Some sewing machines have a dozen different buttonhole shapes. Rounded ends, flat ends, satin stitches, zigzags. Which one do you need?

The Shape of Things

Machine-stitched buttonholes essentially come in two shapes: straight and keyhole. Straight buttonholes have either blunt or rounded ends. Straight buttonholes are appropriate for most light- to medium-weight garments. Keyhole buttonholes have a round opening on one end to accommodate a heavy metal, plastic or thread button shank and are used with thick fabric found on tailored jackets and coats (1).

When home sewing machines were straight stitch only, buttonholes were made via a separate attachment controlled by cams. The cam determined the shape and buttonhole length, while the attachment’s toothed underfoot gripped the fabric, providing a feed mechanism to move the fabric in any direction. The material moved under the stationary needle, and buttonholes with curved ends were the norm.

Zigzag machines entered the market and brought automatic, built-in buttonhole capabilities. Without the cam attachment, only side-to-side motion was possible.

Buttonholes were stitched with a wide zigzag capping each end, resulting in blunt-ended buttonholes.

Electronic sewing machines combine the capabilities of both predecessors, so new machines are capable of many buttonhole end shapes: oval, pointed, blunt, keyhole, etc. Deciding which to use can be a matter of style as well as function.

Stress Control

Rounded buttonholes are the best choice on blouses and lightweight garments. The fan of stitches at either end secures both warp and weft fibers for the most secure finish on loosely woven fabrics. The rounded shape also complements the femininity of women’s garments.

A buttonhole with one rounded and one blunt end should be stitched horizontally, with the rounded end near the center line. Buttonholes with two identical ends can be used horizontally or vertically.

Keyhole buttonholes are used on heavyweight garments and with shank buttons. The rounded end is positioned at the centerline so the button sits in the eyelet when fastened.

While most machine buttonholes are created with closely packed satin zigzags, some are more functional with a longer stitch that spaces the needle penetrations. Some machines include openwork buttonholes (2), and others allow manual changes in stitch length. Openwork buttonholes are sometimes designated "heirloom" buttonholes because they
mimic the look of hand-worked fastenings. The longer stitch length also produces good results in buttonholes on knit fabrics.

**Corded Buttonholes**

Use a corded buttonhole technique to insert a fine cord under the buttonhole stitches. Crochet cotton or gimp can be used as the cord, or work with four or more strands of sewing thread for cord that matches the buttonhole thread color. The rigid cord will keep the buttonhole smooth and ripple free for the life of the garment, even on stretchy knits. The owner’s manual or instructions accompanying the buttonhole foot provide machine-specific instructions, and here’s an overview of the process.

- Select a sturdy cord small enough to be covered by the buttonhole stitches. It’s important that the needle passes over the cord without piercing it.

- Fold the cord about 3” from one end and position the fold over the extension at the rear of the buttonhole foot. Bring both ends forward to the guides at the front of the foot (3).

- Position the buttonhole foot on the garment, lower the presser bar and stitch the buttonhole. The zigzags should cover the cord neatly along both sides (4).

- When stitching is complete, remove the presser foot and pull gently on the cord to draw the loop against the buttonhole end. Thread the cord ends into a large-eyed needle and pull them to the garment wrong side. Secure and trim the cord ends.

**Knit Wits**

Creating buttonholes on stretchy knit fabrics presents special challenges. While knits generally won’t ravel, they can run, and their stretch can result in rippling or gaping buttonholes.

The first secret to knit buttonhole stitching is stabilization. If a sturdy, non-stretch fusible interfacing has been applied to the buttonhole area during construction, it may provide the necessary structure. However, most knit garments utilize lightweight interfacing to preserve the fabric drape and stretch.

Supplement the interfacing with a lightweight iron-on tear-away stabilizer used by machine embroiderers. Cut the stabilizer larger than the buttonhole area and, following the manufacturer’s instructions, iron the stabilizer onto the project’s wrong side. After the buttonholes are stitched, remove the excess stabilizer.

Tear-away stabilizer supports the project only during construction. For the stretchiest knits, continuing stabilization is needed and corded buttonholes provide the solution. Closely packed zigzag stitches can also create ripples in buttonholes on knits. The satin stitch used for buttonholes on woven fabrics puts too many threads between yarns in the knit, forcing adjacent stitches apart and forming waves. The solution is a simple one: adjust the zigzag stitch to a longer length. If the machine offers an heirloom buttonhole setting, it may have the open stitch configuration most appropriate for knits. Check the owner’s guide for other options, including manual stitch length adjustment. Always stitch a test buttonhole on scraps of interfaced and stabilized fabric to be certain the features chosen are the best for a particular project.

For more information on buttonholes, see Guideline 12.230.