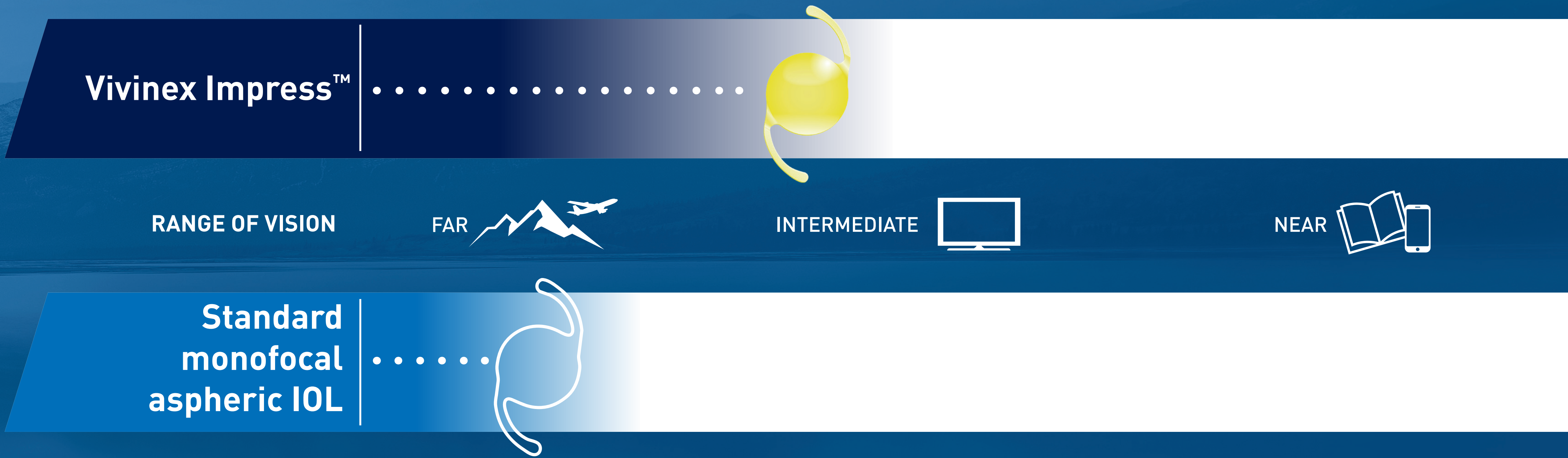
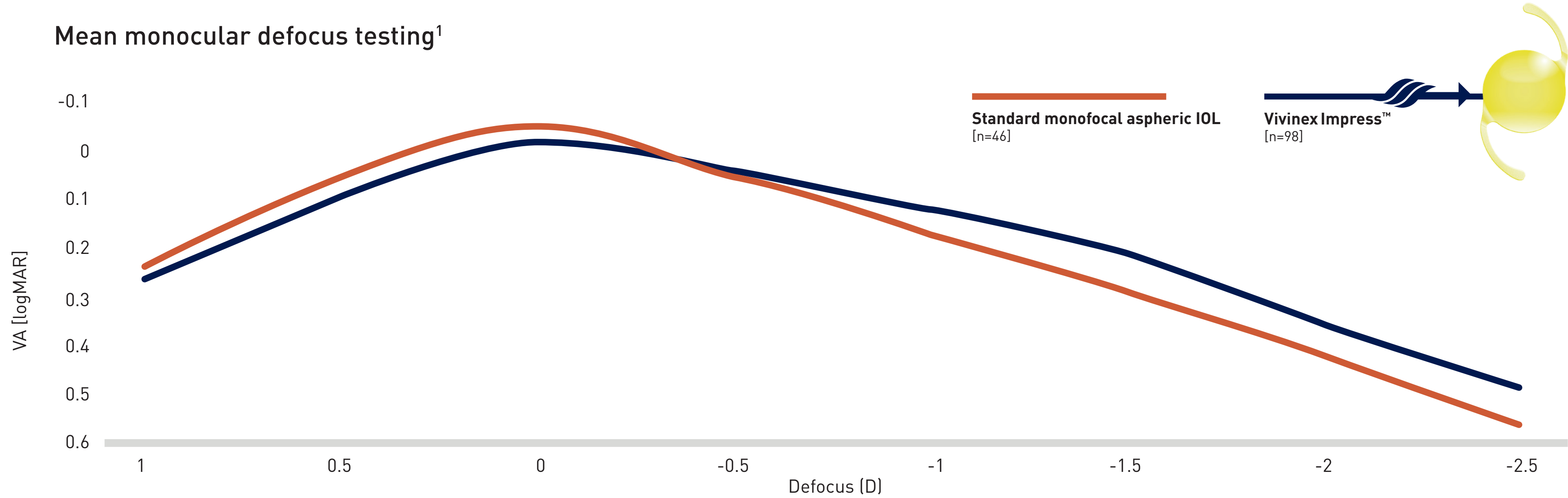

