

VIVINEX IMPRESS™ BE IMPRESSED



Set a new benchmark for visual
outcomes achieved by your
monofocal patients

Vivinex Impress™ enhances the intermediate vision of monofocal patients

The concept behind Vivinex Impress™

Vivinex Impress™



RANGE OF VISION

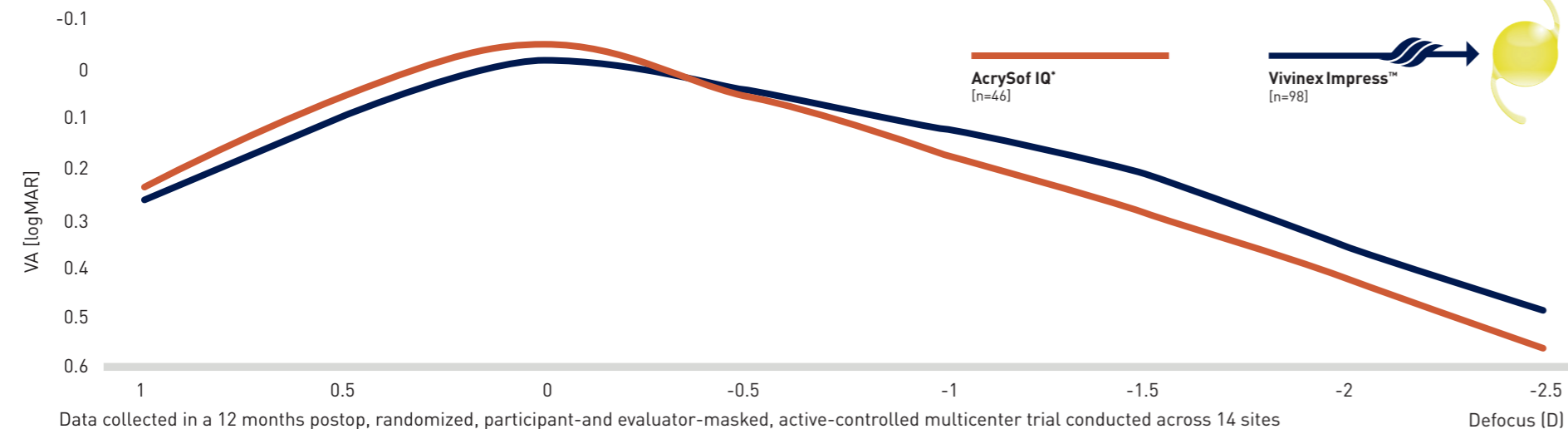


Standard monofocal aspheric IOL



Mean monocular defocus testing¹

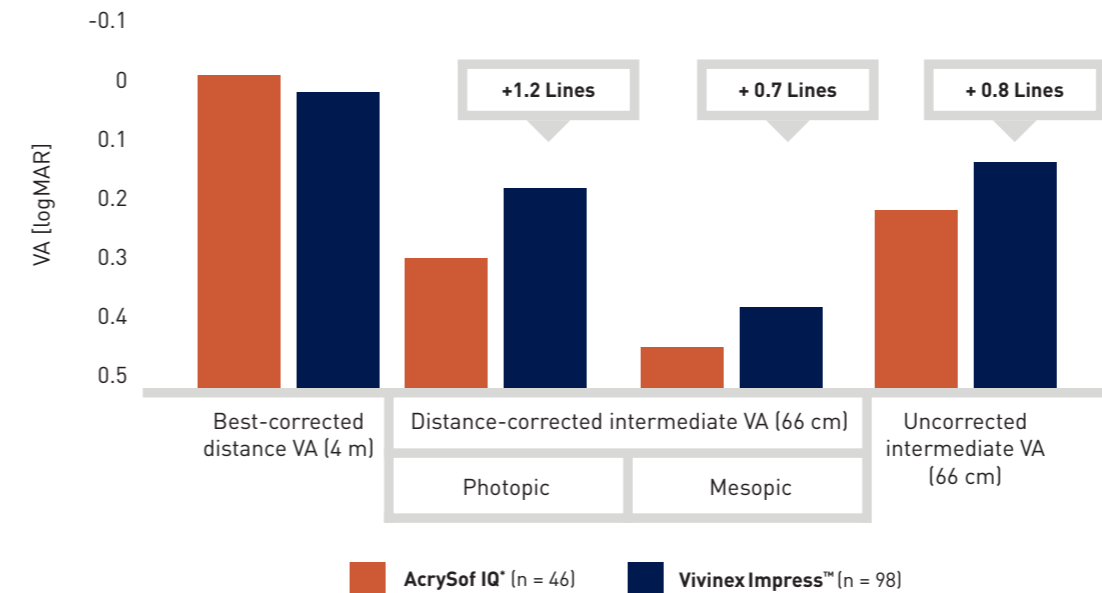
Distance-corrected defocus curve showed better monocular visual acuity with Vivinex Impress™ from -1.0 to -2.5D, compared to AcrySof IQ*



