



MANUFACTURING

📍 Plot # 31, Phase 1, SIPCOT, Hosur - 635 126,
Tamil Nadu, INDIA

☎ + (91)-95855 99420

✉ customercare@freedomophthalmic.com

INTERNATIONAL SALES

📍 134 rue JEAN MERMOZ,
29480 Le Relecq Kerhuon, FRANCE

☎ +33 652940382 📱 +91 95855 99837

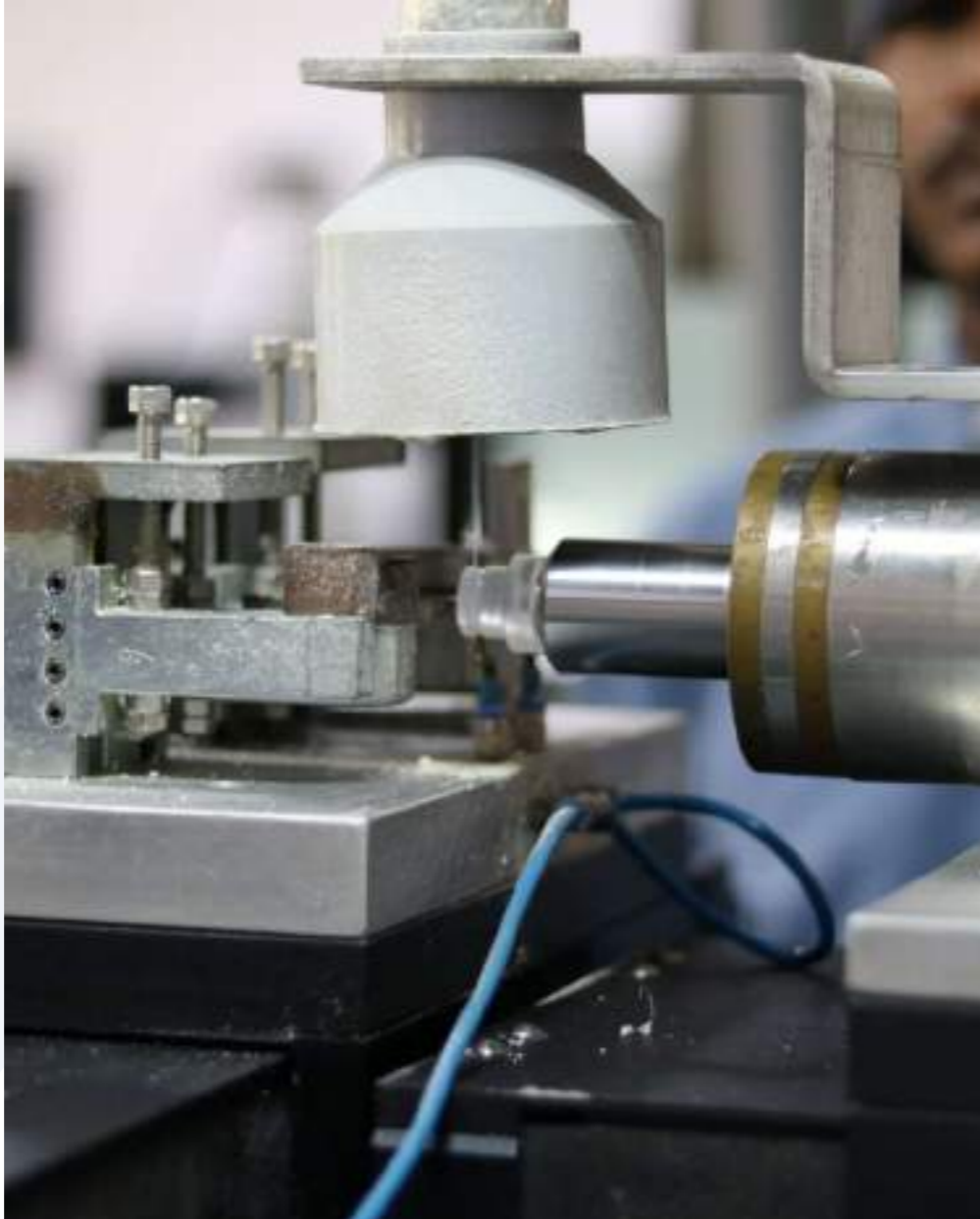
✉ fred@freedomophthalmic.com



INTRAOCULAR LENSES

www.freedomophthalmic.com

ABOUT US



We are a privately owned **MANUFACTURER OF OPHTHALMIC MEDICAL DEVICES**. The company was founded in 2005. Our manufacturing operations are based in Hosur, Tamil Nadu, India. We are about 60 km from Bangalore Airport and 250 km from Chennai.

Currently our products are distributed in over 50+ countries. Our products are manufactured using **HIGH QUALITY RAW MATERIALS & GMP SYSTEM**.

Please contact us, if you are interested in becoming our distributor or have your device manufactured by us.

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FREEDOM ACE



Hydrophobic Acrylic Foldable Aspheric 360° Square Edge Intraocular Lens
 Lente Intraocular Plegable Asférico con Borde Cuadrado 360° de Acrílico Hidrofóbico
 Lentille Intraoculaire Asphérique Souple en Acrylique Hydrophobe à Bord Carré sur 360°



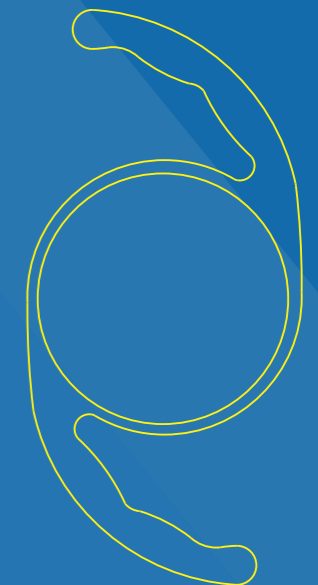
Freedom's Hydrophobic Lenses provide
GOOD & SHARPER VISION
 & have **POSTERIOR ASPHERIC with 360° SQUARE EGDE**
 Improved Image Quality with
REDUCED SPHERICAL ABERRATION

Model	FPL 603SQ		FPL 602SQ	
Optic Design	Equiconvex - 360° Square Edge with Aspheric Optic			
Material	Hydrophobic Acrylic			
Optic Size	6.00 mm			
Over All length	12.50 mm		13.00 mm	
Haptic Angle	0°			
AC Depth	5.28			
Refractive Index	1.4930			
Estimated A-Constant	A Constant : 118.4			
Recommended Optical A-Constant	A Constant SRK/T : 119.20 A Constant SRK/II : 119.50 Hoffer Q : 5.65 Holladay 1 : 1.87 Holladay 2 : 5.199 Haigis : a ₀ =1.441/a ₁ =0.400/a ₂ =0.100			
Diopter Range	6.00 D to 30.00 D (0.5 Diopter increments)			
Cartridge Size	2.20 mm	Preloaded 2.20 mm	2.20 mm	Preloaded 2.20 mm
Sterilization	Ethylene Oxide			

FREEDOM ZEN



Yellow Hydrophobic Acrylic Foldable Aspheric 360° Square Edge Intraocular Lens
 Lente Intraocular Plegable Asférico con Borde Cuadrado 360° de Acrílico Hidrofóbico Amarillo
 Lentille Intraoculaire Asphérique Souple en Acrylique Hydrophobe Jaune à Bord Carré sur 360°



- ❖ Diopter Range +6.00 D to +30.00 D with 0.50 D Steps
- ❖ Advanced Haptic Design for Greater Stability
- ❖ Water Content 0%
- ❖ Excellent folding & unfolding
- ❖ Better Capsular Bag Stability
- ❖ Advanced 360° Edge to reduce low PCO rates
- ❖ Glistening free

Model	FPL 603SQY		FPL 602SQY	
Optic Design	Equiconvex - 360° Square Edge with Aspheric Optic			
Material	Yellow Hydrophobic Acrylic			
Optic Size	6.00 mm			
Over All length	12.50 mm		13.00 mm	
Haptic Angle	0°			
AC Depth	5.28			
Refractive Index	1.4930			
Estimated A-Constant	A Constant : 118.4			
Recommended Optical A-Constant	A Constant SRK/T : 119.20 A Constant SRK/II : 119.50 Hoffer Q : 5.65 Holladay 1 : 1.87 Holladay 2 : 5.199 Haigis : a ₀ =1.441/a ₁ =0.400/a ₂ =0.100			
Diopter Range	6.00 D to 30.00 D (0.5 Diopter increments)			
Cartridge Size	2.20 mm	Preloaded 2.20 mm	2.20 mm	Preloaded 2.20 mm
Sterilization	Ethylene Oxide			

