TAKE CONTROL BY PAIRING
VIVINEX™ GEMETRIC™ &
VIVINEX™ GEMETRIC™ PLUS

Introducing our trifocal family of IOLs designed to advance patients' vision

HOYA
SURGICAL OPTICS

To achieve spectacle independence, people need high quality vision from far to very near.

PATHWAY TO SPECTACLE INDEPENDENCE

Vivinex™ Gemetric™	EXCELLENT	VERY GOOD	GOOD
Vivinex™ Gemetric™ Plus	VERY GOOD	GOOD	EXCELLENT

RANGE OF VISION FAR INTERMEDIATE NEAR

Pairing provides a continuous, broad range of vision

Binocular Defocus by Study Group[2]

Vivinex™ Gemetric™
Vivinex™ Gemetric™
[n=36]

Vivinex™ Gemetric™ Plus
Vivinex™ Gemetric™ Plus
[n=52]

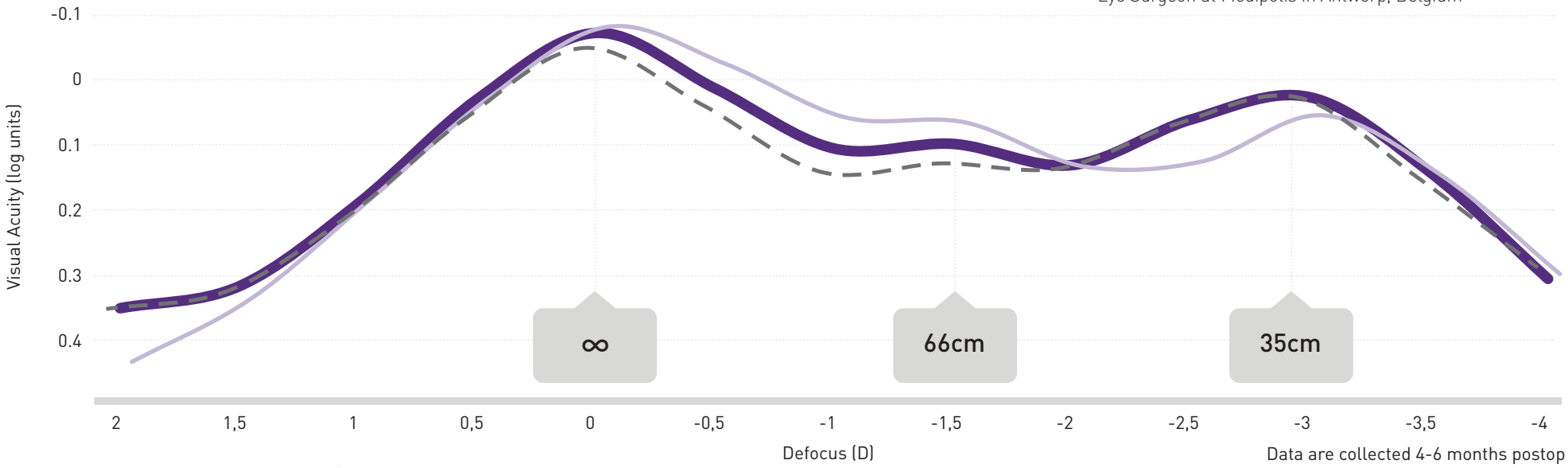
Data includes Toric versions of both products

Paired Approach

Vivinex™ Gemetric™
Vivinex™ Gemetric™ Plus
[n=36]

> The balance between the Vivinex™ Gemetric™ and the Vivinex™ Gemetric™ Plus gives a very smooth transition from far to intermediate to near vision.[3]

Erik L. Mertens, MD, FEBO, FWCRS
Physician CEO, Medical Director and
Eye Surgeon at Medipolis in Antwerp, Belgium



Data are collected 4-6 months postop

Pairing Vivinex™ Gemetric™ & Vivinex™ Gemetric™ Plus

EXCELLENT ····> VERY GOOD ····> EXCELLENT ····>

Pairing light distributions not add powers for continuous vision from far through near