VIVINEX IMPRESS™
BE IMPRESSED
Set a new benchmark for visual outcomes achieved by your monofocal patients
HOYA
SURGICAL OPTICS

Vivinex Impress™ enhances the intermediate vision of monofocal patients

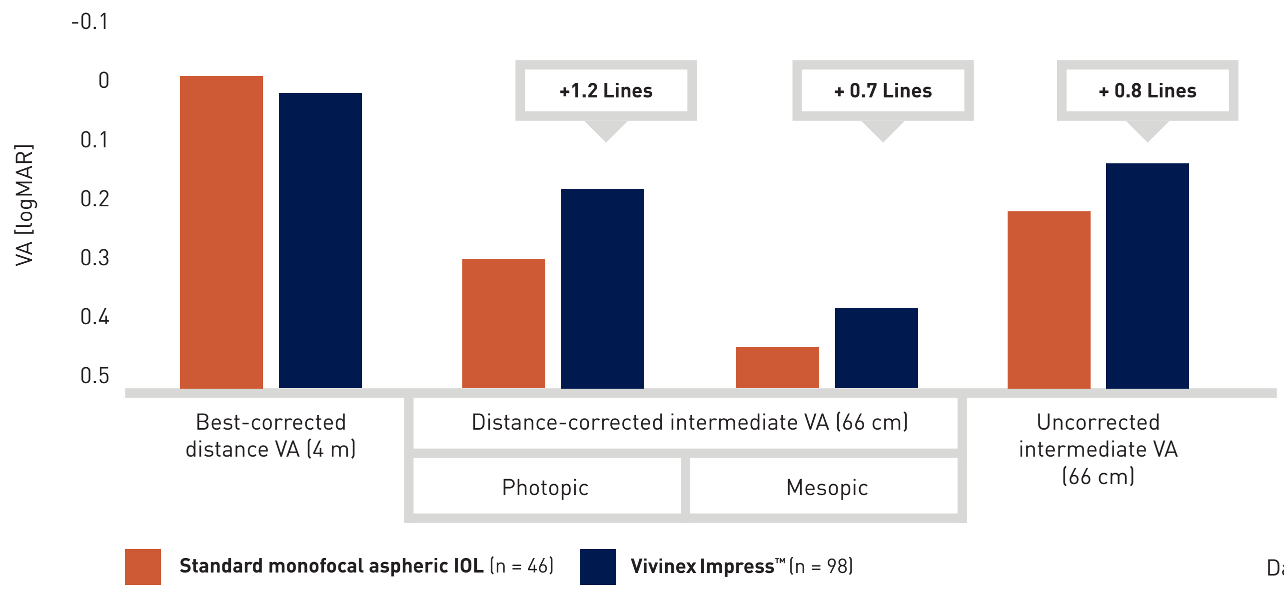


Vivinex Impress™ provides significant improvement in visual acuity at intermediate distance

Mean monocular defocus testing[1]



Mean monocular visual acuity testing[1]



