



ROYAL PRESENT
EMBROIDERY

PRACTICAL MACHINE EMBROIDERY FAQ

How to Sew Metallic Thread

Needle, tension, spool position, hooping, stabilizer, bobbin and design density - explained for round metallic, Sliver and Holoshimmer thread.



Prepared for Royal Present Embroidery clients

Metallic thread is a specialty decorative thread, not a construction thread. The settings in this guide are starting points; always test the exact design, fabric, stabilizer and thread combination.

01

What is the difference between metallic threads?

Metallic thread is not one universal material. Its construction controls how it reflects light, how it should unwind and how much abrasion it can tolerate.



ROUND METALLIC

twisted and bonded around a core

SLIVER

flat mirror-like ribbon

HOLOSHIMMER

flat holographic ribbon

Round metallic

Foil is wrapped and bonded around a strong core. It is flexible, usually the easiest metallic type for beginners, and is commonly sold around 30 wt.

Sliver

A thin, flat metallized ribbon. Its broad face reflects more direct light than round thread. It must enter the tension path flat and untwisted.

Holoshimmer

A flat holographic ribbon with changing rainbow reflection. It follows the same low-friction and flat-feed rules as Sliver.

The first tension rule

- Round metallic: begin by lowering the upper tension about 1-2 machine steps from the normal setting.
- Sliver and Holoshimmer: they often need a larger reduction, around 2-3 machine steps, because flat ribbon is more sensitive to twist and friction.

Machine scales are not universal.

A number such as 2.0 or 3.0 means something different on different machines. Change tension gradually and judge the stitch balance, not the number alone.

02

Needle, tension, speed and thread delivery

90/14

METALLIC OR TOPSTITCH

long eye = less scraping

Q: When should I use a metallic needle?

Start with a new 90/14 metallic or topstitch needle. The longer eye gives the thread more space and reduces scraping. A 100/16 can be useful for a heavier thread or heavier fabric. An 80/12 metallic needle may work, but it can be too tight for some thread-and-machine combinations.

- Replace the needle after repeated breaks, a needle strike or any suspected burr.
- Confirm the correct needle system for the machine before stitching.

Q: How should flat metallic thread unwind?

Place Sliver or Holoshimmer on a vertical spool pin with a felt pad underneath. The spool should rotate while the ribbon leaves tangentially and remains flat. Pulling flat ribbon off the end of a horizontal spool adds twist and often causes fraying or breakage.



Correct flat-thread delivery: the spool rotates, the felt pad controls movement, and the ribbon enters the first guide without corkscrewing.

Adjustment	Reliable starting point	What to watch
Speed	Slow the machine down. Begin around 350-500 stitches per minute.	If breaks return after increasing speed, return to the last stable setting.
Upper tension	Lower gradually. Flat ribbon usually needs more reduction than round metallic.	Bobbin thread on top means upper tension may still be too tight. Large loose loops can mean it is too low.
Thread path	Rethread with the presser foot raised and inspect every guide.	Remove snags, sharp edges, label catches and unnecessary changes of direction.

03

How should I hoop and stabilize the project?

Metallics dislike abrasion and unstable fabric. The best setup is firm enough to prevent bounce, but smooth and flexible enough that the thread is not dragged across a coarse, rigid surface.



Fabric and stabilizer are hooped together, flat and smooth. The fabric is supported - not stretched.

1. Prepare

Cut stabilizer larger than the hoop. Press the fabric first. If temporary spray adhesive is needed, apply a light, even mist to the stabilizer - never soak the needle area.

2. Hoop

Hoop the fabric and stabilizer together whenever the item allows it. Smooth both layers, align the grain and tighten only enough to prevent slipping.

3. Check

Run Trace or Hoop Check. Confirm that no clamp, seam, thick edge or adhesive buildup lies in the needle path. Stitch a complete sample first.

Choose the stabilizer by fabric and stitch load

Project	Practical stabilizer setup
Stable woven cotton or linen	Smooth medium tear-away for open motifs; use cut-away when the design or fabric needs permanent support.
Light or loosely woven fabric	Light cut-away or no-show mesh can reduce movement and puckering.
Towel or pile fabric	Stable backing below plus water-soluble topping above so metallic stitches remain visible.
Stretch fabric	Cut-away backing; hoop without stretching the knit.

Avoid coarse, very stiff backing when a smoother option will support the project.

A rough stabilizer edge can increase friction as the fabric flexes under the needle. Stabilization must still be strong enough for the design - softness alone is not the goal.

04

Will any computerized embroidery design work?

Most embroidery files are digitized for 40 wt rayon or polyester. A conventional round metallic thread is commonly treated as about 30 wt, so the machine is placing more material into the same stitch area. Flat metallic ribbons have no standard weight number, but they still need room to bend and move.

MORE METALLIC-FRIENDLY



HIGHER RISK



Better candidates	Higher-risk construction
Open snowflakes, stars, scrolls and outlines	Large, dense fills with many overlapping layers
Longer running, bean or decorative stitches	Very short stitches that force metallic thread into sharp bends
Moderate satin columns with clean underlay	Dense satin over heavy underlay or repeated overlaps
One metallic highlight inside a mixed-thread design	Thick applique layers, coarse fusible web or adhesive buildup

Q: Should I enlarge the design?

A very small enlargement without increasing stitch count can create a little more space between stitches, but resizing is not a universal repair. Do not resize blindly: it can change stitch length, registration and satin-column behavior. The safer choice is to use the original prepared size and select an open area or an open design for metallic thread.