FAR

INTERMEDIATE

NEAR

Patient reported outcomes

High self-reported spectacle independence and patient satisfaction when pairing Vivinex™ Gemetric™ and Vivinex™ Gemetric™ Plus 6 months after surgery (n=36)[2]

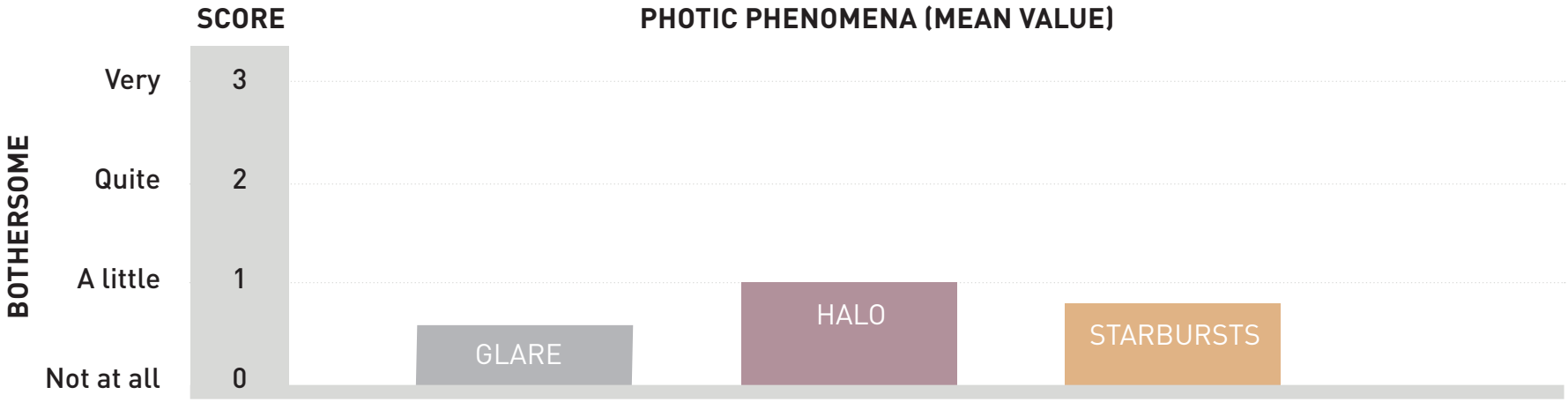
FOR FAR
94.4%

FOR INTERMEDIATE
97.2%

FOR NEAR
91.7%

Over 90% of patients reported being spectacle independent at each distance.

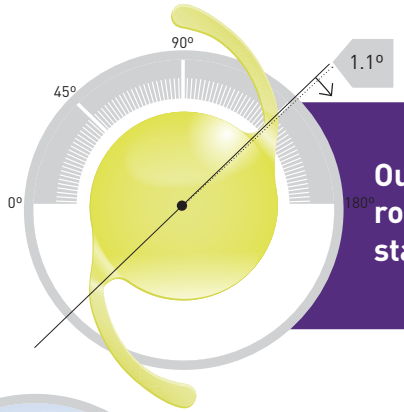
The mean photic phenomena score was between "a little bothersome" and "not at all bothersome" across all Vivinex Gemetric study groups (n=125)[2]



Data are collected 4-6 months postop by using the McAlinden Quality of Vision (QoV) Questionnaire

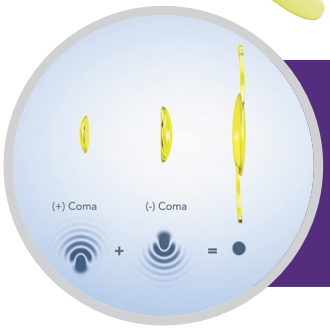
Built on the Vivinex™ platform

All Vivinex™ IOLs offer



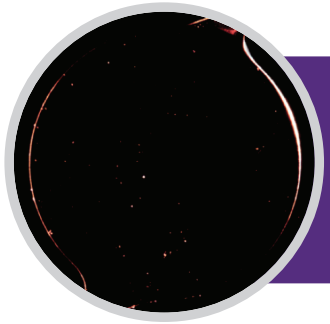
Outstanding rotational stability

Median rotation 1.1° (range: 0.0° – 5.0°)
100% of lenses (n=103) had ⩽ 5° of rotation from their initial axis at end of surgery through all follow up visits at 1 hour, 1 week, 1 month and 6 months[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]

