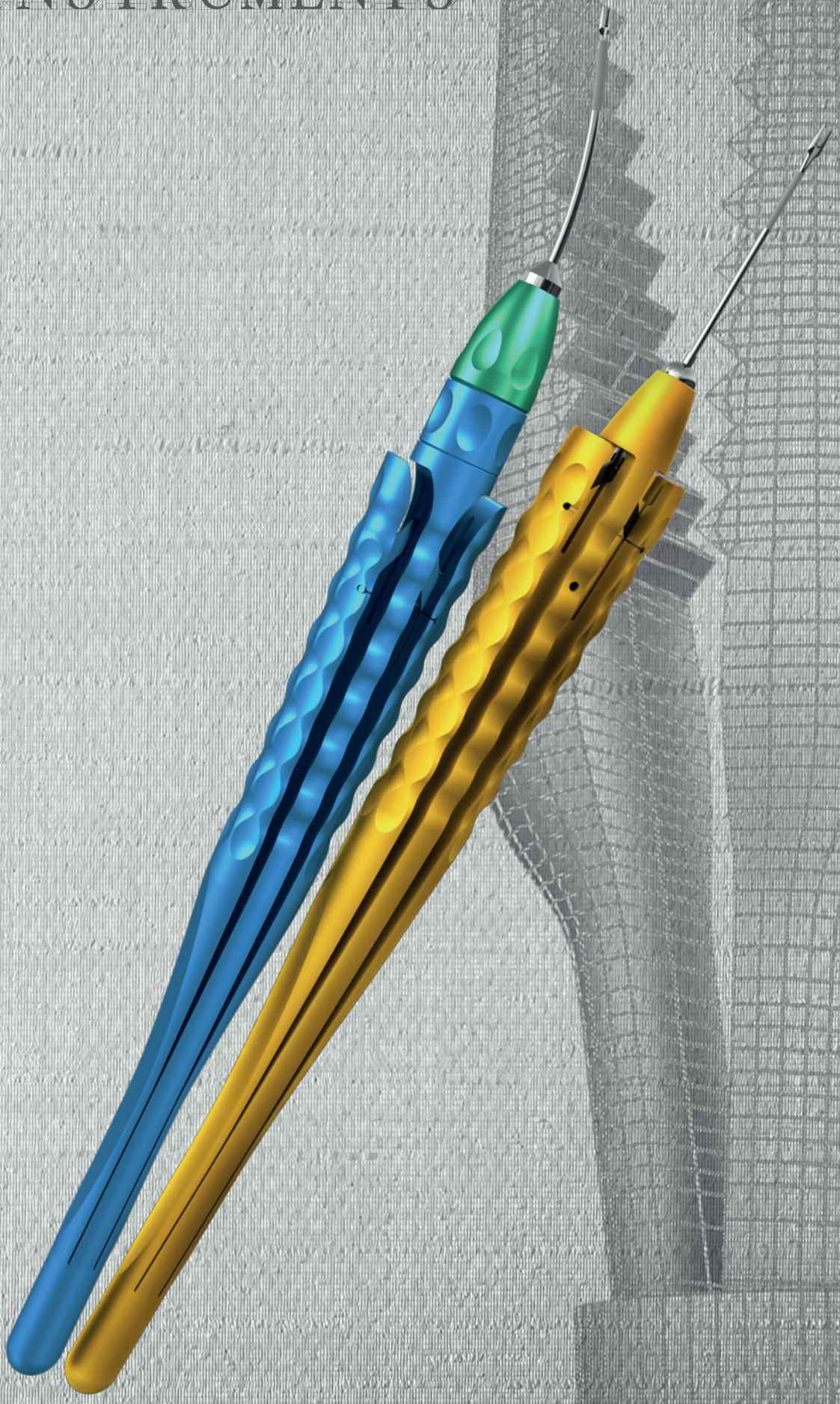
OPHTHALMIC MICROINVASIVE INSTRUMENTS

TITAN MEDICAL



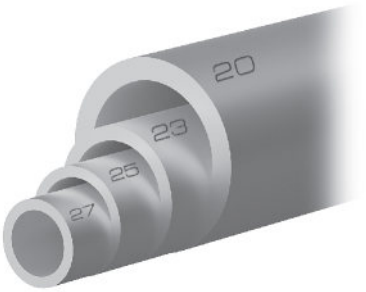
MICROINVASIVE INSTRUMENTS

FOR OPHTHALMOLOGY

Delicate tips 20 Ga - 27 Ga

Anti-glare matte finishing

Stainless steel tube



Visual comparison of sizes in Ga

RED - Scissors

Adjusts the tip position 360 degrees

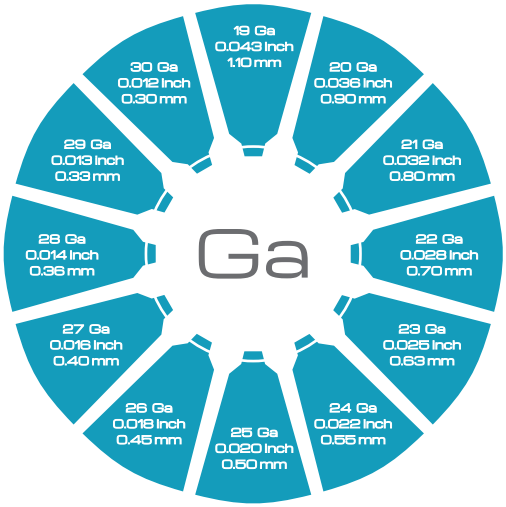
GREEN - Forceps

Tip

Adapter

Adapter for cleaning

Syringe



CE ISO 13485 FDA

HANDLES FOR MICROINVASIVE INSTRUMENTS

New high-technology ergonomic handle.
The optimal handle design allows you to rotate the instruments 360 degrees.

Scale 1:1

Changeable instruments

Replaceable tips are attached to the handle by means of a thread.

Monoblock instruments

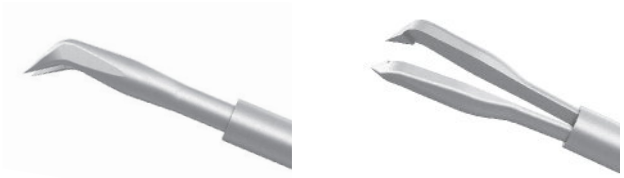
Solid non-detacheble unit.

Handles and tips are sold separately.

