



# OPHTHALMIC INSTRUMENTS

+ IOLs & Consumables

2025



AFFORDABLE  
INNOVATIONS



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# MORE THAN 30 YEARS OF SUCCESS



## Doctors in more than 100 countries choose RUMEX



Dark blue: Countries with RUMEX representatives  
Light blue: Countries with RUMEX direct clients



Over **2000** products in RUMEX range

# HOW TO PLACE AN ORDER

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

If your shipping country is the USA, you are welcome to order at [rumex.us](http://rumex.us).

If your shipping country is within Europe, please visit [rumex.eu](http://rumex.eu) to make your order.

For other regions visit [rumex.com](http://rumex.com) and find your local RUMEX representative.

## Pricing

The prices are determined automatically by your location. The pricing policy may vary from region to region. Please contact your local distributor for the current prices.

## Shipping

We provide 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 quickly and efficiently is a matter of primary importance to us!

# WARRANTY, RETURNS & REPLACEMENTS

## Warranty conditions

RUMEX provides a lifetime warranty against any manufacturing or material defects for all instruments. In case of breakdown, we will undertake a due expert analysis and if the defect was not caused by improper handling or misuse, we will either provide you with a 100% compensation or exchange the defective instrument for free.

In some cases when instruments are improperly used or mishandled, this may lead to the occurrence of non-manufacturing defects, which are not covered by the RUMEX lifetime warranty. To avoid such cases please carefully read and always follow our Care and Sterilization instructions or consult our customer service for proper handling instructions.

## Returns and replacements

Please check the products immediately upon receipt, all claims (related to product appearance, count, package, etc.) shall be accepted within 10 business days of delivery. Products that passed through the initial inspection can be returned within 30 days at no charge in their original undamaged condition. Any instrument returned within 30–60 days of shipment is subject to 10% restocking charge. No returns are accepted after 60 days.

To return or replace an instrument please fill out the RMA form and send the paper copy by post together with the instrument. To get the RMA form, please contact the customer service department.

To obtain a Return Authorization Number prior to returning instruments, please call the customer service department +1 727 535 9600 (for USA, Canada), +371 6616 3182 (for Europe, Asia, Africa, Latin America).

All used instruments are to be properly cleaned and sterilized before returning and shipping. Customers will be credited for the costs of the instruments but will be responsible for all freight charges for the original order. Refunds are available only as credit towards future purchases. Disposable (sterile) products, instruments damaged beyond repair and custom orders are not subject to return or replacement.

## Repairs

If you require the repair of an instrument, we will be glad to offer you the service at a reasonable price. Please contact the RUMEX customer service team for details.



SKU preferred by the majority of customers



Recently introduced into the product range of RUMEX International Co.



Disposable instruments



Available in a single-use edition



Available in Stainless Steel



Frequently bought together



Quantity in the box



With Locking Mechanism



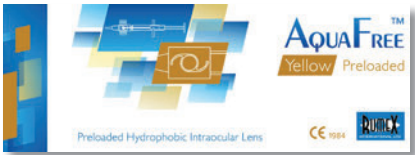
# IOLs, DISPOSABLE INSTRUMENTS & CONSUMABLES

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## IOL IMPLANTATION SOLUTIONS

### STEP 1. CHOOSE IOL AND DELIVERY SYSTEM

#### PRELOADED IOL with DELIVERY SYSTEM



**AquaFree Yellow Preloaded**



**Disposable Accuject™  
Injector**

**FEATURES:**

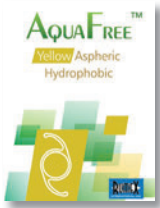
- Fast injection
- Ready-to-use option

**OR**

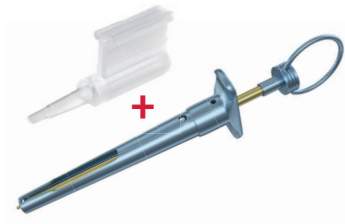
#### NON-PRELOADED IOL

**PLUS**

#### DELIVERY SYSTEM



**AquaFree Yellow  
Aspheric Hydrophobic**



**Single-Use Cartridge  
CAT-22\* PLUS  
Reusable IOL Injector 16-2853**

**FEATURES:**

- Money-wise solution
- Flexibility in choosing the IOL

\* for 2.2mm incision.  
Other sizes are available, see p.20.

### STEP 2. ADD OVD

**DISPERSIVE**

**SUPREME  
HPMC 2.0%**

**BEST FOR:**

- Coating the surgical instruments
- Endothelium protection

**AND/OR**

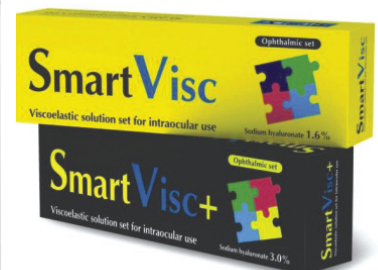
**COHESIVE**

**SMARTVISC  
Sodium Hyaluronate 1.6%**

**SMARTVISC PLUS  
Sodium Hyaluronate 3.0%**

**BEST FOR:**

- Keeping the empty capsular bag open for IOL insertion
- Flattening the anterior capsule to facilitate capsulorhexis

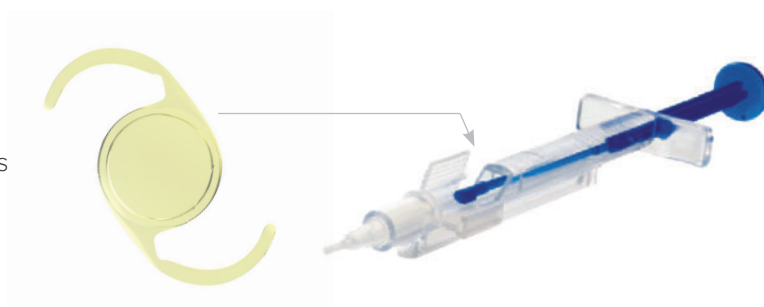




## IOLs

### HYDROPHOBIC IOLs\*

Foldable aspheric monofocal one-piece IOLs



	AquaFree Yellow Aspheric Hydrophobic	AquaFree Yellow Preloaded						
Min. incision size		2.2 mm						
Overall diameter		13.0 mm						
Optic diameter		6.0 mm						
Power range		0D to +9D (1D steps) +10D to +30D (0.5D steps)						
Self-unfolding		Yes						
Water content		<0.5%						
Angulation		0°						
Material	Natural Yellow Hydrophobic Acrylic							
Optic design	Biconvex, 360° square edge							
Refractive index		1.5						
Abbe number		50						
Nominal A-constant		118.7						
A-constant for ultrasound		118.4						
Transition temp. of material		11°C						
Filtration	UV and Blue Light (400-475 nm)							
AC-depth		5.51						
Shelf life		5 years						
Optimized optical constants								
	Haigis:		HofferQ:		Holl.1:			
a0	a1	a2	pACD	sf	SRK/T	SRK II	n	Ref.
1.32	0.40	0.10	5.51	1.75	118.9	119.2	190	[304], [332]

### Excellent long-term result

- Low chromatic aberration – increased contrast sensitivity, excellent color perception
- UV and Blue Light blocking – better protection of macula
- Extreme double square edge – no risk of secondary cataract development
- No spherical aberrations – minimized glare and unwanted images
- Implantation through a 2.2 mm incision – fast recovery
- Manufactured by the lathe-cut (LC) method – no glistenings

### Easy and controlled implantation

- Special surface polishing – a lens does not stick to itself or to the instruments
- Low glass transition temperature – excellent material performance in operating conditions
- Optimal folding and unfolding ability – easy to inject
- Preloaded option available – simple and predictable IOL injection within less than 5 seconds



\*Not available in the US

Product design and/or features that do not influence its functionality and main parameters are subject to change

## OVDs

### SUPREME\* Ophthalmic Viscosurgical Device

Supreme is a dispersive viscoelastic solution of low molecular weight, highly purified grade of hydroxypropyl methylcellulose (HPMC) 2%, clear, isotonic, sterile, non-inflammatory and non-pyrogenic in nature. It is used for intraocular injection during anterior segment surgery.

#### Physico-chemical properties

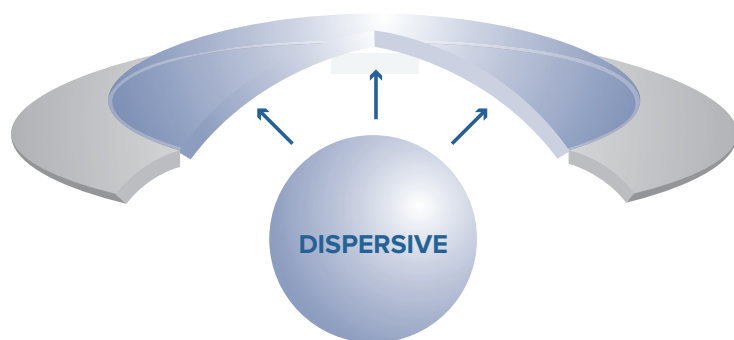
Classification	Dispersive
Composition	HPMC 2%
Molecular weight	86 000 Da
Viscosity	3 000–4 500 cSt
pH	6.0–7.8
Osmolality	250–350 mOsmol/kg
Volume	2 ml
Storage	2–35°C
Shelf Life	3 years

#### Advantages

- The best endothelial protection
- Easy removal
- Completely transparent
- No refrigeration necessary
- Easy transportation and storage (2–35°C)

#### Dispersive OVD Supreme is used to:

- Coat ocular structures during cataract surgery: in the initial part, during capsulorhexis and phacoemulsification
- Protect corneal endothelium in the eye where endothelium pathology is suspected



## SMARTVISC/SMARTVISC PLUS\* Ophthalmic Viscosurgical Device

SmartVisc is a cohesive, sterile, highly purified, non-inflammatory, sodium hyaluronate viscoelastic solution with high molecular weight. It is used to keep the anterior chamber formed, to keep the anterior capsule flat during capsulorhexis creation, to move and manipulate iris or other tissues and to keep the empty capsular bag open for IOL insertion.

	SmartVisc	SmartVisc PLUS
Classification	Cohesive	
Composition	Sodium Hyaluronate 1.6 %	Sodium Hyaluronate 3.0 %
Molecular weight	1.2–2.0 mDa	1.0–1.8 mDa
Viscosity	approx. 80 000 mPas	approx. 400 000 mPas
Osmolality	270–400 mOsmol/kg	
Storage	2–25°C	
pH	6.8–7.4	
Volume	1 ml	
Shelf Life	3.5 years	

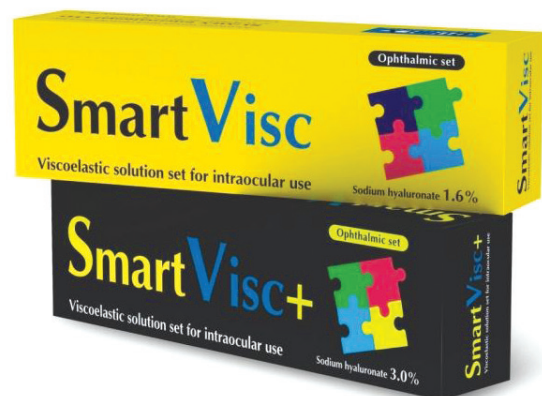
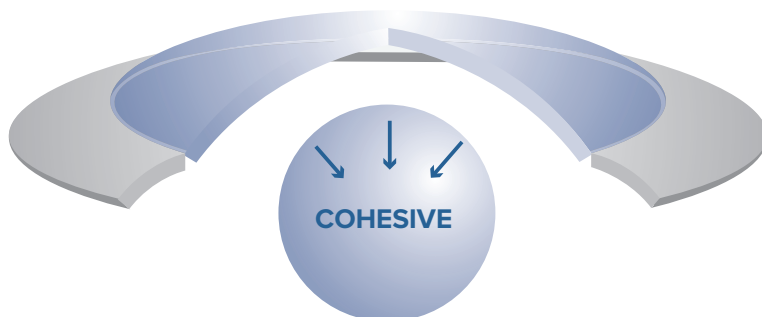


### Advantages

- Good maintenance of the anterior chamber and the capsular bag
- Controlled capsulorhexis
- Easy IOL implantation
- Better adhesiveness to the corneal endothelium during phacoemulsification
- Excellent protection against mechanical damages
- No refrigeration necessary
- Ready-to-use

### Cohesive OVD SmartVisc is used to:

- Maintain space and pressure in the eye
- Keep the empty capsular bag open for IOL insertion
- Support the anterior chamber and flatten the anterior capsule
- Dilate small pupils
- Dissect areas of adhesion



\*Not available in the US

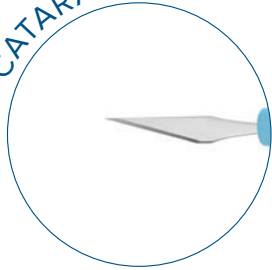
Product design and/or features that do not influence its functionality and main parameters are subject to change

# DISPOSABLE KNIVES

STERILE  


ALL KNIVES ARE EQUIPPED WITH SAFETY LIDS

CATARACT

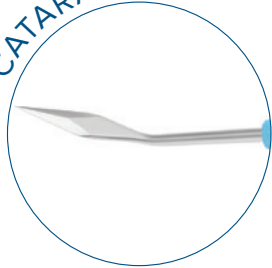


### Side-Port Knives

Initial stab incisions  
Straight, double bevel

- SP-15 1.00 mm, 15° 
- SP-30 1.00 mm, 30°
- SP-45 1.00 mm, 45°

CATARACT

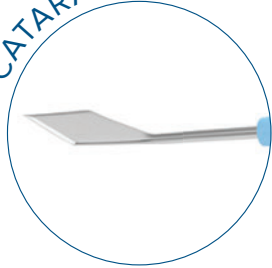


### Paracentesis Knives

Paracentesis incisions/side-port incisions  
Angled, double bevel

- PK-11 1.10 mm

CATARACT



### Slit Knives

Scleral tunnel incisions  
Angled, single bevel

- SL-22 2.20 mm
- SL-24 2.40 mm
- SL-26 2.65 mm
- SL-27 2.75 mm
- SL-28 2.80 mm 
- SL-32 3.20 mm

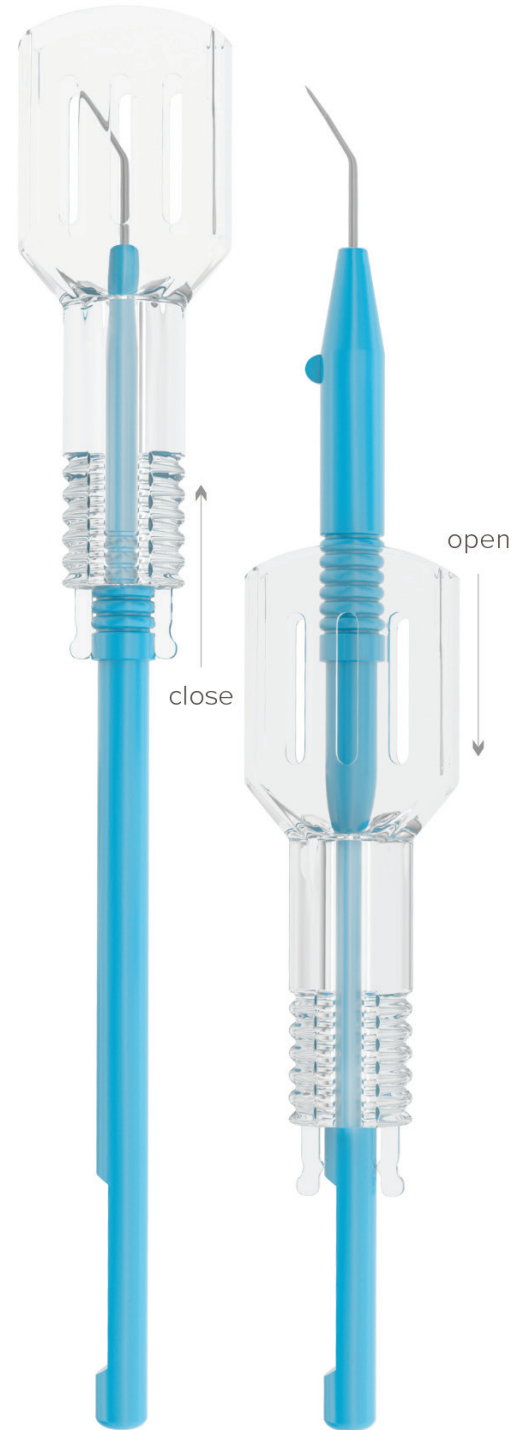
CATARACT



### Trapezoidal Knives

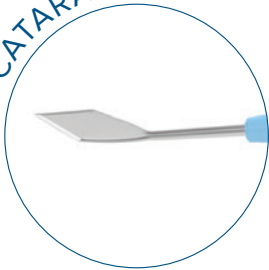
Tunnel incisions  
Angled, single bevel

- TR-10 1.20-1.40 mm
- TR-17 1.50-1.70 mm




STERILE  

CATARACT

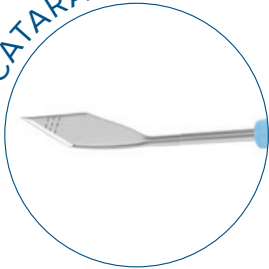


## Clear Corneal Knives

Clear corneal incisions  
Angled, double bevel

- CC-22 2.20 mm 
- CC-24 2.40 mm
- CC-26 2.65 mm
- CC-27 2.75 mm 
- CC-30 3.00 mm

CATARACT

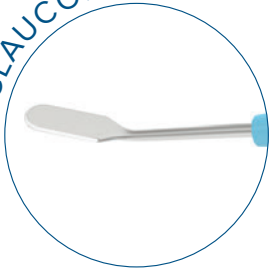


## Clear Corneal Knives with Depth Indicators

Tunnel incisions  
Angled, double bevel


- CCD-22 2.20 mm 1.50, 1.75 mm depth indicators
- CCD-24 2.40 mm 1.50, 1.75, 2.00 mm depth indicators
- CCD-26 2.65 mm 1.50, 1.75, 2.00 mm depth indicators
- CCD-27 2.75 mm 1.50, 1.75, 2.00 mm depth indicators

GLAUCOMA

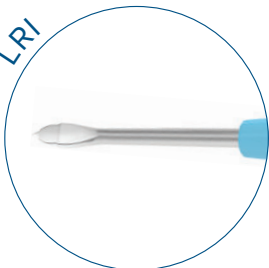


## Crescent Knives

Lamellar dissections/scleral tunnel,  
flap formation  
Angled, single bevel

- CR-20 2.00 mm 

LRI

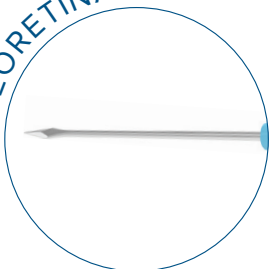


## Pre-Set Knives

Groove making/limbal relaxing incisions  
Multifacet


- PD-60 600 µm Depth

VITREORETINAL




## MVR Knives

Posterior segment penetration/side-port incisions  
Straight, multifacet

- VRS-19 19 Ga
- VRS-20 20 Ga
- VRS-23 23 Ga
- VRS-25 25 Ga 

Angled, multifacet

- VRA-19 19 Ga
- VRA-20 20 Ga
- VRA-23 23 Ga
- VRA-25 25 Ga 



## DISPOSABLE INSTRUMENTS

STERILE  

All stainless steel disposable instruments are designed for precise manipulations during anterior segment surgeries.

### Speculums

#### Barraquer Wire Speculum

16.00 mm blades  
Overall length 44 mm


14-022D 



### Hooks, Choppers, Manipulators

Overall length 120 mm



Sinskey Hook  
Angled  
5-032D 




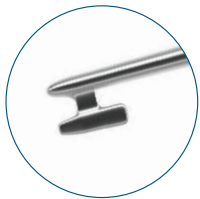
Rosen Phaco  
Chopper  
Universal  
7-065D



Lester Lens  
Manipulator  
Angled  
5-0331D 



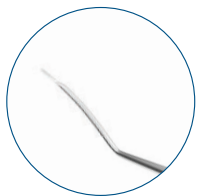
Nagahara Phaco  
Chopper  
RHD  
7-063D 



Kuglen Iris Hook  
Angled  
5-030D



Drysdale Nucleus  
Manipulator  
Universal  
7-093D



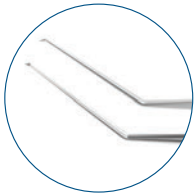
Spatula for  
Femtosecond Laser Procedure  
20-204D



## Forceps

Overall length 104 mm

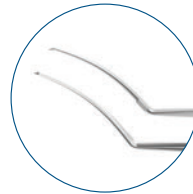
STERILE  



### Utrata Capsulorhexis Forceps

Cystotome tips  
Straight

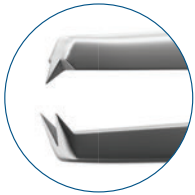
4-0311D 



### Utrata Capsulorhexis Forceps

Cystotome tips  
Curved

4-0331D 



### Castroviejo Suturing Forceps

0.12 mm

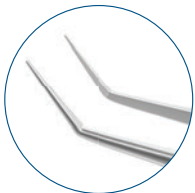
4-0600D 



### Bonn-Catalano Corneal Forceps

0.12 mm

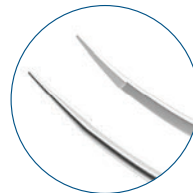
4-0551D



### McPherson Tying Forceps

Angled

4-174D 

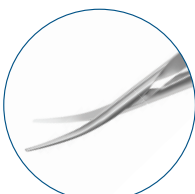


### McPherson Tying Forceps

Curved

4-177D

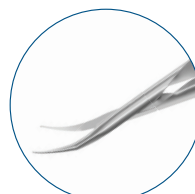
## Scissors



### Castroviejo Universal Corneal Scissors

Blunt tips  
Overall length  
106 mm

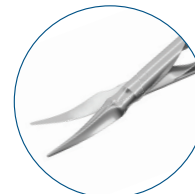
11-012D



### Westcott Tenotomy Scissors

Blunt tips  
Overall length  
115 mm

11-040D 



### Vannas Capsulotomy Scissors

Sharp tips  
Overall length 84 mm

11-052D 

## Microincisional Forceps & Scissors

**NEW**

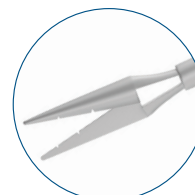
Stainless steel  
For silicon and acrylic IOLs



### Foldable Lens Removing Forceps

Crocodile Type  
20 Ga

4-2150D 



### Micro Foldable Lens Cutter

Straight Scissors  
Blades with Notches  
19 Ga

4-2173D 





## Disposable Cartridges for IOL Injector\*

STERILE  



To be used with Reusable IOL Injector **16-2853** (page 126) for foldable one-piece IOLs

CAT-22 for 2.2 mm incision  
 CAT-24 for 2.4 mm incision  
 CAT-26 for 2.6 mm incision

## Disposable Set of Irrigation/Aspiration Handpieces

STERILE   **NEW**

### Aspiration



### Irrigation





### Set of I/A Handpieces for Bimanual Technique\*\*

Disposable

Aspiration – single port 0.35 mm  
 Irrigation – double port 0.40 mm

Delicate tips allow easy access to all parts of the capsule and may be introduced through any side-port incision.

- Lightweight, color-coded handpieces
- Standard male/female luer connector
- Compatible with Phaco or I/A system

7-0821D 21 Ga 5 sets per box   
 7-0823D 23 Ga 5 sets per box 

## Iris Retractors



### Iris Retractor\*\*

STERILE 

Reusable  
 Supplied sterile in the autoclavable PTFE container

10-5127 

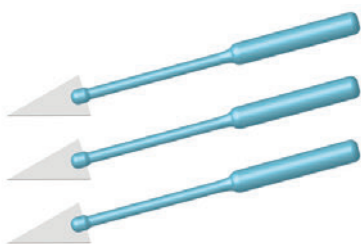
### Iris Retractor\*\*

STERILE 

Disposable

10-5016-1 4 per box  
 10-5067-1 5 per box

## PVA Spears



STERILE  

### PVA Spears

Compressed lint-free PVA spears are ideal for controlling and absorbing fluid in and around the orbital area during cataract and refractive procedures

R2-40405\*\*

\*Not available in the US and Europe

\*\*Not available in Europe

Product design and/or features that do not influence its functionality and main parameters are subject to change



# MANI OPHTHALMIC SUTURES\*



The following list is for reference only.  
 The sutures are used depending on the surgeon's techniques and preference.  
 The sutures are supplied sterile in a box of 12.

Item Number	Suture		Length	Shape	Needle			Main Application
	Description				Length	Curve	Diameter	
10-0 Nylon Black Mono Sutures								
22-R1404			30 cm	Trape Spatula	5.5 mm	7/16 (158°)	0.14 mm	Cornea, Scleracornea, Sclera Flap
22-R1410			30 cm	Trape Spatula	7 mm	1/2 (180°)	0.14 mm	Scleracornea
22-R1404S			15 cm	Trape Spatula <i>Single-armed</i>	5.50 mm	7/16 (158°)	0.14 mm	Scleracornea
22-R2002			30 cm	Trape Spatula	6.50 mm	3/8 (135°)	0.20 mm	Scleracornea
5-0 Polyester Green Braided								
22-R3373			45 cm	Dia Spatula	8 mm	1/4 (90°)	0.33 mm	Operations on Vitreous
5-0 Polyester White Braided								
22-R3377			45 cm	Trape Spatula	8 mm	1/4 (90°)	0.33 mm	Operations on Vitreous
4-0 Silk Black Braided Sutures								
22-R4351			50 cm	Reverse Cut	13 mm	3/8 135°	0.43 mm	Control suture
6-0 Silk Black Braided Sutures								
22-R3305			45 cm	Reverse Cut	11 mm	3/8 135°	0.33 mm	Skin, Ocular Muscles
22-R2801			45 cm	Trape Spatula	6.5mm	3/8 135°	0.28 mm	Skin, Ocular Muscles
8-0 PGA Absorbable Violet Braided Sutures								
22-R2090			30cm	Trape Spatula	6.5mm	3/8 135°	0.20 mm	Conjunctiva, Sclera, Closing MVR Port

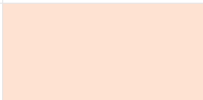








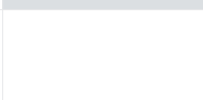
\*For sale in the US only

Product design and/or features that do not influence its functionality and main parameters are subject to change

## DISPOSABLE CANNULAS

### DISPOSABLE CANNULAS GAUGE CONVERSION CHART

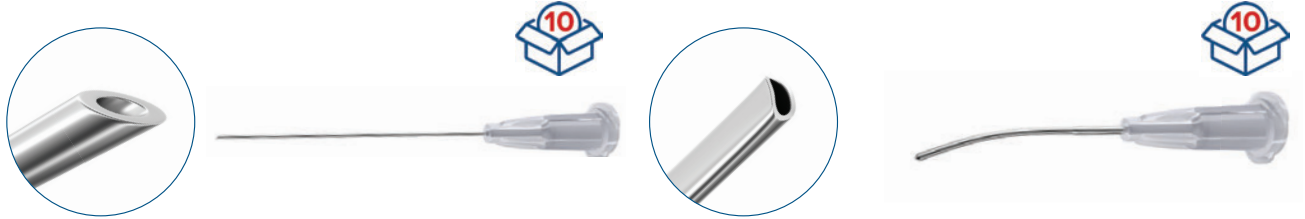
A hub of each cannula has a color according to its gauge.  
To learn more, please see the cannula gauge conversion chart below.

Gauge	Inner Diameter		Outer Diameter		Color Code
	In	mm	In	mm	
19G	.028	.70	.043	1.10	
20G	.024	.60	.036	.90	
21G	.020	.51	.032	.80	
22G	.016	.41	.028	.70	
23G	.013	.33	.025	.60	
24G	.012	.30	.022	.55	
25G	.010	.25	.020	.50	
26G	.010	.25	.018	.45	
27G	.008	.20	.016	.40	
30G	.006	.15	.012	.30	

## DISPOSABLE CANNULAS\*

### ANESTHESIA CANNULAS

Used for anesthetic agents administration during ophthalmic surgeries.



**Atkinson Retrobulbar Needle**

21-R1125 25 Ga × 38 mm ♥

**Sub-Tenon's Anesthesia Cannula**

21-R1320 20 Ga × 25 mm

### ANTERIOR CHAMBER CANNULAS

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

#### Rycroft Anterior Chamber Cannula

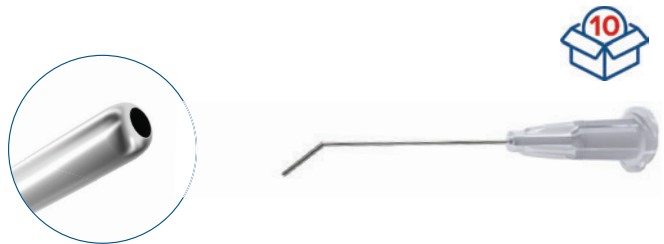
4 mm angled tip

21-R2023 23 Ga × 22 mm

21-R2030 30 Ga × 22 mm

8 mm angled tip

21-R2027-8 27 Ga × 22 mm



#### Viscoelastic Cannulas

Used for maintaining and forming the anterior or posterior chamber by infusing or aspirating viscoelastic.

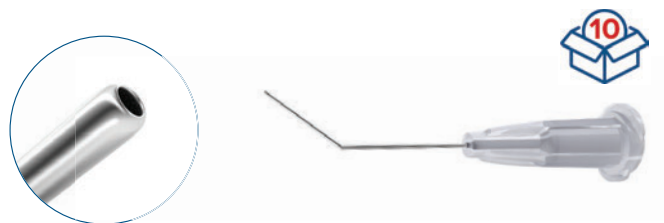
9 mm angled tip

21-R2225 25 Ga × 22 mm ♥

21-R2227 27 Ga × 22 mm

10 mm angled tip

21-R2327 27 Ga × 22 mm ♥



### IRRIGATION/ASPIRATION CANNULAS

Used to remove cortical debris or viscoelastic solution while maintaining the anterior chamber during cataract surgery.

#### Simcoe I&A Cannula

0.3 mm port

21-R5623 23 Ga × 16 mm



\*Not available in Europe

Product design and/or features that do not influence its functionality and main parameters are subject to change

## HYDRODISSECTION CANNULAS

The hydrodissection cannulas with special tips are designed to be placed under the edge of the anterior capsulorhexis and toward the lens equator to deliver fluids to free the adhesions of the cataract from the capsular bag and allow it to rotate fully.



### Pearce Hydrodissector

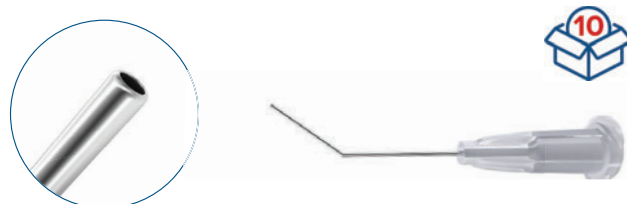
Angled 32°, spatulated tip

8 mm angled tip

21-R4025 25 Ga × 22 mm ♥

10 mm angled tip

21-R4027 27 Ga × 22 mm ♥



### Hydrodissector

Angled 32°,

Round smooth tip, 10 mm angled tip

21-R4427 27 Ga × 22 mm

## CYSTOTOME CANNULAS

Used to perform capsulorhexis. The tip is designed to open the anterior capsule.

### Pearce Irrigating Cystotome

21-R3027 27 Ga × 16 mm



## REFRACTIVE CANNULAS

Used after ablation to wash away particulates from anterior and posterior sides of the flap and stromal bed.

### Lindstorm Lasik Irrigating Cannula

3 ports

Formed 7 mm

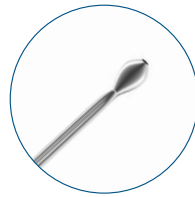
Smooth angle curvature allows for safe flap alignment

21-R7430 25 Ga × 25 mm



## LACRIMAL CANNULAS AND SETS

For surgical treatment, repair and irrigation of the nasolacrimal system.



### Lacrimal Intubation Set

Silicone tubing 30 cm  
Stainless Steel probes  
ID – 0.30 mm  
OD – 0.60 mm

21-R7001 23 Ga × 17.5 cm probe

### Lacrimal Intubation Set

Olive tip  
Silicone tubing 35 cm  
Stainless Steel probes

21-R7004 27 Ga × 11 cm probe ♥  
21-R7004RD 27 Ga × 11 cm probe  
(with retrieval device)



### DCR Set

Silicone tubing 30 cm  
Stainless Steel probes

21-R7011 20 Ga × 45 mm probe, straight  
21-R7012 20 Ga × 45 mm probe, angled  
(shown)

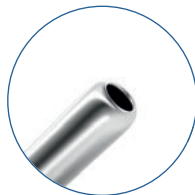
### Lacrimal Intubation Tubing

Silicone tubing 30 cm  
ID – 0.30 mm  
OD – 0.60 mm

21-R7002

### Lacrimal Cannulas

21-R7026 26 Ga × 28 mm



\*Not available in Europe

Product design and/or features that do not influence its functionality and main parameters are subject to change



# NEW & COMING SOON PRODUCTS

## NEW

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## COMING SOON

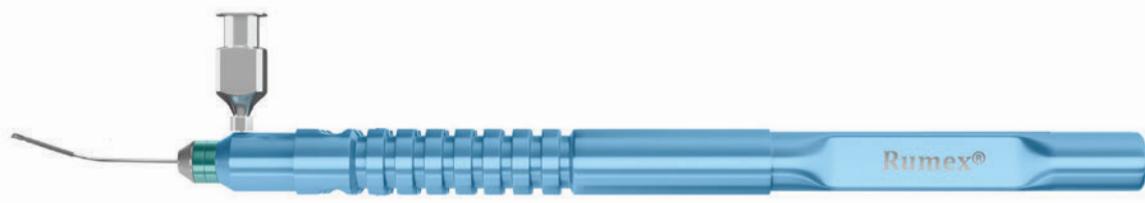
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## ONE-PIECE CAPSULORHEXIS FORCEPS WITH RUMEX FLUSHING SYSTEM

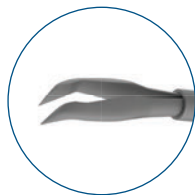
**Complete tool** – no need to adjust the tip to the handle

**Delicate cleaning** – flushing liquid streams towards the tips with zero stress for the jaws

**Increased lifespan** – the inner mechanism is not involved into the cleaning process and stays intact

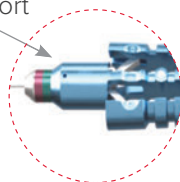


4-03741H

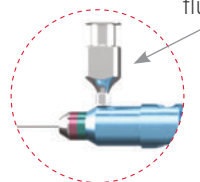


- Micro jaws
- Cystotome tips
- Reduced length of the branches
- Improved maneuverability

flushing port



flushing cannula





CATARACT

1.50 mm

4-033S

**Small-Incision Capsulorhexis Forceps**  
with Double Cross-Action and Scale

Cystotome tips  
Micro-thin jaws  
Flat handle  
Overall length 105 mm  
Stainless Steel



- Double cross-action and parallel retraction of branches guarantee fixed opening for free movements within the wound and protect the incision from stretching
- Sharp and delicate cystotome tips allow to make the first pinch easily
- 2 engravings at 2.50 and 5.00 mm for precise measurement of capsulorhexis
- Tungsten carbide coating at the tips for improved gripping of the capsule



2.20 - 3.00 mm

4-0393S

**Small-Incision Capsulorhexis Forceps**  
with Cross-Action and Scale

Cystotome tips  
Round handle  
Overall length 110 mm  
Stainless Steel



**Reverse-Action** (Tips are closed when idle and opened when handle is squeezed)

- Cross-action mechanism prevents the hyperextension of the incision and the leakage of viscoelastic, allowing for enhanced anterior chamber maintenance
- 2 engravings at 2.50 and 5.00 mm for precise measurement of capsulorhexis
- Tungsten carbide coating at the tips for improved gripping of the capsule



7-0681

**Phaco Chopper for Cross-Chop Technique**

Overall length 120 mm



Designed for Cross-Chop and Quick-Chop techniques.

- Elongated distal part fractures all lens densities
- Rounded tip protects the posterior capsule
- Reduces the use of Ultrasound to lower the risk of endothelial cells loss



7-0751

**Universal Multifunctional Phaco Chopper**

Overall length 120 mm



- Anterior sharp edge for horizontal and vertical nucleus chopping
- Blunt posterior surface for iris or capsular rim retraction
- Rounded tip is safe for the capsule and useful in nucleus cracking

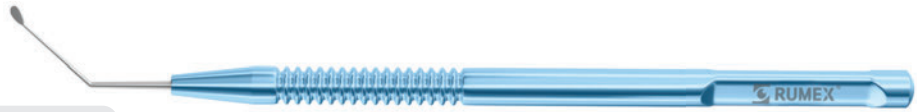


# NEW & COMING SOON PRODUCTS

## CATARACT

### Escaf Nucleus Manipulator

Overall length 120 mm



7-117



30 Degrees bent tip

7-1171



45 Degrees bent tip

- Atraumatic flat olive-shaped tip
- Rotates the cataract fragments and introduces them to the phaco tip
- Disengages the cataract fragments after fracturing with a prechopper
- Useful in protecting the posterior capsule

7-0821D 21 GA  
7-0823D 23 GA

### Set of Disposable I/A Handpieces for Bimanual Technique\*

STERILE



Each set includes 5 irrigation and 5 aspiration handpieces.

- Lightweight, color-coded handpieces
- Standard male/female luer connector
- Compatible with Phaco or I/A system

single port 0.35 mm

Aspiration



double port 0.40 mm

Irrigation

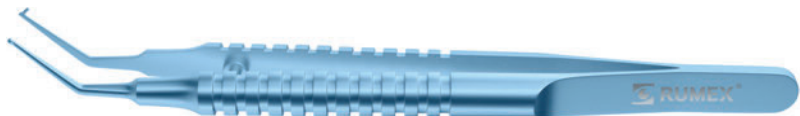


4-211T

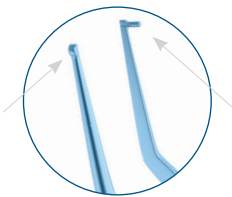
### Amado Haptic Holder "Perfect Flanger"

Yamane technique

Overall length 105 mm  
Titanium



Grooved tips allow for a gentle holding of haptics or sutures without the risk of kinking them.\*\*



A reference cylinder:

- measures out 1.00 mm of haptic to be melted
- pushes melted haptic into sclera

Designed for:

- attaining a standardized flange
- sutureless intrascleral intraocular IOL fixation
- proper IOL centration

2-102S

### Braunstein Fixed Caliper

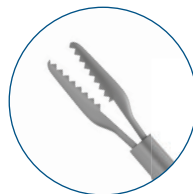
- To create 2.00 to 2.50 mm marks
- Fine tips mark the distance from limbus to sclera



4-1895

### Microinvasive Yamane IOL Fixation Forceps, 23 Ga\*\*\*

- Designed for intrascleral IOL fixation
- Delicate tips
- Secure grip



\* Not available in Europe

\*\* tested in polymethyl methacrylate haptics, polyvinyl fluoride haptics, and 6-0 polypropylene sutures

\*\*\*Tip only. Handles are sold separately

Product design and/or features that do not influence its functionality and main parameters are subject to change

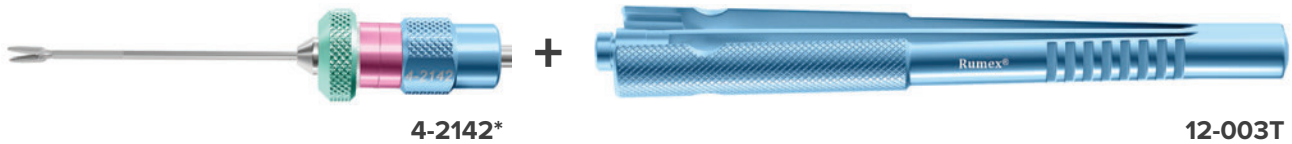
IOL COMPLICATIONS MANAGEMENT

4-2142\*

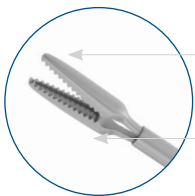
**Fukuoka Intraocular Lens Extraction Forceps for Cartridge Pull-Through Technique, 18 Ga Vitreoretinal Instrument Handle, Squeeze Model**

3.20 mm

12-003T



- For Cartridge Pull-Through Technique
- Narrow and long tips grasp securely the IOL
- Two fingers linear actuation
- Specially designed gripping area for amplified control
- 360° rotation



Serrated design to prevent slipping  
The inner surfaces are recessed to reduce intra-cartridge pressure.

Recommended incision size – 3.20 mm.  
To use with Nex-IJ type 2c” (NIDEK CO.) and Monarch Alcon B cartridge

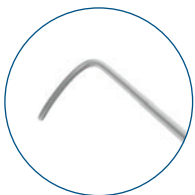
**Precautions!**

Not for PMMA and other non-foldable IOLs  
Not for Hydrophilic IOLs

13-061

**Holz Zonule Defender**

Overall length 120 mm



- The device is to be inserted into the equator of the capsule bag and used as counter traction when removing (pulling) the haptic from it during IOL exchange
- The surface area will distribute the countertraction forces and prevent the prying motion from breaking zonules

**Disposable Microncisional Forceps & Scissors**

STERILE



Stainless steel  
For silicone and acrylic foldable IOLs

2.00 mm



4-2150D

**Foldable Lens Removing Forceps**

20 Ga

- crocodile type serrated jaws enable secure gripping of the IOL

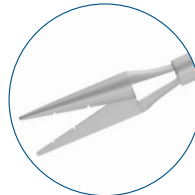


4-2173D

**Micro Foldable Lens Cutter**

Straight Scissors  
19 Ga

- blades with delicate notches create traction and prevent IOL slipping while cutting



\*Tip only. Handles are sold separately

Product design and/or features that do not influence its functionality and main parameters are subject to change

# NEW & COMING SOON PRODUCTS

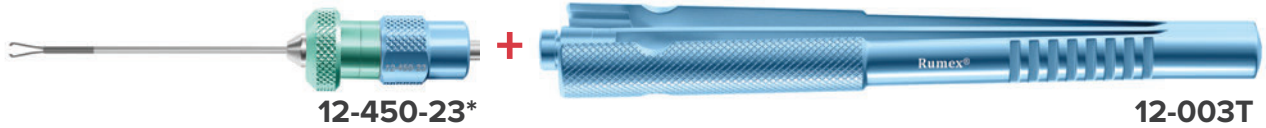
## VITREORETINAL

12-450-23\*

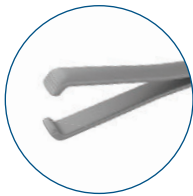
End-Grasping ILM Forceps with Texturized Outer Platform, 23 Ga

12-003T

Vitreoretinal Instrument Handle, Squeeze Model



- Two fingers linear actuation
- Specially designed gripping area for amplified control
- 360° rotation



- Enhanced cohesion
- Increased friction between tissue and forceps
- Can be used as ILM elevator

## DISPOSABLE MVR KNIVES

STERILE



now also in 25 Ga

Multifacet blade  
Used for posterior segment  
penetration/side-port incisions

VRS-25

25 Ga Straight

VRA-25

25 Ga Angled



HYDROPHILIC IOLs

COMING SOON\*

Hydro-SOFT Clear & Hydro-SOFT Yellow

Clear and Natural Yellow aspheric monofocal single-piece hydrophilic acrylic foldable IOLs



Hydro-SOFT Yellow

Hydro-SOFT Clear

- No spherical aberrations – minimized glare and unwanted images
- Square edge design – no posterior capsule opacification caused by cellular migration
- Manufactured by the lathe-cut method – no glistenings

Hydro-Flex PLUS

Negative aspheric monofocal single-piece hydrophilic acrylic foldable IOL in a set with an injector

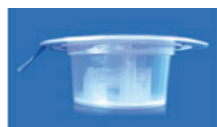


- Provides enhanced contrast sensitivity in dim light conditions
- Better performance of visual acuity
- Square edge design – reduced risk of PCO\*\*
- Anterior round edged polishing helps to avoid glares
- Plate loop haptic design ensures better stability and centration

Supplied in a set with a single-use IOL delivery system SmartJect

Hydro-SOFT Toric Preloaded

Aspheric toric monofocal clear hydrophilic acrylic foldable single-piece IOLs



- Designed to correct corneal astigmatism in a patient undergoing cataract surgery
- Square edge design – no posterior capsule opacification caused by cellular migration
- Manufactured by the lathe-cut method – no glistenings
- UV filter

Supplied preloaded in a cartridge in a container with liquid

\* Products in the process of development and certification

\*\* Posterior Capsule Opacification

Product design and/or features that do not influence its functionality and main parameters are subject to change

## HYDROPHILIC IOLs

**COMING SOON\***

### Hydro-SOFT Trifocal Preloaded

Aspheric trifocal clear hydrophilic acrylic foldable single-piece IOLs



- Optimized intermediate focus optical system provides clear, contrast vision at far, near, and also at an intermediate distance
- Diffractive trifocal optics with aspheric profile - 14 diffraction rings
- Square edge design – no posterior capsule opacification caused by cellular migration
- Manufactured by the lathe-cut method – no glistenings
- UV-filter

Supplied preloaded in a cartridge in a container with liquid

## HYDROPHOBIC IOLs

### Eco-Flex Preloaded

Yellow aspheric monofocal single-piece hydrophobic acrylic foldable preloaded IOL



- Filters out UV and harmful blue light – better protection of macula
- Square edge design – mechanical barrier for cell migration, no risk of PCO\*\*
- Low glass transition temperature (8°C) keeps the lens flexible at lower temperatures
- Low refractive index of 1.47 and high Abbe number of 55 ensure better optical clarity and visual performance
- Better adhesiveness to the capsule

Supplied preloaded in a single-use IOL delivery system SmartJect

## DISPOSABLE IOL INJECTION SET

### SmartJect 2.2 & SmartJect 2.8

A set of disposable IOL injector and cartridge. Available in two sizes – for 2.2 mm and 2.8 mm incision



- For hydrophilic and hydrophobic single-piece IOLs
- Complete control of every step of lens injection
- Soft-tip technology



## PFO LIQUID

**COMING SOON\***

### VitreOOcta

Perfluorooctane liquid for vitreoretinal surgery (PFO)

**STERILE**



An ideal intraoperative tool to improve the efficiency and safety of vitreoretinal surgical procedures.

