

THE CROSSBOWSRx OFFER

Crossbows Optical's portfolio of freeform lens designs can be generated for Vision Council standard output to be produced worldwide in any laboratory with digital surfacing equipment including: Satisloh, Schneider, Optotech, Gerber Coburn, DAC and Comes.

CrossbowsRx can run as a locally installed program, or work as part of a cloud-based solution, and fully integrates with a Laboratory management System (LMS).

How Does CrossbowsRx Work?

The digital lab selects a software package containing the specific designs best suited for their market (progressive, bifocal or single vision). Once the LMS is connected, the designs are electronically transmitted from the server to the digital lab equipment ready to apply based on the individual job specifications.

As Crossbows Optical R&D improves on their designs or releases new ones, the lab is notified. Enhancements on the designs currently in use are electronically uploaded to the server for immediate application. New ones can be tested onsite at the lab to decide if they are to be included in their package going forward.

Contact Us

Whether you have already upgraded to digital lens production or are looking to do so in the future, please contact us to find out how Crossbows Optical can help boost your portfolio and your profits.

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FREEFORM DESIGNS



Crossbows Optical has a wealth of experience in the manufacture of ophthalmic products and since the early 2000s dedicated their efforts to the development of freeform lens designs for their own glass lenses and for plastic lens digital labs.

Crossbows Optical's freeform designs are created using proprietary optical technologies for an optimized visual experience. Digital labs can select a software package that includes the lens designs needed for their unique demographic.



The CrossbowsRx portfolio includes:

PROGRESSIVE DESIGNS

Pre-determined corridor lengths for easy selection or computer selected based on the patient's Rx, frame and face fit measurements. All designs include variable decentration and edge blending for cosmetically appealing eyewear with no compromise on optics performance. Left and right eye have individual designs to provide the best visual experience.

BASIC

All purpose design with low distortion, clear distance and generous reading areas. Available in six corridor lengths for good frame range coverage.

CUSTOM U

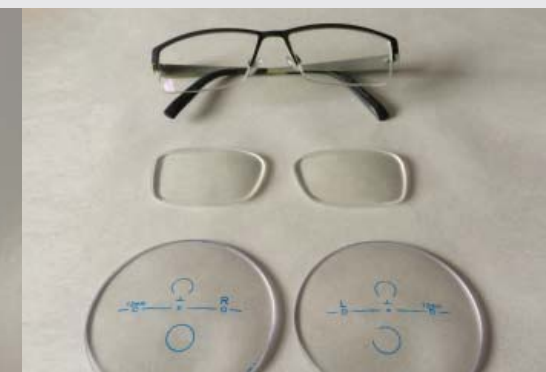
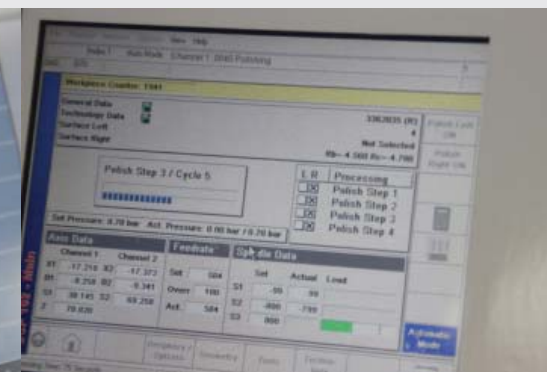
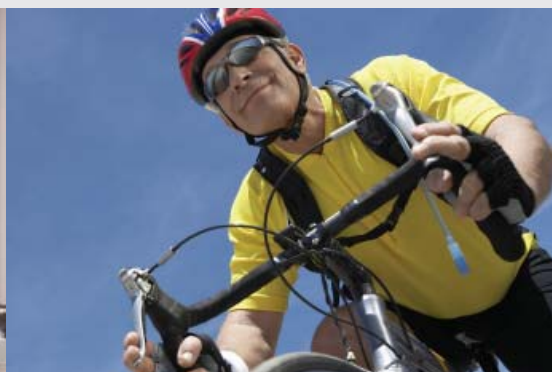
Recommended for presbyopes looking for an upgrade to their first progressive. Includes variable corridor lengths from 13mm to 20mm. Computer software considers the patient's frame choice and fitting details to automatically select the optimum corridor length.

CUSTOM V+

A premium variable corridor design created using Smooth Optics Technology for a smooth mean power profile and great patient comfort. EyeView and Digital EyePower corrects oblique errors and adjusts cylinder and axis powers for optimum visual correction. Computer selected corridor based on patient's individual measurements.

