Duckworth & Kent Ltd.

titanium surgical instrument manufacturer

Manufacturing in England since 1959

Toric Markers Catalogue

Toric Markers

The Toric IOL's can result in marked reduction of astigmatism and therefore a high likelihood of spectacle freedom for distance vision. However, one must be able to correctly identify the intended meridians for the incision and axis alignment in order to achieve success.

9-840
Cionni Toric Reference Marker

Marks Created

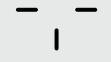
- 3 blades, radial marks
- 10.0mm inside diameter, 15.0mm outside diameter
- 70° angled shaft
- Round handle, length 124mm

9-840-1
Cionni Toric Reference Marker for small eyes

Marks Created

- 3 blades, radial marks
- 8.5mm inside diameter, 12.75mm outside diameter
- 70° angled shaft
- Short round handle, length 97.5mm

9-840-2
Barrett - Cionni Toric Reference Marker



Marks Created

- 3 blades, radial marks
- 8.0mm inside diameter, 15.0mm outside diameter
- 70° angled shaft
- Round handle, length 124mm

The Cionni Toric Reference Marker is used to mark the horizontal and vertical reference meridians. It is imperative to identify these meridians because they will be used to further identify the desired meridians for the incision and IOL alignment. The reference marks should be identified with the patient in an upright position as the eye typically rotates when the patient is supine. After applying a drop of topical anaesthetic, the marker's dull "blades" are coated with a marking pen. With the patient looking straight ahead, the marker is held so that the horizontal blades are aligned with the patient's 0 and 180 meridians. The marker is moved forward towards the eye so that the three blades touch the limbus at 0, 90 and 180 degrees.

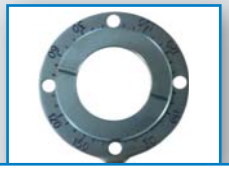
9-840-3
Four Blade Toric Reference Marker

Marks Created

- 4 blades, radial marks
- 8.5mm inside diameter, 12.75mm outside diameter
- 70° angled shaft
- Short round handle, length 97.5mm

Creating marks for the desired axis of IOL alignment

9-841
Cionni Toric Axis Marker



Marks Created

- 2 rotating blades, radial marks
- 11.0mm inside diameter, 15.0mm outside diameter
- Measures 0° to 180° in 10° increments

- External gauge diameter 18.0mm
- 45° angled shaft
- Flat handle, length 116.5mm

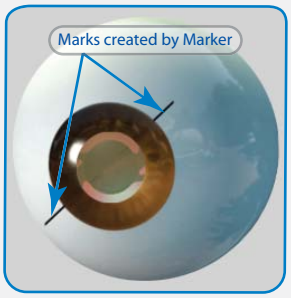
9-841-1
Cionni Toric Axis Marker for small eyes

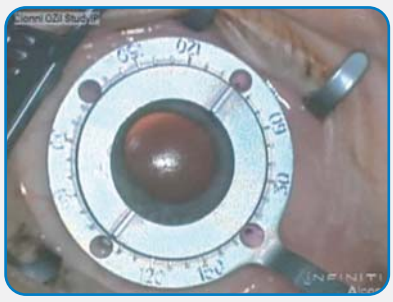
Marks Created

- 2 rotating blades, radial marks
- 9.35mm inside diameter, 12.75mm outside diameter
- Measures 0° to 180° in 5° increments

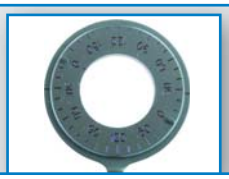
- External gauge diameter 16.0mm
- 40° angled shaft
- Flat handle, length 116.5mm

Marking the incisional and desired axis of IOL alignment can be accomplished using the Cionni Toric Axis Marker (ref:9-841). The line on the top portion of the marker is rotated to set the blades to the desired meridian for the incision or IOL axis. The two blades on the underside of the Axis Marker are then coated with a marking pen and the limbus dried with a sponge. The Axis Marker is then positioned over the eye, lining up the holes at the horizontal and vertical meridians with the previously made limbal reference marks . The Axis Marker is then lowered to touch the eye so that the blades make the desired marks on the limbus.
The Cionni Axis Marker 9-841 creates marks at the limbus away from the marks of the IOL. Only one instrument is required to align and create the marks. The





9-841-2
Barrett Toric Axis Marker



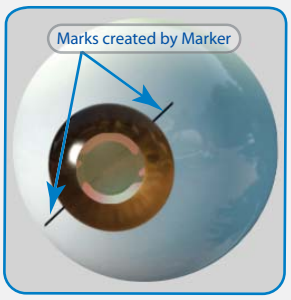
Marks Created

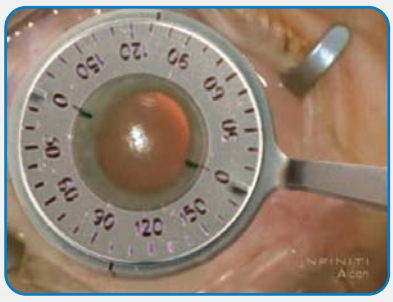
- 2 fixed blades, orientated 90° to handle
- 11.0mm inside diameter, 15.0mm outside diameter
- Rotating dial measures 0° to 180° in 10° increments

- External Gauge diameter 18.0mm
- 45° angled shaft
- Flat handle, length 116.5mm

Designed for surgeons familiar with placing a 2 blade axis markers inside a Mendez gauge. The 2 blades on the Barrett Toric Maker are fixed and the degree gauge scale rotates, so the surgeon relates the blade orientation to the handle.

