



**SURGI EDGE**®

# Ophthalmic Instruments





**SURGI EDGE**®

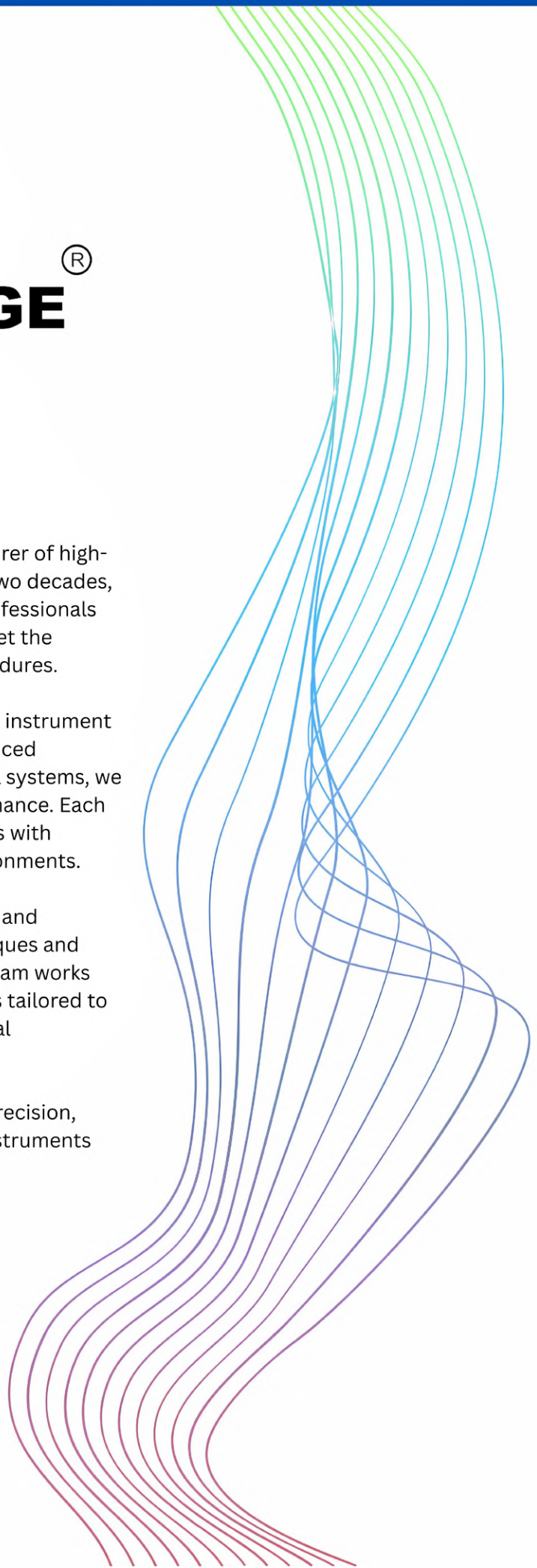
## About Surgi Edge

Founded in 1998, Surgi Edge is a trusted manufacturer of high-quality ophthalmic surgical instruments. For over two decades, we have been dedicated to supporting eye care professionals with precision-crafted instruments designed to meet the demanding standards of modern ophthalmic procedures.

Our commitment to excellence is reflected in every instrument we produce. Using premium-grade materials, advanced manufacturing processes, and strict quality control systems, we ensure accuracy, durability, and consistent performance. Each product is carefully engineered to provide surgeons with reliability and confidence in delicate surgical environments.

At Surgi Edge, we continuously invest in innovation and improvement to align with evolving surgical techniques and international quality standards. Our experienced team works closely with clients to deliver dependable solutions tailored to the needs of hospitals, surgical centers, and medical distributors worldwide.

Since 1998, Surgi Edge has built its reputation on precision, integrity, and customer satisfaction – delivering instruments that support excellence in vision care.



## **Terms & Conditions**

Surgi Edge is committed to providing high-quality surgical instruments manufactured in accordance with international standards. Please review the following terms and conditions applicable to all products listed in this catalogue.

### **Product Information**

All product specifications, descriptions, and images provided in this catalogue are for general guidance only and are subject to change without prior notice. While every effort has been made to ensure accuracy, Surgi Edge reserves the right to make improvements or modifications to products as necessary.

### **Warranty**

All Surgi Edge surgical instruments are warranted against manufacturing defects in materials and workmanship. This warranty covers only issues that arise from the manufacturing process and does not extend to damage caused by misuse, improper handling, or normal wear and tear.

- Warranty coverage is valid for a period of 30 days from the date of purchase.
- Warranty claims must be supported by proof of purchase and product identification.

### **Return Policy**

Returns will only be accepted for products with verified manufacturing defects. To initiate a return:

- The customer must notify Surgi Edge within 7 days of receiving the product.
- The item must be unused, in its original packaging, and accompanied by the original invoice or proof of purchase.
- All returns are subject to inspection by our Quality Assurance Department before a refund, replacement, or credit is issued.

Returns for any reason other than manufacturing defects will not be accepted.

### **Limitation of Liability**

Surgi Edge shall not be liable for any direct or indirect damages arising from the use or inability to use any of its products. It is the responsibility of the user to ensure instruments are handled and maintained in accordance with industry standards and applicable sterilisation protocols.

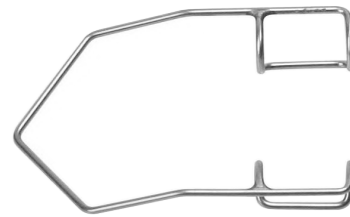
# TABLE OF CONTENTS

<b>Speculum</b>	<b>5</b>
<b>Retractor</b>	<b>11</b>
<b>Forcep</b>	<b>13</b>
<b>Scissor</b>	<b>35</b>
<b>Needle holder</b>	<b>38</b>
<b>Spatula / Dissector</b>	<b>43</b>
<b>Chopper</b>	<b>47</b>
<b>Manipulator / Rotator</b>	<b>48</b>
<b>Lens loop / Curette / Spoon</b>	<b>50</b>
<b>Hook</b>	<b>52</b>
<b>Fixation ring / caliper</b>	<b>58</b>
<b>Corneal marker</b>	<b>59</b>
<b>Lacrimal instrument / Miscellaneous</b>	<b>63</b>
<b>Electro-diathermy</b>	<b>67</b>
<b>Retinal instrument</b>	<b>68</b>
<b>Cannula</b>	<b>70</b>
<b>Cleaning and sterilisation instructions</b>	<b>77</b>

**Barraquer Wire Speculum**

GO-101100 Closed -10mm blade ● ●

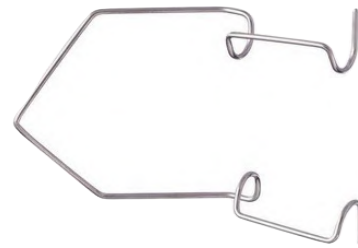
GO-101111 Closed -15mm blade ● ●



**Barraquer Wire Speculum**

GO-101121 Open -10 mm blade ● ●

GO-101124 Open -15 mm blade ● ●

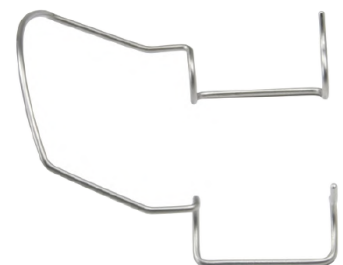
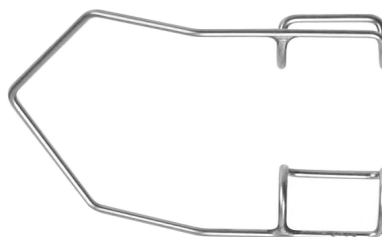


