HUMANOPTICS

ASPIRA-aXA

XL OPTIC – VISION WITHOUT LIMITS

XL OPTIC

XS INCISION

The innovative XL optic design of the ASPIRA-aXA combines the advantages of a 7.0 mm optic with the stability of the new cut-out haptic design. This posterior-chamber IOL can be conveniently implanted using small-incision technology while adhering to surgical routine.

VERSATILE POTENTIAL APPLICATIONS

AND EASE OF USE

The ASPIRA-aXA provides a custom solution for the most diverse needs. Possible applications range from standard cataract surgery to refractive surgery and combined interventions in retinal surgery.

XL RELIABILITY
XL OPTIC

XL STABILITY
CUT-OUT HAPTICS

XL COMFORT
PRELOADED SAFELOADER®

XS INCISION 2.0

XL OPTIC Ø 7.0 mm

XL optic (Ø 7.0 mm)
For an extended view of the fundus
Reliable peripheral fundus view, ideal for patients at increased risk of retinal diseases

Preloaded SAFELOADER®
For more comfort
Convenient, astigmatism-neutral implantation through small incisions
Intuitive. Simple. Fast.

XL optic (Ø 7.0 mm)
For large pupils
Avoidance of interfering optical phenomena, especially in patients with large pupils

Cut-out haptics
For more stability
Additive stabilization for a reliable refractive result

HIGHEST PRECISION FOR THE BEST POSSIBLE PATIENT CARE

SNR TECHNOLOGY
Premium optic quality
For brilliant, clear, and sharp images

ASPHERICAL OPTIC DESIGN
Aberration-free*
Suitable for all patients, regardless of corneal spherical aberrations
To preserve depth of field** and enhance contrast sensitivity***

EXCELLENT IOL MATERIAL
Modeled on the natural lens
Glistening-free with excellent uveal biocompatibility

360° LEC BARRIER
To prevent PCO

* The word "aberration" as used in this document refers to spherical aberration.

** Compared to aberration-correcting IOLs.

*** Compared to spherical IOLs.

DR. J. SCHRECKER, GLAUCHAU
"Implantation can be performed with the same incision width as with a standard IOL."[1]

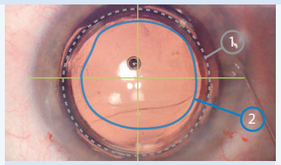
PROF. W. SEKUNDO, MARBURG
"The large ASPIRA-aXA optic has proven itself in phacovitrectomies because it allows an edge-free view into the outer retinal periphery."[3]

DR. E. BECKER / M. BONSEMEYER, ORANIENBURG
"The ASPIRA-aXA with its enlarged XL optic is a promising solution to prevent the occurrence of dysphotopsia."[2]

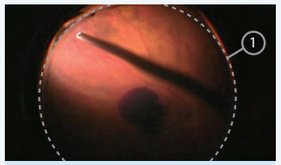
PROF. G. DUNCKER, HALLE
"The patient response has been overwhelmingly positive."[4]

XL OPTIC

PANORAMIC IOL



Intraoperative image (using Verion) with implanted ASPIRA-aXA*
(1) Edge of the XL optic
(2) Rhexis: diameter 6.0 mm



Intraoperative fundus image**
(1) Edge of the XL optic

- Opening of the anterior capsule membrane with a rhexis diameter of up to 6.5 mm
- Extended fundus view for convenient assessment of the tissue structures of the posterior segment of the eye
- Facilitates therapeutic measures in the presence of peripheral retinal diseases

RISK GROUPS

APPROX. 20% – DIABETES – TYPE 2[5]
In the age group of the average cataract patient[6]

OVER 60% – HYPERTENSION[7]
Of over-65s

ASPIRA-aXA offers patients with an increased risk of ocular diseases an advantage for long-term, successful pseudophakic treatment.

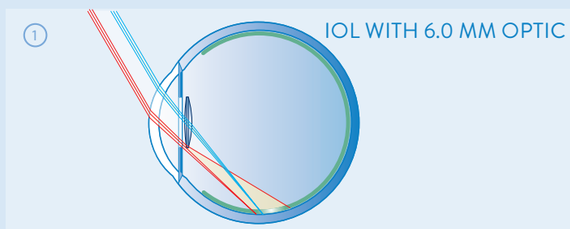
LARGE PUPILS

APPROX. 20% – SCOTOPIC PUPIL DIAMETER[8]
20% of cataract patients have a scotopic pupil diameter of ≥6 mm.

APPROX. 10% – MESOPIC PUPIL DIAMETER[8]
In 10% of patients, even the mesopic pupil is ≥6 mm.

The ASPIRA-aXA with its XL optic is an ideal treatment option for large pupils.

