PRECIZON™

Patented Transitional Conic Toric

- ✓ PROVEN STABILITY
- ✓ TOLERANT MISALIGNMENT
- ✓ PUPIL INDEPENDENT
- ✓ 2.2mm MICRO INCISION

The #1 problem
with Toric Lenses is

Rotation

Precizon™ Toric

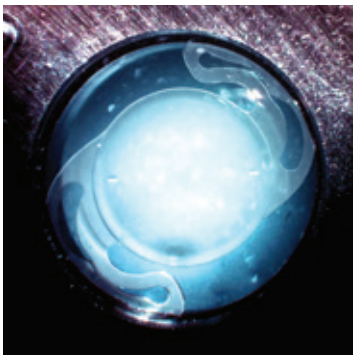
solves rotation
Mechanically & Optically

Average of 3.1° rotation at 4-6 months*;
1.9° rotation reported by 'best practice'.

Transitional Conic Toric Surface
designed to **tolerate misalignment**.

** data on file*

// PRECIZON TORIC FEATURES

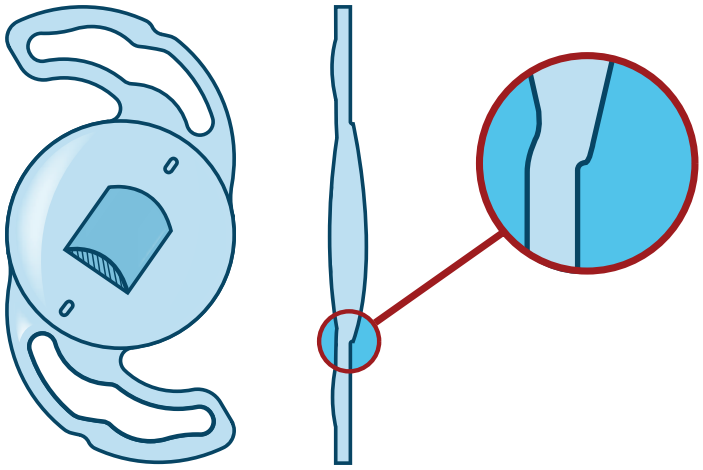


Precizon Toric
Mechanical Haptic Feature

The space between the inner haptic stays open with compression down to 9 mm. This opening is designed to allow a “fibrosis anchor”. This will enhance the stability and reduce late post-op rotation of the lens.

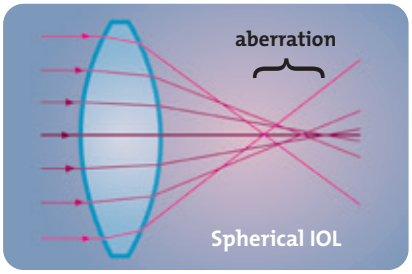
Precizon Toric
Offset haptics reduce PCO

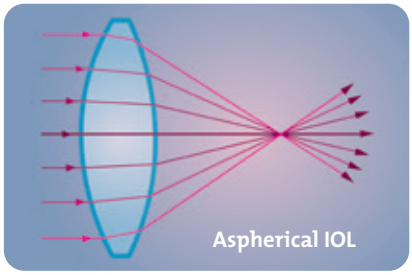
The Precizon family IOLs have offset shaped haptics. This shape enables the lens to adhere to the posterior capsule, to prevent early postoperative rotation and to reduce PCO.



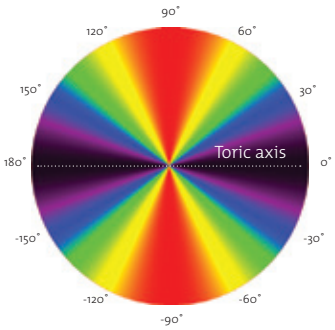
Precizon Toric
Aberration Neutral

In a conventional spheric lens design, spherical aberration occurs because the dioptric power in the periphery of the lens is different from the dioptric power in the centre of the lens (optical axis). These aberrations influence Contrast Sensitivity and Depth of Focus. The Precizon Toric IOL has an aspherical anterior side, resulting in aberration neutral optic.