KERSHNER CAPSULORHEXIS FORCEPS
SHORT TIPS

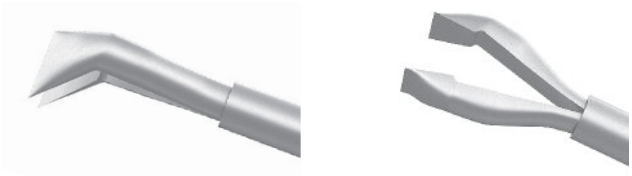
23 Ga **TMV 101**

KERSHNER CAPSULORHEXIS FORCEPS



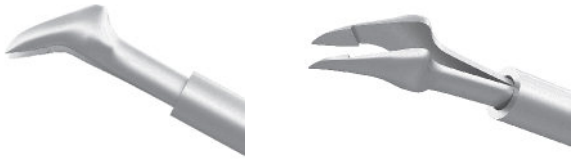
23 Ga **TMV 554**

FINE-IKEDA CAPSULORHEXIS FORCEPS



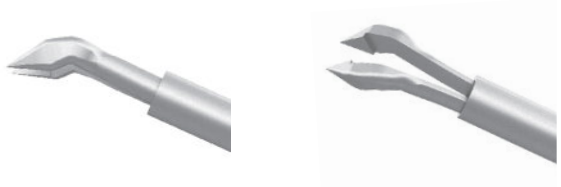
23 Ga **TMV 102**

IKEDA MICRO CAPSULORHEXIS FORCEPS



23 Ga **TMV 103**

SHUHAEV CAPSULORHEXIS FORCEPS

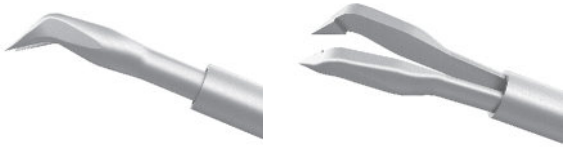


23 Ga **TMV 556**

CAPSULORRHEXIS FORCEPS
WITH VIEW PORT

23 Ga **TMV 558**

KERSHNER CAPSULORHEXIS FORCEPS
SHORT TIPS

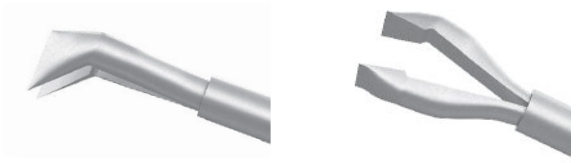


25 Ga **TMV 551**

KERSHNER CAPSULORHEXIS FORCEPS

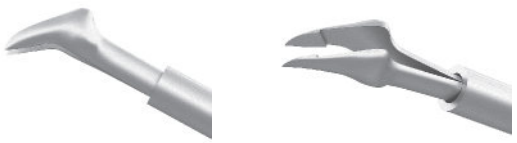
25 Ga **TMV 555**

FINE-IKEDA CAPSULORHEXIS FORCEPS



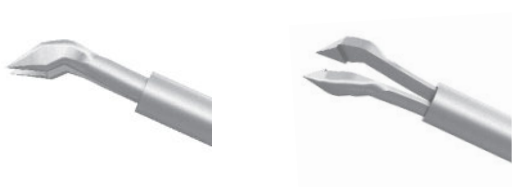
25 Ga **TMV 552**

IKEDA MICRO CAPSULORHEXIS FORCEPS



25 Ga **TMV 553**

SHUHAEV CAPSULORHEXIS FORCEPS



25 Ga **TMV 557**

KAWAI CAPSULORHEXIS FORCEPS

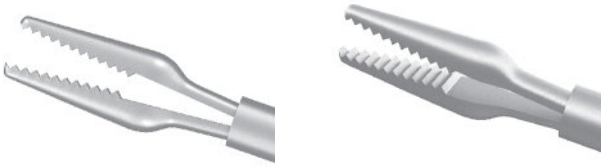
25 Ga **TMV 559**