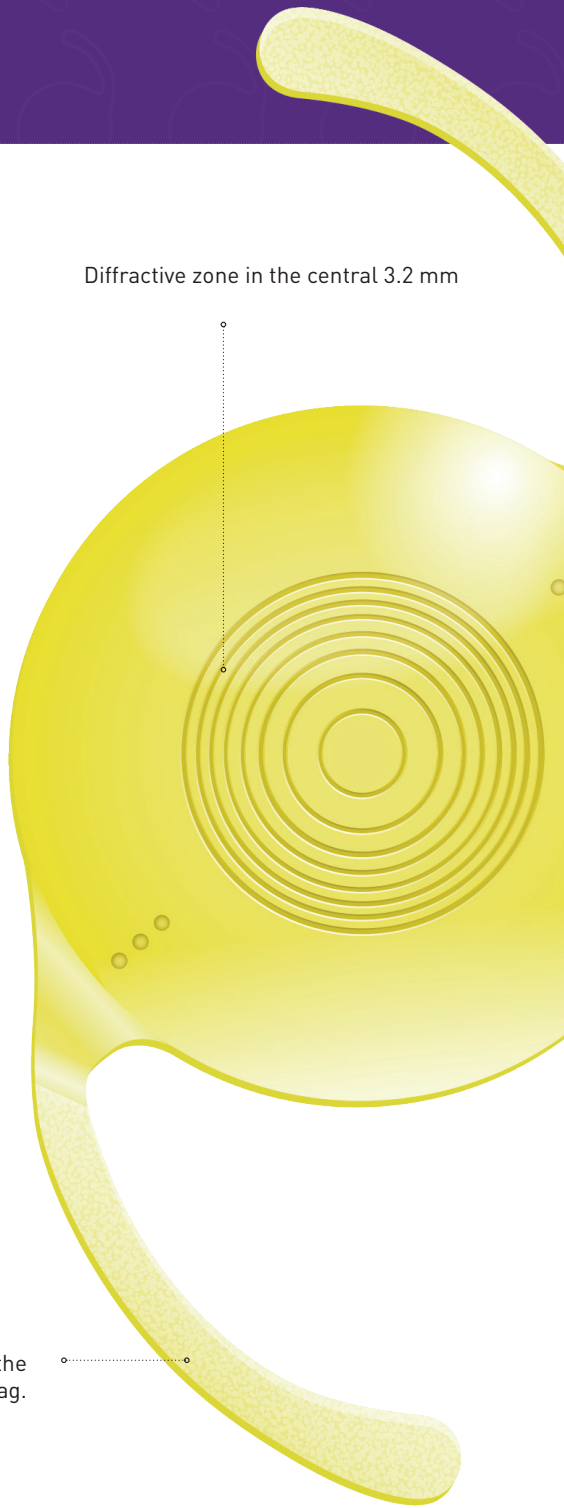


IOL Material and Design

Glistening-free IOL material[6] Grade 0 based on Miyata et al.[7] with 11.6 ± 5.7 MV/mm²

Active oxygen processing treatment, a smooth surface and square optic edge to reduce PCO[8,9,10,11,12,13,14,15]

