

INSTRUMENTS FOR

CORNEAL PROCEDURES



AFFORDABLE. RELIABLE. PRECISE.

INTRODUCTION

The last decades have brought a revolutionary shift in the treatment of corneal endothelial disease. 20 years ago the only surgical treatment for corneal disorders was penetrating keratoplasty.

Although used successfully for over a century, penetrating keratoplasty requires many months of refractive adjustments before the eye achieves visual stability. Starting with the advent of posterior lamellar keratoplasty, a number of procedures have been developed, refined, and widely adopted, which have given patients faster recoveries and improved globe stability in comparison to traditional corneal transplantation. Each iteration of endothelial keratoplasty has involved the increasingly selective transplantation of corneal endothelial cells.

Constantly tracking the latest developments in eye surgery, we at RUMEX have designed a lineup of top quality instruments for all up to date techniques of corneal transplantation.

All instruments in this brochure are organized as sets according to the procedures of penetrating and lamellar keratoplasty. Sets are advisory, and if your surgical technique or professional preference requires a customized set, you can easily modify it by picking necessary instruments from a wide range of RUMEX products.

HOW TO PLACE AN ORDER

All the orders can be easily placed and paid online according to your shipping location directly via one of RUMEX online stores or through your local RUMEX representatives.



If your shipping country is USA you are welcome to order at rumex.us



If your shipping country is within Europe please visit rumex.eu to make your order.



For other regions visit **rumex.com** and find your local RUMEX representative.

Pricing

The prices are detected automatically by your location. The pricing policy may vary from region to region. If you are an international customer, please ask your local distributor for the current prices.

Shipping

We provide our retail customers with two delivery options: via local distributor or by direct shipment from our warehouses. Purchasing with our company is simple and convenient. Processing orders guickly and efficiently is a matter of primary importance to us!

Warranty conditions

For all instruments, RUMEX provides a lifetime warranty against any manufacturing or material defects. After carrying out a due expert analysis, if the defect was not caused by the improper handling or misuse, we will provide you either a 100% compensation or a free of charge exchange of a defective instrument for a new one. In some cases when instruments are improperly used or mishandled this may lead to occurrence of nonmanufacturing defects which are not covered by RUMEX lifetime warranty. To avoid such cases please read carefully and always follow our sterilization and care instructions or consult our customer service for proper handling instructions.

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COOPERATION WITH ERIC ABDULLAYEV, M.D., MBA, CEBT

Some of the featured corneal instruments were developed in cooperation with Eric Abdullaev, M.D., CEBT, Manager of Clinical Development and Innovations at Lions Eye Institute for Transplant & Research, Inc., USA.

He's been involved in eye banking community since 1996, after ten years of being cardiothoracic.

Dr. Abdullayev has many scientific publications on new techniques and procedures of eye banking, corneal transplantation and preservation. He is a creator of Nano-Cut Precise[™] and Punch Ready DMEK[™] ocular grafts.





3-0231	Abdullayev Corneal Marker for Keratoplasty Double-Ended (10.00 mm and 11.00 mm Diameters), with Central Marking Point, Round Titanium Handle
3-0230	Abdullayev Scleral Marker for Keratoplasty Double-Ended (16.00 mm and 16.50 mm Diameters), Round Titanium Handle
3-024T	Abdullayev I & II Marker (for DSAEK/DMEK Grafts) Titanium
4-261S	Abdullayev DMEK Grasping Forceps Stainless Steel
4-254S	Lambright-Abdullayev Ultrathin DSAEK Grasping/Inserting Forceps Stainless Steel

DEEP ANTERIOR LAMELLAR KERATOPLASTY (DALK)

Partial-thickness cornea transplant procedure allows to perform selective transplantation of the corneal stroma, leaving the native Descemet's membrane and endothelium in place. "BIG BUBBLE" CREATION 13-172 **Dissector for DALK Procedure** Blunt beveled tip helps to create a track in deep stroma for the further cannula inserting. 15-450-27 Cannula for DALK Procedure, 27 Ga Allows to achieve ideal "Big Bubble" Bottom port 0.2 mm