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

Vivinex Impress™ Vs AcrySof IQ*

Mean monocular visual acuity testing¹



Vivinex Impress™ provides distance vision equivalent to AcrySof IQ*¹

Under all conditions tested, Vivinex Impress™ demonstrates a statistically significant improvement at 66 cm compared to AcrySof IQ*¹

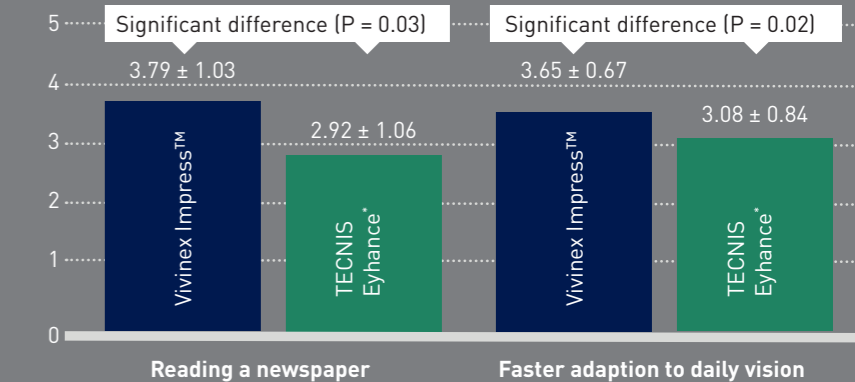
Data collected in a 12 months postop, randomized, participant-and evaluator-masked, active-controlled multicenter trial conducted across 14 sites

Vivinex Impress™ Vs TECNIS Eyhance*

Vivinex Impress™ outperforms TECNIS Eyhance at intermediate distance*

- In a retrospective study, Vivinex Impress™ visual acuity was a half-line better at -1.5D (66cm) of defocus (statistically significant: P<0.05)^{2,3}

