Trust your eyes.

PresbyMAX®
The new Era in Laser Correction of Presbyopia
What is PresbyMAX®?

- PresbyMAX® is a sophisticated software solution for presbyopia treatment with the SCHWIND AMARIS laser.
- The software was developed by SCHWIND eye-tech-solutions in cooperation with VISSUM under the direction of Prof. Jorge Alió, and the OCIVIS group from the University of Alicante.
- “The central development goal was to provide the first systematic and scientifically based approach for the correction of presbyopia with excimer laser surgery” (Prof. Alió).
- With PresbyMAX® it is possible for the first time to treat emmetropic, myopic, hyperopic and astigmatic patients whose accommodative response is limited.
- With PresbyMAX®, near vision of presbyopic patients even with additional visual defects is significantly improved and sharp vision without spectacles becomes possible.
In contrast to other methods so far applied for laser guided presbyopia treatment, PresbyMAX® delivers bi-aspheric multifocal ablation profiles.

Similar to the principle of multifocal contact lenses or refractive multifocal intraocular lenses, PresbyMAX® creates a multifocal corneal surface.

The term „bi-aspheric“ refers to the aspherical optimization of the central corneal area for near vision and the midperipheral cornea for far vision for each patient eye.

The ablation profiles were optimized by using a predictive model based on a light propagation algorithm.
**PresbyMAX® - The Principle**

- **Binocular vision**
  Both eyes equally contribute to providing visual acuity at all distances by actively participating in the visual process for creating binocular vision impressions.

- **Comfortable vision at all distances**
  Patients obtain comfortable vision at all distances as PresbyMAX® enlarges the depth of focus and minimizes contrast losses.

**PresbyMAX® - Unique Treatment Range**

<table>
<thead>
<tr>
<th>Before PresbyMAX®</th>
<th>With PresbyMAX®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited treatment range</td>
<td>The only presbyopia software that is offering a broad treatment spectrum for different indications:</td>
</tr>
<tr>
<td>e.g. only hyperopic patients</td>
<td>1. Treatment of emmetropic, myopic, hyperopic and astigmatic eyes</td>
</tr>
<tr>
<td>e.g. only patients with minor astigmatism</td>
<td>2. Correction of these visual defects can be performed as “Aberration-Free” or “Customized” treatments</td>
</tr>
<tr>
<td>e.g. no presbyopia treatment of emmetropic or myopic patients</td>
<td>3. Any treatment possible (PRK, TransPRK, LASEK, LASIK or FemtoLASIK)</td>
</tr>
<tr>
<td>e.g. only in combination with standard treatments</td>
<td></td>
</tr>
</tbody>
</table>
### PresbyMAX® - Treatment Range

<table>
<thead>
<tr>
<th>Procedure</th>
<th>SPH:</th>
<th>CYL:</th>
<th>ADD:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LASIK / FEMTO-LASIK:</td>
<td>-8.00 D to +6.00 D</td>
<td>-6.00 D to +6.00 D</td>
<td>+0.25 D to +4.00 D</td>
</tr>
<tr>
<td>(normal mode)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LASIK / FEMTO-LASIK:</td>
<td>-8.00 D to +8.00 D</td>
<td>-6.00 D to +6.00 D</td>
<td>+0.25 D to 4.00 D</td>
</tr>
<tr>
<td>(extended mode)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Trans-) PRK / LASEK:</td>
<td>-8.00 D to +6.00 D</td>
<td>-5.00 D to +5.00 D</td>
<td>+0.25 D to 4.00 D</td>
</tr>
<tr>
<td>(normal mode)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LASIK / FEMTO-LASIK:</td>
<td>-8.00 D to +8.00 D</td>
<td>-6.00 D to +6.00 D</td>
<td>+0.25 D to 4.00 D</td>
</tr>
<tr>
<td>(extended mode)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PresbyMAX® - The Team

- Dr. Martines, Brasil
- Prof. Uthoff, Germany
- Prof. Alio, Spain
- Dr. Tarek, Egypt
- Jens Flügge
- Tobias Ewering
- Samuel Arba Mosquera
The preoperative situation shows a large scatter for both distance and near uncorrected binocular visual acuity.

Nearly all eyes attained postoperative distance and near uncorrected visual acuity of 0.3 logMAR or better (20/40 or better) and 0.3 logRAD or better (J5 or better).
97% of the treated eyes attained an uncorrected far vision of 0.2 logMAR or better (20/32 or better). 75% achieved an uncorrected near vision of 0.2 logRAD (J3 or better).

Conclusion: A higher quality of life is attained due to spectacle-free condition in normal day life in almost every patient.

<table>
<thead>
<tr>
<th>Binocular</th>
<th>DUCVA &lt;0.3 logMAR</th>
<th>NUCVA &lt;0.3 logRAD</th>
<th>PostSEq ±1 D</th>
<th>PostSEq ±0.5 D</th>
<th>DBCVA &gt;0.3 logMAR</th>
<th>NBCVA &gt;0.3 logRAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDA Benchmarks</td>
<td>95%</td>
<td>85%</td>
<td>75%</td>
<td>50%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Hyperopia (21 eyes)</td>
<td>94%</td>
<td>81%</td>
<td>75%</td>
<td>42%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Astigmatism (14 eyes)</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>79%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Myopia (22 eyes)</td>
<td>100%</td>
<td>91%</td>
<td>95%</td>
<td>69%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Total (72 eyes)</td>
<td>97%</td>
<td>96%</td>
<td>88%</td>
<td>54%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Altogether, the FDA benchmarks were achieved or significantly exceeded.
Schwind PresbyMAX registration

Sales Information

- The SCHWIND PresbyMAX® can be ordered with the Article-No. DL15200
- It contains a release code for PresbyMAX® treatments
- Due to royalties SCHWIND eye-tech-solutions will raise a licence fee per each PresbyMAX® procedure
PresbyMAX® - Advantages at a glance

- Comfortable vision at all distances
- Optimal enlargement of depth of focus – minimized contrast losses
- Binocular visual impressions
- Very good study outcomes

Unique broad treatment range

Scientifically based systematic approach

Excellent results

Integrated solution

- Treatment of emmetropic, myopic, hyperopic and astigmatic eyes
- “Aberration-Free”, Corneal or Ocular Wavefront based treatments
- Any treatment modality (e.g. LASIK or PRK) possible

- Cooperation with Prof. Alió and the University of Alicante
- Bi-aspheric multifocal ablation profiles
- Optimization by using a predictive model based on a light propagation algorithm

PresbyMAX® - The perfect addition: Software that will change vision

- Treatment of emmetropic, myopic, hyperopic and astigmatic eyes
- “Aberration-Free”, Corneal or Ocular Wavefront based treatments
- Any treatment modality (e.g. LASIK or PRK) possible

- Comfortable vision at all distances
- Optimal enlargement of depth of focus – minimized contrast losses
- Binocular visual impressions
- Very good study outcomes

- Combined highly precise ablation profile
- Ablation in only one step without interruptions

PresbyMAX® - Software that will change vision

• Broad treatment range for different indications
• Comfortable vision at all distances
• Bi-aspheric, multifocal profiles

www.eye-tech-solutions.com
Thank you very much for your attention!

Jens Flügge