First, the degree gauge is rotated, lining up the desired meridian for the IOL axis to the lines on the edge of the marker. The two blades on the underside of the Axis Marker are then coated with a marking pen and the limbus dried with a sponge. The Axis Marker is then positioned over the eye, rotating the handle to line up the lines at 0 degrees on the degree gauge with the horizontal meridians previously made by the reference marker. The Axis Marker is then lowered to touch the eye so that the blades make the desired marks on the limbus.





Videos showing Duckworth & Kent Toric Markers, can be found on the Duckworth & Kent website in the media centre under the section of cataract. Alternatively scan the QR Code and be taken straight to them via your smartphone.

www.duckworth-and-kent.com/media/video_list.asp

Patent Pending on 9-841-3

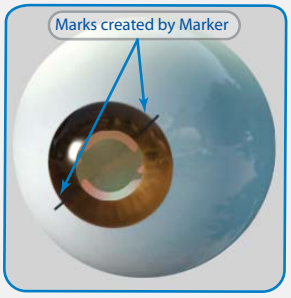
9-841-3
R J Mackool™ Axis Marker

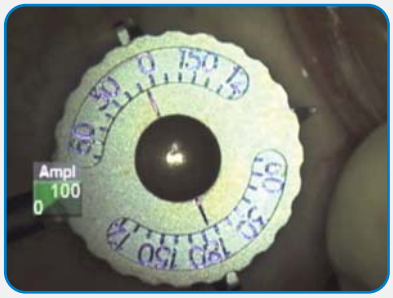
Marks Created

- 2 rotating blades
- 9.0mm inside diameter, 12.8mm outside diameter
- Measures 0° to 180° in 10° increments
- 3 non-marking reference blades
- 45° angled shaft
- Round handle, length 127mm

The R J Mackool™ Toric Axis Marker features an easier to operate pre-settable dial. This permits the technician, operating room nurse or surgeon to precisely set the instrument dial within seconds, as opposed to the cumbersome alternative of turning the instrument over to view the marking blades on the bottom of the instrument, while simultaneously attempting to grasp and align them with the gauge on the top of the instrument.

A unique blade design retains dye, permitting the cornea to be marked with the lightest of touch, and all blades extend 1 mm from the diminutive dial where they are easily observed during the corneal marking. The rounded edges of the marking blades prevent abrasion to the cornea during the marking manoeuvre, and their extension well beyond the diminutive central portion of the marker permits the surgeon to see the blades as they are placed at the preselected meridian .





9-705R-1
Mendez Degree Gauge

- Measures 0° - 180°
- 5° increments marks
- Internal gauge diameter 12.0mm
- External gauge diameter 14.0mm
- 60° angled handle
- Round handle, length 103mm

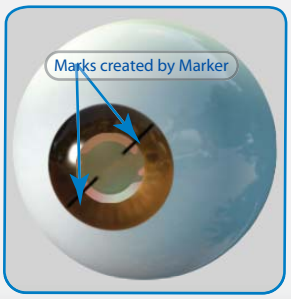
9-729-1
Axis Marker

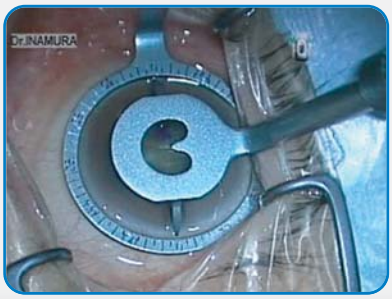
Marks Created

- Two blades with centre pointer
- 4.0mm inside diameter, 11.6mm outside diameter
- Round handle, length 95mm

The two blades on the Axis Marker are coated with a marking pen. The Mendez Degree Gauge is aligned with the patient's meridians at 0°, 90° and 180° and placed on the eye. The Axis Marker is then lined up using the Mendez Degree Gauge with the desired meridian for the incision or IOL axis. The Axis Marker is then lowered to touch the eye so that the blades make the desired marks. The ends of the blades come to a point at the tip allowing accurate alignment with Mendez Degree Gauge.

The Axis Marker 9-729-1 and Mendez Gauge used together create marks on the cornea which easily align with IOL marks. The Mendez Gauge has measurements every 5 degrees and has a maximum diameter of 14.0mm.



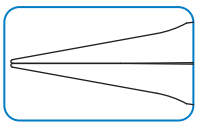


Limoli's Goniometric Caliper

accurate measurement of the correct axis for the Toric IOL implant

The concept of using the traditional surgical caliper but changing the measurement scale of the ring from mm to degrees, has led to the creation of the Dr. Limoli's Goniometric Caliper. This enables an accurate measurement of the correct axis for the Toric IOL implant.

