

**IDEAL  
FOR DRILL  
MOUNTING**

# SEIKO

## **1.67 Proceed® Progressive Addition Lenses**

### **1.67 Proceed III SUPER SHORT**

### **1.67 Proceed II**

Now Available with

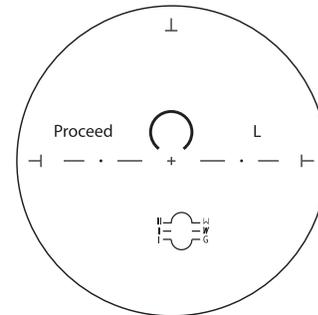


Lens	Minimum Fitting Height	Corridor Length	Availability		
			Uncoated	Hardcoated	Transitions
Proceed II <small>SHORT</small>	18mm	14	X	X	Gray & Brown
Proceed III <small>SUPER SHORT</small>	16mm	12	X	X	Gray & Brown

**Range:** Proceed II & III: +8.00 to -13.00, out to -4.00 cyl  
Total power not to exceed -13.00 diopters

**Bases:** 1.00, 2.50, 4.00, 5.25, 7.25, 9.25

**Adds:** Proceed II: 0.50 to 3.50 (in 0.25 steps)  
Proceed III: 0.75 to 3.25 (0.25 steps)



Proceed clear hardcoated lenses utilize a unified ink stamp

- Proceed III SUPER SHORT and Proceed II lenses provide the best overall vision in short-corridor PAL designs available for smaller frames and computer users.
- All lenses are available with clear double hardcoat and Gray or Brown Transitions VI. Lenses are also available uncoated.
- Fitting cross located at lens geometric center.
- Consistently wide, stabilized, full-power reading area reduces eye fatigue.
- Proprietary technology creates the most comfortable front-surface progressive lens.
- Easy to fit and wear with virtually no accommodation problems.
- Multi-division aspheric (MDA) design based on MX technology provides superior optics throughout the lens.
- Patented progressive prism variation (PPV) controls prism peripherally and manages unwanted astigmatism.
- Linear progression of power improves image focus when moving eyes up and down the corridor.
- Vertical prism control (VPC) technology reduces image sway.
- Improved 1.67 MR-10 resin is less sensitive to heat, includes a UV blocker for maximum sun protection, and is ideal for drill mounting.
- High-impact double hardcoat with shock absorbing primer coat and scratch-resistant hardcoat offers superior adhesion, provides quick, easy, consistent tinting and is compatible with custom AR coatings.

Seiko's 1.67 Proceed III SUPER SHORT and Proceed II lenses are fully aspheric and asymmetric progressive addition lenses (PAL). They combine proven technology to minimize unwanted astigmatism, power error and distortion. Proceed lenses provide a generous wide-angle viewing area and superior optics, with a 12mm corridor in Proceed III SUPER SHORT, and 14mm corridor in Proceed II.

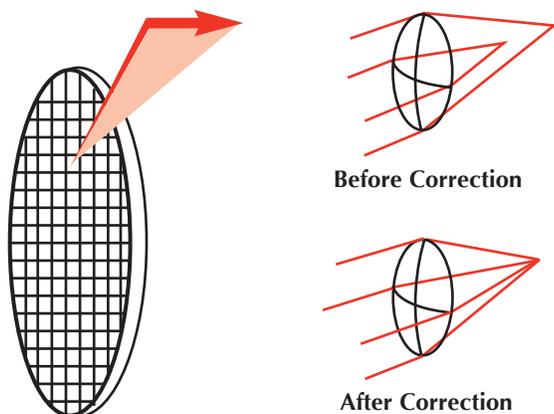
Proceed PALs combine Seiko's Multi-Division Aspheric design (MDA), Progressive Prism Variation (PPV), and Vertical Prism Control (VPC) technologies. The result is the highest level of optical performance, purely comfortable vision and the virtual elimination of patient accommodation problems.