DEEP ANTERIOR LAMELLAR KERATOPLASTY (DALK)

DISSECTION AND SEPARATION **Trisector for DALK Procedure** 13-170 Facilitates separation of stromal attachments from the Descemet's membrane. Flat tip finishes dissection during «Big Bubble» technique. 13-171 **Spatula for DALK Procedure** Designed to complete any unfinished dissection. The center groove can be used as a guide for the blade facilitating the enlarging of stromal opening. QUADRISECTION Minimal friction Blades are processed by a unique hardening technology promoting 3,000+ cuts without resharpening Matte finish/anti-glare coating to reduce a glare of the microscope Maraging stainless steel 11-0385 Right 11-03815 Left **DALK Corneal Transplant Scissors** Blunt ledge for the protection of Descemet's membrane **Holland Spatulated DALK Scissors** 11-034 Right 11-035 Left Vannas-style scissors feature "micro-blades" that are steeply angled to facilitate the dissection of stromal tissue out to the periphery. T. RUMEX The distal tips of each blade are rounded and blunt to help protecting underlying tissue while cutting.

ENDOTHELIAL TRANSPLANTATION (DMEK, DSAEK, DSEK)

Endothelial transplantation is a surgical procedure that involves replacement of diseased posterior cornea with donor tissue while retaining the anterior corneal layers. The aim is to replace only the dysfunctional endothelial layer with healthy functioning endothelium.

DLEK (Deep Lamellar Endothelial Keratoplasty)

DSEK (Descemet's Stripping Endothelial Keratoplasty)

DSAEK (Descemet's Stripping Automated Endothelial Keratoplasty)

DMEK (Descemet's Membrane Endothelial Keratoplasty)

GRAFT PREPARATION

13-185

Tan Marginal DMEK Dissector



Double-tipped end is designed for cutting the peripheral ends of donor Descemet's membrane (DM) without risk of radial tears occurrence. Curved single-tipped end is used for convenient separation of the DM from the stroma.



3-208T

DMEK/DSAEK "S" Marker



- Thin "S" leaves a fine line with less ink transferred to the corneal stroma
- Optimal angle provides for better visualization of "S" while marking

GRAFT PREPARATION

Designed in cooperation with Eric Abdullayev, M.D., CEBT, Lions Eye Institute for Transplant & Research, Inc., USA.

3-0230 Abdullayev Scleral Marker for Keratoplasty



- · Double-ended (16.00 mm and 16.50 mm diameters)
- Assists in scleral rim trimming process for corneas with large scleral rim prior to microkeratome processing
- · Eliminates additional measurement

3-0231 Abdullayev Corneal Marker for Keratoplasty



- Double-ended (10.00 mm and 11.00 mm diameters)
- · With central marking point
- Improves centration of the cornea during DSAEK microkeratome preparation
- Allows quick placement of the central dot
- · Facilitates placement of the donor corneas on to the donor punch

3-024T Abdullayev I & II Marker for DSAEK/DMEK Grafts

NEW





- · More stable staining
- Allows to apply 1.5 mm straight I & II marks at the very edge of the graft
- No additional tissue manipulation (no punch holes, no folding or unfolding of the graft)
- · Saves time during graft preparation



4-240

Guell DMEK Forceps

Designed to assist the removal of endothelium from the donor cornea.





Highly polished broad tips allow to peel the endothelium safely without the risk of tearing.

4-261S

Abdullayev DMEK Grasping Forceps

NEW

Designed in cooperation with Eric Abdullayev, M.D., CEBT, Lions Eye Institute for Transplant & Research, Inc., USA.