FREEDOM ELITE



Yellow Hydrophilic Acrylic 360°Square Edge Aspheric Foldable Intraocular Lens
 Lente Intraocular Plegable Asférico con Borde Cuadrado 360° de Acrílico Hidrofílico Amarillo
 Lentille Intraoculaire Asphérique Souple en Acrylique Hydrophile Jaune à Bord Carré sur 360°



Model	AFR 603SQ	AFC 603SQ	AFM 606SQ
Optic Design	Equiconvex - 360° Square Edge with Aspheric Optic		
Optic Size	6.00 mm		
Over All length	12.50 mm		11.00 mm
Estimated A-Constant	A Constant : 118.0		
Recommended Optical A-Constant	A Constant SRK/T : 118.40 A Constant SRK/II : 118.70 Hoffer Q : 5.14 Holladay 1 : 1.35 Holladay 2 : 5.199 Haigis : a ₀ =0.912/a ₁ =0.400/a ₂ =0.100		
Diopter Range	6.00 D to 30.00 D (0.5 Diopter increments)		
AC Depth*	5.00 mm		
Refractive Index	1.46		
Water Content	26%		
Cartridge Size	2.20 mm		

FREEDOM ICON

Hydrophilic Acrylic 360°Square Edge Foldable Intraocular Lens
 Lente Intraocular Plegable con Borde Cuadrado 360° de Acrílico Hidrofílico
 Lentille Intraoculaire Souple en Acrylique Hydrophile à Bord Carré sur 360°



Model	HFR 603SQ	HFC 603SQ	HFM 606SQ
Optic Design	Equiconvex-360° Square Edge		
Optic Size	6.00 mm		
Over All length	12.50 mm		11.00 mm
Estimated A-Constant	A Constant : 118.0		
Recommended Optical A-Constant	A Constant SRK/T : 118.40 A Constant SRK/II : 118.70 Hoffer Q : 5.14 Holladay 1 : 1.35 Holladay 2 : 5.199 Haigis : a ₀ =0.912/a ₁ =0.400/a ₂ =0.100		
Diopter Range	6.00 D to 35.00 D (0.5 Diopter increments)		
AC Depth*	5.00 mm		
Refractive Index	1.46		
Water Content	26%		
Cartridge Size	2.20 mm		

FREEDOM FOCUS



Hydrophilic Acrylic 360°Square Edge Aspheric Foldable Intraocular Lens
 Lente Intraocular Plegable Asférico con Borde Cuadrado 360° de Acrílico Hidrofílico
 Lentille Intraoculaire Asphérique Souple en Acrylique Hydrophile à Bord Carré sur 360°



Model	AFR 603SQ	AFC 603SQ	AFM 606SQ
Optic Design	Equiconvex - 360° Square Edge with Aspheric Optic		
Optic Size	6.00 mm		
Over All length	12.50 mm		11.00 mm
Estimated A-Constant	A Constant : 118.0		
Recommended Optical A-Constant	A Constant SRK/T : 118.40 A Constant SRK/II : 118.70 Hoffer Q : 5.14 Holladay 1 : 1.35 Holladay 2 : 5.199 Haigis : a ₀ =0.912/a ₁ =0.400/a ₂ =0.100		
Diopter Range	6.00 D to 30.00 D (0.5 Diopter increments)		
AC Depth*	5.00 mm		
Refractive Index	1.46		
Water Content	26%		
Cartridge Size	2.20 mm		

FREEDOM FOLD



Hydrophilic Acrylic Posterior Chamber Single Piece Foldable Intraocular lens
 Lente intraocular plegable de una sola pieza para cámara posterior de acrílico hidrofílico
 Lentille Intraoculaire Monobloc Souple à Chambre Postérieure en Acrylique Hydrophile

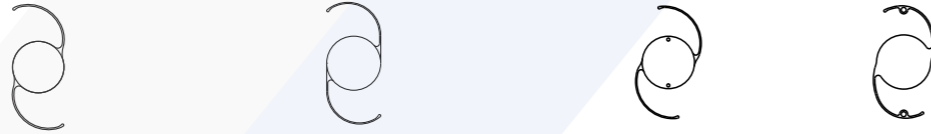


Model	HFR 603	HFC 603	HFM 606
Optic Design	Equiconvex		
Optic Size	6.00 mm		
Over All length	12.50 mm		11.00 mm
Estimated A-Constant	A Constant : 118.0		
Recommended Optical A-Constant	A Constant SRK/T : 118.40 A Constant SRK/II : 118.70 Hoffer Q : 5.14 Holladay 1 : 1.35 Holladay 2 : 5.199 Haigis : a ₀ =0.912/a ₁ =0.400/a ₂ =0.100		
Diopter Range	6.00 D to 30.00 D (0.5 Diopter increments)		
AC Depth*	5.00 mm		
Refractive Index	1.46		
Water Content	26%		
Cartridge Size	2.20 mm		

FREEDOM LENS - POSTERIOR & ANTERIOR CHAMBER



PMMA Posterior & Anterior Chamber Single Piece Intraocular Lens
 Lente Intraocular de una Sola Pieza Para Cámara Posterior & Anterior PMMA
 Lentille Intraoculaire Monobloc à Chambre Postérieure et Antérieure en PMMA



Model	PCC 503	PMC 524	PMC 553	PCC 603H	PSF 651
Optic Design	Equiconvex				
Optic Size	5.00 mm	5.25 mm	5.50 mm	6.00 mm	6.50 mm
Over All length	12.50 mm	12.00 mm	12.50 mm	12.50 mm	13.50 mm
Haptic Design	Cap. C step vault	Mod. C step vault		Cap. C step vault	Modified C
A-Constant	118.4				118.2
AC Depth*	5.00 mm				4.80 mm



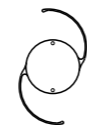
ANTERIOR CHAMBER

Model	PMC 602	PMC 602H	PMC 652H	PMS 603	PMS 602
Optic Design	Equiconvex			Equiconvex	
Optic Size	6.00 mm		6.50 mm	6.00 mm	
Over All length	13.00 mm			12.50 mm	13.00 mm
Haptic Design	Mod. C step vault			Modified S	
A-Constant	118.2			115.3	
AC Depth*	4.80 mm			2.95 mm	

FREEDOM POWER & GOLD



PMMA 360° Square Edge Aspheric Single Piece Intraocular Lens
 Lente Intraocular Plegable Asférico con Borde Cuadrado 360° de PMMA
 Lentille Intraoculaire Asphérique Souple en PMMA à Bord Carré sur 360°



Model	PMC 603HSQA	PMC 603HSQYA
Optic Design	Equiconvex - 360° Square Edge with Aspheric Optic	
Optic Size	6.00 mm	6.00 mm
Over All length	12.50 mm	12.50 mm
Haptic Design	Mod. C step vault	
A-Constant	118.4	
AC Depth*	5.00mm	

FREEDOM IRIS

PMMA Iris Claw Intraocular Lens
 Lente Intraocular PMMA Iris Claw
 Lentille Intraoculaire PMMA Iris Claw



Model	FIC 4272H	FIC 5085H	FIC 5585H
Optic Design	Biconvex - Convex Concave (according to the diopter)		
Optic Size	4.20 mm	5.00 mm	5.50 mm
Over All length	7.20 mm	8.50 mm	8.50 mm
Haptic Design	Claw		
A-Constant	Anterior Side - 115.0 & Posterior Side - 117.4		
AC Depth*	2.95		

FREEDOM RING



PMMA Capsular & Modified Capsular Tension Ring
 Anillos de Tensión Capsular & Capsular Modificado PMMA
 Anneau de Tension capsulaire & capsulaire modifié en PMMA



Model	FCR 1109	FCR 1210	FCR 1311	FCR 1412
Normal Size	11.00 mm	12.00 mm	13.00 mm	14.00 mm
Compressed Size	9.00 mm	10.00 mm	11.00 mm	12.00 mm



Model	FCC 1210L	FCC 1311L	FCC 1210R	FCC 1311R	FCC 1210LR	FCC 1311LR
Normal Size	12.00 mm	13.00 mm	12.00 mm	13.00 mm	12.00 mm	13.00 mm
Compressed Size	10.00 mm	11.00 mm	10.00 mm	11.00 mm	10.00 mm	11.00 mm