The MDA design is based on the same patented MX technology Seiko uses in its aspheric single-vision lens products. MDA divides the surface of the lens into thousands of symmetrical sections (see Figure 1), and designs each section as though it was a separate MX lens. Seiko then uses a computer-controlled MDA ray-tracing process, which simulates actual light beam direction, to maximize the corrective performance for

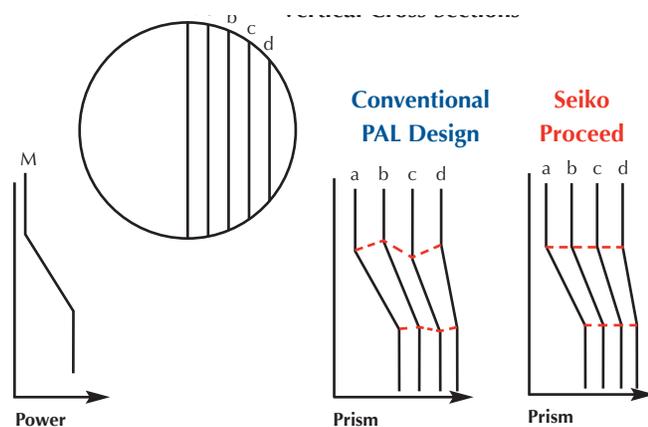
each lens section. The optical characteristics of each lens section is then recalculated to take into account the characteristics of the adjoining sections. This process transforms the entire lens and achieves optimal visual balance throughout, as seen by the eye in the worn position. The result is a wider field of view and a significant reduction in the primary aberrations as the eye moves through each point on the lens.

Seiko's patented Progressive Prism Variation (PPV, see Figure 2) design allows for a linear progression of power (equal rate of change, see Figure 3) along the principle meridian as the eye moves through the corridor. PPV manipulates the change of prismatic effect on the periphery, so that it conforms vertically across the lens while maintaining a parallel contour to the principal meridian. Thus, PPV varies the prism in a uniform manner, according to the change of add power in the intermediate channel. This means that the eye perceives far less unwanted astigmatism. In addition, the Seiko Proceed PALs feature a consistently wide and stable reading area.

### Multi-Division Aspheric Design (MDA)



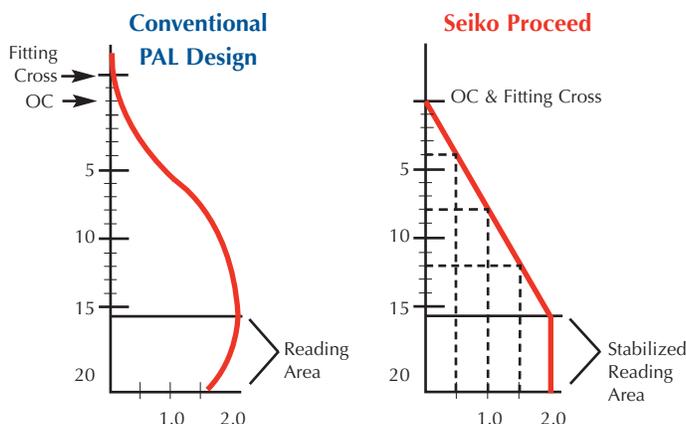
### Linear Progression of Power (LPP)



**Figure 1.** MDA divides the lens into over 1,000 sections, optimizes the optical characteristics for each section then recalculates the entire lens for optimum visual balance throughout, as seen by the eye in the worn position.

**Figure 2.** PPV controls unwanted astigmatism by managing the change of prismatic effect on the periphery, so that it conforms vertically across the lens while maintaining a parallel contour to the principal meridian.

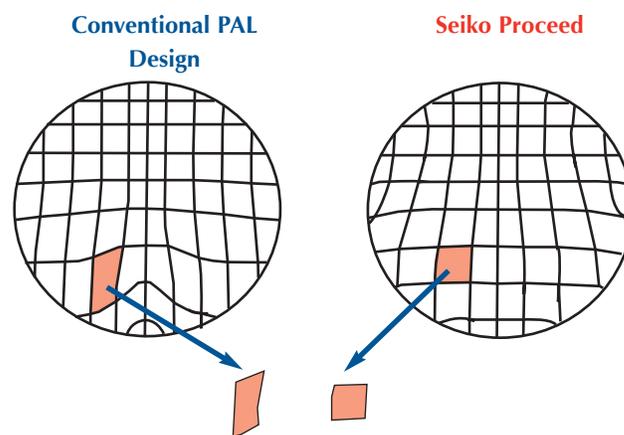
## Linear Progression of Power



**Figure 3.** Progression of power in the Seiko Proceed is linear along the prime meridian. Ordinary PAL designs use non-linear progression, resulting in image jump and discomfort. Proceed also features a large, stabilized full add power reading area.