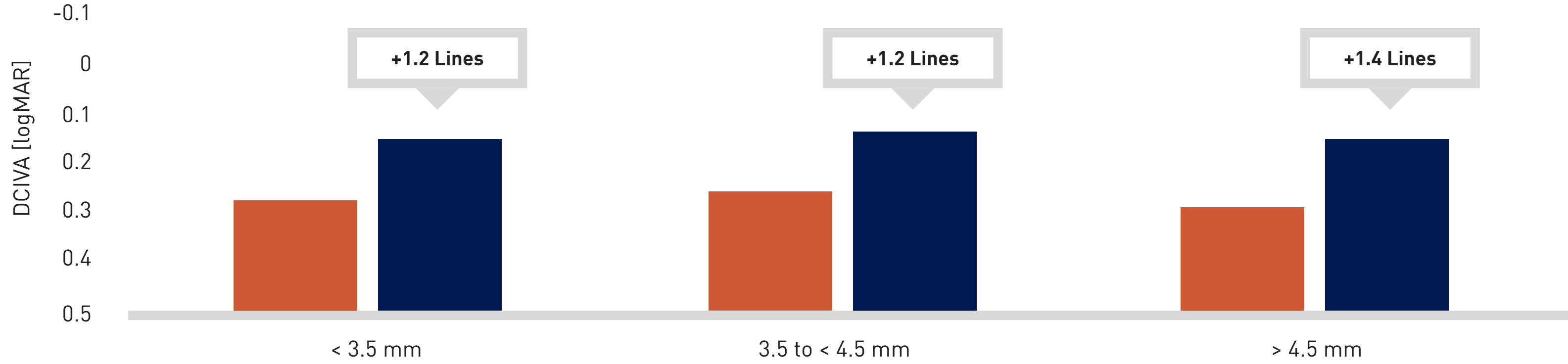
Vivinex Impress™ provides distance vision equivalent to a standard monofocal aspheric IOL

Under all conditions tested, Vivinex Impress™ demonstrates a statistically significant improvement at 66 cm compared to the standard monofocal aspheric IOL

Data collected in a multicenter clinical trial 12-14 months postop

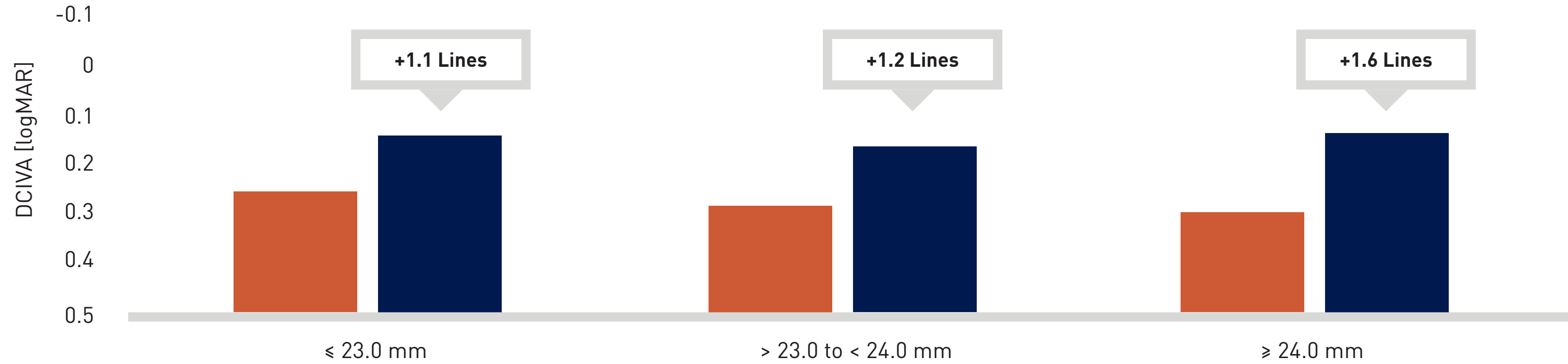
Vivinex Impress™ consistently provides greater than 1 line of intermediate vision benefit independent of both pupil size and axial length

