



SEWING MACHINES

JOANN'S FIELD GUIDE

NAME

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Introduction

Hi there! Welcome to JOANN's Field Guide to Sewing Machines.

If you picked this up, you must be interested in buying a machine or have one that you've always wanted to use but never knew where to start. Lucky for you, we've got lots of tips!

For specific projects and inspiration, make sure to visit joann.com/projects. But if you need some basic information to get started, you've got the right guide in your hands. After reading through this information, you'll know more about how to select the right machine, understand its basic parts and how to take care of it.

As always, we can hardly wait to see what you make. Share with us! #handmadewithjoann

Choosing the Right Machine

When buying a sewing machine, there are several questions you need to answer. What do you want to make with it? How much do you have to spend? Will it still serve your purpose as your skills improve? JOANN has a wide selection of machines for all skill levels, and the experts to demonstrate them and help you make a decision. Here are some factors to consider as you shop:

- Determine your budget.
- Be honest with yourself about how much time you will actually spend at your sewing machine.

- Consider what you will be using the machine for. Sewing machine types and quality range from very basic machines meant for only occasional mending to very high-end machines meant for sewing multiple layers of upholstery material. There are even machines that will embroider just about anything. The costs range from around \$150 to more than \$15,000.
- Research different stitches and special features. This will help give you an idea of what you'll get for your money in various price ranges.
- Narrow down your search to two or three preferred machines. Return to your local JOANN store and ask for a demonstration of each of those machines.
- Compare your budget to the price of the machine you want. Decide what, if any, compromises or adjustments you'll have to make if they don't quite match.
- After you buy your machine, take the time to read the instruction manual so you know how to use it and care for it for years to come.

TYPES OF MACHINES

Mechanical Machine

If you're an occasional sewer or on a budget, consider a mechanical machine. A typical machine requires you to manipulate most controls by hand but can handle the basic repairs, hems, simple clothing and crafts projects.

Electronic Machine

If you sew frequently or can spend more money, an electronic machines can be a worthwhile investment. These shift many tedious sewing jobs from your hands to computer chips. A typical machine offers touchpad controls, LED screen, an array of specialty presser feet for different applications such as piping or topstitching and settings for dozens or even hundreds of stitch types.

Embroidery/Sewing Machine

In addition to all of the features and options found in an elaborate electronic machine, you can also monogram and embroider garments, bedspreads, totes, pillowcases and more.

The dual machine holds a hoop under its needles and moves in all four directions as the needle sews. Designs can be built into the machine's memory, linked from your computer or purchased on memory cards, CDs and data sticks. A touch screen or computer link lets you position the design and specify colors for design elements. Many machines let you resize, reposition and mirror designs. They can even alert you when it's time to change thread colors.

Serger

Also known as an overlock sewing machine, a serger uses loopers fed by multiple thread cones rather than a bobbin.

Embroidery

A dedicated machine that allows you to sew designs on fabric as decoration or a piece of art.

SEWING MACHINE SPECIAL FEATURES

Even the most basic machine should be able to handle a variety of fabrics without stretching or puckering the fabric or producing loose, loopy stitches.

Automatic Buttonholer

Sew a buttonhole in one step without having to stop and turn the fabric or manipulate a dial. Some machines allow you to insert the button into a slot so the machine will sew a buttonhole to fit.

Feed-Dog Adjustment

Some machines allow you to drop the toothy mechanism below the sewing surface to do freestyle embroidery or darning.

Good Ergonomics & Controls

The machine should be responsive to pressure on the foot pedal. It should not stall or growl when sewing thick fabric or multiple layers. The controls should be easy to reach and manipulate, and the symbols on the machine or LED display should be easy to read. A machine with more room to the right of the needle provides more space for fabric and your hands.

Lightweight

If you'll be storing the machine in a closet and hauling it out when you want to sew, look for a machine that's easy to lift and has a handle on top.

Needle Position

This feature allows you to move the needle and stitching line from left to right with the needle up or down when you stop. Needle down makes it easy to lift the pressure foot and turn a corner without a jump stitch.

Needle Threader

A needle threader pulls the thread through the eye of the needle to prevent squinting and frustration.

Specialty Presser Feet

Find out how many come with the machine. For basic sewing, a multipurpose foot lets you do straight and zigzag stitches, but you'll want a zipper foot and buttonhole foot, too. An adjustable presser foot regulates how tightly the machine holds the fabric while you sew, preventing puckering in fine fabrics and stretching in knits. Check to see what other specialty presser feet are available for your machine.

Speed Control

Determine the pace at which fabric is fed through the machine. Speed control enables you to sew at a nice, steady tempo rather than frequently stopping and starting.

Top-Load Bobbin

Unlike older machines that required you to thread the bobbin in a recessed compartment, many of today's machines allow you to simply slide open a panel and drop the bobbin in. A clear cover lets you see when thread is running low.