- Improved angle between grasping platform, the rest of the forceps allows relaxing hand position and more control when in use
- Horizontal thin grasping platforms provide more stability in membrane holding during separation

MARKING John DSAEK Double-Ended Marker 3-204T **NEW** 8.00/9.00mm · Used to mark recipient and donor cornea · Combines popular diameters of 8.00 and 9.00 mm A circular mark on the recipient's cornea serves as a guiding mark for Descemetorhexis. DISSECTION 13-137 **Corneal Dissector** For efficient intrastromal dissection Straight **Corneal Dissector** 13-138 Used to complete dissection of the proximal corneal stroma. Blade of the dissector contours to the corneal curvature to ensure efficient intrastromal dissection. Curved

DESCEMET'S MEMBRANE REMOVAL 5-0322 **Reversed Sinskey Hook** · Ideal for scoring the recipient bed and placing the donor lamella · Blunt tip gently breaks through Descemet's membrane, guarantees soft membrane segmentation, allows easy location of donor's lamella Easy access to Descemet's membrane 0.15 mm tip 13-139/1 **Irrigating Endothelial Stripper** Thin, semi-circular tip, angled 90° upward from the irrigation tube, is used to gently peel and remove the endothelial layer.

DESCEMET'S MEMBRANE REMOVAL

The DMEK forceps have been designed to assist in DMEK procedures. The forceps are used to peel off the Descemet's membrane once it has been scored with the Descemet's spatula.

4-251

Cross-Action DMEK Forceps

Cross-action protects the incision from hyperextension.





Reversed delicate tips hard-faced with tungsten carbide for even greater grasping ability.

4-262

ΔVΔΙΙ ΔΒΙ Ε MODIFICATION

Round Titanium handle



4-262S

ΔVΔΙΙ ΔΒΙ Ε MODIFICATION

Flat Stainless Steel handle



4-246S

Florakis Endothelial Forceps

Reversed triangular tips, angled at 75° provide great visualization and precision while grasping the corneal tissue.



Tungsten carbide coated platform for even greater gripping ability



4-247

Florakis Microinvasive Endothelial Forceps*

Used to separate the endothelium from the cornea of the recipient.





Reversed triangular tips

23 Ga tube obtains performing of a procedure through a sub - 1.00 mm incision and allows to easily reach all the areas of the cornea without causing hyperextension of the incision.

DESCEMET'S MEMBRANE REMOVAL

Specific design of the spatula contributes to a free access to almost all parts of the recipient's inner cornea.



13-1491

John DSAEK Descemet's Stripper



- Excellent contact with the inner cornea
- Efficient in cases of strong adherence of the Descemet's membrane to the recipient's corneal stroma

13-182

John Dexatome DMEK/DSAEK Spatula



Allows to easily remove the Descemet's membrane as a single disc.

13-183

John DSAEK Stromal Scrubber



Sandblasted tip is used to roughen the stroma at the peripheral areas of the Descemetorhexis thus ensuring graft adherence to the patient's cornea and reducing the possibility of its detachment.

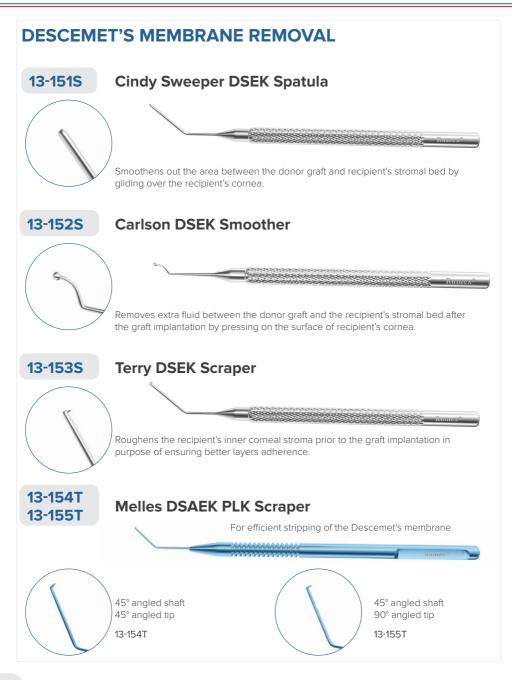
13-184

John DSAEK Glider

888888888888888



- · Used for donor disk gliding
- Smoothens the corneal surface and clears fluid in the donor-recipient interface



IMPLANTATION OF THE GRAFT

13-150T

Spatula-Guide for Corneal Endothelium Implantation

Facilitates preparation of the graft for insertion and protects endothelial cells during implantation into the inner cornea so that the donor disc is not compressed as it passes inside the eye.