FREEDOM SEGMENT RING



Model	FCS - 10
Length	9.00 mm
Fixation Hook Length	0.40 mm

FREEDOM HOOKS

IRIS Hooks
Ganchos de Iris
Crochet pour iris



- ❖ Flexible Hook made of Polypropylene
- ❖ Easy to insert and remove
- ❖ Pack of 5 Sterile Hooks

Capsular Hooks
Ganchos Capsulares
Crochets capsulaires

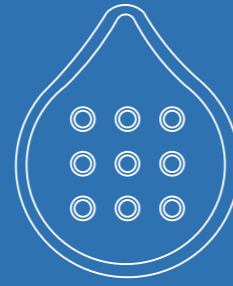


- ❖ Capsular Hooks made of Nylon
- ❖ Easy to get a firm and reliable grip on the rim
- ❖ Pack of 5 Sterile Hooks

FREEDOM EYE SHIELDS

Clear Polycarbonate Eye Shield
Polycarbonate Eye Shield
Claro Policarbonato Protector del ojo

- ❖ Eye Shields made of clear Poly Carbonate
- ❖ Edges provides maximum comfort
- ❖ Hole in the eye shield provides ventilation
- ❖ Pack of 25 Sterile Shields



FREEDOM DRAPES

Ophthalmic Surgical Drape
Paños Quirúrgicos Oftálmicos
Draps de Chirurgie Ophtalmique

- ❖ These drapes are manufactured using high grade SMS fabric water repellent.
- ❖ Also, these are sterilized with ETO that ensure their hygiene and are tested on various quality parameters.
- ❖ Available sizes are : 60 X 60cm | 70 X 70cm | 100 X 70cm | 40 X 50cm | 25 X 20cm | 100 X 100cm | 100 X 120cm | 120 X 120cm etc.,

FREEDOM LON

Monofilament Polyamide Nonabsorbable surgical suture U.S.P
Monofilament Polyamide Nonabsorbable suture chirurgicale U.S.P
Monofilamento de Polyamida no absorbible U.S.P sutura quirúrgica

- ❖ Nylon suture is a monofilament non-absorbable surgical suture.
- ❖ Nylon sutures are available from U.S.P. size 2 to size 10-0. Suture is available in black colour.
- ❖ Nylon sutures are composed of polymers made from 100% homo polymer of polyamide grade 6.6.
- ❖ Nylon sutures are ideal for skin closures since they do not exhibit tissue adherence.

FREEDOM I-JET

DISPOSABLE INJECTOR & CARTRIDGES

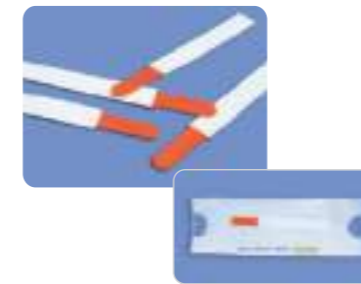
Model	FHI 001	FMI 001
Other features	Polycarbonate Injector with disposable Cartridge for Incision 2.2 to 2.8 mm (Front Load)	Polycarbonate Injector with disposable Cartridge for Incision 2.2 to 2.8 mm (Back Load)

DISPOSABLE CARTRIDGE FOR FOLDABLE IOL IMPLANT

Model	FDC 220	FDC 240	FDC 260	FDC 280
Incision	2.20 mm	2.40 mm	2.60 mm	2.80 mm
Shape	Oval			

FREEDOM STRIPS

Ophthalmic Diagnostic Strips
Tirillas para diagnóstico Oftálmico
Bandes de diagnostic ophtalmique



Fluorescein Strips

- ❖ Useful for evaluating hard contact lens fitting
- ❖ Evaluating tear film breakup time
- ❖ To visualise defects in the corneal epithelium
- ❖ Each strip is impregnated with approx. 1.0 mg of Fluorescein sodium

Schirmer Strips

- ❖ Used for measurement of tear production
- ❖ Each strip has a printed mm scale so that they can be easily read
- ❖ Innovative peel open packing with transparent film on one side



Lissamine Green Strips

- ❖ Used to stain preferentially damaged or devitalized cells
- ❖ To indicate any dry patches, as well as any mucus-deficient or damaged corneal epithelial cells
- ❖ Each strip is impregnated with approximately 1.50 mg of Lissamine Green

Rose Bengal Strips

- ❖ It stains devitalized or degenerated epithelial cells as well as mucous filaments
- ❖ Each strip is impregnated with approximately 1.50 mg of Rose Bengal
- ❖ Innovative peel open packing with transparent film on one side



FREEDOM MICRO



DISPOSABLE BLADES | STERILE PACKAGE | 10 PER BOX

Ophthalmic Surgical Blades
Cuchilletes Quirúrgicos Oftálmicos
Lames de Chirurgie Ophthalmiques

KERATOME SHARP

Model	FB1024ST	FB1324ST	FB1620ST	FB 1920ST	FB 2220ST
Blade	Keratome Sharp Tip				
Size	1.00 mm	1.30 mm	1.60 mm	1.90 mm	2.20 mm

Model	FB2520ST	FB2820ST	FB3119ST	FB3419ST
Blade	Keratome Sharp Tip			
Size	2.50 mm	2.80 mm	3.10 mm	3.40 mm

KERATOME BLUNT

Model	FB3518BT	FB3818BT	FB4418BT	FB4118BT	FB4716BT
Blade	Keratome Blunt Tip				
Size	3.50 mm	3.80 mm	4.40 mm	4.10 mm	4.70 mm

Model	FB5016BT	FB5316BT	FB5616BT	FB5915BT	FB6215BT
Blade	Keratome Blunt Tip				
Size	5.00 mm	5.30 mm	5.60 mm	5.90 mm	6.20 mm

CRESCENT

Model	FB2020TI	FB2320TI	FB2620TI
Blade	Crescent Blades		
Size	2.00 mm	2.30 mm	2.60 mm

LANCE TIP

Model	FB1524LT	FB3024LT	FB4524LT
Blade	Lance Tip		
Size	15 degree	30 degree	45 degree

MVR

Model	FB 19MVR	FB20MVR	FB24MVR
Blade	MVR - Blades		
Size	19G(1.5mm)	20G(1.2mm)	24G(0.8mm)

FREEDOM BIO PHARMA (for EXPORT MARKET Only)

FREEDOM I - Scein

Fluorescein Injection USP 20% w/v & 10% w/v

- ❖ Freedom i-Sceine is sterile Fluorescein sodium 20% aqueous solution packed in 3ml & 5ml Ampoules.
- ❖ The solution is pyrogen free and preservative free.
- ❖ Used to detect the defects in corneal epithelium, Contact lens fitting, Tear flow assessment, ophthalmic angiography.
- ❖ Box of 10 X 3 ml & 10 X 5ml individually packed.

FREEDOM I-Visc

Hydroxy propyl Methyl cellulose Ophthalmic Solution USP 2% w/v

- ❖ Freedom Indi visc is 2% aqueous solution of Hydroxy propyl methyl cellulose packed in 2ml sterile Pre fill syringe & also 5ml vial.
- ❖ This solution is Premium grade Viscoelastic Solution with the viscosity of 4000cPs
- ❖ The product is Clear, Sterile, isotonic and Non-pyrogenic.
- ❖ It Protects and remains adjacent to corneal endothelium during cataract surgery. Selectively moves and isolates tissues in anterior chamber.

FREEDOM I - Blue

Trypan Blue Ophthalmic Solution 1ml PFS & 1ml Vial USP 0.01% w/v

- ❖ Freedom i-Blue is sterile Trypan blue 0.6% aqueous solution. Packed in 1ml sterile vial with buffered solution & 1ml Pre fill syringe.
- ❖ Used to evaluate viability of endothelial cell and Staining of acellular ILM & ERM
- ❖ Used in Cataract surgery and Chromovitrectomy surgery.
- ❖ Box of 10 X 1 ml individually packed.

FREEDOM Carbachol


Carbachol Intraocular Solution 1 ml USP 0.01% w/v

- ❖ Freedom Carbachol intraocular solution, U.S.P. is a sterile balanced salt solution of Carbachol USP 0.01% w/v with Sterile aqueous base ...q.s in contents of 1ml vial for intraocular injection.
- ❖ They reduce the intensity of intraocular pressure elevation during the first 24 hours after a cataract surgery.
- ❖ Box of 10 X 1 ml individually packed.