**Wire Speculum- Nasal**

GO-101130 Solid -15mm blade ● ●

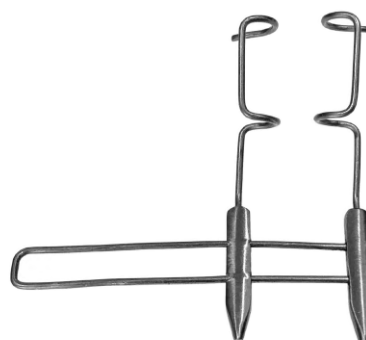
GO-101131 Closed -15mm blade ● ●

GO-101132 Open -15mm blade ● ●



**Wire Speculum**

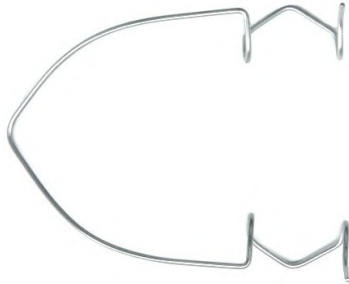
GO-101135 Sliding ●



### McINTYE Wire Speculum

GO-101140 V-shape Open -14mm blade ● ●

GO-101141 V-shape Closed -14mm blade ● ●



### Wire Speculum

GO-101151 Solid -10mm blade ● ●

GO-101153 Solid -15mm blade ● ●



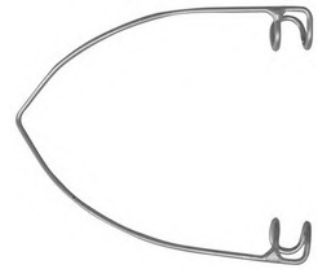
### Alphonso Infant lid speculum

GO-101160 Closed Blade ● ●



**Infant lid speculum**

GO-101163 Closed -4mm blade ● ●



**Sauer Speculum**

GO-101165 Solid -8mm Blade ●



**Cook Speculum**

GO-101170 Solid 10mm blade ●

GO-101172 Solid 15mm blade ●



**Murdoch Speculum**

GO-101180 Closed -10mm blade -small ●

GO-101181 Closed -15mm blade -big ●



### William Eye Speculum

GO-101190 With locking screw -small ●

GO-101191 With locking screw -medium ●●



### Lancaster Eye Speculum

GO-101195 Lancaster Eye Speculum -Solid blade ●



### Lester - burch eye speculum

GO-101197 Lester - burch eye speculum ●



### Castrovijo Speculum

GO-101200 Castrovijo Speculum ●



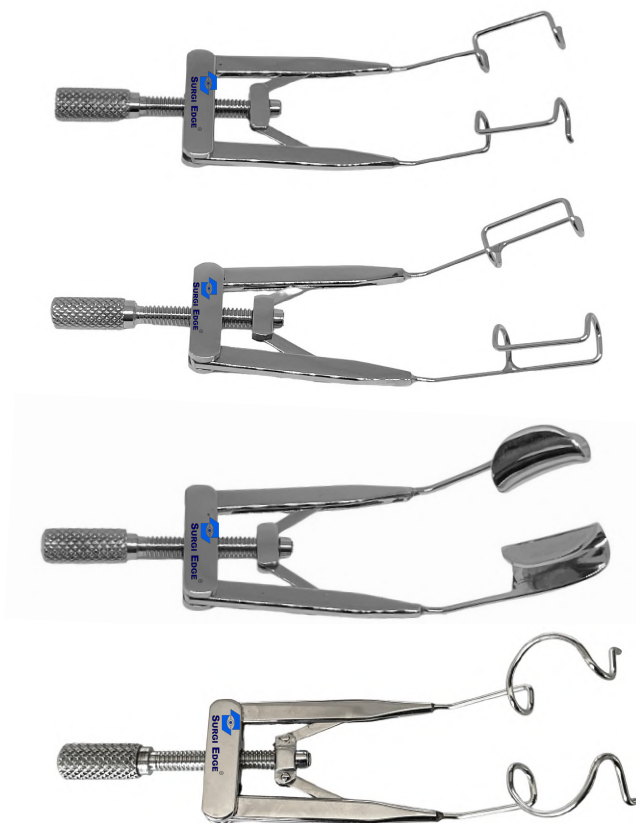
### Fishkind Speculum

GO-101201 Fishkind Speculum ●



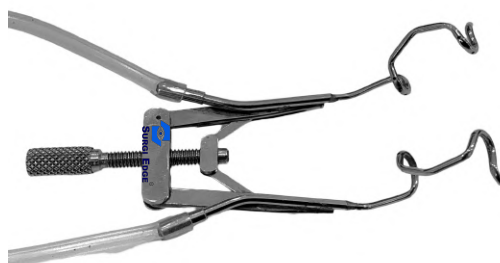
**Lieberman speculum**

- GO-101210 Adult- open blade- 15mm ●●
- GO-101211 Child- open blade-10mm ●●
- GO-101215 Adult- closed balde- 15mm ●●
- GO-101216 Child- closed balde- 10mm ●●
- GO-101220 Solid- 15mm ●●
- GO-101221 Solid - 10mm ●●
- GO-101223 Solid- 15mm- Reversible ●●
- GO-101224 Solid- 10mm- Reversible ●●
- GO-101225 V-shape blade - 15mm ●●
- GO-101230 Round blade ●●



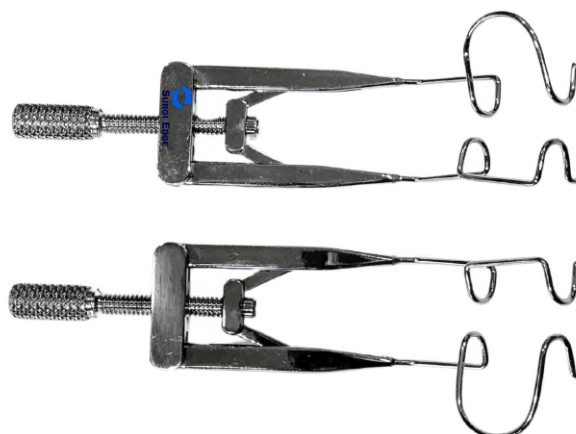
**Lieberman speculum -ASPIRATION**

- GO-101240 Open blade ●
- GO-101241 V shape blade ●
- GO-101242 Round Blade ●



**Speculum for Glaucoma**

- GO-101270 Open - 15mm blade - Left ●●
- GO-101271 Open - 15mm blade - Right ●●



**Lieberman speculum -Nasal**

- GO-101310** Open -15 mm blade ● ●
- GO-101315** Closed - 15mm blade ● ●
- GO-101320** Solid - 15mm Blade ● ●