Can be used together with 4-034 Forceps for Corneal Endothelium Implantation.

4-034*

Forceps for Corneal Endothelium Implantation

- · For inserting the donor button with the pull-through technique
- · Provides the security of corneal stromal layer avoiding endothelial cell damage







Blunt tips with delicate atraumatic grooves on jaws fix corneal stromal layer firmly.

4-2019T

Corneal Donor Insertion Forceps

Designed for atraumatic insertion of the donor lamella folded in a taco shape.





30° angled, 18.00 mm tip

IMPLANTATION OF THE GRAFT

4-254\$

Lambright-Abdullayev Ultrathin **DSAEK Grasping/Inserting Forceps**

NEW

Designed in cooperation with Eric Abdullayev, M.D., CEBT, Lions Eye Institute for Transplant & Research, Inc., USA.

Designed to improve insertion of the ultrathin DSAEK grafts especially with thickness of 70 microns and less.

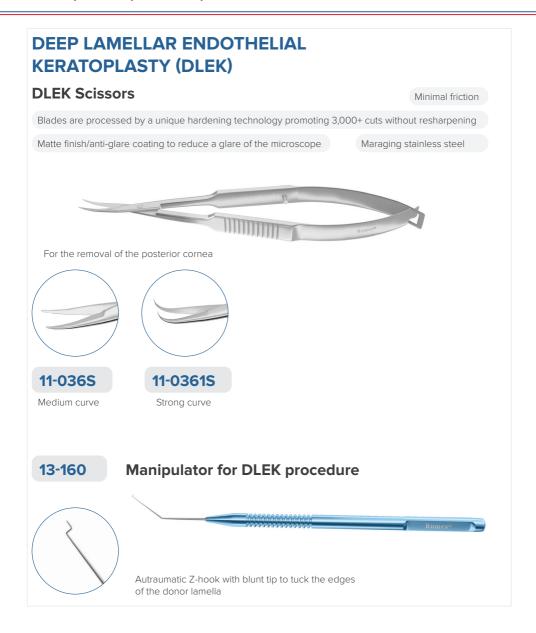


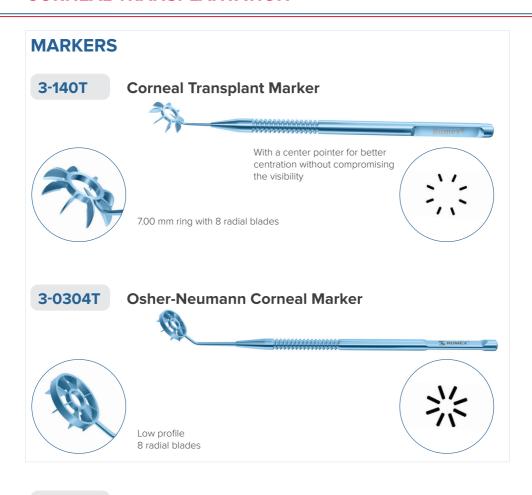


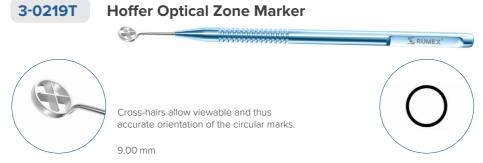
120 micron space between the tips minimizes compression and protects donor endothelial cells.



Wave-shaped serrations for non-slip insertion and reduced risk of tissue adherence







DIAMOND KNIVES

Extreme sharpness

Minimal pressure

Reduced risk of wound leak

Predictable cuts and architecture of the wound for more consistent healing

6-10/6-053

Side-Port Diamond Knife, Trifacet Blade



Trifacet blade for stab incisions, initial groove and tunneling

1.00 mm

6-20/6-107

Phaco Diamond Knife, Trapezoid Self-Diving Blade



Symmetric sharp edges of the blade ensure even diving inside the tissue with less corneal distortion.

