PRESBYOND Laser Blended Vision from ZEISS
Customized. All distances. Immediate.
**ZEISS PRESBYOND® Laser Blended Vision**

A clear choice for patients with presbyopia

PRESBYOND® Laser Blended Vision from ZEISS is an advanced method for treating patients with age-related loss of accommodation, also known as presbyopia. It offers the opportunity to achieve freedom from glasses by combining the simplicity and accuracy of corneal refractive surgery with the benefits of increased depth of field in retaining visual quality. As a surgical solution based on the naturally occurring spherical aberrations of the eye, this ZEISS software extends the scope of customized ablation beyond the limits of conventional monovision laser methods in several ways.

Whether for its customized treatment profiles, its visual acuity at all distances, its indications range or its immediate impact, ZEISS PRESBYOND Laser Blended Vision is a clear treatment choice for the fast growing demographic of patients with presbyopia.

**ZEISS PRESBYOND® Laser Blended Vision**

Customized. All distances. Immediate.
Next-level vision correction
beyond conventional monovision

Although similar to conventional monovision laser methods in terms of the workflow, ZEISS PRESBYOND® Laser Blended Vision takes customized vision correction a step beyond, particularly with respect to the outcomes.

Conventional monovision

With conventional monovision treatment methods, the dominant eye is corrected for distance vision to almost plano while the non-dominant eye is corrected for near vision, usually up to -3.0 D. Optimal vision is achieved at distance and near range, requiring the brain to contend with two separate images at different levels of correction which not all patients can tolerate.

Patients that do tolerate the method are left with an uncorrected gap in the intermediate range, the so-called “Blur Zone.” In addition to the fuzzy image, it can also cause other side effects such as reduced contrast sensitivity and stereoacuity.

ZEISS PRESBYOND Laser Blended Vision

As a physiologically optimized laser treatment method for patients with presbyopia, ZEISS PRESBYOND Laser Blended Vision represents the next stage in eye care excellence. Similar to conventional monovision, the dominant eye is corrected for distance vision to almost plano, whereas the non-dominant eye is corrected to be slightly myopic for near vision to -1.5 D. This micro-monovision strategy is further enhanced by a decisive difference: an increase in the depth of field of each eye using a wavefront-optimized ablation profile to create a continuous refractive power gradient for the whole optical zone of the cornea. This ZEISS software is an absolutely individualized treatment plan based on the preoperative spherical aberrations and the functional age of the eye. As a result, a customized fusion of the two images for near and distance vision is created for each patient – the so-called “Blend Zone.”

No increase in depth of field

NEAR Dominant eye +0.0 D

Increase in depth of field

NEAR Non-dominant eye up to -3.0 D

Increase in depth of field

NEAR Dominant eye +0.0 D

NEAR Non-dominant eye -1.5 D

The unique Blend Zone

Essentially, the Blend Zone makes it easier for the brain to merge the images of both eyes, thereby achieving true binocular vision. In addition to excellent near and far vision, ZEISS PRESBYOND Laser Blended Vision patients also experience very good visual acuity and contrast sensitivity in the intermediate range.
Optimizing outcomes for patients with presbyopia

ZEISS PRESBYOND Laser Blended Vision

Customized

Individualized ablations

ZEISS PRESBYOND® Laser Blended Vision is a truly customized solution for treating presbyopic patients. It incorporates preoperative wavefront data to fine-tune the depth of field for each eye individually. The functional age of the eye is also factored in. As a result, a personalized ablation profile is created per eye for optimized target refraction. The monovision component can be pre-adjusted for the patient’s tolerance level. Also, different optical zone sizes can be selected to account for the patient’s pupil size.

Ideal for a growing demographic

As an optimized laser method for age-related accommodation loss, ZEISS PRESBYOND Laser Blended Vision is ideally suited for serving the needs of patients 40-60 years of age – a fast-growing demographic group interested in sophisticated options. It is also one of the least invasive methods for addressing this target group.

Familiar procedure

Following the same workflow as conventional LASIK procedures, ZEISS PRESBYOND Laser Blended Vision combines the convenient binocular treatment planning of the CRS-Master® with the proven comfort and workflow of the MEL® 80 or MEL 90 excimer laser, all from ZEISS.

All distances

Outstanding visual acuity

By customizing each eye individually, ZEISS PRESBYOND Laser Blended Vision provides excellent visual acuity for near and distance vision. Unlike traditional monovision methods, PRESBYOND Laser Blended Vision also offers good intermediate vision in the Blend Zone. According to clinical studies, there is virtually no loss of contrast sensitivity while stereovision is maintained. Also, side effects such as multiple images in one eye are almost eliminated.