Vertical Prism Control (VPC, see Figure 4) technology is an innovative, complimentary advancement to Seiko's PPV design. When viewing objects in the peripheral areas below the 180° axis, progressive lens wearers cannot adapt easily to vertical prism. Therefore, in higher prescriptions—and especially with high add powers—vertical prism creates distorted images that can cause accommodation difficulties. Seiko's VPC technology controls distortion by minimizing the actual change difference in prism value from the central lens portion to the edge and manages this transition of prism change in an orderly manner out to the periphery. To progressive lens wearers, especially those who desire the cosmetic benefits of high-index lenses, this translates into better peripheral vision and a more natural viewing experience. To the eyecare professional, this additional reduction in extreme distortion means that the Seiko Proceed is

## Vertical Prism Control (VPC)



**Figure 4.** VPC controls distortion by minimizing the difference in prism value from the center of the lens to the edge, and by managing the transition of prism change out to the periphery in an orderly manner.

easy to wear, even in higher prescriptions, with virtually no patient accommodation concerns.

Seiko casts Proceed lenses from the same improved MR-10 resin used in the 1.67 Super SV lens family. The resin is less sensitive to heat and easier to process than conventional resin, making Seiko lenses ideal for rimless eyewear. Proceed lenses also include an in-resin UV inhibitor that offers the most sun protection in a clear lens.

All Proceed PALs are available with Seiko's high-impact double hardcoat, with Gray or Brown Transitions VI, or uncoated. Seiko's double hardcoat tints quickly and consistently, with unsurpassed adhesion, impact resistance, scratch protection and AR compatibility. Transitions VI photochromic technology provides consistent color distribution and improved performance across all temperature ranges.

## Frequently Asked Questions

### Q. What are Seiko Proceed PALs?

**A.** The Seiko Proceed family consists of two 1.67 fully aspheric, asymmetric progressive addition lenses. Their proprietary technology provides the ultimate optical performance, with the lightweight and cosmetic benefits of a high index lens.

### Q. Why is Seiko's MDA design superior to conventional PAL surface design?

**A.** MDA treats the lens surface as though it were thousands of individual MX aspheric lenses. This achieves optimal visual balance throughout the lens, as seen by the eye in the worn position. This provides a wider field of view and a significant reduction in the primary aberrations as the eye moves through each point on the lens.

### Q. What are the optical characteristics of the progressive corridor and reading area?

**A.** Proceed design provides a linear progression of power from the fitting cross to the reading area. In addition, once the power reaches full add, progression stops, eliminating eye fatigue caused by varying add power.

### Q. How does Proceed manage prism and astigmatism?

**A.** Seiko's patented PPV process manages prism so that it conforms vertically across the lens while maintaining a parallel contour to the prime meridian. VPC reduces distortion by minimizing the difference in prism value from the central lens portion to the edge, and by managing the transition of prism change in an orderly manner out to the periphery.

### Q. What are the advantages of the improved MR-10 resin?

**A.** MR-10 resin is less sensitive to heat and more stable, making it easier to process. It is especially well suited for use in rimless frames, and contains an in-resin UV blocker, offering excellent sun protection.

### Q. How do I fit this lens?

**A.** Fit Proceed PALs as you would any other progressive lens using a monocular PD while ensuring the proper lens height. Refer to the Proceed Fitting Guide for best results. **Note:** The fitting cross is located at the geometric center of the lens.

### Q. What are the corridor lengths?

**A.** Measured from the fitting cross (GC) to the top of the full add power: Proceed III SUPER SHORT: 12mm; Proceed II: 14mm.

### Q. What are the minimum fitting heights?

**A.** Proceed III SUPER SHORT is 16mm; Proceed II is 18mm. We recommend using the Seiko Proceed Fitting Guide to ensure compatibility with the frame.

