

SEIKO Supernal

Advanced Patented 100% Internal Free Form Design



SEIKO

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Naturally Smooth Vision

Optimized Universal Performance for All Wearers

SEIKO Supernal is a new individualized lens design that utilizes patented “Internal progressive + Internal Aspheric design”. This was first commercialized by SEIKO in 1997, and since then improvements have continued to be made to the design. As a result, blurriness and distortions have been reduced and a wide field of vision has been realized. In addition, by adopting a “Non-linear Progressive Power Change”, the variation of power between the distance and the progressive zones has been made smoother. From this, clarity of vision ranges has been expanded at the fitting point surroundings and the distance field of vision, while the near field of vision, which is sufficiently broad, has been maintained.

SEIKO Individualized Progressive Lenses

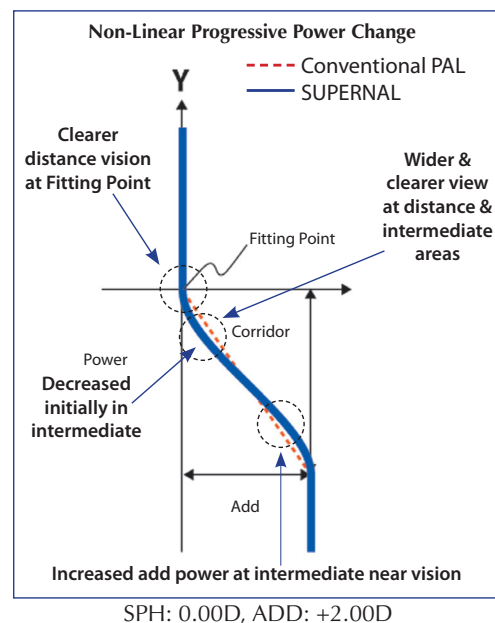
<i>Best</i>	Surmount/Surmount Ws
<i>Better</i>	Supernal
<i>Good</i>	Supercede II

Non-Linear Progressive Power Change

The width of clear vision around the fitting point is increased by 50%

Smoothing the power variations from the long-distance zone to the intermediate zone, the width of clear vision around the fitting point has been increased by approximately 50% compared to previous lenses.

This lens also ensures an ample width of the near-distance field of vision, as well as achieving a sharp expansive range of long-distance vision.



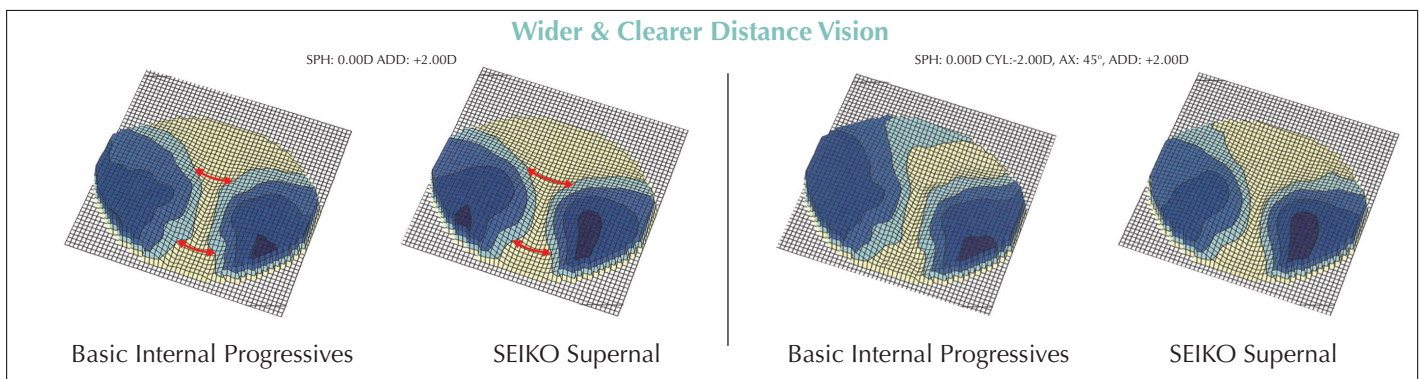
- A better choice for all wearers, all add powers and difficult Rx's
- Designed using the new 3D Virtual Reality System for realistic simulation evaluation
- Non-linear progressive power change increases clear vision around the fitting point by 50%
- Automatic semi-variable inset based on total Rx
- Advanced Aspheric Compensation improves clarity and visual comfort
- Multi-polar Astigmatic correction improves panoramic vision and image stability
- Large variety of materials, coatings and Transitions® lenses