2.00/2.30 mm

CORNEAL TREPHINE BLADES

 16-0300
 6.00 mm
 16-0307
 8.00 mm

 16-0301
 6.50 mm
 16-0308
 8.25 mm

 16-0303
 7.00 mm
 16-0309
 8.50 mm

 16-0305
 7.50 mm
 16-0310
 9.00 mm

 16-0306
 7.75 mm
 16-0311
 9.50 mm

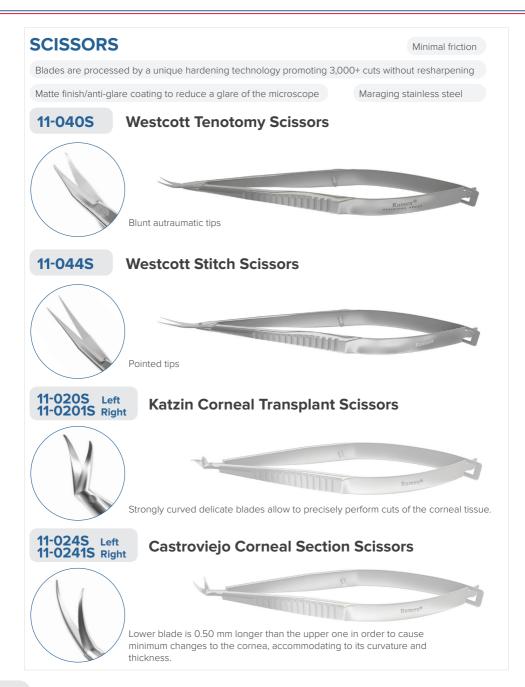


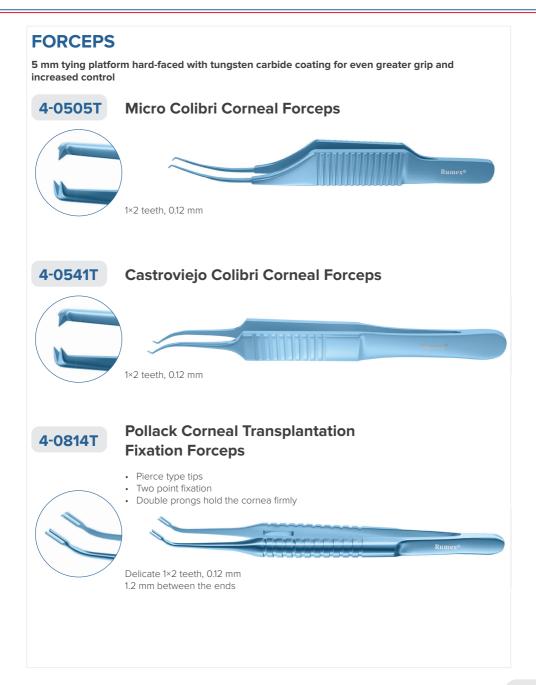
16-020T

Maloney Intraoperative Keratometer

Facilitates qualitative measurement of astigmatism after suturing the donor cornea.





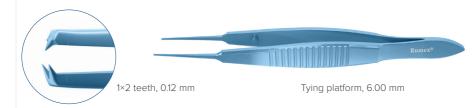


FORCEPS

Tying platform hard-faced with tungsten carbide coating for even greater grip and increased control over the tissue and suturing materials

4-0600S 4-0600T

Castroviejo Suturing Forceps



4-0607S

Bishop-Harmon Suturing Forceps



4-178S 4-174T

McPherson Tying Forceps

FOR 8.0 TO 11.0 SUTURES





Tying platform, 7.00 mm Stainless Steel

4-1785



Tying platform, 8.00 mm Titanium

Angled shafts contribute to easy movement in the anterior chamber.