Observed subjective patient satisfaction²

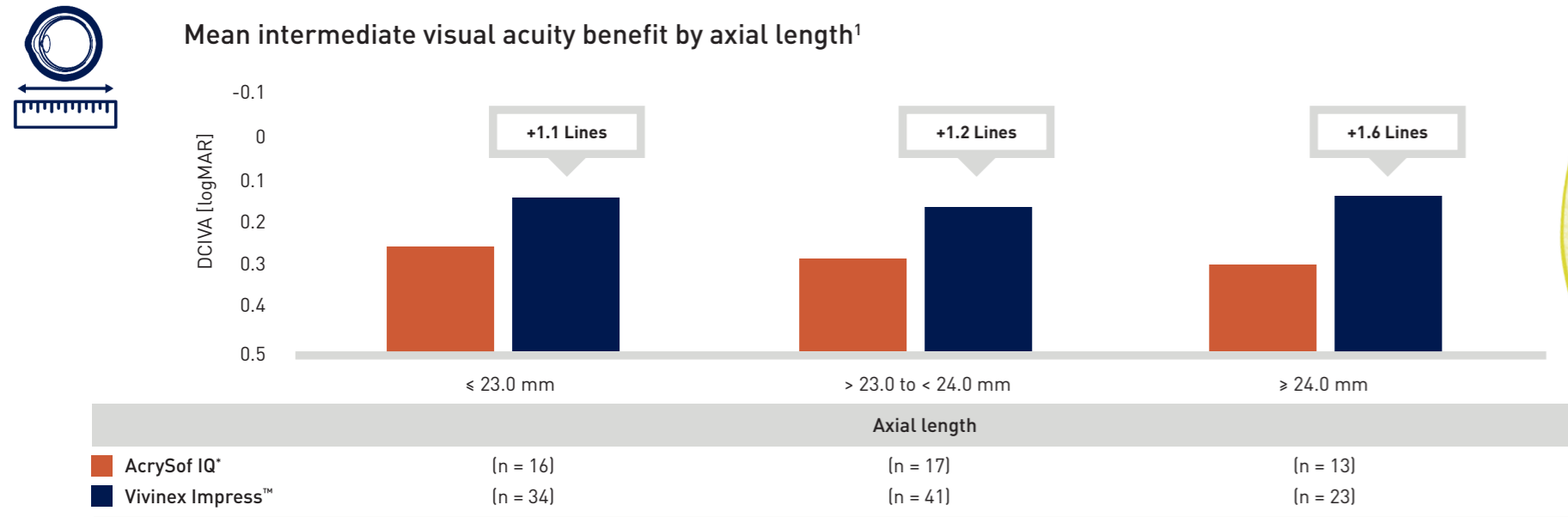
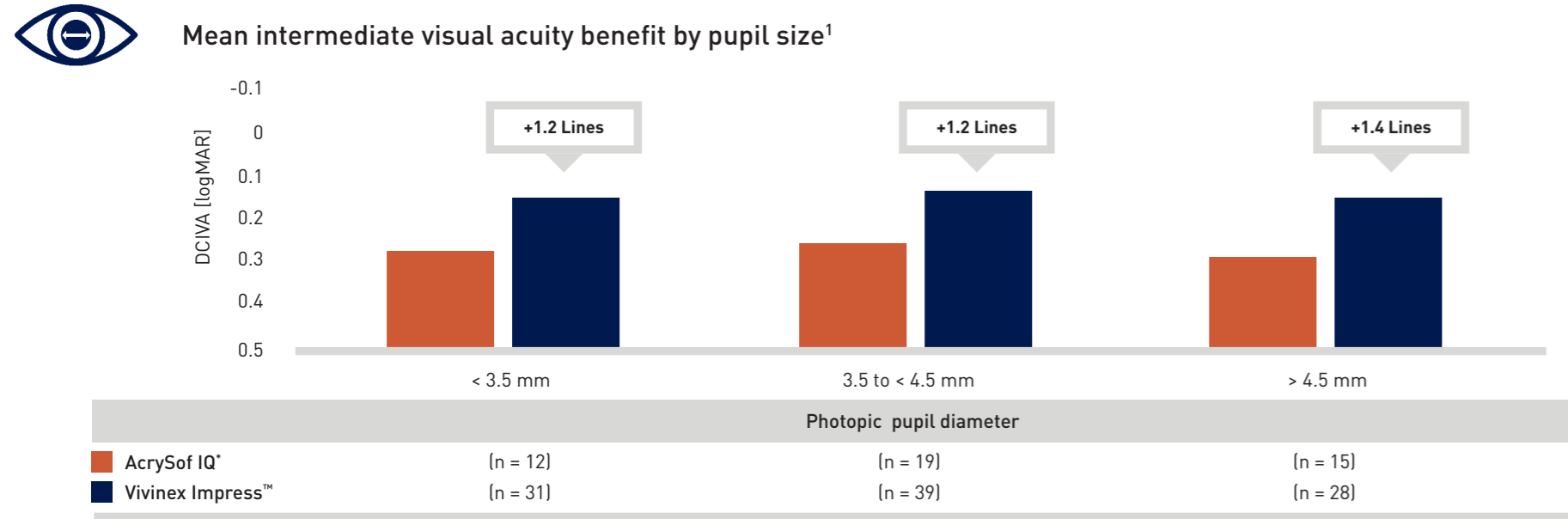


- Patients with Vivinex Impress™ reported significantly higher satisfaction with their vision when reading a newspaper (statistically significant: P=0.03)²

