

## AVAILABILITY

Crossbows Optical's Finished Freeform Glass Lenses are available in the following power ranges:

	DESIGN:	V+	OFFICE	DRIVER	SINGLE VISION
	MINIMUM FITTING HEIGHT:	11MM	15MM	21MM	N/A
CLEAR	1.523		-12.75 to +8.00		
	1.60		-14.25 to +7.50		
	1.70		-17.00 to +8.75		
	1.80		-19.00 to +12.25		
PHOTOCHROMIC	PGX 1.523		-12.50 to +8.00		
	PBX 1.523		-12.50 to +6.50		
	PGX 1.60		-13.25 to +7.50		
	PBX 1.60		-13.25 to +7.50		
	SUNLENS PHOTOGRAY THIN & DARK 1.523		-12.75 to +6.50		
TINTS	Gray S15		-10.50 to +4.50		
	Brown B15		-8.75 to +4.25		

Note: These ranges are intended as a guide and are subject to glass availability. For individual high power cases, please contact us for confirmation of availability.

### Crossbows Optical, Ltd.

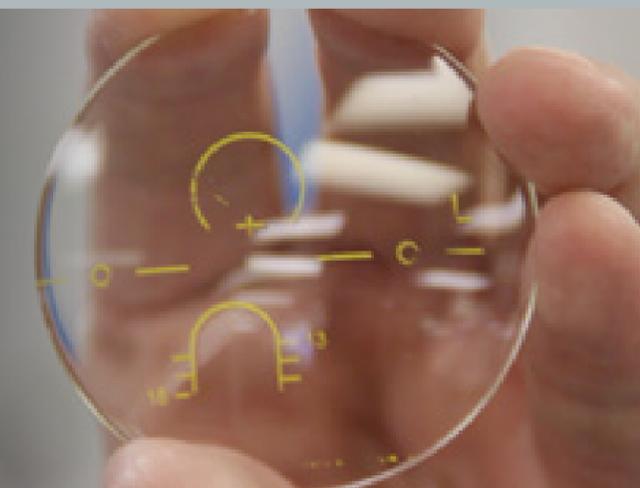
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## FREEFORM GLASS LENSES



Crossbows Optical began production of single vision glass lenses in 1947, and expanded to bifocals in the early 1970s. Semi-finished glass progressive lenses and moulds for casting plastic progressive lenses were added to their portfolio during the 1980s. Currently they also offer Finished Freeform Glass Progressive and Single Vision lenses. Sales of Crossbows ophthalmic products have now spread to over 40 countries worldwide.

Freeform glass progressive, lifestyle and single vision lenses are designed and produced with proprietary technologies using high precision CNC grinding, polishing and laser engraving equipment. The stability and rigidity of glass results in higher optical accuracy from the machining and polishing process and consequently Crossbows Optical's Freeform Glass Lenses ensure that the patient experiences superior viewing comfort and performance.

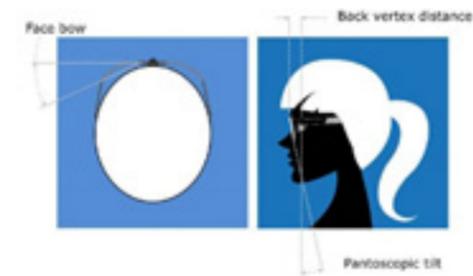
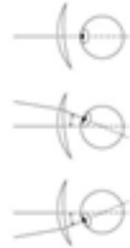
Although glass lenses are heavier than their plastic equivalents, they have the advantage of better optical performance and a longer life due to their inherent scratch resistance.

# CROSSBOWS OPTICAL TECHNOLOGIES

State-of-the-art freeform technologies are used in the production of Crossbows Optical's Finished Freeform Glass Lenses. These include:

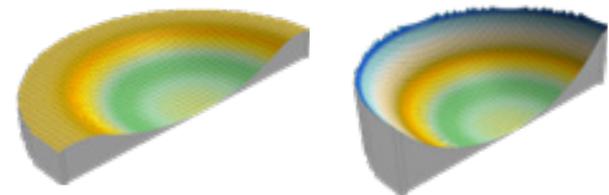
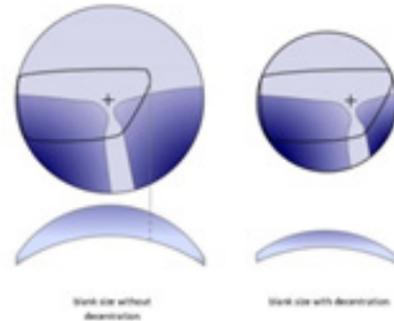
**Smooth Optics™ Technology** allows the lens designs to be created from the outset with a very smooth power profile reducing "swim effect" for comfortable viewing in all fields.

**EyeView™ Technology** allows correction of oblique astigmatic and mean oblique errors caused by the eye's variable gaze angle during normal wear. As the eye gazes away from the optical centre of the lens, the optics are distorted reducing the clear viewing fields.



**Digital EyePower™** is an extension of the EyeView principles, where an individual's back vertex distance, Pantoscopic tilt and face bow measurements are used to adjust the sphere, cylinder and axis of the prescription to obtain the best "as worn" conditions possible. Special software then simulates how the eye views through the lens at any given angle to provide the best correction values. This is especially useful for frames with high wrap angles.

**Variable decentration** allows the use of smaller diameters and flatter base curves reducing the plate height and lens thickness for thinner, lighter lenses. The smaller lens blank diameter also increases lens material options.



With Edge Blending    Without Edge Blending

**Edge blending** is incorporated to reduce the curvature of the outer edge of the lens in high minus prescriptions further reducing the bulk and weight of the freeform lens for comfort and better looking eyeglasses.

**Crossbows Optical uses variable inset figures** to calculate the optimum location of the reading area for each prescription and frame combination.

# DESIGNS OFFERED

Crossbows Optical's Finished Freeform Glass Lenses are available in progressive, lifestyle and single vision designs. All designs include variable decentration and edge blending. Blocked prism, surface prism or a combination of both may be added for a more comfortable visual experience.

## CUSTOM V+ PROGRESSIVE

All-purpose premium progressive designed using Smooth Optics and EyeView Technologies for customized, comfortable viewing. Multiple corridor lengths are available to accommodate a variety of frame sizes. Digital EyePower provides the best vision correction at any angle. This feature is most important for clear wide viewing fields in frames with wraparound angles.

## CUSTOM OFFICE

Specially designed with wide near and intermediate viewing zones for presbyopes that work for extended periods of time on near task occupations, i.e. office workers, carpenters, plumbers, painters, mechanics, musicians and artists. Great for occupational safety lenses and second pair sales. 8 dynamic powers available to allow for reading additions up to 3.00D. The frame should have sufficient depth to accommodate the reading area for patient satisfaction.

## CUSTOM DRIVER

Exceptional distance area for clear viewing ahead and side mirrors. Wide corridor and good reading areas to allow comfortable viewing of dashboard and wheel controls. Recommended for presbyopes driving a minimum of 4 hours a day.

## CUSTOM SINGLE VISION

A single vision design with EyeView Technology to remove peripheral distortion widening the viewing fields for use in any frame size and shape. Fully customizable with Rx compensation for optimal viewing at any angle.