FEATURES	PROGRESSIVE			LIFESTYLE					OTHER	
	BASIC	U	V+	OFFICE DESK PRO	RELAX S	DRIVER	SPORT	JUNIOR	BLENDED BIFOCAL	SINGLE VISION
CORRIDOR LENGTHS*	13-18mm	12-20mm	10-20mm	14mm	N/A	20mm	17mm	13mm	N/A	N/A
MINIMUM FITTING HEIGHT	14mm	13mm	11mm	16mm	16mm	21mm	18mm	14mm	N/A	N/A
CORRIDOR SELECTION	FIXED	VARIABLE	VARIABLE	FIXED	FIXED	FIXED	FIXED	FIXED	N/A	N/A
SMOOTH OPTICS TECHNOLOGY			X						N/A	N/A
EYEVUE TECHNOLOGY			X				X			X
DIGITAL EYEPOWER			X				X			X
EDGE BLENDING	X	X	X	X	X	X	X	X	X	X
VARIABLE DECENTRATION	X	X	X	X	X	X	X	X	X	X
VARIABLE INSET			X						X	N/A
RX PRISM	X	X	X	X	X	X	X	X	X	X
FLATTER LENS CURVES	X	X	X	X	X	X	X	X		N/A

* Corridor lengths are measured from fit point to the center of the reading reference circle to 100% of full add power.



LIFESTYLE DESIGNS

Specially developed designs for specific work or leisure activities. Viewing fields placed where needed most based on the individual's vision correction needs.

OFFICE-DESK-PRO

An alternative to a standard progressive specifically designed to provide ample reading and intermediate viewing fields. Ideal for computer users, musicians, carpenters, tailors, artists and anybody else that needs vision correction for near task activities.

DRIVER

Progressive design that includes a wide distance area for comfortable viewing across the windshield to side mirrors. The intermediate area is perfect for reading dashboard gauges and reading zone is ample for steering wheel controls or maps and directions at arm's length.

RELAX S

Recommended for non-presbyopes that spend a large portion of the day focusing at near distance and suffer from tired and strained eyes. Available in two add powers in the lower part of the lens to assist with near vision accommodation: Relax S I (0.66D) for 25-35 year olds and Relax S II (1.00D) for 35-45 year olds.

SPORT

Engineered with a generous distance area for active outdoor lifestyles such as tennis and golf players, hikers, cyclists, etc. Sport includes EyeView Technology and Digital EyePower to provide wider viewing fields especially useful for wrap frames.

JUNIOR

A mild progressive design especially created to help slow down the progression of myopia* in young children. Recommended for ages 8-16 before myopia stabilizes.

*- Cooper, J., Schulman, E., Jamal, N. Current Status on the Development and Treatment of Myopia. *Optometry*. 2012;83(5):179-199.
 - Gwiazda J, Hyman L, Hussein M, Everett D, Norton TT, Kurtz D, Leske MC, Manny R, Marsh-Tootle W, Scheiman M, and the COMET Group: A randomized clinical trial of progressive addition lenses versus single vision lenses on the progression of myopia in children. *IOVS* 44: 1492-1500, 2003.
 - Kading, D, Mayberry, A. Slowing Myopia Progression in Children. *Review of Optometry* 2012
 - <https://nei.nih.gov/news/statements/comet>



OTHER DESIGNS

The benefits of digital technology are also available for patients that don't require vision correction for reading or are more comfortable with a bifocal lens.

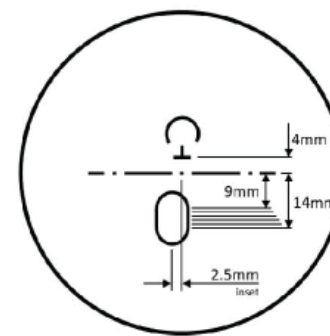
BLENDED BIFOCAL

This full backside bifocal design eliminates the front segment ledge of cast flat-tops allowing the use of more lens materials and coatings. A perfect solution for progressive non-adapts or bifocal wearers resistant to change.

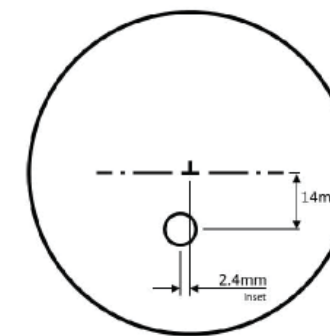
CUSTOM SINGLE VISION

This single vision design includes EyeView Technology to reduce peripheral distortion caused by unwanted astigmatism. Digital EyePower makes this design ideal for sports and fashion wrap frames.