4-174T

MISCELLANEOUS Tungsten carbide coated tips for better gripping Barraquer Needle Holder 8-045T FOR 40 TO 70 SUTURES Standard jaws 12.00 mm, without lock 8-031T FOR 8.0 TO 11.0 SUTURES Extra fine jaws 8.00 mm, without lock 8-045T

- Teardrop-shaped spoon ensures safe corneal button transfer
- · Spatula promotes delicate epithelium manipulations

15-051-25

13-110

Rycroft Anterior Chamber Cannula, 25 Ga

Paton Double-Ended Spatula and Spoon



Smooth blunt tip

Used for maintaining and forming the anterior chamber by injecting or removing air, fluids, viscoelastics and intraocular medications.



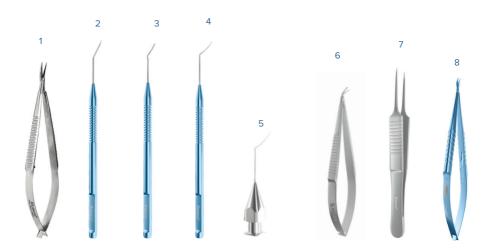
15-301/303

Silicone Bulb with Adapter



FEATURED SETS

DALK SET



Reference	Key	Description
11-038S	1	Scissors for DALK Procedure, Right
11-0381S*		Scissors for DALK Procedure, Left
13-170	2	Trisector for DALK Procedure
13-171	3	Spatula for DALK Procedure
13-172	4	Dissector for DALK Procedure
15-450-27	5	Cannula for DALK Procedure, 27 Ga
11-134	6	Holland Spatulated DALK Scissors, Right
11-135*		Holland Spatulated DALK Scissors, Left
4-178S	7	McPherson Tying Forceps, Straight
4-174T*		McPherson Tying Forceps, Angled
8-024T	8	Barraquer Needle Holder Extra Fine Jaws with Lock

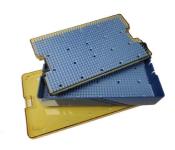
^{*}not shown

TO BUY

18-305

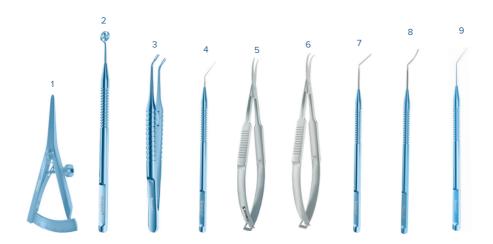
Plastic Sterilization Tray

with finger tip mat 254×152×38 mm 10×6×1.5 in



FEATURED SETS

DLEK SET



2-010T	1	Castroviejo Caliper
3-0217T	2	Hoffer Optical Zone Marker, 8.00 mm
4-0814T	3	Pollack Corneal Transplantation Fixation Forceps
5-0322	4	Reversed Sinskey Hook

Key Description

11-036S
5 DLEK Scissors, Medium Curve
11-0361S
6 DLEK Scissors, Strong Curve
13-137
7 Corneal Dissector, Straight
13-138
8 Corneal Dissector, Curved
13-160
9 Manipulator for DLEK procedure