Anatomy of a Sewing Machine

Bed - The flat part of the sewing machine where fabric lays and the throat plate, slide plate and feed dogs are located.

Spool pin - Place at top of machine that holds thread spools in place; the first step for threading the machine.

Bobbin winder spindle - Also located at the top of the machine. Holds bobbin while thread is wound. Move it to the left when not in use and to the right to wind the bobbin thread.

Bobbin winder stopper - Pulls thread back after each stitch to prevent tangles.

Stitch width dial - Dial used to adjust the width of decorative and zigzag stitches.

Pattern selector dial - Dial used to select the type or pattern of stitch needed.

Hand wheel - Moving this makes the take-up lever and needle go up and down. The main purpose is to be able to slowly turn the needle by hand, giving you control to position the fabric under the needle. It also turns when the machine is running.

Stitch length dial - Dial used to control the length of the stitches.

Reverse stitch lever - Lever or button that, when pressed, allows machine to stitch backwards.

Power switch - Switch on right side of machine that turns the machine off and on. The light comes on when the machine is turned on.

Thread tension dial - Regulates the amount of tension on your thread as it travels through the machine.

Thread take-up lever - Feeds thread from spool to needle as it moves up and down.

Needle clamp screw - Small, flat screw just above the needle that holds it in place. A needle clamp screw is used to change the needle when it breaks or you need a different size/type of needle.

Presser foot - Holds fabric in place when lowered by applying pressure on the fabric as it is fed under the needle by the feed dogs.

Guidelines - Lines on the throat plate used to guide the edge of the fabric against in order to sew seams the same width.

Bobbin cover - Covering that slides out or is removed to access the bobbin case to place or remove the bobbin.

Feed dog - Regulates the stitch length as it feeds the fabric through the machine under the presser foot while sewing the fabric.

Needle - Part that you thread the upper thread through the fabric to form the upper part of the stitches.

Needle plate - The metal part located on the bed of the machine, under the presser foot. It protects the bobbin and bobbin case. It also has guideline markings that help keep stitching straight.

Types of Stitches

Straight or Lockstitch - Produced when the needle has no sideways movements and when the feed dogs are following only in the normal forward movement. Because its two threads run straight and parallel, a straight stitch does not stretch.

Chainstitch - A sewing and embroidery technique in which a series of looped stitches form a chain-like pattern.

Overlock - A kind of stitch that sews over the edge of one or two pieces of cloth for edging, hemming or seaming. Usually a serger will cut the edges of the cloth as they are fed through.

Coverstitch - Formed by two or more needles and one or two loopers. Like lockstitch and chainstitch, coverstitch can be formed anywhere on the material being sewn.

Zigzag - A variant of the straight stitch, it's a back-and-forth stitch used to prevent raveling of fabric, stitch stretchable fabrics and temporarily join two work pieces edge-to-edge.

Blind - Similar to the zigzag stitch, except the needle zigs to the side and then zags back only once every fourth or fifth stitch. It's used to reduce the visibility of hems and other seam edges.

Stretch stitch - Used specifically for stretchability.

Decorative - Customized patterns sewn through an additional set of programmable motors, allowing you to embroider thousands of different designs.

Sewing Machine Needles

Sewing machine needles can literally make or break your sewing project, so it is important to choose the right needle for each project.

Machine needle sizes are always given in the American sizing system and the European metric sizing. Most needle companies show both sizes on the package.

- Size 9/70 is suitable for light fabrics, silk and taffeta.
- Size 11/80 is suitable for medium fabrics, cotton, linen and satin.

- Size 14/90 is suitable for medium to heavy fabrics, making it an ideal in-between needle.
- Size 16/100 is suitable for heavy fabrics, denim, tweeds, curtain and upholstery fabrics.

TYPES OF NEEDLES

There are 3 basic types of machine needles: sharp/microtex, universal and ball point. There are many other needles for working with certain fabrics, threads and stitches.

Sharp/Microtex Needles

Sharp point needles are for use with tightly woven fabrics. They have a very slim, acute point that creates beautiful topstitching and perfectly straight stitches for quilt piecing. These needles come in varying sizes from the finest, size 9, to the heaviest, size 18.

Universal Point Needles

Universal needles are an all-purpose needle for sewing wovens and knits. The point is slightly rounded and the needle is tapered so that it slips through the weave of knits easily while still retaining enough sharpness to pierce woven fabrics. Universal needles typically come with all sewing machines. They are available in many different sizes with the 14/90 and the 11/75 being the most popular.

Ball Point Needles

Ball point needles are made especially for sewing on knits. The rounded point is designed to slide between the yarns of knit fabrics without snagging. They come in size 10/70 through 16/100. Choose the size according to the thread.