Mean intermediate visual acuity benefit by pupil size[1]



	Photopic pupil diameter		
Standard monofocal aspheric IOL	(n = 12)	(n = 19)	(n = 15)
Vivinex Impress™	(n = 31)	(n = 39)	(n = 28)

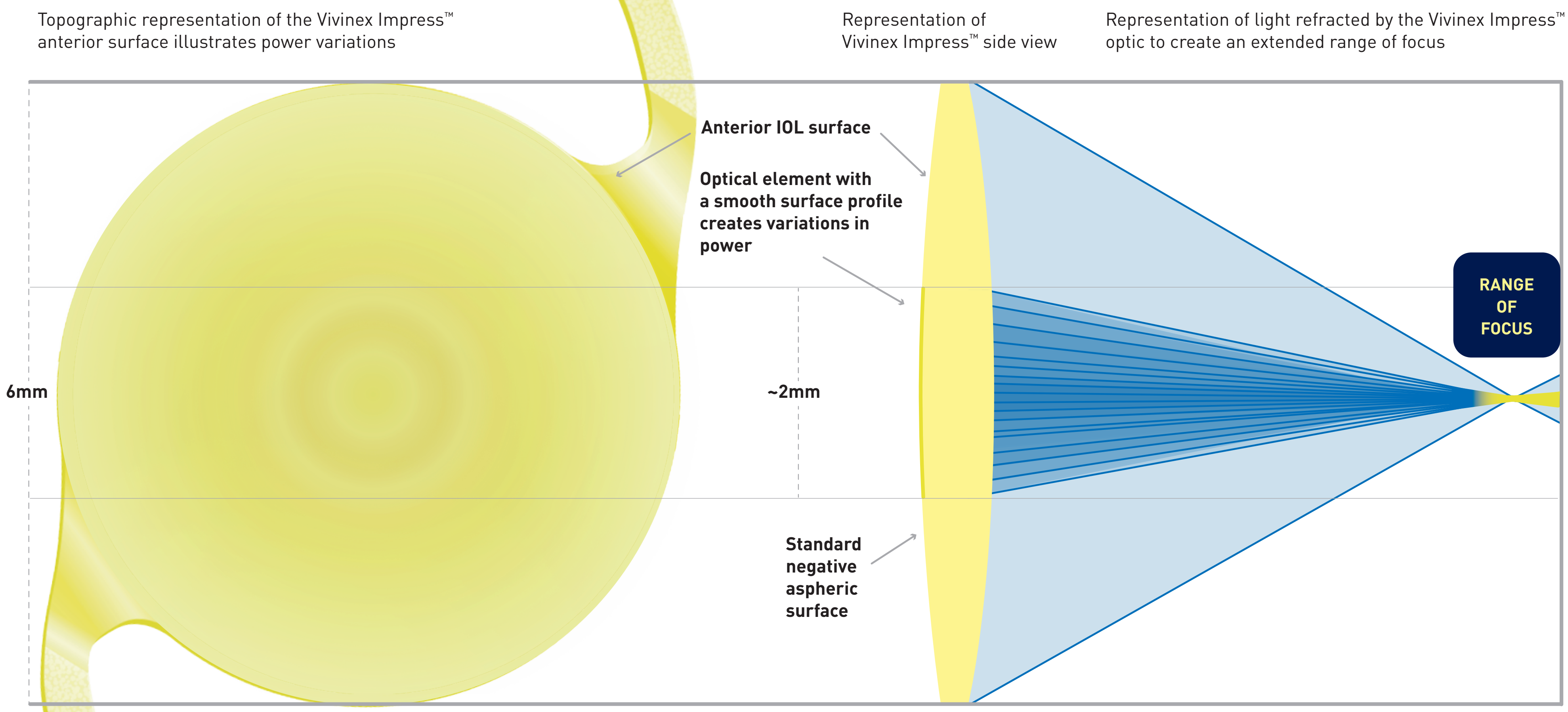
Mean intermediate visual acuity benefit by axial length[1]



	Axial length		
Standard monofocal aspheric IOL	(n = 16)	(n = 17)	(n = 13)
Vivinex Impress™	(n = 34)	(n = 41)	(n = 23)

Data collected in a multicenter clinical trial 12-14 months postop

So how does Vivinex Impress™ work?



