

TECHNOLAS® 317  
TENEOM<sup>2</sup>

Introducing the  
TECHNOLAS® TENEOM<sup>TM</sup> 317 Model 2



refractive [ R ] evolution



# Redefining Excimer Laser Technology

Discover the latest evolution of our excimer laser technology, the TECHNOLAS® TENEQ™ 317 Model 2 (M<sup>2</sup>). Meticulously designed by our expert German engineering team at Technolas Perfect Vision GmbH, the TENEQ 317 M<sup>2</sup> encapsulates **PERFORMANCE, EFFICIENCY AND EASE OF USE.**

## Technology



## Intuitive Handling. Ergonomic Design

The INTUITIVE design starts with the Graphic User Interface (GUI). Taking **only 4 steps** for the whole procedure creates a **fast workflow**. Customisation options provide further ease of use, with streamlined data transfer from the ZYOPTIX Diagnostic Workstation 3 (ZDW<sup>3</sup>).

## Ergonomically Designed for Patient Comfort

The TENEQ 317 M<sup>2</sup> features a 60° swivelling patient bed. Ergonomically designed with contours following the natural shape of the spine and a wider mattress to suit all patient sizes, it provides an optimised patient head position during surgery.

The **open feeling** around the laser and the **quiet** performance of the plume evacuator are designed to provide the patient with a reassuring sense of space and calm.

## Ergonomically Designed for You and Your Clinic

The TENEQ 317 M<sup>2</sup> has one of the smallest excimer laser footprints<sup>1</sup> on the market ensuring optimised use of space in your clinic. Features such as the swivelling microscope, the ergonomic, flexible joystick and the touchscreen control at the monitor all contribute to an enhanced ergonomic experience.

The additional multiple access points for the bed operation and multi-functional options on the GUI all help your team to work efficiently during patient treatment.



Full control at your fingertips

# 4 STEPS FOR TREATMENT

- Select Patient /
- Choose Treatment /
- Confirm Treatment /
- Treat /

1. Data on file - based on latest product information at time of printing.



## Precision Engineering for Optimised Performance

The **TRUE TREATMENT TIMES** achieved by an excimer laser are influenced by a number of factors which are all interrelated: laser pulse repetition rate, pulse distribution, laser energy fluence and plume evacuation.

Our engineers have fine-tuned the ratio of these factors to achieve a significant reduction in treatment time, our fastest treatment time yet.

**The TENEO 317 M<sup>2</sup> can now treat at 1 s/D<sup>\*</sup>.<sup>2</sup>**

We've maintained a **GENTLE** laser treatment delivery approach with our truncated Gaussian, 1mm low soft spot, smooth ablation profile.

*"The new TENEO 317 Model 2 is extremely fast, with most of our treatments lasting between 3-5 seconds, so that surgical experience for the patient is very positive."*

*Dr JORGE CASTANERA,  
Instituto Castanera, Barcelona, Spain*

**EASE OF USE +  
HIGH-SPEED PERFORMANCE =  
EFFICIENT WORKFLOW**

## Treatment Time

*"After more than 20 years of practise in laser refractive surgery, I have never felt more confident in my results than with the new TENEO 317 Model 2."*

*Dr PIERRE LEVY,  
Clinique de la Vision, Montpellier,  
France*

**1 s/D<sup>\*</sup>**

OUR FASTEST  
TREATMENT TIME YET



## Eyetracker

A leading multidimensional high-speed eyetracker technology in the ophthalmic industry

X/Y/Z movements  
Static cyclotorsion  
Dynamic rotational tracking  
Pupil shift compensation

Iris Recognition  
Astigmatism  
K + Q Values  
HOAs

Digital Coaxial Camera  
Pupil Centration  
Pupil Shift  
Limbus detection

1,740 Hz

Z  
Cyclotorsion

## Integrated Technology for Precision ....

By continuing to refine the design and capabilities on our excimer laser platform, the eyetracking technology, illumination and visualisation on the TENE0 317 M<sup>2</sup> has been taken to another level.

## High Speed Eyetracker 1,740 Hz

We have industry leading eyetracker technology. Our eyetracker operates at 1,740 Hz; more than 3 times the speed of the laser's repetition rate. The multidimensional, high-speed eyetracker features contrast optimised IR-Illumination and digital coaxial camera for real-time active z-tracking.