#### Indicated to treat:

- Retinal detachments
- Giant tears
- Ocular trauma
- Removal of dislocated lenses and foreign bodies from vitreous

#### Product features:

- High vapor pressure and specific gravity
- Low surface tension
- Low viscosity
- Non toxic, absolutely safe

## EYE DYES

### VitreOBlue

Trypan blue 0.15% solution for ILM and ERM staining during vitreoretinal surgery

**STERILE**



- Facilitates tissue removal and reduces the risk of retinal damage
- Distinguishes between new and old PVR membranes
- Helps to identify and facilitate removal of posterior hyaloids remnants in tractional diabetic retinopathy

### VitreOBlue Plus

Brilliant Blue Solution 0.05 % for ILM staining during vitreoretinal surgery

**STERILE**



- Selectively stains and visualizes Internal Limiting Membrane
- Facilitates complete peeling during retinal surgery to repair macula holes
- Reduces the risk of retinal damage

### SmartBlue

Trypan Blue Solution 0.06% for staining of anterior capsule during cataract surgery

**STERILE**



- Facilitates capsulorhexis
- Excellent visualization of the capsule in the eyes with matured cataract/narrow pupils
- Clear visualization of outline of the capsule rim during surgery
- Reduces the risk of incomplete capsulorhexis

\* Products in the process of development and certification

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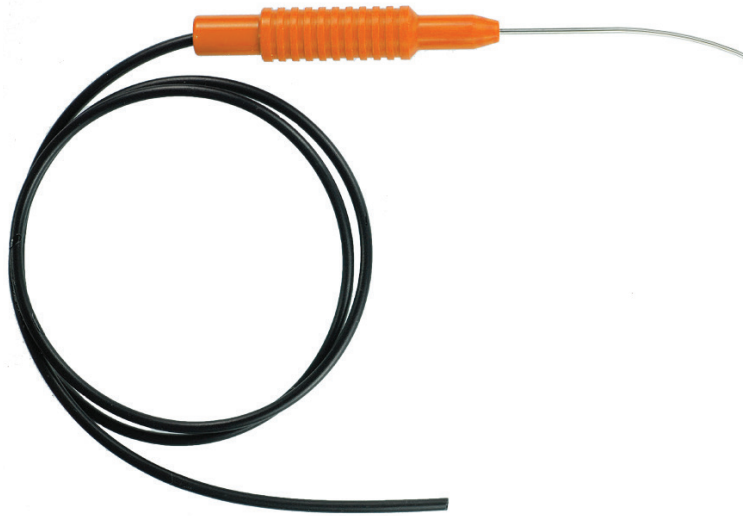
# NEW & COMING SOON PRODUCTS

## DISPOSABLE LASER PROBES

Designed to perform endo-ocular laser photocoagulation treatment

COMING SOON\*

STERILE  



- 23 Ga
- 25 Ga
- 27 Ga

Surgical system/type of the probe	Straight		Curved		Extensible	
SMA 905 Connector: Alcon®, Zeiss®, COHERENT®, Ellex®, B&L®	RLS-23AZ	23 Ga	RLC-23AZ	23 Ga	RLEX-23AZ	23 Ga
	RLS-25AZ	25 Ga	RLC-25AZ	25 Ga	RLEX-25AZ	25 Ga
	RLS-27AZ	27 Ga	RLC-27AZ	27 Ga		
DORC®	RLS-23D	23 Ga	RLC-23D	23 Ga	RLEX-23D	23 Ga
	RLS-25D	25 Ga	RLC-25D	25 Ga	RLEX-25D	25 Ga
	RLS-27D	27 Ga	RLC-27D	27 Ga		

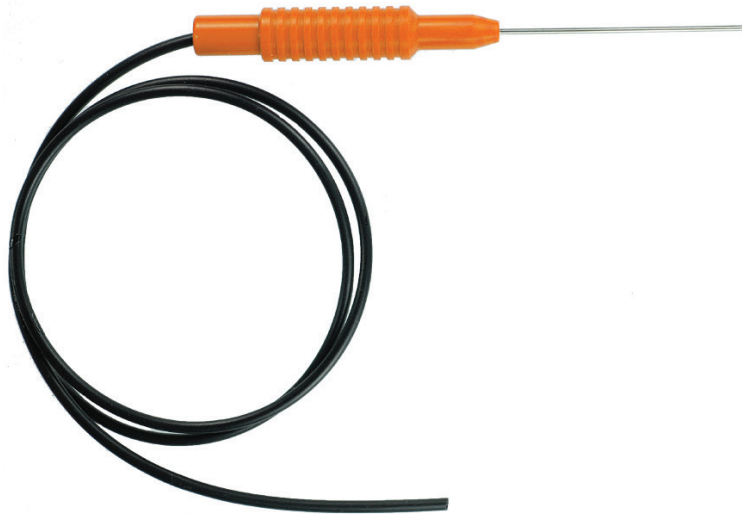


**DISPOSABLE FIBER OPTIC PROBES**




Used to illuminate the interior of the eye

**COMING SOON\***

**STERILE**  



- 23 Ga
- 25 Ga
- 27 Ga

Surgical system/type of illumination	Standard		Wide-angle		Shielded	
						
Alcon®	12-5177	23 Ga	12-5178	23 Ga	12-5625	23 Ga
	12-5135	25 Ga	12-3625	25 Ga	12-5627	25 Ga
	12-5927	27 Ga				
B&L®	12-5179	23 Ga	12-5180	23 Ga	12-5725	23 Ga
	12-5125	25 Ga	12-5427	25 Ga	12-5727	25 Ga
	12-5127	27 Ga				
Oertli®	12-4123	23 Ga	12-5463	23 Ga	12-5853	23 Ga
	12-4125	25 Ga	12-5465	25 Ga	12-5855	25 Ga
	12-4127	27 Ga				

\* Products in the process of development and certification

Product design and/or features that do not influence its functionality and main parameters are subject to change

# NEW & COMING SOON PRODUCTS

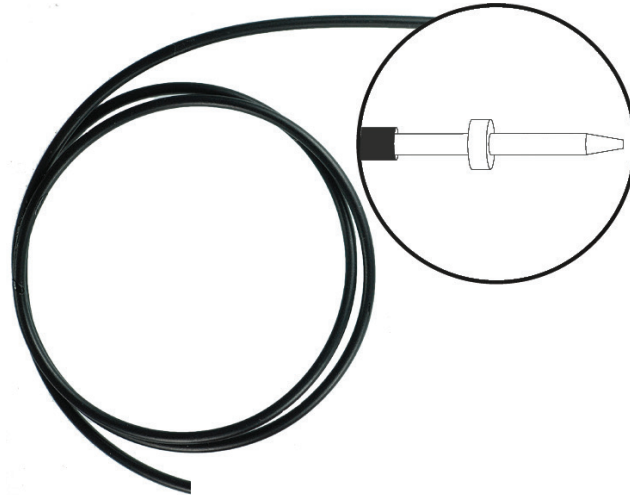
## DISPOSABLE CHANDELIER FIBER OPTIC PROBES


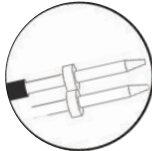


Enable bimanual vitreoretinal surgery

Allow for diffuse illumination to enhance visualization

Facilitate the recording of surgical videos by providing consistent lighting

**COMING SOON\***



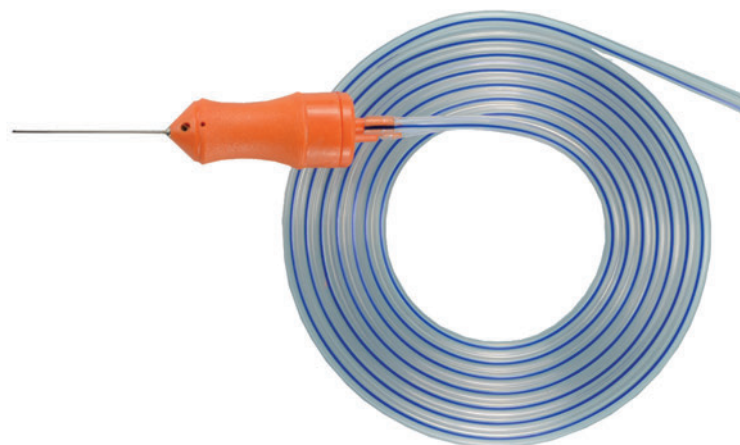
Surgical system/type of the probe	Standard		Dual Fiber		with preloaded Trocar and Inserter	
						
Alcon®	12-4563	23 Ga			12-5223	23 Ga
			12-4526	25 Ga	12-5225	25 Ga
					12-6327	27 Ga
B&L®	12-4573	23 Ga				
			12-4545	25 Ga		
Oertli®	12-4593	23 Ga			12-5543	23 Ga
			12-4543	25 Ga	12-5545	25 Ga
Synergetics®	12-4553	23 Ga				
			12-4525	25 Ga		

## DISPOSABLE VITRECTOMY CUTTERS

Help to efficiently cut and aspirate vitreous

COMING SOON\*

STERILE  



- 23 Ga
- 25 Ga
- 27 Ga

Surgical system/type of the cutter	Single Cut	Speed/Pressure	Double Cut	Speed/Pressure
Alcon®: Accurus®DORC®: Associate®	RV-23AC 23 Ga	Speed: 2000 CPM Pressure: 42 PSI		
	RV-25AC 25 Ga			
B&L®: Stellaris®	RV-23BF 23 Ga	Speed: 5000 CPM Pressure: 42 PSI	RV-23BFd 23 Ga	Speed: 10000 CPM Pressure: 42 PSI
	RV-25BF 25 Ga		RV-25BFd 25 Ga	
	RV-27BF 27 Ga			
Oertli®: OS4®	RV-23OS 23 Ga	Speed: 5000 CPM Pressure: 35-37 PSI		
	RV-25OS 25 Ga			
	RV-27OS 27 Ga			
BVI® (OPTIKON): R-Evo Smart® CR	RV-23OB 23 Ga	Speed: 5000 CPM Pressure: 30 PSI	RV-23OBd 23 Ga	Speed: 10000 CPM Pressure: 30 PSI
	RV-25OB 25 Ga			
	RV-27OB 27 Ga			
BVI® (OPTIKON): R-Evolution® CRZEISS®: VISALIS®	RV-23OZ 23 Ga	Speed: 6000 CPM Pressure: 43 PSI	RV-23OZd 23 Ga	Speed: 12000 CPM Pressure: 43 PSI
	RV-25OZ 25 Ga			
	RV-27OZ 27 Ga			
DORC®: EVA®	RV-23GC 23 Ga	Speed: 8000 CPM Pressure: 42 PSI		
	RV-25GC 25 Ga			
	RV-27GC 27 Ga			

\* Products in the process of development and certification

Product design and/or features that do not influence its functionality and main parameters are subject to change



# REUSABLE ANTERIOR INSTRUMENTS

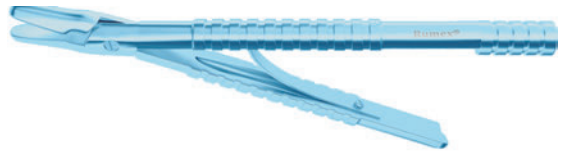
BLADE HOLDERS	42
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## BLADE HOLDERS

### Blade Holder

Round knurled handle with end lock  
Polished finish  
Overall length 95 mm  
Titanium

1-010T



### Bard Parker Handle

Suitable for blades # 10, 11, 12, 15, 15C  
Flat serrated handle  
Overall length 125 mm  
Stainless Steel

1-020S 



### Chuck Handle

Overall length 100 mm  
Titanium

1-030T



# CALIPERS & GAUGES

## CALIPERS & KERATOMETERS



### Castroviejo Caliper

Measures from 0 to 20 mm.  
Scale is engraved on both sides.  
Polished finish  
Overall length 87 mm  
Titanium or Stainless Steel

2-010T      0-20.00 mm  
2-010S      0-20.00 mm

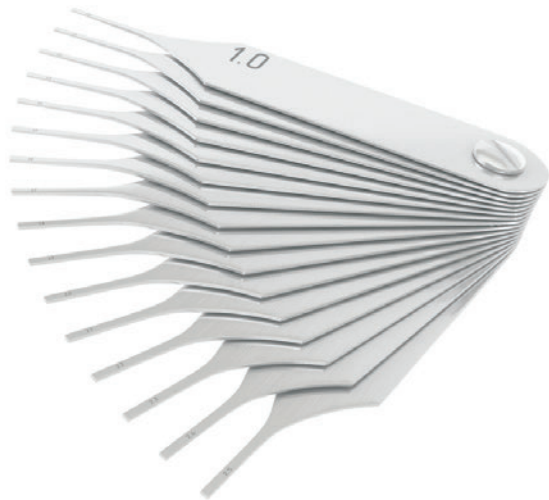


### Adler Wound Gauge

Used to measure incision width and depth (peripheral to central dimension) of a corneal/limbal wound.

Dull finish  
Diameter 30 mm  
Titanium

2-064T      2.00-2.50 mm



### RUMEX Internal Micro Incision Gauges

16 stainless steel blades  
0.10 mm increments marks  
Overall length 75 mm  
Stainless Steel

2-062S      1.00-2.50 mm

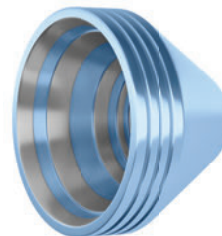


### Braunstein Fixed Caliper

To make the mark for MVR blade entrance and intravitreal injections.  
Marks the distance from limbus to sclera.  
3.50/3.00 mm for aphakic and 4.00/3.50 mm for phakic eyes.

Overall length 80 mm  
Titanium or Stainless Steel

2-101T      3.00/3.50 mm  
2-100T      3.50/4.00 mm  
2-100S      3.50/4.00 mm  
2-102S      2.00/2.50 mm



### Maloney Intraoperative Keratometer

For qualitative measurement of astigmatism

Diameter 32.00 mm  
Overall length 23 mm  
Titanium

16-020T

# REUSABLE ANTERIOR INSTRUMENTS

2 - CALIPERS, GAUGES

## GAUGES

Accurate axial alignment on the cornea

Used to determine incision angles.

### LRI Gauge

Can be used with **3-090T Bores Axis Marker**.

Calibrated every 10 degrees from 0° to 180°.

With atraumatic fixation teeth

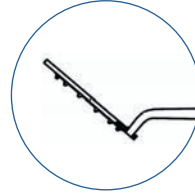
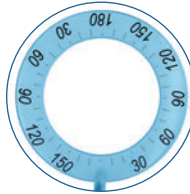
Dull finish

ID 13.00 mm/ED 19.00 mm

Overall length 134 mm

Titanium

2-031T



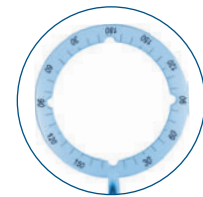
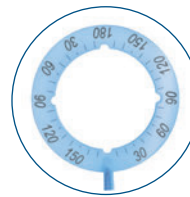
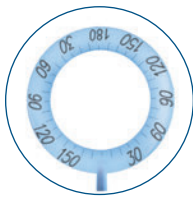
### Mendez Degree Gauge

Can be used with **3-090T Bores Axis Marker**.

Calibrated every 10 degrees from 0° to 180°.

Dull finish

Titanium



ID 13.00 mm/ED 19.00 mm  
Overall length 134 mm

With 4 grooves for better marks visualization  
ID 13.00 mm/ED 18.00 mm  
Overall length 136 mm

With 4 grooves for better marks visualization  
ID 13.00 mm/ED 16.50 mm  
Overall length 122 mm

2-030T ♥

2-033T

2-0331T

### Mendez Grooved Fine Degree Gauge

Can be used with **3-091T Bores Axis Marker**.

Calibrated every 5 degrees from 0° to 180°.

With 4 grooves for better marks visualization

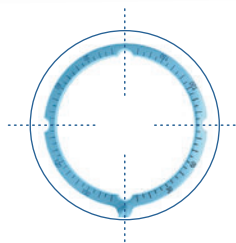
ID 12.00 mm/ED 14.00 mm

Dull finish

Overall length 133 mm

Titanium

2-034T ♥



### Degree Gauge with Beveled Face

Can be used with **3-091T Bores Axis Marker**.

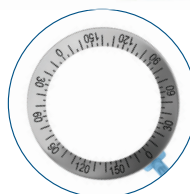
Calibrated every 5 degrees from 0° to 180°.

ID 12.00 mm/ED 16.00 mm

Overall length 132 mm

Titanium

2-036T ♥






## MARKERS


### AXIS MARKERS

#### Bores Axis Marker

Intra-Op  
Overall length 123 mm  
Titanium

3-090T   
3-091T



3-090T   
Used **with Gauges**  
**2-030T, 2-031T,**  
**2-033T, 2-0331T**  
to mark the axis.  
12.00 mm blades

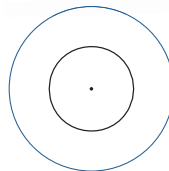
3-091T  
Used **with Gauges**  
**2-034T, 2-036T**  
to mark the axis.  
11.50 mm blades

### CAPSULORHEXIS MARKERS

#### Whipple Capsulorhexis Centration Marker

Creates circular mark on the cornea to help gauge the size of the capsulotomy and its position.  
Double-ended with 5.50/6.00 mm diameters  
Titanium Handle/Stainless Steel Tips  
Overall length 140 mm

3-040 



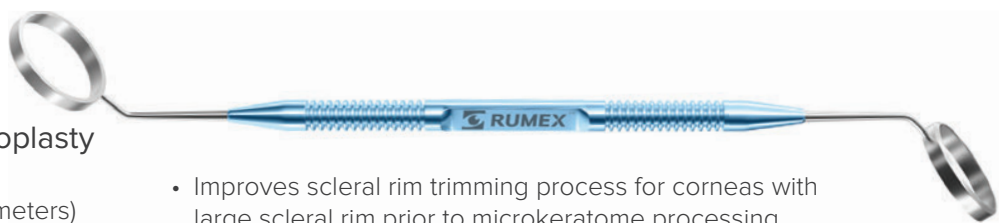
### CORNEAL TRANSPLANT MARKERS

#### Abdullayev Scleral Marker for Keratoplasty

Double-ended  
(16.00 mm and 16.50 mm diameters)  
Titanium Handle/Stainless Steel Tips  
Overall length 153 mm

3-0230

- Improves scleral rim trimming process for corneas with large scleral rim prior to microkeratome processing
- Eliminates additional measurement

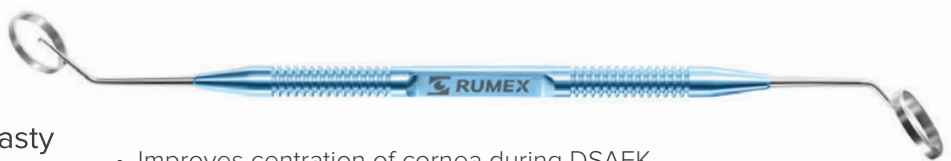


#### Abdullayev Corneal Marker for Keratoplasty

Double-ended  
(10.00 mm and 11.00 mm diameters)  
With central marking point  
Titanium Handle/Stainless Steel Tips  
Overall length 146 mm

3-0231

- Improves centration of cornea during DSAEK microkeratome preparation
- Allows quick placement of the central dot
- Facilitates placement of the donor corneas on to the donor punch



# REUSABLE ANTERIOR INSTRUMENTS

3 - MARKERS

## CORNEAL TRANSPLANT MARKERS

**Abdullayev  
I & II Marker**  
(for DSAEK/DMEK grafts)

Overall length 125 mm  
Titanium

3-024T

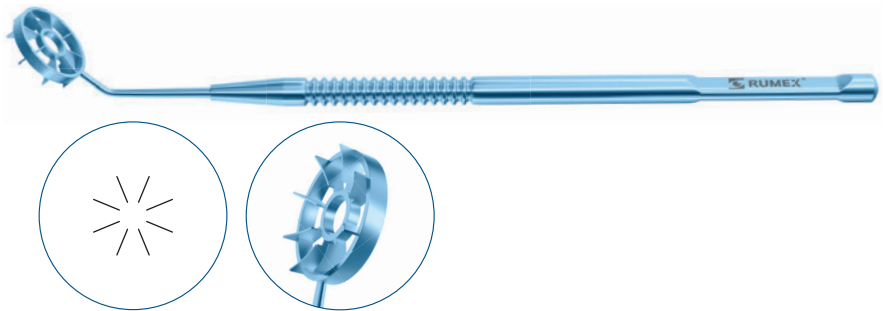


- I & II marks do not interfere with vision
- More stable staining
- Applies 1.50 mm straight I & II marks at the very edge of the graft
- No additional tissue manipulation
- Saves time during graft preparation

**Osher-Neuman  
Corneal Marker**

Low profile  
8 radial blades  
Overall length 130 mm  
Titanium

3-0304T



**Corneal Transplant Marker**

7.00 mm ring with 8 radial blades  
With center pointer  
Overall length 123 mm  
Titanium

3-140T



**John  
DSAEK Double-Ended Marker**

8.00/9.00 mm  
Overall length 143 mm  
Titanium

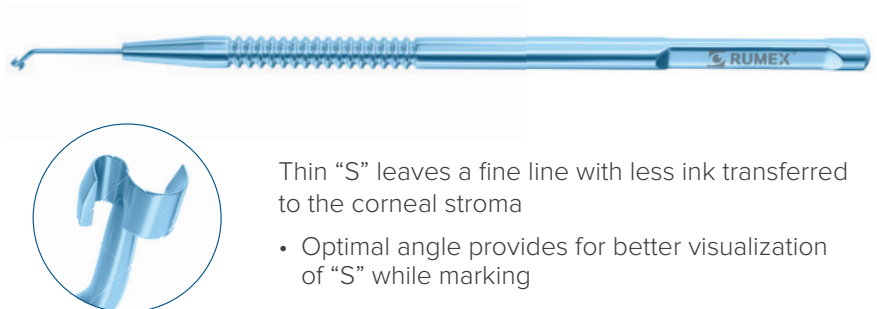
3-204T



**DMEK/DSAEK "S" Marker**

Overall length 115 mm  
Titanium

3-208T



Thin "S" leaves a fine line with less ink transferred to the corneal stroma

- Optimal angle provides for better visualization of "S" while marking

**OPTICAL ZONE MARKERS**

**Hoffer  
Optical Zone Marker**

With cross hairs

Titanium Handle/Stainless Steel Tip  
Overall length 103 mm

3-0211T	5.00 mm	3-0217T	8.00 mm
3-0212T	5.50 mm	3-0218T	8.50 mm
3-0213T	6.00 mm	3-0219T	9.00 mm
3-0216T	7.50 mm		



**Optical Zone Marker**

Used to mark visual center for ICRS implantation procedure.

Double-ended

Visual center marker 0.15 mm wide

Sinsky hook 0.50 mm wide

Titanium Handle/Stainless Steel Tips  
Overall length 141 mm

3-034



**LASIK MARKERS**

**Lavery LASIK Marker**

With an optical center sight

8.50 mm optical zone

5 asymmetrical marking lines to ensure right placement of a corneal flap

Overall length 130 mm

Titanium

3-174T



**LASIK Flap Marker**

3 asymmetrical marking lines to ensure right placement of a corneal flap

Designed both for nasal and superior hinge.

Overall length 130 mm

Titanium

3-176T



**TORIC IOL MARKERS**

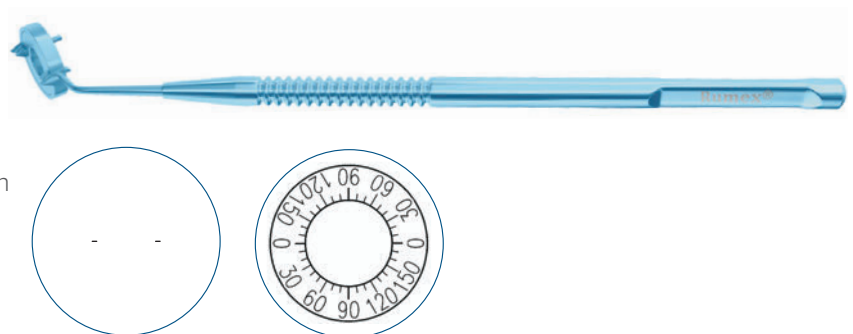
**Toric IOL Marker**

Designed for LRI/Toric IOL implantation  
Intra-Op

Overall length 130 mm

Titanium

3-181



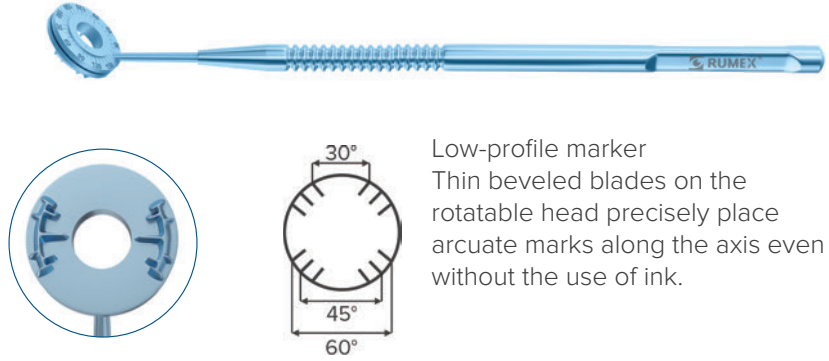
# REUSABLE ANTERIOR INSTRUMENTS

3 - MARKERS

## LRI MARKERS

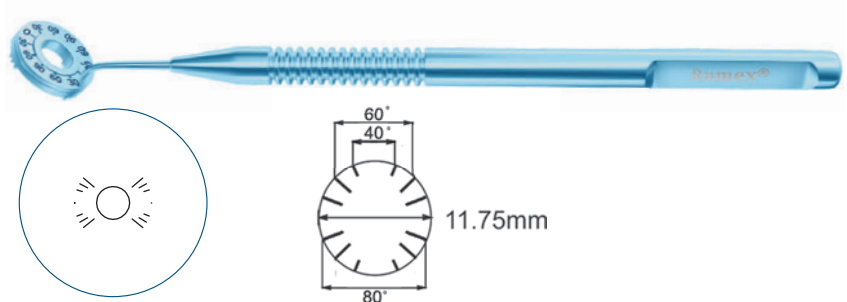
### LRI Marker

Intra-Op  
30-45-60°  
Overall length 116 mm  
Titanium  
3-183T



### LRI Marker

Intra-Op  
Automatically creates marks at 40-60-80°  
Overall length 130 mm  
Titanium  
3-1801

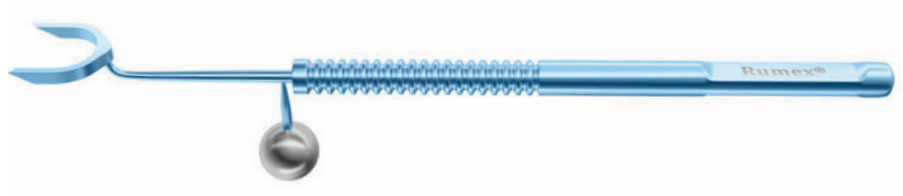


## LRI/TORIC MARKERS WITH GRAVITY WEIGHT SYSTEM

Gravity weight system for precise stabilization of the scale not interfering with a grip

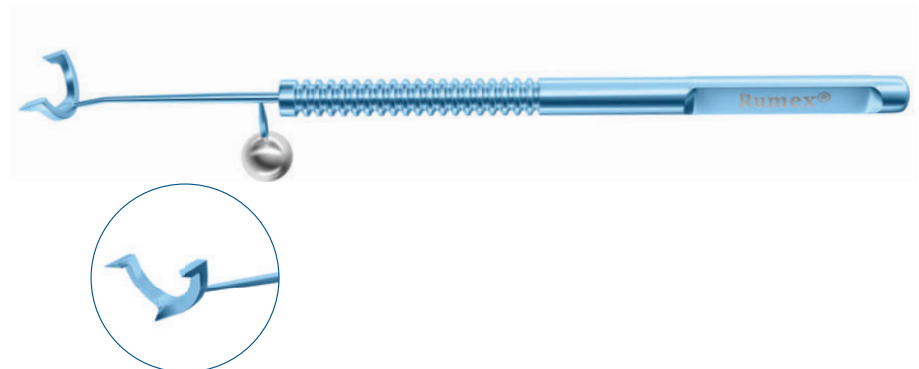
### LRI Slit Lamp Gravity Marker

Pre-Op, 14.00 mm  
Horizontal axis 3' and 9'  
Overall length 138 mm  
Titanium  
3-191



### Lum LRI Gravity Axis Marker

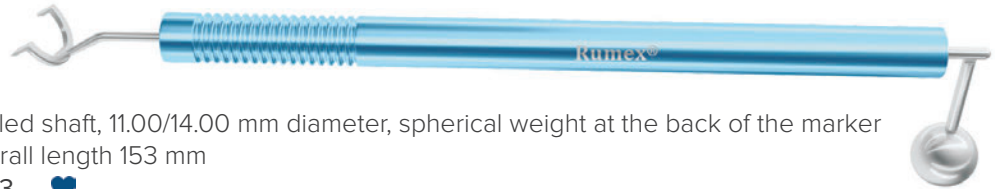
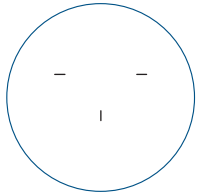
Pre-Op, 14.00 mm Angled,  
horizontal axis 3' and 9'  
Overall length 140 mm  
Titanium  
3-192



## Whitehouse Gravity Axis Marker

- Marks the limbus at 3, 6 and 9 o'clock
- Helps to avoid the effect of cyclotortion
- Gravity weight system assures excellent visualization and balance

Designed in cooperation with Geoff Whitehouse, M.D., Australia



Angled shaft, 11.00/14.00 mm diameter, spherical weight at the back of the marker  
Overall length 153 mm  
3-193

Straight shaft, 11.00/14.00 mm diameter, spherical weight at the back of the marker  
Overall length 152 mm  
3-1931

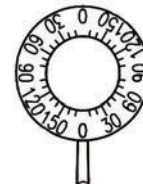
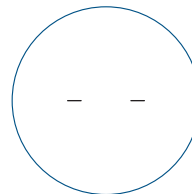
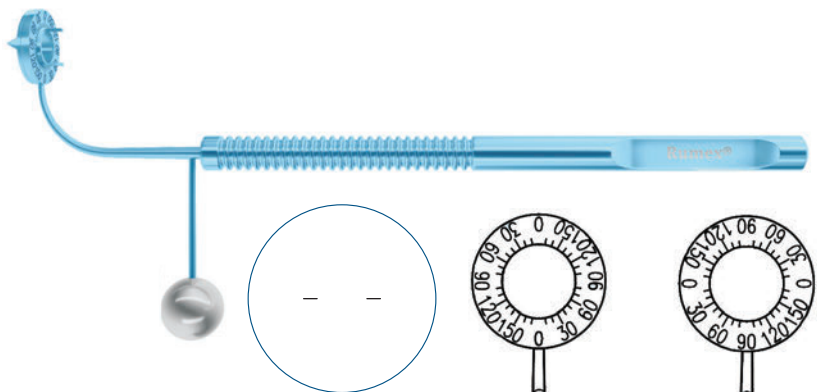
Straight shaft, 9.50/12.00 mm diameter, cylindrical weight at the back of the marker  
Overall length 153 mm  
3-1932

## RUMEX Toric Combo Marker

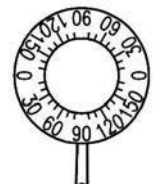
Overall length 125 mm

3-194 Vertical axis  
3-1941 Horizontal axis

- Marks both horizontal and toric axis pre-operatively, which eliminates an Intra-Op step
- Equipped with rotating ring for accurate alignment
- Reduces cyclotorsion effect in supine position



3-194



3-1941

## Velasquez Gravity Corneal Marker for LRI/Toric IOL Implantation

Overall length 164 mm

3-195

Designed in cooperation with Jaime Velasquez O'Byrne, M.D., Colombia



- 4 radial blades mark the horizontal and vertical meridians of the visual axis
- The internal marks help to check the IOL alignment at the end of the surgery
- The central 5 mm ring serves as a guide for capsulorhexis
- The outer ring protects blades from damage
- Angled shaft helps to avoid touching the lower eyelid

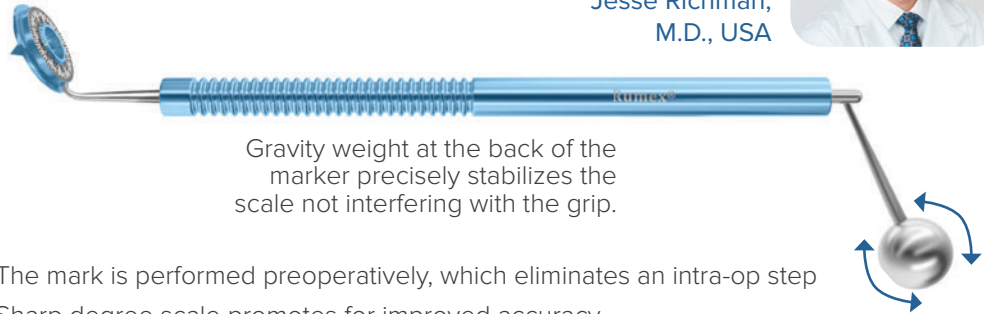
## LRI/TORIC MARKERS WITH GRAVITY WEIGHT SYSTEM

### Richman Single-Step Toric Marker

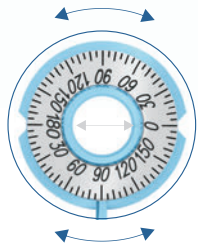
Designed to mark the desired axis of toric placement.  
Angled shaft  
Overall length 132 mm

3-196 

Designed in cooperation with  
Jesse Richman,  
M.D., USA



Gravity weight at the back of the marker precisely stabilizes the scale not interfering with the grip.



- The mark is performed preoperatively, which eliminates an intra-op step
- Sharp degree scale promotes for improved accuracy
- The outer barrel has indentations which make it easy to rotate
- Ergonomic handle, angled to avoid the lower eyelid when marking while still being able to rest your hand on patient's cheek for stability
- A wide central opening enhances positioning when marking

## MARKING PENS

STERILE



### Disposable Marking Pen

Double-ended

20-050 



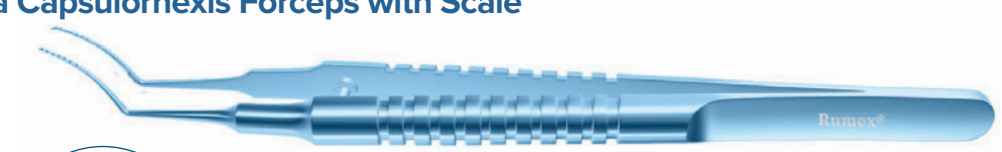
# A VARIETY OF CAPSULORHEXIS FORCEPS

## STANDARD

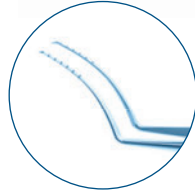
2.2 - 3.0 mm

### 4-03315T Utrata Capsulorhexis Forceps with Scale

Cystotome tips, TC\*



Scale for measuring the size of capsulorhexis



Curved shafts prevent corneal deformation

### 4-0331D ♥ Disposable Utrata Capsulorhexis Forceps

STERILE



Cystotome tips



- ✓ Meets quality standards applied to reusable tools
- ✓ Always ready to use

## SMALL-INCISION

2.0 mm



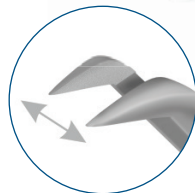
Internal limiter prevents the jaws from opening wider than intended.

### 4-0312S ♥ Microcoaxial Capsulorhexis Forceps with Alignment Mechanism

Cystotome tips, TC\*



Limited to 2.00 mm



### 4-032S ♥ Small-Incision Capsulorhexis Forceps with Limiter and Wide Opening

Cystotome tips, TC\*



Limited to 2.00 mm  
View-port for better visualization



2 engravings at 2.50 and 5.00 mm for measuring the rhexis

\*TC – Tungsten Carbide coating makes the platform rough enough for controlled gripping and prevents adhesion of the capsule. Product design and/or features that do not influence its functionality and main parameters are subject to change

# A VARIETY OF CAPSULORHEXIS FORCEPS

## SMALL-INCISION

1.50 mm

### 4-0395 ♥ Capsulorhexis Forceps with Cross-Action and Scale

Cystotome tips, TC\*



Scale for measuring the size of capsulorhexis



- ✓ Cross-action prevents hyperextension of the incision
- ✓ Hinge joints ensure even distribution of pressure at three points of forceps

Explore Cross-Action Capsulorhexis Forceps customizer on pages 56-57. Design your own unique instrument!

### 4-033S ✨ Small-Incision Capsulorhexis Forceps with Double Cross-Action and Scale

Cystotome tips, TC\*



NEW

Scale for measuring the size of capsulorhexis



- ✓ Double cross-action guarantees fixed opening for free movements within the wound

## MICS

sub 1.0 mm

### 4-03742 Lesieur Capsulorhexis Forceps with Internal Ruler

### 12-003T Universal Squeeze Handle



Scale for measuring the size of capsulorhexis



Anti-glare coating

Cystotome tips

- ✓ 23 Ga tube minimally disrupts biomechanics of cornea
- ✓ MICS tips are used with RUMEX Universal Handle and can be easily disassembled for cleaning after the surgery



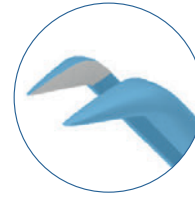
# FORCEPS

## CAPSULORHEXIS FORCEPS

Tungsten carbide coated cystotome tips for improved gripping



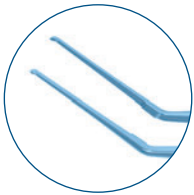
Regular tips



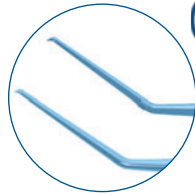
Cystotome tips

### Utrata Capsulorhexis Forceps

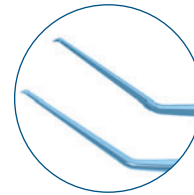
11.50 mm jaws  
Flat handle  
Titanium



Straight jaws  
Regular tips  
Overall length 82 mm  
4-030T



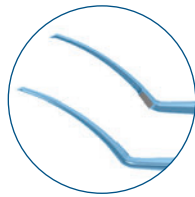
Straight jaws  
Cystotome tips  
Overall length 82 mm  
4-0300T



Straight jaws  
Cystotome tips  
Overall length 107 mm  
4-0301T



Curved jaws  
Cystotome tips  
Overall length 107 mm  
Titanium  
4-0321T



### Neyas Capsulorhexis Forceps

Straight jaws, 11.50 mm  
Cystotome triangular claw-shaped tips  
Overall length 105 mm  
Titanium

4-0352T

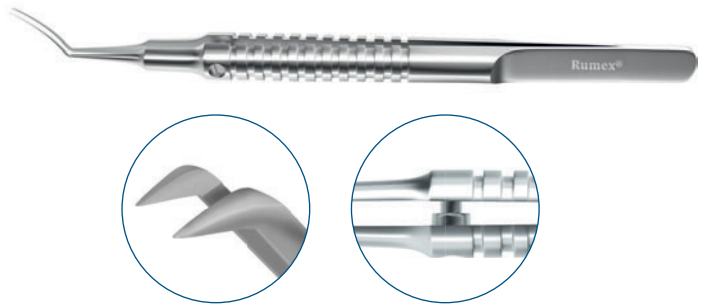


## CAPSULORHEXIS FORCEPS

### Microcoaxial Capsulorhexis Forceps with Limiter



Curved jaws, 11.50 mm  
 Cystotome tips  
 Ultra-thin profile and limiter for capsulorhexis even through 2.00 mm incision  
 Round handle  
 Overall length 106 mm  
 Stainless Steel

4-0312S 



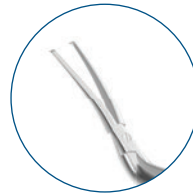
### Inamura Style RUMEX Capsulorhexis Forceps

Designed to fit through incisions down to 2.00 mm.  
 Recommended for coaxial phacoemulsification.  
 Curved jaws  
 Cystotome tips  
 Round handle  
 Overall length 115/117 mm  
 Stainless Steel

4-0391S jaws 10.00 mm, for corneal incision   
 4-0392S jaws 12.00 mm, for scleral incision 



Cross-action maintains alignment of tips, prevents leakage of viscoelastic from anterior chamber.



### Small-Incision Capsulorhexis Forceps with Cross-Action and Scale

Cystotome tips  
 Round handle  
 Overall length 110 mm  
 Stainless Steel

4-0393S 



Reverse-Action (Tips are closed when idle and opened when handle is squeezed)



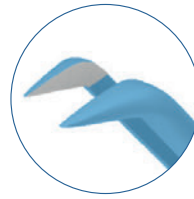
**NEW**  
 2.20 - 3.00 mm

- Cross-action mechanism prevents the hyperextension of the incision and the leakage of viscoelastic, allowing for enhanced anterior chamber maintenance
- 2 engravings at 2.50 and 5.00 mm for precise measurement of capsulorhexis
- Tungsten carbide coating at the tips for improved gripping of the capsule

Tungsten carbide coated cystotome tips for improved gripping



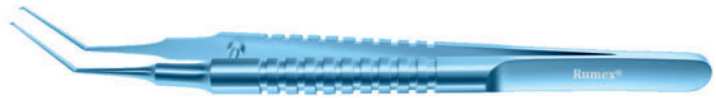
Regular tips



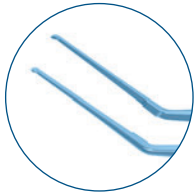
Cystotome tips

## Utrata Capsulorhexis Forceps

11.50 mm jaws  
Round handle  
Overall length 110 mm  
Titanium

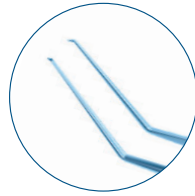


4-03114T, 4-03115T, 4-03314T, 4-03315T  
Engravings for precise measurement inside the anterior chamber



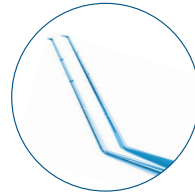
Straight jaws  
Regular tips

4-031T



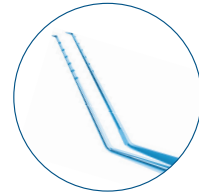
Straight jaws  
Cystotome tips

4-0311T



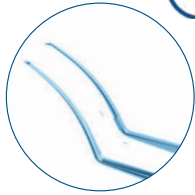
Straight jaws  
Cystotome tips, with ruler  
2 engravings at 3, 6 mm

4-03114T



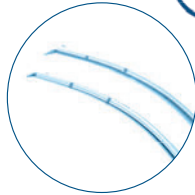
Straight jaws  
Cystotome tips, with ruler  
6 engravings at 1, 2, 3, 4, 5, 6 mm

4-03115T



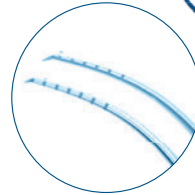
Curved jaws  
Cystotome tips

4-0331T



Curved jaws  
Cystotome tips, with ruler  
2 engravings at 3, 6 mm

4-03314T



Curved jaws  
Cystotome tips, with ruler, 6 engravings  
at 1, 2, 3, 4, 5, 6 mm

4-03315T

## Small-Incision Capsulorhexis Forceps

Curved micro-thin jaws  
Cystotome tips  
Scale of 2.50/5.00 mm from the tip  
With limiter  
For 2.00 mm incisions  
Flat handle  
Overall length 105 mm  
Stainless Steel

4-032S



# CROSS-ACTION CAPSULORHEXIS FORCEPS

Tungsten carbide coated cystotome tips allow to make the first pinch easily.

Curved shafts prevent corneal deformation.

Cross-action prevents the viscoelastic leakage and protects the incision from hyperextension.

Engravings assist in measuring the rhexis.

Hinge joints allow for even distribution of pressure at three points.

1.50 mm  
8.50 mm tips

**Design custom Cross-Action Capsulorhexis Forceps and we will manufacture them for you!**

## 1. Choose the Tip you prefer:

Shape

Curved



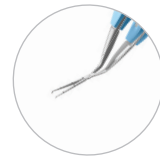
Straight



Long



Short

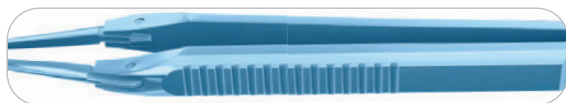


Lever

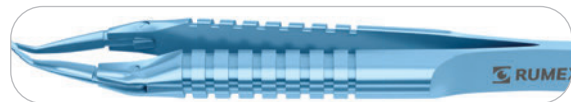
## 2. Complete with the Handle:

Shape

Flat



Round



Short



71 mm

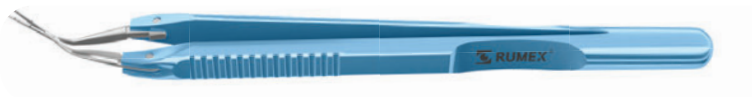
Size

Medium



91 mm

Long

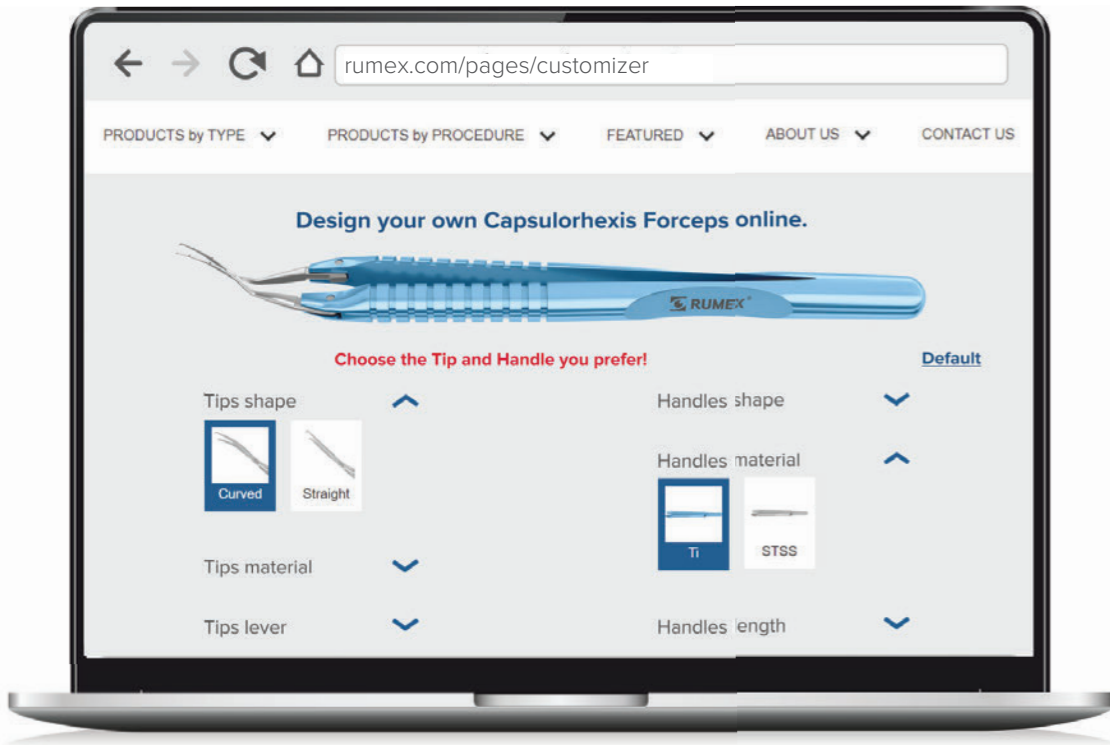


101 mm

## 3. Select the Material:

All Tips and Handles are available in **Titanium** and **Stainless Steel!**

# CROSS-ACTION CAPSULORHEXIS FORCEPS ONLINE CUSTOMIZER

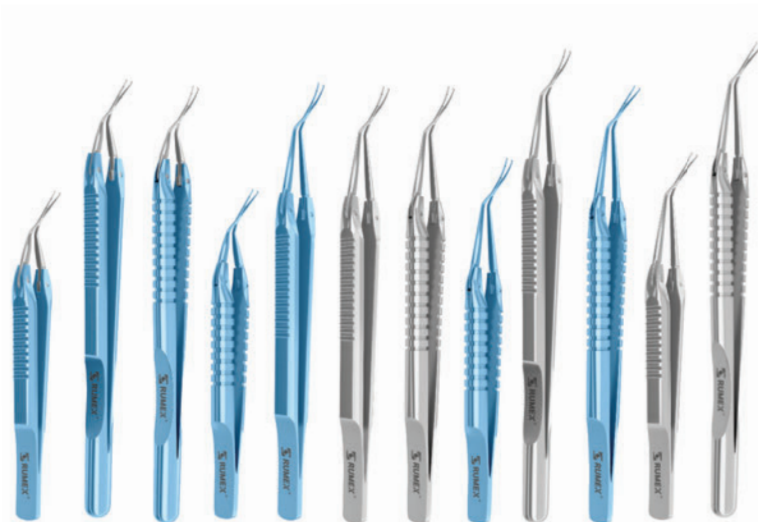


## Design your own unique instrument!

Choose sizes, shapes, and materials that you prefer. Curved or Straight, Long or Short, Titanium or Stainless Steel up to your preferences. You can modify the tool with a few clicks!



You design, we create!



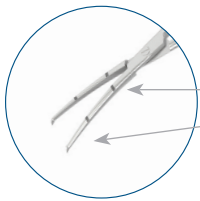
# CROSS-ACTION CAPSULORHEXIS FORCEPS

## Cross-Action Capsulorhexis Forceps with Scale

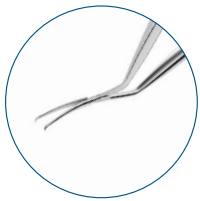
Cross-action prevents the viscoelastic leakage and protects the incision from hyperextension

Hinge joints allow for enhanced durability and even distribution of pressure at three points of the tool

Jaws 8.50 mm  
For 1.50 mm incisions  
Overall length 110 mm



Scale of 2.50/5.00 mm from the tip  
Cystotome tips



Curved jaws  
Stainless steel

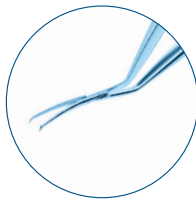
Flat handle  
Titanium

4-0395

Round handle  
Titanium

4-0394

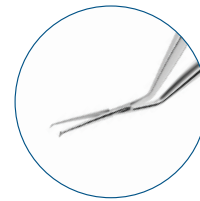
Flat handle  
Stainless steel  
4-0395S



Curved jaws

Flat handle  
Titanium

4-0395T



Straight jaws  
Stainless steel

Flat handle  
Titanium

4-0396

## Small-Incision Capsulorhexis Forceps with Double Cross-Action and Scale

Micro-thin jaws  
Cystotome tips  
Scale of 2.50/5.00 mm from the tip  
Flat handle  
Overall length 105 mm  
Stainless Steel

4-033S



Double cross-action and parallel retraction of branches guarantee fixed opening for free movements within the wound and protect the incision from stretching.

**MICS CAPSULORHEXIS FORCEPS**

Micro jaws, 0.80 mm incision

Exquisite gripping function

Cystotome tips

Anti-glare matte finishing

Stiff and flexible Stainless Steel tube

With fixation wheel


**Kershner One-Pinch Capsulorhexis Forceps**

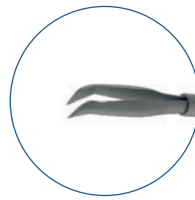
Curved shaft  
Compatible with Squeeze Handle 12-003T



4-03731\* 23 Ga  
For high vacuum phaco



4-03741\* 23 Ga   
Micro jaws  
Reduced length of the branches for better maneuverability in the anterior chamber during capsulorhexis



**Capsulorhexis Forceps with Micro Jaws and Internal Ruler**

The internal laser marks allow to measure the size of rhexis.  
Curved shaft  
Compatible with Squeeze Handle 12-003T



4-0375\* 23 Ga  
6 engravings at 1, 2, 3, 4, 5, 6 mm



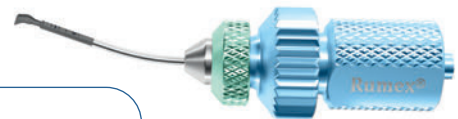
**Lesieur Capsulorhexis Forceps with Internal Ruler**

Shorter jaws facilitate gripping the capsule close to the wound.  
Gently curved and short shaft for better maneuverability in the anterior chamber.  
7 engravings at 1, 2, 2.5, 3, 4, 5, 6 mm for perfect sizing of the rhexis  
Compatible with Squeeze Handle 12-003T

Designed in cooperation with Gilles Lesieur, M.D., France



4-03742\* 23 Ga



\*Tip only. Handles are sold separately.

