

# Preloaded Toric IOL Injection System NP-T Preloaded IOL Injection System NP-1/NP-1C Aspheric Single-piece IOL Aktis SP

THE ART OF EYE CARE

# All set for anchoring clear vision



# Superior operability

Preloaded system specialized for ease-of-use and safety, so you are all set for surgery



# Reliable intracapsular fixation

Designed to ensure lens anchoring that provides excellent stability for long-term clear vision



### Lower power IOLs and toric lenses with the same gear

IOL power ranging from 1.0 to 30.0 D and toric lenses with cylinder power from 0.75 D and higher can be implanted with the same preloaded injection system and technique

### Preloaded Toric IOL Injection System



### **Preloaded IOL Injection System**



# Superior Operability for Enhanced Surgical Workflow

### **Smooth Injection**

The dual silicone ring on the plunger ensures optimal and constant resistance for performing a smooth injection. It minimizes sudden changes in resistance, allowing stable, consistent and safe IOL delivery.



### Simple Two-step Operation

The NP-T, NP-1 and NP-1C allow quick and easy operation using a simple two-step process. First, OVD is filled in the injector, and then the plunger is depressed (as one-handed operation, if desired). This fully-preloaded system eliminates loading the IOL in the cartridge by the surgeon.



### Lower Power IOLs and Toric Lenses with the Same Gear

The NP-T, NP-1 and NP-1C are available in a wide range of powers from 1.0 to 30.0 D\*, and they can all be delivered with the same system and the same technique.



\*The available model and diopter range of NP-T differ from country to country.

### Small Incision - 2.2 mm

The NP-T, NP-1 and NP-1C can be implanted using a 2.2 mm incision at the corneoscleral junction, or a 2.4 mm clear corneal incision.

# Reliable Intracapsular Fixation to Achieve Stable Outcomes

### **Excellent Rotational Stability**

Average absolute rotation is remarkably stable at 2.1°±1.7° from 1 hour to 6 months postoperatively.\*



### Lens Design for the Remarkable Intracapsular Stability

### Wide contact area

An extremely wide contact area between the long haptics and the capsule enhances stability within the capsular bag.



Capsule Contact Area				
NIDEK IOL	IOL A	IOL B	IOL C	
154°	91°	79°	97°	

### 90° haptic design

The 90° haptic design maintains lens position and prevents rotation by evenly distributing the intraand extra-capsular pressure from capsular contraction or other postoperative changes.

### Asperitic side surface

The sides of the haptics are mildly abraded to increase frictional resistance in the bag for preventing rotation.

![](_page_3_Figure_13.jpeg)

NIDEK IOL

Competitor IOL

![](_page_3_Figure_16.jpeg)

# Excellent Astigmatism Correction with Toric Lens

### **Enhanced Astigmatism Correction**

The NP-T provides excellent functional vision by correcting astigmatism during cataract surgery. In 98% of cases, sphere-corrected visual acuity was greater than or equal to 0.1 logMAR at 12 months postoperatively.\*

# ≥0.1 logMAR 98%

\*Source: Sugita, I., Ogawa, T., Ichikawa, K. et al. Rotational stability and clinical outcomes of a new one piece toric intraocular lens with anchor-wing haptics. BMC *Ophthalmol* 22, 26 (2022). https://doi.org/10.1186/s12886-021-02240-7

# Lens Unfolding for Easy Axis Alignment

The NP-T is less affected by temperature and unfolds more gradually than the NP-1 to facilitate axis alignment.

![](_page_4_Figure_7.jpeg)

### NIDEK Toric IOL Calculator

NIDEK Toric IOL Calculator provides precise IOL calculations for maximizing surgical outcomes. A nomogram incorporating posterior corneal astigmatism, enhances postoperative outcomes.

NIDEK Toric IOL Calculator https://www.nidektoric.com/app/webui/html/calculation.html

![](_page_4_Picture_11.jpeg)

		Calculation resul	lts	
OP (rig	nt eye)	90° 179° 179°	5. 6	Nassal at the

Preoper	2.09D@176*				
Surgically	Surgically induced astigmatism (SIA)			0.20D@45*	
Predic	Predicted corneal astigmatism			@179*	
IC	)L	Resid	ual astign	natism	
IOL model	Orientation	Cylinder	Axis	Axis flip	
O NP-T5	179°	+0.73D	179°		
O NP-T6	179°	+0.24D	179*		
O NP-T7	179°	+0.25D	89°	Flipped	

# Postoperative Complication Control with Optimized Lens Design

### Prevention of PCO

True 360° sharp square edge effectively prevents posterior capsule opacification (PCO). Steps on the back of optic-haptic junctions prevent migration of lens epithelial cells (LECs).

![](_page_5_Figure_3.jpeg)

### Long-term Material Stability

Double-polymerization and elimination of unreacted monomers during the lens manufacturing process decreases the chances of glistening and whitening.

![](_page_5_Figure_6.jpeg)

### Minimizing Dysphotopsia

Asperitic optic side surface reduces intraocular reflection and optic edge glare.

![](_page_5_Figure_9.jpeg)

### Optic side surface

### Quick and Smooth Unfolding

A slightly rough haptic surface reduces adherence to the optic surface during lens folding, allowing for quick and smooth unfolding after lens delivery.

