SwissLens | Fitting Guides ToriFlex

ToriFlex are toric RGP lenses designed with toric shapes and toric optics or spherical back surfaces with toric optics depending on the corneal topography and final prescription.

Available in the following materials:

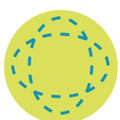
Optimum Classic / Optimum Comfort / Boston ES / Boston EO / Boston XO / Infinite

Scan this QR code for more information about our RGP lens materials.

Versions on the design:

ToriFlex Evo Bitoric:

- Toric back and front optical zones with an adjustable BOZ diameter
- Multicurve flattening, adjustable edge lift for each meridian
- 2 dots **along corneal flat meridian**



Lens engraved marks:



***ToriFlex* S2A:** Legacy lens design (*only for renewal*)

ToriFlex Evo Front-Toric:

- Prismatic toric front optical zone, spherical back optical zone with an adjustable diameter
- Multicurve flattening, adjustable edge lift
- 2 dots at **0° and 180°**



Available in multifocal design

Bifocal (Bf) / Simple progressive (Sp)

Scan this QR code for more information about our multifocal options.

Available in Myopia Management specific design

Relax System (RelaxFlex T)

Scan this QR code for more information about our myopia management options (Relax System).

Parameters to order:

Parameter name	Description	Range of values	Steps
Total DIA	overall diameter of the lens	9.00 mm → 12.00 mm	0.10 mm
R0	base curve of the lens. Flat meridian base curve for Bitoric design.	6.00 mm → 10.00 mm	0.01 mm
R0' *	steep meridian base curve for Bitoric design.	6.00 mm → 10.00 mm	0.01 mm
Edge Lift Flat	lens flattening for peripheral landing. Along flat meridian for Bitoric design. *(also available in eccentricity values)*	-15 → +20	1
Edge Lift Steep *	lens flattening for peripheral landing along steep meridian, only for Bitoric design. *(also available in eccentricity values)*	-15 → +20	1
Sphere	value of spherical prescription (flat meridian sphere for Bitoric design)	-40.00 D → +40.00 D	0.01 D
Sphere' (S') *	steep meridian total prescription for Bitoric design (sphere + cylinder)	-40.00 D → +40.00 D	0.01 D
Cylinder	value of cylinder prescription for Front-Toric design.	-10.00 D → -0.01 D	0.01 D
Axis	value of cylinder axis for Front-Toric design.	0° → 180°	1°
Addition **	value of Add power for reading	+0.01 D → +6.00 D	0.01 D
Zoc **	size of central optic zone	0.50 mm → 5.50 mm	0.01 mm

* Only for ***ToriFlex Evo*** Bitoric fitting / **Only for ***ToreliFlex*** (multifocal) fitting

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How to fit *ToriFlex Evo*?

TORIC DESIGN SELECTION

STEP **01**

Toric Variant recommendation	Amount of corneal cyl.
Bitoric	flat K - steep K ≥ 0.30 mm (1.50 D)
Front-Toric	flat K - steep K < 0.30 mm (1.50 D)

BASE CURVE + DIAMETER
(EMPIRICAL CALCULATION)

STEP **02**

	Bitoric	Front-Toric
Base Curve (R0)	R0= Kflat	R0= Kflat
	R0'= Ksteep	
Lens Diameter	*Total DIA empirical calculation:* **HVID/WTW - 1.50 mm** *Based on a statistical average 11.80 mm corneal diameter*	

LENS POWER:

STEP **03**

		Lens Power
Bitoric	Sphere	spectacle's **sphere** value considering the vertex distance
	Sphere' (S')	spectacle's **sphere + cyl.** value considering the vertex distance
Front-Toric	Sphere	spectacle's **sphere** value considering the vertex distance
	Cylinder and Axis	Cyl and Axis needed for internal astigmatism correction - front surface of the lens. **(ask your SwissLens consultant to calculate)**

- Insert lens and wait until getting a natural tearing from patient (avoid fitting assessment during reflexive tearing). How long it takes will depend on the patient. Ask patient to look at the floor to minimise the foreign body awareness.
- Evaluation of the subjective comfort.
- Over-refraction

Fitting instructions

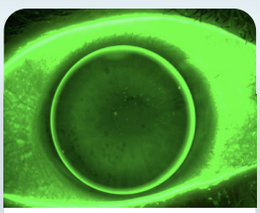
- Slit lamp examination:
  - Static evaluation with fluorescein:
    - Evaluation when patient is in primary gaze position and keeping the lens centred on the cornea without the action of eyelids over the lens (open eyelids widely and if needed, perform a very slight push up to keep lens centred) :
      Evaluation of the tear film thickness under the lens → tear film < 10µm *(no florescein is visible)*.
      The optimal fluorescein pattern shows a slight central pooling and a fluor ring in the edge (approx. 0.75 mm).
  - Dynamic evaluation with diffuse illumination:
    - Eye in primary gaze position and blinking normally.
    - Align the narrowed slit matching the 2 dots engraved on the lens and take note of the stabilisation axis (check the corresponding value on the built-in TABO scale for slit rotation).
    - Movement (speed) and position after blinking and during eye movements: Vertical and Horizontal movement while fitting Front-Toric design.
    - For Bitoric design fitting, assess lens movement along flat and steep meridians. Meridian with 2 dots engraved shall match with corneal flat K
      Movement should be around 1 mm.
    - Centration: A good fitting will show the lens evenly centred on cornea (± 0.50 mm).
    - If upper eyelid is pushing the lens down, increase lens total DIA between +0.30 mm up to +0.50 mm.
    - If persistent upwards lens decentration, decrease lens total DIA between -0.30 mm down to -0.50 mm.