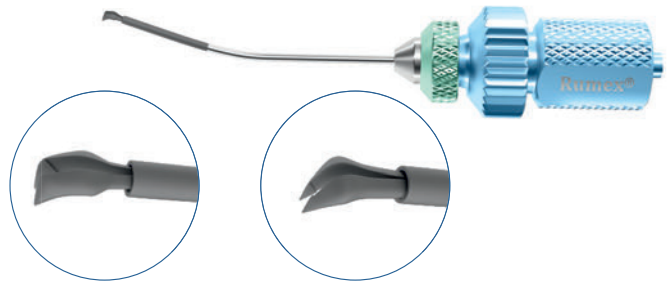
Product design and/or features that do not influence its functionality and main parameters are subject to change



## MICS CAPSULORHEXIS FORCEPS

### Ikeda Capsulorhexis Forceps

Reduced length of the branches for better maneuverability in the anterior chamber during capsulorhexis  
Curved shaft  
Compatible with Squeeze Handle 12-003T



Fine-Ikeda  
Capsulorhexis  
Forceps with Micro  
Jaws, 23 Ga

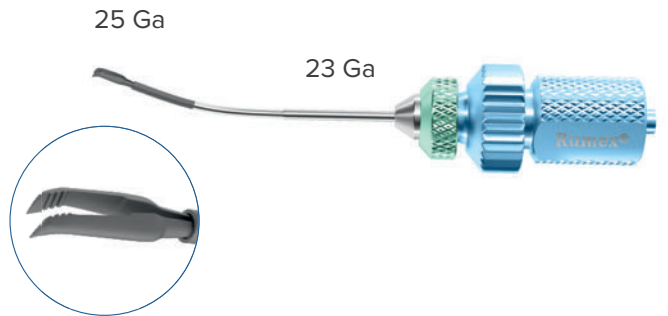
4-03751\* 23 Ga

Ikeda Micro  
Capsulorhexis  
Forceps, 23 Ga

4-03761\* 23 Ga

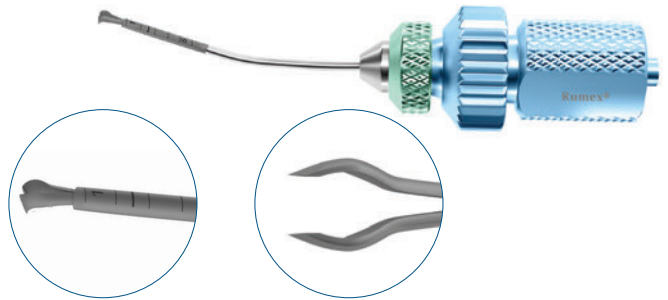
### Kawai Capsulorhexis Forceps

Curved tapered elongated 23/25 Ga shaft  
The construction of the forceps shows least adverse effect on the wound.  
Gripping tips are projected out of 25 Ga shaft.  
Compatible with Squeeze Handle 12-003T  
4-03771\* 23/25 Ga



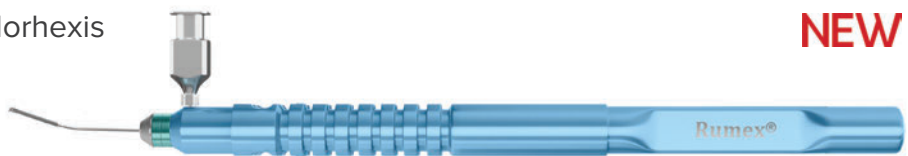
### Capsulorhexis Forceps with View Port

7 engravings at 1, 2, 2.5, 3, 4, 5, 6 mm  
for perfect sizing of the rhexis  
Reduced length, gently curved tube  
Compatible with Squeeze Handle 12-003T  
4-03791\* 23 Ga



### Kershner One-Pinch Capsulorhexis Forceps, 23 Ga, One-Piece

4-03741H ✦

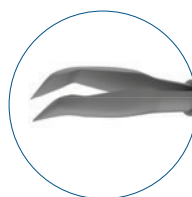


**NEW**

**Complete tool** – no need to adjust the tip to the handle

**Delicate cleaning** – flushing liquid streams towards the tips with zero stress for the jaws

**Increased lifespan** – the inner mechanism is not involved into the cleaning process and stays intact



- Micro jaws
- Cystotome tips
- Reduced length of the branches
- Improved maneuverability



**Rowen Rescue Kit for Foldable Lens Removal**

**Rowen Rescue Kit Forceps**

Crocodile type intraocular forceps for foldable lens removal  
 To remove silicone or acrylic IOL in case of complications  
 Curved shaft  
 Compatible with Squeeze Handle 12-003T  
 4-2150\* 19 Ga ♥



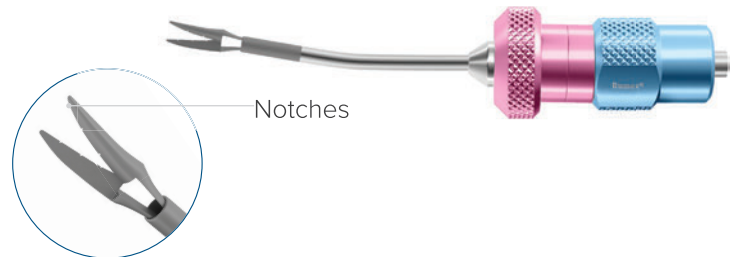
**Rowen Rescue Kit Scissors**

Intraocular scissors for foldable lens removal  
 To cut silicone or acrylic IOL in case of complications  
 Curved shaft  
 Compatible with Squeeze Handle 12-003T  
 4-2151\* 18 Ga ♥



**Micro Foldable Lens Cutter**

Intraocular scissors for foldable lens removal  
 To cut silicone or acrylic IOL in case of complications  
 Blades with notches  
 Curved shaft  
 Compatible with Squeeze Handle 12-003T  
 4-2173\* 19 Ga ♥



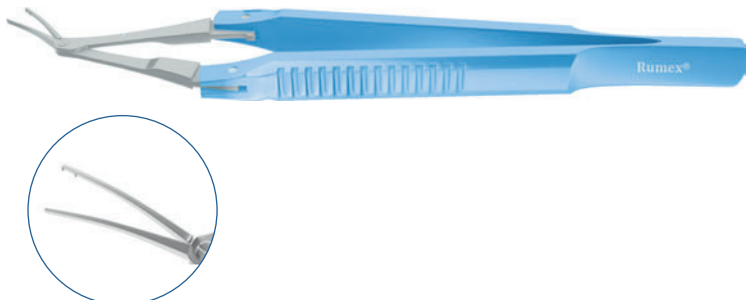
**RUMEX Foldable Lens Cutter**

Designed to cut and remove all types of foldable intraocular lenses through a small incision.  
 Flat squeeze Titanium handle  
 Overall length 113 mm  
 4-21731 ♥



**RUMEX Foldable Lens Removing Forceps**

Designed to grasp and remove all types of foldable intraocular lenses through a small incision.  
 Flat squeeze Titanium handle  
 Overall length 114 mm  
 4-21741



\*Tip only. Handles are sold separately.  
 Product design and/or features that do not influence its functionality and main parameters are subject to change

# REUSABLE ANTERIOR INSTRUMENTS

4 - FORCEPS

## IOL REMOVING INSTRUMENTS

### Osher IOL Scissors

To cut silicone or acrylic IOL in case of complications  
 8.50 mm blades with serrations to fixate the lens  
 Flat handle  
 Overall length 91 mm  
 Stainless Steel  
 4-2175S



### IOL Grasping Forceps

Designed to reach and hold the IOL optic and haptic.  
 Sandblasted surfaces for efficient gripping  
 Fenestrated jaws for better visualization and haptic manipulation  
 Curved shaft  
 With fixation wheel  
 Compatible with Squeeze Handle 12-003T  
 4-2145\* 21 Ga



**NEW**

### Fukuoka Intraocular Lens Extraction Forceps for Cartridge Pull-Through Technique, 18 Ga

Narrow and long tips grasp securely the IOL.  
 Compatible with Squeeze Handle 12-003T  
 Straight shaft  
 Can be used with **13-061 Holz Zonule Defender.**

4-2142\* 



Serrated design to prevent slipping

The inner surfaces are recessed to reduce intra-cartridge pressure.

Recommended incision size – 3.20 mm. To use with Nex-IJ type 2c” (NIDEK CO.) and Monarch Alcon B cartridge.  
**Precautions!** Not for PMMA and other non-foldable IOLs. Not for Hydrophilic IOLs.

## FORCEPS FOR YAMANE TECHNIQUE

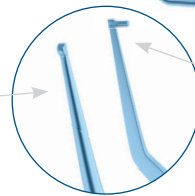
### Amado Haptic Holder “Perfect Flanger”

Designed for:

- attaining a standardized flange
- sutureless intrascleral intraocular IOL fixation
- proper IOL centration

4-211T 

Grooved tips allow for a gentle holding of haptics or sutures without the risk of kinking them.\*\*



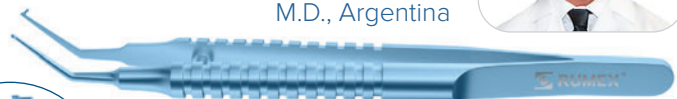
A reference cylinder:

- measures out 1.00 mm of haptic to be melted
- pushes melted haptic into sclera

Designed in cooperation with Sebastian Amado, M.D., Argentina



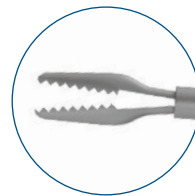
**NEW**



### Microinvasive Yamane IOL Fixation Forceps, 23 Ga\*

- Designed for intrascleral IOL fixation
- Delicate tips
- Secure grip

4-1895 



\*Tip only. Handles are sold separately

\*\*tested in polymethyl methacrylate haptics, polyvinyl fluoride haptics, and 6-0 polypropylene sutures

Product design and/or features that do not influence its functionality and main parameters are subject to change

**PHAKIC IOLs FORCEPS**

**ICL™  
Cartridge Loading Forceps**

Designed to remove the ICL from the container and push it inside the cartridge.  
Angled 30° long jaws  
Round handle  
Overall length 120 mm

- 4-20111T Titanium
- 4-20111S Stainless Steel

ICL™ - registered trademark of STAAR®



**ICL™  
Coaxial Angled ICL™ Loading Forceps**

Designed to load the ICL™ inside the cartridge to ensure proper positioning by pulling from the distal opening.  
Straight shaft  
With fixation wheel  
Compatible with Squeeze Handle 12-003T

- 4-21431\* 20 Ga

ICL™ - registered trademark of STAAR®

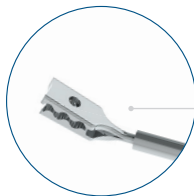


**Zaldivar-Kraff ICL™ Pacman Forceps**

Designed to load the ICL™ inside the cartridge to ensure proper positioning by pulling from the distal opening.  
Atraumatic ridges and the gentle curve at the tips to grasp the ICL® without damage.  
Straight shaft, angled tips  
With fixation wheel  
Compatible with Squeeze Handle 12-003T

- 4-21432\* 20 Ga

ICL™ - registered trademark of STAAR®



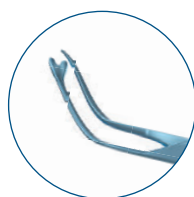
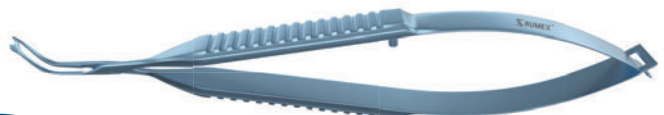
A view-port on the upper jaw for perfect visualization

**ARTISAN® Implantation Forceps**

Used for implantation of toric ARTISAN® IOL.  
Specially designed jaws help to fixate the lens optic during the enclavation.

Flat handle  
Overall length 100 mm  
Titanium

- 4-260T



\*Tip only. Handles are sold separately

Product design and/or features that do not influence its functionality and main parameters are subject to change

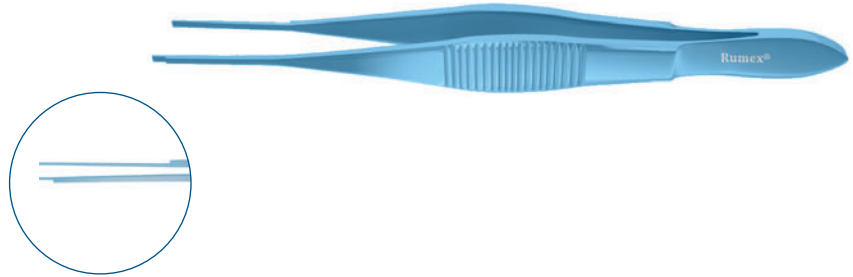
## LENS INSERTERS

### Cartridge Loading Forceps

Designed for inserting Acrylic IOL into A, B, C, D cartridges.  
To be used with **16-2806, 16-2807, 16-2808 Injectors.**

Smooth jaws  
Flat handle  
Overall length 109 mm  
Titanium

4-2141T



### Steinert Paddle Lens Folding Forceps

Angled shafts  
Flat handle  
Overall length 110 mm  
Titanium

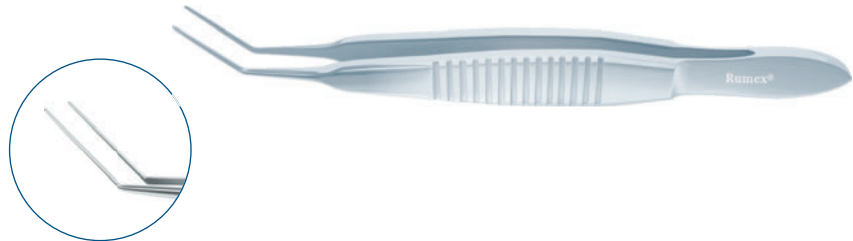
4-2107T



### Faulkner Lens Holding Forceps

Angled shafts  
Smooth jaws  
Flat handle  
Overall length 105 mm  
Stainless Steel

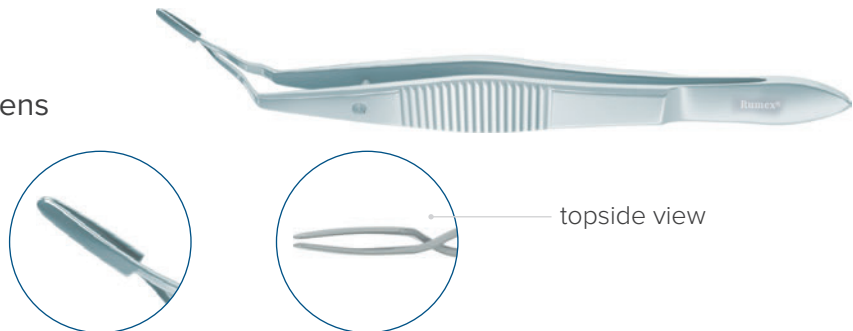
4-2108S



### McDonald Inserting Forceps for Silicone Lens

Concave jaws, 5.00 mm  
Cross-action  
Flat handle  
Overall length 107 mm  
Stainless Steel

4-2113S



### Acrylic Lens Insertion Forceps

Flat handle  
Overall length 105 mm  
Titanium

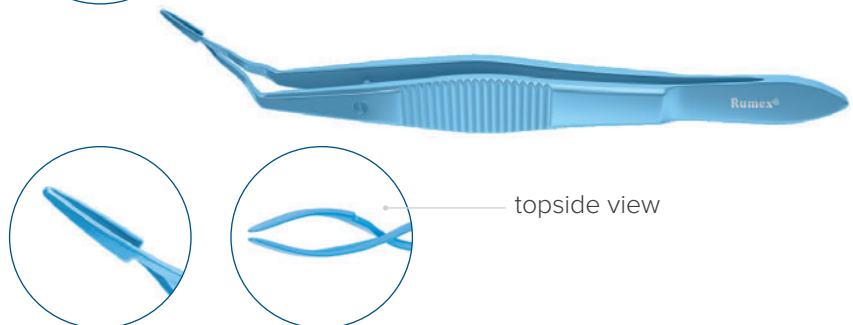
4-2132T



### Akahoshi Forceps for Acrylic Lens

Thin and smooth jaws, 7.00 mm  
Jaws open up to 5.50 mm  
Cross-action  
Flat handle  
Overall length 108 mm  
Titanium

4-2138T



**LID AND CHALAZION FORCEPS**

**Desmarres  
Chalazion Forceps**

Solid lower plate, open upper plate  
 Locking thumb screw mechanism  
 Flat handle  
 Overall length 96/90/92 mm  
 Titanium

- 4-1906T Large size 31.00×17.40 mm (shown)
- 4-1907T Small size 19.80×10.40 mm ♥
- 4-1912T Medium size 24.00×16.00 mm ♥



**Lambert  
Chalazion Forceps**

Round solid lower plate, open upper plate  
 Locking thumb screw mechanism  
 Flat handle  
 Overall length 92/97 mm  
 Titanium

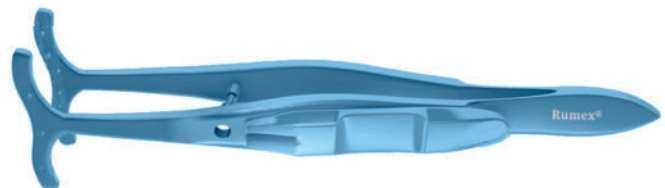
- 4-1908T Small, 8.00 mm ID of the upper plate ♥
- 4-1909T Medium, 12.00 mm ID of the upper plate ♥



**Putterman  
Lid Clamp**

6 Pins  
 Serrated jaws  
 Sliding lock  
 Overall length 100 mm  
 Titanium

- 4-140T ♥

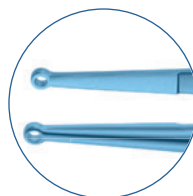


**CONJUNCTIVA FORCEPS**

**Fechtner  
Conjunctiva Forceps**

Delicate ring tip jaws  
 Flat handle  
 Overall length 108 mm  
 Titanium

- 4-2301T ♥



# REUSABLE ANTERIOR INSTRUMENTS

4 - FORCEPS

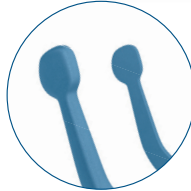
## COMPRESSING LID FORCEPS

Dysfunctional meibomian glands often cause dry eyes. They may also contribute to blepharitis. Physical expression of the blocked glands has the goal of removing gland obstruction.

### Compressing Lid Forceps

Designed for mechanical meibum removal.  
Angled  
Flat handle  
Overall length 112 mm  
Titanium

4-1913T 



Obtains quick and delicate meibum expression by equal compressing of the eyelid from the internal and external sides.

### Compressing Lid Forceps with Atraumatic Rollers

Designed for mechanical meibum removal.  
Flat handle  
Overall length 107 mm  
Stainless Steel

4-124S 

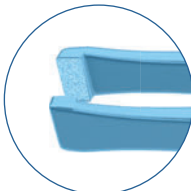


Texturized rollers are safe for the conjunctiva. Quick and delicate meibum expression is achieved by even squeezing of the eyelid from its base to the margin.

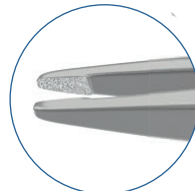
## CILIA FORCEPS


### Cilia Forceps

Smooth jaws  
Flat handle



Wide forceps  
Overall length 85 mm  
Titanium  
4-043T



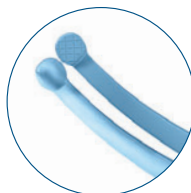
Narrow forceps  
Overall length 86 mm  
4-042T Titanium   
4-042S Stainless Steel

## LASIK FLAP FORCEPS

### LASIK Flap Forceps

Specially designed for LASIK.  
For atraumatic corneal flap lifting and holding  
Blunt, circle-shaped tips  
Criss-cross serrations on the jaws  
Curved shafts  
Flat handle  
Overall length 108 mm  
Titanium

4-2206T





**SMILE FORCEPS**

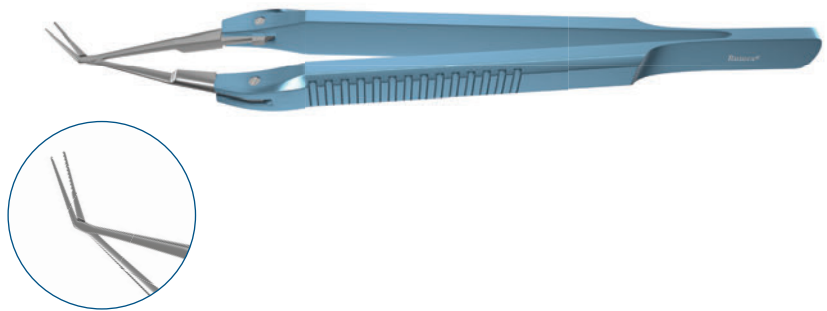
Designed to grasp the lenticule and remove it from the corneal pocket.

**Cross-Action SMILE Forceps**

Cross-action prevents the hyperextension of the incision. Serrated jaw facilitates gripping of the lenticule during SMILE procedure.

Flat handle  
Overall length 120 mm

4-0398



**Stodulka Forceps for Small-Incision Lenticule Extraction**

Composite surface of the tips (texturized and serrated) ensures the efficient grasping of the lenticule.

Flat handle  
Overall length 100 mm  
Stainless Steel

4-2012S



**SMILE Lenticule Extraction Forceps with a View-Port**

Wide gripping area and smooth flat tips for safe manipulations. Curved shafts adhere to the curvature of the cornea.

View-port for enhanced visualization  
Flat handle  
Overall length 106 mm  
Stainless Steel

4-266S

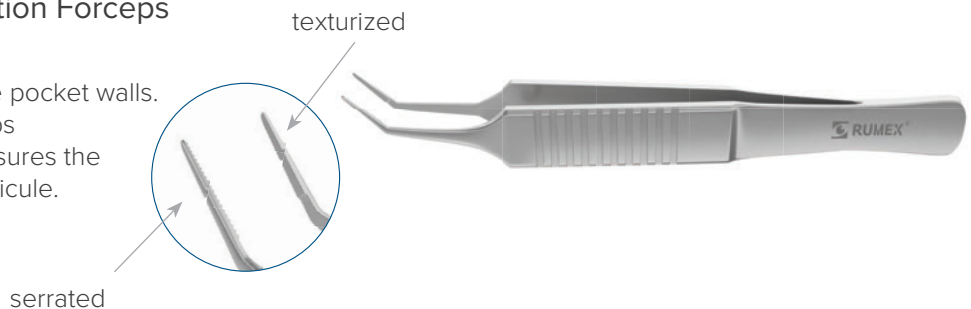


**SMILE Lenticule Extraction Forceps with Serrations**

Ultrathin tips are safe for the pocket walls. Composite surface of the tips (texturized and serrated) ensures the efficient grasping of the lenticule.

Flat handle  
Overall length 84 mm  
Stainless Steel

4-268S



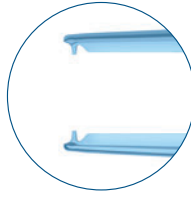
# REUSABLE ANTERIOR INSTRUMENTS

4 - FORCEPS

## ICRS FORCEPS

Forceps  
for ICRS Implantation

0.20 mm 1x1 teeth  
0.30 mm groove  
Flat handle  
Overall length 85 mm  
Titanium  
4-2144T

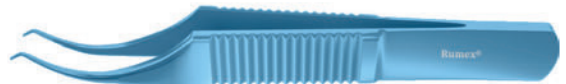


## CORNEAL FORCEPS

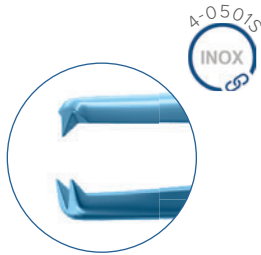
Tungsten carbide coated platform for an even greater grip and increased control

Colibri  
Corneal Forceps

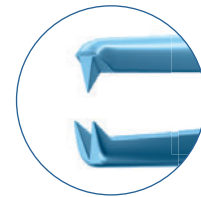
5.00 mm tying platform  
Flat handle



Colibri  
1x2 teeth 0.12 mm  
Overall length 84 mm  
Titanium  
4-050T ♥



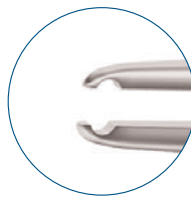
Colibri  
1x2 teeth 0.12 mm  
Overall length 77 mm  
Titanium  
4-0501T ♥



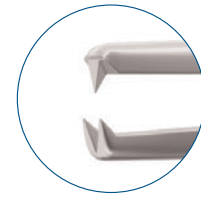
Colibri-Bonn  
1x2 teeth 0.12 mm  
Overall length 77 mm  
Titanium  
4-0504T ♥



Micro Colibri  
1x2 teeth 0.12 mm  
Overall length 73 mm  
Titanium  
4-0505T



Hoskin Colibri  
Pierced tips  
Overall length 84 mm  
Stainless Steel  
4-0502S



Colibri-Bonn  
1x2 teeth 0.12 mm  
Overall length 84 mm  
Stainless Steel  
4-0503S ♥

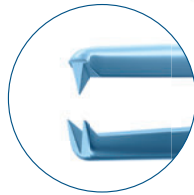


Tungsten carbide coated platform for an even greater grip and increased control

**Colibri  
Corneal Forceps**

Bonn type 1x2 teeth, 0.12 mm  
Tying platform, 5.00 mm  
Flat handle  
Overall length 115 mm  
Titanium

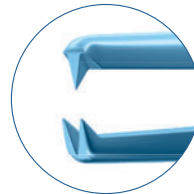
4-053T 



**Castroviejo Colibri  
Corneal Forceps**

1.2 teeth, 0.12 mm  
Tying platform, 5.00 mm  
Flat handle  
Overall length 107 mm  
Titanium

4-0541T 



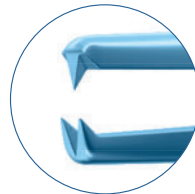
**Colibri  
Corneal Forceps**

1x2 teeth, 0.12 mm  
Tying platform, 5.00 mm  
Round handle  
Overall length 109 mm  
Titanium

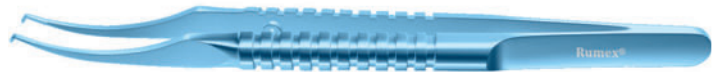
4-054T Regular tips  
4-0540T Bonn type tips



4-054T



4-0540T




**Corneal Forceps**

5.00 mm tying platform  
Titanium

**Catalano**


Round handle  
Overall length 105 mm

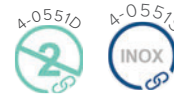
1x2 teeth 0.12 mm  
4-055T 


1x2 teeth 0.30 mm  
4-056T

1x2 teeth 0.50 mm  
4-057T



**Bonn-Catalano**  
1x2 teeth 0.12 mm  
Round handle  
Overall length 105 mm  
4-0551T 



**Bonn**  
1x2 teeth 0.12 mm  
Flat handle  
Overall length 94 mm  
Medium size  
4-058T 

**Bonn**  
1x2 teeth 0.12 mm  
Flat handle  
Overall length 72 mm  
Small size  
4-059T

## CORNEAL TRANSPLANTATION FORCEPS

### Florakis Endothelial Forceps

Designed to assist in the removal of endothelium from the host cornea.  
Reversed triangular tips, angled 75°  
Flat handle  
Overall length 103 mm  
Stainless Steel

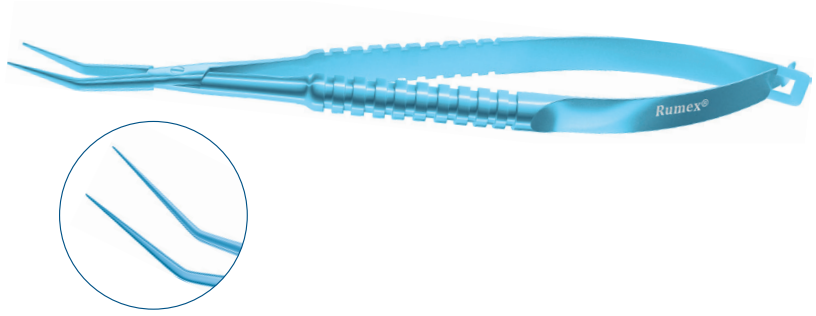
4-246S



### Corneal Donor Insertion Forceps

Designed for atraumatic insertion of the donor lamella folded in a taco shape.  
30° angled, 18.00 mm tip  
Round handle  
Overall length 125 mm  
Titanium

4-2019T



### Florakis Microinvasive Endothelial Forceps

Designed to assist in the removal of endothelium from the host cornea.  
With fixation wheel  
Compatible with Squeeze Handle 12-003T

4-247\* 23 Ga



### Forceps for SMILE and Corneal Endothelium Implantation

For inserting the donor button with the pull-through technique  
Provides for security of corneal stromal layer.  
Compatible with Squeeze Handle 12-003T  
Can be used for SMILE lenticule extraction.

4-034\* 23 Ga 



### Guell DMEK Forceps

Highly polished broad tips allow to peel the endothelial membrane safely without risk of tearing.  
Overall length 103 mm  
Stainless Steel

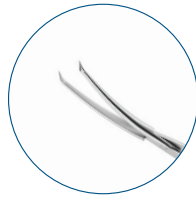
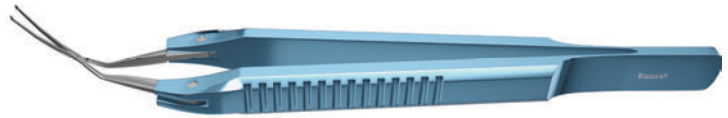
4-240



## Cross-Action DMEK Forceps

Overall length 110 mm

- 4-251 Flat Titanium handle
- 4-262 Round Titanium handle



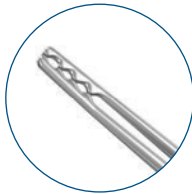
- Reversed tips are used to peel off the Descemet's membrane through a 1.80 mm incision

## Lambright-Abdullayev

### Ultrathin DSAEK Grasping/Inserting Forceps

Flat handle  
Overall length 105 mm  
Stainless Steel

4-254S



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

- 120 microns space between the tips to minimize compression and provide more safety for donor endothelial cells
- Wave-shaped serration for non-slip insertion and atraumatic forceps removal

## Abdullayev

### DMEK Grasping Forceps

Flat handle  
Overall length 82 mm  
Stainless Steel

4-261S



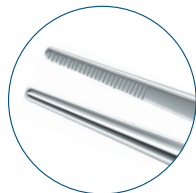
- Improved angle between grasping platform
- Horizontal thin grasping platforms provide more stability in membrane holding during separation
- Relaxing hand position and greater control

## DRESSING FORCEPS

### Dressing Forceps with Delicate Serrations

Straight serrated tips, 6.00 mm  
Round handle  
Overall length 108 mm  
Stainless Steel

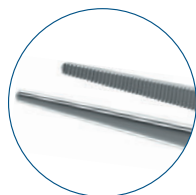
4-070S



### Dressing Forceps with Delicate Serrations

Serrated tips, 12.00 mm  
Flat handle  
Overall length 100 mm  
Stainless Steel or Titanium

- 4-071S Straight
- 4-072T Curved



4-071S

4-072T



## FIXATION FORCEPS

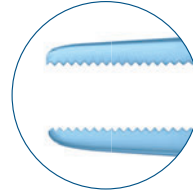
### Adson Fixation Forceps

Ideal for plastic & reconstructive surgery  
 Flat handle  
 Overall length 124 mm  
 Stainless Steel or Titanium

4-0741T 1x2 teeth, 0.50 mm  
 4-0740T Serrated tip



4-0741T

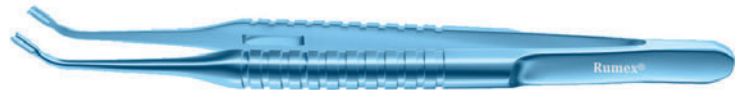


4-0740T

### Polack Corneal Transplant Fixation Forceps

Two point fixation  
 Delicate 1x2 teeth, 0.12 mm  
 1.20 mm between the tips  
 Curved shafts  
 Pierce type tips  
 Round handle  
 Overall length 112 mm  
 Titanium

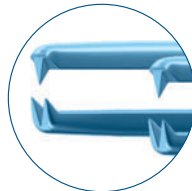
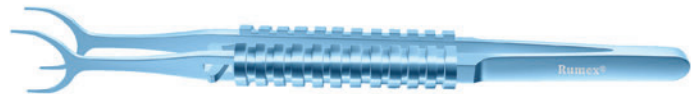
4-0814T



### Nevyas-Wallace Fixation Forceps

Two point fixation  
 13.00 mm between the ends  
 1x2 teeth, 0.12 mm  
 Straight shafts  
 Round handle  
 Overall length 105 mm  
 Titanium

4-08011T



### Castroviejo Fixation Forceps

Straight shafts  
 1x2 teeth, 0.50 mm  
 Flat handle  
 Overall length 109 mm  
 Titanium

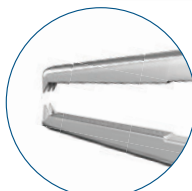
4-0822T



### Lester Fixation Forceps

Straight tips  
 6.00 mm platforms  
 2x3 teeth  
 Flat handle  
 Overall length 105 mm  
 Stainless Steel

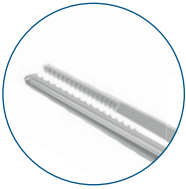
4-0832S



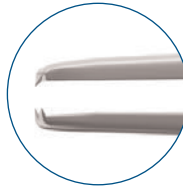
**IRIS FORCEPS**

**Iris Forceps**

Flat handle  
Overall length 72 mm  
Stainless Steel



Straight shafts  
Fine serrated tips  
Delicate serrations  
4-100S



1x2 delicate teeth, 0.06 mm  
4-101S Straight shaft (shown)  
4-102S Curved shaft

**JEWELER FORCEPS**

**Jeweler #5 Forceps**

Pointed tips  
Tying platform 6.00 mm  
Straight jaws  
Flat handle  
Overall length 110 mm  
Titanium

4-111T



**Jeweler #3C Forceps**

Pointed tips  
Tying platform 6.00 mm  
Straight jaws  
Flat handle  
Overall length 110 mm  
Titanium

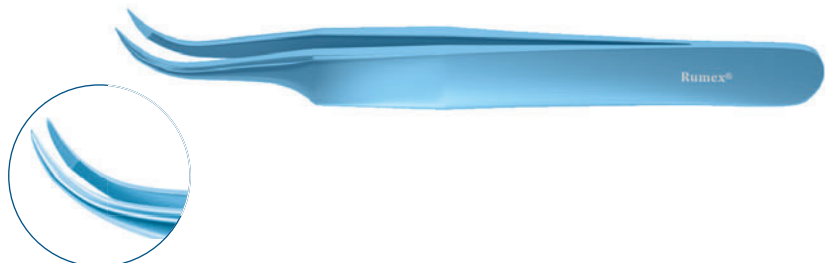
4-113T



**Jeweler #7 Forceps**

Pointed tips  
Tying platform 6.00 mm  
Curved jaws  
Flat handle  
Overall length 110 mm  
Titanium

4-115T



## REUSABLE ANTERIOR INSTRUMENTS

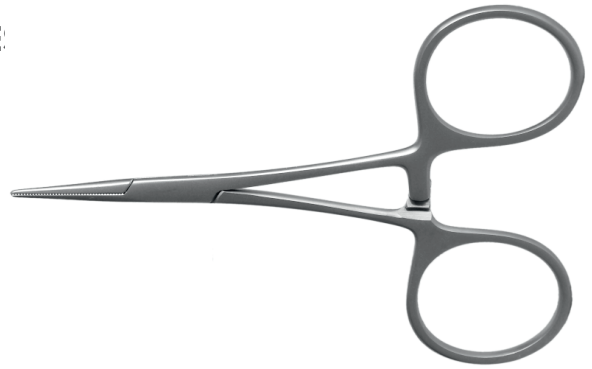
### 4 - FORCEPS

#### HEMOSTATIC FORCEPS AND SERREFINE

##### Hartman Hemostatic Mosquito Forceps

Serrated jaws  
Ring handle  
Overall length 90 mm  
Stainless Steel

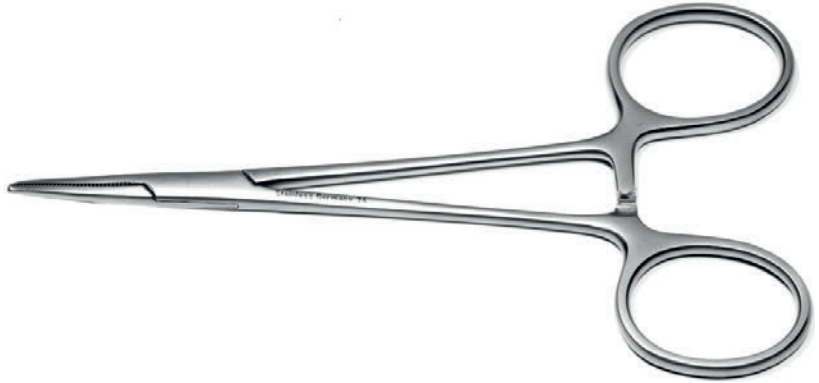
4-120S Straight (shown)  
4-121S Curved 



##### Halsted Hemostatic Mosquito Forceps

Serrated jaws  
Ring handle  
Overall length 125 mm  
Stainless Steel

4-122S Straight (shown)  
4-123S Curved 



##### Serrefine

Straight  
Stainless Steel

16-090S Large size   
Overall length 55



#### TOWEL CLAMPS AND FORCEPS

##### Towel Forceps

Ring handle  
Overall length 125 mm  
Stainless Steel

16-081S



##### Schaedel Towel Clamp

Flat handle  
Overall length 90 mm  
Stainless Steel

16-080S





**SUTURING FORCEPS**

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

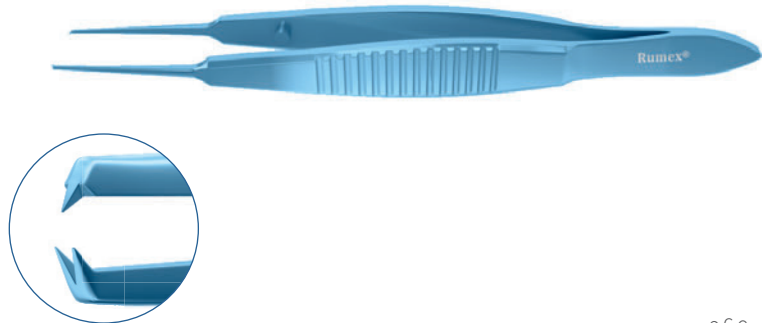


**Castroviejo  
Suturing Forceps**

Tying platform, 6.00 mm  
Flat handle  
Overall length 110/108/108 mm

- 4-0600T 1×2 teeth, 0.12 mm
- 4-0601T 1×2 teeth, 0.30 mm
- 4-0602T 1×2 teeth, 0.50 mm

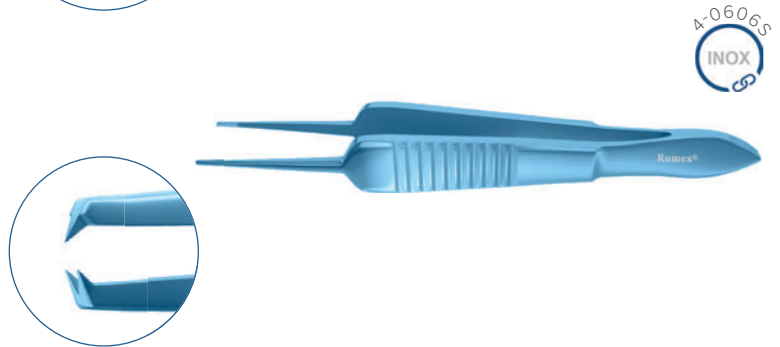
Titanium or Stainless Steel



**Paufique  
Suturing Forceps**

1×2 teeth, 0.50 mm  
Tying platform, 6.00 mm  
Flat handle  
Overall length 87 mm

4-0606T Titanium



**Bishop-Harmon  
Suturing Forceps**

1×2 teeth, 0.30 mm  
Tying platform, 5.00 mm  
Flat handle  
Overall length 87 mm  
Stainless Steel

4-0607S



**Moorfields  
Suturing Forceps**

For gripping the tissue, conjunctiva  
and Tenon's capsule  
Grooved section, 14.00 mm  
Flat handle  
Overall length 110 mm  
Titanium

4-2303T

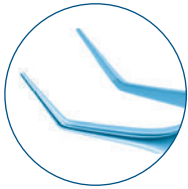


## TYING FORCEPS

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

### Kelman-McPherson Tying Forceps

For 8-0 to 11-0 sutures  
Flat handle

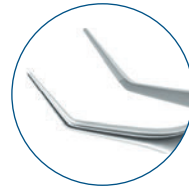


Tying platforms, 4.00 mm  
Overall length 81 mm  
Titanium

4-090T ♥

Tying platforms, 10.00 mm  
Overall length 86 mm  
Titanium

4-092T ♥



Tying platforms, 8.00 mm  
Overall length 84 mm  
Stainless Steel

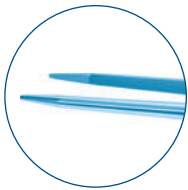
4-091S ♥

Tying platforms, 10.00 mm  
Overall length 86 mm  
Stainless Steel

4-092S

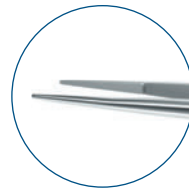
### McPherson Tying Forceps

For 8-0 to 11-0 sutures  
Flat handle



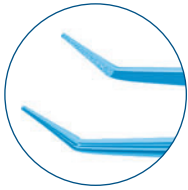
Straight  
Tying platforms, 4.00 mm  
Overall length 84 mm

4-171T Titanium (shown) ♥  
4-171S Stainless Steel



Straight  
Tying platforms 7.00 mm  
Overall length 110 mm  
Stainless Steel

4-178S ♥



Angled, Titanium  
Tying platform, 6.00 mm  
Overall length 102 mm

4-173T

Tying platform, 8.00 mm  
Overall length 103 mm

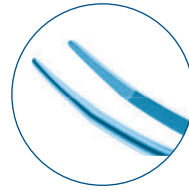
4-174T ♥

Tying platform, 10.00 mm  
Overall length 104 mm

4-175T ♥

Tying platform, 12.00 mm  
Overall length 106 mm

4-176T ♥



Curved  
Tying platforms, 4.00 mm  
Overall length 109 mm  
Titanium

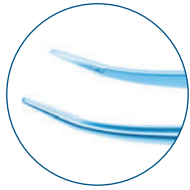
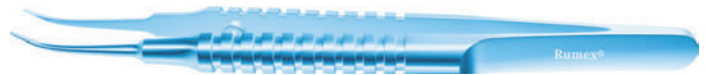
4-177T ♥






**Catalano Tying Forceps**

For 8-0 to 11-0 sutures  
Round handle



Curved  
V-groove tying platform, 6.00 mm  
Overall length 106 mm  
Titanium  
4-182T 

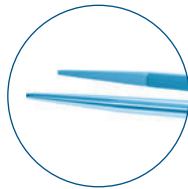
**Tennant Tying Forceps**

For 9-0 to 11-0 sutures

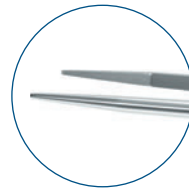


Extra delicate smooth jaws  
Tying platform, 6.00 mm  
Round handle  
Overall length 108/107/107 mm  
Titanium or Stainless Steel

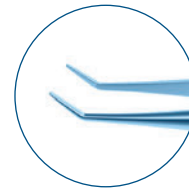
4-185T Straight (shown)   
4-185S Straight   
4-1851T Angled  
4-186S Curved 



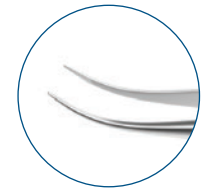
4-185T



4-185S



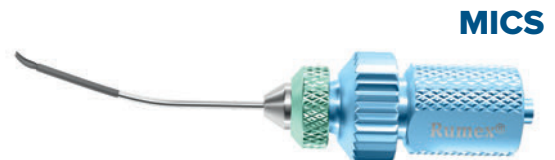
4-1851T



4-186S

**Intraocular Tying Forceps**

For 9.0-11.0 sutures  
Designed for intraocular suturing.  
Curved shaft  
With fixation wheel  
Compatible with Squeeze Handle 12-003T



**MICS**

4-1891\* 23 Ga

\*Tip only. Handles are sold separately.

Product design and/or features that do not influence its functionality and main parameters are subject to change

## MUSCLE FORCEPS

### Jameson Muscle Forceps

11.00 mm from tip to angle  
 6.00 teeth  
 Slide lock  
 Overall length 100 mm  
 Stainless Steel  
 4-130S Left  
 4-131S Right (shown)

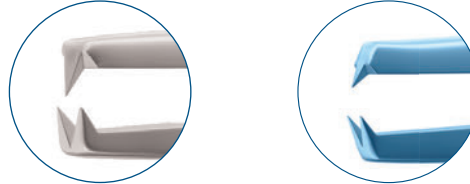


### Superior Rectus Forceps

1x2 teeth, 0.50 mm  
 Flat handle

### Osher

Angled shafts  
 10.00 mm from tip to angle  
 Overall length 106 mm  
 Stainless Steel  
 4-136S




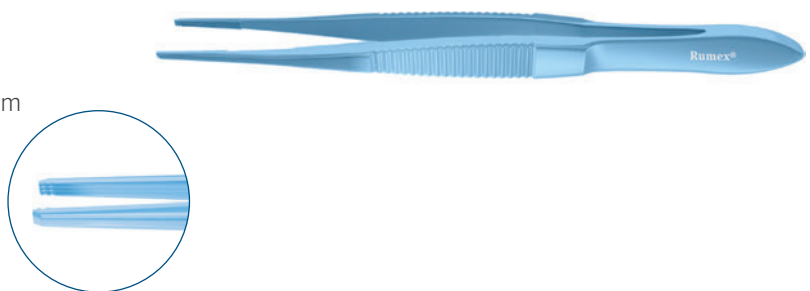
### Elsching

Straight shafts  
 Overall length 108 mm  
 Titanium  
 4-138T

## UTILITY FORCEPS

### Bonaccolto Utility Forceps

Longitudinal atraumatic serrations, 15.00 mm  
 Cross serrations at tips  
 Flat handle  
 Overall length 100 mm  
 Titanium  
 4-2300T 



### Watzke Sleeve Spreading Forceps

Used to stretch the silicone sleeve placed around the eyeball.  
 Serrated tips aid in gripping the sleeve and allow for adjustable traction.  
 Flat cross-action handle  
 Overall length 110 mm  
 Titanium  
 4-2201T



HOOKS

INTRAOCULAR LENS HOOKS

Stainless Steel hooks with an ergonomic light-weight round Titanium handle



**Lewicky  
Lens Manipulating Hook**

Angled, 10.00 mm from tip to angle  
Vaulted shaft  
0.15 mm diameter blunt tip  
Overall length 120 mm

5-021



**Kuglen  
Iris Hook and Lens Manipulator**

0.15 mm diameter shaft  
"H"-shaped tip  
Overall length 122/124 mm

5-030 Angled   
5-0301 Straight



**RUMEX  
Lens Manipulator**

Angled, 10.00 mm from tip to angle  
0.18 mm diameter shaft  
Button-shaped 0.45 mm tip  
Overall length 122 mm

5-031



**Sinskey  
Lens Manipulating Hook**

Angled  
0.15 mm diameter tip  
Overall length 121/122 mm

5-032 Angled   
5-0321 Straight



**Reversed Sinskey  
Scoring Hook for Endothelial  
Keratoplasty**

Angled, 10.00 mm from tip to angle  
0.20 mm diameter tip  
Overall length 117 mm

5-0322



**Lester  
Lens Manipulator**

Hourglass-shaped 0.20 mm tip  
Overall length 124/122 mm

5-033 Straight  
5-0331 Angled



**Bechert  
Nucleus Rotator**

Angled, 10.00 mm from tip to angle  
"Y"-shaped tip  
Overall length 121 mm

5-034



**Fenzi  
Lens Manipulating Hook**

Angled, 10.00 mm from tip to angle  
"T"-shaped tip  
Overall length 121 mm

5-036

# REUSABLE ANTERIOR INSTRUMENTS

5 - HOOKS

## MUSCLE/TENOTOMY HOOKS

Stainless Steel hooks with an ergonomic light-weight round Titanium handle

Ensure safety of extraocular muscles

### Jameson Muscle Hook

Flat hook  
Bulbous tip

2.00 mm tip, 9.50 mm hook  
Overall length 135 mm

5-040 Standard ♥

1.50 mm tip, 8.00 mm hook  
Overall length 128 mm

5-0401 Small ♥



### Graefe Muscle Hook

Flat hook

1.00 mm tip, 8.00 mm hook  
Overall length 135 mm

5-041 Size 1 ♥

1.50 mm tip, 10.00 mm hook  
Overall length 140 mm

5-042 Size 2 ♥



### Scobee Oblique Muscle Hook

Curved shaft  
4.50 mm flat hook  
Overall length 136 mm

5-061



### Stevens Tenotomy Hook

6.00 mm flat hook  
Overall length 120 mm

5-062 ♥



### Rychwalski Muscle Hook with Groove

1.80 mm tip  
12.20 mm hook  
Overall length 140 mm

5-046



## RETINAL DETACHMENT HOOKS

Stainless Steel hooks with an ergonomic light-weight round Titanium handle

### Gass Retinal Detachment Hook

13.00 mm flat hook  
1.50×0.70 mm hole  
Overall length 140 mm

5-060 



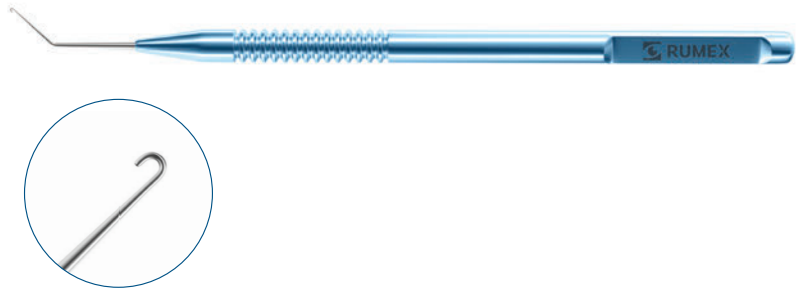
## IRIS HOOKS

Stainless Steel hook with an ergonomic light-weight flat serrated Titanium handle

### Iris Hook

Angled  
Overall length 121 mm

5-020



# REUSABLE ANTERIOR INSTRUMENTS

6 - DIAMOND KNIVES

## DIAMOND KNIVES

up to 3000  
INCISIONS



Extreme sharpness of the blades

Potentially reduced risk of wound leak

Minimal pressure

Predictable cuts and architecture of the wound for more consistent healing

### ASTIGMATIC KERATOTOMY AND ICRS

#### ICRS Knife

Micrometer Titanium handle  
Overall length 110 mm



#### ICRS

1.00 mm

Designed for implantation of intrastromal corneal ring segments (ICRS).