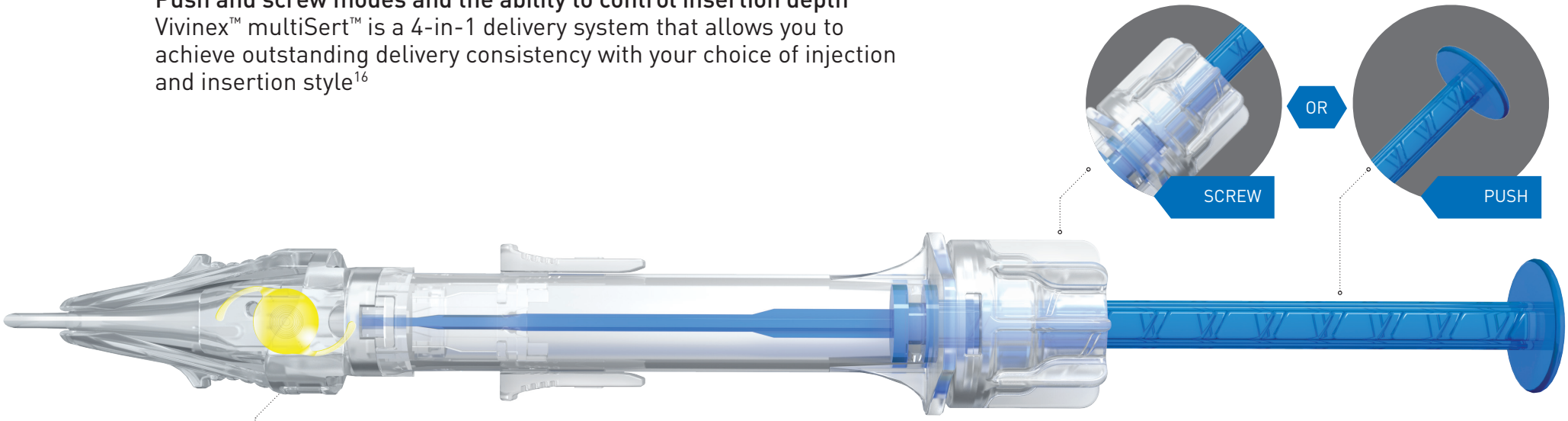
Diffractive zone in the central 3.2 mm

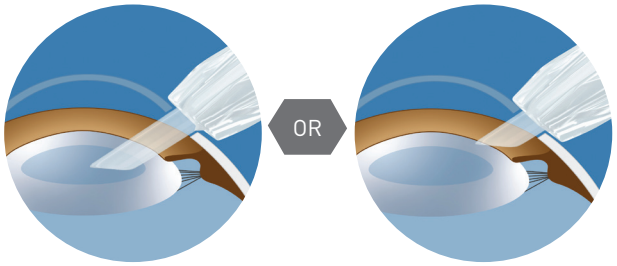


Textured-rough haptic surface designed to reduce potential for adhesion to the optic surface during delivery, and provides better grip inside the capsular bag.

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[16]





Delivery into capsular bag
insert shield:
Default position

Delivery through incision wound tunnel
insert shield:
Advanced position

The Vivinex™ Gemetric™ and the multiSert™ injector are a perfect combination. The product combines an excellent optic with an excellent material and an excellent IOL delivery device.[17]
Ramin Khoramnia, Head of the Cataract and Refractive Surgery Department at the University Eye Hospital Heidelberg, Germany.

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HOYA Toric Calculator

- The HOYA Toric Calculator can take account of posterior corneal astigmatism in the calculation by giving the option to apply the Abulafia-Koch Regression formula.
- The Abulafia-Koch Regression, applied to a clinical patient cohort, has been shown to improve predictability of TIOL refractive outcomes.[18]

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Specifications

	Vivinex™ Gemetric™	Vivinex™ Gemetric™ Toric
Designed to provide excellent distance vision and well balanced intermediate and near vision[19]		
Model name	**XY1-G**	**XY1-GT**
IOL power (Spherical equivalent)	+10.00 D to +30.00 D in increments of 0.50 D	
Cylinder power at IOL plane		1.00 D 1.50 D to 3.75 D in 0.75 D increments
Add power at IOL plane	Intermediate: +1.75 D Near: +3.50 D	
Nominal A-constant*	119.0	
Injector	**multiSert™** preloaded	
Front injector tip outer diameter	1.70 mm	
Recommended incision size	2.20 mm	