### Schepens Orbital Retractor

GO-102010 Schepens Orbital Retractor ● ●



### Jaffe Lid Retractor

GO-102020 Adult -15mm blade ●

GO-102025 Child -8mm blade ●



### Desmarres Lid Retractor

GO-102030 Solid blade-No.1 -11mm ● ●

GO-102031 Solid blade-No.2 -13mm ● ●

GO-102032 Solid blade-No.3 -15mm ● ●

GO-102033 Solid blade-No.4 -17mm ● ●



### Helveston Tissue Retractor

GO-102040 Retractor No.1 ● ●

GO-102041 Retractor No.2 ● ●

GO-102042 Retractor No.3 ● ●



### Knapp Lacrimal Retractor

GO-102050 4 Blunt prongs ● ●

GO-102055 4 Sharp prongs ● ●



### Stevenson Lacrimal Sac Retractor

GO-102060 3\*3 blunt prong ●

GO-102065 Solid Blade ●



### Agricola Lacrimal Sac Retractor

GO-102070 3\*3 prong ●



**Colibri Tissue Forcep**

GO-105005 1\*2 teeth -0.12mm ● ●



**Castroviejo Colibri**

GO-105011 Tying Platform  
-1\*2 teeth ● ●



**Botvin Iris Forcep**

GO-105015 1\*2 Teeth ● ●



**Colibri Tissue Forcep**

GO-105020 Polack Suture Forcep  
-1\*2 teeth ● ●



**Iims Forcep**

GO-105025 1\*2 teeth ● ●



**Hofmann-Polack Corneal Suture Forcep**

GO-105030 1\*1 teeth ●



### Corneal Tissue Forcep

GO-105050 Straight -1\*2 Teeth -0.12mm ● ●

GO-105052 Straight -1\*2 Teeth -0.12mm-  
round handle ●

GO-105060 Straight -1\*2 Teeth -0.12mm ● ●

GO-105062 Straight -1\*2 Teeth -0.12mm-  
Round handle ●

GO-105070 Straight -1\*2 Teeth -0.5mm ● ●



### Bonn Irish Forcep

GO-105085 1\*2 teeth ● ●



### Kelman-McPherson

GO-105105 1\*2 teeth -0.12mm ● ●



### St.Martin Forcep

GO-105135 1\*2 teeth ● ●



### B.P. Hess Iris Frocep

GO-105140 1\*2 Teeth ●



**Tissue Forcep**

GO-105150 Straight -1\*2 teeth ●

GO-105155 Curved -1\*2 teeth ●



**Adson Tissue Forcep**

GO-105165 Straight -1\*2 teeth ●



**Sauer Fixation Forcep**

GO-105180 1\*2 teeth ●



**Stern-Castroviejo Fixation Forcep**

GO-105185 straight -1\*2 teeth- with lock ●



**Moody Fixation Forcep**

**GO-105188** Curve -1\*2 teeth  
-with lock- Right ● ●

**GO-105189** Curve -1\*2 teeth  
-with lock- Left ● ●



**Troutman Superior Rectus Forcep**

**GO-105200** 1\*2 teeth ● ●



**Fixation forcep**

**GO-105210** 2\*3 teeth ●

**GO-105215** 5\*6 teeth ●



**Hoskin Forcep**

**GO-106016** Hoskin no.16 -Curved ●



**GO-106018** Hoskin no.18 -Straight ● ●



**GO-106019** Hoskin no.19 -Straight ●

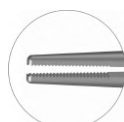


**GO-106022** Hoskin no.22 ●

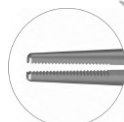


### Dressing Forcep

GO-107010 Serrated tip- straight ● ●

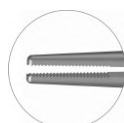


GO-107015 Serrated tip- Curved ● ●



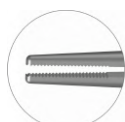
### Bishop Harmon Dressing Forcep

GO-107020 Serrated Fine tip ● ●



### Adson Dressing forcep

GO-107030 Serrated tip -Straight ●



### Bonaccolto Conjunctiva Forcep

GO-107040 Vertical serration ●



**Nugent Utility Forcep**

GO-107050 Nugent Utility Forcep ●





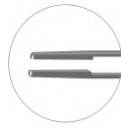
**Jaffe Utility Forcep**



GO-107060 Curved -Smooth Jaws ●



### Harms Tying Forcep



GO-108020 Straight -Tying platform  

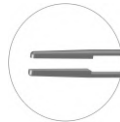




GO-108025 Curve -Tying platform  



### Tennant Tying Forcep

GO-108030 Knurling grip -  
Straight -Tying Platform  



GO-108035 Knurling grip -  
Curve -Tying Platform  



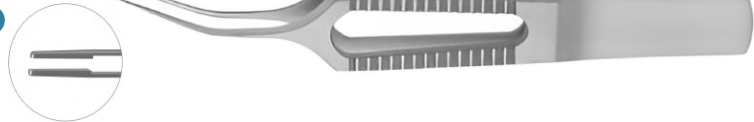
### Helveston Tying Forcep

GO-108060 Straight ● ●



### Gerl Tying Forcep

GO-108070 Curve- small body ● ●



### Kelman Mcpherson

GO-108110 Angle - 5mm ● ●

GO-108115 Angle - 8mm ● ●

GO-108120 Angle - 11mm ● ●



**Utrata Capsulorhexis Forcep**

GO-108130 Angle ●●



**Masket Capsulorhexis Forcep**

GO-108135 Vaulted shank ●●



**Capsulorhexis Forcep**

GO-108140 Angled Round Handle ●



**Utrara Capsulorhexis Forcep**

GO-108145 Vaulted Round Handle ●



**Inamura Capsulorhexis Forcep**

GO-108150 Angled ●



**Inamura Capsulorhexis Forcep Micro**

GO-108151 Vaulted ●



**Inamura Capsulorhexis Forcep Micro Flate Handle**

GO-108153 Vaulted ●



**Inamura Capsulorhexis Forcep**

GO-108155 Angled - Spring action ●



**Florakis Endothelial Forcep**

GO-108160 Reversed capsulorhexis ●●



**Akahoshi Capsulorrhesis Forcep**

GO-108170 Angled ●



**Hadipukar Capsulorhexis Forcep**

GO-108180 Angled ●●



**Micro Capsulorhexis**

GO-108190 20g ●●

GO-108193 23g ●●

GO-108195 25g ●●



● -Stainless Steel  
● -Titanium

**Jewelers Forcep No.1**

GO-108210 Straight ● ●



**Jewelers Forcep No.3**

GO-108220 Straight fine tip-  
long handle ●



**Jewelers Forcep No.4**

GO-108225 Straight fine tip ● ●



**Jewelers Forcep No.5**

GO-108230 Straight fine tip ●



**Jewelers Forcep**

GO-108235 Angled ● ●



**Jewelers Forcep No.7**

GO-108240 curved ●



**Dodick Nucleus Cracker**

**GO-109010** Dodick Nucleus Cracker ●



**Ernest Nucleus Cracker**

**GO-109020** Ernest Nucleus Cracker ●



**Alfonso Nucleus Grasping Forcep**

**GO-109040** with interlocking teeth ●



**Hu Femto Forcep**

**GO-109060** Femto Forcep ●



**Arruga Capsule Forcep**

**GO-109120** Arruga Capsule Forcep ●



**Phaco PreChopper**

GO-109150 Straight ● ●



**Phaco PreChopper**

GO-109155 Angled ● ●



**Akahoshi Phaco PreChopper Combo**

GO-109170 Straight ● ●



**Bechert Lens Holding Forcep**

GO-110010 Bechert Lens Holding Forcep ● ●



**Shepard Lens Holding Forcep**

GO-110020 Shepard Lens Holding Forcep ● ●



**Blaydes Lens Holding Forcep**

GO-110030 Blaydes Lens Holding Forcep ● ●



**Clayman Lens Holding Forcep**

GO-110040 Angled Jaw ●



**Livernois IOL Holding Forcep**

GO-110050 Straight ● ●



**Livernois IOL Folding Forcep**

GO-110055 Angled ● ●



**Iris Claw Lens Forcep**

GO-110080 Iris Claw Lens Holding ● ●



**Daljeet lens Inserting Forcep**

GO-110081 Daljeet lens inserting Folding ● ●



**Dodick IOL Folding Forcep**

GO-110084 Dodick IOL Folding ●



**Buratto IOL Inserting Forcep**

GO-110105 Buratto IOL Inserting ● ●



**Ernest McDonald IOL Inserting Forcep**

GO-110110 Ernest McDonald IOL Inserting Forcep ●



**IOL Holding Forcep**

GO-110200 21g ● ●



**ICL Forcep**

GO-110220 20g ●



**Chalazion Forcep**

GO-111010 Lambert -Round -8mm ●

GO-111015 Hunt -Round -10mm ●

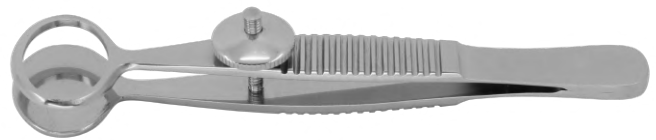
GO-111020 Hunt -Round -12mm ●



**Chalazion Forcep**

GO-111050 Baird - Oval- small 11x14mm ●

GO-111060 Francis- Oval- medium 13x20 mm ●



**Chalazion Forcep**

GO-111090 Wies ●



### Snellen Entropion Clamp

- GO-111210 Right - Small ●
- GO-111215 Left - Small ●
- GO-111220 Right- Regular ●
- GO-111225 Left - Regular ●



### Jameson Muscle Forcep

- GO-111250 Slide Lock -Right ●
- GO-111251 Slide Lock -Left ●



### Berke Ptosis Forcep

- GO-111260 Slide Lock Longitudinally Jaws ●



### Ptosis Lid Clamp

- GO-111270 Slide Lock - Putterman Clamp ● ●



### Waddell Clamp

- GO-111280 Small ●
- GO-111281 Medium ●



### Mosquito Artrey Forcep

- GO-112010 3 1/2 Inch Straight ● ●
- GO-112020 3 1/2 Inch Curved ● ●
- GO-112030 4 1/2 Inch Straight ● ●
- GO-112040 4 1/2 Inch Curved ● ●
- GO-112050 5 1/2 Inch Straight ● ●
- GO-112060 5 1/2 Inch Curved ● ●