For ToriFlex Evo Bitoric:

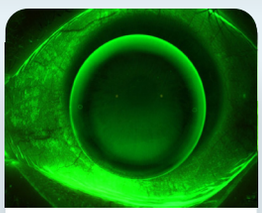
- The 2 dots engraved on the lens shall match with corneal flat K, otherwise lens back toricity (difference between R0 and R0') is not adequate to corneal toricity.
- In case of lens decentration or excessive movement along 2 dots' meridian, steepen R0 by -0.10 mm.
- If decentration and excessive movement is observed along perpendicular meridian to the 2 dots, steepen R0' by -0.10 mm.

For ToriFlex Evo Front-Toric:

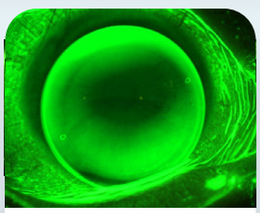
- The 2 dots engraved on the lens shall be aligned at 0° - 180°, otherwise:
  - If lens rotation is stable while blinking and during eye movements, LARS rule (Left Add Right Sub-tract) must be applied for the new lens remake.
  - If lens rotation is constantly changing, increase ballast prism amount if possible or refit the lens by adjusting parameters or switching to Bitoric.
- In case of lens decentration showing excessive movement, steepen R0 by at least -0.10 mm.
- If decentration is observed with lens showing insufficient movement, flatten R0 by +0.10 mm.



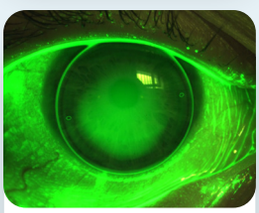
Optimal Fit



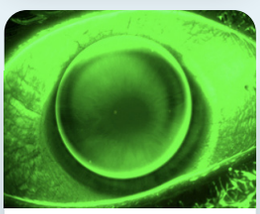
Excessive edge lift



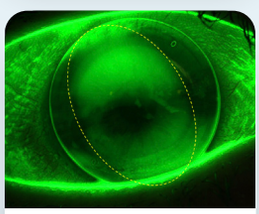
Flat BC (R0)



Steep BC (R0)



Insufficient toricity
(R0' too flat in Bitoric)



Switch to Bitoric
(fluorescein leakage in Front-Toric)

Common troubleshooting:

		Possible adjustments			
Problem	**Possible motive**	**Total DIA**	**Base Curves (R0 and/or R0')**	**Edge Lift**	**Others**
Lens excessive movement	Insufficient lens Sag Flat Base Curve Lens Total DIA too small Excessive edge lift	**Increase** +0.20 mm	**Steepen** -0.10 mm	**Decrease** -1 step	----
Lens insufficient movement	Excessive lens Sag Steep Base Curve Lens Total DIA too big Edge lift too tight	**Decrease** -0.20 mm	**Flatten** +0.10 mm	**Increase** +1 step	----
Lens riding high / laterally	Lens Total DIA too big Flat Base Curve Excessive edge lift	**Decrease** -0.20 mm	**Steepen** -0.10 mm	**Decrease** -1 step	----
Lens riding low	If lens shows excessive movement, lens may be flat and loose eyelids	**Increase** +0.20 mm	**Steepen** -0.10 mm	**Decrease** -1 step	----
	If lens shows insufficient movement, lens may be steep	----	**Flatten** +0.10 mm	**Increase** +1 step	----
Central corneal staining	Insufficient lens sag and is bearing in corneal apex	----	**Steepen** -0.10 mm	----	----
Limbal corneal staining	Lens fitting too tight. Possible bearing in corneal limbus or slight corneal hypoxia.	**Decrease** -0.20 mm	**Flatten** +0.10 mm	**Increase** +1 step	----
Discomfort / Lens awareness	Lens Total DIA too small Excessive edge lift Flat Base Curve	**Increase** +0.20 mm	**Steepen** -0.10 mm	**Decrease** -1 step	----
Bad visual acuity	Lens rotation Inadequate lens prescription Steep Base Curve (central pooling) Lens decentration Inadequate back optic zone (BOZD)	**Decrease** -0.20 mm (if riding high)	**Flatten** +0.10 mm	**Decrease** -1 step (if riding high)	Check lens stabilisation axis and adjust lens as per previous fitting instructions. Perform over-refraction (OR) Increase BOZD if lens centration can't be improved
		Increase +0.20 mm (if riding low)		**Increase** +1 step (if riding low)	
Generalised corneal punctate keratitis	Usually due to lens care products toxicity	----	----	----	Change to other lens care system

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