Handles and tips are sold separately. All tips can be used with handle: TVN 011.

MICROINVASIVE INSTRUMENTS

FOR ANTERIOR SEGMENT

"CROCODILE" FORCEPS

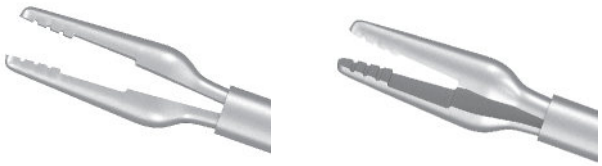


23 Ga **TMV 170** - curved tube 17 mm

NUCLEUS SPLITTER

23 Ga **TMV 172**

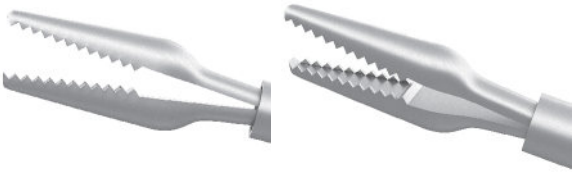
FORCEPS FOR CORNEAL ENDOTHELIUM IMPLANTATION



23 Ga **TMV 174**

FORCEPS FOR FOLDABLE LENS REMOVAL

IOL



20 Ga **TMV 182**

MICROTYING FORCEPS

23 Ga **TMV 186**

MICRONEEDLE HOLDER

23 Ga **TMV 187**

MICROINVASIV ENDOTHELIAL FORCEPS

23 Ga **TMV374**

IOL GRASPING FORCEPS

IOL

21 Ga **TMV 185**

ICL LOADING FORCEPS

IOL

20 Ga **TMV 180**

FORCEPS FOR IMPLANTATION ICL

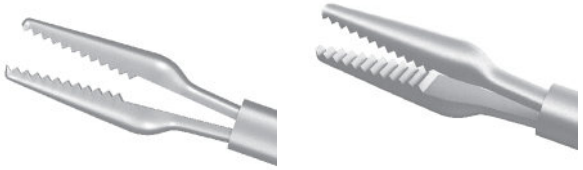
IOL

20 Ga **TMV 181**

MICRO TRABECULECTOMY PUNCH

20 Ga **TMV 191**

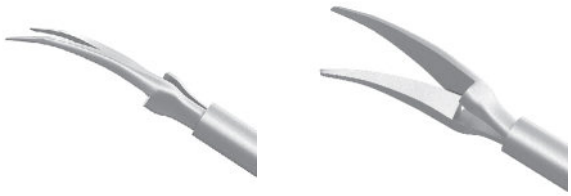
"CROCODILE" FORCEPS



23 Ga **TMV 190** - straight tube 21 mm

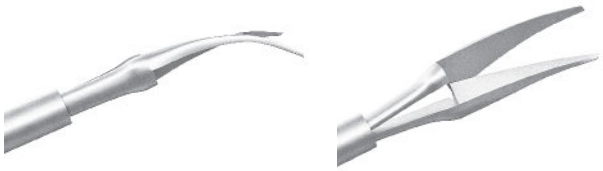
Handles and tips are sold separately. All tips can be used with handle: TVN 011.