### Meibomian Gland Compressor

- GO-113111 #1- 4x3 mm ● ●
- GO-113112 #2- 6x5 mm ● ●
- GO-113113 #3 -9x4 mm ● ●



### Meibomian Gland Compressor

- GO-113120 #5- 8x4 mm ● ●



**Meibomian Gland Compressor**

GO-113122 Rolling Jaw textured ● ●



**Battle Eyelid Gland Compressor**

GO-113125 Gland Compressor ● ●



**Epilation Forcep**

GO-113140 Epilation Forcep ● ●



**Barraquer Cilia Forcep**

GO-113150 Angled ● ●



**Punctual Plug Forcep**

GO-113160 Angled ●

**Ring Forcep**

GO-113170 Straight ● ●



**Vitrectomy Lens Holding Forcep**

GO-113180 Vitrectomy Forcep ●

**Trocar Forcep**

GO-113183 Trocar Forcep ● ●



**Buratto LASIK Flap Forcep**

GO-113210 Buratto LASIK Flap Forcep ●



**DMEK Grasping Forcep**

GO-113230 Grasping forcep ●

**DMEK Forcep**

GO-113232 DMEK Forcep ● ●



**DMEK Forcep**

GO-113234 DMEK Forcep 23g ● ●



---

**Watzke Sleeve Spreading Forcep**

GO-113310 Watzke Sleeve Spreading Forcep ●



---

**Rosenwasser Donor Lamella Inserting Forcep**

GO-113320 Rosenwasser Donor Lamella Inserting Forcep ● ●



---

**Bulldog Serrefine Clamp**

GO-113350 Bulldog Serrefine Clamp ●



---

**Baby Jones Towel Clamp**

GO-113360 Baby Jones Towel Clamp ●



---

**Backhaus Towel Clamp**

GO-113370 Small ●

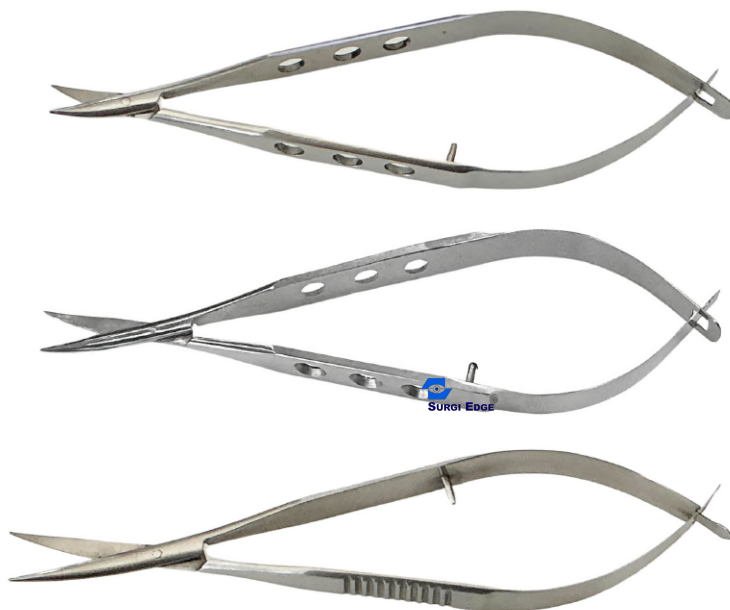


**Wescott Tenotomy Scissor**

GO-115010 Small ● ●

GO-115020 Medium ● ●

GO-115030 Big ● ●



**Castroviejo Corneal Scissor**

GO-115110 Right -Fine Tip ● ●

GO-115120 Left -Fine Tip ● ●



**Universal Corneal Scissor**

GO-115150 Regular Blade ● ●

GO-115160 Fine Tip ● ●



### Corneal Scissor

GO-115170 Round Knurling Handle ●



### Gillis Vannas Scissor

GO-115208 Angled -8mm Blade ●

GO-115211 Angled -11mm Blade ●



### Gillis Vannas Scissor

GO-115215 Curved -5mm Blade ●

GO-115218 Curved -8mm Blade ●

GO-115221 Curved -11mm Blade ●

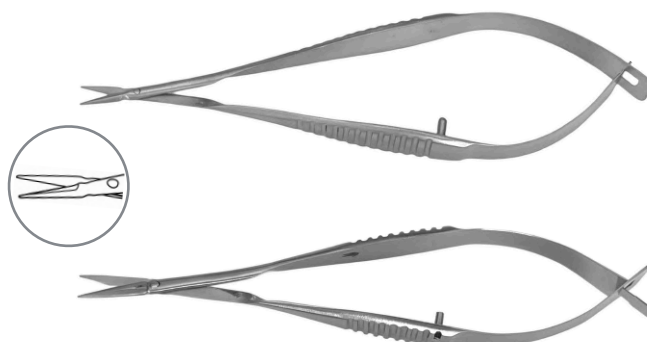


### Vannas Scissor

GO-115230 Straight -5mm Blade ●

GO-115238 Straight -8mm Blade ●

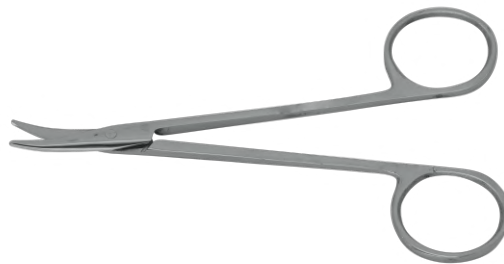
GO-115241 Straight -11mm Blade ●



**Stevens Tenotomy Scissor**

GO-115250 Straight ● ●

GO-115255 Curve ● ●

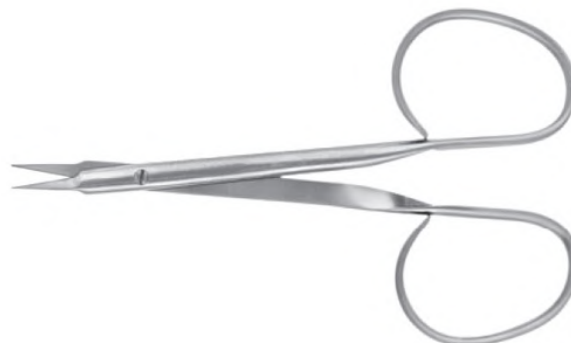


**Stitch Scissor**

GO-115310 Curve-Small ●

GO-115320 Curve-Medium ●

GO-115330 Straight- medium ●



**Ring Eye Scissor**

GO-115350 3 1/2 Inch Curved ●

GO-115355 3 1/2 Inch Straight ●

GO-115360 4 1/2 Inch Curved ●

GO-115365 4 1/2 Inch Straight ●

GO-115370 5 1/2 Inch Curved ●

GO-115375 5 1/2 Inch Straight ●



**knapp Strabismus Scissor**

GO-115400 Straight ●

GO-115410 Curved ●



---

### Metzenbaum Dissecting Scissor

GO-115420 Gentle Curve ●



---

### Utility Scissor

GO-115440 Blunt & Sharp Blade tip ●



---

### Enucleation Scissor

GO-115450 Blunt tip- Medium Curve ●

GO-115455 Blunt tip- Large Curve ●



### Iris Scissor

GO-115500 Straight ●

GO-115505 Curve ●



### Barraquer Iris Scissor

GO-115520 Barraquer Iris Scissor ●



### Capsulotomy Scissor

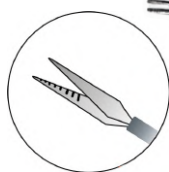
GO-115540 Straight -15mm Blade ● ●

GO-115545 Curved -15mm Blade ● ●



### IOL Cutting Scissor

GO-115560 18g ● ●



**Castroviejo Needle Holder**

USP 6-0 to 9-0

- GO-118010 5.5" -Straight ● ●
- GO-118015 5.5"-Curved ● ●
- GO-118020 5.5"- With Lock -Straight ● ●
- GO-118025 5.5"- With Lock - Curved ● ●



**Barraquer Needle Holder**

USP 6-0 to 9-0

- GO-118110 4.5"- Straight ● ●
- GO-118113 4.5"- With lock- Straight ● ●
- GO-118115 4.5"- Curved ● ●
- GO-118118 4.5"- With lock- Curved ● ●



### Barraquer Needle Holder

USP 10-0

- GO-118150 4.5"- Micro Jaw- Straight ● ●
- GO-118153 4.5"- With lock- Micro Jaw- Straight ● ●
- GO-118155 4.5"- Micro Jaw- Curved ● ●
- GO-118158 4.5"- With Lock- Micro Jaw- Curved ● ●



### Mcperson Needle Holder

USP 8-0 to 11-0

- GO-118210 Without Lock -Straight ● ●
- GO-118215 Without Lock -Curved ● ●
- GO-118220 With Lock- Straight ● ●
- GO-118225 With Lock - Curved ● ●