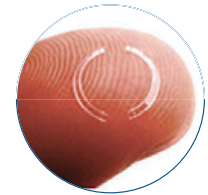
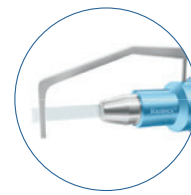
Performs a 1.00 mm radial incision at 70–80% of corneal thickness.

Micrometric scale allows to customize the depth of the blade

from 0 to 1000 microns (0 to 1.00 mm).

Increment – 5 microns (0.005 mm)

6-00/6-020



#### Arcuate

1.00/0.20 mm

Tapered blade

6-00/6-030

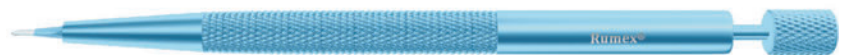


### UNIVERSAL SIDE-PORT KNIVES

Used for paracentesis.

Straight Titanium handle

Overall length 120 mm



45° Single Edge  
1.00 mm

6-10/6-050



45° Single Edge  
0.60 mm

6-10/6-0501



30° Single Edge  
1.00 mm

6-10/6-051



45° Double Edge  
1.00 mm

6-10/6-052



Trifacet  
1.00 mm

6-10/6-053



20° Trifacet  
1.00 mm

6-10/6-0531



60° Lancet  
1.00 mm

6-10/6-070



60° Lancet  
0.80 mm

6-10/6-0701



Multi-Incision  
1.00 mm

6-10/6-076



## ANGLED PHACO KNIVES

up to 3000  
INCISIONS



6 - DIAMOND KNIVES

Used for tunnel incision.  
Angled Titanium handle  
Overall length 117 mm



### Clear Cornea Blades

- 6-20/6-071 – 2.50 mm
- 6-20/6-072 – 2.80 mm
- 6-20/6-073 – 3.00 mm
- 6-20/6-074 – 3.20 mm
- 6-20/6-075 – 2.20 mm
- 6-20/6-081 – 2.30 mm
- 6-20/6-077 – 2.75 mm
- 6-20/6-078 – 2.70 mm



### Facet-Free Crescent Knives

- 6-20/6-092 – 2.00 mm



### Self-Diving Trapezoid Blades

- 6-20/6-100 – 1.90/2.50 mm
- 6-20/6-101 – 2.70/3.20 mm
- 6-20/6-102 – 3.00/3.50 mm
- 6-20/6-104 – 2.30/2.80 mm
- 6-20/6-105 – 2.60/3.00 mm
- 6-20/6-107 – 2.00/2.30 mm



Used for micro incision.  
Angled Titanium handle  
Overall length 117 mm



### Trapezoid Self-Diving Blades

- 6-20/6-140 – 0.50/1.00 mm
- 6-20/6-141 – 0.80/1.20 mm
- 6-20/6-142 – 1.30/1.50 mm
- 6-20/6-143 – 1.50/1.80 mm
- 6-20/6-144 – 1.80/2.00 mm
- 6-20/6-145 – 1.80/2.20 mm



### Zaldivar Knife for ICL Implantation

- 0.55/1.00 mm
- Designed for ICL™ implantation.
- Can be used for other incisions:  
side-port, clear cornea, scleral tunnel.
- 6-20/6-0551



# REUSABLE ANTERIOR INSTRUMENTS

6 - DIAMOND KNIVES

## LRI KNIVES

up to 3000  
INCISIONS



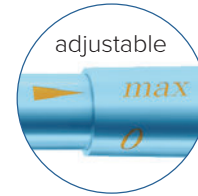
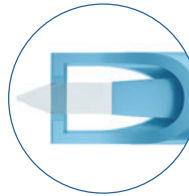
### Universal Three-Step Knife for Cataract and LRI Surgery

Precise, easy and stable calibration mechanism with 3 preset depths of 500, 550 and 600 microns. Full extension is for side-port incision. Overall length 125 mm



6-322/6-0531

Single footplate for better visualization  
20° Trifacet Blade  
0.20 – 1.00 mm



### Pre-Set LRI Knives

#### Pre-Set LRI Knives

Can be used with a slit lamp.  
Short Titanium handle  
Overall length 78 mm

6-500S/6-0531

Preset depth 500 microns

6-600S/6-0531

Preset depth 600 microns



#### Pre-Set LRI Knives

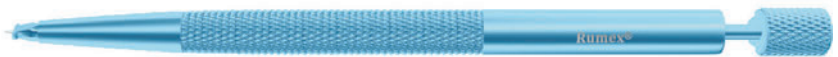
Long Titanium handle  
Overall length 110 mm

6-500/6-0531

Preset depth 500 microns

6-600/6-0531

Preset depth 600 microns



### Diamond Knife Cleaning Pack

The pack consists of 3 solutions (1, 2, 3) that are used to clean the blade from the residual debris prior to sterilization.

21-602-1





# SAPPHIRE KNIVES



6 - SAPPHIRE KNIVES

Low pressure

Accurate cuts

Consistent healing

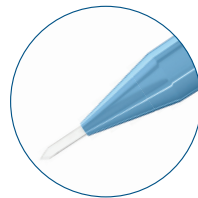


## UNIVERSAL SIDE-PORT KNIVES

Overall length 136 mm



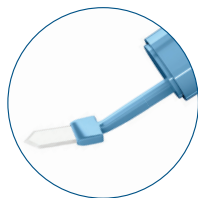
45° Double Edge Blade  
1.00 mm  
6-10/6SK-0501



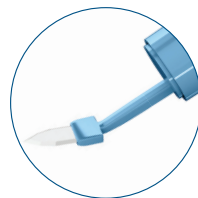
60° Double Edge Lancet Blade  
1.00 mm  
6-10/6SK-070

## PHACO KNIVES

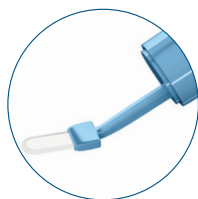
Overall length 135 mm



Clear Cornea Blades  
6-20/6SK-072 – 2.80 mm  
6-20/6SK-075 – 2.20 mm   
6-20/6SK-080 – 2.65 mm



Self-Diving Trapezoid Blades  
6-20/6SK-145 – 1.80/2.20 mm  
6-20/6SK-146 – 1.80/2.40 mm



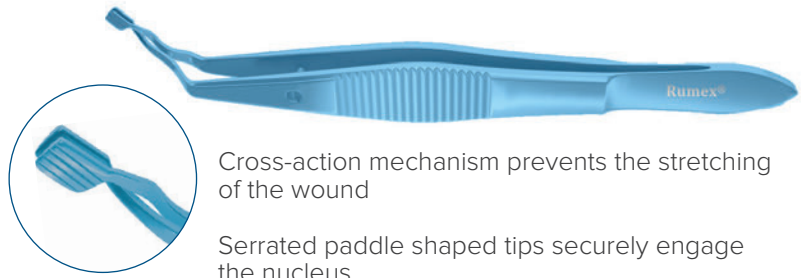
Facet-Free Crescent Blades  
6-20/6SK-093 – 2.20 mm

## PHACO INSTRUMENTS

### Ernest Nucleus Cracker

Cross-action  
Flat handle  
Overall length 106 mm  
Titanium

7-025T

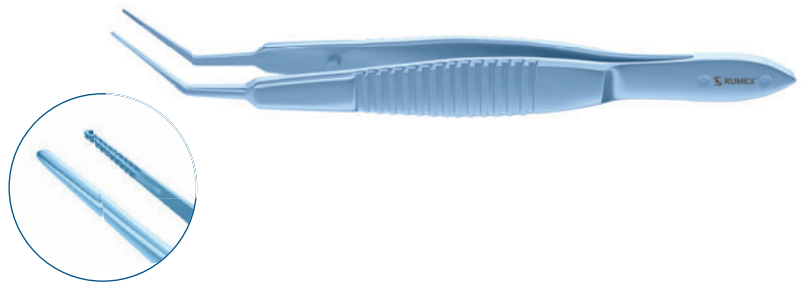


Cross-action mechanism prevents the stretching of the wound  
Serrated paddle shaped tips securely engage the nucleus

### Kansas-Alfonso Nucleus Fragment Removing Forceps

Designed to remove fragments of the nucleus through a small incision.  
2 rows of delicate teeth  
Flat handle  
Overall length 107 mm  
Titanium

7-0201T

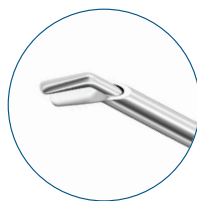


## FEMTOCATARACT CHOPPERS

### Slade/Terao Nucleus Splitter

Used to crack the femtochopped nucleus.  
Chopper type design tip  
Micro jaws  
Curved shaft  
With fixation wheel  
Compatible with Squeeze Handle 12-003T

7-143\* 23 Ga



## PRECHOPPERS

Cross-action

Stainless Steel

Ergonomic round serrated squeeze-handle



### Angled Prechopper

Max opening 3.00 mm  
Overall length 116 mm

7-111S



### Inamura Prechopper

Straight  
Narrow tip is easily inserted into the denser nucleus which enables division of a soft nucleus from a dense one without counter force.  
Max opening 3.00 mm  
Overall length 120 mm

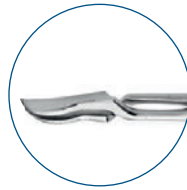
7-1165S



### Combo Prechopper

Straight  
Specially designed jaws split soft and hard nuclei.  
With sharp blades on the upper side of the tips and blunt on the other side  
Max opening 3.00 mm  
Overall length 121 mm

7-1161S



### Inamura Prechopper

Straight  
Max opening 2.80 mm  
Overall length 120 mm

7-11651S



### Combo Prechopper

Straight  
For sub-2.00 mm Coaxial Micro Phaco  
Max opening 2.00 mm  
Overall length 121 mm

7-1162S



### Crozafon Prechopper

Straight  
Provides easy releasing of entrapped gas bubbles for safer hydrodissection.  
Max opening 3.00 mm  
Overall length 118 mm

7-1167S



### Akahoshi Prechopper

Straight  
Groove enables easy rotation of the nucleus during prechopping.  
Max opening 3.00 mm  
Overall length 121 mm

7-1163S



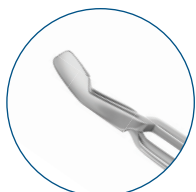
### Escaf Prechopper

Straight  
Round handle  
Overall length 120 mm  
Stainless Steel

7-149S



Designed in cooperation with Luis Escaf M.D., Colombia



- Max opening 2.80 mm
- The tip is truncated so as not to hurt the edge of capsulorhexis

Used to complete breakdown after Femtosecond or Ultrachopper use.

- Fractures cataract with hardness less than 4+
- Tolerates capsulorhexis less than 5.00 mm with no injure to the capsule edges
- Fits through 2.00 mm incision

# REUSABLE ANTERIOR INSTRUMENTS

7 - PHACO INSTRUMENTS

## CHOPPERS

RHD for right-handed surgeon - to hold in the left hand  
LHD for left-handed surgeon - to hold in the right hand

Stainless Steel choppers with an ergonomic light-weight round serrated Titanium handle



### Nagahara Phaco Chopper

Overall length 120 mm  
7-063 RHD (shown) ♥  
7-064 LHD



### Nucleus Claw Chopper

Overall length 120 mm  
7-072 ♥



### Rosen Phaco Chopper Universal

Overall length 120 mm  
7-065 ♥



### Intraocular Manipulator with Ball tip

Straight  
0.50 mm diameter ball tip  
Overall length 123 mm  
7-074

Angled  
Overall length 121 mm  
7-075



### Rosen Phaco Splitter

60 degree angled  
Wedge-shaped  
Overall length 120 mm  
7-066 RHD ♥  
7-067 LHD (shown)



### Phaco Cleaver

Overall length 120 mm  
7-068 RHD  
7-069 LHD (shown)



### Phaco Chopper for Cross-Chop Technique

Designed for Cross-Chop and Quick-Chop techniques.

- Elongated 2.00 mm tip fractures all lens densities
- Reduced use of Ultrasound lowers risk of endothelial cells loss

Overall length 120 mm  
7-0681



### Universal Multifunctional Phaco Chopper

**NEW**

- Anterior sharp edge for horizontal and vertical nucleus chopping
- Blunt posterior surface for iris/capsule retraction
- Rounded tip is for safe nucleus cracking

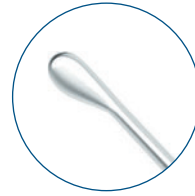
Overall length 120 mm  
7-0751

CHOPPERS



**Small Pupil Snapper Hook & Phaco Chopper**

Overall length 121 mm  
7-077



**Drysdale Nucleus Manipulator & Capsule Polisher**

For nucleus dividing and separating  
Overall length 121 mm  
7-093 Regular tip   
7-0931 Capsule polisher tip



**Micro Finger Chopper**

Overall length 120 mm  
7-097



**Quick Chopper with Rounded Edge**

Overall length 120 mm  
7-128 RHD (shown)  
7-1281 LHD



**He Phaco Chopper**

45° angled, wedge-shaped  
Rounded angled polished tip to separate the nucleus from cortical material  
Overall length 120 mm  
7-1061 RHD



**Seibel Chopper**

Chopper with ball-shaped tip for efficient capsule protection  
Overall length 122 mm  
7-130 RHD



**Phaconit Quick Chopper**

Designed to quickly and easily chop all grades of nuclei.  
Overall length 120 mm  
7-125 0.18 mm tip  
7-1251 0.35 mm tip



**Axe Quick Chopper**

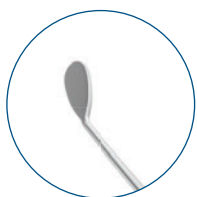
Overall length 120 mm  
7-135

**NEW**

**Escaf Nucleus Manipulator**

Overall length 120 mm

Designed in cooperation with Luis Escaf M.D., Colombia



7-1171  
45 Degrees bent tip



7-117  
30 Degrees bent tip



- Atraumatic flat olive-shaped tip
- Rotates the cataract fragments and introduces them to the phaco tip
- Disengages the cataract fragments after fracturing with a prechopper
- Useful in protecting the posterior capsule

# REUSABLE ANTERIOR INSTRUMENTS

7 - PHACO INSTRUMENTS

RHD for right-handed surgeon - to hold in the left hand  
LHD for left-handed surgeon - to hold in the right hand

Stainless Steel choppers with an ergonomic light-weight round serrated Titanium handle

## Nagahara Phaco Chopper & Drysdale Nucleus Manipulator

Overall length 128 mm

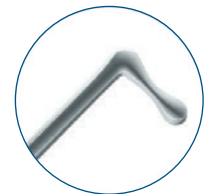
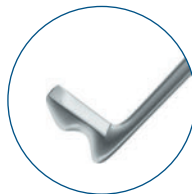
7-0631 RHD 



## Double Phaco Spatula

Small Pupil Snapper Hook & Micro Finger  
Overall length 132 mm

7-079



## Chang Micro Finger & Quick Chopper

Modified Micro Finger tip with interior edge to chop and divide soft nucleus  
Quick Chopper with sharp point to penetrate and split hard nucleus  
Overall length 125 mm

7-127 RHD Titanium handle   
7-1271 LHD Titanium handle



## Seibel Chopper & Quick Chopper

Ball-shaped tip for efficient capsule protection  
Quick safety chopper with rounded edge  
Overall length 132 mm

7-1361 RHD 



## Triple Edge Phaco Chopper with Polisher Tip

Overall length 117 mm

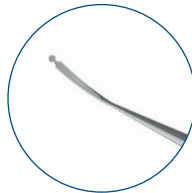
7-126 



## Koch Nucleus Spatula

Curved  
Duck bill tips with notches  
Overall length 122 mm

7-070



**HYDROCHOPPERS**

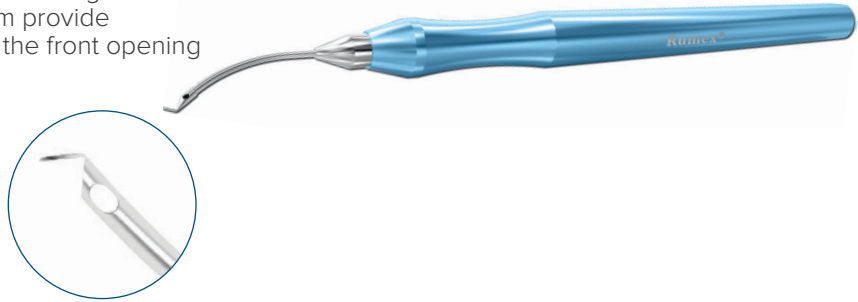
**Lesieur Hydrochopper**

This unique design provides a tip that is efficient for chopping as well as manipulating the nucleus without endangering the posterior capsule. Lesieur Hydrochopper is developed specially for Bimanual Microphaco.

Designed in cooperation with Gilles Lesieur, M.D., France



20 Ga tip with Nagahara type chopper (for 1.00 mm incisions)  
 The end opening port provides maximum irrigation.  
 The dual oval sideports 0.50x0.70 mm provide supplemental irrigation in case when the front opening is overfilled.  
 Titanium handle/Stainless Steel tip  
 Overall length 105 mm  
 7-0634/I 20 Ga



**CAPSULE POLISHERS**

**Anterior/Posterior Capsule Polisher**

135° angled shaft  
 Titanium Handle/Stainless Steel Tip  
 Overall length 120 mm  
 7-101



Capsule polishing is an important step of phacoemulsification. Polishing the anterior capsule, removing posterior capsular plaque and other residual cortical debris help to achieve and maintain capsular clarity. At the same time the procedure of polishing must be performed with a safe and delicate instrument.

**Holz Capsule Polisher**

Designed to perform delicate polishing of the capsule.  
 Angled shaft, "iron"-shaped tip  
 Texturized tip for polishing of all capsule parts  
 Sharpened ridge at the top for efficient polishing of the bottom part of the anterior capsule  
 Titanium Handle/Stainless Steel Tip  
 Overall length 123 mm  
 7-142

Designed in cooperation with Huck Holz, M.D., U.S.A.





# REUSABLE ANTERIOR INSTRUMENTS

7 - PHACO INSTRUMENTS

## IRRIGATION/ASPIRATION HANDPIECES

### Irrigation/Aspiration Handpiece for Coaxial Phaco

Round handle  
Standard connectors  
Overall length 110 mm  
Titanium

7-080/IAH 



### Tips for Irrigation/Aspiration Handpiece

The hub forward - 16 Ga (1.60 mm) with a 21 Ga (0.80 mm) going through the center of the hub.  
Do not require sleeve  
Stainless Steel



Thornton 20° angled  
7-080/20



Binkhorst  
7-080/BC



Simcoe  
7-080/SIM



45° angled  
7-080/45



90° angled  
7-080/90



Straight  
7-080/ST

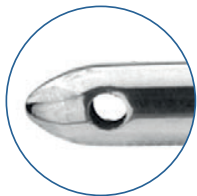
### Irrigation Handpiece for Bimanual Technique


Curved tube with smooth tip  
Titanium handle/Stainless Steel tip  
Standard connector

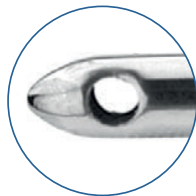



Irrigates anterior chamber, maintaining its stability and providing for maximal cortex removal.

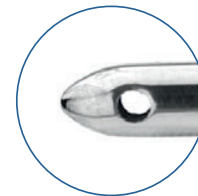
May be introduced through any side-port incision, allowing easy access to all parts of the capsule.




2x0.35 mm side-ports  
Overall length 104 mm  
7-081 21 Ga 



2x0.50 mm side-ports  
Overall length 104 mm  
7-0813 21 Ga 



2x0.35 mm side-ports  
Overall length 105 mm  
7-081-23 23 Ga 



**IRRIGATION/ASPIRATION HANDPIECES**

**Stodulka Enhanced Irrigation Handpiece for Bimanual Technique**

Curved tube  
 Two ports on side 0.50x1.00 mm for optimal irrigation  
 Titanium handle/Stainless Steel tip  
 Standard connector  
 Overall length 105 mm  
 7-0811 21 Ga



- Handpiece recommended for bimanual microphaco and Femtosecond cataract surgery
- Smooth bullet-shaped tip facilitates instrument insertion

**Aspiration Handpiece For Bimanual Technique**

Curved tube with smooth or texturized tip  
 Titanium handle/Stainless steel tip  
 Standard connector

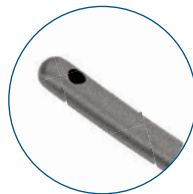


May be introduced through any side-port incision, allowing easy access to all parts of the capsule

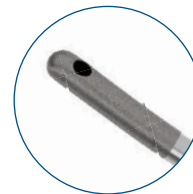
Removes residual cortex after phacoemulsification



1x0.35 mm top port  
 Smooth tip  
 Overall length 104 mm  
 7-082 21 Ga



1x0.35 mm top port  
 Capsule polisher tip  
 Overall length 104 mm  
 7-0821 22 Ga



1x0.35 mm top port  
 Capsule polisher tip  
 Overall length 105 mm  
 7-0821-23 23 Ga



## NEEDLE HOLDERS

Tungsten carbide coated tips for advanced gripping

Lightweight

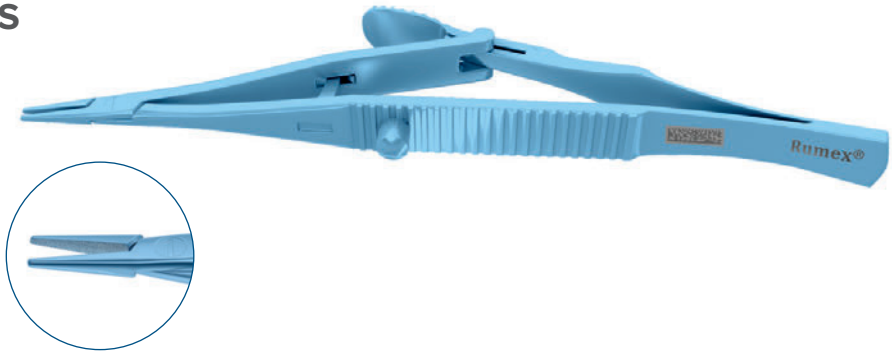
Non-magnetic

### KALT NEEDLE HOLDERS

#### Kalt Needle Holder

For 4.0-6.0 sutures  
Straight  
Standard jaws, 10.50 mm  
Flat serrated locking handle  
Overall length 135 mm  
Titanium

8-080T



### CASTROVIEJO NEEDLE HOLDER

#### Castroviejo Needle Holder

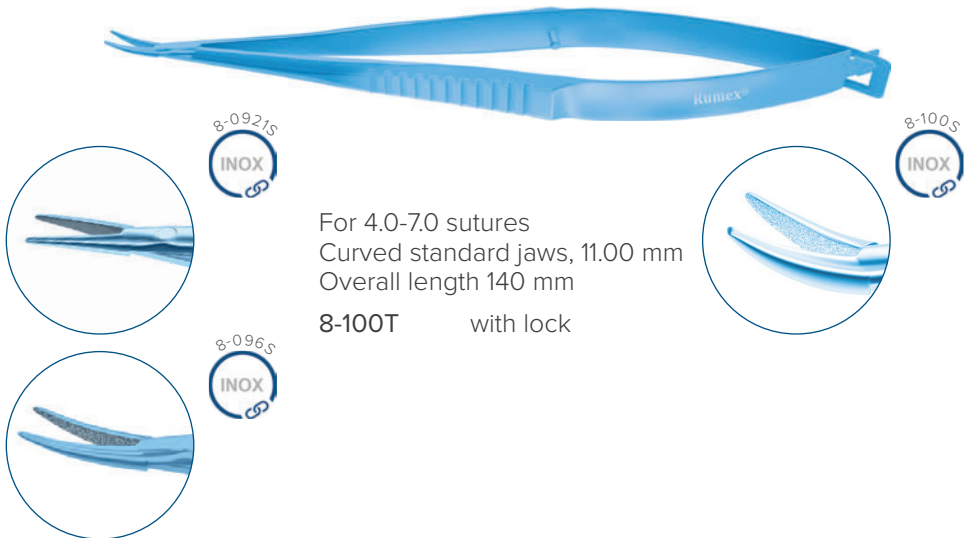
Titanium  
Flat serrated handle

For 4.0-6.0 sutures  
Straight delicate jaws, 13.50 mm  
Overall length 122 mm

8-0921T with lock

For 7.0-9.0 sutures  
Curved delicate jaws, 8.00 mm  
Overall length 135 mm

8-096T without lock



For 4.0-7.0 sutures  
Curved standard jaws, 11.00 mm  
Overall length 140 mm

8-100T with lock

### ING'S NEEDLE HOLDERS/SCISSORS

#### Ing's Needle Holder/Scissors

For 4.0-7.0 sutures  
Used to cut suture only.  
Combination of needle holder and scissors  
in one instrument  
Straight long size jaws, 15.00 mm  
Round handle  
Overall length 105 mm  
Stainless Steel

8-102S



### COAXIAL/INTRAOCULAR NEEDLE HOLDERS

#### Intraocular Needle Holder

For 9.0-11.0 sutures  
Designed for intraocular suturing and  
manipulations with the IOL.  
Curved shaft  
With fixation wheel  
Compatible with Squeeze Handle 12-003T

8-1211-23\* 23 Ga



**BARRAQUER NEEDLE HOLDER**

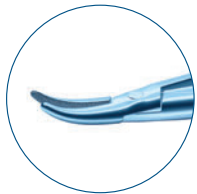
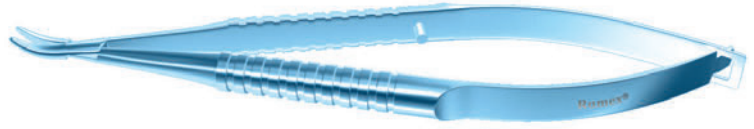
Tungsten carbide coated tips for advanced gripping

Lightweight

Non-magnetic

**Barraquer  
Needle Holder**

Titanium  
Ergonomic round serrated handle



**Curved standard jaws, 12.00 mm**  
For 4.0-7.0 sutures

Overall length 100 mm

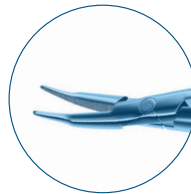
8-010T with lock  
8-011T without lock

Overall length 115 mm

8-030T with lock  
8-031T without lock

Overall length 125 mm

8-060T with lock  
8-061T without lock



**Curved extra fine jaws, 8.00 mm**  
For 8.0-11.0 sutures

Overall length 100 mm

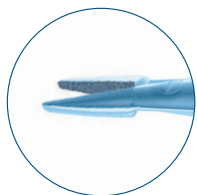
8-024T with lock  
8-025T without lock

Overall length 115 mm

8-045T without lock

Overall length 125 mm

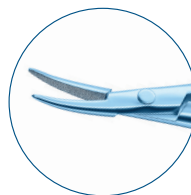
8-050T with lock  
8-051T without lock



**Straight standard jaws, 12.00 mm**  
For 4.0-7.0 sutures

Overall length 100 mm

8-013T without lock



**Curved fine jaws, 12.00 mm**  
For 4.0-7.0 sutures

Overall length 100 mm

8-020T with lock  
8-021T without lock

Overall length 115 mm

8-040T with lock  
8-041T without lock

Overall length 125 mm

8-070T with lock  
8-071T without lock



**Curved strong jaws, 12.00 mm**  
For 4.0-6.0 sutures

Overall length 125 mm

8-090T with lock  
8-091T without lock

## PROBES

### Bowman Lacrimal Probe

Overall length 133 mm

- 9-010S size 0000 & 000 ♥
- 9-011S size 00 & 0
- 9-012S size 1 & 2 ♥
- 9-013S size 3 & 4 ♥
- 9-014S size 5 & 6
- 9-015S size 7 & 8



### Quickert Lacrimal Intubation Probe

Overall length 140 mm

- 9-021S size 0
- 9-023S size 2



### Pigtail Lacrimal Probe

8.00 mm pigtail curved probes with holes  
Polished tip  
Titanium Handle/Stainless Steel Tips  
Overall length 125 mm

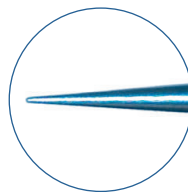
- 9-031 ♥



### Wilder Lacrimal Dilator

Blunt polished tip  
Overall length 100 mm  
Titanium

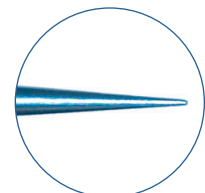
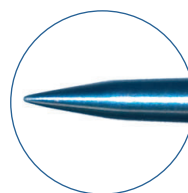
- 9-050T size 1 (19.00 mm) ♥
- 9-051T size 2 (23.00 mm) ♥
- 9-052T size 3 (32.00 mm)



### Castroviejo Double-Ended Lacrimal Dilator

Polished tip  
Overall length 100 mm  
Titanium

- 9-060T size 1 & 2 ♥



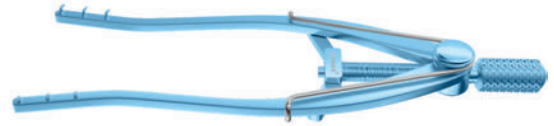
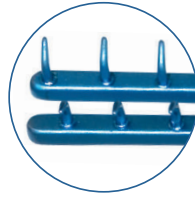
# RETRACTORS

## LACRIMAL SAC RETRACTORS

### Stevenson Lacrimal Sac Retractor

Curved  
3x3 prongs  
Blades separated 25.00 mm  
Screw opening  
Overall length 83 mm

10-013



### Knapp Lacrimal Sac Retractor

4 blunt prongs  
8.00 mm width tip  
Titanium Handle/Stainless Steel Tip  
Overall length 140 mm




10-014 



## LID & ORBITAL RETRACTORS

### Desmarres Lid Retractor

Titanium Handle/Stainless Steel Tip  
Overall length 130 mm

- 10-020 size 0 - 11.00 mm 
- 10-021 size 1 - 13.00 mm (shown) 
- 10-022 size 2 - 15.00 mm
- 10-023 size 3 - 17.00 mm 

- Secures the eyelid in the everted position
- May be employed for safe eyelid and lashes isolation during intravitreal injections



### Schepens Orbital Retractor

Overall length 144 mm  
Stainless Steel

10-030S



### Double-Ended Orbital Globe Retractor-Elevator

Double-ended, 10.00/14.00 mm wide  
Thin ribbon retractor with a gentle "S"  
curve

Overall length 180 mm  
Titanium

10-034T



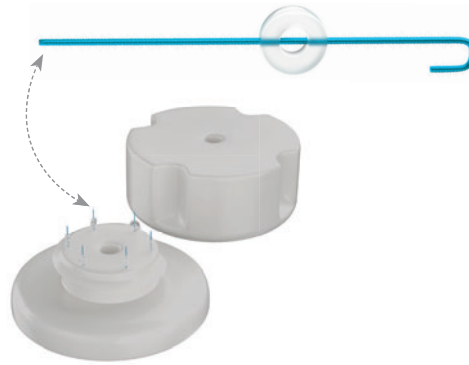
IRIS (PUPIL) DILATORS

Iris Retractor\*

Strong yet flexible polypropylene hook for mechanical iris dilation  
 Vertical orientation for easy handling  
 Insertion through 0.50 mm self-sealing incision at the limbus  
 Reusable  
 Supplied sterile in an autoclavable PTFE container

10-5127 ♥

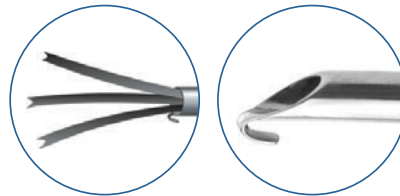
STERILE 



Beehler Pupil Dilator

17 Gauge  
 Curved shaft  
 Four prongs  
 Overall length 130 mm  
 Titanium

10-083  
 10-091 with plunger



3 fingers for 4 point dilation



Provides even dilation by allocating tension on all sides of the pupil.

SCISSORS

Matte finish/anti-glare coating

Minimal friction

Maraging stainless steel

Unique hardening system promoting 3,000+cuts without resharpening

Sharp cutting edges

CORNEAL SCISSORS

Flat handle  
Stainless Steel



Castroviejo  
Corneal Scissors

Blunt tips  
Curved 7.00 mm blades  
11.00 mm from midscrew  
to tips  
Overall length 100 mm



11-010S Left (shown)  
11-0101S Right

Katzin  
Corneal Transplant  
Scissors

Blunt tips  
Strongly curved 8.00 mm  
blades  
9.50 mm from midscrew  
to tips  
Overall length 100 mm



11-020S Left (shown)  
11-0201S Right

Castroviejo  
Universal Corneal Scissors

Blunt tips  
7.50 mm blades  
Overall length 102 mm



11-011S | ♥  
11-012S

Castroviejo  
Corneal Section  
Scissors

Blunt tips  
11.50 mm blades  
14.00 mm from midscrew  
to tips  
Lower blade is 0.50 mm  
longer than  
upper.  
Overall length 106 mm



11-024S Right (shown)  
11-0241S Left

Castroviejo  
Universal Corneal  
Scissors

Blunt tips  
Curved 13.00 mm blades  
16.00 mm from midscrew to tip  
Overall length 110 mm



11-015S

DALK  
Corneal Transplant  
Scissors

Pointed tips  
Blades with blunt ledge  
are used to perform the  
superficial keratectasia.  
Remove the 4 parts  
of separated  
stromal layers after the  
«Big Bubble» procedure.  
Overall length 106 mm



11-038S Right  
11-0381S Left (shown)

Osher  
Universal Corneal Scissors

Blunt tips  
Gently curved 13.00 mm blades  
21.00 mm from midscrew to tip  
Provide a precise 6.50 mm  
beveled incision opening  
with a single snip.  
Overall length 120 mm



11-013S



Corneal  
Universal Scissors

Blunt tips  
Curved  
Round handle  
Overall length 110/112 mm  
Stainless Steel



11-034S 7.50 mm blades (shown) | ♥  
11-035S 11.00 mm blades



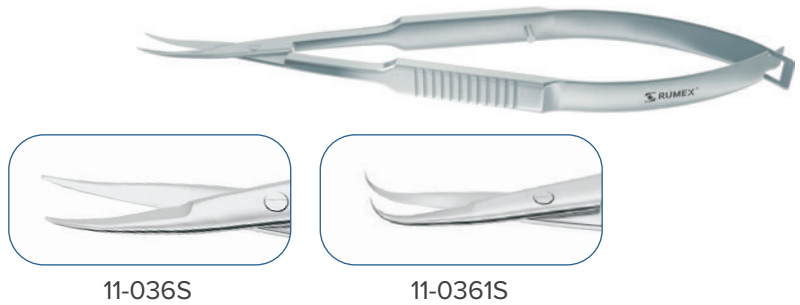
# REUSABLE ANTERIOR INSTRUMENTS

11 - SCISSORS

## DLEK Corneal Transplant Scissors

For the removal of the posterior cornea  
Long blades, sharp tips  
Overall length 102 mm  
Stainless Steel

- 11-036S Medium curve
- 11-0361S Strong curve



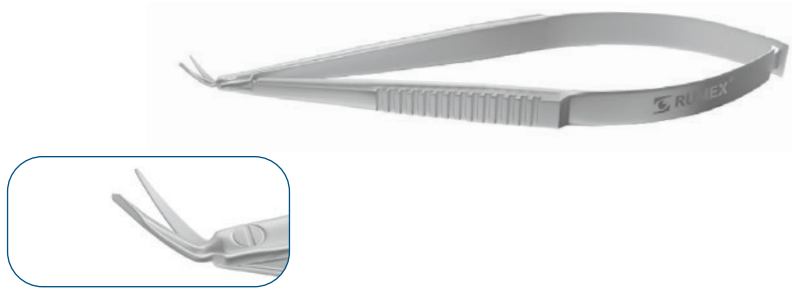
11-036S

11-0361S

## Holland Spatulated DALK Scissors

Rounded and blunt tips  
Vannas-style scissors with “micro blades” dissect stroma.  
Horizontally-oriented, spatulated inner blade ensures proper plane alignment, minimizing inadvertent perforation.  
Shortened outer blade for precise tissue trimming  
Overall length 100 mm  
Stainless Steel

- 11-134 Right (shown)
- 11-135 Left

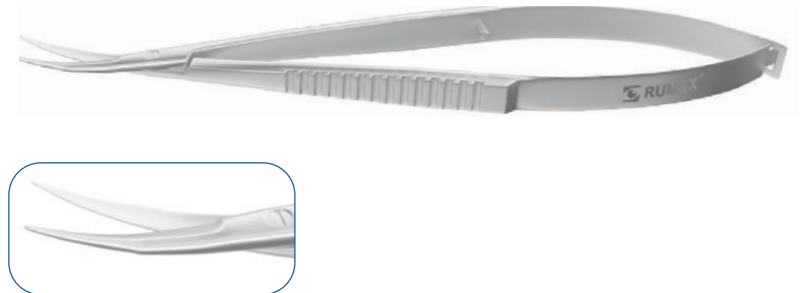


## STITCH SCISSORS

### Westcott Stitch Scissors

Gently curved  
16.00 mm blades  
21.00 mm from pivot to tip  
Sharp pointed tips  
Overall length 120 mm  
Stainless Steel

- 11-044S Standard jaws (shown) ♥
- 11-125S Westcott type slim jaws



### Westcott Stitch Scissors

Gently curved  
13.00 mm blades  
15.00 mm from pivot to tip  
Sharp pointed tips  
Overall length 115 mm  
Stainless Steel

- 11-046S Flat handle
- 11-047S Round handle



## STRABISMUS SCISSORS

### Knapp Strabismus Scissors

Blunt tips  
Ring handle  
Overall length 115 mm  
Stainless Steel

- 11-100S Straight (shown) | ♥
- 11-101S Curved





**IRIS SCISSORS**

**Zaldivar  
Iridectomy Scissors**

Sharp tips  
Straight shaft  
With fixation wheel  
Compatible with Squeeze Handle 12-003T

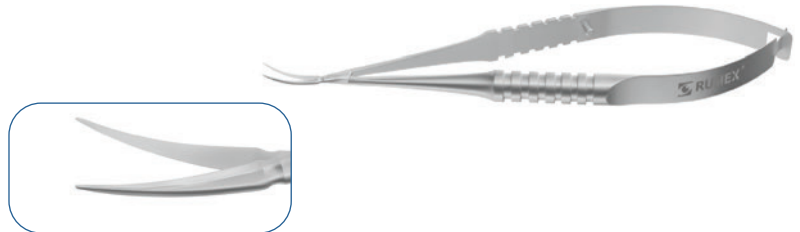
11-03721\* 23 Ga



**McPherson-Vannas  
Iris Scissors**

Curved  
8.00 mm blades  
Sharp pointed tips  
Round handle  
Overall length 85 mm  
Stainless Steel

11-062S



**Iris Scissors**

28.00 mm pointed tips from midscrew to tip  
Ring handle  
Overall length 115 mm  
Stainless Steel

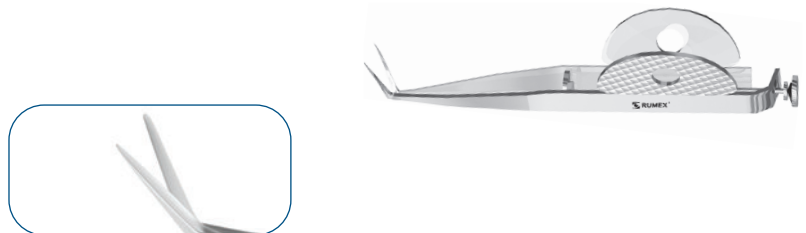
11-080S Straight (shown)   
11-081S Curved



**Barraquer  
Iris Scissors**

7.00 mm blades  
Blunt tips  
Squeeze action handle  
Overall length 55 mm  
Stainless Steel

11-1223



\*Tip only. Handles are sold separately.

Product design and/or features that do not influence its functionality and main parameters are subject to change

# REUSABLE ANTERIOR INSTRUMENTS

11 - SCISSORS

## TENOTOMY SCISSORS

### Westcott Tenotomy Scissors

Stainless Steel  
Curved  
Blunt tips



### Westcott Tenotomy Scissors

13.00 mm blades  
15.00 mm from pivot to tip  
Overall length 115 mm

11-040S



### Shepard-Westcott Tenotomy scissors

16.00 mm blades  
Serrated "supercut" upper  
blade  
21.00 mm from pivot to tip  
Overall length 123 mm

11-0481S Right



### Westcott Tenotomy Scissors

16.00 mm blades  
21.00 mm from pivot to tip  
Overall length 120 mm

11-042S



### Westcott Curved Tenotomy Scissors

15.00 mm Blades  
19.00 mm from pivot to tip  
Overall length 116 mm

11-049S Left



### Westcott Tenotomy Scissors

15.00 mm blades  
19.00 mm from pivot to tip  
Overall length 116 mm

11-048S Right



### Stevens Tenotomy scissors

Overall length 115 mm  
Stainless Steel

- 11-130S straight, sharp tips
- 11-131S curved, sharp tips
- 11-132S curved, blunt tips
- 11-133S straight, blunt tips (shown)

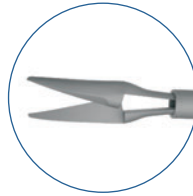


**CAPSULOTOMY SCISSORS**

**Side-Port  
Capsulotomy Scissors**

Sharp tips  
Curved shaft  
With fixation wheel  
Compatible with Squeeze Handle 12-003T

11-03741\* Left 20 Ga (shown)  
11-03751\* Right 20 Ga



**Capsulotomy Scissors**

Sharp pointed tips  
Stainless Steel



**Vannas  
Capsulotomy Scissors**

Straight  
6.00 mm blades  
9.00 mm from pivot to tip  
Overall length 84 mm

11-050S



**Gills-Vannas  
Capsulotomy Scissors**

Straight  
10.00 mm blades  
13.00 mm from pivot to tip  
Overall length 88 mm

11-056S



**Vannas  
Capsulotomy Scissors**

Curved  
6.00 mm blades  
9.00 mm from pivot to tip  
Overall length 84 mm

11-052S



**Gills-Vannas  
Capsulotomy Scissors**

Curved  
10.00 mm blades  
13.00 mm from pivot to tip  
Overall length 88 mm

11-058S



**Vannas  
Capsulotomy Scissors**

Angled  
6.00 mm blades  
9.00 mm from pivot to tip  
Overall length 81 mm

11-054S



**Gills-Vannas  
Capsulotomy Scissors**

Angled  
10.00 mm blades  
13.00 mm from pivot to tip  
Overall length 84 mm

11-0581S



**Clayman-Vannas  
Swan Neck Capsulotomy Scissors**

Straight  
5.00 mm blades  
7.00 mm from pivot to tip  
Sharp pointed tips  
Smooth handle  
Overall length 82 mm  
Stainless Steel

11-0501S



\*Tip only. Handles are sold separately.

Product design and/or features that do not influence its functionality and main parameters are subject to change

## ENUCLEATION SCISSORS

### Enucleation Scissors

Curved  
Blunt tips  
Ring handle  
Stainless Steel

Medium size  
Blades from midscrew to tip - 38.00 mm  
Overall length 128 mm

11-090S (shown)

Large size  
Blades from midscrew to tip - 45.00 mm  
Overall length 130 mm

11-091S



## IOL CUTTERS/SCISSORS

### Osher IOL Scissors

To cut silicone or acrylic IOL  
8.50 mm blades  
Overall length 91 mm  
Stainless Steel

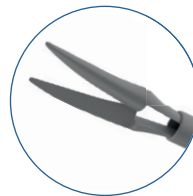
4-2175S 



### Rowen Rescue Kit Scissors

Intraocular scissors for foldable lens removal  
To cut silicone or acrylic IOL in case of complications  
Curved shaft  
Compatible with Squeeze Handle 12-003T

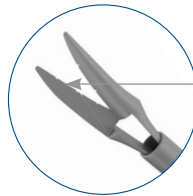
4-2151\* 18 Ga 



### Micro Foldable Lens Cutter

Intraocular scissors for foldable lens removal  
To cut silicone or acrylic IOL in case of complications  
Blades with notches  
Curved shaft  
Compatible with Squeeze Handle 12-003T

4-2173\* 19 Ga



Notches

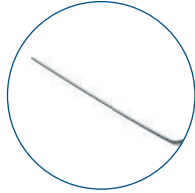
# SPATULAS

Stainless Steel Tips with an ergonomic light-weight round Titanium handle

## IRIS/NUCLEUS SPATULAS

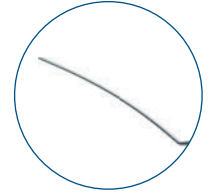
### Straight Spatula

- Overall length 122 mm
- 13-010 0.25 mm width, 10.00 mm length (shown)
  - 13-011 0.40 mm width, 14.00 mm length
  - 13-014 1.00 mm width, 13.00 mm length



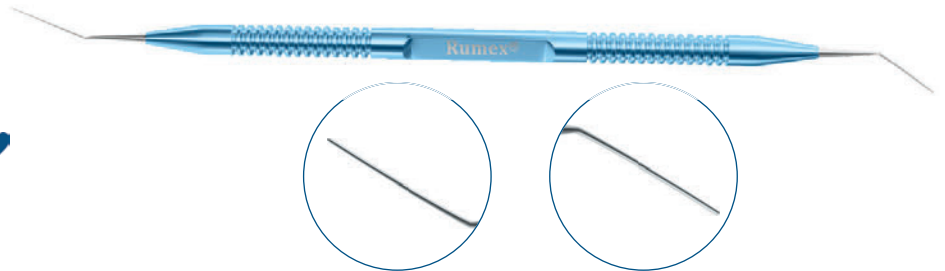
### Curved Spatula

- Overall length 122 mm
- 13-020 0.25 mm width, 12.00 mm length



### Double Spatula

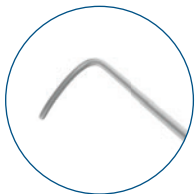
- Overall length 134 mm
- 13-031 0.50 & 1.00 mm width
  - 13-032 0.30 & 0.50 mm width



## Holz Zonule Defender

Can be used with **4-2142 Intraocular Lens Extraction Forceps**.  
Titanium Handle/Stainless Steel Tip  
Overall length 120 mm

13-061 



- Inserted into the equator of the capsule bag and used as counter traction during IOL exchange
- Prevents the prying motion from breaking zonules by distributing countertraction forces

**NEW**

Designed in cooperation with  
Huck Holz,  
M.D., U.S.A.