### Q. What is the production range?

**A.** Proceed lenses are available in base curves of 1.00, 2.50, 4.00, 5.25, 7.25, and 9.25. Proceed II adds are from 0.50 to 3.50 (in 0.25 steps). Proceed III adds are from 0.75 to 3.25 (in 0.25 steps). Both lenses can be processed from +8.00 to -13.00, out to a -4.00 cylinder, as long as the total minus power does not exceed 13 diopters (certain higher minus Rx's or cylinders beyond -4.00 may be processed. Consult your lab).

# Specifications

- Material:** Improved super high-index MR-10 resin<sup>1</sup>
- Fitting Height:** Proceed II: 18mm (min.)  
Proceed III: 16mm (min.)
- Softening Point:** Less heat sensitive<sup>2</sup>
- Refractive Index:** 1.67
- UV Protection:** 100% UV-A & UV-B<sup>2</sup>
- Density (g/cm<sup>3</sup>):** 1.36
- Strength:** Ideal for drill-mounting<sup>1</sup>
- ABBE Number:** 32
- Design:** MDA – Multi-division aspheric design based on Seiko’s patented MX technology  
PPV – Progressive Prism Variation  
VPC – Vertical Prism Control
- Bases:** 1.00, 2.50, 4.00, 5.25, 7.25, 9.25
- Adds:** Proceed II: 0.50 to 3.50 (in 0.25 steps)  
Proceed III: 0.75 to 3.25 (0.25 steps)
- Clear Coating:** High-impact double hardcoat with shock absorbing primer coat and scratch resistant hardcoat provides fast, consistent tinting

<sup>1</sup> More stable, less heat sensitive and easier to process than conventional (MR-7) resin.

**Tensile Strength:** 50% stronger than polycarbonate.  
Three times stronger than plastic

**Flexural Strength:** Twice that of polycarbonate

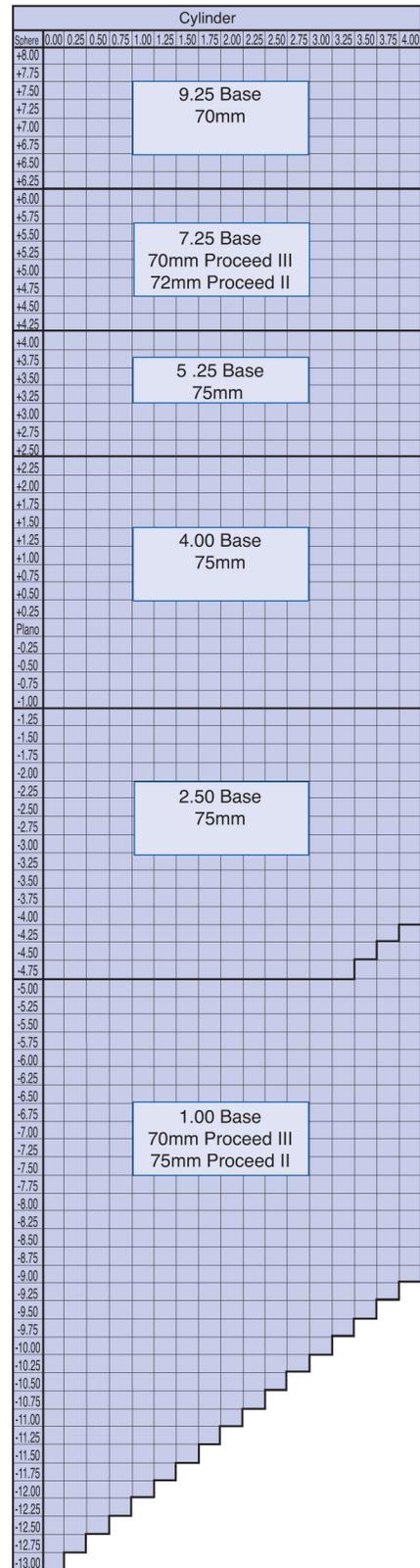
<sup>2</sup> Exceeds all other 1.66/1.67 lens products.

For more information on these products, contact your Robertson Optical Laboratories' representative.

- \* ATLANTA (LOGANVILLE), GA LOCATION - (800) 929-2765
- \* COLUMBIA, SC LOCATION - (800) 922-5525
- \* GREENVILLE, SC LOCATION - (800) 223-0890



# Range



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