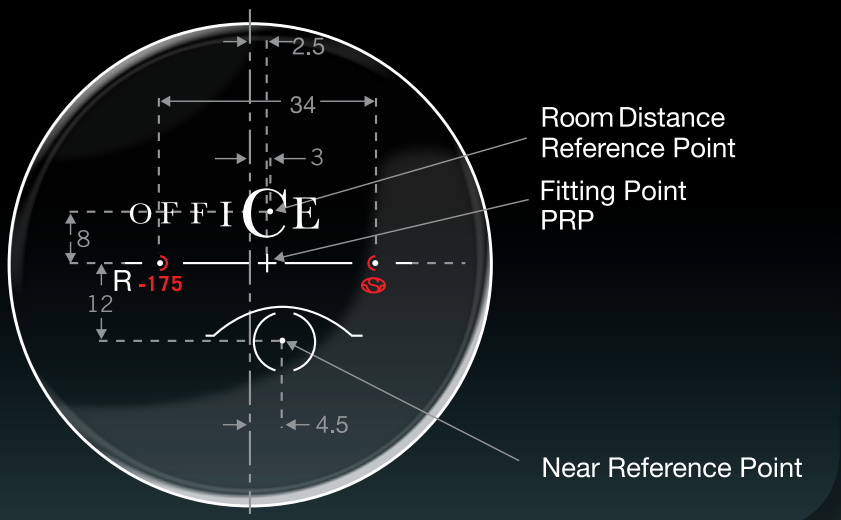
Shamir Office™ - Lens Gladiator of the Work Arena

The Shamir Office™ lens is designed for near and intermediate vision and is available in two materials: hard resin and polycarbonate. The lens is manufactured with a designated right and left lens.

Ink Marking: White
Invisible Marking: Red

Minimum Fitting Height: 16mm
PRP Decentration: 2.5mm
Fitting Point: 0mm above PRP



The Shamir Office™ lens is a decentered blank. The hard resin lens is a 75mm blank with the fitting cross decentered 2.5mm giving the blank an effective diameter of 80mm. The PolyPlus™ lens is a 75/80mm blank with the fitting cross decentered at 2.5mm giving the blank an effective diameter of 80/85mm.

The base curve of the lens is located at the near or reading portion of the lens. All powers and surface calculations are performed from the total reading prescription.

The power of the lens decreases as you move upward from the reading area. The amount that the power decreases is controlled by the dynamic power of the lens chosen. Available dynamic powers are -0.75, -1.25, -1.75 and -2.25 diopters.

At the fitting cross the total power of the lens is decreased by approximately 50% of the Dynamic Power.

To process a Shamir Office™ lens you need to have the total reading Rx. Both the distance and near correction must be ordered and a fitting height of 16mm and minimum B frame measurement of 26mm.

Processing the Shamir Office™ Lens

The Rx is converted to a total reading Rx. The total reading Rx is what is used to determine the surfacing calculations for power and thickness.

There is no need to provide a near PD as the distance PD is used; the near portion is already set.

The base curve of the Shamir Office™ blank chosen is determined by the total reading power according to the Shamir Office™ base curve charts. The dynamic power chosen is determined by the add power of the Rx.

SHAMIR OFFICE™

The Recommended Method for Processing the Shamir Office™ Lens

Marking and Blocking on the Fitting Cross

The lens diameter should be specified as 80mm for Hard Resin and 80/85mm for PolyPlus™ because of the decentered blank. The lens should be cribbed if possible.

A drawback with processing the Shamir Office™ lens blocked on the fitting cross is the overhang created by the lens being a decentered blank, unless the lens is cribbed. This overhang can create unwanted prism effect due to uneven pressure applied to the lens during the fining and polishing processes.

Block the lens with the upper portion or intermediate portion in contact with the blocking ring. Apply equal pressure on both lenses to avoid unwanted prism difference between the two lenses.