This image is for illustrative purposes only and is not an exact representation of the product.

The central optical element creates variations in power that provide an extended range of focus and improved intermediate vision. Vivinex Impress™ looks the same as a standard monofocal IOL.[2]

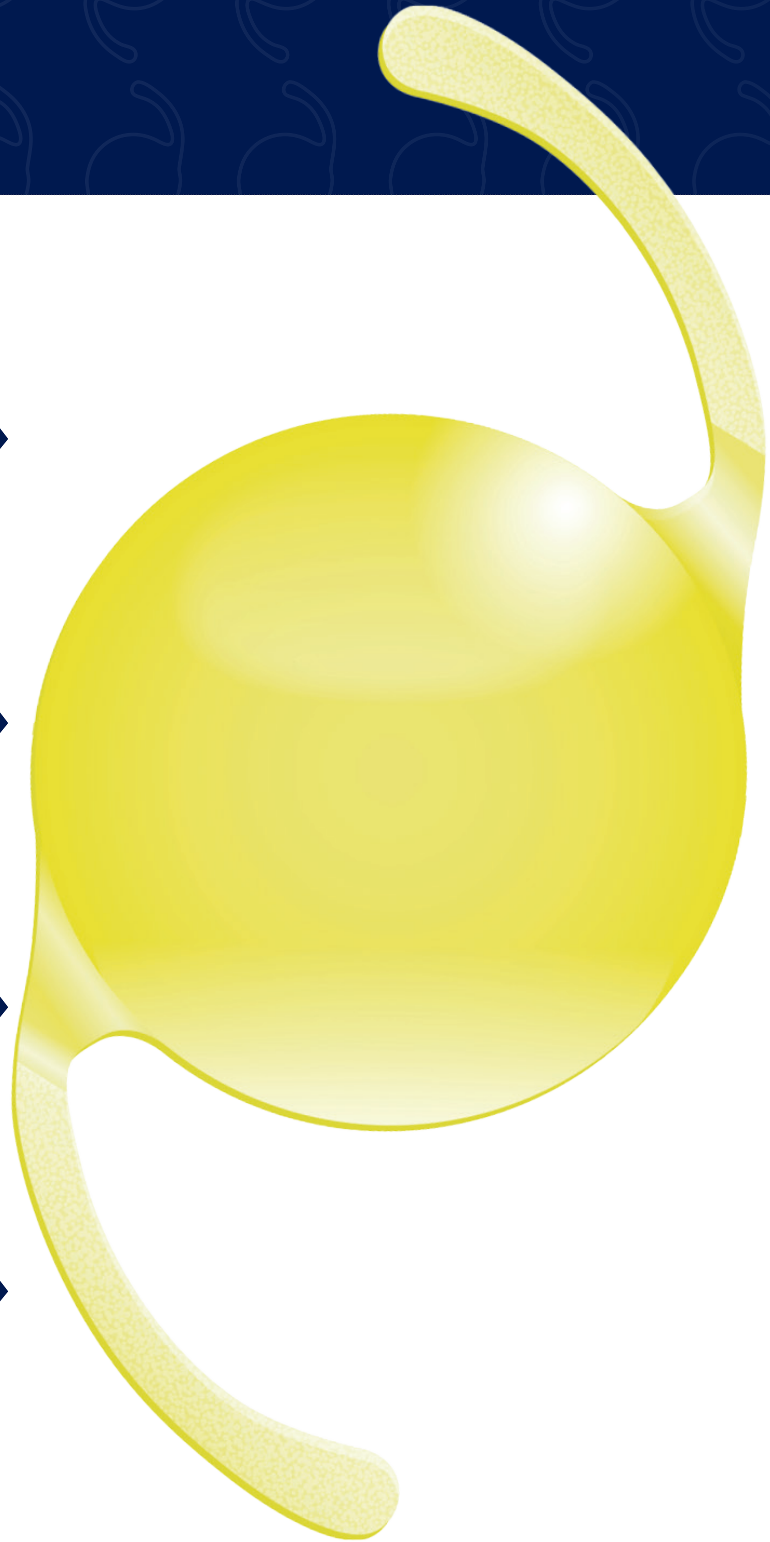
Benefits of the Vivinex™ platform

Glistening-free Glistening-free hydrophobic acrylic IOL material[3,4]