Stretch Needles

Like a ball point needle, stretch needles have a rounded point. Best for fabrics with high elasticity, Lycra, swimwear and lightweight or fine knits. The shape of the eye and scarf are designed to create a longer thread loop to prevent skipped stitches.

Jeans Needle

Jeans needles have a point designed for penetrating extra thick fabrics and a reinforced blade to reduce breakage and skipped stitches. They are made for heavy-duty stitching and are suitable for denim and similar fabrics.

Twin Needle

Twin needles are actually two needles mounted on one shaft to create two rows of stitches simultaneously. They use two spools of thread and one bobbin thread. The package will show two numbers: the needle size and the distance between the two needles. This distance varies from 2 to 6 millimeters. The needles must fit through the hole in the stitch plate, so you may need to change to a zigzag stitch plate to avoid hitting the plate with the needles.

OTHER SPECIALTY NEEDLES

Metallic Needle

A must-have for sewing with sensitive metallic threads, as the elongated eye prevents shredding and breaking.

Embroidery Needle

The special scarf, widened groove and enlarged eye protect fragile threads and guard against excess friction for trouble-free embroidery and decorative stitching.

Quilting Needle

Made especially for piecing and machine quilting. The special tapered design allows easier fabric penetration and helps eliminate skipped stitches.

Topstitch Needle

For topstitch, heavy, multiple or poor quality threads. Achieve perfectly straight stitch lines and even stitches when used with a straight stitch plate.

Leather Needle

Wedge shape with slightly sharp cutting point cuts pierces leather, heavy non-woven imitation leathers and suedes without creating large holes.

OTHER NEEDLE TIPS

- Change needles before each sewing project or after 8 hours of sewing.
- Sergers, embroidery or other specialty machines may use different needles. Check your manual.
- Promptly replace a dull or damaged needle to prevent damage to fabric and machine.
- For the most part, sewing machines needles work in all sewing machines. But there are a few brands that need specific needles, so check your manual first.

Quick Start Guide

THREADING THE MACHINE

- Turn the hand wheel toward you until the needle is in the highest position.
- Raise the presser foot to allow the thread to seat itself properly in the tension disks. Incorrect top tension causes a tangle of loose threads on the underside of the seam.
- Firmly grip the thread at the top of the machine with one hand while threading with the other so thread is properly positioned.

BOBBINS

- Each sewing machine requires a certain bobbin style. Always use bobbins made specifically for your machine.
- An evenly wound bobbin will turn smoothly in the bobbin case and produce quality stitches.
- Do not wind thread over existing bobbin thread. It affects the tension.
- Purchase extra bobbins and keep a variety of thread colors on hand.

THREAD TENSION

- Straight stitch seams require balanced tension, with the top thread and the bobbin thread locked together in the middle of the fabric layers. Using the same thread on both the top and bottom helps maintain even tension.
- Satin stitch and bobbin thread look better with the top tension a bit looser and the top thread slightly visible on the wrong side.
- When using embroidery thread on the top and polyester bobbin thread in the bobbin, tension adjustments may be required.

FOOT CONTROL

- The foot control operates just as the gas pedal does in a car - the more pressure applied to the pedal, the faster the sewing machine will go. Practice speed control and coordination.
- If the foot control slides on the floor, apply hook & loop tape on carpeting, or use a non-slip pad on hard floor surfaces.

FEED DOGS

- The feed dogs move the fabric under the presser foot and control the stitch length by how far the fabric moves each stitch. Let the feed dogs move the fabric. Do not push or pull the fabric while stitching, as it may bend or break the needle.

Care & Maintenance

CLEANING & LUBRICATION

- To keep your machine running smoothly, regularly clean, lubricate and tighten loose screws.

- Have your machine serviced at regular intervals.
- Before cleaning or lubricating any machine, unplug it and fully raise the needle.
- Softly brush or vacuum feed dogs and bobbin area to remove lint.

TROUBLESHOOTING

- Keep the user's manual handy, and refer to it often. It shows you how to thread, operate and maintain your machine.
- Become familiar with the machine parts to understand directions and communicate problems.
- Plug the machine into a surge protector.
- Don't force the machine if it stops moving, sounds wrong or stitches incorrectly. Stop sewing and find the cause. It can be as simple as rethreading.
- Turn off the power or unplug the machine when not in use, especially if children are in the house, and before troubleshooting for your safety.
- If it's difficult to heel the pressure on the foot control pedal, try it barefoot.
- Before changing settings when experiencing skipped stitches or tension problems, try rethreading the machine, cleaning lint from the bobbin case and feed dogs and changing the needle.
- When changing thread colors, snip the thread at the spool and pull the thread through its normal path instead of pulling it through the top. This is better for your machine and will reduce the risk of tension issues.

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