As-Worn Technology™ Measurements

To get the maximum benefit from As-Worn Technology™, the actual measurements of the wearer should be included (Vertex Distance - Fitted and Refracted, Pantoscopic Tilt, Panoramic Angle).

If the As-Worn measurements are not included with the Autograph II® order, the Shamir Prescriptor® will use defaults. These defaults are based on averages. The consumer will benefit greatly from As-Worn Technology™, experiencing more precise and perfected vision.

1. Vertex Distance
   - The distance between the person’s glasses and their eyes.

2. Pantoscopic Tilt
   - The angle of the lenses as they sit on a patient’s face.

3. Panoramic Angle
   - The angle of the frame.

These three patient measurements have been added to better interpret the prescription derived from the phoropter and the prescription required by the doctor for the patient’s glasses. In order to take advantage of As-Worn Technology™, the following measurements are required:

1. Vertex distance (refracted and fitted): Vertex distance is the distance from the front of the eye to the back of the lens, whether it is in the phoropter or in the frame.
2. Pantoscopic tilt: Pantoscopic tilt is the angle of the frame to the face on the patient (in the phoropter this is zero for the phoropter or in the frame).
3. Panoramic angle: Panoramic angle is the parabolic curve of the frame in relation to a flat plane (the curvature of the frame in relationship to the patient’s face).

By supplying the complete frame and fitting data in addition to these parameters you are able to accurately deliver a personalized and superior lens to your patient as prescribed by the doctor for that specific frame.

Therefore, the doctor’s prescription will be modified, taking the additional fitting requirements into account. The lab will return the glasses with two prescriptions, the original prescribed Rx and the “As-worn” Rx (aka Resultant Rx). It is important to use the Resultant Rx to verify the lens prescription in a lenometer. Some optometrist may be concerned they are changing the doctor’s prescription. However, if a Rx is altered by the way it is worn, compensating the Rx for the wearing effects ensures the prescription required by the doctor for the patient’s glasses. In order to get the maximum benefit from As-Worn Technology™, the actual measurements of the wearer should be included.

The effects of position change powers:

A powered lens moved away from the eye becomes more plus or minus when moved closer. Lenses with sharp edges, spherics and cylinder power, to test these, place a -4 sphere lens in an automated lenometer and change the position up and down on the line stop or change the tilt and watch the prescription change. As a result, to deliver the correct prescription, lenses should be compensated to deliver the prescribed Rx.

Example

<table>
<thead>
<tr>
<th>Sphere</th>
<th>cyl</th>
<th>Axis</th>
<th>Add</th>
<th>PD</th>
<th>Eye Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3.75</td>
<td>-1.00</td>
<td>90</td>
<td>-2.00</td>
<td>21.5</td>
<td>15.0</td>
</tr>
</tbody>
</table>

Panoramic Angle Range: 0 - 12° (Default: 5°)
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The above example shows the Resultant Rx and it is one of the prescriptions the lab will give when a person is wearing glasses. Clearly, those with higher prescriptions benefit the most.

Accommodative abilities, Total Rx and Add power will also have an effect on the final value.

* The calculations are approximates, there are other factors that may vary the actual values.

Transition Zone includes 4mm drop. Near Area: 8 - 10mm full add power, then decreases.

18MM FIXED DESIGN FIT AT TRANSITION ZONE NEAR AREA

13MM FIXED DESIGN FIT AT TRANSITION ZONE NEAR AREA

11MM FIXED DESIGN FIT AT TRANSITION ZONE NEAR AREA

ReCreating Perfect Vision®
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Shamir Autograph II®

TECHNICAL INFORMATION

Product Classification: Everyday + Progressive

Shamir

ReCreating Perfect Vision®
Shamir Autograph II - Single Vision™

Shamir Autograph II - Single Vision™ is a single vision lens, specifically designed and processed with Freeform Technology™. This ensures an atoric ocular surface with enhanced optical and cosmetic properties.

The lens will be laser engraved, these engravings are 30mm from center to center of the two lens engravings. The fitting point and the PRP (MRP) are located at the same position, directly between and in the center of the laser engravings.

FITTING:
A monocular PD and a fitting height should be taken for the Autograph II - Single Vision™ lens. This will ensure that the design is placed directly in front of the pupil. By design, the OC will not be at the fitting height, unless the fitting height is equal to the mechanical center of the frame.

SURFACING:
The lens should be blocked on geometric center and the fitting height and prism thinning should be specified.

CHECKING POWER AND PRISM AFTER SURFACING:
The laser engravings should be marked, and using the centration chart, the fitting point should also be marked. The power and the amount of prescribed prism, should there be any, are checked at the fitting point. Also, remember that the lens has been cosmetically balanced so there may be vertical prism here, similar to prism thinning in a progressive. The amount of prism ground to achieve this will not exceed 2.5 diopters and should be equivalent in each eye even if the powers are dissimilar.

LAYOUT FOR EDGING:
These lenses should be laid out for edging as if it were a progressive. The engraving marks should be on the 180 line and the fitting cross moved to correspond to the PD and Fitting Height. The OC should not be used for edging layout.

FINAL INSPECTION:
The lens should be treated like a progressive. The laser engravings are marked and the fitting point is marked. The PD is checked by measuring the distance between the fitting points (not the OC) the fitting height is measured from the fitting point. The power, Rx Prism and vertical imbalance are all checked at the fitting point. There will be prism thinning and there should be no vertical imbalance between the two eyes.

Shamir Autograph II - Office™

Autograph II® is a Freeform® lens made at the lab. Freeform® lenses start from a single vision blank and are ground with precision using special machines. The design and the patient’s Rx are on the back of the lens. Our easy access diagram below explains everything.

Back Surface Design Widens Patient’s Field of View

ReCreating Perfect Vision®

-171
R

+2.00 \[D\]

+0.29 \[D\]

-1.71 \[D\]

+2.00 \[D\]

+0.29 \[D\]

Example:
Reading prescription: +2.00\[D\] Dynamic Reduction: -1.71\[D\] Center of C: -0.24\[D\]

Verify:
- You should only verify the lens at the near reading zone.
- At the Total Dynamic Reduction, point 6 - 8mm above the fitting cross, you can find the reading prescription which will be approximate power of the Total Dynamic Reduction from the total reading power.
- The invisible markings will include the patient’s personal dynamic reduction.

Fit:
Fit the Shamir Autograph II - Office™ the same way as a progressive lens, with the fitting cross at the pupil center while the patient looks at the distance and distance PD.