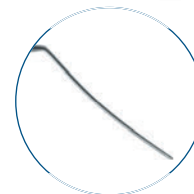
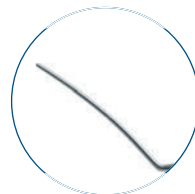


## CYCLODIALYSIS SPATULAS

### Castroviejo

Double-Ended Cyclodialysis Spatula  
Overall length 136 mm

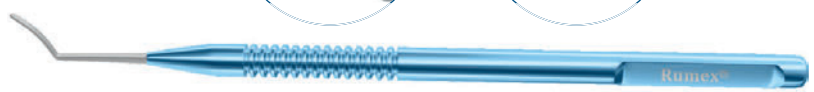
- 13-050 0.50 mm width, 10.00 & 15.00 mm



### Castroviejo Cyclodialysis Spatula

Overall length 124 mm

- 13-051 1.00 mm width, 10.00 mm length
- 13-052 0.75 mm width, 10.00 mm length



# REUSABLE ANTERIOR INSTRUMENTS

13 - SPATULAS

Stainless Steel Tips with an ergonomic light-weight round Titanium handle

## FEMTOSECOND CATARACT SPATULAS



### Spatula for Femtosecond Laser Procedure

Used for opening cataract incision created by femtosecond laser system. Specially designed for Alcon LenSx® Laser. Also compatible with incisions made by VICTUS™ Femtosecond Laser platform (Bausch & Lomb).  
1.40 mm length flat tip  
Overall length 120 mm

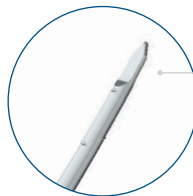
20-204



### Donnenfeld Femto Spatula

Special flattened design of the tip helps to open femtosecond created cataract insicions.  
Overall length 122 mm

20-2041



10 serrations for intraocular measurement (from 1.00 mm to 10.00 mm with 1.00 mm increment)

### Double-Ended Femto Spatula

Safe and quick Femtosecond incisions opening  
Blunt flattened spear easily detects the entering point.  
Blunt keratome-shaped tip facilitates incision opening.  
Overall length 132 mm

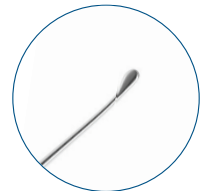
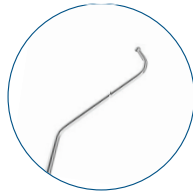
20-061



### Uy Laser Lens Fragmentation Combo Manipulator

Double-ended instrument for Femtosecond cataract procedure combining a chopper and a spatulated tip for nuclear, epinuclear and cortical fragments manipulating  
Overall length 131 mm

13-181



**CORNEAL SPATULAS**

**Paton Spatula and Spoon**

Double-ended instrument for manipulations with the cornea (LASIK/PRK/Corneal Transplantation)  
Overall length 150 mm

13-110



**DSEK, DSAEK, DMEK SPATULAS**

**Corneal Dissector**

For intrastromal dissection  
Straight  
60° angled shaft  
12.00 mm from tip to angle  
Titanium Handle/Stainless Steel Tip  
Overall length 125 mm

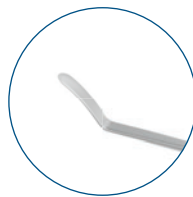
13-137



**Corneal Dissector**

For intrastromal dissection  
Curved (curvature radius 22.00 mm)  
45° angled shaft  
12.00 mm from tip to angle  
Titanium Handle/Stainless Steel Tip  
Overall length 127 mm

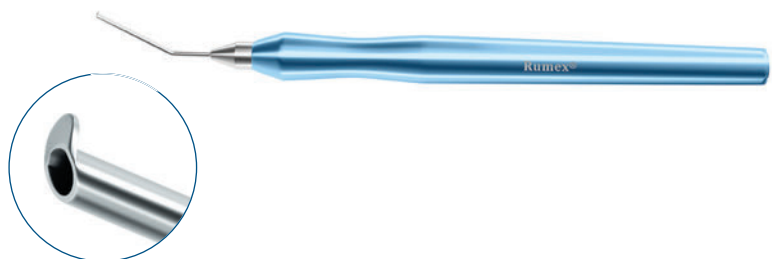
13-138



**Irrigating Endothelial Stripper**

For Descemet's stripping  
Titanium Handle/Stainless Steel Tip  
Overall length 104 mm

13-139/I



**Spatula-Guide**

For corneal endothelium implantation  
Overall length 122 mm  
Titanium

13-150T





## DSEK, DSAEK, DMEK SPATULAS

### Cindy Sweeper DSEK Spatula

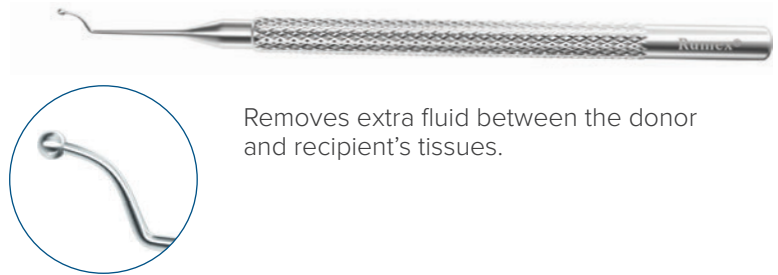
Angled shaft  
12.00 mm from bend to tip  
0.70 mm diameter  
Overall length 114 mm  
Stainless Steel  
13-151S



Smoothens out the area between the donor graft and recipient's stromal bed.

### Carlson DSEK Smoother

Angled/vaulted shaft  
7.50 mm from tip to angle  
2.50 mm blunt ball  
Overall length 115 mm  
Stainless Steel  
13-152S



Removes extra fluid between the donor and recipient's tissues.

### Terry DSEK Scraper

Angled shaft  
11.00 mm from tip to angle  
Hole-shaped scraper facing upward  
Overall length 114 mm  
Stainless Steel  
13-153S



Roughens the recipient's inner corneal stroma for better layers adherence.

### Melles Style 1 DSAEK PLK Scraper

45° angled shaft  
11.00 mm from tip to angle  
45° angled tip  
Overall length 125 mm  
Titanium  
13-154T



### Melles Style 2 DSAEK PLK Scraper

45° angled shaft  
11.00 mm from tip to angle  
90° angled tip  
Overall length 125 mm  
Titanium  
13-155T



Stainless Steel Tips with an ergonomic light-weight round Titanium handle

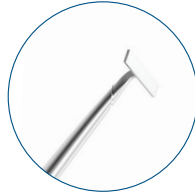
## DSEK, DSAEK, DMEK SPATULAS

### John DSAEK Descemet's Stripper

"T" shape 1.80 mm wide x 0.60 mm high tip  
Efficient in cases of strong adherence of the Descemet's membrane to recipient's corneal stroma.

Strongly vaulted shaft  
Overall length 118 mm

13-1491



### John Dexatome DMEK/ DSAEK Spatula

Removes the Descemet's membrane as a single disc.

Strongly vaulted shaft  
Overall length 119 mm

13-182



### John DSAEK Stromal Scrubber

Roughens the inner corneal stroma at the periphery of Descemetorhexis.

Minimizes the risk of disk detachment after DSAEK.

Strongly vaulted shaft  
Round handle  
Overall length 120 mm

13-183



### John DSAEK Glider

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

Overall length 114 mm

13-184



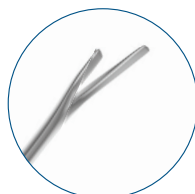
### Tan Marginal DMEK Dissector

Double-tipped end is designed for cutting the peripheral ends of donor Descemet's membrane without risk of radial tears occurrence.

Curved single-tipped end is used for convenient separation of the membrane from the stroma.

Overall length 132 mm

13-185



# REUSABLE ANTERIOR INSTRUMENTS

13 - SPATULAS

Stainless Steel Tips with an ergonomic light-weight round Titanium handle

## DLEK SPATULAS

### Manipulator for DLEK procedure

Designed to tuck the edges of the donor lamella.

0.15 mm diameter Z-hook with blunt tip

Overall length 120 mm

13-160



## DALK SPATULAS

### Trisector for DALK Procedure

Facilitates separation of rest of stromal attachments from Descemet's membrane at the periphery.

Blunt bottom surface is safe for Descemet's membrane.

The anterior surface has an edge that facilitates the enlarging of stromal opening with a blade.

Flat 1.40×0.70 mm tip

Overall length 124 mm

13-170



### Spatula for DALK Procedure

The center groove can be used as a guide for the blade facilitating the enlarging of stromal opening.

Blunt bottom surface is safe for Descemet's membrane.

Flat 1.00×9.00 mm tip

Overall length 122 mm

13-171



### Dissector for DALK Procedure

Creates a track in deep stroma for the further cannula inserting.

Obtains delicate preparation for "Big Bubble" procedure.

12.00 mm length blunt beveled tip

Overall length 122 mm

13-172



Stainless Steel Tips with an ergonomic light-weight round Titanium handle

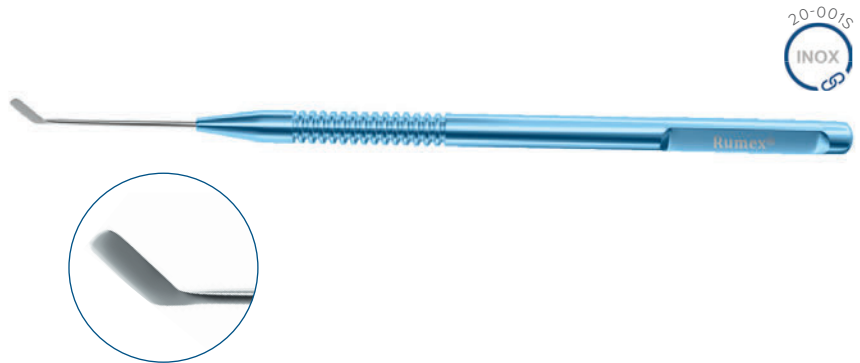
**FOREIGN BODY SPUDS**

Davis  
Foreign Body Spud  
Overall length 123 mm  
16-153



**PRK/LASIK SPATULAS**

Hockey Knife  
for Epithelium Removal  
To remove epithelium for PRK  
procedure and during LASIK  
retreatment  
Overall length 130 mm  
20-001 



Lindstrom  
LASIK/PRK Spatula and Epithelium  
Removal Board  
Semi-sharp end of the instrument  
is designed to remove epithelium.  
Fine spatula on the other end is used  
for flap manipulation during LASIK  
surgery.  
Overall length 138 mm  
20-002



LASIK  
Spatula and Flap Retreatment  
Instrument  
Double-ended  
Overall length 133 mm  
20-013



# REUSABLE ANTERIOR INSTRUMENTS

13 - SPATULAS

Stainless Steel Tips with an ergonomic light-weight round Titanium handle

## LASEK SPATULAS

### LASEK Epithelial Micro Hoe

Can be used to detach and lift the edge of the epithelium flap.  
Overall length 120 mm  
20-131



### LASEK Knife

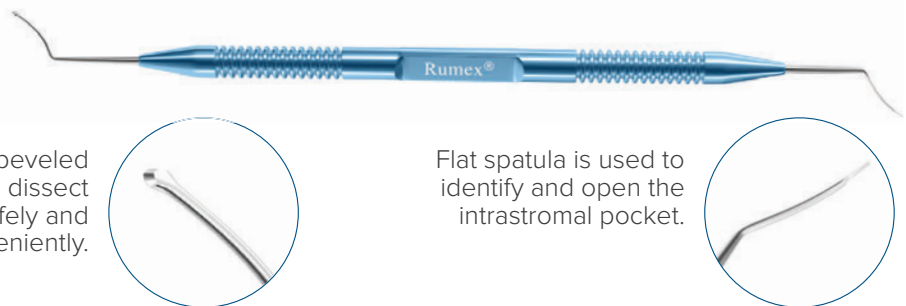
The sharp anterior part of the knife is used to detach epithelium from the incision. The blunt part of the knife is for repositioning of the epithelium after the ablation.  
Overall length 128 mm  
20-0011



## SMILE SPATULAS

### Stodulka ReLEx Smile Double Lenticule Spatula

Blunt spoon and flat spatula  
Overall length 130 mm  
20-207

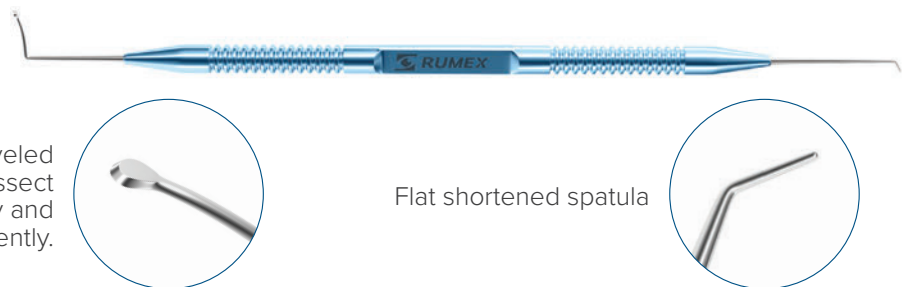


Wide disc-shaped beveled tip allows to dissect the lenticule safely and conveniently.

Flat spatula is used to identify and open the intrastromal pocket.

### ReLEx Smile Double Lenticule Spatula

Blunt spoon and shortened atraumatic spatula  
Overall length 129 mm  
20-2071



Wide disc-shaped beveled tip allows to dissect the lenticule safely and conveniently.

Flat shortened spatula

### SMILE Lenticule Removing Spatula

Double-function tool  
Overall length 120 mm  
20-2073



Delicate reversed hook for easy identification and capture of lenticule edge

Modified spatula for smooth and safe removal

Stainless Steel Tips with an ergonomic light-weight round Titanium handle

**FEMTOLASIK SPATULAS**

**FemtoLASIK Flap Spatula**  
Double-Ended

A delicate pick and a curved spatula to open and manipulate the flap  
Overall length 128 mm

20-201 



**Zaldivar**  
**FemtoLASIK Spatula**

Extra delicate spatula with bullet shaped tip to open and manipulate the flap  
Overall length 123 mm

20-203



# REUSABLE ANTERIOR INSTRUMENTS

13 - SPATULAS

Stainless Steel Tips with an ergonomic light-weight round Titanium handle

## ICL™ SPATULAS

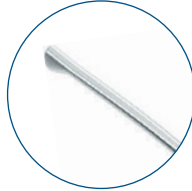
### Pallikaris ICL™ Manipulator

Designed to place the lens corners under the iris.  
Sandblasted tip  
Overall length 123 mm

13-141



ICL™ — registered trademark of STAAR®



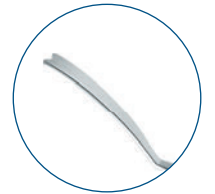
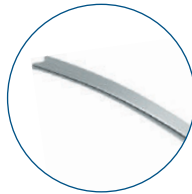
### Zaldivar ICL™ Manipulator

Double-ended instrument with slightly forked tips to place the lens corners under the iris  
Overall length 128 mm

13-142



ICL™ — registered trademark of STAAR®



## ICRS SPATULAS

### Elevator for ICRS Implantation

To create a small pocket in intended direction of the tunnel with a mild rotatory movement  
Straight shaft  
Tip dimensions: 0.10 mm height, 0.20 mm width, 0.70 mm length  
Overall length 123 mm

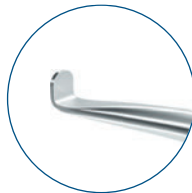
10-035



### Suarez Spreader

To enlarge the small corneal pockets in both directions in a proper depth  
Straight shaft  
Tip dimensions: 0.10 mm height, 0.60 mm width, 1.25 mm length  
Overall length 122 mm

13-146



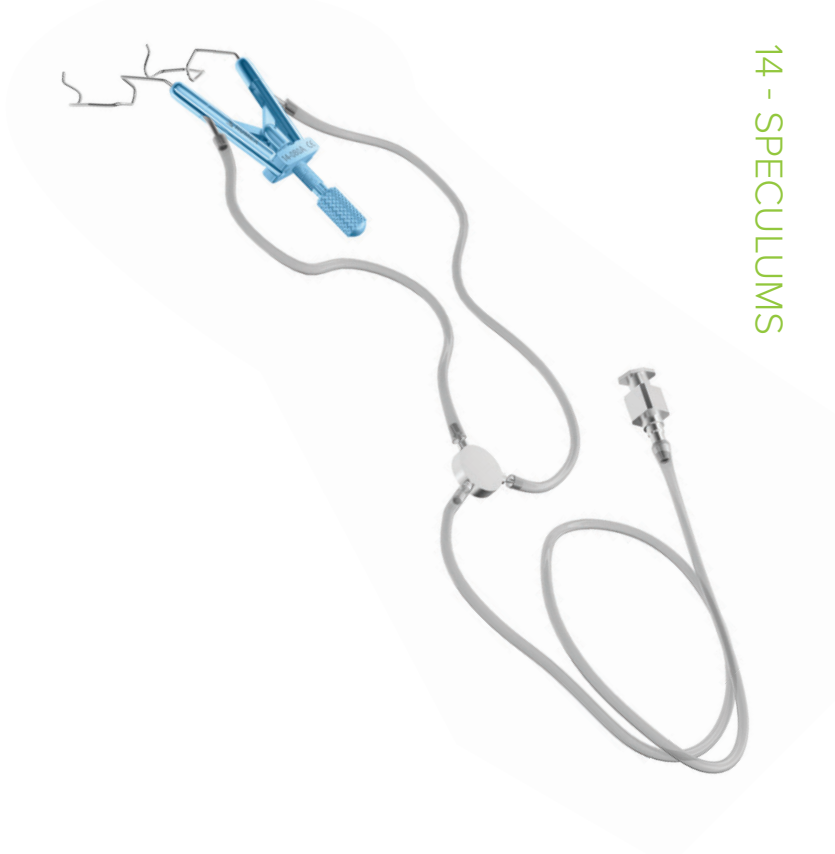


# SPECULUMS

## SPECULUMS WITH ASPIRATION

Thumb-screw control to adjust lid tension

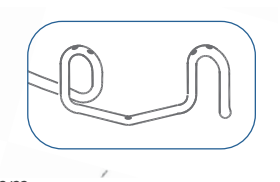
Ports on each blade allow continuous aspiration providing better vision during the operation.



### Kershner Style

Reversible  
Nasal/temporal approach  
Solid blades, 14.00 mm  
Overall length 70 mm

14-060A Adult



### Lieberman Style

Temporal  
"V" style open blades, 14.00 mm  
Overall length 78 mm

14-080A Adult 

### Child Lieberman Style

Temporal  
«V» style open blades, 10.00 mm  
Overall length 64 mm

14-082A Child

### Lieberman Style for LASIK

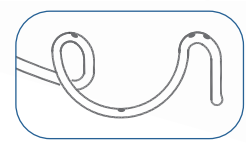
Temporal  
Rounded open blades, 14.00 mm  
Overall length 78 mm

14-080LA Adult

### Lieberman Style for LASIK

Nasal  
Rounded open blades, 14.00 mm  
Overall length 75 mm

14-081LA Adult



## LANCASTER SPECULUMS

### Lancaster Eye Speculum

- Adjustable mechanism with locking nut
- Spring-control with locking mechanism and stabilizing disk
- Solid-shaped slightly curved blades fit orbital margin, keep eyelashes from the surgical area, and provide optimal view

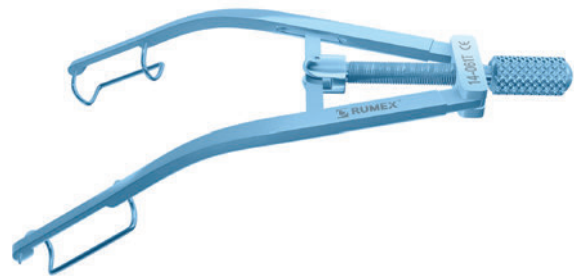
Temporal  
 Solid blades, 16.00 mm  
 Overall length 70 mm  
 Titanium  
 14-045T



## CASTROVIEJO SPECULUMS

### Castroviejo Speculum

Temporal  
 Fenestrated blades, 14.00 mm  
 Blades spread 30.00 mm  
 Flat handle  
 Overall length 85 mm  
 Titanium  
 14-061T Adult ♥



## REVERSIBLE SPECULUMS KERSHNER STYLE

Can be used both for nasal and temporal approach.

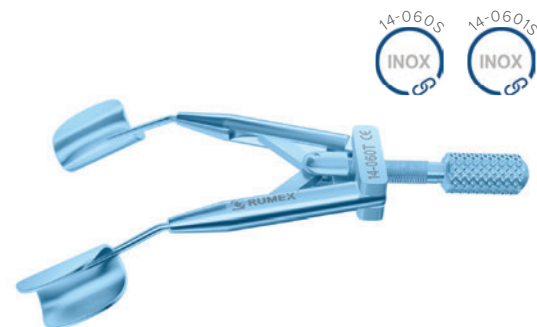
### Kershner Reversible Speculum

Fenestrated blades, 14.00 mm  
 Flat handle  
 Overall length 70 mm  
 Titanium  
 14-062T Adult



### Kershner Reversible Speculum

Adult  
 Solid blades, 14.00 mm  
 Overall length 70 mm  
 Titanium  
 14-060T Round handle  
 14-0601T Flat handle ♥



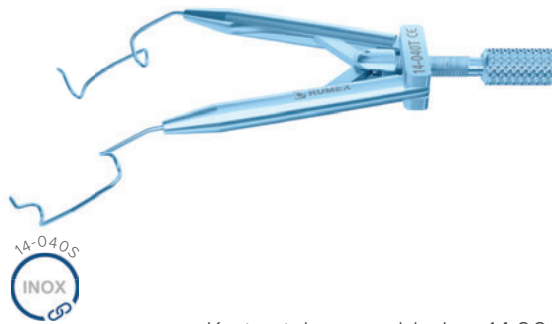
**TEMPORAL SPECULUMS LIEBERMAN STYLE**

Thumb-screw control to adjust lid tension

**Temporal Speculum**

Lieberman Style

Titanium



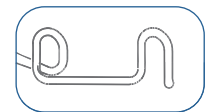
«V» style open blades, 14.00 mm  
Round handle  
Overall length 76 mm

14-040T Adult ♥



Kratz style open blades, 14.00 mm  
Flat handle  
Overall length 76 mm

14-0401TK Adult ♥



«V» style open blades, 10.00 mm  
Round handle  
Overall length 60 mm

14-042T Child



«V» style open blades, 14.00 mm  
Flat handle  
Overall length 76 mm

14-0401T Adult ♥

For LASIK  
Rounded open blades, 14.00 mm  
Round handle  
Overall length 76 mm

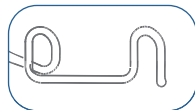
14-040TL Adult



Specially designed to accommodate microkeratome suction ring.

Kratz style open blades, 14.00 mm  
Round handle  
Overall length 71 mm

14-040TK Adult ♥



For LASIK  
Rounded open blades, 14.00 mm  
Flat handle  
Overall length 76 mm

14-0401TL Adult

**TEMPORAL FEMTO SPECULUMS**

**Slade-Murdoch Speculum**

Adjustable Speculum with Lath Mechanism

Parallel retraction design. Quick installation and removal due to self-locking mechanism. Blades specially curved to facilitate laser docking without increasing external pressure.

Temporal  
Open 14.00 mm blades  
Overall length 54 mm

14-052T



**SAUER SPECULUMS**

Temporal  
Solid blades  
Blade spread 20.00 mm  
Overall length 35/25/20 mm

- 14-030 Child (8.00 mm blades)
- 14-031 Newborn (5.00 mm blades)
- 14-032 Premature (4.00 mm blades)



# REUSABLE ANTERIOR INSTRUMENTS

14 - SPECULUMS

## NASAL SPECULUMS LIEBERMAN STYLE

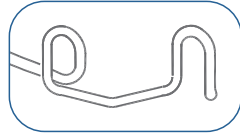
Thumb-screw control to adjust lid tension

### Nasal Speculum Lieberman Style

Titanium

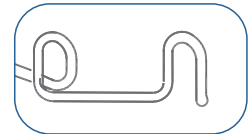
«V» style open blades  
14.00 mm  
Round handle  
Overall length 70 mm

14-041T Adult 



«V» style open blades,  
10.00 mm  
Round handle  
Overall length 60 mm

14-043T Child

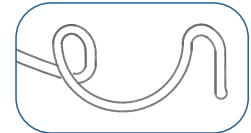


Kratz style open blades,  
14.00 mm  
Round handle  
Overall length 70 mm

14-041TK Adult

«V» style open blades,  
14.00 mm  
Flat handle  
Overall length 70 mm

14-0411T Adult



For LASIK  
Rounded open blades,  
14.00 mm  
Flat handle  
Overall length 70 mm

14-0411TL Adult

Specially designed to accommodate microkeratome suction ring.

«V» style open blades,  
10.00 mm  
Flat handle  
Overall length 60 mm

14-0431T Child

## BARRAQUER WIRE SPECULUMS

Angled for temporal approach

Stainless Steel



Closed rounded wire blades

14.00 mm blades  
Overall length 45 mm

14-022S Adult

11.00 mm blades  
Overall length 38 mm

14-023S Child

10.00 mm blades  
Overall length 38 mm

14-024S Infant

4.00 mm blades  
Overall length 25 mm

14-0244S Newborn



Solid blades

14.00 mm blades  
Overall length 40 mm

14-0221S Adult

11.00 mm blades  
Overall length 35 mm

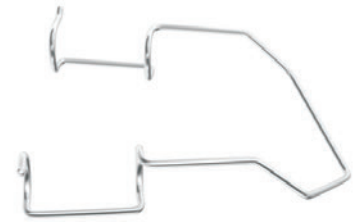
14-0231 Child

5.00 mm blades  
Overall length 28 mm

14-0241S Newborn

4.00mm blades  
Overall length 28 mm

14-0222S Premature



Open wire blades

14.00 mm blades  
Overall length 45 mm

14-025S Adult



Closed wire blades

14.00 mm blades,  
Overall length 40 mm

14-028S Adult

11.00 mm blades,  
Overall length 36 mm

14-0281S Child



Open rounded wire blades

14.00 mm blades,  
Overall length 40 mm

14-0282S Adult



Open wire blades

14.00 mm blades,  
Overall length 45 mm

14-0286S Adult

## CANNULAS

### LENS REMOVAL/NUCLEUS REMOVAL CANNULAS

Specifically designed to aid in phacoemulsification during the lens extraction phase. The loop is placed between the lens and the posterior chamber, ensuring an atraumatic lens removal.



#### Knolle-Pearse Irrigating Vectis

3 irrigating ports at 12, 10 and 2 o'clock  
Loop 5.00 mm wide, 9.00 mm long

15-183 23 Ga × 35 mm

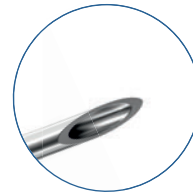
#### Sheets Irrigating Vectis

3 irrigating ports  
Serrations on top  
Loop 6.50 mm wide, 19.00 mm long

15-203 21 Ga × 38 mm

### ANESTHESIA CANNULAS

Used to deliver anesthetic agents inside the muscle cone or the posterior Sub-Tenon's space.



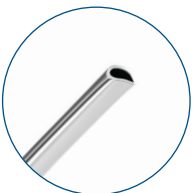
#### Sub-Tenon's Anesthesia Cannula

Curved  
0.30 mm side-port

15-009 19 Ga × 25 mm

#### Atkinson Retrobulbar Needle

15-001-23 23 Ga × 38 mm



#### Sub-Tenon's Anesthesia Cannula

Curved  
Flattened tip  
Front opening

15-013-19 19 Ga × 25 mm

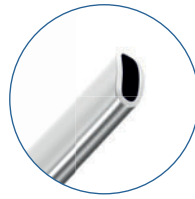
#### Sub-Tenon's Anesthesia Cannula

Curved  
3 ports of 0.40 mm

15-011C-19 19 Ga × 25 mm

**ANTERIOR CHAMBER CANNULAS**

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



**Rycroft Anterior Chamber Cannula**

Angled 45°

4 mm angled tip

15-051-23 23 Ga × 22 mm

15-051-25 25 Ga × 22 mm

15-051-27 27 Ga × 22 mm

15-051-30 30 Ga × 22 mm



6 mm angled tip

15-052-27 27 Ga × 22 mm

8 mm angled tip

15-053-27 27 Ga × 22 mm

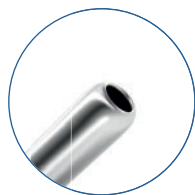
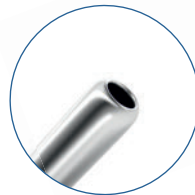
**Bishop-Harmon Anterior Chamber Cannula**

8 mm angled tip

Angled 40°

Spatulated

15-055-19 19 Ga × 25 mm



**McIntyre Anterior Chamber Cannula**

Angled 45°

Smooth blunt tip

Front opening

15-061-26 26 Ga × 20 mm

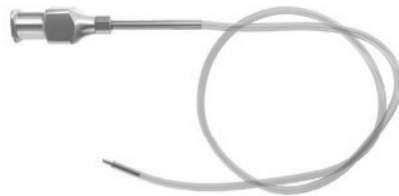
**Irrigating Cannula**

Straight

Blunt polished tip

15-049-23 23 Ga × 25 mm

15-049-30 30 Ga × 25 mm



**Lewicky Anterior Chamber Maintainer**

Self-retaining threaded tip for stable fixation within the corneal stroma

27.5 cm silicone tubing

15-065 20 Ga × 3.5 mm tip



**Jaymce Anterior Chamber Maintainer**

Bulbous beveled tip allows easy insertion and stable fixation within the corneal stroma

27.5 cm silicone tubing

15-1067 20 Ga × 4 mm tip



**Girard Anterior Chamber Maintainer**

Atkinson tip

27.5 cm silicone tubing

15-067 23 Ga × 5 mm tip



# REUSABLE ANTERIOR INSTRUMENTS

15 - CANNULAS

## IRRIGATING/ASPIRATING CANNULAS

Used for removing cortical debris or viscoelastic solution while maintaining the anterior chamber during cataract surgery.

### Simcoe I/A Cannulas

Regular  
0.30/0.40 mm side irrigation port, 0.40 mm anterior opening for aspiration  
Irrigation through luer-lock hub, aspiration through the silicone tubing hub

15-129-0.3 23/23 Ga

15-129-0.4 23/23 Ga

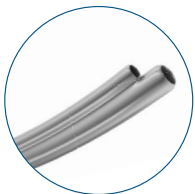


Reverse

0.30/0.40 mm side irrigation port, 0.40 mm anterior opening for aspiration  
Aspiration through luer-lock hub, irrigation through the silicone tubing hub

15-133-0.3 23/23 Ga

15-133-0.4 23/23 Ga



### Gills I/A Cannula

Side by side front opening

15-119 23/23Ga



### J-Shaped I/A Cannula

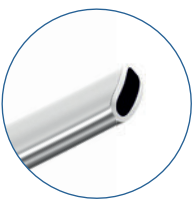
Regular

“J” shape facilitates removal of cortex at 12 o'clock position  
0.30 mm top port

15-1149R 23/23 Ga, Right

## HYDRODISSECTION/HYDRODELINEATION CANNULAS

Designed for easy placement under the anterior capsule to deliver fluids to facilitate the separation of the cortex from the capsule.



### McIntyre Nucleus Hydrodissector

Flattened on the horizontal plane tip provides the broad stream of fluid  
Angled 45°, 11 mm angled tip

15-071-23 23 Ga × 22 mm

15-071-25 25 Ga × 22 mm

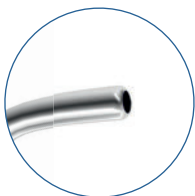
15-071-27 27 Ga × 22 mm



### Chang Nucleus Hydrodissector

Beveled tip used to rotate the nucleus  
Flat tip ensures easy insertion under the capsular rim and broad stream of fluid  
Angled 90°

15-0681 27 Ga × 16 mm



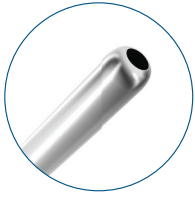
### Pearce J-Shaped Micro Hydrodissector

Hook 1.75 mm wide, 2.25 mm long  
“J” shape facilitates hydrodissection at the 12 o'clock position

15-073-27 27 Ga × 22 mm

## CORTEX REMOVAL CANNULAS

Used to remove cortical material during phacoemulsification.



### McIntyre-Binkhorst Cannula

Left  
Blunt tip

15-079L 26 Ga × 22 mm



### Simcoe Cortex Extractor Cannula

0.35 mm side-port

15-091-13/23 23 Ga × 13 mm

## CYSTOTOME CANNULAS

Used to perform capsulorhexis. Tip is designed for opening of anterior capsule.



### Kelman Sharp Irrigating Cystotome

Curved sharp cutting edge

15-025 25 Ga × 32 mm

## CAPSULE POLISHERS

Specially designed for scrubbing all parts of the capsular bag. Tungsten carbide coating of the tip ensures the delicate and efficient capsule polishing.



### Microincisional Capsule Polisher

Disc-shaped sandblasted tip  
Curved tube for better visualization  
For a sub-2.00 mm incision

15-170 23 Ga × 25 mm



### Kratz Capsule Polisher

0.30 mm side-port  
Angled, blasted 3 mm from end

15-169-23 23 Ga × 22 mm



### Jensen Capsule Polisher

Gently curved  
Olive-shaped sandblasted tip

15-159-25 25 Ga × 28 mm

15-159-27 27 Ga × 28 mm

# REUSABLE ANTERIOR INSTRUMENTS

15 - CANNULAS

## GLAUCOMA CANNULAS

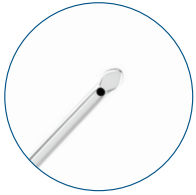


### Viscocanalostomy Cannula

For viscoelastic injection during Glaucoma surgery  
Angled micro-gauge cannula with 5 mm beveled tip

15-1051-30 30 Ga × 20 mm

## DALK CANNULAS



### Cannula for DALK Procedure

Bottom port 0.20 mm  
Designed for air injection in order to achieve an ideal "Big Bubble"

15-450-27 27 Ga × 38 mm 

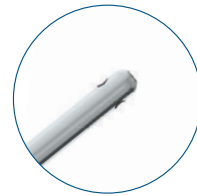
## REFRACTIVE CANNULAS



### Vidaurri LASIK Irrigation Cannula

Universal cannula simultaneously irrigates both sides of the flap, washes the stromal bed and enables the flap positioning  
Double-armed, 8 irrigating ports

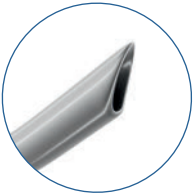
15-371-25 25 Ga × 22 mm



### Buratto LASIK Irrigation Cannula

3 irrigating ports of 0.25 mm

15-379-25 25 Ga × 32 mm



### Slade LASIK Cannula

Flattened spatulated tip

15-376 26 Ga × 25 mm



### Banaji LASIK Irrigation Cannula

Curved  
4 ports of 0.25 mm

15-373-25 25 Ga × 22 mm 

## LACRIMAL CANNULAS

For surgical treatment, repair and irrigation of the nasolacrimal system.



### Lacrimal Cannulas

23 Ga cannula with 20 Ga reinforced shaft  
Malleable tip

15-027      23 Ga × 32 mm, Straight  
15-029      23 Ga × 32 mm, Curved  
(shown)



### Bailey Lacrimal Cannula

Straight  
23 Ga cannula with 20 Ga reinforced shaft

15-031      23 Ga × 15 mm    ♥



### Shahinian Lacrimal Cannula

Smooth bullet shape tip

15-032      25 Ga × 35 mm



### Fasanella Lacrimal Cannula

Gently curved

15-033      23 Ga × 42 mm



### Anel Lacrimal Cannulas

Special long mount blunt tip  
Straight

15-035-23S    23 Ga × 20 mm  
15-035-25S    25 Ga × 20 mm



### Anel Lacrimal Cannulas

Special long mount blunt tip  
Curved

15-035-23C    23 Ga × 20 mm  
15-035-25C    25 Ga × 20 mm

## ACCESSORIES

Designed to be attached to a cannula for irrigation and/or aspiration during ophthalmic surgeries.



Silicone Bulb with Adapter  
15-301/303    ♥



### Titanium Microsurgical Handle

Male-Male (shown)    15-307T  
Male-Female          15-308T

## MISCELLANEOUS

### INJECTORS

#### Injector for Capsular Ring with Irrigation

Designed for one-hand implantation of the capsular tension rings with diameters of 10, 11 and 12 mm.

Allows to implant the capsular tension ring clockwise and counter-clockwise.

Back cover of the instrument can be easily opened to flush and clean the inner mechanism of the injector.

Overall length 162 mm

16-253 



Compatible with MORCHER® CTRs Type 14 (14, 14A, 14C) or similar original shape with 10 mm, 11 mm and 12 mm diameter (compressed).


Not to be used with rings of sinusoidal shape (MORCHER® CTR Type 10C or similar); rings with additional fixation eyelet (MORCHER® Cionni Rings or similar); rings with bent eyelet (MORCHER® CTR Type 13 or similar).

#### IOL Injector

Plunger mechanism with reverse inner spring for easy and efficient one-handed implantation technique  
Specially designed handle with a ring enables firm grip and precise control.

Can be used with **4-2141T IOL Loading Forceps**.  
Overall length 212 mm

16-2806\* For A, B, C cartridges

16-2808\* For D cartridge 



#### IOL Injector

Plunger mechanism with reverse inner spring for easy and efficient one-handed implantation technique

Specially designed handle enables firm grip and precise control.

Can be used with **4-2141T IOL Loading Forceps**.  
Overall length 187,5 mm

16-2807 For D cartridge



#### IOL Injector NaviJect™

Plunger mechanism with reverse inner spring for easy and efficient one-handed implantation technique

Specially designed handle with a ring for precise control.

To be used with **IOL cartridges CAT-22 and other sizes**

Overall length 178,5 mm

16-2853\*\*



### Disposable Cartridges for IOL Injector\*\*\*

To be used with Reusable IOL Injector **16-2853** (page 127) for foldable one-piece IOLs

CAT-22 for 2.2 mm incision

CAT-24 for 2.4 mm incision

CAT-26 for 2.6 mm incision

STERILE  



\*Not available in the US, Japan, Germany, Switzerland

\*\* Not available in Canada

\*\*\* Not available in the US and Europe

Product design and/or features that do not influence its functionality and main parameters are subject to change

**PUNCHES & RONGEURS**

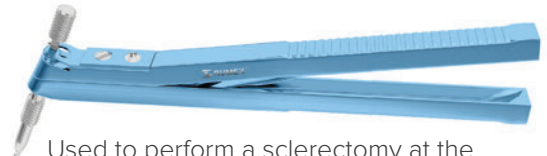
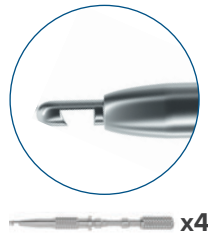
**Belz**  
 Lacrimal Sac Rongeur  
 Polished finish  
 Overall length 185 mm  
 Stainless Steel  
 16-138



**Kerrison**  
 Rongeur  
 3.00 mm wide  
 9.00 mm opening  
 Polished finish  
 Stainless Steel  
 Overall length 140 mm  
 16-136 size 0



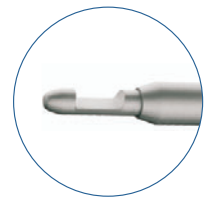
**RUMEX Corneoscleral Punch**  
 Set of Stainless Steel tips:  
 0.50 mm, 0.75 mm, 1.00 mm, 1.50 mm  
 Titanium handle  
 Overall length 122 mm  
 16-010



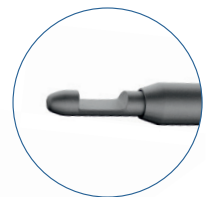
Used to perform a sclerectomy at the corneoscleral junction.

- Standard spring mechanism for precise control
- 360° rotatable tip for convenient positioning
- No need to hold the scleral flap

**Micro Trabeculectomy Punch**  
 0.60 mm diameter head  
 Bullet-shaped tip  
 0.30 mm × 0.60 mm deep bite  
 Straight shaft  
 Compatible with Squeeze Handle 12-003T  
 16-0111\* 20 Ga



**Kelly**  
 Descemet's Membrane Punch  
 Stainless Steel tip  
 Serrated squeeze action Titanium handle  
 Overall length 131 mm  
 16-011



\*Tip only. Handles are sold separately.  
 Product design and/or features that do not influence its functionality and main parameters are subject to change

# REUSABLE ANTERIOR INSTRUMENTS

16 - MISCELLANEOUS

## SPOONS & CURETTES

### Bunge Evisceration Spoon

Titanium Handle/Stainless Steel Tip  
Small size  
Overall length 137 mm

16-061

Large size  
Overall length 141 mm

16-062



### Meyerhoefer Chalazion Curette

Titanium Handle/Stainless Steel Tip  
Overall length 135 mm

16-063 size 0 (1.50 mm)

16-064 size 1 (1.75 mm)

16-065 size 2 (2.00 mm)

16-066 size 3 (2.50 mm)

16-067 size 4 (3.50 mm)



### Wells Enucleation Spoon

Titanium Handle/Stainless Steel Tip  
Overall length 145 mm

16-060



## SCLERAL DEPRESSORS

### Flynn Scleral Depressor

Loop style tip for depressing pediatric sclera  
Titanium Handle/Stainless Steel Tip  
Overall length 100 mm

16-115



### Schocket Double-Ended Scleral Depressor

With pocket clip  
Overall length 143 mm

16-111 Titanium Handle/Stainless Steel tips



## LENS LOOPS

### Wilder Lens Loop

4.00 mm width  
Titanium Handle/Stainless Steel Tip  
Overall length 134 mm

16-072






**ALGERBRUSH INSTRUMENTS\***

**Complete Set of a Power Handle, Chuck, and Burr**




**Pterygium Remover**

Diamond burr provides excellent smoothing of corneal surface after surgical removal of the tissue.

16-051-2.5 With a 2.50 mm  Diamond Dusted Round Fine Grit Burr



16-050-3.5 With a 3.50 mm  Diamond Dusted Round Medium Grit Burr



16-050-5.0 With 5.00 mm Diamond Dusted Disk-Shaped Medium Grit Burr



**Rust Rings Remover**

Used to remove foreign bodies and rust rings from patient's eye. Tungsten carbide coating ensures efficient corneal surface smoothing.

16-140 With a 1.00 mm Burr 




16-141 With a 0.50 mm Burr 




**ALGERBRUSH REPLACEMENT BURRS\***

**Pterygium Remover Replacement Burrs with Chuck**


1 per box, reusable, non-sterile

16-051-2.5B Diamond Round Fine Grit Burr,  2.50 mm



16-051-3.5B Diamond Round Medium Grit Burr,  3.50 mm



16-052-5.0B Diamond Disk-Shaped Medium Grit Burr,  5.00 mm



**Rust Rings Remover Replacement Burrs**

5 per box, reusable, non-sterile

16-142B Tungsten Burr, 1.00 mm

16-143B Tungsten Burr, 0.50 mm 



\*Not available in Canada

Product design and/or features that do not influence its functionality and main parameters are subject to change

# REUSABLE ANTERIOR INSTRUMENTS

16 - MISCELLANEOUS

## DISPOSABLE ELECTRIC EYE CAUTERIES

### Electric Eye Cautery

Battery operated  
Low temperature

- 16-041\* fine tip
- 16-042\* elongated fine tip

STERILE  



## FIXATION RINGS

### Fine-Thornton Phaco Fixation Ring

3/4 open ring with swivel  
Titanium

13.00 mm diameter ring with teeth  
Overall length 96 mm

16-036T

14.00 mm diameter ring with teeth  
Overall length 98 mm

16-0341T



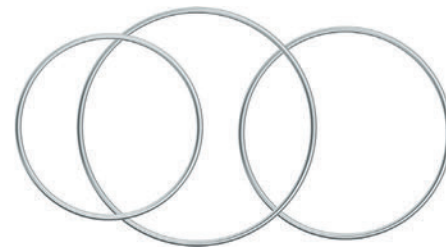
## FLIERINGA RINGS

### Flieringa Rings

Sutured to the sclera to support the globe during difficult eye operations.

Stainless Steel

- 16-030-14 (14.00 mm)
- 16-030-15 (15.00 mm)
- 16-030-16 (16.00 mm)



- 16-030-17 (17.00 mm)
- 16-030-18 (18.00 mm)
- 16-030-19 (19.00 mm)

- 16-030-20 (20.00 mm)
- 16-030-21 (21.00 mm)
- 16-030-22 (22.00 mm)

## TRABECULOTOMES

### Harms Trabeculotome

9.00 mm long pointed tips with 3.00 mm spread  
Overall length 51 mm  
Stainless Steel

- 16-012S left (shown)
- 16-013S right



## TREPHINES

### Corneal Trephine Blades

Polished finish  
Stainless Steel

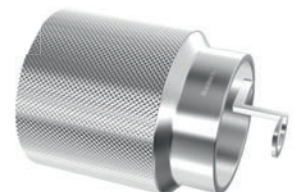


- |         |         |         |         |
|---------|---------|---------|---------|
| 16-0300 | 6.00 mm | 16-0307 | 8.00 mm |
| 16-0301 | 6.50 mm | 16-0308 | 8.25 mm |
| 16-0303 | 7.00 mm | 16-0309 | 8.50 mm |
| 16-0305 | 7.50 mm | 16-0310 | 9.00 mm |
| 16-0306 | 7.75 mm | 16-0311 | 9.50 mm |

## TUNNEL MAKERS

### Tunnel Maker

ID 4.40 mm/ED 5.60 mm  
Stainless Steel



- 16-173S Left
- 16-174S Right

**SURGICAL MALLETS & CHISELS**

**Surgical Mallet**

Polished finish  
Overall length 177 mm  
Stainless Steel  
16-135



**Surgical Chisel**

3.00 mm  
Overall length 136 mm  
Stainless Steel  
16-137



**NASAL SPECULUMS**

**Nasal Speculum**

Adult size  
Polished finish  
Stainless Steel  
Overall length 150 mm  
16-127



**PERIOSTEAL ELEVATORS**

**Tenzel Periosteal Elevator**

Shaft size to tip - 30.00 mm  
Paddle width - 4.00 mm  
Paddle thickness -1.40 mm  
Overall length - 130 mm  
Stainless Steel



The smooth end is used for blunt dissection of the periosteum over the inferior and lateral orbital rim. The sharp edge is used to reflect periosteum from the incision in a downward direction over the cheekbone.

16-139

**LID PLATES**

**Lid Plate**

20.00 mm and 24.00 mm wide  
Nonreflecting surface  
Overall length 110 mm

16-50S      Stainless Steel (shown)  
16-50T      Titanium



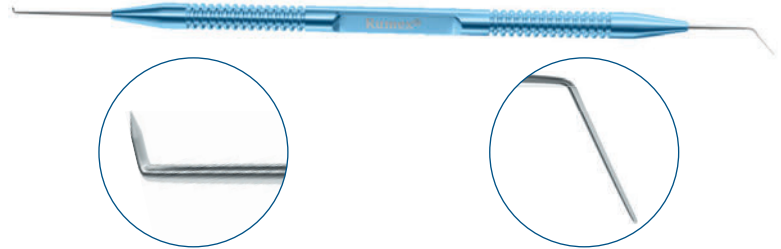
## LASEK/LASIK INSTRUMENTS

Stainless Steel Tips with an ergonomic light-weight round Titanium handle

### SPATULAS

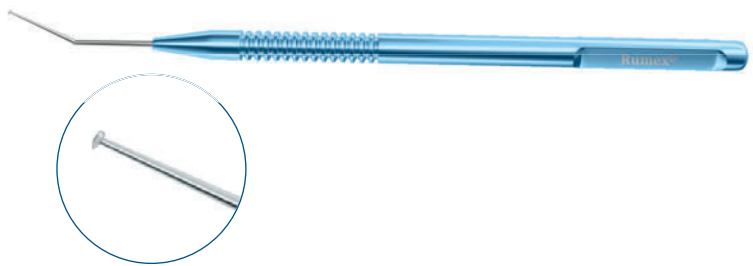
#### LASIK Spatula and Flap Retreatment Instrument

Double-ended  
Overall length 133 mm  
20-013



#### LASEK Epithelial Micro Hoe

Can be used to detach edge of the epithelium flap.  
Overall length 120 mm  
20-131




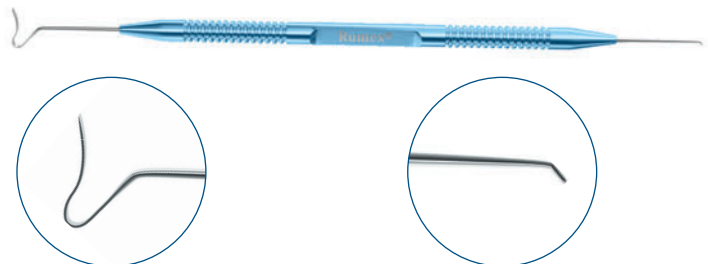
#### LASEK Knife

The sharp anterior part of the knife is used to detach epithelium from the incision.  
The blunt part of the knife is for repositioning of the epithelium after the ablation.  
Overall length 128 mm  
20-0011



#### FemtoLASIK Flap Spatula

Double-ended  
A delicate pick and a curved spatula to open and manipulate the flap  
Overall length 128 mm  
20-201 



Stainless Steel Tips with an ergonomic light-weight round Titanium handle

**SPATULAS**

**Zaldivar  
FemtoLASIK Spatula**

Extra delicate spatula with bullet-shaped tip to open and manipulate the flap  
Overall length 123 mm

20-203



**EPITHELIUM REMOVAL KNIVES**

**Hockey Knife**

To remove epithelium during PRK procedure and LASIK retreatment  
Overall length 128 mm

20-001 



**Lindstrom  
LASIK/PRK Spatula and  
Epithelium Removal Board**

Semi-sharp end of the instrument is designed to remove epithelium. Fine spatula on the other end is used for flap manipulation during LASIK surgery.