Aberration free aspherical surface

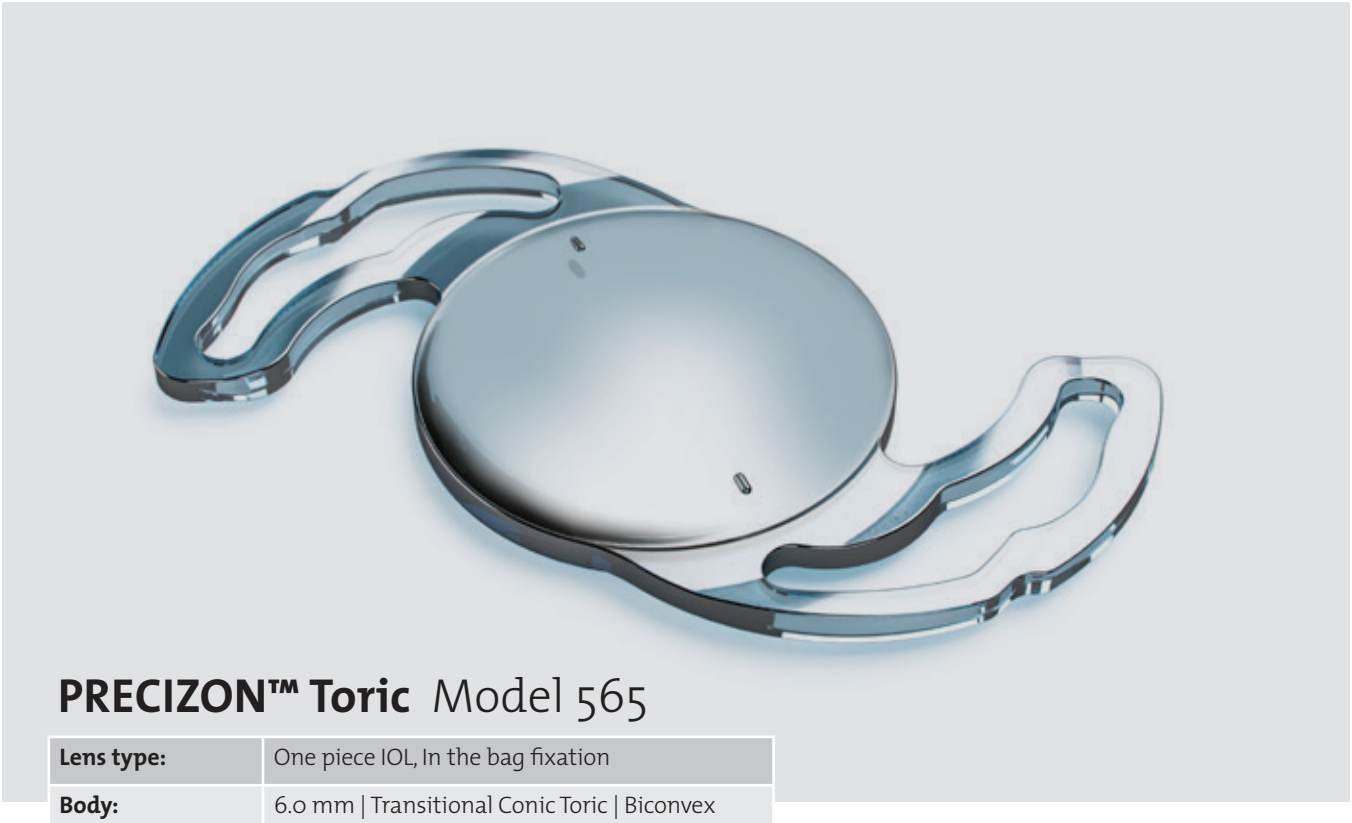


Aberration neutral Transitional Conic Surface of the Precizon™ Toric

Precizon™ Toric
Allows more tolerance when misaligned

The ‘Transitional Conic Toric Surface’ blends into the aspheric surface of all meridians leading to a broader toric surface.
This will extend the depth of vision (EDOV) and will keep the toric surface in alignment with the patient’s astigmatism even when slightly misaligned.