Advanced Aspheric Compensation

Supernal modifies the Rx to achieve an optically precise correction in the as-worn position. This compensation factors in eye rotation, vertex distance and frame tilt. The benefit to the wearer is improved clarity and visual comfort throughout the entire lens, with expanded peripheral vision, even in high-cylinder, high-add Rx's.

Multi-Polar Astigmatic Correction

Multi-polar astigmatic correction manages unwanted cylinder in all meridians, creating a balanced progressive design that increases wearer comfort. It takes into account the three-dimensional orientation of the eye and its axis of rotation and provides proper eye to lens alignment in all directions. This significantly improves panoramic vision and image stability.



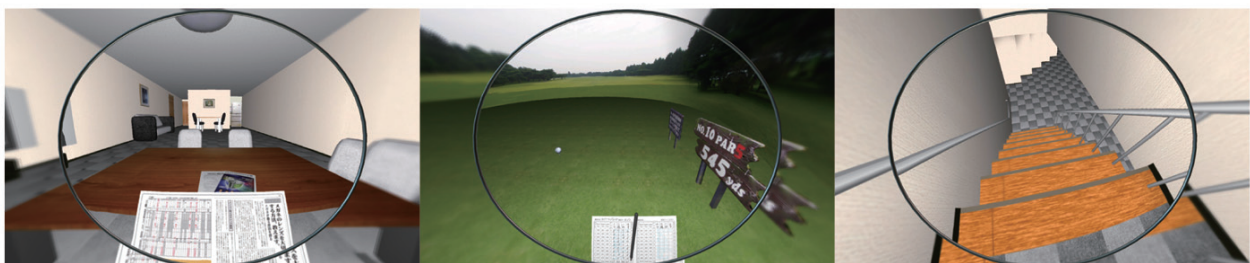
3D Virtual Reality System

Developed by SEIKO, the 3D Virtual Reality System is a simulation evaluation method utilizing computer graphics technology. This system recreates how patients see objects with or without prescription lenses for each eye or both eyes. Utilizing this technology enables us to verify how patients can see objects and how patients can realize width, depth, swim and sway, distortion and blurriness.

In addition, this technology also enables us to evaluate lens performance by simulating vision through the wearer's eyes as we develop new PAL designs.

SEIKO Supernal is the first lens to apply this innovative evaluation technology, which enables patients to really see naturally.

Scenario Specific Simulations



SEIKO Supernal

Specifications

Index:	Clear	Polarized	Transitions®	Transitions® XTRActive™	Transitions® Vantage™
1.50	●	●	●		●
1.53 (Trivex®)	●		●	●	●
1.59 (Poly)	●	●	●	●	●
1.60	●		●		
1.67	●	●	●	●	
1.74	●				

Corridor Length (Min. Fit Ht.): 10mm (14mm), 12mm (16mm), 14mm (18mm)

Add Powers: +0.50 to +3.50D in 0.25 diopter steps

Range: Extended Cylinder range to -5.00D (Total power -12.50D)