Q: What should I change first if the design keeps breaking thread?

- Slow down before editing the embroidery file.
- Use a new 90/14 metallic or topstitch needle.
- Correct the spool position and remove twist.
- Reduce upper tension in small steps.
- Check for heavy layers, adhesive, coarse stabilizer and dense short stitches.

Poor digitizing cannot be repaired with tension.

If a design is very dense, contains excessive overlaps or uses many tiny stitches, metallic thread may never run reliably. Test the same area with regular 40 wt embroidery thread to separate a thread problem from a design problem.

05

Bobbin thread and decorative stitches

Q: Can metallic thread be used in the bobbin?

Some machines can handle round metallic thread in the bobbin, but it is not the safest default for machine embroidery. Begin with a smooth 60 wt polyester bobbin thread. It adds less bulk and lets the metallic top thread form a clean stitch.

Standard setup

60 wt polyester bobbin thread. This is the most predictable choice for normal embroidery.

Invisible option

Fine polyester monofilament can coordinate with the metallic effect when the technique calls for it. Wind it very slowly and only about half-full.

Metallic in bobbin

Use only after a controlled test on the specific machine. Wind slowly, reduce bulk and stop if tension becomes unstable.

Q: What if prewound bobbins cause poor tension?

Test a correctly wound standard bobbin before changing the needle, design or upper thread settings. Some machines accept a particular prewound style; others balance better with a self-wound bobbin.

Q: Can metallic thread be used for decorative machine stitches?

Yes, but the same room problem still applies. Choose open decorative patterns, avoid very dense satin-style stitches and lengthen or enlarge the stitch only when the machine provides a controlled setting that does not distort the pattern.

Check	Decorative-stitch setup
Needle	New 90/14 metallic or topstitch needle.
Spool position	Vertical pin with felt pad for Sliver and Holoshimmer; smooth, snag-free feed for round metallic.
Upper tension	Lower 1-2 steps for round metallic; often more for flat ribbon. Adjust by stitch balance.
Speed	Slow the machine and listen for changes in sound through dense stitch areas.
Stitch choice	Prefer open motifs and longer stitches. Avoid tight, tiny and highly layered patterns.

Bird-nesting means stop and rethread.

Remove the nest, raise the presser foot, rethread the upper path completely and reseal the bobbin. Do not keep lowering tension if the take-up lever was missed.

06

Fiber content, weight and care

The following figures describe the Sulky thread families discussed in the original manufacturer FAQ. Product generations and regional labels can change, so the current spool label is the final authority.

Thread family	Manufacturer-listed fiber content	Weight
Original Metallic 142/143	59% nylon, 40% polyester, 1% metallic component	30 wt
Sliver and Holoshimmer 145	59% polyester, 40% polyethylene, 1% metallic component	No standard weight designation

Q: Why does the weight number matter?

Most computerized embroidery is built around 40 wt rayon or polyester. A 30 wt round metallic is thicker, so dense areas can become overfilled. Sliver and Holoshimmer are very thin films, but their flat construction makes twisting and sharp bends more critical than a conventional weight number.

Q: Is metallic thread a construction thread?

No. Use metallic thread for decorative sewing and embroidery, not for seams that carry load. A beautiful reflective surface does not replace the strength, flexibility and abrasion resistance required for construction stitching.

Care follows the specific spool label.

The Sulky metallic families discussed here are presented by the manufacturer as suitable for hand and machine work and as washable and dry-cleanable. For any other brand, verify washing, drying and ironing instructions before using the thread on a finished product.

Heat and storage

- Press from the reverse through a clean pressing cloth; avoid direct high heat on flat film.
- Keep spools dry, covered and protected from crushing or sharp creases.
- Secure the loose end so the ribbon cannot tangle or kink between uses.
- Wash a sample when the finished item will be laundered frequently.



Open ornamental motifs let metallic light follow the stitch direction without forcing reflective thread into a solid dense fill.

07

Do I need a thread director or lubricant?

Q: What does a thread director do?

A thread director or controlled external delivery system lets the spool rotate and sends thread toward the machine without pulling it off the end of the spool. It can solve twisting, resistance and sudden tension changes when the machine's built-in spool position is unsuitable.



Q: Is it always necessary?

No. If the thread already feeds smoothly, stays flat and stitches without breaks, no extra device is required. Use a director or compatible auxiliary stand when a correct needle, tension and slow speed do not eliminate twist or drag.

Q: When should I use thread lubricant?

Lubricant is a last adjustment, not the first. Use only a product intended for sewing thread and accepted by the machine manufacturer or dealer. Apply the smallest amount needed. Never substitute household oil or an unverified spray.

Symptom	First correction
Thread shreds at the needle	Install a new 90/14 metallic/topstitch needle, slow down and lower upper tension slightly.
Flat ribbon twists or looks dull	Move it to a vertical spool pin with felt pad or a controlled thread director.
Bobbin thread shows on top	Check bobbin insertion, then lower upper tension in small steps.
Loops or a nest form underneath	Stop, clear the nest and rethread with the presser foot raised.
Breaks happen only in dense areas	Use regular 40 wt thread there or choose a more open design.

The seven-point metallic checklist

1. New 90/14 needle.
2. Correct spool position.
3. Flat thread stays flat.
4. Lower upper tension gradually.
5. Slow speed.
6. Smooth, stable hooping.
7. Avoid dense tiny stitches.

Royal Present Embroidery

Practical guidance for beautiful, reliable machine embroidery.

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