### Troutman Needle Holder

- GO-118275 Angle Jaw ● ●



---

**Kalt Needle Holder**

**GO-118300** With Lock -Straight ● ●



**Culler Iris Spatula**

GO-120010 Culler Iris Spatula ● ●



**Wheeler Double End Spatula**

GO-120020 Double End Spatula- Curved ● ●



**Barraquer Iris Spatula**

GO-120030 0.25mm angled ● ●

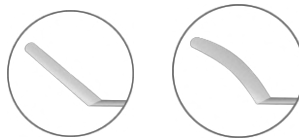
GO-120040 0.5mm Angled ● ●

GO-120041 1mm Angled ● ●

GO-120042 1mm Vaulted ● ●

GO-120043 2mm Angled ● ●

GO-120045 2mm Vaulted ● ●



**Castroveijo Synechia**

GO-120050 Double end Spatula- 0.5mm ● ●



**Girard Synechia Spatula**

GO-120060 0.5mm ● ●



**Castroveijo Cyclodialysis Spatula**

GO-120080 0.5mm / 0.25mm ● ●



**Kimura Spatula**

GO-120090 Kimura Spatula ● ●



**Paton Spatula & Spoon**

GO-120100 Paton Spatula & Spoon ● ●



**Koch Nucleus Spatula**

GO-120110 Nucleus Spatula ● ●



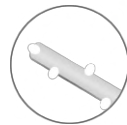
**Jaffe Lens Spatula**

GO-120120 0.5mm ● ●



**Hirschman Lens Spatula**

GO-120130 notches 0.5mm ● ●



**Endothelial Glide Spatula**

GO-120140 Tunnel Shaped Spatula ● ●



**Iris Repositor**

GO-120150 Iris Repositor ● ●



**Donnenfeld Femto Spatula**

GO-120210 Sharp ● ●

GO-120220 Blunt ● ●



**Fukasaku LASIK Spatula**

GO-120250 Fukasaku LASIK Spatula ● ●



**LASIK Flap Lifter with sinskey hook**

GO-120260 LASIK Flap Lifter sinskey hook ● ●



**Corneal Dissector**

GO-121010 Angled ● ●

GO-121015 Curved ● ●

GO-121020 Straight ●



**Gill Corneal Dissector**

GO-121025 Curved ● ●



**PRK spatula**

GO-121035 Hockey knife ● ●



**LASEK Camellin Alcohol Well**

GO-121060 8mm / 8.5mm ● ●

GO-121070 9mm / 9.5mm ● ●



**EndoThelial Stripper**

GO-121110 EndoThelial Stripper ● ●



**SMILE Dissector**

GO-121170 SMILE Dissector ● ●



**Corneal Tunnel Maker**

GO-121351 Clockwise ●

GO-121353 Counter-Clockwise ●



**Nagahara Phaco Chopper**

GO-122060 Nagahara Phaco Chopper ● ●

GO-122070 Agrawal Phaco Chopper ● ●

GO-122075 Mirandi Chopper ● ●

GO-122080 Rosen Chopper ● ●

GO-122085 Change chopper ● ●

GO-122090 Sibel Chopper ● ●

GO-122092 Anis Chopper ● ●

GO-122095 Sharp Chopper ● ●

GO-122098 Blunt Chopper ● ●



GO-122060



GO-122070



GO-122075



GO-122080



GO-122085



GO-122090



GO-122092



GO-122095



GO-122098

## Manipulator / Rotator

---

### Lester IOL Manipulator

GO-125010 Angled ● ●

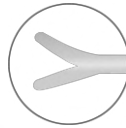
GO-125020 Vaulted Shank ● ●

GO-125030 Straight ● ●



### Bechert Nucleus Rotator

GO-125060 Bechert Nucleus Rotator ● ●



### Clayman Nucleus Rotator

GO-125070 Clayman Nucleus Rotator ● ●



### Drysdale Nucleus Manipulator

GO-125110 Drysdale Nucleus Manipulator ● ●



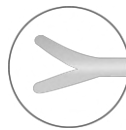
### Hunkeler IOL Manipulator

GO-125120 Hemi Ball tip ● ●



### Bechert Lens Pusher

GO-125130 Y shape ● ●



**Aker Lens Pusher**

GO-125140 Aker Lens Pusher ●



**Pisacano Nucleus Rotator**

GO-125160 Pisacano Nucleus Rotator ●●



**Tennant Nucleus Rotator**

GO-125170 Tennant Nucleus Rotator ●●



**ICL Manipulator**

GO-125180 ICL Manipulator ●



**Graether Collar Button**

GO-125210 Straight ● ●

GO-125220 Angled ● ●



**Sinsky Lens Manipulating Hook**

GO-125233 Angled ● ●

GO-125235 Micro -Angled ● ●

GO-125240 Sinsky Hook Reversed ● ●



GO-125233



GO-125235



GO-125240

**Bonn Micro Iris Hook**

GO-125250 Bonn Micro Iris Hook ● ●



**Lewisky Lens Manipulating hook**

GO-125260 Vaulted shank ● ●



**Kuglen Iris Hook**

GO-125270 straight ● ●

GO-125275 Angled ● ●



**Kuglen Iris Hook -Y Hook**

GO-125277 Angled ● ●



### Fenzl Lens Manipulating Hook

GO-125290 Straight ● ●

GO-125295 Angled ● ●



### Combo



GO-125510 Nagahara Chopper - Sharp Chopper ● ●



GO-125520 Nagahara Chopper - Drysdale ● ●



GO-125530 Kuglen Hook - Sinskey Hook ● ●



GO-125540 Nagahara Chopper - Sinskey Hook ● ●



GO-125550 Lester Hook - Sinskey Hook ● ●



GO-125560 Y Hook - Spatula 0.7mm ● ●



**Lewis Lens Loop**

GO-126210 Small ● ●

GO-126220 Medium ● ●



**New Orleans Lens Loop**

GO-126230 Oval ● ●



**Wilder Lens Loop**

GO-126240 Serrated ● ●



**Alfonso Nucleus Trisector**

GO-126310 Alfonso Nucleus Trisector ●



**Kansas Nucleus Trisector**

GO-126320 Kansas Nucleus Trisector ●



---

### Chalazion Curette

GO-128010 no.1 ● ●

GO-128020 no.2 ● ●

GO-128030 no.3 ● ●

GO-128040 no.4 ● ●



---

### Evisceration Spoon

GO-128070 small ●

GO-128080 Big ●



---

### Wells Enucleation Spoon

GO-128090 Wells Enucleation Spoon ● ●



---

### Capsule Polishing Curette

GO-128110 Capsule Polishing Curette ● ●





---

### Stevens Tenotomy Hook

GO-133010 Stevens Tenotomy Hook ● ●



---

### Helveston Hook

GO-133020 Helveston Hook ● ●

---

### Helveston Muscle Hook

GO-133060 blunt tip - Small ● ●  
GO-133070 blunt tip -Medium ● ●  
GO-133080 blunt tip -Big ● ●



---

### Jameson Muscle Hook

GO-133110 Small ● ●  
GO-133120 Big ● ●



---

### Green Muscle Hook

GO-133130 Green Muscle Hook ● ●



---

### Gass Retinal Detachment Hook

GO-133140 with Hole ● ●



---

### Graefe muscle Hook

GO-133210 No.1 ● ●

GO-133220 No.2 ● ●



---

### Fixation Hook

GO-133320 Sharp Claw ●

### Globe Fixation Ring

GO-135010 with grooves ●

### Hofman Thornton Swivel Fixation Ring

GO-135050 with blunt Teeth  
-16mm dia ● ●



### Thornton Globe Fixation Ring

GO-135060 Blunt teeth - 16mm dia ● ●

GO-135065 Blunt teeth - 13mm dia ● ●



### Thornton Globe Fixation Ring

GO-135070 Pointed teeth - 16mm dia ● ●

GO-135075 Pointed teeth - 13mm dia ● ●



### Flieringa Scleral fixation ring

GO-135110 set of 8 ●



### Goldman scleral Fixation Ring

GO-135130 Goldman scleral Fixation Ring ●

### Castroviejo Caliper

G0-136010 20mm scale- Straight ● ●

G0-136020 20mm scale- Curved Tip ● ●



### Braunstein Caliper

G0-136030 3.5mm / 4.0mm ● ●



### Maloney Keratometer

G0-136050 Keratometer ● ●



**Mendez Degree Gauge**

GO-137010 10deg Increment ●



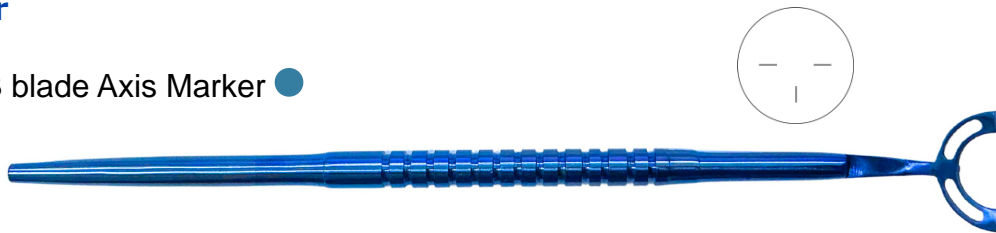
**Henderson Degree Gauge**

GO-137020 Henderson Degree Gauge ●



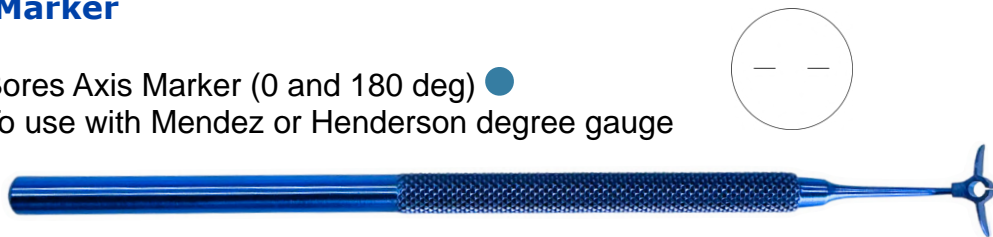
**Axis Marker**

GO-137035 3 blade Axis Marker ●



**Bores Axis Marker**

GO-137040 Bores Axis Marker (0 and 180 deg) ●  
To use with Mendez or Henderson degree gauge