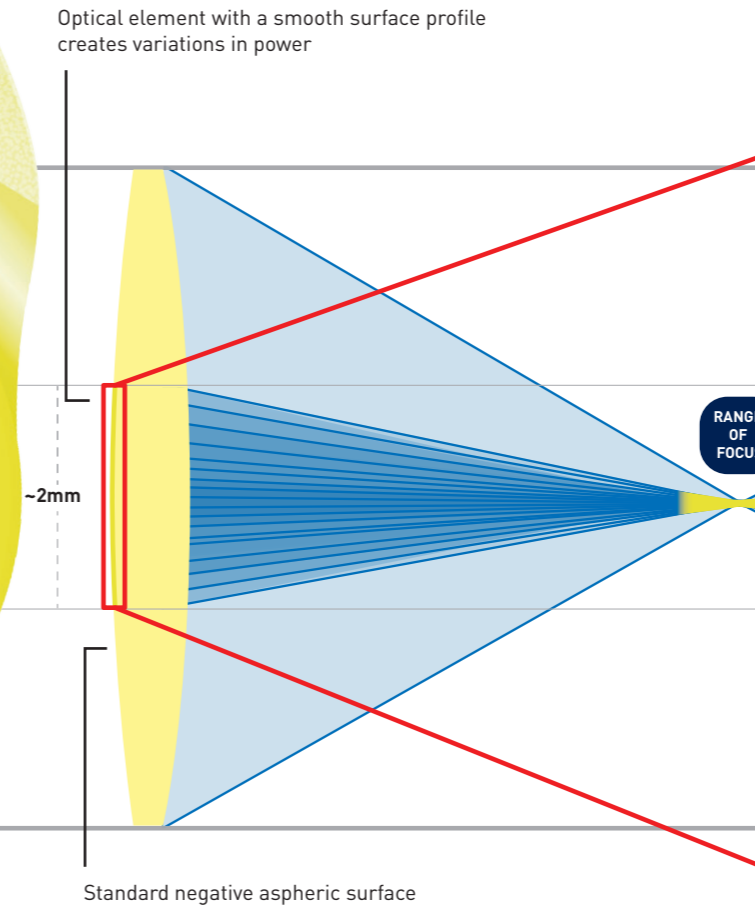
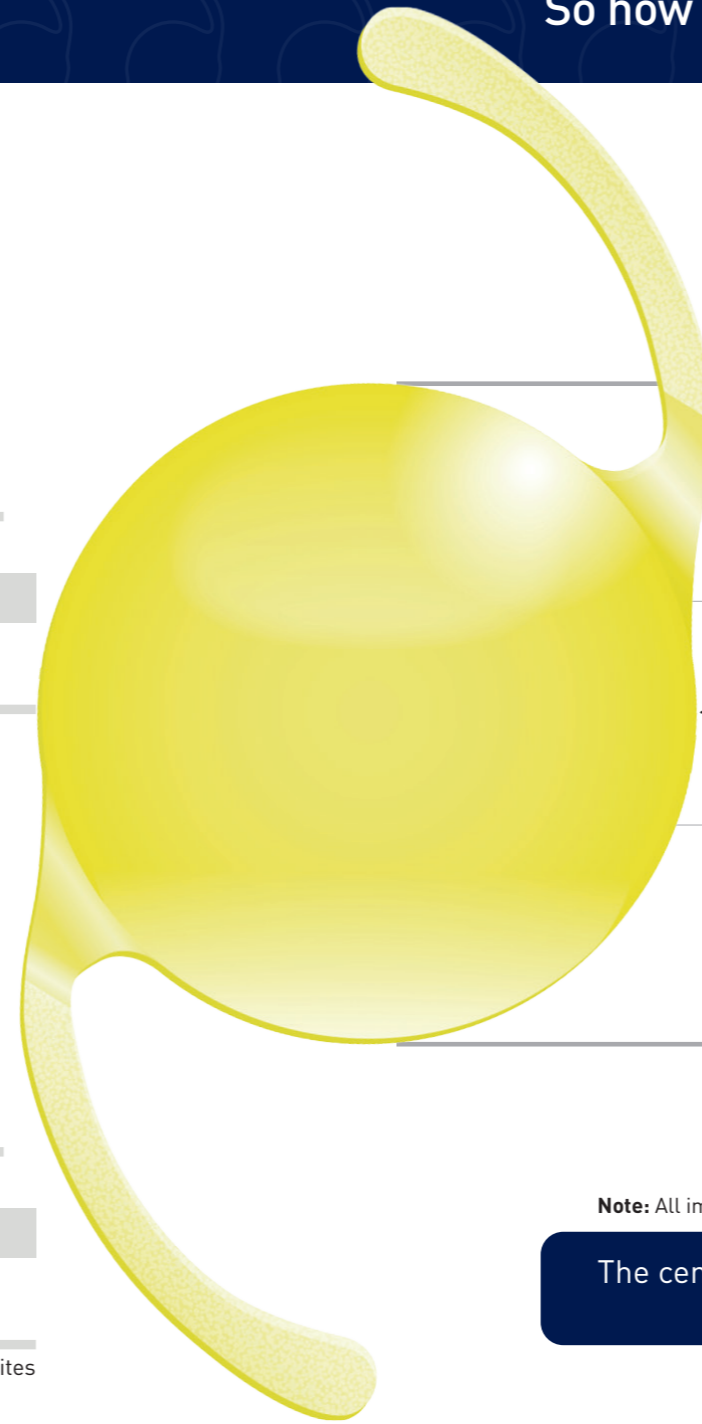
- Patients with Vivinex Impress™ also reported faster adaptation to their daily vision following surgery (statistically significant: P=0.02)²