- The pupil overlaps with the IOL optic, even with a large pupil diameter
- Incident light passes safely through the XL optic
- Reduced interfering edge effects, and avoidance of direct light passing the IOL and striking the retina directly
- Peripheral light incidence can be perceived as disturbing even with smaller pupil diameters

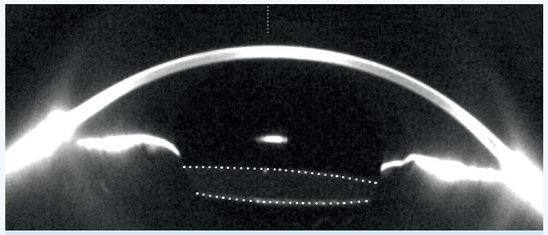


Simulated beam guidance, based on a simulation using OpticStudio 16.5, Zemax with a 6 mm optic (1) and a 7 mm optic (2); pupil size – both 6 mm.

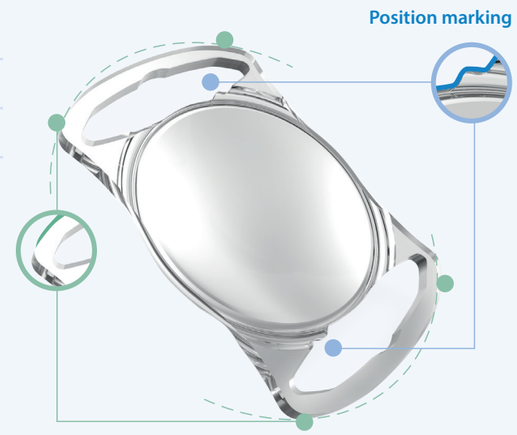
CUT-OUT HAPTICS

STABLE POSITIONING

- The haptics are designed as absorption elements to absorb the energy of external forces without transferring it to the IOL optic
- Double position markings for correct and safe placement
- Quattro point design for stable placement in the capsular bag



Scheimpflug image**
ASPIRA-aXA is positioned securely within the capsular bag, Ø pupil: 4.74 mm / Ø XL optic: 7.0 mm



7.0 MM OPTIC – PRELOADED

SAFELOADER®, THE AUTOLOADING SYSTEM

Precise and reliable provision of the ASPIRA-aXA

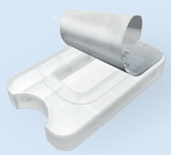
- **Easy to use – for more comfort**
  Intuitive, easy handling replaces manual cartridge loading
- **Separate components – for maximum safety**
  Both the IOL and the injector undergo separate material-specific sterilization processes
- **Contactless disposable system**
  Separate IOL storage ensures that the device does not come into contact with the coating additives of the cartridge until immediately prior to the surgery

Recommended injector: Medicel Accuject™ injector 2.0 | Recommended application: in-the-bag

ASPIRA-aXA: COMPACT LINE

EXTENDED PRODUCT LINE

The reduced Compact Line offers space-saving storage even when space is at a premium – ideal for use in the inpatient sector.



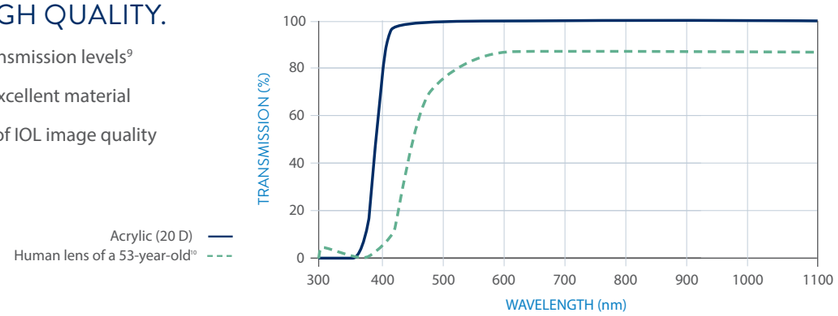
* Courtesy of Professor G. Duncker, Halle. ** Courtesy of Professor M. Bolz, Linz, Austria.

A MATERIAL TO WIN YOU OVER

OUTSTANDING MATERIAL MEETS BEST-IN-CLASS TECHNOLOGY

HIGH TRANSMISSION. HIGH QUALITY.

- The ASPIRA-aXA achieves very high transmission levels[9]
- The high level of transmission attests excellent material quality, which is a crucial determinant of IOL image quality



HIGH ABBE NUMBER. HIGH CONTRAST SENSITIVITY.[11]

A high Abbe number, as a quality measure of the imaging properties of IOLs, is associated with