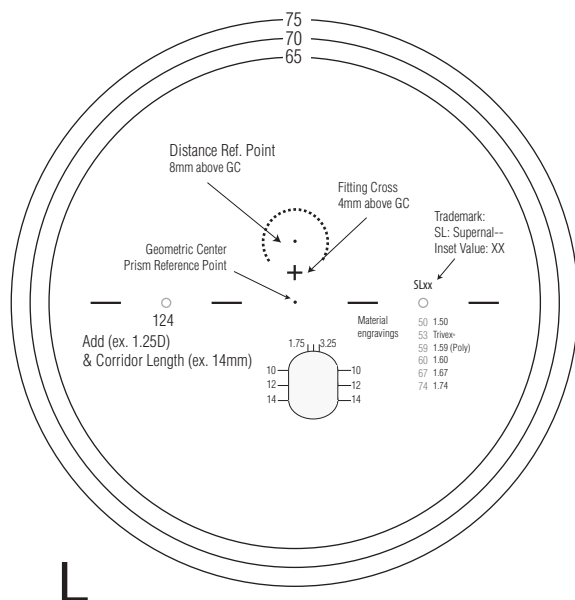
Prism: 0.25 to 3.00D

Inset: Automatic semi-variable inset based on total RX.

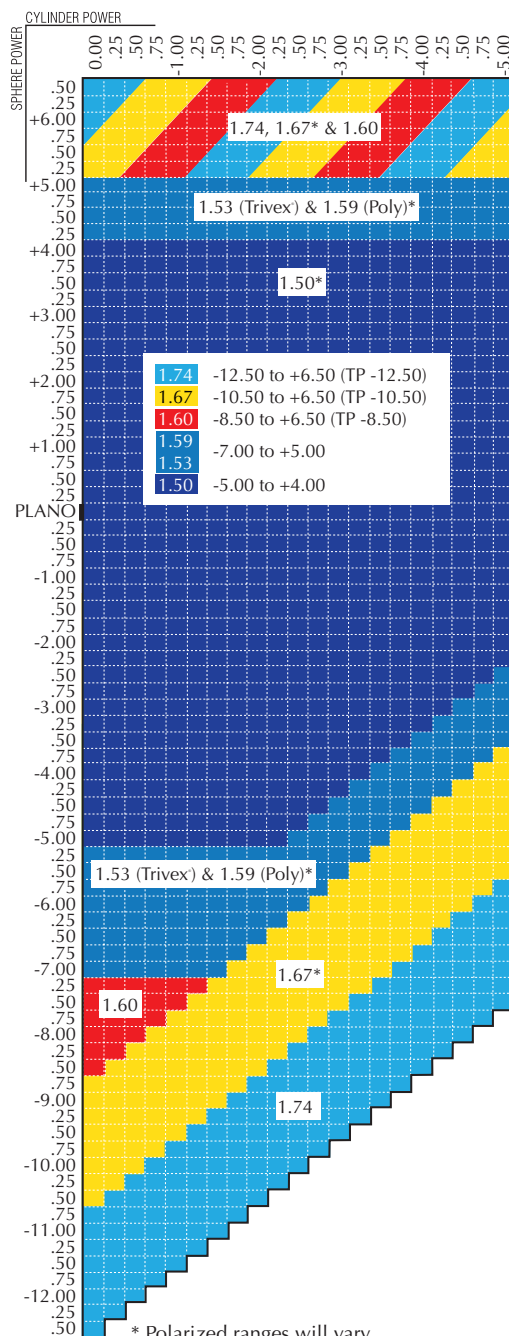
7 insets from 1.75mm to 3.25mm (0.25mm steps)

Measured Power: Distance, intermediate, and near

Lens Markings & Engravings



Production Range



* Polarized ranges will vary.
Add Power: +0.50 to +3.50D (0.25 steps)
Prism: Up to 3.00D

SEIKO
SEIKO Optical Products of America, Inc.

For more information, contact your Authorized Seiko Distributor or
Seiko Optical Products of America, Inc. 1-800-235-5367

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11545 Encore Circle, Hopkins, MN 55343

www.seikoeyewear.com

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Fitting Guide

Measure Patient PD & Select Frame

- Obtain an accurate monocular distance PD and chose a lightweight, well-proportioned frame, with adjustable nose pads.
- Fit the frame as close to the face without touching skin or eyelashes. The pupil should be located in the upper half of the frame, between 50 and 75% of the total frame height.
- Set the pantoscopic tilt to approximately 10°.

