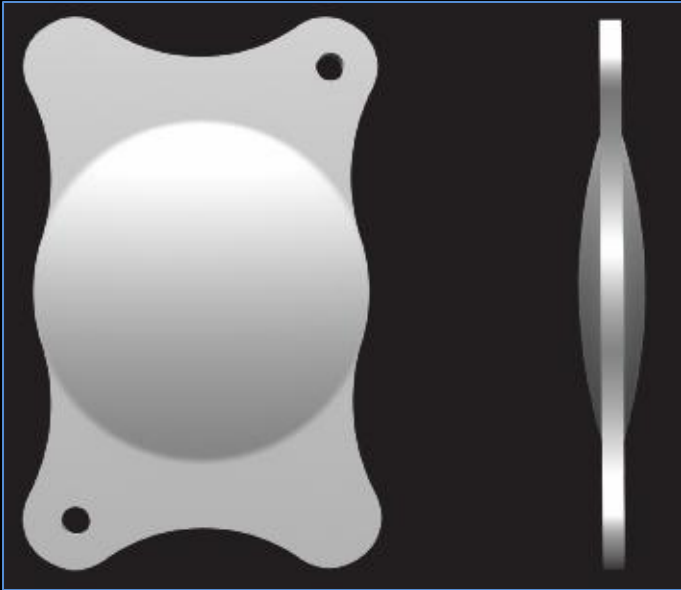


# DIFFRACx™ Series

Progressive Diffractive Multi-Focal lenses  
“ADVANCED TECHNOLOGY FOR BETTER VISUAL ACUITY...”

Yesterdays standards for visual outcomes are no longer considered adequate for the active life-styles of today. For more than 10 years we have been quietly and confidently working on new optical systems that we believe will set the standards for others to follow.



Now, after the introduction of PRESBIOPTICx™ the World's first Progressive Multifocal IOL using “refractive” optics, we are once again leading the way with DIFFRACx Micro™ the World's first Progressive Multi-focal IOL using “diffractive” optics with NO lines which can mean NO halos and glare for patients.

## HOW IT WORKS

It's well known that for decades diffractive technology has been used for optical systems in many medical fields, scientific fields and space exploration. Now, nano-technology in manufacturing has advanced enough to create a diffractive intraocular lens perfect enough to make a real difference.

Using the law of optical physics combined with ‘State of the Art’ lens nano-technology, on the world's finest high tech equipment, to create an optical system that can provide emmetropia 100% to patients as never before.

As light travels through the multiple zones of a multi-focal lens they are focused on the retina which feeds a myriad of signals to the brain. Neuro-Surgeons, Psychologists and Ophthalmologists know that the brain is capable of filtering and sorting multiple images and then centering the attention of a precise image.

DIFFRACx™ uses the brain's superior awareness to detail to its ad-vantage. The theory behind the normal diffractive optical system is to supply sharp, crisp images for the brain to sort, thus allowing for good distant vision, good mid-range vision and good close vision. Unfortunately, the standard multifocal lens offers concentric circles or lines that dilute the image and blur the true crispness of the image.

We invented the progressive IOL and those images can now be viewed without loss of light and without the image being blurred by concentric lines, separating the dioptric zones. This is done through more than 20 zones allowing for distance, mid vision and near vision no matter what the pupil size.

## MORE LIGHT

Unlike its competition, we modified the DIFFRACx Micro™ to include its technology from its “ASPHERICx™” IOL line and its progressive multifocal PRESBIOPTICx™ intraocular lens line. Because of that, DIFFRACx™ lenses are also progressive, aspheric and aberration controlled meaning that there are clearer focal zones with NO LINES to eat up valuable light needed at twilight or dusk.

## LASER PROCEDURES – No Problem !

Dr. Gianluca Rubiolini, Como, Italy, reported in a formal presentation at the ASCRS that for the first time, he was able to perform Diabetic Retinopathy surgery without shadows on the retina and without fear of the laser beam hitting the rings of the lens because with a progressive multifocal THERE ARE NO RINGS.



## HOW ITS MADE

The EOEMA material is carefully and methodically lathe cut on precision air bearing lathes and once milled, carefully tumble polished to remove any free radicals. Each lens is carefully hand inspected on a wave-front analyzer for power and quality before being called an Imperial Medical intraocular lens.