Overall length 138 mm

20-002



# REUSABLE ANTERIOR INSTRUMENTS

17 - LASEK/LASIK INSTRUMENTS

## TREPHINES & FUNNELS

### LASEK Trephine

For epithelial flap creation  
Depth of the incision 70 µm  
Titanium Handle/Stainless Steel Tip  
Overall length 128 mm

20-1011      8.00 mm  
20-1021      9.00 mm



### LASEK Funnel

For application of alcohol solution  
For 8.00 mm and 9.00 mm optical zones  
Overall length 129 mm  
Titanium

20-1031T      8.50 mm  
20-1041T      9.50 mm



### LASEK Trephine & Funnel

For epithelial flap creation  
Depth of the incision 70 µm  
For application of alcohol solution  
For 8.00 mm and 9.00 mm optical zones  
Titanium Handle/Titanium & Stainless Steel Tips  
Overall length 142 mm

20-121      8.00 & 8.50 mm  
20-122      9.00 & 9.50 mm



## MARKING PENS

### Disposable Marking Pen

Double-ended  
20-050\* ♥

STERILE



# STERILIZATION TRAYS

## Size Chart

Item	Inserts	Dimensions		Size	Configuration	Accommodates, number of instruments
		mm	in			
<b>Plastic Trays</b>						
18-300	2 silicone plug-in inserts	190×101×38	7.5×4×1.5"	Medium	Single level	1
18-301-1	2 silicone plug-in inserts	152×63.5×19	6×2.5×0.75"	Small	Single level	2
18-305-1	2 silicone plug-in inserts	254×152.4×38	10×6×1.5"	Large	Single level	3
18-303-1	2 silicone plug-in inserts	190×101×19	7.5×4×0.75"	Medium	Single level	4
18-300-1	silicone finger tip mat	190×101×38	7.5×4×1.5"	Medium	Single level	4-6
18-301	silicone finger tip mat	152×63.5×19	6×2.5×0.75"	Small	Single level	2-3
18-302	silicone finger tip mat	165×101×19	6.5×4×0.75"	Small	Single level	4-5
18-303	silicone finger tip mat	190×101×19	7.5×4×0.75"	Medium	Single level	4-6
18-304	silicone finger tip mat	254×152×19	10×6×0.75"	Large	Single level	10-15
18-305	silicone finger tip mat	254×152.4×38	10×6×1.5"	Extra Large	Double level	20-30
18-307	silicone finger tip mat	68.5×38×25.5	3×1.5×1"	Very Small	Single level	1-2
18-308	silicone finger tip mat	190.5×63.5×19	7.5×2.5×0.75"	Medium	Single level	4-5
<b>Aluminum Trays</b>						
18-319	silicone finger tip mat	155×65×20	6.0×2.5×0.80"	Small	Single level	2-3
18-320	silicone finger tip mat	155×65×40	6.0×2.5×1.5"	Small	Single level	2-3
18-321	silicone finger tip mat	200×65×20	7.75×2.5×0.80"	Medium	Single level	4-5
18-322	silicone finger tip mat	200×110×20	7.75×4.25×0.80"	Medium	Single level	4-6
18-323	silicone finger tip mat	200×110×40	7.75×4.25×1.5"	Medium	Single level	4-6
18-324	silicone finger tip mat	260×160×20	10.25×6.25×0.80"	Large	Single level	10-15
18-325	silicone finger tip mat	260×160×40	10.25×6.25×1.5"	Large	Single level	10-15
18-326	silicone finger tip mat	260×160×40	10.25×6.25×1.5"	Extra Large	Double level	20-30
18-327	silicone finger tip mat	260×160×80	10.25×6.25×3.25"	Extra Large	Double level	20-30
18-328	silicone finger tip mat	260×160×80	10.25×6.25×3.25"	Large	Single level	10-15
18-331	silicone finger tip mat	215×165×20	8.50×6.50×0.80"	Large	Single level	6-8
18-332	silicone finger tip mat	310×235×20	12.25×9.25×0.80"	Extra Large	Single level	20-30
18-333	silicone finger tip mat	375×220×45	14.75×8.75×1.75"	Extra Large	Double Level + Open Section	30-45
18-334	silicone finger tip mat	390×265×20	15.5×10.5×0.80"	Extra Large	Single level	25-35
18-335	silicone finger tip mat	390×265×40	15.5×10.5×1.5"	Extra Large	Single level	25-35
18-336	silicone finger tip mat	390×265×40	15.5×10.5×1.5"	Extra Large	Double level	50-70



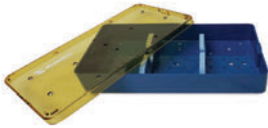
# REUSABLE ANTERIOR INSTRUMENTS

18 - STERILIZATION TRAYS

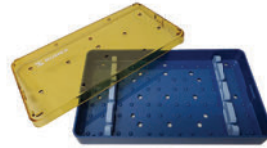
## PLASTIC TRAYS

RUMEX plastic trays are molded from General Electric's ULTEM® resin, using mold flow analysis to guarantee product strength, structural integrity, and extended life cycle. Trays come either with silicone finger tip mat or plug-in inserts.

**AUTOCLAVE  
STEAM  
DRY HEAT  
CHEMICAL**



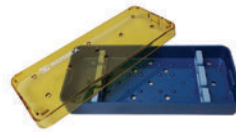
**18-300**  
Silicone inserts  
for 1 instrument  
190x101x38 mm  
7.5x4x1.5 in



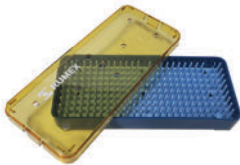
**18-303-1**  
Silicone inserts  
for 4 instruments  
190x101x19 mm  
7.5x4x0.75 in



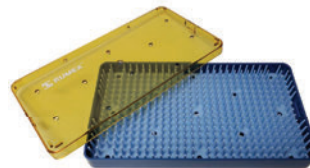
**18-305-1**  
Silicone inserts  
for 3 instruments  
254x152.4x38 mm  
10x6x1.5 in



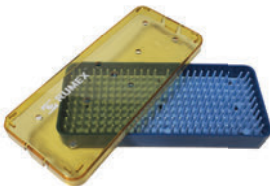
**18-301-1**  
Silicone inserts  
for 2 instruments  
152x63.5x19 mm  
6x2.5x0.75 in



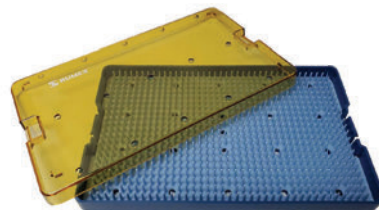
**18-301** ♥  
152x63.5x19 mm  
6x2.5x1.5 in



**18-300-1**  
190x101x38 mm  
7.5x4x1.5 in



**18-308** ♥  
190.5x63.5x19 mm  
7.5x2.5x0.75 in



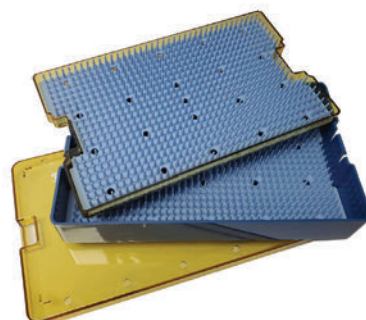
**18-302** ♥  
165x101x19 mm  
6.5x4x0.75 in

**18-303** ♥  
190x101x19 mm  
7.5x4x0.75 in



**18-307**  
68.6x38x25.4 mm  
3x1.5x1 in

**18-304** ♥  
254x152x19 mm  
10x6x0.75 in



**18-305** ♥  
Double Level  
254x152.4x38 mm  
10x6x1.5 in

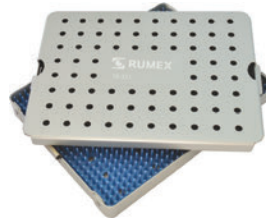
## ALUMINUM TRAYS

RUMEX aluminum trays are manufactured from an anodized aluminum alloy to prevent corrosion and ensure long-term use. This aluminum alloy has high thermal conductivity for faster drying. The trays are lightweight for easy transportation and handling. Trays come with silicone finger tip mat.

**AUTOCLAVE**  
**STEAM**  
**DRY HEAT**  
**CHEMICAL**



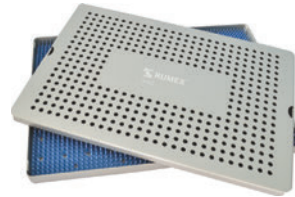
**18-319**  
155x65x20 mm  
6x2.5x0.8 in



**18-331**  
215x165x20 mm  
8.5x6.5x0.8 in

**18-320**  
155x65x40 mm  
6x2.5x1.5 in

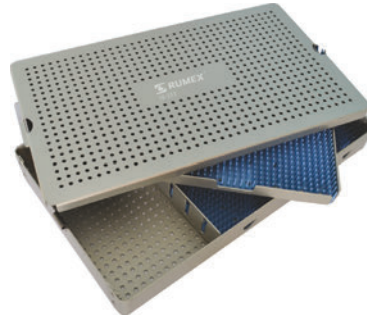
**18-321**  
200x65x20 mm  
2.5x7.75x0.8 in



**18-332**  
310x235x20 mm  
12.25x9.25x0.8 in



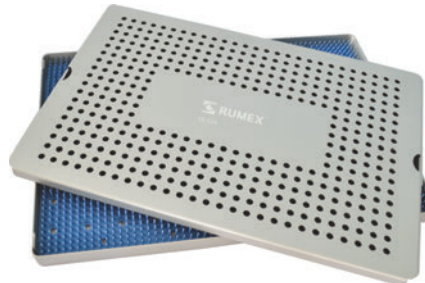
**18-322**  
200x110x20 mm  
7.75x4.25x0.8 in



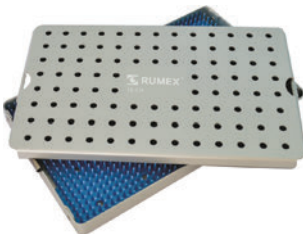
**18-333**  
Double Level +  
Open Section  
375x220x45 mm  
14.75x8.75x1.75 in

**18-323**  
200x110x40 mm  
7.75x4.25x1.5 in

**18-324**  
260x160x20 mm  
10.25x6.25x0.8 in



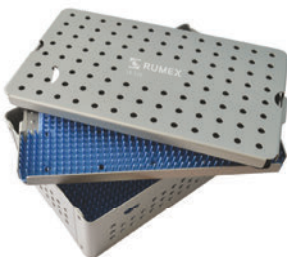
**18-334**  
390x265x20 mm  
15.5x10.5x0.8 in



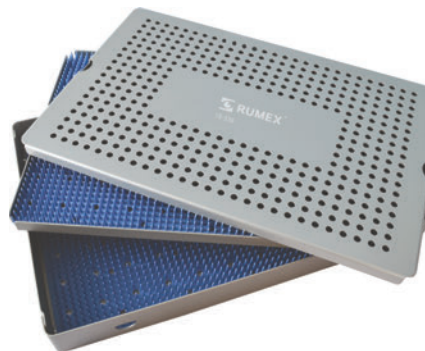
**18-325**  
260x160x40 mm  
10.25x6.25x1.5 in

**18-328**  
260x160x80 mm  
10.25x6.25x3.25 in

**18-335**  
390x265x40 mm  
15.5x10.5x1.5 in



**18-326**  
Double Level  
260x160x40 mm  
10.25x6.25x1.5 in



**18-336**  
Double Level  
390x265x40 mm  
15.5x10.5x1.5 in

**18-327**  
Double Level  
260x160x80 mm  
10.25x6.25x3.25 in



# VITREORETINAL INSTRUMENTS & CONSUMABLES

## **REUSABLE INSTRUMENTS**

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## A VARIETY OF OPTIONS FOR VITREORETINAL SURGERY

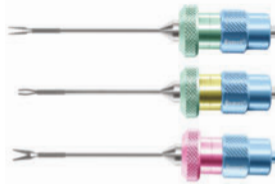
### REUSABLE

**EASY  
TO CLEAN**

#### Option 1. Two-Piece Instruments

Universal Handle + Interchangeable Tips\*

Money-Wise  
Solution

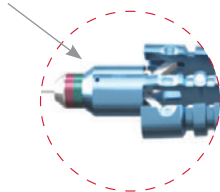


Completely detachable for most effective cleaning.  
**One handle for the set.**

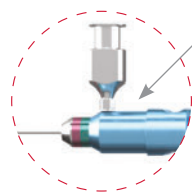
#### Option 2. One-Piece Instruments

with Innovative RUMEX Flushing System\*\*

Flushing port



Flushing cannula



\*\*easy cleaning without disassembling

**Complete tool** – no need to adjust the tip to the handle

**Delicate cleaning** – flushing liquid streams towards the tips with zero stress for the jaws

**Increased lifespan** – the inner mechanism is not involved into the cleaning process and stays intact

### DISPOSABLE

**READY  
FOR USE**

STERILE



#### Option 1. All Stainless Steel Instruments

Precise performance and instant tactile control

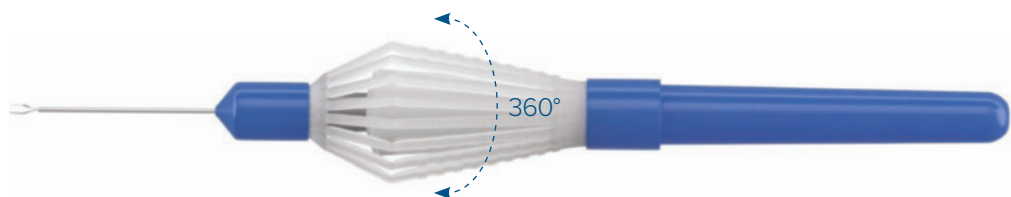
**SHELF LIFE  
3 YEARS**



#### Option 2. Ergonomic 360-Degree Handle\*\*\*

Enhanced utility due to rotatable squeeze handle

**SHELF LIFE  
5 YEARS**



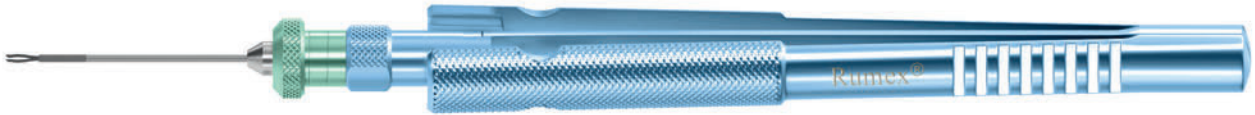
\* Tip only. Handles are sold separately.

\*\*\*Not available in the US and Europe

Product design and/or features that do not influence its functionality and main parameters are subject to change

FEATURED PRODUCTS

Universal End-Grasping Forceps with Asymmetrical Branches

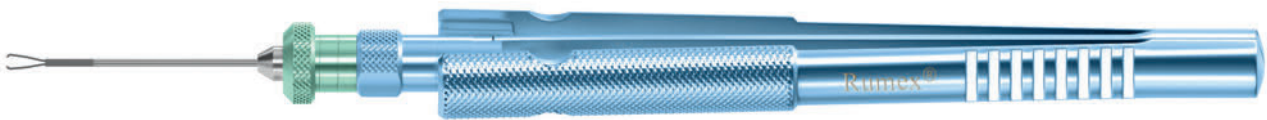


Universal End-Grasping Forceps allow the performing of ILM peeling and safe removal of epiretinal membranes. Asymmetrical design of branches provides for ideal maneuverability and excellent visualization of the grasped tissue.



- 12-420-23 23 Ga
- 12-420-25 25 Ga
- 12-420-27 27 Ga
- Tip only

End-Grasping Forceps

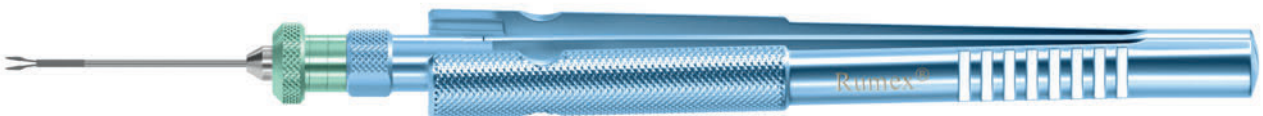


The special design of the tips promotes delicate, precise and safe ILM peeling. The strengthened jaws ensure enhanced gripping power. Expanded space between branches contributes to greater visualization of the grasped membrane in the macular area.



- 12-4013 23 Ga
- Tip only

Gripping Forceps with a 'Crocodile' Platform



Designed for the removal of epiretinal membranes. Blunt, atraumatic serration intensifies grasping capacity and prevents tissue shredding.



- 12-304 20 Ga
- 12-304-23 23 Ga
- 12-304-25 25 Ga
- Tip only





## HANDLES FOR VITREORETINAL INSTRUMENTS

RUMEX International Co is pleased to provide you with two models of Universal Handles that can be used with interchangeable tips.\*

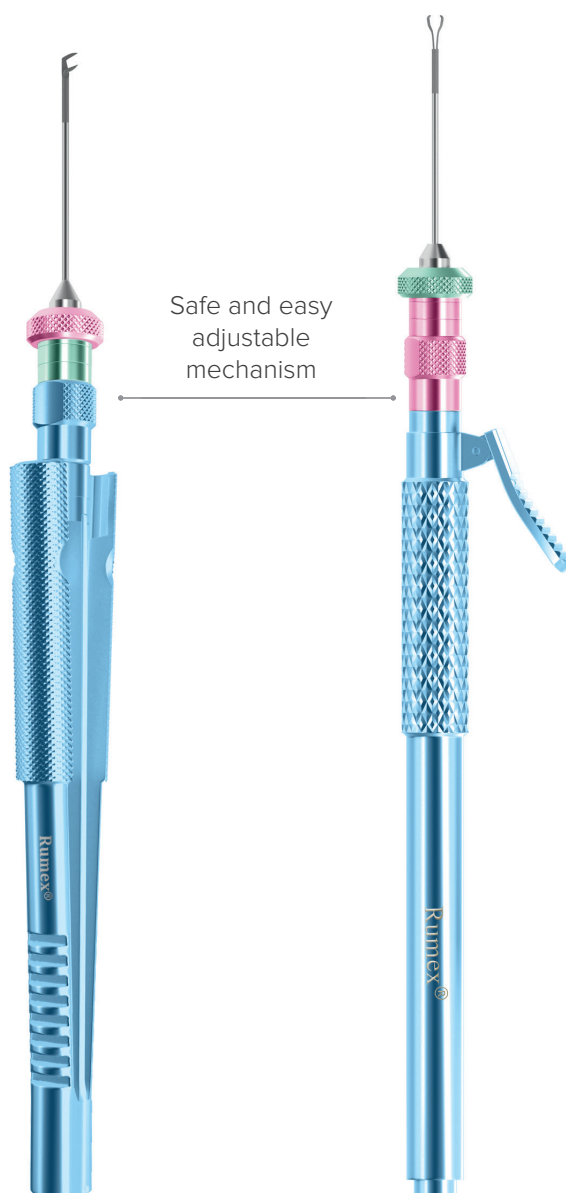
- Made of Titanium
- Corrosion resistant
- Can be used with tips of any gauge 20/23/25/27 (and other gauges)

### Ergonomic Model

Two Fingers Control  
Squeeze Handle

12-003T 

- Two fingers linear actuation
- Ergonomic handle with specially designed gripping area for amplified control over the instrument
- Optimal diameter round handle allows 360° rotation
- Non compatible with the following tips: 12-206, 12-313, 12-321, 12-335



### Classic Model

One Finger Control  
Handle

12-001T

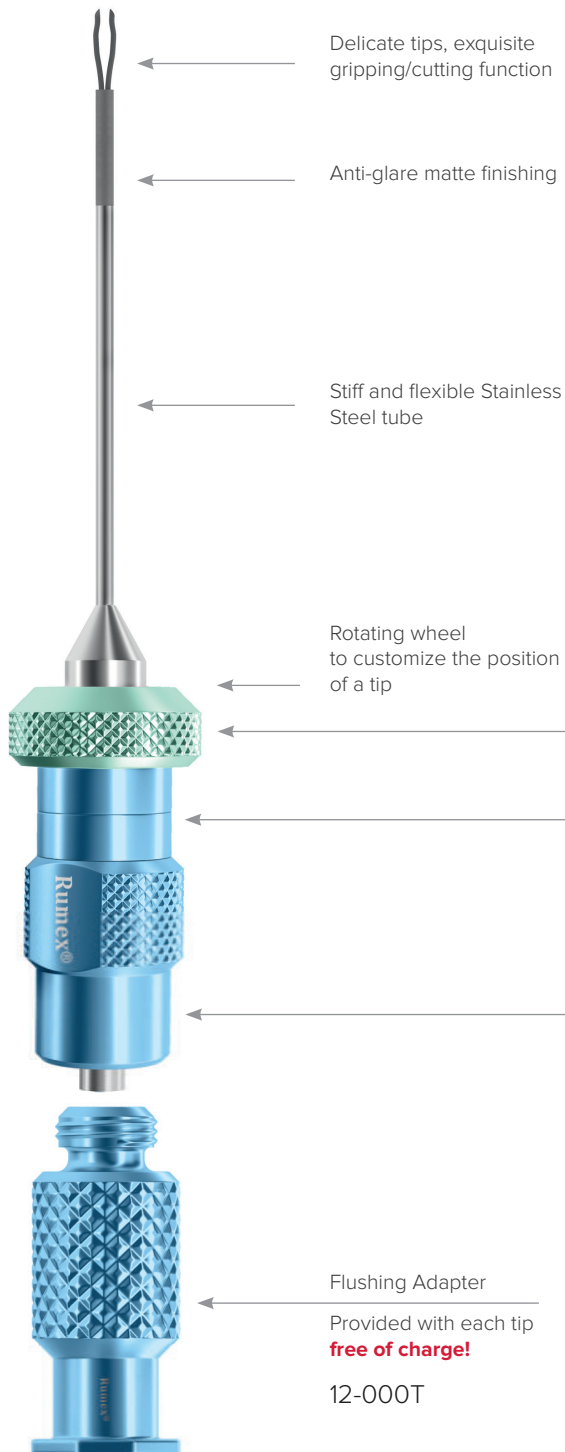
- One finger linear actuation
- Classic design approved by decades of work
- Compatible with all models of tips

Adjustable screw  
mechanism (to customize  
the opening of branches  
before manipulation)



## VITREORETINAL INSTRUMENT TIPS: GAUGE CONVERSION CHART, COLOR CODE SYSTEM

We offer various models of vitreoretinal tips that can be adjusted to Universal Handles (12-001T or 12-003T)\*.



Gauge Conversion Chart		
Gauge	(inch)	(mm)
19 Ga	0.043	1.10
20 Ga	0.036	0.90
21 Ga	0.032	0.80
22 Ga	0.028	0.70
23 Ga	0.025	0.63
25 Ga	0.020	0.50
27 Ga	0.016	0.40

### Color Code System\*\*

Color code system is used to indicate vitreoretinal tips, their function and size.

Function	
Pink	Scissors
Green	Forceps
Gauge	
Gray	17
Pink	20
Green	23
Blue	25
Yellow	27
COMPATIBILITY (adjustable to handles)	
Pink	12-001T
Blue	12-001T / 12-003T

### Manual Cleaning

Proper cleaning of the instrument is necessary to preserve its working condition.

RUMEX manufactures interchangeable microincisional and vitreoretinal instrument tips that can be cleaned with a regular syringe.



\*Handles are sold separately! \*\*Colors of details may differ slightly from those displayed in this catalog. Product design and/or features that do not influence its functionality and main parameters are subject to change

## SCISSORS\*

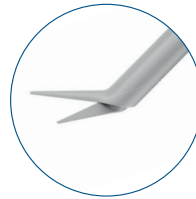
Designed for cutting membranes and junction zones of the proliferative tissue.



### Vertical Scissors

70°  
Sharp tips

12-202-23 23 Ga 



### Horizontal Scissors

55°

12-206\*\* 20 Ga



### Vertical Scissors

45°

12-2029 25 Ga



### Horizontal Scissors

Angled  
45°

Short blades (1.70 mm  
in the closed position)

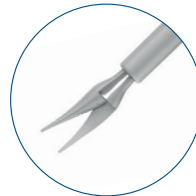
12-2085 20 Ga



### Straight Scissors

Blunt tips

12-211 20 Ga



### Curved Subretinal Scissors

Curvature radius 12.00 mm

12-209 20 Ga

12-209-23 23 Ga 

12-2099 25 Ga 

\*Tip only. Handles are sold separately!

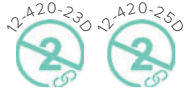
\*\* Compatible with Universal Handle 12-001T Only

## INTERNAL LIMITING MEMBRANE (ILM) FORCEPS\*

Delicate branches for ILM peeling



### ILM



#### Asymmetrical End-Grasping Forceps

Standard tube, 28.00 mm

12-420-23 23 Ga  
12-420-25 25 Ga  
12-420-27 27 Ga

Designed for myopic eyes.  
Elongated tube, 30.00 mm

12-4202-23 23 Ga

Enhanced visualization!

Universal End-Grasping Forceps allow the performing of ILM peeling and safe removal of epiretinal membranes. Asymmetrical design of branches provides for ideal maneuverability and excellent visualization of the grasped tissue.

### ILM



#### End-Grasping Forceps

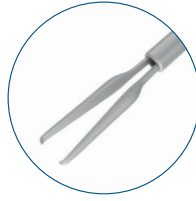
Expanded space between branches

12-4013 23 Ga

Enhanced visualization!

The special design of the tips promotes delicate, precise and safe ILM peeling. The strengthened jaws ensure enhanced gripping power. Expanded space between branches contributes to greater visualization of the grasped membrane in the macular area.

### ILM



#### Eckardt End-Gripping Forceps

12-410 20 Ga  
12-410-23 23 Ga  
12-410-25 25 Ga  
12-410-27 27 Ga



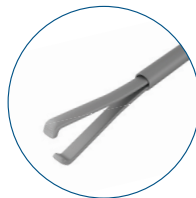
### ILM



#### Tano Asymmetrical End-Gripping Forceps

12-411-23 23 Ga  
12-411-25 25 Ga

#### End-Grasping ILM Forceps with Texturized Outer Platform



- Increased friction between tissue and forceps
- Can be used as ILM elevator

12-450-23 23 Ga



Enhanced cohesion!



#### Tanaka Maculorhexis Forceps

12-414 23 Ga

\*Tip only. Handles are sold separately!

Product design and/or features that do not influence its functionality and main parameters are subject to change

## EPIRETINAL (ERM) FORCEPS\*

- Strengthened jaws for the removal of epiretinal membranes
- Gripping function is enhanced by sandblasted/serrated platform or nail shaped jaws



### ERM

12-301-23D 12-301-25D

**Gripping Forceps**  
With a sandblasted platform

12-301-23	23 Ga
12-3019	25 Ga

**End-Gripping Forceps**  
With extended gripping area at the end of the tip

12-4012	23 Ga
---------	-------

### ERM

12-304-23D 12-304-23DP 12-304-25D 12-304-25DP

**Gripping Forceps**  
With a "crocodile" platform

12-304	20 Ga	
12-304-23	23 Ga	♥
12-304-25	25 Ga	♥

**End-Gripping Forceps**  
With nail-shaped jaws

12-402-23	23 Ga
12-4089	25 Ga

Designed for the removal of epiretinal membranes. Blunt, atraumatic serration intensifies grasping capacity and prevents tissue shredding.

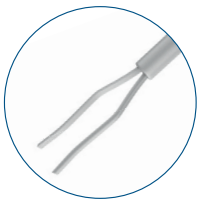
PICK FORCEPS\*



Pick Forceps

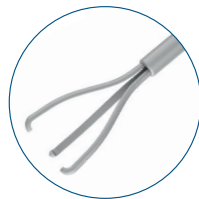
12-325-23 23 Ga  
12-3259 25 Ga

FOREIGN BODY REMOVAL FORCEPS\*



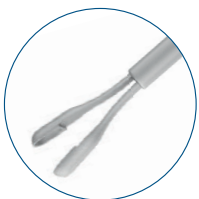
Avci Foreign Body Forceps

12-412\*\*\* 17 Ga



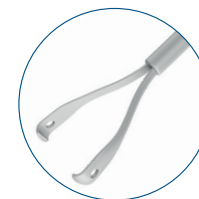
Spring Gripping Forceps

12-321\*\* 20 Ga  
12-321-23\*\*\* 23 Ga



Vitreoretinal Forceps

With cup jaws  
12-313\*\* 20 Ga



Stolyarenko Forceps

For large foreign bodies  
12-335\*\* 20 Ga

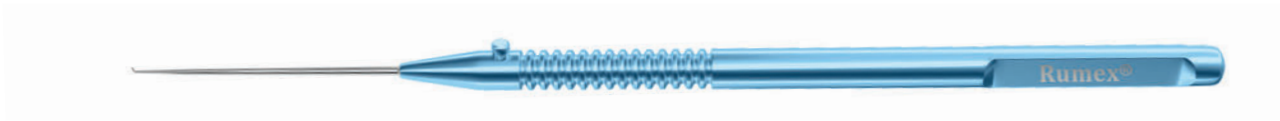
\*Tip only. Handles are sold separately.

\*\* Compatible with Universal Handle 12-001T only


\*\*\* Compatible with Universal Handles 12-001T and 12-003T

Product design and/or features that do not influence its functionality and main parameters are subject to change

## MEMBRANE INSTRUMENTS



### Delicate Membrane Pick

13-097-23 23 Ga   
 13-0979 25 Ga  
 13-097-27 27 Ga

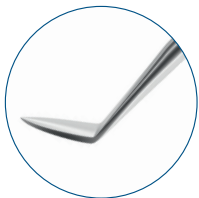
- Unique geometry of the tip for maximal effectiveness and minimal shredding of the tissue
- Jut on the handle identifies the tip orientation
- Titanium Handle/Stainless Steel Tip



### Membrane Scratcher

13-092 20 Ga

- Flat, thin instrument to remove tissue and fine membranes from retinal surface in early stages of PVR
- Useful for cleaning residual ERM or ILM
- Great for lifting of large membrane edges without shredding



### Ogura PVD Spatula

Titanium Handle/Stainless Steel Tip  
 Overall length 132  
 13-1081-23 23 Ga



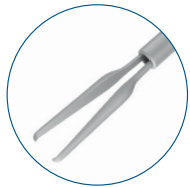
### BRVO Knife

Designed for performing a lateral CRVO incision.  
 Titanium Handle/Stainless Steel Tip  
 Overall length 135  
 13-1091-23 23 Ga

23 GAUGE INSTRUMENTS\*



ILM



Eckardt End-Gripping Forceps

12-410-23 23 Ga ♥



Asymmetrical End-Grasping Forceps

Designed for myopic eyes. Elongated tube, 30.00 mm

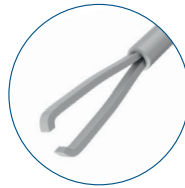
12-4202-23 23 Ga

Enhanced visualization!



Tano Asymmetrical End-Gripping Forceps

12-411-23 23 Ga



End-Grasping Forceps

Expanded space between branches

12-4013 23 Ga

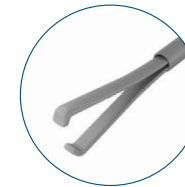
Enhanced visualization!



Asymmetrical End-Grasping Forceps

12-420-23 23 Ga

Enhanced visualization!



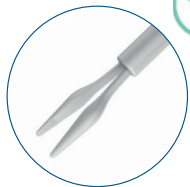
End-Grasping ILM Forceps with Texturized Outer Platform

- Increased friction between tissue and forceps
- Can be used as ILM elevator

12-450-23 23 Ga ✦

Enhanced cohesion!

ERM



Gripping Forceps

With a sandblasted platform

12-301-23 23 Ga



Gripping Forceps

With a "crocodile" platform

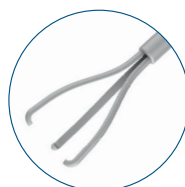
12-304-23 23 Ga ♥



Vertical Scissors

70°  
Sharp tips

12-202-23 23 Ga ♥



Spring Gripping Forceps

12-321-23 23 Ga ♥



Pick Forceps

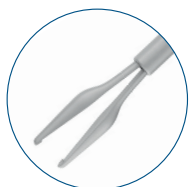
12-325-23 23 Ga



Curved Subretinal Scissors

Curvature radius 12.00 mm

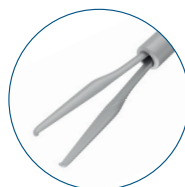
12-209-23 23 Ga ♥



End-Gripping Forceps

With extended gripping area at the end of the tip

12-4012 23 Ga



End-Gripping Forceps

With nail-shaped jaws

12-402-23 23 Ga

\*Tip only. Handles are sold separately.

Product design and/or features that do not influence its functionality and main parameters are subject to change

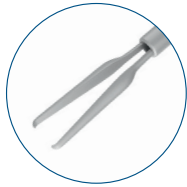


# VITREORETINAL INSTRUMENTS & CONSUMABLES

## 25 GAUGE INSTRUMENTS\*



### ILM



Eckardt End-Gripping Forceps

12-410-25 25 Ga



Tano Asymmetrical End-Gripping Forceps

12-411-25 25 Ga

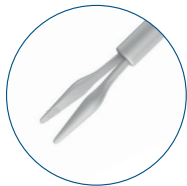


Asymmetrical End-Grasping Forceps

12-420-25 25 Ga

Enhanced visualization!

### ERM



Gripping Forceps

With a sandblasted platform

12-3019 25 Ga



Gripping Forceps

With a "crocodile" platform

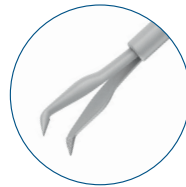
12-304-25 25 Ga



Vertical Scissors

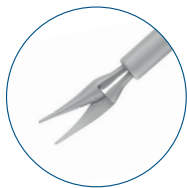
45°  
Sharp tips

12-2029 25 Ga



Pick Forceps

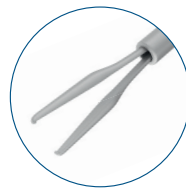
12-3259 25 Ga



Curved Subretinal Scissors

Curvature radius 12 mm

12-2099 25 Ga



End-Gripping Forceps

With nail-shaped jaws

12-4089 25 Ga

## 27 GAUGE INSTRUMENTS\*



### ILM



Eckardt End-Gripping Forceps

12-410-27 27 Ga

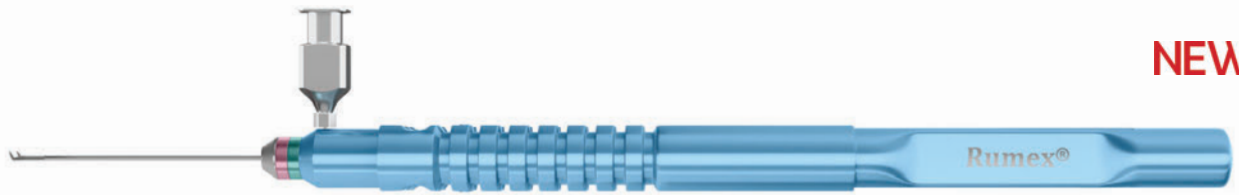


Asymmetrical End-Grasping Forceps

12-420-27 27 Ga

Enhanced visualization!

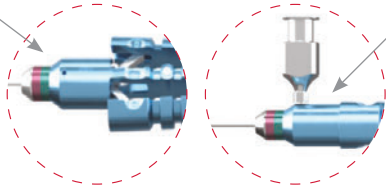
## ONE-PIECE VITREORETINAL INSTRUMENTS WITH RUMEX FLUSHING SYSTEM



**NEW**

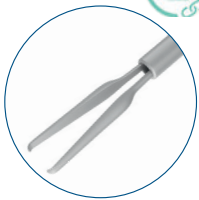
Flushing port

Flushing cannula




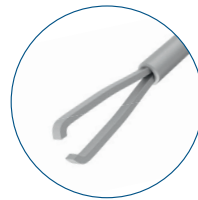
The tip can be easily cleaned without disassembling.  
**Special flushing cannula is provided for free!**

**ILM**



**Eckardt End-Grasping Forceps**

12-410-23H 23 Ga   
12-410-25H 25 Ga



**End-Grasping Forceps**

Expanded space  
between branches

12-4013H 23 Ga  
12-4013-25H 25 Ga

Enhanced visualization!

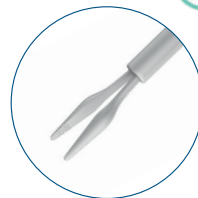
**ERM**



**Gripping Forceps**

With a "crocodile" platform

12-304-23H 23 Ga  
12-304-25H 25 Ga



**Gripping Forceps**

With a sandblasted platform

12-301-23H 23 Ga  
12-301-25H 25 Ga



**Curved Subretinal Scissors**

Curvature radius 12.00 mm

12-209-23H 23 Ga  
12-209-25H 25 Ga

## REUSABLE TWO STEP TROCAR SYSTEMS



2 extra cannulas  
MVR knives should be purchased separately

### Reusable Trocar System with Closure Valves

Package includes:

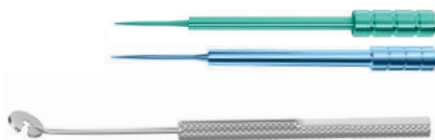
- Trocar cannula with closure valves – 5 pcs
- Loading forceps – 1 pc
- Fixation plate – 1 pc
- Cannula inserter – 3 pcs
- Universal infusion line – 1 pc
- Sterilization tray – 1 pc

12-5173-23 23 Ga ● ♥  
12-5173-25 25 Ga ●



### Loading Forceps

12-5186 23/25 Ga



### Instrument Cannula Inserter

12-5187 23 Ga  
12-5187-25 25 Ga



### Fixation Plate

12-5188 23/25 Ga



### MVR Knives

Multifacet blade

**STERILE** (2) (6)

Straight

VRS-23 - 23 Ga  
VRS-25 - 25 Ga ✦

Angled

VRA-23 - 23 Ga  
VRA-25 - 25 Ga ✦



### Scleral Plugs Forceps

Cross-action mechanism reduces hand fatigue.  
Overall length 106 mm

12-5086S 20 Ga



### Watzke Sleeve Spreading Forceps

Used to stretch the silicone sleeve placed around the eyeball.

Serrated tips aid in gripping the sleeve and allow for adjustable traction.  
Overall length 110 mm

4-2201T

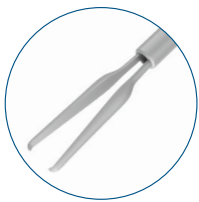
## DISPOSABLE ONE-PIECE STAINLESS STEEL INSTRUMENTS

STERILE  

All stainless steel disposable instruments in 23 and 25 Ga are designed for precise manipulations during posterior segment surgeries.



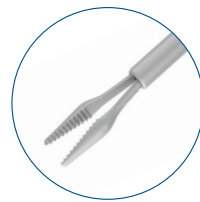
### ILM



Eckardt End-Gripping Forceps

12-410-23D 23 Ga   
12-410-25D 25 Ga 

### ERM



Gripping Forceps

With a "crocodile" platform

12-304-23D 23 Ga   
12-304-25D 25 Ga 

### ILM



Asymmetrical End-Grasping Forceps

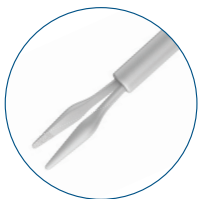
12-420-23D 23 Ga  
12-420-25D 25 Ga

### Pick Forceps



12-325-23D 23 Ga  
12-325-25D 25 Ga

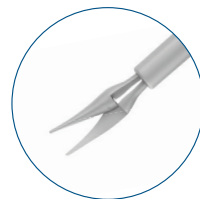
### ERM



Gripping Forceps

12-301-23D 23 Ga  
12-301-25D 25 Ga

### Curved Scissors



12-209-23D 23 Ga   
12-209-25D 25 Ga 

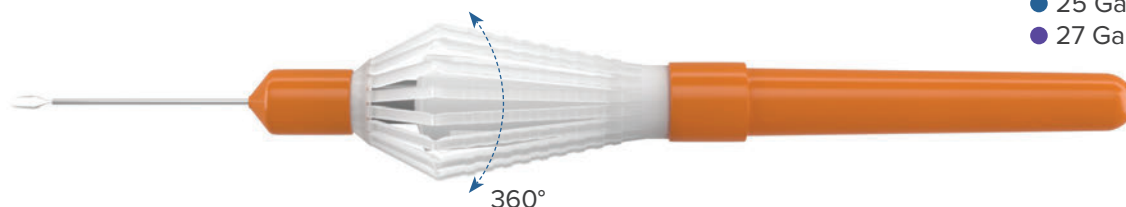
# VITREORETINAL INSTRUMENTS & CONSUMABLES

## DISPOSABLE INSTRUMENTS WITH PLASTIC HANDLE\*

STERILE  

360-degree handle design incorporates a unique rotatability, convenience and actuation. The instrument's weight is less than 8 grams. Lightweight plastic ergonomic handle especially valuable during hours-long surgeries.

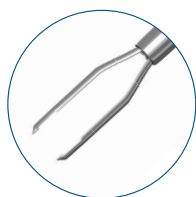
- 23 Ga
- 25 Ga
- 27 Ga



### ILM

#### Eckardt End-Gripping Forceps

- |             |       |
|-------------|-------|
| 12-410-23DP | 23 Ga |
| 12-410-25DP | 25 Ga |
| 12-410-27DP | 27 Ga |

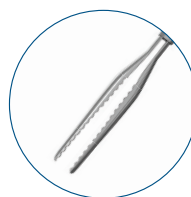


### ERM

#### Gripping Forceps

With a "crocodile" platform

- |             |       |
|-------------|-------|
| 12-304-23DP | 23 Ga |
| 12-304-25DP | 25 Ga |
| 12-304-27DP | 27 Ga |



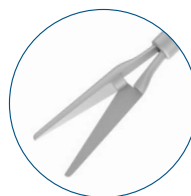
#### Curved Scissors

- |             |       |
|-------------|-------|
| 12-209-23DP | 23 Ga |
| 12-209-25DP | 25 Ga |
| 12-209-27DP | 27 Ga |



#### Straight Scissors

- |             |       |
|-------------|-------|
| 12-211-23DP | 23 Ga |
| 12-211-25DP | 25 Ga |
| 12-211-27DP | 27 Ga |



#### Vertical Scissors

- 45°
- |             |       |
|-------------|-------|
| 12-202-23DP | 23 Ga |
| 12-202-25DP | 25 Ga |



## DISPOSABLE DIAMOND DUSTED RETRACTABLE ILM ELEVATORS\*\*

STERILE  

Designed to consistently create a precise edge to facilitate the ILM removal with forceps.

**SOFT SILICONE TIP** is safe for retinal surface.  
**DIAMOND DUSTED** finish provides an extreme grip.

**RETRACTABLE VERSION** enables easy insertion through the trocar cannula



- |         |       |
|---------|-------|
| 12-7523 | 23 Ga |
| 12-7525 | 25 Ga |



## DISPOSABLE ONE STEP TROCAR SYSTEMS\*



Each set includes:

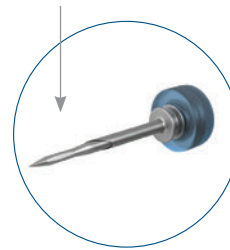
- Trocar knife with preloaded trocar cannula – 3 pcs
- Self-sealing trocar cannula (preloaded) – 3 pcs
- Universal infusion line – 1 pc

12-5229	23 Ga	●	♥
12-5244	25 Ga	●	
12-5227	27 Ga	●	



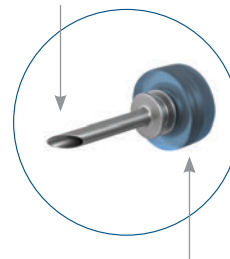
### Sharp MVR Blade

Helps to create a smooth incision and promotes low-pressure insertion and superior sealing.



### Trocar Cannula

Innovative beveled design of the cannula contributes to unstoppable smooth trocar insertion.



### Silicone Closure Valves

Removable self-sealing valves ensure maintenance of the desired intraocular pressure throughout the case and eliminate the need for plugs.

### Trocar Cannula Inserter

The tip of the plastic handle serves as a caliper/ scleral marker (2 dimensions: 3.00 and 4.00 mm).

### Universal Infusion Line for BSS

\*Not available in Europe

Product design and/or features that do not influence its functionality and main parameters are subject to change

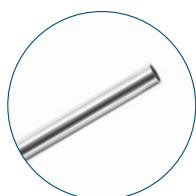
# VITREORETINAL INSTRUMENTS & CONSUMABLES

## DISPOSABLE BACKFLUSH INSTRUMENTS\*

STERILE  

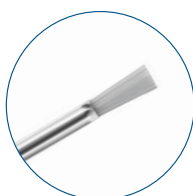
One-piece instrument combines a handle and a soft, brush or blunt tip cannula. The set comes with two connectors for active and passive aspiration. Used for intraocular fluids and debris aspiration during vitreoretinal surgery.

- 23 Ga
- 25 Ga
- 27 Ga



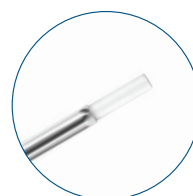
with **Blunt Tip**

12-5164H 23 Ga x 34 mm  
12-5156H 25 Ga x 34 mm  
12-5492H 27 Ga x 34 mm



with **Silicone Brush Tip**

12-5162H 23 Ga x 34 mm  
12-5160H 25 Ga x 34 mm  
12-5167H 27 Ga x 34 mm



with **Silicone Soft Tip**



12-5161H 23 Ga x 34 mm  
12-5152H 25 Ga x 34 mm  
12-5491H 27 Ga x 34 mm

## BACKFLUSH HANDLES AND RESERVOIRS





Reusable Backflush Handle

Titanium

12-6000 Active aspiration   
12-6010 Passive aspiration 



Disposable Replacement Reservoir for Backflush Handle\*

12-5159 Active aspiration   
12-5147 Passive aspiration 

STERILE  



## VITREORETINAL CANNULAS


### Disposable Backflush Cannulas\*

STERILE  

Designed for efficient and safe manipulations in the posterior segment. Used with the backflush handle.

#### Charles Flute Cannulas



Designed to aspirate blood and debris from the posterior segment. Smooth, finished tip provides atraumatic entry and reduces risk of trauma to surrounding tissue.

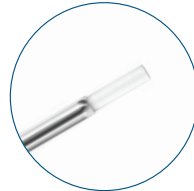
- 12-5164 23 Ga x 34 mm 
- 12-5156 25 Ga x 34 mm
- 12-5492 27 Ga x 34 mm



#### Soft Tip Cannulas

Flexible silicone tip allows atraumatic entry through retinal or macular tears or holes and enables aspiration of subretinal fluid.

- 12-5161 23 Ga x 34 mm 
- 12-5152 25 Ga x 34 mm 
- 12-5491 27 Ga x 34 mm



#### Brush Tip Cannulas

The soft silicone brush tip cannula designed for atraumatic brushing of retina.

- 12-5162 23 Ga x 34 mm
- 12-5160 25 Ga x 34 mm
- 12-5167 27 Ga x 34 mm



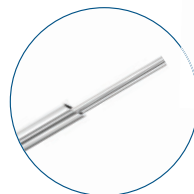
### Dual Bore Cannulas\*

STERILE  

#### Dual Bore PFC Cannulas

Simultaneous infusion of heavy liquids and aspiration of intraocular fluids.

- 12-5203 23 Ga x 33 mm
- 12-5205 25 Ga x 33 mm



\*Not available in Europe

Product design and/or features that do not influence its functionality and main parameters are subject to change

## SILICONE OIL\*

### SmartSil 1000/5000\*\*

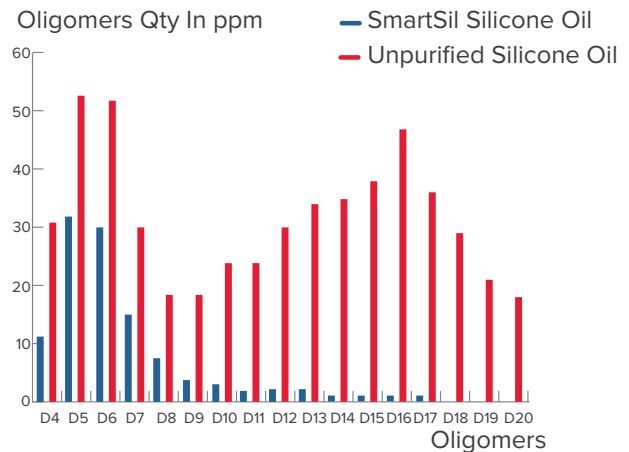
Purified Silicone Oil for Vitreoretinal Surgery

- Maximum interfacial tension and minimum interactions between tissues, cells and endo-tamponades media
- Optimal combination of specific gravity, refractive index and surface tension
- Different viscosity indexes enable easy injection (1000 cSt) and stable temporary tamponade (5000 cSt)
- Vacuum molecular distillation solvent-free purification - **no risk of emulsification**

### Physico-chemical properties

Interfacial tension	≥ 40 mNm <sup>-1</sup> at 37°C
Density	0.97
Viscosity	1000/5000 cSt
Refractive index	1.40
Volatility	< 1%
Polydispersity	< 2.80
Volume of oil	10 ml
Syringe	20 ml
Shelf Life	3 years

### GC



**Silicone Oil Infusion System is sold separately**



### Purification

- Vacuum molecular distillation solvent-free purification
- Potentially toxic low molecular weight oligomers (D4 to D20) extraction
- Residual volatile components extraction (water, ethanol, etc.)

### Indication

SmartSil 1000/5000 is used for prolonged tamponade after surgical treatment for severe retinal detachment (RD), especially:

- RD with proliferative vitreal retinopathy
- RD with diabetic retinopathy complications
- RD with giant tears
- Traumatic RD
- Secondary RD with viral retinitis



\*Not available in the US

\*\*To be used with Silicone Oil Infusion System

Product design and/or features that do not influence its functionality and main parameters are subject to change

## SILICONE OIL INFUSION SYSTEMS

Silicone Oil Infusion Systems are used to connect RUMEX silicone oil syringe to the vitreoretinal surgical equipment.