Improved Image Quality Incorporates the Vivinex™ proprietary aspheric optic design which partially compensates for corneal spherical aberration and is more tolerant to sources of coma than standard aspheric designs[5,6,7]

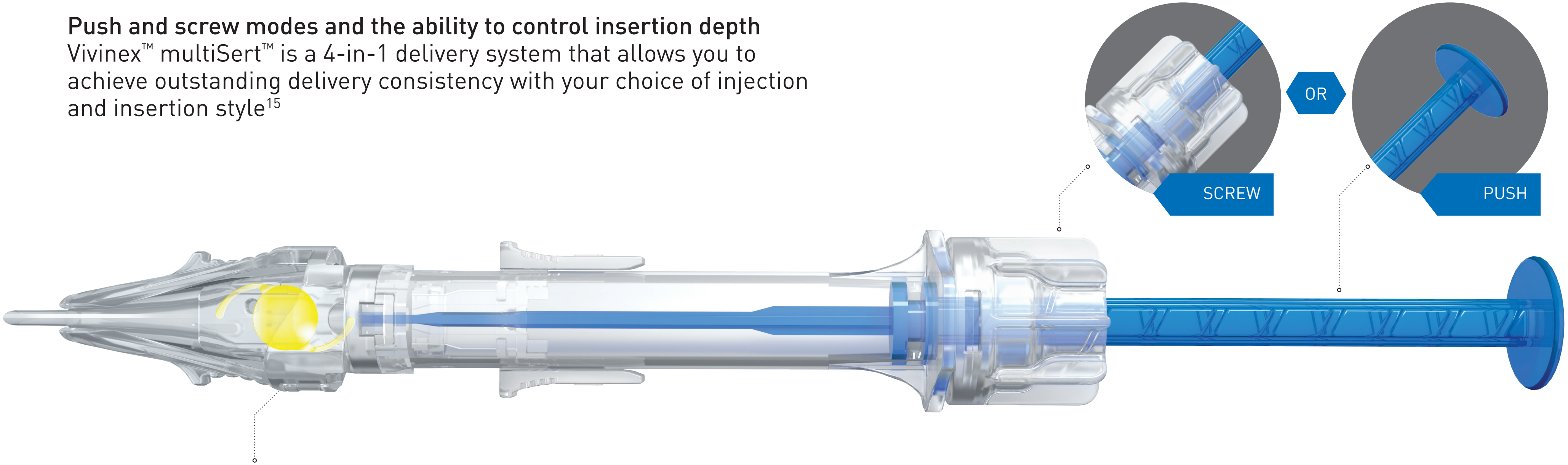
Reduction of PCO Active oxygen processing treatment, a smooth surface and square optic edge to reduce PCO[3,4,8,9,10,11,12,13,14]

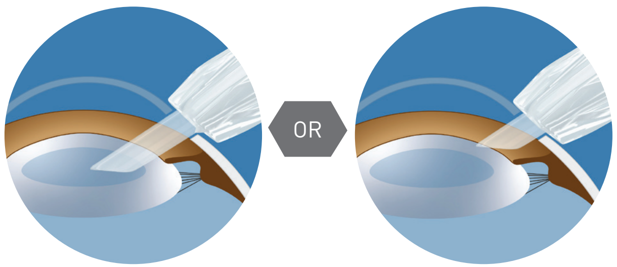
Smooth IOL unfolding and capsular bag stability Textured rough haptic surface designed to reduce potential for adhesion to the optic surface during delivery, and provides better grip inside the capsular bag