PREMIUM CATALOGUE

Ask for our PREMIUM IOLs Catalogue to get more information about our TORIC IOLs, MULTIFOCAL IOLs, TRIFOCAL IOLs, and 3-PIECE IOLs.

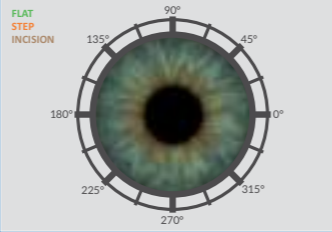
Connect to
www.freedomtoriccalculator.com
to order your TORIC Lens.

**TORIC CALCULATOR**

Surgeon Detail		Patient Detail	
Doctor Name	<input type="text"/>	Patient Name	<input type="text"/>
Doctor Mail Id	<input type="text"/>	Lens Power	<input type="text"/>
Doctor Phone Number	<input type="text"/>	Left/Right Eye	<input type="text"/>
Clinic/Hospital	<input type="text"/>	IOL Model	<input type="text"/>

Additional Information

PRE OPERATIONAL PATIENT DETAILS	
FLAT K (300 - 60D)	<input type="text"/>
FLAT K Axis (0 - 180°)	<input type="text"/>
STEP K (300 - 60D)	<input type="text"/>
STEP K Axis (0 - 180°)	<input type="text"/>
SIA* (0 - 2D)	<input type="text"/>
Incision Location (0 - 360°)	<input type="text"/>



* SIA : Surgically Induced Astigmatism


INSTRUMENTS CATALOGUE


Ask for our INSTRUMENTS Catalogue to get more information about our forceps, needle holders, scissors, etc...

More than 700 ophthalmic surgical instruments!

Follow US

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 [freedomophthalmicpvtltd](https://www.instagram.com/freedomophthalmicpvtltd)





HEADQUARTERS

📍 15 rue Robert SCHUMAN
29480 Le Relecq Kerhuon, FRANCE

☎ +33 6 52940382

✉ fred@freedomophthalmic.com

ISO
13485:2016
Certified

TRIFOCAL HYDROPHOBIC IOL

TORIC & TORIC MULTIFOCAL HYDROPHOBIC IOLS

MULTIFOCAL HYDROPHILIC & HYDROPHOBIC IOLS

3-PIECE HYDROPHOBIC IOL

Premium IOLS





**WHY HIDE
BEHIND THE
GLASSES
WHEN YOU
CAN SEE
WITHOUT**

freedom
TRIFLEX

Why choose the Freedom TRIFLEX IOL?

The advanced Trifocal Hydrophobic Intraocular Lens of Freedom is designed to provide CLEAR VISION for NEAR, INTERMEDIATE and FAR distance. Now our patients can enjoy an independent active life style, free of spectacles or other visual aids.

FREEDOM TRIFLEX IOL is designed to give patients the ability to see clear at all distances:



NEAR VISION



INTERMEDIATE VISION

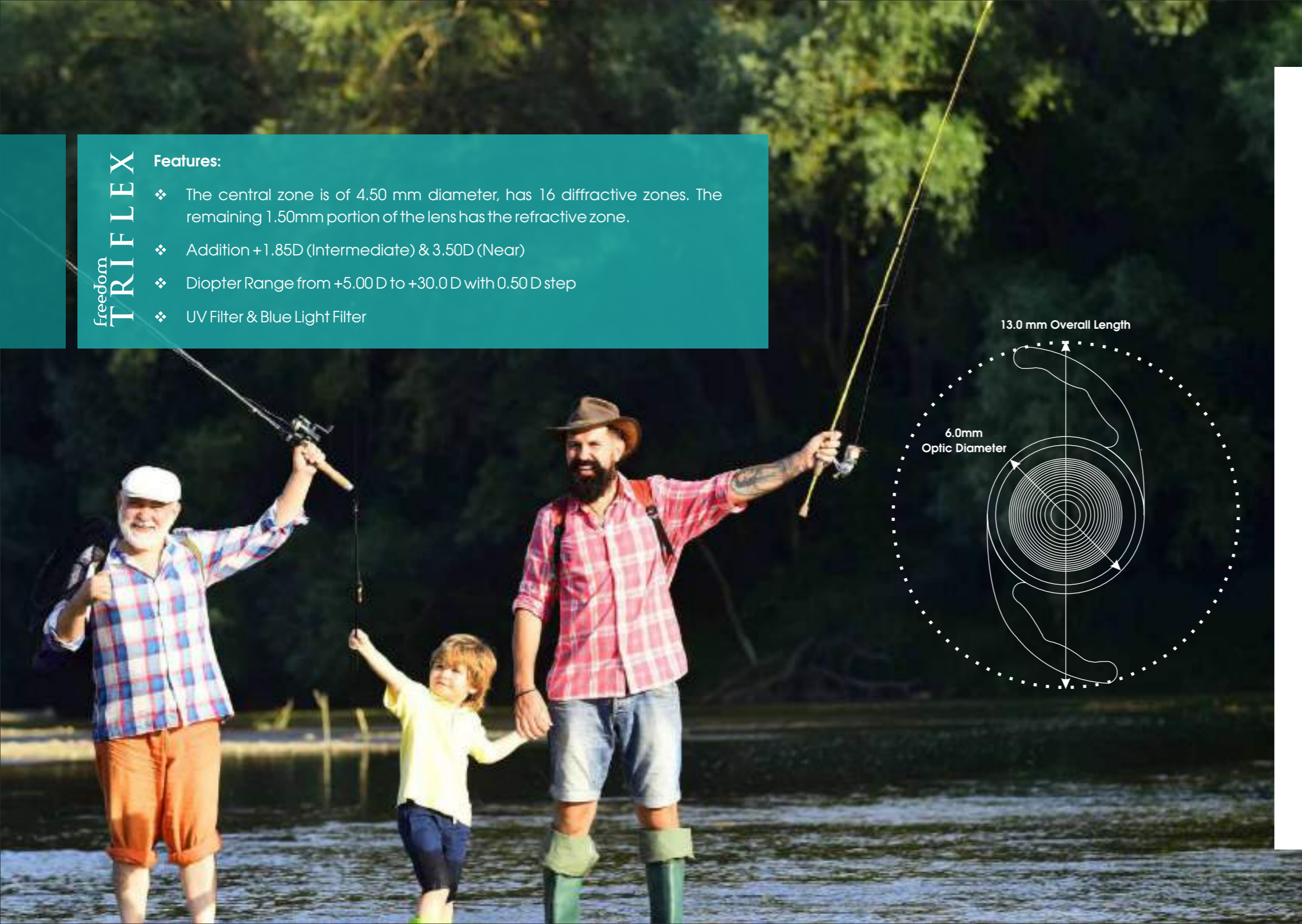


FAR VISION



Unique manufacturing process

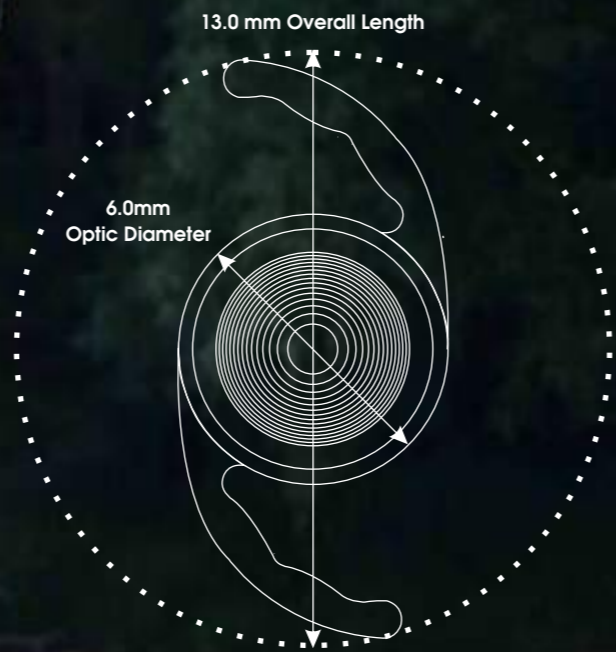
Enhanced Optical design of Freedom hydrophobic material with low refractive index over hydrophilic material ; with round edge zones provides better results against photopic conditions by reducing internal reflection and glares. 360° square edge with thicker haptic design provides dual barrier technology against lower risk of PCO formation with excellent rotational stability. The aspheric design technology allows for a negative spherical aberration of $-0.15\mu\text{m}$ to offset the positive sphericity of human cornea for improved contrast sensitivity.