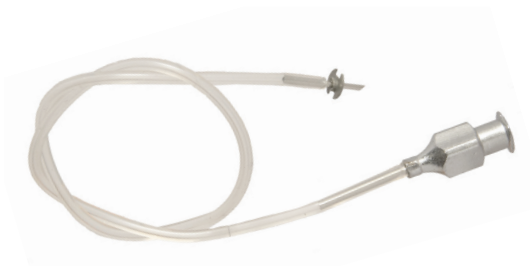
Surgical System	Reusable
IOL Tech® Pentasys™ Optikon® Antares™ Alcon® STTO™ Storz® Premiere™ DORC® Harmony Budget™	12-RTUB-1
Reusable Tubing System for the Infusion Of Silicone Oil, Caprolone Adapter Adjustable To DORC® Associate™, EVA™, EVA NEXUS™; Alcon® Constellation™, Accurus™	12-RTUB-2
B&L® Millenium™, Stellaris™	12-RTUB-3
Oertli® Orbit™, Faros™, OS3™ Optikon® R-Evolution®	12-RTUB-4



### Disposable Viscous Fluid Injection Cannulas\*

Allow injection of viscous fluids such as silicone oil through a 23 Ga or 25 Ga trocar cannula

12-5248	23 Ga x 4 mm
12-5258	25 Ga x 4 mm



### Infusion Cannula

#### Reusable Infusion Cannula

12-025	20 Ga Self-retaining hub of 4.00 mm
12-026	20 Ga Self-retaining hub of 6.00 mm

\*Not available in Europe

Product design and/or features that do not influence its functionality and main parameters are subject to change

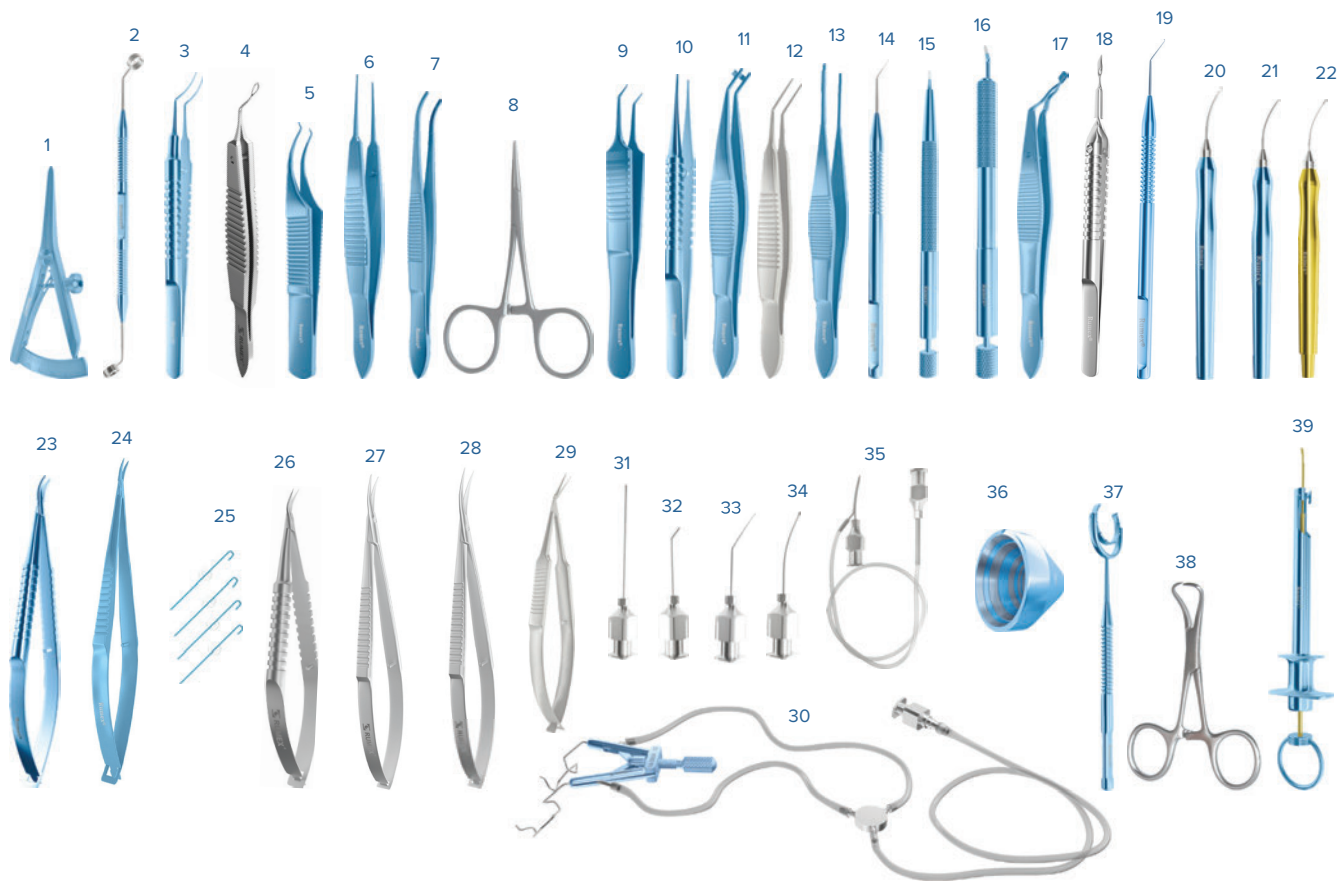


## FEATURED SETS

PHACOEMULSIFICATION SET	162
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FEMTOSECOND CATARACT SET	163
EXTRA CAPSULAR CATARACT EXTRACTION (ECCE) SET	164
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MUSCLE SET	172
VITREORETINAL REUSABLE SET, TWO-PIECE, 23 GA	173
VITREORETINAL DISPOSABLE SET, 23 GA	173
VITREORETINAL REUSABLE SET, TWO-PIECE, 25 GA	174
VITREORETINAL DISPOSABLE SET, 25 GA	174

# FEATURED SETS

## CATARACT PHACOEMULSIFICATION SET

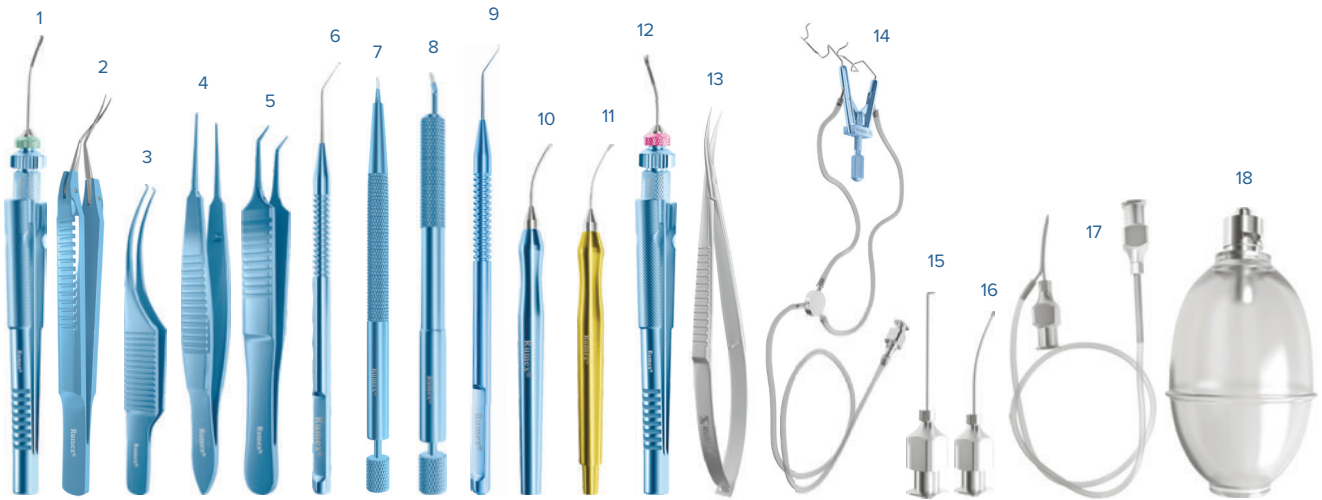


Reference	Key	Description	Page	Reference	Key	Description	Page
2-010T	1	Castroviejo Caliper	43	7-081	21	Irrigation Handpiece for Bimanual Technique, 21 Ga	92
3-040	2	Whipple Capsulorhexis Centration Marker	45	7-0821	22	Aspiration Handpiece for Bimanual Technique, 22 Ga	93
4-03315T	3	Utrata Capsulorhexis Forceps, Cystotome Tips, with Scale	51, 55	8-031T	23	Barraquer Needle Holder, Standard Jaws, w/out Lock	95
4-033S	4	Small-Incision Capsulorhexis Forceps with Double Cross-Action and Scale	29, 52, 58	8-096T	24	Castroviejo Needle Holder, Delicate Jaws, w/out Lock	94
4-050T	5	Colibri Corneal Forceps	68	10-5016-1	25	Disposable Iris Retractors, 1 Pack of 4 pcs	20
4-0600T	6	Castroviejo Suturing Forceps	75	11-034S	26	Universal Corneal Scissors	99
4-072T	7	Dressing Forceps with Serrations	71	11-040S	27	Westcott Tenotomy Scissors	102
4-120S	8	Hartman Hemostatic Mosquito Forceps	74	11-044S	28	Westcott Stitch Scissors	100
4-174T	9	McPherson Angled Tying Forceps	76	11-0581S	29	Gills-Vannas Capsulotomy Scissors	103
4-185T	10	Tennant Straight Tying Forceps	77	14-080A	30	Lieberman Temporal Speculum with Aspiration	115
4-2107T	11	Steinert Paddle Lens Folding Forceps	64	15-025	31	Kelman Sharp Irrigating Cystotome, 25 Ga	123
4-2108S	12	Faulkner Lens Holding Forceps	64	15-051-27	32	Rycroft Anterior Chamber Cannula, 27 Ga	121
4-2141T	13	Cartridge Loading Forceps, for Inserting IOL	64	15-071-25	33	McIntyre Nucleus Hydrodissector, Spatulated, 25 Ga	122
5-030	14	Kuglen Iris Hook, Angled	79	15-170	34	Microincisional Capsule Polisher Cannula, Disc-Shaped Tip, 23 Ga	123
5-032*		Sinsky Hook, Angled	79	15-129-0.3	35	Simcoe I/A Cannula, 23/23 Ga	122
5-034*		Bechert Nucleus Rotator	79	16-020T	36	Maloney Intraoperative Keratometer	43
6-10/6-053	15	Diamond Knife, Trifacet Blade, 1.00 mm	82	16-0341T	37	Fine Thornton Fixation Ring with Swivel	130
6-20/6-107	16	Diamond Knife, Self-Diving Trapezoid Blade, 2.00/2.30 mm	83	16-081S	38	Towel Forceps	74
7-025T	17	Ernest Nucleus Cracker	86	16-2806	39	IOL Injector for A, B, C Cartridges	126
7-1163S	18	Akahoshi Hybrid Combo Prechopper	87	18-305*		Plastic Sterilization Tray with Silicone Finger Mat, Double Level, Extra Large	135, 136
7-063	19	Nagahara Phaco Chopper RHD (LHD*)	88				
7-064*			88				
7-0634/I	20	Lesieur Hydrochopper, 20 Ga	91				

\*not shown

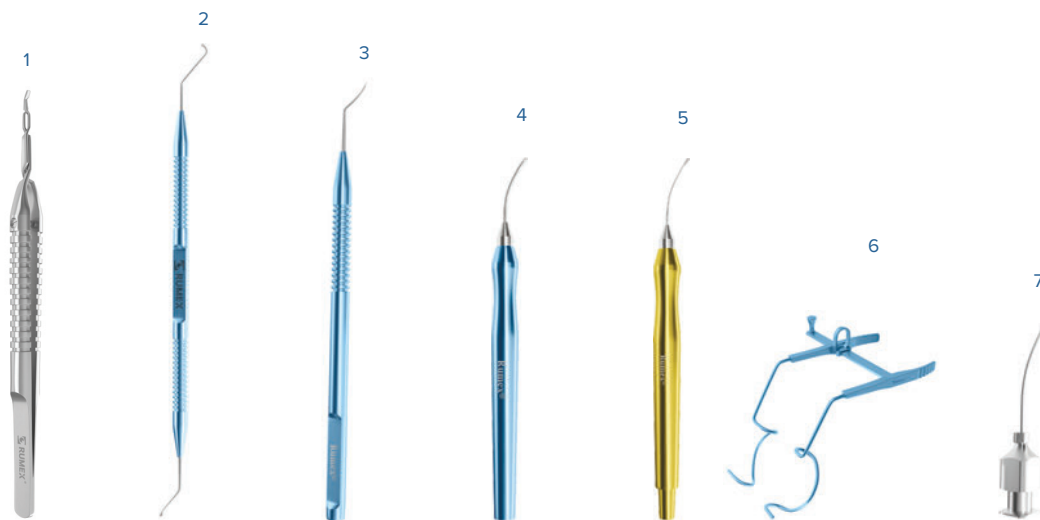
**CATARACT**

**BIMANUAL MICROPHACO (MICS) SET**



Reference	Key	Description	Page	Reference	Key	Description	Page
4-0377I/ 12-003T	1	Kawai Capsulorhexis Forceps, Tapered 23/25 Ga shaft/Universal Squeeze Handle	60 142	7-081	10	Irrigation Handpiece for Bimanual Technique, 21 Ga	92
4-0395	2	Capsulorhexis Forceps with Scale, Cross-Action	52,58	7-082I	11	Aspiration Handpiece for Bimanual Technique, 22 Ga	93
4-0501T	3	Colibri Corneal Forceps, 0.12 mm 1x2 Teeth	68	11-0374I	12	Side-Port Capsulotomy Scissors, Left, 20 Ga	103
4-0600T	4	Castroviejo Suturing Forceps, 0.12 mm 1x2 Teeth	75	11-0375I*		Side-Port Capsulotomy Scissors, Right, 20 Ga	103
4-174T	5	McPherson Angled Tying Forceps	76	/12-003T		/Universal Squeeze Handle	142
5-032	6	Sinskey Hook	79	11-044S	13	Westcott Stitch Scissors	100
5-034*		Bechert Nucleus Rotator	79	14-080A	14	Lieberman Temporal Speculum with Aspiration	115
6-10/6-053	7	Diamond Knife Trifacet Blade, 1.00 mm	82	15-068I	15	Chang Nucleus Hydrodissector, 27 Ga	122
6-20/6-144	8	Diamond Knife, Self-Diving Trapezoid Blade, 1.80/2.00 mm	83	15-170	16	Microincisional Capsule Polisher Cannula, Disc-Shaped Tip, 23 Ga	123
7-063	9	Nagahara Phaco Chopper RHD (LHD*)	88	15-129-0.3	17	Simcoe I/A Cannula, 23/23 Ga	122
7-064*			88	15-301/303	18	Silicone Bulb with Adapter	125
*not shown				18-304*		Plastic Sterilization Tray with Silicone Finger Mat, Extra Large	135, 136

**FEMTOSECOND CATARACT SET**



Reference	Key	Description	Page	Reference	Key	Description	Page
7-149S	1	Escaf Prechopper	87	7-081-23	4	Irrigation Handpiece for Bimanual Technique, 23 Ga	92
7-1167S*		Crozafon Prechopper	87	7-082I-23	5	Aspiration Handpiece for Bimanual Technique, 23 Ga	93
13-181	2	Uy Laser Lens Fragmentation Combo Manipulator	106	14-052T	6	Slade-Murdoch Speculum	117
20-204*		Spatula for Femtosecond Laser Procedure	106	15-170	7	Microincisional Capsule Polisher Cannula, Disc-Shaped Tip, 23 Ga	123
20-204I	3	Donnenfeld Femto Spatula	106	18-304*		Plastic Sterilization Tray with Silicone Finger Mat, Extra Large	135, 136

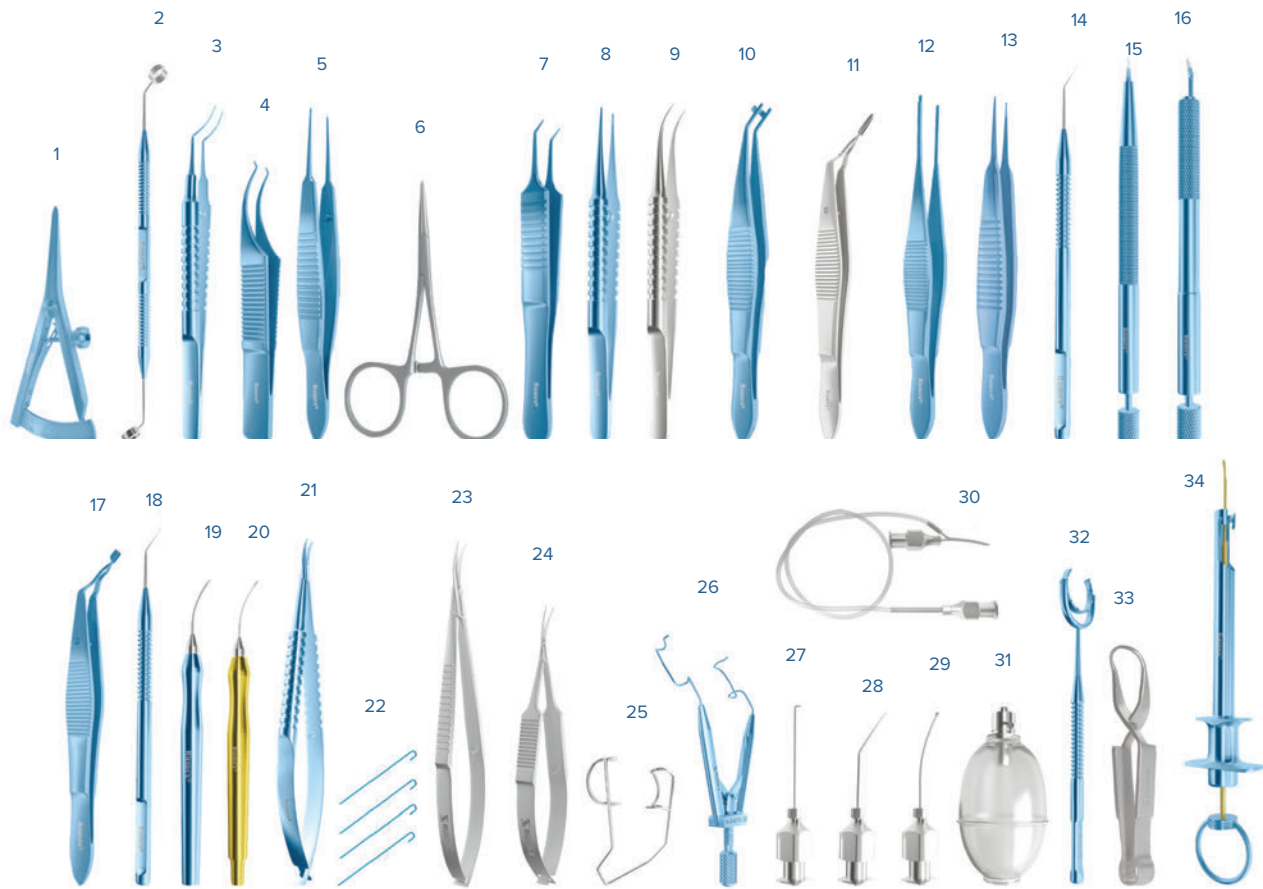
\*not shown



# FEATURED SETS

## CATARACT

### EXTRA CAPSULAR CATARACT EXTRACTION (ECCE) SET

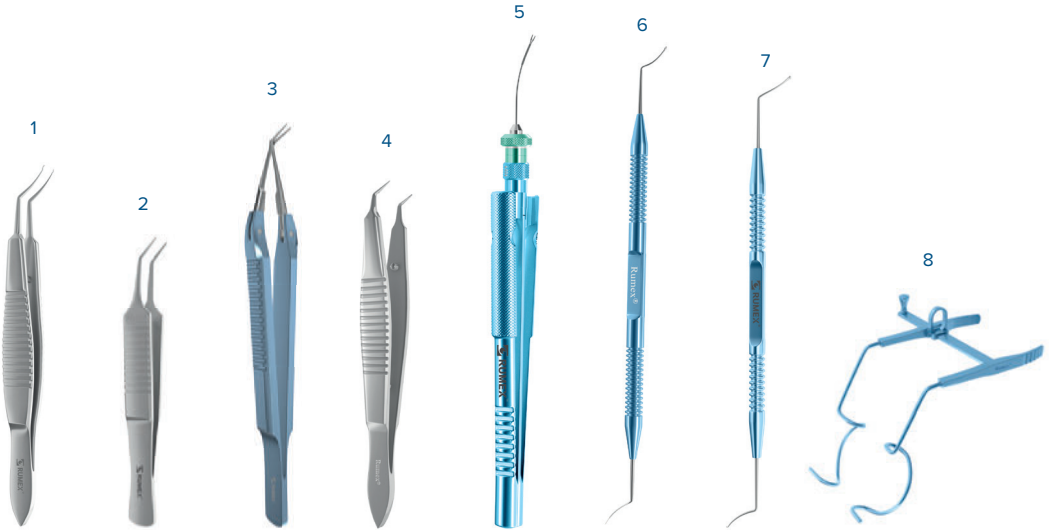


Reference	Key	Description	Page
2-010T	1	Castroviejo Caliper	43
3-040	2	Whipple Capsulorhexis Centration Marker	45
4-03315T	3	Utrata Capsulorhexis Forceps with Ruler	51, 55
4-050T	4	Colibri Corneal Forceps, 0.12 mm 1x2 Teeth	68
4-0600T	5	Castroviejo Suturing Forceps, 0.12 mm 1x2 Teeth	75
4-120S	6	Hartman Mosquito Forceps, Straight	74
4-174T	7	McPherson Angled Tying Forceps	76
4-185T	8	Tennant Straight Tying Forceps	77
4-186S	9	Tennant Curved Tying Forceps	77
4-2107T	10	Steinert Paddle Lens Folding Forceps	64
4-2113S	11	McDonald Style Inserting Forceps	64
4-2141T	12	Cartridge Loading Forceps	64
4-2301T	13	Fechtner Conjunctiva Forceps	65
5-030	14	Kuglen Iris Hook	79
5-0331*		Lester Lens Manipulator	79
5-034*		Bechert Nucleus Rotator	79
6-10/6-053	15	Diamond Knife, Trifacet Blade, 1.00 mm	82
6-20/6-104	16	Diamond Knife, 2.30/2.80 mm, Self-Diving Trapezoid Blade	83

\*not shown

Reference	Key	Description	Page
7-025T	17	Ernest Nucleus Cracker	86
7-065	18	Rosen Phaco Chopper, Universal	88
7-081-23	19	Irrigation Handpiece for Bimanual Technique, 23 Ga	92
7-0821-23	20	Aspiration Handpiece for Bimanual Technique, 23 Ga	93
8-041T	21	Barraquer Needle Holder, Fine Jaws, w/out Lock	95
10-5016-1	22	Disposable Iris Retractors (1 Pack of 4 pcs)	20
11-040S	23	Westcott Tenotomy Scissors	102
11-058S	24	Gills-Vannas Capsulotomy Scissors	103
14-022S	25	Barraquer Wire Speculum, Adult Size	119
14-040TK	26	Lieberman Temporal Speculum, Adult Size	117
15-0681	27	Chang Nucleus Hydrodissector, 27 Ga	122
15-071-25	28	McIntyre Nucleus Hydrodissector, Spatulated, 25 Ga	122
15-170	29	Microincisional Capsule Polisher Cannula, Disc-Shaped Tip, 23 Ga	123
15-129-0.3	30	Simcoe I/A Cannula, 23/23 Ga	122
15-301/303	31	Silicone Bulb with Adapter	125
16-0341T	32	Fine Thornton Fixation Ring with Swivel	130
16-080S	33	Towel Clamp	74
16-2806	34	IOL Injector for A, B, C Cartridges	26
18-305*		Plastic Sterilization Tray with Silicone Finger Mat, Double Level, Extra Large	135, 136

REFRACTIVE  
SMILE SET



Reference	Key	Description	Page	Reference	Key	Description	Page
4-266S	1	SMILE Lenticule Extraction Forceps with a View-Port	67	20-207	6	Stodulka ReLEx Smile Double Lenticule Spatula (Blunt Spoon and Flat Spatula)	112
4-268S	2	SMILE Lenticule Extraction Forceps with Serrations	67	20-2071*		ReLEx Smile Double Lenticule Spatula (Blunt Spoon and Shortened Flat Spatula)	112
4-0398	3	Cross-Action SMILE Forceps	67	20-2073	7	SMILE Lenticule Removing Spatula	112
4-2012S	4	Stodulka Forceps for Small-Incision Lenticule Extraction	67	14-052T	8	Slade-Murdoch Speculum	117
4-034/12-003T	5	Forceps for Corneal Endothelium Implantation, 23 Ga/ Universal Squeeze Handle	70/142				

\*not shown

LRI SET

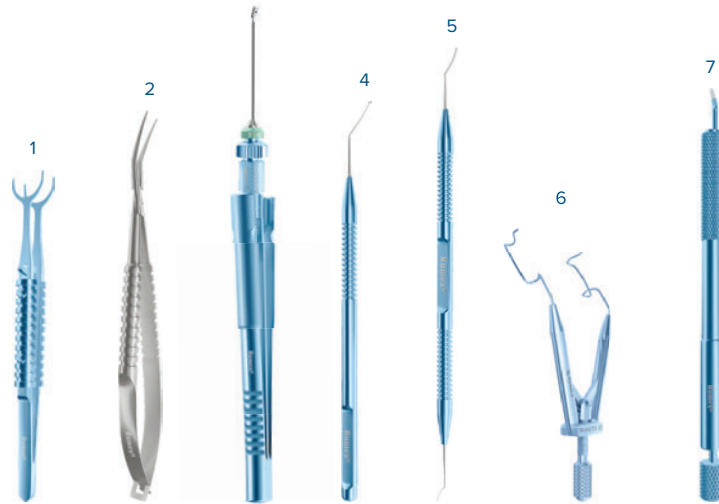


Reference	Key	Description	Page	Reference	Key	Description	Page
2-034T	1	Grooved Fine Mendez Degree Gauge with 4 Grooves	44	3-1801	1	LRI Marker, 40-60-80°	48
3-091T	2	Bores Axis Marker	45	3-1932	2	Whitehouse Gravity Axis Marker with Reduced Diameters	49
3-1932	3	Whitehouse Gravity Axis Marker with Reduced Diameters	49	6-322/ 6-0531	3	Universal Three-Step Diamond Knife for Cataract and LRI Surgery	84
6-322/6-0531	4	Universal Three-Step Diamond Knife for Cataract and LRI Surgery	84	3-183T	4	LRI Marker, Intra-Op, 30- 45-60°	48
				18-304*		Plastic Sterilization Tray with Silicone Finger Mat, Extra Large	135, 136

\*not shown

## FEATURED SETS

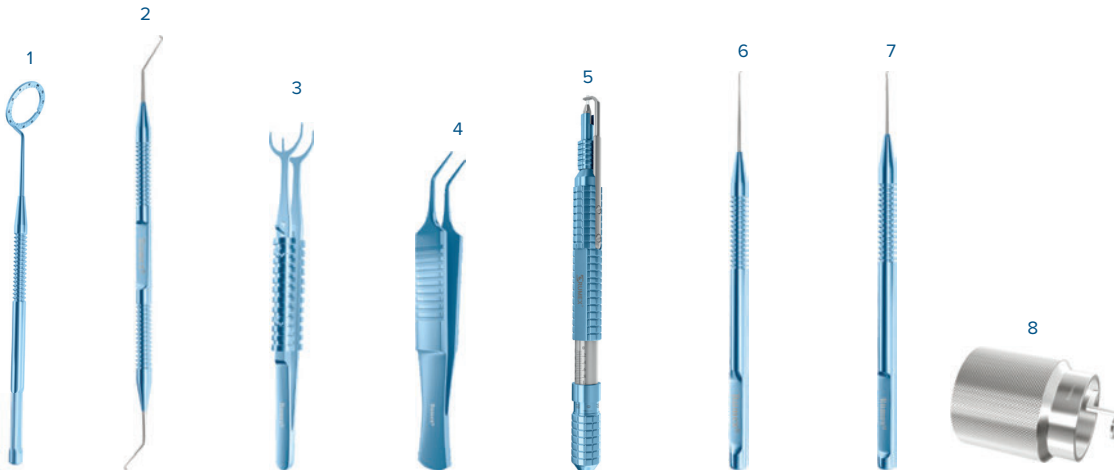
### REFRACTIVE \ CORNEAL ICL SET



Reference	Key	Description	Page	Reference	Key	Description	Page
4-08011T	1	Nevyas-Wallace Fixation Forceps, 0.12 mm 1x2 Teeth	72	13-142	5	Zaldivar ICL™ Manipulator	114
4-20111S	2	ICL™ Cartridge Loading Forceps	63	14-040T	6	Lieberman Temporal Speculum	117
4-21432/ 12-003T	3	Zaldivar - Kraff ICL Pacman Forceps, 20 Ga, Tip Only/ Universal Squeeze Handle	63	6-20/6-0551	7	Zaldivar Universal ICL™ Knife, 0.55/1.00 mm	83
13-141	4	Pallikaris ICL™ Manipulator	142	18-304*		Plastic Sterilization Tray with Silicone Finger Mat, Extra Large	135, 136

\*not shown

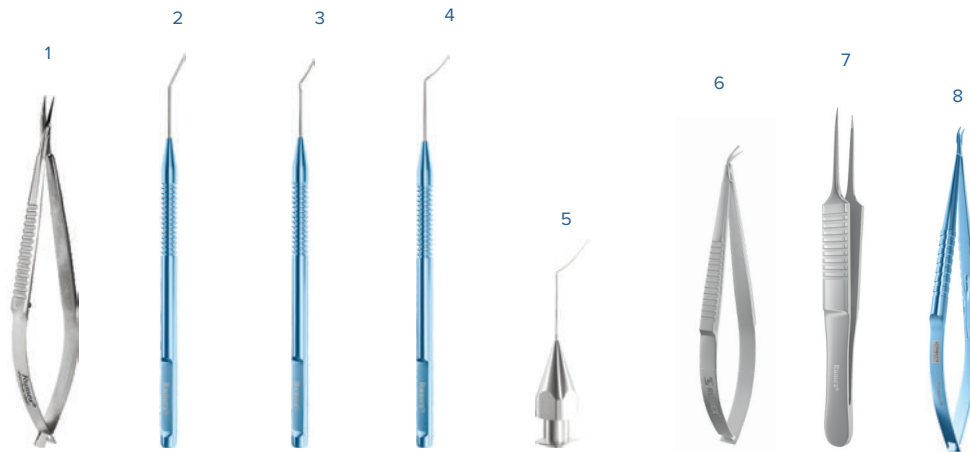
### ICRS SET



Reference	Key	Description	Page	Reference	Key	Description	Page
2-0331T	1	Grooved Mendez Degree Gauge with 4 Grooves	44	10-035	6	Elevator for ICRS Implantation	114
3-034	2	Optical Zone Marker	47	13-146	7	Suarez Spreader	114
4-08011T	3	Nevyas-Wallace Fixation Forceps	72	16-173S	8	Tunnel Maker, Left	130
4-2144T	4	Forceps for ICRS Implant	68	16-174S*		Tunnel Maker, Right	130
6-00/6-020	5	Diamond Knife for ICRS, Micrometer Handle, 1.00 mm	82	18-304*		Plastic Sterilization Tray with Silicone Finger Mat, Extra Large	135, 136

\*not shown

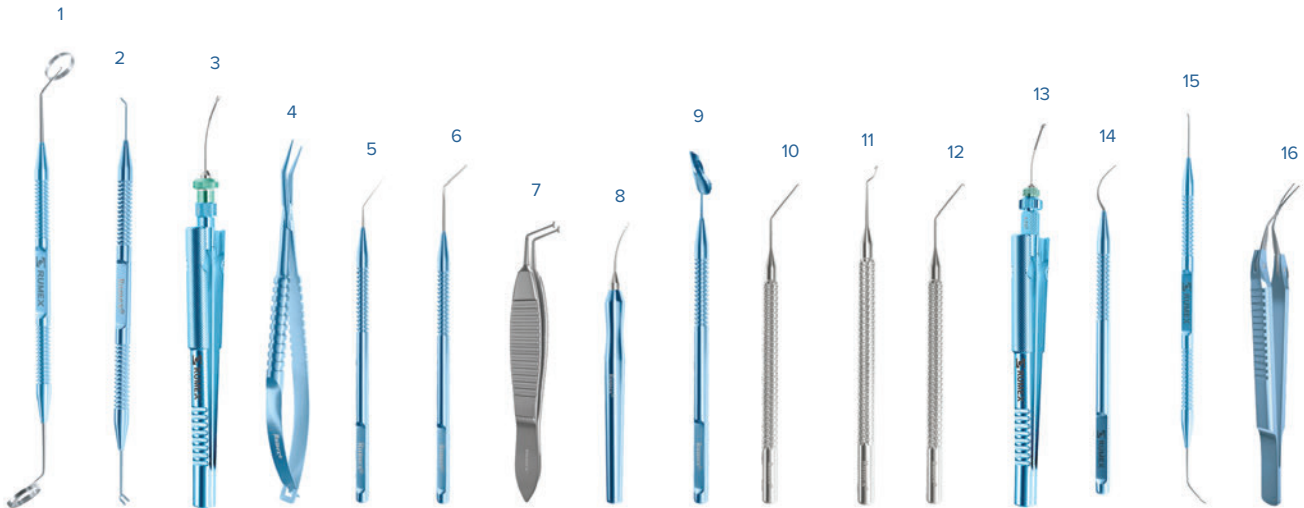
**CORNEAL  
DALK SET**



Reference	Key	Description	Page	Reference	Key	Description	Page
11-038S	1	Scissors for DALK Procedure, Right	99	11-134	6	Holland Spatulated DALK Scissors, Right	100
11-0381S*		Scissors for DALK Procedure, Left	99	11-135*		Holland Spatulated DALK Scissors, Left	100
13-170	2	Trisector for DALK Procedure	110	4-178S	7	McPherson Tying Forceps, Straight	76
13-171	3	Spatula for DALK Procedure	110	4-174T*		McPherson Tying Forceps, Angled	76
13-172	4	Dissector for DALK Procedure	110	8-024T	8	Barraquer Needle Holder, Extra Fine Jaws, with Lock	95
15-450-27	5	Cannula for DALK Procedure, 27 Ga	124	18-305*		Plastic Sterilization Tray with Silicone Finger Mat, Double Level, Extra Large	135, 136

\*not shown

**DSEK, DSAEK, DMEK SET**

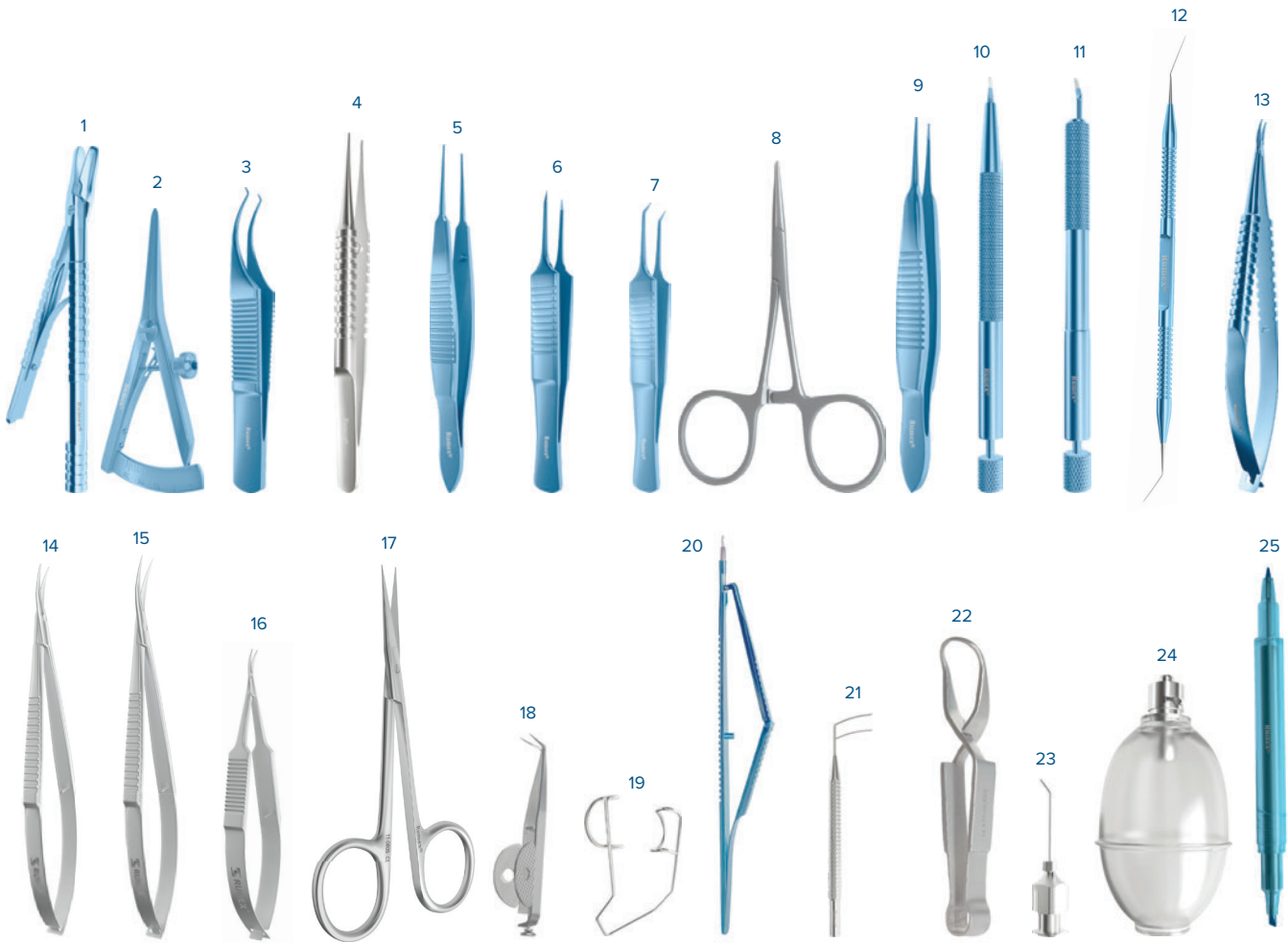


Reference	Key	Description	Page	Reference	Key	Description	Page
3-0231	1	Abdullayev Corneal Marker for Keratoplasty	45	13-152S	11	Carlson DSEK Smoother	108
3-0230*		Abdullayev Scleral Marker for Keratoplasty	45	13-153S	12	Terry DSEK Scraper	108
3-024T	2	Abdullayev I & II Marker (for DSAEK/DMEK Grafts)	46	4-247	13	Florakis Microinvasive Endothelial Forceps, 23 Ga /	70
3-208T*		DMEK/DSAEK "S" Marker	46	/12-003T		Universal Squeeze Handle	142
4-034	3	Forceps for Corneal Endothelium Implantation, 23 Ga/	70	4-246S*		Florakis Endothelial Forceps	70
/12-003T		Universal Squeeze Handle	142	13-182	14	John Dextatome DMEK/DSAEK Spatula	109
4-2019T	4	Corneal Donor Insertion Forceps	70	13-183*		John DSAEK Stromal Scrubber	109
5-0322	5	Reversed Sinskey Hook	79	13-184*		John DSAEK Glider	109
13-137	6	Corneal Dissector, Straight	107	13-185	15	Tan Marginal DMEK Dissector	109
13-138*		Corneal Dissector, Curved	107	4-251	16	Cross-Action DMEK Forceps	71
4-261S	7	Abdullayev DMEK Grasping Forceps	71	18-305*		Plastic Sterilization Tray with Silicone Finger Mat, Double Level, Extra Large	135, 136
13-139/I	8	Endothelial Stripper, Irrigating	107				
13-150T	9	Spatula-Guide for Corneal Endothelium Implantation	107				
13-151S	10	Cindy Sweeper DSEK Spatula	108				

\*not shown

# FEATURED SETS

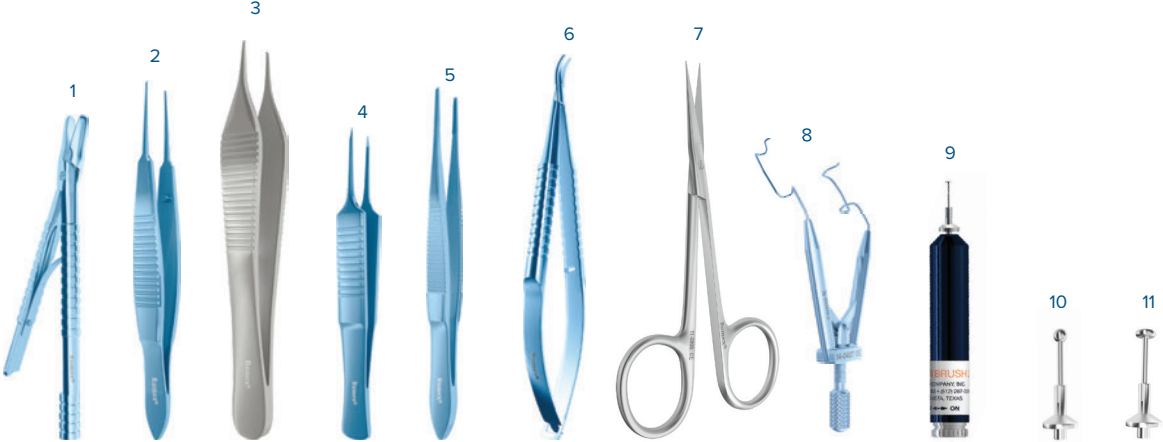
## GLAUCOMA GLAUCOMA SET



Reference	Key	Description	Page	Reference	Key	Description	Page
1-010T	1	Blade Holder	42	11-044S	15	Westcott Stitch Scissors	100
2-010T	2	Castroviejo Caliper	43	11-052S	16	Vannas Capsulotomy Scissors	103
4-050T	3	Colibri Corneal Forceps	68	11-080S	17	Iris Scissors	101
4-070S	4	Dressing Forceps with Delicate Serrations	71	11-1223	18	Barraquer Iris Scissors	101
4-0600T	5	Castroviejo Suturing Forceps	75	14-022S	19	Barraquer Wire Speculum	119
4-171T	6	McPherson Straight Tying Forceps	76	16-011	20	Kelly Descemet's Membrane Punch, 0.75 mm Diameter	127
4-090T	7	Kelman-McPherson Tying Forceps	76	16-012S	21	Harms Trabeculotome, Left	130
4-120S	8	Hartman Mosquito Forceps	74	16-013S*		Harms Trabeculotome, Right	130
4-2301T	9	Fechtner Conjunctiva Forceps	65	16-080S	22	Schaedel Towel Clamp	74
6-10/6-053	10	Diamond Knife, Trifacet Blade, 1.00 mm	82	15-051-27	23	Rycroft Anterior Chamber Cannula, 27 Ga	121
6-20/6-092	11	Diamond Knife, Crescent Blade, 2.00 mm	83	15-301/303	24	Silicone Bulb with Adapter	125
13-050	12	Castroviejo Double-Ended Cyclodialysis Spatula	105	20-050	25	Disposable Marking Pen, Double-Ended, 10 per Box	50, 134
8-045T	13	Barraquer Needle Holder, Extra Fine Jaws, w/out Lock	95	18-305*		Plastic Sterilization Tray with Silicone Finger Mat, Double Level, Extra Large	135, 136
11-040S	14	Westcott Tenotomy Scissors	102				

\*not shown

**PTERYGIUM**  
**PTERYGIUM SET**



Reference	Key	Description	Page
1-010T	1	Blade Holder	42
4-0600T	2	Castroviejo Suturing Forceps	75
4-0741S	3	Adson Fixation Forceps	72
4-171T	4	McPherson Tying Forceps	76
4-2300T	5	Bonaccolto Utility Forceps	78
8-031T	6	Barraquer Needle Holder, Standard Jaws, w/out Lock	95
11-080S	7	Iris Scissors	101
14-040T	8	Lieberman Temporal Speculum	117

\*not shown

Reference	Key	Description	Page
16-051-2.5	9	AlgerBrush with a 2.50 mm Diamond Dusted Round Fine Grit Burr	129
16-051-3.5B	10	Diamond Dusted Round Medium Grit Burr for AlgerBrush, 3.50 mm	129
16-052-5.0B	11	Diamond Dusted Disk-Shaped Medium Grit Burr for AlgerBrush, 5.00 mm	129
18-304*		Plastic Sterilization Tray with Silicone Finger Mat, Extra Large	135, 136



# FEATURED SETS

## LACRIMAL LACRIMAL SET

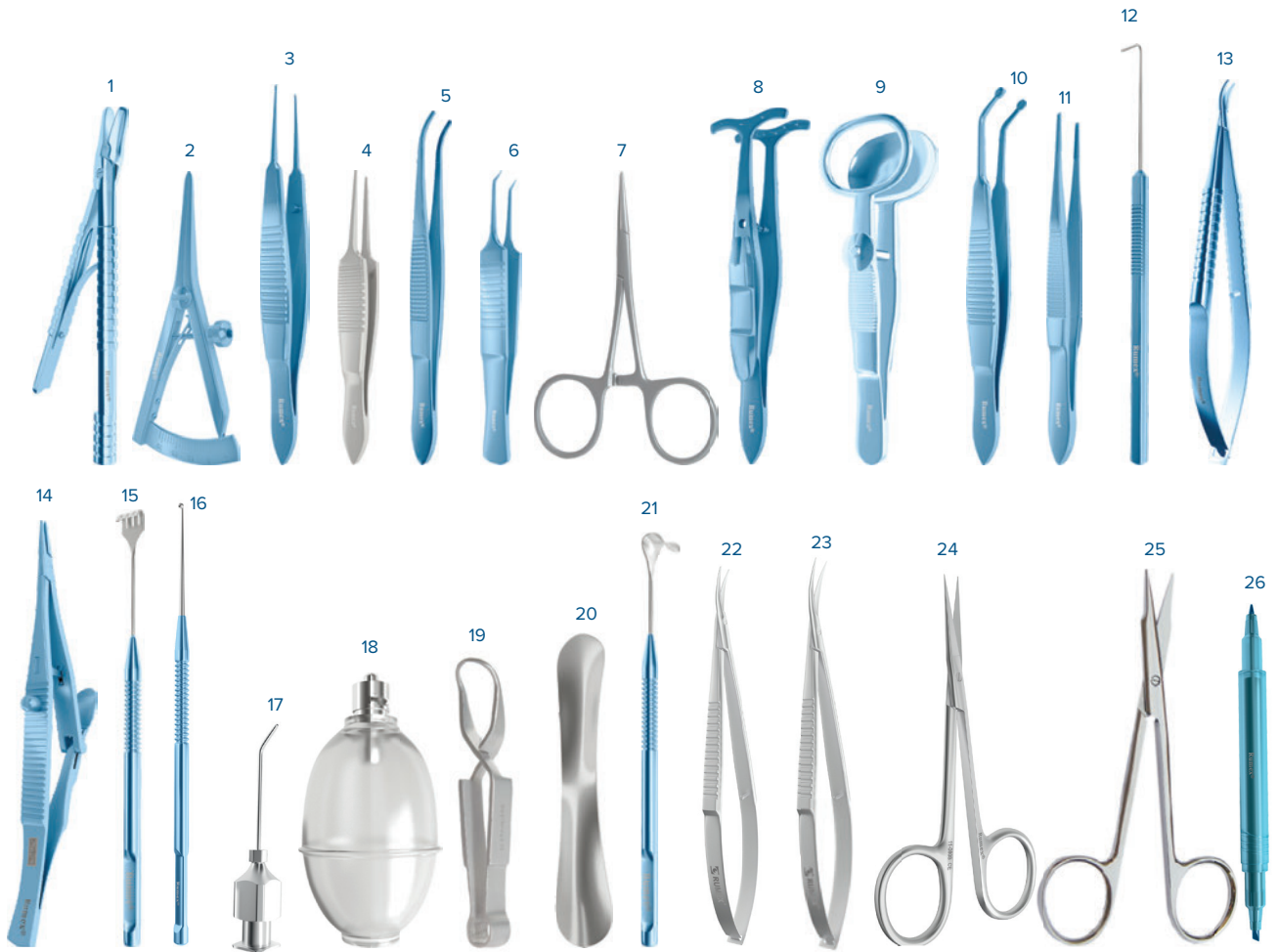


Reference	Key	Description	Page	Reference	Key	Description	Page
1-010T	1	Blade Holder	42	10-013	12	Stevenson Lacrimal Sac Retractor	97
4-071S	2	Dressing Forceps	71	10-014	13	Knapp Lacrimal Sac Retractor	97
4-2300T	3	Bonaccolto Utility Forceps	78	11-080S	14	Iris Scissors	101
4-0601T	4	Castroviejo Suturing Forceps	75	11-125S	15	Westcott Type Stitch Scissors	100
4-122S	5	Halsted Mosquito Forceps	74	11-130S	16	Stevens Scissors	102
8-031T	6	Barraquer Needle Holder, Standard Jaws, w/out Lock	95	15-029	17	Lacrimal Cannula, Reinforced, Curved, 23 Ga	125
9-010S	7	Bowman Lacrimal Probe, Size 0000-000	96	15-301/303	18	Silicone Bulb with Adapter	125
9-011S*		Bowman Lacrimal Probe, Size 00-0	96	16-081S	19	Towel Forceps	74
9-012S*		Bowman Lacrimal Probe, Size 1-2	96	16-127	20	Nasal speculum, Adult Size	131
9-013S*		Bowman Lacrimal Probe, Size 3-4	96	16-135	21	Surgical Mallet, Polished Finish	131
9-014S*		Bowman Lacrimal Probe, Size 5-6	96	16-136	22	Kerrison Rounger, Size 0	127
9-021S	8	Quickert Lacrimal Intubation Probe, Size 0	96	16-138	23	Belz Lacrimal Sac Rongeur	127
9-031	9	Pigtail Lacrimal Probe	96	21-R7011	24	Disposable DCR Set, Straight 4.50 cm	25
9-050T	10	Wilder Lacrimal Dilator, Size 1	96	18-305*		Plastic Sterilization Tray with Silicone Finger Mat, Double Level, Extra Large	135, 136
9-060T	11	Castroviejo Double-Ended Lacrimal Dilator, Size 1 & 2	96				