## Illumination & Visualisation

The TENE0 M<sup>2</sup> features enhanced illumination options and visualisation options on the ring illumination on the plume evacuation unit, the slit lamp and the microscope mirror, providing an optimised view of the surgical field.

Tracking

## Advanced Microscope Technology

The state-of-the-art 360° microscope features additional functionality combined with its easily adjustable working positions; FIVE magnification settings, as well, as a booster of 50% at all settings [2.5x 4x, 6.5x, 10x, 16x (± 0.5x)]. Magnification adjustment options can also be made via the GUI.

*The TECHNOLAS TENE0 317 Model 2 is an absolute delight to use and a giant leap forward. Apart from being incredibly quick, it is highly accurate for both hyperopia and myopia with minimal nomogram changes. The software is very easy to use and responsive and the ability to control the mechanics and lighting on the touchscreen reminds me of being in my Tesla!*

*Dr SHERAZ DAYA,  
Centre for Sight, UK*



5 Magnification settings



## Premium Procedures for ALL Patients

An advanced range of treatments are available on the TECHNOLAS TENEO 317 M<sup>2</sup>, **accommodating all patient indications and ages.** Our three treatment categories enable a straightforward but individualised patient treatment approach.

### PROSCAN\* – the versatile procedure

The PROSCAN procedure is suitable for a wide ranging patient age. This aspheric treatment algorithm preserves the natural aspheric shape of the cornea whilst reducing undesired induced spherical aberrations.

### ZYOPTIX HD\* – the wavefront-based personalised procedure

With over 10 years of experience in wavefront guided algorithms, the ZYOPTIX HD treatment is a clinically proven personalised procedure.<sup>3</sup> It provides an advanced treatment of pre-existing Higher Order Aberrations (HOA), whilst minimising induced spherical aberration.

Our wavefront-based personalised procedure is a fully automated, integrated diagnostic treatment. Objective refractive data from the ZDW<sup>3</sup> is directly transferred to the TENEO 317 M<sup>2</sup> to pilot the laser with ease.

### SUPRACOR™ – the true varifocal LASIK procedure for presbyopes

Available since 2013, SUPRACOR procedures on TENEO systems are now performed in over 32 countries worldwide.

With its unique varifocal design, SUPRACOR provides good near, preserves distance vision, whilst also providing improved vision at all intermediate distances.<sup>4</sup>

The procedure can be performed bilaterally and allows for enhancements, retreatments and can also be reversed.<sup>5</sup> Furthermore, as the SUPRACOR profile has no optical steps, it is designed for easy brain adaptation.



**ALL** Patients  
Ages

## SUPRACOR™ For Your Patients

... For Your Practice A patient centred approach - Adaptable for your patients' needs

### Expand your practice with SUPRACOR™

The SUPRACOR™ procedure meets the growing demand of presbyopic patients looking for improved quality of vision without glasses for most daily activities. SUPRACOR can bring additional patients to your practice who are looking for a LASIK solution to their reduced visual quality.

Both LASIK and PRK approaches can be used with SUPRACOR. Suitable for a broad range of hyperopes and myopes, as well as early presbyopes.

*"The availability of SUPRACOR myopia expands the age range of patients who benefit from refractive surgery, whilst SUPRACOR hyperopia multiplies the number of patients, who are candidates for refractive surgery. SUPRACOR provides the possibility to adapt the procedure to fulfil the personal needs of patient's vision."*

**Dr. KIMMO LIESTO, Mehiläinen Group, Helsinki, Finland**

*"I have used two protocols for SUPRACOR; the regular binocular SUPRACOR and regular for non-dominant eye and mild SUPRACOR for dominant eye. I have found astonishing results with the SUPRACOR technique, especially for the patients that need near vision and hyperopic patients over 45 years old."*

**Dr. SUHAIB ALSAMADY, Ibn Alhaytham Hospital, Jordan - Amman**

*"I have been using SUPRACOR™ for the past 4 years. Having SUPRACOR as a refractive solution for presbyopes has opened my patient base to the above 40 age group."*

**Dr. ROBERT ANG, Asian Eye Centre, Philippines.**

*"SUPRACOR has been a very additive tool to my practice. Advantages over the other presby-LASIK procedures are its reversibility, correcting refractive errors in parallel, faster recovery, and low complication rates. Patient expectation and selection are important, but in my experience, the procedure should be a fast and easy to learn procedure for any refractive surgeon."*

**Dr. ELIAS F. JARADE, The Dubai Mall Medical, Dubai, UAE**

## Premium Treatment

3. Taneri S, Oehler S, MacRae SM. Aspheric wavefront-guided versus wavefront-guided LASIK for myopic astigmatism with the Technolas 217z100 excimer laser. Graefes Arch Clin Exp Ophthalmol. 2013 Feb;251(2):609-16.