// PRECIZON™ SPECIFICATIONS



PRECIZON™ Toric Model 565

Lens type:	One piece IOL, In the bag fixation
Body:	6.0 mm | Transitional Conic Toric | Biconvex
Material:	Hybrid hydrophobic & hydrophilic monomers. Ultraviolet filtering HEMA/EOEMA Copolymer
Overall Ø:	12.5 mm
Angulation:	0°
A-Constant*:	118.0 (A Scan)
	118.6 (IOL Master; SRK T) | 118.7 (IOL Master; SRK II)
	0.567 (IOL Master; Haigis a0) | 0.123 (IOL Master; Haigis a1) 0.159 (IOL Master; Haigis a2)
	5.27 (IOL Master; Hoffer-Q pACD)
	1.53 (IOL Master; Holladay 1 sf)
Available Powers:	+1.0 D to +34.0 D *(0.5 increments)* Cylinder 1.0 D to 10.0 D *(0.5 increments)*
Refractive index:	1.46
IOL Spherical Aberration:	360° | 0 µm

** Check www.ophtec.com for actual A-constants*

KEY BENEFITS

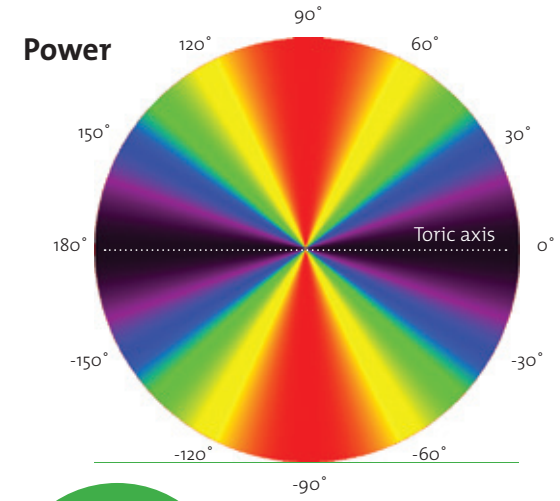
- **Transitional Conic Toric Surface** *(patented).*
- **Average of 1.9° rotation reported by 'best practice'.**
- **360° square edge optic results in optimized PCO barrier.**

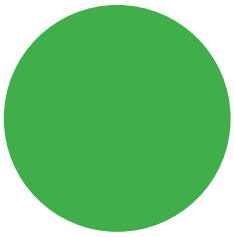
PRECIZON™ Monofocal Model 560

Lens type:	One piece IOL, In the bag fixation
Body:	6.0 mm
Material:	Hybrid hydrophobic & hydrophilic monomers. Ultraviolet filtering HEMA/EOEMA Copolymer
Overall Ø:	12.5 mm
Angulation:	0°
A-Constant:	Convex Concave: 103.8 Estimated Biconvex: same as Precizon Toric
Available Powers:	-10.0 D to 0.0 D (Convex concave, 0.5 increments) +1.0 D to +35.0 D (Biconvex, 0.5 increments)
Refractive index:	1.46
IOL Spherical Aberration:	360° | 0 µm

// DESCRIBING PRECIZON™ TORIC TRANSITIONAL CONIC SURFACE

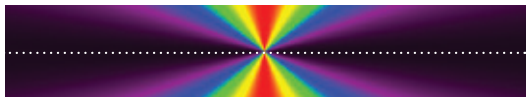
Precizon™ Toric
(Transitional Conic Surface)



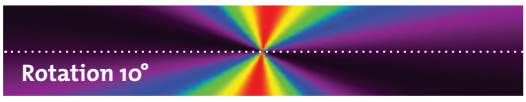


Spherical equivalent

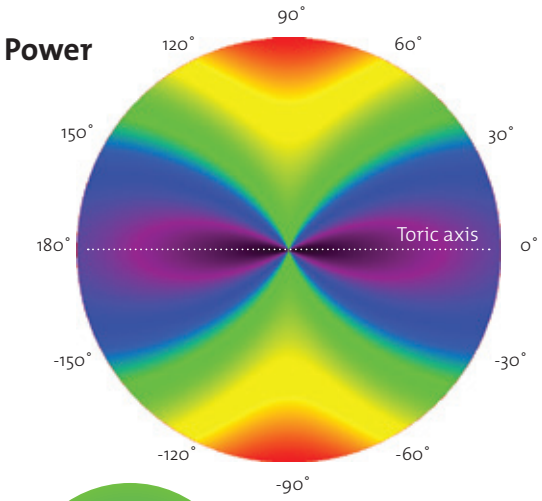
The dioptric power is calculated per meridian resulting in a constant dioptric power from the center of the lens to the edge:

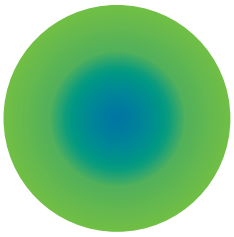


Broader Toric meridian designed to be more tolerant of misalignment, tilt and decentration:



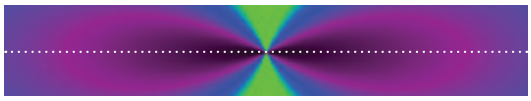
Standard Toric



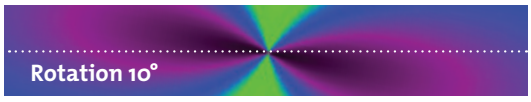


Spherical equivalent

The dioptric power for a standard toric IOL is calculated as the opposite of the corneal astigmatism including the natural spherical aberrations:



When a standard toric lens is rotated 10 degrees it is out of alignment with corneal astigmatism:



// PRECIZON™ TORIC ADVANTAGES

- **Broader Toric meridian** designed to be more **tolerant of misalignment**
- **Constant power over each meridian**, resulting in a constant Spherical Equivalent (SE) power, designed to provide optimal visual acuity
- **Aperture independent Spherical Equivalent power** and aberration neutral, designed to provide optimal visual acuity
- **Aperture independent cylinder power**, designed to provide optimal visual acuity.

// PRECIZON™ ONLINE CALCULATOR

>> http://calculator.ophtec.com

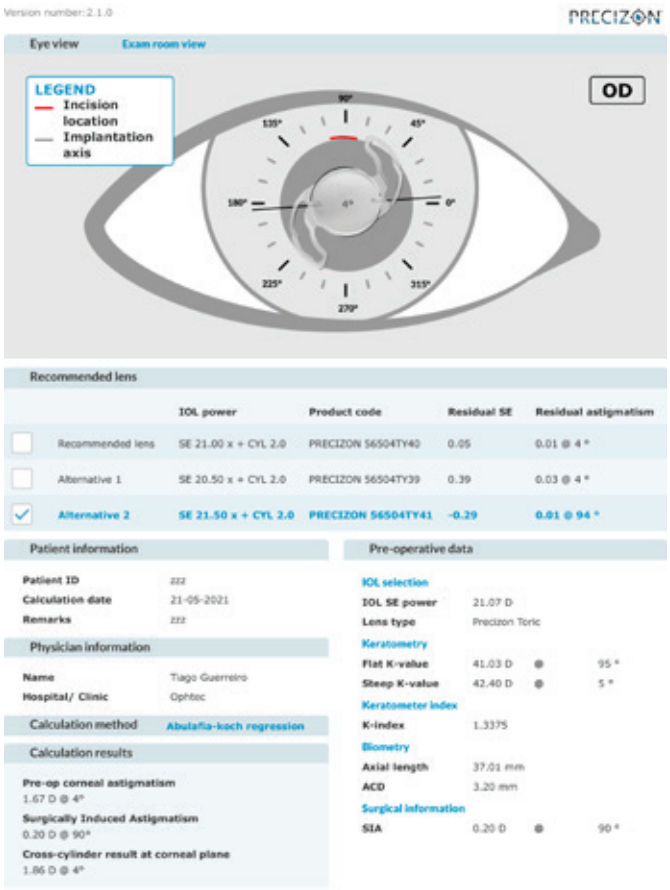
The Precizon Ophtec Calculator is available online and is intended for use by certified ophthalmologists to aid in proper IOL cylinder power selection for cataract patients with corneal astigmatism. The website calculates and displays the nearest suitable IOL power and the implantation axis recommended to minimize postoperative astigmatism.

For your calculation you have two options to choose from, either the standard K formula or the Abulafia-koch regression formula. The Abulafia-Koch formula takes into account a predicted value for the posterior cornea astigmatism.