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

So how does Vivinex Impress™ work?



Data collected in a 12 months postop, randomized, participant-and evaluator-masked, active-controlled multicenter trial conducted across 14 sites



Lens Surface Profile Lens Power Profile

— Solid line (Yellow)= Vivinex Impress™
 - - - Dotted line (black)= Monofocal aspheric IOL

Though the curvature within the central 2.0mm has subtle points of inflection, the Vivinex Impress™ lens surface is **smooth**.

The difference between the Impress surface and a monofocal aspheric surface is **hardly visible**


The optical effects generated by these small differences are **significant as demonstrated by the lens power profile**.


Through this minor modification, the range of focus is extended, enhancing intermediate vision compared to a monofocal aspheric IOL.


Note: All images are for illustrative purpose and are not an exact representation of the product design.
 The central optical element creates variations in power that provide an extended range of focus and improved intermediate vision. Vivinex Impress™ lens surface is smooth without diffractive elements or rings.⁴

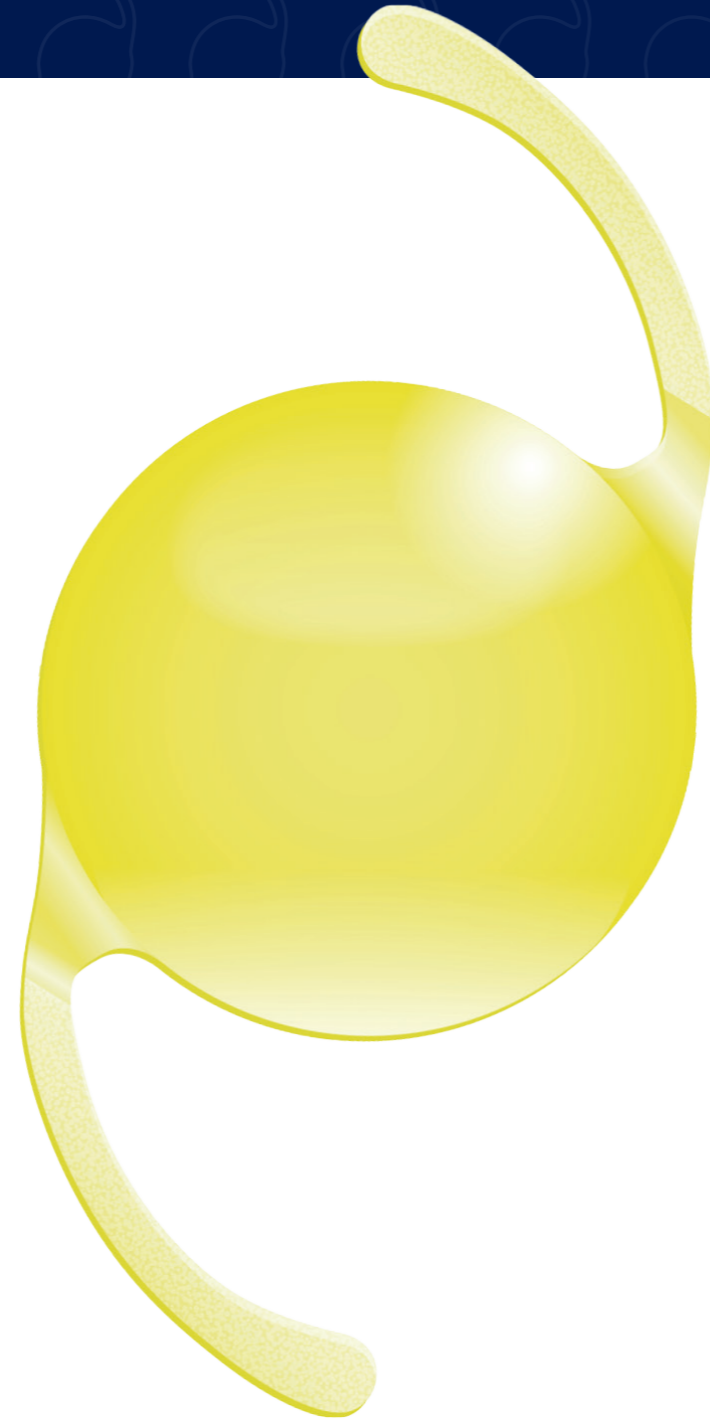
Benefits of the Vivinex™ platform

 **Glistening-free** Glistening-free hydrophobic acrylic IOL material^{5,6}

 **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^{7,8,9}

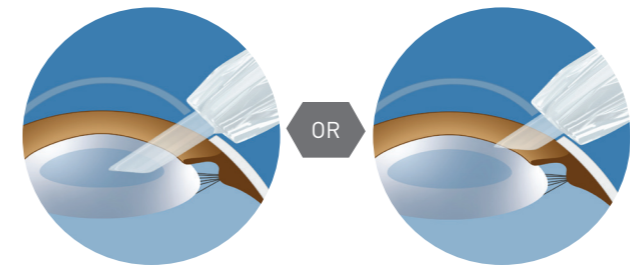
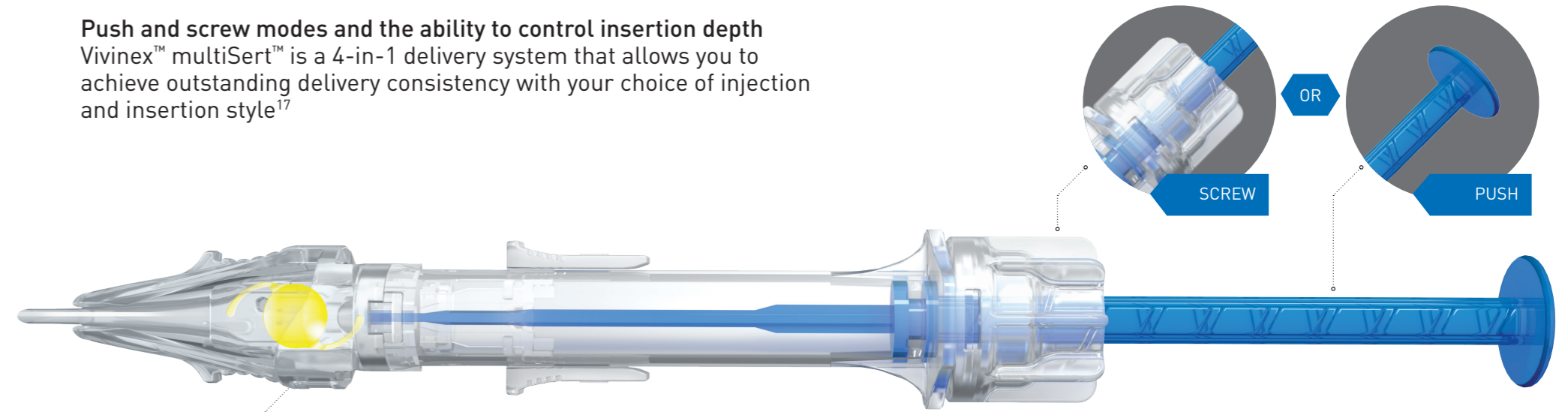
 **Reduction of PCO** Active oxygen processing treatment, a smooth surface and square optic edge to reduce PCO^{5,6,10,11,12,13,14,15,16}