- a reduction in chromatic aberrations in IOLs
- higher image quality

PROCESSING TO WIN YOU OVER

SUB-NANO RESOLUTION TECHNOLOGY

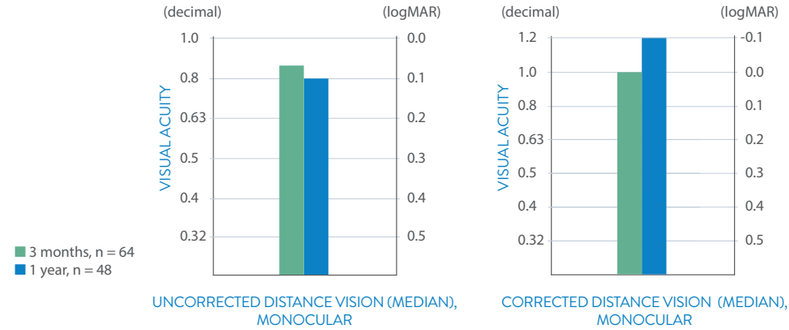
- The ASPIRA-aXA is manufactured using SNR technology, an ultra-precision process: the result is the ultimate in precision and the most finely produced optical surfaces and edges

AN IOL TO WIN YOU OVER

CLINICAL STUDIES PROVIDE PROOF[13]

BEST VISUAL RESULTS

- 96% of the patients achieved corrected visual acuity of 0.8 (decimal) or better after one year



EXCELLENT CONTRAST SENSITIVITY

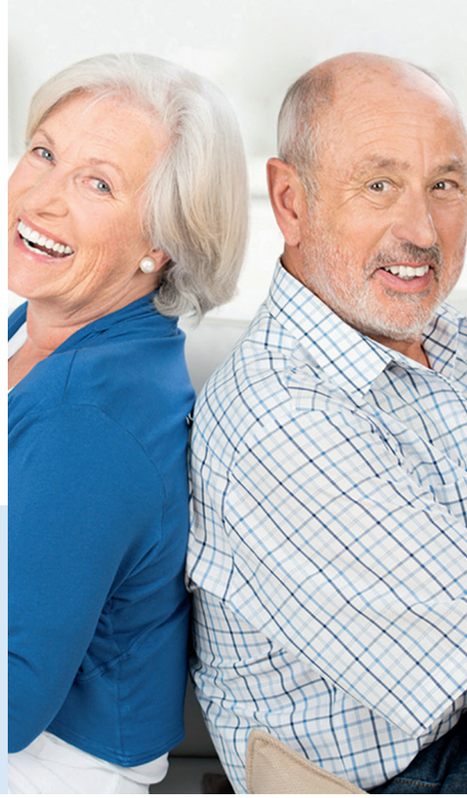
- Patients treated with ASPIRA-aXA achieved improved contrast vision under photopic conditions compared to non-operated persons in the same age group[14]

100% PATIENT SATISFACTION

- All patients were either very satisfied or satisfied according to a patient survey after treatment with ASPIRA-aXA

0% NEGATIVE DYSPHOTOPSIA

- All patients included in the study stated that they perceived no negative dysphotopsia after one year



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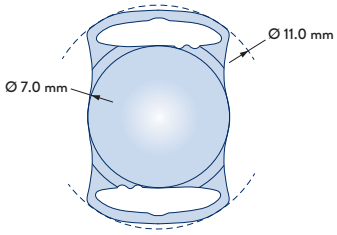
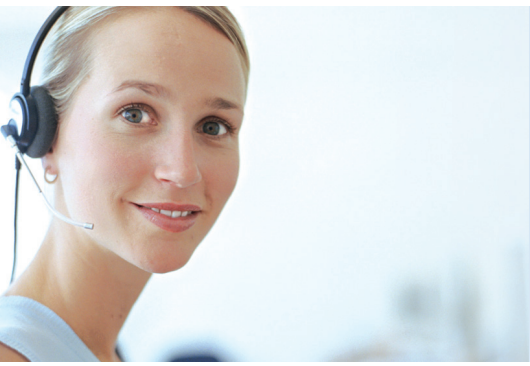
ASPIRA-aXA	
• XL optic • Cut-out haptics • Sub-nano resolution technology SNR TECHNOLOGY PREMIUM QUALITY	
Type	Foldable 1-piece posterior chamber lens
Material	Glistening-free, hydrophilic acrylic, UV blocker, Abbe number 56
Water content	26% at 35°C
Optic design	Aspherical, aberration-free, 360° LEC barrier
Optic diameter	7.0 mm
Overall diameter	11.0 mm
Haptic design	Cut-out haptics
Diopter range	10.0 to 30.0 D in 0.5 D steps Extended diopter range on request
Injector	Optionally preloaded in SAFELOADER®

Model	A-constant manufacturer (estimated)		Further IOL constants				
	A-constant, ultrasound	A-constant, optical	Haigis	Hoffer Q (pACD)	Holladay (surgeon factor)	SRK/T	SRK II
ASPIRA-aXA[15]	118.0	118.3	$a_0 = 1.667$ $a_1 = 0.4$ $a_2 = 0.1$	5.89	sf=2.13	119.5	119.8

[15]Source: IOLCon.org https://iolcon.org/ (Version: May 3, 2019).
All information is provided with no guarantee. Detailed information on the calculation can be found at https://iolcon.org.



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