The calculation result and lens power recommendation can be downloaded or emailed as a pdf file. The calculation result page displays the patient information, physician information and pre-operative data as entered by the user.

Under 'Results calculation' the calculation results are displayed:

- **Preoperative corneal astigmatism**
  Preoperative astigmatism and axis based on keratometry data entered by user.
- **Surgically induced astigmatism:**
  Astigmatism and axis induced by the incision based on SIA and IL data entered by user.
- **Cross-cylinder result (corneal plane)**
  Combined astigmatism and axis of preoperative corneal astigmatism and SIA on corneal plane.
- **Cross-cylinder result (IOL plane)**
  Combined astigmatism and axis of preoperative corneal astigmatism and SIA on IOL plane.



This data is visualized in an image that displays a recommended axis of implantation equal to the calculated cross-cylinder result on IOL plane. In the same page a recommended nearest available toric IOL model is displayed with two alternative models if available. You will be also able to change manually the sphere and/or cylinder after calculations so you have more options available for each specific patient. For each option the anticipated residual SE and residual astigmatism is listed. The desired lens may be check marked for the printout.

Accurate alignment is a function of several factors;

// MEASURING & MARKING PEARLS*

- K reading: Use multiple measurements when defining the K value. At least one of the devices you use should be a topographer. Look at the average topographer measurements over the central 3 or 4 mm.
- Consider what the refraction shows. If it is a proper measurement and the patient has acceptable vision, it often gives some clues about the against-the-rule astigmatism that may be present on the posterior corneal surface.
- Base the cylinder correction on the corneal astigmatism, not the refractive astigmatism. When the patient has cataract surgery, any amount of lenticular astigmatism that was there will be removed.
- Know your specific surgically induced astigmatism factor. The Precizon™ online calculator takes this factor into account when calculating the implantation axis.
- Be wary of leaving the patient with against-the-rule astigmatism. Patients generally tolerate with-the-rule astigmatism better than against-the-rule astigmatism. Overcorrecting it could create some against-the-rule astigmatism, which the patient will not tolerate.

// PEARLS FOR THE OR*

- Bring the toric axis printout into the OR for reference.
- Consider creating a smaller capsulorhexis. Overlap of the capsulorhexis all around the optic helps with stability.
- Make sure that all viscoelastic material is removed. Expect the lens to rotate a little clockwise when you remove the viscoelastic. When rotating the lens, stop about 10 to 30 degrees short of the intended axis. After removal the IOL should be positioned in the proper axis.
- To maintain IOP most surgeons inject saline in the AC. Compared to regular aphakic lens implantation, in toric lens implantation the AC should be filled less than normal. When overinflating the anterior chamber with balanced salt solution the tendency for the IOL to rotate can increase.