CAPSULOTOMY SCISSORS RIGHT



23 Ga **TMV 244**

CAPSULOTOMY SCISSORS LEFT



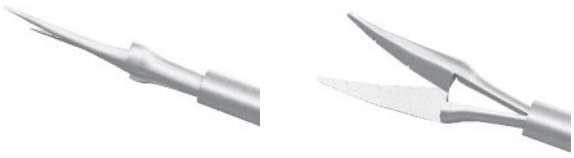
23 Ga **TMV 245**

CAPSULOTOMY SCISSORS

23 Ga **TMV 243**

IOL CUTTER

IOL

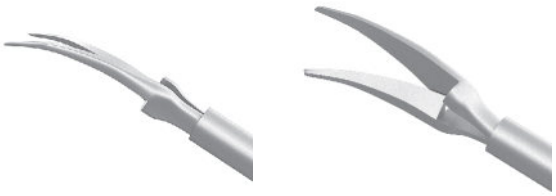


19 Ga **TMV 282**

IRIDECTOMY SCISSORS

23 Ga **TMV 343** -Srtaight tube 21 mm

CAPSULOTOMY SCISSORS RIGHT



20 Ga **TMV 254**

CAPSULOTOMY SCISSORS LEFT

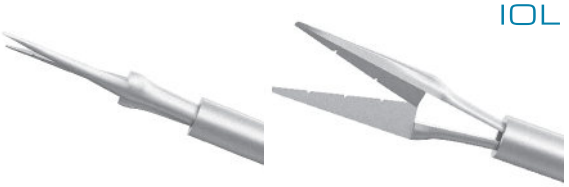
20 Ga **TMV 255**

CAPSULOTOMY STRAIGHT SCISSORS

23 Ga **TMV 246**

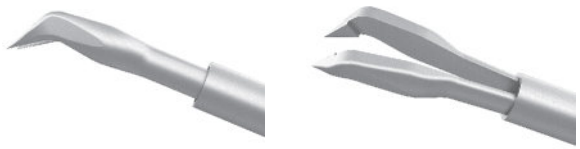
IOL CUTTER

IOL



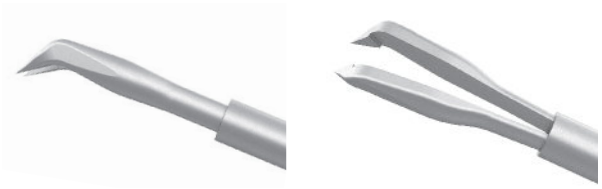
19 Ga **TMV 283**

KERSHNER CAPSULORHEXIS FORCEPS
SHORT TIPS



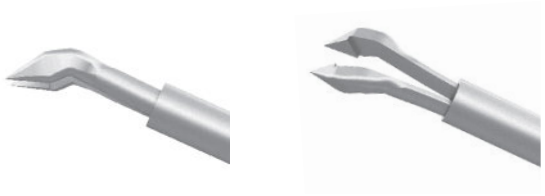
23 Ga **TMF 140**

KERSHNER CAPSULORHEXIS FORCEPS



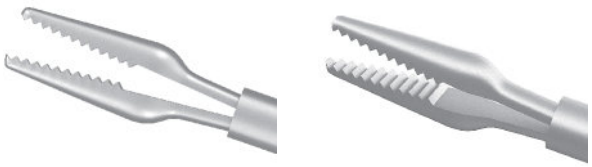
23 Ga **TMV 554M**

SCHUHAEV CAPSULORHEXIS FORCEPS



23 Ga **TMF 141**

"CROCODILE" FORCEPS



23 Ga **TMF 147**

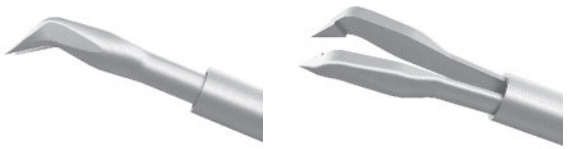
CAPSULOTOMY SCISSORS

23 Ga **TMF 143**

CAPSULOTOMY SCISSORS LEFT

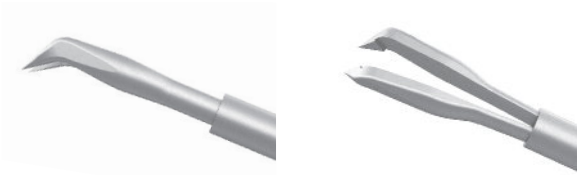
23 Ga **TMF 145**

KERSHNER CAPSULORHEXIS FORCEPS
SHORT TIPS



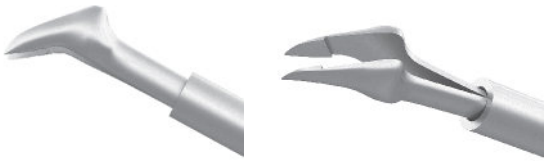
25 Ga **TMV 551M**

KERSHNER CAPSULORHEXIS FORCEPS



25 Ga **TMV 555M**

IKEDA MICRO CAPSULORHEXIS FORCEPS



23 Ga **TMF 142**

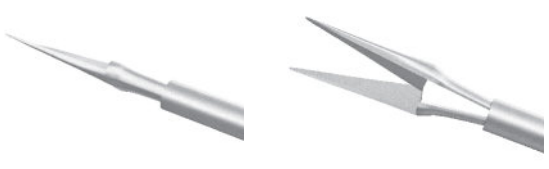
ENDOTHELIALRHEXIS FORCEPS

23 Ga **TMF 149**

CAPSULOTOMY SCISSORS RIGHT

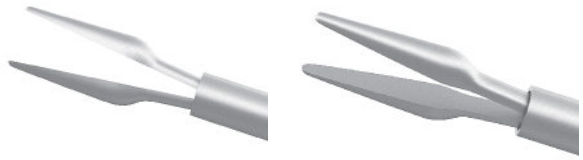
23 Ga **TMF 144**

CAPSULOTOMY STRAIGHT SCISSORS



23 Ga **TMF 146**

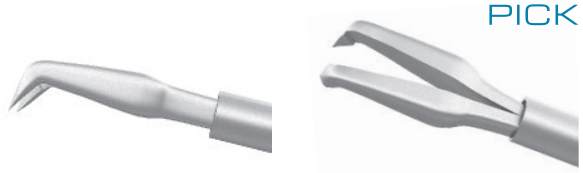
GRIPPING STRAIGHT FORCEPS



20 Ga **TMV 111**
23 Ga **TMV 351**
25 Ga **TMV 501**
27 Ga **TMV 701**

PICK FORCEPS

PICK



20 Ga **TMV 105**
23 Ga **TMV 353**
25 Ga **TMV 503**

ASYMMETRICAL FORCEPS

ILM

20 Ga **TMV 165**
23 Ga **TMV 355**
25 Ga **TMV 505**

END GRIPPING FORCEPS

ILM

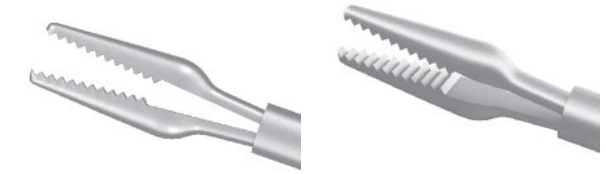
20 Ga **TMV 157**
23 Ga **TMV 357**
25 Ga **TMV 507**
27 Ga **TMV 707**

MACULORHEXIS FORCEPS

ILM

25 Ga **TMV 508**

"CROCODILE" FORCEPS



20 Ga **TMV 126**
23 Ga **TMV 352**
25 Ga **TMV 502**

END GRIPPING FORCEPS

ILM

23 Ga **TMV 354**
25 Ga **TMV 504**
27 Ga **TMV 704**

END GRASPING FORCEPS

ILM

23 Ga **TMV 356**
25 Ga **TMV 506**
27 Ga **TMV 706**

END GRASPING FORCEPS

ILM

23 Ga **TMV 359**
25 Ga **TMV 509**

MACULORHEXIS FORCEPS

23 Ga **TMV 179**

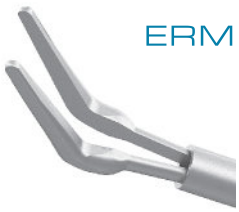
Handles and tips are sold separately. All tips can be used with handle: TVN 011.