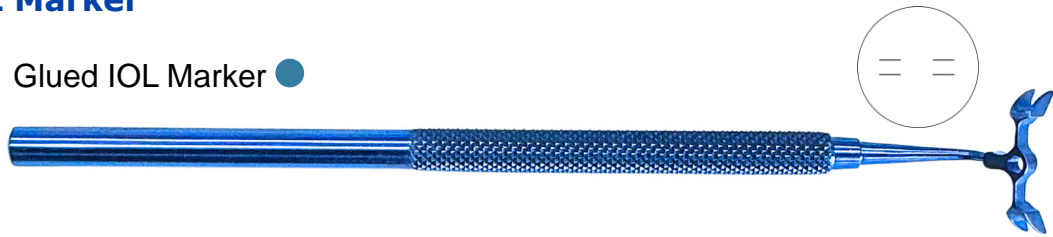
**Cionni Marker**

GO-137050 Toric Axis Marker ●



**Glued IOL Marker**

GO-137055 Glued IOL Marker ●

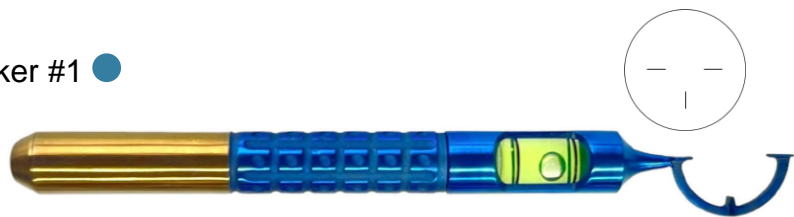


**Toric Marker**

GO-137062 Toric Marker ●

**Toric Bubble Marker #1**

GO-137061 Toric Bubble Marker #1 ●



**Toric Bubble Marker #2**

GO-137062 Toric Bubble Marker #2 ●



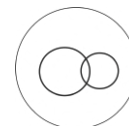
**Gravity Axis Marker**

GO-137065 Gravity Axis Marker ●



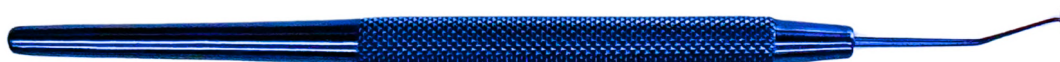
**Gulani Lasik Marker**

GO-137080 Gulani Lasik Marker ●



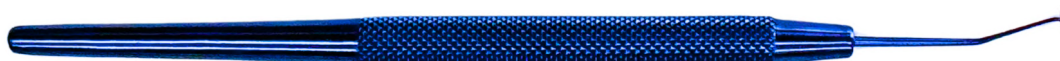
**S Marker**

GO-137085 S Marking ●



**F marker**

GO-137086 F Marking ●



**Bores Optic zone Marker**

- GO-138300 3.00 mm ● GO-138550 5.50 mm ●
- GO-138350 3.50 mm ● GO-138575 5.75 mm ●
- GO-138375 3.75 mm ● GO-138600 6.00 mm ●
- GO-138400 4.00 mm ● GO-138650 6.50 mm ●
- GO-138425 4.25 mm ● GO-138700 7.00 mm ●
- GO-138450 4.50 mm ● GO-138750 7.50 mm ●
- GO-138475 4.75 mm ● GO-138800 8.00 mm ●
- GO-138500 5.00 mm ● GO-138850 8.50 mm ●
- GO-138525 5.25 mm ● GO-138900 9.00 mm ●



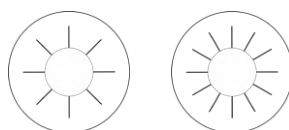
**Cross Hair Marker**

- GO-140300 3.00 mm ● GO-140550 5.50 mm ●
- GO-140350 3.50 mm ● GO-140600 6.00 mm ●
- GO-140375 3.75 mm ● GO-140650 6.50 mm ●
- GO-140400 4.00 mm ● GO-140700 7.00 mm ●
- GO-140425 4.25 mm ● GO-140750 7.50 mm ●
- GO-140450 4.50 mm ● GO-140800 8.00 mm ●
- GO-140475 4.75 mm ● GO-140850 8.50 mm ●
- GO-140500 5.00 mm ● GO-140900 9.00 mm ●



**Anis Radial Marker**

- GO-141008 8 blade ● ●
- GO-141012 12 blade ● ●



● -Stainless Steel  
● -Titanium

---

### Schocket Scleral Depressor

GO-145010 Pocket clip ● ●



---

### Schepens scleral thumb depressor

GO-145030 no.1 ●

GO-145040 no.2 ●

GO-145050 no.3 ●



### Gass Corneoscleral Punch

GO-150115 1.5mm dia ●



### Kelly Descemet's Membrane Punch

GO-150210 1.0 mm Dia ● ●



### Kerrison bone Rongeur

GO-150030 3.0 mm ●

GO-150035 3.5 mm ●

GO-150040 4.0 mm ●

GO-150045 4.5 mm ●



### Beyer Rongeur

GO-150110 Beyer Rongeur ●



### Lacrimal Chisel

GO-153010 Straight ●

GO-153015 Curved ●



### Mallet

GO-153050 Mallet ●



**Lacrimal Dilator**

GO-153110 No.1 ● ●

GO-153120 No.2 ● ●

GO-153130 No.3 ● ●



**Lacrimal Dilator**

GO-153220 double end- Fine / semi blunt tip ● ●



**Pigtail probe**

GO-153310 Pigtail probe ● ●



**Crawford Retrieving Hook**

GO-153330 Crawford Retrieving Hook ● ●



**Bowman Lacrimal Probe**

GO-153410 Set of 4 ●



**Bipolar Forcep**

GO-155010 Straight -Tying Platform ●

GO-155020 Angled ●

GO-155025 Curved ●

GO-155030 Straight ●



GO-155010



GO-155020



GO-155025



GO-155030

**Endodiathermy**

GO-155118 18g

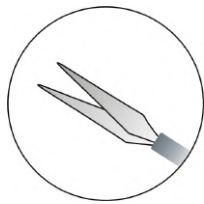
GO-155123 23g

GO-155125 25g



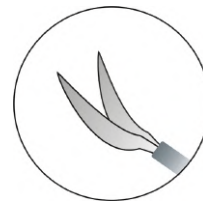


# Scissor



### Horizontal Straight Blade

- GO-160010 20 Gauge ● ●
- GO-160015 23 Gauge ● ●
- GO-160020 25 Gauge ● ●



### Horizontal Curved Blade

- GO-160030 20 Gauge ● ●
- GO-160035 23 Gauge ● ●
- GO-160040 25 Gauge ● ●



### Vertical

- GO-160050 20 Gauge ● ●
- GO-160055 23 Gauge ● ●



## Forcep



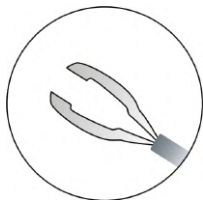
**Smooth Jaws  
Straight**

- GO-165050 20 Gauge
- GO-165055 23 Gauge
- GO-165060 25 Gauge



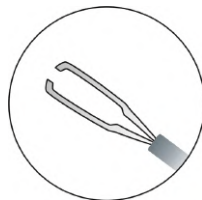
**Serrated Jaws  
Straight**

- GO-165070 20 Gauge
- GO-165075 23 Gauge
- GO-165080 25 Gauge



**End-Gripping  
Straight**

- GO-165130 20 Gauge
- GO-165135 23 Gauge
- GO-165140 25 Gauge

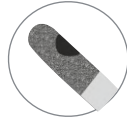


**ILM  
Straight**

- GO-165160 20 Gauge
- GO-165165 23 Gauge
- GO-165170 25 Gauge



Aspiration  
Tip



Aspiration  
Rough Tip



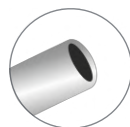
Irrigation  
Tip

### Bi-Manual Handpiece

- GO-170222 Irrigation 21g ●
- GO-170223 Irrigation 22g ●
- GO-170224 Irrigation 23g ●
- GO-170231 Aspiration 21g ●
- GO-170232 Aspiration 22g ●
- GO-170233 Aspiration 23g ●
- GO-170241 Aspiration -Rough tip -21g ●
- GO-170242 Aspiration -Rough tip -22g ●
- GO-170243 Aspiration -Rough tip -23g ●

**Air Injection -Raycroft - Viscoelastic -Anterior Chamber -Irrigation Cannula**

- GO-201125 22 mm \* 4mm bend \* 25g
- GO-201127 22 mm \* 4mm bend \* 27g
- GO-201130 22 mm \* 4mm bend \* 30g



- GO-201423 22 mm \* 8mm bend \* 23g
- GO-201424 22 mm \* 8mm bend \* 24g
- GO-201425 22 mm \* 8mm bend \* 25g
- GO-201426 22 mm \* 8mm bend \* 26g
- GO-201427 22 mm \* 8mm bend \* 27g
- GO-201430 22 mm \* 8mm bend \* 30g



**Hydrodissection Cannula -Flat End**

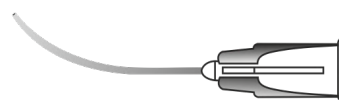
- GO-204325 22 mm \* J-Shape \* 25g
- GO-204327 22 mm \* J-Shape \* 27g



- GO-204423 22 mm \* 8mm bend \* 23g
- GO-204424 22 mm \* 8mm bend \* 24g
- GO-204425 22 mm \* 8mm bend \* 25g
- GO-204426 22 mm \* 8mm bend \* 26g
- GO-204427 22 mm \* 8mm bend \* 27g



- GO-204923 22 mm \* Curve \* 23g
- GO-204924 22 mm \* Curve \* 24g
- GO-204925 22 mm \* Curve \* 25g
- GO-204926 22 mm \* Curve \* 26g
- GO-204927 22 mm \* Curve \* 27g

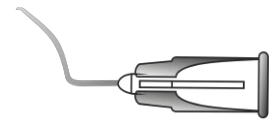
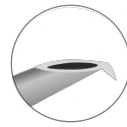


