

AAO 2020 Virtual Edition

PENETRATING KERATOPLASTY (PK) SUTURES

The challenge in performing a penetrating keratoplasty (PK) is to place the sutures for donor cornea fixation in a way that no additional postoperative iatrogenic astigmatism is induced, preventing persistent vision deterioration.

THE SOLUTION

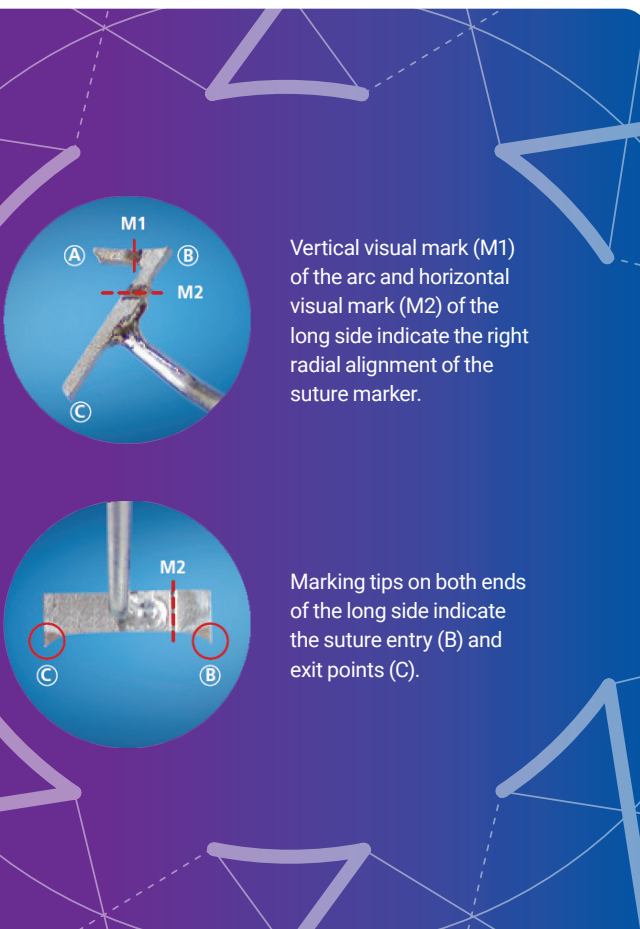
Homburg Cross-Stitch Suture Marker by *Dr. Suffo*

The cross-stitch suture marker by *Dr. Suffo* in the shape of number 7, provides both new and experienced surgeons with a highly effective corneal marker to shorten the learning-curve and produce an accurate path for a running cross-stitch suture in penetrating keratoplasty.



ADVANTAGES OF THE INSTRUMENT

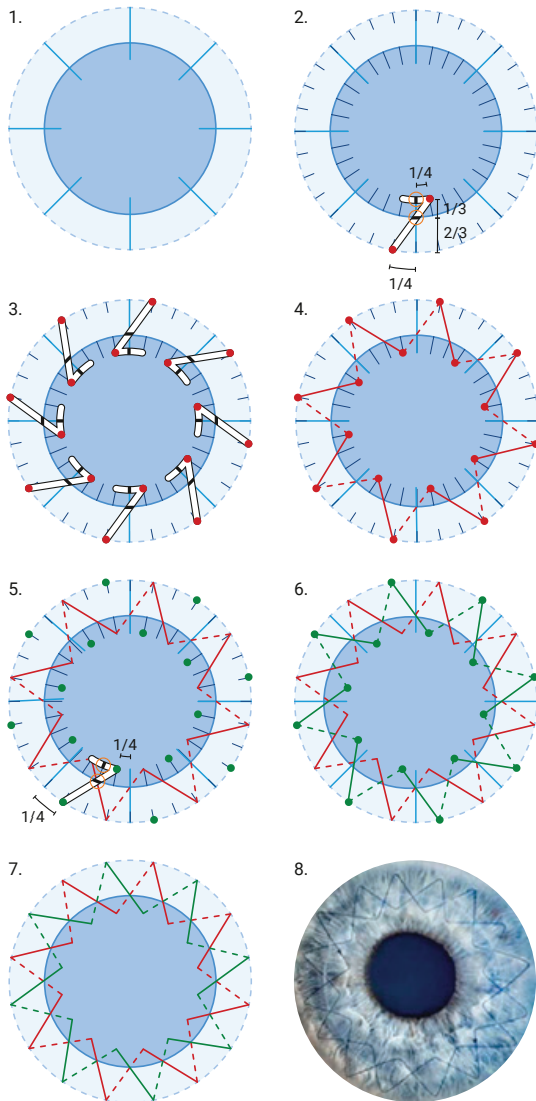
- Precise marking of the needle entry and exit points
- Homogenous running cross-stitch suture
- Highly reproducible
- Short training curve
- High safety for the surgeon through independence of visual estimate
- Neutral astigmatism
- Reduced risk of a vertical tilt or horizontal torsion of the donor cornea when suturing
- High topographic regularity (regular astigmatism)
- Low rate of suture loosening
- Early visual rehabilitation
- Reduction of gaping inner and outer wound margins
- Reduced rate of suture repositioning



G-S03956 Homburg Cross-Stitch Marker by Dr. Suffo

Corneal suture marker for precise visual marking of the suture entry and exit points of a running cross-stitch suture in penetrating keratoplasty (PK). For 8 mm transplants (grafts).