 **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 style¹⁷



Delivery into capsular bag
insert shield:
Default position

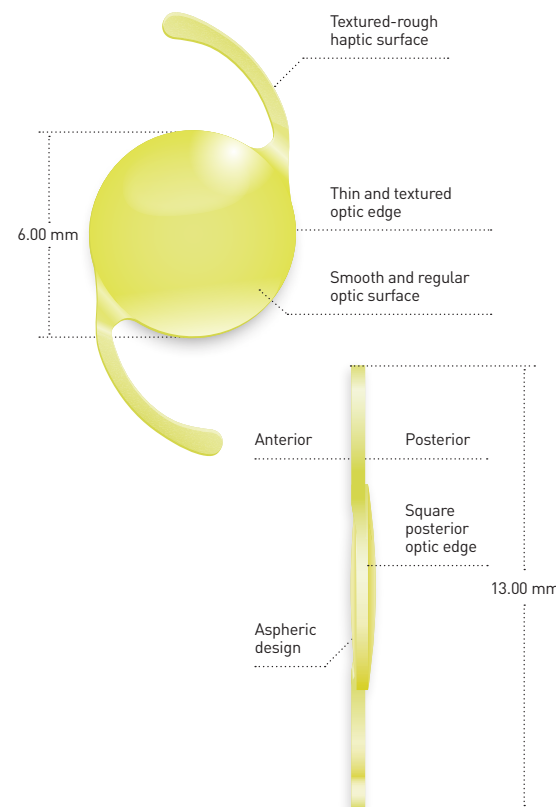
Delivery through incision wound tunnel
insert shield:
Advanced position

 **Preloaded injectors are:**

- Easier to prepare, increasing safety by:**^{18,19,20,21,22,23}
 - Reducing risk of contamination and infection
 - Reducing risk of IOL damage
- More efficient in the OR:**^{20,22}
 - Minimising time spent preparing the IOL delivery system
 - Creating fewer instruments to reprocess
- More predictable:**²²
 - Increasing predictability and consistency of IOL delivery

Specifications

	Vivonex Impress™
Model name	XY1-EM
Optic design	Biconvex with square, thin and textured optic edge Anterior: Aspheric design
Optic & haptic materials	Hydrophobic acrylic Vivonex™ 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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INFORMATION

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Delivered by the **multiSert™** preloaded injector



References: 1. Ang, RET. et al. (2025): Comparison of Visual Acuity Outcomes of Enhanced Monofocal Versus Standard Monofocal Intraocular Lenses from a Randomized, Multicenter, Active-Controlled Trial. In: Journal of refractive surgery 2025;41(4):e300-e309. 2. Kabura, R. et al. (2025): Comparative evaluation of clinical results and patient-reported outcomes of enhanced monofocal and conventional monofocal intraocular lenses. In: Journal of cataract and refractive surgery 51:520-524. 3. Kabura, R. et al. (2024): Early postoperative clinical outcomes of the monofocal intraocular lens XY1-EM (Vivonex Impress). In: GANKA. OPHTHALMOLOGY Vol.66 No.6. 4. HOYA data on file, HOYA Medical Singapore, Pte. Ltd, 2020 5. Tandogan, T. et al. (2021): In-vitro glistening formation in six different foldable hydrophobic intraocular lenses. In: BMC Ophthalmol 21, 126. 6. 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. 7. 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. 8. 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. 9. 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. 10. 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. 11. 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. 12. 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. 13. 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. 14. 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. 15. 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. 16. 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. 17. HOYA data on file. DoF-SERT-102-MULT-03052018, HOYA Medical Singapore Pte. Ltd, 2018. 18. Galor, A. et al. (2013). Management strategies to reduce risk of postoperative infections. In Current ophthalmology reports, 1 (4), 10.1007/s40135-013-0021-5. 19. 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. 20. 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. 21. Park, C. et al. (2018). Toxic anterior segment syndrome-an updated review. In: BMC ophthalmology, 18(1), 276. 22. 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. 23. 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. *Third-party trademarks used herein are the property of their respective owners. ** 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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