freedom
TRIFLEX

Features:

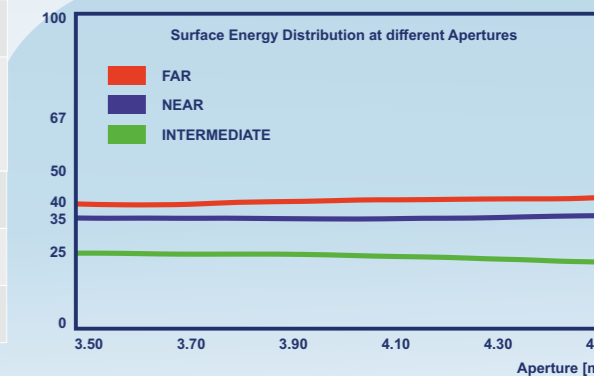
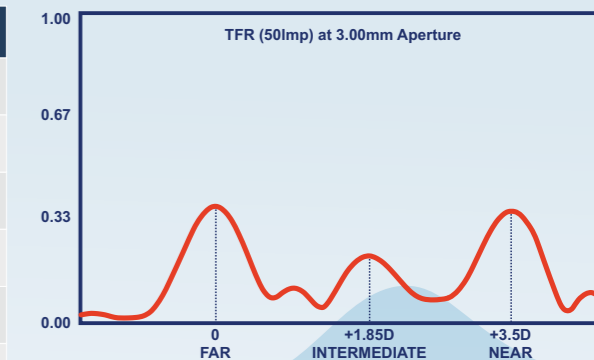
- ❖ The central zone is of 4.50 mm diameter, has 16 diffractive zones. The remaining 1.50mm portion of the lens has the refractive zone.
- ❖ Addition +1.85D (Intermediate) & 3.50D (Near)
- ❖ Diopter Range from +5.00 D to +30.0 D with 0.50 D step
- ❖ UV Filter & Blue Light Filter



freedom **TRIFLEX**

- ❖ **Maximum Light Transmission under any Light Conditions**
- ❖ **Increased Bio-mechanical Stability**
- ❖ **Excellent Far, Intermediate & Near Vision RNI - Distribution for Far, Intermediate & Near 40/25/35**
- ❖ **Free of Glistening & Whitening**

Model	TRPC602SQ	TRPC602SQQ
Optic Design	Single Piece, Diffractive-Refractive, Trifocal, 360° Square Edge with Aspheric Optic	
Material	Hydrophobic Acrylic	Yellow Hydrophobic Acrylic
Addition	Near addition : +3.50 D / Intermediate addition : +1.85 D	
Optic Size	6.00 mm	
Over All length	13.00 mm	
Haptic Angle	0°, Modified C	
Estimated A-Constant	A Constant : 118.4 Hoffer Q : 5.20 Holladay : 1.450 Haigis : a0=1.527/a1=0.400/a2=0.100	
Recommended Optical A-Constant	A Constant SRK/T : 119.20 Hoffer Q : 5.65 Holladay 1 : 1.87	A Constant SRK/II : 119.50 Haigis : a0=1.441/a1=0.400/a2=0.100
Refractive Index	1.49	
Sterilization	EO	
Incision	2.20 - Available in Preloaded system also	



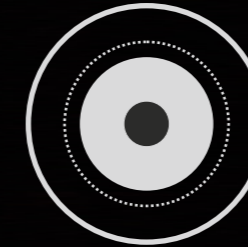
A PERFECT BULLS EYE!

TORIC & TORIC
Multifocal Hydrophobic IOL

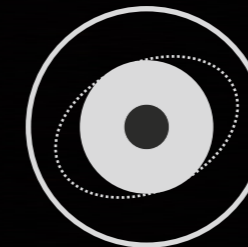
freedom TORIC

Treat Astigmatism

Astigmatism is very common before and after cataract surgery. Almost 40% of people who are candidates for cataract surgery have at least 1.00 diopter (D) of astigmatism, which is enough to cause noticeably blurred vision without eyeglasses or visual aids.



NORMAL VISION



ASTIGMATIC EYE



ASTIGMATIC VISION



WITH FREEDOM TORIC IOL

The correction of ASTIGMATISM OF THE CORNEA is possible by the insertion of a TORIC IMPLANT that generates an astigmatism in opposite direction of the corneal one. It allows to neutralize the entire eye astigmatism. The toric implant compensates astigmatism induced by corneal.

TORIC & TORIC Multifocal Hydrophobic IOL



Why choose the Freedom TORIC and MULTIFOCAL TORIC IOLs?

The premium design of our TORIC Hydrophobic Lenses provides distance vision for ASTIGMATIC CATARACT PATIENTS who desire spectacle independency with Cylindricity & Markers in the anterior side.

Our TORIC MULTIFOCAL Hydrophobic Lenses provides both NEAR and FAR vision with Diffractive-Refractive Element of a MULTIFOCAL lens in the anterior side and CYLINDER technology of a TORIC lens in the Posterior side.

Freedom provides large DIOPTER range of astigmatism correction IOLs with custom made PRECISION. Spherical power is from 10.00D to 30.00D and cylinder power range is upto 6.0D with 0.75 diopter increments.

Following cylinder options are available to suit the requirement of any patients

IOL Cylinder Power	Recommended Corneal Astigmatism Correction Ranges
1.50D	0.75 - 1.50D
2.25D	1.50 - 2.00D
3.00D	2.00 - 2.50D
3.75D (monofocal only)	2.50 - 3.00D
4.50D (monofocal only)	3.00 - 3.50D
5.25D (monofocal only)	3.50 - 4.00D
6.00D (monofocal only)	4.00D and UP

Toric Success Parameters

Patient with regular pre-operative astigmatism with an intact capsular bag, and no pre-existing ocular pathology who desire spectacle independency are good candidates for Toric surgery. Patient with keratoconus, or irregular astigmatism are recommended against Toric lenses.

Toric IOL Power calculation

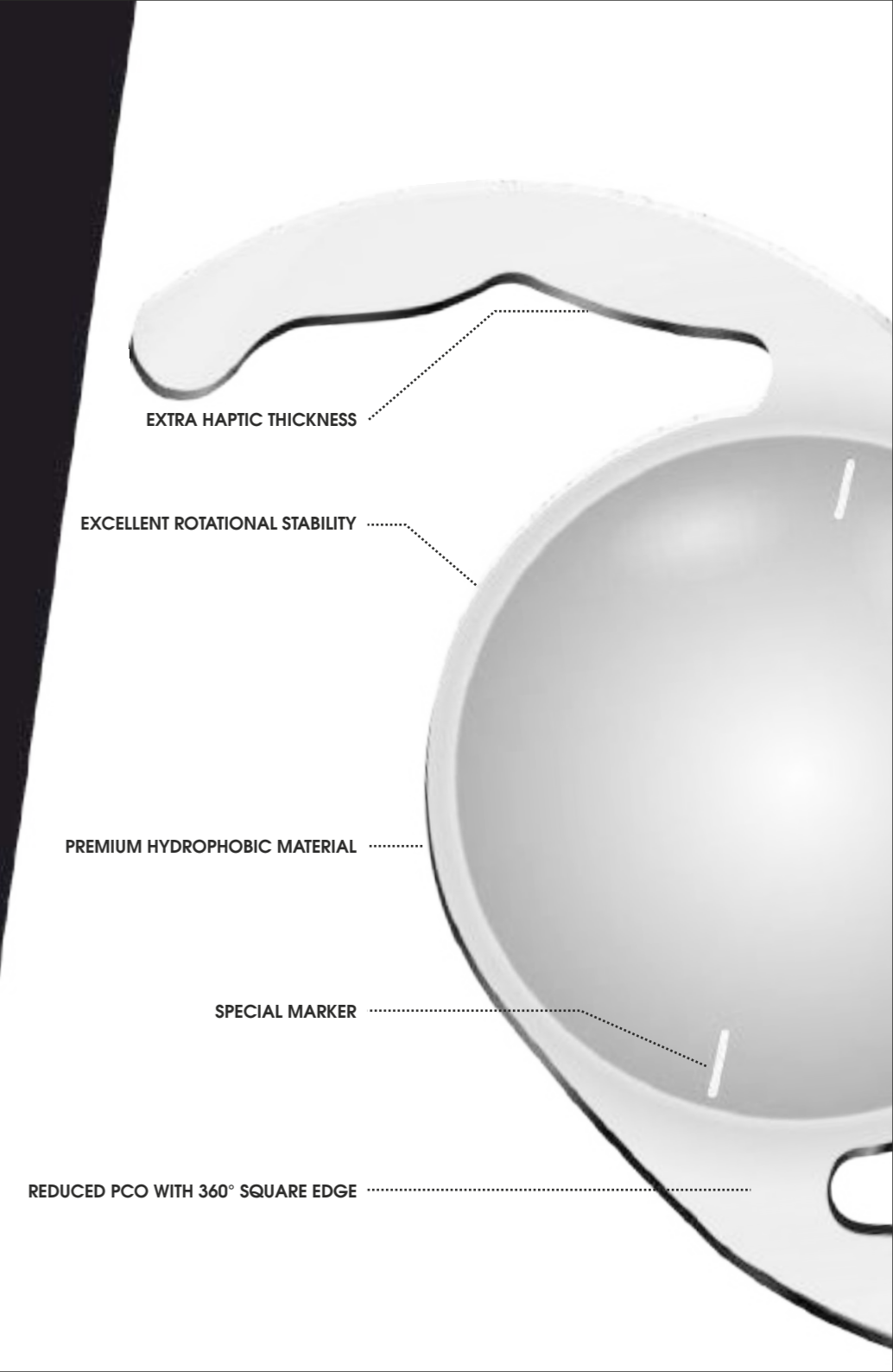
- SPHERICAL POWER – Is determined by using the preferred method such as optical biometry for conventional IOLs using personalized A-constant.
- CYLINDRICAL POWER - Steep K & Flat K values are determined through Keratometry and corneal topography for corneal measurements
- With Freedom Toric Calculator determine the appropriate Toric IOL model, power, & axis of placement using default SIA measurements: 0.50 D if your incision is 2.50 mm or smaller.