Geuder
Precision made in Germany



1. Provisional fixation of the donor cornea

Use an 8-blade corneal transplant marker to place the provisional cardinal sutures with simple interrupted stitches.

Suggested markers (see page 3):
G32224 *Thomas Neuhann* Suture Marker
9-732 *Thornton* Radial Marker

2. Marking the first running suture (red dots)

For marking the needle entry and exit points of the first running suture, align the visual marks M1 and M2 with the cardinal suture, so that M2 sits at the transplantation edge (interface).

3. Repeating the markings (red dots)

Repeat this type of marking eight times along each cardinal suture.

4. Positioning the first running suture (red lines)

Perform the first running suture along the red dots in a star-shaped pattern. The dots on the donor cornea constitute the suture entry points. The dots on the recipient cornea (close to the limbus) constitute the suture exit points. The dashed lines indicate suture passage below the cornea, whereas continuous lines indicate suture passage above the cornea.

5. Marking the second running suture (green dots)

For marking the needle entry and exit points of the second running suture, the instrument needs to be placed exactly in between two cardinal sutures. Align the left end of the arc (A) with the entry point of the first running suture, and align M2 with the first running suture at the interface. Repeat this type of marking eight times along the first running suture.

6. Positioning the second running suture (green lines)

Perform the second running suture along the green dots in a star-shaped pattern, as well. The dots on the donor cornea constitute the suture entry points. The dots on the recipient cornea (close to the limbus) constitute the suture exit points.

7. Removing the cardinal sutures

Remove the cardinal sutures after the double running suture is in place.

8. Result

The result is a neat and evenly double running suture by Hoffmann, crossing each other at the interface.

Legend

- Limbus
 - Transplant / trephined recipient cornea
 - Cardinal sutures
 - Markings for first suture path
 - First running suture
 - Markings for second suture path
 - Second running suture
- Instrument
-

Crestpoint Ophthalmics Instruments to use with the G-S03956 Homburg Cross-Stitch Marker



G32224 Thomas Neuhann Suture Marker

8 blades, for keratoplasty, flat handle.
Chromium plated stainless steel, reusable.



9-732 Thornton Radial Marker

8 radial blades, low profile with center pointer, 4.0mm inner diameter, 13.0mm outer diameter, round handle.
Titanium, reusable.



3-205 Castroviejo Needle Holder

7.0mm delicate curved jaws, tag spring, without lock, round handle.
Titanium, reusable.



3-422 Needle Holder

7.0mm delicate curved jaws, tag spring, without lock, round handle.
Titanium, reusable.



3-302 Barraquer Needle Holder

9.0mm delicate curved jaws, hinge spring with lock, round handle.
Titanium, reusable.



G17540 Castroviejo Needle Holder

9.0mm extra delicate jaws, 0.9mm x 0.55mm tips, tag spring, straight with lock. Chromium plated stainless steel, reusable.



G17545 Castroviejo Needle Holder

9.0mm extra delicate jaws, 0.9mm x 0.55mm tips, tag spring, straight without lock. Chromium plated stainless steel, reusable.



MANI 10-0 Nylon Suture

1401, 1401S, 1404, 1404S, 1406
(see table below)

MANI 10-0 (0.2 metric) Needle Sutures

UPS	DESCRIPTION	LENGTH	NEEDLE TYPE	NEEDLE LENGTH	NEEDLE CURVE	NEEDLE DIA.	CODE	APPLICATION	ORDER NO.
10-0	NYLON BLACK MONO	30CM	TRAPE SPATULA	5.0MM	BI-CURVE 90°/50°	0.14MM	ZB05-14	SCLEROCORNEA	1401
10-0	NYLON BLACK MONO	15CM	SINGLE-ARMED	5.0MM	BI-CURVE 90°/50°	0.14MM	ZB05-14	SCLEROCORNEA	1401S
10-0	NYLON BLACK MONO	30CM	TRAPE SPATULA	5.5MM	7/16 158°	0.14MM	ZG055-14	SCLEROCORNEA	1404
10-0	NYLON BLACK MONO	15CM	SINGLE-ARMED	5.5MM	7/16 158°	0.14MM	ZG055-14	SCLEROCORNEA	1404S
10-0	NYLON BLACK MONO	30CM	TRAPE SPATULA	6.0MM	3/8 135°	0.14MM	ZE06-14	SCLEROCORNEA	1406

NANOEDGE SINGLE-USE VACUUM CORNEAL PUNCHES

Vacuum fixates the graft and allows for a perfect circular cut of the corneoscleral donor button. Pressing the cornea down to the cutting block (before cutting) supports a non-slip preparation of the graft.
Sizes 6.0mm to 9.50mm.



NANOEDGE SINGLE-USE TREPHINES 16.0mm TALL

6.0mm tall, seamless blade for precise cuts and controlled post-operative results. Wide range of different sizes in small diameter increments.
Sizes 4.0mm to 18.0mm.