![](_page_5_Picture_13.jpeg)

# Tinting\* and Spherical Aberration for Clear, Natural Vision

An aspheric design and yellow tinting simulate the physiologic conditions of a young, adult crystalline lens, achieving clear, natural vision for all viewing conditions.

# **Exquisite "Made in Japan" Quality Lens** Ensuring Optimal Outcomes for Surgeons and Patients

### Pride in Reliable IOL Material

All the steps from IOL design to IOL material manufacturing are performed at NIDEK without any outsourcing. NIDEK formulates original acrylate materials for IOL manufacture. To ensure a stable acrylate, NIDEK uses "double-polymerization" during IOL manufacture.

### Nano-precision Processing

The IOLs undergo "lathe cutting" which is controlled to the nano-level to maximize IOL quality. This extremely precise processing method allows finely tuned lens designs.

![](_page_6_Picture_5.jpeg)

### **Aktis SP Specifications**

	Tinted model	Clear model			
Product name	Nex-Acri AA 1P	Nex-Acri 1P			
Model	NS-60YG	NS-60G			
Overall length	13.0 mm				
Optic diameter	6.0 mm				
Optic material	Yellow tinted hydrophobic soft acrylic	Hydrophobic soft acrylic			
Haptic material	Yellow tinted hydrophobic soft acrylic	Hydrophobic soft acrylic			
Haptic angle	0°				
A constant	119.1*1				
Expected AC depth	5.7 mm <sup>*1</sup>				
Diopter range	1.0 to 30.0 D				
Diopter increments	0.5 D increments: 10.0 to 27.0 D, 1.0 D increments: 1.0 to 10.0 D and 27.0 to 30.0 D				
Recommended injector	Nex-IJ				
	Sterile single use IOL placement system COMPORT C PLUS: T22C7088 (RET Inc.)*2				

\*1 The values of the A constant and AC depth are for reference only. The precise parameters should be determined based on the surgeon's own experience. \*2 The availability of the COMPORT C PLUS differs from country to country.

### **NP-T Specifications**

Product name	NexLoad NP Toric							
Model	NP-T1	NP-T3	NP-T4	NP-T5	NP-T6	NP-T7	NP-T8	NP-T9
Loaded lens	Aktis Toric							
Lens model <sup>*1</sup>	NS60YT1	NS60YT3	NS60YT4	NS60YT5	NS60YT6	NS60YT7	NS60YT8	NS60YT9
Cylinder power (IOL plane)*1	0.75 D	1.50 D	2.25 D	3.00 D	3.75 D	4.50 D	5.25 D	6.00 D
Cylinder power (Corneal plane) <sup>*1,2</sup>	0.52 D	1.05 D	1.57 D	2.08 D	2.60 D	3.11 D	3.62 D	4.13 D
Diopter range <sup>*1</sup>	1.0 to 30.0 D 2.0 to 30.0 D			3.0 to 30.0 D 4.0 to 30.0 D		4.0 to 30.0 D		
Diopter increments	0.5 D increments: 5.0 to 27.0 D, 1.0 D increments: 1.0 to 5.0 D and 27.0 to 30.0 D							
Overall length	13.0 mm							
Optic diameter	6.0 mm							
Optic material	Yellow tinted hydrophobic soft acrylic							
Haptic material	Yellow tinted hydrophobic soft acrylic							
Haptic angle	0°							
A constant	119.1*3							
Expected AC depth	5.7 mm* <sup>3</sup>							

### **NP-1/NP-1C Specifications**

Product name	NexLoad NP	NexLoad NP Clear			
Model	NP-1 NP-1C				
Loaded lens	Nex-Acri AA 1P (Aktis SP) Nex-Acri 1P (Aktis SP)				
Lens model	NS-60YG NS-60G				
Overall length	13.0 mm				
Optic diameter	6.0 mm				
Optic material	Yellow tinted hydrophobic soft acrylic Hydrophobic soft acrylic				
Haptic material	Yellow tinted hydrophobic soft acrylic Hydrophobic soft acrylic				
Haptic angle	0°				
A constant	119.1*3				
Expected AC depth	5.7 mm* <sup>3</sup>				
Diopter range	1.0 to 30.0 D				
Diopter increments	0.5 D increments: 5.0 to 27.0 D, 1.0 D increments: 1.0 to 5.0 D and 27.0 to 30.0 D				

\*1 The available model and diopter range differ from country to country.

\*2 The cylinder power on corneal plane is calculated based on average pseudophakic human eye. \*3 The values of the A constant and AC depth are for reference only. The precise parameters should be determined based on the surgeon's own experience.

+1.00 NIDEK

![](_page_7_Figure_7.jpeg)

![](_page_7_Figure_8.jpeg)

![](_page_7_Figure_9.jpeg)

![](_page_7_Figure_10.jpeg)

![](_page_7_Figure_11.jpeg)

NP-1C

Brochure and listed features of the device are intended for non-US practitioners. The availability of products differs from country to country depending on the status of approval. Specifications may vary depending on circumstances in each country. Specifications and design are subject to change without notice.

![](_page_7_Picture_14.jpeg)

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Distributor in your country Please contact our distributor for more information. www.nidek-intl.com/dist/

![](_page_7_Picture_18.jpeg)