An all-natural approach

ZEISS PRESBYOND Laser Blended Vision is a physiologically optimized solution and a true binocular method for treating patients with presbyopia.

Wide indication range

ZEISS PRESBYOND Laser Blended Vision is a proven and effective method for treating indications ranging from -8.0 D to +2.0 D, including emmetropic and astigmatic patients (up to +2.0 cyl).

Immediate

Appropriate for most patients

A key advantage of ZEISS PRESBYOND Laser Blended Vision is that it is proven to be tolerated by more patients than conventional monovision. It is effective for treating up to 97% of all presbyopia-related forms of impairment as compared to only 59–67% for conventional monovision. Even patients with presbyopia also affected by emmetropia and astigmatism can be treated. In fact, it has the potential to achieve a far greater success rate than any comparable treatment along with giving patients the wow effect of being able to read without glasses the very same day. Thus, it positively impacts patients and refractive surgeons alike – visually for the former, economically for the latter.

A competitive edge

ZEISS PRESBYOND Laser Blended Vision allows practices already using a MEL 80 or MEL 90 excimer laser and CRS-Master from ZEISS to significantly expand their LASIK repertoire and increase the patient base. As such, this ZEISS software offers a decisive competitive advantage over other LASIK practices only specializing in monovision treatment methods.
A perfect combination:
The refractive system landscape of ZEISS

References
Claims made in this document are supported by information provided in the following publications:


Simple upgrade
PRESBYOND® Laser Blended Vision is an optional software upgrade for the CRS-Master® from ZEISS. It forms a perfect fit with the ZEISS MEL® 80 or MEL 90 excimer laser, expanding the repertoire of customized refractive laser corrections far beyond the limits of conventional monovision methods.

Precise flaps
The ZEISS VisuMax® creates flaps of a highly predictable thickness and of adjustable geometries for Femto-LASIK and ZEISS PRESBYOND Laser Blended Vision – the recommended treatment option for patients with presbyopia.

PRESBYOND Laser Blended Vision and CRS-Master from ZEISS are not intended for sale in the United States.

Technical data

CRS-Master from ZEISS

<table>
<thead>
<tr>
<th>Dimensions (W x D x H)</th>
<th>Max. 1060 x 420 x 1510 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data transfer</td>
<td>USB flash memory drive (USB memory stick)</td>
</tr>
<tr>
<td>Data printout</td>
<td>Via network connection with Ethernet cable and optional network isolator</td>
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</tbody>
</table>

MEL 80 and MEL 90 from ZEISS

<table>
<thead>
<tr>
<th>Type</th>
<th>ArF excimer laser</th>
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<tbody>
<tr>
<td>Wavelength</td>
<td>193 nm</td>
</tr>
<tr>
<td>Frequency</td>
<td>MEL 80: 250 Hz</td>
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<tr>
<td></td>
<td>MEL 90: FLEXIQUENC® 250 Hz/500 Hz</td>
</tr>
<tr>
<td>Dimensions (W x D x H)</td>
<td>MEL 80: 1550 mm x 800 mm x 1490 mm</td>
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<tr>
<td></td>
<td>MEL 80 with patient supporting system: 3140 mm x 1800 mm x 1490 mm</td>
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<tr>
<td></td>
<td>MEL 90: 1360 mm x 730 mm x 1480 - 1700 mm</td>
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<tr>
<td></td>
<td>MEL 90 with patient supporting system: 3230 mm x 2380 mm x 1700 mm</td>
</tr>
</tbody>
</table>

Surgical microscope
OPMI® pico from ZEISS with integrated HD video camera.

Active eye tracker
Infrared, pupil and limbus tracking, 1050 frames per second (fps), manual ablation center selection, automatic Pupil Center Shift Correction.

Beam dimensions
0.7 mm FWHM (full width at half maximum), Gaussian beam profile.

VisuMax from ZEISS

<table>
<thead>
<tr>
<th>System components</th>
<th>Patient supporting system, including platform integrated uninterruptible power supply (UPS) Surgical microscope with additional 6W illumination Video camera with integrated recording</th>
</tr>
</thead>
<tbody>
<tr>
<td>Femtosecond laser parameters</td>
<td>Wavelength 1043 nm</td>
</tr>
<tr>
<td></td>
<td>Laser pulse rate 500 kHz</td>
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<tr>
<td>Recommended space requirements</td>
<td>180° setup with MEL 80 / MEL 90: 4500 x 3800 mm</td>
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<tr>
<td></td>
<td>90° setup with MEL 80 / MEL 90: 4000 x 4000 mm</td>
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</tbody>
</table>

Laser warning sign MEL 80/90 Laser warning sign VisuMax