GRIPPING FORCEPS WITH TOOTH


20 Ga **TMV 178**

SUBRETINAL FORCEPS

ERM

20 Ga **TMV 118**

GRIPPING FORCEPS ANGLED WITH PLATFORM


20 Ga **TMV 123**

GRIPPING FORCEPS ANGLED


23 Ga **TMV 131**

MACULORHEXIS FORCEPS


23 Ga **TMV 142**

GRIPPING FORCEPS WITH PLATFORM


20 Ga **TMV 135**
23 Ga **TMV 136**
25 Ga **TMV 516**

SUBRETINAL FORCEPS


20 Ga **TMV 121**

PIC FORCEPS


23 Ga **TMV 110**

END GRASPING FORCEPS WITH TRIANGULAR PLATFORM


20 Ga **TMV 134**

GRIPPING FORCEPS STRAIGHT


20 Ga **TMV 154**

Handles and tips are sold separately. All tips can be used with handle: TVN 011.

VERTICAL SCISSORS

20 Ga **TMV 226**

VERTICAL SCISSORS

25 Ga **TMV 401**

CURVED SUBRETINAL SCISSORS

23 Ga **TMV 342**

STRAIGHT SCISSORS

20 Ga **TMV 203**

STRAIGHT SCISSORS

25 Ga **TMV 404**

VERTICAL SCISSORS

20 Ga **TMV 242**

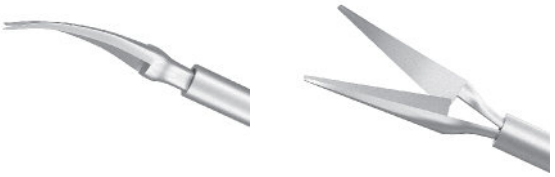
VERTICAL SCISSORS

23 Ga **TMV 341**

CURVED SUBRETINAL SCISSORS

20 Ga **TMV 248**

CURVED SUBRETINAL SCISSORS



25 Ga **TMV 402**

STRAIGHT SCISSORS

23 Ga **TMV 344**

HORIZONTAL SYMMETRICAL SCISSORS

20 Ga **TMV 214**

Handles and tips are sold separately. All tips can be used with handle: TVN 011.

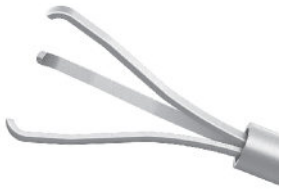
FOREIGN BODY REMOVAL FORCEPS

19 Ga **TMV 144**

FOREIGN BODY REMOVAL FORCEPS

19 Ga **TMV 146**

FOREIGN BODY REMOVAL FORCEPS



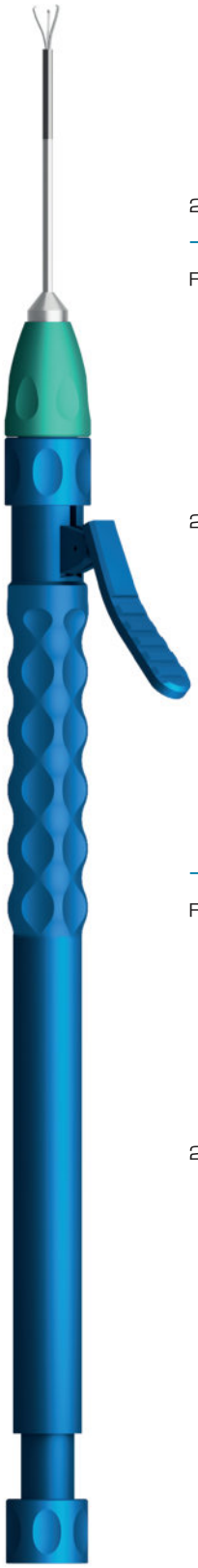
23 Ga **TMV 361**

FOREIGN BODY REMOVAL FORCEPS

19 Ga **TMV 149**

HORIZONTAL SCISSORS

20 Ga **TMV 215** | Compatible with handle TVN 012 only
23 Ga **TMV 217**



FOREIGN BODY REMOVAL FORCEPS

20 Ga **TMV 143**

FOREIGN BODY REMOVAL FORCEPS

20 Ga **TMV 145**

FOREIGN BODY REMOVAL FORCEPS

20 Ga **TMV 148**

Handles and tips are sold separately. All tips can be used with handle: TVN 012.