Delivered in the preloaded multiSert™ injector

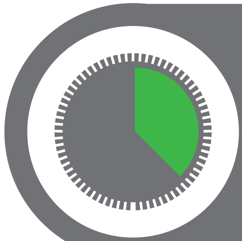
Push and screw modes and the ability to control insertion depth
Vivinex™ multiSert™ is a 4-in-1 delivery system that allows you to achieve outstanding delivery consistency with your choice of injection and insertion style[15]





Delivery into capsular bag
insert shield:
Default position

Delivery through incision wound tunnel
insert shield:
Advanced position



Preloaded injectors are:

Easier to prepare, increasing safety by:[16,17,18,19,20,21]
- Reducing risk of contamination and infection
- Reducing risk of IOL damage

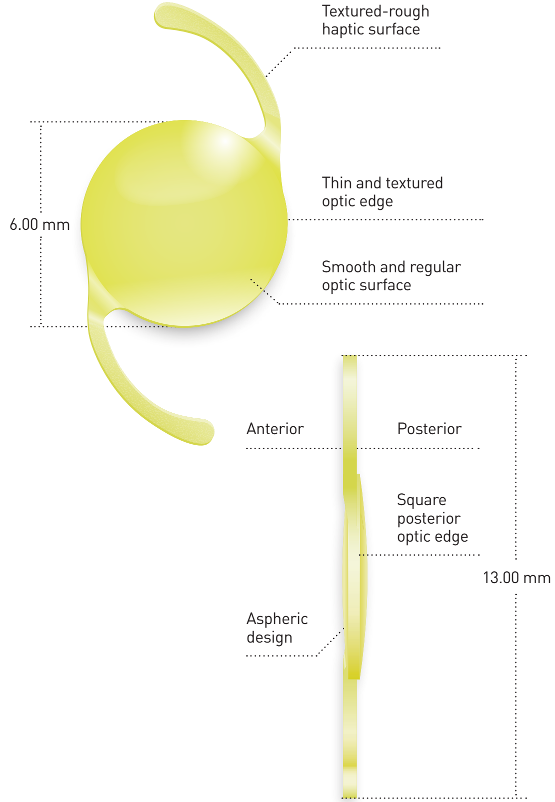
More efficient in the OR:[18,20]
- Minimising time spent preparing the IOL delivery system
- Creating fewer instruments to reprocess

More predictable:[20]
- Increasing predictability and consistency of IOL delivery

Specifications

HOYA SURGICAL OPTICS

	Vivinex Impress™
Model name	**XY1-EM**
Optic design	Biconvex with square, thin and textured optic edge Anterior: Aspheric design
Optic & haptic materials	Hydrophobic acrylic Vivinex™ with UV- and blue light filter
Haptic design	Textured-rough haptic surface
Diameter (optic/OAL)	6.00 mm / 13.00 mm
IOL Power (Spherical equivalent)	+6.00 D to +30.00 D in increments of 0.50 D
Nominal A-constant*	118.8
Injector	**multiSert™** preloaded
Front injector tip outer diameter	1.70 mm
Recommended incision size	2.20 mm



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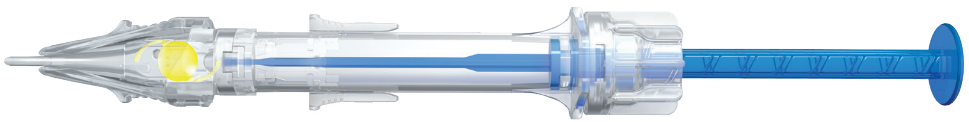
Delivered by the **multiSert™** preloaded injector