**Cystotome Formed**

**GO-208423** 16 mm \* 23g

**GO-208425** 16 mm \* 25g

**GO-208427** 16 mm \* 27g



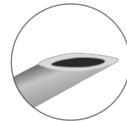
**Retrobulbar Needle -Atkinson Tip**

**GO-210123** 38 mm \* 23g

**GO-210125** 38 mm \* 25g

**GO-210126** 38 mm \* 26g

**GO-210127** 38 mm \* 27g



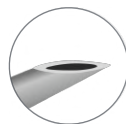
**Peribulbar Needle -Atkinson Tip**

**GO-211123** 22 mm \* 23g

**GO-211125** 22 mm \* 25g

**GO-211126** 22 mm \* 26g

**GO-211127** 22 mm \* 27g

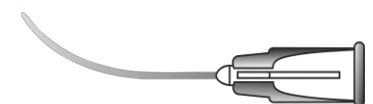


**Sub-Tenon Cannula**

**GO-214919** 25 mm \* 19g

**GO-214920** 25 mm \* 20g

**GO-214925** 25 mm \* 25g



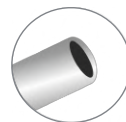
**Lacrimal Cannula**

**GO-216123** 25 mm \* Straight \* 23g

**GO-216125** 25 mm \* Straight \* 25g

**GO-216126** 25 mm \* Straight \* 26g

**GO-216127** 25 mm \* Straight \* 27g

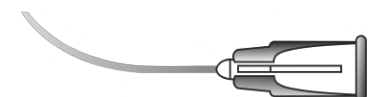
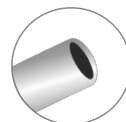


**GO-216923** 30 mm \* Curve \* 23g

**GO-216925** 30 mm \* Curve \* 25g

**GO-216926** 30 mm \* Curve \* 26g

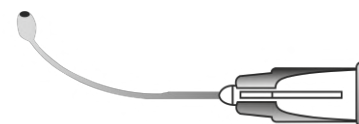
**GO-216927** 30 mm \* Curve \* 27g



**Capsule Polisher -Curved- Olive Tip**

GO-219920 22mm \* 20g

GO-219923 22mm \* 23g

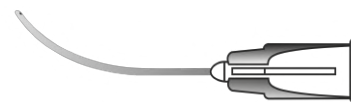


**Cortex Extractor**

GO-221920 22 mm \* 20g

GO-221921 22 mm \* 21g

GO-221923 22 mm \* 23g



**Bishop Harmon Irrigation Cannula**

GO-222920 24 mm \* 20g

GO-222921 24 mm \* 21g

GO-222923 24 mm \* 23g



**LASIK Spatulated -Formed**

GO-250223 24 mm \* 23g

GO-250225 24 mm \* 25g



**LASIK Irrigation Cannula**

GO-250323 24mm \* 23g - 3 port

GO-250325 24 mm \* 25g - 3 port

GO-250423 24 mm \* 23g - 4 port

GO-250425 24 mm \* 25g - 4 port

GO-250625 Double arm 25g - 4 port



**Irrigation Vectice**

GO-256223 23g- 3 port

GO-256225 25g- 3 Port

GO-257223 23g- 3 port - Serrated

GO-257225 25g- 3 port - Serrated



**Vitro-retinal Cannula -Straight**

- GO-260020 30 mm \* 20g
- GO-260023 30 mm \* 23g
- GO-260025 30 mm \* 25g
- GO-260027 30 mm \* 27g



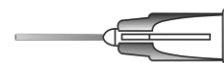
**Vitro-retinal Silicon Tip Straight (Disposable)**

- GO-262023 23g
- GO-262025 25g



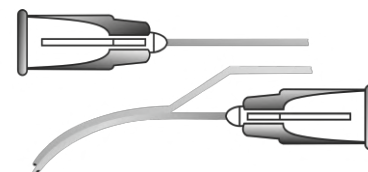
**Silicon Oil Cannula**

- GO-264023 8 mm \* 23g
- GO-264025 8 mm \* 25g
- GO-264027 8 mm \* 27g



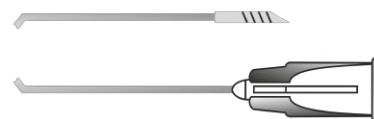
**Irrigation Aspiration Cannula -Simco**

- GO-290921 21g
- GO-290922 22g
- GO-290923 23g



**Anterior Chamber Maintainer -Lewicky Self Retaining**

- GO-293019 3.5 mm \* 19g
- GO-293020 3.5 mm \* 20g
- GO-293021 3.5 mm \* 21g







## Cleaning Instructions for Surgical Instruments After Surgery

Proper cleaning of surgical instruments post-surgery is essential to maintain their sterility and ensure they are ready for future use. Below are the steps to clean stainless steel surgical instruments effectively:

### 1. Pre-Cleaning

#### Immediate Rinse:

- Immediately after use, rinse instruments under lukewarm running water to remove blood, tissue, and other debris. Avoid using hot water as it can cause protein coagulation, making cleaning more difficult.

#### Disassembly:

- Disassemble instruments with movable parts, such as scissors and forceps, to ensure all surfaces are accessible for cleaning.

### 2. Cleaning

#### Manual Cleaning:

- **Soaking:** Place instruments in a basin with an enzymatic cleaner or mild detergent specifically designed for surgical instruments. Follow the manufacturer's instructions for the correct dilution and soaking time.
- **Brushing:** Use a soft-bristled brush to scrub each instrument thoroughly, paying particular attention to hinges, joints, and other hard-to-reach areas. Avoid using metal brushes or abrasive materials that can scratch and damage the instruments.
- **Rinsing:** Rinse instruments thoroughly with deionized or distilled water to remove all detergent residues.

#### Ultrasonic Cleaning:

- **Preparation:** Arrange instruments in a wire basket or rack, ensuring they do not touch each other to allow effective cleaning.
- **Cleaning Solution:** Fill the ultrasonic cleaner with an appropriate cleaning solution as per the manufacturer's recommendations.
- **Cleaning Cycle:** Run the ultrasonic cleaner according to the manufacturer's instructions, typically for 5-10 minutes. Ensure all parts of the instruments are submerged and exposed to ultrasonic waves.
- **Rinsing:** After the ultrasonic cycle, rinse instruments with deionized or distilled water to remove any remaining cleaning solution.

### 3. Inspection

#### Visual Inspection:

- Inspect each instrument for cleanliness under good lighting, ensuring there is no visible debris, stains, or residues. Use magnification if necessary to examine intricate areas.

#### Function Check:

- Test the functionality of each instrument (e.g., opening and closing of forceps, smooth movement of scissors) to ensure they operate correctly and have not been damaged during cleaning.

## **4. Drying**

### **Manual Drying:**

- Use a clean, lint-free cloth or sterile compressed air to thoroughly dry each instrument. Pay special attention to joints and hinges to prevent rust formation.

### **Automated Drying:**

- If available, use an automated drying cabinet designed for surgical instruments to ensure thorough and consistent drying.

## **5. Lubrication**

### **Instrument Milk:**

- Apply a water-soluble, instrument-approved lubricant (commonly referred to as "instrument milk") to hinges, joints, and moving parts of instruments. This helps maintain smooth operation and provides a protective barrier against moisture and rust.

## **6. Storage**

### **Packaging:**

- Once dry and lubricated, package instruments in autoclave pouches, wraps, or trays designed for sterilization. Ensure that instruments are properly arranged to prevent damage during storage and sterilization.

## Sterilization Instructions

### 1. Steam Sterilization (Autoclaving)

#### Preparation:

- Clean and decontaminate instruments to remove any organic matter or debris.
- Disassemble instruments with movable parts.
- Inspect instruments for any signs of damage or corrosion prior to sterilization.
- Ensure instruments are thoroughly dried before sterilization to prevent rust formation.
- Use distilled or deionized water for cleaning and autoclave operations to avoid mineral deposits that can contribute to corrosion.
- Apply a water-soluble, instrument-approved lubricant (commonly referred to as "instrument milk") to hinges and joints of instruments to create a protective barrier against moisture and rust.

#### Procedure:

- Preheat the autoclave to the required temperature.
- Arrange instruments in the autoclave tray, ensuring they are not touching each other to allow steam penetration and even drying.
- Standard parameters for steam sterilization:
  - Temperature: 121°C (250°F) for 30 minutes or 134°C (273°F) for 4-5 minutes.
  - Pressure: 15-30 psi.
- Use autoclave pouches or wraps that are specifically designed to allow steam penetration while protecting the instruments from excessive moisture.
- Ensure proper drying time to prevent moisture retention inside the autoclave.

#### Post-Sterilization:

- Allow instruments to cool inside the autoclave before handling to prevent condensation and moisture buildup.
- Open the autoclave door slightly after the cycle is complete to allow steam to escape gradually and avoid rapid cooling, which can cause condensation.
- Remove instruments promptly and place them on a clean, dry surface.
- Inspect instruments for any remaining moisture and thoroughly dry them if necessary.
- Store instruments in a sterile, dry environment to prevent exposure to moisture.