4. Safety and effectiveness of the SUPRACOR presbyopic LASIK algorithm on hyperopic patients. Robert Edward T. Ang, Emerson M. Cruz, Alex U. Ptsig et al. Eye and Vision (2016) 3:33

5. Ang RE, Reyes RM, Solis ML. Reversal of a presbyopic LASIK treatment. Clin Ophthalmol. 2015 Jan 12;9:115-9.



## Bringing it all together We Deliver The Full Laser Solution

The Bausch + Lomb team is uniquely positioned to deliver a complete refractive solution for your surgical practice. We have the expertise to provide you and your patients with customised, precise, premium procedures to meet your expectations.

Our service and support has a global reach, through the highly trained network of skilled engineers, service and application specialists.

We also have a dedicated Centre of Excellence at our Munich facility which provides specialised training to surgeons and clinic staff on our femtosecond and excimer lasers and diagnostic platform.

With our expertise, we can help your practice grow by maximising productivity with our refractive platform and streamlined workflow, to work effectively and efficiently whilst providing quality of care.

*"The TECHNOLAS® TENEO™ 317 Model 2 excimer laser is simply outstanding. It is intuitive with its new interface and its total connectivity with the ZDW<sup>3</sup> diagnostic station. It is accurate, fast with perfect centring and refractive results."*

*Dr FETHI NOUIRA,  
Centre Ophthalmologique de Laser  
Excimer, Sousse, Tunisia*

PIONEERING  
LASER TECHNOLOGY

CUSTOMISED PROCEDURES

EXPERT SERVICE + SUPPORT

BUILDING YOUR BUSINESS

## The Complete Refractive Package

By partnering with Bausch + Lomb, we can provide you with the complete, integrated refractive range for a seamless workflow through our diagnostic, femtosecond laser, excimer laser and instrumentation portfolio.

ZYOPTIX®  
DIAGNOSTIC  
Workstation<sup>3</sup> (ZDW<sup>3</sup>)  
- Diagnostic Platform  
for an integrated,  
efficient workflow

We are the company with the in-house expertise to develop and manufacture both the laser and diagnostic technology (Technolas Perfect Vision GmbH).

The fully automated, data transfer from the Orbscan<sup>3</sup> Anterior Segment Analyzer data combined with ZYWAVE<sup>3</sup> Wavefront data, ensures reliable treatment planning data is transferred to the TENEO 317 M<sup>2</sup> for a simplified workflow. All of the data required for iris recognition plus compensation for pupil centre shift and cyclotorsion is also provided.

VICTUS®  
Femtosecond Laser  
Platform - refined  
versatility

Our latest generation VICTUS® Femtosecond Laser is a versatile platform with cataract, therapeutic and LASIK flap indications. The pioneering OCT Technology shows continuous live action footage of all procedures from the docking, to treatment planning and during the procedure.

Storz® Ophthalmic  
Instruments -  
Instrumentation Tailor  
made for refractive

Storz® Ophthalmic Instruments offer a wide range of surgical products, including a full array of microsurgical instruments for cataract, retinal, refractive and corneal surgery.



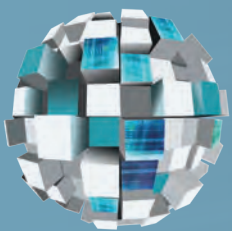
Partnership





**INVISIBLE LASER RADIATION!  
AVOID EYE OR SKIN  
EXPOSURE TO DIRECT OR  
SCATTERED RADIATION  
CLASS 4 LASER PRODUCT**

Wavelength:	193 nm
Pulse duration:	5 - 11 ns
Maximum pulse frequency:	512 Hz
Maximum output energy:	1.92 mJ
IEC 60825-1:2014	



**Contact your Bausch + Lomb representative to learn more about TECHNOLAS® TENEOM™ 317 MODEL 2**

Design and specifications are subject to change without prior notice as a result of ongoing technical development.  
 The TECHNOLAS® TENEOM™ 317 MODEL 2 Excimer Laser is CE Marked. Indications and approvals may vary by country, including Canada.  
 Please contact our regional representative regarding individual availability in your respective market.  
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