## CLINICAL DATA

The high tech manufacturing process, combined with superior hydrophilic acrylic, ‘Advanced Polymer’ lens material, have proven to provide superior visual acuity and unquestionable safety.

The Company has manufactured nearly 1.5 million implants with NO complications and no adverse reactions. A perfect track record for more than 11 years.

Dr. J. Urminský, PhD of the Ophthalmological Clinic, Medical Faculty of the Charles University & University Hospital in the Czech Republic presented finding from his 135 patient study in 2004 that IMT lenses from EOEMA presented significantly PCO rates than other lenses tested. 1

In addition, Dr. Gianluca Rubiolini reported in a 2010 study, released at the ESCRS that more than 90% of all patients implanted with DIFFRACx Mico™ were free of spectacles and the other 10% were less than 0.25 diopters off two months post op. Indeed, studies indicate that when properly used, implantation of diffractive intraocular lenses can provide excellent long term visual acuity without adverse reaction and without visual misadventures for the patients. 2

The Archives of Ophthalmology in 1999 published a study called "Bilateral Implantation of Asymmetrical Diffractive Multifocal Intraocular Lenses," which detailed that eighty percent (80%) of the patients in the study reported no use of spectacles postoperatively." However, studies also indicate that the No. 1 Complaint of all multi-focal lenses is halos, glare, sparkles and starbursts.

### SURGICAL FEATURES

DIFFRACx Micro™ IOLs combine many features that will allow the surgeon to have a quality surgical experience and positive surgical outcome when using DIFFRACx™ for their patient's visual needs.

### MICRO INCISION TECHNOLOGY

Because of its unique features, DIFFRACx Micro™ intraocular lenses can be implanted through 1.6mm to 1.8mm cartridges up to and including +27.0 diopters. However, surgical experience should dictate the size of incision and the size of cartridge to be used.

We always recommends using a silicone cushion when implanting and we recommend that from +00.0 Diopters to +25.0 Diopters you can use a 1.6mm to 1.8mm cartridge.

From +25.0 to +30.0 Diopters you can use a 1.8mm to 2.2mm cartridge and above +30.0 Diopters it is recommended surgeons use a 2.4mm to 2.8mm cartridge.

Caution should always be used when injecting an intraocular lens into the capsular bag and inexperienced surgeons should seek proper training before attempting micro incision lens injection.

### LENS POSITIONING

DIFFRACx Micro™ was designed to be implanted in the capsular bag with the diffractive surface anterior. Surgeons will note a small position indicator (hole) on the "Top Right" and "Bottom Left" of the wings or haptic. Care should be taken to always implant the lens with the small position indicator to the "Top Right" or "Bottom Left" or the 1:00 o'clock and 7:00 o'clock positions.

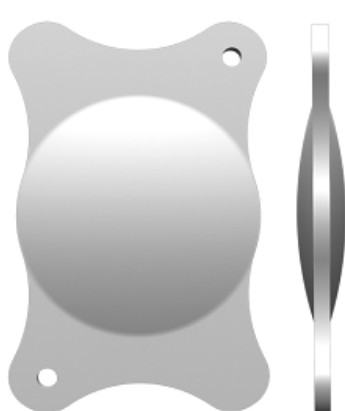
(1) *An Evaluation of Opacities in the Posterior Capsule after Implantation of Two Types of Intraocular Lenses;* MUDr. Urminsky, J., PhD; 2004.

(2) *3M Diffractive Multifocal Intraocular Lens, Eight Year Follow-up;* J. Cataract Refract Surg, 2000; 26(3):402-1;

DIFFRACx 'C'™



DIFFRACx Micro™



PROGRESSIVE DIFFRACTIVE MULTI-FOCAL LENSES

Model :	HP60CD	HM60PD
Lens Material :	EOEMA	EOEMA
Haptic Style :	MOD. 'C'	PLATE
Optic Style :	BI-CONVEX	BI-CONVEX
Optic Size :	6.0mm	6.0mm
Overall Length :	12.5mm	11.0mm

CE 0481 – ISO 13485

DIFFRACx 'C'™, DIFFRACx Micro™, ASPHERICx™, ASPHERICx Micro™

PRESBIOPTICx™ & PRESBIOPTICx Micro™  
with 'Rx<sup>2</sup> Optical System'