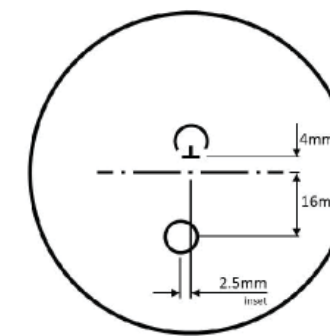
SAMPLE DESIGN LAYOUTS



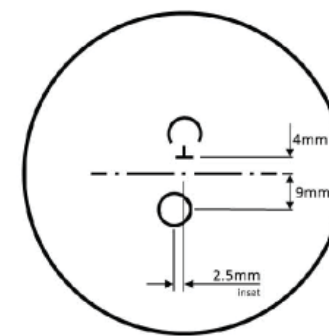
Basic



Office



Driver



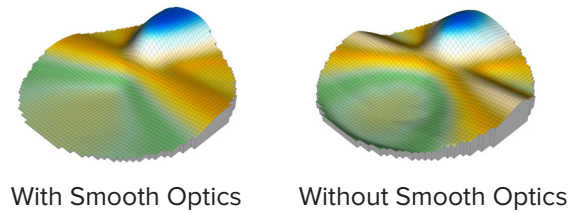
Junior

For more layouts and design plots visit www.CrossbowsOptical.com

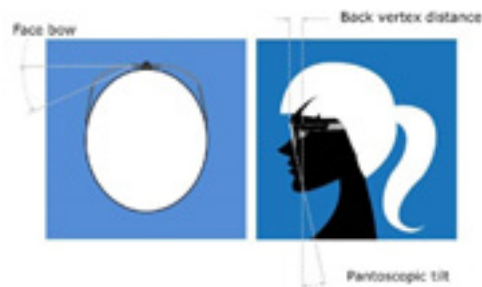
CROSSBOWS OPTICAL TECHNOLOGIES

Crossbows Optical freeform designs include these technologies:

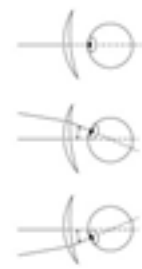
Smooth Optics™ Technology allows the lens designs to be created from the outset with a very smooth power profile reducing “swim effect” for comfortable viewing in all fields.



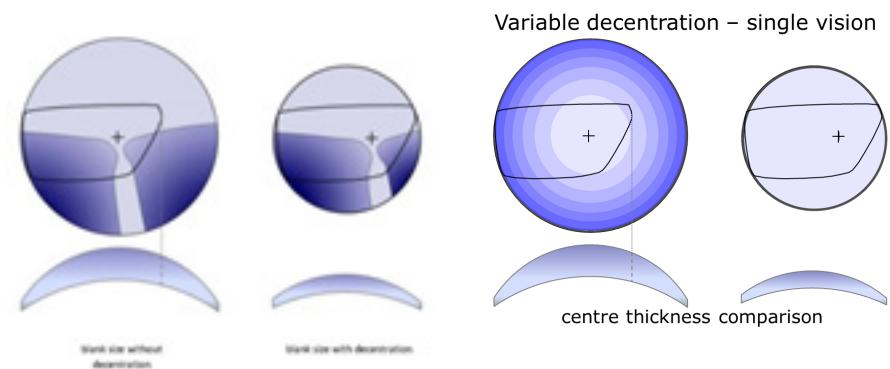
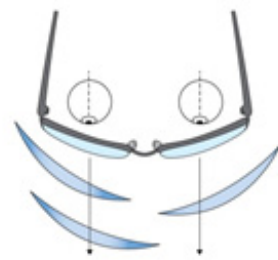
EyeView™ Technology allows correction of oblique astigmatic and mean oblique errors caused by the eye’s variable gaze angle during normal wear. As the eye gazes away from the optical centre of the lens, the optics are distorted reducing the clear viewing fields.



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.

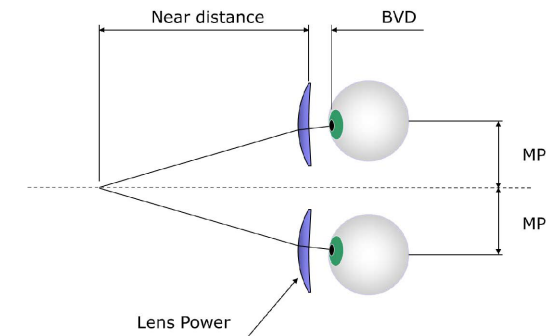
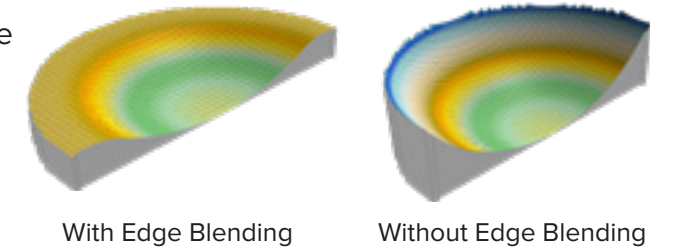


This feature is especially useful for frames with high wrap angles. With conventionally surfaced lenses, the inherent astigmatic errors away from the optical center of the lens must be placed at either side of the eye frame. The optical performance of the lens deteriorates as more angle of warp is introduced. With the combination of EyeView and Digital EyePower Technologies, the functional field of vision is widened to the lens edge providing clear viewing throughout.



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.

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.



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

Crossbows Optical designs with **variable corridor lengths** benefit from optional software that automatically selects the best option based on the PD measurements of the prescription and the frame details.



Prescribed prism can be added to any Crossbows Optical design blocked, surfaced or as a combination of both as best suits the individual’s needs.

Base curve control provides the advantage of not just flatter lenses but also the best edge thickness necessary for secure lens mounting on rimless frames.