#### Additional Tips:

- Regularly check and maintain the autoclave, including the water reservoir, to ensure it is free from impurities and mineral buildup.
- Use instrument trays made of non-corrosive materials, such as stainless steel or medical-grade plastic, to minimize the risk of rust.
- Avoid prolonged exposure to saline, blood, or other corrosive substances that can contribute to rust formation.

## 2. Ethylene Oxide (ETO) Sterilization

### Preparation:

- Clean and dry instruments thoroughly to remove any organic matter or debris.
- Place instruments in gas-permeable packaging (e.g., Tyvek or paper-plastic pouches).
- Ensure instruments are dry before packaging to prevent rust.

### Procedure:

- Precondition the sterilizer with proper temperature and humidity settings.
- Standard parameters for ETO sterilization:
  - Temperature: 37-63°C (98.6-145.4°F).
  - Humidity: 40-80%.
  - Gas concentration: 450-1200 mg/L.
  - Exposure time: 2-6 hours.
- Ensure proper aeration time post-sterilization to remove residual ETO (8-12 hours at 50-60°C or up to 7 days at room temperature).

### Post-Sterilization:

- Ensure instruments are fully aerated to remove ETO residues.
- Inspect instruments for any signs of rust or residue.
- Store in a sterile, sealed environment to prevent exposure to moisture.

### Additional Tips:

- Regularly inspect and maintain the ETO sterilizer to ensure it is functioning properly.
- Avoid using ETO sterilization for instruments with complex, hard-to-dry internal structures unless they can be thoroughly dried before sterilization.

## 3. Hydrogen Peroxide Plasma Sterilization

### Preparation:

- Clean and dry instruments thoroughly to remove any organic matter or debris.
- Place instruments in non-cellulose packaging (e.g., Tyvek pouches) that allows hydrogen peroxide vapor penetration.

### Procedure:

- Standard parameters for hydrogen peroxide plasma sterilization:
  - Temperature: 37-44°C (98.6-111.2°F).
  - Hydrogen peroxide concentration: 59-95% solution.
  - Cycle time: 28-75 minutes, depending on the sterilizer model and load.
- Ensure proper loading of the sterilizer to allow even distribution of the hydrogen peroxide plasma.

### Post-Sterilization:

- Instruments can be used immediately after the cycle, as there is no toxic residue.

- Inspect instruments for any signs of rust or residue.
- Store in a sterile, dry environment to prevent exposure to moisture.

**Additional Tips:**

- Regularly check and maintain the hydrogen peroxide plasma sterilizer.
- Use this method for heat-sensitive instruments that cannot withstand autoclaving.

## 4. Dry Heat Sterilization

**Preparation:**

- Clean and dry instruments thoroughly to remove any organic matter or debris.
- Place instruments in metal trays or foil wrapping (avoid plastic packaging).

**Procedure:**

- Standard parameters for dry heat sterilization:
  - Temperature: 160°C (320°F) for 2 hours or 170°C (340°F) for 1 hour.
- Ensure proper air circulation within the dry heat sterilizer.

**Post-Sterilization:**

- Allow instruments to cool before handling to prevent condensation and moisture buildup.
- Inspect instruments for any signs of rust or residue.
- Store in a sterile, dry environment to prevent exposure to moisture.

**Additional Tips:**

- Regularly check and maintain the dry heat sterilizer.
- Use dry heat sterilization for instruments that may be damaged by moisture, such as certain cutting instruments.

## 5. Chemical Sterilization (Cold Sterilization)

**Preparation:**

- Clean and dry instruments thoroughly to remove any organic matter or debris.
- Inspect instruments for any signs of damage or corrosion prior to sterilization.

**Procedure:**

- Immerse instruments in a high-level disinfectant solution (e.g., glutaraldehyde, ortho-phthalaldehyde).
- Follow manufacturer's instructions for concentration and immersion time (typically 10-12 hours for sterilization).
- Ensure complete immersion of instruments in the solution to avoid air pockets.

**Post-Sterilization:**

- Rinse instruments with sterile water to remove chemical residues.
- Dry instruments thoroughly to prevent rust formation.
- Inspect instruments for any signs of rust or residue.
- Store in a sterile, sealed environment to prevent exposure to moisture.

**Additional Tips:**

- Use chemical sterilization for heat-sensitive instruments.
- Regularly replace the disinfectant solution as per the manufacturer's guidelines to maintain efficacy.
- Ensure proper ventilation in the area where chemical sterilization is performed to avoid inhaling fumes.

---

## General Steps to Ensure Sterility

### **Visual Inspection:**

- Before and after sterilization, inspect instruments for cleanliness, integrity, and absence of rust or damage.
- Ensure instruments are dry and free from any organic or inorganic residues.

### **Packaging Inspection:**

- Ensure that sterilization packaging (e.g., autoclave pouches, wraps) is intact, without any tears, punctures, or signs of moisture.
- Check the integrity of seals on packaging to confirm they are secure and unopened.

### **Sterilization Indicators:**

- Use appropriate sterilization indicators (chemical, biological, and mechanical) to validate the sterilization process.

## **1. Steam Sterilization (Autoclaving)**

### **Chemical Indicators:**

- Place chemical indicator strips or tapes inside and outside of each package.
- Confirm that indicators have changed colour according to the manufacturer's guidelines, indicating that the package has been exposed to the proper temperature and steam.

### **Biological Indicators:**

- Use biological indicator vials or strips containing heat-resistant spores (e.g., *Geobacillus stearothermophilus*).
- Place the biological indicator in the most challenging location within the autoclave load.
- After the sterilization cycle, incubate the indicator according to the manufacturer's instructions.
- A negative result (no microbial growth) confirms effective sterilization.

### **Mechanical Indicators:**

- Monitor and record autoclave parameters (temperature, pressure, and time) for each cycle.
- Use the autoclave's printout or digital record to verify that the cycle met the required conditions.

## **2. Ethylene Oxide (ETO) Sterilization**

### **Chemical Indicators:**

- Use chemical indicator strips inside each package to verify exposure to ETO gas.
- Confirm the colour change as per the manufacturer's guidelines.

### **Biological Indicators:**

- Place biological indicator vials or strips containing *Bacillus atrophaeus* spores in the sterilization load.
- After the cycle, incubate the indicator and check for microbial growth.
- A negative result indicates successful sterilization.

**Mechanical Indicators:**

- Monitor and record ETO sterilizer parameters (temperature, humidity, gas concentration, and exposure time).
- Verify that the cycle met the specified conditions.

**3. Hydrogen Peroxide Plasma Sterilization****Chemical Indicators:**

- Use chemical indicator strips that change colour when exposed to hydrogen peroxide plasma.
- Place indicators both inside and outside the sterilization packaging.

**Biological Indicators:**

- Use biological indicators containing *Geobacillus stearothermophilus* spores.
- Place indicators in the load and incubate post-sterilization to check for microbial growth.
- A negative result confirms sterility.

**Mechanical Indicators:**

- Record and review sterilizer cycle parameters (temperature, pressure, and exposure time) to ensure compliance with specifications.

**4. Dry Heat Sterilization****Chemical Indicators:**

- Use chemical indicators that change colour when exposed to the correct temperature for the required time.
- Place indicators inside and outside each package.

**Biological Indicators:**

- Use biological indicators containing *Bacillus atrophaeus* spores.
- Place indicators in the load and incubate them post-sterilization.
- A negative result indicates effective sterilization.

**Mechanical Indicators:**

- Monitor and record sterilizer parameters (temperature and time).
- Ensure the cycle met the required conditions.

**5. Chemical Sterilization (Cold Sterilization)****Chemical Indicators:**

- Use chemical indicator strips or tests specific to the high-level disinfectant used.
- Ensure indicators change colour according to the manufacturer's guidelines.

**Biological Indicators:**

- Although not always used with chemical sterilization, biological indicators can be used if validated for the specific chemical sterilant.
- Follow the manufacturer's instructions for placement, exposure, and incubation.

- A negative result confirms sterility.

**Mechanical Indicators:**

- Ensure the disinfectant concentration is appropriate by using test strips.
- Record the immersion time to confirm it meets the required duration for sterilization.

**General Post-Sterilization Checks**

**Sterility Assurance Level (SAL):**

- Aim for a Sterility Assurance Level (SAL) of  $10^{-6}$ , meaning there is less than a one in a million chance that a viable microorganism is present on the instrument.

**Documentation:**

- Maintain thorough records of sterilization cycles, including the type of sterilizer used, cycle parameters, indicator results, and the operator's initials.
- Regularly review sterilization logs to ensure consistency and compliance.

**Training and Quality Control:**

- Ensure staff involved in sterilization processes are adequately trained.
- Conduct regular quality control checks and audits to validate the effectiveness of sterilization procedures.

Note: Kindly note that despite following sterilisation instructions as mentioned above, there will always be chance of contamination. Therefore, it crucial to ensure sterility using any above-mentioned methods or any other known standard method.

**Thank You**  
**Kindly write us on [info@surgiedge.com](mailto:info@surgiedge.com) for  
any information**