Preoperative Marking: Reference marks are made at 3, 6 and 9’o clock in upright position to limit cyclotorsional effect using marking tools such as level/bubble marker or free-hand marker.

Intraoperative Marking: Calculated steep axis is marked using fixation rings as Mendez at two positions (180° apart) with the guide of reference axis in supine position for alignment of Toric IOL.

Primary/GROSS IOL Alignment: After a standard cataract implantation in the capsular bag, manipulate the IOL into place within 15 to 20 degrees short of the intended axis. Remove all the residual viscoelastics gently with care.

Final IOL alignment: Rotate clockwise to align with intended axis on the cornea.





Model	TPC602SQ	TPC602SQY	MTPC602SQ	MTPC602SQY
Optic Design	Single Piece, TORIC, 360° Square Edge with Aspheric Optic		Single Piece, TORIC, Diffractive-Refractive, 360° Square Edge with Aspheric Optic	
Material	Hydrophobic Acrylic	Yellow Hydrophobic Acrylic	Hydrophobic Acrylic	Yellow Hydrophobic Acrylic
Near Addition	N/A		+1.85 / +3.50 D	
Optic Size	6.00 mm			
Over All length	13.00 mm			
Haptic Angle	0°, Modified C			
A-Constant	A Constant : 118.4 Hoffer Q : 5.20 Holladay : 1.450 Haigis : a ₀ =1.527/a ₁ =0.400/a ₂ =0.100			
IOL Master	A Constant SRK/T : 119.20 A Constant SRK/II : 119.50 Hoffer Q : 5.65 Holladay 1 : 1.87 Haigis : a ₀ =1.441/a ₁ =0.400/a ₂ =0.100			
Sterilization	EO			
Incision	2.20 - Available in Preloaded system also			

FREEDOM TORIC CALCULATOR:

An User friendly Freedom Toric Calculator is developed to assist you in easily planning your toric surgery by providing accurate Freedom Toric IOL model recommendation, cylinder power, & intended axis of IOL placement in the capsular bag

New Users can register to create an ID, and activate the login details sent to the registered mail id to start using the calculator

Which lens to use?
Go to FREEDOMTORICCALCULATOR.COM
and get your full report!

REQUIRED DATA FOR FREEDOM TORIC CALCULATOR

- ❖ PATIENT'S NAME
- ❖ LEFT / RIGHT EYE Selection
- ❖ SPHERICAL LENS POWER from 6.0 D to 30.0 D
- ❖ APPROPRIATE IOL MODEL
- ❖ FLAT K & FLAT AXIS
- ❖ STEEP K
- ❖ SURGICALLY INDUCED ASTIGMATISM
- ❖ INCISION LOCATION

Freedom TORIC CALCULATOR

SURGEON DETAIL

Doctor Name: _____
 Doctor Mail Id: _____
 Doctor Phone Number: _____
 Clinic / Hospital: _____

PATIENT DETAIL

Patient Name: A1
 Lens Power (P-IOL): 25.5
 Left / Right Eye: LEFT Eye
 IOL Model: FREEDOM TORIC

ADDITIONAL INFORMATION

Additional Information: _____

PRE-OPERATIVE DATA

Flat K: 44.25 D X 91°
 Steep K: 48.50 D X 90°
 Surgically Induced Astigmatism (SIA): 0.5 D
 Incision Location (L): 180°

CALCULATION DETAILS

Pre-Operative Corneal Astigmatism: 2.25 D X 90°
 Surgically Induced Astigmatism: 0.50 D X 90°
 Crossed-Cylinder Results: 2.74 D X 94°
 Predicted Residual Astigmatism: 0.17 D X 94°

FREEDOM TORIC LENS DETAILS

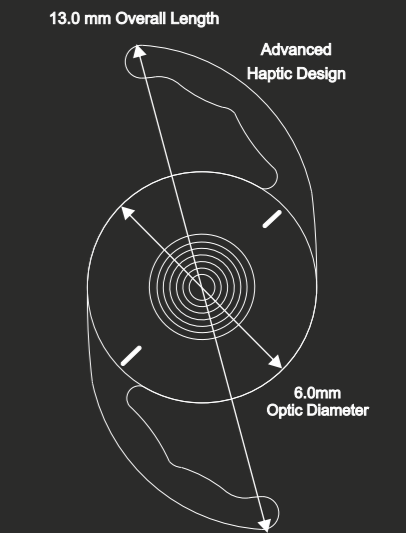
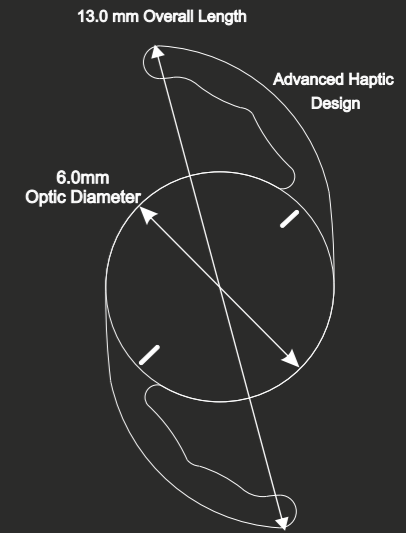
FREEDOM LENS: TPC602SQ-375
 CYLINDER POWER (CORNEAL PLANE): 2.67 D
 CYLINDER POWER (IOL PLANE): 3.75 D
 AXIS OF PLACEMENT: 94°

Left Eye - OS

Flat K: 44.25 D @ 91° | Steep Axis: 180mm
 Steep K: 48.50 D @ 90° | Flat Axis: 118mm
 P-IOL: 20.5D
 SIA: 0.50 D X 90°
 L: 180° | Incision: _____

Left Eye - OS

Axis of Placement: 94°





**SEE EVERYTHING
ELSE EXCEPT
HALOS & GLARES**

FREEDOM MULTIFOCAL

Freedom to choose from 2 different multifocal IOLs

Freedom Ophthalmic proposes 2 different models of Multifocal IOLs in Hydrophilic and Hydrophobic material with two different technologies to meet the needs of every patient.

Why every Multifocal IOL is not equal?

The principle of Multifocal IOLs is to split light energy to achieve sharpness for distance and near vision. The number of rings, their height, and the interval between the diffractive zones play an important role in the light distribution (RNI). Depending on the amount of energy chosen between two foci, the patient can have a high contrast or low contrast image.

Freedom Multifocal's advanced design with diffractive zones on the anterior surface and posterior aspheric surface with 360° square edge provides excellent visual performance under all light conditions.

Higher Visual comfort and Pupil Independency

Pupil dynamics decreases with age. Multifocal IOLs dependant on pupil has poor contrast sensitivity.