Measure Fitting Height & Confirm PD

- Have the patient wear the frame for a few minutes to adjust. Then, with the patient looking straight ahead, place a small dot on the sample lens at the center of each pupil. Draw a horizontal line through each dot. Double-check to make sure the lines bisect the pupils.
- Place the frame on the fitting guide scale (reverse) so that the vertical line labeled "0" divides the bridge in half, and the dots and lines on the sample lenses line up on the horizontal line.
- Confirm the PD using the scale. Measure the fitting height from the lines on the sample lenses to the deepest part of the frame.

Verify Cutout

- Place the frame over the centration circle and align the pupil dot and horizontal line with the fitting cross. If the frame does not fit within the circle, the lens may not cut out correctly.

Verify Fitting Height and PD

- When you receive the lenses, they should have verification markings. If not, place the lenses face down on the chart to draw the markings.
- Confirm the fitting height and monocular PD.
- Place the frame on the patient and verify that the fitting cross is at the pupil center. Adjust the nose pads if necessary.

- On final fitting, check tilt and adjust if necessary until the best fit is achieved for optimal distance and reading vision. In the rare case where the patient experiences visual difficulty at the pupil location, lowering the frame slightly (1- 2mm) may increase wearing comfort.

Instruct the Patient on Proper Use

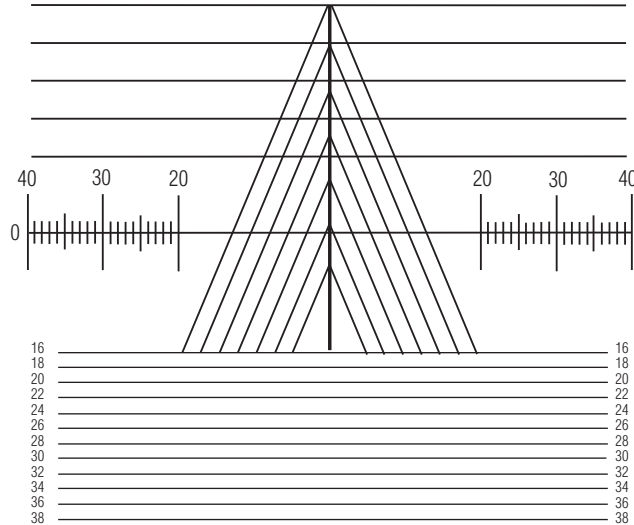
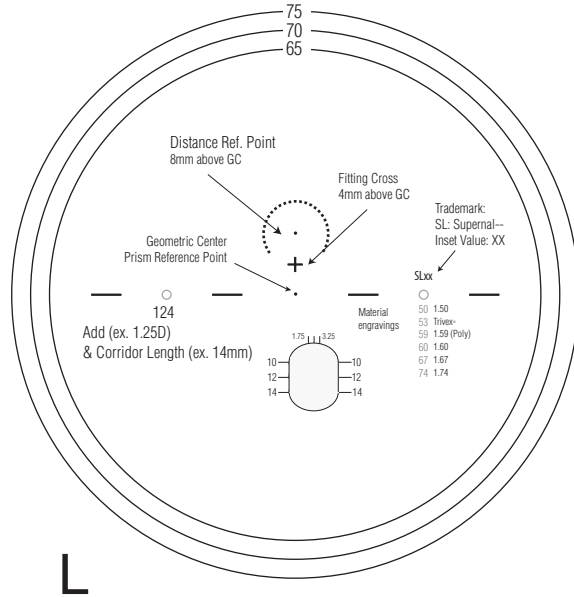
- Use a reading card to demonstrate the use of distance, intermediate and near zones.

Note: Follow fitting height recommendations. Do not fit below minimum heights.

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Corridor Length (Minimum Fitting Height)
10mm (14mm), 12mm (16mm), 14mm (18mm)



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