trimmer)</td>
</tr>
</tbody>
</table>

* “sti/min” stands for “Stitches per minute”