Freedom Multifocal Hydrophilic IOLs with smart apodization technology allows for balanced light distribution of 60% for distance vision and 40% at 5.5mm pupil aperture

Freedom Multifocal Hydrophobic unique diffractive technology provides balanced RNI of 60% for distance vision and 40% for near vision at 3.5mm pupil aperture



With CATARACT



With MONOFOCAL LENS



With FREEDOM MULTIFOCAL LENS



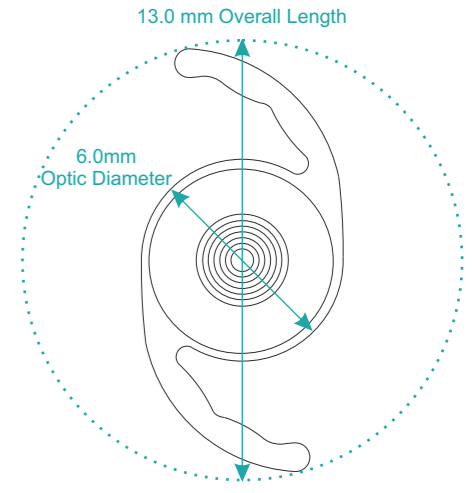
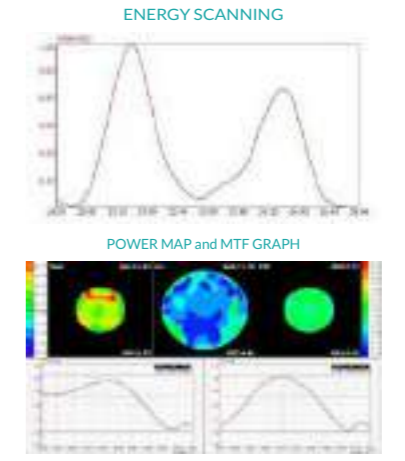
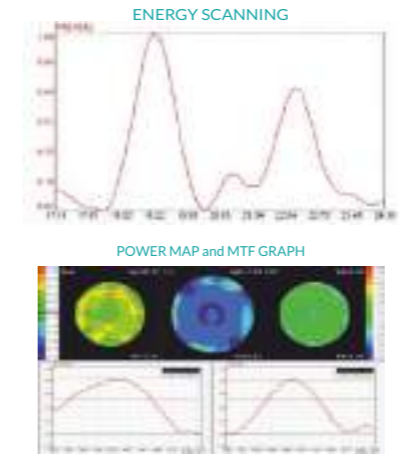
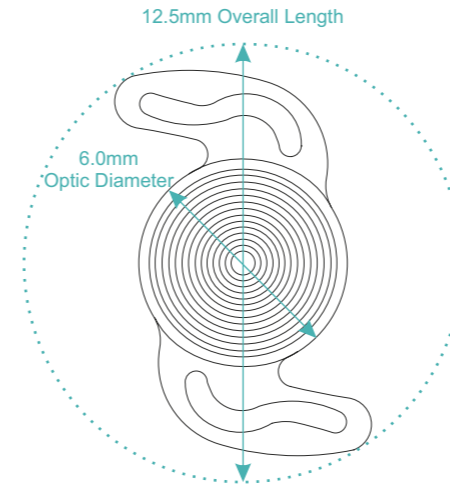
Features:

Freedom Multifocal Hydrophilic

- ❖ Contaflex 26% UV 1% Hydrophilic Acrylic with refractive index 1.46 and 360° square edge
- ❖ Diffractive - Refractive Apodized Design for better RNI distribution
- ❖ 26 Diffractive zones upto 5.5mm optic diameter
- ❖ Near Addition +3.50D ; customized near addition available on demand
- ❖ Diopter Range from +5.00D to +35.00D (0.5D increments)

Freedom Multifocal Hydrophobic

- ❖ Hydrophobic material
- ❖ The central zone of 3.25mm diameter has 9 diffractive zones and the remaining 2.75mm portion of lens is made of refractive zone
- ❖ Near addition of +3.0D ; customized near addition available on demand
- ❖ Diopter Range from +5.00D to +30.0D (0.5D increments)



Model	MFR603SQ	MFR603SQY	MPC602 SQ	MPC602 SQY
Optic Design	Single Piece, Diffractive-Refractive, 360° Square Edge with Aspheric Optic		Single Piece, Diffractive-Refractive, 360° Square Edge with Aspheric Optic	
Material	Hydrophilic Acrylic	Yellow Hydrophilic Acrylic	Hydrophobic Acrylic	Yellow Hydrophobic Acrylic
Near Addition	+3.50 D (For special order near addition +2.5D - 4.0D)		+3.00 D (For special order near addition +2.5D - 4.0D)	
Optic Size	6.00 mm		6.00 mm	
Over All length	12.50 mm		13.00 mm	
Haptic Angle	0°, Dual Haptic		0°, Modified C	
Estimated A-Constant	A Constant : 118.0 Hoffer Q : 4.97 Holladay : 1.223 Haigis : a ₀ =1.277/a ₁ =0.400/a ₂ =0.100		A Constant : 118.4 Hoffer Q : 5.20 Holladay : 1.450 Haigis : a ₀ =1.527/a ₁ =0.400/a ₂ =0.100	
Recommended Optical A-Constant	A Constant SRK/T : 118.40 A Constant SRK/II : 118.70 Hoffer Q : 5.14 Holladay 1 : 1.35 Haigis : a ₀ =0.912/a ₁ =0.400/a ₂ =0.100		A Constant SRK/T : 119.20 A Constant SRK/II : 119.50 Hoffer Q : 5.65 Holladay 1 : 1.87 Haigis : a ₀ =1.441/a ₁ =0.400/a ₂ =0.100	
Sterilization	Steam		EO	
Incision	2.20 mm		2.20 - Available in Preloaded system also	



**HARDER
BETTER
STRONGER**

The 3-Piece Hydrophobic IOL

Sulco, 3-piece hydrophobic IOL (3HPC360) with PVDF haptics is the newest addition to the family of Freedom Premium IOLs, making Freedom the first Indian manufacturer to do so and compete with the world leaders in IOL market.

The Optics & All about the Haptics

Freedom Sulco is a UV light-absorbing posterior chamber hydrophobic acrylic lens, designed to be implanted in the capsular bag following extra capsular cataract extraction. The optic is biconvex design with 6mm Aspheric design, as well as, spherical optics with 360° Square Edge to reduce PCO, and 13mm overall size.

Polyvinylidene fluoride monofilament haptics, PVDF have better shape recovery and loop memory compared to other haptic materials. Very malleable and resistant, PVDF haptics are designed for better capsular bag stability and to eliminate capsular bag stretching. PVDF haptics create a better flange than PMMA haptics, and can prevent conjunctival erosion during intra scleral haptic fixation.

Cap C haptics design with 5° angulation are best suited to the capsular bag for long term optimal centration, refractive stability and minimal zonular stress



Reusable Titanium Injector
Freedom Sulco Jet with 2.6mm cartridge size

Freedom SULCO

DESIGN FEATURES

3HPC360 is primarily intended for implantation in the capsular bag of the eye for the visual correction of aphakia in patients where a cataractous lens has been removed by phacoemulsification. It can also be implanted in the ciliary sulcus, in case of phacoemulsification complicated by posterior capsular rupture.

Sulco, 3-piece IOL is recommended and preferred for glued intrascleral haptic fixation over a one-piece IOL, cause of difficulty incurred in externalizing their haptics. A foldable 3-piece IOL can be easily employed in the glued IOL technique.