9-654
Limoli Goniometric Caliper



- 0.1mm x 0.1mm delicate marking tips
- Measures 0° to 90° in 5° increments
- Measurements from centre of tips
- Adjustable thumb screw
- Standard caliper handle

Procedure for the implantation of Toric IOL implants with Dr. Limoli's goniometric caliper

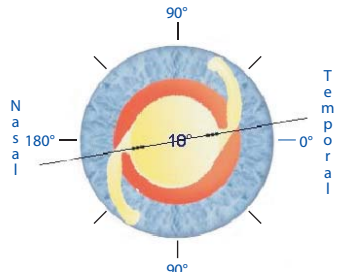
1) The pre-operative marking is extremely important.
Dip a traditional caliper onto an ink pad (reference DK Castroviejo Style Marking Caliper, 9-650). Press the traditional caliper opened to 12mm (corneal diameter) onto the limbus in order to mark it with a axis 180°- 0°. The marking should be performed with the patient seated in front of the slit lamp or on a chair in the pre-operative room.

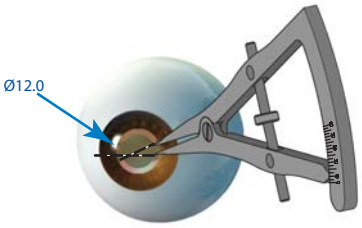
2) Perform topography. This will demonstrate whether the marking done on the microscope is correct and if not, by how many degrees it is incorrect. Usually it's very difficult to make the first marking perfect. Therefore, the topographic analysis permits an evaluation of the magnitude of any mistake before marking the axis of the IOL implant.

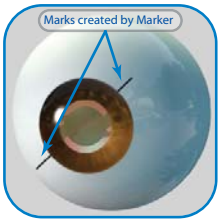
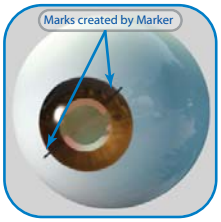
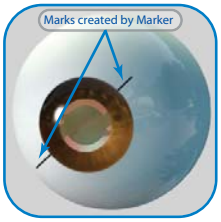
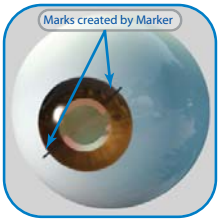
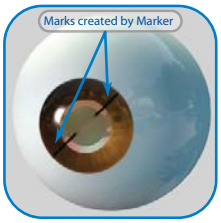
3) The caliper opening is marked in degrees to enable the correct axis to be chosen on the limbus. For example, in the case of an IOL implant with an axis at 10°, the caliper is opened to 10°. If the first marking is done correctly on the axis 180°- 0°, then proceed with marking the other axis needed for the implant. Press one of the tips previously dipped in the ink pad on the first marking, then press the second tip on the axis identified along the limbus.

Note: If the topography identified any error in the pre-operative markings, then correct by adding or subtracting to the desired axis by opening or closing the goniometric caliper.
The imprint ink created by the two points of the caliper on the limbus subtends an axis coincident with the axis of the Toric lens implant. The caliper has a maximum opening of 90° to allow for the measurement of the axis in each quadrant along the limbus. If the identification of corneal astigmatism and the implant axis are properly managed and the IOL implant doesn't move after the surgery, the outcome from this surgical procedure is quicker, more precise and safer than the same surgery using current techniques.

Note: The Limoli Goniometric Caliper has been calibrated to work on a 12mm diameter.





Toric Axis Marker	Marks Created	Benefits	Recommended Reference Marker
 **9-841**		Cionni Toric Axis Marker, 9-841 - Single Handed Instrument - Gauge diameter 18.0mm - 2 blades rotate within the degree gauge - Easy to use, measurements every 10 degrees - Marks at the limbus	 **9-840**
 **9-841-1**		Cionni Toric Axis Marker for small eyes, 9-841-1 - Single Handed Instrument - Gauge diameter 16.0mm, suitable for small eyes - 2 blades rotate within the degree gauge - Easy to use, measurements every 5 degrees - Marks at the limbus	 **9-840-1**
 **9-841-2**		Barrett Toric Axis Marker, 9-841-2 - Single Handed Instrument - Gauge diameter 18.0mm - Degree gauge scale rotates, blades are fixed to handle - For surgeons familiar with 2 blade axis marker and Mendez gauge - Easy to use, measurements every 10 degrees - Marks at the limbus	 **9-840-2**
 **9-841-3**		R J Mackool™ Toric Axis Marker, 9-841-3 - 2 rotating blades - 9.0mm inside diameter, 12.8mm outside diameter - Measures 0° to 180° in 10° increments - 3 non-marking reference blades - 45° angled shaft - Round handle, length 127mm	 **9-840-1**
 **9-729-1** **9-705R-1**		Axis Marker, 9-729-1, and Mendez Gauge, 9-705R-1 - Suitable for restricted eyes, gauge diameter 14.0mm - Degree Gauge measurements every 5 degrees - Marks on cornea	 **9-840-1**

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