\*not shown



LID  
LID SET

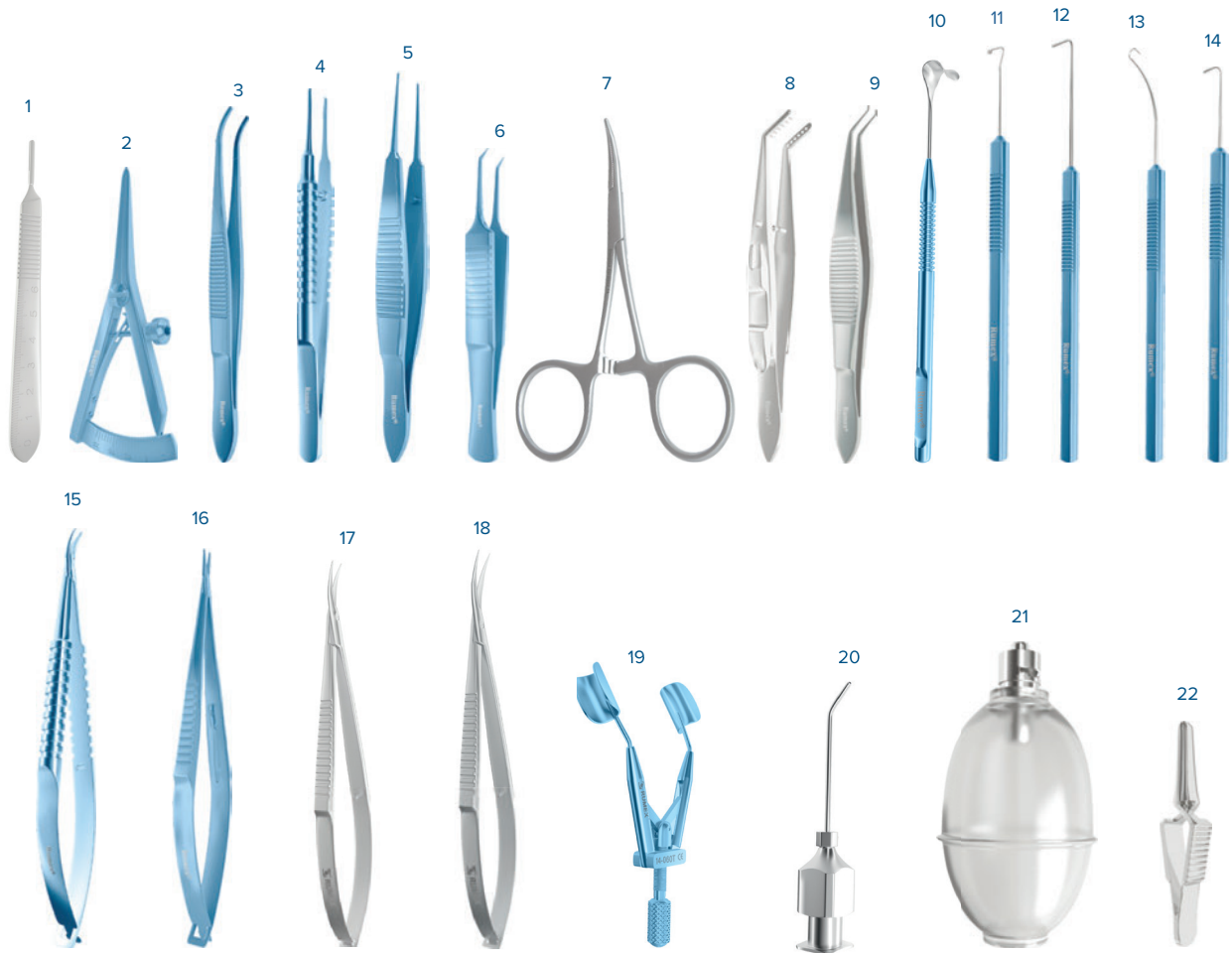


Reference	Key	Description	Page	Reference	Key	Description	Page
1-010T	1	Blade Holder	42	10-014	15	Knapp Lacrimal Sac Retractor	97
2-010T	2	Castroviejo Caliper	43	16-066	16	Meyerhoefer Chalazion Curette, Size 3	128
4-0601T	3	Castroviejo Suturing Forceps	75	16-067*		Meyerhoefer Chalazion Curette, Size 4	128
4-0607S	4	Bishop-Harmon Suturing Forceps	75	15-055-19	17	Bishop Harmon AC Cannula, 19 Ga	121
4-072T	5	Dressing Forceps	71	15-301/303	18	Silicone Bulb with Adapter	125
4-090T	6	Kelman-McPherson Tying Forceps	76	16-080S	19	Schaedel Towel Clamp	74
4-120S	7	Hartman Mosquito Forceps	74	16-50S	20	Lid Plate	131
4-140T	8	Putterman Type Lid Clamp	65	10-020*		Desmarres Lid Retractor, Size 0	97
4-1906T	9	Desmarres Chalazion Forceps, Large	65	10-021	21	Desmarres Lid Retractor, Size 1	97
4-1912T*		Desmarres Chalazion Forceps, Medium	65	10-022*		Desmarres Lid Retractor, Size 2	97
4-124S*		Compressing Lid Forceps with Atraumatic Rollers	66	10-023*		Desmarres Lid Retractor, Size 3	97
4-1913T	10	Compressing Lid Forceps	66	11-040S	22	Westcott Tenotomy Scissors	102
4-2300T	11	Bonaccolto Utility Forceps	78	11-044S	23	Westcott Stitch Scissors	100
5-042	12	Graefe Muscle Hook, Size 2	80	11-080S	24	Straight Iris Scissors	101
8-031T	13	Barraquer Needle Holder, Standard Jaws, w/out Lock	95	11-133S	25	Stevens Tenotomy Scissors	102
8-080T	14	Kalt Needle Holder	94	20-050	26	Disposable Marking Pen, Double-Ended, 10 per Box	50, 134
				18-305*		Plastic Sterilization Tray with Silicone Finger Mat, Double Level, Extra Large	135, 136

\*not shown

# FEATURED SETS

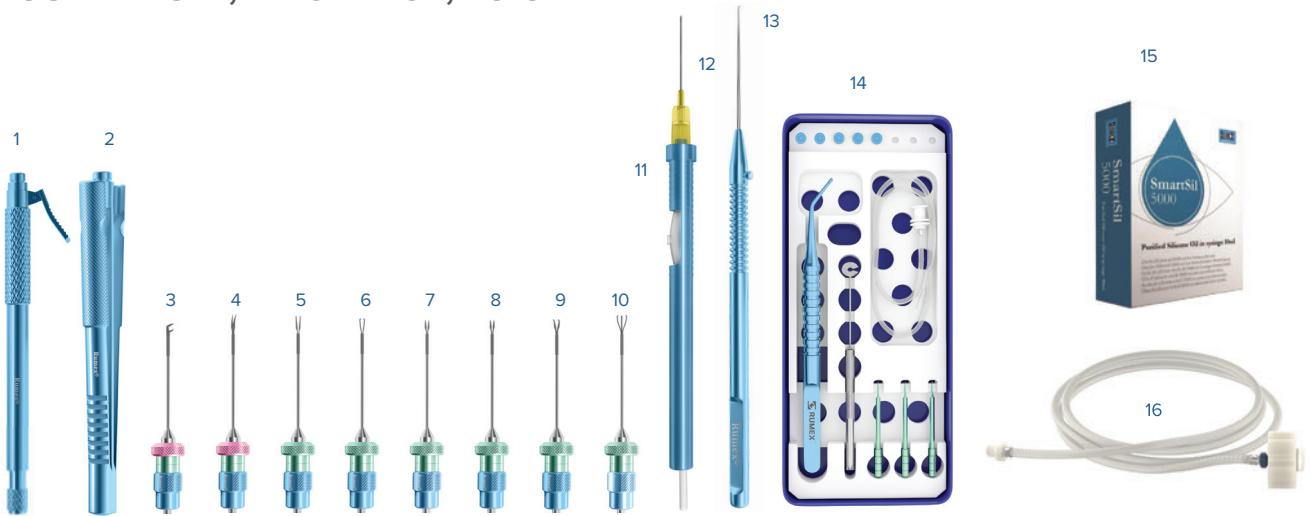
## OCULOPLASTIC MUSCLE SET



Reference	Key	Description	Page	Reference	Key	Description	Page
1-020S	1	Bard Parker Handle	42	5-061	13	Scobee Oblique Muscle Hook	80
2-010T	2	Castroviejo Caliper	43	5-062	14	Stevens Curved Tenotomy Hook	80
4-072T	3	Dressing Forceps	71	8-090T	15	Barraquer Needle Holder, Strong Jaws, with Lock	95
4-0551T	4	Corneal Forceps, Bonn-Catalano Type	69	8-0921T	16	Castroviejo Needle Holder, Delicate Jaws, with Lock	94
4-0602T	5	Castroviejo Suturing Forceps	75	11-040S	17	Westcott Tenotomy Scissors	102
4-090T	6	Kelman-McPherson Tying Forceps	76	11-044S	18	Westcott Stitch Scissors	100
4-121S	7	Hartman Mosquito Forceps	74	14-0601T	19	Kershner Reversible Solid Blade Speculum	116
4-130S	8	Jameson Muscle Forceps, Left	78	15-055-19	20	Bishop Harmon AC Cannula, 19 Ga	121
4-131S*	8	Jameson Muscle Forceps, Right	78	15-301/303	21	Silicone Bulb with Adapter	125
4-136S	9	Osher Superior Rectus Forceps	78	16-090S	22	Serrefine	74
10-022	10	Desmarres Lid Retractor, Size 2	97	18-305*		Plastic Sterilization Tray with Silicone Finger Mat, Double Level, Extra Large	135,
5-040	11	Jameson Muscle Hook	80				136
5-042	12	Graefe Muscle Hook, Size 2	80				

\*not shown

## VITREORETINAL REUSABLE SET, TWO-PIECE, 23 GA



Reference	Key Description	Page	Reference	Key Description	Page
12-001T	1 Universal Instrument Handle, One Finger Control	142	12-325-23	9 Pick Vitreoretinal Forceps, 23 Ga, Tip only	147, 149
12-003T	2 Universal Instrument Handle, Squeeze Model, Two Fingers Control	142	12-321-23	10 Spring Gripping Forceps, 23 Ga, Tip only	147, 149
12-202-23	3 Vertical Vitreoretinal Scissors, 23 Ga, Tip only	144, 149	12-6000	11 Titanium Backflush Handle, Active Aspiration	156
12-209-23	4 Curved Subretinal Scissors, 23 Ga, Tip only	144, 149	12-5161	12 Soft Tip Cannula, 23 Ga, Disposable, 5 per Box	157
12-410-23	5 Eckardt End-Gripping Forceps, 23 Ga, Tip only	145, 149	13-097-23	13 Delicate Membrane Pick, 23 Ga	148
12-4013	6 End-Grasping Forceps, Expanded Space between Branches, 23 Ga, Tip only	141, 145, 149	12-5173-23	14 Reusable Trocar System, 23 Ga	152
12-301-23	7 Vitreoretinal Forceps with a Sandblasted Platform, 23 Ga, Tip only	146, 149	SmartSil5000	15 Purified Silicone Oil for Retinal Endotamponade, 5000 cSt	158
12-304-23	8 Vitreoretinal Forceps with a "Crocodile" Platform, 23 Ga, Tip only	141, 146, 149	SmartSil1000*	Purified Silicone Oil for Retinal Endotamponade, 1000 cSt	158
			12-RTUB-2	16 Reusable Tubing System for the Infusion Of Silicone Oil, Caprolone Adapter Adjustable To DORC® Associate™, EVA™, EVA NEXUS™, Alcon® Constellation™, Accurus™	159
			18-305*	Plastic Sterilization Tray with Silicone Finger Mat, Double Level, Extra Large	135, 136

\*not shown

## DISPOSABLE SET, 23 GA

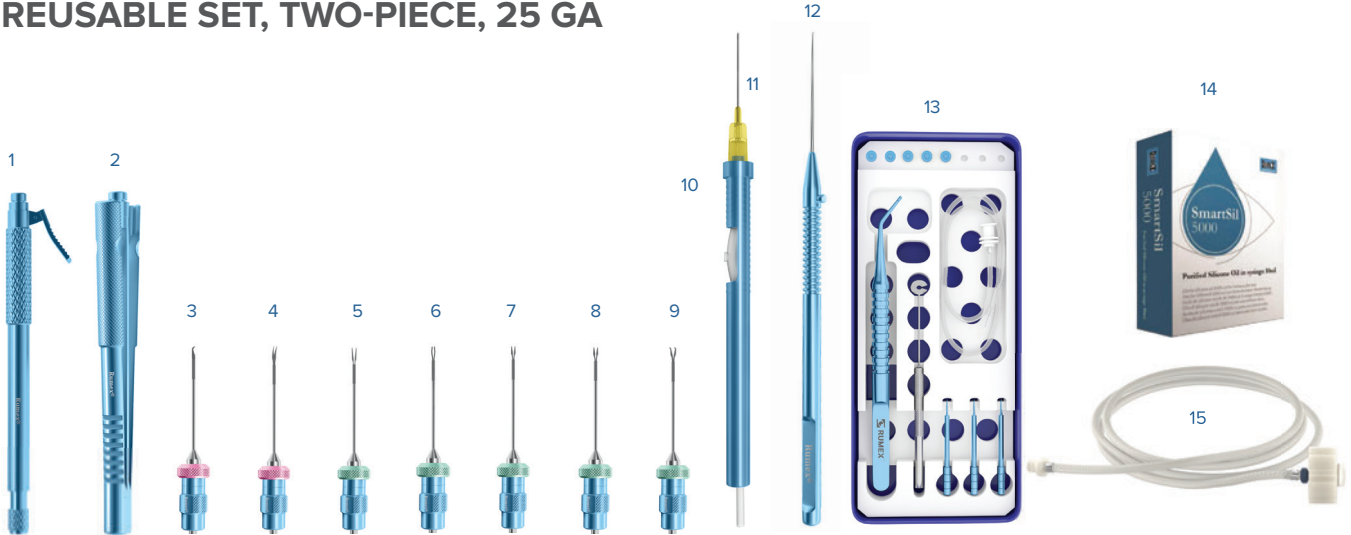


Reference	Key Description	Page	Reference	Key Description	Page
12-5229	1 Disposable One Step Trocar System 23 Ga, 6 per Box	155	12-202-23DP	7 Disposable Vitreoretinal Vertical Scissors, 23 Ga, Plastic Handle 360°, 6 per Box	154
12-5161H	2 Backflush Instrument with Soft Tip, 23 Ga, 6 per Box	156	12-5203	8 Dual Bore PFC Cannula, 23 Ga, 5 per Box	157
12-7523	3 Disposable Diamond Dusted Retractable ILM Elevator, 23 Ga, 5 per Box	154	12-5248	9 Viscous Fluid Injection Cannula, 23 Ga, 4 mm Tip, 5 per Box	159
12-209-23D	4 Disposable Curved Scissors, 23 Ga, Stainless Steel, 6 per Box	153	SmartSil5000	10 Purified Silicone Oil for Retinal Endotamponade, 5000 cSt	158
12-209-23DP*	Disposable Vitreoretinal Curved Scissors, 23 Ga, Plastic Handle 360°, 6 per Box	154	SmartSil1000*	Purified Silicone Oil for Retinal Endotamponade, 1000 cSt	158
12-410-23D	5 Disposable Eckardt End-Gripping Forceps, 23 Ga, Stainless Steel, 6 per Box	153	RLC-23AZ	11 Disposable Laser Probe, Curved, 23 Ga - SMA 905 Connector: Alcon®, Zeiss®, COHERENT®, Ellex®, 6 per box	36
12-410-23DP*	Disposable Vitreoretinal Eckardt End-Gripping Forceps, 23 Ga, Plastic Handle 360°, 6 per Box	154	12-5180	12 Disposable Wide Angle Fiber Optic Probe, 23 Ga - B&L®, 6 per box	37
12-304-23DP	6 Disposable Vitreoretinal Gripping Forceps with a "Crocodile Platform", 23 Ga, Plastic Handle 360°, 6 per Box	154	12-4573	13 Disposable Chandelier Fiber Optic Probe, 23 Ga - B&L®, 6 per box	38
12-304-23D*	Disposable Gripping Forceps with a "Crocodile" Platform, 23 Ga, Stainless Steel, 6 per Box	153	RV-23Bfd	14 Disposable Posterior Vitrectomy Cutter, Double Cut, 23 Ga, 6 per box B&L®: Stellaris® Speed: 10000 CPM Pressure: 42 PSI	39

\*not shown

# FEATURED SETS

## VITREORETINAL REUSABLE SET, TWO-PIECE, 25 GA



Reference	Key Description	Page	Reference	Key Description	Page
12-001T	1 Universal Instrument Handle, One Finger Control	142	12-6000	10 Titanium Backflush Handle, Active Aspiration	156
12-003T	2 Universal Instrument Handle, Squeeze Model, Two Fingers Control	142	12-5152	11 Soft Tip Cannula, 25 Ga, Disposable, 5 per Box	157
12-2029	3 Vertical Vitreoretinal Scissors, 25 Ga, Tip only	15, 144	13-0979	12 Delicate Membrane Pick, 25 Ga	148
12-2099	4 Curved Subretinal Scissors, 25 Ga, Tip only	15, 144	12-5173-25	13 Reusable Trocar System, 25 Ga	152
12-410-25	5 Eckardt End-Gripping Forceps, 25 Ga, Tip only	15, 144	Smart-Sil5000	14 Purified Silicone Oil for Retinal Endotamponade, 5000 cSt	158
12-420-25	6 Asymmetrical End-Grasping Forceps, 25 Ga, Tip Only	141, 145, 150	Smart-Sil1000*	Purified Silicone Oil for Retinal Endotamponade, 1000 cSt	158
12-3019	7 Vitreoretinal Forceps with a Sandblasted Platform, 25 Ga, Tip only	15, 146	12-RTUB-2	15 Reusable Tubing System for the Infusion Of Silicone Oil, Caprolone Adapter Adjustable To DORC® Associate™, EVA™, EVA NEXUS™; Alcon® Constellation™, Accurus™	159
12-304-25	8 Vitreoretinal Forceps with a "Crocodile" Platform, 25 Ga, Tip only	141, 146, 150	18-305*	Plastic Sterilization Tray with Silicone Finger Mat, Double Level, Extra Large	135, 136
12-3259	9 Pick Vitreoretinal Forceps, 25 Ga, Tip only	15, 147			

\*not shown

## DISPOSABLE SET, 25 GA



Reference	Key Description	Page	Reference	Key Description	Page
12-5244	1 Disposable One Step Trocar System 25 Ga, 6 per Box	155	12-202-25DP	7 Disposable Vitreoretinal Vertical Scissors, 25 Ga, Plastic Handle 360°, 6 per Box	154
12-5152H	2 Backflush Instrument with Soft Tip, 25 Ga, 6 per Box	156	12-5205	8 Dual Bore PFC Cannula, 25 Ga, 5 per Box	157
12-7525	3 Disposable Diamond Dusted Retractable ILM Elevator, 25 Ga, 5 per Box	154	12-5258	9 Viscous Fluid Injection Cannula, 25 Ga, 4 mm Tip, 5 per Box	159
12-209-25D	4 Disposable Curved Scissors, 25 Ga, Stainless Steel, 6 per Box	153	SmartSil5000	10 Purified Silicone Oil for Retinal Endotamponade, 5000 cSt	158
12-209-25DP*	Disposable Vitreoretinal Curved Scissors, 25 Ga, Plastic Handle 360°, 6 per Box	154	SmartSil1000*	SmartSil1000* Purified Silicone Oil for Retinal Endotamponade, 1000 cSt	158
12-410-25D	5 Disposable Eckardt End-Gripping Forceps, 25 Ga, Stainless Steel, 6 per Box	153	RLC-25AZ	11 Disposable Laser Probe, Curved, 25 Ga - SMA 905 Connector: Alcon®, Zeiss®, COHERENT®, Ellex®, 6 per box	36
12-410-25DP*	Disposable Vitreoretinal Eckardt End-Gripping Forceps, 25 Ga, Plastic Handle 360°, 6 per Box	154	12-5427	12 Disposable Wide Angle Fiber Optic Probe, 25 Ga - B&L®, 6 per box	37
12-304-25DP	6 Disposable Vitreoretinal Gripping Forceps with a "Crocodile Platform", 25 Ga, Plastic Handle 360°, 6 per Box	154	12-4545	13 Disposable Chandelier Fiber Optic Probe, Dual Fiber, 25 Ga - B&L®, 6 per box	38
12-304-25D*	Disposable Gripping Forceps with a "Crocodile" Platform, 25 Ga, Stainless Steel, 6 per Box	153	RV-25BFd	14 Disposable Posterior Vitrectomy Cutter, Double Cut, 25 Ga, 6 per box B&L®: Stellaris® Speed: 10000 CPM Pressure: 42 PSI	39

\*not shown





# APPENDIXES

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# STERILIZATION & CARE

## GENERAL INSTRUCTIONS FOR CARE, CLEANING & STERILIZATION

We at RUMEX guarantee our instruments against manufacturing defects, but the lifespan of reusable instruments lies within proper handling and care. To help your instruments preserve their initial conditions, we strongly recommend you to read the instructions below carefully before use.

A common misconception that “stainless steel” or “titanium” have extreme durability and are indestructible is in need of correction: these metals still might be affected by chemical, mechanical, thermal attacks and etc. However, if you are aware of metal characteristics and understand how to handle them, the lifespan of the instruments may be enlarged.

A particular care should be taken after microsurgical instruments as they have very delicate working tips. These instructions are general recommendations, cleaning guidelines of the solutions, equipment manufacturer and your institution, especially those regarding temperature, time of exposure and concentration, should be observed.

### INSPECTION

It is essential that the instrument is inspected before use. Please conduct this inspection under a microscope or magnification lens. If a problem is detected, notify us immediately. Once the instrument is examined and accepted, IT SHOULD BE CLEANED BEFORE PLACING IT IN THE STERILIZATION TRAY.

### Stage 1: PRE-STERILIZATION CLEANING

Never skip this cleaning stage as residues on instruments such as care agents and the ones of package materials may form stains and depositions in course of sterilization.

It is imperative to follow the rules:

1. As much moisture as possible must be eliminated from all instrument's parts since moisture promotes corrosion.
2. Only detergents and cleaners specially designed for use on surgical stainless steel or titanium instruments are acceptable for use in all the cleaning process. Cleaning guidelines of the solution manufacturer and your institution should be observed.
3. Thorough cleaning immediately after use is essential for the longevity of the instrument. We recommend that the established surgical instrument cleaning procedures of your institution be followed using these instructions as a guideline.
4. The cleaning/disinfecting solutions should be exchanged daily.

### STEPS OF MANUAL CLEANING SOLUTION

1. For effective cleaning of instruments it is recommended to start pre-treatment as soon as possible, no later than 30 minutes after surgery is completed. The cleaning/disinfection should be carried out within the next two hours.
2. Use **distilled/demineralized water** to prepare the working solution. Use chemicals with non-protein-fixing process and with/without anti-microbial effects. Prepare the solution according to the manufacturer's instructions. Water layer above the instruments should be no less than 1 cm (.39 inches). Water temperature should be as specified in the manufacturer's instructions.
3. Instruments with hinges and joints must be handled open. The detachable products should be disassembled prior to be immersed into the solution. Products with locks should be immersed open with preliminary several working movements done inside the solution for its better penetration into hard-to-reach areas of the instruments. Make sure that there are no air bubbles in the cavities and all the inner surfaces are affected.
4. Carry out disinfection according to the mode, indicated in the instructions of product manufacturer. **We recommend soaking instruments in a detergent with pH level between 6-9 for 10 min at 40°C/104°F.** Make sure the disinfectant is free of aldehydes, glutaraldehydes. The solution should not foam. Stainless steel tools must not be exposed for a long time to media which can promote corrosion (for example, chloride or iodine ions). This also applies to the vapors of the substances mentioned.

**WARNING! Do not immerse stainless steel instruments in an isotonic solution (e.g. physiological saline solution) as stress corrosion cracking and pitting may occur.**

5. Wash each product with a brush or a cotton-gauze sponge. Use a syringe to wash the lumens of the instruments. Remove all macroscopically visible dirt.

**WARNING! Never use abrasive powders or steel wool to remove stubborn stains – these can damage the superfine finish of an instrument and can actually help cause corrosion of stainless instruments.**

6. Place the products in a container with **distilled/demineralized water** and wash off the remaining solution with thorough rinsing of all lumens for 5 minutes. Repeat the procedure if necessary.
7. Then rinse with distilled water to prevent spotting. Instruments with lumens should be flushed out at least five times at the beginning and at the end of the cleaning (10 ml/0.34 fl.oz distilled or deionized water to be used each time).
8. Dry instruments carefully before sterilization with a hot air blower or lint-free cloth. Compressed air is preferred. Sterile compressed air should be used to insufflate cavities of the instruments.
9. The cleaning results must be visually inspected. The instruments must be visibly clean.

## Stage 2: CLEANING

### MANUAL CLEANING PROCESS

#### ULTRASONIC CLEANING

As some instruments may become heavily soiled during the surgery, the additional cleaning in the ultrasonic bath will be required.

The following rules should be followed:

1. Place the instruments on a silicone mat inside the ultrasonic bath.
2. Fill the bath with room temperature water. **The temperature higher than 45°C (113°F) can lead to encrustation due to denaturation of the protein.**
3. Use detergent to soak the instruments. A **distilled/demineralized water** should be used to prepare the working solution. Make it according to the manufacturer's instructions. Newly prepared cleaning solutions require degassing prior to the first use.
4. Place instruments next to each other without stacking them.
5. When carrying out ultrasonic cleaning, all parameters specified by the manufacturer of the cleaning agent, such as exposure time and concentration, must be observed. Cleaning agents must be compatible with instruments.
6. The use of ultrasonic baths and strong cleaning fluids (alkaline pH > 9 or acid pH < 5) can shorten the lifespan of the products. Make sure the appropriate agents are chosen for performing the procedure.
7. When using deionized water or cleaning solution fully submerge the instruments. Change the ultrasonic solution from ultrasound cleaner after each use.

**Instruments with hinges and joints must be handled open to minimize the obscured surface areas. The detachable products should be disassembled prior to be immersed into the solution.**

**Products with locks should be immersed open with preliminary several working movements done inside the solution for its better penetration into hard-to-reach areas of the instruments.**

**WARNING! Special care should be taken to make certain that the instrument does not come into contact with any metal surface of the ultrasonic container, as this could damage the instrument.**

8. Carry out the cleaning procedure. Turn on ultrasonic bath. 3 minutes exposure at frequencies of around 35 kHz would be sufficient. Use soft bristled nylon brush to clean all the parts of the instrument, inside and outside.
9. Place the products in a container with **distilled/demineralized water** and wash off the remaining solution with thorough rinsing of all lumens for 5 minutes. Repeat the procedure if necessary.
10. Then rinse with distilled water to avoid water spots.
11. Dry the instruments before sterilization. A lint free cloth may be used for manual drying. Sterile compressed air should be used to insufflate cavities of the instruments.

**WARNING! DO NOT apply ultrasonic cleaning to diamond knives or instruments with delicate tips (e.g. vitreoretinal and microincisional tips, choppers, hooks, manipulators and etc.)**

#### MANUAL DISINFECTION:

1. Submerge the instruments in the cleaning solution.
2. Make sure to follow the exposure times and concentration of disinfectants and not to combine non-compatible ones.
3. After use of cleaning agent, rinse the instruments with **distilled/demineralized water** at least 5 times and flush the lumens to remove the disinfectant.
4. Repeat if there are still visible impurities on the surface of the instruments.

Manual drying may be done by use of lint free towel or using sterile compressed air to insufflate lumens of the instruments.

### AUTOMATED CLEANING PROCESS

1. Baskets in the form of nets with large holes are recommended to be used in special washing equipment. Be sure to use tool holders in the basket. Place instruments inside them without overloading.
2. Make sure that the large instruments don't obscure other ones and don't create spray shadows.
3. Sort tools by similar metals, avoiding contact between dissimilar ones. This type of contact can cause galvanic corrosion.
4. Use a solution suitable for washing equipment with low foaming property.
5. Use a neutralizer, which not only neutralizes alkali, but also reduces surface tension of the liquid during drying, accelerating it, and minimizing stains.
6. Set the program for the cleaning step. The chosen program must be suitable for the products and include the appropriate number of rinsing cycles.

For automated cleaning and disinfection thermal and chemo-thermal disinfection options are available. During **thermal processes** disinfection is carried out at temperatures above 65°C (149°F). A reprocessing program may include the following steps:

1. Pre-wash with cold water to remove dirt and foaming substances.
2. Cleaning is performed with use of suitable pH-neutral or alkaline products added to hot or cold distilled water at temperatures of 40-60°C (104-140°F) for at least 5 minutes.
3. Intermediate rinse in hot or cold distilled water with acidic neutralizer added in order to facilitate the removal of remaining alkaline disinfectants.
4. Second intermediate rinse in hot or cold distilled water without additives should follow.
5. Thermal disinfection and final rinse is performed at temperatures of 80-95°C (176-203°F).
6. Drying might be carried out in washer/disinfector or in other possible ways. Sterile compressed air should be used to insufflate cavities of the instruments.

**Chemo-thermal disinfection** is suitable for heat-sensitive products. The temperature is limited in all rinsing stages and during the step of drying.

Cleaning is performed normally at < 65°C (149°F). A reprocessing program may include the following steps:

1. Pre-wash with cold water to remove dirt and foaming substances.
2. Cleaning is performed with use of suitable pH-neutral or alkaline products added to hot or cold distilled water at temperatures of 40-60°C (104-140°F) for at least 5 minutes.
3. Intermediate rinse in hot or cold distilled water followed by chemo-thermal disinfection. Special cleaning agent, compatible with machine-disinfection, is used.
4. Intermediate rinse in hot or cold distilled water without additives.
5. Final rinsing with distilled water at higher temperature.
6. Drying might be carried out in washer/disinfector or in other possible ways. Sterile compressed air should be used to insufflate cavities of the instruments.

- **The cleaning device must be regularly maintained, checked and validated in accordance with internal and manufacturer requirements.**
- **When processing the ophthalmic instruments we recommend using the additional intermediate rinsing with water in the washing programs before the final rinse.**
- **Additional rinsing outside the washing equipment is not required.**

A combination of processing stages 1 and 2 is allowed.

**WARNING! Tools with blind holes, long narrow tips (e.g. tips, cannulas, handpieces and etc), hinges (3-joint instruments) need more attention during cleaning process. The temperature at all stages of the process should not exceed 170°C (338°F).**

**Distilled/deionized water is recommended for all the reprocessing cycles as tap water may cause an increase in ions concentrations on the surface of Stainless Steel instruments.**

Aspiration speculums and cannulas with tubes (e.g. Simcoe) require additional cleaning of silicone tubes prior to be sterilized.

First, soak the instrument in the soap solution at temperature of 50°C (122°F) and keep it there for 15 min. After that wash the instrument with brush and cotton/gauze pad. Take the instrument out of soap bath and wash it under streaming water for 3 min. Rinse the instrument with distilled or deionized water. Then attach a syringe filled with warm water into the luer lock and rinse the silicone tubes of the instrument. Finally, blow them with air by forcing one or two syringes full of air through the tubes.

## RECOMMENDED PRODUCTS FOR CARE AND CLEANING

Product name, Manufacturer	Description	Composition	Compatibility
<b>SEKUSEPT Activ</b> , Ecolab Deutschland GmbH	<b>Disinfectant</b> for automatic and manual processing of tools	≥ 30% oxygen-based bleaching agents; <5% non-ionic surfactants, phosphonates; 50% sodium perborate monohydrate; 25% tetraacetylenediamine; active antimicrobial components, nonionic surfactants, corrosion inhibitor; <b>pH of 2% solution: 7.4-8.4</b>	Compatible. Discoloration of metal, residual detergent or water film formation may occur.
<b>Neodisher MediClean Forte</b> , Dr. Weigert GmbH & Co.	<b>Detergent</b> for automatic and manual cleaning of surgical instruments. Prevents reprecipitation of protein residues.	< 5% non-ionic and anionic surfactants; enzymes; <b>pH: 10.4-10.8</b>	Compatible. Discoloration of metal, residual detergent or water film formation may occur.
<b>Neodisher MediKlar</b> , Dr. Weigert GmbH & Co.	<b>Rinser</b> for automatic and manual cleaning of surgical instruments. Recommended for use with MediClean forte. Prevents reprecipitation of protein residues.	< 5% anionic surfactants, polycarboxylates; 5 - 15% non-ionic surfactants also preservatives; 2-octyl-2H-isothiazol-3-one, a mixture of: 5-Chloro-2-methyl-2H-isothiazol-3-one [EC-no.247-500-7] and 2-Methyl-2H-isothiazol-3-one; <b>pH: 5.9-6.9</b>	Compatible
<b>ERIZYME</b> , KiiltoClean FARMOS Oy	<b>Detergent</b> for hand treatment, washer disinfectors and ultrasonic treatment	non-ionic surfactants (< 5%); amphoteric surfactants (< 5%); complexing agent (5-15%); monopropylene glycol (15-30%); anti-foaming agent; enzymes; <b>pH: 7.5</b>	Compatible
<b>ERISAN OXY+</b> , KiiltoClean FARMOS Oy	<b>Disinfectant</b> in disposable sachets	sodium percarbonate 30 - <50%; citric acid 15 - <30%; tartaric acid 5 - <15%; <b>pH: 5.9-6.9</b>	Compatible. Discoloration of metal, residual detergent or water film formation may occur.

**Fully demineralized water for rinsing and correct loading must be used to prevent staining!**  
**WARNING! Hydrogen peroxide H<sub>2</sub>O<sub>2</sub> may discolor titanium instruments.**

The color of titanium instruments may change due to development of different properties of oxide layers. Such discoloration does not bring a safety risk, as well as water stains on the surface of the instruments. They don't affect the biocompatibility, functionality, and lifetime of the instruments. However, discoloration may affect the visual inspection of the tools (e.g. determining residual dirt). To prevent the color change of titanium instruments, use only neutral or mild alkaline cleaning agents. While using them, do not exceed a temperature of 70°C (158°F).

#### LUBRICATION

Moving parts and working mechanisms of the Rumex instruments should be lubricated occasionally with a medical grade instrument lubricant (especially after an ultrasonic bath) to ensure the smooth operation of the working mechanism. The lubricant must be biocompatible, suitable for steam sterilization and vapor-permeable. No silicone oil should be applied. The paraffin/white oil based lubricants are allowed to be used. The following products are recommended - Neodisher IP Spray, Miltex-Integra Spray Lube Instrument Lubricant, Sterilit® i lubricant.

## APPENDIXES

After cleaning process let the instruments cool down to room temperature prior to their actuation, as otherwise metal abrasion may develop when the details of the tools rub against each other. This may destroy the instruments' functionality.

The recommended directions of the instrument lubricant manufacturer and your institution should be observed.

### Stage 3: STERILIZATION

Surgical instruments should be stored at room temperature in dry rooms in the sterilization trays of proper size and lined with soft silicone mats. Instruments should not touch each other. We recommend using protective tips made of soft silicone tubing of the proper size and thickness. Do not use rubber or plastic protective tips, as they can melt during autoclaving and cause damage of instruments.

#### **WARNING! Never store the instruments close to the chemicals.**

Stainless steel and titanium instruments can be sterilized via steam autoclaving, chemical disinfectants, ethylene oxide gas, or even dry hot air. Gas and dry chemical sterilization are the best methods for stainless steel instruments, but it takes a lengthy time period to accomplish the desired result. The most practical method of sterilization is heat or steam, which require less time, however, these methods can be damaging to delicate instruments. Please, be sure that you and the members of your staff have read and understood the instructions supplied by the manufacturer of your particular sterilizer.

#### STERILIZATION CYCLES

Finally, the instrument should be sterilized prior to the next surgical procedure.

#### **WARNING! Only clean, disinfected, and dry products can be sterilized.**

**For lumen instruments (e.g. tips, cannulas, handpieces) the gravity procedure is not suitable!**

RUMEX instruments can be sterilized using any of the following methods:

100% ETO cycles	
Concentration ETO	850±50mg/l
Temperature	37-47°C (99-117°F)
Exposure time	3–4 hours
Humidity	70% RH minimum
Drying Cycle	1 hour

#### **WARNING! ETO method is not recommended for diamond knives sterilization.**

	Steam Autoclaving		"Flash" Autoclaving	
Sterilizer Type	Gravity Displacement	Prevacuum	Gravity Displacement	Prevacuum
Sample Config.	wrapped	wrapped	unwrapped	unwrapped
Temperature°C	+132°C	+132°C	+132°C	+132°C
Temperature°F	+270°F	+270°F	+270°F	+270°F
Exposure Time	15 minutes	4 minutes	3 minutes	3 minutes
Drying Cycle	15-30 minutes	20-30 minutes	10 minutes	10 minutes

#### **WARNING! The sterilization steam must not contain any impurities.**

**Do not apply steam sterilization temperatures exceeding 137°C (280°F).**

**The autoclave drying cycle should be used to avoid oxidation.**

#### **Gas plasma sterilization is not recommended as delicate instruments might be physically damaged when exposed to low pressure.**

The above-mentioned sterilization cycles represent the industry standards and should be capable of producing a sterile device. Due to variations in sterilization equipment and device bioburden in clinical use, RUMEX International Co. is not able to provide specific cycle parameters. It is the responsibility of each user to perform the validation and verification of the sterilization cycle to ensure an adequate sterility assurance level for our products.

**WARNING! Follow the guidelines of the processing times. The rapid sterilization process should be reserved for emergency processing only and should not be used for routine instrument sterilization. Longer sterilization period and higher temperatures can lead to premature aging of instruments.**

**AT THE END OF THE SURGICAL DAY**

Instruments should be washed clean of all residues, dried and inspected after each use. Be sure to inspect every microsurgical instrument at the end of your surgical day. Please conduct this inspection under a microscope or magnification lens. If a damaged instrument is detected, repair or replace it. Washing, drying and inspecting the instrument under magnification helps to ensure that the instrument is kept in proper condition for the next surgical procedure.

### HANDLING OF DIAMOND KNIVES

#### APPLICATION

Ophthalmic microsurgical knives with diamond blades are used for cutting and dissection of tissues during ophthalmic, microvascular, neurosurgical, and plastic surgery.

#### CHARACTERISTICS

The blades are made of diamonds and the handles are manufactured from titanium alloy. The thickness of the diamond blade cutting edge should not exceed 0.2  $\mu\text{m}$ . The blade points must be edged with no visible chips (visible at 100x power magnification). The diamond knife consists of a titanium handle and a diamond blade. The handle is fit with a mechanism providing blade installation and its safe fixation in an operative and non-operative position.

#### USAGE INSTRUCTIONS

1. The diamond blade is very fragile, therefore, each knife must be handled, cleaned, and stored delicately. Avoid blows or vibrations. Any contact of the blade with other instruments or materials should be avoided.
2. Before using a knife, make sure there are no chips on the cutting edge. A microscope with at least 100x power magnification should be used for the inspection.
3. When transporting diamond knives, the blades must be fully retracted into the handles (non-operative position). We recommend the knives to be kept and carried in sterilizing cases or with a PTFE shipping clamp to avoid self-movement. When a knife is not in use, its blade must be retracted into the handle and protected from mechanical damage.
4. Please rotate the movable part of the handle clockwise and fix the blade to set the knife in its operative position. The blade is to be set in the operative position for the surgical operation just prior to usage.
5. After usage, slightly pull the movable part of the handle downwards and rotate counterclockwise to return the blade into its non-operative position. To avoid accidental movements of the spring, please make sure the handle is fixed tightly. When a handle is fixed, a slight click will occur.
6. To install the knife with a micrometer, pull the protective cap down and rotate the bottom part of the handle (with a scale) downwards; the blade will appear. Customize the depth of the blade by screwing the handle; the scale marks will indicate the chosen depth. The scale increment is 0.005 mm. Rotate the handle upwards then put on the protective cap to set the knife in the initial non-operative position.

The service life of the knife varies due to usage and handling. The blade must never be dropped or be in contact with foreign objects. The blade and the spring mechanism need to be handled with care and caution.

**Never disassemble the parts of the knife.**

#### CLEANING

1. Use a syringe with distilled or demineralized water to flush the instrument.
2. Dip the knife (blade retracted) into weak alkaline cleaning solution and keep for 60 minutes at a temperature of 22°C (72°F).
3. The handle of a knife can be cleaned with a soft brush.
4. Flush the instrument with flowing water for 30 seconds, then sluice with distilled water for other 30 seconds; the blade should be pointed down for flushing.

**WARNING! DO NOT apply ultrasonic cleaning to diamond knives.**



We recommend to use a Diamond Knife Cleaning Pack (21-602-1) for gentle cleaning of the blade. The pack contains three solutions that eliminate residual debris off the blade and prepare it for sterilization. Diamond knives can be cleaned in an automatic washer designed for micro-surgical instruments. Please follow the manufacturer's instruction.

**PLEASE OBSERVE THE GENERAL INSTRUCTIONS FOR CARE, CLEANING AND STERILIZATION BEFORE HANDLING THE TOOL!**

Make sure the blade is in its non-operative position (retracted) before sterilization; self-movement must be avoided. We recommend sterilizing the knives in trays specially designed for diamond knives as the silicone holders will help stabilize them.



**WARNING!**

**ETO method is not recommended for diamond knives sterilization.**

**Do not apply steam sterilization temperatures exceeding 137°C (280°F).**

**Gas plasma sterilization is not recommended as delicate instruments might be physically damaged when exposed to low pressure.**

**STORAGE**

Diamond knives must be kept at a temperature from 10 to 25°C (50 to 77°F) and relative air humidity at max. 75% at 25°C (77°F). Indoor air must not contain corrosive additive agents. The blade must be fully retracted into the handle (non-operative position). Self-movement, blows or vibrations must be avoided.

**INSPECTION**

Incoming inspection is obligatory. It includes:

1. Visual examination of the package obtained: no mechanical damages are permitted.
2. Visual inspection of the knife: no mechanical damages such as cracks, chips, oxide scales etc. are permitted; all parts of the knife must be joined smoothly.
3. Blade must be set into the operating/non-operating position without jamming; it must be fixed easily.

Please examine the blade before each operation and never use a knife in the event any defect is noticed.

Damaged knives should be sent for resharpening or blade replacement.

**MANUFACTURER'S WARRANTY**

Manufacturer guarantees knives to be in accordance with the documentation when service and storage instructions are followed by the consumer. We provide a 2 year guarantee for the spring mechanism and titanium parts. The diamond blade can be resharpened or exchanged according to the after-sale service program.

## HANDLING OF VITREORETINAL & MICROINCISIONAL INSTRUMENTS

### APPLICATION

RUMEX Instruments (ophthalmic scissors and forceps for vitreoretinal and microincisional surgery) are designed for various applications in ophthalmic surgery. It is essential that the instrument is cleaned and sterilized before initial use and after each surgery, following as outlined in this instruction brochure.

### CARE AND HANDLING

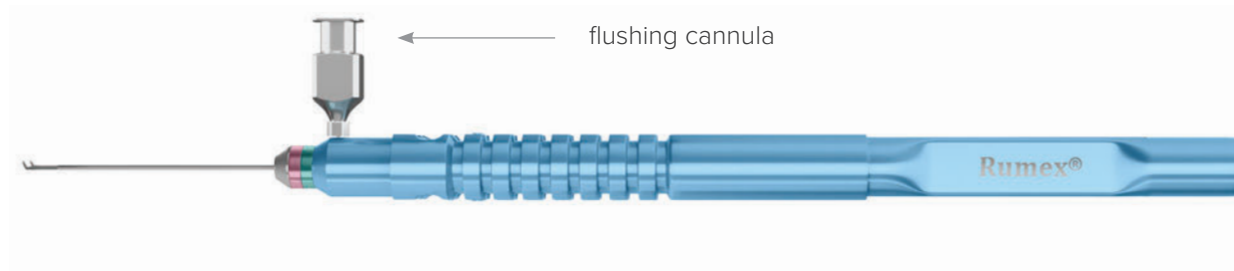
The intraocular tips have a delicate precision mechanism inside. Intraocular fluids will enter this mechanism during surgery. Proteins may also accumulate inside of the mechanism. If these fluids are not promptly and properly cleaned out, it will lead to corrosion or clogs and the possibility of instrument malfunction. Ensure the cleaning procedure is implemented after each surgery — warranty shall not extend to instruments that have been improperly handled. One-piece and two-piece vitreoretinal instruments are cleaned by use of special adapter and cannula.

### CLEANING OF TWO-PIECE VITREORETINAL INSTRUMENTS



1. Unscrew the tip from the handle, then attach flushing adapter 12-000T.
2. Flush the tip with distilled or demineralized water by connecting a syringe filled with water to adapter.
3. Flush the tip with alcohol - this will remove the water and facilitate drying.
4. Dry the tip by forcing one or two syringes full of air through tip. Pressurized air is recommended, as it flushes out debris and fluid more efficiently than syringe forced air. Thoroughly dry handle, tip and cup.
5. Handle should be soaked in distilled or demineralized water for two minutes.
6. Dry with surgical sponge.
7. Lubricate joints in handle with instrument milk and work the mechanism by pressing the key.

### CLEANING OF ONE-PIECE VITREORETINAL INSTRUMENTS

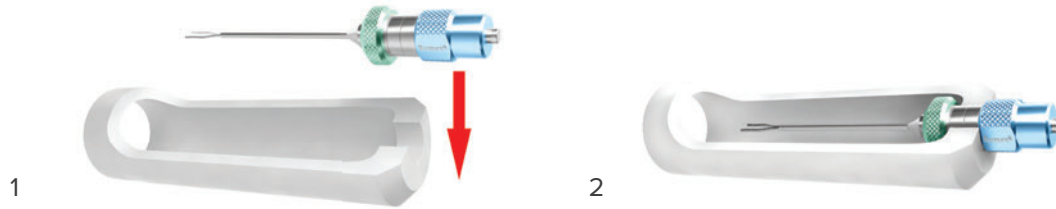


1. Put the instrument into PTFE protector (provided).
2. Soak it in the soap solution at temperature of 50°C (122°F) and keep it there for 15 min.
3. Wash the handle with brush and cotton/gauze pad.
4. Take the instrument out of soap bath and wash it under streaming water for 3 min.
5. Rinse the instrument with distilled or demineralized water.
6. After that flush the instrument with alcohol solution. It will remove water and contribute to drying.
7. Next, adjust the cannula on the luer of the syringe and fill the syringe with distilled or demineralized water.
8. A tube of the cannula then should be inserted into the port, situated at the base of the barrel near the colored wheels.
9. Flush the tube of the instrument and the tip with distilled or demineralized water by forcing syringe plunger. Then repeat the procedure with use of alcohol solution.
10. Finally, blow the air inside the tube by forcing it from the syringe into the port of the instrument. Pressurized air is recommended, as it flushes out debris and fluid more efficiently than syringe forced air.

**WARNING! DO NOT apply ultrasonic cleaning to vitreoretinal and microincisional tips.**

**STORAGE**

Surgical instruments should be stored in the sterilization trays of proper size lined with soft silicone mats. Instruments should not touch each other. We recommend using safety protectors made of PTFE, which are autoclavable. The photos below illustrate the way to fix a tip in a protector. Please insert the tips into PTFE protectors as shown in the picture:



1. Match the nut indicating the gauge with the hub, press the tip gently. Make sure the branches do not touch the protector
2. The tips in their final position — safely fixed by the protector.

Note: the tips should be sterilized in the protector to avoid any contact with other instruments.

**WARNING! Never store the instruments close to the chemicals.**

**PLEASE OBSERVE THE GENERAL INSTRUCTIONS FOR CARE, CLEANING AND STERILIZATION BEFORE HANDLING THE TOOL!**

**WARNING!**

Gravity displacement is not suitable for vitreoretinal and microincisional tips.

Do not apply steam sterilization temperatures exceeding 137°C (280°F).

Gas plasma sterilization is not recommended as delicate instruments might be physically damaged when exposed to low pressure.

## ABBREVIATIONS

BRVO	Branch Retinal Vein Occlusion
BSS	Balanced Salt Solution
CPM	Cuts per Minute
CRVO	Central Retinal Vein Occlusion
DALK	Deep Anterior Lamellar Keratoplasty
DLEK	Deep Lamellar Endothelial Keratoplasty
DMEK	Descemet's Membrane Endothelial Keratoplasty
DSAEK	Descemet's Stripping Automated Endothelial Keratoplasty
DSEK	Descemet's Stripping Endothelial Keratoplasty
ECCE	Extracapsular Cataract Extraction
ERM	Epiretinal Membrane
I/A	Irrigation / Aspiration
ICL	Implantable Collamer Lens
ICRS	Intrastromal Corneal Ring Segments
ID	Inner Diameter
ILM	Internal Limiting Membrane
IOL	Intraocular Lens
LASEK	Laser-Assisted Sub-Epithelial Keratectomy
LASIK	Laser-Assisted in Situ Keratomileusis
LHD	Left Handed Doctor
LRI	Limbal Relaxing Incisions
MICS	Micro Incision Coaxial Surgery
MVR	Micro-Vitreoretinal
OD	Outer Diameter
OVD	Ophthalmic Viscosurgical Device
PFC	Perfluorocarbon
PRK	Photorefractive Keratectomy
PVD	Posterior Vitreous Detachment
PVR	Proliferative Vitreoretinopathy
ReLEx SMILE	Refractive Lenticule Extraction Small Incision Lenticule Extraction
RD	Retinal Detachment
RHD	Right Handed Doctor
SMILE	Small Incision Lenticule Extraction
SS	Stainless Steel

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NF EN 17665+A1:2023







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