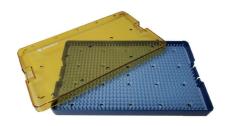
TO BUY

18-304

Reference

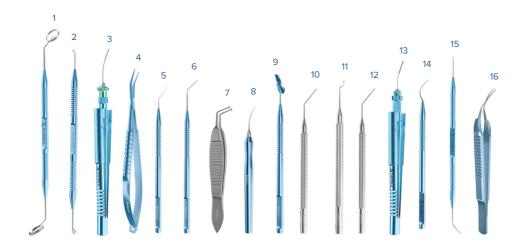
Plastic Sterilization Tray

with finger tip mat 254x152x19 mm 10×6×0.75 in



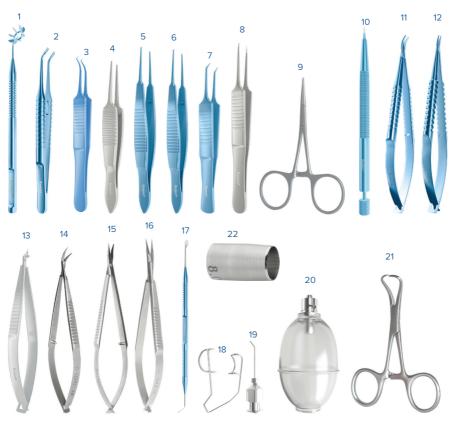
FEATURED SETS

DSEK, DSAEK, DMEK SET



Reference 3-0231	Key	Description Abdullayev Corneal Marker for Keratoplasty
3-0230*		Abdullayev Scleral Marker for Keratoplasty
3-024T	2	Abdullayev I & II Marker (for DSAEK/DMEK Grafts)
3-208T*		DMEK/DSAEK "S" Marker
4-034	3	Forceps for Corneal Endothelium Implantation, 23 Ga/
/12-003T		Universal Squeeze Handle
4-2019T	4	Corneal Donor Insertion Forceps
5-0322	5	Reversed Sinskey Hook
13-137	6	Corneal Dissector, Straight
13-138*		Corneal Dissector, Curved
4-261S	7	Abdullayev DMEK Grasping Forceps
13-139/I	8	Endothelial Stripper, Irrigating
13-150T	9	Spatula-Guide for Corneal Endothelium Implantation
13-151S	10	Cindy Sweeper DSEK Spatula
13-152S	11	Carlson DSEK Smoother
13-153S	12	Terry DSEK Scraper
4-247	13	Florakis Microinvasive Endothelial Forceps, 23 Ga /
/12-003T		Universal Squeeze Handle
4-246S*		Florakis Endothelial Forceps
13-182	14	John Dexatome DMEK/DSAEK Spatula
13-183*		John DSAEK Stromal Scrubber
13-184*		John DSAEK Glider
13-185	15	Tan Marginal DMEK Dissector
4-251	16	Cross-Action DMEK Forceps
18-305*		Plastic Sterilization Tray with Silicone Finger Mat, Double Level, Extra Large

*not shown



Reference	Key	Description	Reference	Key	Description
3-140T 4-0814T	1 2	Corneal Transplant Marker Pollack Corneal Transplantation	8-031T	11	Barraquer Needle Holder, Standard Jaws, without Lock
4-0541T	3	Fixation Forceps Castroviejo Colibri Corneal Forceps,	8-045T	12	Barraquer Needle Holder, Extra Fine Jaws, without Lock
4-0607S	4	0.12 mm, 1×2 Teeth Bishop-Harmon Suturing Forceps,	11-020S 11-0201S*	13	Katzin Corneal Transplant Scissors, Left Katzin Corneal Transplant Scissors, Right
4-0600T	5	0.30 mm, 1×2 Teeth Castroviejo Suturing Forceps,	11-024S 11-0241S*	14	Castroviejo Corneal Section Scissors, Right Castroviejo Corneal Section Scissors, Left
		0.12 mm, 1×2 Teeth	11-040S	15	Westcott Curved Tenotomy Scissors
4-0601T	6	Castroviejo Suturing Forceps, 0.30 mm, 1×2 Teeth	11-044S 13-110	16 17	Westcott Stitch Scissors Paton Double Ended Spatula And Spoon
4-090T	7	Kelman-McPherson Tying Forceps, 4 mm Platforms	14-022S 15-051-25	18 19	Barraquer Wire Speculum, Adult Size Rycroft Anterior Chamber Cannula, 25 Ga
4-178S	8	McPherson Straight Tying Forceps, 7 mm Platforms	15-301/303 16-180S	20 21	Silicone Bulb With Adapter Towel Forceps
4-120S	9	Hartman Mosquito Forceps	16-0305*		Corneal Trephine Blades, 7.50 mm
6-10/6-053 6-20/6-107*	10	Diamond Knife, Trifacet Blade, 1.00 mm Diamond Knife, Self-Diving Trapezoid Blade, 2.00/2.30	16-0307 18-305*	22	Corneal Trephine Blades, 8.00 mm Plastic Sterilizing Tray, Double Level, Large

^{*} not shown

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