Checking the semi-finished Shamir Office™ lens blank for prism will show that it has prism if checked at the fitting cross. The lens, if checked at the geometric center, will show minimal or no prism. Shamir does not recommend checking the semi-finished blank for prism. Prism thinning of the Shamir Office™ lens may be ground for cosmetic purposes. Rx prism may be included in the Shamir Office™ lens.

To verify the Rx after surfacing is completed, the lens is checked at the fitting cross for direction and amount of prism. It is also at this point that we check for unequal prism amounts.

The power of the Shamir Office™ lens is checked in the reading circle and should equal the total reading prescription.

The lens is then processed through the finishing department as if it were a regular progressive lens.

The final inspection is at the fitting cross for prism and at the reading zone for power.

The distance PD is measured as the distance between the fitting cross or as you would any other progressive lens.

Surface Curvature of the Office™ Lens

Unlike a progressive lens, the surface curvature of the Office™ lens is constructed so that the curvature at the reading zone is the same within a Base Curve regardless of the Dynamic Power of the lens.

Plot Fig.1, shows the optical power profile of a Base 5 Office™ lens.

As seen, the curvature at the reading zone is the same for 5/075, 5/125, 5/175 and 5/225, therefore the Base Curve of the lens is defined as the surface curvature at the reading zone.

Verifying the Base Curve is achieved by checking the surface curvature at the reading zone only! Fig. 2 demonstrates how to position the lens for Base Curve measurement.

Optical power profile along vertical axis (D)

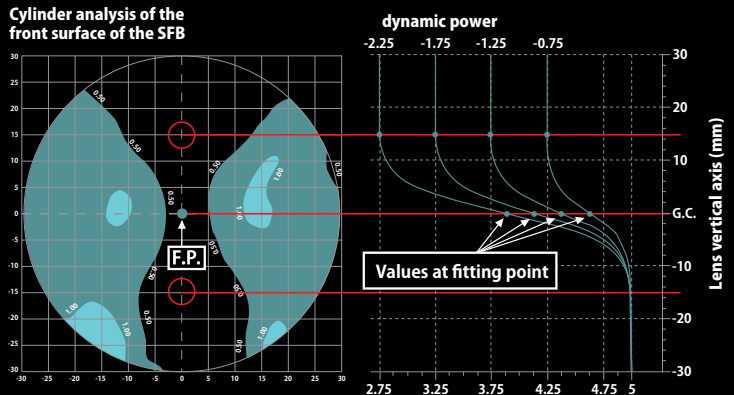


Fig.1

Fig.2

Understanding the Shamir Office™ Lens

- The Dynamic Reduction is the total amount of power that the total Reading prescription is reduced.
- The Total amount of the Dynamic Reduction is located 8mm above the Fitting Cross.
- At the Fitting Cross the Near power is reduced by approximately 50% of the Dynamic Reduction.*
- The Fitting Cross is decentered 2.5mm from the Geometric Center.
- The top of the Near circle is located 8mm below the Fitting Cross and inset 2mm from the Fitting Cross.
- The center of the reading circle is 4mm below the reading circle top, 12mm below the Fitting Cross.

Hard Resin 1.50 (HC/UC)

Total Near Power Range
Sphere: -6.00[D] to +6.00[D]
Cylinder: up to -6.00[D]

Nominal Base	True Base 1.530	Base Radius (mm)	Sag 50mm*	Concave Curve	CT (mm)	ET (mm)	Diameter	Dynamic Powers	Power Range
2.50	2.59	204.80	1.53	4.60	10.2	13.0	75/80	-0.75, -1.25, -1.75	-6.00 to -3.25
5.00	4.96	106.75	2.97	5.10	7.4	9.1	75/80	-0.75, -1.25, -1.75, -2.25	-3.00 to +2.75
7.00	7.07	74.92	4.29	6.10	7.2	7.1	75/80	-0.75, -1.25, -1.75, -2.25	+3.00 to +6.00

*Do not sag! Use printed sag values for power calculations only. Minimum center thickness for surfacing: 2.0mm

Material Data:

Index Nd	1.498
Abbe Value Nd	58.0
Density gr/cm³	1.31

PolyPlus™ 1.59 (HC/NP)

Total Near Power Range
Sphere: -3.00[D] to +6.00[D]
Cylinder: up to -6.00[D]

5.00	4.99	106.21	2.98	5.50	7.0	10.0	80/85	-0.75, -1.25, -1.75, -2.25	-3.00 to +2.75
7.00	6.97	76.04	4.23	7.50	8.0	10.0	80/85	-0.75, -1.25, -1.75, -2.25	+3.00 to +6.00

*Do not sag! Use printed sag values for power calculations only. Minimum center thickness for surfacing: 1.2mm

Index Nd	1.586
Abbe Value Nd	30.0
Density gr/cm³	1.20

Processing the Shamir Office™ Lens

To process the Shamir Office ™ lens, you need the total Rx, distance Rx, add power, distance Mono PD and fitting height.

1. Mono distance PD
2. Minimum Fitting Height 16mm
3. Minimum Fitting Height from the top of frame 10mm
4. Minimum B measurement of frame 26mm
5. Convert the complete Rx to the total reading Rx
6. Dynamic Reduction chosen from the Dynamic Reduction Chart based on the add power
7. Base Curve chosen from the Base Curve Chart based on the Total Reading Power
8. The Base Curve is located at the bottom of the lens (reading area)
9. Layout and Block on the Fitting Cross (DO NOT use Geometric Center Grinding)
10. Apply pressure when blocking to the upper portion of the lens.
11. Lens Verification:
    a. Power to verify is the total reading Rx
    b. This is verified in the center of the reading circle
    c. The PD and Fitting Height are verified like any progressive
    d. Prism amounts and direction is verified at the fitting cross

RX ADD POWER	0.75	1.00	1.25	1.50	1.75	2.00
RECOMMENDED DYNAMIC REDUCTION	-0.75	-0.75	-0.75	-1.25	-1.25	-1.75

RX ADD POWER	2.25	2.50	2.75	3.00	3.25	3.50
RECOMMENDED DYNAMIC REDUCTION	-1.75	-2.25	-2.25	-2.25	-2.25	-2.25

Fitting the Shamir Office™ Lens

Fit the Shamir Office™ as you would any other progressive lens.

1. Mono distance PD
2. Minimum Fitting Height 16mm
3. Minimum Fitting Height from the top of frame 10mm
4. Minimum B measurement of frame 26mm
5. Order the complete Rx; distance Rx, add power, Distance Mono PD and Fitting Height
6. The lab will convert the Rx to the total reading power
7. The Dynamic Reduction chosen will be from the Dynamic Reduction Chart based on the add power
8. Lens Verification:
    a. Power to verify is the total reading Rx
    b. This is verified in the center of the reading circle
    c. The PD and Fitting Height are verified like any Progressive
    d. Prism amounts and direction is verified at the fitting cross

The following are examples of the power and the power locations using the same Rx with different Dynamic Reductions

#1 OU RX: PLANO SPHERE ADD +2.50

Rx Converted to the Near Rx = +2.50 sph — Dynamic Reduction

	-2.25	-1.75	-1.25	-0.75
Power at Total Dynamic Reduction	+0.25	+0.75	+1.25	+1.75
Power at the Fitting Cross	+0.92	+1.62	+1.87	+2.12
Power at the Near Reading Center	+2.50	+2.50	+2.50	+2.50

#2 OU RX: -3.00 SPHERE ADD +2.50

Rx Converted to the Near Rx = -0.50 sph — Dynamic Reduction

	-2.25	-1.75	-1.25	-0.75
Power at Total Dynamic Reduction	-2.75	-2.25	-1.75	-1.25
Power at the Fitting Cross	-2.07	-1.37	-1.12	-0.87
Power at the Near Reading Center	-0.50	-0.50	-0.50	-0.50

The above examples are meant for a comparison of Dynamic Reductions and for a better understanding of how the Shamir Office™ lens works.

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