GRIPPING STRAIGHT FORCEPS


20 Ga **TMV 111M**
23 Ga **TMV 351M**
25 Ga **TMV 501M**
27 Ga **TMV 701M**

PICK FORCEPS

PICK


20 Ga **TMV 105M**
23 Ga **TMV 353M**
25 Ga **TMV 503M**

ASYMMETRICAL FORCEPS

ILM


20 Ga **TMV 165M**
23 Ga **TMV 355M**
25 Ga **TMV 505M**

END GRIPPING FORCEPS

ILM


20 Ga **TMV 157M**
23 Ga **TMV 357M**
25 Ga **TMV 507M**
27 Ga **TMV 707M**

MACULORHEXIS FORCEPS

ILM


25 Ga **TMV 508M**

"CROCODILE" FORCEPS


20 Ga **TMV 126M**
23 Ga **TMV 352M**
25 Ga **TMV 502M**

END GRIPPING FORCEPS

ILM


23 Ga **TMV 354M**
25 Ga **TMV 504M**
27 Ga **TMV 704M**

END GRASPING FORCEPS

ILM


23 Ga **TMV 356M**
25 Ga **TMV 506M**
27 Ga **TMV 706M**

END GRASPING FORCEPS

ILM


23 Ga **TMV 359M**
25 Ga **TMV 509M**

MACULORHEXIS FORCEPS


23 Ga **TMV 179M**

VERTICAL SCISSORS

20 Ga **TMV 226M**

VERTICAL SCISSORS

25 Ga **TMV 401M**

CURVED SUBRETINAL SCISSORS

23 Ga **TMV 342M**

STRAIGHT SCISSORS

20 Ga **TMV 203M**

STRAIGHT SCISSORS

25 Ga **TMV 404M**

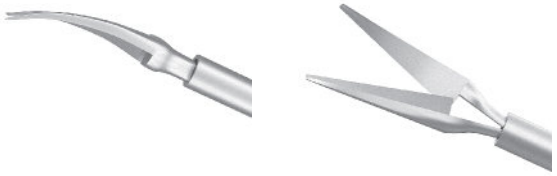
VERTICAL SCISSORS

20 Ga **TMV 242M**

VERTICAL SCISSORS

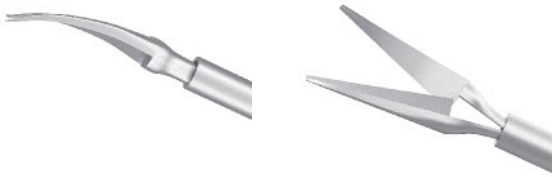
23 Ga **TMV 341M**

CURVED SUBRETINAL SCISSORS



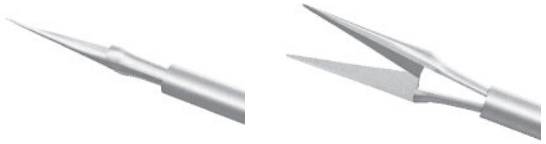
20 Ga **TMV 248M**

CURVED SUBRETINAL SCISSORS



25 Ga **TMV 402M**

STRAIGHT SCISSORS



23 Ga **TMV 344M**

HORIZONTAL SYMMETRICAL SCISSORS

20 Ga **TMV 214M**

MEMBRANE SPATULA

23 Ga **TMT 201**
25 Ga **TMT 202**
27 Ga **TMT 205**

MEMBRANE SPATULA

23 Ga **TMT 203**
25 Ga **TMT 204**

HANDLE FOR MICROSPATULA BLUE COLOR 23 Ga

HANDLE FOR MICROSPATULA YELLOW COLOR 25 Ga

TITANIUM BACKFLUSH HANDLE PASSIVE ASPIRATION

TMN 111

TITANIUM BACKFLUSH HANDLE ACTIVE ASPIRATION

TMN 112

CANNULA FOR SILICONE OIL WITH TUBE

23 Ga **TMC 175**
25 Ga **TMC 176**

CANNULA FOR SILICONE OIL

23 Ga **TMC 177**
25 Ga **TMC 178**

CANNULA FOR OUT SILICONE OIL

TMC 179

RETINAL CANNULA STRAIGHT

23 Ga **TMC 180**
25 Ga **TMC 181**

ADAPTER - PORT INSERTING

20 Ga **TMV 306**
23 Ga **TMV 313**
25 Ga **TMV 323**

ADAPTER - PORT

20 Ga **TMV 304**
23 Ga **TMV 311**
25 Ga **TMV 321**

ADAPTER - PLUG

20 Ga **TMV 305**
23 Ga **TMV 312**
25 Ga **TMV 322**

FORCEPS FOR PORT

TMV 301

FIXATOR OF PORT

TMV 302

INSTRUCTION FOR INITIAL USE

It is essential that the instrument be cleaned and sterilized before initial use following the procedures as outlined in this instruction brochure.

CARE AND HANDLING

Intraocular tips have a delicate precision mechanism inside. Intraocular fluids will enter this mechanism during surgery. If these fluids are not promptly and properly cleaned out, it will lead to corrosion or clogs and the possibility of instrument malfunction. Proteins may also accumulate inside of the mechanism.

CLEANING

1.Unscrew the tip from the handle, then attach flushing adapter 

2.Ultrasonically clean both parts, if possible.
3.Flush the tip with distilled or deionized water by connecting syringe filled with water to adapter.
4.Flush the tip with alcohol. This will remove the water and facilitate drying.
5.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.
6.Force special thermoresistant instrument milk through the tip, as in No 3 above.