HANDLING Instructions

Freedom SULCO can be delivered through an incision as small as 2.6 mm with FREEDOM SULCO JET implantation system. Freedom recommends using equivalent appropriate equalized insertion instrument or system to insert FREEDOM SULCO 3-PIECE. For further information and video, please contact your local distributor

Model	3HPC630	3HPC630Y
Optic Design	Biconvex - 360° Square Edge with Aspheric Optic	
Material	Hydrophobic Acrylic	Yellow Hydrophobic Acrylic
Optic Size	6.00 mm	
Over All length	13.00 mm	
Haptic Angle	5°	
Estimated A-Constant	A Constant : 118.0 Hoffer Q : 4.97 Holladay : 1.223 Haigis : a ₀ =1.277/a ₁ =0.400/a ₂ =0.100	
Recommended Optical A-Constant	A Constant SRK/T : 118.40 A Constant SRK/II : 118.70 Hoffer Q : 5.14 Holladay 1 : 1.35 Haigis : a ₀ =0.912/a ₁ =0.400/a ₂ =0.100	
Diopter Range	6.00 D to 30.00 D (0.5 Diopter increments)	
Cartridge Size	2.60 mm	
Sterilization	Ethylene Oxide	

Original IOL Power	Adjustment to IOL Power for Sulcus Placement
0.0 to 8.5	None
9.0 to 17.5	-0.5D
18.0 to 26.5	-1.0D
27.0 and higher	-1.5D



FREEDOM MULTIFOCAL - HYDROPHILIC

Diffraction-Refractive Multifocal Hydrophilic Intraocular Lens
 Lente intraocular multifocal diffractivo-refractivo de acrílico hidrofílico
 Lentille intraoculaire multifocale diffractive-réfractive en acrylique hydrophile



Model	MFR603SQ	MFR603SQY
Optic Design	Single Piece, Diffraction-Refractive, 360° Square Edge with Aspheric Optic	
Material	Hydrophilic Acrylic	Yellow Hydrophilic Acrylic
Near Addition	+3.50 D*	
Optic Size	6.00 mm	
Over All length	12.50 mm	
Haptic Angle	0°, Dual Haptic	
Ultrasound	A Constant : 118.0 Hoffer Q : 4.97 Holladay : 1.223 Haigis : a ₀ =1.277/a ₁ =0.400/a ₂ =0.100	
IOL Master	A Constant : 118.0 A Constant SRK/T : 118.40 A Constant SRK/II : 118.70 Hoffer Q : 4.88 Holladay 1 : 1.10 Holladay 2 : 4.965 Haigis : a ₀ =0.647/a ₁ =0.400/a ₂ =0.100	
Refractive Index	1.46	
Sterilization	Steam	
Incision	2.20 mm - 2.80 mm	

*For special order near addition +2.5D - 4.0D

FREEDOM MULTIFOCAL - HYDROPHOBIC

Diffraction-Refractive Multifocal Hydrophobic Intraocular Lens
 Lente intraocular multifocal diffractivo-refractivo de acrílico hidrofóbico
 Lentille intraoculaire multifocale diffractive-réfractive en acrylique hydrophobe



Model	PRELOADED			
	MPC 602 SQ	MPC 602 SQY		
Optic Design	Single Piece, Diffraction-Refractive, 360° Square Edge with Aspheric Optic			
Material	Hydrophobic Acrylic	Yellow Hydrophobic Acrylic		
Near Addition	+3.00 D*			
Optic Size	6.00 mm			
Over All length	13.00 mm			
Haptic Angle	0°, Modified C			
A-Constant	A Constant : 118.4 Hoffer Q : 5.20 Holladay : 1.450 Haigis : a ₀ =1.527/a ₁ =0.400/a ₂ =0.100			
IOL Master	A Constant : 118.4 A Constant SRK/T : 119.20 A Constant SRK/II : 119.50 Hoffer Q : 5.14 Holladay 1 : 1.35 Holladay 2 : 5.199 Haigis : a ₀ =0.912/a ₁ =0.400/a ₂ =0.100			
Refractive Index	1.49			
Sterilization	EO			
Incision	Preloaded System with incision size 2.40mm			

*For special order near addition +2.5D - 4.0D



MULTIFOCAL LENSES

◆ EN ISO 13485-2012 & ISO 9001:2015 Certified
 ◆ Complies to International Standard ISO 11979-1 to 10, Ophthalmic Implants - Intraocular lenses



Plot # 31, Phase 1, SIPCOT, Hosur - 635 126, Tamil Nadu, INDIA
 + (91)-95855 99420 | customercare@freedomophthalmic.com

5 113 Brockworth Drive, Mississauga, ON L5V 1S1, CANADA
 +1905-858-0642 | +1 95855 99837 | sales@freedomophthalmic.com

INTERNATIONAL SALES

www.freedomophthalmic.com

FREEDOM MULTIFOCAL

The premium design of our Multifocal Lenses provides the most advanced features for **OPTIMAL VISUAL PERFORMANCES**. Freedom Ophthalmic proposes **2 DIFFERENT MODELS IN HYDROPHILIC AND HYDROPHOBIC MATERIALS** to meet the needs of every patients.

The design of these 2 lenses assures a **PERFECT STABILITY** in the **CAPSULAR BAG** and an **EXCELLENT VISION FOR FAR & NEAR PURPOSE**, for everyday enjoyment.

Freedom's Multifocal Lenses have

ANTERIOR DIFFRACTIVE SURFACE
& POSTERIOR ASPHERIC with 360° SQUARE EDGE
BETTER CONTRAST SENSITIVITY because of **ASPHERIC OPTIC**
 Improved Image Quality with
NEGATIVE SPHERICAL ABERRATION of -0.15 MICRON

- ❖ Maximum Light Transmission under any Light Conditions
- ❖ Increased Bio-mechanical Stability
- ❖ Excellent Far & Near Vision
- ❖ RNI-Distribution for Far & Near Focus 60/40
- ❖ Glistening FREE



With CATARACT

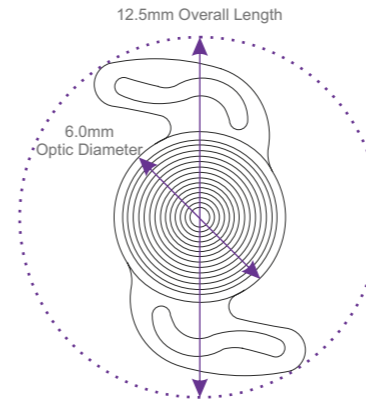


With MONOFOCAL LENS

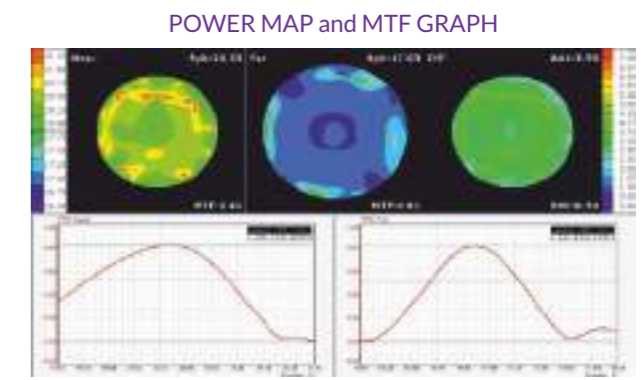
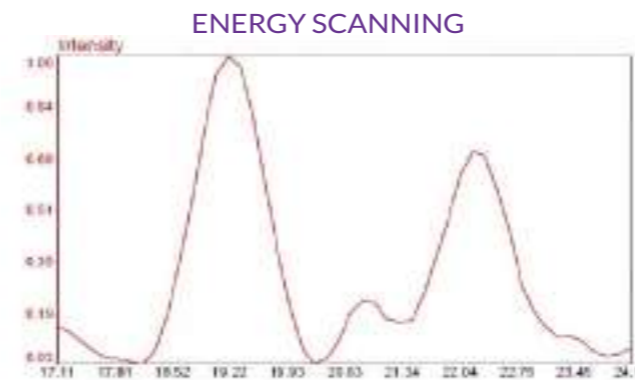


With FREEDOM MULTIFOCAL LENS

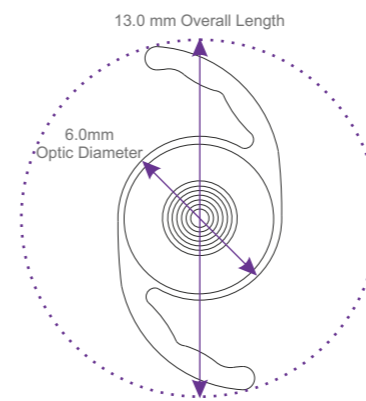
FREEDOM MULTIFOCAL - HYDROPHILIC



- ❖ Hydrophilic Material
- ❖ Diffractive-refractive apodized design for better Light energy
- ❖ 26 Diffractive zone
- ❖ Addition +3,5 D
- ❖ Diopter Range from +5.00 D to +30.0 D with 0.5 D step



FREEDOM MULTIFOCAL - HYDROPHOBIC



- ❖ Hydrophobic Material
- ❖ The central zone is of 3.25 mm diameter has 9 diffractive zones. The remaining 2.75mm portion of the lens has the refractive zone.
- ❖ Addition +3.0 D
- ❖ Diopter Range from +5.00 D to +30.0 D with 0.50 D step
- ❖ Postponed PCO with hydrophobic material