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References: 1. Manuscript submitted for publication in August 2024 **2.** HOYA data on file RnD-20-367, HOYA Medical Singapore, Pte. Ltd, 2023 **3.** Tandogan, T. et al. (2021): In-vitro glistening formation in six different foldable hydrophobic intraocular lenses. In: BMC Ophthalmol 21, 126. **4.** Auffarth, G. U. et al. (2023). Randomized multicenter trial to assess posterior capsule opacification and glistenings in two hydrophobic acrylic intraocular lenses. In: Scientific reports, 13 (1), 2822. **5.** Perez-Merino, P.; Marcos, S. (2018): Effect of intraocular lens decentration on image quality tested in a custom model eye. In: Journal of cataract and refractive surgery 44 (7), p. 889–896. **6.** Chandra, K. K. et al. (2022): Effect of decentration on the quality of vision: comparison between aspheric balance curve design and posterior aspheric design intraocular lenses. Journal of cataract and refractive surgery 48 (5), p. 576-583. **7.** Thakur, A. et al. (2024): Effect of decentration on the quality of vision in two aspheric posterior chamber intraocular lenses: A contralateral eye study. In: Indian J Ophthalmol. 72 (4), p. 558–564. **8.** Leydolt, C. et al. (2020): Posterior capsule opacification with two hydrophobic acrylic intraocular lenses: 3-year results of a randomized trial. In: American journal of ophthalmology 217 (9), p. 224-231. **9.** Giacinto, C. et al. (2019): Surface properties of commercially available hydrophobic acrylic intraocular lenses: Comparative study. In: Journal of cataract and refractive surgery 45 (9), p. 1330–1334. **10.** Werner, L. et al. (2019): Evaluation of clarity characteristics in a new hydrophobic acrylic IOL in comparison to commercially available IOLs. In: Journal of cataract and refractive surgery 45 (10), p. 1490–1497. **11.** Nanavaty, M. et al. (2019): Edge profile of commercially available square-edged intraocular lenses: Part 2. In: Journal of cataract and refractive surgery 45 (6), p. 847–853. **12.** Matsushima, H. et al. (2006): Active oxygen processing for acrylic intraocular lenses to prevent posterior capsule opacification. In: Journal of cataract and refractive surgery 32 (6), p. 1035–1040. **13.** Farukhi, A. et al. (2015): Evaluation of uveal and capsule biocompatibility of a single-piece hydrophobic acrylic intraocular lens with ultraviolet-ozone treatment on the posterior surface. In: Journal of cataract and refractive surgery 41 (5), p. 1081–1087. **14.** Eldred, J. et al. (2019): An In Vitro Human Lens Capsular Bag Model Adopting a Graded Culture Regime to Assess Putative Impact of IOLs on PCO Formation. In: Investigative ophthalmology & visual science 60 (1), p. 113–122. **15.** HOYA data on file. DoF-SERT-102-MULT-03052018, HOYA Medical Singapore Pte. Ltd, 2018. **16.** Galor, A. er al. (2013). Management strategies to reduce risk of postoperative infections. In Current ophthalmology reports, 1 (4), 10.1007/s40135-013-0021-5. **17.** Bodnar, Z. et al. (2012). Toxic anterior segment syndrome: Update on the most common causes. In: Journal of cataract and refractive surgery, 38 (11), p. 1902–1910. **18.** Jones, J. et al. (2016). The impact of a preloaded intraocular lens delivery system on operating room efficiency in routine cataract surgery. In: Clinical ophthalmology (Auckland, N.Z.), 10, p. 1123–1129. **19.** Park, C. et al. (2018). Toxic anterior segment syndrome-an updated review. In: BMC ophthalmology, 18(1), 276. **20.** Chung, B. et al. (2018). Preloaded and non-preloaded intraocular lens delivery system and characteristics: human and porcine eyes trial. In: International journal of ophthalmology, 11 (1), 6–11. **21.** Schmidbauer, J. et al. (2002): Rates and causes of intraoperative removal of foldable and rigid intraocular lenses: clinicopathological analysis of 100 cases. In: Journal of cataract and refractive surgery, 28 (7), 1223–1228. * The A-constant is presented as a starting point for the lens power calculation. When calculating the exact lens power, it is recommended that calculations be performed individually, based on the equipment used and operating surgeon's own experience.

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