7.Dry with air as in No 5 above.
8.Handle should be soaked in distilled or deionized water for two minutes.
9.Dry with surgical sponge.
10.Lubricate joints in handle with instrument milk and work the mechanism.

INSTRUMENT DETERGENTS AND/OR CLEANERS

Only detergents and cleaners specially designed for use on surgical stainless steel or titanium instruments are acceptable for use in the cleaning process. The cleaning guidelines of the solution manufacturer and your institution should be observed.

ULTRASONIC CLEANING EQUIPMENT

An ultrasonic cleaner could also be used in the instrument cleaning process, but not as the sole cleaning method. The instrument should, at the very least, be flushed with distilled water prior to being placed in the ultrasonic cleaner. five to ten minutes cycle in the ultrasonic cleaner should be sufficient. The instrument must be secured on silicone finger mat during the ultrasonic cleaning procedure. Special car should be taken t make certain that the tip of the instrument does not come into contact with the sides of the ultrasonic container, as this could damage the instrument.

LUBRICATION

Moving parts and working mechanisms of the Titan Medical instruments should be lubricated occasionally with medical grade instrument lubricant (especially after an ultrasonic bath) t ensure the smooth operation of the working mechanism. The recommended directions of the instrument lubricant manufacturer and your institution should be observed.

STORAGE AND STERILIZATION

Surgical instruments should be stored in the sterilizing trays of proper size 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. 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 they take 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 stainless steel 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. TITAN MEDICAL instruments can be sterilized using any of the following methods:

100/ ETO cycles
Concentration ET0: 850+50mg/l
Temperature: 37ºC - 47ºC
Exposure time: 3-4 hours
Humidity: 70/ RH minimum

Steam Autoclaving
Sterilizer Type: Gravity Displacement Prevacuum
Sample Config.: wrapped wrapped
Temperature: 121ºC to 123ºC 132ºC to 135ºC
Exposure time: 15 to 30 minutes 3 to 4 minutes

'Flash' Autoclaving
Sterilizer Type: Gravity Displacement Prevacuum
Sample Config.: unwrapped unwrapped
Temperature: 132ºC
Exposure time: 3 minutes

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, TITAN MEDICAL 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.

INSPECTION

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.

WARRANTY

Warranty period is 2 years from the date of sale. Manufacturer assumes obligation to repair or replace the defective instrument, if defect developed under normal use / storage of the instruments.

CLAIMS

Claims accompanied with this leaflet should be sent to Manufacturer's address:
Technicheskaya str., 120 A, 420054, Kazan, Russia,
Phone/Fax: +7 (843) 277 07 78, +7 (843) 260 17 58

STATEMENT OF COMPLIANCE

This Instrument is in compliance with technical documentation, is ready for the supply, is fit for regular usage.

RECYCLING

Instruments are non-toxic, apyrogenic, recyclable. Before recycling instruments must be disinfected.