	Vivinex™ Gemetric™ Plus	Vivinex™ Gemetric™ Plus Toric
Designed to provide excellent near vision and well balanced distance and intermediate vision[19]		
Model name	**XY1-GP**	**XY1-GPT**
IOL power (Spherical equivalent)	+10.00 D to +30.00 D in increments of 0.50 D	
Cylinder power at IOL plane		1.00 D 1.50 D to 3.75 D in 0.75 D increments
Add power at IOL plane	Intermediate: +1.75 D Near: +3.50 D	
Nominal A-constant*	119.0	
Injector	**multiSert™** preloaded	
Front injector tip outer diameter	1.70 mm	
Recommended incision size	2.20 mm	

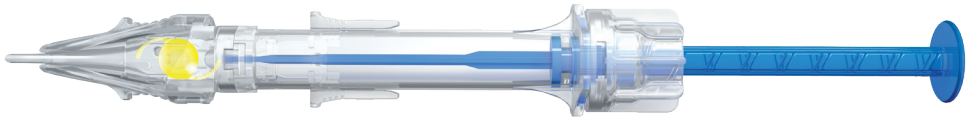
Model XY1-GT, XY1-GPT	**Cylinder power at IOL plane**	**Cylinder power at corneal plane[20]**
T2	1.00 D	0.69 D
T3	1.50 D	1.04 D
T4	2.25 D	1.56 D
T5	3.00 D	2.08 D
T6	3.75 D	2.60 D

> Refer to the datasheet for full specifications

* 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.

mediconsult

Delivered by the **multiSert™** preloaded injector



HOYA SURGICAL OPTICS

CE 0123 2023-08-15_HSOE_XY1-G_XY1-GP_XY1-GT_XY1-GPT_BR_EN

References: 1. Ribeiro et al. Analysis of Daily Visual Habits in a Presbyopic Population. J Ophthalmol. 2023 Apr 8;2023:6440954. **2.** HOYA data on file. CTM-23-029, HOYA Medical Singapore, Pte. Ltd, 2023 **3.** HOYA (2022): Vivinex Gemetric Testimonial Video E. Mertens, Video on file, 2022_05_31_05_HSOE_XY1-G_XY1-GP_XY1-GT_XY1-GPT_VD_EN_EMertens **4.** Schartmueller, D. et al. (2019): True rotational stability of a single-piece hydrophobic intraocular lens. In: The British journal of ophthalmology 103 (2), p. 186–190. **5.** Pérez-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.** Tandogan, T. et al. (2021): In-vitro glistening formation in six different foldable hydrophobic intraocular lenses. In BMC Ophthalmol 21, 126. **7.** Miyata, A. et al. (2001): Clinical and experimental observation of glistening in acrylic intraocular lenses. In: Japanese journal of ophthalmology 45 (6), p. 564–569. **8.** Auffarth et al. (2023) Randomized multicenter trial to assess posterior capsule opacification and glistenings in two hydrophobic acrylic intraocular lenses. Sci Rep 13, 2822. **9.** 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. **10.** 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. **11.** 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. **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.** 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. **16.** HOYA data on file. DoF-SERT-102-MULT-03052018, HOYA Medical Singapore Pte. Ltd, 2018 **17.** HOYA (2022): Vivinex Gemetric Testimonial Video R. Khoramnia, Video on file, 2022_05_31_05_HSOE_XY1-G_XY1-GP_XY1-GT_XY1-GPT_VD_EN_RKhoramnia **18.** Abulafia, A. et al. (2016): New regression formula for toric intraocular lens calculations. In: Journal of cataract and refractive surgery 42 (5), p. 663–671. **19.** HOYA data on file. HOYA Medical Singapore, 2020. **20.** Based on an average pseudophakic human eye.

HOYA Medical Singapore Pte. Ltd. | 455A Jalan Ahmad Ibrahim | Singapore 639939.
HOYA Surgical Optics GmbH | De-Saint-Exupery-Str. 10 | 60549 Frankfurt am Main | Germany | Hotline DE: Tel. +49 (0)800 664 2 664 | Fax +49 (0)800 774 2 774 **hoyasurgicaloptics.com**