** Source: adapted from: Review of Ophthalmology 1/22/13 - Toric IOLs: Nailing The Alignment*

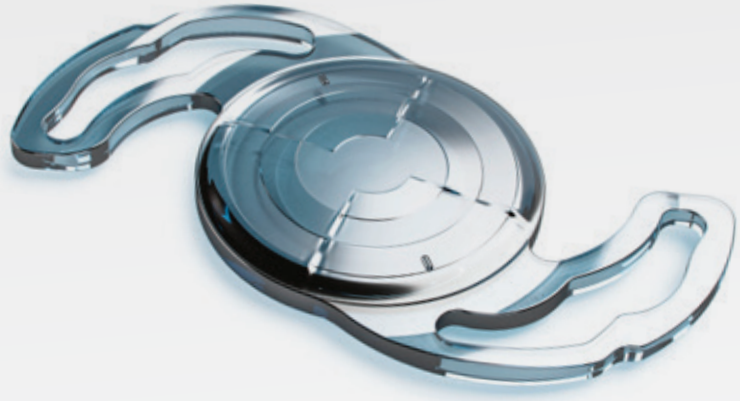
PRECIZON™

Aspheric Presbyopic Toric IOL

SPECIFICATIONS

PHYSICAL CHARACTERISTICS	PRECIZON PRESBYOPIC TORIC
Model	575 Precizon Presbyopic Toric One piece IOL
Optic type	**Aberration Negative (- 0.11 µm)** Continuous Transitional Focus (CTF) optic
Central far zone size Y/X	1.4 / 2.6 mm
Rotated segments width	0.60 mm
Number of segment rings	3 n
Refractive index	1.46
Abbe number	47
Optic powers	Sphere: +5.0 D to + 34.0 D (0.5 D increments) * / ** Cylinder: +1.0 D to + 6.0 D (0.5 D increments) Power add +2.75 D.
Haptic configuration	Open modified C-loops with offset shaped haptics
Lens material	**Hybrid** hydrophobic & hydrophilic monomers. Ultraviolet filtering HEMA/EOEMA Copolymer
Lens colour	Clear
Body Ø	6.0 mm
Overall Ø	12.5 mm
Haptic angle	0°
Centre thickness range	0.8 to 1.3 mm
Body edge thickness	0.4 mm
A-constant* Ultrasound**	118.0
A-constant* Optical**	118.8 (SRK T) | 118.8 (SRK II) | 0.126 (Haigis a0) 0.355 (Haigis a1) | 0.157 (Haigis a2) 5.51 (Hoffer-Q pACD) | 1.72 (Holladay 1 sf) 1.78 (Barrett suite LF | 0.0 (Barrett suite DF)
Light distribution	40/60 near/far

* The minimum Sphere power is 1.5 + C e.g. 575A107TY10 = S5.0 & C3.5 (1.5+3.5=5.0)
** The maximum Sphere power is 35 - C e.g. 575A111TY59 = S29.5 & C5.5 (35-5.5=29.5)
*** Check www.ophtec.com for up to date A-constants



PRESBYOPIA & ASTIGMATISM CORRECTION **REINVENTED**

Optic designed to:

- ✓ REDUCE GLARE & HALOS[a]
- ✓ TOLERATE THE KAPPA ANGLE[b]
- ✓ TOLERATE DECENTRATION[c]
- ✓ TOLERATE MISALIGNMENT[d]

Nature is not an optical bench
- Treat presbyopia & astigmatism with confidence -

a) The misalignment tolerance and the use of segments instead of concentric rings reduces photic phenomena, helping patients to adapt more naturally to their new vision.
b) The central zone of 1.4 mm in diameter is larger than most available mIOLs and allows a wider tolerance so that the visual axis passes through the wider central segment avoiding visual disturbances.
c) In cases of tilt or misalignment, the patient can still benefit from good near and far vision, as the segmented zones allow a balanced far/near light distribution in a steady optical platform.
d) Broader Toric meridian designed to be more tolerant of misalignment. White paper: Evaluation of a new toric IOL optic by means of intraoperative wavefront aberrometry (ORA system): the effect of IOL misalignment on cylinder reduction. By Erik L. Mertens, MD Medipolis Eye Center, Antwerp, Belgium

// PRECIZON TORIC ONLINE PRESENTATIONS:

Prof. George Beiko, Canada
Initial experience with toric lens tolerant of misalignment.

Dr Tiago Ferreira, Portugal
How to improve results with the Precizon Toric by evaluating astigmatism with a new color-LED topographer.

Dr Eunice Guerra, Portugal
Visual Performance and Stability of a Monofocal Toric IOL - Precizon by Ophtec.

Prof. Dr Mike Holzer, Germany
Diagnostic and surgical specifications for toric IOL implantation and experiences with the Precizon toric IOL.

Prof. Tae-Im Kim, Korea
Korean experience of Precizon Toric IOL.

Dr Mercè Morral, Spain
Astigmatism Management in Cataract Surgery with a New Aspheric Toric Intraocular Lens.

Dr João Paulo Cunha, Portugal
Evaluation of a Precizon Toric Intraocular lens. Stability and Aberrometry.

Dr Emilio Segovia, Spain
12 months experience with the Precizon Toric intraocular lens.

Dr Carolina Vale, Portugal
Astigmatism management in cataract surgery with Precizon Toric IOL: Prospective study.

See: **www.youtube.com/ophtecbv**
playlist: Precizon Toric

PRECIZON™
Family Aspherical IOLs

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For more information on our products and our worldwide offices please go to: